Hearing Date: December 1, 2023
J:\MANDATES\2017\TC\17-TC-03 Lead Sampling in Schools PWS No. 3710020\17-TC-03-R\TC\TOC.docx

ITEM 3

TEST CLAIM

PROPOSED DECISION

On Remand from *City of San Diego v. Commission on State Mandates*, Court of Appeal, Third Appellate District, Case No. C092800; Judgment and Writ of Mandate issued by the Sacramento County Superior Court, Case No. 34-2019-80003169-CU-WM-GDS

Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017

Lead Sampling in Schools: Public Water System No. 3710020

17-TC-03-R

City of San Diego, Claimant

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For CSM Use Only
Filing Date: RECEIVED January 11, 2018 Commission on State Mandates
Test Claim #: 17-TC-03

1. TEST CLAIM TITLE

SWRCB Water Supply Permit Amendment 2017-PA-SCHOOLS for PWS No. 3710020

2. CLAIMANT INFORMATION

City of San Diego Public Utilities Department
Name of Local Agency or School District

Kris Michell, COO
Claimant Contact

Chief Operating Officer, City of San Diego
Title

City Hall 202 C St. Ste 901A
Street Address

San Diego CA 92101
City, State, Zip

858-236-5587
Telephone Number

619-533-5856
Fax Number

Kmichell@sandiego.gov
E-Mail Address

3. CLAIMANT REPRESENTATIVE INFORMATION

Claimant designates the following person to act as its sole representative in this test claim. All correspondence and communications regarding this claim shall be forwarded to this representative. Any change in representation must be authorized by the claimant in writing, and sent to the Commission on State Mandates.

Raymond C. Palmucci
Claimant Representative Name

Deputy City Attorney
Title

Office of the San Diego City Attorney
Organization

1200 Third Avenue Ste 1100
Street Address

San Diego, CA 92101
City, State, Zip

619-236-7725
Telephone Number

619-533-5856
Fax Number

rpalmucci@sandiego.gov
E-Mail Address

4. TEST CLAIM STATUTES OR EXECUTIVE ORDERS CITED

Please identify all code sections (include statutes, chapters, and bill numbers) (e.g., Penal Code Section 2045, Statutes 2004, Chapter 54 [AB 290]), regulations (include register number and effective date), and executive orders (include effective date) that impose the alleged mandate .

State Water Resources Control Board Division of Drinking Water, Water Supply Permit Amendment 2017PA-SCHOOLS for City of San Diego Public Water System No. 3710020, effective January 18, 2017

☑ *Copies of all statutes and executive orders cited are attached.*

Sections 5, 6, and 7 are attached as follows:

5. Written Narrative: pages 7 to 35.
6. Declarations: pages 36 to 78.
7. Documentation: pages 79 to 2,858.

Sections 5, 6, and 7 should be answered on separate sheets of plain 8-1/2 x 11 paper. Each sheet should include the test claim name, the claimant, the section number, and heading at the top of each page.

5. WRITTEN NARRATIVE

Under the heading "5. Written Narrative," please identify the specific sections of statutes or executive orders alleged to contain a mandate.

Include a statement that actual and/or estimated costs resulting from the alleged mandate exceeds one thousand dollars ($1,000), and include all of the following elements for each statute or executive order alleged:

(A) A detailed description of the new activities and costs that arise from the mandate.

(B) A detailed description of existing activities and costs that are modified by the mandate.

(C) The actual increased costs incurred by the claimant during the fiscal year for which the claim was filed to implement the alleged mandate.

(D) The actual or estimated annual costs that will be incurred by the claimant to implement the alleged mandate during the fiscal year immediately following the fiscal year for which the claim was filed.

(E) A statewide cost estimate of increased costs that all local agencies or school districts will incur to implement the alleged mandate during the fiscal year immediately following the fiscal year for which the claim was filed.

(F) Identification of all of the following funding sources available for this program:
- (i) Dedicated state funds
- (ii) Dedicated federal funds
- (iii) Other nonlocal agency funds
- (iv) The local agency's general purpose funds
- (v) Fee authority to offset costs

(G) Identification of prior mandate determinations made by the Board of Control or the Commission on State Mandates that may be related to the alleged mandate.

(H) Identification of a legislatively determined mandate pursuant to Government Code section 17573 that is on the same statute or executive order.

6. DECLARATIONS

Under the heading "6. Declarations," support the written narrative with declarations that:

(A) declare actual or estimated increased costs that will be incurred by the claimant to implement the alleged mandate;

(B) identify all local, state, or federal funds, and fee authority that may be used to offset the increased costs that will be incurred by the claimant to implement the alleged mandate, including direct and indirect costs;

(C) describe new activities performed to implement specified provisions of the new statute or executive order alleged to impose a reimbursable state-mandated program (specific references shall be made to chapters, articles, sections, or page numbers alleged to impose a reimbursable state-mandated program);

(D) If applicable, describe the period of reimbursement and payments received for full reimbursement of costs for a legislatively determined mandate pursuant to Section 17573, and the authority to file a test claim pursuant to paragraph (1) of Section17574(c).

(E) are signed under penalty of perjury, based on the declarant's personal knowledge, information or belief, by persons who are authorized and competent to do so.

7. DOCUMENTATION

Under the heading "7. Documention, " support the written narrative with copies of all of the following:

(A) the test claim statute that includes the bill number alleged to impose or impact a mandate; and/or

(B) the executive order, identified by its effective date, alleged to impose or impact a mandate; and

(C) relevant portions of state constitutional provisions, federal statutes, and executive orders that may impact the alleged mandate; and

(D) administrative decisions and court decisions cited in the narrative. Published court decisions arising from a state mandate determination by the Board of Control or the Commission are exempt from this requirement; and

(E) statutes, chapters of original legislatively determined mandate and any amendments.

8. CLAIM CERTIFICATION

*Read, sign, and date this section and insert at the end of the test claim submission.**

This test claim alleges the existence of a reimbursable state-mandated program within the meaning of article XIII B, section 6 of the California Constitution and Government Code section 17514. I hereby declare, under penalty of perjury under the laws of the State of California, that the information in this test claim submission is true and complete to the best of my own knowledge or information or belief.

Kris Michell

Print or Type Name of Authorized Local Agency or School District Official

Chief Operating Officer, City of San Diego

Print or Type Title

Signature of Authorized Local Agency or School District Official

Date

** If the declarant for this Claim Certification is different from the Claimant contact identified in section 2 of the test claim form, please provide the declarant's address, telephone number, fax number, and e-mail address below.*

SECTION 5. WRITTEN NARRATIVE

Test Claim Title: SWRCB Water Supply Permit Amendment (2017PA-SCHOOLS) for PWS No. 3710020
Claimant: City of San Diego

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Test Claim Title: SWRCB Water Supply Permit Amendment (2017PA-SCHOOLS) for PWS No. 3710020
Claimant: City of San Diego

A. INTRODUCTION

On January 18, 2017, the State Water Resources Control Board Division of Drinking Water (State Board) issued Permit Amendment No. 2017PA-SCHOOLS (the Permit Amendment) to the Domestic Water Supply Permit (Permit) issued to the City of San Diego Public Utilities Department (Public Water System No. 3710020). The Permit Amendment requires the Public Utilities Department (PUD) to perform lead testing on the property of any Kindergarten through 12th Grade (K-12) school *at no charge* if the testing is requested by an authorized representative of a school prior to November 1, 2019. (Exhibit 1 - Permit Amendment No. 2017PA-Schools to COSD; Exhibit 2 - SWB Media Release (Jan. 17, 2017).)

The Permit Amendment applies to "each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to November 1, 2019 . . . ." A "public water system" is "a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year." Cal. Health & Safety Code § 116275(h). The City's PUD oversees a municipal water system that provides water 365 days a year and includes 276,000 metered service connections serving 1.3 million customers in the cities of San Diego, Del Mar, Coronado, and Imperial Beach. (Declaration of Kris Michell, page 3.) The City's PUD is, therefore, a public water system. It serves over 500 K-12 schools. As of January 1, 2018, 502 K-12 schools have requested lead testing in San Diego County. (Exhibit 17 - Water Board Maps of Lead Sampling in CA Schools as of 01-01-2018.)

SECTION 5. WRITTEN NARRATIVE

Test Claim Title: SWRCB Water Supply Permit Amendment (2017PA-SCHOOLS) for PWS No. 3710020
Claimant: City of San Diego

The new Permit Amendment requires community water systems to assist any school in their service area that is listed in the California School Directory. This directory includes schools for grades K-12, including private, charter, magnet, and non-public schools. The Permit Amendment creates new service obligations imposed on the City of San Diego (City), creating a number of new program requirements. These new obligations impose a mandate on the City, and specifically the PUD, an enterprise fund agency, as the Permittee. These activities are not mandated by federal law, were not required as part of the City's initial permit or any previous permit amendment, and constitute new programs or higher levels of service for which the City has and will continue to incur costs. (Declaration of Doug Campbell, page 2.)

This Test Claim seeks a subvention of funds from the State Legislature to pay for the new services the City is mandated to provide by the Permit Amendment. The PUD funds its operations through the imposition of ratepayer fees and charges under Proposition 218 (Article XIII D of the California Constitution). Proposition 218 prohibits property-related fees and charges that exceed the proportionate cost of the service attributable to the parcel. By mandating that the PUD provide free lead testing to K-12 schools, the State Board is forcing water ratepayers to absorb and subsidize costs not attributable to the cost of providing service to them in violation of Proposition 218. The Permit Amendment amounts to an unfunded State mandate because it precludes the only legal means to recover the cost of lead testing: charging the schools receiving the service. (Declaration of Kris Michell, page 2, 3.)

SECTION 5. WRITTEN NARRATIVE

Test Claim Title: SWRCB Water Supply Permit Amendment (2017PA-SCHOOLS) for PWS No. 3710020
Claimant: City of San Diego

Claimant, City of San Diego, represents that the actual and estimated costs resulting from the mandate to perform lead testing pursuant to the Permit Amendment exceeds $1,000. Additionally, the City asserts that this Test Claim has been timely submitted within one year of the effective date of the Permit Amendment which is January 18, 2017.

The Permit Amendment issued to the City applies to the City's public water system, as it "serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to November 1, 2019." (Exhibit 1 – Permit Amendment) As to the City, none of the new programs or increased levels of service contained in the Permit Amendment are required by state or federal law.

B. FEDERAL LAW DOES NOT REQUIRE THE PERMIT AMENDMENT WORK

The City's existing Permit and its prior amendments do not require PUD to perform lead testing at K-12 schools. (Declaration of Kris Michell, page 3; Declaration of Doug Campbell, page 2, Declaration of Rex Ragucos, pages 1-2.) Nor is the City required to perform such testing under the Federal Lead and Copper Rule (LCR). 40 C.F.R. §§ 141.80-141.91 (2017). In 1991, the EPA adopted the LCR, which established "action levels" for lead. The LCR requires *schools* that have their own non-transient, non-community water system supply to test water at the tap for a sample of their customers served (students) for lead levels. The LCR requires lead samples to be collected every six months. As recently as 2015, it was unclear how many schools are actually covered by the LCR and which schools are conducting the testing required under the LCR.

However, the City may not use any of the lead samples collected to satisfy federal or state Lead and Copper Rule requirements. (Exhibit 1 - Permit Amendment; Declaration of Doug Campbell, page 2.) The City is now required to communicate with the school after the lead

sampling and assist the school with interpreting the laboratory results as well as provide information about corrective actions if a school has confirmed lead levels above 15 ppb. *Id*.

There are approximately 500 schools in California that are permitted as a public water system because they have their own water supply, such as a well. Those schools are already required to test their taps for lead (and copper), and have been performing this testing for many years under the LCR. No permit amendments were issued to schools that are already regulated as public water systems. However, most schools in California are served by community water systems which have not been required to test their water for lead under the current Lead and Copper Rule. (Exhibit 38 - Water Board FAQs about Lead Testing of Drinking Water in California Schools; Declaration of Doug Campbell, page 5.)

C. STATE LAW DOES NOT REQUIRE THE PERMIT AMENDMENT WORK

Under state regulations (virtually identical to the federal LCR), lead and copper testing is conducted on a regular basis. Public water systems conduct water sampling once every six months for lead. Testing frequency relaxes if test results consistently show no lead exceedances. According to the California Department of Public Health (CDPH), the City's PUD is on a schedule to test for lead once every three years under Title 22's Reduced Monitoring program (Cal. Code Regs. Title 22, § 64675.5). However, the Permit Amendment required new and distinct activities by the City's PUD separate and unassociated with other testing programs. (Declaration of Doug Campbell, page 4.)

None of the Permit Amendment provisions modify existing activities done by the City. *Id.* Rather, the Permit Amendment requires the City to engage in *all new activities and services*, each of which are specifically addressed below.

SECTION 5. WRITTEN NARRATIVE

Test Claim Title: SWRCB Water Supply Permit Amendment (2017PA-SCHOOLS) for PWS No. 3710020
Claimant: City of San Diego

D. ANALYSIS OF EACH UNFUNDED MANDATE PROVISION ON THE CITY

(1) Permit Amendment Section 1:

This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to November 1, 2019, as provided for in Provision 3.

(A) Detailed Description of the new activities and costs that arise from the mandate.

All of the activities identified in this section of the Permit Amendment constitute new activities the City did not previously perform. The new activities and costs are as follows:

Prior to the issuance of this Permit Amendment, there was no public comment period, and very little information was provided to public water systems in advance of the Permit Amendment. (Exhibit 1 - Permit Amendment No. 2017PA-Schools to COSD; Exhibit 2 - SWB Media Release (Jan. 17, 2017); Declaration of Doug Campbell, page 2-3.)

As a result, the City's PUD was afforded very little time to develop this program. Schools were eligible to send sampling requests on the same day full details of the program became available to PUD. This required a significant investment of time on the part of management and staff to develop a thorough understanding of the program requirements, to seek answers to questions, and to become experts in all facets of the requirement such that proper information can be relayed to school officials. (Declaration of Doug Campbell, page 2.) This included review and understanding of DDW DRINC database, used to login schools requesting sampling and to assign sample IDs to each school sampling location. (Exhibit 3 - Frequently Asked Questions by Public Water Systems about Lead Testing of Drinking Water in California Schools (May 1, 2017); Exhibit 4 - Appendix A: Sampling Guidance (Mar. 10, 2017); Exhibit 5 - Initial

Sampling Instructions; Exhibit 6 - Repeat and Confirmation Sampling Instructions; Exhibit 7 - Corrective Action Check Sampling Instructions; Exhibit 8 - Summary of Sampling and Procedures for Lead Testing in Schools (Mar. 10, 2017); Exhibit 9 - Guidance for Electronic Submittal of School Lead Sample Results; Declaration of Doug Campbell, page 3.)

As a result of media attention and public pressure, the San Diego Unified School District (SDUSD) requested in March 2017 that all 198 of its schools be tested before the end of the 2016-2017 school year. This required a substantial investment of resources to quickly develop templates, training materials, webpages, database routines and naming conventions, sampling kits, and the like. (Exhibit 10 - Template for Sampling Request; Exhibit 11 - Template for Response Letter; Exhibit 12 - Template for Lead Sampling Plan; Exhibit 13 - Power Point for Sampler Training; Exhibit 14 - Power Point for Sample Plan Training; Exhibit 15 - Lead Testing in Schools Information from COSD (Aug. 7, 2017).)

The volume of requests for school sampling for PUD as of July 21, 2017 was 229 schools, which is greater than any other county in the State, and represented 19% of the total number of requests in the State at that time. An investment was required in additional sample bottles and coolers for sampling kits, totaling $3,730.40. (Declaration of Rex Ragucos, page 6.) No Public Water System was as impacted by this Permit Amendment as the City's PUD. (Exhibit 16 - Request Letters from San Diego County Schools; Exhibit 17 - Water Board Maps of Lead Sampling in California Schools as of Jan. 1, 2018; Exhibit 19 - Invoices for Sampling Kits.)

Because of the scope of this program, as well as the attention to the program from the media and the public, The Environmental Committee of the City Council asked for updates of lead testing in schools on May 25 and June 20, 1017. (Exhibit 28 - PowerPoint Presentation by the Public Utilities Department to the City of San Diego Environmental Committee: Update on Lead Sampling of Drinking Water in San Diego Schools (May 25, 2017); Exhibit 29 - PowerPoint Presentation by the Public Utilities Department to the City of San Diego Environmental Committee: Status of School Lead Testing in the City of San Diego (Jul. 20, 2017); Declaration of Doug Campbell, page 6.) The process for City Council Presentations is complex and requires creation of the presentation itself, routing of paperwork, and email communication. *Id*.

Costs related to the administration of the Permit Amendment are specifically captured by the detailed breakdowns below and in the attached cost spreadsheet (Exhibit 36 – Lead Test School Site Cost Analysis; Declaration of Rex Ragucos, pages 1-6). This includes staff time, but is not limited to, time spent reading and interpreting the Permit Amendment, staff discussions on strategies for implementing the program, discussions with management on resource availability and challenges, conversations with DDW related to Permit Amendment implementation, planning meetings with SDUSD staff related to program roles and responsibilities, production of documentations and data for Public Records Act (Cal. Gov. Code §§ 6250-6270) requests, responses to media requests for information, and other general program planning costs (Exhibits 18, 27 – Public Record Act requests; Exhibit 36 – Lead Test School Site Cost Analysis; Declaration of Rex Ragucos, pages 1-6).

SECTION 5. WRITTEN NARRATIVE

Test Claim Title: SWRCB Water Supply Permit Amendment (2017PA-SCHOOLS) for PWS No. 3710020
Claimant: City of San Diego

PUD's required Program Planning elements include review and understanding of permit amendment/regulation – internal review, discussion, and research, including communication with DDW to clarify Permit Amendment requirements, creation of a webpage as a reference and guidance manual for schools, and creation of all new internal documents:

1. Request letter template
2. Response letter to request letter
3. Program overview and schools sampling training material, including PowerPoint, for PUD staff conducting sampling
4. Program overview and sample plan creation training material, including PowerPoint, for school representatives
5. Sample Plan template.

Additional time was required to review and understand the DDW DRINC database, used to login schools requesting sampling and to assign sample IDs to each school sampling location (Declaration of Rex Ragucos, pages 1-6). The total costs for these new services are below.

(B) Existing activities and costs modified.

None of the activities identified in this section constitute modified existing activities. All are new activities that the City never had to perform prior to the Permit Amendment.

(C) Actual increased costs incurred by the City during the FY for which the claim was filed to implement the mandate (FY 2017 - July 1, 2016 to June 30, 2017).

From the date of the January 17, 2017 Permit Amendment to June 30, 2017 (FY 2017), the City incurred the following actual increased costs: $115,724.90. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(D) Actual or estimated annual costs that will be incurred by the City to implement the mandate during the FY immediately following the FY for which the claim was filed (FY 2018 – July 1, 2017 to June 30, 2018).

(1) Actual FY 2018 Costs (July 1, 2017 through March 29, 2018).

From July 1, 2017 to March 29, 2018, the City incurred these actual costs: $0.

(2) Estimated FY 2018 Costs (March 30, 2018 through June 30, 2018).

From March 30, 2018 to June 30, 2018, the City will incur these estimated costs: $0.

(2) Permit Amendment Section 2:

Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by July 1, 2017. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools' website.

(A) Detailed Description of the new activities and costs that arise from the mandate.

All of the activities identified in this section of the Permit Amendment constitute new activities the City did not previously perform. The new activities and costs are as follows:

City staff was required to compile a list of schools located in the City of San Diego service area, to cross reference those schools in the DDW DRINC database, and to link those schools to our water system identification number in the DRINC database. (Exhibits 21 – 26; Declaration of Doug Campbell, pages 6, 7.) This task required extensive research and cross-verification, as many schools have names that vary between databases, and many schools had been misidentified by the state or other water utilities in the database. *Id.* Staff and associated costs for these activities are below.

(B) Existing activities and costs modified.

None of the activities identified in this section constitute modified existing activities. All are new activities that the City never had to perform prior to the Permit Amendment.

/ / /

(C) Actual increased costs incurred by the City during the FY for which the claim was filed to implement the mandate (FY 2017 - July 1, 2016 to June 30, 2017).

From the date of the January 17, 2017 Permit Amendment to June 30, 2017 (FY 2017), the City incurred the following actual increased costs: $6,706.65. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(D) Actual or estimated annual costs that will be incurred by the City to implement the mandate during the FY immediately following the FY for which the claim was filed (FY 2018 – July 1, 2017 to June 30, 2018).

(1) Actual FY 2018 Costs (July 1, 2017 through March 29, 2018).

From July 1, 2017 to March 29, 2018, the City incurred these actual costs: $0

(2) Estimated FY 2018 Costs (March 30, 2018 through June 30, 2018).

From March 30, 2018 to June 30, 2018, the City will incur these estimated costs: $0

(3) Permit Amendment Section 3 (a):

If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "3Ts for Reducing Lead in Drinking Water in Schools" as general guidance ….

(A) Detailed Description of the new activities and costs that arise from the mandate.

All of the activities identified in this section of the Permit Amendment constitute new activities for the City. The new activities and costs are as follows:

The City is required to keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. (Exhibit 1, Permit Amendment, section 3(a).) The City's annual Consumer Confidence Report must include a statement summarizing the number of schools requesting lead sampling. *Id*. The City's records of written requests for lead related assistance must include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

(Exhibit 1 - Permit Amendment No. 2017PA-Schools to COSD, page 5.)

Critically, the Permit Amendment mandates that the City must pay the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

(Exhibit 1 - Permit Amendment No. 2017PA-Schools to COSD, page 4).

According to the Permit Amendment, PUD is responsible for all costs associated with collecting, analyzing, and reporting drinking water samples for lead testing at up to five locations at each school, and is required to meet with the authorized school representative to develop a sampling plan and review the sampling results. The Permit Amendments do *not* require the community water system to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water, but the water system is required to conduct repeat sampling at the school to confirm elevated lead levels and the effectiveness of any corrective action taken by the school. (Exhibit 38 - Water Board Frequently Asked Questions about Lead Testing of Drinking Water in California Schools (Oct. 12, 2017).)

This included the creation of multiple maps indicating school sampling status and results, synthesizing data into bullet points for delivery to City Councilmembers and the news media, and staff time dedicated to travel and presentation at committee hearings. Research was conducted to answer stated questions from Councilmembers and anticipated additional questions. Significant labor time was used to continue to respond to media inquiries Public Record Act requests and general questions from the public (Exhibits 18, 27).

Program Management elements include the general administration of the program by management, supervisory, and support staff. This includes written and verbal communication with schools staff, the public, media, management, and concerned citizens and parents. As the scope of labor that this effort would require became apparent, management expended labor to communicate with City leadership, to discuss and seek agreement on the identification and solicitation of additional labor resources, to meet and confer with resources and their leadership, and to communicate program expectations and requirements. Labor was invested to track program documents and information – sampling requests, emails, phone calls, and requests for information. (Declaration of Doug Campbell, pages 2-7; Declaration of Rex Ragucos; Exhibit 36.) For each sampling request that was received, staff was required to:

1. Prepare and send a response to the sampling request;
2. Submit a copy of the sampling request to the state;
3. Communicate with the school to schedule a training meeting, etc.
4. Communicate school request status to PUD management.

The City did not previously perform the creation and daily maintenance of these tracking spreadsheets, which include school request status, contact information, and other information. *Id*.

(B) Existing activities and costs modified.

None of the activities identified in this section constitute modified existing activities. All are new activities that the City never had to perform prior to the Permit Amendment.

(C) Actual increased costs incurred by the City during the FY for which the claim was filed to implement the mandate (FY 2017 - July 1, 2016 to June 30, 2017).

From the date of the January 17, 2017 Permit Amendment to June 30, 2017 (FY 2017), the City incurred the following actual increased costs: $25,566.73. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(D) Actual or estimated annual costs that will be incurred by the City to implement the mandate during the FY immediately following the FY for which the claim was filed (FY 2018 – July 1, 2017 to June 30, 2018).

(1) Actual FY 2018 Costs (July 1, 2017 through March 29, 2018).

From July 1, 2017 to March 29, 2018, the City incurred these actual costs: $9,299.63. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(2) Estimated FY 2018 Costs (March 30, 2018 through June 30, 2018).

From March 30, 2018 to June 30, 2018, City will incur these estimated costs: $11,693.89. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(4) Permit Amendment Section 3 (b):

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

SECTION 5. WRITTEN NARRATIVE

Test Claim Title: SWRCB Water Supply Permit Amendment (2017PA-SCHOOLS) for PWS No. 3710020
Claimant: City of San Diego

(A) Detailed Description of the new activities and costs that arise from the mandate.

All of the activities identified in this section of the Permit Amendment constitute new activities the City did not previously perform. The new activities and costs are as follows:

Program Management elements include the general administration of the program by management, supervisory, and support staff. This includes written and verbal communication with school's staff, the public, media, management, and concerned citizens and parents. As the scope of labor that this effort would require became apparent, management expended labor to communicate with City leadership, to discuss and seek agreement on the identification and solicitation of additional labor resources, to meet and confer with resources and their leadership, and to communicate program expectations and requirements. Labor was invested to track program costs, documents and information – sampling requests, emails, phone calls, and requests for information. (Declaration of Doug Campbell, pages 5-9; Declaration of Rex Ragucos; Exhibit 36.)

For each sampling request that was received, staff were required to: (a) prepare and send a response to the sampling request (Exhibit 20 - COSD Response Letters to San Diego County Schools (Mar. 2-Jul. 7, 2017)); (b) submit a copy of the sampling request to the State (Exhibit 21 - DDW Submittal Letters (Apr. 5-Jul. 6, 2017)); (c) communicate with the school to schedule training meetings, and communicate school request status to PUD management (Exhibit 21 - DDW Submittal Letters); and, (d) create and maintain daily a tracking spreadsheet that includes school request status, contact information, and upgrading, updating, and maintenance of tracking spreadsheets. (Exhibit 23 - Tracking Spreadsheet; Exhibit 24 – Non-SDUSD Tracking Spreadsheet; Exhibit 25 - PUD Sampler Training Rosters

(Mar. 29-30, 2017); Exhibit 26 - School Staff Sample Plan Training Rosters; Exhibits 18, 27 - California Public Records Act requests.)

When all this information had been finalized and entered, sampling plans were signed by PUD staff and finalized as a pdf document. The large number of SDUSD requested schools, along with the short time period remaining before the end of the school year, required PUD to approve a minimum of 25 School Sample Plans per week to complete the project on time. Site Specific Planning Elements include tasks that are specific to sampling at a school site using the template and guidelines provided by PUD. Staff review of these plans ensures that sites fall within Permit Amendment guidelines, are clearly identified and marked in the sampling plan, and are signed by appropriate and qualified school personnel. Correspondence was frequently required with school staff to clarify or request revisions of sampling plans. Staff also had to perform upgrading, updating, and maintenance of tracking spreadsheets while providing training to school staff. (*Id*., Declaration of Doug Campbell, pages 4-9.)

(B) Existing activities and costs modified.

None of the activities identified in this section constitute modified existing activities. All are new activities that the City never had to perform prior to the Permit Amendment.

(C) Actual increased costs incurred by the City during the FY for which the claim was filed to implement the mandate (FY 2017 - July 1, 2016 to June 30, 2017).

From the date of the January 17, 2017 Permit Amendment to June 30, 2017 (FY 2017), the City incurred the following actual increased costs: $9,294.99. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(D) Actual or estimated annual costs that will be incurred by the City to implement the mandate during the FY immediately following the FY for which the claim was filed (FY 2018 – July 1, 2017 to June 30, 2018).

(1) Actual FY 2018 Costs (July 1, 2017 through March 29, 2018).

From July 1, 2017 to March 29, 2018, the City incurred these actual costs: $4,739.59. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(2) Estimated FY 2018 Costs (March 30, 2018 through June 30, 2018).

From March 30, 2018 to June 30, 2018, City will incur these estimated costs: $4,069.22. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(5) Permit Amendment Section 3 (c):

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in Appendix A (Sampling Guidance) which is attached. Sample sites may be either treated or untreated.

(A) Detailed Description of the new activities and costs that arise from the mandate.

All of the activities identified in this section of the Permit Amendment constitute new activities the City did not previously perform. The new activities and costs are as follows:

The Permit Amendment's Site Specific Planning Elements include tasks that are specific to sampling at a school site. Sampling plans were created by school staff using the template and guidelines provided by PUD. Staff review of these plans ensures that sites fall within Permit Amendment guidelines, are clearly identified and marked in the sampling plan, and are signed by

appropriate and qualified school personnel. Correspondence was frequently required with school staff to clarify or request revision of sampling plans. Once deemed acceptable, information on the individual sample sites was required to be entered into the DDW DRINC database to obtain State Sample IDs. These data also had to be entered into the PUD LIMS database, along with all identifying information, including the full description of each site and DRINC sample IDs. (Declaration of Doug Campbell, pages 4-9; Exhibits 3-17, 19-23, 25-36.) When all this information had been finalized and entered, sampling plans were signed by PUD staff and finalized as a pdf document. (Exhibit 31 - Sampling Plans Chain of Custody.)

The large number of SDUSD requested schools, along with the short time period remaining before the end of the school year, required PUD to approve a minimum of 25 School Sample Plans per week to complete the project on time. For each school site, a sampling kit had to be prepared, including a printed copy of the sampling plan, chain of custody and associated paperwork; sample bottles and coolers had to be located, and sample bottles properly labeled. A trained PUD sampler had to be identified, briefed on the school, and given contact information for the school representative who would meet them at the school. (Declaration of Doug Campbell, pages 6, 7.)

School sampling was conducted by a number of PUD staff, all of which had to be conducted on a Tuesday, Wednesday, Thursday, Friday, or for SDUSD schools only by agreement with DDW, Saturday. According to the Permit Amendment, sampling was required to be conducted after water had been sitting stagnant in plumbing and fixtures for a minimum of six hours. This meant sampling had to be conducted prior to the start of the school day, as use of fixtures other than those identified and secured for sampling could disturb water in the plumbing

system itself. This requirement limited the number of schools that could be sampled by an individual sampler on any given day. The large number of SDUSD requested schools, along with the short time period remaining before the end of the school year, required PUD to sample a minimum of 25 schools per week to complete the project on time. (Exhibit 32 - School Sampling Schedules (Apr. 4, 2017 through Jun. 16, 2017); (Declaration of Doug Campbell, pages 8-9.)

Following sampling, school samplers deliver sampling kit and associated paperwork to WQCS QA/DM staff. Paperwork is reviewed, sample status is updated in LIMS database, paperwork is finalized, and samples are routed and stored in the proper location. (Exhibit 31 - Sampling Plans Chain of Custody.) One thousand, one hundred and fifteen field samples were analyzed in FY 2017 for the PUD Lead in Schools program. This does not include quality control and other samples required in each analytical batch. (Exhibit 33 - Total Number of Field Samples Tested (Jul. 13, 2017).)

A reporting template was developed for use in the Lead in Schools program. This report needed to contain sufficient information to track samples in DDW website, the PUD LIMS database, and for the schools and public to understand the source from which the sample was obtained. All reports were reviewed by supervisory or management staff. This review included the referencing of SDUSD or other school websites to ensure the report contained proper identifying information for the school and reports with schools of similar names were clarified. (Declaration of Doug Campbell, pages 4-9.)

Per Permit Amendment requirements, consultation was provided to schools in interpreting results obtained via this program. For school fixtures with lead results above 15 ppb, the parameters of the program were explained, including the option to resample, remediate, or

remove the fixture from service. When remediation was complete, resamples were obtained by PUD and reports of these results were provided to the schools. Results for each school sample were required to be uploaded into the DDW EDT database. Utilizing the State-provided Write On software for this task, as PUD does for routine regulatory reporting, would have required the generation of a separate report for each of the 1,115 samples analyzed. Instead staff developed a method to convert reports into files that are compatible with the EDT system (called .res files) in order to upload results *en masse*. This required a significant amount of time for trial and error, and the upload of a test set of samples prior to the upload of the complete data set. Final reports for 229 schools, including resamples, are referenced in Exhibit 34 - Reports to Schools on Lead Testing. (Declaration of Doug Campbell, page 9; Declaration of Rex Ragucos, pages 2-7.)

According to the Permit Amendment, sampling was required to be conducted after water had been sitting stagnant in plumbing and fixtures for a minimum of six hours. This meant sampling had to be conducted prior to the start of the school day, as use of fixtures other than those identified and secured for sampling could disturb water in the plumbing system itself. This requirement limited the number of schools that could be sampled by an individual sampler on any given day. *Id.*

Labor associated with school sampling included driving to school sites, meeting with school representatives, using completed Sample Plans to orient and navigate to sample sites, collecting up to five samples and completing paperwork, reviewing with school representatives and paperwork. Staff were required to then return to the laboratory, drop off samples, communicate with staff on site characteristics, observations, and the like. When all this information had been finalized and entered, sampling plans were signed by PUD staff and

finalized as a pdf document. The large number of SDUSD requested schools, along with the short time period remaining before the end of the school year, required PUD to approve a minimum of 25 School Sample Plans per week to complete the project on time. (Declaration of Doug Campbell, page 9; Declaration of Rex Ragucos, pages 2-7.)

(B) Existing activities and costs modified.

None of the activities identified in this section constitute modified existing activities. All are new activities that the City never had to perform prior to the Permit Amendment.

(C) Actual increased costs incurred by the City during the FY for which the claim was filed to implement the mandate (FY 2017 - July 1, 2016 to June 30, 2017).

From the date of the January 17, 2017 Permit Amendment to June 30, 2017 (FY 2017), the City incurred the following actual increased costs: $64,103.96. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(D) Actual or estimated annual costs that will be incurred by the City to implement the mandate during the FY immediately following the FY for which the claim was filed (FY 2018 – July 1, 2017 to June 30, 2018).

(1) Actual FY 2018 Costs (July 1, 2017 through March 29, 2018).

From July 1, 2017 to March 29, 2018, the City incurred these actual costs: $5,000.29. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(2) Estimated FY 2018 Costs (March 30, 2018 through June 30, 2018).

From March 30, 2018 to June 30, 2018, City will incur these estimated costs: $12,476.13. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(6) Permit Amendment Section 3 (e):

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

(A) Detailed Description of the new activities and costs that arise from the mandate.

All of the activities identified in this section of the Permit Amendment constitute new activities the City did not previously perform. The new activities and costs are as follows:

Following sampling, school samplers deliver sampling kits and associated paperwork to WQCS QA/DM staff. Paperwork is then reviewed, the sample status is updated in the LIMS database, paperwork is finalized, and samples are routed and stored in the proper location. In providing training to PUD sampling staff, a trained PUD sampler had to be identified, briefed on the school, and given contact information for the school representative who would meet them at the school. (Declaration of Doug Campbell, page 9; Declaration of Rex Ragucos, pages 2-7.)

(B) Existing activities and costs modified.

None of the activities identified in this section constitute modified existing activities. All are new activities that the City never had to perform prior to the Permit Amendment.

(C) Actual increased costs incurred by the City during the FY for which the claim was filed to implement the mandate (FY 2017 - July 1, 2016 to June 30, 2017).

From the date of the January 17, 2017 Permit Amendment to June 30, 2017 (FY 2017), the City incurred the following actual increased costs: $6,090.78. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(D) Actual or estimated annual costs that will be incurred by the City to implement the mandate during the FY immediately following the FY for which the claim was filed (FY 2018 – July 1, 2017 to June 30, 2018).

(1) Actual FY 2018 Costs (July 1, 2017 through March 29, 2018).

From July 1, 2017 to March 29, 2018, the City incurred these actual costs: $0.

(2) Estimated FY 2018 Costs (March 30, 2018 through June 30, 2018).

From March 30, 2018 to June 30, 2018, City will incur these estimated costs: $1,208.59. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(7) Permit Amendment Section 3 (f):

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

(A) Detailed Description of the new activities and costs that arise from the mandate.

All of the activities identified in this section of the Permit Amendment constitute new activities the City did not previously perform. The new activities and costs are as follows:

All samples for the Lead in Schools program were analyzed in the PUD EMTS WQCS section, ELAP Cert. 1058, using EPA method 200.8 on an ICPMS instrument. This method uses argon plasma to ionize all metals in a sample to their elemental form, and those elements are detected on a mass spectrometer. This analytical method is capable of detecting a large number of heavy metals and other elements. For this program, a special method was utilized to allow for precise and accurate analysis of Lead only. All requirements of EPA 200.8 were met, but lead was the only analyte. This allowed for the efficient throughput of samples and rapid turnaround and reporting to schools. Turbidity is also required to be determined and, if turbidity exceeds 1.0 NTU, samples must be digested. Samples were analyzed in independent batches and were not

mixed in with regulatory or other special project samples. All data is analyzed by a trained chemist and reporting packages are created. Data is transferred to the LIMS system. 1115 field samples were analyzed in FY17 for the PUD Lead in Schools program. This does not include quality control and other samples required in each analytical batch. (Declaration of Doug Campbell, pages 8, 9; Declaration of Rex Ragucos, pages 3, 5; Exhibits 5-15, Exhibits 17-30.)

(B) Existing activities and costs modified.

None of the activities identified in this section constitute modified existing activities. All are new activities that the City never had to perform prior to the Permit Amendment.

(C) Actual increased costs incurred by the City during the FY for which the claim was filed to implement the mandate (FY 2017 - July 1, 2016 to June 30, 2017).

From the date of the January 17, 2017 Permit Amendment to June 30, 2017 (FY 2017), the City incurred the following actual increased costs: $61,087.21. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(D) Actual or estimated annual costs that will be incurred by the City to implement the mandate during the FY immediately following the FY for which the claim was filed (FY 2018 – July 1, 2017 to June 30, 2018).

(1) Actual FY 2018 Costs (July 1, 2017 through March 29, 2018).

From July 1, 2017 to March 29, 2018, the City incurred these actual costs: $6,399.85. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(2) Estimated FY 2018 Costs (March 30, 2018 through June 30, 2018).

From March 30, 2018 to June 30, 2018, City will incur these estimated costs: $12,364.08. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(8) Permit Amendment Section 3 (g):

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

(A) Detailed Description of the new activities and costs that arise from the mandate.

All of the activities identified in this section of the Permit Amendment constitute new activities the City did not previously perform. The new activities and costs are as follows:

Results for each school sample were required to be uploaded into the DDW EDT database. Utilizing the state-provided Write On software for this task, as PUD does for routine regulatory reporting, would have required the generation of a separate report for each of the 1115 samples analyzed. Instead staff developed a method to convert reports into files that are compatible with the EDT system (called .res files) in order to upload results en masse. This required a significant amount of time for trial and error, and the upload of a test set of samples prior to the upload of the complete data set. Once deemed acceptable, information on the individual sample sites was required to be entered into the DDW DRINC database to obtain State Sample IDs. This data also had to be entered into the PUD LIMS database, along with all identifying information, including the full description of each site and DRINC sample IDs. (Declaration of Doug Campbell, pages 8, 9; Declaration of Rex Ragucos, pages 3, 5; Exhibits 5-15, Exhibits 17-30.)

(B) Existing activities and costs modified.

None of the activities identified in this section constitute modified existing activities. All are new activities that the City never had to perform prior to the Permit Amendment.

(C) Actual increased costs incurred by the City during the FY for which the claim was filed to implement the mandate (FY 2017 - July 1, 2016 to June 30, 2017).

From the date of the January 17, 2017 Permit Amendment to June 30, 2017 (FY 2017), the City incurred the following actual increased costs: $4,261.12. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(D) Actual or estimated annual costs that will be incurred by the City to implement the mandate during the FY immediately following the FY for which the claim was filed (FY 2018 – July 1, 2017 to June 30, 2018).

(1) Actual FY 2018 Costs (July 1, 2017 through March 29, 2018).

From July 1, 2017 to March 29, 2018, the City incurred these actual costs: $1,549.94. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(2) Estimated FY 2018 Costs (March 30, 2018 through June 30, 2018).

From March 30, 2018 to June 30, 2018, City will incur these estimated costs: $1,948.98. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(9) Permit Amendment Section 3 (h):

h. Provide a copy of the results to the requesting authorized school representative.

(A) Detailed Description of the new activities and costs that arise from the mandate.

All of the activities identified in this section of the Permit Amendment constitute new activities the City did not previously perform. The new activities and costs are as follows:

SECTION 5. WRITTEN NARRATIVE

Test Claim Title: SWRCB Water Supply Permit Amendment (2017PA-SCHOOLS) for PWS No. 3710020
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A reporting template was developed for use in the Lead in Schools program. This report needed to contain sufficient information to track samples in DDW website, the PUD LIMS database, and for the schools and public to understand the source from which the sample was obtained. All reports were reviewed by supervisory or management staff. This review included the referencing of SDUSD or other school websites to ensure the report contained proper identifying information for the school and reports with schools of similar names were clarified. (Declaration of Doug Campbell, pages 7, 8; Exhibits 5-15, Exhibits 17-30.)

(B) Existing activities and costs modified.

None of the activities identified in this section constitute modified existing activities. All are new activities that the City never had to perform prior to the Permit Amendment.

(C) Actual increased costs incurred by the City during the FY for which the claim was filed to implement the mandate (FY 2017 - July 1, 2016 to June 30, 2017).

From the date of the January 17, 2017 Permit Amendment to June 30, 2017 (FY 2017), the City incurred the following actual increased costs: $3,059.99. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(D) Actual or estimated annual costs that will be incurred by the City to implement the mandate during the FY immediately following the FY for which the claim was filed (FY 2018 – July 1, 2017 to June 30, 2018).

(1) Actual FY 2018 Costs (July 1, 2017 through March 29, 2018).

From July 1, 2017 to March 29, 2018, the City incurred these actual costs: $677.17. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(2) Estimated FY 2018 Costs (March 30, 2018 through June 30, 2018).

From March 30, 2018 to June 30, 2018, City will incur these estimated costs: $607.19. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(10) Permit Amendment Section 3 (i):

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

(A) Detailed Description of the new activities and costs that arise from the mandate.

All of the activities identified in this section of the Permit Amendment constitute new activities the City did not previously perform. The new activities and costs are as follows:

Upon finalization of any analytical batches with a Lead in Schools sample result above 15 parts per billion (ppb), staff was required to fast-track the report generation and approval process, to transmit the result to the school contact, and to contact the school contact directly. Consultation was provided on the Permit Amendment requirements, particularly on the roles and responsibilities necessary to execute the various options available to the school contact upon receipt of results above 15 ppb. Posting of these results by the school contact triggered numerous media inquiries and requests for information from management and City Council. (Declaration of Doug Campbell, pages 6-9; Exhibits 5-17, Exhibits 19-21, 23-26, 30-34.)

(B) Existing activities and costs modified.

None of the activities identified in this section constitute modified existing activities. All are new activities that the City never had to perform prior to the Permit Amendment.

(C) Actual increased costs incurred by the City during the FY for which the claim was filed to implement the mandate (FY 2017 - July 1, 2016 to June 30, 2017).

From the date of the January 17, 2017 Permit Amendment to June 30, 2017 (FY 2017), the City incurred the following actual increased costs: $4,261.12. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(D) Actual or estimated annual costs that will be incurred by the City to implement the mandate during the FY immediately following the FY for which the claim was filed (FY 2018 – July 1, 2017 to June 30, 2018).

(1) Actual FY 2018 Costs (July 1, 2017 through March 29, 2018).

From July 1, 2017 to March 29, 2018, the City incurred these actual costs: $1,549.94. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(2) Estimated FY 2018 Costs (March 30, 2018 through June 30, 2018).

From March 30, 2018 to June 30, 2018, City will incur these estimated costs: $1,948.98. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(11) Permit Amendment Section 3 (j):

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

(A) Detailed Description of the new activities and costs that arise from the mandate.

All of the activities identified in this section of the Permit Amendment constitute new activities the City did not previously perform. The new activities and costs are as follows:

Per Permit Amendment requirements, consultation was provided to schools in interpreting results obtained via this program. For school fixtures with lead results above 15 ppb, the parameters of the program were explained, including the option to resample, remediate, or remove the fixture from service. All four schools with lead detected above 15 ppb chose to remediate the fixture. When remediation was complete, resamples were obtained by PUD and reports of these results were provided to the schools. (Declaration of Doug Campbell, pages 6-9; Exhibits 5-17, Exhibits 19-21, 23-26, 30-34.)

(B) Existing activities and costs modified.

None of the activities identified in this section constitute modified existing activities. All are new activities that the City never had to perform prior to the Permit Amendment.

(C) Actual increased costs incurred by the City during the FY for which the claim was filed to implement the mandate (FY 2017 - July 1, 2016 to June 30, 2017).

From the date of the January 17, 2017 Permit Amendment to June 30, 2017 (FY 2017), the City incurred the following actual increased costs: $4,547.46. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(D) Actual or estimated annual costs that will be incurred by the City to implement the mandate during the FY immediately following the FY for which the claim was filed (FY 2018 – July 1, 2017 to June 30, 2018).

(1) Actual FY 2018 Costs (July 1, 2017 through March 29, 2018).

From July 1, 2017 to March 29, 2018, the City incurred these actual costs: $1,549.94. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(2) Estimated FY 2018 Costs (March 30, 2018 through June 30, 2018).

From March 30, 2018 to June 30, 2018, City will incur these estimated costs: $2,005.80. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(12) Permit Amendment Section 3 (*l*):

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) (Exhibit 18, 27) request for the specific results.

(A) Detailed Description of the new activities and costs that arise from the mandate.

All of the activities identified in this section of the Permit Amendment constitute new activities the City did not previously perform. The new activities and costs are as follows: Responding to media requests on a daily basis consumed staff time. Because of the scope of this

program, as well as the attention to the program from the media and the public, the Environmental Committee of the City Council asked for updates of lead testing in schools on May 25 and June 20, 2017. The process for City Council Presentations is complex and requires creation of the presentation itself, routing of paperwork, and email communication. (Declaration of Doug Campbell, pages 6-9; Exhibits 18-27.)

(B) Existing activities and costs modified.

None of the activities identified in this section constitute modified existing activities. All are new activities that the City never had to perform prior to the Permit Amendment.

(C) Actual increased costs incurred by the City during the FY for which the claim was filed to implement the mandate (FY 2017 - July 1, 2016 to June 30, 2017).

From the date of the January 17, 2017 Permit Amendment to June 30, 2017 (FY 2017), the City incurred the following actual increased costs: $4,261.12. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(D) Actual or estimated annual costs that will be incurred by the City to implement the mandate during the FY immediately following the FY for which the claim was filed (FY 2018 – July 1, 2017 to June 30, 2018).

(1) Actual FY 2018 Costs (July 1, 2017 through March 29, 2018).

From July 1, 2017 to March 29, 2018, the City incurred these actual costs: $1,549.94. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(2) Estimated FY 2018 Costs (March 30, 2018 through June 30, 2018).

From March 30, 2018 to June 30, 2018, City will incur these estimated costs: $1,948.98. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(13) Permit Amendment Section 3 (m):

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

(A) Detailed Description of the new activities and costs that arise from the mandate.

All of the activities identified in this section of the Permit Amendment constitute new activities the City did not previously perform. The new activities and costs are as follows:

Under the Permit Amendment requirements, consultation was provided to schools in interpreting results obtained via this program. For school fixtures with lead results above 15 ppb, the parameters of the program were explained, including the option to resample, remediate, or remove the fixture from service. All four schools with lead detected above 15 ppb chose to remediate the fixture. When remediation was complete, resamples were obtained by PUD and reports of these results were provided to the schools. (Declaration of Doug Campbell, pages 6-9; Exhibits 5-17, Exhibits 19-21, 23-26, 30-34.)

(B) Existing activities and costs modified.

None of the activities identified in this section constitute modified existing activities. All are new activities that the City never had to perform prior to the Permit Amendment.

(C) Actual increased costs incurred by the City during the FY for which the claim was filed to implement the mandate (FY 2017 - July 1, 2016 to June 30, 2017).

From the date of the January 17, 2017 Permit Amendment to June 30, 2017 (FY 2017), the City incurred the following actual increased costs: $17,044.49. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(D) Actual or estimated annual costs that will be incurred by the City to implement the mandate during the FY immediately following the FY for which the claim was filed (FY 2018 – July 1, 2017 to June 30, 2018).

(1) Actual FY 2018 Costs (July 1, 2017 through March 29, 2018).

From July 1, 2017 to March 29, 2018, the City incurred these actual costs: $6,199.75. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(2) Estimated FY 2018 Costs (March 30, 2018 through June 30, 2018).

From March 30, 2018 to June 30, 2018, City will incur these estimated costs: $7,795.93. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(14) Permit Amendment Section 7:

The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

(A) Detailed Description of the new activities and costs that arise from the mandate.

All of the activities identified in this section of the Permit Amendment constitute new activities the City did not previously perform. The new activities and costs are as follows:

Again, under the Permit Amendment requirements, consultation was provided to schools in interpreting results obtained via this program. For school fixtures with lead results above 15 ppb, the parameters of the program were explained, including the option to resample,

remediate, or remove the fixture from service. All four schools with lead detected above 15 ppb chose to remediate the fixture. When remediation was complete, resamples were obtained by PUD and reports of these results were provided to the schools. (Declaration of Doug Campbell, pages 6-9; Exhibits 1, 5-17, Exhibits 19-21, 23-26, 30-34.)

Because of the scope of this program, as well as the attention to the program from the media and the public, The Environmental Committee of the City Council asked for updates of lead testing in schools on May 25 and June 20, 1017. The process for City Council Presentations is complex and requires creation of the presentation itself, routing of paperwork, and email communication, all of which consume staff time, reflected below. (Declaration of Doug Campbell, pages 6-9; Exhibits 18, 27).

(B) Existing activities and costs modified.

None of the activities identified in this section constitute modified existing activities. All are new activities that the City never had to perform prior to the Permit Amendment.

(C) Actual increased costs incurred by the City during the FY for which the claim was filed to implement the mandate (FY 2017 - July 1, 2016 to June 30, 2017).

From the date of the January 17, 2017 Permit Amendment to June 30, 2017 (FY 2017), the City incurred the following actual increased costs: $12,783.37. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

/ / /

(D) Actual or estimated annual costs that will be incurred by the City to implement the mandate during the FY immediately following the FY for which the claim was filed (FY 2018 – July 1, 2017 to June 30, 2018).

(1) Actual FY 2018 Costs (July 1, 2017 through March 29, 2018).

From July 1, 2017 to March 29, 2018, the City incurred these actual costs: $4,649.82. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(2) Estimated FY 2018 Costs (March 30, 2018 through June 30, 2018).

From March 30, 2018 to June 30, 2018, City will incur these estimated costs: $5,846.95. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(15) Permit Amendment Section 8:

The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

SECTION 5. WRITTEN NARRATIVE

Test Claim Title: SWRCB Water Supply Permit Amendment (2017PA-SCHOOLS) for PWS No. 3710020
Claimant: City of San Diego

(A) Detailed Description of the new activities and costs that arise from the mandate.

All of the activities identified in this section of the Permit Amendment constitute new activities the City did not previously perform. The new activities and costs are as follows:

The City is required to keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. (Exhibit 1 - Permit Amendment No. 2017PA-Schools to COSD, ¶ 8.) The City's annual Consumer Confidence Report must include a statement summarizing the number of schools requesting lead sampling. *Id.* Labor was invested to track program documents and information – sampling requests, emails, phone calls, and requests for information. For each sampling request that was received, staff was required to: Prepare and send a response to the sampling request Submit a copy of the sampling request to the state; Communicate with the school to schedule a training meeting, etc.; Communicate school request status to PUD management. (Declaration of Doug Campbell, pages 6-9; Exhibits 5-17, Exhibits 19-21, 23-26, 30-34.)

The process for City Council presentations is complex and requires creation of the presentation itself, routing of paperwork, and email communication. Research was conducted to answer stated questions from City Councilmembers and anticipated additional questions. This included the creation of multiple maps indicating school sampling status and results, synthesizing data into bullet points for delivery to City Councilmembers and the news media, and staff time dedicated to travel and presentation at committee hearings. (Declaration of Doug Campbell, pages 6-9; Exhibits 5-17, Exhibits 19-21, 23-26, 30-34.) The cost of all these new activities is contained below.

(B) Existing activities and costs modified.

None of the activities identified in this section constitute modified existing activities. All are new activities that the City never had to perform prior to the Permit Amendment.

(C) Actual increased costs incurred by the City during the FY for which the claim was filed to implement the mandate (FY 2017 - July 1, 2016 to June 30, 2017).

From the date of the January 17, 2017 Permit Amendment to June 30, 2017 (FY 2017), the City incurred the following actual increased costs: $12,783.37. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(D) Actual or estimated annual costs that will be incurred by the City to implement the mandate during the FY immediately following the FY for which the claim was filed (FY 2018 – July 1, 2017 to June 30, 2018).

(1) Actual FY 2018 Costs (July 1, 2017 through March 29, 2018).

From July 1, 2017 to March 29, 2018, the City incurred these actual costs: $4,649.82. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

(2) Estimated FY 2018 Costs (March 30, 2018 through June 30, 2018).

From March 30, 2018 to June 30, 2018, City will incur these estimated costs: $5,846.95. (Declaration of Rex Ragucos, pages 1-8, Exhibit 36.)

E. A STATEWIDE COST ESTIMATE IS NOT REQUIRED AS THE CITY IS ONLY PLEADING THE PERMIT AMENDMENT AFFECTING THE CITY.

This Test Claim solely concerns a challenge to the Permit Amendment issued to the City and no other orders, laws or statutes affecting the City or other local agencies. The Permit Amendment was issued to other state public water systems, but the City has no information

regarding the costs incurred by other similarly situated entities, if any. To the best of the City's knowledge, no statewide cost estimate is available. (Declaration of Kris Michell, page 5.)

As the City is pleading only the Permit Amendment listed in Section 4, which only applies to the City, the City needs only to include its own actual and estimated costs for 2016-2017 and 2017-2018 because the statewide costs for that Permit Amendment are necessarily limited to the City's costs. (Exhibit 37 - Letter from Commission on State Mandates dated February 21, 2018.)

F. IDENTIFICATION OF ALL OF THE FOLLOWING FUNDING SOURCES AVAILABLE FOR THIS PROGRAM:

i. Dedicated State Funds.

The City does not receive any dedicated state funds for implementation of the Permit Amendment. The City is unaware of any dedicated state funds currently available for implementing the Permit Amendment's mandate. (Declaration of Seth Gates, pages 4-10; Declaration of Scott Chadwick, pages 10-14; Declaration of Kris Michell, pages 6-9.)

ii. Dedicated Federal Funds.

The City does not receive any dedicated federal funds for implementation of the Permit Amendment. The City is unaware of any dedicated federal funds currently available for implementing the Permit Amendment's mandate. (Declaration of Seth Gates, pages 4-10; Declaration of Scott Chadwick, pages 10-14; Declaration of Kris Michell, pages 6-9.)

iii. Other Nonlocal Agency Funds.

The City does not receive any other nonlocal agency funds for implementation of the Permit Amendment. The City is unaware of any other nonlocal agency funds currently available

for implementing the Permit Amendment's mandates. (Declaration of Seth Gates, pages 4-10; Declaration of Scott Chadwick, pages 10-14; Declaration of Kris Michell, pages 6-9.)

iv. The Local Agency's General Purpose Funds.

The PUD is a department of the City funded almost entirely by ratepayers or through financing secured by ratepayer revenue. Proposition 218 imposes restrictions on ratepayer funds discussed below in paragraph (v). The PUD does not have "general purpose funds" available outside of these restrictions. (Declaration of Seth Gates, pages 4-10; Declaration of Scott Chadwick, pages 10-14; Declaration of Kris Michell, pages 6-9.)

Outside of the PUD, the City has a General Fund which receives revenue from different sources, primarily taxes and fees that do not exceed the cost of the services provided pursuant to Proposition 26, discussed below in paragraph (v). The general funds of local governments are not considered a viable source of funds to pay for State mandates because of the Constitutional limitations on taxing and spending powers of local governments. *See Department of Finance v. Commission on State Mandates*, 1 Cal. 5th 749, 762-63 (2016). The City's General Fund pays for critical City services such as public safety (e.g. police, fire protection, and lifeguards), libraries, parks, streets, and many other essential government functions. The City cannot budget PUD monies to pay for lead testing on the property of K-12 schools without violating Proposition 218. (Declaration of Seth Gates, pages 4-10; Declaration of Scott Chadwick, pages 10-14; Declaration of Kris Michell, pages 4-9.)

v. Fee Authority to Offset Costs.

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Fees for water service provided by the PUD are governed by Proposition 218. Proposition 218 amended the California Constitution in 1996 by adding articles XIII C and XIII D. Section 6 of article XIII D imposed new requirements for new and existing property-related fees and charges. These requirements include a restriction that the revenue from the fee or charge cannot exceed the cost to provide the property-related service. Cal. Const. art. XIII D, § 6(b)(1). The amount of a fee or charge also cannot exceed the proportional cost of the service attributable to the parcel. Cal. Const. art. XIII D, § 6(b)(3). Charges for water delivered to property owners and residents are property-related fees subject to these restrictions. *Bighorn-Desert View Water Agency v. Verjil*, 39 Cal. 4th 205, 217 (2006).

Because of these restrictions, the PUD cannot stand idle and simply absorb the cost of lead testing for schools without violating Proposition 218. Testing for lead on school property, which is outside PUD's water distribution system, has no relationship to providing water service to other City customers. Allowing water ratepayer funds to absorb the cost of lead testing would result in PUD water service fees "exceed[ing] the proportional cost of the service attributable to the parcel" because all ratepayers would be contributing to the cost of a service provided only to parcels with schools. (Declaration of Seth Gates, pages 4-10; Declaration of Scott Chadwick, pages 10-14; Declaration of Kris Michell, pages 6-9.)

Furthermore, school lead testing is not a property-related service that could properly be funded through water rates. A "property-related service" is defined as a public service having a direct relationship to property ownership. Cal. Const. art. XIII D, § 2(h). Services provided due to the activities of property owners are not property-related services under Proposition 218. *Richmond v. Shasta Community Services District*, 32 Cal. 4th 409, 427 (2004) (A fee for a new

water service connection is not a property-related fee.); *Apartment Ass'n of Los Angeles County, Inc. v. City of Los Angeles*, 24 Cal. 4th 830, 841-42 (2001) (A fee for inspection of rental property is not a property-related fee.). Therefore, the appropriate manner to recover costs for lead testing would not be through property-related fees like water rates, but to charge a separate fee to the property owner requesting the service.

The City has limited authority to impose fees under Proposition 26. Proposition 26 is a constitutional amendment adopted by the voters in 2010. Proposition 26 further tightened the restrictions on local government revenue imposed by Propositions 13 and 218 by defining a tax as "any levy, charge, or exaction of any kind imposed by a local government," with seven exceptions. Cal. Const. art. XIII C, § 1(e). (Declaration of Seth Gates, pages 4-10; Declaration of Scott Chadwick, pages 10-14; Declaration of Kris Michell, pages 6-9.) One of the exceptions is for property-related fees and charges under Proposition 218 discussed above. Cal. Const. art. XIII C, § 1(e)(7). The exception relevant here is:

> A charge imposed for a specific government service or product provided directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of providing the service or product.

Cal. Const. art. XIII C, § 1(e)(2).

Therefore, the City has authority to charge a fee for a service "provided directly to the payor" if the fee does not exceed the reasonable cost of providing the service. If the City were allowed to exercise that authority and charge the schools a fee for lead testing, it would preclude a determination of a State mandate. *See County of Fresno v. State of California*, 53 Cal. 3d 482, 487 (1991).

However, the reason for this Test Claim – and why the Permit Amendment is a State mandate – is that the State Board requires the City to perform lead testing without charge. The Permit Amendment mandates:

> 5. The water system is responsible for the following costs:
>
> a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.
>
> b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

(Exhibit 1 - Permit Amendment No. 2017PA-Schools to COSD, at page 4.) The State Board further clarified this requirement in a Frequently Asked Questions publication:

> 6. Who pays for lead testing of drinking water in California schools?
>
> The community water system that was issued the permit amendment and that serves the school is responsible for all costs associated with collecting, analyzing, and reporting drinking water samples for lead testing at up to five locations at each school, and is required to meet with the authorized school representative to develop a sampling plan and review the sampling results. The permit amendments do not require the community water system to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water, but the water system is required to conduct repeat sampling at the school to confirm elevated lead levels and the effectiveness of any corrective action taken by the school.

(Exhibit 3 - Water Board FAQs re Public Water Systems about Lead Testing of Drinking Water in California Schools, at page 3.)

The Permit Amendment took away the City's *only legal authority* to impose a fee for this specific lead testing provided to schools. Therefore, it is a reimbursable state mandate.

G. IDENTIFICATION OF PRIOR MANDATE DETERMINATIONS RELATED TO THE ALLEGED MANDATE

After a diligent inquiry, the City has concluded that no prior test claims have been submitted to the Board of Control or the Commission on State Mandates that relate to the issue of whether the Permit Amendment's provisions constitute a reimbursable state mandate. (Declaration of Kris Michell, page 8.)

H. IDENTIFICATION OF A LEGISLATIVELY DETERMINED MANDATE THAT IS ON THE SAME STATUTE OR EXECUTIVE ORDER.

After a diligent inquiry, the City has concluded that no prior request has been made to the California Legislature to determine if the Permit Amendment constitutes a reimbursable state mandate. However, Section 5 of the Permit Amendment clearly reveals an intent to create a reimbursable state mandate through the imposition of a K-12 school lead testing program:

> 5. The water system is responsible for the following costs:
>
> a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.
>
> b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

(Exhibit 1 - Permit Amendment No. 2017PA-Schools to COSD, at page 4.)

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SECTION 5. WRITTEN NARRATIVE

Test Claim Title: SWRCB Water Supply Permit Amendment (2017PA-SCHOOLS) for PWS No. 3710020
Claimant: City of San Diego

I. SUMMARY OF COSTS

For Fiscal Year 2017, which ran from July 1, 2016 to June 30, 2017, the City incurred $351,577.26 in actual costs in complying with the Permit Amendment. (Declaration of Rex Ragucos, pages 7-8, Exhibit 36.) For Fiscal Year 2018, which runs from July 1, 2017 to June 30, 2018, the City incurred $47,815.67 in actual costs in complying with the Permit Amendment. (Declaration of Rex Ragucos, pages 7-8, Exhibit 36.) For Fiscal Year 2018, which runs from July 1, 2017 to June 30, 2018, the City will incur $69,761.67 in estimated costs in complying with the Permit Amendment. (See, Declaration of Rex Ragucos, pages 7-8; Exhibit 36.)

The City's total cost of complying with the Permit Amendment is expected to be higher in FY 2018, because the legislature is planning to require all schools to receive this lead testing, whether voluntarily requested or not. It is difficult to specify future costs associated with compliance with the Permit Amendment in FY 2018. Such costs are subject to a number of unknown variables, including, but not limited to: (1) the number of schools that will request testing, and (2) the number of schools that will be required to be tested even if unrequested. *Id.*

J. CONCLUSION

Neither federal nor state law mandates any of these specific activities newly mandated by the SRWCB in the City's Permit Amendment, and such requirements were not contained in any previous version of the City's Permit.

The 2017 Permit Amendment imposes many new mandated activities and programs on the Permittee that are not required to be imposed on local governments under state or federal law. As detailed above, the costs to develop and implement these new programs and activities

are substantial. Yet, the City does not have the ability/authority to develop and impose fees to fund any of these new state mandated programs.

The provisions of the Permit Amendment exceed $1,000 and impose a new program or higher level of service and constitute an unfunded mandate. The costs incurred and to be incurred to comply with these state mandated programs all satisfy the criteria for reimbursable mandates, and the City respectfully requests that the Commission make such findings as to each of the mandated programs.

SECTION 6. DECLARATIONS

Test Claim Title: SWRCB Water Supply Permit Amendment (2017PA-SCHOOLS) for PWS No. 3710020
Claimant: City of San Diego

DECLARATION OF KRIS MICHELL
IN SUPPORT OF TEST CLAIM FILED BY THE CITY OF SAN DIEGO

I, Kris Michell, declare as follows:

1. I am the Chief Operating Officer for the City of San Diego (City). In that capacity, I have oversight of the Public Utilities Department (PUD) and the City's implementation of requirements contained in the City's Domestic Water Supply Permit (the Permit) and in the Permit Amendment No. 2017PA-SCHOOLS (the Permit Amendment), as adopted by the California State Water Resources Control Board (SWRCB).

2. As Chief Operating Officer for the City, I have been delegated City Manager responsibilities by San Diego Resolution R-311528 (Feb. 8, 2018), approved by the Council of the City of San Diego on February 8, 2018, and attached as Exhibit 44 to Documents, Section 7 of this Test Claim. I am authorized to sign and file this test claim of behalf of the City pursuant to this delegated authority.

3. I have reviewed sections of the Test Claim filing as set forth herein and am familiar with those provisions. I am also familiar with the pertinent sections of Permit Amendment No. 2017PA-SCHOOLS, which was issued by the SWQCB on January 17, 2017.

5. I have an understanding of the City's sources of funding for programs and activities required to comply with the Permit and the Permit Amendment.

6. I have personal knowledge of the facts contained in this declaration, and if called upon as a witness, I could and would competently testify to the truthfulness of these facts as set forth in this declaration.

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DECLARATION OF KRIS MICHELL
IN SUPPORT OF TEST CLAIM FILED BY THE CITY OF SAN DIEGO

7. Based on the Permit Amendment and its requirements, I believe that the Permit Amendment requires the City to undertake the following new activities not required by the City's Domestic Water Supply Permit and which are unique to local government entities:

a. The Permit Amendment requires the PUD to perform lead testing on the property of any Kindergarten through 12th Grade (K-12) school at no charge if the testing is requested by an authorized representative of a school prior to November 1, 2019.

b. The PUD funds its operations is through the imposition of ratepayer fees and charges under Proposition 218 (Article XIII D of the California Constitution). Proposition 218 prohibits property-related fees and charges that exceed the proportionate cost of the service attributable to the parcel. By mandating that the PUD provide free lead testing to K-12 schools, the State Board is forcing water ratepayers to absorb and subsidize costs not attributable to the cost of providing service to them in violation of Proposition 218. The Permit Amendment amounts to an unfunded State mandate because it precludes the only legal means to recover the cost of lead testing: charging the schools receiving the service.

c. The volume of requests for school sampling for PUD as of January 2018 was 255 schools, which is greater than any other county in the State, and represented nearly 12% of the total number of requests in the State at that time. No Public Water System was as impacted by this Permit Amendment as the City's PUD.

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DECLARATION OF KRIS MICHELL
IN SUPPORT OF TEST CLAIM FILED BY THE CITY OF SAN DIEGO

d. The City's PUD oversees a municipal water system that provides water 365 days a year and includes 276,000 metered service connections serving 1.3 million customers in the cities of San Diego, Del Mar, Coronado, and Imperial Beach. The City's PUD is therefore a public water system. It serves over 400 K-12 schools.

e. The new Permit Amendment requires community water systems to assist any school in their service area that is listed in the California School Directory. This directory includes schools for grades K-12, including private, charter, magnet and non-public schools. The Permit Amendment increases the service obligations imposed on the City, creating a number of new program requirements. These new obligations impose a mandate on the City, and specifically the PUD, an enterprise fund agency, as the Permittee. These activities are not mandated by federal law, were not required as part of the City's initial permit or any previous permit amendment, and constitute a new program or higher level of service for which the City has and will continue to incur significant costs.

8. The City may not use any of lead samples collected to satisfy federal or state Lead and Copper Rule requirements. Amendment to the Domestic Water Supply Permit issued to (Public Water System No. 3710020) Permit Amendment No. 2017PA-SCHOOLS (Jan. 17, 2017).

9. The City is required to communicate with the school after the lead sampling is complete and assist the school with interpreting the laboratory results as well as provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb.

DECLARATION OF KRIS MICHELL
IN SUPPORT OF TEST CLAIM FILED BY THE CITY OF SAN DIEGO

10. The City is required to keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. The City's annual Consumer Confidence Report must include a statement summarizing the number of schools requesting lead sampling. The City's records of written requests for lead related assistance must include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

(Exhibit 1 - Permit Amendment No. 2017PA-Schools to COSD, ¶ 8.)

11. The Permit Amendment mandates PUD to pay the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

(Exhibit 1 - Permit Amendment No. 2017PA-Schools to COSD, ¶ 5.)

12. According to the Permit Amendment, PUD is responsible for all costs associated with collecting, analyzing, and reporting drinking water samples for lead testing at up to five locations at each school, and is required to meet with the authorized school representative to

develop a sampling plan and review the sampling results. The Permit Amendments require PUD to conduct repeat sampling at the school to confirm elevated lead levels and the effectiveness of any corrective action taken by the school.

13. The City's existing Permit and its prior amendments do not require PUD to perform lead testing at K-12 schools. Nor is the City required to perform such testing under the Federal Lead and Copper Rule (LCR).

14. Under state and federal regulations, lead and copper testing is conducted on a regular basis. Public water systems conduct water sampling once every six months for lead. Testing frequency relaxes if test results consistently show no lead exceedances. According to the California Department of Public Health, the City's PUD is on a schedule to test for lead once every three years under Title 22's Reduced Monitoring program (Cal. Code Regs. Title 22, § 64675.5).

15. The PUD's fiscal year runs from July 1 to June 30 of the following year. Its current fiscal year is known as Fiscal Year 2018 and the immediate preceding fiscal year was known as Fiscal Year 2017.

16. This Test Claim concerns a Permit Amendment issued to the City and not a statewide statute or regulation. Although the Permit Amendment was issued to other public water systems in the state that serve at least one K-12 school, the City does not have information regarding the costs incurred by these other similarly situated entities. To the best of the City's knowledge, no statewide cost estimate is available.

DECLARATION OF KRIS MICHELL
IN SUPPORT OF TEST CLAIM FILED BY THE CITY OF SAN DIEGO

17. The City does not receive any dedicated state funds for implementation of the Permit Amendment. The City is unaware of any dedicated state funds currently available for implementing the Permit Amendment's mandate.

18. The City does not receive any dedicated federal funds for implementation of the Permit Amendment. The City is unaware of any dedicated federal funds currently available for implementing the Permit Amendment's mandate.

19. The City does not receive any other nonlocal agency funds for implementation of the Permit Amendment. The City is unaware of any other nonlocal agency funds currently available for implementing the Permit Amendment's mandates.

20. PUD is a department of the City funded almost entirely by ratepayers or through financing secured by ratepayer revenue. Proposition 218 imposes restrictions on ratepayer funds. The PUD does not have "general purpose funds" available outside of these restrictions.

21. Outside of the PUD, the City has a General Fund which receives revenue from different sources, primarily taxes and fees that do not exceed the cost of the services provided pursuant to Proposition 26.

22. The general funds of local governments are not considered a viable source of funds to pay for State mandates because of the Constitutional limitations on taxing and spending powers of local governments.

23. The City's General Fund pays for critical City services such as public safety (e.g. police, fire protection, and lifeguards), libraries, parks, streets, and many other essential

government functions. The City cannot budget General Fund monies to pay for lead testing on the property of K-12 schools due to Proposition 218.

24. Fees for water service provided by the PUD are governed by Proposition 218. These requirements include a restriction that the revenue from the fee or charge cannot exceed the cost to provide the property-related service. The amount of a fee or charge also cannot exceed the proportional cost of the service attributable to the parcel. Charges for water delivered to property owners and residents are property-related fees subject to these restrictions.

25. Testing for lead on school property, which is outside PUD's water distribution system, has no relationship to providing water service to other City customers. Allowing water ratepayer funds to absorb the cost of lead testing would result in PUD water service fees that exceeded the cost of service would violate Proposition 218 because all ratepayers would be contributing to the cost of a service provided only to parcels with schools. Therefore, the appropriate manner to recover costs for lead testing would not be through property-related fees like water rates, but to charge a separate fee to the property owner requesting the service.

26. The City has limited authority to impose fees under Proposition 26 for the same reasons. Under Proposition 26, the City has authority to charge a fee for a service "provided directly to the payor" if the fee does not exceed the reasonable cost of providing the service. However, the reason for this Test Claim – and why the Permit Amendment is a State mandate – is that the State Board requires the City to perform lead testing without charge.

DECLARATION OF KRIS MICHELL
IN SUPPORT OF TEST CLAIM FILED BY THE CITY OF SAN DIEGO

27. After a diligent inquiry, the City has concluded that no prior test claims have been submitted to the Board of Control or the Commission on State Mandates on the issue of whether the Permit Amendment's provisions constitute a reimbursable state mandate.

28. After a diligent inquiry, the City has concluded that no prior request has been made to the California Legislature to determine if the Permit Amendment constitutes a reimbursable state mandate. However, actions by the state legislature prior to and following the issuance of the Permit Amendment reveal an intent to create a reimbursable state mandate through the imposition of a K-12 school lead testing program.

29. I have personal knowledge that there are no dedicated state, federal, or local funds that are or will be available to pay for any of the new and/or upgraded programs set forth in this declaration. I am not aware of any fee, charge or tax which the City would have the discretion to impose under California law to recover any portion of these new activities. I am further informed and believe that the only available source of funding to pay for these new activities will be the City's General Fund.

SECTION 6. DECLARATIONS

Test Claim Title: SWRCB Water Supply Permit Amendment (2017PA-SCHOOLS) for PWS No. 3710020

Claimant: City of San Diego

DECLARATION OF KRIS MICHELL
IN SUPPORT OF TEST CLAIM FILED BY THE CITY OF SAN DIEGO

I declare under penalty of perjury, under the laws of the State of California, that the foregoing is true and correct. Executed this 29 day of March 2018 in San Diego, California.

Kris Michell
Chief Operating Officer

SECTION 6. DECLARATIONS

Test Claim Title: SWRCB Water Supply Permit Amendment (2017PA-SCHOOLS) for PWS No. 3710020
Claimant: City of San Diego

DECLARATION OF DOUG CAMPBELL
IN SUPPORT OF TEST CLAIM FILED BY THE CITY OF SAN DIEGO

I, Doug Campbell, declare as follows:

1. I am a Senior Chemist of the Public Utilities Department (PUD) that oversees the Department's Environmental Monitoring and Technical Services Division for the City of San Diego (City). In that capacity, I have direct oversight of the City's implementation of monitoring requirements contained in the City's Domestic Water Supply Permit (the Permit) and in the Permit Amendment No. 2017PA-SCHOOLS (Permit Amendment), as adopted by the California State Water Resources Control Board (SWRCB).

2. I instructed and supervised each of the staff members who were required to perform this work as stated in the Test Claim Documents and this Declaration, and have personal knowledge of the work that was required by each of them at my direction.

3. I have reviewed sections of the Test Claim filing as set forth herein and am familiar with those provisions. I am also familiar with the pertinent sections of Permit Amendment No. 2017PA-SCHOOLS, which was issued by the SWRCB on January 17, 2017.

5. I have personal knowledge of the City's sources of funding for programs and activities required to comply with the Permit and the Permit Amendment.

6. I have personal knowledge of the facts contained in this declaration, and if called upon as a witness, I could and would competently testify to the truthfulness of these facts as set forth in this declaration.

7. Based on my knowledge of the Permit Amendment and its requirements, the Permit Amendment requires the City to undertake the following new activities not required by the City's Domestic Water Supply Permit and which are unique to local government entities:

SECTION 6. DECLARATIONS

Test Claim Title: SWRCB Water Supply Permit Amendment (2017PA-SCHOOLS) for PWS No. 3710020
Claimant: City of San Diego

DECLARATION OF DOUG CAMPBELL
IN SUPPORT OF TEST CLAIM FILED BY THE CITY OF SAN DIEGO

a. The Lead and Copper Rule (LCR) is a United States federal regulation that requires San Diego Public Utilities to test for corrosivity of the City's water supply by analyzing samples from residential plumbing systems that contain copper and may contain lead. The LCR studies occur regularly every three years and are funded through rates charged by the Department. Since analyses required by the LCR are a normal part of the Public Utilities Department's scheduled responsibilities, and provide water quality information on a system-wide basis, no specific budget is earmarked for this activity. Instead, costs associated with LCR sampling and analyses have been included as part of the City's Public Utilities annual laboratory budget since the implementation of the regulation in the early 1990's. This service benefits all PUD customers for water, thus it is properly charged to all ratepayers.

b. The LCR differs markedly from the California state-mandated Lead in Schools amendment to the City's Water Supply Permit. Unlike the LCR that is examining corrosivity system-wide, the Lead in Schools amendment determines whether plumbing at a specific school site may be contaminating that facility's drinking water supply. This service directly benefits only the individual school tested and cannot be charged to all ratepayers.

c. The City's PUD was afforded very little time to develop this program. Schools were eligible to send sampling requests on the same day full details of the program became available to PUD. This required a significant investment of time on the part of management and staff to develop a thorough understanding of the program requirements, to seek answers to questions, and to become experts in all facets of the requirement such that proper information can be relayed to school officials.

DECLARATION OF DOUG CAMPBELL
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d. This included review and understanding of DDW DRINC database, used to login schools requesting sampling, and to assign sample IDs to each school sampling location.

e. As a result of media attention and public pressure, the San Diego Unified School District (SDUSD) requested in March 2017 that all 198 of its schools be tested before the end of the 2016-2017 school year. This required a substantial investment of resources to quickly develop templates, training materials, webpages, database routines and naming conventions, sampling kits, and the like.

f. The volume of requests for school sampling for PUD as of January 1, 2018, was 255 schools, which is greater than any other county in the State, and represents nearly 12% of the 2,160 requests in the State to date. An investment was required into additional sample bottles and coolers for sampling kits totaling $3,730.40. (Exhibit 19). No other Public Water System was as impacted by this Permit Amendment as the City's PUD.

g. The Permit Amendment increases the service obligations imposed on the City, creating a number of new program requirements not present in the LCR or other state or federal regulations. These activities are not mandated by federal law, were not required as part of the City's initial permit or any previous permit amendment, and constitute a new program or higher level of service for which the City has and will continue to incur significant costs.

h. The Permit Amendment required the City to submit to the State Board's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all K-12 schools that the City serves water through a utility meter by July 1, 2017.

DECLARATION OF DOUG CAMPBELL
IN SUPPORT OF TEST CLAIM FILED BY THE CITY OF SAN DIEGO

8. All of the work necessary to fulfill the required mandates of the Permit Amendment was either performed by me or at my direction, and I have personal knowledge of the staff time and expense needed to fulfill these mandates. (See, Exhibits 5-15, 17-35.)

9. The City is required to keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. The City's annual Consumer Confidence Report must include a statement summarizing the number of schools requesting lead sampling. (See, Exhibit 1 - Permit Amendment No. 2017PA-Schools to COSD, ¶ 8.)

10. According to the Permit Amendment, PUD is responsible for all costs associated with collecting, analyzing, and reporting drinking water samples for lead testing at up to five locations at each school, and is required to meet with the authorized school representative to develop a sampling plan and review the sampling results. The Permit Amendments do *not* require the community water system to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water, but the water system is required to conduct repeat sampling at the school to confirm elevated lead levels and the effectiveness of any corrective action taken by the school. (See, Exhibits 5-15, 17-35.)

11. The City's existing Permit and its prior amendments do not require PUD to perform lead testing at K-12 schools. Nor is the City required to perform such testing under the Federal Lead and Copper Rule (LCR). In 1991, the EPA adopted the LCR, which established "action levels" for lead. The LCR requires *schools* that have their own non-transient, non-

community water system supply to test water at the tap for a sample of their customers served (students) for lead levels. The LCR requires lead samples to be collected every six months.

12. There are approximately 500 schools in California that are permitted as a public water system because they have their own water supply, such as a well. Those schools are already required to test their taps for lead (and copper), and have been performing this testing for many years. No permit amendments were issued to schools that are already regulated as public water systems. However, most schools in California are served by community water systems which have not been required to test their water for lead under the current Lead and Copper Rule.

13. Under state regulations (virtually identical to the federal LCR), lead and copper testing is conducted on a regular basis. Public water systems conduct water sampling once every six months for lead. Testing frequency relaxes if test results consistently show no lead exceedances. According to the California Department of Public Health, the City's PUD is on a schedule to test for lead once every three years under Title 22's Reduced Monitoring program (Cal. Code Regs. Title 22, § 64675.5).

14. The City may not use any of the lead samples collected from schools as part of the Permit Amendment to satisfy federal or state LCR requirements. The City is required to communicate with the school after the lead sampling is complete and assist the school with interpreting the laboratory results as well as provide information regarding potential corrective actions if a school has lead levels above 15 ppb. (See, Exhibit 1.)

15. The Permit Amendment required extensive modifications to PUD's existing monitoring activities. Program Management elements include the general administration of the

program by management, supervisory, and support staff. This includes written and verbal communication with schools staff, the public, media, management, and concerned citizens and parents. As the scope of labor that this effort would require became apparent, management expended labor to communicate with City leadership, to discuss and seek agreement on the identification and solicitation of additional labor resources, to meet and confer with resources and their leadership, and to communicate program expectations and requirements. Labor was invested to track program documents and information – sampling requests, emails, phone calls, and requests for information.

16. For each sampling request that was received, staff were required to: prepare and send a response to the sampling request; submit a copy of the sampling request to the State; communicate with the school to schedule training meetings, and communicate school request status to PUD management; create and maintain a daily tracking spreadsheet that includes school request status, contact information, and other relevant information, and upgrading, updating, and maintenance of tracking spreadsheets. (See, Exhibits 5-15, 17-35.)

17. In addition, the Permit Amendment's Site Specific Planning Elements include tasks that are specific to sampling at a school site. Sampling plans were created by school staff using the template and guidelines provided by PUD. Staff review of these plans ensures that sites fall within permit amendment guidelines, are clearly identified and marked in the sampling plan, and are signed by appropriate and qualified school personnel. Correspondence was frequently required with school staff to clarify or request revision of sampling plans. Once deemed acceptable, information on the individual sample sites was required to be entered into the DDW

DRINC database to obtain State Sample IDs. These data also had to be entered into the PUD LIMS database, along with all identifying information, including the full description of each site and DRINC sample IDs. When all this information had been finalized and entered, sampling plans were signed by PUD staff and finalized as a pdf document. (See, Exhibits 5-15, 17-35.)

18. The large number of SDUSD requested schools, along with the short time period remaining before the end of the school year, required PUD to approve a minimum of 25 School Sample Plans per week to complete the project on time. For each school site, a sampling kit had to be prepared, including a printed copy of the sampling plan, chain of custody and associated paperwork; sample bottles and coolers had to be located, and sample bottles properly labeled. A trained PUD sampler had to be identified, briefed on the school, and given contact information for the school representative who would meet them at the school.

19. School sampling was conducted by a number of PUD staff, all of which had to be conducted on a Tuesday, Wednesday, Thursday, Friday, or for SDUSD Schools only by agreement with DDW, Saturday. According to the Permit Amendment, sampling was required to be conducted after water had been sitting stagnant in plumbing and fixtures for a minimum of six hours. This meant sampling had to be conducted prior to the start of the school day, as use of fixtures other than those identified and secured for sampling could disturb water in the plumbing system itself. This requirement limited the number of schools that could be sampled by an individual sampler on any given day. The large number of SDUSD requested schools, along with the short time period remaining before the end of the school year, required PUD to sample a minimum of 25 schools per week to complete the project on time.

DECLARATION OF DOUG CAMPBELL
IN SUPPORT OF TEST CLAIM FILED BY THE CITY OF SAN DIEGO

20. Following sampling, school samplers deliver sampling kit and associated paperwork to WQCS QA/DM staff. Paperwork is reviewed, sample status is updated in LIMS database, paperwork is finalized, and samples are routed and stored in the proper location. One thousand, one hundred and fifteen field samples were analyzed in FY17 for the PUD Lead in Schools program. This does not include quality control and other samples required in each analytical batch.

21. A reporting template was developed for use in the Lead in Schools program. This report needed to contain sufficient information to track samples in DDW website, the PUD LIMS database, and for the schools and public to understand the source from which the sample was obtained. All reports were reviewed by supervisory or management staff. This review included the referencing of SDUSD or other school websites to ensure the report contained proper identifying information for the school and reports with schools of similar names were clarified. (See, Exhibits 8-17.)

22. Per Permit Amendment requirements, consultation was provided to schools in interpreting results obtained via this program. For school fixtures with lead results above 15 ppb, the parameters of the program were explained, including the option to resample, remediate, or remove the fixture from service. When remediation was complete, resamples were obtained by PUD and reports of these results were provided to the schools. Results for each school sample were required to be uploaded into the DDW EDT database.

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DECLARATION OF DOUG CAMPBELL
IN SUPPORT OF TEST CLAIM FILED BY THE CITY OF SAN DIEGO

23. Utilizing the State-provided Write On software for this task, as PUD does for routine regulatory reporting, would have required the generation of a separate report for each of the 1,115 samples analyzed. Instead staff developed a method to convert reports into files that are compatible with the EDT system (called .res files) in order to upload results *en masse*. This required a significant amount of time for trial and error, and the upload of a test set of samples prior to the upload of the complete data set. (See, Exhibits 5-15, 17-36.)

24. I have personal knowledge that a search was done to find external funding for this new work and services, and there are no dedicated state, federal, or local funds that are or will be available to pay for any of the new programs set forth in this declaration. I am not aware of any fee, charge or tax which the City would have the discretion to impose under California law to recover any portion of these new activities.

25. I have personal knowledge of all of the staff time required to fulfill the new programs, services and mandates that are necessary to comply with the Permit Amendment. The monies spent by the City and PUD to comply with all of the work and services described in my declaration and the Written Narrative provided as part of this Test Claim are true and accurate, as also stated in the Declaration of Rex Ragucos and Exhibit 36, referenced therein, which I have confirmed.

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SECTION 6. DECLARATIONS

Test Claim Title: SWRCB Water Supply Permit Amendment (2017PA-SCHOOLS) for PWS No. 3710020

Claimant: City of San Diego

DECLARATION OF DOUG CAMPBELL
IN SUPPORT OF TEST CLAIM FILED BY THE CITY OF SAN DIEGO

I declare under penalty of perjury, under the laws of the State of California, that the foregoing is true and correct. Executed this 29th day of March 2018 in San Diego, California.

Doug Campbell, Senior Chemist
Public Utilities Department

SECTION 6. DECLARATIONS

Test Claim Title: SWRCB Water Supply Permit Amendment (2017PA-SCHOOLS) for PWS No. 3710020
Claimant: City of San Diego

DECLARATION OF REX RAGUCOS IN SUPPORT OF TEST CLAIM FILED BY THE CITY OF SAN DIEGO

I, Rex Ragucos, declare as follows:

1. I am Rex Ragucos – Supervising Management Analyst City of San Diego Public Utilities Department (PUD). In that capacity, I have direct oversight responsibilities for review of and budgetary requirements for implementation of mandated activities contained in the City of San Diego's (City) Domestic Water Supply Permit (the Permit) and in the Permit Amendment No. 2017PA-SCHOOLS (Permit Amendment), as adopted by the California State Water Resources Control Board (SWRCB).

2. My duties to implement the Permit Amendment were to review all costs for the new work done under the Permit Amendment and for the City's Public Utilities Department.

3. I have reviewed sections of the Test Claim filing as set forth herein and am familiar with those provisions. I am also familiar with the pertinent sections of Permit Amendment No. 2017PA-SCHOOLS, which was issued by the SWRCB on January 17, 2017.

4. I have an understanding of the City's sources of funding for programs and activities required to comply with the Permit and the Permit Amendment.

5. I have personal knowledge of the facts contained in this declaration, and if called upon as a witness, I could and would competently testify to the truthfulness of these facts as set forth in this declaration.

6. Based on my understanding of the Permit Amendment and its requirements, I believe that the Permit Amendment requires the City to undertake the following new and/or

updated financial activities not required by the City's Domestic Water Supply Permit and which are unique to local government entities.

7. On January 18, 2017, the State Water Resources Control Board Division of Drinking Water (State Board) issued a permit amendment to the Domestic Water Supply Permit (the Permit) issued to the City's PUD, Permit Amendment No. 2017PA-SCHOOLS (the Permit Amendment). The Permit Amendment requires the PUD to perform lead testing on the property of any Kindergarten through 12th Grade (K-12) school *at no charge* if The Environmental Monitoring and Technical Services Division in the Public Utilities Department has been conducting lead testing in schools in the City of San Diego. The testing activities began in FY 2017 and is anticipated to continue into the future.

8. I have been tasked with providing cost analysis on expenses to date as of March 2018 and projected expenses to the end of FY 2018. Below is an explanation of the cost analysis spreadsheet I prepared to track the City's costs for complying with this mandate. Attached as Exhibit 36 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of Lead Test School Site Cost Analysis prepared by me, Rex Ragucos, Supervising Management Analyst, Public Utilities Department.

9. The explanations will name the title of the tab within the spreadsheet starting with the right-most tab. (Shown in Exhibit 36.)

10. Prompts – The Prompts tab displays the search criteria used to extract the personnel expense (salary and fringe) data for FY17 and FY18 from our ERP system.

DECLARATION OF REX RAGUCOS
IN SUPPORT OF TEST CLAIM FILED BY THE CITY OF SAN DIEGO

11. FY17, FY18, All Data – The FY17 and FY18 tabs display the personnel expense data extracted from our systems. The All Data tab is the FY17 and FY18 data combined to be used in a pivot table.

12. Pivot – The pivot table tab was used to organize and view the data for the cost analysis.

13. Cost Analysis – The Cost Analysis tab is where the cost calculations were made. This tab displays personnel expense by employee by hour. It also applies The City of San Diego load and overhead rates. The analysis was done per employee and in total for both FY17 and FY18. In addition, future estimated costs were calculated in this tab. These costs were generally based on actual expenses from FY17 which reflects a full year of expenses.

14. The analysis was done on a pro rata basis comparing the expense of 229 schools tested versus 160 anticipated to be tested between the remainder of FY18 and the full year of FY19. The projections were then allocated by the number of months left in FY18 and FY19 combined, which equates to 16 months at the time of the analysis. That calculation apportioned FY18 estimated costs at 25%. See the note in cell H77.

15. Non-personnel expense (NPE) is also included in the calculations. Invoices are provided that itemize actual expenses for FY17 and FY18 year-to-date (YTD) as of March. Specifically, those main expenses are sample bottles, coolers, lab analysis expense, and mileage expense. The NPE costs were allocated between FY17 and FY18 YTD in proportion to the PE expenses for the same time period. Note cells C71 and C72, FY17 PE expenses were 88% of the

total costs to-date, while FY18 PE expenses were 12%. These percentages were then used to calculate the NPE expenses for FY17 and FY18 YTD. See rows 87 through 93. The same methodology was applied for future NPE expense where the remainder of FY18 is 25% of the 16 months to test for the estimated 160 school sites. See rows 96 through 101.

16. Summary of Activities and Cost / Future Cost –These tabs display the expenses to date (Summary of Activities and Cost tab) and estimated expenses (Future Cost tab). They display the information and costs by internally defined processes (1 through 6) at a summary level. This information was used to itemize NPE costs and to cross check bottom line totals for the final deliverable tab (Permit Amendment – L&O)

17. Section Match – The Section Match tab is the crosswalk provided by Senior Staff which aligns actual costs by employee per hour to the 6 sections in the Summary of Activities tab.

18. Hours Applied – Loaded – This tab allocates the costs amongst the 6 sections per the Section Match tab.

19. Permit Amendment – Distribution – This tab is a crosswalk that takes the Hours Applied – Loaded tab calculations, derived from the Section Match tab, and further distributes costs by 'Permit Amendment Categories'.

20. Prt Amendment-PE Formulas-Loaded – This tab was used to distribute PE costs based on the Permit Amendment – Distribution tab for YTD and estimated expense. This tab does not include NPE costs or calculations. This tab excludes NPE because estimated FY18 PE

costs were based on FY17 actual PE expenses. NPE costs for YTD and future expense are known amounts (per the Summary of Activities and Cost / Future Cost tabs) and do not need to be calculated. Incorporating NPE expense in this tab would reflect skewed estimated PE expenses. The methodology to allocate future costs were based on the percentage of FY17 category costs versus the total cost for FY17. That percentage was then used to calculate estimated costs based on the summary level estimates. See the Cost Analysis tab cell E77 which matches Prt Amendment-PE Formulas-Loaded tab cell H46.

21. Permit Amendment – L&O – This tab is the final deliverable in the cost analysis process. The costs displayed are values only (with a few exceptions mentioned below), copied and pasted from the Prt Amendment-PE Formulas-Loaded tab so as to not alter the final data. This tab also brings in the YTD and estimated NPE expenses as displayed in the Summary of Activities and Cost / Future Cost tabs, as well as, the Cost Analysis tabs. Specifically, in the Permit Amendment – L&O tab, the dollar amounts in items 3b, 3c, and 3f contain formulas that bring in the NPE distribution from the Cost Analysis tab from rows 88 through 100, which again that data is derived from the Summary of Activities and Cost / Future Cost tabs.

22. It should be noted that check figures and links can be found throughout the cost analysis workbook. This was included to ensure the methodology and multiple calculations were correct, intact, and defensible. The cost analysis was based on personnel expense data, known and estimated NPE expenses, which was then distributed based on lead testing activities and categories.

DECLARATION OF REX RAGUCOS
IN SUPPORT OF TEST CLAIM FILED BY THE CITY OF SAN DIEGO

23. The PUD funds its operations through the imposition of ratepayer fees and charges under Proposition 218 (Article XIII D of the California Constitution). Proposition 218 prohibits property-related fees and charges that exceed the proportionate cost of the service attributable to the parcel. By mandating that the PUD provide free lead testing to K-12 schools, the State Board is forcing water ratepayers to absorb and subsidize costs not attributable to the cost of providing service to them in violation of Proposition 218. The Permit Amendment amounts to an unfunded State mandate because it precludes the only legal means to recover the cost of lead testing: charging the schools receiving the service.

24. The volume of requests for school sampling for PUD exceeded 255 as of January 1, 2018. An investment was required in additional sample bottles and coolers for sampling kits totaling $3,730.40. (Shown in Exhibit 19.)

25. The Permit Amendment increases the service obligations imposed on the City, creating a number of new program requirements. These new obligations impose a mandate on the City, and specifically the PUD, an enterprise fund agency, as the Permittee. These activities are not mandated by federal law, were not required as part of the City's initial permit or any previous permit amendment, and constitute a new program or higher level of service for which the City has and will continue to incur significant costs.

26. The City may not use any of the lead samples collected to satisfy federal or state Lead and Copper Rule requirements, or otherwise offset its newly mandated testing costs.

27. Critically, the Permit Amendment mandates that the City must pay costs for:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

(Exhibit 1 - Permit Amendment No. 2017PA-Schools to COSD, ¶ 5.)

28. According to the Permit Amendment, PUD is responsible for all costs associated with collecting, analyzing, and reporting drinking water samples for lead testing at up to five locations at each school, and is required to meet with the authorized school representative to develop a sampling plan and review the sampling results.

29. The Permit Amendment requires the City to conduct repeat sampling at the school to confirm elevated lead levels and the effectiveness of any corrective action taken by the school. The City's existing Permit and its prior amendments do not require PUD to perform lead testing at K-12 schools. Nor is the City required to perform such testing under the Federal Lead and Copper Rule.

30. The PUD's fiscal year runs from July 1 to June 30 of the following year. Its current fiscal year is known as Fiscal Year 2018 and the immediate preceding fiscal year was known as Fiscal Year 2017.

31. For Fiscal Year 2017, which ran from July 1, 2016 to June 30, 2017, the City incurred $351,577.26 in actual costs in complying with the Permit Amendment as shown in

Exhibit 36, which I prepared, and as accurately described in the Declaration of Doug Campbell, which he reviewed.

32. For Fiscal Year 2018, which runs from July 1, 2017 to June 30, 2018, the City incurred $47,815.67 in actual costs in complying with the Permit Amendment until March 30, 2018, as shown in Exhibit 36, which I prepared, and as accurately described in the Declaration of Doug Campbell, which he reviewed.

33. For the last quarter of Fiscal Year 2018, which runs from April 1, 2018 to June 30, 2018, the City will incur approximately $69,761.67 in estimated costs in complying with the Permit Amendment as shown in Exhibit 36, which I prepared, and as accurately described in the Declaration of Doug Campbell, which he reviewed.

34. The City's total cost of complying with the Permit Amendment will potentially be higher in the last quarter of Fiscal Year 2018. It is difficult to specify future costs associated with compliance with the Permit Amendment in Fiscal Year 2018. Such costs are subject to a number of unknown variables, including, but not limited to: (1) the number of schools that will request testing, and (2) the number of schools that will be required to be tested even if unrequested.

35. This Test Claim concerns a Permit Amendment issued to the City. Although the Permit Amendment was issued to other public water systems in the state that serve at least one K-12 school, the City does not have information regarding the costs incurred by these other similarly situated entities, the current lead testing/monitoring services these entities are currently

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required to provide nor the ability of these entities to recover costs associated with compliance with the Permit Amendment from ratepayers. To the best of the City's knowledge, no statewide cost estimate is available.

36. The City does not receive any dedicated state funds for implementation of the Permit Amendment. The City is unaware of any dedicated state funds currently available for implementing the Permit Amendment's mandate.

37. The City does not receive any dedicated federal funds for implementation of the Permit Amendment. The City is unaware of any dedicated federal funds currently available for implementing the Permit Amendment's mandate.

38. The City does not receive any other nonlocal agency funds for implementation of the Permit Amendment. The City is unaware of any other nonlocal agency funds currently available for implementing the Permit Amendment's mandates.

39. The PUD is a department of the City funded almost entirely by ratepayers or through financing secured by ratepayer revenue. Proposition 218 imposes restrictions on ratepayer funds. The PUD does not have "general purpose funds" available outside of these restrictions.

40. Outside of the PUD, the City has a General Fund which receives revenue from different sources, primarily taxes and fees that do not exceed the cost of the services provided pursuant to Proposition 26.

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DECLARATION OF REX RAGUCOS
IN SUPPORT OF TEST CLAIM FILED BY THE CITY OF SAN DIEGO

41. The City's General Fund pays for critical City services such as public safety (e.g. police, fire protection, and lifeguards), libraries, parks, streets, and many other essential government functions. The City did not budget funds to pay for lead testing on the property of K-12 schools.

42. Fees for water service provided by the PUD are governed by Proposition 218. Proposition 218 amended the California Constitution in 1996 by adding articles XIII C and XIII D. Section 6 of article XIII D imposed new requirements for new and existing property-related fees and charges. These requirements include a restriction that the revenue from the fee or charge cannot exceed the cost to provide the property-related service.

43. The amount of a fee or charge also cannot exceed the proportional cost of the service attributable to the parcel under Article XIII D, § 6(b)(3). Charges for water delivered to property owners and residents are property-related fees subject to these restrictions.

44. Because of these restrictions, the PUD cannot absorb the cost of lead testing for schools without violating Proposition 218. Testing for lead on school property, which is outside PUD's water distribution system, has no relationship to providing water service to other City customers. Allowing water ratepayer funds to absorb the cost of lead testing would result in PUD water service fees "exceed[ing] the proportional cost of the service attributable to the parcel" because all ratepayers would be contributing to the cost of a service provided only to parcels with schools.

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DECLARATION OF REX RAGUCOS
IN SUPPORT OF TEST CLAIM FILED BY THE CITY OF SAN DIEGO

45. School lead testing is not a property-related service that could properly be funded through water rates. A "property-related service" is defined as a public service having a direct relationship to property ownership. Services provided due to the activities of property owners are not property-related services under Proposition 218.

46. The appropriate manner to recover costs for lead testing would not be through property-related fees like water rates, but to charge a separate fee to the property owner requesting the service. The Permit Amendment bars such charges.

47. The City has authority to charge a fee for a service "provided directly to the payor" if the fee does not exceed the reasonable cost of providing the service. If the City were allowed to exercise that authority and charge the schools a fee for lead testing, it would preclude a determination of a State mandate. The reason why the Permit Amendment is a State mandate is that the State Board requires the City to perform lead testing without charge.

48. The Permit Amendment took away the City's authority to impose a fee for lead testing to schools, making the Permit Amendment a reimbursable State mandated local program.

49. I have personal knowledge that there are no dedicated state, federal, or local funds that are or will be available to pay for any of the new and/or upgraded programs set forth in this declaration. I am not aware of any fee, charge or tax which the City would have the discretion to impose under California law to recover any portion of these new activities. I have personal knowledge that the only available source of funding to pay for these new activities will be the City's General Fund.

SECTION 6. DECLARATIONS

Test Claim Title: SWRCB Water Supply Permit Amendment (2017PA-SCHOOLS) for PWS No. 3710020

Claimant: City of San Diego

DECLARATION OF REX RAGUCOS
IN SUPPORT OF TEST CLAIM FILED BY THE CITY OF SAN DIEGO

I declare under penalty of perjury, under the laws of the State of California, that the foregoing is true and correct. Executed this 29th day of March 2018, in San Diego, California.

By _____
Rex Ragucos, Supervising Management Analyst
Public Utilities Department

SECTION 6. DECLARATIONS

Test Claim Title: SWRCB Water Supply Permit Amendment (2017PA-SCHOOLS) for PWS No. 3710020

Claimant: City of San Diego

DECLARATION OF RAYMOND C. PALMUCCI IN SUPPORT OF TEST CLAIM FILED BY THE CITY OF SAN DIEGO

I, RAYMOND C. PALMUCCI, hereby declare as follows:

1. I am a Deputy City Attorney for the City of San Diego and I am the claimant representative for both the City and the Public Utilities Department for purposes of the Test Claim filed with the Commission on State Mandates.

2. I have personal knowledge of the facts contained in this declaration, and if called upon as a witness, I could and would competently testify to the truthfulness of these facts as set forth in this declaration.

3. Attached as Exhibit 1 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of State Water Resources Control Board Permit Amendment No. 2017PA-Schools to COSD (Jan. 18, 2017).

4. Attached as Exhibit 2 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of State Water Board Media Release (Jan. 17, 2017).

5. Attached as Exhibit 3 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of Water Board Frequently Asked Questions by Public Water Systems about Lead Testing of Drinking Water in California Schools (May 1, 2017).

SECTION 6. DECLARATIONS

Test Claim Title: SWRCB Water Supply Permit Amendment (2017PA-SCHOOLS) for PWS No. 3710020

Claimant: City of San Diego

DECLARATION OF RAYMOND C. PALMUCCI IN SUPPORT OF TEST CLAIM FILED BY THE CITY OF SAN DIEGO

6. Attached as Exhibit 4 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of Appendix A: Sampling Guidance (Mar. 10, 2017).

7. Attached as Exhibit 5 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of Initial Sampling Instructions.

8. Attached as Exhibit 6 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of Repeat and Confirmation Sampling Instructions.

9. Attached as Exhibit 7 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of Corrective Action Check Sampling Instructions.

10. Attached as Exhibit 8 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of a Summary of Sampling and Procedures for Lead Testing in Schools (Mar. 10, 2017).

11. Attached as Exhibit 9 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of Guidance for Electronic Submittal of School Lead Sample Results.

12. Attached as Exhibit 10 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of a Template for Sampling Request.

DECLARATION OF RAYMOND C. PALMUCCI IN SUPPORT OF TEST CLAIM FILED BY THE CITY OF SAN DIEGO

13. Attached as Exhibit 11 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of a Template for Response Letter.

14. Attached as Exhibit 12 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of a Template for Lead Sampling Plan.

15. Attached as Exhibit 13 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of a Power Point for Sampler Training.

16. Attached as Exhibit 14 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of a Power Point for Sample Plan Training.

17. Attached as Exhibit 15 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of Lead Testing in Schools Information from COSD (Aug. 7, 2017).

18. Attached as Exhibit 16 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of Request Letters from San Diego County Schools.

19. Attached as Exhibit 17 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of Water Board Maps of Lead Sampling in California Schools as of Jan. 1, 2018.

DECLARATION OF RAYMOND C. PALMUCCI IN SUPPORT OF TEST CLAIM FILED BY THE CITY OF SAN DIEGO

20. Attached as Exhibit 18 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of California Public Records Act requests (Jan.-Mar. 2017).

21. Attached as Exhibit 19 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of Invoices for Sampling Kits.

22. Attached as Exhibit 20 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of COSD Response Letters to San Diego County Schools (Mar. 2-Jul. 7, 2017).

23. Attached as Exhibit 21 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of DDW Submittal Letters (Apr. 5-Jul. 6, 2017).

24. Attached as Exhibit 22 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of Daily Updates (Mar.-Jun. 2017).

25. Attached as Exhibit 23 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of a Tracking Spreadsheet.

26. Attached as Exhibit 24 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of a Non-SDUSD Tracking Spreadsheet.

DECLARATION OF RAYMOND C. PALMUCCI IN SUPPORT OF TEST CLAIM FILED BY THE CITY OF SAN DIEGO

27. Attached as Exhibit 25 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of a Public Utilities Department Sampler Training Rosters (Mar. 29-30, 2017).

28. Attached as Exhibit 26 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of School Staff Sample Plan Training Rosters.

29. Attached as Exhibit 27 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of California Public Records Act requests Apr. 5-18, 2017).

30. Attached as Exhibit 28 to Section 7. Documentation. in Support of the City of San Diego's Test Claim is a true and correct copy of a PowerPoint Presentation by the Public Utilities Department to the City of San Diego Environmental Committee: Update on Lead Sampling of Drinking Water in San Diego Schools (May 25, 2017).

31. Attached as Exhibit 29 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of a PowerPoint Presentation by the Public Utilities Department to the City of San Diego Environmental Committee: Status of School Lead Testing in the City of San Diego (Jul. 20, 2017).

32. Attached as Exhibit 30 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of COSD K-12 Schools & Water Sampling Locations and Test Status.

DECLARATION OF RAYMOND C. PALMUCCI IN SUPPORT OF TEST CLAIM FILED BY THE CITY OF SAN DIEGO

33. Attached as Exhibit 31 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of Sampling Plans Chain of Custody.

34. Attached as Exhibit 32 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of School Sampling Schedules (Apr. 4, 2017 through Jun. 16, 2017).

35. Attached as Exhibit 33 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of the Total Number of Field Samples Tested (Jul. 13, 2017).

36. Attached as Exhibit 34 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of Reports to Schools on Lead Testing.

37. Attached as Exhibit 35 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of Lead Testing in Schools Located in City of San Diego Water Service Area Costs as of Jul. 28, 2017.

38. Attached as Exhibit 36 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of Lead Test School Site Cost Analysis prepared by Rex Ragucos, Supervising Management Analyst, Public Utilities Department.

39. Attached as Exhibit 37 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of Commission on State Mandates Letter dated February 21, 2018.

DECLARATION OF RAYMOND C. PALMUCCI IN SUPPORT OF TEST CLAIM FILED BY THE CITY OF SAN DIEGO

40. Attached as Exhibit 38 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of Water Board frequently Asked Questions about Lead Testing of Drinking Water in California Schools (Oct. 12, 2017).

43. Attached as Exhibit 39 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of *Apartment Ass'n of Los Angeles County, Inc. v. City of Los Angeles*, 24 Cal. 4th 830 (2001).

44. Attached as Exhibit 40 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of *Bighorn-Desert View Water Agency v. Verjil*, 39 Cal. 4th 205 (2006).

45. Attached as Exhibit 41 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of *County of Fresno v. State of California*, 53 Cal. 3d 482 (1991).

46. Attached as Exhibit 42 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of *Department of Finance v. Commission on State Mandates*, 1 Cal. 5th 749 (2016).

47. Attached as Exhibit 43 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of *Richmond v. Shasta Community Services District*, 32 Cal. 4th 409 (2004).

SECTION 6. DECLARATIONS

Test Claim Title: SWRCB Water Supply Permit Amendment (2017PA-SCHOOLS) for PWS No. 3710020

Claimant: City of San Diego

DECLARATION OF RAYMOND C. PALMUCCI
IN SUPPORT OF TEST CLAIM FILED BY THE CITY OF SAN DIEGO

48. Attached as Exhibit 44 to Section 7. Documentation in Support of the City of San Diego's Test Claim is a true and correct copy of San Diego Resolution R-311528 (Feb. 8, 2018), authorizing Kris Michell as the City's Chief Operating Officer and City Manager, to sign the Test Claim.

I declare under penalty of perjury, under the laws of the State of California, that the foregoing is true and correct. Executed this 30 day of March 2018 in San Diego, California.

Raymond C. Palmucci
Deputy City Attorney

SECTION 7. DOCUMENTATION

Test Claim Title: SWRCB Water Supply Permit Amendment (2017PA-SCHOOLS) for PWS No. 3710020
Claimant: City of San Diego

EXHIBITS

Exhibit 1 - State Water Resources Control Board Permit Amendment No. 2017PA-Schools to COSD (Jan. 18, 2017)

Exhibit 2 - State Water Board Media Release (Jan. 17, 2017)

Exhibit 3 - Water Board Frequently Asked Questions by Public Water Systems about Lead Testing of Drinking Water in California Schools (May 1, 2017)

Exhibit 4 - Appendix A: Sampling Guidance (Mar. 10, 2017)

Exhibit 5 - Initial Sampling Instructions

Exhibit 6 - Repeat and Confirmation Sampling Instructions

Exhibit 7 - Corrective Action Check Sampling Instructions

Exhibit 8 - Summary of Sampling and Procedures for Lead Testing in Schools (Mar. 10, 2017)

Exhibit 9 - Guidance for Electronic Submittal of School Lead Sample Results

Exhibit 10 - Template for Sampling Request

Exhibit 11 - Template for Response Letter

Exhibit 12 - Template for Lead Sampling Plan

Exhibit 13 - Power Point for Sampler Training

Exhibit 14 - Power Point for Sample Plan Training

Exhibit 15 - Lead Testing in Schools Information from COSD (Aug. 7, 2017)

Exhibit 16 - Request Letters from San Diego County Schools

Exhibit 17 - Water Board Maps of Lead Sampling in California Schools as of Jan. 1, 2018

Exhibit 18 - California Public Records Act requests (Jan.-Mar. 2017)

Exhibit 19 - Invoices for Sampling Kits

SECTION 7. DOCUMENTATION

Test Claim Title: SWRCB Water Supply Permit Amendment (2017PA-SCHOOLS) for PWS No. 3710020
Claimant: City of San Diego

EXHIBITS

Exhibit 20 - COSD Response Letters to San Diego County Schools (Mar. 2-Jul. 7, 2017)

Exhibit 21 - DDW Submittal Letters (Apr. 5-Jul. 6, 2017)

Exhibit 22 - Daily Updates (Mar.-Jun. 2017)

Exhibit 23 - Tracking Spreadsheet

Exhibit 24 - Non-SDUSD Tracking Spreadsheet

Exhibit 25 - Public Utilities Department Sampler Training Rosters (Mar. 29-30, 2017)

Exhibit 26 - School Staff Sample Plan Training Rosters

Exhibit 27 - California Public Records Act requests (Apr. 5-18, 2017)

Exhibit 28 - PowerPoint Presentation by the Public Utilities Department to the City of San Diego Environmental Committee: Update on Lead Sampling of Drinking Water in San Diego Schools (May 25, 2017)

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Exhibit 30 - COSD K-12 Schools & Water Sampling Locations and Test Status

Exhibit 31 - Sampling Plans Chain of Custody

Exhibit 32 - School Sampling Schedules (Apr. 4, 2017 through Jun. 16, 2017)

Exhibit 33 - Total Number of Field Samples Tested (Jul. 13, 2017)

Exhibit 34 - Reports to Schools on Lead Testing

Exhibit 35 - Lead Testing in Schools Located in City of San Diego Water Service Area Costs as of Jul. 28, 2017

Exhibit 36 - Lead Test School Site Cost Analysis

Exhibit 37 - February 21, 2018 Letter from Commission on State Mandates

Exhibit 38 - Water Board Frequently Asked Questions about Lead Testing of

SECTION 7. DOCUMENTATION

Test Claim Title: SWRCB Water Supply Permit Amendment (2017PA-SCHOOLS) for PWS No. 3710020
Claimant: City of San Diego

EXHIBITS

Drinking Water in California Schools (Oct. 12, 2017)

Exhibit 39 - *Apartment Ass'n of Los Angeles County, Inc. v. City of Los Angeles*
24 Cal. 4th 830 (2001)

Exhibit 40 - *Bighorn-Desert View Water Agency v. Verjil*
39 Cal. 4th 205 (2006)

Exhibit 41 - *County of Fresno v. State of California*
53 Cal. 3d 482 (1991)

Exhibit 42 - *Department of Finance v. Commission on State Mandates*
1 Cal. 5th 749 (2016)

Exhibit 43 - *Richmond v. Shasta Community Services District*
32 Cal. 4th 409 (2004)

Exhibit 44 – San Diego Resolution R-311528 (Feb. 8, 2018)

January 18, 2017

Halla Razak
Public Utilities Director
City of San Diego, System No. 3710020
9192 Topaz Way
San Diego, CA 92123

Dear Halla Razak:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of San Diego water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of San Diego
(Public Water System No. *3710020*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

Media Release

California Water Systems to Provide Lead Testing For Schools

FOR IMMEDIATE RELEASE
Jan. 17, 2017

Contact: Andrew DiLuccia
Phone: (916) 324-4775
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SACRAMENTO – In an effort to further safeguard California's water quality, K-12 schools in the state can receive free testing for lead under a new initiative announced today by the State Water Resources Control Board.

The Board is requiring all community water systems to test school drinking water upon request by the school's officials.

There are approximately 9,000 K-12 schools in California, most of which are served by more than 3,000 community water systems in the state. While these community water systems extensively and regularly test their drinking water for lead, lead could get into clean water at a school campus if there were corroded pipes or old fixtures at the school.

Because California has newer infrastructure and less corrosive water than other parts of the country, lead problems at the tap are uncommon. However, national events have highlighted the importance of ongoing water quality monitoring and in 2015 Governor Edmund G. Brown Jr. directed the State Water Board to incorporate schools into the regular water quality testing that community water systems conduct at customer's taps.

"While the presence of lead in California's water infrastructure is minimal compared to other parts of the country, additional testing can help ensure we are continuing to protect our most vulnerable populations," said Darrin Polhemus, deputy director of the State Water Board's Division of Drinking Water.

Under the new requirement, testing is voluntary for schools, but if the schools make a written request, the community water systems must collect the samples within three months and report the results back to the school within 10 business days after receiving the results from the laboratory, or two business days if a result exceeds 15 parts per billion. Sampling locations can include drinking fountains, cafeteria and food preparation areas, and reusable water bottle filling stations. The one-time program extends until Nov. 1, 2019.

The community water systems are responsible for the costs associated with collecting drinking water samples, analyzing them and reporting results through this new program. In addition, the State Water Board's Division of Financial Assistance will have some funding available to assist with addressing lead found in tests, with a particular focus on schools in disadvantaged communities.

Under the federal Lead and Copper Rule, the U.S. Environmental Protection Agency already requires public water systems to test for lead at customers' taps, targeting the highest risk homes based on the age of their plumbing. California's compliance rate with the Lead and Copper Rule is among the highest in the country, but the rule does not require testing for schools and businesses. The Board's new requirement ensures schools that want lead testing can receive it for free. The Board consulted with water systems and schools in developing the requirement.

Existing federal and state programs provide guidance to help schools determine if a lead problem exists and how to remedy the contamination. And many school districts have already implemented testing programs.

Protecting children from lead exposure is important for their development and lifelong good health.

For more information on the lead sampling for schools program, see our frequently asked questions section of the lead sampling website.

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Frequently Asked Questions by Public Water Systems about Lead Testing of Drinking Water in California Schools

DISCLAIMER: This document is intended to provide answers to questions that may arise regarding lead testing of drinking water in California schools. Nothing in this document supersedes any statutory or regulatory requirements or permit provisions for public water systems.

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Purpose and Requirements of Permit Amendment Requiring Public Water Systems to Assist Schools in Lead Testing of Drinking Water

1. What are the new requirements for lead testing of drinking water in California schools? Why was this action taken?

As a result of a permit action by the State Water Resources Control Board Division of Drinking Water (DDW) on January 17, 2017, all community water systems are required to collect and analyze up to five water samples from drinking water fountains and regularly used drinking water faucets at a school, if the testing is requested by a superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school.

Recent events in cities across the United States have shown that lead in drinking water remains an ongoing public health challenge and an important concern for children's health. DDW is taking action to allow schools (Kindergarten through 12th grade) to perform lead testing on water from regularly used drinking water faucets used for drinking or cooking, and requiring community water systems to assist schools in this effort.

2. Are schools currently required to test their drinking water for lead?

There are approximately 500 schools in California that are permitted as a public water system because they have their own water supply, such as a well. Those schools are already required to test their taps for lead (and copper), and have been performing this testing for many years. The DDW permit action does *not* apply to schools that are already regulated as public water systems.

However, most schools in California are served by community water systems which have not been required to test their water for lead under the current Lead and Copper Rule.

3. Why did our water system receive a permit amendment requiring lead testing of drinking water in schools when there are no schools in our distribution system?

DDW issued the permit action requiring lead testing of drinking water in California schools to all community water systems in California. If your water system does not serve potable water to at least one K-12 school listed in the California School Directory, the permit amendment does not apply to your water system and no further action is necessary.

4. Our water system is regulated by a Local Primacy Agency (LPA), not DDW. How do the lead testing requirements apply to our system?

The permit provisions and testing requirements apply to all community water systems that serve water to a school, regardless of water system size. The LPA should be consulted as needed and required by the permit amendment. Sampling results should be reported to the DDW database.

5. Can we count any of these lead samples toward our Lead and Copper Rule sampling?

No.

6. Who pays for lead testing of drinking water in California schools?

The community water system that serves the school is responsible for all costs associated with collecting, analyzing, and reporting drinking water samples for lead testing at up to five locations at each school, and is required to meet with the authorized school representative to develop a sampling plan and review the sampling results. The community water system will *not* pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water, but is required to conduct repeat sampling at the school to confirm elevated lead levels and the effectiveness of any corrective action taken by the school.

Requests for Lead Sampling in Schools

7. When can lead testing be requested?

The superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school can submit a written request for lead testing to their community water system any time before November 1, 2019.

8. Which schools can request lead testing of their drinking water?

The DDW permit action requires community water systems to assist any school in their service area that is listed in the California School Directory. This directory includes schools for grades K-12, including private, charter, magnet and non-public schools. The directory does *not* include preschools, daycare centers, or postsecondary schools.

9. I haven't heard from any schools, do I need to do anything?

The public water system is not required to do any outreach to the schools. You may choose to do this; however, it is not required.

Collecting Samples in Schools

10. How will the lead testing be performed?

A water system representative will make an appointment to come to the school, develop a sampling plan, and collect up to five water samples. Samples may be collected from regularly used drinking fountains, cafeteria/food preparation areas, or reusable water bottle filling stations. Samples may be taken at sites where drinking water receives additional treatment, such as water softening. Sampling sites should be selected according to the sampling guidance prepared by DDW.

The samples will be sent to a laboratory for analysis. Laboratories used for sample analysis must be certified for lead testing of drinking water by the state Environmental Laboratory Accreditation Program (ELAP).

11. Does DDW have to review the lead sample plan that the school representative and I put together?

No. You do not need to have the lead sample plan reviewed nor do you have to submit it to DDW.

12. When will the sampling be conducted?

Within 90 days of receiving the sampling request, the water system must meet with school officials, finalize a sampling plan, and collect water samples, or develop an alternate schedule that is approved by DDW.

The samples will be collected while school is in session in order to get the most representative results. Samples will be collected by a water system representative who is adequately trained to collect lead samples. The water system will receive the results of the sample analyses from the laboratory and meet with school officials to discuss the sampling results.

13. Can I collect any samples during the summer when school is not in session?

If repeat samples are needed, the samples will be collected while school is in session. It is acceptable to collect the samples after school starts up again after summer break.

14. What size sample bottle should be used? How should the sample be preserved? Should aerators be removed? Can samples be invalidated?

DDW has prepared a sampling protocol for lead testing of drinking water in California schools, which includes information on sample bottle size, preservation and chain of custody requirements, reporting requirements, and sample invalidation procedures. It should be noted that the DDW sampling protocol has different

requirements than the USEPA's *3Ts (Training, Testing and Telling) Program for Schools*, including sample size and lead action level. Water systems should adhere to the DDW sampling protocol when conducting lead sampling in California schools.

15. Can a school take drinking water samples at more than five locations?

The DDW permit action requires that water systems assist schools in sampling up to five locations at each school. If the school district wishes to sample additional locations, the water system is not required to assist in the collection or analysis of those samples. Only five samples per school will be reported to the DDW database.

16. My lab gave me 250 mL sample containers, is this ok?

No, 1-liter sample containers are required. The lab doesn't know all of the requirements of this monitoring program; it is the public water system's responsibility to collect the samples according to the procedures described in the sample guidance document provided as attachment A to your permit amendment. (An updated sample guidance document is on our Lead Sampling of Drinking Water in California Schools website.

17. How does the lab know which analytical method to use?

As with any other drinking water sample, you need to provide instruction to the lab. You may use one of the following analytical methods for this monitoring program: test methods EPA 200.8, EPA 200.9, EPA 200.5 and/or SM3113B.

Any laboratory analyzing for lead must be ELAP-accredited and be able to achieve a Practical Quantitation Level of 5 ug/l (ppb).

18. Who figures out the sample site ID's so the results get submitted to the State electronically?

The lab will submit the school lead sample results using our existing laboratory data submittal methods. Water systems collecting lead samples for schools must first log into the Division's School Lead Sampling and Reporting Tool (https://drinc.ca.gov/lsics/) to add school sample sites to a sample site inventory. Using this tool, the water system will then be assigned the sample site ID's needed to properly label samples for each school sample site. Additional instructions are provided on the School Lead Sampling and Reporting tool. The sample site ID's should have this format: 3710010-AAB-A (for public water system #CA3710010).

19. What do I do if I turned in samples with sample ID's that don't look like "3710010-AAB-A"?

See above. Log on to the Division's School Lead Sampling and Reporting Tool (https://drinc.ca.gov/lsics/) to add school sample sites. Then give the sample site ID's to the lab (along w/the corresponding names that you had initially used) and ask

them to submit the results via EDT using the sample ID's generated by the School Lead Sampling and Reporting Tool. Additional instructions for the labs are on our Lead Sampling of Drinking Water in California Schools website.

20. When taking the school samples, my water system would like to take a distribution system sample at the same time. How do I report this sample result?

A distribution system sample, such as from a routine Total Coliform Rule (TCR) monitoring location near the school, may be taken at the same time as the school sampling is performed to determine water quality before it enters the school's plumbing. This is a routine practice at some water systems; however, these distribution samples are not required by the DDW permit action and should not be reported to the DDW database, because the database is only designed to accept sample results from school tap locations.

21. The repeat sampling seems so complicated, is there a helpful diagram?

We have updated the sample guidance documents, and we continue to do so as we receive questions/comments. We added a new summary table to the Sampling Guidance for Schools document that helps describe the initial, repeat, and confirmation sampling requirements.

Reporting Results

22. Who will get the results of lead testing of drinking water performed at California schools?

The lab results from the sampling are reported directly to the community water system. The water system will then provide the results to the school and meet with the school staff to assist with interpretation of the sample results.

The Division will not be posting results on a webpage. Water systems are required to include a summary of the number of schools requesting lead sampling in their annual Consumer Confidence Report (CCR). An example of a summary statement is: "A total of 27 schools submitted requests to be sampled for lead. Up to 5 samples were collected at each school."

23. What do I do with the laboratory results after the lab gives them to me?

Per your permit amendment, you are required to provide the school(s) with their corresponding lab results. You do not need to provide the results to DDW since the laboratory results will be submitted electronically. If you have a result that is greater than the action level (15 ppb), we would appreciate an email or phone call, however this is not required. (See contact information below).

24. What is the action level for lead in drinking water at schools?

The DDW sampling protocol and permit action have established 15 parts per billion (ppb) as the action level for lead sampling in schools. This is the same concentration as the action level for residential tap sampling conducted by water systems for the Lead and Copper Rule. One part per billion is equivalent to about one drop in an Olympic-sized swimming pool.

The USEPA's *3Ts (Training, Testing and Telling) Program for Schools* currently uses 20 ppb in a 250 milliliter (mL) sample as the trigger level for follow-up testing; however, the California lead sampling of drinking water in schools sampling protocol was developed to align more closely with the tap sampling already performed by community water systems under the Lead and Copper Rule.

25. The Lead and Copper Rule uses a 90th percentile value to determine compliance with the action level. Does that apply to the lead sampling in schools program?

Each sample location at a school is compared individually to the 15 ppb action level. There is no 90th percentile calculation.

26. What happens if lead is detected in the drinking water at a school?

The USEPA's *3Ts (Training, Testing and Telling) Program for Schools* and the American Water Works Association's *Assisting Schools and Child Care Facilities in Addressing Lead in Drinking Water* contain detailed information on routine, interim, and long-term remedies if lead is detected in drinking water at a school.

In addition, the community water system will notify school officials within two school business days of receiving any sample results that exceed the lead action level of 15 parts per billion (ppb), and will then meet with the school staff to assist with interpretation of the sample results and provide information regarding potential corrective actions. The water system will conduct repeat sampling at any locations that exceed 15 ppb and obtain the results from the laboratory within 10 business days, as well as after any corrective action is taken. Repeat sampling will not be conducted at a sample site if the school chooses to remove the tap from service.

The community water system that serves the school is responsible for all costs associated with collecting, analyzing, and reporting drinking water samples for lead testing at California schools required by the January 17, 2017 permit action and the water system is also required to meet with the authorized school representative to develop a sampling plan and review the sampling results. The community water system will *not* pay for any maintenance or corrections needed at the school.

It should be noted that DDW has no regulatory authority over schools served by public water systems and cannot require any specific action be taken by the school or school district in the event of a lead action level exceedance at a school.

27. If elevated lead levels are found in a school's drinking water, will other drinking water tap locations be sampled for lead?

If elevated lead levels are found in a school, the school district may choose to sample additional drinking water tap locations; however, the community water system that serves the school is not required to conduct sampling at any locations other than the five locations chosen for initial sampling.

28. If elevated lead levels are found in a school's drinking water, will the community water system that serves the school receive a citation or fines?

Community water system compliance with the Lead and Copper Rule will continue to be determined by the results of residential sampling done according to the water system's Lead and Copper Rule tap sampling plan. Elevated lead levels found during a special sampling event at a school will not cause a water system to be out of compliance with the Lead and Copper Rule.

Sources of Additional Information about Lead Testing of Drinking Water in California Schools

29. Whom can I contact for more information about lead testing of drinking water in California schools?

If you have additional questions about any aspect of lead testing of drinking water in California schools, send an email to DDW-PLU@waterboards.ca.gov, or call (916) 449-5646.

Links to Resources Cited in this Document

Title	Author	Link
DDW Lead Sampling in Schools Website	DDW	http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
3Ts for Reducing Lead in Drinking Water in Child Care Facilities	USEPA	http://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=20017JVA.txt
3Ts for Reducing Lead in Drinking Water in Schools	USEPA	https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf
Assisting Schools and Child Care Facilities in Addressing Lead in Drinking Water	AWWA	http://www.awwa.org/portals/0/files/legreg/documents/assistingschoolslead2005.pdf
California School Directory	CDE	http://www.cde.ca.gov/re/sd/index.asp
Centers for Disease Control Healthy Schools	CDC	http://www.cdc.gov/healthyschools/nutrition/schoolnutrition.htm
Certified Environmental Laboratories	ELAP	http://www.waterboards.ca.gov/drinking_water/ce

in California		rtlic/labs/index.shtml
Consumer Confidence Report Search Tool	USEPA	https://ofmpub.epa.gov/apex/safewater/f?p=136:102
DDW District Office Contact Information	DDW	http://www.waterboards.ca.gov/drinking_water/programs/documents/ddwem/DDWdistrictofficesmap.pdf
DDW Lead Sampling in Schools Sampling Protocol	DDW	http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
DDW Supply Service Area Lookup Tool	DDW	http://www.waterboards.ca.gov/waterrights/water_issues/programs/drought/water_supplier.shtml
Home Water Testing	USEPA	https://www.epa.gov/sites/production/files/2015-11/documents/2005_09_14_faq_fs_homewatertesting.pdf
National Drinking Water Alliance	UC	http://www.drinkingwateralliance.org
School Water Quality Improvement Funding Program	DFA	http://www.waterboards.ca.gov/water_issues/programs/grants_loans/
Water Quality Funding Sources for Schools	USEPA	https://www.epa.gov/dwreginfo/water-quality-funding-sources-schools-resource-k-12-schools-and-child-care-facilities

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples
for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-AAC-A. All repeat, confirmation, and corrective actions samples collected at a location are to be assigned the same Sample ID.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 8 hrs but no more than 18 hrs prior to sampling

Summary of Repeat Monitoring At Each Sample Site

DDW AND CDE PRESS RELEASE CORRECTION: 2 DAY REPORTING OF RESULTS IS FOR ACTION LEVEL EXCEEDANCES ONLY (SEE BELOW)

Route	**Initial Sample** Collected within 90 days of request or per alternative sampling plan.	**First Repeat** Collected within 10 business days of receipt of Initial sample results	**Second (Confirmation) Repeat** Collected within 10 business days of receipt of First Repeat sample results	**Corrective Action Sample** Collect Corrective sample after any corrective action
1	Lead is less than or equal to 15 ppb. Monitoring is complete.	No action	No action	No action
2A	Lead is greater than 15 ppb AND the sample site remains in service. Proceed to first repeat.	First Repeat lead sample is greater than 15 ppb. Repeat monitoring is complete. Remove sample site from service.	No action	Corrective action lead sample is greater than 15 ppb. Continue with corrective actions. (School is responsible for additional samples.) OR Corrective action lead sample is less than or equal to 15 ppb. Monitoring is complete.
2B1	Lead is greater than 15 ppb AND the sample site remains in service. Proceed to first repeat.	First Repeat lead sample is less than or equal to 15 ppb. Collect second repeat sample	Second Repeat lead sample is greater than 15 ppb. Repeat monitoring is complete. Remove sample site from service.	
2B2	Lead is greater than 15 ppb AND the sample site remains in service. Proceed to first repeat.	First Repeat lead sample is less than or equal to 15 ppb. Collect second repeat sample	Second Repeat lead sample is less than or equal to 15 ppb. Repeat monitoring is complete.	No action
3	Lead is greater than 15 ppb AND the school removes the sample site from service within 10 business days of the receipt of the sample analysis.	No action	No action	No action

Time Requirements for Reporting Results

- Within 90 days following receipt of a written request for sampling from a school, the water system must either 1) finalize a sampling plan with the school and complete initial sampling, or 2) develop an alternative schedule with the school for preparation of the sampling plan and completing sample collection. An alternative plan must be submitted to DDW for approval within 90 days of receipt of the written request.
- The water system must provide and discuss the sample results (initial, first repeat, second repeat, and corrective action) with the school within 10 days of receipt of the sample results from the testing laboratory, and within 2 business days of receipt when the sample results include an Action Level exceedance.
- First repeat samples must be collected within 10 business days of receipt of the initial sample results; second repeat samples must be collected within 10 business days of receipt of the first repeat results. At least one Corrective Action sample should be collected immediately following installation of the corrective action.
- The water system should request to the laboratory that testing and reporting for all repeat samples be completed in 10 days.
- The water system must not release the sampling results to the public for 60 days following the receipt of the initial sample results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.
- There are no special requirements regarding submitting results to DDW via EDT for this program. The laboratory should follow their standard electronic data reporting protocol. It is recommended but not required that a public water system notify DDW of an action level exceedance at the same time they notify the school (via email to DDW-PLU@waterboards.ca.gov).

INITIAL SAMPLING INSTRUCTIONS
Collecting Drinking Water Samples
for Lead Testing At K-12 Schools

General Information and Preparation

Initial samples are being collected for laboratory testing to determine lead levels at the busiest drinking water locations at the school. To ensure accurate test results the samples should be collected by following the instructions in the Sampling Guidance document and the instructions below for preparation and initial sample collection.

Before initial sample collection, read the Sampling Guidance document for important information on how to prepare for sampling, how to select the initial sampling locations, preparing the Sample Site Map, when to sample, how to prepare the sample bottles and sampling records, interpreting and using test results, removing drinking outlets from service, corrective actions, and for additional information on lead testing at K – 12 schools.

Initial Sample Collection

1. Use the Lead Sampling Plan prepared during the selection process to refer to during initial sample collection. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan. Only water system staff trained in sampling should collect the samples.
2. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.
3. Ensure that the 6 hour period of inactivity at the drinking water outlet was completed. If a sample location appears to have been used during the previous 6 hours do not collect the sample. Repeat the 6 hour period of inactivity and collect the sample the next day.
4. Place the mouth of the sample bottle in a position at the sample location so that all water enters the sample bottle. Fill the sample bottle completely. Take notes on the Chain-of-Custody (COC) that came with the bottles to record any errors or unexpected circumstances that occur during sample collection that could affect the test results.
5. Screw the cap on tight and place the bottle in a storage container or shipping kit provided by the laboratory. After all samples are collected prepare the bottles for delivery or shipping to the testing laboratory.
6. Complete the COC to be submitted with the samples to the laboratory. Make sure the COC includes the water system contact name, address, phone number, sample collection dates and times, and all Sample IDs.
7. Request on the COC that the test results are reported to the water system and electronically to the state. The standard laboratory turn-around-time is acceptable. Following delivery of the samples make sure a copy of the laboratory COC is received.
8. When the test results are received the school and water system should coordinate to discuss the results and any repeat sample collection that may be performed, or removing drinking water outlets from service. The laboratory should be contacted to confirm that the test results have been reported electronically to the state.
9. The water system cannot release the initial lead sampling data for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.
10. The water system is not required to collect a repeat sample at a location when the initial result is less than or equal to 15 ppb.
11. Maintain the Lead Sampling Plan, COC, laboratory test results, and all other lead testing correspondence and documentation in a safe and secure location for future reference.

REPEAT AND CONFIRMATION SAMPLING INSTRUCTIONS
Collecting Drinking Water Samples
for Lead Testing At K-12 Schools

General Information and Preparation

Repeat samples are being collected for laboratory testing to determine lead levels at the initial drinking water locations with lead concentrations exceeding 15 ppb. To ensure accurate test results the samples should be collected by following the instructions below for preparation and repeat sample collection.

Before repeat sample collection, read the Sampling Guidance document for important information on how to prepare for sampling, how to select the repeat sampling locations, preparing the Sample Site Map, when to sample, how to prepare the sample bottles and sampling records, interpreting and using test results, removing drinking outlets from service, corrective actions, and for additional information on lead testing at K – 12 schools.

Repeat Sample Collection

1. Use the Lead Sampling Plan prepared during the selection process to refer to during repeat sample collection. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan. Only water system staff trained in sampling should collect the samples.
2. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.
3. Ensure that the 6 hour period of inactivity at the drinking water outlet was completed. If a sample location appears to have been used during the previous 6 hours do not collect the sample. Repeat the 6 hour period of inactivity and collect the sample the next day.
4. Place the mouth of the sample bottle in a position at the sample location so that all water enters the sample bottle. Fill the sample bottle completely. Take notes on the Chain-of-Custody (COC) that came with the bottles to record any errors or unexpected circumstances that occur during sample collection that could affect the test results.
5. Screw the cap on tight and place the bottle in a storage container or shipping kit provided by the laboratory. After all samples are collected prepare the bottles for delivery or shipping to the testing laboratory.
6. Complete the COC to be submitted with the samples to the laboratory. Make sure the COC includes the water system contact name, address, phone number, sample collection dates and times, and all Sample IDs.
7. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days. Request on the COC that the test results are reported to the water system and electronically to the state. Following delivery of the samples make sure a copy of the laboratory COC is received.
8. When the test results are received the school and water system should coordinate to discuss the results, any confirmation repeat sampling (see below) or corrective actions that may be taken, or removing drinking water outlets from service. The laboratory should be contacted to confirm that the test results have been reported electronically to the state.
9. All repeat sample locations that had an initial test result of greater than 15 ppb and a repeat test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet. Refer to the Repeat Sampling section in the sampling guidance document for complete information on confirmation sampling.
10. The water system is not required to collect a repeat sample at a location when the initial result is less than or equal to 15 ppb and not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
11. Maintain the sample site map, COC, laboratory test results, and all other lead testing correspondence and documentation in a safe and secure location for future reference.

CORRECTIVE ACTION CHECK SAMPLING INSTRUCTIONS
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

General Information and Preparation

Check samples are being collected for laboratory testing to determine if corrective actions implemented at drinking water locations with lead Action Level exceedances were successful in reducing lead levels to less than 15 ppb. To ensure accurate test results the samples should be collected by following the instructions in the Sampling Guidance document and the instructions below for preparation and check sample collection.

Before check sample collection, read the Sampling Guidance document for important information on how to prepare for sampling, when to sample, how to prepare the sample bottles and sampling records, interpreting and using test results, removing drinking outlets from service, corrective actions, and for additional information on lead testing at K – 12 schools.

Check Sample Collection

1. Use the Lead Sampling Plan prepared during the selection process to refer to during check sample collection. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan. Only water system staff trained in sampling should collect the samples.
2. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.
3. Ensure that the 6 hour period of inactivity at the drinking water outlet was completed. If a sample location appears to have been used during the previous 6 hours do not collect the sample. Repeat the 6 hour period of inactivity and collect the sample the next day.
4. Place the mouth of the sample bottle in a position at the sample location so that all water enters the sample bottle. Fill the sample bottle completely. Take notes on the Chain-of-Custody (COC) that came with the bottles to record any errors or unexpected circumstances that occur during sample collection that could affect the test results.
5. Screw the cap on tight and place the bottle in a storage container or shipping kit provided by the laboratory. After all samples are collected prepare the bottles for delivery or shipping to the testing laboratory.
6. Complete the COC to be submitted with the samples to the laboratory. Make sure the COC includes the water system contact name, address, phone number, sample collection dates and times, and all Sample IDs.
7. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days. Request on the COC that the test results are reported to water system and electronically to the state. Following delivery of the samples make sure a copy of the laboratory COC is received.
8. When the test results are received the water system should coordinate with the school to discuss the results, any additional correction actions or check sampling that needs to be performed, or removing drinking water outlets from service. The laboratory should be contacted to confirm that the test results have been reported electronically to the state.
9. The water system is not required to collect any additional samples when a corrective action result is less than or equal to 15 ppb.
10. Maintain the sample site map, COC, laboratory test results, and all other lead testing correspondence and documentation in a safe and secure location for future reference.

Summary of Sampling and Procedures for Lead Testing in Schools

To ensure that exposure to lead by students and staff is below the Action Level of 15 ppb at the drinking water locations sampled at the school, and that the water system and school complete all required steps before students and staff are notified of the lead testing results, corrective actions, and educational materials, the Sampling Instructions and Sampling Guidance should be followed completely. The steps necessary to be completed by the water system and/or school and to properly and fully complete the lead testing process are summarized below.

1. Water system and school should read the Initial, Repeat and Confirmation, and Corrective Action Check Sampling Instructions, and the Sampling Guidance Documents.
2. School selects up to five of the busiest drinking water outlets for sampling and testing.
3. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-AAC-A. All repeat, confirmation, and corrective actions samples collected at a location are to be assigned the same Sample ID.
4. Water system and school complete the Lead Sampling Plan, Chain of Custody, and sample bottle labels to include the Sample IDs.
5. Water system trained sampler performs initial sampling.
6. Water system and school coordinate in reviewing initial sample test results within 10 days of receipt of results from laboratory, determine any Action Level exceedances or plan any repeat sampling.
7. If no corrective actions will be implemented the school may choose to remove from service the drinking water outlets with initial lead sampling results greater than 15 ppb following repeat sampling.
8. Water system trained sampler performs repeat sampling.
9. Water system and school coordinate in reviewing repeat sample test results within 10 days of receipt of results from laboratory, determine any Action Level exceedances, plan confirmation sampling (if needed), and select corrective actions.
10. If no corrective actions will be implemented the school may choose to remove from service the drinking water outlets with repeat lead sampling results confirming greater than 15 ppb.
11. In preparation for corrective actions school removes from service all drinking water outlets with a confirmed (from repeat sampling) Action Level exceedance .
12. Water system trained sampler performs confirmation sampling (if needed).
13. Water system and school coordinate in reviewing confirmation sample test results within 10 days of receipt of results from laboratory, determine any Action Level exceedance, and select corrective actions.
14. If no corrective actions will be implemented the school may choose to remove from service the drinking water outlets with confirmation lead sampling results greater than 15 ppb.
15. In preparation for corrective actions school removes from service all drinking water outlets with a confirmed (from confirmation sampling) Action Level exceedance.
16. It is recommended that the school complete a Corrective Action Plan describing the selected corrective actions to be implemented at each drinking water locations with lead levels above 15 ppb.

17. Water system and school may coordinate in the release of lead testing results, educational information, and planned corrective actions to students, staff, and water system customers. The water system shall not release school lead sampling results to the public until at least 60 days after receipt of the results of the initial round of lead sampling and only after the water system has first discussed the results with the school.
18. School implements corrective actions.
19. Water system trained sampler performs corrective action check sampling.
20. Drinking water locations with check sample results less than or equal to 15 ppb have lead levels less than the Action Level, are suitable for consumption, and need no further testing.
21. The water system may discontinue lead sampling at the sample site if the lead sample collected after completing some corrective action is at or below 15 ppb.
22. Drinking water locations with check sample results greater than 15 ppb have lead levels that exceed the Action Level and require additional corrective actions and check sampling or may be removed from service.
23. If necessary the school may select problem drinking water outlets to be permanently removed from service.
24. Water system and school maintain all test results, guidance documents, corrective action information, and lead testing correspondence in permanent file for future reference.

Summary of Repeat Monitoring At Each Sample Site

DDW AND CDE PRESS RELEASE CORRECTION: 2 DAY REPORTING OF RESULTS IS FOR ACTION LEVEL EXCEEDANCES ONLY (SEE BELOW)

Route	**Initial Sample** Collected within 90 days of request or per alternative sampling plan.	**First Repeat** Collected within 10 business days of receipt of Initial sample results	**Second (Confirmation) Repeat** Collected within 10 business days of receipt of First Repeat sample results	**Corrective Action Sample** Collect Corrective Action sample after any corrective action
1	Lead is less than or equal to 15 ppb. Monitoring is complete.	No action	No action	No action
2A	Lead is greater than 15 ppb AND the sample site remains in service. Proceed to first repeat.	First Repeat lead sample is greater than 15 ppb. Repeat monitoring is complete. Remove sample site from service.	No action	Corrective action lead sample is greater than 15 ppb. Continue with corrective actions. (School is responsible for additional samples.) OR Corrective action lead sample is less than or equal to 15 ppb. Monitoring is complete.
2B1	Lead is greater than 15 ppb AND the sample site remains in service. Proceed to first repeat.	First Repeat lead sample is less than or equal to 15 ppb. Collect second repeat sample	Second Repeat lead sample is greater than 15 ppb. Repeat monitoring is complete. Remove sample site from service.	
2B2	Lead is greater than 15 ppb AND the sample site remains in service. Proceed to first repeat.	First Repeat lead sample is less than or equal to 15 ppb. Collect second repeat sample	Second Repeat lead sample is less than or equal to 15 ppb. Repeat monitoring is complete.	No action
3	Lead is greater than 15 ppb AND the school removes the sample site from service within 10 business days of the receipt of the sample analysis.	No action	No action	No action

Time Requirements for Reporting Results

- Within 90 days following receipt of a written request for sampling from a school, the water system must either 1) finalize a sampling plan with the school and complete initial sampling, or 2) develop an alternative schedule with the school for preparation of the sampling plan and completing sample collection. An alternative plan must be submitted to DDW for approval within 90 days of receipt of the written request.
- The water system must provide and discuss the sample results (initial, first repeat, second repeat, and corrective action) with the school within 10 days of receipt of the sample results from the testing laboratory, and within 2 business days of receipt when the sample results include an Action Level exceedance.
- First repeat samples must be collected within 10 business days of receipt of the initial sample results; second repeat samples must be collected within 10 business days of receipt of the first repeat results. At least one Corrective Action sample should be collected immediately following installation of the corrective action.
- The water system should request to the laboratory that testing and reporting for all repeat samples be completed in 10 days.
- The water system must not release the sampling results to the public for 60 days following the receipt of the initial sample results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.
- There are no special requirements regarding submitting results to DDW via EDT for this program. The laboratory should follow their standard electronic data reporting protocol. It is recommended but not required that a public water system notify DDW of an action level exceedance at the same time they notify the school. (via email to DDW-PLU@waterboards.ca.gov)

Guidance for Electronic Submittal of School Lead Sample Results

Overview

School lead sample results are to be submitted to the Division of Drinking Water (Division) using our existing laboratory data submittal methods. Water systems collecting lead samples for schools must first log into the Division's **School Lead Sampling and Reporting Tool** (https://drinc.ca.gov/lsics/) to add school sample sites to a sample site inventory. Using this tool, the water system will then be assigned the sample site ID's needed to properly label samples for each school sample site. Additional instructions are provided on the School Lead Sampling and Reporting tool.

NOTE: Registration is required for water systems that have not already registered for use of the Electronic Annual Reporting Tool within the Drinc Portal.

Generating Sample Site IDs.

Once you receive a request from a school to collect lead samples, you will need to generate sample site ID's so the results will get submitted via EDT properly. If your water system did not use the School Lead Sampling and Reporting Tool to compile the inventory of schools served, you will need to first get the schools requesting to be sampled into your inventory. Use the 'My School Inventory' tab and search for schools in your county and school district using the drop down menus. Once the schools that have requested sampling are in your inventory, use the 'Register Schools for Sampling' tab to generate the sample site ID's. Additional instructions are provided on the School Lead Sampling and Reporting tool.

You will be able to edit and/or delete sample site ID's at any time using the 'edit' and 'delete' buttons next to each sample site. This allows you to input placeholders if that is helpful to your program.

How to Label School Lead Samples

Water systems collecting lead samples should then label the samples using the Sample IDs that were generated by the School Lead Sampling and Reporting Tool. The sample ID format is as follows: <water system No.>-<alphabetic code for each school>-<alphabetic code for sample location>
i.e. 1710001-AAC-A

In the example above the public water system number is CA1710001, (the CA is not used in the sample ID), and the '-AAC' is generated for a specific school that is registered by the public water system. (This example represents the third school that was registered for the

public water system, '-AAB' would have been assigned to the second school registered.) The code used for each sample location will be -A, -B, -C, -D, and -E to represent up to 5 sample locations at each school.

What Happens After Delivery to the Laboratory

The laboratories analyzing the lead results will upload the results to the Division of Drinking Water WQIR database using existing data submittal methods (i.e. "write-on or "LIMS"). The lab should first download the most current source library to be able to access the sample site ID's used for the lead in drinking water samples.

Contact us: (916) 449-5646 Email: DDW-PLU@waterboards.ca.gov

[Letter Head]

The City of San Diego
Tom Burger
Associate Chemist
5530 Kiowa Drive
La Mesa, CA 91942-1331

[Date]

SUBJECT: REQUEST OF LEAD SAMPLING AT [School Name] or [School District]

Dear Mr. Burger,

I am writing on behalf of [School Name] or [School District] to request lead sampling for our school or school district, which is served by the City of San Diego Public Utilities Department. I would like to request the City of San Diego's assistance to develop a lead sampling plan and collect lead sample(s) at [School Name(s) (please list all individual schools)].

I acknowledge and understand the followings:

1. [School Name] or [School District] must submit a written request to the City of San Diego and the City of San Diego has to meet and collect lead samples for [School Name] or [School District] within 90 days or provide a lead sampling schedule to the local Division of Drinking Water District Office or Local Primacy Agency (LPA) Office if the lead sampling will take more than 90 days.

2. The City of San Diego will assist and provide a one-time lead sampling (up to five locations) without charge to [School Name] or [School District].

3. The City of San Diego will analyze the sample(s) in the City's Water Quality Chemistry Services laboratory, which is certified by the Environmental Laboratory Accreditation Program (ELAP) for lead analysis, and will then submit the results to the State Water Resources Control Board (SWRCB) electronically. Also, the City of San Diego will provide the results to [School Name] or [School District].

4. The City of San Diego will discuss and provide assistance to the [School Name] or [School District] with interpretation of the samples and repeat sampling of any samples that exceed the lead action level of 15 parts per billion (ppb).

5. The City of San Diego is not responsible for any corrective action(s) in the event of lead sampling results above 15 ppb.

6. It is the responsibly of the [School Name] or [School District] to share the sampling results including but not limited to its School Board, School District, parents and students and/or other stakeholders. The City of San Diego cannot release the lead sampling data for 60 days following

the receipt of the initial sampling results unless the City of San Diego receives a Public Records Act (PRA) for the specific results.

I would like to request a meeting with the City of San Diego's staff or designated representative to discuss lead sampling for our school at your earliest convenience and I will provide adequate staff to assist your efforts. If you have any questions, please contact me at [phone number] or my designee at [phone number].

Sincerely,

[Name]
[Superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school]
[School name]

Cc: Electronically to
DDW-PLU@waterboards.ca.gov

Or 1001 I Street, 17th Floor
Attn: Primacy Liaison Unit
Sacramento, CA 95618

Date

John Doe
123 Main St.
San Diego, CA 92111

Reference: Request for Sampling at *school name*

Dear *Mr./Ms/Mrs Doe*,

Thank you for your written request for sampling drinking water at your school under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from your school that is familiar with the usage of the water fixtures at *Insert school name* to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires the school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

When the analysis is completed, which takes approximately 4-6 weeks, we will report the results to the school, and the State of California. The State of California and the City of San Diego will not release data to the public before 60 days of the completed analysis, unless we are required to under a Public Records Act (PRA) request.

Please contact Tom Burger at 619-668-3234, or Tburger@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Sincerely,

Tom Burger
Associate Chemist

TB:nt

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: _____

Physical Address of School: _____

First Bell: _____

Meeting Date: 7-13-17

Sampling Plan Completion Date: _____

Completed by Print Name: _____

Signature: _____ Date: _____

School's Point of Contact for Sampling Assistance

Name: _____

Phone: _____

Email: _____

City of San Diego 3710020

Approved By: _____ _____

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address:_____

Sample No. 1

School:_____

Name of Building:_____

Location Description:_____

Type of Outlet:_____

Description:____._____

Comments/Miscellaneous:_____

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID:_____

State Sample ID:_____

Date & Time Last Used: _____

Date & Time Sample Collected:_____

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector:_____

Sample No. 2

School:_____

Name of Building:_____

Location Description:_____

Type of Outlet:_____

Description:____._____

Comments/Miscellaneous:_____

City use only below this line

Sample type Initial ☐ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID:_____

State Sample ID:_____

Date & Time Last Used: _____

Date & Time Sample Collected:_____

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector:_____

Sample No. 3

School:_____

Name of Building:_____

Location Description:_____

Type of Outlet:_____

Description:____._____

Comments/Miscellaneous:_____

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID:_____

State Sample ID:_____

Date & Time Last Used: _____

Date & Time Sample Collected:_____

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector:_____

Sample No. 4

School:_____

Name of Building:_____

Location Description:_____

Type of Outlet:_____

Description:____._____

Comments/Miscellaneous:_____

City use only below this line

Sample type Initial ☐ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID:_____

State Sample ID:_____

Date & Time Last Used: _____

Date & Time Sample Collected:_____

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector:_____

Sample No. 5

School:_____

Name of Building:_____

Location Description:_____

Type of Outlet:_____

Description:____._____

Comments/Miscellaneous:_____

City use only below this line

Sample type Initial ☐ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID:_____

State Sample ID:_____

Date & Time Last Used: _____

Date & Time Sample Collected:_____

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector:_____

Welcome to the Water Quality Laboratory Sampler Training

Lead in Schools Program

The City of SAN DIEGO

Background

In March of 2016, a bill was introduced to enforce testing of drinking water for lead in all schools, day care centers, and medical facilities. This portion of the bill was removed from before it went to vote.

Sometime after the water portion of the bill was removed, the State Water Resources Control Board's Division of Drinking Water, in collaboration with the California Department of Education, took the initiative to begin testing drinking water in schools (K-12) for lead. In January of 2017 the State Water Board issued amended Domestic Water Supply Permits to all California Public Water Systems (PWS). This amendment requires the PWS to sample and analyze for lead in schools if requested in writing.

Process Required by the State

- Schools representative request in Writing that they want assistance sampling and testing.
- The PWS (City of San Diego) must respond in writing.
- The PWS must train the schools on sample planning.
- The schools must create a sample plan according to the specifications in the permit.
- Schools receive approval for each Sampling Plan from City of San Diego.
- Schedule sampling.
- Conduct sampling.
- City of San Diego will analyze samples for lead.
- Discuss results with school representative. Who?

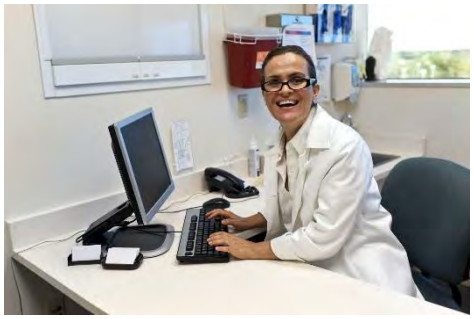

Responsibilities

School Representative

- Attend training on preparation of Sampling Plan.
- Evaluate and select five sample locations used for drinking and cooking.
- Complete a Sampling Plan, and Submit to the City of San Diego for approval.
- Assure that sources have not been used in the previous 6 hours prior to sampling.
- Meet with the City of San Diego sampler the morning of sampling and assist if needed.
- Decisions on how the school wants to proceed if any values exceed 15 parts per billion (PPB). Who?

Responsibilities

City of San Diego

- Schedule and conduct training sessions.
- Approve Sample Plans.
- Schedule sampling.
- Conduct sampling.
- Analyze samples.
- Report results of analysis to school representative and State of California.
- Conduct any re-sampling requested by the schools.

Sample Planning

- Select five of the busiest locations used for drinking and cooking.
- All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings that are used for human consumption are suitable sample points.
- Do not select any sinks that are primarily used for washing or cleaning.
- Photograph the five sampling sites.
- Identify the five sampling sites on a map of the school.
- Send plan to City of San Diego for approval, and we will assign a sampler to school.
- **City of San Diego sampler will contact School contact and arrange sampling day.**

Sample Planning

Sample Plan

Completed Sampling Plan

Sample Locations acknowledgement

Emerson/Bandini (K-6) - 3510 Newton Ave. (92113)

SDCOOP # 2

Emerson Elementary School

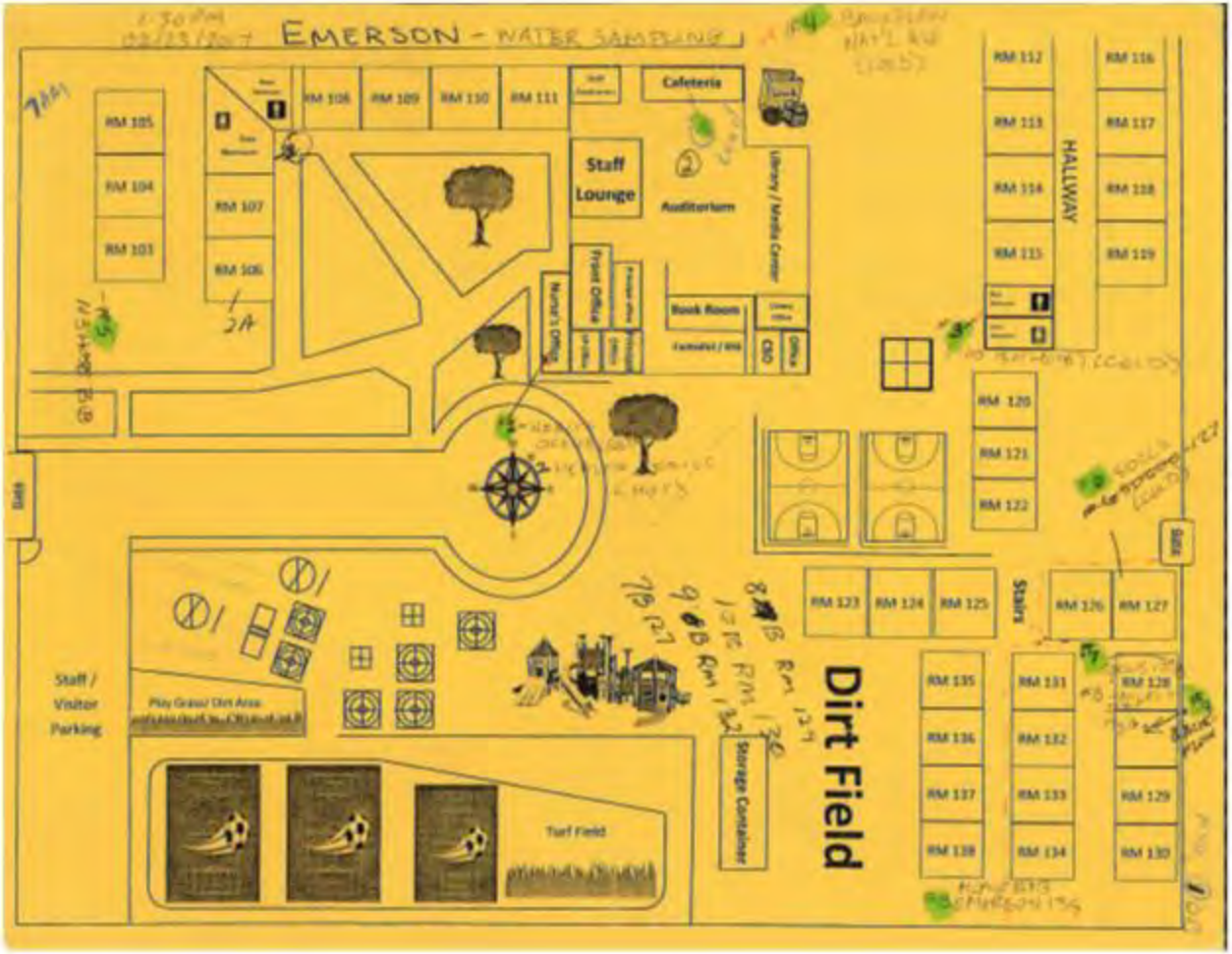

Phoebe Hearst Elementary School - 6230 Del Cerro Blvd, San Diego, CA 92120

Sample Locations acknowledgement

Emerson (K-6) - 3510 Newton Ave. (92113)

Sample No. 2

School: San Diego Coop 2

Name of Building: _____

Location Description: Room 128

Type of Outlet _____

Description bubbler at sink

City use only below this line

Sample type Initial ☐ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample I.D.: _____

LIMS Sample ID: _____

Date & Time Last Used: _____

Date Sample Collected: _____

Time Sample Collected: _____

Name of Water System Sample Collector _____

Sample No. 4

School: San Diego Coop 2

Name of Building:

Location Description: Room 132

Type of Outlet bubbler

Description bubbler at sink

City use only below this line

Sample type Initial ☐ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample I.D.:

LIMS Sample ID:

Date & Time Last Used:

Date Sample Collected:

Time Sample Collected:

Name of Water System Sample Collector

Sample No. 4

School: San Diego Coop 2

Name of Building:

Location Description: Room 132

Type of Outlet bubbler

Description bubbler at sink

City use only below this line

Sample type Initial ☐ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample I.D.:

LIMS Sample ID:

Date & Time Last Used:

Date Sample Collected:

Time Sample Collected:

Name of Water System Sample Collector

Sample No. 1

School: Emerson Elementary

Name of Building: _____

Location Description: Near room 115, between rest rooms

Type of Outlet bubbler

Description right bubbler on double fountain

City use only below this line

Sample type Initial ☐ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample I.D.: _____

LIMS Sample ID: _____

Date & Time Last Used: _____

Date Sample Collected: _____

Time Sample Collected: _____

Name of Water System Sample Collector _____

School Representative
Do's and Don'ts

- **Don't** – Flush a sample site for any length of time prior to the inactivity period.

Do's and Don'ts

- **Don't** – Flush a sample site for any length of time prior to the inactivity period.

- **Do** - Tag out or cordon off the site that will be sampled. If there are multiple fixtures at one location, please isolate all from use.

Do's and Don'ts

- **Don't** – Flush a sample site for any length of time prior to the inactivity period.

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- **Don't** - Turn off any feed valves under the fixture.

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- **Don't** - Turn off any feed valves under the fixture.
- **Do** - If a fixture is served by hot and cold water, shut off the hot water before isolation.

Sample No. 2

School: Emerson

Name of Building:

Location Description: Cafeteria

Type of Outlet Fill faucet

Description near back left corner

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample I.D.: 3710020-002-1

LIMS Sample ID: W1158861

Date & Time Last Used:

Date Sample Collected: N.S.

Time Sample Collected:

Name of Water System Sample Collector

Hot water was feeding poll down

Do's and Don'ts

- **Don't** – Flush a sample site for any length of time prior to the inactivity period.
- **Do** - Tag out or cordon off the site that will be sampled. If there are multiple fixtures at one location, please isolate all from use.
- **Don't** - Turn off any feed valves under the fixture.
- **Do** - If a fixture is served by hot and cold water, shut off the hot water before isolation.
- **Do** - Record the time fixture was last used (isolated).

Do's and Don'ts

- **Don't** – Flush a sample site for any length of time prior to the inactivity period.
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- **Do** - If a fixture is served by hot and cold water, shut off the hot water before isolation.
- **Do** - Record the time fixture was last used (isolated).
- **Do** - Leave the fixture in use the day before sampling.

Do's and Don'ts

- **Don't** – Flush a sample site for any length of time prior to the inactivity period.
- **Do** - Tag out or cordon off the site that will be sampled. If there are multiple fixtures at one location, please isolate all from use.
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- **Do** - Leave the fixture in use the day before sampling.
- **Don't** – Remove any filters, aerators or screens from fixture.

Do's and Don'ts

- **Don't** – Flush a sample site for any length of time prior to the inactivity period.
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- **Do** - Record the time fixture was last used (isolated).
- **Do** - Leave the fixture in use the day before sampling.
- **Don't** – Remove any filters, aerators or screens from fixture.
- **Don't** - Flush a sample before sampling.
- **DO** - OK to return fixture to normal service after sampling.

Important

The day before sampling is to take place, the fixtures to be sampled must be isolated, or cordoned off, so they will not be used.

Whomever isolates the fixtures must note the time of Isolation.

The Sampling Kit

6 - Labeled 1 liter white plastic bottles.

5- Unlabeled 500 mL brown plastic bottles.

1 – WQL sampling route sheet.

1- Approved Sampling Plan.

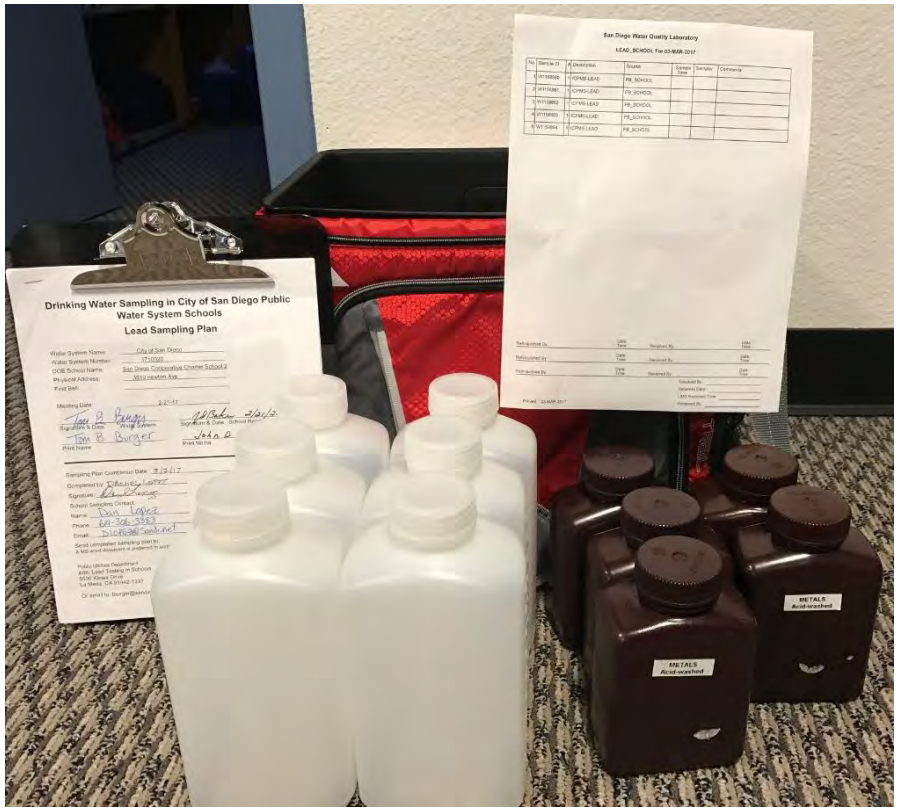

Approved Sampling Plan.

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego
Water System Number: 3710020
DOE School Name: Boone Elementary
Physical Address of School: 7330 Brookhaven Rd., San Diego, CA 92114-7115
First Bell: 8:20 am

Meeting Date: 03/22/2017
Sampling Plan Completion Date: 03/22/2017
Completed by Print Name: Ginette Commins
Signature: [illegible] Date: 03/22/2017

School's Point of Contact for Sampling Assistance

Name: Ginette Commins
Phone: (858) 627-7201
Email: gcommins@sandi.net

City of San Diego 3710020

Approved By [illegible] 3/23/2017 Tom Burger
Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

What to Expect on Sample Day

- Early morning sampling.
- The sampler will have pre-labeled sampling bottles.
- The sampling process should not be long.
- Samplers may ask school personnel to help fill out bottom of sample plan.
- Samplers will not provide any information on lead, or any other water quality issues.
- Samplers will not have any information when results will be available.
- Fixtures may be returned to service

Sampling Instructions

- The samples do not have to be taken in order of 1-5.
- Check the appropriate sample type box on the sampling plan if not already checked.

City use only below this line

Sample type Initial ☐ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: _____

LIMS Sample ID: _____

Date & Time Last Used: _____

Date & Time Sample Collected: _____

Name of Water System Sample Collector: _____

Sampling Instructions

- The samples do not have to be taken in order of 1-5.
- Check the appropriate sample type box on the sampling plan if not already checked.
- Observe site and comment if anything appears out of the ordinary, and take a picture if possible.
- At each sample site you will need to record the date and time last used, and the date and time you collected the sample on the Sampling Plan.

Sampling Instructions Continued

- Check the label on the bottle and confirm that you have the correct bottle for the source.

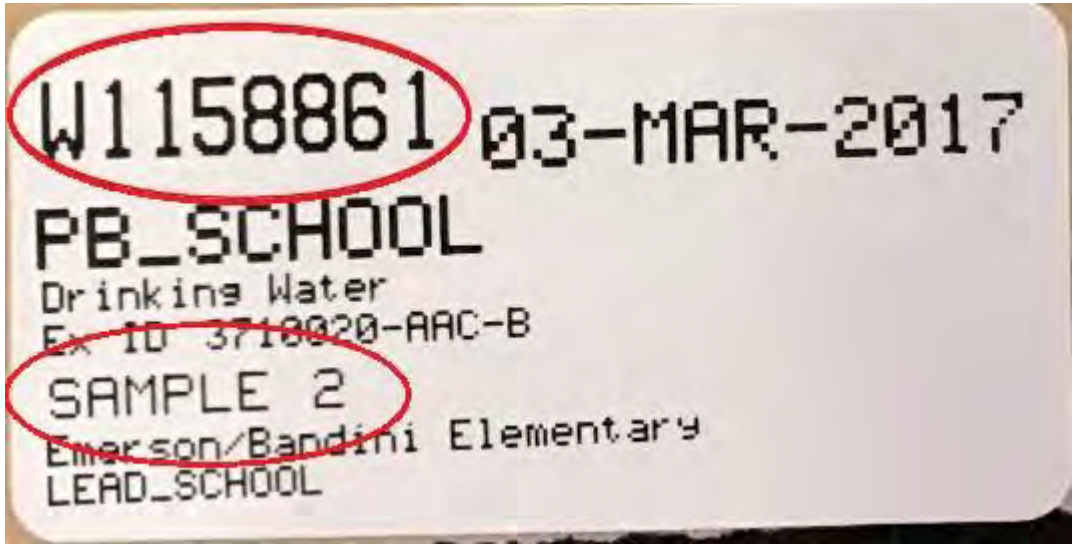

Sample No. 2

School: Emerson

Name of Building:

Location Description: Cafeteria

Type of Outlet Fill faucet

Description near back left corner

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample I.D.: 3710020-002-1

LIMS Sample ID: W1158861

Date & Time Last Used:

Date Sample Collected: N.S.

Time Sample Collected:

Name of Water System Sample Collector

Hot water was feeding pull down

Sampling Instructions Continued

- Remove the cap from the brown bottle, and place top side down. Do not touch the inside of the bottle. Place the brown bottle within reach of your sample fixture.

- Remove the cap from the white bottle, and place top side down on a clean surface. Do not touch the inside of the bottle or cap. Hold the bottle under the fixture, turn on, and capture the first flow of water until the bottle is filled to within an inch of the top.

Sampling Instructions Continued

- If the white sample bottle does not fit under the fixture, or you are unable to completely fill, use the brown and transfer water to the white bottle until filled.

Sampling Instructions Continued

- Place cap on sample bottle and return to cooler.
- Do not re-use the brown transfer bottle. Leave the cap off and return to cooler.
- Finish all the sources, and return samples to the Alvarado Laboratory.
- Complete the route sheet, COC, and submit with samples to the Laboratory.

Sampling Instructions Continued

- Complete the route sheet, COC, and submit with samples to the Laboratory.

San Diego Water Quality Laboratory

LEAD_SCHOOL For 03-MAR-2017

No.	Sample ID	#	Description	Source	Sample Time	Sampler	Comments
1	W1158860	1	ICPMS-LEAD	PB_SCHOOL			
2	W1158861	1	ICPMS-LEAD	PB_SCHOOL			
3	W1158862	1	ICPMS-LEAD	PB_SCHOOL			
4	W1158863	1	ICPMS-LEAD	PB_SCHOOL			
5	W1158864	1	ICPMS-LEAD	PB_SCHOOL			

Relinquished By: Date: Time: Received By: Date: Time:

Relinquished By: Date: Time: Received By: Date: Time:

Relinquished By: Date: Time: Received By: Date: Time:

Received By: _____

Received Date: _____

LIMS Received Time: _____

Reviewed By: _____

Printed: 23-MAR-2017

Lead in Schools Sampler Training

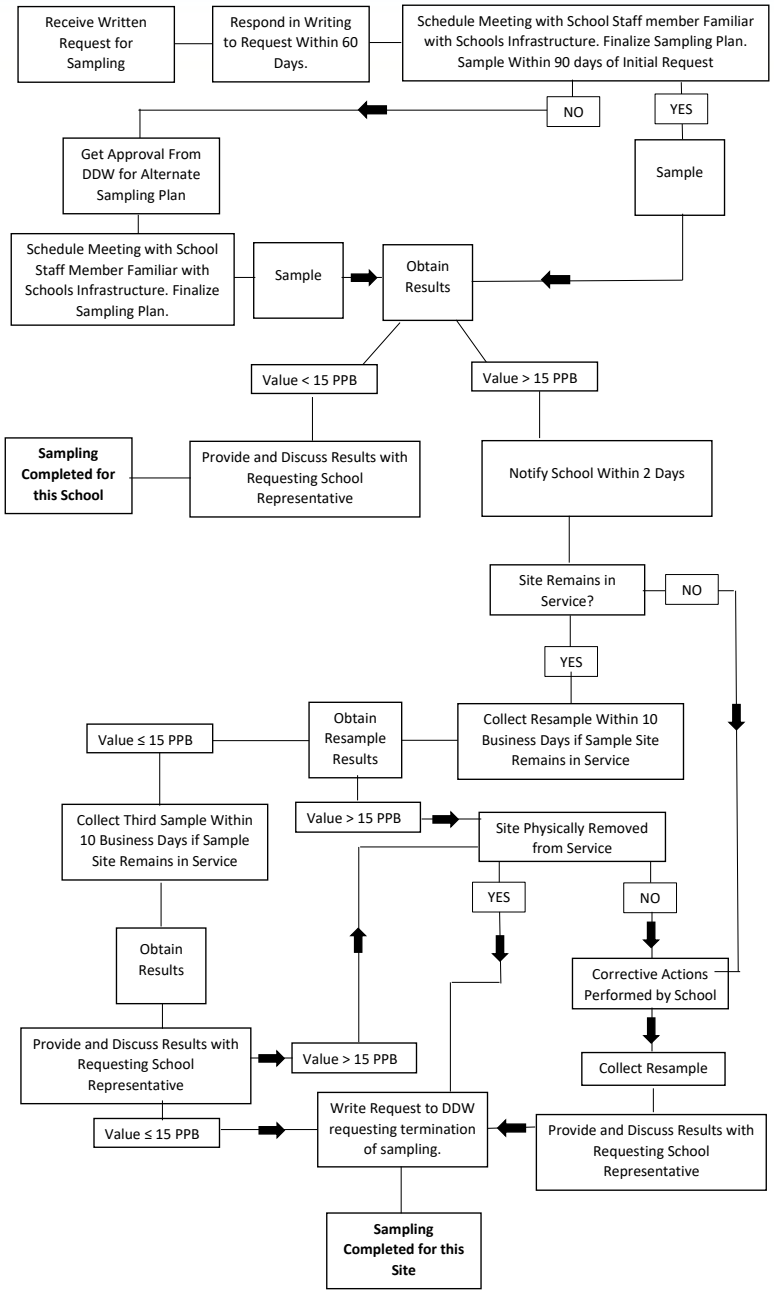

Flow Chart Link

Thank You for attending, and having patience during this project!

Q & A

Welcome to the City of San Diego Sample Plan Training

Lead in Schools Program

The City of SAN DIEGO

Background

In March of 2016, a bill was introduced to enforce testing of drinking water for lead in all schools, day care centers, and medical facilities. This portion of the bill was removed from before it went to vote.

Sometime after the water portion of the bill was removed, the State Water Resources Control Board's Division of Drinking Water, in collaboration with the California Department of Education, took the initiative to begin testing drinking water in schools (K-12) for lead. In January of 2017 the State Water Board issued amended Domestic Water Supply Permits to all California Public Water Systems (PWS). This amendment requires the PWS to sample and analyze for lead in schools if requested in writing.

Process Required by the State

- Schools representative request in Writing that they want assistance sampling and testing.

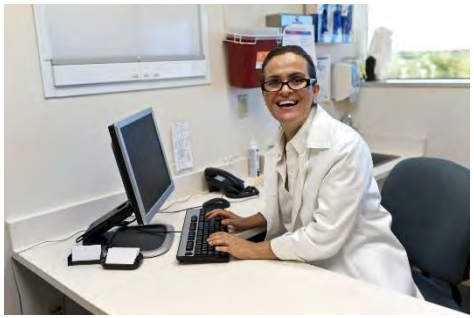

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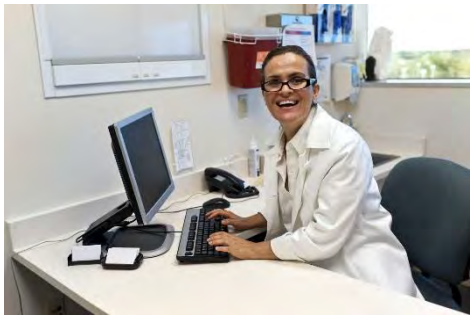

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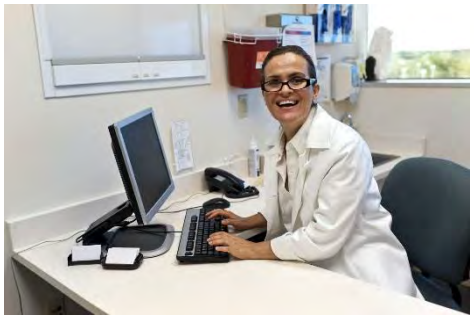

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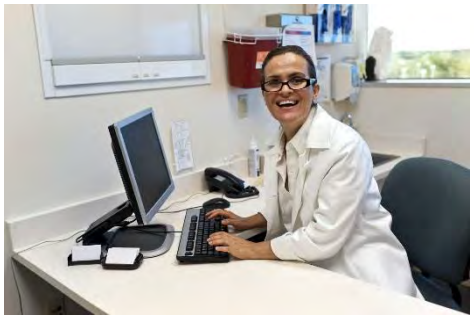

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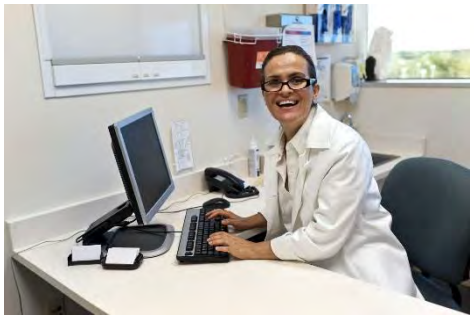

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- Schedule sampling.

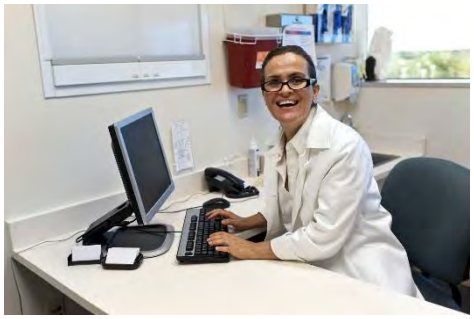

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- Schedule sampling.
- Conduct sampling.

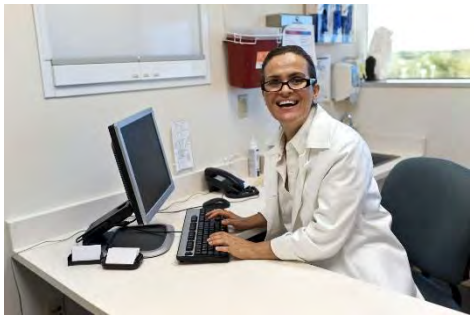

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- The PWS must train the schools on sample planning.
- The schools must create a sample plan according to the specifications in the permit.
- Schools receive approval for each Sampling Plan from City of San Diego.
- Schedule sampling.
- Conduct sampling.
- City of San Diego will analyze samples for lead.

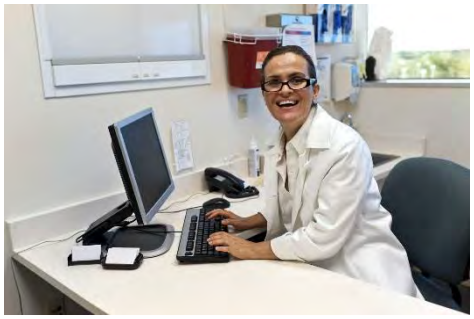

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- Schedule sampling.
- Conduct sampling.
- City of San Diego will analyze samples for lead.
- Discuss results with school representative. Who?

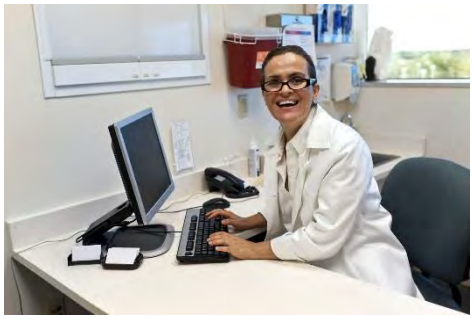

Responsibilities

School Representative

- Attend training on preparation of Sampling Plan.

Responsibilities

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- Evaluate and select five sample locations used for drinking and cooking.

Responsibilities

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- Evaluate and select five sample locations used for drinking and cooking.
- Complete a Sampling Plan, and Submit to the City of San Diego for approval.

Responsibilities

School Representative

- Attend training on preparation of Sampling Plan.
- Evaluate and select five sample locations used for drinking and cooking.
- Complete a Sampling Plan, and Submit to the City of San Diego for approval.
- Assure that sources have not been used in the previous 6 hours prior to sampling.

Responsibilities

School Representative

- Attend training on preparation of Sampling Plan.
- Evaluate and select five sample locations used for drinking and cooking.
- Complete a Sampling Plan, and Submit to the City of San Diego for approval.
- Assure that sources have not been used in the previous 6 hours prior to sampling.
- Meet with the City of San Diego sampler the morning of sampling and assist if needed.

Responsibilities

School Representative

- Attend training on preparation of Sampling Plan.
- Evaluate and select five sample locations used for drinking and cooking.
- Complete a Sampling Plan, and Submit to the City of San Diego for approval.
- Assure that sources have not been used in the previous 6 hours prior to sampling.
- Meet with the City of San Diego sampler the morning of sampling and assist if needed.
- Decisions on how the school wants to proceed if any values exceed 15 parts per billion (PPB). Who?

Responsibilities

City of San Diego

- Schedule and conduct training sessions.

Responsibilities

City of San Diego

- Schedule and conduct training sessions.
- Approve Sample Plans.

Responsibilities

City of San Diego

- Schedule and conduct training sessions.
- Approve Sample Plans.
- Schedule sampling.

Responsibilities

City of San Diego

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- Approve Sample Plans.
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- Conduct sampling.

Responsibilities

City of San Diego

- Schedule and conduct training sessions.
- Approve Sample Plans.
- Schedule sampling.
- Conduct sampling.
- Analyze samples.

Responsibilities

City of San Diego

- Schedule and conduct training sessions.
- Approve Sample Plans.
- Schedule sampling.
- Conduct sampling.
- Analyze samples.
- Report results of analysis to school representative and State of California.

Responsibilities

City of San Diego

- Schedule and conduct training sessions.
- Approve Sample Plans.
- Schedule sampling.
- Conduct sampling.
- Analyze samples.
- Report results of analysis to school representative and State of California.
- Conduct any re-sampling requested by the schools.

Sample Planning

Sample Planning

- Select five of the busiest locations used for drinking and cooking.

Sample Planning

- Select five of the busiest locations used for drinking and cooking.
- All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings that are used for human consumption are suitable sample points.

Sample Planning

- Select five of the busiest locations used for drinking and cooking.
- All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings that are used for human consumption are suitable sample points.
- Do not select any sinks that are primarily used for washing or cleaning.

Sample Planning

- Select five of the busiest locations used for drinking and cooking.
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- Do not select any sinks that are primarily used for washing or cleaning.
- Photograph the five sampling sites.

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- Select five of the busiest locations used for drinking and cooking.
- All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings that are used for human consumption are suitable sample points.
- Do not select any sinks that are primarily used for washing or cleaning.
- Photograph the five sampling sites.
- Identify the five sampling sites on a map of the school.

Sample Planning

- Select five of the busiest locations used for drinking and cooking.
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- Do not select any sinks that are primarily used for washing or cleaning.
- Photograph the five sampling sites.
- Identify the five sampling sites on a map of the school.
- Send the plan to City of San Diego for approval, and we will assign a sampler, who will contact the.

Sample Planning

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- Do not select any sinks that are primarily used for washing or cleaning.
- Photograph the five sampling sites.
- Identify the five sampling sites on a map of the school.
- Send plan to City of San Diego for approval, and we will assign a sampler to school.
- City of San Diego sampler will contact School sample planner and arrange sampling day.

Sample Plan

Sample Locations acknowledgement

Emerson/Bandini (K-6) - 3510 Newton Ave. (92113)

SDCOOP # 2

Sample No. 2

School: San Diego Coop 2

Name of Building:

Location Description: Room 128

Type of Outlet

Description bubbler at sink

City use only below this line

Sample type Initial ☐ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample I.D.:

LIMS Sample ID:

Date & Time Last Used:

Date Sample Collected:

Time Sample Collected:

Name of Water System Sample Collector

Sample No. 4

School: San Diego Coop 2

Name of Building:

Location Description: Room 132

Type of Outlet bubbler

Description bubbler at sink

City use only below this line

Sample type Initial ☐ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample I.D.:

LIMS Sample ID:

Date & Time Last Used:

Date Sample Collected:

Time Sample Collected:

Name of Water System Sample Collector

Sample No. 4

School: San Diego Coop 2

Name of Building:

Location Description: Room 132

Type of Outlet bubbler

Description bubbler at sink

City use only below this line

Sample type Initial ☐ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample I.D.:

LIMS Sample ID:

Date & Time Last Used:

Date Sample Collected:

Time Sample Collected:

Name of Water System Sample Collector

Sample No. 1

School: Emerson Elementary

Name of Building: _____

Location Description: Near room 115, between rest rooms

Type of Outlet bubbler

Description right bubbler on double fountain

City use only below this line

Sample type Initial ☐ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample I.D.: _____

LIMS Sample ID: _____

Date & Time Last Used: _____

Date Sample Collected: _____

Time Sample Collected: _____

Name of Water System Sample Collector _____

Phoebe Hearst Elementary School - 6230 Del Cerro Blvd, San Diego, CA 92120

Sample Locations acknowledgement

Emerson (K-6) - 3510 Newton Ave. (92113)

Do's and Don'ts

- **Don't** – Flush a sample site for any length of time prior to the inactivity period.

Do's and Don'ts

- **Don't** – Flush a sample site for any length of time prior to the inactivity period.
- **Do** - Tag out or cordon off the site that will be sampled. If there are multiple fixtures at one location, please isolate all from use.
- ADD PICTURE

Do's and Don'ts

- **Don't** – Flush a sample site for any length of time prior to the inactivity period.
- **Do** - Tag out or cordon off the fixture that will be sampled. If there are multiple fixtures at one location, please isolate all from use.
- **Don't** - Turn off any feed valves under the fixture.

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- **Do** - Record the time fixture was last used (isolated).

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- **Do** - Leave the fixture in use the day before sampling.

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- **Don't** – Remove any filters, aerators or screens from fixture.

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- **Do** - If a fixture is served by hot and cold water, shut off the hot water before isolation.
- **Do** - Record the time fixture was last used (isolated).
- **Do** - Leave the fixture in use the day before sampling.
- **Don't** – Remove any filters, aerators or screens from fixture.
- **Don't** - Flush a sample before sampling.
- DO OK to return fixture to service after sampling.

Important

The day before sampling is to take place, the fixtures to be sampled must be isolated, or cordoned off, so they will not be used.

Whomever isolates the fixtures must note the time of Isolation.

What to Expect on Sample Day

- Early morning sampling.
- The sampler will have pre-labeled sampling bottles.
- The sampling process should not be long.
- Samplers may ask school personnel to help fill out bottom of sample plan.
- Samplers will not provide any information on lead, or any other water quality issues.
- Samplers will not have any information when results will be available.
- Fixtures may be returned to service

Re-Sampling?

If a sample is over 15 parts per billion (ppb) a decision will be made by a school representative on the next steps. This is not a City of San Diego decision, but we will advise on the next possible steps.

Lead in Schools Sample Planning

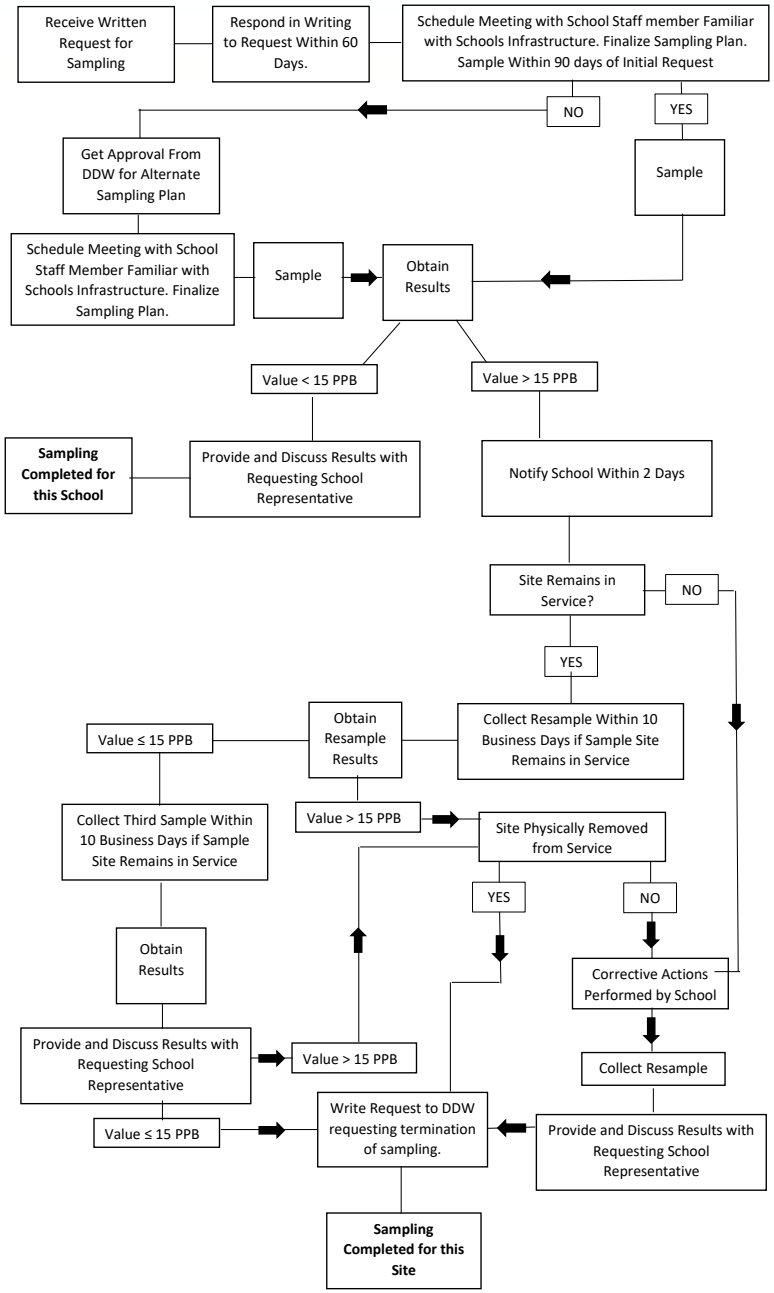

Flow Chart Link

Thank You for attending, and having patience during this project!

Q & A

Water

Lead Testing in Schools

The delivery of safe water to each person in the City of San Diego and every one of its schools is and has always been a top priority of the Public Utilities Department.

U.S. Environmental Protection Agency regulations require monitoring of lead and copper in drinking water at customer taps every three years. Our triennial Lead and Copper Studies, dating back to 1992, have consistently demonstrated that the City of San Diego is effectively controlling corrosion.

In addition, the City of San Diego routinely tests over 100 samples per year from its drinking water and supply water for lead. Annually, the City provides a comprehensive drinking water quality report, also called the Consumer Confidence Report, to all water users in our service area. This report includes the results of our triennial lead sampling of residences within the City of San Diego, as well as the results of many other required tests. The City's most recent report can be found on the water quality reports page (https://www.sandiego.gov/water/quality/reports).

How Lead Gets into Drinking Water

Lead can enter drinking water when service pipes that contain lead corrode, especially where the water has high acidity or low mineral content that corrodes pipes and fixtures. The most common problem is with brass or chrome-plated brass faucets and fixtures with lead solder, from which significant amounts of lead can enter into the water, especially hot water.

New State Requirements

- The state of California's Division of Drinking Water (http://www.waterboards.ca.gov/drinking_water/programs/index.shtml) has recently amended drinking water permits to community water systems to include lead testing in schools that serve grades K – 12 on the state Department of Education's (DOE) school directory (http://www.cde.ca.gov/re/sd/)
- This amended permit requires the City to sample for lead at any qualified public or private school that requests sampling assistance, in writing, from the Public Utilities Department.
- The City will provide sampling and lead analysis at no charge for schools located within our service area, which encompasses multiple school districts.

- Each DOE school (K-12) can request one lead sampling event by Nov. 1, 2019. The City of San Diego has provided a template (//www.sandiego.gov/sites/default/files/template_sampling_request_from_schools_city_of_san_diego.pdf) that can be used to request sampling.
- Letters should be mailed to:

City of San Diego
Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

- Letters may also be scanned and emailed to drinkingwaterquality@sandiego.gov (mailto:drinkingwaterquality@sandiego.gov).

For general information on the state's school lead testing requirements, please visit the State Water Resources Control Board (http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml) website.

For more information on the City's school lead testing program, please email drinkingwaterquality@sandiego.gov. (mailto:drinkingwaterquality@sandiego.gov)

Water Quality

- Water Quality Home (/water/quality)
- Environmental Programs (/water/quality/environment)
  - ISO 14001 (/water/quality/environment/iso)
  - Source Water Protection Guidelines (/water/quality/environment/protection)
  - Watershed Sign Program (/water/quality/environment/signprogram)
  - Watersheds (/water/quality/environment/watersheds)
- Frequently Asked Questions (/water/quality/faqs)
- From Source to Tap (/water/quality/watersources)
  - Distributing Water to You (/water/quality/watersources/distributingwater)
  - Our Water Treatment Process (/water/quality/watersources/treatmentprocess)
  - Purchasing Water (/water/quality/watersources/purchasingwater)
  - Water Sources (/water/quality/watersources/sources)
- Home Water Quality (/water/quality/homeleadtest)
- Lead Testing in Schools (/water/quality/schoolleadtest)
- Water Fluoridation (/water/quality/fluoridation)
- Water Hardness (/water/quality/waterhardness)
- Water Quality Reports (/water/quality/reports)

San Diego Unified
SCHOOL DISTRICT

Glenn Boogren
Operations Division
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gboogren@sandi.net

The City of San Diego
Tom Burger
Associate Chemist
5530 Kiowa Drive
La Mesa, CA 91942-1331

March 2, 2017

SUBJECT: REQUEST OF LEAD SAMPLING AT EMERSON ELEMENTARY & SAN DIEGO COOPERATIVE CHARTER SCHOOL

Dear Mr. Burger,

I am writing on behalf of San Diego Unified School District, (SDUSD), to request lead sampling for two schools, which are served by the City of San Diego Public Utilities Department. I would like to request the City of San Diego's assistance to develop a lead sampling plan and collect lead sample(s) at the above referenced schools

I acknowledge and understand the followings:

1. San Diego Unified School District must submit a written request to the City of San Diego and the City of San Diego has to meet and collect lead samples for Emerson Elementary & San Diego Cooperative Charter within 90 days or provide a lead sampling schedule to the local Division of Drinking Water District Office or Local Primacy Agency (LPA) Office if the lead sampling will take more than 90 days.

2. The City of San Diego will assist and provide a one-time lead sampling (up to five locations) without charge to San Diego Unified School District.

3. The City of San Diego will analyze the sample(s) in the City's Water Quality Chemistry Services laboratory, which is certified by the Environmental Laboratory Accreditation Program (ELAP) for lead analysis, and will then submit the results to the State Water Resources Control Board (SWRCB) electronically. Also, the City of San Diego will provide the results to SDUSD.

4. The City of San Diego will discuss and provide assistance to the SDUSD with interpretation of the samples and repeat sampling of any samples that exceed the lead action level of 15 parts per billion (ppb).

5. The City of San Diego is not responsible for any corrective action(s) in the event of lead sampling results above 15 ppb.

6. It is the responsibly of the School District to share the sampling results including but not limited to its School Board, School District, parents and students and/or other stakeholders. The City of San Diego cannot release the lead sampling data for 60 days following the receipt of the initial sampling results unless the City of San Diego receives a Public Records Act (PRA) for the specific results.

Sincerely,

Glenn C. Boogren
Manager; Safety, Training, Personnel, & Environmental Compliance

San Diego Unified
SCHOOL DISTRICT

Glenn Boogren
Operations Division
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Environmental Compliance Manager
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Feryal Moshavegh
Associate Civil Engineer
City of San Diego
Public Utilities Department | EPM Division
9192 Topaz Way | San Diego | CA 92123 | M.S. 901A

April 27, 2017

SUBJECT: REQUEST FOR DRINKING WATER SAMPLING

Dear Ms. Moshavegh,

I am writing on behalf of San Diego Unified School District, (SDUSD), to request lead sampling for our schools in zone 1 as depicted on the previously transmitted spreadsheet.

I acknowledge and understand the followings:

1. San Diego Unified School District must submit a written request to the City of San Diego and the City of San Diego has to meet and collect lead samples within 90 days or provide a lead sampling schedule to the local Division of Drinking Water District Office or Local Primacy Agency (LPA) Office if the lead sampling will take more than 90 days.

2. The City of San Diego will assist and provide a one-time lead sampling (up to five locations) without charge to San Diego Unified School District.

3. The City of San Diego will analyze the sample(s) in the City's Water Quality Chemistry Services laboratory, which is certified by the Environmental Laboratory Accreditation Program (ELAP) for lead analysis, and will then submit the results to the State Water Resources Control Board (SWRCB) electronically. Also, the City of San Diego will provide the results to SDUSD.

4. The City of San Diego will discuss and provide assistance to the SDUSD with interpretation of the samples and repeat sampling of any samples that exceed the lead action level of 15 parts per billion (ppb).

5. The City of San Diego is not responsible for any corrective action(s) in the event of lead sampling results above 15 ppb.

6. It is the responsibly of the School District to share the sampling results including but not limited to its School Board, School District, parents and students and/or other stakeholders. The City of San Diego cannot release the lead sampling data for 60 days following the receipt of the initial sampling results unless the City of San Diego receives a Public Records Act (PRA) for the specific results.

Sincerely,

Glenn C. Boogren
Manager; Safety, Training, Personnel, & Environmental Compliance

Ocean Beach ES	1923	4741 Santa Monica Ave	Elem	7:50	1: G.Commins
Loma Portal ES	1934	3341 Browning St	Elem	8:20	1: G.Commins
Point Loma HS	1935	2335 Chatsworth Blvd	High	7:30	1: G.Commins
Pacific Beach MS	1936	4676 Ingraham St	Mid	7:25	1: G.Commins
Bay Park ES	1939	2433 Denver St	Elem	9:00	1: G.Commins
Cabrillo ES	1939	3120 Talbot St	Elem	7:45	1: G.Commins
La Jolla HS	1940	750 Nautilus St	High	7:25	1: G.Commins
Dana MS	1942	1775 Chatsworth Blvd	Mid	7:40	1: G.Commins
La Jolla ES	1942	1111 Marine St	Elem	8:15	1: G.Commins
Pacific Beach ES	1942	1234 Tourmaline St	Elem	7:50	1: G.Commins
Dewey ES	1943	3251 Rosecrans St	Elem	8:30	1: G.Commins
Crown Point ES	1948	4033 Ingraham St	Elem	7:40	1: G.Commins
Bird Rock ES	1952	5371 La Jolla Hermosa Ave	Elem	8:30	1: G.Commins
Silver Gate ES	1952	1499 Venice St	Elem	7:45	1: G.Commins
Mission Bay HS	1953	2475 Grand Ave	High	7:30	1: G.Commins
Sunset View ES	1954	4365 Hill St	Elem	9:05	1: G.Commins
Whittier Center	1954	3401 Clairemont Dr	Elem	8:45	1: G.Commins
Alcott ES	1955	4680 Hidalgo Ave	Elem	8:15	1: G.Commins
Field ES	1955	4375 Bannock Ave	Elem	7:45	1: G.Commins
Longfellow ES	1955	5055 July St	Elem	8:45	1: G.Commins
Cadman ES	1956	4370 Kamloop Ave	Elem	9:00	1: G.Commins
Sessions ES	1956	2150 Beryl St	Elem	7:50	1: G.Commins
Hawthorne ES	1957	4750 Lehrer Dr	Elem	7:45	1: G.Commins
Marston MS	1957	3799 Clairemont Dr	Mid	8:55	1: G.Commins
Toler ES	1957	3350 Baker St	Elem	9:05	1: G.Commins
Barnard Asian Pac Lang Acad @ Bayview Terr ES	1958	2445 Fogg St	Elem	7:45	1: G.Commins
Clairemont HS	1958	4150 Ute Dr	High	7:20	1: G.Commins
Correia MS	1958	4302 Valeta St	Mid	7:25	1: G.Commins
Whitman ES	1958	4050 Appleton St	Elem	9:10	1: G.Commins
Sequoia ES	1960	4690 Limerick Ave	Elem	7:45	1: G.Commins
CPMA (formerly Kroc)	1962	5050 Conrad Ave	Mid	8:50	1: G.Commins
Innovation MS (formerly MacDowell)	1962	5095 Arvinels Ave	Mid	8:00	1: G.Commins
Madison HS	1963	4833 Doliva Dr	High	7:25	1: G.Commins
Muirlands MS	1963	1056 Nautilus St	Mid	7:30	1: G.Commins

Torrey Pines ES	1963	8350 Cliffridge Ave	Elem	8:30	1: G.Commins
Curie ES	1965	4080 Governor Dr	Elem	7:50	1: G.Commins
Lafayette ES	1965	6125 Printwood Way	Elem	7:45	1: G.Commins
Standley MS	1976	6298 Radcliffe Dr	Mid	8:05	1: G.Commins
Doyle ES	1977	3950 Berino Ct	Elem	7:40	1: G.Commins
Spreckels ES	1978	6033 Stadium St	Elem	8:55	1: G.Commins
University City HS	1981	6949 Genesee Ave	High	7:24	1: G.Commins

Mission Bay Montessori / Appleseed (former Marcy Site)		2640 Soderblom Ave, 92122			1: G.Commins	
Sam and Rose Stein Educ. Ctr / Vista Hill (former Grantville ES)		6145 Decena Dr, 92120			3: T. Brown	
San Diego French-American School (former Decatur ES)		6550 Soledad Mtn Rd, 92037			1: G.Commins	
The Children's School (former Scripps ES)		2225 Torrey Pines Ln, 92037			1: G.Commins	
SESI (see note) aka Springall Acad (formerly Forward)		6560 Boulder Lake Ave, 92119			3: T. Brown	SESI (Specialized Educational Services Inc.

San Diego Unified
SCHOOL DISTRICT

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gboogren@sandi.net

Feryal Moshavegh
Associate Civil Engineer
City of San Diego
Public Utilities Department | EPM Division
9192 Topaz Way | San Diego | CA 92123 | M.S. 901A

April 18, 2017

SUBJECT: REQUEST FOR DRINKING WATER SAMPLING

Dear Ms. Moshavegh,

I am writing on behalf of San Diego Unified School District, (SDUSD), to request lead sampling. As we previously discussed this second request is for the schools in zone 2 as depicted on the previously transmitted spreadsheet.

I acknowledge and understand the followings:

1. San Diego Unified School District must submit a written request to the City of San Diego and the City of San Diego has to meet and collect lead samples within 90 days or provide a lead sampling schedule to the local Division of Drinking Water District Office or Local Primacy Agency (LPA) Office if the lead sampling will take more than 90 days.

2. The City of San Diego will assist and provide a one-time lead sampling (up to five locations) without charge to San Diego Unified School District.

3. The City of San Diego will analyze the sample(s) in the City's Water Quality Chemistry Services laboratory, which is certified by the Environmental Laboratory Accreditation Program (ELAP) for lead analysis, and will then submit the results to the State Water Resources Control Board (SWRCB) electronically. Also, the City of San Diego will provide the results to SDUSD.

4. The City of San Diego will discuss and provide assistance to the SDUSD with interpretation of the samples and repeat sampling of any samples that exceed the lead action level of 15 parts per billion (ppb).

5. The City of San Diego is not responsible for any corrective action(s) in the event of lead sampling results above 15 ppb.

6. It is the responsibly of the School District to share the sampling results including but not limited to its School Board, School District, parents and students and/or other stakeholders. The City of San Diego cannot release the lead sampling data for 60 days following the receipt of the initial sampling results unless the City of San Diego receives a Public Records Act (PRA) for the specific results.

Sincerely,

Glenn C. Boogren
Manager; Safety, Training, Personnel, & Environmental Compliance

Carson ES	1941	6905 Kramer St	Elem	7:50	2: E. Lara
Linda Vista ES	1943	2772 Ulric St	Elem	8:45	2: E. Lara
Montgomery MS	1943	2470 Ulric St	Mid	8:15	2: E. Lara
Cubberley ES	1948	3201 Marathon Dr	Elem	7:30	2: E. Lara
Kavod Elem Chrtr (@ Cubberley)	*1948*	*3201 Marathon Dr*	*Elem*	*7:30*	*2: E. Lara*
Hancock ES	1952	3303 Taussig St	Elem	7:50	2: E. Lara
Angier ES	1953	8450 Hurlbut St	Elem	9:10	2: E. Lara
Kearny Complex HS (3733, 34, 35, 36)	1954	7651 Wellington Way	High	8:45	2: E. Lara
Muir (John)	1954	4431 Mount Herbert Ave	Elem	8:55	2: E. Lara
Twain Jr-Sr HS	1954	6402 Linda Vista Rd	High	7:28	2: E. Lara
Marshall MS	1956	9700 Avenue of Nations	Mid	7:40	2: E. Lara
Jones ES	1957	2751 Greyling Dr	Elem	7:35	2: E. Lara
Wegeforth ES	1957	3443 Ediwahr Ave	Elem	8:00	2: E. Lara
Chesterton ES	1959	7335 Wheatley St	Elem	8:00	2: E. Lara
Mount Everest Academy	1959	4350 Mt Everest Blvd	Elem	Flex	2: E. Lara
Riley/New Dawn (Loc 438)	1959	5650 Mt Ackerly Dr	Elem	8:40	2: E. Lara
Ross ES	1959	7470 Bagdad St	Elem	7:40	2: E. Lara
Fletcher ES	1960	7666 Bobolink Way	Elem	7:55	2: E. Lara
Juarez ES	1961	2633 Melbourne Dr	Elem	9:15	2: E. Lara
Schweitzer ES	1961	6991 Balboa Ave	Elem	9:15	2: E. Lara
Holmes ES	1962	4902 Mount Ararat Dr	Elem	9:05	2: E. Lara
LINDBERGH ES	1962	4133 Mount Albertine Ave	Elem	9:15	2: E. Lara
Taft MS	1962	9191 Gramercy Dr	Mid	8:55	2: E. Lara
San Diego Co-op Chrtr 1 (@ Linda Vista Annex)	*1966*	*7260 Linda Vista Rd*	*Elem*		*2: E. Lara*
Tierrasanta ES	1973	5450 La Cuenta Dr	Elem	7:35	2: E. Lara
Miller ES	1975	4343 Shields St	Elem	7:50	2: E. Lara

Ericson ES	1976	11174 Westonhill Dr	Elem	7:50	2: E. Lara
Mason ES	1976	10340 San Ramon Dr	Elem	7:50	2: E. Lara
Miramar Ranch ES	1976	10770 Red Cedar Dr	Elem	7:45	2: E. Lara
Sandburg ES/CDC	1976	11230 Avenida del Gato	Elem	7:45	2: E. Lara
Walker ES	1976	9225 Hillery Dr	Elem	7:45	2: E. Lara
Hickman ES	1977	10850 Montongo St	Elem	8:00	2: E. Lara
Jerabek ES	1977	10050 Avenida Magnifica	Elem	8:35	2: E. Lara
Mira Mesa HS	1977	10510 Reagan Rd	High	7:30	2: E. Lara
Serra HS	1977	5156 Santo Rd	High	7:30	2: E. Lara
Vista Grande ES	1977	5606 Antigua Blvd	Elem	7:40	2: E. Lara
Wangenheim MS	1978	9230 Gold Coast Dr	Mid	7:30	2: E. Lara
Farb MS	1979	4880 La Cuenta Dr	Mid	9:00	2: E. Lara
De Portola MS	1986	11010 Clairemont Mesa Blvd	Mid	9:00	2: E. Lara
Challenger MS	1990	10810 Parkdale Ave	Mid	7:15	2: E. Lara
Hage ES	1991	9750 Galvin Ave	Elem	7:40	2: E. Lara
Kumeyaay ES	1992	6475 Antigua Blvd	Elem	7:40	2: E. Lara
Scripps Ranch HS	1993	10410 Treena St	High	7:25	2: E. Lara
Dingeman ES	1994	11840 Scripps Creek Dr	Elem	8:30	2: E. Lara
E.B. Scripps ES	2001	11778 Cypress Canyon Rd	Elem	8:45	2: E. Lara
Innovation Acad Chrtr (@ Scripps Mesa Conf Ctr)	*2001*	*10380 Spring Cnyn Rd*	*Elem*		*2: E. Lara*
Salk (Jonas)	2015	7828 Flanders Dr	Elem	7:50	2: E. Lara

San Diego Unified
SCHOOL DISTRICT

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Feryal Moshavegh
Associate Civil Engineer
City of San Diego
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9192 Topaz Way | San Diego | CA 92123 | M.S. 901A

April 11, 2017

SUBJECT: REQUEST FOR DRINKING WATER SAMPLING

Dear Ms. Moshavegh,

I am writing on behalf of San Diego Unified School District, (SDUSD), to request lead sampling. As we previously discussed this second request is for the schools in zone 3 as depicted on the previously transmitted spreadsheet.

I acknowledge and understand the followings:

1. San Diego Unified School District must submit a written request to the City of San Diego and the City of San Diego has to meet and collect lead samples within 90 days or provide a lead sampling schedule to the local Division of Drinking Water District Office or Local Primacy Agency (LPA) Office if the lead sampling will take more than 90 days.

2. The City of San Diego will assist and provide a one-time lead sampling (up to five locations) without charge to San Diego Unified School District.

3. The City of San Diego will analyze the sample(s) in the City's Water Quality Chemistry Services laboratory, which is certified by the Environmental Laboratory Accreditation Program (ELAP) for lead analysis, and will then submit the results to the State Water Resources Control Board (SWRCB) electronically. Also, the City of San Diego will provide the results to SDUSD.

4. The City of San Diego will discuss and provide assistance to the SDUSD with interpretation of the samples and repeat sampling of any samples that exceed the lead action level of 15 parts per billion (ppb).

5. The City of San Diego is not responsible for any corrective action(s) in the event of lead sampling results above 15 ppb.

6. It is the responsibly of the School District to share the sampling results including but not limited to its School Board, School District, parents and students and/or other stakeholders. The City of San Diego cannot release the lead sampling data for 60 days following the receipt of the initial sampling results unless the City of San Diego receives a Public Records Act (PRA) for the specific results.

Sincerely,

Glenn C. Boogren
Manager; Safety, Training, Personnel, & Environmental Compliance

Franklin ES	1934	4481 Copeland Ave	Elem	7:50	3: T. Brown	
Harriet Tubman Village Chrtr (@ Tubman Village)	*1937*	*6880 Mohawk St*	*Elem*	*8:15*	*3: T. Brown*	
Central ES	1938	4063 Polk Ave	Elem	7:55	3: T. Brown	
Euclid ES	1938	4166 Euclid Ave	Elem	8:50	3: T. Brown	
Hoover HS	1938	4474 El Cajon Blvd	High	7:30	3: T. Brown	
San Diego HS Complex HS (3743, 44, 49, 53)	1939	1405 Park Blvd	High	7:30	3: T. Brown	
Edison ES	1941	4077 35th ST	Elem	7:45	3: T. Brown	
King-Chavez Academy of Excellence(@ Memorial)	*1943*	*2850 Logan Ave*	*Elem*	*8:00*	*3: T. Brown*	
Memorial Prep	1943	2850 Logan Ave	Mid	8:00	3: T. Brown	
Arroyo Paseo High Chrt (@ Wilson)	*1944*	*3773 El Cajon Blvd*	*High*	*8:30*	*3: T. Brown*	
Wilson MS	1944	3838 Orange Ave	Mid	8:30	3: T. Brown	
McKinley ES	1945	3045 Felton St	Elem	8:30	3: T. Brown	
Ballard @ Fremont	1948	2375 Congress St	Elem	N/A	3: T. Brown	
Garfield ES	1948	4487 Oregon St	Elem	8:30	3: T. Brown	
King Chavez Primary Acad Chrtr (formerly MLK ES/formerly Stockton ES)	*1948*	*415 31st St*	*Elem*		*3: T. Brown*	*K-C Arts & K-C Athletics also located here*
King-Chavez Arts Acad Chrtr (formerly MLK ES/formerly Stockton ES)		*415 31st, 92102*	*Elem*		*3: T. Brown*	*K-C Primary & K-C Athletics also located h*
King-Chavez Athletics Acad Chrtr (formerly MLK ES/formerly Stockton ES)		*415 31st, 92102*	*Elem*		*3: T. Brown*	*K-C Arts & K-C Primary also located here*

Roosevelt MS	1949	3366 Park Blvd	Mid	7:30	3: T. Brown	
Language Academy	1952	4961 64th St	Elem	8:48	3: T. Brown	
Birney ES	1953	4345 Campus Ave	Elem	9:15	3: T. Brown	
Foster ES	1955	6550 51st St	Elem	7:50	3: T. Brown	
Clay ES	1956	6506 Solita Ave	Elem	9:00	3: T. Brown	
Grant ES	1956	1425 Washington Pl	Elem	7:35	3: T. Brown	
Hardy ES	1956	5420 Montezuma Rd	Elem	7:45	3: T. Brown	
Marvin ES	1958	5720 Brunswick Ave	Elem	7:50	3: T. Brown	
Einstein Chrtr Elem (@ Brooklyn - entire site)	*1959*	*3035 Ash St*	*Elem*		*3: T. Brown*	
Hearst ES	1959	6230 Del Cerro Blvd	Elem	7:50	3: T. Brown	
Lewis MS	1959	5170 Greenbrier Ave	Mid	7:30	3: T. Brown	
Sherman ES	1959	301 22nd St	Elem	9:00	3: T. Brown	
Adams ES	1961	4672 35th St	Elem	9:00	3: T. Brown	
Jefferson ES	1961	3770 Utah St	Elem	8:20	3: T. Brown	
San Diego Global Vision Acad Chrtr (@ Adams)	*1961*	*3430 School St*	*Elem*		*3: T. Brown*	
Florence ES	1962	3914 1st Ave	Elem	8:50	3: T. Brown	
Washington ES	1962	1789 State St	Elem	8:15	3: T. Brown	
Benchley/Weinberger ES	1963	6269 Twin Lake Dr	Elem	7:45	3: T. Brown	
Gage ES	1963	6811 Bisby Lake Ave	Elem	7:50	3: T. Brown	
Pershing MS	1964	8204 San Carlos Dr	Mid	7:30	3: T. Brown	
Henry HS	1969	6702 Wandermere Dr	High	7:30	3: T. Brown	
Marcy Ave Complex	1970	2736 Marcy Ave	High	N/A	3: T. Brown	
Logan ES	1975	2875 Ocean View Blvd	Elem	7:45	3: T. Brown	
Dailard ES	1976	6425 Cibola Rd	Elem	7:50	3: T. Brown	
Green ES	1976	7030 Wandermere Dr	Elem	7:30	3: T. Brown	
Garfield HS	1990	1255 16th St	High	8:30	3: T. Brown	
Perkins ES	1991	1110 Main St	Elem	8:55	3: T. Brown	
Kimbrough ES	1997	321 Hoitt St	Elem	7:40	3: T. Brown	
Cherokee Point ES	2005	3735 38th St	Elem	7:45	3: T. Brown	

Ibarra ES	2005	4877 Orange Ave	Elem	8:40	3: T. Brown	
Golden Hill ES	2006	1240 33rd St	Elem	9:15	3: T. Brown	
Normal Heights ES	2006	3750 Ward Rd	Elem	9:10	3: T. Brown	
Burbank ES	2007	2146 Julian Ave	Elem	8:00	3: T. Brown	
Rodriguez ES	2007	825 S 31St St	Elem	8:30	3: T. Brown	
A.L.B.A. HS		5510 Trojan Ave	High	7:30	3: T. Brown	All Portables-varying ages

here

San Diego Unified
SCHOOL DISTRICT

Glenn Boogren
Operations Division
Safety, Training, Personnel and
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P: 858/260-5487
F: 858/627-7521
gboogren@sandi.net

Feryal Moshavegh
Associate Civil Engineer
City of San Diego
Public Utilities Department | EPM Division
9192 Topaz Way | San Diego | CA 92123 | M.S. 901A

March 21, 2017

SUBJECT: REQUEST FOR DRINKING WATER SAMPLING

Dear Mr. Burger,

I am writing on behalf of San Diego Unified School District, (SDUSD), to request lead sampling. As we previously discussed this initial request is for the fifty three (53), schools in zone 4 as depicted on the previously transmitted spreadsheet.

I acknowledge and understand the followings:

1. San Diego Unified School District must submit a written request to the City of San Diego and the City of San Diego has to meet and collect lead samples within 90 days or provide a lead sampling schedule to the local Division of Drinking Water District Office or Local Primacy Agency (LPA) Office if the lead sampling will take more than 90 days.

2. The City of San Diego will assist and provide a one-time lead sampling (up to five locations) without charge to San Diego Unified School District.

3. The City of San Diego will analyze the sample(s) in the City's Water Quality Chemistry Services laboratory, which is certified by the Environmental Laboratory Accreditation Program (ELAP) for lead analysis, and will then submit the results to the State Water Resources Control Board (SWRCB) electronically. Also, the City of San Diego will provide the results to SDUSD.

4. The City of San Diego will discuss and provide assistance to the SDUSD with interpretation of the samples and repeat sampling of any samples that exceed the lead action level of 15 parts per billion (ppb).

5. The City of San Diego is not responsible for any corrective action(s) in the event of lead sampling results above 15 ppb.

6. It is the responsibly of the School District to share the sampling results including but not limited to its School Board, School District, parents and students and/or other stakeholders. The City of San Diego cannot release the lead sampling data for 60 days following the receipt of the initial sampling results unless the City of San Diego receives a Public Records Act (PRA) for the specific results.

Sincerely,

Glenn C. Boogren
Manager; Safety, Training, Personnel, & Environmental Compliance

Iftin Chrtr (@ Jackson expnd 1958)	*1929*	*5465 El Cajon Blvd*	*Elem*	*7:00*	*4: D. Lopez*
Jackson (expand 1958)	1929	5465 El Cajon Blvd	Elem	7:00	4: D. Lopez
Bandini ES	1939	3550 Logan Ave	Elem	9:05	4: D. Lopez
Encanto ES	1939	822 65th Street	Elem	7:50	4: D. Lopez
Paradise Hills ES	1946	5816 Alleghany St	Elem	9:10	4: D. Lopez
EMERSON	1948	3510 Newton Ave	Elem	9:05	4: D. Lopez
Balboa ES	1949	1844 South 40th St	Elem	7:40	4: D. Lopez
Lincoln HS (Razed/Rebuilt)	1949	4777 Imperial Ave	High	7:25	4: D. Lopez
Darnall E-Campus Chrtr (@ Darnall)	*1951*	*6020 Hughes St*	*Elem*		*4: D. Lopez*
Hamilton ES	1952	2807 Fairmount Ave	Elem	7:40	4: D. Lopez
Mann MS	1952	4345 54th St	Mid	7:15	4: D. Lopez
Oak Park ES	1952	2606 54th St	Elem	9:00	4: D. Lopez
Rolando Park ES	1952	6620 Marlowe Dr	Elem	7:50	4: D. Lopez
Valencia Park ES	1953	5880 Skyline Dr	Elem	8:55	4: D. Lopez
CHOLLAS/Mead ES	1954	4525 Market St	Elem	8:50	4: D. Lopez
Audubon ES	1955	8111 San Vicente St	Elem	7:45	4: D. Lopez
Carver ES	1955	3251 Juanita St	Elem	7:35	4: D. Lopez
Holly Drive Leadership Acad Chrtr (@ Webster)	*1955*	*4801 Elm St*	*Elem*	*9:15*	*4: D. Lopez*
Millennial Tech MS (formerly Gompers East)	1955	1110 Carolina Ln	Mid	7:40	4: D. Lopez
Perry ES	1955	6290 Oriskany Rd	Elem	9:10	4: D. Lopez
Rowan ES/CDC (Loc 856)	1955	1755 Rowan St	Elem	9:00	4: D. Lopez
Thrive Public Schls Chrtr (@Carver)	*1955*	*3251 Juanita St*	*Elem*	*7:35*	*4: D. Lopez*
Webster ES	1955	4801 Elm St	Elem	9:10	4: D. Lopez
Gompers Prep Acad Chrtr (@ Gompers West)	*1955*	*1005 47th St*	*Mid*	*7:30*	*4: D. Lopez*
Crawford Complex HS	1957	4191 Colts Way	High	7:15	4: D. Lopez
Johnson ES	1957	1355 Kelton Rd	Elem	7:30	4: D. Lopez
Knox MS	1957	1098 S 49th St	Mid	8:15	4: D. Lopez
Marshall ES	1957	3550 Altadena Ave	Elem	8:40	4: D. Lopez
Horton ES	1958	5050 Guymon St	Elem	7:45	4: D. Lopez
Freese ES	1959	8140 Greenlawn Dr	Elem	7:45	4: D. Lopez
Ingenuity Chrtr (@ O'Farrell)	*1959*	*6130 Skyline Dr*	*Mid*	*6:45*	*4: D. Lopez*
O'Farell Chrtr (@ O'Farrell)	*1959*	*6130 Skyline Dr*	*Elem*	*6:45*	*4: D. Lopez*
Pacific View ES (formerly Lee ES)	1959	6196 Childs Ave	Elem	9:05	4: D. Lopez
America's Finest Chrtr (@ former Mead)	*1960*	*730 45th St*	*Elem*	*8:50*	*4: D. Lopez*
Boone ES	1962	7330 Brookhaven Rd	Elem	8:20	4: D. Lopez
Fulton ES	1962	7055 Skyline Dr	Elem	7:25	4: D. Lopez
Keiller Leadership Acad (@ Keiller)	*1962*	*7270 Lisbon St*	*Elem*		*4: D. Lopez*
Morse HS	1963	6905 Skyline Dr	High	7:25	4: D. Lopez
Baker ES	1964	4041 T St	Elem	8:15	4: D. Lopez
Bell MS	1969	620 Briarwood Rd	Mid	7:35	4: D. Lopez
Penn ES	1976	2797 Utica Dr	Elem	8:15	4: D. Lopez
Bethune ES	1985	6835 Benjamin Holt Rd	Elem	7:20	4: D. Lopez
Zamorano ES	1985	2655 Casey St	Elem	7:35	4: D. Lopez
Nye ES	1992	981 Valencia Pkwy	Elem	7:45	4: D. Lopez
SCPA	1992	2425 Dusk Dr	High	7:15	4: D. Lopez
Clark MS	1997	4388 Thorn St	Mid	7:30	4: D. Lopez
Rosa Parks ES	1997	4510 Landis St	Elem	7:45	4: D. Lopez

Chavez ES	1998	1404 S 40th St	Elem	7:45	4: D. Lopez
Porter ES (N) (Razed/Rebuilt)	2005	445 S 47th Street	Elem	8:55	4: D. Lopez
Porter ES (S)(Razed/Rebuilt)	2005	4800 T Street	Elem	8:55	4: D. Lopez
Fay ES	2006	4080 52nd St	Elem	8:40	4: D. Lopez
Joyner ES	2007	4271 Mrytle Ave	Elem	9:00	4: D. Lopez
San Diego Coop #2 Chrtr (@ Emerson)	1948	*3510 Newton Ave*			*4: D. Lopez*
San Diego Coop #2 Chrtr (@ Bandini)		*3550 Logan Ave*	*Elem*	*9:05*	*4: D. Lopez*

March 7, 2017

The City of San Diego
Tom Burger
Associate Chemist
5530 Kiowa Drive
La Mesa, CA 91942-1331

SUBJECT: REQUEST OF LEAD SAMPLING AT High Tech High, Point Loma Campus

Dear Mr. Burger,
I am writing on behalf of High Tech High to request lead sampling for seven (7) schools at our Point Loma Campus, which is served by the City of San Diego Public Utilities Department. I would like to request the City of San Diego's assistance to develop a lead sampling plan and collect lead sample(s) at each of the schools listed below.

I acknowledge and understand the following:

1. High Tech High must submit a written request to the City of San Diego and the City of San Diego has to meet and collect lead samples for High Tech High within 90 days or provide a lead sampling schedule to the local Division of Drinking Water District Office or Local Primacy Agency (LPA) Office if the lead sampling will take more than 90 days.

2. The City of San Diego will assist and provide a one-time lead sampling (up to five locations) without charge to High Tech High.

3. The City of San Diego will analyze the sample(s) in the City's Water Quality Chemistry Services laboratory, which is certified by the Environmental Laboratory Accreditation Program (ELAP) for lead analysis, and will then submit the results to the State Water Resources Control Board (SWRCB) electronically. Also, the City of San Diego will provide the results to High Tech High.

4. The City of San Diego will discuss and provide assistance to the High Tech High with interpretation of the samples and repeat sampling of any samples that exceed the lead action level of 15 parts per billion (ppb).

5. The City of San Diego is not responsible for any corrective action(s) in the event of lead sampling results above 15 ppb.

6. It is the responsibly of the High Tech High to share the sampling results including but not limited to its School Board, School District, parents and students and/or other stakeholders. The City of San Diego cannot release the lead sampling data for 60 days following the receipt of the initial sampling results unless the City of San Diego receives a Public Records Act (PRA) for the specific results.

I would like to request a meeting with the City of San Diego's staff or designated representative to discuss lead sampling for our school at your earliest convenience, and I will provide adequate staff to assist your efforts. If you have any questions, please contact me at 760-759-2735.

Sincerely,

Paul W. Dooley
Director of Facilities
760-759-2735
pdooley@hightechhigh.org

Cc: Electronically to DDW-PLU@waterboards.ca.gov

High Tech High Schools at its Point Loma Campus (92106)

High Tech High: 2861 Womble Road, CDS # 37683383731247

High Tech Middle: 2359 Truxtun Road, CDS # 37683380101204

High Tech High International: 2855 Farragut Road, CDS #37683380106732

High Tech Elementary Explorer, 2230 Truxton Road (1st Floor), CDS #37683386117683

High Tech Middle Media Arts, 2230 Truxton Road (2nd Floor), CDS # 37683380108787

High Tech High Media Arts, 2230 Truxton Road (3rd Floor), CDS # 37683380107573

High Tech Elementary, 2150 Cushing Road, CDS #37683380131565

CHULA VISTA ELEMENTARY SCHOOL DISTRICT

84 EAST J STREET • CHULA VISTA, CALIFORNIA 91910 • 619 425-9600

EACH CHILD IS AN INDIVIDUAL OF GREAT WORTH

CC: Helminski
CC: Vroem

February 27, 2017

City of San Diego Public Utilities Department
Attn: Ms. Halla Razak
9192 Topaz Way, MS 901A
San Diego, CA 92123

Ms. Razak,

Our District is grateful for the services provided by the City of San Diego Public Utilities Department to Los Altos Elementary School. We have received concerns from our parents, staff, and the community regarding the safety of our water after receiving recent news reports from the San Ysidro School District. While we are confident the City of San Diego Public Utilities Department is monitoring our water supply we believe testing at our school sites would provide additional assurance to our stakeholders.

The State Water Resources Control Board published the enclosed media release to notify school districts of their ability to request water sampling. Within this notice it states,

> "Under the new requirement, testing is voluntary for schools, but if the schools make a written request, the community water systems must collect the samples within three months and report the results back to the school within 10 business days after receiving the results from the laboratory, or two business days if a result exceeds 15 parts per billion. Sampling locations can include drinking fountains, cafeteria and food preparation areas, and reusable water bottle filling stations. The one-time program extends until Nov. 1, 2019."

Please accept our formal request to provide water sampling at all school sites within the City of San Diego Public Utilities boundaries. We are confident that the water provided to schools in California is a top priority for all entities. Chula Vista Elementary School District sites within the City of San Diego boundaries include:

Los Altos Elementary School, 1332 Kenalan Drive, San Diego, CA 92154

Please notify our District of the scheduling necessary to sample all locations within the next three months. The District's representative for scheduling and coordinating testing is Joseph Dombrowski, Maintenance and Operations Manager and he can be reached at (619) 425-9600, Extension 1424.

BOARD OF EDUCATION
LESLIE RAY BUNKER ♦ ARMANDO FARÍAS ♦ LAURIE K. HUMPHREY ♦ EDUARDO REYES, ED.D. ♦ FRANCISCO TAMAYO

SUPERINTENDENT
FRANCISCO ESCOBEDO, ED.D.

If you have any questions, please feel free to contact me.

Sincerely,

Oscar Esquivel
Assistant Superintendent
for Business Services and Support

OE:ac
By Certified Mail
Enclosures as stated
cc: Francisco Escobedo, Ed.D., Chula Vista Elementary School District

California DEPARTMENT OF EDUCATION

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CALIFORNIA DEPARTMENT OF EDUCATION

NEWS RELEASE

TOM TORLAKSON
State Superintendent
of Public Instruction

Release: #17-8
January 30, 2017

Contact: Robert Oakes
E-mail: communications@cde.ca.gov
Phone: 916-319-0818

State Schools Chief Tom Torlakson Announces Free Testing for Lead in Drinking Water at California Public Schools

SACRAMENTO— State Superintendent of Public Instruction Tom Torlakson announced that public schools can receive free testing for lead in drinking water under a new state program.

The State Water Resources Control Board, in cooperation with the California Department of Education (CDE), recently required all community water systems to test school drinking water upon request by school officials.

"Students should have access to clean drinking water at all times," Torlakson said. "Students need fresh water, nutritious meals, and appropriate physical activity to be ready to learn in class."

California's water agencies regularly test for lead and other contaminants in their systems to comply with both state and federal laws. Water agencies also use corrosion control measures to prevent any lead that might be present from leaching into tap water.

The State Water Resources Control Board initiative makes testing mandatory if a public school served by a community water system requests testing.

Lead problems are infrequent in California, which has newer water infrastructure and less corrosive water than other parts of the nation. Governor Edmund G. Brown Jr. directed the State Water Resources Control Board to incorporate schools into the regular water quality testing that community water systems conduct at customer's taps.

If school officials make a written request, the community water systems must collect the samples within three months and report results back within two business days. Sampling locations can include drinking fountains, cafeteria and food preparation areas, and reusable water bottle filling stations. The program extends until November 1, 2019.

The community water systems are responsible for the costs associated with collecting drinking water samples, analyzing them, and reporting results.

# # # #

Tom Torlakson — State Superintendent of Public Instruction
Communications Division, Room 5206, 916-319-0818, Fax 916-319-0100

Last Reviewed: Monday, January 30, 2017

EXCELSIOR ACADEMY
Commitment • Collaboration • Community
National Blue Ribbon School of Excellence

The City of San Diego
Tom Burger
Associate Chemist
5530 Kiowa Drive
La Mesa, CA 91942-1331

February 22, 2017

SUBJECT: REQUEST OF LEAD SAMPLING AT EXCELSIOR ACADEMY

Dear Mr. Burger,

I am writing on behalf of Excelsior Academy to request lead sampling for our school, which is served by the City of San Diego Public Utilities Department. I would like to request the City San Diego's assistance to develop a lead sampling plan and collect lead samples at Excelsior Academy.

I acknowledge and understand the following:

1. Excelsior Academy must submit a written request to the City of San Diego and the City of San Diego has to meet and collect the lead samples for Excelsior Academy within 90 days or provide a lead sampling schedule to the local Division of Drinking Water District Office or Local Primacy Agency (LPA) Office if the lead sampling will take more than 90 days.

2. The City of San Diego will assist and provide a one-time lead sampling without charge to Excelsior Academy.

3. The City of San Diego will analyze the sample in the City's Water Quality Chemistry Services laboratory, which is certified by the Environmental Laboratory Accreditation Program (ELAP) for lead analysis, and will then submit the results to the State Water Resources Control Board (SWRCB) electronically. Also, the City of San Diego will provide the results to Excelsior Academy.

4. The City of San Diego will discuss and provide assistance to Excelsior Academy with interpretation of the samples and repeat sampling of any samples that exceed the lead action of 15 parts per billion (ppb).

5. The City of San Diego is not responsible for any corrective action(s) in the event of lead sampling results above 15 ppb.

7202 Princess View Drive • San Diego, CA 92120 • Phone (619) 583-6762 • Fax (619) 583-6764

6. It is the responsibility of Excelsior Academy to share the sampling results including but not limited to its School Board, School District, parents and students and/or other stakeholders. The City of San Diego cannot release the lead sampling data for 60 days following the receipt of the initial sampling following results unless the City of San Diego receives a Public Records Act (PRA) for the specific results.

I would like to request a meeting with the City of San Diego's staff or designated representative to discuss lead sampling for our school at your earliest convenience and I will provide adequate staff to assist your efforts. If you have any questions, please contact me at or Katie Wilson (my designee) at 619-583-6762.

Sincerely,

Nance Maguire, Ed D

Nance Maguire, Ed. D.
Executive Director
Excelsior Academy

Cc: Electronically to
DDW-PLU@waterboards.ca.gov

Or: 1001 I Street, 17th Floor
Attn: Primacy Liaison Unit
Sacramento, CA 95618

The City of San Diego
Tom Burger
Associate Chemist
5530 Kiowa Drive
La Mesa, CA 91942-1331

April 17, 2017

SUBJECT: REQUEST OF LEAD SAMPLING AT The Cambridge School

Dear Mr. Burger, I am writing on behalf of The Cambridge School to request lead sampling for our school or school district, which is served by the City of San Diego Public Utilities Department. I would like to request the City of San Diego's assistance to develop a lead sampling plan and collect lead sample(s) at The Cambridge School.

I acknowledge and understand the following:

1. The Cambridge School must submit a written request to the City of San Diego and the City of San Diego has to meet and collect lead samples for The Cambridge School within 90 days or provide a lead sampling schedule to the local Division of Drinking Water District Office or Local Primacy Agency (LPA) Office if the lead sampling will take more than 90 days.

2. The City of San Diego will assist and provide a one-time lead sampling (up to five locations) without charge to The Cambridge School.

3. The City of San Diego will analyze the sample(s) in the City's Water Quality Chemistry Services laboratory, which is certified by the Environmental Laboratory Accreditation Program (ELAP) for lead analysis, and will then submit the results to the State Water Resources Control Board (SWRCB) electronically. Also, the City of San Diego will provide the results to The Cambridge School.

4. The City of San Diego will discuss and provide assistance to the [School Name] or [School District] with interpretation of the samples and repeat sampling of any samples that exceed the lead action level of 15 parts per billion (ppb).

5. The City of San Diego is not responsible for any corrective action(s) in the event of lead sampling results above 15 ppb.

6. It is the responsibly of The Cambridge School. to share the sampling results including but not limited to its School Board, School District, parents and students and/or other stakeholders. The City of San Diego cannot release the lead sampling data for 60 days following the receipt of the initial sampling results unless the City of San Diego receives a Public Records Act (PRA) for the specific results.

I would like to request a meeting with the City of San Diego's staff or designated representative to discuss lead sampling for our school at your earliest convenience and I will provide adequate staff to assist your efforts. If you have any questions, please contact me at 949-981-4002.

Sincerely,

Richard Ambuehl

Richard Ambuehl
Facility Manager
The Cambridge School

Cc: Electronically to DDW-PLU@waterboards.ca.gov
Or 1001 I Street, 17th Floor
Attn: Primacy Liaison Unit
Sacramento, CA 95618

David Rivera, J.D.
President

EPIPHANY PREP
CHARTER SCHOOL
SAN DIEGO ESCONDIDO

Jose Manual Villarreal, Ed.D.
Vice President

The City of San Diego
Tom Burger, Associate Chemist
5530 Kiowa Drive
La Mesa, CA 91942-1331

April 12, 2017

RE: LEAD SAMPLING REQUEST AT EPIPHANY PREP CHARTER SCHOOL, SAN DIEGO

Dear Mr. Burger,

Epiphany Prep Charter School, San Diego ("Epiphany Prep") is requesting lead sampling, which is served by the City of San Diego Public Utilities Department. I would like to request the assistance of the City of San Diego ("City") to develop a lead sampling plan and collect lead sampling.

I acknowledge and understand the following:
1. Epiphany Prep must submit a written request to the City and the City has to meet/collect lead samples for Epiphany Prep within 90 days or provide a sampling schedule to the Division of Drinking Water District Office or Local Primacy Agency (LPA) Office if the lead sampling will take more than 90 days.

2. The City will assist and provide a one-time lead sampling without charge to Epiphany Prep.

3. The City will analyze the sample(s) in their Water Quality Chemistry Services lab certified by the Environmental Laboratory Accreditation Program (ELAP) for lead analysis, and will submit results to both the State Water Resources Control Board (SWRCB) and to Epiphany Prep.

4. The City will discuss and provide assistance to Epiphany Prep with interpretation of the samples and repeat sampling of any samples that exceed the lead action level of 15 parts per billion (ppb).

5. The City is not responsible for corrective action(s) in the event of lead sampling results above 15 ppb.

6. It is Epiphany Prep's responsibly to share the sampling results with its Board, School District, parents, students and other stakeholders. The City cannot release sampling data for 60 days following receipt of the initial sampling results unless the City receives a Public Records Act (PRA) for the specific results.

I would like to request a meeting with City staff or designated representative to discuss lead sampling for our school and we will provide staff to assist your efforts. My contact information is below.

Sincerely,

Dr. David Rivera
President
619-549-1810 (cell)
drivera@epiphanyprep.org

Cc: DDW-PLU@waterboards.ca.gov

The Institute for Effective Education
2255 Camino Del Rio South
San Diego, CA 92108

(619) 243-1325 FAX (619) 233-8409 www.TIEE.org www.MtHelixAcademy.org

Kenneth L. Traupmann, Ph.D.
CEO, Executive Director
Resources, Policy & Planning

Suzanne Fitch, Ed.D.
Executive Director
Programs and Personnel

Board of Directors
Jose Luis Alvarado, Ph.D.
President
John Woods, Ph.D.
Secretary/Treasurer
Jose Luis Alvarado, Ph.D.
Collette Cavalier, Esq.
Sandra Daley, M.D.
King Golden, Esq.
Jonathan Siegel, M.D.

Children's Workshop
Hillary Whiteside, M.S., BCBA
Director

COOK Education Center
Jen Swope, M.S., Director

Mt. Helix Academy
Mike Collins, B.A., Director

Urban Skills Center
Jen Swope, M.S., Director

Mary Cohen contacted me on 5-11-17, and asked if I received fax (NO I did not). Email was recieved 5-11-17 Tom Burger

April 18, 2017

The City of San Diego
Tom Burger
Associate Chemist
5530 Kiowa Drive
La Mesa, CA 91942

RE: REQUEST OF LEAD SAMPLING AT CHILDREN'S WORKSHOP, COOK EDUCATION CENTER, AND URBAN SKILLS CENTER

Dear Mr. Burger,

I am the Executive Director of The Institute for Effective Education, a California non-profit corporation that operates CA Department of Education certified non-public schools in San Diego; including Children's Workshop, located at 4055 Camino Del Rio South, COOK Education Center, located at 2255 Camino Del Rio South, and Urban Skills Center, located at 2225 Camino Del Rio South. I am writing to request lead sampling for these schools, which are served by the City of San Diego Public Utilities Department. I am requesting the City of San Diego's assistance to develop a lead sampling plan and collect lead samples at the above-mentioned schools.

I acknowledge and understand the following:

1. I must submit a written request to the City of San Diego and the City of San Diego has to meet and collect lead samples for each of the schools identified above within 90 days or provide a lead sampling schedule to the local Division of Drinking Water District Office or Local Primacy Agency (LPA) Office if the lead sampling will take more than 90 days.

2. The City of San Diego will assist and provide a one-time lead sampling without charge to The Institute for Effective Education.

3. The City of San Diego will analyze the sample(s) in the City's Water Quality Chemistry Services laboratory, which is certified by the Environmental Laboratory Accreditation Program (ELAP) for lead analysis, and will then submit the results to the State Water Resources Control Board (SWRCB) electronically. Also, the City of San Diego will provide the results to The Institute for Effective Education.

4. The City of San Diego will discuss and provide assistance to The Institute for Effective Education with interpretation of the samples and repeat sampling of any samples that exceed the lead action level of 15 parts per billion (ppb).

5. The City of San Diego is not responsible for any corrective action(s) in the event of lead sampling results above 15ppb.

6. It is the responsibly of The Institute for Effective Education to share the sampling results including but not limited to its Board of Directors, school personnel, parents, and students,

The Institute for Effective Education

2255 Camino Del Rio South
San Diego, CA 92108

(619) 243-1325 FAX (619) 233-8409 www.TIEE.org www.MtHelixAcademy.org

Kenneth L. Traupmann, Ph.D.
CEO, Executive Director
Resources, Policy & Planning

Suzanne Fitch, Ed.D.
Executive Director
Programs and Personnel

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Collette Cavalier, Esq.
Sandra Daley, M.D.
King Golden, Esq.
Jonathan Siegel, M.D.

Children's Workshop
Hillary Whiteside, M.S., BCBA
Director

COOK Education Center
Jen Swope, M.S., Director

Mt. Helix Academy
Mike Collins, B.A., Director

Urban Skills Center
Jen Swope, M.S., Director

April 18, 2017

The City of San Diego
Tom Burger
Associate Chemist
5530 Kiowa Drive
La Mesa, CA 91942

RE: REQUEST OF LEAD SAMPLING AT CHILDREN'S WORKSHOP, COOK EDUCATION CENTER, AND URBAN SKILLS CENTER

Dear Mr. Burger,

I am the Executive Director of The Institute for Effective Education, a California non-profit corporation that operates CA Department of Education certified non-public schools in San Diego; including Children's Workshop, located at 4055 Camino Del Rio South, COOK Education Center, located at 2255 Camino Del Rio South, and Urban Skills Center, located at 2225 Camino Del Rio South. I am writing to request lead sampling for these schools, which are served by the City of San Diego Public Utilities Department. I am requesting the City of San Diego's assistance to develop a lead sampling plan and collect lead samples at the above-mentioned schools.

I acknowledge and understand the following:

1. I must submit a written request to the City of San Diego and the City of San Diego has to meet and collect lead samples for each of the schools identified above within 90 days or provide a lead sampling schedule to the local Division of Drinking Water District Office or Local Primacy Agency (LPA) Office if the lead sampling will take more than 90 days.

2. The City of San Diego will assist and provide a one-time lead sampling without charge to The Institute for Effective Education.

3. The City of San Diego will analyze the sample(s) in the City's Water Quality Chemistry Services laboratory, which is certified by the Environmental Laboratory Accreditation Program (ELAP) for lead analysis, and will then submit the results to the State Water Resources Control Board (SWRCB) electronically. Also, the City of San Diego will provide the results to The Institute for Effective Education.

4. The City of San Diego will discuss and provide assistance to The Institute for Effective Education with interpretation of the samples and repeat sampling of any samples that exceed the lead action level of 15 parts per billion (ppb).

5. The City of San Diego is not responsible for any corrective action(s) in the event of lead sampling results above 15ppb.

6. It is the responsibly of The Institute for Effective Education to share the sampling results including but not limited to its Board of Directors, school personnel, parents, and students,

and/or other stakeholders. The City of San Diego cannot release the lead sampling data for 60 days following the receipt of the initial sampling results unless the City of San Diego receives a Public Records Act (PRA) for the specific results.

I am requesting a meeting with the City of San Diego's staff or designated representative to discuss lead sampling for our schools at your earliest convenience, and I will provide adequate staff to assist your efforts. If you have any questions, please contact my designee, Mary Cohen, TIEE Facilities Manager, at 619-243-1390 (mcohen@tiee.org).

Sincerely,

Kenneth Traupmann, Ph.D.
Executive Director

7270 Lisbon Street, San Diego, CA
92114
619.263.9266
619.262.2217 fax

March 14, 2017

Public Utilities Department

Attn: Lead Testing in Schools

5530 Kiowa Drive

La Mesa, CA 91942-1331

Due to parent requests I'm requesting that the drinking water be tested at:

Keiller Leadership Academy

7270 Lisbon Street

San Diego, CA 92114

KLA is a public charter school operating in a San Diego Unified School District facility.

Please contact me if you have any correspondence regarding this.

Joel Christman

Joel Christman

Executive Director
Keiller Leadership Academy

La petite école

ENGLISH FRENCH LEARNING ACADEMY

The City of San Diego
Tom Burger
Associate Chemist
5530 Kiowa Drive
La Mesa, CA 91942-1331

May 3, 2017

SUBJECT: REQUEST OF LEAD SAMPLING AT THE ENGLISH FRENCH LEARNING ACADEMY

Dear Mr. Burger,

I am writing on behalf of the English French Learning Academy to request lead sampling for our school, which is served by the City of San Diego Public Utilities Department. I would like to request the City of San Diego's assistance to develop a lead sampling plan and collect lead sample(s) at the English French Learning Academy's two campuses.

I acknowledge and understand the following:

1. The English French Learning Academy must submit a written request to the City of San Diego and the City of San Diego has to meet and collect lead samples for the English French Learning Academy within 90 days or provide a lead sampling schedule to the local Division of Drinking Water District Office or Local Primacy Agency (LPA) Office if the lead sampling will take more than 90 days.

2. The City of San Diego will assist and provide a one-time lead sampling (up to five locations) without charge to the English French Learning Academy.

3. The City of San Diego will analyze the sample(s) in the City's Water Quality Chemistry Services laboratory, which is certified by the Environmental Laboratory Accreditation Program (ELAP) for lead analysis, and will then submit the results to the State Water Resources Control Board (SWRCB) electronically. Also, the City of San Diego will provide the results to the English French Learning Academy.

4. The City of San Diego will discuss and provide assistance to the English French Learning Academy with interpretation of the samples and repeat sampling of any samples that exceed the lead action level of 15 parts per billion (ppb).

5. The City of San Diego is not responsible for any corrective action(s) in the event of lead sampling results above 15 ppb.

6. It is the responsibility of the English French Learning Academy to share the sampling results including, but not limited to, it School Board, School District, parents and students, and/or other stakeholders. The City of San Diego cannot release the lead sampling data for 60 days following the initial sampling results unless the City of San Diego receives a Public Records Act (PRA) for specific results.

The school's administrator, Thierry Pasquet, and I would like to request a meeting with the City of San Diego's staff or designated representative to discuss lead sampling for our school at your earliest convenience and we will provide adequate staff to assist your efforts. If you have any questions, please contact me at 858-231-1762.

Sincerely,

Shelley Samaritoni

Shelley Samaritoni
Parent Teacher Resources (PTR) Treasurer

Cc: DDW-PLU@waterboards.ca.gov
thierry.p@petite-ecole.com

McGILL SCHOOL *of* SUCCESS

Planting the Seeds of Knowledge

The City of San Diego
Tom Burger
Associate Chemist
5530 Kiowa Drive
La Mesa, CA 91942-1331

05/02/2017

Subject: Request of Lead Sampling at McGill School of Success

Dear Mr. Burger,

I am writing on behalf of McGill School of Success to request lead sampling for our school or school district, which is served by the City of San Diego Public Utilities Department. I would like to request the City of San Diego's assistance to develop a lead sampling plan and collect lead samples at McGill School of Success.

I acknowledge and understand the following:

1. McGill must submit a written request to the City of San Diego and the City of San Diego has to meet and collect lead samples for McGill within 90 days or provide a lead sampling schedule the local Division of Drinking Water District Office or Local Primary Agency (LPA) Office if the lead sampling will take more than 90 days.
2. The City of San Diego will assist and provide a one-time lead sampling (up to five locations) without charge to McGill.
3. The City of San Diego will analyze the sample in the City's Water Quality Chemistry Services laboratory, which is certified by the Environmental Laboratory Accreditation Program (ELAP) for lead analysis, and will then submit the results to the State Water Resources Control Board (SWRCB) electronically. Also, the City of San Diego will provide the results to McGill School of Success.
4. The City of San Diego will discuss and provide assistance to McGill with interpretation of the samples and repeat sampling of any samples that exceed the lead action level of 15 parts per billion (ppb).
5. The City of San Diego is not responsible for any corrective action(s) in the event of lead sampling results above 15 ppb.
6. It is responsibly of the McGill School of Success to share the sampling results including but not limited to its School Board, School District, parents and students and/or other stakeholders. The City of San Diego cannot release the lead sampling data for 60 days following the receipt of the

initial sampling results unless the City of San Diego receives a Public Records Act (PRA) for the specific results.

I would like to request a meeting with the City of San Diego's staff or designated representative to discuss lead sampling for our school at your earliest convenience and I will provide adequate staff to assist your efforts. If you have any questions, please contact me at (619) 677-6347.

Sincerely,

Dr. Lanuza
Principal/CEO
Dr.lanuza@mcgillschoolofsuccess.org
(619) 677-6347

museum school
learning together · learning for life

The City of San Diego
Tom Burger
Associate Chemist
5530 Kiowa Drive
La Mesa, CA 91942-1331

April 24, 2017

SUBJECT: REQUEST OF LEAD SAMPLING AT Museum School

Dear Mr. Burger,
I am writing on behalf of the Museum School to request lead sampling for our school or school district, which is served by the City of San Diego Public Utilities Department. I would like to request the City of San Diego's assistance to develop a lead sampling plan and collect lead sample(s) at the Museum School.

I acknowledge and understand the following:
1. The Museum School must submit a written request to the City of San Diego and the City of San Diego has to meet and collect lead samples for the Museum School within 90 days or provide a lead sampling schedule to the local Division of Drinking Water District Office or Local Primacy Agency (LPA) Office if the lead sampling will take more than 90 days.

2. The City of San Diego will assist and provide a one-time lead sampling (up to five locations) without charge to the Museum School.

3. The City of San Diego will analyze the sample(s) in the City's Water Quality Chemistry Services laboratory, which is certified by the Environmental Laboratory Accreditation Program (ELAP) for lead analysis, and will then submit the results to the State Water Resources Control Board (SWRCB) electronically. Also, the City of San Diego will provide the results to the Museum School.

4. The City of San Diego will discuss and provide assistance to the Museum School with interpretation of the samples and repeat sampling of any samples that exceed the lead action level of 15 parts per billion (ppb).

5. The City of San Diego is not responsible for any corrective action(s) in the event of lead sampling results above 15 ppb.

6. It is the responsibly of the Museum School to share the sampling results including but not limited to its School Board, School District, parents and students and/or other stakeholders. The City of San Diego cannot release the lead sampling data for 60 days following the receipt of the initial sampling results unless the City of San Diego receives a Public Records Act (PRA) for the specific results.

I would like to request a meeting with the City of San Diego's staff or designated representative to discuss lead sampling for our school at your earliest convenience and I will provide adequate staff to assist your efforts. If you have any questions, please contact me at 619-236-8712.

Sincerely,

Phil Beaumont
Executive Director,
Museum School

Received 4/27/17
Nita Jones

Cc: Electronically to DDW-PLU@waterboards.ca.gov
Or 1001 I Street, 17th Floor
Attn: Primacy Liaison Unit
Sacramento, CA 95618

211 Maple Street, San Diego, CA 92103 t: 619.236.8712 f: 619.236.8906 www.museumschool.org phil@museumschool.org

Our Lady of the Sacred Heart School
4106 42nd Street
San Diego, CA 92105
(619) 284-1715 Fax (619) 284-8332
Preschool (619) 284-0124
www.olshsd.com
www.facebook.com/olshsd

The City of San Diego
Tom Burger
Associate Chemist
5530 Kiowa Drive
La Mesa, CA 91942-1331

April 5, 2017

SUBJECT: REQUEST OF LEAD SAMPLING AT OUR LADY OF THE SACRED HEART
Dear Mr. Burger,

I am writing on behalf of Our Lady of the Sacred Heart School to request lead sampling for our school or school district, which is served by the City of San Diego Public Utilities Department. I would like to request the City of San Diego's assistance to develop a lead sampling plan and collect lead sample(s) at Our Lady of the Sacred Heart School.

I acknowledge and understand the following:

1. Our Lady of the Sacred Heart School must submit a written request to the City of San Diego and the City of San Diego has to meet and collect lead samples for Our Lady of the Sacred Heart School within 90 days or provide a lead sampling schedule to the local Division of Drinking Water District Office or Local Primacy Agency (LPA) Office if the lead sampling will take more than 90 days.

2. The City of San Diego will assist and provide a one-time lead sampling (up to five locations) without charge to Our Lady of the Sacred Heart School.

3. The City of San Diego will analyze the sample(s) in the City's Water Quality Chemistry Services laboratory, which is certified by the Environmental Laboratory Accreditation Program (ELAP) for lead analysis, and will then submit the results to the State Water Resources Control Board (SWRCB) electronically. Also, the City of San Diego will provide the results to Our Lady of the Sacred Heart School.

Our Lady of the Sacred Heart School
4106 42nd Street
San Diego, CA 92105
(619) 284-1715 Fax (619) 284-8332
Preschool (619) 284-0124
www.olshsd.com
www.facebook.com/olshsd

4. The City of San Diego will discuss and provide assistance to the Our Lady of the Sacred Heart School with interpretation of the samples and repeat sampling of any samples that exceed the lead action level of 15 parts per billion (ppb).

5. The City of San Diego is not responsible for any corrective action(s) in the event of lead sampling results above 15 ppb.

6. It is the responsibly of the Our Lady of the Sacred Heart School to share the sampling results including but not limited to its School Board, School District, parents and students and/or other stakeholders. The City of San Diego cannot release the lead sampling data for 60 days following the receipt of the initial sampling results unless the City of San Diego receives a Public Records Act (PRA) for the specific results.

I would like to request a meeting with the City of San Diego's staff or designated representative to discuss lead sampling for our school at your earliest convenience and I will provide adequate staff to assist your efforts. If you have any questions, please contact me or Ms. Elvira Magaña, Administrative Assistant at (619) 284-1715.

Sincerely,

Alfonso Magaña, Principal
Our Lady of the Sacred Heart School

Cc: DDW-PLU@waterboards.ca.gov

Evangeline Roberts Institute of Learning Charter School

The City of San Diego

Tom Burger

Associate Chemist

5530 Kiowa Drive

La Mesa, CA 91942-1331

4-10-2017

SUBJECT: REQUEST OF LEAD SAMPLING At Evangeline Roberts Institute of Learning Charter School

Dear Mr. Burger,

I am writing on behalf of Evangeline Roberts Institute of Learning Charter School to request lead sampling for our school or school district, which is served by the City of San Diego Public Utilities Department. I would like to request the City of San Diego's assistance to develop a lead sampling plan and collect lead samples at Evangeline Roberts Institute of Learning Charter School.

I acknowledge and understand the following:

1. Evangeline Roberts Institute of Learning Charter School must submit a written request to the City of San Diego and the City of San Diego has to meet and collect lead sample(s) for Evangeline Roberts Institute of Learning Charter School within 90 days or provide a lead sampling schedule to the local Division of Drinking Water District Office or Local Primacy Agency (LPA) Office if the lead sampling will take more than 90 days.

2. The City of San Diego will assist and provide a one-time lead sampling without charge to Evangeline Roberts Institute of Learning Charter School.

6785 Imperial Avenue San Diego, CA 92[illegible] Tele: 619-674-6019 Fax:619-546-0274

3. The City of San Diego will analyze the sample(s) in the City's Water Quality Chemistry Services laboratory, which is certified by the Environmental Laboratory Accreditation Program (ELAP) for lead analysis, and will then submit the results to the State Water Resources Control Board (SWRCB) electronically. Also, the City of San Diego will provide the results to Evangeline Roberts Institute of Learning Charter School.

4. The City of San Diego will discuss and provide assistance to the Evangeline Roberts Institute of Learning Charter School with interpretation of the samples and repeat sampling of any samples that exceed the lead action level of 15 parts per billion (ppb).

5. The City of San Diego is not responsible for any corrective action(s) in the event of lead sampling results above 15 ppb.

6. It is the responsibly of the Evangeline Roberts Institute of Learning Charter School to share the sampling results including but not limited to its School Board, School District, parents and students and/or other stakeholders. The City of San Diego cannot release the lead sampling data for 60 days following the receipt of the initial sampling results unless the City of San Diego receives a Public Records Act (PRA) for the specific results.

I would like to request a meeting with the City of San Diego's staff or designated representative to discuss lead sampling for our school at your earliest convenience and I will provide adequate staff to assist your efforts. If you have any questions, please contact me Shelia Malveaux at 619-674-6019 or Shawn Harper 619-674-6019.

Sincerely,

Shelia Malveaux

Evangeline Roberts Institute of Learning Charter School

Cc: Electronically to DDW-PLU@waterboards.ca.gov

Or 1001 I Street, 17th Floor Attn: Primacy Liaison Unit Sacramento, CA 95618

District Office
11232 El Camino Real
San Diego, CA 92130-2657
(858) 755-9301 • (858) 755-4361 Fax
www.dmusd.org

Del Mar
union school district
Educating Innovative, Global Thinkers

Superintendent
Holly McClurg, Ph.D.

Board of Trustees
Doug Rafner, Esq., President
Kristin Gibson, Clerk
Stephen Cochrane, Ph.D., Member
Erica Halpern, Member
Scott Wooden, Ph.D., Member

April 24, 2017

City of San Diego
Public Utilities Department
Tom Burger, Associate Chemist
Lead Testing of Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

SUBJECT: Request of Lead Sampling at Del Mar Heights, Del Mar Hills Academy, Carmel Del Mar, Ashley Falls, Torrey Hills, Sycamore Ridge, Sage Canyon, and Ocean Air Elementary Schools (Del Mar Union School District)

Dear Tom,

I am writing on behalf of the Del Mar Union School District to request lead sampling for Del Mar Heights, Del Mar Hills Academy, Carmel Del Mar, Ashley Falls, Torrey Hills, Sycamore Ridge, Sage Canyon, and Ocean Air Elementary Schools which are served by the City of San Diego Public Utilities Department (City of San Diego). I would like to request the City of San Diego's assistance to develop a lead sampling plan and collect lead sample(s) at Del Mar Heights, Del Mar Hills Academy, and Carmel Del Mar Elementary schools.

I acknowledge and understand the following:

1. Del Mar Union School District must submit a written request to the City of San Diego and the City of San Diego has to meet and collect lead samples for Del Mar Heights, Del Mar Hills Academy, Carmel Del Mar, Ashley Falls, Torrey Hills, Sycamore Ridge, Sage Canyon, and Ocean Air Elementary Schools within 90 days or provide a lead sampling schedule to the local Division of Drinking Water District Office or Local Primacy Agency (LPA) Office if the lead sampling will take more than 90 days.

2. The City of San Diego will assist and provide a one-time lead sampling (up to five locations) without charge to the Del Mar Union School District.

3. The City of San Diego will send the sample(s) to a laboratory certified by Environmental Laboratory Accreditation Program (ELAP) for lead analysis, and require the laboratory to submit

the results to the State Water Resources Control Board (SWRCB) electronically. Also, the City of San Diego will provide the results to the Del Mar Union School District.

4. The City of San Diego will discuss and provide assistance to the Del Mar Union School District with interpretation of the samples and repeat sampling of any samples that exceed the lead action level of 15 parts per billion (ppb).

5. The City of San Diego is not responsible for any corrective action(s) in the event of lead sampling results above 15 ppb.

6. It is the responsibly of the Del Mar Union School District to share the sampling results including but not limited to its School Board, School District, parents and students and/or other stakeholders. The City of San Diego cannot release the lead sampling data for 60 days following the receipt of the initial sampling results unless the City of San Diego receives a Public Records Act (PRA) for the specific results.

I would like to request a meeting with the City of San Diego's staff or designated representative to discuss lead sampling for our schools at your earliest convenience and I will provide adequate staff to assist your efforts. If you have any questions, please contact my designee, Mike Galis, Director of Maintenance, Operations & Facilities, at 847-404-7863.

Sincerely,

Holly McClurg

Holly McClurg, Ph.D.
Superintendent

Cc: drinkingwaterquality@sandiego.gov
DDW-PLU@waterboards.ca.gov

KIPP San Diego
COLLEGE PREPARATORY PUBLIC SCHOOLS

The City of San Diego
Tom Burger
Associate Chemist
5530 Kiowa Drive
La Mesa, CA 91942-1331

April 7, 2017

SUBJECT: REQUEST OF LEAD SAMPLING AT KIPP ADELANTE PREPARATORY ACADEMY

Dear Mr. Burger,

I am writing on behalf of KIPP Adelante Preparatory Academy to request lead sampling for our school, which is served by the City of San Diego Public Utilities Department. I would like to request the City of San Diego's assistance to develop a lead sampling plan and collect a lead sample at our school's location, 1475 Sixth Avenue, San Diego, CA 92101.

I acknowledge and understand the following:

1. KIPP Adelante Preparatory Academy must submit a written request to the City of San Diego and the City of San Diego has to meet and collect lead samples for said school within 90 days or provide a lead sampling schedule to the local Division of Drinking Water District Office or Local Primacy Agency (LPA) Office if the lead sampling will take more than 90 days.

2. The City of San Diego will assist and provide a one-time lead sampling (up to five locations) without charge to KIPP Adelante Preparatory Academy.

3. The City of San Diego will analyze the sample(s) in the City's Water Quality Chemistry Services laboratory, which is certified by the Environmental Laboratory Accreditation Program (ELAP) for lead analysis, and will then submit the results to the State Water Resources Control Board (SWRCB) electronically. Also, the City of San Diego will provide the results to KIPP Adelante Preparatory Academy.

4. The City of San Diego will discuss and provide assistance to KIPP Adelante Preparatory Academy with interpretation of the samples and repeat sampling of any samples that exceed the lead action level of 15 parts per billion (ppb).

5. The City of San Diego is not responsible for any corrective action(s) in the event of lead sampling results above 15 ppb.

6. It is the responsibly of KIPP Adelante Preparatory Academy to share the sampling results including but not limited to its Board of Directors, parents and students and/or other stakeholders. The City of San Diego cannot release the lead sampling data for 60 days following the receipt of the initial sampling results unless the City of San Diego receives a Public Records Act (PRA) for the specific results.

I would like to request a meeting with the City of San Diego's staff or designated representative to discuss lead sampling for our school at your earliest convenience and I will provide adequate staff to assist your efforts. If you have any questions, please contact me at 619-399-6261.

Sincerely,

Robert Tannenbaum

Robert Tannenbaum
Director of Operations
KIPP Adelante Preparatory Academy
rtannenbaum@kippsandiego.org

Cc: Electronically to
DDW-PLU@waterboards.ca.gov

San Dieguito
Union High School District

710 Encinitas Boulevard, Encinitas, CA 92024
Telephone (760) 753-6491
www.sduhsd.net

Board of Trustees
Joyce Dalessandro
Beth Hergesheimer
Amy Herman
Maureen "Mo" Muir
John Salazar

Superintendent
Eric Dill

Purchasing Department
Fax (760) 943-1542

Doug Campbell
City of San Diego
Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

May 11, 2017

SUBJECT: REQUEST OF LEAD SAMPLING AT SAN DIEGUITO UNION HIGH SCHOOL DISTRICT SCHOOLS

Dear Mr. Campbell,

I am writing on behalf of San Dieguito Union High School District to request lead sampling for the schools in our school district which are served by the City of San Diego Public Utilities Department. I would like to request the City of San Diego's assistance to develop a lead sampling plan and collect lead sample(s) at:

1. Torrey Pines High School, 3710 Del Mar Heights Rd, San Diego, CA 92130
2. Canyon Crest Academy, 5951 Village Center Rd, San Diego, CA 92130
3. Pacific Trails Middle School, 5975 Village Center Rd, San Diego, CA 92130
4. Carmel Valley Middle School, 3800 Mykonos Lane. San Diego, CA 92130

I acknowledge and understand the following:

1. San Dieguito Union High School District must submit a written request to the City of San Diego and the City of San Diego has to meet and collect lead samples for San Dieguito Union High School District within 90 days or provide a lead sampling schedule to the local Division of Drinking Water District Office or Local Primacy Agency (LPA) Office if the lead sampling will take more than 90 days.

2. The City of San Diego will assist and provide a one-time lead sampling (up to five locations) without charge to San Dieguito Union High School District.

3. The City of San Diego will analyze the sample(s) in the City's Water Quality Chemistry Services laboratory, which is certified by the Environmental Laboratory Accreditation Program (ELAP) for lead analysis, and will then submit the results to the State Water Resources Control Board (SWRCB) electronically. Also, the City of San Diego will provide the results to San Dieguito Union High School District.

4. The City of San Diego will discuss and provide assistance to the San Dieguito Union High School District with interpretation of the samples and repeat sampling of any samples that exceed the lead action level of 15 parts per billion (ppb).

San Dieguito
Union High School District

710 Encinitas Boulevard, Encinitas, CA 92024
Telephone (760) 753-6491
www.sduhsd.net

Board of Trustees
Joyce Dalessandro
Beth Hergesheimer
Amy Herman
Maureen "Mo" Muir
John Salazar

Superintendent
Eric Dill

Purchasing Department
Fax (760) 943-1542

5. The City of San Diego is not responsible for any corrective action(s) in the event of lead sampling results above 15 ppb.
6. It is the responsibly of the San Dieguito Union High School Disitrict to share the sampling results including but not limited to its School Board, School District, parents and students and/or other stakeholders. The City of San Diego cannot release the lead sampling data for 60 days following the receipt of the initial sampling results unless the City of San Diego receives a Public Records Act (PRA) for the specific results.

I would like to request a meeting with the City of San Diego's staff or designated representative to discuss lead sampling for our schools at your earliest convenience and I will provide adequate staff to assist your efforts. If you have any questions, please contact Jim Mitroff, Maintenance Supervisor, at (760) 753-6491 ext 5404 or via email at jim.mitroff@sduhsd.net.

Sincerely,

Douglas B. Gilbert
Director of Purchasing & Risk Management
San Dieguito Union High School District

Cc: Electronically to
drinkingwaterquality@sandiego.gov
DCampbell@sandiego.gov
jim.mitroff@sduhsd.net

City of San Diego
Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Stella Maris Academy

The City of San Diego
Tom Burger
Associate Chemist
5530 Kiowa Drive
La Mesa, CA 91942-1331

April 5, 2017

SUBJECT: REQUEST OF LEAD SAMPLING AT STELLA MARIS ACADEMY

Dear Mr. Burger,

I am writing on behalf of Stella Maris Academy to request lead sampling for our school, which is served by the City of San Diego Public Utilities Department. I would like to request the City of San Diego's assistance to develop a lead sampling plan and collect lead sample(s) at Stella Maris Academy.

I acknowledge and understand the following:
1. Stella Maris Academy must submit a written request to the City of San Diego and the City of San Diego has to meet and collect lead samples for Stella Maris Academy within 90 days or provide a lead sampling schedule to the local Division of Drinking Water District Office or Local Primacy Agency (LPA) Office if the lead sampling will take more than 90 days.

2. The City of San Diego will assist and provide a one-time lead sampling (up to five locations) without charge to Stella Maris Academy.

3. The City of San Diego will analyze the sample(s) in the City's Water Quality Chemistry Services laboratory, which is certified by the Environmental Laboratory Accreditation Program (ELAP) for lead analysis, and will then submit the results to the State Water Resources Control Board (SWRCB) electronically. Also, the City of San Diego will provide the results to Stella Maris Academy.

4. The City of San Diego will discuss and provide assistance to the Stella Maris Academy with interpretation of the samples and repeat sampling of any samples that exceed the lead action level of 15 parts per billion (ppb).

5. The City of San Diego is not responsible for any corrective action(s) in the event of lead sampling results above 15 ppb.

6. It is the responsibly of Stella Maris Academy to share the sampling results including but not limited to its School Board, School District, parents and students and/or other stakeholders. The City of San Diego cannot release the lead sampling data for 60 days following the receipt of the initial sampling results unless the City of San Diego receives a Public Records Act (PRA) for the specific results.

7654 Herschel Avenue • La Jolla, California 92037 • Ph (858) 454-2461 Fax (858) 454-4913
www.stellamarisacademy.org

I would like to request a meeting with the City of San Diego's staff or designated representative to discuss lead sampling for our school at your earliest convenience and I will provide adequate staff to assist your efforts. If you have any questions, please contact me at (858) 454-2461.

Sincerely,

Patricia Lowell

Patricia Lowell
Principal
Stella Maris Academy
Cc: Electronically to
DDW-PLU@waterboards.ca.gov
Or 1001 I Street, 17th Floor
Attn: Primacy Liaison Unit
Sacramento, CA 95618

ST. MICHAEL
ACADEMY
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Received
6/27/17
nd

CATHOLIC SCHOOLS
Communities of Faith, Knowledge and Service

The City of San Diego
Tom Burger
Associate Chemist
5530 Kiowa Drive
La Mesa, CA 91942-1331

June 16, 2017

SUBJECT: REQUEST OF LEAD SAMPLING AT ST. MICHAEL ACADEMY

Dear Mr. Burger,

I am writing on behalf of St. Michael Academy to request lead sampling for our school, which is served by the City of San Diego Public Utilities Department. I would like to request the City of San Diego's assistance to develop a lead sampling plan and collect lead sample(s) at St. Michael Academy.

I acknowledge and understand the following:

1. St. Michael Academy must submit a written request to the City of San Diego and the City of San Diego must meet and collect lead samples for St. Michael Academy within 90 days or provide a lead sampling schedule to the local Division of Drinking Water District Office or Local Primacy Agency (LPA) Office if the lead sampling will take more than 90 days.

2. The City of San Diego will assist and provide a one-time lead sampling (up to five locations) without charge to St. Michael Academy

3. The City of San Diego will analyze the sample(s) in the City's Water Quality Chemistry Services laboratory, which is certified by the Environmental Laboratory Accreditation Program (ELAP) for lead analysis, and will then submit the results to the State Water Resources Control Board (SWRCB) electronically. Also, the City of San Diego will provide the results to St. Michael Academy.

4. The City of San Diego will discuss and provide assistance to St. Michael Academy with interpretation of the samples and repeat sampling of any samples that exceed the lead action level of 15 parts per billion (ppb).

5. The City of San Diego is not responsible for any corrective action(s) in the event of lead sampling results above 15 ppb.

6. It is the responsibly of St. Michael Academy to share the sampling results including but not limited to its School Board, School District, parents and students and/or other stakeholders. The City of San Diego cannot release the lead sampling data for 60 days following the receipt of the initial sampling results unless the City of San Diego receives a Public Records Act (PRA) for the specific results.

I would like to request a meeting with the City of San Diego's staff or designated representative to discuss lead sampling for our school at your earliest convenience and I will provide adequate staff to assist your efforts. If you have any questions, please contact me at 619 470 - 4880.

Sincerely,

Mary Johnson

Mary Johnson
Principal
St. Michael Academy
2637 Homedale St.
San Diego, CA 92399
619 470 - 4880

Cc: Electronically to DDW-PLU@waterboards.ca.gov

Or 1001 I Street, 17th Floor Attn: Primacy Liaison Unit Sacramento, CA 95618

Fr. Manuel Ediza, Pastor

SWEETWATER
UNION HIGH SCHOOL DISTRICT

OFFICE OF THE SUPERINTENDENT
1130 Fifth Avenue • Chula Vista, California 91911-2896
(619) 691-5555 • FAX (619) 498-1997

Karen Janney, Ed.D.
Superintendent

March 10, 2017

The City of San Diego
Attn: Tom Burger
5530 Kiowa Drive
La Mesa, CA 91942-1331

Subject: Request of Lead Sampling at San Ysidro Adult School

Dear Mr. Burger:

I am writing to request the City of San Diego's assistance to develop a lead sampling plan and collect lead samples at San Ysidro Adult School, located at 4220 Otay Mesa Road, San Ysidro, CA 92173.

I acknowledge and understand the following:

1. That the Sweetwater Union High School District must submit a written request to the City of San Diego, and the City of San Diego has to meet and collect lead samples for San Ysidro Adult School within 90 days or provide a lead sampling schedule to the local Division of Drinking Water District Office or Local Primacy Agency (LPA) Office if the lead sampling will take more than 90 days.

2. That the City of San Diego will assist and provide a one-time lead sampling (up to five locations) without charge to the Sweetwater Union High School District.

3. That the City of San Diego will send the sample(s) to a laboratory certified by Environmental Laboratory Accreditation Program (ELAP) for lead analysis, and require the laboratory to submit the results to the State Water Resources Control Board (SWRCB) electronically. Also, the City of San Diego will provide the results to the Sweetwater Union High School District.

4. That the City of San Diego will discuss and provide assistance to the Sweetwater Union High School District with interpretation of the samples and repeat sampling of any samples that exceed the lead action level of 15 parts per billion (ppb).

5. That the City of San Diego is not responsible for any corrective action(s) in the event of lead sampling results above 15 ppb.

6. It is the responsibly of the Sweetwater Union High School District to share the sampling results including but not limited to its School Board, School District parents and students and/or other stakeholders.

I would like to request a meeting with the City of San Diego's staff or designated representative to discuss lead sampling for the school at your earliest convenience. Our district will provide adequate staff to assist your efforts.

If you have any questions, please contact Dr. Moises Aguirre, Assistant Superintendent of Facilities and Operation at 619-585-6060, or via e-mail at moises.aguirre@sweetwaterschools.org.

Sincerely,

Karen Janney

Karen Janney, Ed.D.
Superintendent

Cc: Electronically to DDW-PLU@waterboards.ca.gov
1001 I Street, 17th Floor
Attn: Primacy Liaison Unit
Sacramento, CA 95618
Dr. Moises Aguirre, Assistant Superintendent of Facilities and Operations, SUHSD

The Child's Primary SCHOOL
A learning community since 1983

3811 Mt. Acadia Blvd., San Diego, CA 92111
Phone: 858-576-2120; Fax: 858-576-2445; Email: www.tcps.org
Tax ID: 33-0018215

May 11, 2017

The City of San Diego
Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

SUBJECT: REQUEST OF LEAD SAMPLING at The Child's Primary School

Dear Public Utilities:

I am writing on behalf of The Child's Primary School to request lead sampling for our school, which is served by the City of San Diego Public Utilities Department. I would like to request the City of San Diego's assistance to develop a lead sampling plan and collect lead sample(s) at our school site.

I would like to request a meeting with Public Utilities' staff or designated representative to discuss lead sampling for our school at your earliest convenience and I will provide adequate staff to assist your efforts. If you have any questions, please contact me at 858-576-2120.

Sincerely,

Mariel Cairns
mcairns@tcps.org
Business Administrator
The Child's Primary School

Cc: Electronically to:

Sherry Risch, Head of School, The Child's Primary School
DDW-PLU@waterboards.ca.gov

Received: 5/15/17 Nita Jones

The City of San Diego
Tom Burger
Associate Chemist
5530 Kiowa Drive
La Mesa, CA 91942-1331

April 4 2017

SUBJECT: REQUEST OF LEAD SAMPLING AT Urban Discovery Academy

Dear Mr. Burger,

I am writing on behalf of Urban Discovery Academy to request lead sampling for our school or school district, which is served by the City of San Diego Public Utilities Department. I would like to request the City of San Diego's assistance to develop a lead sampling plan and collect lead sample(s) at Urban Discovery Academy

I acknowledge and understand the following:

1. Urban Discovery Academy must submit a written request to the City of San Diego and the City of San Diego has to meet and collect lead samples for Urban Discovery Academy within 90 days or provide a lead sampling schedule to the local Division of Drinking Water District Office or Local Primacy Agency (LPA) Office if the lead sampling will take more than 90 days.

2. The City of San Diego will assist and provide a one-time lead sampling (up to five locations) without charge to Urban Discovery Academy.

3. The City of San Diego will analyze the sample(s) in the City's Water Quality Chemistry Services laboratory, which is certified by the Environmental Laboratory Accreditation Program (ELAP) for lead analysis, and will then submit the results to the State Water Resources Control Board (SWRCB) electronically. Also, the City of San Diego will provide the results to Urban Discovery Academy.

4. The City of San Diego will discuss and provide assistance to the Urban Discovery Academy with interpretation of the samples and repeat sampling of any samples that exceed the lead action level of 15 parts per billion (ppb).

5. The City of San Diego is not responsible for any corrective action(s) in the event of lead sampling results above 15ppb.

840 14th Street | San Diego CA 92101 | Tax ID # 26-2333338 | Tel 619.788.4668 | Fax 619.688.9796 | urbandiscoveryacademy.com

6. It is the responsibly of the Urban Discovery Academy to share the sampling results including but not limited to its School Board, School District, parents and students and/or other stakeholders. The City of San Diego cannot release the lead sampling data for 60 days following the receipt of the initial sampling results unless the City of San Diego receives a Public Records Act (PRA) for the specific results.

I would like to request a meeting with the City of San Diego's staff or designated representative to discuss lead sampling for our school at your earliest convenience and I will provide adequate staff to assist your efforts. If you have any questions, please contact me at 619-788-4668 x 102

Sincerely,

Tony Romano
Office Manager
Urban Discovery Academy
840 14th Street
San Diego, CA 92101
Ph. 619-788-4668 x 102
Fax. 619-688-9796
www.urbandiscoveryacademy.com

Cc: Electronically to
DDW-PLU@waterboards.ca.gov

Number of Results Received as of January 1, 2018

Lead Sampling in California Schools

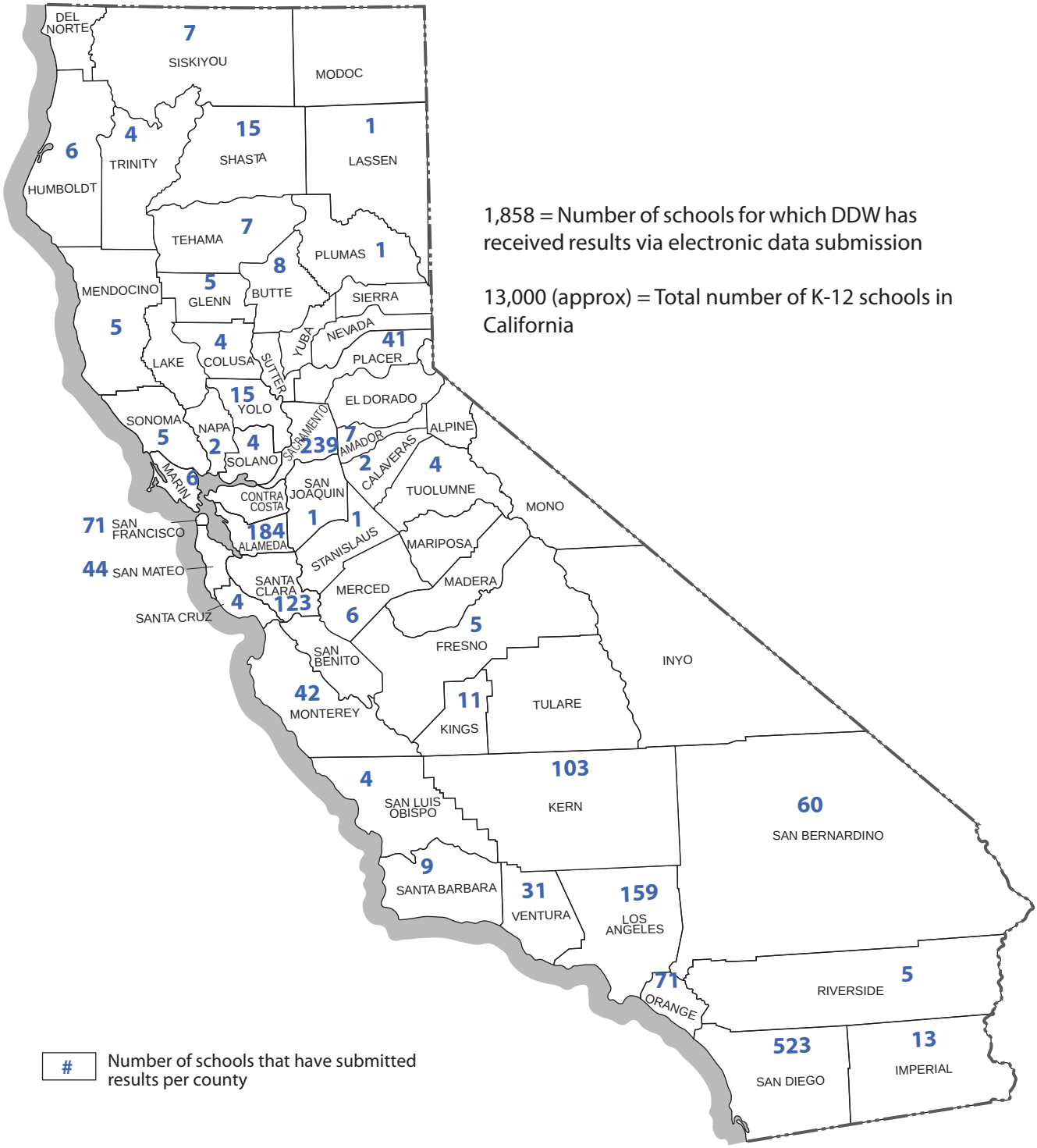

1,858 = Number of schools for which DDW has received results via electronic data submission

13,000 (approx) = Total number of K-12 schools in California

Number of schools that have submitted results per county

January 1, 2018 State Water Board -SWRCB.DDW/AM

Number of School Requests as of January 1, 2018

Lead Sampling in California Schools

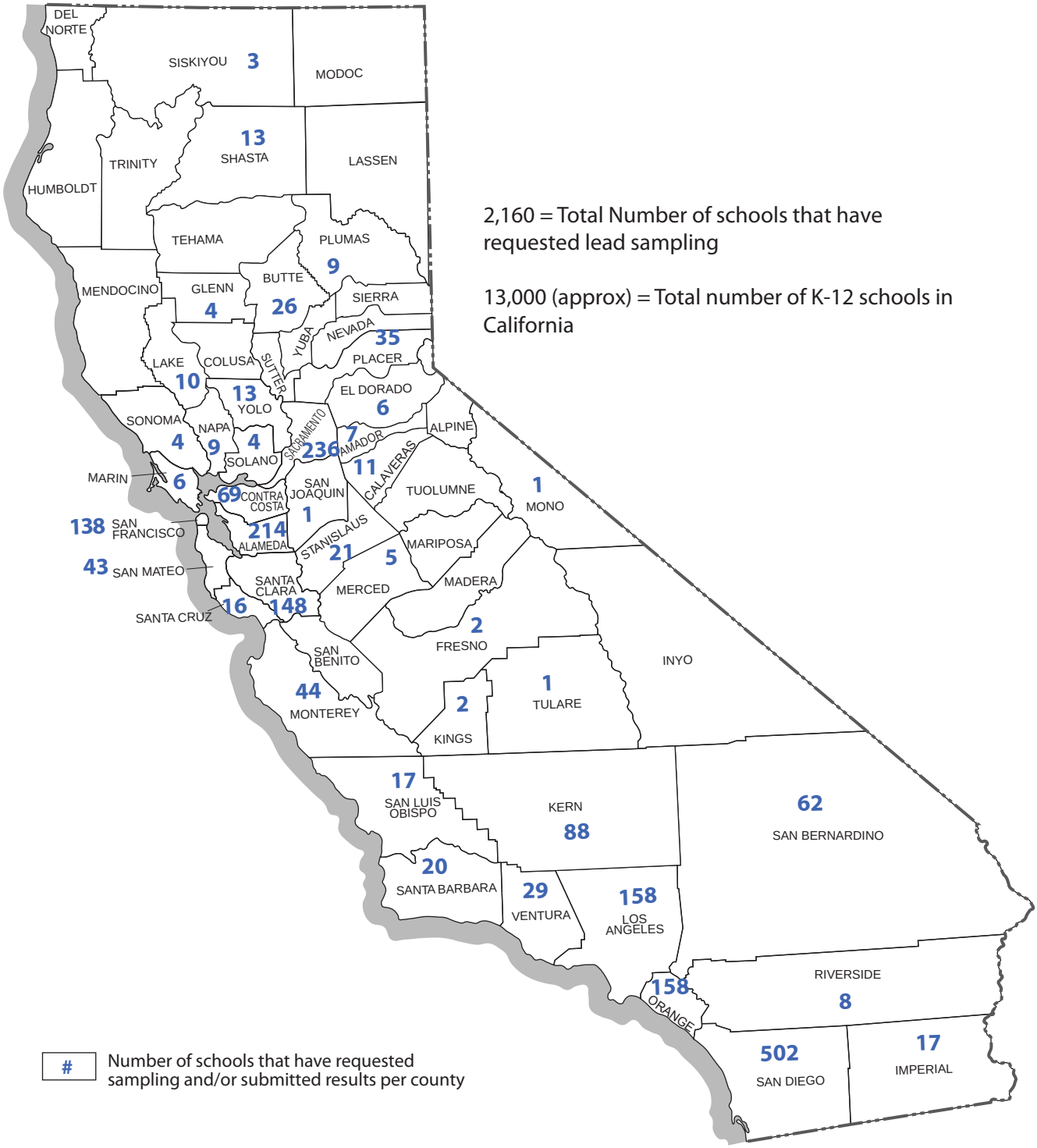

2,160 = Total Number of schools that have requested lead sampling

13,000 (approx) = Total number of K-12 schools in California

Number of schools that have requested sampling and/or submitted results per county

January 1, 2018 State Water Board -SWRCB.DDW/AM

Vroom, Peter

From: Kennedy, Wilson
Sent: Thursday, February 09, 2017 6:53 AM
To: Vroom, Peter
Cc: Jones-Santos, Lee Ann; Eidson, Brent; Murray, Beth
Subject: PRA 17-312 FRY (Media - NBC)

Hello Peter,

Please see the PRA Request highlighted below and provide me with PUD's responsive records in **PDF format by 2.17.17**. Feel free to contact me with any questions or if this request should go to **different/additional** staff members. Thank you.

Request: Please provide records and results from any water quality tests done throughout the city, particularly in San Ysidro in January and February of 2017.

Requester: Wendy Fry with NBC San Diego.

Wilson Kennedy, CFE, MBA
Supervising Management Analyst
Public Utilities Department
(858) 614-4070

The City of SAN DIEGO

~ A world-class city for all ~

CONFIDENTIAL COMMUNICATION
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Vroom, Peter

From: Kennedy, Wilson
Sent: Wednesday, March 01, 2017 8:34 AM
To: Vroom, Peter
Cc: Eidson, Brent; Murray, Beth
Subject: PRA Request 17-497 Fry (media - NBC)

Hello Peter,

Please see the PRA Request highlighted below and provide me with PUD's responsive records in **PDF format by 3.10.17**. Feel free to contact me with any questions or if this request should go to **different/additional** staff members. Thank you.

Request:
1. All water quality test results with contaminant levels above EPA limits for January 2017 and February 2017 and any actions taken as a result of those water quality tests.
2. Communications between agency and school districts in agency service area related to water quality tests and action taken related to water quality tests for past two years.
3. Costs of tests and invoices or billings related to water quality tests at school districts in service area or repairs to improve water quality for past two years.
4. Most recent water quality test results for testing areas within 20 yards of schools in agency service area for past three months.

Requester:
Wendy Fry with NBC San Diego.

Wilson Kennedy, CFE, MBA
Supervising Management Analyst
Public Utilities Department
(858) 614-4070

The City of SAN DIEGO

~ A world-class city for all ~

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VWR

PO Box 117
Wayne, PA
19087

ORIGINAL INVOICE

INVOICE DATE	INVOICE #	PURCHASE ORDER #	ORDER DATE
03/28/2017	8048069863	4500079782	03/27/2017
CUSTOMER ACC #	SALES ORDER #	TERMS	
80028728	8351135313	30 days net	
PAYMENT DUE DATE	04/27/2017	PLEASE PAY THIS AMOUNT	$ 370.69

BILL TO:

SAN DIEGO CITY OF
ACCOUNTS PAYABLE
TECH SERVICES MS 45A
9192 TOPAZ WAY
SAN DIEGO CA 92123-1119

SHIP TO:

PAUL POWELL
ALVARADO LAB
5530 KIOWA DR
LA MESA CA 91942-1331

E-mail address changes to cmd_na@vwr.com

Unless governed by a separate written agreement, sales are subject to VWR standard terms and conditions. Visit www.vwr.com for complete details

Reference:	Reference 2:	Credit Card : N/A

ORDERED BY	DATE SHIPPED	WHSE	VIA	CURRENCY	DUNS #	TAX CODE
Paul Powell - 619-668-3229-X	03/28/2017	8011	UPS 2 Day Air	USD	15-098-2169	56-2445603

LINE #	CUST LINE #	CATALOG NUMBER AND DESCRIPTION	ORDERED	SHIPPED	U/M	UNIT PRICE	EXTENSION	TAX
1		89171-078 COOLER 16 QT EXCURSION BL CS4 Packing Slip: 8351135313 5558 COO: US	1	1	CS	202.81	202.81	15.72
		Merchandise Total					**202.81**	
		Freight Charges					**152.16**	**0.00**

Visit our web site at www.vwr.com	Questions? 1-800-932-5000	Tax	$ 15.72
		TOTAL	$ 370.69

PLEASE DETACH THIS PORTION AND RETURN WITH YOUR PAYMENT

VWR

INVOICE DATE	INVOICE #	PURCHASE ORDER #	ORDER DATE
03/28/2017	8048069863	4500079782	03/27/2017
CUSTOMER ACC #	SALES ORDER #	TERMS	
80028728	8351135313	30 days net	
PAYMENT DUE DATE	04/27/2017	PLEASE PAY THIS AMOUNT	$ 370.69

BILL TO

SAN DIEGO CITY OF
ACCOUNTS PAYABLE
TECH SERVICES MS 45A
9192 TOPAZ WAY
SAN DIEGO CA 92123-1119

REMIT TO

VWR INTERNATIONAL LLC
P.O. BOX 640169
PITTSBURGH PA 15264-0169

00804806986300000037069000003706 90

BR 655725

P. Powell

WTP chem For schools - LEAD TEST Project

Tom Burger 305 P. Powell 4-14-017

ENVIRONMENTAL SAMPLING SUPPLY

INVOICE

Invoice No.	85135958
Invoice Date	04/06/17
Page	1 of 1
Customer No.	1350518
Order No.	131177

Attention	
Phone	619 668-3229
Email /To Customer []	

Bill To:
City of San Diego
Accounts Payable
Industrial Waste Lab-Paul Powell
MS901A, Attn: Accounts Payable
9192 Topaz Way
San Diego CA 92123

RECEIVED
APR 13 2017

Ship To:
City of San Diego Waste Water Lab Pest
Ms 85A
5530 Kiowa Drive
La Mesa CA 91942

Requested Date	Customer P.O. No.	Payment Terms	Shipping Instructions
		Net 30 Days	
		Shipping Terms	
04/06/17	4500080362	GROUND	

Line#	Item Number	Item Description	Qty	Unit Price	Price UOM	Extended Price
1.000	0500-1902-QC	16OZ HDPE WM:CS-OL BULK 60/CS	5	55.02	CS	275.10
2.000	ONTRAC C11503600056137	Freight	1	67.75	EA	67.75

GR 662740
PAUL POWELL 5/5/17

SALES TOTAL:	275.10
SHIPPING AND HANDLING:	67.75
LESS:	0.00
SALES TAX:	29.14
TOTAL:	371.99

ALL RETURNS ARE SUBJECT APPROVAL/RESTOCKING FEE
A 1% SERVICE CHARGE WILL BE APPLIED TO ALL PAST DUE INVOICES

PLEASE REMIT TO: Environmental Sampling Supply
PO Box 204303
Dallas, TX 75320-4303

ORDER TOTAL: 371.99

INVOICE

Invoice No:	85136398
Invoice Date	04/21/17
Page	1 of 1
Customer No.	1350518
Order No.	131600

Attention	
Phone	619 668-3229
Email /To Customer []	

Bill To:
City of San Diego
Accounts Payable
Industrial Waste Lab-Paul Powell
MS901A, Attn: Accounts Payable
9192 Topaz Way
San Diego CA 92123

RECEIVED
MAY 02 2017

Ship To:
City of San Diego Waste Water Lab Pest
Ms 85A
5530 Kiowa Drive
La Mesa CA 91942

Requested Date	Customer P.O. No.	Payment Terms	Shipping Instructions
		Net 30 Days	
		Shipping Terms	
04/21/17	4500080362	Free ground w/surcharge	

Line	Item	Item Description	QOM	Unit Price	Price UOM	Extended Price
1.000	1000-1902-QC	1L HDPE WM:CS-OL BULK 36/CS	20	38.58	CS	771.60
2.000	0500-1902-QC	16OZ HDPE WM:CS-OL BULK 60/CS	5	55.02	CS	275.10
3.000	FDX 380511077 2	Freight	1	108.55	EA	108.55
4.000		Free Freight Discount	1	-81.42	EA	-81.42

GR 662625
For School Lab Testing
P. Powell

SALES TOTAL:	1,046.70
SHIPPING AND HANDLING:	108.55
LESS:	-81.42
SALES TAX:	91.28
TOTAL:	1,165.11

ALL RETURNS ARE SUBJECT APPROVAL/RESTOCKING FEE
A 1% SERVICE CHARGE WILL BE APPLIED TO ALL PAST DUE INVOICES

PLEASE REMIT TO: Environmental Sampling Supply
PO Box 204303
Dallas, TX 75320-4303

ORDER TOTAL: **1,165.11**

ENVIRONMENTAL SAMPLING SUPPLY

INVOICE

Invoice No.	85137441
Invoice Date	05/25/17
Page	1 of 1
Customer No.	1460700
Order No.	132789

Attention	
Phone	
Email /To Customer []	ppowell@sandiego.gov

Bill To:
City Of San Diego
9192 Topaz Way
San Diego CA 92123

Ship To:
City of San Diego Waste Water Lab Pest
Ms 85A
5530 Kiowa Drive
La Mesa CA 91942

Requested Date	Customer P.O. No.	Payment Terms	Shipping Instructions
		Net 30 Days	
05/26/17	4500080362	Free Ground No Surcharge	

Line#	Item Number	Item Description	Qty	Unit Price	Price UOM	Extended Price
1.000	1000-1902-QC	1L HDPE WM:CS-OL BULK 36/CS	20	36.72	CS	734.40
2.000	FDX 3807389283	Freight	1	94.49	EA	94.49
3.000		Free Freight Discount	1	-94.49	EA	-94.49

SALES TOTAL:	734.40
SHIPPING AND HANDLING:	94.49
LESS:	-94.49
SALES TAX:	62.42
TOTAL:	796.82

ALL RETURNS ARE SUBJECT APPROVAL/RESTOCKING FEE
A 1% SERVICE CHARGE WILL BE APPLIED TO ALL PAST DUE INVOICES

GR669962
P.Powell 5-26-17
School Lunch Test

PLEASE REMIT TO: Environmental Sampling Supply
PO Box 204303
Dallas, TX 75320-4303

ORDER TOTAL: **796.82**

Print...

Order Date	Order Number	PO Number	Web Tracking Number	Shipping Account	Order Method	Total
03/28/2017	8351140476	4500079782		80409042	Telephone	$1,006.29

Reorder Items

Ship To
80409042
ALVARADO LAB
5530 KIOWA DR
LA MESA CA 91942-1331

Sold To
80083486
SAN DIEGO CITY OF
ACCOUNTS PAYABLE
9192 TOPAZ WAY
SAN DIEGO CA 92123-1119

Totals

Item total	$730.48
Freight	$219.20
Tax Amount	$56.61
Total	$1,006.29

Ship-To Attention: PAUL POWELL

Billing Documents: View

Order Comments and Messages

Line: 000010 **VWR Catalog No.:** 89171-078 **Your Part No.:** **Status:** Completely processed

Description	UOM	Quantity	Extended Price
COOLER 16 QT EXCURSION BL CS4	CS	4	730.48

More Product Details / Literature

Shipping from Philadelphia Distribution Center

Quote Number: 8030343839
Expiration Date: 04/26/2017

Product Weight 21.00 LB (per CS)

Line Comments and Messages

Shipped (4.0 of 4)

On 03/29/2017	1 of 4 shipped Estimated Delivery Date: 04/03/2017 Tracking Number: 1Z0727780374194807 Carrier: UPS PARCEL	Packing Slip 8072622323
On 03/29/2017	1 of 4 shipped Estimated Delivery Date: 04/03/2017 Tracking Number: 1Z0727780374230740 Carrier: UPS PARCEL	Packing Slip 8072622323
On 03/29/2017	1 of 4 shipped Estimated Delivery Date: 04/03/2017 Tracking Number: 1Z0727780374230759 Carrier: UPS PARCEL	Packing Slip 8072622323
On 03/29/2017	1 of 4 shipped Estimated Delivery Date: 04/03/2017 Tracking Number: 1Z0727780374230768 Carrier: UPS PARCEL	Packing Slip 8072622323

Reorder Items

only used 2 CASES of THIS INVOICE for sampling.

3 CASES TOTAL FROM VWR. (SEE SEPARATE INVOICE)

City of San Diego
Petty Cash Certification Slip

I, Tom Burger (CLAIMANT NAME) hereby certify that the purchase totaling $19.50 (AMOUNT)

represented by this voucher was made by me on behalf of Public Utilities/EMTS (DEPARTMENT/DIVISION)

Date of Purchase: 02/12/17

Item(s) Purchased: Cooler

Purchased at: Walmart

Business Reason: Cooler with shoulder strap for Lead in Schools program

Include reference to regulatory document for any "personal" type expenditure, ie: MOU, Section XX.Xa

Claimant Signature: Tom B Burger Date: 03/16/2017

Supervisor's Name: Doug Campbell

Supervisor's Signature: [signature] Date: 3/17/2017

700011		2000161711	511069	
(Fund Number)	(Business Area)	(Cost Center)	(GL Account)	(Internal Order)

NOTE: ORIGINAL RECEIPTS MUST BE ATTACHED

FOR OFFICE ONLY:

Date Received 4/7/17

Paid from Petty Cash on 4/7/17 (DATE) by [signature] (CUSTODIAN'S SIGNATURE)

Received from Petty Cash on 4/7/17 (DATE) by Tom B Burger (CLAIMANT'S SIGNATURE)

COM-5 (Revised Dec-15)

Walmart
Save money. Live better.

(619) 337 - 3655
MANAGER TODD RALEY
5500 GROSSMONT CENTER DR
LA MESA CA 91942

ST# 05140 OP# 009046 TE# 46 TR# 07760

36CAN COOLER 061884220359		17.97 X
	SUBTOTAL	17.97
TAX 1	8.500 %	1.53
	TOTAL	19.50
	DEBIT TEND	19.50
	CHANGE DUE	0.00

EFT DEBIT PAY FROM PRIMARY
19.50 TOTAL PURCHASE
Debit **** **** **** 0191 I 5
REF # 704300564815
NETWORK ID. 0076 APPR CODE 251961

Debit
AID A0000000042203
TC 0920CE6347B237D3
*NO SIGNATURE REQUIRED
TERMINAL # SC010214

02/12/17 12:06:10

ITEMS SOLD 1

TC# 6778 0419 1491 9420 257

Watch The Receipt
Oscar Sunday Feb 26 on ABC
02/12/17 12:06:19

Store receipts on your phone. Walmart Pay.

THE CITY OF SAN DIEGO

Letter was hand delivered on 3-2-2017
by Tom Burger

March 2, 2017

San Diego Unified Scholl District
Mr. Glenn C. Boogren
Environmental Compliance Manager
4860 Ruffner Street
San Diego, CA 92111-1522

Reference: Lead sampling request for Emerson Elementary & San Diego Cooperative Charter Schools

Dear Mr. Boogren:

Thank you for letter requesting drinking water sampling for lead in your schools. As required by the California State Division of Drinking Water, this letter is the City of San Diego's response to your request

We are pleased to fulfill your request for sampling. The next step in this process is for you to meet with us where we will explain the development of a sampling plan. At this meeting, the school representative must be knowledgeable of the school's plumbing system, including familiarity with the most frequently used fixtures.

Per our phone conversation, I will meet this afternoon with John Baker and Dan Lopez to finalize a sampling plan.

Sincerely,

Tom B. Burger

Tom Burger
Associate Chemist
City of San Diego

TB:nt

\\\\\\\\PbCuRule\Schools\\San Diego Unified\Emerson_SDCoop\Response Letter Emerson-Coop 3-2-2017.docx

Public Utilities Department
5530 Kiowa Drive • Mail MA • La Mesa, CA 91942-1331
Tel (619) 668-3232 Fax (619) 668-3250

The City of
SAN DIEGO
Public Utilities Department
Environmental Monitoring and Technical Services Division

April 28, 2017

Mr. Glenn Boogren
Manager: Safety, Training, Personnel,
& Environmental Compliance
4860 Ruffner Street
San Diego, CA 92111

Reference: Request for Lead Sampling At San Diego Unified School District, (SDUSD) Zone 1

Dear Mr. Boogren:

Thank you for your written request for sampling drinking water at your schools in Zone 1 under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from SDUSD that is familiar with the usage of the water fixtures at SDUSD Zone 1 schools to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires each school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

When the analysis is completed, which takes approximately 4-6 weeks, we will report the results to the SDUSD and the State of California. The State of California and the City of San Diego will not release data to the public before 60 days of the completed analysis, unless we are required to under a Public Records Act (PRA) request.

Please contact Tom Burger at 619-668-3234, or Tburger@sandiego.gov and Feryal Moshavegh at 858-654-4241, or Fmoshavegh@sandiego.gov to attend a sampling plan training session.

Sincerely,

Tom B. Burger

Tom Burger
Associate Chemist

TB:nt

Attachment

The City of
SAN DIEGO
Public Utilities Department
Environmental Monitoring and Technical Services Division

April 19, 2017

Mr. Glenn Boogren
Manager, Safety, Training, Personnel,
& Environmental Compliance
4860 Ruffner Street
San Diego, CA 92111

Reference: Request for Lead Sampling At San Diego Unified School District, (SDUSD) Zone 2

Dear Mr. Boogren:

Thank you for your written request for sampling drinking water at your schools in Zone 2 under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from SDUSD that is familiar with the usage of the water fixtures at SDUSD Zone 2 schools to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires each school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

When the analysis is completed, which takes approximately 4-6 weeks, we will report the results to the SDUSD and the State of California. The State of California and the City of San Diego will not release data to the public before 60 days of the completed analysis, unless we are required to under a Public Records Act (PRA) request.

Please contact Tom Burger at 619-668-3234, or Tburger@sandiego.gov and Feryal Moshavegh at 858-654-4241, or Fmoshavegh@sandiego.gov to attend a sampling plan training session.

Sincerely,

Tom B. Burger

Tom Burger
Associate Chemist

TB:nt

Attachment

Water Quality Laboratory
5530 Kiowa Dr.
La Mesa, CA 91942
www.sandiego.gov/publicutilities

T (858) 654-4401
sandiego.gov

Carson ES	1941	6905 Kramer St	Elem	7:50	2: E. Lara
Linda Vista ES	1943	2772 Ulric St	Elem	8:45	2: E. Lara
Montgomery MS	1943	2470 Ulric St	Mid	8:15	2: E. Lara
Cubberley ES	1948	3201 Marathon Dr	Elem	7:30	2: E. Lara
Kavod Elem Chrtr (@ Cubberley)	*1948*	*3201 Marathon Dr*	*Elem*	*7:30*	*2: E. Lara*
Hancock ES	1952	3303 Taussig St	Elem	7:50	2: E. Lara
Angier ES	1953	8450 Hurlbut St	Elem	9:10	2: E. Lara
Kearny Complex HS (3733, 34, 35, 36)	1954	7651 Wellington Way	High	8:45	2: E. Lara
Muir (John)	1954	4431 Mount Herbert Ave	Elem	8:55	2: E. Lara
Twain Jr-Sr HS	1954	6402 Linda Vista Rd	High	7:28	2: E. Lara
Marshall MS	1956	9700 Avenue of Nations	Mid	7:40	2: E. Lara
Jones ES	1957	2751 Greyling Dr	Elem	7:35	2: E. Lara
Wegeforth ES	1957	3443 Ediwahr Ave	Elem	8:00	2: E. Lara
Chesterton ES	1959	7335 Wheatley St	Elem	8:00	2: E. Lara
Mount Everest Academy	1959	4350 Mt Everest Blvd	Elem	Flex	2: E. Lara
Riley/New Dawn (Loc 438)	1959	5650 Mt Ackerly Dr	Elem	8:40	2: E. Lara
Ross ES	1959	7470 Bagdad St	Elem	7:40	2: E. Lara
Fletcher ES	1960	7666 Bobolink Way	Elem	7:55	2: E. Lara
Juarez ES	1961	2633 Melbourne Dr	Elem	9:15	2: E. Lara
Schweitzer ES	1961	6991 Balboa Ave	Elem	9:15	2: E. Lara
Holmes ES	1962	4902 Mount Ararat Dr	Elem	9:05	2: E. Lara
LINDBERGH ES	1962	4133 Mount Albertine Ave	Elem	9:15	2: E. Lara
Taft MS	1962	9191 Gramercy Dr	Mid	8:55	2: E. Lara
San Diego Co-op Chrtr 1 (@ Linda Vista Annex)	*1966*	*7260 Linda Vista Rd*	*Elem*		*2: E. Lara*
Tierrasanta ES	1973	5450 La Cuenta Dr	Elem	7:35	2: E. Lara
Miller ES	1975	4343 Shields St	Elem	7:50	2: E. Lara
Ericson ES	1976	11174 Westonhill Dr	Elem	7:50	2: E. Lara
Mason ES	1976	10340 San Ramon Dr	Elem	7:50	2: E. Lara
Miramar Ranch ES	1976	10770 Red Cedar Dr	Elem	7:45	2: E. Lara
Sandburg ES/CDC	1976	11230 Avenida del Gato	Elem	7:45	2: E. Lara
Walker ES	1976	9225 Hillery Dr	Elem	7:45	2: E. Lara
Hickman ES	1977	10850 Montongo St	Elem	8:00	2: E. Lara
Jerabek ES	1977	10050 Avenida Magnifica	Elem	8:35	2: E. Lara
Mira Mesa HS	1977	10510 Reagan Rd	High	7:30	2: E. Lara
Serra HS	1977	5156 Santo Rd	High	7:30	2: E. Lara
Vista Grande ES	1977	5606 Antigua Blvd	Elem	7:40	2: E. Lara
Wangenheim MS	1978	9230 Gold Coast Dr	Mid	7:30	2: E. Lara
Farb MS	1979	4880 La Cuenta Dr	Mid	9:00	2: E. Lara
De Portola MS	1986	11010 Clairemont Mesa Blvd	Mid	9:00	2: E. Lara
Challenger MS	1990	10810 Parkdale Ave	Mid	7:15	2: E. Lara
Hage ES	1991	9750 Galvin Ave	Elem	7:40	2: E. Lara
Kumeyaay ES	1992	6475 Antigua Blvd	Elem	7:40	2: E. Lara
Scripps Ranch HS	1993	10410 Treena St	High	7:25	2: E. Lara
Dingeman ES	1994	11840 Scripps Creek Dr	Elem	8:30	2: E. Lara
E.B. Scripps ES	2001	11778 Cypress Canyon Rd	Elem	8:45	2: E. Lara
Innovation Acad Chrtr (@ Scripps Mesa Conf Ctr)	*2001*	*10380 Spring Cnyn Rd*	*Elem*		*2: E. Lara*
Salk (Jonas)	2015	7828 Flanders Dr	Elem	7:50	2: E. Lara

The City of
SAN DIEGO
Public Utilities Department
Environmental Monitoring and Technical Services Division

April 12, 2017

Mr. Glenn Boogren
Manager, Safety, Training, Personnel,
& Environmental Compliance
4860 Ruffner Street
San Diego, CA 92111

Reference: Request for Lead Sampling At San Diego Unified School District, (SDUSD) Zone 3

Dear Mr. Boogren,

Thank you for your written request for sampling drinking water at your school under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from your school that is familiar with the usage of the water fixtures at SDUSD zone 3 schools to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires the school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

When the analysis is completed, which takes approximately 4-6 weeks, we will report the results to the school, and the State of California. The State of California and the City of San Diego will not release data to the public before 60 days of the completed analysis, unless we are required to under a Public Records Act (PRA) request.

Please contact Tom Burger at 619-668-3234, or Tburger@sandiego.gov and Feryal Moshavegh at 858-654-4241, or Fmoshavegh@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Sincerely,

Tom B. Burger

Tom Burger
Associate Chemist
TB:nt

Water Quality Laboratory
5530 Kiowa Drive
La Mesa, CA 91942
www.sandiego.gov/publicutilities

T (858) 654-4401
sandiego.gov

THE CITY OF SAN DIEGO

3/22/2017

Glenn C. Boogren
Manager; Safety, Training, Personnel, & Environmental Compliance
4860 Ruffner Street
San Diego, CA 92111

Reference: Request for Sampling Fifty Three (53) Schools in Zone 4

Dear Mr. Boogren,

Thank you for your written request for sampling drinking water at your school under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from your school that is familiar with the usage of the water fixtures at San Diego Unified School District Zone 4, fifty three (53) schools (see attached) to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires the school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

When the analysis is completed, which takes approximately 4-6 weeks, we will report the results to the school, and the State of California. The State of California and the City of San Diego will not release data to the public before 60 days of the completed analysis, unless we are required to under a Public Records Act (PRA) request.

Please contact Tom Burger at 619-668-3234, or Tburger@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Sincerely,

Tom B. Burger

Tom Burger
Associate Chemist

Public Utilities Department
5530 Kiowa Drive • MS [illegible] La Mesa, CA 91942-1331
Tel (619) 668-3232 Fax (619) 668-3250

San Diego Unified
SCHOOL DISTRICT

Physical Plant Operations Zone Management

PPO Online Help Desk :: http://pposervices.sandi.net/ :: Work Order Desk (858) 627-7250

coastal Bay Zone 1

ZONE MANAGER
John Hensley
858-627-7214
jhensley@sandi.net

CUSTODIAL: 858-627-7148
Ron Dare rdare@sandi.net
LANDSCAPE: 858-627-7202
Thomas Beck tbeck@sandi.net
MAINTENANCE: 858-627-7179
Glenn Degler gdegler@sandi.net
SAFETY TECH: 858-627-7201
Ginette Commins gcommins@sandi.net

ELEMENTARY SCHOOLS
Alcott
Barnard Asian Pacific Language Academy
Bay Park Bird
Rock Cabrillo
(K-4)
Cadman
Crown Point
Curie
Dewey ES/CDC (K-4)
Doyle
Field
Hawthorne ES/CDC
La Jolla
Lafayette
Loma Portal (K-4)
Ocean Beach (K-4)
Pacific Beach
Sequoia
Sessions
Silver Gate (K-4)
Spreckels
Sunset View (K-4)
Toler
Torrey Pines
Whitman

MIDDLE SCHOOLS
Correia (7-8)
Creative Performing Media Arts (CPMA)
Dana (5-6)
Innovation
Marston
Muirlands
Pacific Beach
Standley

HIGH SCHOOLS
Clairemont La
Jolla Madison
Mission Bay
Point Loma
University City

ATYPICAL SCHOOLS
Longfellow (K-8)
Whittier School (K-12)

OTHER SITES
Bay Point Preschool
Bayview CDC
Children's School (@Scripps ES)
MB Montessori
Physical Plant Operations
SD French-Amer. School (@ Decatur)
Transportation Center/Fleet Maintenance

Scripps Mesa Zone 2

ZONE MANAGER
John Hensley
858-627-7214
[illegible]

CUSTODIAL: 858-627-6270
Rick Werner [illegible]
LANDSCAPE: 858-627-7202
Jimmy Smith [illegible]
MAINTENANCE: 858-627-7116
Jim Hoover [illegible]
SAFETY TECH: 858-573-5745
Elizabeth Lara [illegible]

ELEMENTARY SCHOOLS
Alcott
Carson
Clairemont
Cordery
Edgewood
E.B. Scripps
Erikson
Fremont ES/CDC
Gage
Hancock
Hickman
Holmes
Jerabek
Jones
Kipling
Kumeyaay
Linda Vista
Linda Vista Schweitzer
Marston
Mills
Mission Ranch
Rose Creek
Salk ES
Tierrasanta
Walker Canyon
Walker ES/CDC
Wegeforth ES/CDC

MIDDLE SCHOOLS
Clairemont
De Portola
Field
Montgomery
Taft
Marshall
Walker Middle

HIGH SCHOOLS
Kearny Complex
Mira Mesa
Scripps Ranch
Serra

ATYPICAL SCHOOLS
John Muir Charter (K-12)
Mt. Everest Academy (K-12)
Rise Center (K-8) Alternative Education (9-12)
Twain High (9-12)
Twain Mesa @ MM (K-8)

CHARTER SCHOOLS
Innovation Academy (@ Cliffes Scripps)
SD Co-op (@ Linda Vista Annex)

OTHER SITES
Instructional Media Center (IMC)
Repair Center
Scripps Mesa Conference Center
Supply Center Warehouse

Central City Zone 3

ZONE MANAGER
Steven Ditto
858-637-3503
sditto@sandi.net

CUSTODIAL: 858-627-7182
Ruben Meave jrubenmeave@sandi.net
LANDSCAPE: 858-627-7247
Daniel Gonzales dgonzales@sandi.net
MAINTENANCE: 858-627-7264
Tracy Higgins thiggins@sandi.net
SAFETY TECH: 858-573-5755
Tim Brown tbrown1@sandi.net

ELEMENTARY SCHOOLS
Adams
Benchley/Weinberger
Birney*
Burbank*
Central*
Cherokee Point*
Clay
Dailard
Edison*
Euclid ES/CDC*
Florence
Foster ES/De Anza CDC
Franklin
Gage
Garfield ES/CDC*
Golden Hill* (K-8)
Grant (K-8)
Green
Hardy
Hearst
Ibarra*
Jefferson
Kimbrough*
Logan School/CDC* (K-8)
Marvin
McKinley
Normal Heights*
Perkins* (K-8)
Rodriguez
Sherman
Washington ES/Salomon CDC

MIDDLE SCHOOLS
Lewis
Memorial Prep
Pershing
Roosevelt
Wilson*

HIGH SCHOOLS
Henry
Hoover
San Diego Complex
East Village

ATYPICAL SCHOOLS
Alternative Learning for Behavior & Attitude (ALBA)
Garfield HS (9-12)
Language Academy (K-8)
Marcy Ave Complex
iHigh (9-12) (@ Fremont)

CHARTER SCHOOLS
Einstein Academy (K-5)
King/Chavez Academy
Tubman Village

OTHER SITES
Brooklyn CDC
Ballard Parent Center
Education Center
Excelsior Acad (@ Benchley)
Irving Site
Montezuma CDC
River Bank Plaza
Springall Academy (@Forward)
Vista Hill Foundation (@ Grantville)

Park View Zone 4

ZONE MANAGER
Steven Ditto
858-637-3503
sditto@sandi.net

CUSTODIAL: 858-637-6258
Phil Baerlocher [illegible]
LANDSCAPE: 858-627-7218
Brian McKnight [illegible]
MAINTENANCE: 858-627-7156
Bill Lamb [illegible]
SAFETY TECH: 858-573-5673
Daniel Lopez [illegible]

ELEMENTARY SCHOOLS
Audubon (K-5)
Baker
Balboa
Bethune (K-8)
Bonns
Carver
Chavez
Chollas/Mead
Emerson/Bandini* (K-8)
Encanto
Hay/Frost
Sutton (K-8)
Theodore*
Fulton
Garfield
Joyner*
Pacific View Leadership Academy
Marshall
Nye
Oak Park
Paradise Hills
Perri
Perry
Porter North (2-5)
Porter South (K-1)
Rolando Park
Rosa Parks*
Rowan
Valencia Park
Webster (K-8)
Zamorano

MIDDLE SCHOOLS
Bell
Clark*
Knox
Mann
Millennial Tech (MTM)

HIGH SCHOOLS
Crawford
Lincoln
Morse

ATYPICAL SCHOOLS
School of Creative and Performing Arts (SCPA) (6-12)

CHARTER SCHOOLS
America's Finest (K-5)
Darnall E-Campus*
Gompers Prep Academy (6-12)
Iftiti Charter (K-8)
Keller Leadership Academy (K-8)
Kennedy CDC
O'Farrell Community (6-8)

*Represents year round schools
Updated: 8/18/2016
M:\Zones\Zone Maps & Lists

Exhibit 20

The City of
SAN DIEGO
Public Utilities Department
Environmental Monitoring and Technical Services Division

April 24, 2017

Mr. Richard Ambuehl
Facility Manager
12855 Black Mountain Road
San Diego, CA 92129

Reference: Request for Lead Sampling at The Cambridge School

Dear Mr. Ambuehl:

Thank you for your written request for sampling drinking water at your school under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from your school that is familiar with the usage of the water fixtures at The Cambridge School to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires each school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

When the analysis is completed, which takes approximately 4-6 weeks, we will report the results to the school and the State of California. The State of California and the City of San Diego will not release data to the public before 60 days of the completed analysis, unless we are required to under a Public Records Act (PRA) request.

Please contact Tom Burger at 619-668-3234, or Tburger@sandiego.gov and Feryal Moshavegh at 858-654-4241, or Fmoshavegh@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Sincerely,

Tom B Burger

Tom Burger
Associate Chemist

TB:nt

Water Quality Laboratory
5530 Kiowa Dr.
La Mesa, CA 91942
www.sandiego.gov/publicutilities

T (619) 668-3232
sandiego.gov

Campbell, Doug

From: Moshavegh, Feryal
Sent: Monday, April 24, 2017 1:15 PM
To: rambuehl@cambridgeclassical.org
Cc: Burger, Tom; Campbell, Doug
Subject: Request for Lead Sampling at The Cambridge School
Attachments: 2017_4_24_Response_Letter_The Cambridge School.pdf

Dear Mr. Ambuehl:

Thank you for your written request for sampling drinking water at your school under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from your school that is familiar with the usage of the water fixtures at The Cambridge School to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires each school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

When the analysis is completed, which takes approximately 4-6 weeks, we will report the results to the school and the State of California. The State of California and the City of San Diego will not release data to the public before 60 days of the completed analysis, unless we are required to under a Public Records Act (PRA) request.

Please contact me at 858-654-4241, Fmoshavegh@sandiego.gov or Tom Burger at 619-668-3234, Tburger@sandiego.gov to attend a sampling plan training session. For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Best Regards

Feryal Moshavegh
Associate Civil Engineer
City of San Diego
Public Utilities Department | EPM Division
9192 Topaz Way | San Diego | CA 92123 | M.S. 901A
Fmoshavegh@sandiego.gov | (858) 654-4241

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The City of
SAN DIEGO
Public Utilities Department
Engineering and Program Management Division

April 4, 2017

Mr. Oscar Esquivel
Assistant Superintendent
84 East J Street,
Chula Vista, CA 91910

Reference: Request for Lead Sampling At Los Altos Elementary School

Dear Mr. Esquivel,

Thank you for your written request for sampling drinking water at your school under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from your school that is familiar with the usage of the water fixtures at Los Altos Elementary School to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires the school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

When the analysis is completed, which takes approximately 4-6 weeks, we will report the results to the school, and the State of California. The State of California and the City of San Diego will not release data to the public before 60 days of the completed analysis, unless we are required to under a Public Records Act (PRA) request.

Please contact Tom Burger at 619-668-3234, or Tburger@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Sincerely,

Tom Burger
Associate Chemist

TB:nt

Campbell, Doug

From: Esquivel, Oscar <Oscar.Esquivel@cvesd.org>
Sent: Tuesday, April 04, 2017 3:34 PM
To: Moshavegh, Feryal; jospeh.dombrowski@cvesd.org
Cc: Campbell, Doug; Burger, Tom; Valdez-Romero, Rodolfo; Heredia, John
Subject: Re: Your Request For Water Sampling At Los Altos Elementary School

Mr. Moshavegh,
Thank you for the email response to our request for water testing. I will have Mr. Joe Dobrowski, Facilities Manager, contact you to coordinate the sampling process.

Oscar Esquivel
Chula Vista Elementary School District
619-425-9600 x1371

From: Moshavegh, Feryal <FMoshavegh@sandiego.gov>
Sent: Tuesday, April 4, 2017 3:07 PM
To: Esquivel, Oscar; jospeh.dombrowski@cvesd.org
Cc: Campbell, Doug; Burger, Tom
Subject: Your Request For Water Sampling At Los Altos Elementary School

Dear Mr. Esquivel,

Thank you for your written request for sampling drinking water at your school under the Lead in Schools Rule (copy attached). As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request (copy attached).

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from your school that is familiar with the usage of the water fixtures at Los Altos Elementary School to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires the school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

When the analysis is completed, which takes approximately 4-6 weeks, we will report the results to the school, and the State of California. The State of California and the City of San Diego will not release data to the public before 60 days of the completed analysis, unless we are required to under a Public Records Act (PRA) request.

Please contact me at 858-654-4241, or Fmoshavegh@sandiego.gov and Tom Burger at 619-668-3234, or Tburger@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Best Regards

Feryal Moshavegh
Associate Civil Engineer
City of San Diego
Public Utilities Department | EPM Division
9192 Topaz Way | San Diego | CA 92123 | M.S. 901A

Fmoshavegh@sandiego.gov | (858) 654-4241

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Campbell, Doug

From: Burger, Tom
Sent: Friday, March 03, 2017 2:27 PM
To: 'Joseph.Dombrowski@cvesd.org'
Cc: 'Oscar.Esquivel@cvesd.org'
Subject: Lead in Schools sampling

Hello Joseph,

I am acknowledging the receipt of a letter from Assistant Superintendent Oscar Esquivel requesting lead sampling at Los Altos Elementary school. Per requirements from the State Division of Drinking water, we will send an official written response in the next few weeks.

We look forward to serving our communities schools.

Thanks

Tom

Tom Burger
Associate Chemist
Public Utilities Department

(619) 668-3234

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The City of
SAN DIEGO
Public Utilities Department
Environmental Monitoring and Technical Services Division

April 28, 2017

Ms. Holly McClurg, Ph.D.
Superintendent
11232 El Camino Real
San Diego, CA 92130-2657

Reference: Request for Lead Sampling at Del Mar Heights, Del Mar Hills Academy, Carmel Del Mar, Ashely Falls, Torrey Hills, Sycamore Ridge, Sage Canyon, and Ocean Air Elementary Schools (Del Mar Union School District)

Dear Ms. McClurg:

Thank you for your written request for sampling drinking water at your schools under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from Del Mar Union School District (DMUSD) that is familiar with the usage of the water fixtures at Del Mar Heights, Del Mar Hills Academy, Carmel Del Mar, Ashely Falls, Torrey Hills, Sycamore Ridge, Sage Canyon, and Ocean Air Elementary Schools to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires each school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

When the analysis is completed, which takes approximately 4-6 weeks, we will report the results to DMUSD and the State of California. The State of California and the City of San Diego will not release data to the public before 60 days of the completed analysis, unless we are required to under a Public Records Act (PRA) request.

Please contact Tom Burger at 619-668-3234, or Tburger@sandiego.gov and Feryal Moshavegh at 858-654-4241, or Fmoshavegh@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Sincerely,

Tom B. Burger

Tom Burger
Associate Chemist

TB:nt

Water Quality Laboratory
5530 Kiowa Dr.
La Mesa, CA 91942
www.sandiego.gov/publicutilities

T (619) 668-3232
sandiego.gov

Campbell, Doug

From: Moshavegh, Feryal
Sent: Friday, April 28, 2017 11:18 AM
To: mgalis@dmusd.org
Cc: Campbell, Doug; Burger, Tom
Subject: Request for Lead Sampling - City Response Letter
Attachments: 04.28.2017_Lead_Sampling_CSD_Response_Letter.pdf

Dear Ms. McClurg and Mr. Galis:

Thank you for your written request for sampling drinking water at your schools under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from Del Mar Union School District (DMUSD) that is familiar with the usage of the water fixtures at Del Mar Heights, Del Mar Hills Academy, Carmel Del Mar, Ashely Falls, Torrey Hills, Sycamore Ridge, Sage Canyon, and Ocean Air Elementary Schools to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires each school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

When the analysis is completed, which takes approximately 4-6 weeks, we will report the results to DMUSD and the State of California. The State of California and the City of San Diego will not release data to the public before 60 days of the completed analysis, unless we are required to under a Public Records Act (PRA) request.

We are scheduling sampling plan training sessions from 8:30 to 10:00 am every Monday at our facility 5530 Kiowa Dr. La Mesa. Please contact me at 858-654-4241, Fmoshavegh@sandiego.gov or Tom Burger at 619-668-3234, Tburger@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Best Regards

Feryal Moshavegh
Associate Civil Engineer
City of San Diego
Public Utilities Department | EPM Division
9192 Topaz Way | San Diego | CA 92123 | M.S. 901A
Fmoshavegh@sandiego.gov | (858) 654-4241

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The City of
SAN DIEGO
Public Utilities Department
Environmental Monitoring and Technical Services Division

April 13, 2017

Dr. David Rivera
President
6134 Benson Avenue
San Diego, CA 92114

Reference: Request for Lead Sampling At Epiphany Prep Charter School

Dear Dr. Rivera:

Thank you for your written request for sampling drinking water at your school under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from your school that is familiar with the usage of the water fixtures at Epiphany Prep Charter School to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires the school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

When the analysis is completed, which takes approximately 4-6 weeks, we will report the results to the school, and the State of California. The State of California and the City of San Diego will not release data to the public before 60 days of the completed analysis, unless we are required to under a Public Records Act (PRA) request.

Please contact Feryal Moshavegh at 858-654-4241, Fmoshavegh@sandiego.gov or Tom Burger at 619-668-3234, Tburger@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Sincerely,

Tom B Burger

Tom Burger
Associate Chemist

TB:nt

Water Quality Laboratory
5530 Kiowa Dr.
La Mesa, CA 91942
www.sandiego.gov/publicutilities

T (858) 654-4401
sandiego.gov

Campbell, Doug

From: Moshavegh, Feryal
Sent: Tuesday, June 13, 2017 2:47 PM
To: drivera@epiphanyprep.org
Cc: Burger, Tom; Campbell, Doug
Subject: Request for Lead Sampling At Epiphany Prep Charter School
Attachments: 2017.4.13.Response_letter_Eiphany_Prep_Charter_School.pdf; 2017.4.13.Epiphany_Prep_Charter_REQ.PDF

Dear Dr. Rivera:

We received your Lead Sampling request letter in April 12, 2014 and emailed/mailed you the attached response letter in April 13, 2017. If you are still interested to conduct water sampling, please contact me at 858-654-4241, Fmoshavegh@sandiego.gov or Tom Burger at 619-668-3234, Tburger@sandiego.gov to attend a sampling plan training session. School needs to be in full session when water samples are collected. If the school is coming to an end, we can schedule the water sampling for Fall 2017.

Best Regards

Feryal Moshavegh
Associate Civil Engineer
City of San Diego
Public Utilities Department | EPM Division
9192 Topaz Way | San Diego | CA 92123 | M.S. 901A
Fmoshavegh@sandiego.gov | (858) 654-4241

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The City of
SAN DIEGO
Public Utilities Department
Environmental Monitoring and Technical Services Division

April 13, 2017

Ms. Shelia Malveaux
Principal
6785 Imperial Avenue
San Diego, CA 92114

Reference: Request for Lead Sampling At Evangeline Roberts Institute of Learning Charter School

Dear Ms. Malveaux:

Thank you for your written request for sampling drinking water at your school under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from your school that is familiar with the usage of the water fixtures at Evangeline Roberts Institute of Learning to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires the school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

When the analysis is completed, which takes approximately 4-6 weeks, we will report the results to the school, and the State of California. The State of California and the City of San Diego will not release data to the public before 60 days of the completed analysis, unless we are required to under a Public Records Act (PRA) request.

Please contact Feryal Moshavegh at 858-654-4241, or Fmoshavegh@sandiego.gov or Tom Burger at 619-668-3234, Tburger@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Sincerely,

Tom B Burger

Tom Burger
Associate Chemist

TB:nt

Water Quality Laboratory
5530 Kiowa Dr.
La Mesa, CA 91942
www.sandiego.gov/publicutilities

T (858) 654-4401
sandiego.gov

Re: Request for Lead Sampling At Evangeline Roberts Institute of Learning Charter School - Message (HTML)

FILE MESSAGE

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Delete Respond Move Tags Editing Zoom

Thu 6/15/2017 2:26 PM

shelia malveaux <smalveaux@erilcs.org>

Re: Request for Lead Sampling At Evangeline Roberts Institute of Learning Charter School

To Moshavegh, Feryal

You replied to this message on 6/15/2017 3:45 PM.

No thank you. We are moving.

Shelia

On Wed, Jun 14, 2017 at 6:25 AM, Moshavegh, Feryal <FMoshavegh@sandiego.gov> wrote:

> Dear Ms. Malveaux
>
> Correction to my previous email, I meant to write your Lead Sampling request letter in April 10, 2017 not 2014.
>
> Thank you
>
> Feryal

From: Moshavegh, Feryal
Sent: Tuesday, June 13, 2017 3:04 PM
To: 'smalveaux@erilcs.org' <smalveaux@erilcs.org>; 'sharpererilcs@gmail.com' <sharpererilcs@gmail.com>
Cc: Burger, Tom <TBurger@sandiego.gov>; Campbell, Doug <DCampbell@sandiego.gov>
Subject: Request for Lead Sampling At Evangeline Roberts Institute of Learning Charter School

Dear Ms. Malveaux

We received your Lead Sampling request letter in April 10, 2014 and emailed/mailed you the attached response letter in April 13, 2017. If you are still interested to conduct water sampling, please contact me at 858-654-4241, Fmoshavegh@sandiego.gov or Tom Burger at 619-668-3234, Tburger@sandiego.gov to attend a sampling plan training session. School needs to be in full session when water samples are collected. If the school is coming to an end, we can schedule the water sampling for Fall 2017.

Best Regards

Feryal Moshavegh

Associate Civil Engineer

City of San Diego

Public Utilities Department | EPM Division

9192 Topaz Way | San Diego | CA 92123 | M.S. 901A

Fmoshavegh@sandiego.gov | (858) 654-4241

shelia malveaux No Items

The City of
SAN DIEGO
Public Utilities Department
Engineering and Program Management Division

April 4, 2017

Ms. Nance Maguire
Executive Director
7202 Princess View Drive
San Diego, CA 92120

Reference: Request for Lead Sampling At Excelsior Academy

Dear Ms. Maguire,

Thank you for your written request for sampling drinking water at your school under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from your school that is familiar with the usage of the water fixtures at Excelsior Academy to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires the school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

When the analysis is completed, which takes approximately 4-6 weeks, we will report the results to the school, and the State of California. The State of California and the City of San Diego will not release data to the public before 60 days of the completed analysis, unless we are required to under a Public Records Act (PRA) request.

Please contact Tom Burger at 619-668-3234, or Tburger@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Sincerely,

Tom B Burger

Tom Burger
Associate Chemist

TB:nt

9192 Topaz Way, M.S. 901A
San Diego, CA 92123
www.sandiego.gov/publicutilities

T (858) 654-4401
sandiego.gov

Campbell, Doug

From: Moshavegh, Feryal
Sent: Tuesday, June 13, 2017 3:41 PM
To: kwilson@excelsioracademy.com; kgohlke@excelsioracademy.com; nmaguire@excelsioracademy.com
Cc: Campbell, Doug; Burger, Tom
Subject: Request for Lead Sampling at Excelsior Academy
Attachments: 2017.04.04_CSD_Response_Letter.pdf; 2017.02.22_Excelsior_Academy_REQ.pdf

Dear Ms. Maguire and Ms. Wilson,

We received your Lead Sampling request letter in February 22, 2017 and emailed/mailed you the attached response letter in April 4, 2017. Ms. Wilson attend our Sampling Plan training session in May 8, 2017. If you are still interested to conduct water sampling, please identify the five most frequently used sites, document them on the Sampling Plan and email the Sampling plan to me, Fmoshavegh@sandiego.gov and Tom Burger, Tburger@sandiego.gov to schedule a sampling date. School needs to be in full session when water samples are collected. If the school is coming to an end, we can schedule the water sampling for Fall 2017.

Best Regards

Feryal Moshavegh
Associate Civil Engineer
City of San Diego
Public Utilities Department | EPM Division
9192 Topaz Way | San Diego | CA 92123 | M.S. 901A
Fmoshavegh@sandiego.gov | (858) 654-4241

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Tuesday, April 04, 2017 3:15 PM
To: kwilson@excelsioracademy.com; kgohlke@excelsioracademy.com; nmaguire@excelsioracademy.com
Cc: Campbell, Doug; Burger, Tom
Subject: Request for Lead Sampling at Excelsior Academy
Attachments: 2017.04.04_CSD_Response_Letter.pdf; 2017.02.22_Excelsior_Academy_REQ.pdf

Dear Ms. Maguire,

Thank you for your written request for sampling drinking water at your school under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from your school that is familiar with the usage of the water fixtures at Excelsior Academy to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires the school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

When the analysis is completed, which takes approximately 4-6 weeks, we will report the results to the school, and the State of California. The State of California and the City of San Diego will not release data to the public before 60 days of the completed analysis, unless we are required to under a Public Records Act (PRA) request.

Please contact me at 858-654-4241, or Fmoshavegh@sandiego.gov and Tom Burger at 619-668-3234, or Tburger@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Best Regards

Feryal Moshavegh
Associate Civil Engineer
City of San Diego
Public Utilities Department | EPM Division
9192 Topaz Way | San Diego | CA 92123 | M.S. 901A
Fmoshavegh@sandiego.gov | (858) 654-4241

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Public Utilities Department
Engineering and Program Management Division

April 4, 2017

Mr. Paul W. Dooley
Director of Facilities
2861 Womble Road,
San Diego, CA 92106

Reference: Request for Lead Sampling At Seven (7) Schools in High Tech High, Point Loma Campus

Dear Mr. Dooley,

Thank you for your written request for sampling drinking water at your school under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from your school that is familiar with the usage of the water fixtures at High Tech High, Point Loma Campus, seven (7) schools (see attached) to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires the school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

When the analysis is completed, which takes approximately 4-6 weeks, we will report the results to the school, and the State of California. The State of California and the City of San Diego will not release data to the public before 60 days of the completed analysis, unless we are required to under a Public Records Act (PRA) request.

Please contact Tom Burger at 619-668-3234, or Tburger@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Sincerely,

Tom B Burger

Tom Burger
Associate Chemist

Enclosure: 1. High Tech High, Point Loma Campus – Name of Seven (7) Schools

High Tech High, Point Loma Campus (92106) - Name of Seven (7) Schools Submitted Request For Lead Sampling:

1. High Tech High: 2861 Womble Road, CDS # 37683383731247
2. High Tech High Middle: 2359 Truxtun Road, CDS # 37683380101204
3. High Tech High International: 2855 Farragut Road, CDS # 37683380106732
4. High Tech Elementary Explorer, 2230 Truxton Road (1st Floor), CDS # 37683386117683
5. High Tech Middle Media Arts, 2230 Truxton Road (2nd Floor), CDS # 37683380108787
6. High Tech High Media Arts, 2230 Tuxton Road (3rd Floor), CDS # 37683380107573
7. High Tech Elementary, 2150 Cushing Road, CDS # 37683380131565

TB:nt

Campbell, Doug

From: Moshavegh, Feryal
Sent: Tuesday, April 04, 2017 3:25 PM
To: pdooley@hightechhigh.org
Cc: Campbell, Doug; Burger, Tom
Subject: Request for Lead Sampling At Seven (7) Schools in High Tech High, Point Loma Campus
Attachments: 2017.04.04_CSD_ResponseLetter.pdf; Lead Testing Request_City of SD_170307_OFF.pdf

Dear Mr. Dooley,

Thank you for your written request for sampling drinking water at your school under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request (copy attached).

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from your school that is familiar with the usage of the water fixtures at High Tech High, Point Loma Campus, seven (7) schools (see attached) to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires the school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

When the analysis is completed, which takes approximately 4-6 weeks, we will report the results to the school, and the State of California. The State of California and the City of San Diego will not release data to the public before 60 days of the completed analysis, unless we are required to under a Public Records Act (PRA) request.

Please contact me at 858-654-4241, or Fmoshavegh@sandiego.gov and Tom Burger at 619-668-3234, or Tburger@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Best Regards

Feryal Moshavegh
Associate Civil Engineer
City of San Diego
Public Utilities Department | EPM Division
9192 Topaz Way | San Diego | CA 92123 | M.S. 901A
Fmoshavegh@sandiego.gov | (858) 654-4241

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SAN DIEGO
Public Utilities Department
Environmental Monitoring and Technical Services Division

May 12, 2017

Mr. Kenneth Traupmann, Executive Director
The Institute for Effective Education
2255 Camino Del Rio South
San Diego, CA 92108

Reference: Request for Lead Sampling at Children's Workshop, Cook Education Center, and Urban Skills Center

Dear Mr. Traupmann:

Thank you for your written request for sampling drinking water at your schools under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from Children's Workshop, Cook Education Center, and Urban Skills Center to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires each school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

When the analysis is completed, which takes approximately 4-6 weeks, we will report the results to The institute for Effective Education and the State of California. The State of California and the City of San Diego will not release data to the public before 60 days of the completed analysis, unless we are required to under a Public Records Act (PRA) request.

Please contact Tom Burger at 619-668-3234, or Tburger@sandiego.gov and Feryal Moshavegh at 858-654-4241, or Fmoshavegh@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Sincerely,

Tom B Burger

Tom Burger
Associate Chemist

TB:nt

Request for Lead Sampling at The Institute for Effective Education - Message (HTML)

FILE MESSAGE ADOBE PDF

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Thu 5/11/2017 2:58 PM

Moshavegh, Feryal

Request for Lead Sampling at The Institute for Effective Education

To nicohen@tiee.org

Cc Campbell, Doug; Burger, Tom

Message 2017_5_12_Response_Letter.pdf

Dear Mr. Traupmann and Ms. Cohen:

Thank you for your written request for sampling drinking water at your schools under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from Children's Workshop, Cook Education Center, and Urban Skills Center to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires each school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

When the analysis is completed, which takes approximately 4-6 weeks, we will report the results to The institute for Effective Education and the State of California. The State of California and the City of San Diego will not release data to the public before 60 days of the completed analysis, unless we are required to under a Public Records Act (PRA) request.

Please contact me 858-654-4241, Fmoshavegh@sandiego.gov or Tom Burger at 619-668-3234, Tburger@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Best Regards

Feryal Moshavegh
Associate Civil Engineer
City of San Diego
Public Utilities Department | EPM Division
9192 Topaz Way | San Diego | CA 92123 | M.S. 901A

Moshavegh, Feryal

From: Burger, Tom
Sent: Thursday, May 11, 2017 10:15 AM
To: Moshavegh, Feryal
Cc: Campbell, Doug; Torres, Nita
Subject: FW: Water Testing for TIEE
Attachments: LeadWaterTestingRequest2017.pdf

Hi Feryal,

Please add these three schools to the spreadsheet. I checked all three are DOE listed.

Thank You

TOm

From: Mary Cohen [mailto:mcohen@tiee.org]
Sent: Thursday, May 11, 2017 10:10 AM
To: Burger, Tom <TBurger@sandiego.gov>
Cc: DDW-PLU@waterboards.ca.gov
Subject: Water Testing for TIEE

Good morning Tom,

Thank you for providing your contact information. I understand how you must be inundated with requests now that national news has picked this up.

I have attached a request for our schools.

Please feel free to contact me.

Have a nice day,

--
Mary Cohen
Facilities Manager/Assistant Bookkeeper
The Institute for Effective Education
2255 Camino del Rio South
San Diego, CA 92108
(619) 243-1390 Office
(619) 233-8409 Fax

The City of
SAN DIEGO
Public Utilities Department
Engineering and Program Management Division

April 4, 2017

Mr. Joel Christman
Executive Director
7270 Lisbon Street,
San Diego, CA 92114

Reference: Request for Lead Sampling At Keiller Leadership Academy

Dear Mr. Christman,

Thank you for your written request for sampling drinking water at your school under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from your school that is familiar with the usage of the water fixtures at Keiller Leadership Academy to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires the school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

When the analysis is completed, which takes approximately 4-6 weeks, we will report the results to the school, and the State of California. The State of California and the City of San Diego will not release data to the public before 60 days of the completed analysis, unless we are required to under a Public Records Act (PRA) request.

Please contact Tom Burger at 619-668-3234, or Tburger@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Sincerely,

Tom B. Burger

Tom Burger
Associate Chemist

TB:nt

Request for Lead Sampling at Keiller Leadership Academy - Message (HTML)

FILE MESSAGE

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Tue 4/4/2017 3:21 PM

Moshavegh, Feryal

Request for Lead Sampling at Keiller Leadership Academy

To: jchristman@mykla.org; Eochoa@mykla.org

Cc: Campbell, Doug; Burger, Tom

Message 2017.03.14.Keiller_Leadership_Academy_REQ.pdf 2017.04.04_CSD_ResponseLetter.pdf

Dear Mr. Christman,

Thank you for your written request for sampling drinking water at your school under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request (copy attached).

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from your school that is familiar with the usage of the water fixtures at Keiller Leadership Academy to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires the school to identify the five most frequently used sites and document them on the Sampling Plan.

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Please contact me at 858-654-4241, or Fmoshavegh@sandiego.gov and Tom Burger at 619-668-3234, or Tburger@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Best Regards

Feryal Moshavegh
Associate Civil Engineer
City of San Diego
Public Utilities Department | EPM Division
9192 Topaz Way | San Diego | CA 92123 | M.S. 901A
Fmoshavegh@sandiego.gov | (858) 654-4241

The City of SAN DIEGO

Campbell, Doug

From: Moshavegh, Feryal
Sent: Tuesday, April 11, 2017 10:05 AM
To: rtannenbaum@kippsandiego.org
Cc: Campbell, Doug; Burger, Tom
Subject: Request for Lead Sampling - KIPP Adelante Preparatory Academy
Attachments: request for lead sampling, KIPP Adelante Preparatory Academy.pdf; 2017.04.10_KIPP Adelante Preparatory Academy_Response_Letter.pdf

Dear Mr. Tannenbaum,

Thank you for your written request for sampling drinking water at your school under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from your school that is familiar with the usage of the water fixtures at KIPP Adelante Preparatory Academy to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires the school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

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Please contact Tom Burger at 619-668-3234, or Tburger@sandiego.gov and
Feryal Moshavegh at 858-654-4241, or Fmoshavegh@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Best Regards

Feryal Moshavegh
Associate Civil Engineer
City of San Diego
Public Utilities Department | EPM Division
9192 Topaz Way | San Diego | CA 92123 | M.S. 901A
Fmoshavegh@sandiego.gov | (858) 654-4241

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SAN DIEGO
Public Utilities Department
Environmental Monitoring and Technical Services Division

April 10, 2017

Mr. Robert Tannenbaum
Director of Operations
1475 Six Avenue
San Diego, CA 92101

Reference: Request for Lead Sampling At KIPP Adelante Preparatory Academy

Dear Mr. Tannenbaum,

Thank you for your written request for sampling drinking water at your school under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from your school that is familiar with the usage of the water fixtures at KIPP Adelante Preparatory Academy to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires the school to identify the five most frequently used sites and document them on the Sampling Plan.

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Please contact Tom Burger at 619-668-3234, or Tburger@sandiego.gov and Feryal Moshavegh at 858-654-4241, or Fmoshavegh@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Sincerely,

Tom Burger
Associate Chemist

TB:nt

Water Quality Laboratory
5530 Kiowa Dr
La Mesa, CA 91942
www.sandiego.gov/publicutilities

T (858) 654-4401
sandiego.gov

The City of
SAN DIEGO
Public Utilities Department
Environmental Monitoring and Technical Services Division

May 9, 2017

Ms. Shelley Samaritoni
Parent Teacher Resources Treasurer
3219 Clairemont Mesa Blvd
San Diego, CA 92117

Reference: Request for Lead Sampling at La Petite Ecole the English French Learning Academy

Dear Ms. Samaritoni:

Thank you for your written request for sampling drinking water at your schools under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from La Petite Ecole the English French Learning Academy to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires each school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

When the analysis is completed, which takes approximately 4-6 weeks, we will report the results to the school and the State of California. The State of California and the City of San Diego will not release data to the public before 60 days of the completed analysis, unless we are required to under a Public Records Act (PRA) request.

Please contact Tom Burger at 619-668-3234, or Tburger@sandiego.gov and Feryal Moshavegh at 858-654-4241, or Fmoshavegh@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Sincerely,

Tom B. Burger

Tom Burger
Associate Chemist

TB:nt

Campbell, Doug

From: Moshavegh, Feryal
Sent: Wednesday, May 10, 2017 10:47 AM
To: thierry.p@petite-ecole.com; shelley@shelleycakes.com
Cc: Campbell, Doug; Burger, Tom
Subject: Request for Lead Sampling at La Petite Ecole the English French Learning Academy
Attachments: 2017_05_09_Response Letter La Petite Ecole.pdf

Dear Ms. Samaritoni:

Thank you for your written request for sampling drinking water at your schools under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from La Petite Ecole the English French Learning Academy to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires each school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

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Please contact me at 858-654-4241, or Fmoshavegh@sandiego.gov or Tom Burger at 619-668-3234, or Tburger@sandiego.gov
to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Best Regards

Feryal Moshavegh
Associate Civil Engineer
City of San Diego
Public Utilities Department | EPM Division
9192 Topaz Way | San Diego | CA 92123 | M.S. 901A
Fmoshavegh@sandiego.gov | (858) 654-4241

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Moshavegh, Feryal

From: Campbell, Doug
Sent: Tuesday, May 09, 2017 2:23 PM
To: Torres, Nita; Burger, Tom; Moshavegh, Feryal
Subject: FW: Lead Sampling by the City of San Diego

Here's the response. I'm ok with leaving the name on the letter as it is, and not switching it to Mr. Pasquet, since we have clarification.

Feryal, please file this email in the folder for this school so we have this in our records.

Doug

Doug Campbell
Senior Chemist
Public Utilities Department

O (619) 668-3237
C (619) 203-0966

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From: Thierry LPE [mailto:thierry.p@petite-ecole.com]
Sent: Tuesday, May 09, 2017 2:19 PM
To: Campbell, Doug <DCampbell@sandiego.gov>
Subject: Re: Lead Sampling by the City of San Diego

Bonjour Mr. Campell,

Mrs Samaritoni was acting on my behalf, and yes I would like my school La Petite Ecole de San Diego to have its water tested.

I really do appreciate your help in that regard.

Sincerely,

Thierry Pasquet,

Director of La Petite Ecole du Lycée Français de San Diego

3219 Clairemont Mesa BLvd

San Diego CA 92117

(858) 274 2890 www.petite-ecole.com

On 2017-05-09 11:30, Campbell, Doug wrote:

Greetings Mr. Pasquet –

We recently received your letter requesting lead sampling at the English French Learning Academy, attached. The state regulations regarding this program require the request for testing to come from the school administrator, principal, superintendent, and the like; it does not allow for requests from parents, parent teacher groups, etc. It's hard to tell from the letter which category Ms. Samaritoni falls into, so I'm writing to get confirmation for our records.

Please confirm that you would like us to conduct testing at the English French Learning Academy by replying to this email. We will then send you our response letter and begin the process.

Thanks for your interest in ensuring safe drinking water for your students, and we look forward to working with you and your staff!

Doug

Doug Campbell

Senior Chemist

Public Utilities Department

O (619) 668-3237

C (619) 203-0966

The City of SAN DIEGO

--
Merci et bonne journée.

THierry
Le Lycée Français de San Diego
3219 Clairemont Mesa Blvd
858 274 2890
www.petite-ecole.com

Like our Facebook page
https://www.facebook.com/pages/La-Petite-Ecole-of-San-Diego/407421812619068

The City of
SAN DIEGO
Public Utilities Department
Engineering and Program Management Division

April 5, 2017

Mr. Gokhan Serce
Principal
6365 Lake Atlin Avenue
San Diego, CA 92119

Reference: Request for Lead Sampling At Magnolia Science Academy San Diego

Dear Mr. Serce,

Thank you for your written request for sampling drinking water at your school under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from your school that is familiar with the usage of the water fixtures at Magnolia Science Academy to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires the school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

When the analysis is completed, which takes approximately 4-6 weeks, we will report the results to the school, and the State of California. The State of California and the City of San Diego will not release data to the public before 60 days of the completed analysis, unless we are required to under a Public Records Act (PRA) request.

Please contact Tom Burger at 619-668-3234, or Tburger@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Sincerely,

Tom B Burger

Tom Burger
Associate Chemist

TB:nt

9192 Topaz Way, M.S. 901A
San Diego, CA 92123
www.sandiego.gov/publicutilities

T (858) 654-4401
sandiego.gov

Campbell, Doug

From: Moshavegh, Feryal
Sent: Wednesday, April 05, 2017 2:03 PM
To: GSerce@magnoliapublicschools.org; sdavila@magnoliapublicschools.org
Cc: Burger, Tom; Campbell, Doug
Subject: Request for Lead Sampling At Magnolia Science Academy San Diego
Attachments: Water sampling request Magnolia.pdf; 2017.04.05_CSD_Response_Letter.pdf

Dear Mr. Serce,

Thank you for your written request for sampling drinking water at your school under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from your school that is familiar with the usage of the water fixtures at Magnolia Science Academy to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires the school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

When the analysis is completed, which takes approximately 4-6 weeks, we will report the results to the school, and the State of California. The State of California and the City of San Diego will not release data to the public before 60 days of the completed analysis, unless we are required to under a Public Records Act (PRA) request.

Please contact me at 858-654-4241, or Fmoshavegh@sandiego.gov and Tom Burger at 619-668-3234, or Tburger@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Best Regards

Feryal Moshavegh
Associate Civil Engineer
City of San Diego
Public Utilities Department | EPM Division
9192 Topaz Way | San Diego | CA 92123 | M.S. 901A
Fmoshavegh@sandiego.gov | (858) 654-4241

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Re: Request for Lead Sampling At Magnolia Science Academy San Diego - Message (HTML)

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Delete Respond Move Tags Editing Zoom

Wed 6/14/2017 12:08 PM

Gokhan Serce <gserce@magnoliapublicschools.org>

Re: Request for Lead Sampling At Magnolia Science Academy San Diego

To Moshavegh, Feryal

Cc sdavila@magnoliapublicschools.org; Campbell, Doug; Burger, Tom

Good afternoon,

Thank you for your response. Since we are moving to a new site starting next week (current site will be demolished by the new owner), we will not need a lead testing for this site anymore. Thank you for your support.

On Wed, Jun 14, 2017 at 7:16 AM, Moshavegh, Feryal <FMoshavegh@sandiego.gov> wrote:

> Dear Mr. Serce,
>
> We received your Lead Sampling request letter in March 26, 2017 and emailed/mailed you the attached response letter in April 5, 2017. If you are still interested to conduct water sampling, please contact me at 858-654-4241, Fmoshavegh@sandiego.gov or Tom Burger at 619-668-3234, Tburger@sandiego.gov to attend a sampling plan training session. School needs to be in full session when water samples are collected. If the school is coming to an end, we can schedule the water sampling for Fall 2017.
>
> Best Regards
>
> **Feryal Moshavegh**
>
> Associate Civil Engineer
>
> City of San Diego
>
> Public Utilities Department | EPM Division
>
> 9192 Topaz Way | San Diego | CA 92123 | M.S. 901A
>
> Fmoshavegh@sandiego.gov | (858) 654-4241

The City *of*
SAN DIEGO
Public Utilities Department
Environmental Monitoring and Technical Services Division

June 5, 2017

Dr. Lanuza, Principal/CEO
McGill School of Success
3025 Fir Street
San Diego, CA 92102

Reference: Request for Lead Sampling at McGill School of Success

Dear Dr. Lanuza:

Thank you for your written request for sampling drinking water at your schools under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from McGill School of Success to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires each school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

When the analysis is completed, which takes approximately 4-6 weeks, we will report the results to the McGill School of Success and the State of California. The State of California and the City of San Diego will not release data to the public before 60 days of the completed analysis, unless we are required to under a Public Records Act (PRA) request.

Please contact Tom Burger at 619-668-3234, or Tburger@sandiego.gov and Feryal Moshavegh at 858-654-4241, or Fmoshavegh@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Sincerely,

Tom B. Burger

Tom Burger
Associate Chemist

TB:nt

Moshavegh, Feryal

From: SD Drinking Water Quality
Sent: Thursday, June 01, 2017 11:10 AM
To: Burger, Tom; Moshavegh, Feryal; Campbell, Doug
Cc: Torres, Nita
Subject: FW: Request for lead testing for our school
Attachments: Request for Lead Testing for School.pdf

New request

Nita Torres
Administrative Aide
Public Utilities Department

Office: (619) 668-3232

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From: Irene Rubalcaba [mailto:irubalcaba@mcgillschoolofsuccess.org]
Sent: Thursday, June 01, 2017 9:16 AM
To: SD Drinking Water Quality <DrinkingWaterQuality@sandiego.gov>
Subject: Request for lead testing for our school

To Whom It May Concern,

I am attaching the letter requesting Lead sampling at our school. Please advise upon receipt, with dates and time of availability.

Regards,

Irene Rubalcaba

Administrative Assistant

Chancellor William McGill School of Success

3025 Fir St, San Diego, CA 92102

Office (619) 677-6347 Ext: 3

Fax (619) 239-1318

irubalcaba@mcgillschoolofsuccess.org

www.mcgillschoolofsuccess.org

Campbell, Doug

From: Moshavegh, Feryal
Sent: Wednesday, June 14, 2017 7:29 AM
To: Dr.lanuza@mcgillschoolofsuccess.org
Cc: Burger, Tom; Campbell, Doug
Subject: Request for Lead Sampling at McGill School of Success
Attachments: 2017_6_5_Response_Letter_McGill_School_of_Success.pdf; Request for Lead Testing for School.pdf; Offical Date Request Recived by email 6-1-2017.pdf

Dear Dr. Lanuza:

We received your Lead Sampling request letter in June 1, 2017 and emailed/mailed you the attached response letter in June 5, 2017. If you are still interested to conduct water sampling, please contact me at 858-654-4241, Fmoshavegh@sandiego.gov or Tom Burger at 619-668-3234, Tburger@sandiego.gov to attend a sampling plan training session. School needs to be in full session when water samples are collected. If the school is coming to an end, we can schedule the water sampling for Fall 2017.

Best Regards

Feryal Moshavegh
Associate Civil Engineer
City of San Diego
Public Utilities Department | EPM Division
9192 Topaz Way | San Diego | CA 92123 | M.S. 901A
Fmoshavegh@sandiego.gov | (858) 654-4241

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Public Utilities Department
Environmental Monitoring and Technical Services Division

May 2, 2017

Mr. Phil Beaumont
Executive Director
211 Maple Street
San Diego, CA 92103

Reference: Request for Lead Sampling at Museum School

Dear Mr. Beaumont:

Thank you for your written request for sampling drinking water at your schools under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from the Museum School to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires each school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

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Please contact Tom Burger at 619-668-3234, or Tburger@sandiego.gov and Feryal Moshavegh at 858-654-4241, or Fmoshavegh@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Sincerely,

Tom B. Burger

Tom Burger
Associate Chemist

TB:nt

Water Quality Laboratory
5530 Kiowa Dr.
La Mesa, CA 91942
www.sandiego.gov/publicutilities

T (619) 668-3232
sandiego.gov

Campbell, Doug

From: Moshavegh, Feryal
Sent: Tuesday, May 02, 2017 3:23 PM
To: phil@museumschool.org
Cc: Burger, Tom; Campbell, Doug
Subject: Request for Lead Sampling at Museum School - City of San Diego Response Letter
Attachments: 2017_5_01_Res_Letter_Museum Sch.pdf

Dear Mr. Beaumont:

Thank you for your written request for sampling drinking water at your schools under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from the Museum School to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires each school to identify the five most frequently used sites and document them on the Sampling Plan.

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Please contact me at 858-654-4241, Fmoshavegh@sandiego.gov or Tom Burger at 619-668-3234, Tburger@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Best Regards

Feryal Moshavegh
Associate Civil Engineer
City of San Diego
Public Utilities Department | EPM Division
9192 Topaz Way | San Diego | CA 92123 | M.S. 901A
Fmoshavegh@sandiego.gov | (858) 654-4241

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Wednesday, June 14, 2017 7:22 AM
To: phil@museumschool.org
Cc: Campbell, Doug; Burger, Tom
Subject: Request for Lead Sampling at Museum School
Attachments: 2017_5_01_Res_Letter_Museum Sch.pdf; 4.24.2017_Museum_School_K-8_Req_Letter.pdf

Dear Mr. Beaumont:

We received your Lead Sampling request letter in April 27, 2017 and emailed/mailed you the attached response letter in May 2, 2017. If you are still interested to conduct water sampling, please contact me at 858-654-4241, Fmoshavegh@sandiego.gov or Tom Burger at 619-668-3234, Tburger@sandiego.gov to attend a sampling plan training session. School needs to be in full session when water samples are collected. If the school is coming to an end, we can schedule the water sampling for Fall 2017.

Best Regards

Feryal Moshavegh
Associate Civil Engineer
City of San Diego
Public Utilities Department | EPM Division
9192 Topaz Way | San Diego | CA 92123 | M.S. 901A
Fmoshavegh@sandiego.gov | (858) 654-4241

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Public Utilities Department
Environmental Monitoring and Technical Services Division

April 10, 2017

Mr. Alfonso Magana
Principal
4106 42nd Street
San Diego, CA 92105

Reference: Request for Lead Sampling At Our Lady of the Sacred Heart School

Dear Mr. Magana,

Thank you for your written request for sampling drinking water at your school under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from your school that is familiar with the usage of the water fixtures at Our Lady of the Sacred Heart School to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires the school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

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Please contact Tom Burger at 619-668-3234, or Tburger@sandiego.gov and Feryal Moshavegh at 858-654-4241, or Fmoshavegh@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Sincerely,

Tom Burger
Associate Chemist

TB:nt

Water Quality Laboratory
5530 Kiowa Dr.
La Mesa, CA 91942
www.sandiego.gov/publicutilities

T (858) 654-4401
sandiego.gov

Request for Lead Sampling - Our Lady of the Sacred Heart School - Message (HTML)

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Tue 4/11/2017 10:14 AM

Moshavegh, Feryal

Request for Lead Sampling - Our Lady of the Sacred Heart School

To: principal@olshsd.com; office@olshsd.com

Cc: Campbell, Doug; Burger, Tom

You forwarded this message on 6/14/2017 7:10 AM.

Message | 2017.4.5_Our_Lady_ofthe_SacredHeart_REQ_letter.pdf | 2017.04.10_Our_Lady_ofthe_Sacred_Heart_Response_Letter.pdf

Dear Mr. Magana,

Thank you for your written request for sampling drinking water at your school under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from your school that is familiar with the usage of the water fixtures at Our Lady of the Sacred Heart School to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires the school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

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Please contact Tom Burger at 619-668-3234, or Tburger@sandiego.gov and
Feryal Moshavegh at 858-654-4241, or Fmoshavegh@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Best Regards

Feryal Moshavegh
Associate Civil Engineer
City of San Diego
Public Utilities Department | EPM Division
9192 Topaz Way | San Diego | CA 92123 | M.S. 901A
Fmoshavegh@sandiego.gov | (858) 654-4241

The City of

RE: Request for Lead Sampling - Our Lady of the Sacred Heart School - Message (HTML)

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Tue 6/20/2017 11:47 AM

Moshavegh, Feryal

RE: Request for Lead Sampling - Our Lady of the Sacred Heart School

To: Alfonso Magaña

Cc: Campbell, Doug; Burger, Tom

Good Morning
You can contact me and Tom Burger at Tburger@sandiego.gov in Fall to schedule the sampling once the school is back in Session. We also need the sampling plan with pictures of five most used drinking fountains before scheduling the sampling.

Thank you

Feryal Moshavegh
Associate Civil Engineer
City of San Diego
Public Utilities Department | EPM Division
9192 Topaz Way | San Diego | CA 92123 | M.S. 901A
Fmoshavegh@sandiego.gov | (858) 654-4241

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From: Alfonso Magaña [mailto:principal@olshsd.com]
Sent: Tuesday, June 20, 2017 11:24 AM
To: Moshavegh, Feryal <FMoshavegh@sandiego.gov>
Cc: office@olshsd.com
Subject: Re: Request for Lead Sampling - Our Lady of the Sacred Heart School

Good morning. Since school is no longer in session, we will schedule a water sampling in Fall 2017. When would be best to schedule that?

On Wed, Jun 14, 2017 at 7:10 AM, Moshavegh, Feryal <FMoshavegh@sandiego.gov> wrote:

> Dear Mr. Magana,
>
> We received your Lead Sampling request letter in April 5, 2017 and emailed/mailed you the attached response letter in April 10, 2017. You and Ms. Elvira Magana attend our Sampling Plan training session in May 8, 2017. If you are still interested to conduct water sampling, please identify the five most frequently used sites, document them on the Sampling Plan and email the Sampling plan to Tom Burger

The City of
SAN DIEGO
Public Utilities Department
Environmental Monitoring and Technical Services Division

May 12, 2017

Mr. Douglas Gilbert, Director of Purchasing & Risk Management
San Dieguito Union High School District
710 Encinitas Boulevard
Encinitas, CA 92024

Reference: Request for Lead Sampling at Torrey Pines High School, Canyon Crest Academy, Pacific Trails Middle School and Carmel Valley Middle School

Dear Mr. Gilbert:

Thank you for your written request for sampling drinking water at your schools under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from Torrey Pines High School, Canyon Crest Academy, Pacific Trails Middle School and Carmel Valley Middle School to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires each school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

When the analysis is completed, which takes approximately 4-6 weeks, we will report the results to the San Dieguito Union High School District and the State of California. The State of California and the City of San Diego will not release data to the public before 60 days of the completed analysis, unless we are required to under a Public Records Act (PRA) request.

Please contact Tom Burger at 619-668-3234, or Tburger@sandiego.gov and Feryal Moshavegh at 858-654-4241, or Fmoshavegh@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Sincerely,

Tom B. Burger

Tom Burger
Associate Chemist

TB:nt

Campbell, Doug

From: Moshavegh, Feryal
Sent: Friday, May 12, 2017 11:42 AM
To: Gilbert, Douglas
Cc: jim.mitroff@sduhsd.net; Campbell, Doug; daniel.love@sduhsd.net; Burger, Tom
Subject: RE: San Dieguito Union High School District Water testing
Attachments: 2017_5_12_Response_Leter_San Dieguito UHSD.pdf

Dear Mr. Gilbert:

Thank you for your written request for sampling drinking water at your schools under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from Torrey Pines High School, Canyon Crest Academy, Pacific Trails Middle School and Carmel Valley Middle School to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires each school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

When the analysis is completed, which takes approximately 4-6 weeks, we will report the results to The institute for Effective Education and the State of California. The State of California and the City of San Diego will not release data to the public before 60 days of the completed analysis, unless we are required to under a Public Records Act (PRA) request.

Please contact me at 858-654-4241, Fmoshavegh@sandiego.gov or Tom Burger at 619-668-3234, Tburger@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Best Regards

Feryal Moshavegh
Associate Civil Engineer
City of San Diego
Public Utilities Department | EPM Division
9192 Topaz Way | San Diego | CA 92123 | M.S. 901A
Fmoshavegh@sandiego.gov | (858) 654-4241

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From: Gilbert, Douglas [mailto:douglas.gilbert@sduhsd.net]
Sent: Thursday, May 11, 2017 4:13 PM
To: Burger, Tom <TBurger@sandiego.gov>
Cc: jim.mitroff@sduhsd.net; Campbell, Doug <DCampbell@sandiego.gov>; daniel.love@sduhsd.net; Moshavegh, Feryal <FMoshavegh@sandiego.gov>
Subject: Re: San Dieguito Union High School District Water testing

Here is our formal letter.

I'll put it in the mail today.

Please confirm this is what you need.

thank you,

Douglas Gilbert
Director of Purchasing & Risk Management
San Dieguito Union High School District
684 Requeza St
Encinitas, CA 92024
(760) 753-6491 ext 5521
(760) 943-1542 fax

On Thu, May 11, 2017 at 2:44 PM, Burger, Tom <TBurger@sandiego.gov> wrote:

> Good Afternoon Mr. Mitroff,
>
> Here is the link to the web page giving instructions on requesting lead testing for schools. Please follow those instructions to formally request testing for your schools to be tested.
>
> https://www.sandiego.gov/water/quality/schoolleadtest
>
> If you have any questions after viewing the website, feel free to contact me by phone or email. Please respond to this email to confirm receipt.
>
> Thanks
>
> Tom

Tom Burger

Associate Chemist

Public Utilities Department

Office: (619) 668-3234

Cell: (619) 218-1193

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SAN DIEGO
Public Utilities Department
Engineering and Program Management Division

April 5, 2017

Mr. Abdollah Saadat
Assistant Superintendent
601 Elm Avenue
Imperial Beach, CA 91932-2098

Reference: Request for Lead Sampling At South Bay Union School District

Dear Mr. Saadat,

Thank you for your written request for sampling drinking water at your school under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from your school that is familiar with the usage of the water fixtures at South Bay Union school district to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires the school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

When the analysis is completed, which takes approximately 4-6 weeks, we will report the results to the school, and the State of California. The State of California and the City of San Diego will not release data to the public before 60 days of the completed analysis, unless we are required to under a Public Records Act (PRA) request.

Please contact Tom Burger at 619-668-3234, or Tburger@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Sincerely,

Tom B Burger

Tom Burger
Associate Chemist

TB:nt

9192 Topaz Way, M.S. 901A
San Diego, CA 92123
www.sandiego.gov/publicutilities

T (858) 654-4401
sandiego.gov

Campbell, Doug

From: Moshavegh, Feryal
Sent: Wednesday, April 05, 2017 1:51 PM
To: asaadat@sbusd.org; dvisnick@sbusd.org; lortiz@sbusd.org
Cc: Campbell, Doug; Burger, Tom
Subject: Request for Lead Sampling At South Bay Union School District
Attachments: San Diego Water Letter for Lead.pdf; 2017.04.05_CSD_Response Letter.pdf

Dear Mr. Saadat,

Thank you for your written request for sampling drinking water at your school under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from your school that is familiar with the usage of the water fixtures at South Bay Union school district to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires the school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

When the analysis is completed, which takes approximately 4-6 weeks, we will report the results to the school, and the State of California. The State of California and the City of San Diego will not release data to the public before 60 days of the completed analysis, unless we are required to under a Public Records Act (PRA) request.

Please contact me at 858-654-4241, or Fmoshavegh@sandiego.gov and Tom Burger at 619-668-3234, or Tburger@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Best Regards

Feryal Moshavegh
Associate Civil Engineer
City of San Diego
Public Utilities Department | EPM Division
9192 Topaz Way | San Diego | CA 92123 | M.S. 901A
Fmoshavegh@sandiego.gov | (858) 654-4241

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Public Utilities Department
Environmental Monitoring and Technical Services Division

April 10, 2017

Ms. Patricia Lowell
Principal
7654 Herschel Avenue
La Jolla, CA 92037

Reference: Request for Lead Sampling At Stella Maris Academy

Dear Ms. Lowell,

Thank you for your written request for sampling drinking water at your school under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from your school that is familiar with the usage of the water fixtures at Stella Maris Academy to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires the school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

When the analysis is completed, which takes approximately 4-6 weeks, we will report the results to the school, and the State of California. The State of California and the City of San Diego will not release data to the public before 60 days of the completed analysis, unless we are required to under a Public Records Act (PRA) request.

Please contact Tom Burger at 619-668-3234, or Tburger@sandiego.gov and Feryal Moshavegh at 858-654-4241, or Fmoshavegh@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Sincerely,

Tom Burger
Associate Chemist

TB:nt

Water Quality Laboratory
5530 Kiowa Dr.
La Mesa, CA 91942
www.sandiego.gov/publicutilities

T (858) 654-4401
sandiego.gov

Campbell, Doug

From: Moshavegh, Feryal
Sent: Tuesday, April 11, 2017 9:28 AM
To: jhollis@stellamarisacademy.org; plowell@stellamarisacademy.org
Cc: Campbell, Doug; Burger, Tom
Subject: FW: Request for Lead Sampling - Stella Maris Academy
Attachments: Lead Testing Request.pdf; 2017.04.10_Stella_Maris_Academy_Response_Letter.pdf

Dear Ms. Lowell,

Thank you for your written request for sampling drinking water at your school under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from your school that is familiar with the usage of the water fixtures at Stella Maris Academy to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires the school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

When the analysis is completed, which takes approximately 4-6 weeks, we will report the results to the school, and the State of California. The State of California and the City of San Diego will not release data to the public before 60 days of the completed analysis, unless we are required to under a Public Records Act (PRA) request.

Please contact Tom Burger at 619-668-3234, or Tburger@sandiego.gov and
Feryal Moshavegh at 858-654-4241, or Fmoshavegh@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Best Regards

Feryal Moshavegh
Associate Civil Engineer
City of San Diego
Public Utilities Department | EPM Division
9192 Topaz Way | San Diego | CA 92123 | M.S. 901A
Fmoshavegh@sandiego.gov | (858) 654-4241

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****

From: Julie Hollis [mailto:jhollis@stellamarisacademy.org]
Sent: Thursday, April 06, 2017 7:17 AM
To: SD Drinking Water Quality <DrinkingWaterQuality@sandiego.gov>
Cc: DDW-PLU@waterboards.ca.gove
Subject: Request for Lead Sampling

Good Morning,

Please find attached a letter requesting lead sampling at Stella Maris Academy.

Thank you.

God Bless,

Julie Hollis
Business Manager
Stella Maris Academy
7654 Herschel Ave
La Jolla CA 92037
jhollis@stellamarisacademy.org
www.stellamarisacademy.org
Phone (858) 454-2461 ext. 110

The City of
SAN DIEGO
Public Utilities Department
Environmental Monitoring and Technical Services Division

July 7, 2017

Ms. Mary Johnson, Principal
St. Michael Academy
2637 Homedale St
San Diego, CA 92139

Reference: Request for Lead Sampling at St. Michael Academy

Dear Ms. Johnson:

Thank you for your written request for sampling drinking water at your school under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from St. Michael Academy to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires each school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

When the analysis is completed, which takes approximately 4-6 weeks, we will report the results to St. Michael Academy and the State of California. The State of California and the City of San Diego will not release data to the public before 60 days of the completed analysis, unless we are required to under a Public Records Act (PRA) request.

Please contact Tom Burger at 619-668-3234, or Tburger@sandiego.gov and Feryal Moshavegh at 858-654-4241, or Fmoshavegh@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Sincerely,

Tom B Burger

Tom Burger
Associate Chemist

TB:nt

Campbell, Doug

From: Moshavegh, Feryal
Sent: Friday, July 07, 2017 11:46 AM
To: mjohnson@stmichaelsandiego.org
Cc: Campbell, Doug; Burger, Tom
Subject: Request for Lead Sampling at St. Michael Academy
Attachments: 2017-7-7_Response_Letter_St._Michael_Acad.pdf; 6-16-2017 _Req_Letter_St.Michael_Academy.pdf

Dear Ms. Johnson:

Thank you for your written request for sampling drinking water at your school under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from St. Michael Academy to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires each school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

When the analysis is completed, which takes approximately 4-6 weeks, we will report the results to St. Michael Academy and the State of California. The State of California and the City of San Diego will not release data to the public before 60 days of the completed analysis, unless we are required to under a Public Records Act (PRA) request.

Please contact me at 858-654-4241, Fmoshavegh@sandiego.gov or Tom Burger at 619-668-3234, Tburger@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Best Regards

Feryal Moshavegh
Associate Civil Engineer
City of San Diego
Public Utilities Department | EPM Division
9192 Topaz Way | San Diego | CA 92123 | M.S. 901A
Fmoshavegh@sandiego.gov | (858) 654-4241

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Public Utilities Department
Engineering and Program Management Division

April 4, 2017

Ms. Karen Janney
Superintendent
1130 Fifth Avenue,
Chula Vista, CA 91911-2896

Reference: Request for Lead Sampling Ten (10) Schools in Sweetwater Union High School District

Dear Ms. Janney,

Thank you for your written request for sampling drinking water at your school under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from your school that is familiar with the usage of the water fixtures at Sweetwater Union High School District, ten (10) schools (see attached) to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires the school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

When the analysis is completed, which takes approximately 4-6 weeks, we will report the results to the school, and the State of California. The State of California and the City of San Diego will not release data to the public before 60 days of the completed analysis, unless we are required to under a Public Records Act (PRA) request.

Please contact Tom Burger at 619-668-3234, or Tburger@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Sincerely,

Tom B. Burger

Tom Burger
Associate Chemist

Enclosure: 1. Sweetwater Union High School District – Name of Ten (10) Schools

9192 Topaz Way, M.S. 901A
San Diego, CA 92123
www.sandiego.gov/publicutilities

T (858) 654-4401
sandiego.gov

Sweetwater Union High School District Schools - Name of Ten (10) Schools Submitted Request For Lead Sampling:

1. Imperial Beach Adult School
2. Southwest High School
3. Southwest Middle School
4. Montgomery High School
5. Montgomery Middle School
6. Montgomery Adult School
7. Mar Vista Academy
8. Mar Vista High School
9. San Ysidro High School
10. San Ysidro Adult School

TB:nt

The City of
SAN DIEGO
Public Utilities Department
Environmental Monitoring and Technical Services Division

May 16, 2017

Ms. Mariel Cairns, Business Administrator
The Child's Primary School
3811 Mt. Acadia Boulevard
San Diego, CA 92111

Reference: Request for Lead Sampling at The Child's Primary School

Dear Ms. Cairns:

Thank you for your written request for sampling drinking water at your schools under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from The Child's Primary School to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires each school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

When the analysis is completed, which takes approximately 4-6 weeks, we will report the results to The Child's Primary School and the State of California. The State of California and the City of San Diego will not release data to the public before 60 days of the completed analysis, unless we are required to under a Public Records Act (PRA) request.

Please contact Tom Burger at 619-668-3234, or Tburger@sandiego.gov and Feryal Moshavegh at 858-654-4241, or Fmoshavegh@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Sincerely,

Tom B Burger

Tom Burger
Associate Chemist

TB:nt

From:	Moshavegh, Feryal
To:	mcairns@tcps.org
Cc:	Burger, Tom; Campbell, Doug
Subject:	Request for Lead Sampling at The Child's Primary School
Date:	Wednesday, May 17, 2017 12:28:00 PM
Attachments:	2017_5_16_Response_Letter_The_Child_Primary_School.pdf image001.jpg

---

Dear Ms. Cairns:

Thank you for your written request for sampling drinking water at your schools under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from The Child's Primary School to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires each school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

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Please contact me at 858-654-4241, Fmoshavegh@sandiego.gov or Tom Burger at 619-668-3234, Tburger@sandiego.gov
to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Thank you

Feryal Moshavegh
Associate Civil Engineer
City of San Diego
Public Utilities Department | EPM Division
9192 Topaz Way | San Diego | CA 92123 | M.S. 901A
Fmoshavegh@sandiego.gov | (858) 654-4241

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Public Utilities Department
Environmental Monitoring and Technical Services Division

April 12, 2017

Mr. Tony Romano
Office Manager
840 14th Street
San Diego, CA 92101

Reference: Request for Lead Sampling At Urban Discovery Academy

Dear Mr. Romano,

Thank you for your written request for sampling drinking water at your school under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from your school that is familiar with the usage of the water fixtures Urban Discovery Academy to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires the school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

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Please contact Tom Burger at 619-668-3234, or Tburger@sandiego.gov and Feryal Moshavegh at 858-654-4241, or Fmoshavegh@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Sincerely,

Tom B Burger

Tom Burger
Associate Chemist

TB:nt

Water Quality Laboratory
5530 Kiowa Dr.
La Mesa, CA 91942
www.sandiego.gov/publicutilities

T (858) 654-4401
sandiego.gov

Campbell, Doug

From: Moshavegh, Feryal
Sent: Wednesday, April 12, 2017 10:34 AM
To: tromano@urbandiscoveryacademy.com
Cc: Campbell, Doug; Burger, Tom
Subject: Request for Lead Sampling At Urban Discovery Academy
Attachments: UrbanDiscoveryResponse_Letter_4-12-17.pdf

Dear Mr. Romano,

Thank you for your written request for sampling drinking water at your school under the Lead in Schools Rule. As required by the State Water Resources Control Board, Division of Drinking Water, this is our written response to your request.

The sampling, analysis, and reporting under this program is a multi-step process. The first step is for a representative from your school that is familiar with the usage of the water fixtures Urban Discovery Academy to attend a meeting at our facility. At this meeting, staff will learn details about the roles and responsibilities of the school and the water utility. They will also receive training on completing a Sampling Plan, which requires the school to identify the five most frequently used sites and document them on the Sampling Plan.

Once the Sampling Plan is completed, it must be submitted to the City of San Diego for approval. Once approved, a date will be set to conduct sampling. On the sampling date, a City of San Diego sampler will meet with the sample plan author to conduct sampling. This sampling must be completed early in the morning before the usage of any water fixtures.

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Please contact me at 858-654-4241, or Fmoshavegh@sandiego.gov and Tom Burger at 619-668-3234, or Tburger@sandiego.gov to attend a sampling plan training session.

For information about Reducing Lead in schools, please visit Google 'EPA's 3Ts' website.

Best Regards

Feryal Moshavegh
Associate Civil Engineer
City of San Diego
Public Utilities Department | EPM Division
9192 Topaz Way | San Diego | CA 92123 | M.S. 901A
Fmoshavegh@sandiego.gov | (858) 654-4241

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Wednesday, April 05, 2017 2:34 PM
To: Kim.Hanagan@waterboards.ca.gov; DDW-PLU@waterboards.ca.gov
Cc: Burger, Tom; Campbell, Doug
Subject: Request Letters For Schools Lead Sampling
Attachments: 2.27.17 CV Elementary School Water Sampling.pdf; 2017.02.22 _Excelsior_Academy_REQ.pdf; Lead Testing Request_City of SD_170307_OFF.pdf; 2017.03.14.Keiller_Leadership_Academy_REQ.pdf; Water sampling request Magnolia.pdf; San Diego Water Letter for Lead.pdf; 2017 03 21_SDUSD_Request_letter_Zone 4.pdf

Dear Kim
Attached are the lead sampling request letters from the following schools;

- San Diego Unified School District - Zone 4
- Chula Vista Elementary School District
- Excelsior Academy
- High Tech High Point Loma seven (7) schools
- Keiller Leadership Academy
- Magnolia Science Academy
- South Bay Union School District

Please let us know if you have any question.

Best Regards

Feryal Moshavegh
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Campbell, Doug

From: Moshavegh, Feryal
Sent: Wednesday, April 05, 2017 2:45 PM
To: Kim.Hanagan@waterboards.ca.gov; DDW-PLU@waterboards.ca.gov
Cc: Campbell, Doug; Burger, Tom
Subject: Request Letters for Schools Lead Sampling - Sweetwater Union High School District
Attachments: 2017.03.10_Imperial_Beach_Adult_School_REQ.pdf; 2017.03.10 _Mar_Vista_Academy_REQ.pdf; 2017.03.10_Mar_Vista_HS_Req.pdf; 2017.03.10 _Montgomery_Adult_School.pdf; 2017.03.10_Montgomery_High_School.pdf; 2017.03.10 _Montgomery_Middle_School.pdf; 2017.03.10_San_Ysidro_Adult_School_REQ.pdf; 2017.03.10_San_Ysidro_High_School.pdf; 2017.03.10_Southwest_High_School.pdf; 2017.03.10_Southwest_Middle_School.pdf

Dear Kim
Attached are the sampling request letters for the following ten Sweetwater Union High School District schools:

1. Imperial Beach Adult School
2. Southwest High School
3. Southwest Middle School
4. Montgomery High School
5. Montgomery Middle School
6. Montgomery Adult School
7. Mar Vista Academy
8. Mar Vista High School
9. San Ysidro High School
10. San Ysidro Adult School

Please let us know, if you have any question.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Thursday, April 06, 2017 2:31 PM
To: WB-DDW-PLU
Cc: Campbell, Doug
Subject: RE: Request Letters For Schools Lead Sampling
Attachments: ZONE LIST 08-16-2016_0.pdf; PPOZoneMap 609(4).pdf

Kim hi
Attached is the zone list and map we received from SDUSD. Some of the schools have multiple campuses.

Best Regards

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From: Hanagan, Kim@Waterboards [mailto:Kim.Hanagan@waterboards.ca.gov] **On Behalf Of** WB-DDW-PLU
Sent: Thursday, April 06, 2017 2:24 PM
To: Moshavegh, Feryal <FMoshavegh@sandiego.gov>
Subject: RE: Request Letters For Schools Lead Sampling

Hi we do not have the list of the 53 schools in Zone 4. Please provide, thanks.

Kim Hanagan, P.E.
Associate Sanitary Engineer
SWRCB – Division of Drinking Water
Primacy Liaison Unit
1001 I Street, 17th Floor
Sacramento, CA 95814
Ph: (916) 449-5646; Fax: (916) 449-5264

CALIFORNIA Water Boards

From: Moshavegh, Feryal [mailto:FMoshavegh@sandiego.gov]
Sent: Wednesday, April 05, 2017 2:34 PM
To: Hanagan, Kim@Waterboards; WB-DDW-PLU
Cc: Burger, Tom; Campbell, Doug

Subject: Request Letters For Schools Lead Sampling

Dear Kim
Attached are the lead sampling request letters from the following schools;

- San Diego Unified School District - Zone 4
- Chula Vista Elementary School District
- Excelsior Academy
- High Tech High Point Loma seven (7) schools
- Keiller Leadership Academy

- Magnolia Science Academy
- South Bay Union School District

Please let us know if you have any question.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Thursday, April 06, 2017 1:50 PM
To: Kim.Hanagan@waterboards.ca.gov; DDW-PLU@waterboards.ca.gov
Cc: Campbell, Doug; Burger, Tom
Subject: Request Letter for School Lead Sampling - Stella Maris Academy
Attachments: Lead Testing Request.pdf

Dear Kim
Attached is the sampling request letter from Stella Maris Academy. Please let us know, if you have any question.

Best Regards

Feryal Moshavegh
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Campbell, Doug

From: Moshavegh, Feryal
Sent: Tuesday, April 11, 2017 9:09 AM
To: Kim.Hanagan@waterboards.ca.gov; WB-DDW-PLU
Cc: Campbell, Doug; Burger, Tom
Subject: Request Letters For Schools Lead Sampling
Attachments: Stella_Maris_Academy_Lead Testing Request.pdf; 2017.4.5 _Our_Lady_ofthe_SacredHeart_REQ_letter.pdf; request for lead sampling, KIPP Adelante Preparatory Academy.pdf

Dear Kim
Attached are the lead sampling request letters from the following schools;

- Stella Maris Academy
- Our Lady of the Sacred Heart
- KIPP Adelante Preparatory Academy

Please let us know if you have any question.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Wednesday, April 12, 2017 10:56 AM
To: Kim.Hanagan@waterboards.ca.gov; WB-DDW-PLU
Cc: Campbell, Doug; Burger, Tom
Subject: Request Letters For Schools Lead Sampling
Attachments: 2017.04.11_Zone 3 H2o Sample Req.pdf; ZONE LIST 08-16-2016_0.docx; Urban Discovery Academy Request letter.pdf

Dear Kim
Attached are the lead sampling request letters from the following schools;

- Urban Discovery Academy
- San Diego Unified School District Central City Zone 3

Please let us know if you have any question.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Thursday, April 13, 2017 12:44 PM
To: Kim.Hanagan@waterboards.ca.gov; WB-DDW-PLU
Cc: Campbell, Doug; Burger, Tom
Subject: Request Letters For Schools Lead Sampling
Attachments: 2017.04.10.Evangeline_Roberts_Charter_REQ.pdf

Dear Kim
Attached is the lead sampling request letter from the Evangeline Roberts Institute of Learning Charter School. Please let us know if you have any question.

Best Regards

Feryal Moshavegh
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Campbell, Doug

From: Moshavegh, Feryal
Sent: Thursday, April 13, 2017 1:19 PM
To: Kim.Hanagan@waterboards.ca.gov; WB-DDW-PLU
Cc: Campbell, Doug; Burger, Tom
Subject: Request Letters For Schools Lead Sampling
Attachments: 2017.4.13.Epiphany_Prep_Charter_REQ.pdf

Dear Kim
Attached is the lead sampling request letter from the Epiphany Prep Charter School. Please let us know if you have any question.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Thursday, April 13, 2017 1:44 PM
To: Kim.Hanagan@waterboards.ca.gov; WB-DDW-PLU
Cc: Burger, Tom; Campbell, Doug
Subject: SDUSD Request Letter for Schools Lead Sampling - Updated School Lists Zones 1, 2, 3, 4
Attachments: San_Diego_Unified_School_District_Updated_School_List All Zones.xlsx

Dear Kim
Attached is the updated San Diego Unified School District school lists for all zones 1 through 4.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Wednesday, April 19, 2017 12:33 PM
To: Kim.Hanagan@waterboards.ca.gov; WB-DDW-PLU
Cc: Campbell, Doug; Burger, Tom
Subject: Request Letters For Schools Lead Sampling
Attachments: 2017.04.18_Zone 2 H2o Sample Req.pdf; School_List_Zone-2.xlsx

Dear Kim
Attached is the lead sampling request letter from San Diego Unified School District Central City Zone 2. Please let us know if you have any question.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Monday, April 24, 2017 11:06 AM
To: Kim.Hanagan@waterboards.ca.gov; WB-DDW-PLU
Cc: Campbell, Doug; Burger, Tom
Subject: Request Letters For Schools Lead Sampling
Attachments: 2017.4.17_REQ_Letter_Cambridge School.docx

Dear Kim
Attached is the lead sampling request letter from Cambridge School. Please let me know if you have any question.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Friday, April 28, 2017 10:45 AM
To: Kim.Hanagan@waterboards.ca.gov; WB-DDW-PLU
Cc: Campbell, Doug; Burger, Tom
Subject: Request Letters For Schools Lead Sampling
Attachments: 4.24.2017_Museum_School_K-8_Req_Letter.pdf; Request of Lead Sampling DMUSD.PDF; 2017.04.27_Zone 1 H2o Sample Req.pdf

Dear Kim
Attached for your information is the lead sampling request letters from the following schools;
- San Diego Unified School District Coastal Bay Zone 1 (45 schools)
- Del Mar Union School District (8 schools)
- Museum School K-8

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Thursday, May 04, 2017 2:07 PM
To: Kim.Hanagan@waterboards.ca.gov; WB-DDW-PLU
Cc: Campbell, Doug; Burger, Tom
Subject: Request Letter For Schools Lead Sampling
Attachments: LPE EFLA Lead Sampling.pdf

Dear Kim
Attached for your information is the lead sampling request letter from La Petite Ecole English French learning academy.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Thursday, May 11, 2017 12:49 PM
To: Kim.Hanagan@waterboards.ca.gov; WB-DDW-PLU
Cc: Campbell, Doug; Burger, Tom
Subject: Request Letter For Schools Lead Sampling
Attachments: LeadWaterTestingRequest2017.pdf

Dear Kim
Attached for your information is the lead sampling request letter from the Institute for Effective Education three campuses (Children's Workshop, Cook Education, Urban Skills Center).

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Friday, May 12, 2017 8:57 AM
To: Kim.Hanagan@waterboards.ca.gov; WB-DDW-PLU
Cc: Campbell, Doug; Burger, Tom
Subject: Request Letter For Schools Lead Sampling
Attachments: Request for Lead Testing for San Dieguito UHSD.pdf

Dear Kim
Attached for your information is the lead sampling request letter from San Dieguito Union High School District requesting water sampling for following schools:
- Torrey Pines High School
- Canyon Crest Academy
- Pacific Trails Middle School
- Carmel Valley Middle School

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Tuesday, May 16, 2017 11:50 AM
To: Kim.Hanagan@waterboards.ca.gov; WB-DDW-PLU
Cc: Campbell, Doug; Burger, Tom
Subject: Request Letter For Schools Lead Sampling
Attachments: 2017-5-11_Request Letter.pdf

Dear Kim
Attached for your information is the lead sampling request letter from The Child's Primary School.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Thursday, June 01, 2017 1:00 PM
To: Kim.Hanagan@waterboards.ca.gov; WB-DDW-PLU
Cc: Campbell, Doug; Burger, Tom
Subject: Request Letter For Schools Lead Sampling
Attachments: Request for Lead Testing for School.pdf

Dear Kim
Attached for your information is the lead sampling request letter from McGill School of Success.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Friday, June 16, 2017 10:31 AM
To: Kim.Hanagan@waterboards.ca.gov; WB-DDW-PLU
Cc: Campbell, Doug; Burger, Tom
Subject: Schools Lead Sampling
Attachments: Water sampling request Magnolia.pdf; 2017.04.10.Evangeline_Roberts_Charter_REQ.PDF; San Diego Unified School District _ Schools Lead Tested.xlsx

Good Morning Kim
Attached is the final list of the San Diego Unified School District schools that have been sampled and tested for lead. We are in the process of posting test results on the State web site. We also sent curtesy reminder email to the following six private & charter schools that requested water sampling but didn't follow up to schedule training to let us know if they were still interested. The two attached schools responded that they are moving to new location and are not interested at this time.

- Epiphany Prep Charter School,
- Evangeline Roberts Institute of Learning, (received reply; no longer interested)
- Excelsior Academy,
- Magnolia Science Academy (received reply; no longer interested)
- Museum School
- Our Lady of the Sacred Heart

Doug hi
Please let us know if I missed anything.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Thursday, July 06, 2017 3:00 PM
To: Kim.Hanagan@waterboards.ca.gov; WB-DDW-PLU
Cc: Campbell, Doug; Burger, Tom
Subject: Request Letter For Schools Lead Sampling
Attachments: 6-16-2017_Req_Letter_St.Michael_Academy.pdf

Dear Kim
Attached for your information is the lead sampling request letter from St. Michael Academy.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Monday, March 20, 2017 9:20 AM
To: Rashid, Surraya; Vroom, Peter
Cc: Campbell, Doug; Burger, Tom
Subject: Lead Sampling k-12 Schools - Weekly Project Status Update

Hello everyone
This is my 2nd day as a project manager for Lead Sampling. I will provide you weekly update.

- SDUSD identified 48 schools in Park View Zone 4 as first schools to be tested. Schools are located in southeast San Diego.
- City contact person for the Zone 4 is Dan Lopaz safety compliance tech.
- SDUSD 1st training is scheduled this Wednesday March 22 at Alvarado Lab in the morning. They are planning to send 15 staff from maintenance and EHS office who will be directly working with us.
- Tom is finalizing the training material and PowerPoint presentation. There will be attendee roster and certificate of completion.
- Tom created a Tracking Spreadsheet for all the correspondence, contact information and lab test results. Y:\EMTS\41.Sections\WQL\Reports\State\PbCuRule\Schools

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Monday, March 27, 2017 9:07 AM
To: Vroom, Peter
Cc: Campbell, Doug; Burger, Tom; Rashid, Surraya
Subject: Lead Sampling k-12 Schools - Weekly Status Update

Project status update for March 20 – 27, 2017;

- Official letter of request for Drinking Water Sampling from SDUSD, Glenn Boogren received on Tuesday March 21, 2017 (email and hard copy).
- Official City respond to the SDUSD request from Tom Burger was sent to SDUSD Glen Boogren on Wednesday March 22, 2017 (email and hard copy).
- Sixteen SDUSD managers and staff from safety, maintenance and environmental compliance team attended the Lead Sampling training on Wednesday March 22 at Alvarado.
- Tom and Doug provided the training on the State requirements, preparing the sampling plans and answered questions. Training materials were emailed to all the attendees.
- Eleven sampling plans from Park View Zone 4 received on Thursday March 23rd for following schools;
    - Balboa, Boone Elementary, Carver Elementary, Fulton, Iftin Charter, Joyner, Knox, Rowan, Thrive Charter, Valencia Park Elementary and Webster
- Tom is working on the sampler training instruction for this week.
- The Water Lead Sampler training for laboratory staff is on Wednesday March 29 and EPM Division Thursday March 30.
- Eighteen staff from EPM division offered to help with collecting water samples and will attend the training.
- Water sampling will start Tuesday April 4.
- I will coordinate with Tom, to have EPM staff help with collecting water samples week of April 4.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Monday, April 03, 2017 3:13 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Campbell, Doug; Burger, Tom; Rashid, Surraya
Subject: SDUSD Lead Sampling Schedule - Daily Update
Attachments: ZONE LIST 08-16-2016_0.pdf; PPOZoneMap 609(4).pdf

Hello Everyone

Sampling plans for five SDUSD schools were reviewed and approved by Tom. Water quality lab staff will start lead sampling for the following five schools within SDUSD, Park View, Zone 4, green area on the attached map tomorrow April 4 at 6 am. The following are the school names and their representatives;

- Encanto Elementary School – Contact staff: Dan Lopez, Safety Tech
- Horton Elementary School – Contact Staff: Lori Sherman, Safety Tech
- Baker Elementary School - Contact Staff: Elizabeth Lara, Safety Tech
- Boone Elementary School - Contact Staff: Ginette Commins, Safety Tech
- Perry Elementary School - Contact Staff: Cesar Jimenez, Safety Tech

Tom is currently coordinating and finalizing the City samplers list. I will provide you their names tomorrow morning.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Tuesday, April 04, 2017 2:11 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Campbell, Doug; Burger, Tom; Rashid, Surraya
Subject: SDUSD Lead Sampling - Daily Update

Hello Everyone

We had a great first day of water sampling today with Tom Burger on KUSI News at 6 am collecting water samples. News was very positive and SDUSD appreciative of City's effort on trying to meet deadline on sampling all the schools by June 15.

- Five water samples were collected 6 am from each school (Encanto, Horton, Baker, Boone and Perry Elementary Schools) and delivered to Alvarado lab for testing.
- Lessons learned from Tom:
  - We asked SDUSD to make sure there is good flow from the sources they choose. We had one fountain that had to low of flow to sample, we sampled the adjoining bubbler and edited the source.
  - We had one source that was leaking, we noted in our database and made SDUSD aware of this issue.

- Sampling plans have been approved for the following five schools and water quality staff will collect water samples 6 am tomorrow;
  - Rolando Park Elementary School – Contact staff: Dan Lopez
  - Johnson Elementary School – Contact staff: Lori Sherman
  - Chavez Elementary School – Contact Staff: Elizabeth Lara
  - Fulton Elementary School – Contact Staff: Ginette Commins
  - Bell Middle School – Contact Staff: Cesar Jimenez

- We are receiving more sampling plans from SDUSD every day and responding to sampling request letters from other school districts.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Wednesday, April 05, 2017 3:39 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Campbell, Doug; Burger, Tom; Rashid, Surraya
Subject: RE: SDUSD Lead Sampling - Daily Update April 5

More update

From: Moshavegh, Feryal
Sent: Wednesday, April 05, 2017 3:36 PM
To: Vroom, Peter <PVroom@sandiego.gov>; Eidson, Brent <BEidson@sandiego.gov>; Gavaldon, Alejandra <AGavaldon@sandiego.gov>; Rife, Alma <AGRife@sandiego.gov>
Cc: Campbell, Doug <DCampbell@sandiego.gov>; Burger, Tom <TBurger@sandiego.gov>; Rashid, Surraya <SRashid@sandiego.gov>
Subject: SDUSD Lead Sampling - Daily Update April 5

Hello Everyone

Second day of water sampling, With Many Thanks to Tom and Doug the water sampling is going really well!

- Water samples were collected from Rolando Park, Johnson, Chavez, Fulton Elementary schools and Bell Middle school today.

- Sampling plans have been approved for the following five schools and water quality staff will collect water samples 6 am tomorrow Thursday April 6;
  - Mann Middle School – Contact staff: Dan Lopez , City Sampler: Walt Mulderig
  - Webster (K-6) Elementary School – Contact staff: Lori Sherman, City Sampler: Dan Sowersby
  - Balboa Elementary School – Contact Staff: Elizabeth Lara, City Sampler: Jerry Weston
  - Freese Elementary School – Contact Staff: Ginette Commins, City Sampler: Gloria Siqueiros
  - Bethune (k-8) School – Contact Staff: Ginette Commins, City Sampler: Tom Burger
  - Fulton (k-8) School – Contact Staff: Ginette Commins, City Sampler: Dave Mayo (re-sample) water was off this morning

- Received 4 new sampling plans from SDUSD today

- Prepared and responded to the written requests to the City of San Diego for lead sampling from Magnolia Science Academy, South Bay Union School District, 10 schools in Sweetwater Union High School District, Keiller Leadership Academy, High Tech High Point Loma Campus (7 schools), Excelsior Academy, and Chula Vista Elementary School District.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Thursday, April 06, 2017 4:16 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Campbell, Doug; Burger, Tom; Rashid, Surraya; Amen, Rania; Razak, Halla
Subject: SDUSD Lead Sampling - Daily Update April 6

Hello Everyone

The following are today's updates:

- Doug's update:
  - There have been a steady stream of PRAs and inquiries from the media on this issue, including NBC San Diego, Voice of San Diego, the Union Tribune, and KPBS. I would like to thank Brent Eidson, Peter Vroom, Wilson Kennedy, and Alma Rife for their guidance and assistance in complying with these requests. We have also been working closely with the DDW staff responsible for this permit amendment to clarify procedures and reporting requirements.

- Tom's update:
  - Day three still very busy approving and completing sampling plans. SDUSD sends between 5 and 10 sampling plans a day.
  - We have been entering schools, sources, descriptions into our database and the state data base.
  - So far we have not had any issues getting samplers
  - Hoping to schedule sampling this Saturday

- Water samples were collected from Mann Middle School, Balboa and Freese Elementary schools , Bethune (k-8), Webster (k-6) and re-sample from Fulton K-8 school today.

- Sampling plans have been approved for the following five schools and water quality staff will collect water samples 6 am tomorrow Friday April 7:

- Millennial Tech Middle School – Contact staff: Timothy Brown City Sampler: Alejandra Molloy
-Oak Park Elementary School – Contact staff: Daniel Lopaz, City Sampler: Dan Sowersby
- Rowan Elementary School – Contact Staff: Elizabeth Lara, City Sampler: Tom Burger
- Morse High School – Contact Staff: Ginette Commins, City Sampler: Gloria Siqueiros
- Thrive Charter School – Contact Staff: Daniel Lopaz, City Sampler: Dave Mayo

- Received request for Lead Sampling letter from Stella Maris Academy

- Emailed copy of all the schools request letters to Kim Hanagan at DDW and DDW-PLU@waterboards.ca.gov

- Emailed copy of all the school request letters to Deputy City Attorney Tom Zeleny

- Scheduled Lead in Schools Sample Planning training from 8:30 – 10 am Monday April 10 and 17 at Alvarado TP, Lab Conference room 2.

- Paul Dooley from High Tech High (7 schools) will attend April 10 training.

- Danny Moreszes, Francisco Franco and Don Visnick from South Bay Union School District will attend April 17 training.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Friday, April 07, 2017 11:53 AM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Campbell, Doug; Burger, Tom; Rashid, Surraya; Amen, Rania; Razak, Halla
Subject: SDUSD Lead Sampling - Daily Update April 7

Happy Friday Everyone!

The following are today's updates:

- Water samples were collected from Oak Park and Rowan Elementary Schools, Morse High School, Millennial Tech Middle School, and Thrive Charter School at 6 am today.

- There were low flows at Thrive Charter sample point #5 and Oak Park Elementary school sample point #2. These schools will be resampled tomorrow.

- We are planning to collect water samples tomorrow Saturday April 8. The following are the projected schools:

  - Bandini Elementary School – Contact staff: Ginette Commins City Sampler: Jerry Weston
  - Lincoln High School – Contact staff: Ginette Commins, City Sampler: Jerry Weston
  - Knox Middle School – Contact Staff: Ginette Commins, City Sampler: Jerry Weston
  - Valencia Park Elementary School – Contact Staff: Ginette Commins, City Sampler: Jerry Weston
  - Zamorano Elementary School – Contact Staff: Ginette Commins, City Sampler: Jerry Weston

  Plus two single source re-samples: Thrive Public sample point #5- and Oak Park-Sample point # 2 City Sampler: Jerry Weston

- Total of 110 samples were collected from 22 schools Tuesday to Friday this week. Two schools (Fulton and Emerson) were resampled.

- We have received 42 sampling plans from 52 SDUSD Park View Zone 4.

- We received two sampling plans from SDUSD schools that are not on the list provided with March 21 request letter. Currently working with SDUSD to get more updated list of schools in Park View Zone 4.

- Received request for Lead Sampling letter from Our Lady of Sacred Heart School in San Diego.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Monday, April 10, 2017 3:30 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Campbell, Doug; Burger, Tom; Rashid, Surraya; Amen, Rania; Razak, Halla
Subject: SDUSD Lead Sampling - Daily Update April 10

Hello Everyone

The following is today's updates:

- Saturday April 8:
  - Four schools were sampled Bandini, Valencia and Zamorano Elementary Schools and Lincoln High School
  - Knox Middle School was not sampled due to sample plan errors and will be sampled Wednesday April 12
  - 1 sample was taken at Oak Park Elementary; we were unable to sample previously due to low or no flow
  - 1 sample was taken at Thrive Charter; we were unable to sample previously due to low or no flow

- No water sampling today Monday April 10.

- Paul Dooley, Director of Facilities for High Tech High, Point Loma Campus (seven schools) attend the Sampling Plan training at Alvarado Lab building this morning. Tom provided the training.

- Tomorrow Tuesday April 11 sampling schedule and staff:

  - Audubon Elementary School – Contact staff: Ginette Commins City Sampler: Erik Alvarenga
  - Nye Elementary School – Contact staff: Dan Lopez, City Sampler: Dan Sowersby
  - Porter North Elementary School – Contact Staff: Lori Sherman, City Sampler: Josh Rambo
  - Porter South Elementary School – Contact Staff: Lori Sherman, City Sampler: Josh Rambo
  - Pacific View Leadership Elementary School – Contact Staff: Cesar Jimenez, City Sampler: Dave Mayo

- As of today we have received 50 sampling plans from 54 SDUSD Park View Zone 4.

- Received request for Lead Sampling letter from KIPP Adelante Preparatory Academy in San Diego.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Tuesday, April 11, 2017 3:04 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Campbell, Doug; Burger, Tom; Rashid, Surraya; Amen, Rania; Razak, Halla
Subject: SDUSD Lead Sampling - Daily Update April 11

Hello Everyone

The following is today's updates:

- Water samples were collected from Audubon, Nye, Porter North, Porter South and Pacific View Leadership elementary schools.

- Received 8 sampling plans from Paul Dooley, Director of Facilities with High Tech High, Point Loma Seven Campuses. The High Tech High Media Arts school is housed in two buildings with separate addresses. Separate sampling plans were submitted for each address.

- Tomorrow Tuesday April 11 sampling schedule and staff:

- Knox Elementary School - Contact staff: Elizabeth Lara City Sampler: Dan Sowersby
- Penn Elementary School – Contact Staff: Cesar Jimenez, City Sampler: Tom Burger
- Gompers Pre Academy – Contact staff: Lori Sherman, City Sampler: Josh Rambo
- Iftin Charter School – Contact Staff: Dan Lopez, City Sampler: Dave Mayo
- Crawford High School – Contact Staff: Ginette Commines City Sampler: Erik Alvarenga

- Received sampling plans for all the SDUSD Zone 4 but couple of charter schools.
- Received 11 sampling plans for SDUSD Zone 3, Central City schools. Contacted the SDUSD to get the request for sampling letter for Zone 3 in order to start the review process.
- City water sampling response letters were emailed and mailed to KIPP Adelante Preparatory Academy, Our Lady of the Sacred Heart School and Stella Maris Academy.
- Copy of the request letters from KIPP Adelante Preparatory Academy, Stella Maris Academy and Our Lady of the Sacred Heart school were emailed to Kim Hanagan with State DDW.
- Copy of the request letters from KIPP Adelante Preparatory Academy and Our Lady of the Sacred Heart school were emailed to deputy city attorney Tom Zeleny.
- Robert Tannenbaum, Director of Operations at KIPP Adelante Preparatory Academy contacted us to attend the sampling plan training on Monday April 10 from 8:30 to 10 am.
- Kate Wilson, Assistant Executive Director of Excelsior Academy contacted us to attend the sampling plan training on Monday May 8 from 8:30 -10 am.
- Received Request for Lead Sampling letter from Urban Discovery Academy.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Wednesday, April 12, 2017 3:27 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Campbell, Doug; Burger, Tom; Rashid, Surraya; Amen, Rania; Razak, Halla
Subject: SDUSD Lead Sampling - Daily Update April 12

Hello Everyone

Great New! We are getting good sampling results. The following is today's updates:

- Water samples were collected from Knox and Penn Elementary Schools, Gompers Pre Academy, Iftin Charter and Crawford High school today.

- Tomorrow Thursday April 13 sampling schedule and staff:

  - Paradis Hills Elementary School – Zone 4 - Contact staff: Cesar Jimenez City Sampler: Erik Alvarenga
  - Franklin Elementary School – Zone 3 – Contact Staff: Ginette Commines , City Sampler: David Mayo
  - School of Creative & performing Arts – Zone 4 – Contact staff: Dan Lopez, City Sampler: Dan Sowersby
  - Dailard Elementary School- Zone 3 – Contact Staff: Lori Sherman City Sampler: Josh Rambo
  - Foster Elementary School – Zone 3 – Contact Staff: Elizabeth Lara City Sampler: Alejandra Molloy

- 2 re-sample reports were provided to SDUSD today, one for San Diego COOP #2 South, and one for Emerson Elementary. All three re-samples were good <15 ppb

- Today lead sampling data was approved for the following 17 schools (including Emerson and SD COOP#@ South); These school had lead below 15 ppb. Gloria Siquieros is working on a report template. Tom expect to provide reports to SDUSD by Friday.

  Baker Elementary School ,
  Balboa Elementary
  Bell Middle School
  Bethune K-8
  Boone Elementary School
  Chavez Elementary
  Encanto Elementary School
  Freese Elementary
  Fulton K-8
  Horton Elementary School
  Johnson Elementary School
  Mann Middle School
  Perry Elementary

Rolando Park Elementary
Webster Elementary
Emerson Elementary (Re-samples)
San Diego COOP #2 South (Re-samples)

- Sampling for Zone 3 will start tomorrow and will continue sampling schools in zone 4.
- Received 8 sampling plans from SDUSD Zone 3 and Zone 4.
- Received request for sampling letter from SDUSD for Zone 3 and sent city response letter.
- Sent request for sampling response letter to Urban Discovery Academy and scheduled sampling plan training for Monday April 10.
- Emailed copy of the request letters from to San Diego Unified School District Zone 3 and Urban Discovery Academy to Kim Hanagan with State DDW and deputy city attorney Tom Zeleny.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Thursday, April 13, 2017 3:13 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Campbell, Doug; Burger, Tom; Rashid, Surraya; Amen, Rania; Razak, Halla
Subject: SDUSD Lead Sampling - Daily Update April 13
Attachments: BALBOA06APR2017.pdf; BAKER04APR2017.pdf; BELL05APR2017.pdf; BETHUNE06APR2017.pdf; BOONE04APR2017.pdf; CHAVEZ04APR2017.pdf; ENCANTO04APR2017.pdf; Freese06APR2017.pdf; Fulton06APR2017.pdf; Horton Elementary04APR2017.pdf; Mann Middle06APR2017.pdf; Perry04APR2017.pdf; Rolando Park Elementary05APR2017.pdf; Webster Elementary06APR2017.pdf; Johnson05APR2017.pdf

Hello Everyone

The following is today's updates:

- Tom sent the data reports for the following schools to SDUSD. Please see attached copy of the reports. Quick summary: ppb
  65 samples <5
  9 samples >5 range 5.09-9.31
  0 samples >15

  1. Balboa Elementary
  2. Baker Elementary
  3. Bell Middle
  4. Bethune K-8
  5. Boone Elementary
  6. Chavez Elementary
  7. Encanto Elementary
  8. Freese Elementary
  9. Fulton K-8
  10. Horton Elementary
  11. Johnson Elementary
  12. Mann Middle School
  13. Perry Elementary
  14. Rolando Park Elementary
  15. Webster Elementary

  - Water samples were collected from Paradis hills, Franklin, Dailard and Forster Elementary Schools and School of Creative & Performing Arts today.

  - As of today we have collected water samples from 40 SDUSD schools and received sampling plans for 49 schools in zone 4 and 21 in zone 3. We are expecting 4 more sampling plans for zone 4 to complete the list.

  - Since some of the Zone 4 schools are on year round schedule and on break, SDUSD requested city start sampling Zone 3. They will return after next week.

- Tomorrow Friday April 14 sampling schedule and staff:

  - Gage Elementary School – Zone 3 - Contact staff: Elizabeth Lara City Sampler: Erik Alvarenga
  - Green Elementary School – Zone 3 – Contact Staff: Lori Sherman, City Sampler: David Mayo
  - Clay Elementary School – Zone 3 – Contact staff: Dan Lopez, City Sampler: Tom Burger
  - Memorial Prep Middle School- Zone 3 – Contact Staff: Cesar Jimenez City Sampler: Josh Rambo
  - Rodriguez Elementary School – Zone 3 – Contact Staff: Ginette Commines City Sampler: Josh Rambo

- Received request for sampling from Epiphany Prep Charter School and Evangeline Roberts Institute of Learning. Copy of the request letters were emailed to DCA Tom Zeleny and Kim Hanagan from State DDW

- Sent request for sampling response letter to Epiphany Prep Charter School and Evangeline Roberts Institute of Learning

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Friday, April 14, 2017 10:18 AM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Campbell, Doug; Burger, Tom; Rashid, Surraya; Amen, Rania; Razak, Halla
Subject: SDUSD Lead Sampling - Daily Update April 14

Hello Everyone, Great News from Tom!

- 50 + samples were analyzed yesterday, and the preliminary results were all below the action level.

- Water samples were collected from Gage, Green, Clay and Rodriguez Elementary Schools and Memorial Prep Middle school today.

- Tomorrow Saturday April 15 sampling schedule and staff:

- Adams Elementary School – Zone 3 - Contact staff: Lori Sherman City Sampler: Dave mayo
- Hardy Elementary School – Zone 3 – Contact Staff: Lori Sherman, City Sampler: David Mayo
- O'Farrell Charter School – Zone 4 – Contact staff: Lori Sherman, City Sampler: Dave mayo
- Chollas/Mead Elementary School- Zone 4 – Contact Staff: Lori Sherman City Sampler: Dave mayo
- Hoover High School – Zone 3 – Contact Staff: Lori Sherman City Sampler: Dave mayo
-

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Monday, April 17, 2017 3:43 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Campbell, Doug; Burger, Tom; Rashid, Surraya; Amen, Rania; Razak, Halla
Subject: SDUSD Lead Sampling - Daily Update April 17

Hello Everyone,

- Tom's update:
    - Water samples were collected from Adams, Hardy, Chollas/Mead Elementary Schools, O'Farrell Charter School and Hoover High school last Saturday April 15. Saturday's sampling had a couple of issues:
    - One sample site was in a kitchen, but the school representative did not have a key that would work in any of the doors(3) for access. We will return later this week.
    - At a different school, the sample site description did not match the sample plan. Our sampler edited the sample plan with the tagged out site, and took a sample.
    - Our LIMS application is currently not functioning, so this is going to cause a backlog of data entry tomorrow. We will be able to sample tomorrow, but we may need to use generic labels in able to proceed.
    - Matt Nelson, A Marine Biologist from NTC was at Alvarado today to help with sampling plans review and data entry. He is hoping to be able to put in two days a week towards the Lead in Schools program.

- Robert Tannenbaum, Director of Facilities for KIPP Adelante Preparatory Academy, Tony Romano Office Manager for Urban Discovery Academy, Don Visnick Director of Facilities and Francisco Franco from South Bay Union School District Nicoloff Elementary School attended the Sampling Plan training at Alvarado Lab building this morning. Tom provided the training.
- Sampling plans were submitted this morning after training for Urban Discovery Academy and KIPP Adelante Preparatory Academy.
- Received 52 from 54 sampling plans for SDUSD Zone 4, Ingenuity and America's Finest Charter schools will be submitted this week.
- Received 32 from 53 sampling plans for SDUSD Zone-3.
- Received 8 Sampling plans for Point Loma High Tech High and 1 from Los Altos Elementary School in Chula Vista School District
- We have received total of 95 sampling plans so far.
- Total schools tested as of today 50 and 2 retested.

- Tomorrow Tuesday April 18 Sampling schedule and staff:
    -
    - Benchley/Weinberger Elementary School – Zone 3 - Contact staff: Elizabeth Lara City Sampler: Dan Sowersby
    - Garfield High School – Zone 3 – Contact Staff: Lori Sherman, City Sampler: Tom Burger
    - Grant K-8 – Zone 3 – Contact staff: Ginette Commins City Sampler: Erik Alvarenga

- Hearst Elementary School- Zone 3 – Contact Staff: Dan Lopez City Sampler: Alejandra Molloy
- Henry High School – Zone 3 – Contact Staff: Cesar Jimenez City Sampler: Walt Mulderig

-Spreadsheet of all the schools correspondences have been created by Tom and it is on Y drive, we currently updating it and will provide you the link in two weeks.
- Yvonne Blantz from Public Information group will start helping Tom with data entries part time this Wednesday. I will coordinate with Yvonne supervisor Valda Leitch on her weekly schedule.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Tuesday, April 18, 2017 4:05 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Campbell, Doug; Burger, Tom; Rashid, Surraya; Amen, Rania; Razak, Halla
Subject: RE: SDUSD Lead Sampling - Daily Update April 17
Attachments: THRIVE04182017.pdf; ROWAN04182017.pdf; SDCOOPNORTH_04182017.pdf; MORSE_04182017.pdf; ZAMARANO_04182017.pdf; LINCOLN_04182017.pdf; OAKPARK041817.pdf; MILLENNIALTECH04182017.pdf; VALENCIA_04182017.pdf

Hello Everyone,

- Tom's update:
  - Matt Nelson, Walt Mulderig, Ann Genz-Sandoval, and Alejandra Molly have been helping out tremendously with water sampling process
  - Test results for nine reports are going out today for samples taken on April 7 & 8 all values are <5,
- The following nine schools test results are below 5 ppb (see attached);
  - Oak Park ES,
  - Thrive Charter,
  - Rowan ES,
  - Zamarano ES
  - Lincoln High School
  - Valencia Park ES
  - Millennial Tech Middle School
  - Morse High School
  - San Diego Co-op #2 North

- Received sampling plans from SDUSD for Washington, Jefferson, Euclid, Garfield Elementary Schools, Harold J Ballard school and Logan k-8.
- - Water samples were collected from Benchley/Winberger ES, Hearst ES, Grant K-8, Garfield and Henry High School today
- Tomorrow Wednesday April 19 Sampling schedule and staff:

- Chollas/Mead ES – Zone 4 Contact staff: John Baker City Sampler: Tom Burger
- Holly Drive Charter – Zone 4 Contact Staff: Lori Sherman, City Sampler: Dave Mayo
- Lewis Middle School – Zone 3 Contact staff: Ginette Commins City Sampler: Alejandra Molloy
- Mckinley ES School- Zone 3 Contact Staff: Elizabeth Lara City Sampler: Dan Sowersby
- Pershing Middle School – Zone 3 Contact Staff: Cesar Jimenez City Sampler: Josh Rambo

- Added all the 108 SDUSD schools for zone 3 and 4 to the spreadsheet and keep working on the sampling plan submittals, approval, staff, test date, results, etc. Hope to have an updated spreadsheet to share with you by end of this week.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Wednesday, April 19, 2017 3:55 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla
Subject: SDUSD Lead Sampling - Daily Update April 18
Attachments: AUDUBON_04192017.pdf; PORTERNORTH_04192017.pdf; PORTERSOUTH_04192017.pdf; PACIFICVIEW_04192017.pdf; NYE_04192017.pdf

Hello Everyone,

- Tom received the following five schools sample results today and they were < 5 ppb (see attached);
  - Audubon ES,
  - Portland North ES,
  - Portland South ES
  - Pacific View Leadership Academy
  - Nye ES
- Received sampling plans from SDUSD for Alternative learning for Behavior & Attitude (ALBA) Atypical School, Arroyo Paseo Charter HS, Central ES, Language Academy, King/Chavez Charter School, and Birney ES in Zone 3.
- - Water samples were collected from Chollas/Mead ES, Holly Drive Charter, Lewis Middle School, Mckinley ES and Pershing MD today
- Tomorrow Thursday April 20 Sampling schedule and staff:

- Keiller Leadership Academy Charter School – Zone 4 Contact staff: Ginette Commins City Sampler: Erik Alvarenga
- Roosevelt Middle School – Zone 3 Contact Staff: Elizabeth Lara, City Sampler: Dan Sowersby
- San Diego High School – Zone 3 Contact staff: Dan Lopez City Sampler: Dave Mayo
- Sherman ES School- Zone 3 Contact Staff: Lori Sherman City Sampler: Tom Burger
- San Diego Global Charter School – Zone 4 Contact Staff: Cesar Jimenez City Sampler: Alejandra Molloy

- Received Request for Sampling letter from SDUSD for 47 schools in Scripps Mesa Zone 2, prepared and emailed/mailed response letter and emailed and copy of the request letter to Tom Zeleny and DDW.
- Tracking spread sheet update is going well. I'm almost done with zone 4 update and will start zone 3 tomorrow. Hope to have it up to date by this Friday April 28.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Thursday, April 20, 2017 3:33 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla
Subject: SDUSD Lead Sampling - Daily Update April 20

Hello Everyone,

- Received 9 sampling plans today. Eight schools within SDUSD Scripps Mesa Zone 2 (Angier ES, Carson ES, Chesterton ES, Hage ES, Walker ES, Wegeforth ES, Scripps Ranch HS, Twain High) and one in Zone 3 Central City (Normal Heights ES) .
- Water samples were collected from Keiller Leadership Academy Charter, Roosevelt Middle School, San Diego High School, Sherman Elementary school and San Diego Global Charter School today
- Tomorrow Friday April 21 Sampling schedule and staff:

- Ballard Charter School – Zone 3 Contact staff: Cesar Jimenez City
Sampler: Dave Mayo
- ALBA High School – Zone 3 Contact Staff: Dan Lopez City
Sampler: Alejandra Molloy
- Arroyo Paeo Charter School – Zone 3 Contact Staff: Dan Lopez, City
Sampler: Alejandra Molloy
- Jefferson ES School – Zone 3 Contact staff: Lori Sherman City
Sampler: Tom Burger
- Washington ES School- Zone 3 Contact Staff: Elizabeth Lara City
Sampler: Dan Sowersby
- Lewis Middle School (one re-resample) – Zone 3 Contact Staff: Ginette Commins City
Sampler: Alejandra Molloy

- Received request for lead sampling from Cambridge Private School in Black Mountain Rd.
- Tracking spread sheet is up to date for SDUSD Zone 4 and 60% complete for Zone 3. I need to add all Zone 2 school name and create more hyperlink to the saved documents on Y drive.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Friday, April 21, 2017 2:41 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla
Subject: SDUSD Lead Sampling - Daily Update April 21

Happy Friday Everyone!

- Water samples have been collected from 69 SDUSD schools and 33 schools test results were reported to SDUSD. All test results were below <5 ppb.

- Tom received 15 schools sampling test results today and it will posted early next week.

- We have approximately 150 schools remaining from SDUSD and 32 other school districts and private schools that we have received sampling requests.

- Received 7 sampling plans for SDUSD Scripps Mesa Zone- 2 (Fletcher ES, Sandburg ES, Cubberley ES, Mason ES, Taft MS, Einstein ES) and updated sampling plan for ALBA Zone 3.

- Tom's update: Last night sampling was canceled for Arroyo Paseo Elementary and Alba High School, so they were not sampled as scheduled this morning. They will be sampled tomorrow with the other 5 schools scheduled.

- Water samples were collected from Ballard Charter, Jefferson ES, Washington ES and Lewis Middle school this morning.

- Tomorrow Saturday April 22 Sampling schedule and staff:

- Wegeforth ES – Zone 2 Contact staff: Lori Sherman City Sampler: Alejandra Molloy
- ALBA High School – Zone 3 Contact Staff: Lori Sherman City Sampler: Alejandra Molloy
- Arroyo Paseo Charter School– Zone 3 Contact Staff: Lori Sherman City Sampler: Alejandra Molloy
- Angier Elementary School - Zone 2 Contact staff: Lori Sherman City Sampler: Alejandra Molloy
- Florence Elementary School - Zone 3 Contact Staff: Lori Sherman City Sampler: Alejandra Molloy
- Chesterton Elementary School - Zone 3 Contact Staff: Lori Sherman City Sampler: Alejandra Molloy
- Carson ES – Zone 3 Contact Staff: Lori Sherman City Sampler: Alejandra Molloy

- Tracking Spread Sheet is up to date and you can access the file on Y:\EMTS\41.Sections\WQL\Reports\State\PbCuRule\Schools, please keep in mind we are receiving requests, sampling plans, sampling results and inquiries everyday so I try to update the spread sheet as fast as I can. Feel free to contact Tom, Doug and Me if you have any question.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Monday, April 24, 2017 3:22 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla
Subject: SDUSD Lead Sampling - Daily Update April 24

Hello Everyone

- Tom received more sampling results today that he needs to review and release the results by mid this week.

- Received 6 sampling plans for SDUSD Scripps Mesa Zone- 2 (Jones ES, Juarez ES, Hickman ES, Wangenheim MS, Miramar Ranch ES, Taft ES) and updated sampling plan for Bandini ES Zone 4.

- Received request for Lead Sampling from The Cambridge Private School, emailed copy of the request letter to DCA Tom Zeleny and State , prepared response letter and contacted the school to schedule meeting/training .

- Water samples were collected from Alba HS, Arroyo Paso Charter School, Florence ES, Chesterton ES SDUSD Zone 3, Wegeforth ES and Angier ES SDUSD Zone 2 Saturday April 22nd.

- Tomorrow Tuesday April 25 Sampling schedule and staff:

School Name	School Contact Staff	City Sampler Name
Hage ES - Zone 2	Lori Sherman	Jerry Weston
Hickman ES – Zone 2	Ginette Commins	Dan Sowersby
Sandburg ES – Zone 2	Ginette Commins	Dan Sowersby
Mason ES - Zone 2	Cesar Jimenez	Erik Alvarenga
Taft MS – Zone 2	Elizabeth Lara	Tom Burger
Wegeforth ES – Zone 2	Elizabeth Lara	Tom Burger (one sample), room was locked couldn't collect sample Saturday

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Tuesday, April 25, 2017 3:27 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla
Subject: SDUSD Lead Sampling - Daily Update April 25

Hello Everyone

- We received sampling plan from Nicoloff Elementary School in San Ysidro, seven sampling plans for SDUSD Scripps Mesa Zone- 2 (Digeman ES, Hancock ES, Miller ES, Serra HS, Thrugood Marshall MS, Ellen Browning Scripps ES, Ross ES) and two schools in zone 3 (East Village HS and Marcy).

- Water samples were collected from Hage, Hickman, Sandburg, Mason, Wegeforth Elementary Schools and Taft Middle School today.

- Tomorrow Wednesday April 26 Sampling schedule and staff:

School Name	School Contact Staff	City Sampler Name
Scripps Ranch HS- Zone 2	Elizabeth Lara	Matt Nelson
Walker ES – Zone 2	Ginette Commins	Alejandra Molloy
Tubman Charter School– Zone 3	Cesar Jimenez	Tom Burger
Wangenheim MS - Zone 2	Lori Sherman	Dan Sowersby
Twain HS-Linda Vista – Zone 3	Dan Lopez	Jerry Weston

- Matt is helping Tom two days a week with using DDW School Lead Sampling and Reporting Tool (https://drinc.ca.gov) to add school sample sites to a sample site inventory, generate the sample site ID that are needed to properly label samples for each school sample sites and entering all these data to LIMS.

- Keith has been helping Tom with using state Write-On software to generate.res files for data upload which requires us to create a separate Write-On report and .res file for each sample site at each school which entails significant amount of labor. Doug, Tom and Keith are developing a way to generate bulk.res files that we can upload. It is nearly complete and we expect to start upload lead lab results to State later this week.

- We also have 5 staff collecting and delivering water samples every morning before school starts and couple of staff helping with processing data. There are still lots of work to be done such as review and approval of sample plans, lab test results, providing sampling plan training and answering school inquiries.

- Tracking Spreadsheet on Y drive is up to date.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Wednesday, April 26, 2017 3:35 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla
Subject: SDUSD Lead Sampling - Daily Update April 26

Hello Everyone

- Tom's update; 15 data reports will be issued tomorrow as soon as the WQL data management group is able to review, release the data, and generate the reports.

- Received 12 sampling plans from Riley/New Dawn K-12 Typical School, Jonas Salk ES, Jerabek ES, Innovations Academy Charter, Linda Vista ES, Vista Grande ES, Kumeyaay ES, De Portola MS, Lindbergh/Schweitzer East & West campuses, Tierrasanta ES, and Farb MS in Zone 2.

- Water samples were collected from Scripps Ranch HS, Walker ES, Tubman Charter School, Wangenheim MS and Twain HS today.

- Tomorrow Thursday April 27 Sampling schedule and staff:

School Name	School Contact Staff	City Sampler Name
King Chavez (31st St) – Zone 3	Cesar Jimenez	Josh Rambo
Miramar Ranch – Zone 2	Lori Sherman	Feryal Moshavegh
Einstein Academy – Zone 3	Ginette Commins	Jerry Weston
Dingeman ES- Zone 2	Elizabeth Lara	Alejandra Molloy
Ross – Zone 2	Dan Lopez	Dan Sowersby

- Scheduled sampling plan training on Monday May 1 and May 8 for Sweetwater Schools, Cambridge Classical and Excelsior Academy.

- Jaime is working with Doug to prepare cost estimate and labor hours for SDUSD sampling from start of the project in January 2017 to April 27 and projected cost till June 2017 for Brent.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Thursday, April 27, 2017 2:46 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla
Subject: RE: SDUSD Lead Sampling - Daily Update April 27

Hello Everyone

- Received request for sampling letter from San Diego Unified School District for Coastal Bay Zone 1 and prepared response letter.
- Received request for sampling letter from Del Mar Union School District (eight elementary schools) and prepared response letter.
- Received 8 sampling plans from SDUSD. Four in zone 1 (La Jolla ES, Pacific Beach ES, Muirlands MS, Pacific Beach MS), 3 in zone 2 (Challenger, Riley, Ericson), 1 in zone 3 (Wilson MS).

- Water samples were collected from King Chavez Academy, Miramar Ranch ES, Einstein Academy, Dingeman ES and Ross ES today.

- Tomorrow Friday April 28 Sampling schedule and staff:

School Name	School Contact Staff	City Sampler Name
EB Scripps - Zone 2	Elizabeth Lara	Feryal Moshavegh
Hancock - Zone 2	Ginette Commins	Erik Alvarenga
Linda Vista ES - Zone 2	Cesar Jimenez	Josh Rambo
Miller ES- Zone 2	Lori Sherman	Erik Alvarenga
East Village - Zone 3	Dan Lopez	Dave Mayo

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Friday, April 28, 2017 2:39 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla
Subject: SDUSD Lead Sampling - Daily Update Friday April 28
Attachments: Adams_04.27.2017.pdf; ALBA_High_School_04.28.2017.pdf; Arroyo_Paseo_High_School_04.28.2017.pdf; Ballard_Parent_Center_04.28.2017.pdf; Benchley_Weinberger_04.28.2017.pdf; Chollas_Mead_ES_04.28.2017.pdf; Clay_ES_04.27.2017.pdf; Crawford_HS_04.27.2017.pdf; Dilard_ES_04.27.2017.pdf; Franklin_ES_04.27.2017.pdf; Gage_ES_04.27.2017.pdf; Garfield_HS_04.28.2017.pdf; Gompers_Prep_Acad_04.28.2017.pdf; Grant_K-8_04.28.2017.pdf; Green_ES_04.27.2017.pdf; Hardy_ES_04.27.2017.pdf; Hearst_ES_04.28.2017.pdf; Patrick_Henry_HS_04.28.2017.pdf; Holly_Drive_Leadership_04.28.2017.pdf; Hoover_HS_04.27.2017.pdf; Iftin_Charter_04.27.2017.pdf; Jefferson_ES_04.28.2017.pdf; Keiler_Leadership_Acad_04.28.2017.pdf; Knox_MS_04.27.2017.pdf; Lewis_MS_04.28.2017.pdf; Marvin_ES_04.28.2017.pdf; Mckinley_ES_04.28.2017.pdf; Memorial Scholars Athletes_04.27.2017.pdf; OFarrell Charter_04.27.2017.pdf; Paradis Hills_04.27.2017.pdf; Penn_ES_04.27.2017.pdf; Pershing_MS_04.28.2017.pdf; Rodriguez_ES_04.27.2017.pdf; Roosevelt_International_MS_04.28.2017.pdf; San Diego Vision Academy_04.28.2017.pdf; San Diego HS_04.28.2017.pdf; San Diego School Creative Perform Art _04.27.2017.pdf; Sherman ES_04.28.2017.pdf; Washington ES_04.28.2017.pdf; Foster_ES_04.27.2017.pdf

Happy Friday Everyone! Great News from Doug and Tom!

Attached are the Lead in Schools results reports for 40 schools. School names are listed below.

Quick Summary: Results are in ppb
- 0 samples > 15
- 11 samples > 5; range = 5.12 – 12.9
- 189 samples < 5

Adams Elementary
ALBA High School
Arroyo Paseo High School
Ballard Parent Center
Benchley Weinberger

Chollas / Mead Elementary
Clay Elementary
Crawford High School
Dailard Elementary
Foster Elementary

Franklin Elementary
Gage Elementary
Garfield High School
Gompers Preparatory Academy
Grant K-8

Green Elementary

Hardy Elementary
Hearst Elementary
Henry High School
Holly Drive Leadership

Hoover High School
Iftin Charter
Jefferson Elementary
Keiler Leadership
Knox Middle

Lewis Middle
Marvin Elementary
Mckinley Elementary
Memorial Scholars & Athletes
O'Farrell Charter

Paradise Hills Elementary
Penn Elementary
Pershing Middle
Rodriguez Elementary
Roosevelt International Middle

San Diego Global Vision Academy
San Diego High School
San Diego SCPA
Sherman Elementary
Washington Elementary

- Water samples were collected from EB Scripps, Hancock, Linda Vista ES, Miller ES and East Village school today.

- Tomorrow Saturday April 29 Sampling schedule and staff:

School Name	School Contact Staff	City Sampler Name
Serra Hs – Zone 2	Ginette Commins	Alejandra Molloy
Jones ES - Zone 2	Ginette Commins	Alejandra Molloy
Juarez ES – Zone 2	Ginette Commins	Alejandra Molloy
Marshall MS- Zone 2	Ginette Commins	Alejandra Molloy
Normal Heights ES– Zone 3	Ginette Commins	Alejandra Molloy

- Received 10 sampling plans from SDUSD today (Marshall ES, Edison ES, Euclid ES, Central ES, Bay Park, Cadman, Field ES, Perkins K-8, San Diego Cooperative Charter, Twain Mesa Satellite School and Mira Mesa High School).

Have Nice Weekend!

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Monday, May 01, 2017 3:09 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla
Subject: SDUSD Lead Sampling - Daily Update Monday May 1

Hello Everyone

- We have received 159 sampling plans from SDUSD, 8 from Point Loma HTH, 1 from Urban Academy and 1 from South Bay Union George Nicoloff ES School.

- Samples have been collected from 101 SDUSD and 72 school test results have been released.

- Water samples were collected from Serra HS, Jones ES, Juarez ES, Marshall MS and Normal Height ES Saturday April 29.

- Tomorrow Tuesday May 2, 2017 Sampling schedule and staff:

School Name	School Contact Staff	City Sampler Name
Carver ES – Zone 4	Timothy Brown	Tom Burger
Bandini ES - Zone 4	Daniel Lopez	Jerry Weston
Fay ES – Zone 4	Ginette Commins	Dan Sowersby
Monroe Clark MS- Zone 4	Elizabeth Lara	Math Nelson
Birney ES– Zone 3	Cesar Jimenez	Eric Alvarenga

- Received 12 sampling plans from SDUSD today (Marshal ES – Zone 4, Hawthorne ES – Zone 1, Alcott ES – Zone 1, Spreckels ES – Zone 1, Torrey Pines ES – Zone 1, Curie ES – Zone 1, Twain_Morse HS – Zone 4, Golden Hills K-8 – Zone 3, La Jolla HS – Zone 1, Bird Rock ES – Zone 1, Mission Bay HS – Zone 1).

- Tom provided sampling plan training to James Shoults, Adolfo De La Torre, Mario Apodaca and Juan Neria from Sweet Water Union High School District.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Tuesday, May 02, 2017 3:14 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla
Subject: SDUSD Lead Sampling - Daily Update Tuesday May 2nd

Hello Everyone

- Water samples were collected from Carver ES, Bandini ES, Fay ES, Monroe Clark MS and Birney ES today.

- Tomorrow Wednesday May 3, 2017 Sampling schedule and staff:

No of Schools Sampled	Date	School Name	School Contact Staff	City Sampler
106	5/3/2017	Burbank ES – Zone 3	Timothy Brown	Jerry Weston
107	5/3/2017	Darnell Charter – Zone 4	Daniel Lopez	Dave Mayo
108	5/3/2017	Central ES – Zone 3	Ginette Commins	Alejandra Molloy
109	5/3/2017	Cherokee Point ES – Zone 3	Cesar Jimenez	Alejandra Molloy
110	5/3/2017	Garfield ES – Zone 3	Elizabeth Lara	Dan Sowersby

- Received 7 sampling plans from SDUSD today (Crown Point ES – Zone 1, Sessions ES- Zone 1, Layfayette ES- Zone 1, Longfellow K-8- Zone 1, Standley MS- Zone 1 and Kearny HS- Zone 2).

- Eight sampling plans for seven Point Loma HTH schools was approved by Tom today and scheduled sampling for Thursday May 4.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Wednesday, May 03, 2017 3:30 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla
Subject: SDUSD Lead Sampling - Daily Update Wednesday May 3rd

Hello Everyone

- Water samples were collected from Burbank ES, Darnell Charter, Central ES, Cherokee Point ES and Garfield ES today.

- Tom received 26 schools sampling results and planning to review, process and approve by end of this week.

- Tomorrow we are sampling our first non SDUSD school Point Loma HTH, 7 campuses (8 sampling plans). Paul Dooley is HTH contact staff and our city sampler is Matt Nelson.

- Thursday May 4, 2017 sampling schedule and staff:

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
111	5/4/2017	Golden Hills K-8	3	Timothy Brown	Dave Mayo
112	5/4/2017	Ibarra ES	3	Daniel Lopez	Dan Sowersby
113	5/4/2017	Kimbrough ES	3	Ginette Commins	Josh Rambo
114	5/4/2017	Logan ES	3	Cesar Jimenez	Jerry Weston
115	5/4/2017	Wilson MS	3	Elizabeth Lara	Alejandra Molloy

- Received 2 sampling plans today 1 from SDUSD (Clairemont HS Zone 1) and one from Sweetwater Union School District (Montgomery MS).

- Received request for sampling plan training from private schools and scheduled trainings for May 8 and 15.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Thursday, May 04, 2017 3:23 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla
Subject: SDUSD Lead Sampling - Daily Update Thursday May 4th

Hello Everyone

- We have sampled 115 San Diego Unified School District school as of today and 6 Point Loma HTH. We released test results for 71 SDUSD. There were the three taps total at the first two schools, Emerson Elementary and San Diego Co-Op (which share a campus) that were above the DDW threshold of 15 ppb. All three have been remediated and resampled, and resamples were under 15 ppb. So those schools are now cleared. All schools since then have been less than 15 ppb.

- Water samples were collected from Golden Hills K-8, Ibarra ES, Kimbrough ES, Logan ES and Wilson MS and 6 out of 7 Point Loma HTH campuses today.

- Friday May 5, 2017 sampling schedule and staff:

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
116	5/5/2017	Language Academy	3	Timothy Brown	Dave Mayo
117	5/5/2017	Euclid ES	3	Daniel Lopez	Josh Rambo
118	5/5/2017	Rosa Parks ES	4	Ginette Commins	Alejandra Molloy
119	5/5/2017	Joyner ES	4	Ginette Commins	Alejandra Molloy
120	5/5/2017	Challenger MS	2	Elizabeth Lara	Dan Sowersby
121	5/5/2017	Urban Discovery	Private	Tony Romano	Tom Burger

-

- Received 5 sampling plans from SDUSD (Ocean Beach ES- Zone 1, Silver Gate ES- Zone 1, Montgomery MS-Zone 2, Madison HS-Zone 1, Dana MS – Zone 1).

- Received request for sampling letter from La Petite Ecole school and send a copy to the Tom Zeleny and State DDW.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Monday, May 08, 2017 3:34 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla
Subject: SDUSD Lead Sampling - Daily Update Monday May 8th
Attachments: Einstein05052017.pdf; Hage05042017.pdf; Hancock05042017.pdf; HarrietTubman05042017.pdf; Hickman05042017.pdf; Jones05042017.pdf; Juarez05042017.pdf; LindaVista05042017.pdf; Marshall05042017.pdf; Mason05042017.pdf; Dingeman05052017.pdf; EastVillage05052017.pdf; Scripps05042017.pdf; ScrippsRanch05052017.pdf; Serra05042017.pdf; Taft05042017.pdf; Twain05052017.pdf; Walker05042017.pdf; Wangenheim05042017.pdf; Miller05042017.pdf; MiramarRanch05052017.pdf; NormalHeights05042017.pdf; Ross05052017.pdf; Sandburg05042017.pdf

Hello Everyone

- We have sampled 125 San Diego Unified School District school, 7 Point Loma HTH and one private school Urban Academy as of today.
- The following sample results for 24 schools were released last Friday May 5.

12 data reports attached for the following schools:

Einstein
Hage
Hancock
Harriet Tubman
Hickman
Jones
Juarez
Linda Vista
Marshall
Mason
Dingeman
East Village

Quick Summary

<DLR=57 samples
5ppb-15ppb=3 samples
>15ppb=0 samples

12 data reports attached for the following schools:

Scripps ES
Scrips Ranch HS
Serra HS
Taft
Twain
Ross
Miramar Ranch ES
Walker

Wangenheim
Miller
Normal Heights
Sandburg

Quick Summary

<DLR=58 samples
5ppb-15ppb=2 samples
>15ppb=0 samples

- We have released total of 95 schools sampling test results to SDUSD.

- Water samples were collected from Language Academy, Euclid ES, Rosa Parks ES, Joyner ES, Challenger MS and Urban Academy last Friday May 5.

- Water Samples were collected from De Portola MS, Farb MS, Cubberly ES, Kumeyaay ES in zone 2 and collect one sample from Clark MS and Rosa Parks in Zone 4 last Saturday May 6.

- Tuesday May 9, 2017 sampling schedule and staff:

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
126	5/9/2017	SD CO-Op – Linda Vista	2	Cesar Jimenez	Tom Burger
127	5/9/2017	Doyle	1	Dan Lopez	Erik Alvarenga
128	5/9/2017	Vista Grande	2	Elizabeth Lara	Alejandra Molloy
129	5/9/2017	Fletcher	2	Tim Brown	Matt Nelson
130	5/9/2017	Lafayette	4	Ginette Commins	Dan Sowersby
131	5/9/2017	George Nicoloff Francisco		South Bay Union	Jerry Weston

- Received 7 sampling plans from SDUSD Zone 1 (Toler ES, Marston MS, Sequoia ES, University City HS, Whitter K-12, Whitman ES, Innovation MS), One from Zone 2 John Muir and one from zone 3 Mt. Everest Typical School.

- Tom provided sampling plan training for staff from Stella Maris Academy, Sweet Water Union, Our Lady of the Sacred Heart, Excelsior Academy, Cambridge Classics and Delmar Union Schools this morning.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Tuesday, May 09, 2017 3:10 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla
Subject: SDUSD Lead Sampling - Daily Update Tuesday May 9th
Attachments: Bandini_05092017.pdf; Birney_05092017.pdf; Carver_05092017.pdf; Fay_05092017.pdf

Hello Everyone
Tom and Doug update: The following and attached sample results for 4 schools were released to SDUSD today. Just to follow up on Tom's red highlight below, there is one sample above 15 ppb, it's Sample 1 from Birney Elementary, description is "Cafeteria, Wall mounted exterior (North of Bldg), facing lunch court, two single bubbler fountains, upper right fountain".

4 data reports attached for the following schools:
Bandini ES
Birney ES
Carver ES
Fay ES
Quick Summary

<DLR=17samples
5ppb-15ppb=2 samples
>15ppb=1 sample

- Water samples were collected from SD CO-OP Linda Vista, Doyle, Vista Grande, Fletcher, Lafayette and George Nicoloff South Bay Union this morning.

- Wednesday May 10, 2017 sampling schedule and staff:

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
131	5/10/2017	Tierrasnata ES	2	Cesar Jimenez	Alejandra Molloy
132	5/10/2017	Mira Mesa HS	2	Elizabeth Lara	Dan Sowersby
133	5/10/2017	Twain Mesa	2	Elizabeth Lara	Dan Sowersby
134	5/10/2017	Alcott ES	1	Ginette Commins	Dave Mayo
135	5/10/2017	Clairemont HS	1	Tim Brown	Josh Rambo
136	5/10/2017	Edison ES	3	Dan Lopez	Matt Nelson

-

- Received 3 sampling plans from SDUSD Zone 1 (Cabrillo ES, Dewey ES, Loma Portal ES)

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Wednesday, May 10, 2017 3:28 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla
Subject: SDUSD Lead Sampling - Daily Update Wednesday May 10th
Attachments: Citywide_map_Schools(K-12)_Test_Status.pdf

Hello Everyone

- Water samples were collected from six schools this morning Tierrasanta ES, Mira Mesa HS, Twain Mesa, Alcott ES, Clairemont HS and Edison ES this morning.

- We have collected water samples from 145 schools as of today (135 from SDUSD, 7 Point Loma HTH, 1 South Bay Union, 1 Charter school).

- Sample results have been released for 99 SDUSD schools.

- Thursday May 11, 2017 sampling schedule and staff:

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
145	5/11/2017	Bay Park ES	1	Cesar Jimenez	Tom Burger
146	5/11/2017	Bird Rock ES	1	Elizabeth Lara	Erik Alvarenga
147	5/11/2017	Crown Pt ES	1	Ginette Commins	Brian Knerr
148	5/11/2017	Curie ES	1	Tim Brown	Jessica Mathews
149	5/11/2017	Field ES	1	Daniel Lopez	Jerry Weston

-

- Received two sampling plans from SDUSD Zone 1 (The Children's School, Correia MS) and one sampling plan from the Cambridge School.

- Worked with Jesse Sun to prepare the attached Lead In School Program Citywide Map showing all the schools that requested sampling, the sampling status and city sampling sites. We will try to update this map for future presentations and meetings. Copy of the map is saved on Y:\EMTS\41.Sections\WQL\Reports\State\PbCuRule\Schools\Citywide Sampling Maps

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Thursday, May 11, 2017 3:17 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla
Subject: SDUSD Lead Sampling - Daily Update Thursday May 11th

Hello Everyone

- Water samples were collected from five elementary schools this morning Bay Park, Bird Rock, Crown PT, Curie and Field.

- We have collected water samples from 149 schools as of today (140 from SDUSD, 7 Point Loma HTH, 1 South Bay Union, 1 Urban Discovery Charter school).

- Tom is planning to have 24 new sampling data reports released tomorrow.

- Friday May 12, 2017 Sampling Schedule and Staff:

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
150	5/12/2017	Jerabek ES	2	Elizabeth Lara	Matt Nelson
151	5/12/2017	Innovation MS	1	Cesar Jimenez	Alejandra Molloy
152	5/12/2017	Kearny HS	2	Daniel Lopez	Josh Rambo
153	5/12/2017	La Jolla ES	1	Ginette Commins	Jessica Mathews
154	5/12/2017	La Jolla HS	1	Timothy Brown	Erik Alvarenga

-

- Received sampling plan from the Stella Maris Academy in La Jolla.

- Received request for sampling from the Institute for Effective Education three campuses on Camino Del Rio South, prepared response letter and emailed copy of the request letter to deputy city attorney and State.

- Nita received email from Francis Parker School asking if they qualify for no cost water testing and if we could test their water and have the results ready before last day of school June 9th. Nita responded we could sample their school by end of the year or sooner as our schedule permit and directed them to the city website for procedural instructions.

- Doug received email for water sampling inquiry from San Dieguito Union High School District, requesting water sampling for Torrey Pine H.S, Canyon Crest Academy, Carmel Valley M.S, and when we'll be testing, or if we have done testing at these sites. They need some answer for the parents. Our response was providing instructions on requesting lead testing for schools and link to city website and contact us if they have any questions.

- We are receiving sampling plan training requests from schools and scheduling training every Monday from 8 – 9:30 am at Alvarado Lab building.

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Friday, May 12, 2017 3:05 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla
Subject: SDUSD Lead Sampling - Daily Update Friday May 12
Attachments: Cubberley 05_12_2017.pdf; Farb_05-12-2017.pdf; Monroe Clark.MS_05-12-2017.pdf; Challenger_05-12-2017.pdf; De Portola MS_05-12-2017.pdf; Euclid ES_05-12-2017.pdf; Joyner_05-12-2017.pdf; Kumeyaay_05-12-2017.pdf; Language Acad_05-12-2017.pdf; Marshall_ES_05-12-2017.pdf; Rosa Prks_05-12-2017.pdf; Burbank_5-12-2017.pdf; Central_ES_5-12-2017.pdf; CherokeePoint_5-12-2017.pdf; Darnell.Charter_5-12-2017.pdf; Garfield.ES_5-12-2017.pdf; Golden Hills _5-12-2017.pdf; Ibarra_5-12-2017.pdf; Kimbrough_ 5-12-2017.pdf; Logan.5-12-2017.pdf; Wilson.MS_5-12-2017.pdf; Urban Discovery_ 05-12-2017.pdf

Hello Everyone

Great New! More test results below 15 ppb. The following and attached are the sampling test results for 21 SDUSD and 1 Charter School Urban Discovery:

Quick Summary: Results are in ppb

0 samples > 15
7 samples > 5; range = 5.05 - 6.97
103 samples < 5

1- Burbank ES < 5
2- Central ES < 5
3- Challenger MS < 5
4- Cherokee Point ES < 5
5. Cubberley ES < 5

6- Darnall Charter < 5
7- De Portola MS < 5
8- Euclid ES 6.65 - < 5
9- Farb MS 6.97 - <5
10- Garfield ES 5.26 - < 5

11. Golden Hill < 5
12. Ibarra ES < 5
13. Joyner ES < 5
14. Kimbrough ES 5.05 - < 5
15. Kumeyaay ES < 5

16- Language Academy < 5
17. Logan K-8 < 5
18- Marshall ES < 5
19- Monroe Clark MS < 5
20. Rosa Parks ES < 5
21. Wilson MS < 5
22. Urban Discover < 5

- Water samples were collected from five elementary schools this morning Jerabek ES, La Jolla ES, Innovation MS, Kearny HS and La Jolla HS this morning.

- We have collected water samples from 154 schools as of today (145 from SDUSD, 7 Point Loma HTH, 1 South Bay Union, 1 Urban Discovery Charter school).

- Saturday May 13, 2017 Sampling Schedule and Staff:

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
155	5/13/2017	Lindbergh Schwitzer East	2	Ginette Commins	Matt Nelson
156	5/13/2017	Lindbergh Schwitzer West	2	Ginette Commins	Matt Nelson
157	5/13/2017	Longfellow	1	Ginette Commins	Matt Nelson
158	5/13/2017	Madison HS	1	Ginette Commins	Matt Nelson
159	5/13/2017	Montgomery MS	2	Ginette Commins	Matt Nelson
160	5/13/2017	Muirlands MS	1	Ginette Commins	Matt Nelson

- Received request for sampling from San Dieguito Union High School District for Torrey Pine H.S, Canyon Crest Academy, Pacific Trails M.S. and Carmel Valley M.S, prepared response letter and emailed copy of the request letter to deputy city attorney and State.

Have a nice weekend!

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Monday, May 15, 2017 3:19 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla
Subject: SDUSD Lead Sampling - Daily Update Monday May 15

Hello Everyone

- Water samples were collected from Lindbergh Schweitzer East & West ES, Longfellow K-8, Madison HS, Montgomery and Muirlands MS Saturday May 13.

- We have collected water samples from 160 schools as of today (151 from SDUSD, 7 Point Loma HTH, 1 South Bay Union, 1 Urban Discovery Charter school).

- Tuesday May 16, 2017 Sampling Schedule and Staff:

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
161	5/16/2017	Hamilton ES	4	Daniel Lopez	Matt Nelson
162	5/16/2017	Ericson ES	2	Elizabeth Lara	Alejandra Molloy
163	5/16/2017	Perkins ES	3	Timothy Brown	Jerry Weston
164	5/16/2017	Mission Bay HS	1	Ginette Commins	Josh Rambo
165	5/16/2017	America's Finest Charter	4	Cesar Jimenez	Tom Burger

- Received three sampling plans from SDUSD zone 1 (Sunset View ES, Creative Performing Media Arts MS, Point Loma HS) and one sampling plan from Sweet Water Union (Southwest Middle School).

- Tom provided Sampling Plan training to Jean-Pierre Garcia, Mario Camos, Eileen Bigornia, Francisco Berrellea and Ruben Baeza from Sweet Water Union Schools and Shelley Samaritoni from La Petied Ecole private school this morning.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Wednesday, May 17, 2017 12:38 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla; Nelson, Matthew
Subject: RE: SDUSD Lead Sampling - Daily Update Wednesday May 17

Hello Everyone

- Water samples were collected from Salk, Riley, Pacific Beach ES, Pacific Beach MS, Ocean Beach, Mt Everest and Muir this morning.

- We have collected water samples from 172 schools as of today (163 from SDUSD, 7 Point Loma HTH, 1 South Bay Union, 1 Urban Discovery Charter school).

- Thursday May 18, 2017 Sampling Schedule and Staff:

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
173	5/18/2017	Spreckels	1	Daniel Lopez	Dan Sowersby
174	5/18/2017	Silver Gate	1	Timothy Brown	Tom Burger
175	5/18/2017	Sessions	1	Ginette Commins	Erik Alvarenga
176	5/18/2017	Standley	1	Cesar Jimenez	Alejandra Molloy
177	5/18/2017	Sequoia	1	Elizabeth Lara	Matt Nelson

- Received four sampling plans from SDUSD. Homles and Kavod within Zone 2, Spingall Academy and Vista Hills Foundation in Zone 3.

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Thursday, May 18, 2017 3:28 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla; Nelson, Matthew
Subject: SDUSD Lead Sampling - Daily Update Thursday May 18
Attachments: Angier_05-17-2017.pdf; Carson_ES.5-17-2017.pdf; Chesterton_05-17-2017.pdf; Wegeforth_05-17-2017.pdf; Florence_05-17-2017.pdf

Hello Everyone
More test results below 15 ppb. The following and attached are the sampling test results for 5 SDUSD;
Quick Summary: Results are in ppb

0 samples > 15
6 samples > 5; range = 5.02 – 10.2
18 samples < 5

- Angier ES, 10.2 - < 5 ppl
- Carson ES, < 5
- Chesterton ES 5.29, 5.02, < 5
- Florence ES < 5
- Wegeforth ES 6.12, 5.85, 5.16, < 5

- Water samples were collected from Spreckels, Silver Gate, Sessions, Standley and Sequoia this morning.

- We have collected water samples from 177 schools as of today (168 from SDUSD, 7 Point Loma HTH, 1 South Bay Union, 1 Urban Discovery Charter school).

- Friday May 19, 2017 Sampling Schedule and Staff:

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
178	5/19/2017	Torrey Pines	1	Ginette Commins	Brian Knerr
179	5/19/2017	Twain @ Morse	4	Daniel Lopaz	Matt Nelson
180	5/19/2017	Toler	1	Timothy Brown	Josh Rambo
181	5/19/2017	University City HS	1	Cesar Jimenez	Alejandra Molloy
182	5/19/2017	Whitman	1	Lori Sherman	Dan Sowersby

Best Regards

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Friday, May 19, 2017 1:02 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla; Nelson, Matthew
Subject: SDUSD Lead Sampling - Daily Update Friday May 19
Attachments: NICOLOFF_20170519.pdf; Maping_Sampling_Status_Spreadsheet -V3.xlsx

Hello Everyone

- Attached sampling test results for George Nicoloff ES School from South Bay Union School District was released this morning. Test results are below 5 ppb.

- Water samples were collected from Torrey Pines, Twain @ Morse, Toler, University City HS and Whitman this morning.

- We have collected water samples from 182 schools as of today (173 from SDUSD, 7 Point Loma HTH, 1 South Bay Union, 1 Urban Discovery Charter school).

- Saturday May 20, 2017 Sampling Schedule and Staff:

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
183	5/20/2017	Hawthorne	1	Lori Sherman	Matt Nelson
184	5/20/2017	Creating Performing Media Art	1	Lori Sherman	Matt Nelson
185	5/20/2017	Dana	1	Lori Sherman	Matt Nelson
186	5/20/2017	Innovation MS	1	Lori Sherman	Matt Nelson
187	5/20/2017	Cabrillo	1	Lori Sherman	Matt Nelson

- We received water sampling plans from Southwest HS with Sweetwater Union High School District and San Diego French- American School Zone 1.

- Attached for your information is updated spreadsheet for school sampling status. Green sample result <1 5 ppb, Red sample test result > 15 ppb, Yellow resampled and test results < 15ppb, Blue sampled waiting for results, gray sampling request received not sampled yet.

Have a nice weekend!

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Monday, May 22, 2017 2:38 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla; Nelson, Matthew
Subject: SDUSD Lead Sampling - Daily Update Monday May 22
Attachments: Maping_Sampling_Status_Spreadsheet -V3.xlsx

Hello Everyone

- Water samples were collected from Los Altos ES with Chula Vista School District Friday May 19 and Hawthorne, creating Performing Media Art, Dana, Innovation MS and Cabrillo Saturday May 20.

- We have collected water samples from 188 schools as of today (178 from SDUSD, 7 Point Loma HTH, 1 South Bay Union, 1 Urban Discovery Charter school, 1 Los Altos Chula Vista SD).

- Tuesday May 23, 2017 Sampling Schedule and Staff:

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
189	5/23/2017	Vista Hill	3	Cesar Jimenez	Matt Nelson
190	5/23/2017	Marcy	3	Timothy Brown	Dennis Brown
191	5/23/2017	Kavod ES Charter	2	Daniel Lopez	Feryal Moshavegh
192	5/23/2017	Cadman	1	Ginette Commins	Alejandra Molloy
193	5/23/2017	Marston	1	Elizabeth Lara	Brian Knerr

- Received water sampling plan for Ingenuity Charter, SDUSD Zone 4.

- Water sampling for all SDUSD school will be completed by Friday May 26.

- We are starting to schedule sampling for other school districts and private/charter schools.

- Scheduled water sampling training for Tuesday May 30 and Monday June 5 for private/charter schools.

- Attached for your information is the updated spreadsheet for school sampling status. Green sample result <1 5 ppb, Red sample test result > 15 ppb, Yellow resampled and test results < 15ppb, Blue sampled waiting for results, gray sampling request received not sampled yet.

Thank you

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Tuesday, May 23, 2017 2:48 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla; Nelson, Matthew
Subject: SDUSD Lead Sampling - Daily Update Tuesday May 23

Hello Everyone

- Water samples were collected from Vista Hill, Marcy, Kavod Charter, Cadman and Marston this morning.

- We have collected water samples from 197 schools as of today.

- Wednesday, May 24, 2017 Sampling Schedule and Staff:

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
198	5/24/2017	Whittier Center	1	Elizabeth Lara	Alejandra Molloy
199	5/24/2017	Dewey	1	Ginette Commins	Matt Nelson
200	5/24/2017	Loma Portal	1	Daniel Lopez	Jerry Weston
201	5/24/2017	Correia	1	Timothy Brown	Josh Rambo
202	5/24/2017	Sunset View	1	Cesar Jimenez	Brian Knerr

- Water sampling test results for 29 SDUSD schools will be released tomorrow morning.

Thank you

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Wednesday, May 24, 2017 12:00 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla; Nelson, Matthew
Subject: SDUSD Lead Sampling - Daily Update Wednesday May 24

Hello Everyone

- Water samples were collected from Whittier Center, Dewey, Loma Portal, Corria and Sunset view Elementary schools this morning.

- Water sampling test results for 29 SDUSD schools were released this morning. All sampling test results were below 15 ppb.

- We have collected water samples from 202 schools as of today.

- Thursday, May 25, 2017 Sampling Schedule and Staff:

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
203	5/25/2017	Barnard Asian Pacific Lang Academy	1	Ginette Commins	Brian Knerr
204	5/25/2017	Point Loma	1	Daniel Lopez	Josh Rambo
205	5/25/2017	Holmes	2	Elizabeth Lara	Dave Mayo
206	5/25/2017	Mission Bay Montessori	1	Cesar Jimenez	Jerry Weston
207	5/25/2017	SESI Springall	3	Lori Sherman	Matt Nelson

- Received eight water sampling plans from Del Mar Union School District (Ashely Falls, Carmel Del Mar, Del Mar Heights, Ocean Air, Sage Canyon, Sycamore Ridge and Torrey Hills schools).

Thank you

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Thursday, May 25, 2017 3:17 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla; Nelson, Matthew
Subject: SDUSD Lead Sampling - Daily Update Thursday May 25

Hello Everyone

- Water samples were collected from Barnard Asian Pacific Lang Academy, Point Loma HS, Homes ES, Mission Bay Montessori and Springall ES this morning.

- We have sampled 207 schools and released test results for 164 schools.

- Friday, May 26, 2017 Sampling Schedule and Staff:

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
208	5/26/2017	Ingenuity Charter	4	Daniel Lopez	Matt Nelson
Collect 2 samples	5/26/2017	Vita Hills	3	Cesar Jimenez	Matt Nelson
209	5/26/2017	SD French American	1	Ginette Commins	Josh Rambo
210	5/26/2017	The Cambridge School	private	Richard Ambuehl	Alejandra Molloy
211	5/26/2017	English/French school	private	Shelley Samaritoni	Erik Alvarenga
212	5/26/2017	Stella Maris Academy	private	Julie Hollis	Dave Mayo

- We only have two school remaining from SDUSD. The Children's school from zone 1 and resample for Birney from zone 3.

- Water sampling for Del Mar Union School District and Sweetwater Union schools will be scheduled next week.

Thank you

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Friday, May 26, 2017 2:37 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla; Nelson, Matthew
Subject: SDUSD Lead Sampling - Daily Update Friday May 26

Hello Everyone

- Water samples were collected from Ingenuity Charter, Vista Hills and SD French American from SDUSD schools and The Cambridge, La Petite English/French and Stella Maris Academy private schools this morning.

- We have sampled 212 schools and released test results for 164 schools.

- 15 schools water sampling test results will be released later today.

- Sampling for the remaining two SDUSD schools (The Children's school, zone 1 and resample for Birney, zone 3) will be scheduled for next week.

- Water sampling for Del Mar Union School District and Sweetwater Union schools will be scheduled next week.

Thank you

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Tuesday, May 30, 2017 3:43 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla; Nelson, Matthew
Subject: SDUSD Lead Sampling - Daily Update Tuesday May 30

Hello Everyone

- Water sampling for the remaining two SDUSD schools (The Children's school, zone 1 and resample for Birney, zone 3), Del Mar Union School District and Sweetwater Union schools will be scheduled for this Thursday and Friday June 1st and 2nd.

- We have sampled 212 schools and released test results for 164 schools.

- Mary Cohen from the Institute of Effective Learning for children with disabilities attended the sampling plan training this morning. They have three schools and are in session till first week in July.

- Updating the school sample tracking spreadsheet and link to the test results and reports.

Thank you

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Wednesday, May 31, 2017 2:57 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla; Nelson, Matthew
Subject: SDUSD Lead Sampling - Daily Update Thursday June 1st, 2017

Hello Everyone

- Thursday, June 1, 2017 Sampling Schedule and Staff:

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
213	6/1/2017	The Children's School	1	Ginette Commins	Matt Nelson
214	6/1/2017	Del Mar Heights ES	DMUSD	Patrick Lum	Alejandra Molloy
215	6/1/2017	Del Mar Hills ES	DMUSD	Patrick Lum	Alejandra Molloy

Thank you

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Thursday, June 01, 2017 3:11 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla; Nelson, Matthew
Subject: SDUSD Lead Sampling - Daily Update Thursday June 1st, 2017
Attachments: Birney_05092017.pdf

Hello Everyone
- Water samples were collected from The Children's School (SDUSD), Del Mar Heights and Del Mar Hills Elementary schools from Del Mar Union School District (DMUSD) this morning.

- Water sampling for 8 DMUSD Schools will completed by next week or before summer session June 16.

- Received water sampling request letter from McGill School of Success (K-5) SDUSD Charter School, send a copy to the deputy city attorney and State DDW and prepared response letter.

- Tomorrow we will sample one of Sweetwater Union Schools (Southwest Middle school) and 9 more schools after Summer recess in mid-July since tomorrow is the last day.

- The cafeteria drinking fountain at Birney Elementary School with lead test result of 19 ppb (see attached) was remediated by SDUSD. They scheduled resampling for tomorrow morning.

- Friday, June 2, 2017 Sampling Schedule and Staff:

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
1 - Resample	6/2/2017	Birney ES	3	John Baker	Tom Burger
216	6/2/2017	Sycamore Ridge	DMUSD	Patrick Lum	Alejandra Molloy
217	6/2/2017	Ashley Falls	DMUSD	Patrick Lum	Alejandra Molloy
218	6/2/2017	Carmel Del Mar	DMUSD	Patrick Lum	Alejandra Molloy
219	6/2/2017	Southwest Middle School	SWUSD	Mario Campos	Josh Rambo

- Monday June 5th, Tom will be providing sampling plan training for San Dieguito Union School District and The Child's Primary School.

- We have collected water samples from 215 schools (approximately 1,075 samples) and released test results for 179 school (895 samples). We have 36 schools test results (180 sample) remaining.

- More sampling test results will be released tomorrow and Monday.

Thank you

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Monday, June 05, 2017 3:43 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla; Nelson, Matthew
Subject: SDUSD Lead Sampling - Daily Update Monday June 5th, 2017

Hello Everyone
- Water samples were collected from Sycamore Ridge, Ashley Falls and Carmel Del Mar from Del Mar Union School District, Southwest Middle School from Sweetwater Union School District and one resample from Birney ES from SDUSD last Friday June 2nd.

- Tom provided Sample Plan training San Dieguito Union School District and The Child's Primary School this morning.

- 22 schools will receive test reports tomorrow or Wednesday.

- Tuesday, June 6, 2017 Sampling Schedule and Staff:

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
220	6/6/2017	Sage Canyon	DMUSD	Patrick Lum	Alejandra Molloy
221	6/6/2017	Ocean Air	DMUSD	Patrick Lum	Alejandra Molloy
222	6/6/2017	Torrey Hills	DMUSD	Patrick Lum	Alejandra Molloy

Thank you

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Tuesday, June 06, 2017 3:06 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla; Nelson, Matthew
Subject: RE: SDUSD Lead Sampling - Daily Update Tuesday June 6th, 2017

Hello Everyone
- Water samples were collected from Sage Canyon, Ocean Air and Torrey Hills Elementary schools from Del Mar Union School District (DMUSD) this morning.

- Completed sampling for all 8 DMUSD schools.

- Received sampling plan from The Child's Primary private school and sampling will be scheduled for this week.

- Tom is reviewing the 22 schools sampling test results and it will be released tomorrow.

- Wednesday, June 7, 2017 Sampling Schedule and Staff:

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
223	6/7/2017	KIPP Adelante Preparatory Academy	Private	Robert Tannenbaum	Tom Burger

Thank you

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9192 Topaz Way | San Diego | CA 92123 | M.S. 901A
Fmoshavegh@sandiego.gov | (858) 654-4241

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Wednesday, June 07, 2017 3:36 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla; Nelson, Matthew
Subject: SDUSD Lead Sampling - Daily Update Wednesday June 7th, 2017
Attachments: Report_20170607.pdf

Hello Everyone

- Attached is water sampling test report for English French Learning Academy, La Petite in Clairemont Mesa. Children ages are 2 through 12 approximately 170 students. Test results for samples 1, 2, 3 and 5 were below 5 ppb. Test result for sample 4 was 35.9 ppl and above the action level. Tom contacted the school immediately and provided the test results and following information:
"I received the results today from the five water samples that were tested for lead, unfortunately one of the samples is above the Action Level (AL) of 15 ppb set forth by the States Division of Drinking Water. Sample 4 (Room 112, faucet at sink along the south wall) had a value of 35.9 ppb; the other 4 sample values are <5 ppb. Only one sample above the AL is typically an indicator of a localized water fixture issue. One thing to keep in mind is that a localized fixture normally only has a higher lead values after the water has been stagnant in the pipes and faucet for some time. This is why we are required to sample in the morning as it is usually produces the highest result. I recommend that the faucet in is taken out of service until remediation can be completed. The most common remediation practice, to my knowledge, is to replace the shut off valve and supply line under the sink, and install a new faucet. If you choose to install those new items, we will collect another sample after the work is completed, and analyze. You can also request a re-sample of this source as it stands for confirmation. If you choose to have the source re-sampled without any changes, the sampling must be completed within 10 business days. If you have a questions, please feel to contact me."

- Water samples were collected from KIPP Adelante Preparatory Academy this morning.

- Received sampling plans for Pacific Trails Middle School, Canyon Crest Academy, Carmel Valley Middle School and Torrey Pines Highs School from San Dieguito Union High School district.

- Sampling test results for 22 schools will be released tomorrow.

- Thursday, June 8, 2017 Sampling Schedule and Staff:

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
224	6/7/2017	The Child's Primary School	Private	Mariel Cairns	Tom Burger

Thank you

Feryal Moshavegh

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From: Moshavegh, Feryal
Sent: Thursday, June 08, 2017 3:23 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla; Nelson, Matthew
Subject: SDUSD Lead Sampling - Daily Update Thursday June 8th, 2017
Attachments: Pacific Beach MS_5-17-2017.pdf; Maping_Sampling_Status_Spreadsheet -V3.xlsx

Hello Everyone

- Sampling test results for 29 SDUSD, two private schools Stella Maris Academy and The Cambridge School and Lost Altos Elementary school from Chula Vista School District were released today. Attached is the Pacific Beach Middle School report. All sample test results were below action level. We have completed sampling and testing for all SDUSD schools and only waiting for The Children School at Torrey Pines test results.

- We have sampled 224 schools (1,120 samples) and released test results for 212 schools.

- Water samples were collected from The Child's Primary School this morning.

- No school sampling scheduled for tomorrow.

- Tom is reviewing the sampling plans for the four San Dieguito Union Schools and will schedule sampling next week. Friday June 16 is their last day.

- Ten private and charter schools requested water sampling and attended the Sample Plan training but have not submitted any sampling plans.

- Attached for your information is the updated school sampling spreadsheet.

Thank you

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Monday, June 12, 2017 2:24 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla; Nelson, Matthew
Subject: Schools Lead Sampling - Daily Update Monday June 12th, 2017

Hello Everyone

- Tuesday, June 13, 2017 Sampling Schedule and Staff:

No of Schools Sampled	Date	School Name	District	School Contact Staff	City Sampler Name
225	6/13/2017	Torrey Pines High School	San Dieguito Union High	Jim Mitroff	Tom Burger
226	6/13/2017	Carmel Valley Middle School	San Dieguito Union High	Jim Mitroff	Tom Burger

Thank you

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Thursday, June 15, 2017 1:04 PM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla; Nelson, Matthew
Subject: Schools Lead Sampling - Daily Update Thursday June 15, 2017

Hello Everyone

- Water sample results for the last two SDUSD (The Children's School and one re-sample for Birney ES) will be released tomorrow.

- Sent reminder email to the following schools that submitted request for sampling in March, April, May and June but didn't contact us to schedule meeting/ training date;
  - Epiphany Prep Charter School,
  - Evangeline Roberts Institute of Learning,
  - Excelsior Academy,
  - Magnolia Science Academy (received reply; they are no longer interested)
  - McGill School of Success
  - Museum School
  - Our Lady of the Sacred Heart.

- Friday, June 16, 2017 Sampling Schedule and Staff for the last two San Dieguito Union Schools:

No of Schools Sampled	Date	School Name	District	School Contact Staff	City Sampler Name
227	6/16/2017	Canyon Crest Academy	San Dieguito Union High	Jim Mitroff	Tom Burger
228	6/16/2017	Pacific Trails Middle School	San Dieguito Union High	Jim Mitroff	Tom Burger

Thank you

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Campbell, Doug

From: Moshavegh, Feryal
Sent: Friday, July 07, 2017 11:14 AM
To: Vroom, Peter; Eidson, Brent; Gavaldon, Alejandra; Rife, Alma
Cc: Burger, Tom; Campbell, Doug; Rashid, Surraya; Amen, Rania; Razak, Halla
Subject: Schools Lead Sampling - Update Friday July 7, 2017
Attachments: Birney_06202017.pdf; ChildrensSchool_06-01-2017.pdf; AshleyFallsES06142017.pdf; CarmelDelMarES_06142017.pdf; DelMarHeights_06-01-2017.pdf; Del Mar Hills Academy_06272017.pdf; TorreyHills_06-06-2017.pdf; SycamoreRidge_06142017.pdf; SageCanyon_06-06-2017.pdf; OceanAir_06-06-2017.pdf

Hello Everyone

- Water sampling for all San Diego Unified school district was completed on 6/1/2017 and the last two schools test results (The Children's School and one re-sample for Birney ES) was released on 6/20/2017. Attached is a copy of the reports. All sample results were < 5 ppb.

- We have completed sampling for 230 schools (San Diego Unified, Del Mar Union, Sweetwater USD, San Dieguito USD, One school in San Ysidro, one school in Chula Vista Elementary SD, Point Loma HTH, private and charter) as of June 30, 2017.

- Water sampling for all eight Del Mar Union Schools were completed on 6/6/2017 and test results were released on 6/28/2017. Attached is a copy of the reports. All sample test results were < 5 ppb.

- Water sampling for 2017-2018 school year will start in August once schools are back in session.

- We have sampling request from 9 private schools, one San Dieguito USD and 6 Sweetwater USD. Total of 16 schools remaining.

- We have not received any sampling requests from San Ysidro (9 schools) and Poway Unified (27 schools) that are on our water system.

- Received sampling request letter from St. Michael Academy, sent a copy to DCA and State.

- Contacted Pedro Porras, Chief Water Operation at Otay Water District and Shauna Raicot, Water Quality Manager from California American Water regarding their school water sampling program.
    - CALAM completed water testing for 23 schools (South Bay, Chula Vista and Imperil Beach).
    - Otay WD completed water testing for 23 out of 44 requests they've received.
    - They will provide more information for July 20 council meeting.

- Water sampling test results for following schools will be released today. This will completed all sampling test results for 2016-2017 school year.
    - The Child's Primary School – Private, results 6.76 - < 5
    - KIPP Adelante Preparatory Academy – Private, results < 5
    - Torrey Pines HS, San Dieguito Union School District, results < 5
    - Canyon Crest Academy, San Dieguito USD, results < 5
    - Carmel Valley Middle School, San Dieguito USD, results < 5
    - Mar Vista High School, Sweetwater USD, results < 5

- Montgomery Middle School, Sweetwater USD, results < 5
- Southwest Senior High School, Sweetwater USD, results < 5
- Southwest Middle School, Sweetwater USD, results < 5

- Scheduled sampling plan training for Sweetwater and private schools on Monday July 17.

Thank you

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Sampling Flow Chart

School	School ID	District	Address	Mailing Adress	School Contact Person	Position	Phone Number	Email	DOE Listed	How We Were Contacted: Letter	Email	Phone	Date of Contact	Reply	Date official request was received	Informal Acknowledgement of contact	Respond by	Official Response Date	Initial meeting Date	Sampling Plan Date	Sampling Plan Approval Date	City of San Diego Sampler (assigned)	Date Assigned	Sampling Date	Sample Before	Letter for Continuance to DOW	Sample Date	Report Date	Results
Tom's Sample School		Good District	123 School Lane		Tom Brady		619-668-3234	Tom@brady.com		X			1/23/2017		1/23/2017		3/24/2017	1/23/2017		1/24/2017				1/25/2017	4/23/2017		1/25/2016		
Chulat Vista School District																													
Los Altos Elementry		Chula Vista Elementary Sch Dist	1332 Kenalan Dr	1332 Kenalan Dr, San Diego CA 92154	Joeseph Dombrowski	Maintenance and operations manager	619-425-9600	Joseph.Dombrowski@cvesd.org		X			2/27/2017		2/27/2017	3/3/2017	4/27/207	4/4/2017	3/3/2017	4/11/2017	5/18/2017	Irma Bolio	5/18/2017	5/19/2017	No		5/19/2017	6/7/2017	< 5
Del Mar Union School District																													
Ashley Falls		Del Mar Union School District	13030 Ashley Falls Dr	13030 Ashley Falls Drive, San Diego, 92130	Mike Galis	Director of Maintenance, Operations & Facilities	847-404-7863	mgalis@dmusd.org		X			4/24/2017	4/28/2017	4/27/2017		6/24/2017	4/28/2017	5/8/2017	5/16/2017	5/24/2017	Alejandra Molloy	6/1/2017	6/2/2017			6/2/2017	6/14/2017	< 5
Carmel Del Mar Elementary		Del Mar Union School District	12345 Carmel Park D	12345 Carmel Park Drive, San Diego, 92130	Mike Galis	Director of Maintenance, Operations & Facilities	847-404-7863	mgalis@dmusd.org		X			4/24/2017	4/28/2017	4/27/2017		6/24/2017	4/28/2017	5/8/2017	5/16/2017	5/24/2017	Alejandra Molloy	6/1/2017	6/2/2017			6/2/2017	6/14/2017	< 5
Del Mar Heights Elementary		Del Mar Union School District	13555 Boquita Dr	13555 Boquita Drive, San Diego, CA 92014	Mike Galis	Director of Maintenance, Operations & Facilities	847-404-7863	mgalis@dmusd.org		X			4/24/2017	4/28/2017	4/27/2017		6/24/2017	4/28/2017	5/8/2017	5/16/2017	5/24/2017	Alejandra Molloy	5/31/2017	6/1/2017			6/1/2017	6/14/2017	< 5
Del Mar Hills Academy		Del Mar Union School District	14085 Mango Dr	14085 Mango Drive, San Diego, CA 92014	Mike Galis	Director of Maintenance, Operations & Facilities	847-404-7863	mgalis@dmusd.org		X			4/24/2017	4/28/2017	4/27/2017		6/24/2017	4/28/2017	5/8/2017	5/16/2017	5/24/2017	Alejandra Molloy	5/31/2017	6/1/2017			6/1/2017	6/27/2017	< 5
Ocean Air Elementary		Del Mar Union School District	11444 Canter Hights	11444 Canter Heights Dr., San Diego, CA 92130	Mike Galis	Director of Maintenance, Operations & Facilities	847-404-7863	mgalis@dmusd.org		X			4/24/2017	4/28/2017	4/27/2017		6/24/2017	4/28/2017	5/8/2017	5/16/2017	5/25/2017	Alejandra Molloy	6/5/2017	6/6/2017			6/6/2017	6/14/2017	< 5
Sage Canyon		Del Mar Union School District	5290 Harvest Run Dr	5290 Harvest Run Drive, San Diego, CA 92130	Mike Galis	Director of Maintenance, Operations & Facilities	847-404-7863	mgalis@dmusd.org		X			4/24/2017	4/28/2017	4/27/2017		6/24/2017	4/28/2017	5/8/2017	5/16/2017	5/25/2017	Alejandra Molloy	6/5/2017	6/6/2017			6/6/2017	6/14/2017	< 5
Sycamore Ridge		Del Mar Union School District	5333 Old Carmel Vall	5333 Old Carmel Valley Rd, San Diego, CA 92130	Mike Galis	Director of Maintenance, Operations & Facilities	847-404-7863	mgalis@dmusd.org		X			4/24/2017	4/28/2017	4/27/2017		6/24/2017	4/28/2017	5/8/2017	5/16/2017	5/25/2017	Alejandra Molloy	6/5/2017	6/6/2017			6/2/2017	6/14/2017	< 5
Torrey Hills		Del Mar Union School District	10830 Calle Mar De N	10830 Calle Mar De Mariposa, San Diego, CA 92130	Mike Galis	Director of Maintenance, Operations & Facilities	847-404-7863	mgalis@dmusd.org		X			4/24/2017	4/28/2017	4/27/2017		6/24/2017	4/28/2017	5/8/2017	5/16/2017	5/25/2017	Alejandra Molloy	6/5/2017	6/6/2017			6/6/2017	6/14/2017	< 5
Institue for Effective Education																													
Children's Workshop		Non-Profit corporation	4055 Camino Del Rio	4055 Camino Del Rio South, San Diego, CA 92108	Mary Cohen	TIEE Facilities Manager	619-243-1390	mcohen@tiee.org		X	X	X	5/11/2017	5/11/2017	5/11/2017		7/11/2017	5/12/2017	5/30/2017										
CODE Education Center		Non-Profit corporation	2255 Camino Del Rio	2255 Camino Del Rio South, San Diego, CA 92108	Mary Cohen	TIEE Facilities Manager	619-243-1390	mcohen@tiee.org					5/11/2017	5/11/2017	5/11/2017		7/11/2017	5/12/2017	5/30/2017										
Urban Skills Center		Non-Profit corporation	2225 Camino Del Rio	2225 Camino Del Rio South, San Diego, CA 92108	Mary Cohen	TIEE Facilities Manager	619-243-1390	mcohen@tiee.org					5/11/2017	5/11/2017	5/11/2017		7/11/2017	5/12/2017	5/30/2017										
Point Loma High Tech High Schools																													
High Tech High		High Tech High Point Loma	2861 Womble Rd	2861 Womble Road, San Diego, CA 92106	Paul Dooley	Director of Facilities	760-759-2735	pdooley@hightechhigh.org	Y	X			3/7/2017	4/4/2017	3/7/2017		5/7/2017	4/4/2017	4/10/2017	4/10/2017	4/28/2017	Matt Nelson	5/3/2017	5/4/2017	No		5/4/2017	5/12/2017	< 5
High Tech Middle		High Tech High Point Loma	2359 Truxtun Rd	2359 Truxtun Rd, San Diego, CA 92106	Paul Dooley	Director of Facilities	760-759-2735	pdooley@hightechhigh.org	Y	X			3/7/2017	4/4/2017	3/7/2017		5/7/2017	4/4/2017	4/10/2017	4/10/2017	4/28/2017	Matt Nelson	5/3/2017	5/4/2017	No		5/4/2017	5/12/2017	<5
High Tech High International		High Tech High Point Loma	2855 Farragut Rd	2855 Farragut Rd, San Diego, CA 92106	Paul Dooley	Director of Facilities	760-759-2735	pdooley@hightechhigh.org	Y	X			3/7/2017	4/4/2017	3/7/2017		5/7/2017	4/4/2017	4/10/2017	4/10/2017	4/28/2017	Matt Nelson	5/3/2017	5/4/2017	No		5/4/2017	5/12/2017	<5
High Tech High Elementary		High Tech High Point Loma	2150 Cushing Road	2150 Cushing Rd, San Diego, CA 92106	Paul Dooley	Director of Facilities	760-759-2735	pdooley@hightechhigh.org	Y	X			3/7/2017	4/4/2017	3/7/2017		5/7/2017	4/4/2017	4/10/2017	4/10/2017	4/28/2017	Matt Nelson	5/3/2017	5/4/2017	No		5/4/2017	5/12/2017	<5
High Tech High Elementary Explorer		High Tech High Point Loma	2230 Truxton Rd	2230 Truxton Rd(1st Floor), San Diego, CA 92106	Paul Dooley	Director of Facilities	760-759-2735	pdooley@hightechhigh.org	Y	X			3/7/2017	4/4/2017	3/7/2017		5/7/2017	4/4/2017	4/10/2017	4/10/2017	4/28/2017	Matt Nelson	5/3/2017	5/4/2017	No		5/4/2017	5/12/2017	<5
High Tech High Middle Media Arts		High Tech High Point Loma	2230 Truxton Rd	2230 Truxton Rd(2nd Floor), San Diego, CA 92106	Paul Dooley	Director of Facilities	760-759-2735	pdooley@hightechhigh.org	Y	X			3/7/2017	4/4/2017	3/7/2017		5/7/2017	4/4/2017	4/10/2017	4/10/2017	4/28/2017	Matt Nelson	5/3/2017	5/4/2017	No		5/4/2017	5/12/2017	<5
High Tech High Media Arts		High Tech High Point Loma	2230 Truxton Rd	2230 Truxton Rd(3rd Floor), San Diego, CA 92106	Paul Dooley	Director of Facilities	760-759-2735	pdooley@hightechhigh.org	Y	X			3/7/2017	4/4/2017	3/7/2017		5/7/2017	4/4/2017	4/10/2017	4/10/2017	4/28/2017	Matt Nelson	5/3/2017	5/4/2017	No		5/4/2017	5/12/2017	<5
High Tech High Media Arts (Satellite)		High Tech High Point Loma	2291 Truxton	2291 Truxtun Rd, San Diego, CA 92106	Paul Dooley	Director of Facilities	760-759-2735	pdooley@hightechhigh.org	Y	X			3/7/2017	4/4/2017	3/7/2017		5/7/2017	4/4/2017	4/10/2017	4/10/2017	4/28/2017	Matt Nelson	5/3/2017	5/4/2017	No		5/4/2017	5/12/2017	< 5
Private and Charter Schools Academies																													
Epiphany Prep Charter School		Charter School	6134 Benson Ave	6134 Benson Ave, San Diego, CA 92114	Dr. David Rivera	President	619-549-1810	drivera@epiphanyprep.org	Y	X			4/12/2017	4/13/2017	4/12/2017		6/12/2017	4/12/2017											
Evangeline Roberts Institue of Learning		Charter School	6785 Imperial Ave	6785 Imperial Ave, San Diego, CA 92114	Shelia Malveaux	Principal	619-674-6019	smalveaux@erlics.org	Y	X			4/10/2017	4/13/2017	4/10/2017		6/10/2017	4/13/2017											
Excelsior Academy		Charter School	7202 Princess View D	7202 Princess View Drive, San Diego, CA 92120	Kaite Wilson	Executive Director Designee	619-583-6762	kwilson@excelsioracademy.com	Y	X			2/22/2017	4/4/2017	2/22/2017	3/17/2017	4/22/2017	4/4/2017	5/8/2017										
KIPP Adelante Preparatory Academy		Private School	1475 Sixth Ave	1475 Six Avenue, San Diego, CA 92101	Robert Tannenbaum	Director of Operations	619-399-6861	rtannenbaum@kippsandiego.org	Y	X	X		4/7/2017	4/10/2017	4/7/2017		6/7/2017	4/11/2017	4/17/2017	4/17/2017	5/15/2017	Tom Burger	6/6/2017	6/7/2017	No		6/7/2017	7/6/2017	<5
La Petite -English French Acad		Private School	3219 Clairemont Mes	3219 Clairemont Mesa Blvd, San Diego, CA 92117	Thierry Pasquest	School Administrator	858-231-1762	thierry.p@petite-ecole.com		X	X		5/3/2017	5/9/2017	5/3/2017		7/3/2017	5/9/2017	5/15/2017	5/15/2017	5/16/2017	Erik Alvarenga	5/25/2017	5/26/2017	No		5/26/2017	6/7/2017	35.9 - < 5
Magnolia Science Academy		Public School	6365 Lake Atlin Ave	6365 Lake Atline Avenue, San Diego, CA 92119	Gokhan Serce	Principal	619-644-1300	Gserce@magnoliapublicschools.org	Y	X	X		3/26/2017	4/5/2017	3/26/2017		5/26/2017	4/5/2017											
McGill School of Success		Private School	3025 Fir Street	3025 Fir Street, San Diego, CA 92102	Dr. Lanuza	Principal	619-677-6347	Dr.lanuza@mcgillschoolofsucess.org	Y	X	X		6/1/2017	6/5/2017	6/1/2017		8/1/2017	6/5/2017	6/26/2017										
Museum School		Private School	211 Maple St	211 Maple St, San Diego, CA 92103	Phil Beaumont	Executive Director	619-236-0278	phil@myusmschool.org		X			4/24/2017	5/1/2017	4/24/2017		6/27/2017	5/2/2017											
Our Lady of the Sacred Heart School		Private School	4106 42nd St	4106 42nd Street, San Diego, CA 92105	Alfonso Magana	Principal	619-284-1715	principal@olshsd.com	Y	X			4/5/2017	4/11/2017	4/5/2017		6/5/2017	4/10/2017	5/8/2017										
St. Michael Academy		Private School	2637 Homedale St	2637 Homedale St., San Diego, CA. 92139	Mary Johnson	Principal	619-470-4880	mjohnson@stmichaelsandiego.org	Y	X			6/27/2017	7/7/2017	6/27/2017		8/27/2017	7/7/2017											
Stella Maris Academy		Private School	7654 Herschel Ave	7654 Herschel Ave, La Jolla, CA 92037	Patricia Lowell	Principal	858-454-7461	plowell@stellamarisacademy.org	Y	X	X		4/5/2017	4/11/2017	4/5/2017		6/5/2017	4/10/2017	5/8/2017	5/11/2017	5/22/2017	David Mayo	5/25/2017	5/26/2017			5/26/2017	6/7/2017	<5
The Cambridge School		Private School	12855 Black Mtn Rd	12855 Black Moutain Road, San Diego, CA 92129	Richard Ambuehl	Facility Manager	949-981-4002	Rambuehl@cambridgeclassical.org	Y	X			4/17/2017	4/24/2017	4/17/2017		6/17/2017	4/24/2017	5/8/2017	5/10/2017	5/24/2017	Alejandra Molloy	5/25/2017	5/26/2017			5/26/2017	6/7/2017	<5
The Child's Primary School		Private School	3811 Mt. Acadia Blvd	3811 Mr. Acadia Blvd, San Diego, CA 92111	Mariel Cairns	Business Administrator	858-576-2120	mcairns@tcps.org		X			5/11/2017	5/16/2017	5/15/2017		7/15/2017	5/16/2017	6/5/2017	6/5/2017	6/5/2017	Tom Burger	6/7/2017	6/8/2017			6/8/2017	7/6/2017	6.76 - < 5
Urban Discovery Academy		Private School	840 14th Street	840 14th Street, San Diego, CA 92101	Tony Romano	Office Manager	619-788-4668x10	Tromano@urbandiscoveryacademy.com	Y	X			4/4/2017	4/12/2017	4/4/2017		6/4/2017	4/12/2017	4/17/2017	4/17/2017	4/28/2017	Tom Burger	5/4/2017	5/5/2017			5/5/2017	5/12/2017	< 5
San Dieguito Union High Sch Dist																													
Carmel Valley Middle School		San Dieguito UHSD	3800 Mykonos Lane	3800 Mykonos Lane, San Diego, CA 92130	Jim Mitroff	Maintenance Supervisor	760-753-6491, x	jim.mitroff@sduhsd.net	Y	X	X		5/11/2017	5/11/2017	5/11/2017		7/11/2017	5/12/2017	6/5/2017	6/7/2017	6/12/2017	Tom Burger	6/12/2017	6/13/2017	No		6/13/2017	7/6/2017	< 5
Canyon Crest Academy		San Dieguito UHSD	5951 Village Center R	5951 Village Center Rd., San Diego, CA 92130	Jim Mitroff	Maintenance Supervisor	760-753-6491	jim.mitroff@sduhsd.net	Y	X			5/11/2017	5/11/2017	5/11/2017		7/11/2017	5/12/2017	6/5/2017	6/7/2017	6/15/2017	Tom Burger	6/15/2017	6/16/2017			6/16/2017	7/6/2017	< 5
Pacific Trails Middel School		San Dieguito UHSD	5975 Village Center R	5975 Village Center Rd., San Diego, CA 92130	Jim Mitroff	Maintenance Supervisor	760-753-6491, x	jim.mitroff@sduhsd.net	Y	X			5/11/2017	5/11/2017	5/11/2017		7/11/2017	5/12/2017	6/5/2017	6/7/2017									
Torrey Pines High School		San Dieguito UHSD	3710 Del Mar Heights	3710 Del Mar Heights Rd, San Diego, CA 92130	Jim Mitroff	Maintenance Supervisor	760-753-6491	jim.mitroff@sduhsd.net	Y	X			5/11/2017	5/11/2017	5/11/2017		7/11/2017	5/12/2017	6/5/2017	6/7/2017	6/12/2017	Tom Burger	6/12/2017	6/13/2017	No		6/13/2017	7/6/2017	< 5
South Bay Union School Distric																													
Geroge Nicoloff Elementary School		South Bay Union School District	1777 Howard Ave.	1777 Howard Ave. San Ysidro, CA 92173-1235	Don Visnick	Director of Facilities and Maintenance	619-628-3590	Dvisnick@sbusd.org	Y	X	X	X	2/14/2017	4/5/2017	2/14/2017	3/3/2017	4/14/2017	4/5/2017	4/17/2017	4/25/2017	5/8/2017	Jerry Weston	5/8/2017	5/9/2017			5/9/2017	5/19/2017	< 5
Sweetwater Union School Dist																													
Imperial Beach Adult School		Sweetwater Union HSD	170 Palm Ave	170 Palm Avenue, Imperial Beach, CA 91932	Dr. Moises Aguirre	Assistant Superintendent of Facilities and Operations	619-585-6060	moises.aguirre@sweetwaterschools.org	Y	X			3/10/2017	4/4/2017	3/10/2017		5/10/2017	4/4/2017	5/8/2017										
Mar Vista Academy		Sweetwater Union HSD	1267 Thermal Ave	1267 Thermal Avenue, San Diego, CA 92154	Dr. Moises Aguirre	Assistant Superintendent of Facilities and Operations	619-585-6060	moises.aguirre@sweetwaterschools.org	Y	X			3/10/2017	4/4/2017	3/10/2017		5/10/2017	4/4/2017											
Mar Vista High School		Sweetwater Union HSD	505 Elm Avenue	505 Elm Avenue, Imperial Beach, CA 91932	Dr. Moises Aguirre	Assistant Superintendent of Facilities and Operations	619-585-6060	moises.aguirre@sweetwaterschools.org	Y	X			3/10/2017	4/4/2017	3/10/2017		5/10/2017	4/4/2017	5/15/2017	6/5/2017	6/28/2017	Tom Burger	6/29/2017	6/30/2017			6/30/2017	7/6/2017	< 5
Montgomery Adult School		Sweetwater Union HSD	3240 Palm Ave	3240 Palm Avenue, San Diego, CA 92154	Dr. Moises Aguirre	Assistant Superintendent of Facilities and Operations	619-585-6060	moises.aguirre@sweetwaterschools.org	Y	X			3/10/2017	4/4/2017	3/10/2017		5/10/2017	4/4/2017											
Montgomery High School		Sweetwater Union HSD	3250 Palm Ave	3250 Palm Avenue, San Diego, CA 92154	Dr. Moises Aguirre	Assistant Superintendent of Facilities and Operations	619-585-6060	moises.aguirre@sweetwaterschools.org	Y	X			3/10/2017	4/4/2017	3/10/2017		5/10/2017	4/4/2017	5/1/2017										
Montgomery Middle School		Sweetwater Union HSD	1051 Picado Blvd	1051 Picado Blvd, San Diego, CA 92154	Dr. Moises Aguirre	Assistant Superintendent of Facilities and Operations	619-585-6060	moises.aguirre@sweetwaterschools.org	Y	X			3/10/2017	4/4/2017	3/10/2017		5/10/2017	4/4/2017	5/1/2017	5/2/2017	5/30/2017	Gloria Siquerios	6/15/2017	6/16/2017			6/16/2017	7/6/2017	7.43,6.9,<
San Ysidro Adult Education Center		Sweetwater Union HSD	4220 Otay Mesa Rd	4220 Otay Mesa Rd. San Ysidro, CA 92173	Dr. Moises Aguirre	Assistant Superintendent of Facilities and Operations	619-585-6060	moises.aguirre@sweetwaterschools.org	Y	X		X	3/10/2017	4/4/2017	3/10/2017		5/10/2017	4/4/2017											
San Ysidro High School		Sweetwater Union HSD	5353 Airway Rd.	5353 Airway Rd. San Diego, CA 92154-4806	Cesar Canizales			cesar.canizales@sweetwaterschools.org	Y	X		X	2/13/2017	4/4/2017	3/10/2017		5/10/2017	4/4/2017											
Southwest High School		Sweetwater Union HSD	1685 Hollister St.	1685 Hollister Street, San Diego, CA. 92154	Dr. Moises Aguirre	Assistant Superintendent of Facilities and Operations	619-585-6060	moises.aguirre@sweetwaterschools.org	Y	X			3/10/2017	4/4/2017	3/10/2017		5/10/2017	4/4/2017	5/8/2017	5/24/2017	5/30/2017	Tom Burger	6/29/1930	6/30/2017			6/30/2017	7/6/2017	< 5
Southwest Middle School		Sweetwater Union HSD	2710 Iris Ave	2710 Iris Avenue, San Diego, CA 92154	Dr. Moises Aguirre	Assistant Superintendent of Facilities and Operations	619-585-6060	moises.aguirre@sweetwaterschools.org	Y	X			3/10/2017	4/4/2017	3/10/2017		5/10/2017	4/4/2017	5/15/2017	5/24/2017	5/25/2017	Josh Rambo	6/1/2017	6/2/2017	No		6/2/2017	7/7/2017	< 5
San Diego Unified Zone 4 Schools																													
America's Finest (K-8) Charter		San Diego Unified Property	730 45th St	730 45th St. San Diego, CA 92102	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			3/21/2017	3/22/2017	3/21/2017		5/21/2017	3/22/2017	3/22/2017	5/5/2017	5/10/2017	Tom Burger	5/15/2017	5/16/2017	No		5/16/2017	5/26/2017	< 5
Audubon (K-8)		San Diego Unified	3111 San Vicente St	3111 San Vicente St, San Diego 92114	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			3/21/2017	3/22/2017	3/21/2017		5/21/2017	3/22/2017	3/22/2017	3/31/2017	4/8/2017	Erik Alvarenga	4/10/2017	4/11/2017			4/11/2017	4/19/2017	< 5
Baker ES		San Diego Unified	4941 T St	4941 T St, San Diego 92113	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			3/21/2017	3/22/2017	3/21/2017		5/21/2017	3/22/2017	3/22/2017	3/27/2017	4/3/2017	Walt Mulderis	4/3/2017	4/4/2017	No		4/4/2017	4/12/2017	< 5
Balboa ES		San Diego Unified	1844 South 40th St	1844 South 40th St, San Diego 92113	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			3/21/2017	3/22/2017	3/21/2017		5/21/2017	3/22/2017	3/22/2017	3/27/2017	3/30/2017	Jerry Weston	4/5/2017	4/6/2017			4/6/2017	4/12/2017	< 5
Bandini ES		San Diego Unified	35th & Florence	35th & Florence, San Diego 92113	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			3/21/2017	3/22/2017	3/21/2017		5/21/2017	3/22/2017	3/22/2017	3/27/2017	4/7/2017	Jerry Weston	5/1/2017	5/2/2017	No		5/2/2017	5/9/2017	< 5
Bell MS		San Diego Unified Property	620 Briarwood Rd	620 Briarwood Rd, San Diego 92139	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			3/21/2017	3/22/2017	3/21/2017		5/21/2017	3/22/2017	3/22/2017	3/30/2017	4/4/2017	Josh Rambo	4/4/2017	4/5/2017			4/5/2017	4/12/2017	< 5
Bethune (k-8)		San Diego Unified	6835 Benjamin Holt Rd	6835 Benjamin Holt Rd, San Diego, CA 92114	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			3/21/2017	3/22/2017	3/21/2017		5/21/2017	3/22/2017	3/22/2017	3/31/2017	4/5/2017	Tom Burger	4/5/2017	4/6/2017	No		4/6/2017	4/14/2017	< 5
Boone ES		San Diego Unified	7330 Brookhaven Rd	7330 Brookhaven Rd, San Diego, CA 92114	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			3/21/2017	3/22/2017	3/21/2017		5/21/2017	3/22/2017	3/22/2017	3/31/2017	3/23/2017	Dan Sowersby	4/3/2017	4/4/2017			4/4/2017	4/12/2017	< 5
Carver ES		San Diego Unified Property	3251 Juanita St	3251 Juanita St, San Diego, CA 92105	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			3/21/2017	3/22/2017	3/21/2017		5/21/2017	3/22/2017	3/22/2017	3/23/2017	3/10/2017	Tom Burger	5/1/2017	5/2/2017	No		5/2/2017	5/9/2017	< 5
Cesar Chavez ES		San Diego Unified Property	1404 S 40th St	1404 S 40th St, San Diego, CA 92113	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			3/21/2017	3/22/2017	3/21/2017		5/21/2017	3/22/2017	3/22/2017	3/27/2017	4/4/2017	Tom Burger	4/4/2017	4/5/2017			4/5/2017	4/12/2017	< 5
Chollas/Mead ES		San Diego Unified Property	401 North 45th St	401 North 45th St. San Diego, CA 92102	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			3/21/2017	3/22/2017	3/21/2017		5/21/2017	3/22/2017	3/22/2017	4/12/2017	4/14/2017	Dave Mayo	4/14/2017	4/15/2017	No		4/15/2017	4/28/2017	7.73 - < 5
Chollas/Mead ES - 1 sample															3/21/2017			3/22/2017		4/12/2017	4/14/2017	Tom Burger	4/18/2017	4/19/2017			4/15/2017	4/28/2017	7.73 - < 5
Clark MS (Monroe Clark)		San Diego Unified Property	4388 Thorn St	4388 Thorn St, San Diego, CA 92105.	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			3/21/2017	3/22/2017	3/21/2017		5/21/2017	3/22/2017	3/22/2017	4/5/2017	5/1/2017	Alejandra	5/1/2017	5/2/2016	No		5/2/2017	5/12/2017	< 5
Clark MS (Monroe Clark)		San Diego Unified Property	4388 Thorn St	4388 Thorn St, San Diego, CA 92105	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			3/21/2017	3/22/2017	3/21/2017		5/21/2017	3/22/2017	3/22/2017	4/5/2017	5/1/2017	Alejandra	5/5/2017	5/6/2017			5/6/2017	5/12/2017	< 5
Crawford HS		San Diego Unified Property	4191 Colls Way	4191 Colls Way, San Diego, CA 92115	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			3/21/2017	3/22/2017	3/21/2017		5/21/2017	3/22/2017	3/22/2017	4/6/2017	4/11/2017	Erik Alvarenga	4/11/2017	4/12/2017	No		4/12/2017	4/27/2017	<5
Darnall Charter		San Diego Unified Property	6020 Hughes St	6020 Hughes St, San Diego, CA 92115	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X	X		2/10/2017	3/22/2017	3/21/2017		5/21/2017	3/22/2017	3/22/2017	3/29/2017	5/2/2017	Dave Mayo	5/2/2017	5/3/2017			5/3/2017	5/12/2017	< 5
Emerson ES		San Diego Unified Property	3511 Newton Ave	3511 Newton Ave	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			2/21/2017	2/21/2017	2/21/2017	2/21/2017	5/21/2017	3/22/2017	2/21/2017	2/21/2017	3/2/2017	Tom Burger	3/2-3/6/2017	3/3-3/7/2017			3/3-3/7/2017	3/13/2017	29 - < 5
Emerson re-sample			see above	see above											3/21/2017	re-sample	re-sample	3/22/2017			Tom Burger	4/5/2017	4/6/2017			4/6/2017	4/12/2017	< 5
Encanto ES		San Diego Unified Property	822 65th Street	822 65th Street, San Diego, CA 92114	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			3/21/2017	3/22/2017	3/21/2017		5/21/2017	3/22/2017	3/22/2017	3/28/2017	4/3/2017	Erik Alvarenga	4/3/2017	4/4/2017			4/4/2017	4/12/2017	9.19 - < 5
Fay ES		San Diego Unified Property	4080 52nd St	4080 52nd St, San Diego, CA 92105	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			3/21/2017	3/22/2017	3/21/2017		5/21/2017	3/22/2017	3/22/2017	4/5/2017	5/1/2017	Dan Sowersby	5/1/2017	5/2/2017	No		5/2/2017	5/9/2017	< 5
Freese ES		San Diego Unified Property	8140 Greenlawn Dr	8140 Gre

Thrive Charter	San Diego Unified Property	3252 Juanita St	3252 Juanita St, San Diego, CA 92105	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		3/21/2017	3/22/2017	3/21/2017	5/21/2017	3/22/2017	3/22/2017	3/23/2017	4/6/2017	Dave Mayo	4/6/2017	4/7/2017	No		4/7/2017	4/18/2017	< 5
Thrive Charter -Resample$	San Diego Unified Property	3252 Juanita St	3252 Juanita St, San Diego, CA 92105	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		3/21/2017	3/22/2017	3/21/2017	5/21/2017	3/22/2017	3/22/2017	3/23/2017	4/6/2017	Jerry Weston	4/6/2017	4/8/2017			4/8/2017	4/18/2017	< 5
Twain Morse Satellite HS	San Diego Unified Property	6905 Skyline Dr	6905 Skyline Dr, San Diego, CA 92114	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		3/21/2017	3/22/2017	3/21/2017	5/21/2017	3/22/2017	3/22/2017	5/1/2017	5/12/2017	Matt Nelson	5/18/2017	5/19/2017	No		5/19/2017	6/7/2017	< 5
Valencia Park	San Diego Unified Property	5880 Skyline Dr	5880 Skyline Dr, San Diego, CA 92114	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		3/21/2017	3/22/2017	3/21/2017	5/21/2017	3/22/2017	3/22/2017	3/24/2017	4/7/2017	Jerry Weston	4/7/2017	4/8/2017			4/8/2017	4/18/2017	< 5
Webster (k-6)	San Diego Unified Property	4861 Elm St	4861 Elm St, San Diego, CA 92102	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		3/21/2017	3/22/2017	3/21/2017	5/21/2017	3/22/2017	3/22/2017	3/23/2017	4/5/2017	Dan Sowersby	4/5/2017	4/6/2017	No		4/6/2017	4/12/2017	7.14 - < 5
Zamorano	San Diego Unified Property	2655 Casey St	2655 Casey St, San Diego, CA 92139	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		3/21/2017	3/22/2017	3/21/2017	5/21/2017	3/22/2017	3/22/2017	3/31/2017	4/7/2017	Jerry Weston	4/7/2017	4/8/2017			4/8/2017	4/18/2017	< 5
San Diego Unified Zone 3 Schools																														
Adams	San Diego Unified Property	4672 35th St	4672 35th St, San Diego, CA 92116	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/7/2017	4/14/2017	David Mayo	4/14/2017	4/15/2017			4/15/2017	4/27/2017	<5
Alter Learn for Behavior & Attit HS	San Diego Unified Property	4041 Oregon St	4041 Oregon St, San Diego, CA 92104	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/18/2017	4/20/2017	Alejandra Molloy	4/21/2017	4/22/2017	No		4/22/2017	4/28/2017	< 5
Arroyo Paseo High Chrt (@ Wilson)	San Diego Unified Property	3773 El Cajon Blvd	3773 El Cajon Blvd, San Diego, CA 92105	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/19/2017	4/20/2017	Alejandra Molloy	4/20/2017	4/22/2017			4/22/2017	4/28/2017	< 5
Benchley/Weinberger	San Diego Unified Property	6269 Twin Lake Dr	6269 Twin Lake Dr, San Diego, CA 92119	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/13/2017	4/17/2017	Dan Sowersby	4/18/2017	4/18/2017			4/18/2017	4/28/2017	<5
Birney ES	San Diego Unified Property	4345 Campus Ave	4345 Campus Ave, San Diego, CA 92103	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/13/2017	4/28/2017	Erik Alvarenga	5/1/2017	5/2/2017			5/2/2017	5/8/2017	19 - <5
Birney ES- 1 Resample															4/12/2017			4/28/2017	Tom Burger	6/1/2017	6/2/2017			6/2/2017	6/20/2017	< 5
Burbank ES	San Diego Unified Property	2146 Julian Ave	2146 Julian Ave	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/20/2017	4/28/2017	Jerry Weston	5/2/2017	5/3/2017			5/3/2017	5/12/2017	< 5
Central ES	San Diego Unified Property	4063 Polk Ave	4063 Polk Ave, San Diego, CA 92105	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/19/2017	4/28/2017	Alejandra Molloy	5/2/2017	5/3/2017	No		5/3/2017	5/1/2017	< 5
Cherokee Point ES	San Diego Unified Property	3735 38th St	3735 38th St, San Diego, CA 92105	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/11/2017	4/28/2017	Alejandra Molloy	5/2/2017	5/3/2017	No		5/3/2017	5/12/2017	< 5
Clay ES	San Diego Unified Property	6506 Solta Ave	6506 Solta Ave, San Diego, CA 92115	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/7/2017	4/13/2017	Tom Burger	4/13/2017	4/14/2017	No		4/14/2017	4/27/2017	10.5 - < 5
Dalard ES	San Diego Unified Property	6425 Cibola Rd	6425 Cibola Rd, San Diego, CA 92120	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/7/2017	4/12/2017	Josh Rambo	4/12/2017	4/13/2017			4/13/2017	4/27/2017	<5
East Village HS	San Diego Unified Property	1405 Park Blvd	1405 Park Blvd, San Diego, CA 92101	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/25/2017	4/27/2017	David Mayo	4/27/2017	4/28/2017	No		4/28/2017	5/5/2017	< 5
Edison ES	San Diego Unified Property	4077 35th ST	4077 35th ST, San Diego	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/17/2017	4/28/2017	Matt Nelson	5/9/2017				5/10/2017	5/23/2017	< 5
Einstein Charter Elem	San Diego Unified Property	3035 Ash St	3035 Ash St, San Diego, CA 92102	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/21/2017	4/27/2017	Jerry Weston	4/26/2017	4/27/2017	No		4/27/2017	5/5/2017	< 5
Euclid ES/CDC	San Diego Unified Property	4166 Euclid Ave	4166 Euclid Ave, San Diego, CA 92105	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/17/2017	4/28/2017	Josh Rambo	5/4/2017	5/5/2017			5/5/2017	5/12/2017	6.65 - < 5
Florence ES	San Diego Unified Property	3914 1st Ave	3914 1st Ave, San Diego, CA 92103	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/12/2017	4/21/2017	Alejandra Molloy	4/21/2017	4/22/2017	No		4/22/2017	5/17/2017	< 5
Foster ES	San Diego Unified Property	6560 51st St	6560 51st St, San Diego, 92102	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/7/2017	4/13/2017	Alejandra Molloy	4/13/2017	4/13/2017	No		4/13/2017	4/27/2017	<5
Franklin ES	San Diego Unified Property	4481 Copeland Ave	4481 Copeland Ave, San Diego, CA 92116	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/7/2017	4/12/2017	David Mayo	4/12/2017	4/13/2017	No		4/13/2017	4/27/2017	5.15 - < 5
Gage ES	San Diego Unified Property	6811 Bisby Lake Ave	6811 Bisby Lake Ave, San Diego, CA 92119	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/7/2017	4/13/2017	Erik Alvarenga	4/13/2017	4/14/2017			4/14/2017	4/27/2017	10.1 - < 5
Garfield ES/CDC	San Diego Unified Property	4487 Oregon St	4487 Oregon St, San Diego, CA 92116	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/7/2017	4/12/2017	Dan Sowersby	5/2/2017	5/3/2017	No		5/3/2017	5/12/2017	5.26 - < 5
Garfield HS	San Diego Unified Property	1255 16th St	1255 16th St, San Diego, CA 92101	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/13/2017	4/17/2017	Tom Burger	4/17/2017	4/18/2017	No		4/18/2017	4/28/2017	< 5
Golden Hill ES	San Diego Unified Property	1240 33rd St	1240 33rd St, San Diego, CA 92102	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	5/1/2017	5/3/2017	David Mayo	5/3/2017	5/4/2017	No		5/4/2017	5/12/2017	< 5
Grant ES	San Diego Unified Property	1425 Washington Pl	1425 Washington Pl, San Diego, CA	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/12/2017	4/17/2017	Erik Alvarenga	4/17/2017	4/18/2017			4/18/2017	4/28/2017	< 5
Green ES	San Diego Unified Property	7030 Wandermere Dr	7030 Wandermere Dr, San Diego, CA 92119	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/7/2017	4/13/2017	Dave Mayo	4/13/2017	4/14/2017	No		4/14/2017	4/27/2017	< 5
Hardy ES	San Diego Unified Property	5420 Montezuma Rd	5420 Montezuma Rd, San Diego, CA 92115	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/7/2017	4/14/2017	Dave Mayo	4/14/2017	4/15/2017			4/15/2017	4/27/2017	< 5
Harold J. Ballard Parent Center	San Diego Unified Property	2375 Congress St	2375 Congress St, San Diego, CA 92110	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/17/2017	4/20/2017	Dave Mayo	4/20/2017	4/21/2017	No		4/21/2017	4/28/2017	10 - < 5
Harriet Tubman Village Chrtr (@ Tubman Village)	San Diego Unified Property	6880 Mohawk St	6880 Mohawk St, San Diego, CA 92119	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/20/2017	4/25/2017	Tom Burger	4/25/2017	4/26/2017	No		4/26/2017	5/4/2017	9.84 - < 5
Hawthorn ES	San Diego Unified Property	6230 Del Cerro Blvd	6230 Del Cerro Blvd, San Diego, CA 92120	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/13/2017	4/17/2017	Alejandra Molloy	4/17/2017	4/18/2017	No		4/18/2017	4/28/2017	< 5
Hoover HS	San Diego Unified Property	4474 El Cajon Blvd	4474 El Cajon Blvd, San Diego, CA 92115	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/12/2017	4/14/2017	Dave Mayo	4/14/2017	4/15/2017			4/15/2017	4/27/2017	< 5
Ibarra ES	San Diego Unified Property	4877 Orange Ave	4877 Orange Ave, San Diego, CA 92115	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/10/2017	4/28/2017	Dan Sowersby	5/3/2017	5/4/2017	No		5/4/2017	5/12/2017	< 5
Jefferson ES	San Diego Unified Property	3770 Utah St	3770 Utah St, San Diego, CA 92104	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/13/2017	4/20/2017	Tom Burger	4/20/2017	4/21/2017			4/21/2017	4/28/2017	< 5
Kimbrough ES	San Diego Unified Property	321 Holt St	321 Holt St	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/24/2017	4/28/2017	Josh Rambo	5/3/2017	5/4/2017	No		5/4/2017	5/12/2017	5.05 - < 5
King-Chavez Academy	San Diego Unified Property	415 31st St	415 31st St, San Diego, CA 92104	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/19/2017	4/26/2017	Josh Rambo	4/26/2017	4/27/2017			4/27/2017	5/23/2017	< 5
Language Academy	San Diego Unified Property	4961 64th St	4961 64th St, San Diego, CA 92115	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/19/2017	5/4/2017	David Mayo	5/4/2017	5/5/2017	No		5/5/2017	5/12/2017	6.61 - < 5
Lewis MS	San Diego Unified Property	5170 Greenbrier Ave	5170 Greenbrier Ave, San Diego, CA 92120	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/17/2017	4/18/2017	Alejandra Molloy	4/18/2017	4/19-21/2017			4/19-21/2017	4/28/2017	< 5
Logan ES	San Diego Unified Property	2875 Ocean View Blvd	2875 Ocean View Blvd, San Diego, CA 92113	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/17/2017	4/28/2017	Dan Sowersby	5/3/2017	5/4/2017	No		5/4/2017	5/12/2017	< 5
Marcy	San Diego Unified Property	2716 Marcy St	2716 Marcy Street, Suite B, San Diego, CA 92113	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/25/2017	4/27/2017	Dennis Brown	5/22/2017	5/23/2017	No		5/23/2017	6/7/2017	< 5
Marvin ES	San Diego Unified Property	5720 Brunswick Ave	5720 Brunswick Ave, San Diego, CA 92120	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/11/2017	4/18/2017	Alejandra Molloy	4/18/2017	4/19/2017	No		4/19/2017	4/28/2017	< 5
Memorial Scholars & Athletes	San Diego Unified Property	2850 Logan Ave	2850 Logan Ave, San Diego, CA 92113	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/13/2017	4/13/2017	Josh Rambo	4/13/2017	4/14/2017	No		4/14/2017	4/27/2017	< 5
McKinley ES	San Diego Unified Property	3045 Felton St	3045 Felton St, San Diego, CA 92104	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/13/2017	4/18/2017	Dan Sowersby	4/18/2017	4/19/2017			4/19/2017	4/28/2017	12.9 - < 5
Normal Heights ES	San Diego Unified Property	3750 Ward Rd	3750 Ward Rd, San Diego, CA 92106	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/13/2017	4/28/2017	Alejandra Molloy	4/28/2017	4/29/2017	No		4/29/2017	5/4/2017	< 5
Patrick Henry HS	San Diego Unified Property	6702 Wanderemere Dr	6702 Wanderemere Dr, San Diego, CA 92115	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/12/2017	4/17/2017	Walt Mulderg	4/17/2017	4/18/2017			4/18/2017	4/28/2017	< 5
Perkins ES	San Diego Unified Property	1770 Main St	1770 Main St, San Diego, CA 92113	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/28/2017	5/9/2017	Jerry Weston	5/15/2017	5/16/2017	No		5/16/2017	5/26/2017	< 5
Pershing MS	San Diego Unified Property	8204 San Carlos Dr	8204 San Carlos Dr, San Diego, CA 92119	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/12/2017	4/18/2017	Josh Rambo	4/18/2017	4/19/2017			4/19/2017	4/28/2017	< 5
Rodriquez ES	San Diego Unified Property	825 S 31St St	825 S 31St St, San Diego, CA 92113	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/10/2017	4/13/2017	Josh Rambo	4/13/2017	4/14/2017	No		4/14/2017	4/27/2017	< 5
Roosevelt MS	San Diego Unified Property	3366 Park Blvd	3366 Park Blvd, San Diego, CA 92103	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/11/2017	4/19/2017	Dan Sowersby	4/19/2017	4/20/2017	No		4/20/2017	4/28/2017	< 5
San Diego HS	San Diego Unified Property	1405 Park Blvd	1405 Park Blvd, San Diego, CA 92101	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/13/2017	4/19/2017	Dave Mayo	4/19/2017	4/20/2017	No		4/20/2017	4/28/2017	< 5
San Diego Global Vision Acad Charter	San Diego Unified Property	3430 School St	3430 School St, San Diego, CA 92116	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/7/2017	4/19/2017	Alejandra Molloy	4/19/2017	4/20/2017			4/20/2017	4/28/2017	< 5
Sherman ES	San Diego Unified Property	301 22nd St	301 22nd St, San Diego, CA 92102	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/10/2017	4/19/2017	Tom Burger	4/19/2017	4/20/2017	No		4/20/2017	4/28/2017	< 5
Spinnaker Academy - SESI Specialize Ed	San Diego Unified Property	6460 Boulder Lake Ave	6460 Boulder Lake Aven, San Diego, CA 92119	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	5/16/2017	5/25/2017	Matt Nelson	5/24/2017	5/25/2017	No		5/25/2017	6/7/2017	< 5
Vista Hill Foundation	San Diego Unified Property	6145 Decena Drive	6145 Decena Drive, San Diego, CA 92102	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	5/16/2017	5/22/2017	Matt Nelson	5/22/2017	5/23-26/2017	No		5/23-26/2017	6/7/2017	11.9 - < 5
Washington ES	San Diego Unified Property	1789 State St	1789 State St, San Diego, CA 92101	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/18/2017	4/20/2017	Dan Sowersby	4/20/2017	4/21/2017			4/21/2017	4/28/2017	< 5
Wilson MS	San Diego Unified Property	3838 Orange Ave	3838 Orange Ave	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/11/2017	4/12/2017	4/11/2017	6/11/2017	4/12/2017	3/22/2017	4/27/2017	5/1/2017	Alejandra Molloy	5/3/2017	5/4/2017	No		5/4/2017	5/12/2017	< 5
San Diego Unified Zone 2 Schools																														
Angier ES	San Diego Unified Property	8451 Hurlbut St	8451 Hurlbut St, San Diego, CA 92123	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/18/2017	4/19/2017	4/18/2017	6/18/2017	4/19/2017	3/22/2017	4/19/2017	4/21/2017	Alejandra Molloy	4/21/2017	4/22/2017	No		4/22/2017	5/17/2017	10.2 - < 5
Carson ES	San Diego Unified Property	6905 Kramer St	6905 Kramer St, San Diego, CA 92111	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/18/2017	4/19/2017	4/18/2017	6/18/2017	4/19/2017	3/22/2017	4/19/2017	4/22/2017	Alejandra Molloy	4/22/2017	4/22/2017			4/22/2017	5/17/2017	< 5
Challenger MS	San Diego Unified Property	10810 Parkdale Ave	10810 Parkdale Ave, San Diego, CA 92126	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/18/2017	4/19/2017	4/18/2017	6/18/2017	4/19/2017	3/22/2017	4/26/2017	5/1/2017	Dan Sowersby	5/4/2017	5/5/2017	No		5/5/2017	5/12/2017	< 5
Chesterton ES	San Diego Unified Property	7335 Wheatley St	7335 Wheatley St, San Diego, CA 92111	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/18/2017	4/19/2017	4/18/2017	6/18/2017	4/19/2017	3/22/2017	4/20/2017	4/21/2017	Alejandra Molloy	4/21/2017	4/22/2017	No		4/22/2017	4/17/2017	5.29 - < 5
Cubberley ES	San Diego Unified Property	3201 Marathon Dr	3201 Marathon Dr, San Diego, CA 92123	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren.Glenn.<sboogren@sandi.net>	Y	X		4/18/2017	4/19/2017	4/18/2017	6/18/2017	4/19/2017	3/22/2017	4/20/2017	4/28/2017	Alejandra Molloy	5/5/2017	5/6/2017	No		5/6/2017	5/12/2016	< 5
De Portola MS	San Diego Unified Property	11010 Claremont Mesa	11010 Claremont Mesa Blvd

Correia MS	San Diego Unified Property	4302 Valeta St	4302 Valeta St	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	5/10/2017	5/15/2017	Josh Rambo	5/23/2017	5/24/2017			5/24/2017	6/7/2017	< 5
Creative Perform .Media Arts	San Diego Unified Property	5050 Conrad Ave	5050 Conrad Ave, San Diego CA, 92117	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	5/5/2017	5/16/2017	Matt Nelson	5/19/2017	5/20/2017	No		5/20/2017	6/7/2017	< 5
Crown Point ES	San Diego Unified Property	4033 Ingraham St	4033 Ingraham St	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	5/2/2017	5/8/2017	Brian Knerr	5/10/2017	5/11/2017			5/11/2017	5/23/2017	< 5
Curie ES	San Diego Unified Property	4080 Governor Dr	4080 Governor Dr, San Diego	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	5/1/2017	5/1/2017	Jessica Mathews	5/10/2017	5/11/2017	No		5/11/2017	5/23/2017	< 5
Dana MS	San Diego Unified Property	1775 Chatsworth Blvd	1775 Chatsworth Blvd	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	5/4/2017	5/16/2017	Matt Nelson	5/19/2017	5/20/2017			5/20/2017	6/7/2017	< 5
Dewey ES	San Diego Unified Property	3251 Rosecrans St	3251 Rosecrans St, San Diego, CA 92110	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	5/8/2017	5/16/2017	Matt Nelson	5/23/2017	5/24/2017	No		5/24/2017	6/7/2017	< 5
Doyle ES	San Diego Unified Property	3950 Bering Ct	3950 Bering Ct, San Diego, CA 92122	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	5/2/2017	5/8/2017	Erik Alvarenga	5/8/2017	5/9/2017			5/9/2017	5/23/2017	< 5
Field ES	San Diego Unified Property	4375 Bannock Ave	4375 Bannock Ave, San Diego, CA 92117	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	4/27/2017	5/2/2017	Jerry Weston	5/10/2017	5/11/2017	No		5/11/2017	5/23/2017	< 5
Hawthorne ES	San Diego Unified Property	4750 Lehner Dr	4750 Lehner Dr, San Diego, 92117	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	5/1/2017	5/1/2017	Matt Nelson	5/19/2017	5/20/2017			5/20/2017	6/7/2017	< 5
Innovation MS (formerly MacDowell)	San Diego Unified Property	5095 Aniniels Ave	5095 Aniniels Ave, San Diego CA 92117	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	5/5/2017	5/16/2017	Matt Nelson	5/19/2017	5/20/2017	No		5/20/2017	6/7/2017	< 5
La Jolla ES	San Diego Unified Property	1111 Marine St	1111 Marine St, San Diego, CA 92037	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	4/27/2017	5/1/2017	Jessica Mathews	5/11/2017	5/12/2017			5/12/2017	5/23/2017	< 5
La Jolla HS	San Diego Unified Property	750 Nautilus St	750 Nautilus St, San Diego, CA 92037	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	5/1/2017	5/1/2017	Erik Alvarenga	5/11/2017	5/12/2017	No		5/12/2017	5/23/2017	< 5
Lafayette ES	San Diego Unified Property	6125 Printwood Way	6125 Printwood Way	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	5/2/2017	5/8/2017	Dan Sowersby	5/8/2017	5/9/2017			5/9/2017	5/23/2017	< 5
Loma Portal ES	San Diego Unified Property	3341 Browning St	3341 Browning St, San Diego, CA 92106	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	5/9/2017	5/16/2017	Jerry Weston	5/23/2017	5/24/2017	No		5/24/2017	6/7/2017	< 5
Longfellow ES	San Diego Unified Property	5055 July St	5055 July St	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	5/2/2017	5/9/2017	Matt Nelson	5/12/2017	5/13/2017			5/13/2017	5/23/2017	< 5
Madison HS	San Diego Unified Property	4833 Dolva Dr	4833 Dolva Dr	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	5/3/2017	5/8/2017	Matt Nelson	5/12/2017	5/13/2017	No		5/13/2017	5/23/2017	< 5
Marston MS	San Diego Unified Property	3799 Clairemont Dr	3799 Clairemont Dr, San Diego, CA 92117	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	5/4/2017	5/16/2017	Brian Knerr	5/22/2017	5/23/2017			5/23/2017	6/7/2017	< 5
Mission Bay HS	San Diego Unified Property	2475 Grand Ave	2475 Grand Ave	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	5/1/2017	5/2/2017	Josh Rambo	5/15/2017	5/16/2017	No		5/16/2017	5/26/2017	< 5
Mission Bay Montessori	San Diego Unified Property	2640 Soderblom Ave, 9212	2640 Soderblom Ave, 92122	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	5/16/2017	5/23/2017	Erik Alvarenga	5/24/2017	5/25/2017			5/25/2017	6/7/2017	< 5
Muirlands MS	San Diego Unified Property	1056 Nautilus St	1056 Nautilus St, San Diego, CA 92037	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	4/27/2017	5/2/2017	Matt Nelson	5/12/2017	5/13/2017	No		5/13/2017	5/23/2017	< 5
Ocean Beach ES	San Diego Unified Property	4741 Santa Monica Ave	4741 Santa Monica Ave	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	5/4/2017	5/9/2017	Jerry Weston	5/16/2017	5/17/2017			5/17/2017	5/26/2017	5.31 - < 5
Pacific Beach ES	San Diego Unified Property	1234 Tourmaline St	1234 Tourmaline St, San Diego, CA 92109	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	4/27/2017	5/2/2017	Tom Burger	5/16/2017	5/17/2017	No		5/17/2017	5/26/2017	< 5
Pacific Beach MS	San Diego Unified Property	4676 Ingraham St	4676 Ingraham St, San Diego, CA 92109	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	4/27/2017	5/2/2017	Tom Burger	5/16/2017	5/17/2017			5/17/2017	6/8/2017	< 5
Point Loma HS	San Diego Unified Property	2335 Chatsworth Blvd	2335 Chatsworth Blvd, San Diego, CA 92106	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	5/15/2017	5/22/2017	Josh Rambo	5/24/2017	5/25/2017	No		5/25/2017	6/7/2017	< 5
San Diego French-American School	San Diego Unified Property	6550 Soledad Mtn Rd, 920	6550 Soledad Mtn Rd, 92037	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	5/19/2017	5/23/2017	Josh Rambo	5/25/2017	5/26/2017			5/26/2017	6/7/2017	< 5
Sequoia ES	San Diego Unified Property	4690 Limerick Ave	4690 Limerick Ave, San Diego, CA 92117	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	5/5/2017	5/15/2017	Matt Nelson	5/17/2017	5/18/2017	No		5/18/2017	5/26/2017	< 5
Sessions ES	San Diego Unified Property	7150 Beryl St	7150 Beryl St	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	5/2/2017	5/15/2017	Erik Alvarenga	5/17/2017	5/18/2017			5/18/2017	5/26/2017	< 5
Silver Gate ES	San Diego Unified Property	1499 Venice St	1499 Venice St	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	5/1/2017	5/15/2017	Tom Burger	5/17/2017	5/18/2017	No		5/18/2017	5/26/2017	< 5
Spreckels ES	San Diego Unified Property	6033 Stadium St	6033 Stadium St, San Diego, CA 92122	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	5/1/2017	5/2/2017	Dan Sowersby	5/17/2017	5/18/2017			5/18/2017	5/26/2017	< 5
Standley MS	San Diego Unified Property	6298 Radcliffe Dr	6298 Radcliffe Dr	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	5/2/2017	5/15/2017	Alejandra Molloy	5/17/2017	5/18/2017	No		5/18/2017	5/26/2017	< 5
Sunset View ES	San Diego Unified Property	4365 Hill St	4365 Hill St	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	5/13/2017	5/16/2017	Brian Knerr	5/23/2017	5/24/2017			5/24/2017	6/7/2017	< 5
Toler ES	San Diego Unified Property	3350 Baker St	3350 Baker St, San Diego, CA, 92117	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	5/4/2017	5/15/2017	Josh Rambo	5/18/2017	5/19/2017	No		5/19/2017	6/7/2017	< 5
Torrey Pines ES	San Diego Unified Property	8350 Cliffridge Ave	8350 Cliffridge Ave, San Diego CA 92037	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	5/1/2017	5/2/2017	Brian Knerr	5/18/2017	5/19/2017			5/19/2017	6/7/2017	< 5
University City HS	San Diego Unified Property	6949 Genesee Ave	6949 Genesee Ave, San Diego, CA 92122	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	5/5/2017	5/15/2017	Alejandra Molloy	5/18/2017	5/19/2017	No		5/19/2017	5/19/2017	5.38 - < 5
Whittier ES	San Diego Unified Property	4050 Appleton St	4050 Appleton St, San Diego, CA 92117	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	5/5/2017	5/15/2017	Dan Sowersby	5/18/2017	5/19/2017			5/19/2017	6/7/2017	< 5
Whitter Center	San Diego Unified Property	3401 Clairemont Dr	3401 Clairemont Dr, San Diego, CA 92117	Glenn Boogren	Manager; Safety, Training, Personnel, & Environmental	858-260-5487	Boogren Glenn <gboogren@sandi.net>	Y	X			4/27/2017	4/27/2017	4/27/2018		6/27/2018	4/28/2018	3/22/2017	5/8/2017	5/16/2017	Alejandra Molloy	5/23/2017	5/24/2017	No		5/24/2017	6/7/2017	5.19- < 5

CITY OF SAN DIEGO LEAD IN SCHOOLS PROGRAM

School	Mailing Adress	Meeting Date	Sampling Plan Received	Sampling Date	Results
Chulat Vista School District					
Los Altos Elementry	1332 Kenalan Dr, San Diego CA 92154	3/3/2017	4/11/2017	5/19/2017	
Del Mar Union School District					
Ashley Falls	13030 Ashley Falls Drive, San Diego, 92130	5/8/2017	5/16/2017		
Carmel Del Mar	12345 Carmel Park Drive, San Diego, 92130	5/8/2017	5/16/2017		
Del Mar Heights	13555 Boquita Drive, San Diego, CA 92014	5/8/2017	5/16/2017		
Del Mar Hills Academy	14085 Mango Drive, San Diego, CA 92014	5/8/2017	5/16/2017		
Ocean Air Elementary	11444 Canter Heights Dr., San Diego, CA 92130	5/8/2017	5/16/2017		
Sage Canyon	5290 Harvest Run Drive, San Diego, CA 92130	5/8/2017	5/16/2017		
Sycamore Ridge	5333 Old Carmel Valley Rd, San Diego, CA 92130	5/8/2017	5/16/2017		
Torrey Hills	10830 Calle Mar De Mariposa, San Diego, CA 92130	5/8/2017	5/16/2017		
Institue for Effective Education					
Children's Workshop	4055 Camino Del Rio South, San Diego, CA 92108				
COOK Education Center	2255 Camino Del Rio South, San Diego, CA 92108				
Urban Skills Center	2225 Camino Del Rio South, San Diego, CA 92108				
Point Loma High Tech High Schools					
High Tech High	2861 Womble Road, San Diego, CA 92106	4/10/2017	4/10/2017	4/4-4/5/2017	<5
High Tech Middle	2359 Truxtun Rd, San Diego, CA 92106	4/10/2017	4/10/2017	4/4-4/5/2017	<5
High Tech High International	2855 Farragut Rd, San Diego, CA 92106	4/10/2017	4/10/2017	4/4-4/5/2017	<5
High Tech High Elementary	2150 Cushing Rd., San Diego, CA 92106	4/10/2017	4/10/2017	4/4-4/5/2017	<5
High Tech High Elementary Explorer	2230 Truxton Rd(1st Floor), San Diego, CA 92106	4/10/2017	4/10/2017	4/4-4/5/2017	<5
High Tech High Middle Media Arts	2230 Truxton Rd(2nd Floor)1 #2, San Diego, CA 92106	4/10/2017	4/10/2017	4/4-4/5/2017	<5
High Tech Hight Media Arts	2230 Truxton Rd(3rd Floor), San Diego, CA 92106	4/10/2017	4/10/2017	4/4-4/5/2017	<5
High Tech High Media Arts (Satellite)	2291 Truxton, San Diego, CA 92106	4/10/2017	4/10/2017	4/4-4/5/2017	<5
Private and Charter Schools Academies					
Epiphany Prep Charter School	6134 Benson Ave, San Diego, CA 92114				
Evangeline Roberts Institue of Learning	6785 Imperial Ave, San Diego, CA 92114				
Excelsior Academy	7202 Princess View Drive, San Diego, CA 92120	5/8/2017			
KIPP Adelante Preparatory Academy	1475 Six Avenue, San Diego, CA 92101	4/17/2017	4/17/2017		
La Petite Ecole	3219 Clairemont Mesa Blvd, San Diego, CA 92117	5/15/2017	5/15/2017	5/26/2017	
Magnolia Science Academy	6365 Lake Atline Avenue, San Diego, CA 92119				
Museum School	211 Maple St, San Diego, CA 92103				
Our Lady of the Sacred Heart School	4106 42nd Street, San Diego, CA 92105	5/8/2017			
Stella Maris Academy	7654 Herschel Ave, La Jolla, CA 92037	5/8/2017	5/11/2017	5/26/2017	
The Cambridge School	12855 Black Moutain Road, San Diego, CA 92129	5/8/2017	5/10/2017	5/26/2017	
The Child's Primary School	3811 Mt. Acadia Blvd. San Diego, CA 92111				
Urban Discovery Academy	840 14th Street, San Diego, CA 92101	4/17/2017	4/17/2017	5/5/2017	<5
San Dieguito Union High Sch Dist					
Carmel Valley Middle School	3800 Mykonos Lane, San Diego, CA 92130				
Canyon Crest Academy	5951 Village Center Rd., San Diego, CA 92130				
Pacific Trails Middel School	5975 Village Center Rd., San Diego, CA 92130				
Torrey Pines High School	3710 Del Mar Heights Rd, San Diego, CA 92130				
South Bay Union School					
Geroge Nicoloff Elementary School	1777 Howard Ave. San Ysidro, CA 92173-1235	4/17/2017	4/25/2017	5/9/2017	< 5
Sweet Water Union Schools					
Imperial Beach Adult School	170 Palm Avenue, Imperial Beach, CA 91932	5/8/2017			
Mar Vista Academy	1267 Thermal Avenue, San Diego, CA 92154	5/1/2017			
Mar Vista High School	505 Elm Avenue, Imperial Beach, CA 91932	5/15/2017			
Montgomery Adult School	3240 Palm Avenue, San Diego, CA 92154	5/1/2017			
Montgomery High School	3250 Palm Avenue, San Diego, CA 92154	5/1/2017			
Montgomery Middle School	1051 Picado Blvd, San Diego, CA 92154	5/1/2017	5/2/2017		
San Ysidro Adult Education Center	4220 Otay Mesa Rd. San Ysidro, CA 92173	5/15/2017			
San Ysidro High School	5353 Airway Rd. San Diego, CA 92154-4806	5/15/5017			
Southwest High School	1685 Hollister Street, San Diego, CA. 92154	5/8/2017	5/24/2017		
Southwest Middle School	2710 Iris Avenue, San Diego, CA 92154	5/8/2017	5/15/2017		

Sampling Training Acknowledgement

By signing the below, I acknowledge that I received training on sampling drinking for the California Division of Drinking Water Lead in Schools Program.

Trainer: Tom Burger

Name EMTS	Signature	Date	Area of Residency in San Diego
Jason Edwards	J. N	3/29/17	N. County
Nita Torres	Nita Torres	3/29/17	Santee
Amy A. Schmitz	Amy A. Schmitz	032917	Crest / El Cajon
Irma Bollo	[illegible]	3/29/17	Chula Vista ISB
Ann Genz-Sandoval	[illegible]	59558	Chula Vista
Michael Yarman	[illegible]	3/29/17	San Diego / La mesa
JERRY WESTON	[illegible]	03.29.17	CENTRAL / I'LL GO ANYWHERE
Walt Mulderig	[illegible]	3/29/17	Anywhere
Dan Sowersby	D. Sowersby	3/29/17	Mira Mesa
Ciara Payan	[illegible]	3/29/17	Pacific Beach, La Jolla, Ocean Beach
Keith Ruebsweir	[illegible]	3/29/17	La Mesa
FRANCISCO MEZA	[illegible]	3/29/17	Lakeside
Doug Campbell	[illegible]	3/29/17	El Cajon

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Name EMTS	Signature	Date	Area of Residency in San Diego
Joshua Rambo		3/29/17	San Carlos
Erik Alvarenga		3/29/17	Pacific Beach
David Mayo		3/29/17	SDSU Area
Melissa Blando		3/29/17	North County
[illegible]		3/29/17	EAST COUNTY
EDISON COMIPA		3/29/17	South
Gloria Siqueiros		3/29/17	South Bay
Alejandra Molloy		3/29/17	North County
MARE HALL		3/29/17	Pretty much anywhere
Mores Melchio		3/29/17	East County
LORENDA PEÑA		3/29/17	SOUTH BAY
Brian Rnerr		3/29/17	Pacific Beach
Jessica Mathews		3/29/17	Lemon Grove, CA
Eric Gwynn		3/29/17	Pacific Beach

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Trainer: Tom Burger

Name	Signature	Date	Area of Residency in San Diego
EPM DIVISION			
Lindsey Frick		3/30/17	Scripps Ranch 92131
Matthew Wedding		3/30/2017	Murrieta 92563
FERYAL MOSHAVEGH		3/30/17	North County 92131
Teresa DiPrima		3/30/17	El Cajon 92021
My Lee Huynh		3/30/17	AS / Rancho Bernardo 92127
Tino Bolanco		3-30-17	- South Bay San Ysidro
STEPHANIE PANG		3/30/17	Solana Beach 92014
Christina Paddack		3/30/17	El Cajon 92020
DANNY MANGLICMOT		3.30.17	CHULA VISTA 91910
Summer Adleberg		3/30/17	EL CERRITO 92115

Sampling Training Acknowledgement

By signing the below, I acknowledge that I received training on sampling drinking for the California Division of Drinking Water Lead in Schools Program.

Trainer: Tom Burger

Name EPM Division	Signature	Date	Area of Residency in San Diego
Dirk Smith		3/30/17	Linda Vista
Guillermo Hoffman		3/30/17	South Bay
DANILO PAREJA		3/30/17	South Bay
Tiffany Lavan		3/30/17	Imperial Beach
Michael Voss		3/30/17	Mission Valley
Jesse Sun		3/30/17	Rancho Penasquitos
Jenny Seto		3/30/17	Mira Mesa
CARLOS BRAVO		3/30/17	SOUTH SD

Sampling Training Acknowledgement

By signing the below, I acknowledge that I received training on sampling drinking for the California Division of Drinking Water Lead in Schools Program.

Trainer: Tom Burger

Name	Signature	Date	Area of Residency in San Diego
EPM DIVISION			
Lindsey Frick		3/30/17	Scripps Ranch 92131
Matthew Wedding		3/30/2017	Murrieta 92563
FERYAL MOSHAVEGH		3/30/17	North County 92131
Teresa DiPrima		3/30/17	El Cajon 92021
My Lee Huynh		3/30/17	AS / Rancho Bernardo 92127
Tino Polanco		3-30-17	- South Bay San Ysidro
STEPHANIE PANG		3/30/17	Solana Beach 92014
Christina Paddack		3/30/17	El Cajon 92020
DANNY MANGLICMOT		3.30.17	CHULA VISTA 91910
Summer Adleberg		3/30/17	EL CERRITO 92115

Sampling Training Acknowledgement

By signing the below, I acknowledge that I received training on sampling drinking for the California Division of Drinking Water Lead in Schools Program.

Trainer: Tom Burger

Name EPM Division	Signature	Date	Area of Residency in San Diego
Dirk Smith		3/30/17	Linda Vista
Guillermo Hoffman		3/30/17	South Bay
DANILO PAREJA		3/30/17	South Bay
Tiffany Lavan		3/30/17	Imperial Beach
Michael Voss		3/30/17	Mission Valley
Jesse Sun		3/30/17	Rancho Penasquitos
Jenny Seto		3/30/17	Mira Mesa
CARLOS BRAVO		3/30/17	SOUTH SD

Sample Plan Training Acknowledgement

By signing the below, I acknowledge that I received training on how to create a sample plan for the California Division of Drinking water Lead in Schools Program.

Trainer: Tom Burger

Name	Signature	Date
DANIEL LOPEZ		03/22/17
Glenn Boogren		03/22/17
KEVIN JONES		3/22/17
BRUCE STACY		3/22/17
ELIZABETH LARA		3/22/17
Ginette Commins		03/22/17
SERGIO SALINAS		03/22/17
John Baker		3/22/17

Sample Plan Training Acknowledgement

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Trainer: Tom Burger

Name	Signature	Date
JOE KILLKEAD		3/22/2017
JOHN HENSLEY		3/22/17
STEVEN DITTO		3/22/17
JIM CUNNINGHAM		3/22/17
Timothy Brown		3/22/17
JOHN C. WARREN		3/22/17
CESAR JIMENEZ		3/22/17
Tom Wright		3/22/17

Sample Plan Training Acknowledgement

By signing the below, I acknowledge that I received training on how to create a sample plan for the California Division of Drinking water Lead in Schools Program from City of San Diego, Public Utilities Department, Water Quality Laboratory Section.

Trainer: Tom Burger, Associate Chemist

Name	Signature	Date
PAUL W. DOOLEY	Paul W Dooley	4/10/17

The City *of*
SAN DIEGO
Public Utilities Department

Sample Plan Training Acknowledgement

By signing the below, I acknowledge that I received training on how to create a sample plan for the California Division of Drinking water Lead in Schools Program from City of San Diego, Public Utilities Department, Water Quality Laboratory Section.

Trainer: Tom Burger, Associate Chemist

Name	Signature	Date
Don Visnick South Bay unified	Don Visnick	4/12/17
FRANCISCO FRANCO South Bay Unified		4/12/17.
Robert Tamenbaum KIPP San Diego		4/12/17
Tony Romano Urban Discovery Academy		4/12/17

Sample Plan Training Acknowledgement

By signing the below, I acknowledge that I received training on how to create a sample plan for the California Division of Drinking water Lead in Schools Program from City of San Diego, Public Utilities Department, Water Quality Laboratory Section.

Trainer: Tom Burger, Associate Chemist Training For Sweetwater Union High School District

Name	Signature	Date
James Shoults	James Shoults	5-1-17
Adolfo Del-Torre	[illegible]	5/1/17
Mario Apodaca	[illegible]	5/1/17
Juan Neria	[illegible]	5/1/17

Sample Plan Training Acknowledgement

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Trainer: Tom Burger, Associate Chemist

Name	Signature	Date
Julie Hollis (Stella Maris Academy)		05/08/17
MARK LUCERO (Sweet Water)		5/08/2017
Elvira Magana		5/08/17
Alfonso Magana (Our Lady of Sacred Heart)		5/8/17
Julie Weeks EMTS		5/8/17
CORINNA QUINATA EMTS		5.8.2017
Katie Wilson (Excelsior Academy)		5/8/17
Richard Ambuehl (Cambridge Charter)		5/8/17
Patrick LUM (Delmar US)		5-8-17
Mike Gahs (Delmar Union School)		5/8/17

Sample Plan Training Acknowledgement

By signing the below, I acknowledge that I received training on how to create a sample plan for the California Division of Drinking water Lead in Schools Program from City of San Diego, Public Utilities Department, Water Quality Laboratory Section.

Trainer: Tom Burger, Associate Chemist

Name	Signature	Date
JEAN-PIERRE Garcia	[illegible]	5/15/17
Mario Campos	[illegible]	5/15/17
Eileen Bigornia	[illegible]	5-15-17
Francisco Berrellera	[illegible]	5-15-17
Shelley Samaritoni	Shelley Samaritoni	5/15/17
Ruben Baeza	[illegible]	5/15/17

The City of
SAN DIEGO
Public Utilities Department

Sample Plan Training Acknowledgement

By signing the below, I acknowledge that I received training on how to create a sample plan for the California Division of Drinking water Lead in Schools Program from City of San Diego, Public Utilities Department, Water Quality Laboratory Section.

Trainer: Tom Burger, Associate Chemist

Name	Signature	Date
MARY COHEN	Mary D. Cohen	5/30/17

The City of
SAN DIEGO
Public Utilities Department

6/5/17
- The Child's Primary School
- San Dieguito School District

Sample Plan Training Acknowledgement

By signing the below, I acknowledge that I received training on how to create a sample plan for the California Division of Drinking water Lead in Schools Program from City of San Diego, Public Utilities Department, Water Quality Laboratory Section.

Trainer: Tom Burger, Associate Chemist

Name	Signature	Date
James Mitroff SDUSD		6/5/17
Marid Cairns The child's Primary school		6.5.17

Vroom, Peter

From: Kennedy, Wilson
Sent: Wednesday, April 05, 2017 9:42 AM
To: Vroom, Peter
Cc: Campbell, Doug; Murray, Beth; Eidson, Brent
Subject: PRA Request 17-802 Fry (Media - NBC)

Hello Peter,

Please see the PRA Request highlighted below and provide me with PUD's responsive records in **PDF format by 4.14.17**. Feel free to contact me with any questions or if this request should go to **different/additional** staff members. Thank you.

Request:
Please provide the sampling instructions and protocol for all lead water testing and water quality testing currently being conducted at San Diego Unified School District. Please provide the information as soon as you make a determination about whether the documents are public records rather than the standard 10-day response period. The CPRA states the 10-day period is not a waiting period for the public's access to public records, but rather only an opportunity for a public agency to make a determination about whether something is a public record or not. Once that determination is made, the CPRA states those records must be released immediately.

Requester:
Wendy Fry (Media - NBC)

Wilson Kennedy, CFE, MBA
Supervising Management Analyst
Public Utilities Department
(858) 614-4070

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Vroom, Peter

From: Kennedy, Wilson
Sent: Wednesday, April 05, 2017 1:32 PM
To: Vroom, Peter; Campbell, Doug
Cc: Eidson, Brent
Subject: RE: PRA Request 17-802 Fry (Media - NBC)

Wendy just updated her request. Please see the new **red** section below and let me know if we have anything to add to our current response.

Request:
Please provide the sampling instructions and protocol for all lead water testing and water quality testing currently being conducted at San Diego Unified School District. **Also include the testing schedule, i.e. which exact schools will be tested on which dates.** Please provide the information as soon as you make a determination about whether the documents are public records rather than the standard 10-day response period. The CPRA states the 10-day period is not a waiting period for the public's access to public records, but rather only an opportunity for a public agency to make a determination about whether something is a public record or not. Once that determination is made, the CPRA states those records must be released immediately.

From: Vroom, Peter
Sent: Wednesday, April 05, 2017 10:40 AM
To: Kennedy, Wilson <WKennedy@sandiego.gov>; Campbell, Doug <DCampbell@sandiego.gov>
Cc: Eidson, Brent <BEidson@sandiego.gov>
Subject: Re: PRA Request 17-802 Fry (Media - NBC)

Yes. I'm okay with your suggested response.

Sent from my Sprint Samsung Galaxy S7.

-------- Original message --------
From: "Kennedy, Wilson" <WKennedy@sandiego.gov>
Date: 4/5/17 10:31 AM (GMT-08:00)
To: "Campbell, Doug" <DCampbell@sandiego.gov>, "Vroom, Peter" <PVroom@sandiego.gov>
Cc: "Eidson, Brent" <BEidson@sandiego.gov>
Subject: RE: PRA Request 17-802 Fry (Media - NBC)

Are you OK with this wording for our response?

The State's approved sampling protocol followed by PUD at all schools being sampled can be found at the link below. This link contains several documents related to sampling instructions and protocol.

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

---

From: Campbell, Doug
Sent: Wednesday, April 05, 2017 10:18 AM
To: Kennedy, Wilson <WKennedy@sandiego.gov>; Vroom, Peter <PVroom@sandiego.gov>

Vroom, Peter

From: Kennedy, Wilson
Sent: Monday, April 10, 2017 3:20 PM
To: Vroom, Peter
Cc: Eidson, Brent; Murray, Beth
Subject: PRA Request 17-853 Fry (Media - NBC)

Hello Peter,

Please see the PRA Request highlighted below and provide me with PUD's responsive records in **PDF format by 4.17.17**. Feel free to contact me with any questions. Thank you.

BTW…I wasn't sure if it was OK to copy Tom Burger on this, so I'm sending it directly to you and you can forward it to staff as you see fit. I tried to call you, but you are away from your desk so I left you a vmail. Anyway, since the "clock is ticking", I figured I'd rather be safe than sorry. Please let me know if we need help from the Department of IT to gather these emails.

Request:
Emails between Tom Burger with the City of San Diego and Glenn Boogren with San Diego Unified School District on March 29.

Requester:
Wendy Fry (Media – NBC)

Wilson Kennedy, CFE, MBA
Supervising Management Analyst
Public Utilities Department
(858) 614-4070

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Vroom, Peter

From: Kennedy, Wilson
Sent: Wednesday, April 12, 2017 9:49 AM
To: Vroom, Peter
Cc: Eidson, Brent; Murray, Beth
Subject: PRA Request 17-877 Burks (Media - KPBS)

Hello,

Please see the PRA Request highlighted below and provide me with PUD's responsive records in **PDF format by 4.20.17**. Feel free to contact me with any questions or if this request should go to **different/additional** staff members. Thank you.

Request:
I ask to obtain copies of the following, which I understand to be held by your agency:

1. Spreadsheet provided to the Public Utilities Department by San Diego Unified School District between Jan. 26, 2017 and the present listing schools, their type, and age.
2. Lead test results for the following schools: Los Altos Elementary, Nicoloff Elementary, Darnall Charter School, and Excelsior Academy.
3. Any reports provided to the City from San Diego Unified or Forensic Analytical Consulting Services, Inc., between Jan. 26, 2017 and the present that detail vomiting and/or other illness at Emerson Elementary School and/or San Diego Cooperative Charter School.

Requester:
Megan Burks with KPBS

Wilson Kennedy, CFE, MBA
Supervising Management Analyst
Public Utilities Department
(858) 614-4070

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Vroom, Peter

From: Kennedy, Wilson
Sent: Thursday, April 13, 2017 12:11 PM
To: Vroom, Peter
Cc: Eidson, Brent; Murray, Beth; Burger, Tom
Subject: PRA Request 17-911 Fry (Media - NBC)

Hello Peter,

Please see the PRA Request highlighted below and provide me with PUD's responsive records in **PDF format by 4.20.17**. Feel free to contact me with any questions or if this request should go to **different/additional** staff members. Thank you.

Request:
In a 10:52 a.m., March 29th email to Glenn Boogren at the San Diego Unified School District, Tom Burger writes: "He's (Doug Campbell is) going to dig up the one he hand delivered to you (Glenn Boogren) previously."

Could we please have any calendar appointments or any documentation (mileage reports??) that show what date the "hand delivering" of the test results to SDUSD occurred?

I don't want anyone to have to go through all calendar files or communications for that week or month for Doug Campbell, John Baker, and Tom Burger, but we're certainly willing to, if that is a more convenient way to provide the records on your end. I am just trying to be as specific as possible in the request, while keeping in mind that it could be a document doesn't exist that would answer my question. Let me know if I can clarify anything or help expedite the process in any way: 619-206-0464. – Wendy Fry

Requester:
Wendy Fry (Media – NBC)

Feel free to contact me with any questions. Thank you.

Wilson Kennedy III, CFE, MBA
Supervising Management Analyst
Public Utilities Department
(858) 614-4070

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Vroom, Peter

From: Kennedy, Wilson
Sent: Tuesday, April 18, 2017 7:05 AM
To: Vroom, Peter; Burger, Tom; Campbell, Doug
Cc: Eidson, Brent; Murray, Beth
Subject: PRA Request 17-939 Fry (Media - NBC)

Hello Peter, Tom, and Doug,

Please see the PRA Request highlighted below and provide me with PUD's responsive records in **PDF format by 4.27.17**. Feel free to contact me with any questions or if this request should go to **different/additional** staff members. Thank you.

Request:
Calendar appointments for Tom Burger and Doug Campbell for all of January, February, and March.

Requester:
Wendy Fry (Media – NBC)

Wilson Kennedy III, CFE, MBA
Supervising Management Analyst
Public Utilities Department
(858) 614-4070

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Public Utilities

Update on Lead Sampling of Drinking Water in San Diego Schools

Environment Committee

May 25, 2017

The City of SAN DIEGO

Lead Testing in Schools

CALIFORNIA
Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

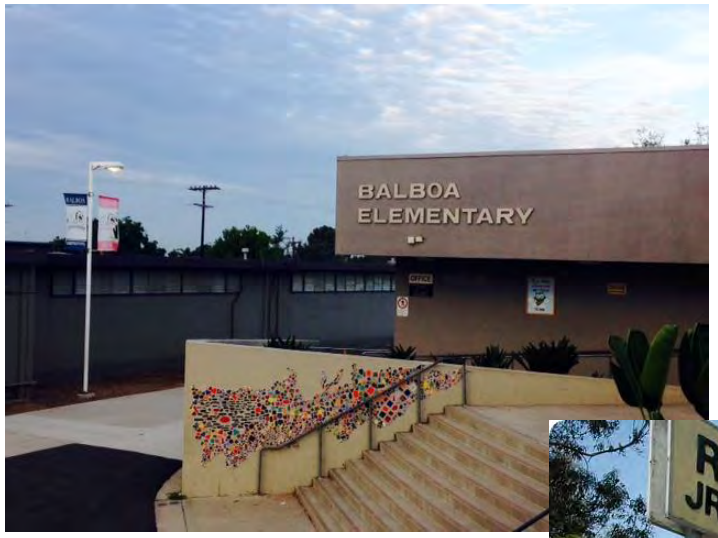

State Water Board amended water distributors' permits requiring public water systems must test for lead "free of charge" in schools that send an official written request.

Lead Testing in Schools

- City serves water to approximately 400 K-12 schools.
- ~200 schools are part of the San Diego Unified School District (SDUSD).

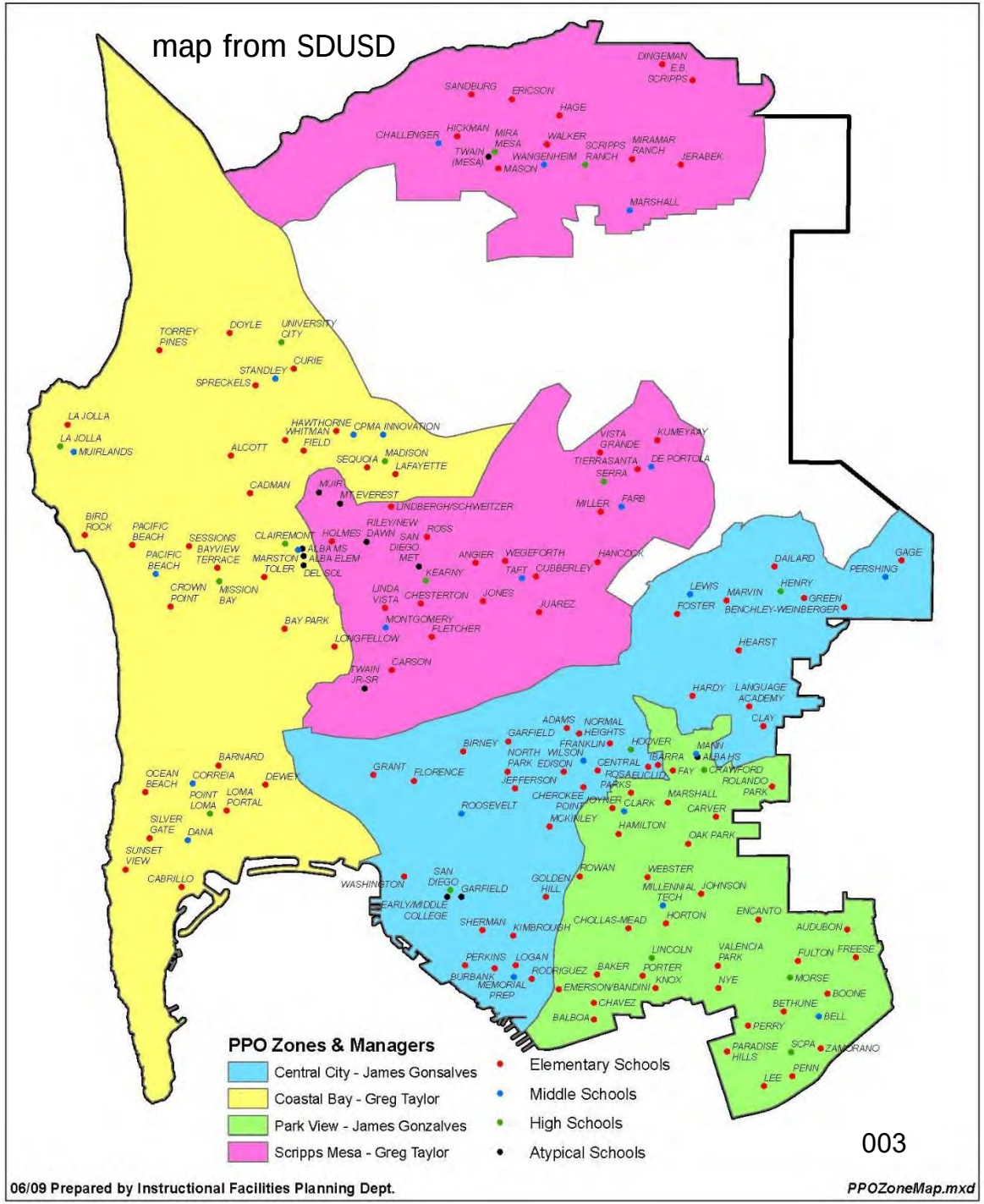

Lead Testing in Schools

Requests for lead testing at schools received by PUD

Total number of schools that have requested sampling = 250

- *200 SDUSD schools*
- *50 non-SDUSD schools including :*
  - Private schools
  - Charter schools not on SDUSD campuses
  - Chula Vista School District
  - Del Mar Union SD
  - Point Loma HTH
  - Sweetwater Union Schools
  - South Bay Union
  - San Dieguito Union HSD

Lead Testing in Schools

Map from California Water Boards

Lead Sampling in California Schools

(as of May 5, 2017)

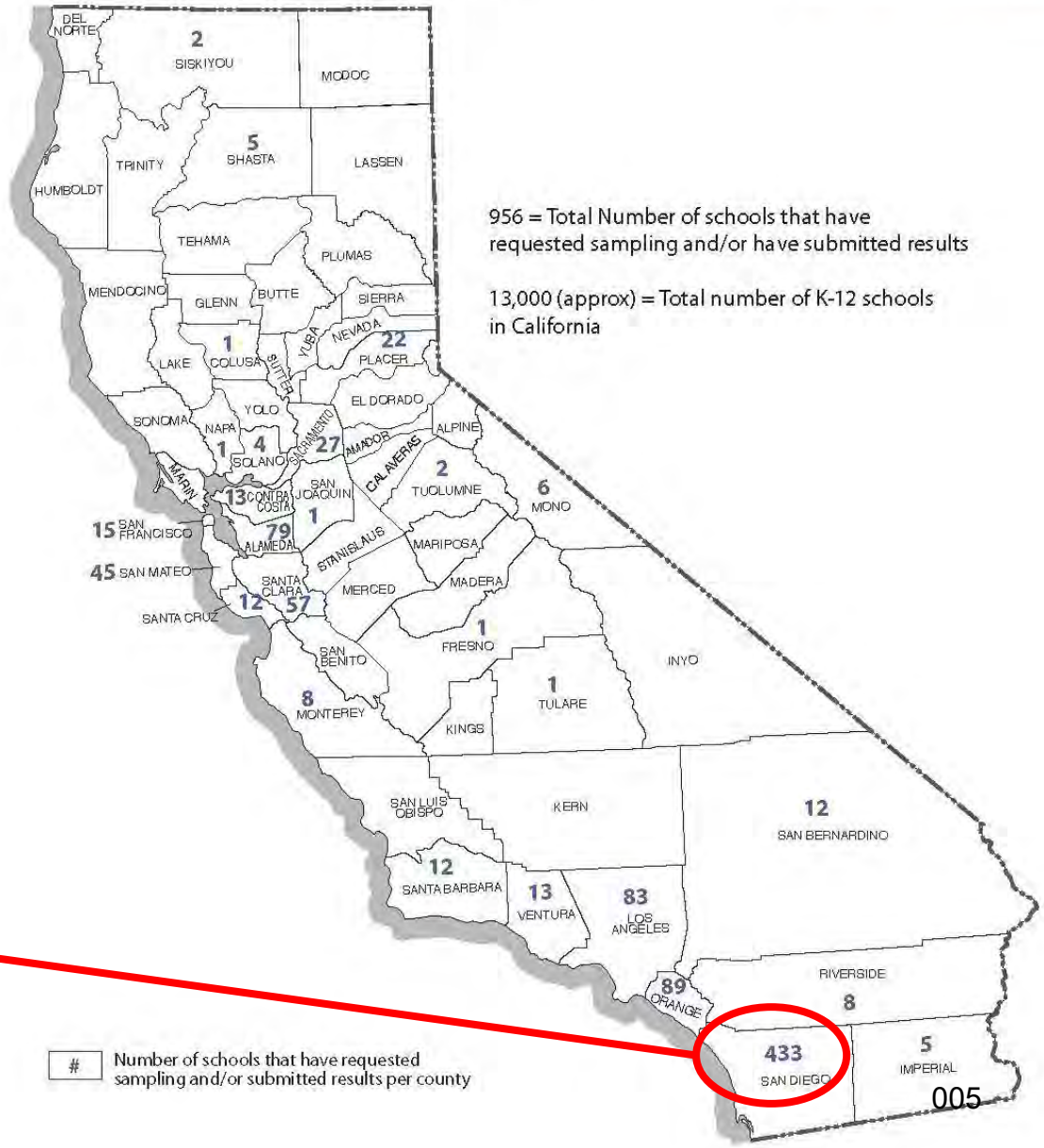

Requests for lead testing in San Diego schools far exceeds any other county in the State.

433

as of May 5, 2017

Lead Testing in Schools

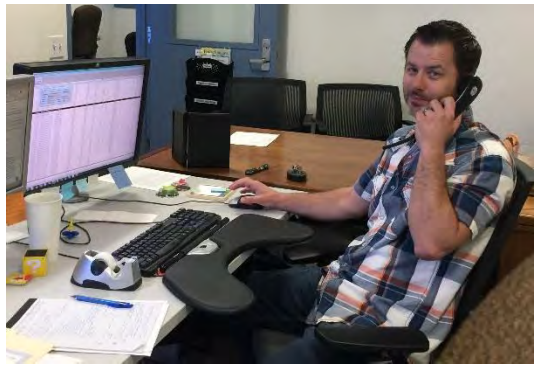

Senior Chemist Doug Campbell manages the lab where lead analyses are conducted.

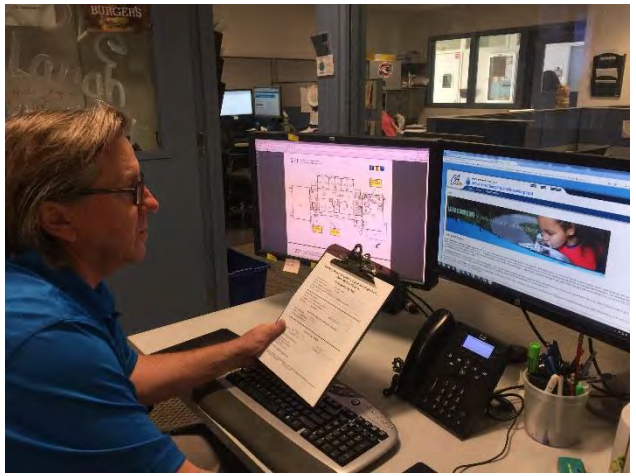

Associate Chemist Tom Burger reviews school sampling plans.

Test kits are organized by our team of samplers, including Alejandra Molloy.

Samples are collected Tuesday – Saturday.

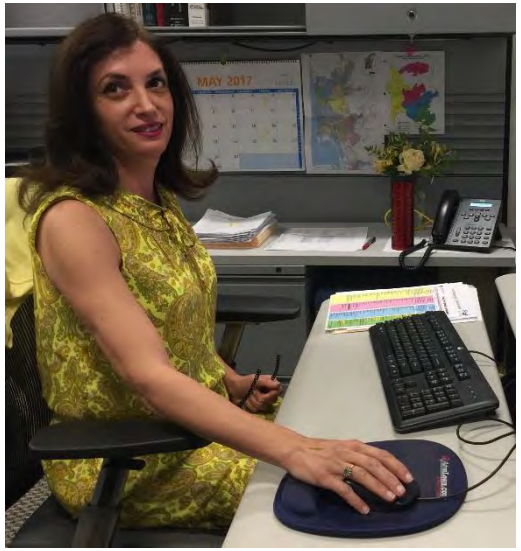

Associate Civil Engineer Feryal Moshavegh serves as Project Manager for lead testing in schools.

Assistant Chemist Galina Hristova analyzes *all* lead samples for schools.

Results as of May 24:

- 202 schools sampled
- 164 results received
- 161 schools below action level
- 3 schools with lead concentrations above 15 ppb
  - Emerson ES
  - SD COOP #2
  - Birney ES

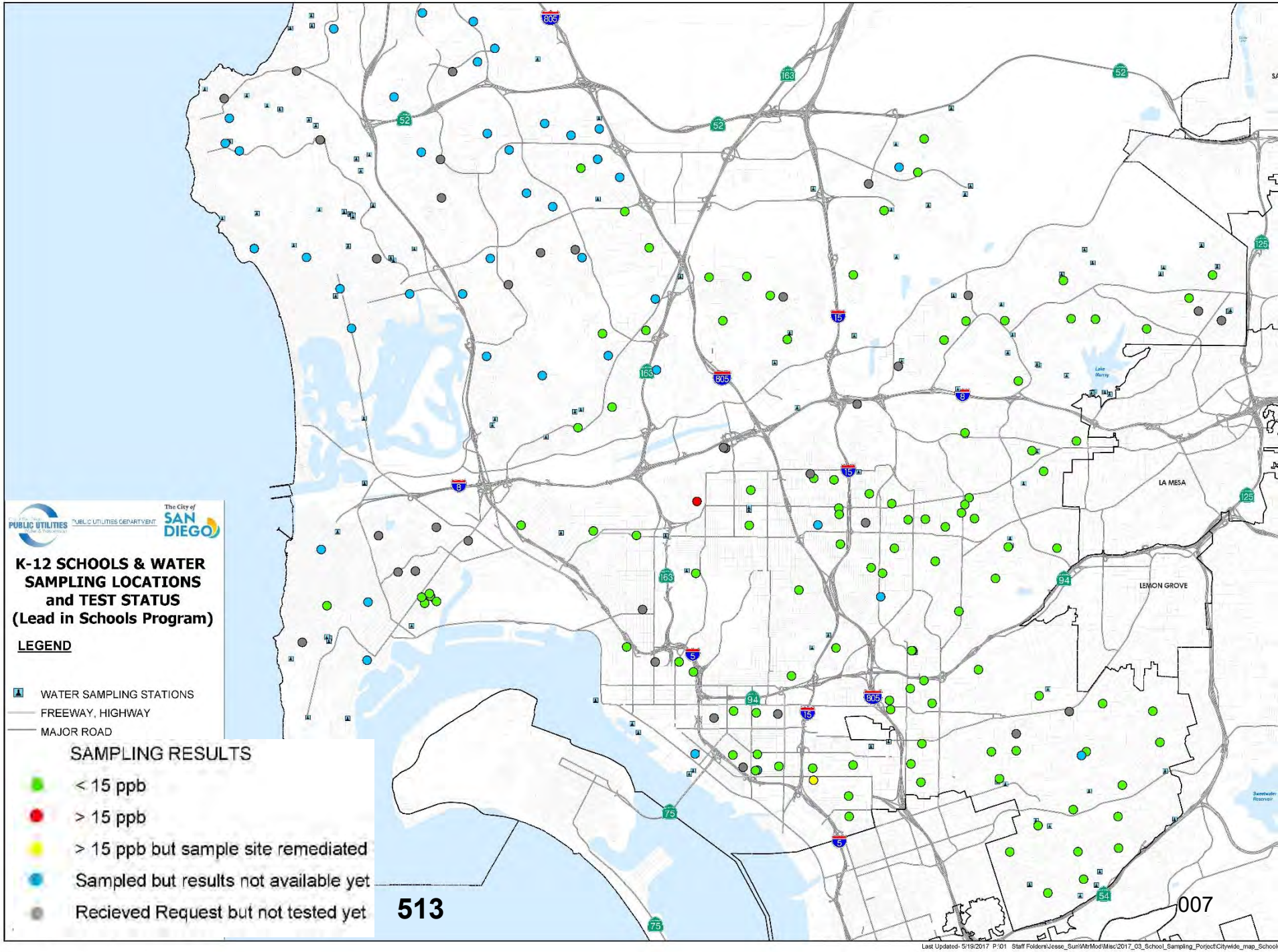

Questions

Peter Vroom, Ph.D.
Deputy Director,
Environmental Monitoring and
Technical Services Division,
Public Utilities Department

Doug Campbell
Senior Chemist,
Environmental Monitoring and
Technical Services Division,
Public Utilities Department

Public Utilities

The status of School Lead Testing in the City of San Diego

Environment Committee

July 20, 2017

The City of SAN DIEGO

Lead Testing in Schools

Requests for lead testing at schools received by PUD

Total number of schools that have requested sampling = 236

- 198 SDUSD schools
- 38 non-SDUSD schools including :

- Del Mar Union School District (8 schools)
- San Dieguito Union High School District (4 schools)
- South Bay Union Elementary School District (1 school)
- Sweetwater Union High School District (10 schools)
- Chula Vista School District (1 school)
- Private/Charter Schools (6 schools)
- Point Loma High Tech High (8 schools)

Lead Testing in Schools

Map from California Water Boards

Lead Sampling in California Schools

(as of June 22, 2017)

CALIFORNIA Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

Requests for lead testing in San Diego schools far exceeds any other county in the State.

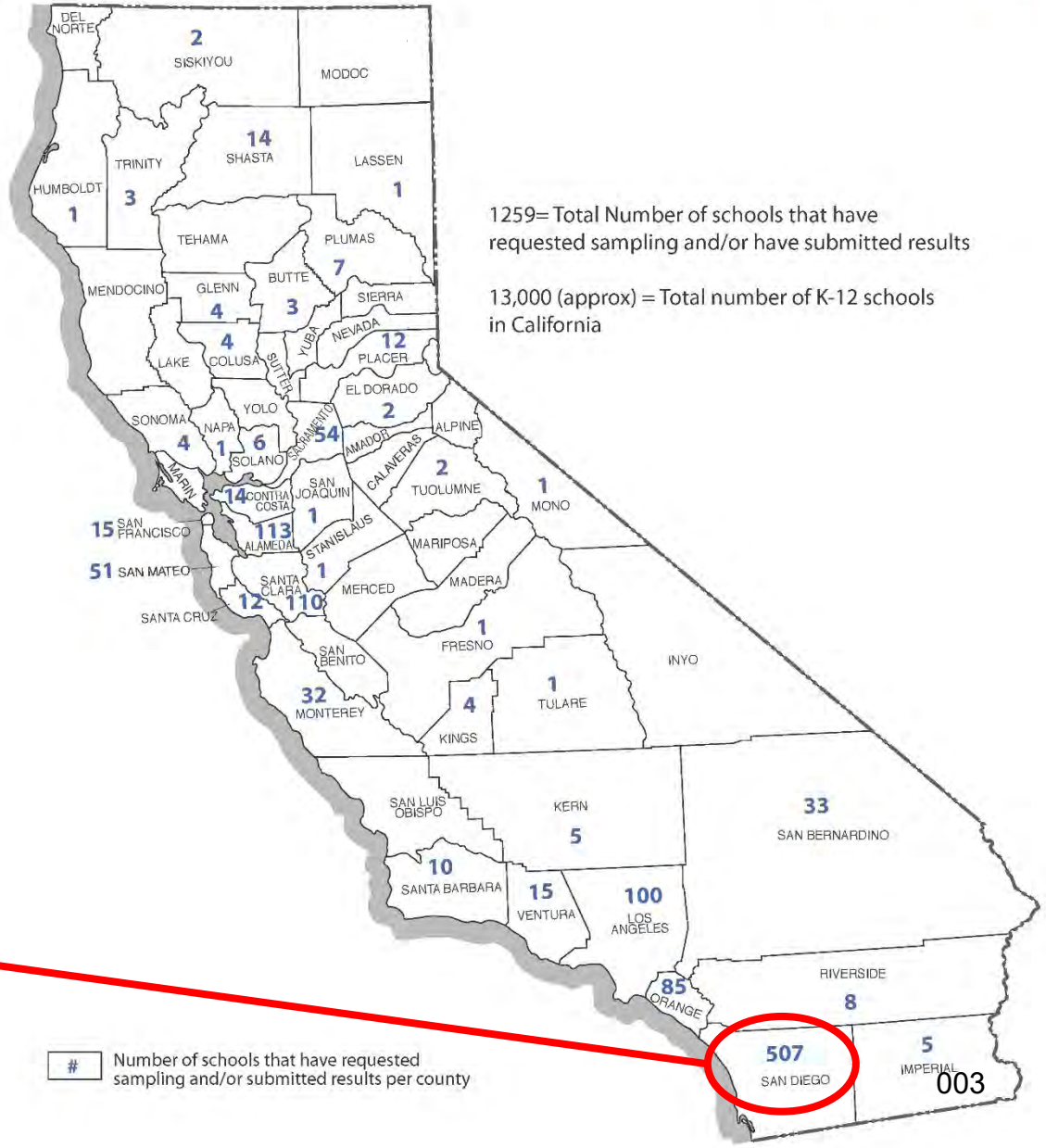

507

as of June 22, 2017

Results as of July 19:

- 1115 samples taken from 229 schools
- 1110 samples from 225 schools below action level
- 5 samples from 4 schools above action level
  - Emerson Elementary
  - San Diego Coop #2
  - Birney Elementary
  - La Petit Ecole - French English Learning Academy
- 1 school remaining with lead concentrations at one location above 15 ppb
  - La Petit Ecole - French English Learning Academy

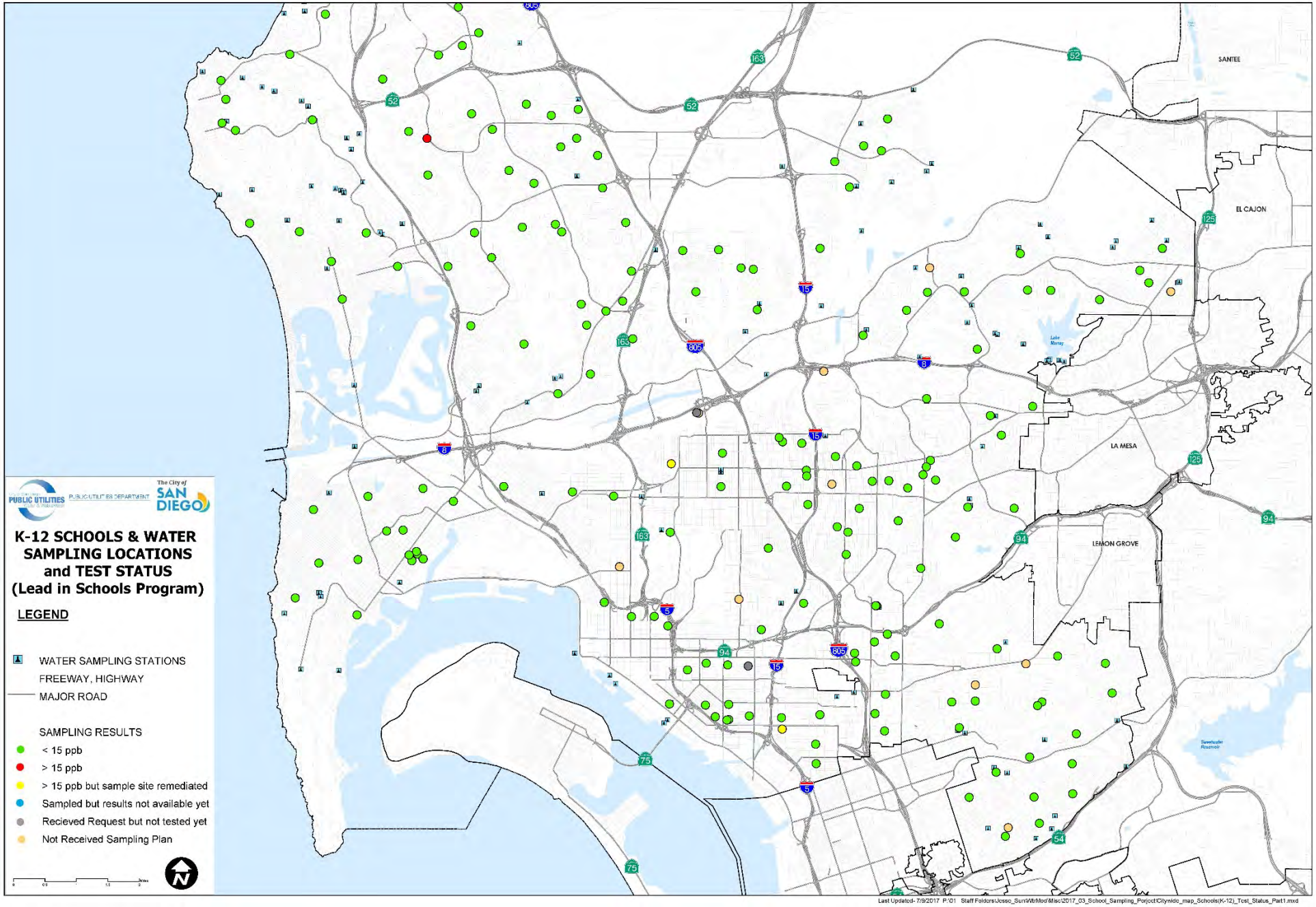

Exhibit 29

San Ysidro School District

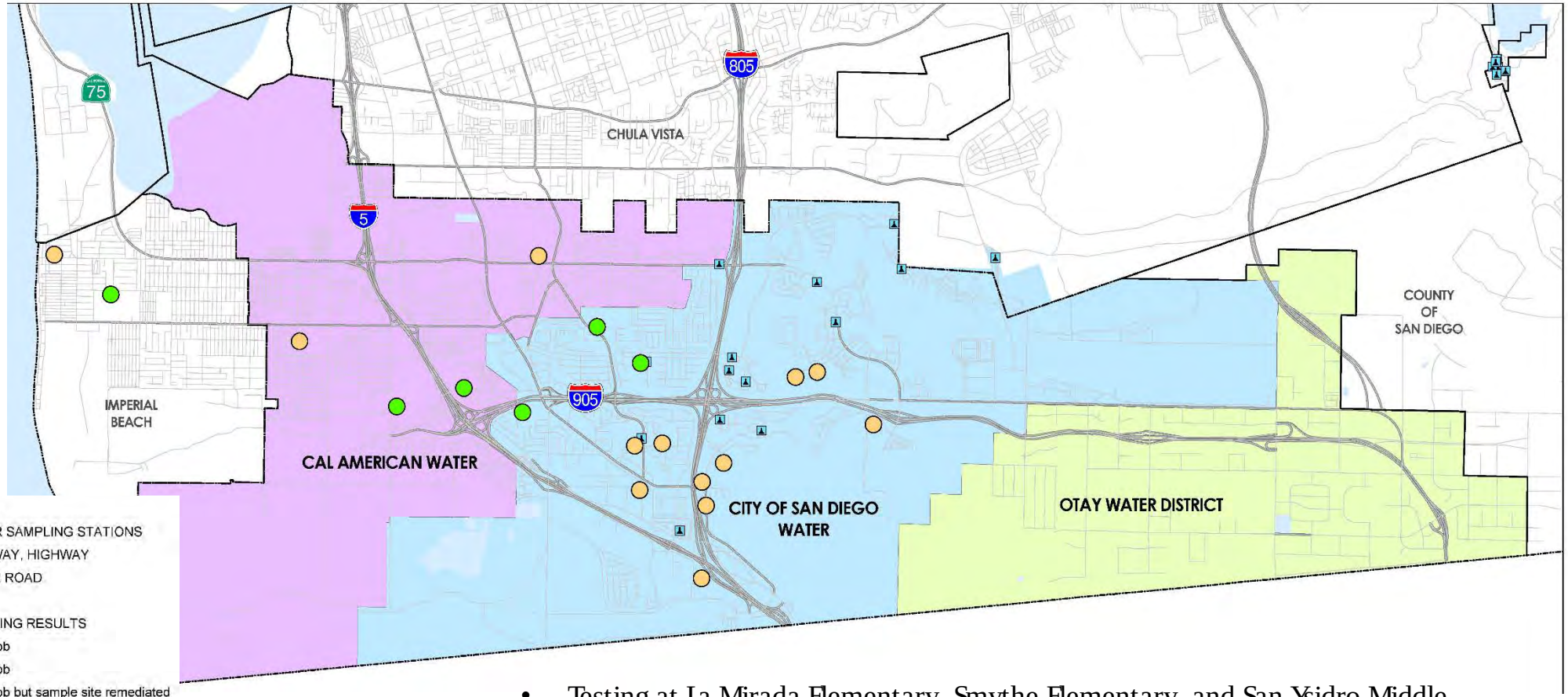

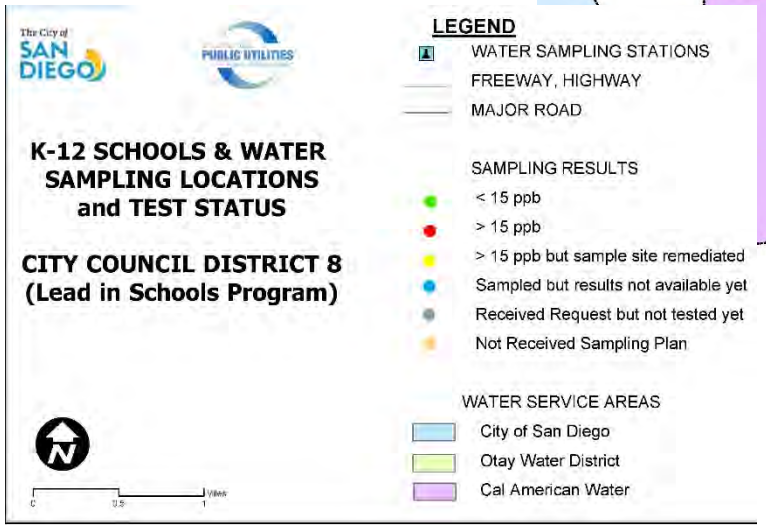

- Testing at La Mirada Elementary, Smythe Elementary, and San Ysidro Middle School occurred using a private lab. Four other schools remain to be tested.
- Lead concentrations above the 15 ppb action level were detected at La Mirada (now fixed) and San Ysidro Middle. Renovations at San Ysidro Middle are occurring over the summer.

Analyses and Staff time costs

- Total cost for FY17 = $480,877
- Actual staff time hours and costs (including planning, sampling, and reporting) to date:
  - *2378.65 staff hours*
  - *$422,916.02 cost*
- Cost of lab analyses to date = $53,408.50 ($47.90/ analysis * 1115 sites)
- Estimated total cost by November 2019 = **$905,090**

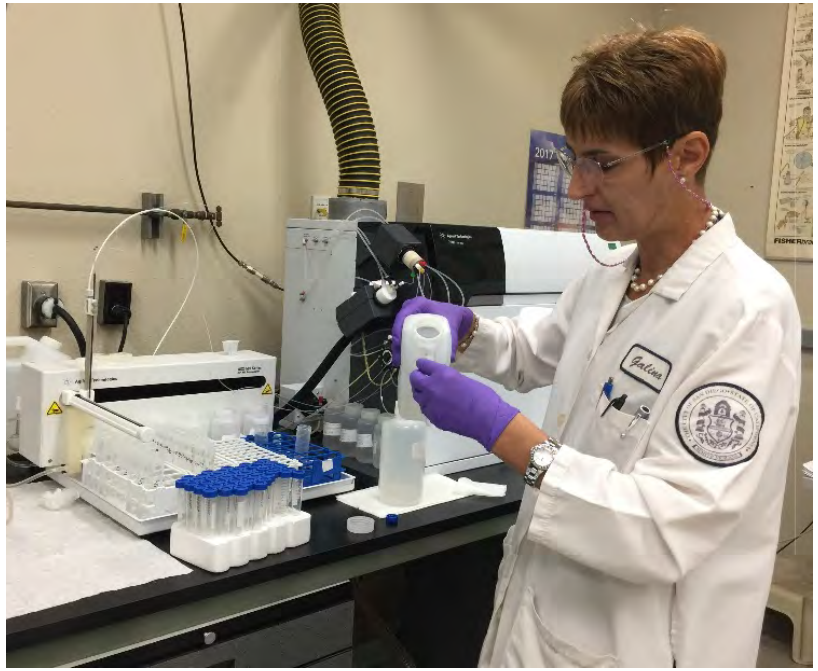

State reimbursement

- City of San Diego Attorney's Office preparing relevant documentation to submit a test claim to the Commission on State Mandates.
- The Commission will then hear and make a determination on whether the claim for reimbursement is valid.
- If successful, the Commission's staff will prepare a statewide cost estimate in a report to the Legislature for inclusion in the annual budget bill, thus funding the program.

Projection for FY18-20

- Schools have until November 2019 to request lead testing.
- San Diego Public Utilities estimates there are ~140 schools located in our service area that have not yet requested testing.

Questions

Peter Vroom, Ph.D.
Deputy Director,
Environmental Monitoring and
Technical Services Division,
Public Utilities Department

Doug Campbell
Senior Chemist,
Environmental Monitoring and
Technical Services Division,
Public Utilities Department

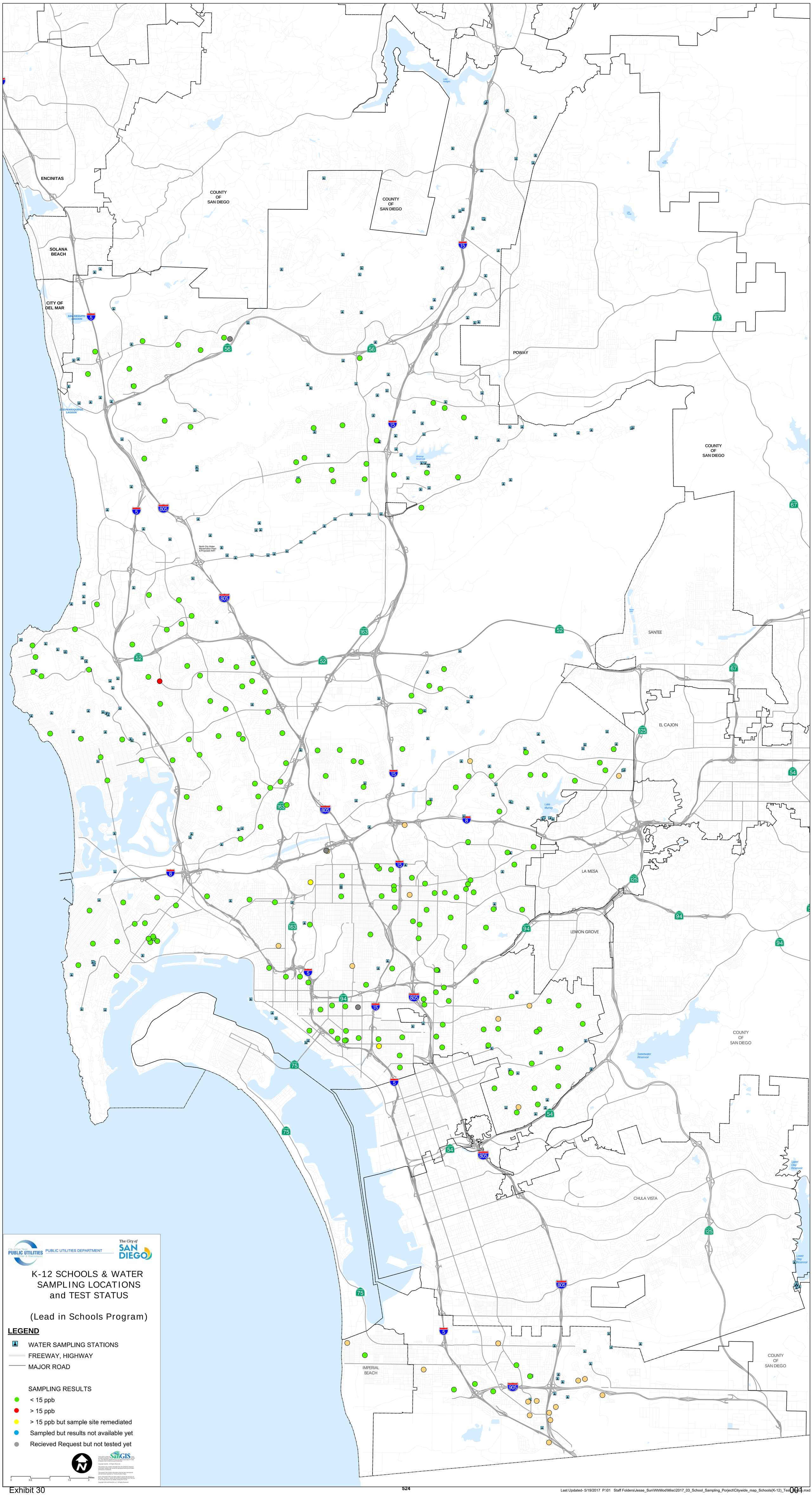
ENCINITAS
SOLANA BEACH
CITY OF DEL MAR
COUNTY OF SAN DIEGO
POWAY
SANTEE
EL CAJON
LA MESA
LEMON GROVE
CHULA VISTA
IMPERIAL BEACH
Lake Hodges
Lake Ramona
Lake Poway
Miramar Reservoir
Lake Murray
Sweetwater Reservoir
Upper Otay Reservoir
Lower Otay Reservoir
SAN DIEGUITO LAGOON
LOS PENASQUITOS LAGOON
North City Water Reclamation Plant & Proposed AWT
PUBLIC UTILITIES DEPARTMENT
The City of SAN DIEGO
K-12 SCHOOLS & WATER SAMPLING LOCATIONS and TEST STATUS
(Lead in Schools Program)
LEGEND
WATER SAMPLING STATIONS
FREEWAY, HIGHWAY
MAJOR ROAD
SAMPLING RESULTS
< 15 ppb
> 15 ppb
> 15 ppb but sample site remediated
Sampled but results not available yet
Recieved Request but not tested yet
Miles

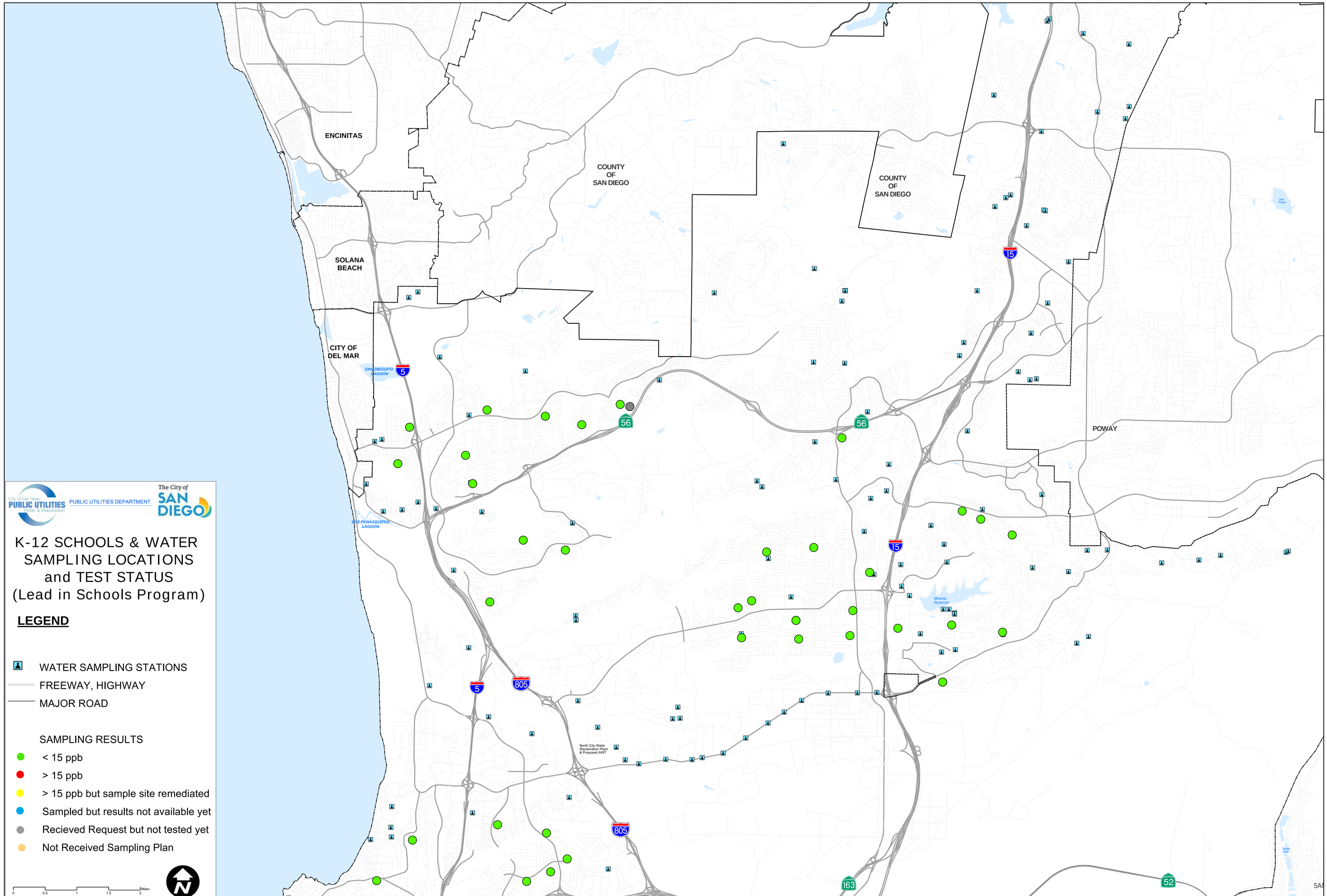
City of San Diego
PUBLIC UTILITIES
Water & Wastewater
PUBLIC UTILITIES DEPARTMENT
The City of
SAN DIEGO
K-12 SCHOOLS & WATER SAMPLING LOCATIONS and TEST STATUS (Lead in Schools Program)
LEGEND
WATER SAMPLING STATIONS
FREEWAY, HIGHWAY
MAJOR ROAD
SAMPLING RESULTS
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> 15 ppb but sample site remediated
Sampled but results not available yet
Recieved Request but not tested yet
Not Received Sampling Plan
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SOLANA BEACH
CITY OF DEL MAR
COUNTY OF SAN DIEGO
COUNTY OF SAN DIEGO
POWAY
SAN DIEGUITO LAGOON
LOS PENASQUITOS LAGOON
Miramar Reservoir
North City Water Reclamation Plant & Proposed AWT
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163
52

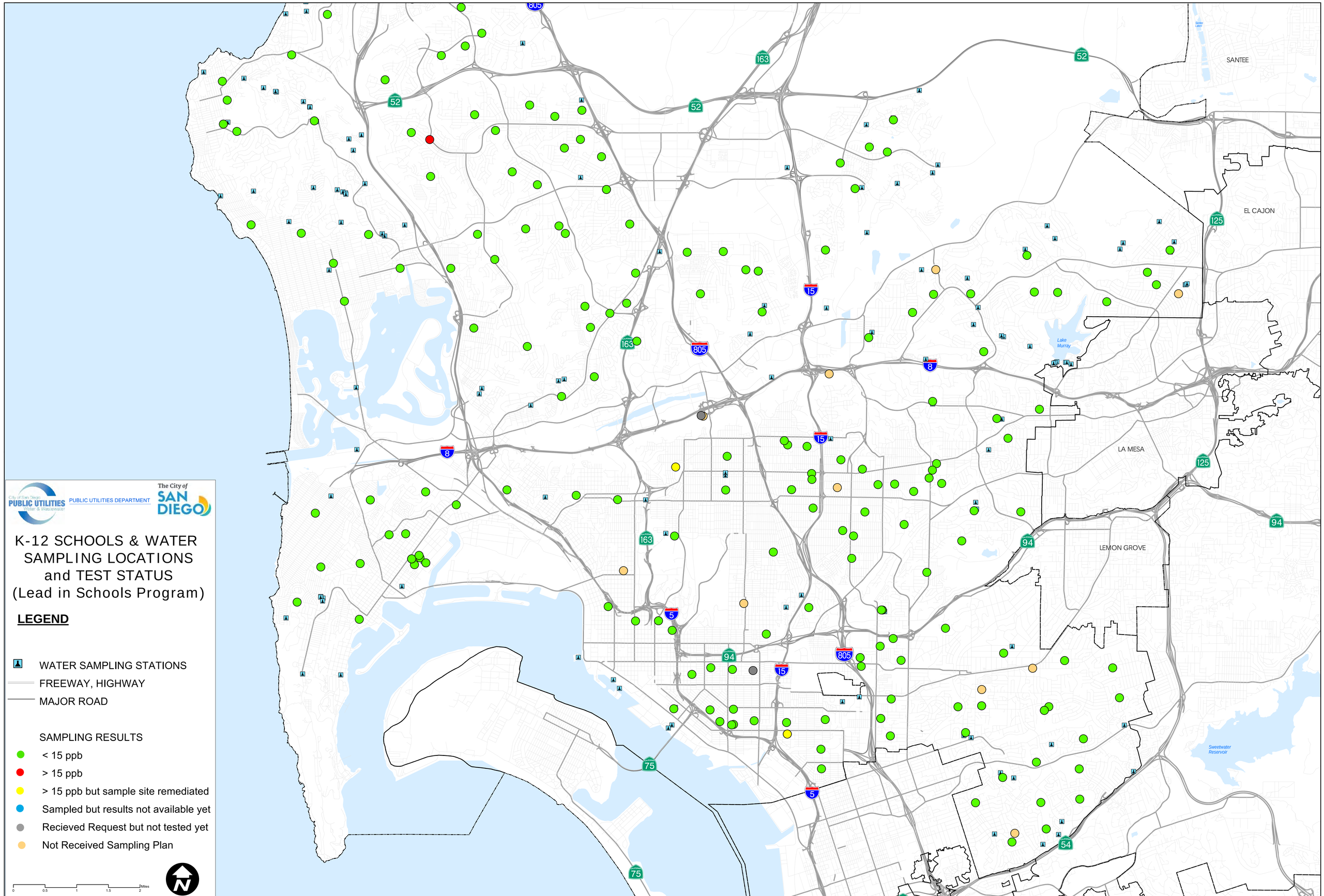
City of San Diego
PUBLIC UTILITIES
Water & Wastewater
PUBLIC UTILITIES DEPARTMENT
The City of
SAN DIEGO
K-12 SCHOOLS & WATER SAMPLING LOCATIONS and TEST STATUS (Lead in Schools Program)
LEGEND
WATER SAMPLING STATIONS
FREEWAY, HIGHWAY
MAJOR ROAD
SAMPLING RESULTS
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Sampled but results not available yet
Recieved Request but not tested yet
Not Received Sampling Plan
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SANTEE
EL CAJON
LA MESA
LEMON GROVE
Lake Murray
Sweetwater Reservoir
805
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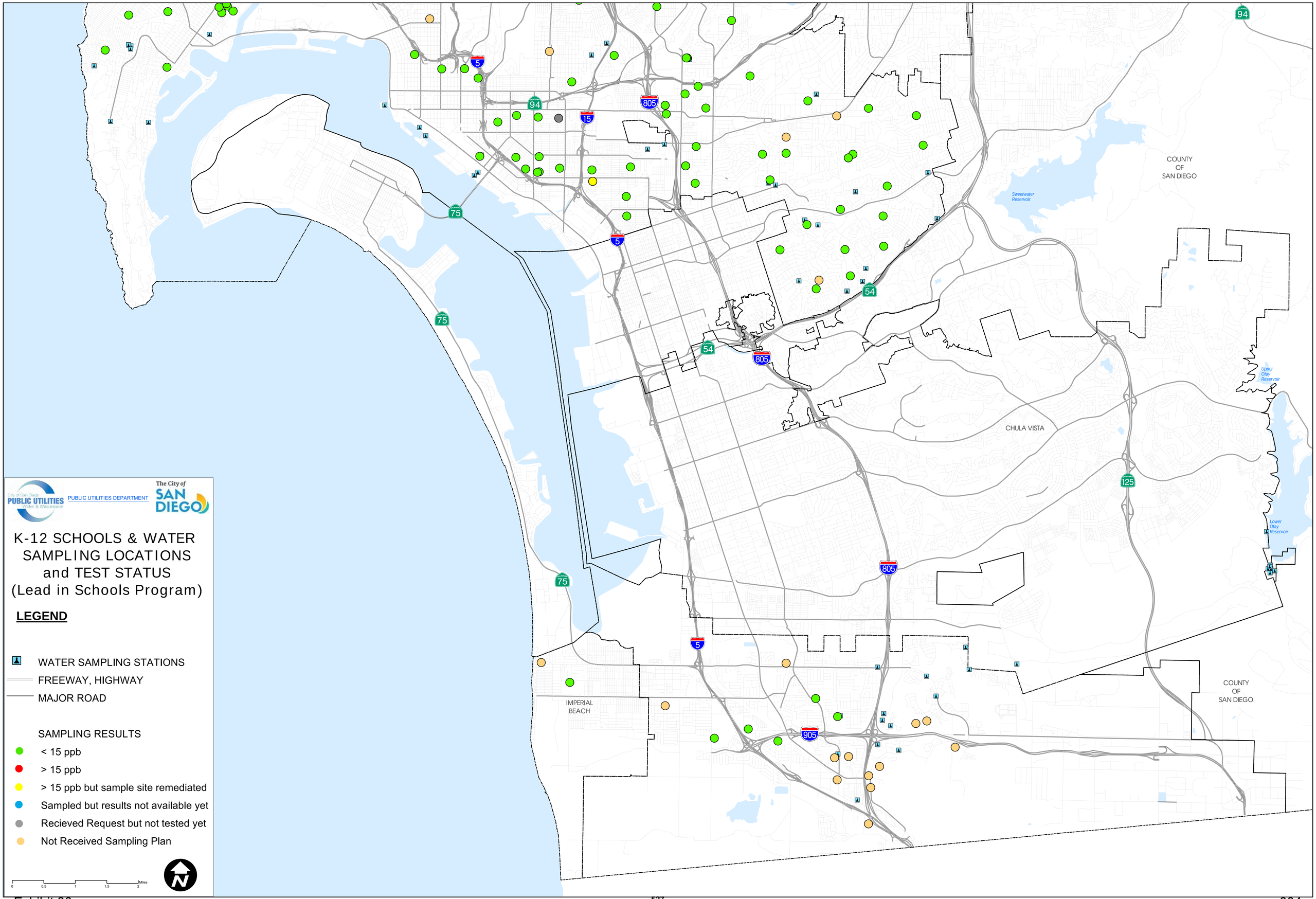
City of San Diego
PUBLIC UTILITIES
Water & Wastewater
PUBLIC UTILITIES DEPARTMENT
The City of
SAN DIEGO
K-12 SCHOOLS & WATER SAMPLING LOCATIONS and TEST STATUS (Lead in Schools Program)
LEGEND
WATER SAMPLING STATIONS
FREEWAY, HIGHWAY
MAJOR ROAD
SAMPLING RESULTS
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Sampled but results not available yet
Recieved Request but not tested yet
Not Received Sampling Plan
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Sweetwater Reservoir
Upper Otay Reservoir
Lower Otay Reservoir
CHULA VISTA
IMPERIAL BEACH
COUNTY OF SAN DIEGO
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125
905

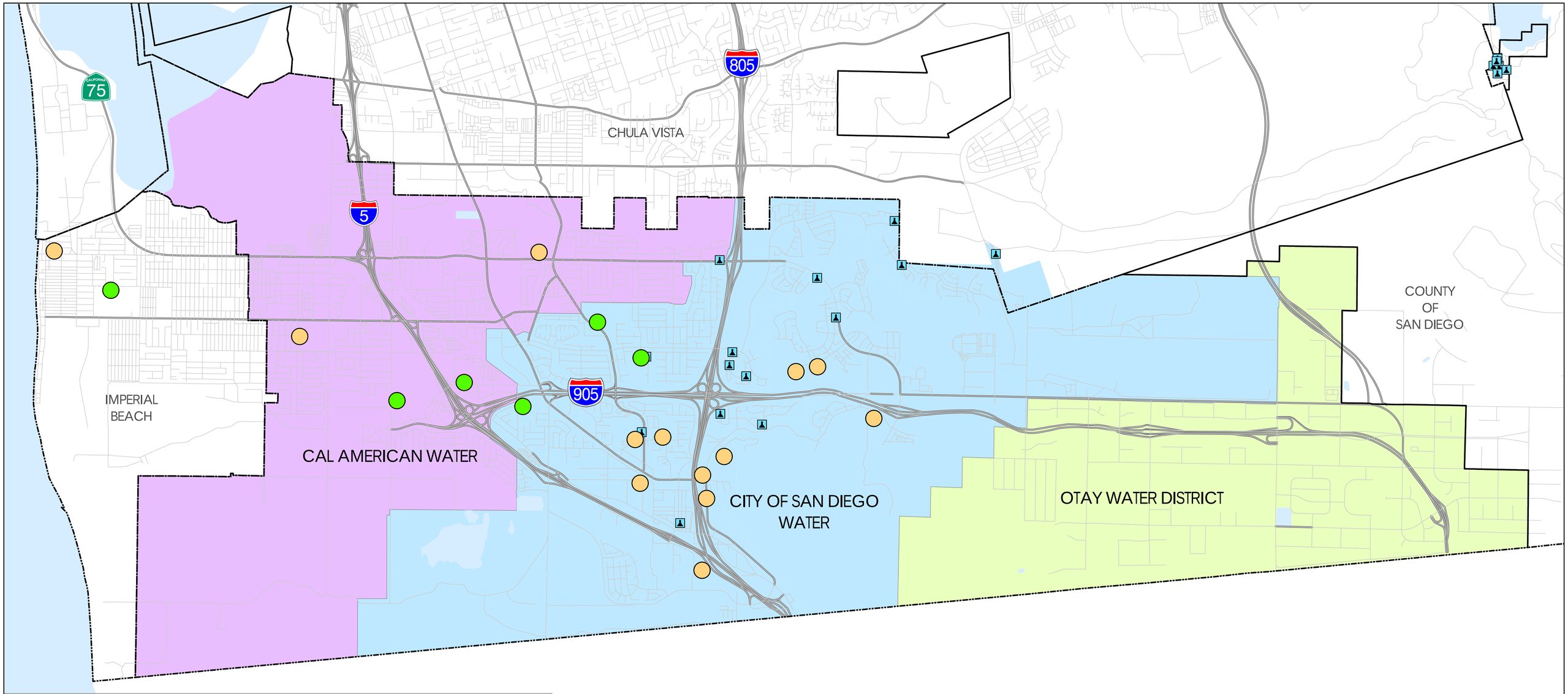

The City of SAN DIEGO

City of San Diego PUBLIC UTILITIES Water & Wastewater

K-12 SCHOOLS & WATER SAMPLING LOCATIONS and TEST STATUS

CITY COUNCIL DISTRICT 8 (Lead in Schools Program)

LEGEND

- WATER SAMPLING STATIONS
- FREEWAY, HIGHWAY
- MAJOR ROAD

SAMPLING RESULTS

- < 15 ppb
- > 15 ppb
- > 15 ppb but sample site remediated
- Sampled but results not available yet
- Received Request but not tested yet
- Not Received Sampling Plan

WATER SERVICE AREAS

- City of San Diego
- Otay Water District
- Cal American Water

0 0.5 1 Miles

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Adams Elementary

Physical Address of School: 4672 35th St, San Diego, CA 92116-3536

First Bell: 8:55 AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date:

Completed by Print Name: Ginette Commins

Signature: GCommins Date: 04/07/2017

School's Point of Contact for Sampling Assistance

Name: Ginette Commins

Phone: (858) 627-7201

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-14-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Adams Elementary, 4672 35th St., San Diego, CA 92116-3536

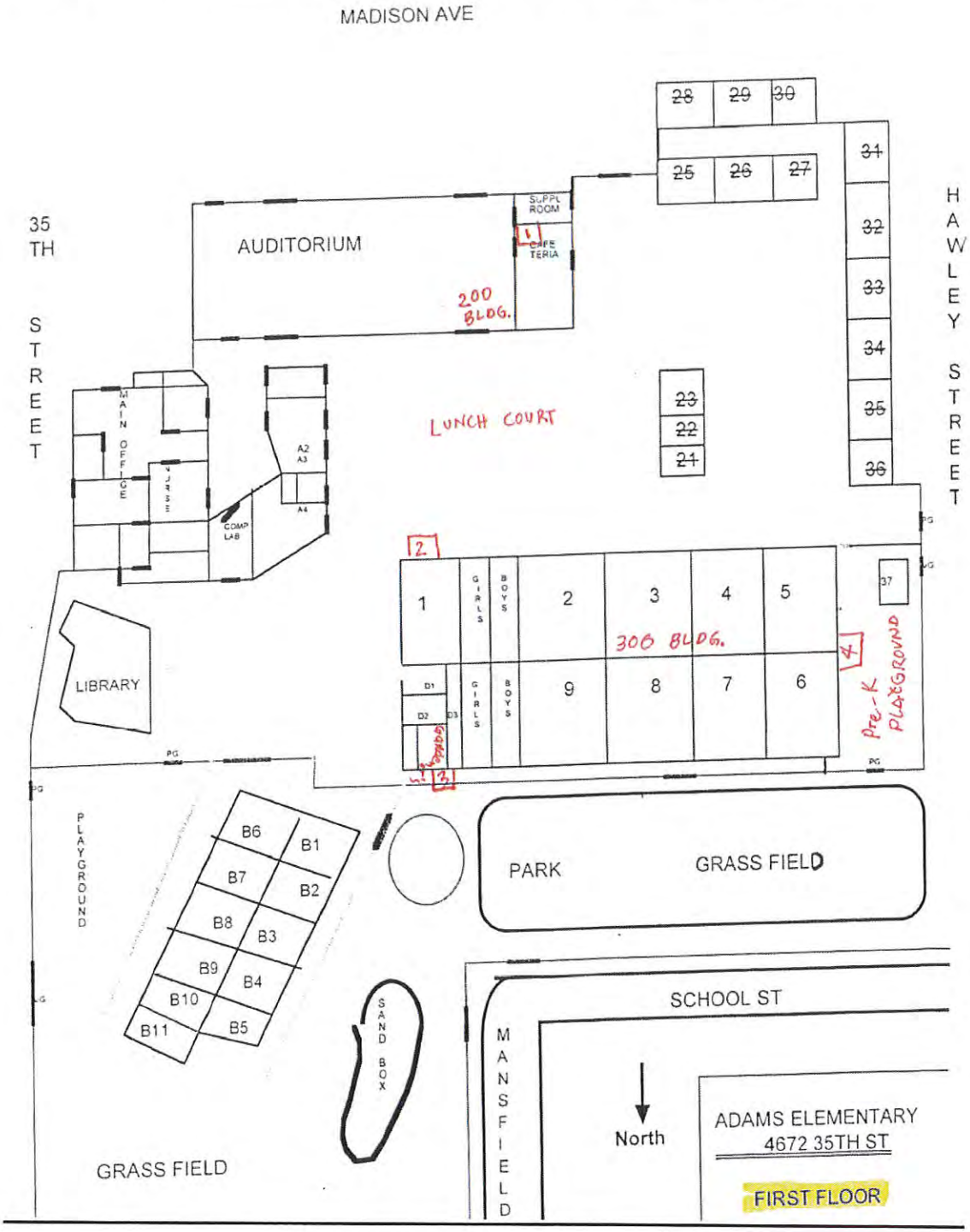

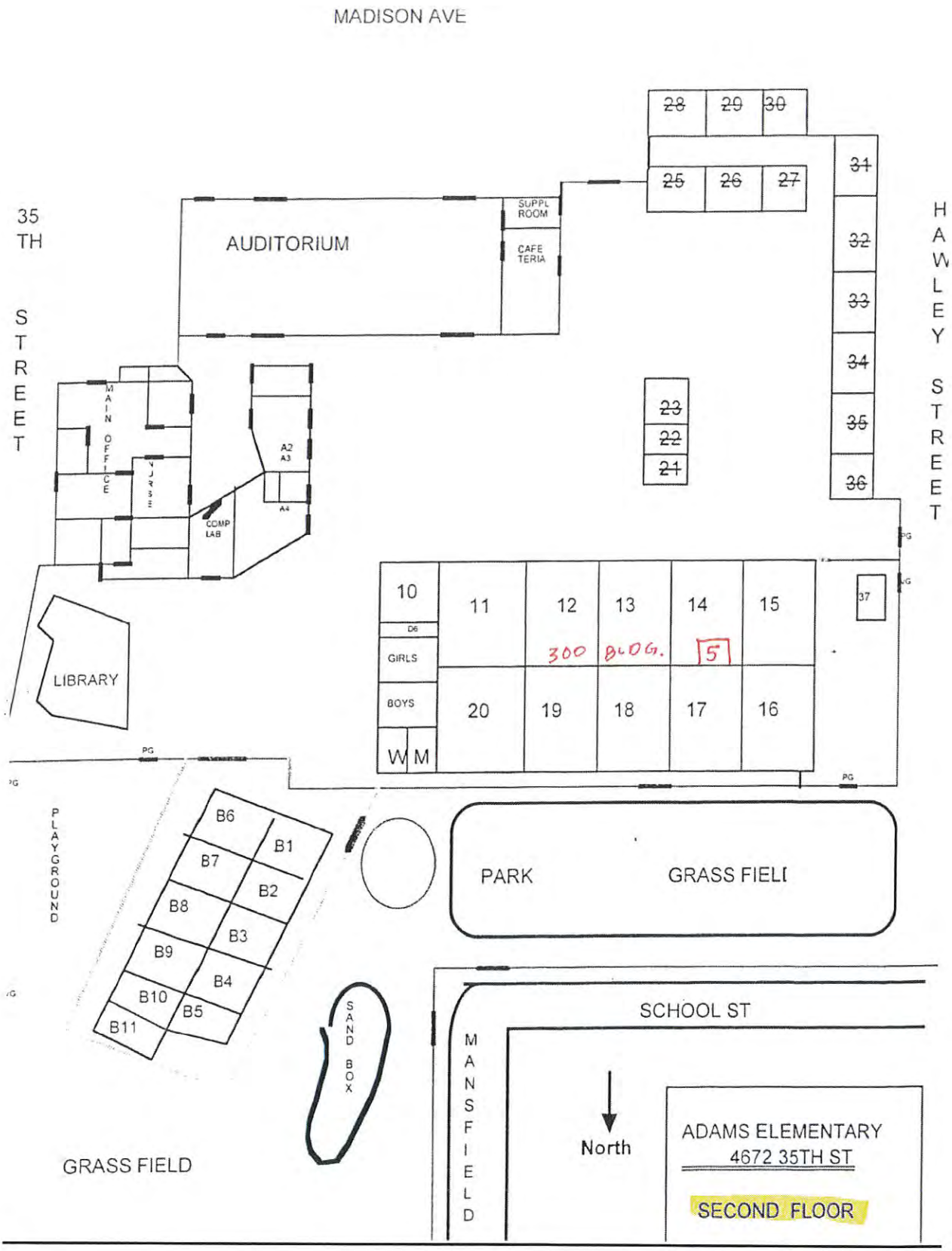
MADISON AVE
35 TH STREET
HAWLEY STREET
AUDITORIUM
SUPPL ROOM
CAFE TERIA
MAIN OFFICE
NURSE
COMP LAB
A2 A3
A4
LIBRARY
28 29 30
25 26 27
31 32 33 34 35 36
23 22 21
10 11 12 13 14 15 37
D6
GIRLS
BOYS
W M
20 19 18 17 16
300 BLDG. 5
PG
PLAYGROUND
B1 B2 B3 B4 B5 B6 B7 B8 B9 B10 B11
SAND BOX
PARK
GRASS FIELD
GRASS FIELD
SCHOOL ST
MANSFIELD
North
ADAMS ELEMENTARY
4672 35TH ST
SECOND FLOOR

Sample No. 1

School: Adams Elementary

Name of Building: 200

Location Description: Sink in the Prep Kitchen, near entrance door

Type of Outlet: kitchen faucet

Description: cold water faucet with color blue indicator

Comments/Miscellaneous: indoor water source for cooking/SDUSD Location Code #003

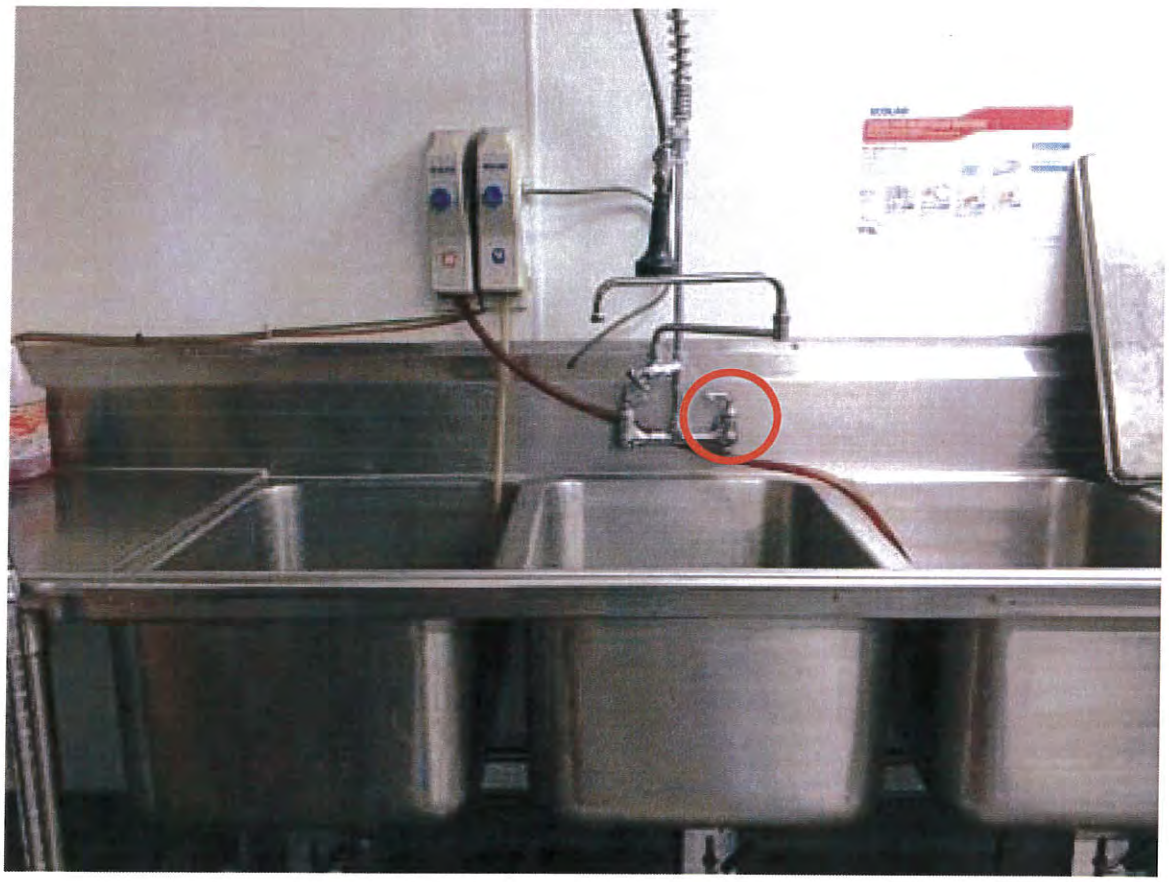

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166836

State Sample ID: 3710020-AFD-A

Date & Time Last Used: 1800 4/14/17

Date & Time Sample Collected: 0824 4/15/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 2

School: Adams Elementary

Name of Building: 300 Two-story

Location Description: Wall mounted exterior, 1st Floor (South of Bldg), next to Room 1/Science Lab, facing lunch court

Type of Outlet: bubbler

Description: lower/left bubbler on a dual fountain

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #003

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166837

State Sample ID: 3710020-AFD-B

Date & Time Last Used: 1800 4/14/17

Date & Time Sample Collected: 0827 4/15/17

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: David Mayo

Sample No. 3

School: Adams Elementary

Name of Building: 300 Two-story

Location Description: Wall mounted exterior, 1st Floor (North of Bldg), between Gardener's & D3 Rooms, facing park/grass field

Type of Outlet: bubbler

Description: left bubbler with lever handle

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #003

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166838

State Sample ID: 3710020-AFD-C

Date & Time Last Used: 1800 4/14/17

Date & Time Sample Collected: 0830 4/15/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 4

School: Adams Elementary

Name of Building: 300 Two-story

Location Description: Wall mounted exterior, 1st Floor (West of Bldg), between Kindergarten Rooms 6&5, facing Pre-K Playground & Room 37

Type of Outlet: bubbler

Description: left bubbler with turn handle

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #003

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166839

State Sample ID: 3710020-AFD-D

Date & Time Last Used: 1800 4/14/17

Date & Time Sample Collected: 0833 4/15/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 5

School: Adams Elementary

Name of Building: 300 Two-story

Location Description: Room 14, 2nd Floor, Classroom sink

Type of Outlet: bubbler

Description: bubbler with turn handle on a sink

Comments/Miscellaneous: indoor drinking water source/SDUSD Location Code #003

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166840

State Sample ID: 3710020-AFD-E

Date & Time Last Used: 1800 4/14/17

Date & Time Sample Collected: 0836 4/15/17

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

14-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1166836	Adams Elementary	15-APR-2017	0824	David Mayo	SAMPLE 1	
2	W1166837	Adams Elementary	15-APR-2017	0827		SAMPLE 2	
3	W1166838	Adams Elementary	15-APR-2017	0830		SAMPLE 3	
4	W1166839	Adams Elementary	15-APR-2017	0833		SAMPLE 4	
5	W1166840	Adams Elementary	15-APR-2017	0836		SAMPLE 5	

Chain of Custody:

Relinquished by: Name: David Mayo Sign: David Mayo	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 4/15/17 9:30 Location: AIV	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 4/17/17
LIMS Received Time: 0738
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Alba

Physical Address of School: 4041 Oregon St., San Diego, CA 92104

First Bell: 7:30AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/18/2017

Completed by Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 04/18/2017

School's Point of Contact for Sampling Assistance

Name: Daniel Lopez

Phone: 619-306-3383

Email: dlopez2@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-20-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Alba, 4041 Oregon St. San Diego, CA 92104

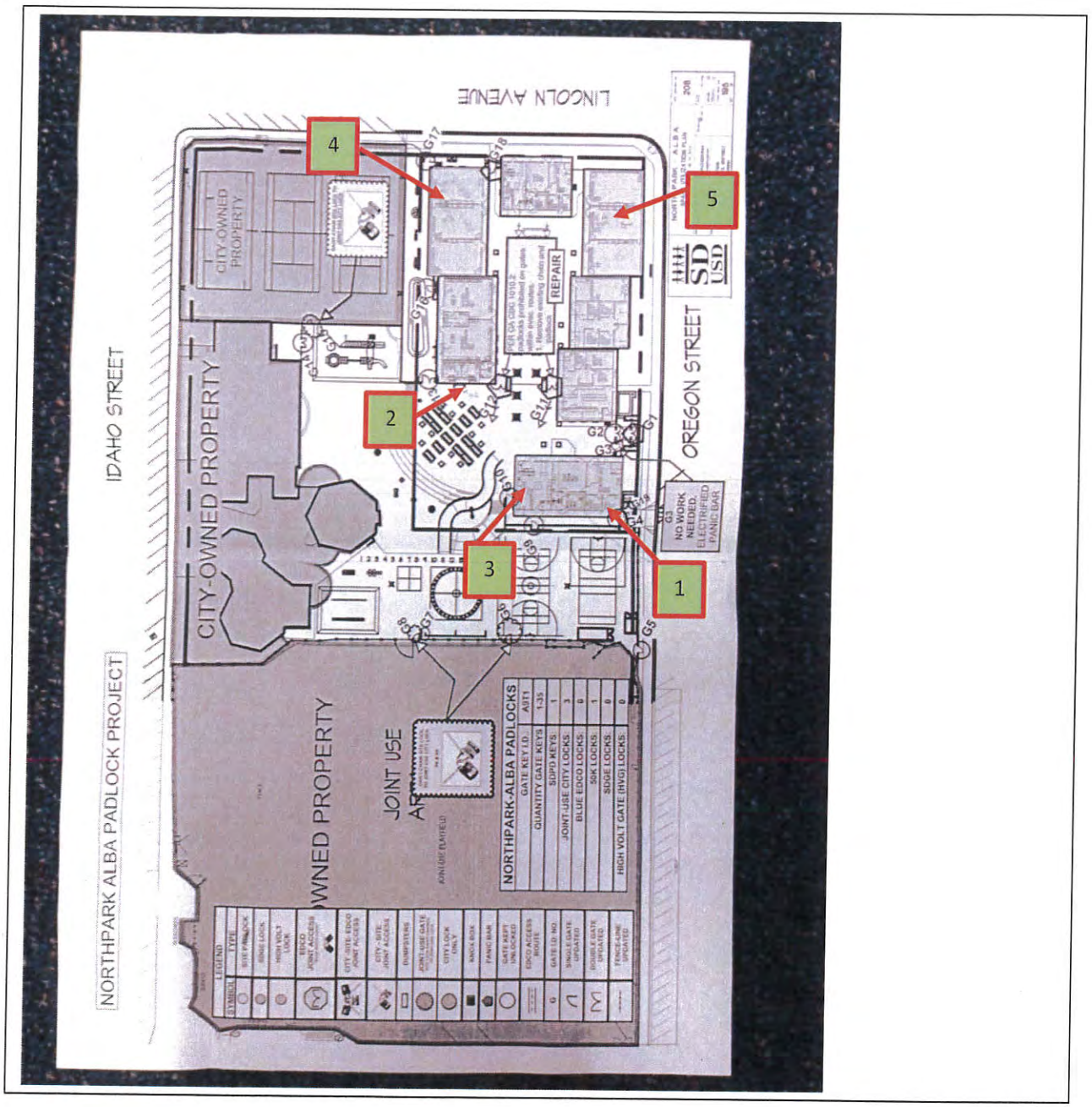

Sample No. 1

School: Alba

Name of Building: Main Office Building

Location Description: Nurse's Office

Type of Outlet: Single bubbler

Description: Bubbler on right side of sink

Comments/Miscellaneous:

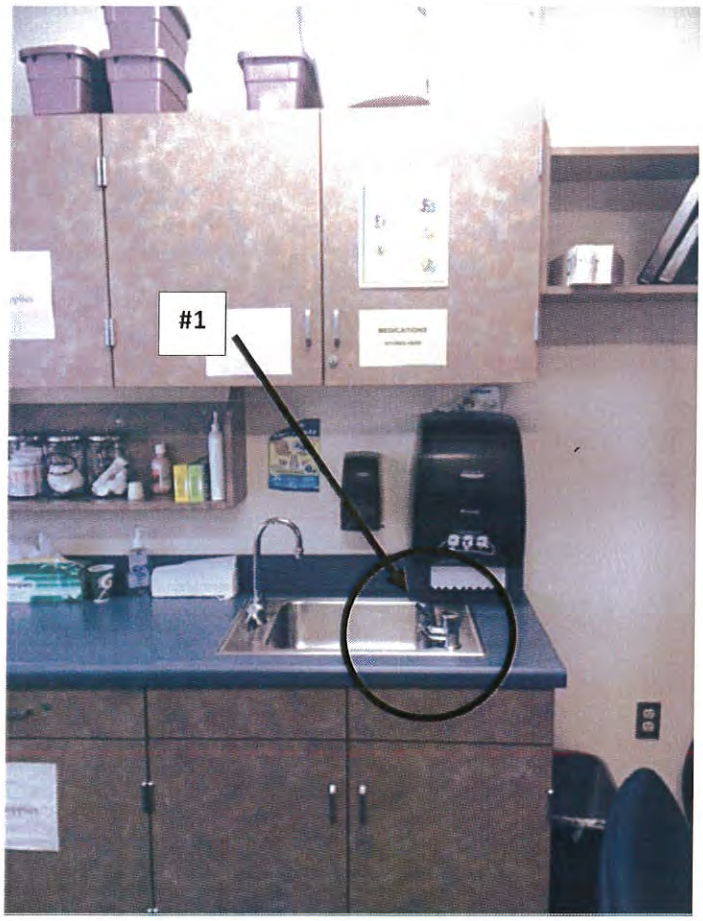

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168017

State Sample ID: 3710020-AHH-A

Date & Time Last Used: 4/21/2017 @ 2200

Date & Time Sample Collected: 4/22/17 @0647

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: Alba

Name of Building: Classroom building

Location Description: Lunch patio area on North Wall

Type of Outlet: Bubbler

Description: Single bubbler on left side

Comments/Miscellaneous:

City use only below this line

tags ripped off; site looked dry

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168018

State Sample ID: 3710020-AHH-B

Date & Time Last Used: 4/21/2017 @ 2200

Date & Time Sample Collected: 4/22/17 @ 0635

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: A. Malloy

Sample No. 3

School: Alba

Name of Building: Administation Building

Location Description: Kitchen

Type of Outlet: Regular Sink

Description: Regular sink for cooking

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168019

State Sample ID: 3710020-AHH-C

Date & Time Last Used: 4/21/2017 @ 2200

Date & Time Sample Collected: 4/22/17 @0645

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: Alba

Name of Building: Classroom building

Location Description: Room #4

Type of Outlet: Single bubbler

Description: Bubbler on right side

Comments/Miscellaneous:

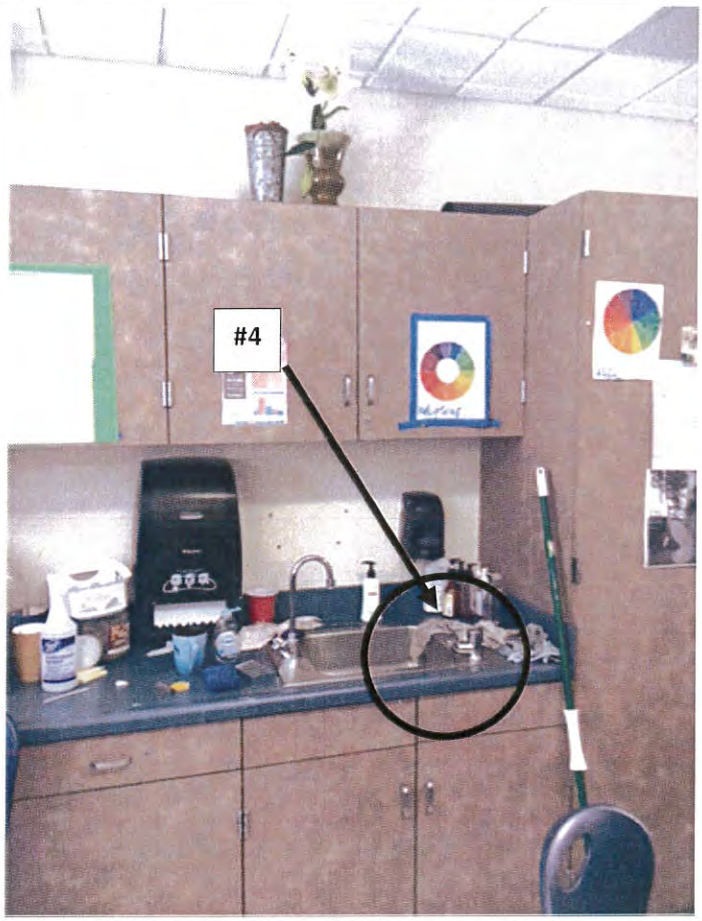

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168020

State Sample ID: 3710020-AHH-D

Date & Time Last Used: 4/21/17 @ 2200

Date & Time Sample Collected: 4/22/17 @ 0639

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 5

School: Alba

Name of Building: Classroom building

Location Description: Room #10

Type of Outlet: Single Bubbler

Description: Bubbler on right

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168021

State Sample ID: 3710020-AHH-E

Date & Time Last Used: 4/21/17 @ 2200

Date & Time Sample Collected: 4/22/17 @ 0642

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Water Quality Chemistry Services
Chain of Custody Form

21-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168017	Alba High	~~21~~ 22-APR-2017	0647	A. Molloy	SAMPLE 1	
2	W1168018	Alba High	~~21~~ 22-APR-2017	0635		SAMPLE 2	
3	W1168019	Alba High	~~21~~ 22-APR-2017	0645		SAMPLE 3	
4	W1168020	Alba High	~~21~~ 22-APR-2017	0639		SAMPLE 4	
5	W1168021	Alba High	~~21~~ 22-APR-2017	0642		SAMPLE 5	

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign: A Molloy	Received by: Name: Sign:	Date & Time: 4/22/17 @ 1010 Location: WQL Alv.	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: A. Molloy
Received Date: 4/22/17
LIMS Received Time: 1012
Reviewed By: A Molloy 4/26/17

Exhibit 31

545

017

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Albert Einstein Academy Elementary

Physical Address of School: 3035 Ash St. San Diego, CA 92102

First Bell: 7:30 A.M.

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/21/2017

Completed by Print Name: Joe Kinkead

Signature: Joe Kinkead Date: 04/21/2017

School's Point of Contact for Sampling Assistance

Name: ~~Joe Kinkead~~ Ginette Commins

Phone: ~~619-559-2294~~ 619-302-5285

Email: jkinkead@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-27-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Albert Einstein Academy Elementary 3035 Ash St. San Diego, CA 92102

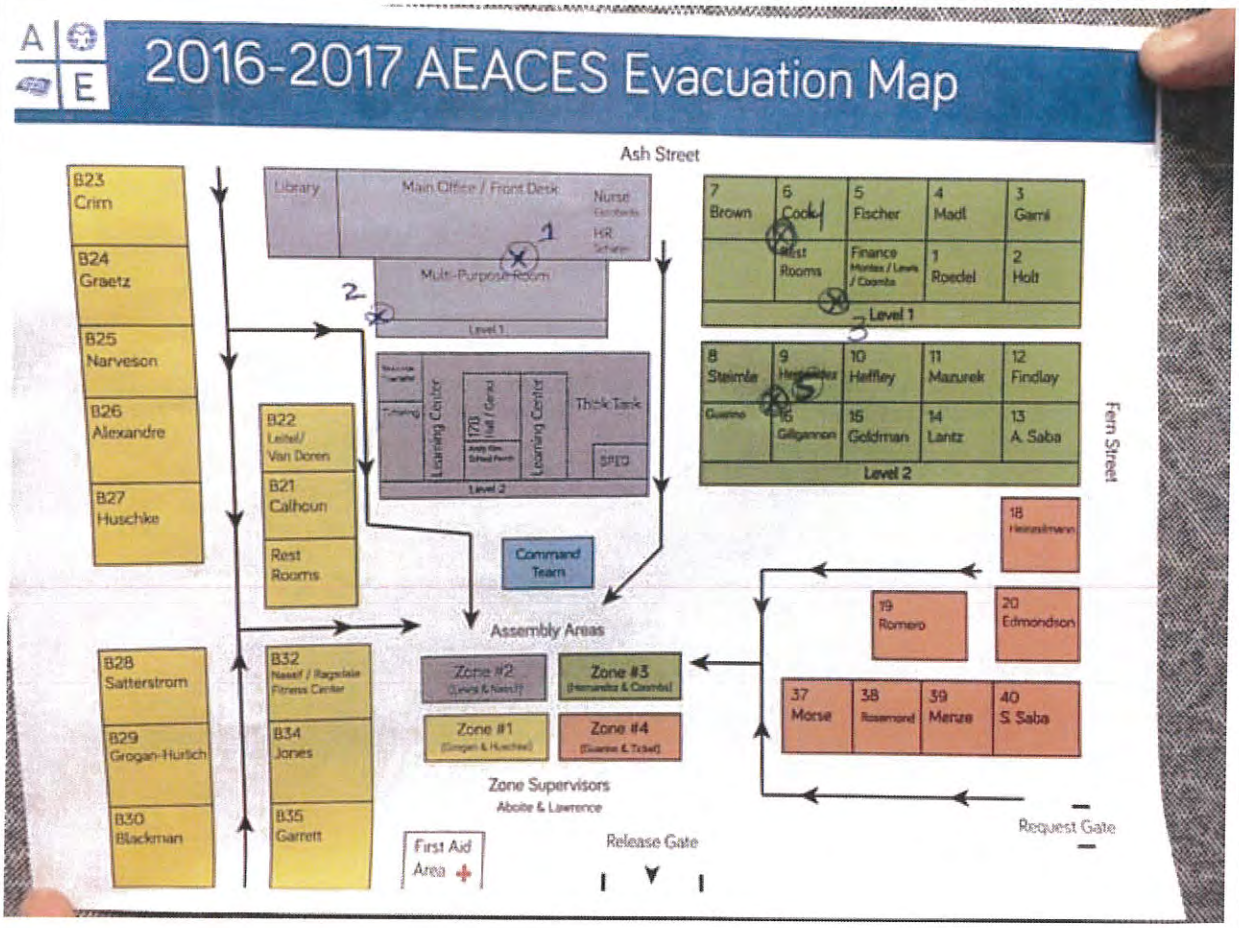

Paste picture or school

Sample No. 1

School: Albert Einstein Academy Elementary

Name of Building: Main office building

Location Description: Kitchen

Type of Outlet: Sink

Description:

Comments/Miscellaneous:

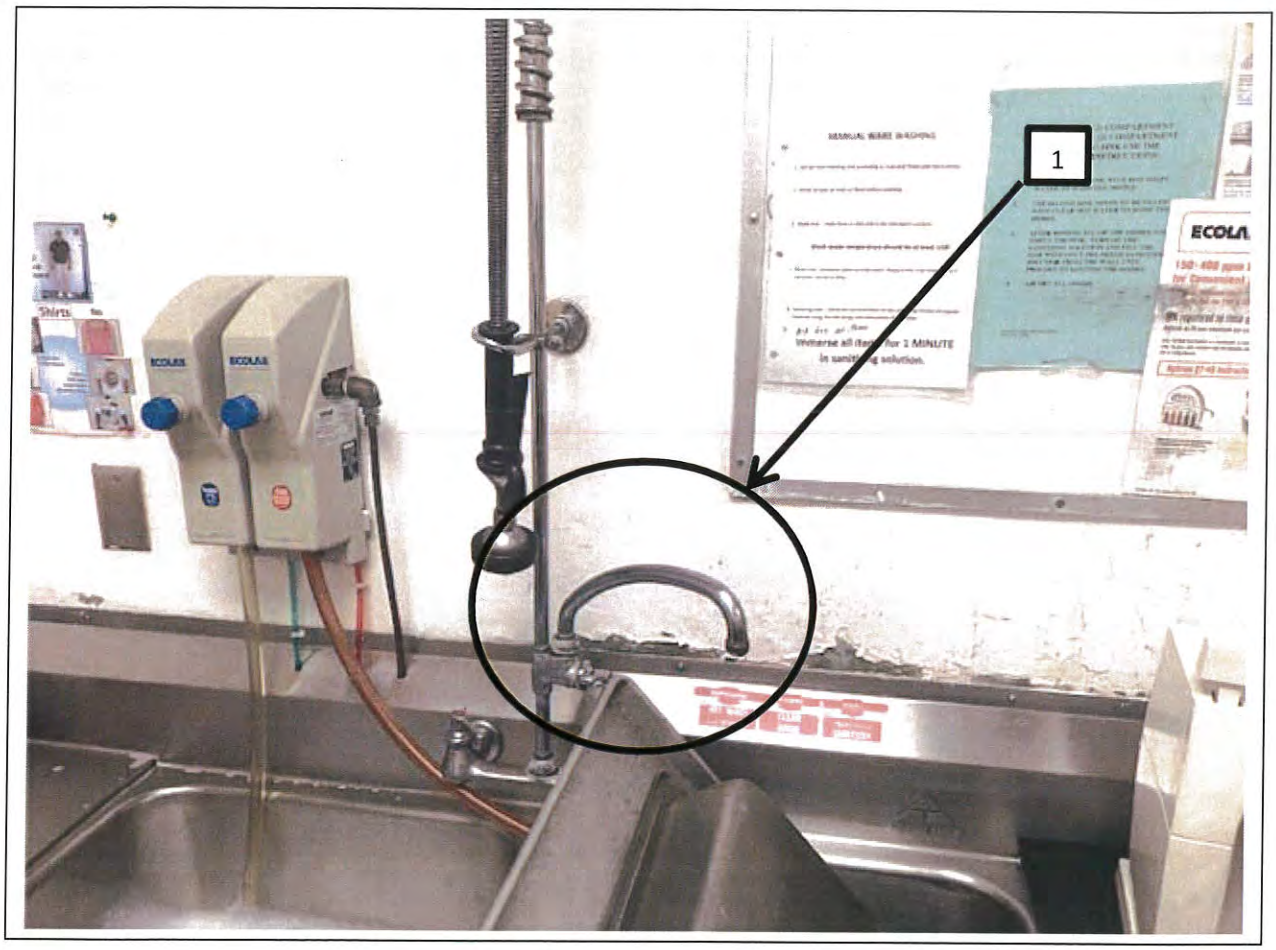

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168287

State Sample ID: 3710020-BAC-A

Date & Time Last Used: 042617 1800 → 2200

Date & Time Sample Collected: 042717 @ 0630

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: J Wu

Sample No. 2

School: Albert Einstein Academy Elementary

Name of Building: Main building outside multi purpose room

Location Description: West wall between boys and girls restrooms

Type of Outlet: double bubbler

Description: upper right bubbler

Comments/Miscellaneous:

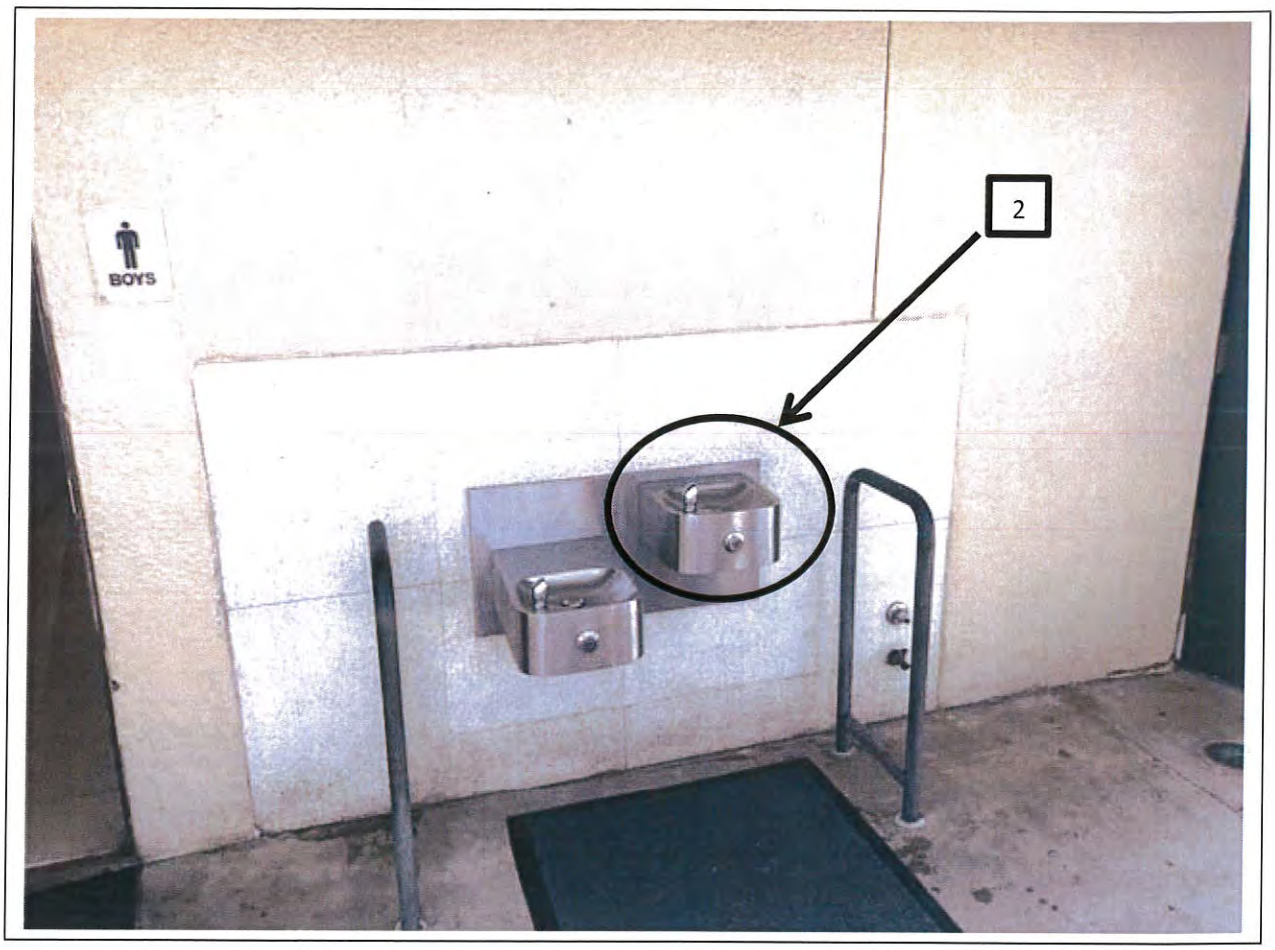

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168288

State Sample ID: 3710020-BAC-B

Date & Time Last Used: 042617 @ 1800 → 2200

Date & Time Sample Collected: 042717 @ 0556

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: [illegible]

Sample No. 3

School: Albert Einstein Academy Elementary

Name of Building: 2 story classroom building

Location Description: Exterior south wall 1st floor between boys and girls restrooms

Type of Outlet: Triple bubbler

Description: Middle bubbler

Comments/Miscellaneous:

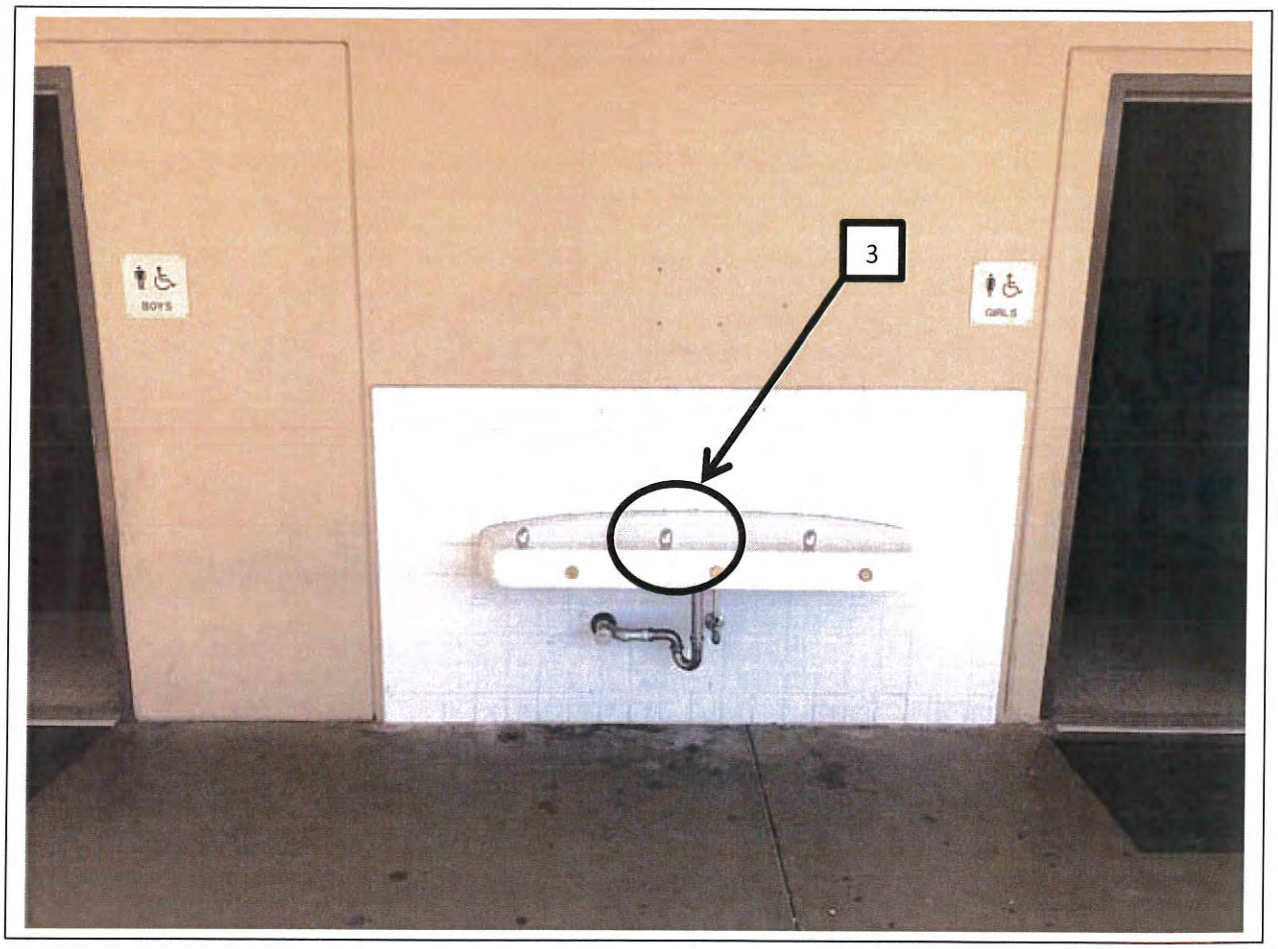

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168289

State Sample ID: 3710020-BAC-C

Date & Time Last Used: 042617 1800 → 2200

Date & Time Sample Collected: 042717 @ 0602

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: G W

Sample No. 4

School: Albert Einstein Academy Elementary

Name of Building: 2 story classroom building

Location Description: 1st floor interior adjacent to boys restroom across from room 6

Type of Outlet: Double bubbler

Description: Lower left bubbler

Comments/Miscellaneous:

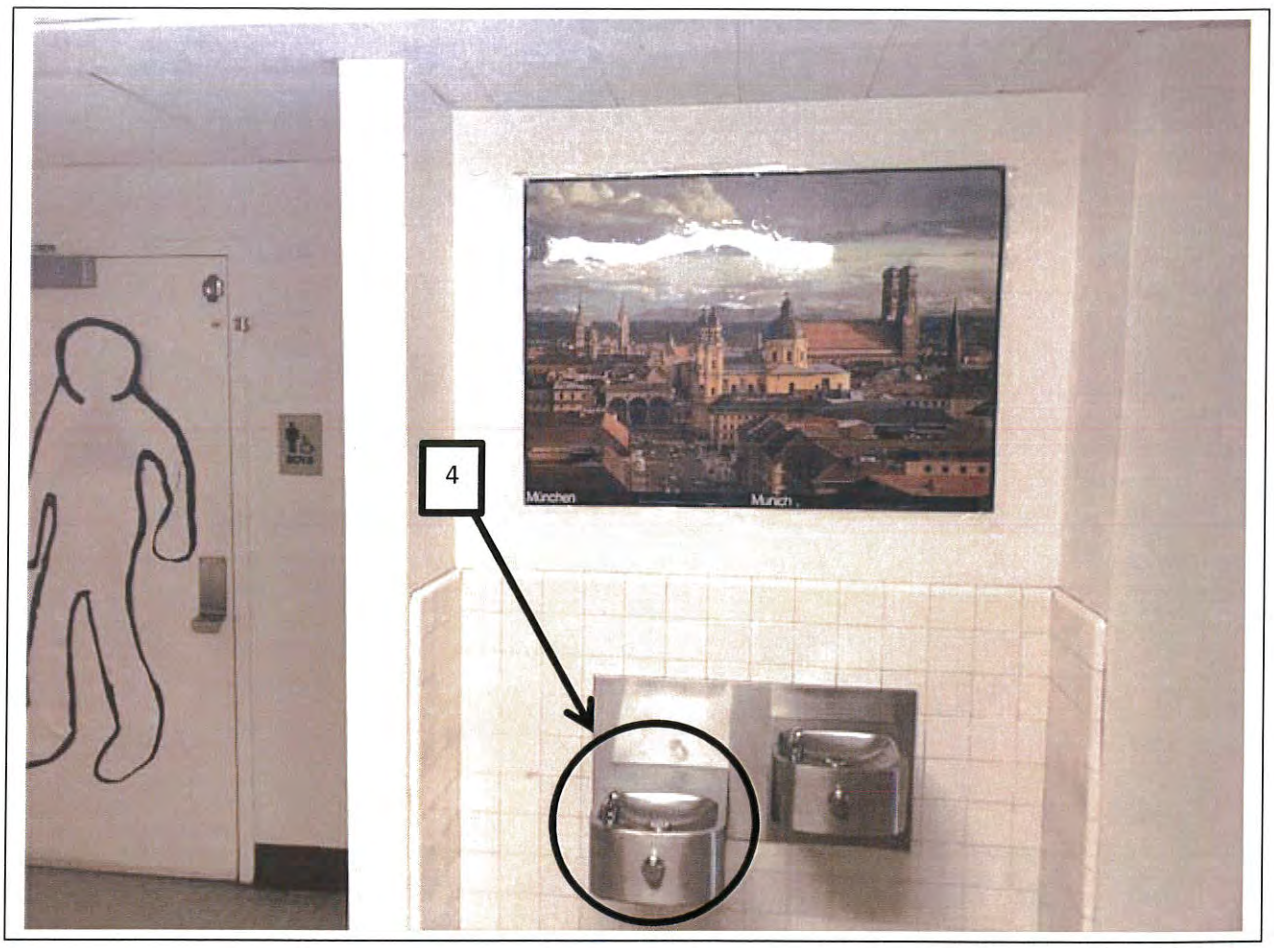

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168290

State Sample ID: 3710020-BAC-D.6

Date & Time Last Used: 042716 @ 1800 → 2200

Date & Time Sample Collected: 042716 @ 0635

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: 9 w

Sample No. 5

School: Albert Einstein Academy Elementary

Name of Building: 2 story classroom building

Location Description: 2nd floor adjacent to staircase across from room 9

Type of Outlet: Double bubbler

Description: Right side bubbler

Comments/Miscellaneous:

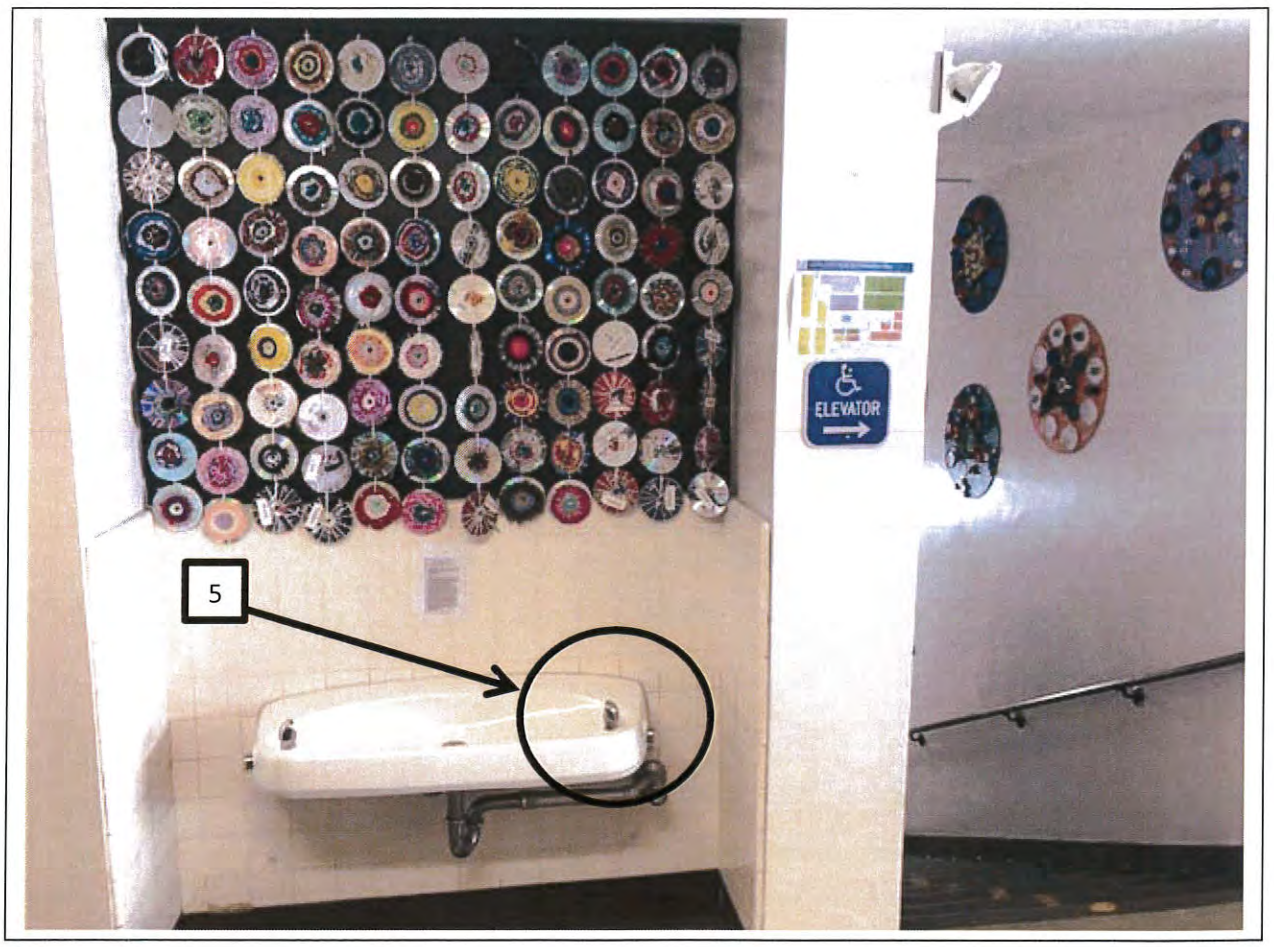

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168291

State Sample ID: 3710020-BAC-E

Date & Time Last Used: 042617 @ 1800 → 220

Date & Time Sample Collected: 042717 @ 0641

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector:

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

26-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168287	Einstein Academy	27-APR-2017	0630	J WESTON	SAMPLE 1	
2	W1168288	Einstein Academy	27-APR-2017	0556	J WESTON	SAMPLE 2	
3	W1168289	Einstein Academy	27-APR-2017	0602	J WESTON	SAMPLE 3	
4	W1168290	Einstein Academy	27-APR-2017	0635	J WESTON	SAMPLE 4	
5	W1168291	Einstein Academy	27-APR-2017	0641	J WESTON	SAMPLE 5	

553

Chain of Custody:

Relinquished by: Name: JERRY WESTON Sign: J W	Received by: Name: Tom Burger Sign: Tom B. Burger	Date & Time: 042717 Location: ALV LAB 0729	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 4-27-17
LIMS Received Time: 1035
Reviewed By: [illegible]

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Alcott Elementary School

Physical Address of School: 4680 Hidalgo Ave. San Diego, CA 92117

First Bell: 7:30AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 05/01/2017

Completed by Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 05/01/2017

School's Point of Contact for Sampling Assistance

Name: ~~Daniel Lopez~~ Ginxette Commins

Phone: ~~619-306-3383~~ 619-302-5285

Email: dlopez2@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/1/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Alcott Elementary School, 4680 Hidalgo Ave. San Diego, CA 92117

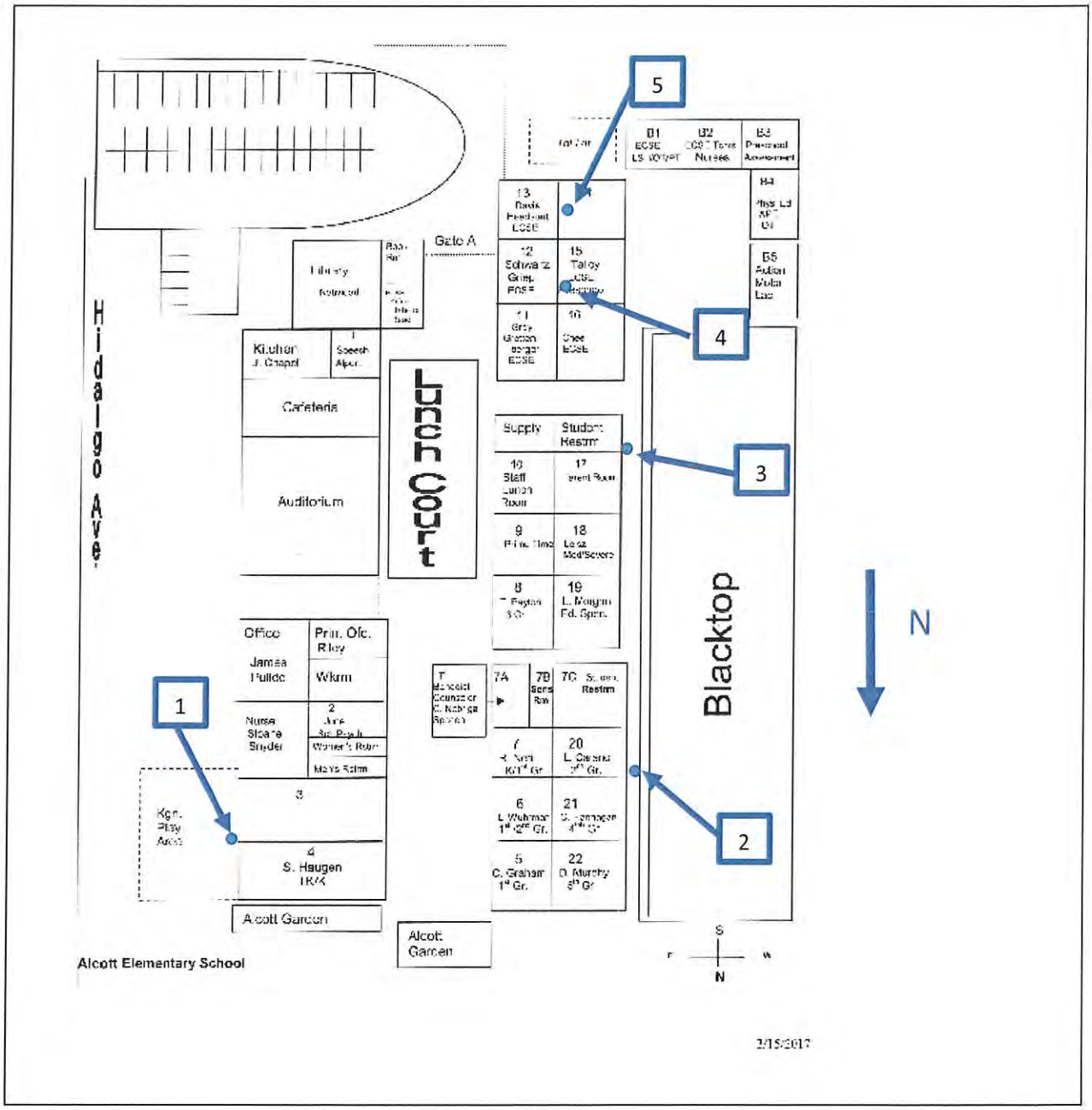

Sample No. 1

School: Alcott Elementary School

Name of Building: Kindergarten Area

Location Description: North side of campus outside between Rooms 3 and 4

Type of Outlet: Sink with Faucet and a bubbler

Description: Bubbler on right side (50% of flow going into the bottle)

Comments/Miscellaneous:

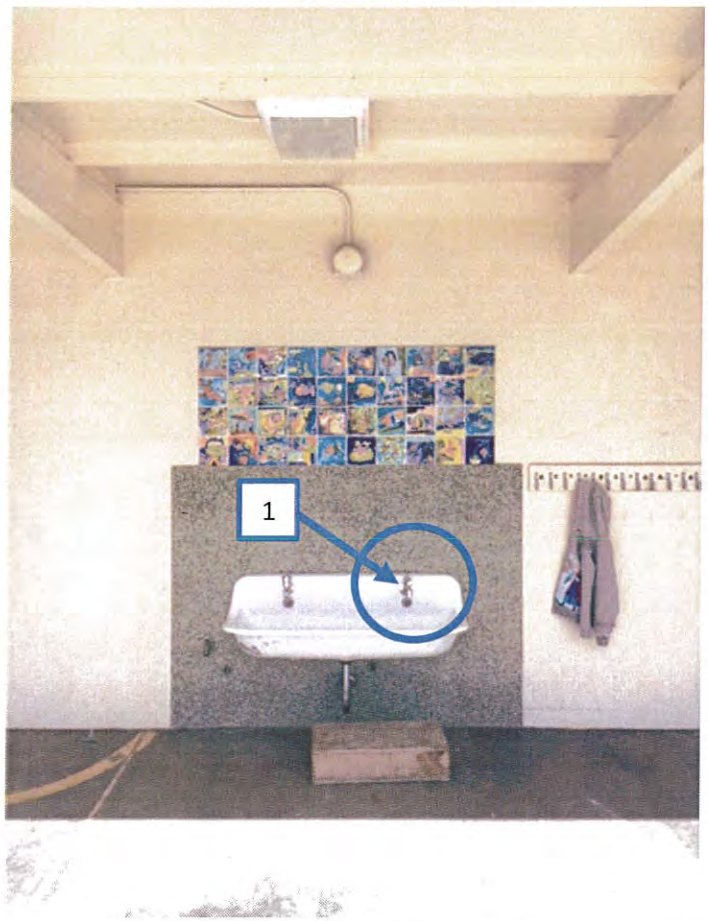

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170038

State Sample ID: 3710020-BEI-A

Date & Time Last Used: 5/9/17 @ 6pm

Date & Time Sample Collected: 5/10/17 @ 6:11 am

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector:

Sample No. 2

School: Alcott Elementary School

Name of Building: Classroom building

Location Description: Building on Northwest side of campus near blacktop near rooms 20 and 21

Type of Outlet: Triple bubbler

Description: Center bubbler

Comments/Miscellaneous:

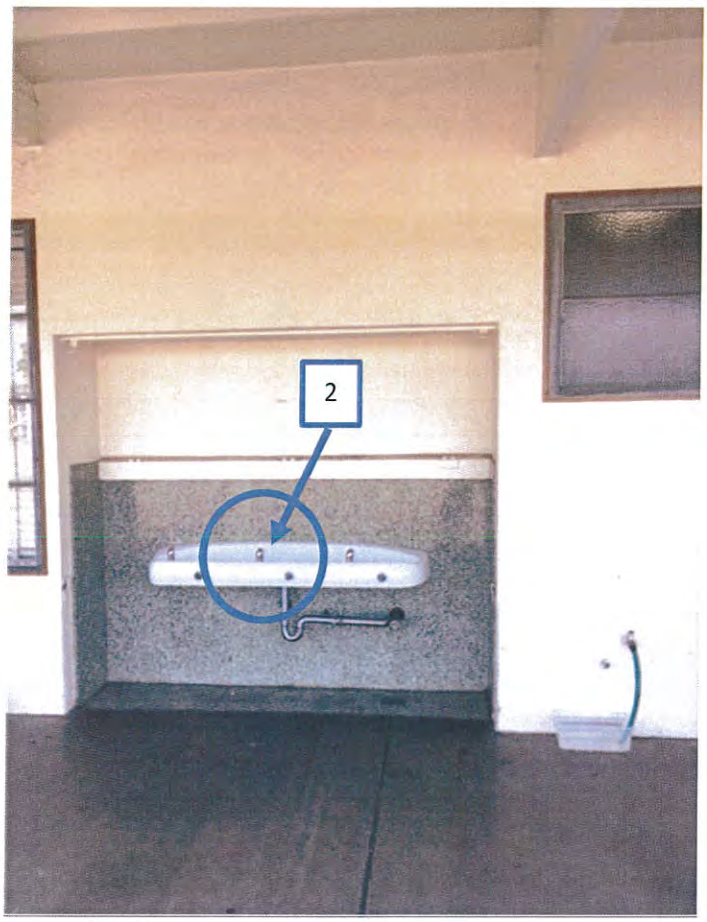

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170039

State Sample ID: 3710020-BEI-B

Date & Time Last Used: 5/9/17 @ 6 pm

Date & Time Sample Collected: 5/10/17 @ 6:09 am

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector:

Sample No. 3

School: Alcott Elementary School

Name of Building: Classroom Building

Location Description: Center of campus on West facing wall near room 17 & Restrooms

Type of Outlet: Triple Bubbler

Description: Far left bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170040

State Sample ID: 3710020-BEI-C

Date & Time Last Used: 5/9/17 @ 6pm

Date & Time Sample Collected: 5/10/17 @ 6:07 am

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector:

Sample No. 4

School: Alcott Elementary School

Name of Building: Classroom Building

Location Description: South side of campus inside Room 15

Type of Outlet: Single Bubbler with a gooseneck faucet on sink

Description: Bubbler on left side of sink

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170041

State Sample ID: 3710020-BEI-D

Date & Time Last Used: 5/9/17 @ 6 pm

Date & Time Sample Collected: 5/10/17 @ 6 am

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector:

Sample No. 5

School: Alcott Elementary School

Name of Building: Classroom Building

Location Description: Southside of campus inside Room 14 (originally listed as Rm 15, actually 14 per map)

Type of Outlet: Single Bubbler with a gooseneck faucet on sink

Description: Bubbler on right side of sink

Comments/Miscellaneous:

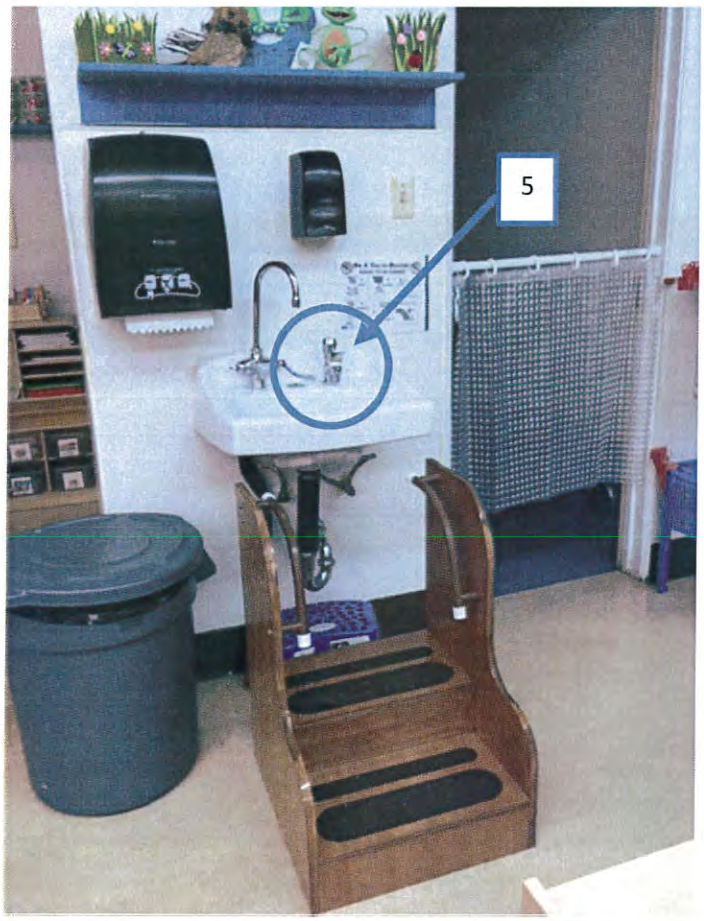

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170042

State Sample ID: 3710020-BEI-E

Date & Time Last Used: 5/9/17 @ 6 pm

Date & Time Sample Collected: 5/10/17 @ 5:59 am

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector:

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

08-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1170038	Alcott Elementary	10-MAY-2017	0611		SAMPLE 1	
2	W1170039	Alcott Elementary	10-MAY-2017	0609		SAMPLE 2	
3	W1170040	Alcott Elementary	10-MAY-2017	0602		SAMPLE 3	
4	W1170041	Alcott Elementary	10-MAY-2017	0600		SAMPLE 4	
5	W1170042	Alcott Elementary	10-MAY-2017	0559		SAMPLE 5	

561

Chain of Custody:

Relinquished by: Name: Walt Mulderig Sign: W Mulderig	Received by: Name: Tom Burger Sign: Tom B Burger	Date & Time: 5-10-17 0640 Location: ALV LAB	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: [illegible]
Received Date: 5-10-17
LIMS Received Time: 0650
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: America's Finest Charter

Physical Address of School: 730 45th St., San Diego, CA 92102-3619

First Bell: 7:30 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 5-5-2017

Completed by Print Name: Cesar Jimenez

Signature: C.J. Date: 5-5-2017

School's Point of Contact for Sampling Assistance

Name: Cesar Jimenez

Phone: 619-261-1588

Email: cjimenez2@sandi.net

City of San Diego 3710020

Approved By: 5/10/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: America's Finest Charter - 730 45th St., San Diego, CA 92102-3619

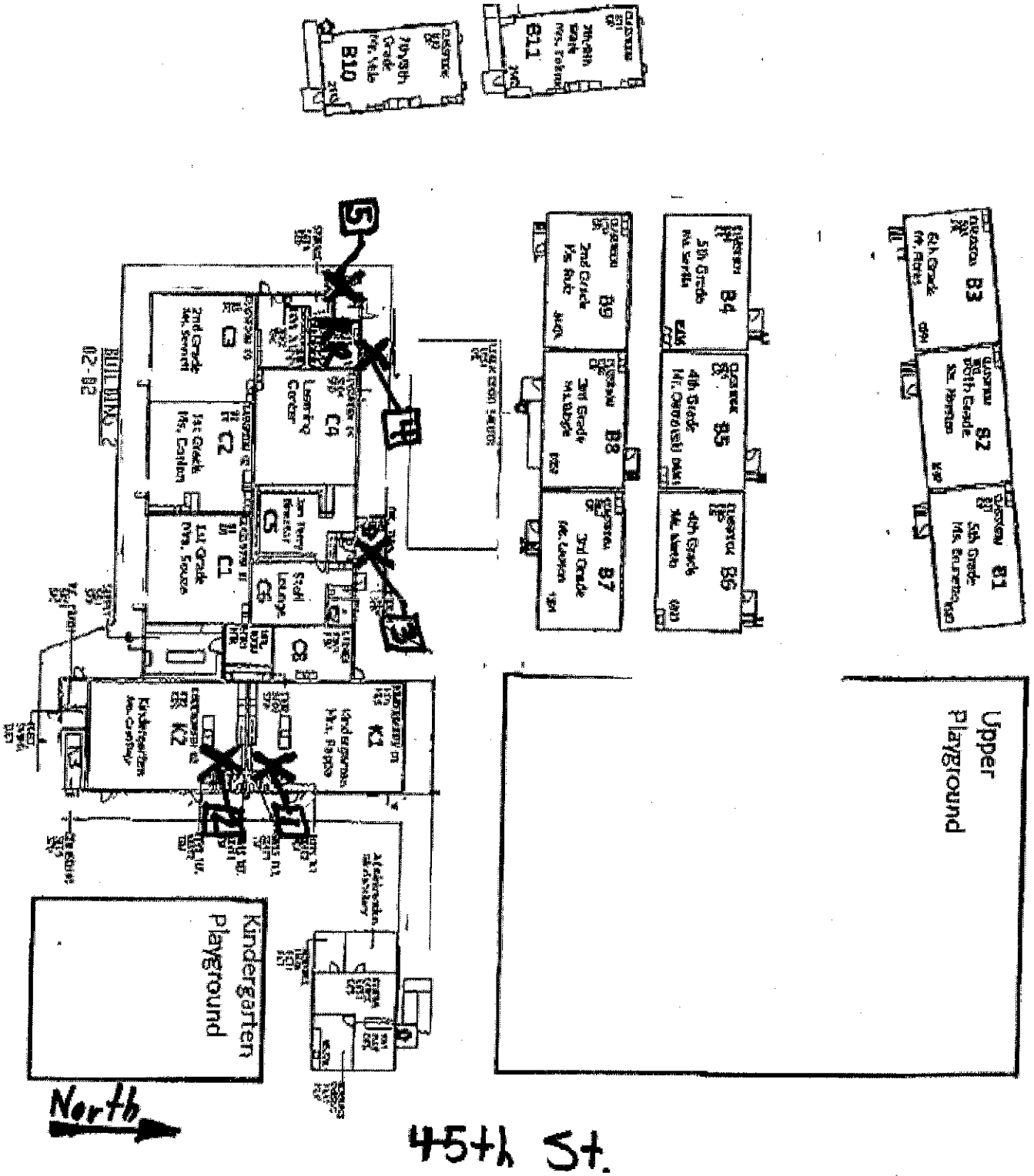

Sample No. 1

School: America's Finest Charter

Name of Building: Kindergarten Bldg.

Location Description: Interior south wall of Room K1

Type of Outlet: Bubbler

Description: Bubbler on left sink on a set of 2 hand wash sinks

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172550

State Sample ID: 3710020-BHH-A

Date & Time Last Used: 2200 5-15-17

Date & Time Sample Collected: 0601 5-16-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T. Burger

Sample No. 2

School: America's Finest Charter

Name of Building: Bldg. 2 - Classrooms

Location Description: Interior north wall of Room K2

Type of Outlet: Bubbler

Description: Bubbler on left sink on a set of 2 hand wash sinks

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172551

State Sample ID: 3710020-BHH-B

Date & Time Last Used: 2200 5-15-17

Date & Time Sample Collected: 0604 5-16-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: JBullm

Sample No. 3

School: America's Finest Charter

Name of Building: Bldg. 2 - Classrooms

Location Description: Exterior north wall near faculty restrooms

Type of Outlet: Bubbler

Description: Bubbler on a single fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172552

State Sample ID: 3710020-BHH-C

Date & Time Last Used: 2200 5-15-17

Date & Time Sample Collected: ~~0607~~ 0607 5-16-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T Burger

Sample No. 4

School: America's Finest Charter

Name of Building: Bldg. 2 - Classrooms

Location Description: Exterior north wall near boys & girls restrooms

Type of Outlet: Bubbler

Description: Left bubbler on a triple fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172553

State Sample ID: 3710020-BHH-D

Date & Time Last Used: 2200 5-15-17

Date & Time Sample Collected: 0609 5-16-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: TBuyn

Sample No. 5

School: America's Finest Charter

Name of Building: Bldg. 2 - Classrooms

Location Description: Exterior west wall near room "Storage B"

Type of Outlet: Bubbler

Description: Right bubbler on a triple fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172554

State Sample ID: 3710020-BHH-E

Date & Time Last Used: 5-15-17

Date & Time Sample Collected: 0612 5-16-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T Burger

Exhibit 3A

Water Quality Chemistry Services
Chain of Custody Form

10-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1172550	America's Finest Charter	16-MAY-2017	0601	TBurger	SAMPLE 1	
2	W1172551	America's Finest Charter	16-MAY-2017	0604		SAMPLE 2	
3	W1172552	America's Finest Charter	16-MAY-2017	0607		SAMPLE 3	
4	W1172553	America's Finest Charter	16-MAY-2017	0609		SAMPLE 4	
5	W1172554	America's Finest Charter	16-MAY-2017	0612		SAMPLE 5	

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Chain of Custody:

Relinquished by: Name: Tom Burger Sign: Tom B Burger	Received by: Name: ALEJANDRA Mollex Sign: Mally	Date & Time: 5-16-17 0709 Location: ALV LAB	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: Mally
Received Date: 5/16/17
LIMS Received Time: 0712
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Angier Elementary

Physical Address of School: 8450 Hurlbut St., San Diego, CA 92123

First Bell: 9:10am

Meeting Date: 4/05/17

Sampling Plan Completion Date: 4/19/17

Completed by Print Name: Lori Sherman

Signature: *Lori Sherman* Date: 4/19/17

School's Point of Contact for Sampling Assistance

Name: Lori Sherman

Phone: 619-301-9086

Email: lsherman1@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-21-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Angier Elementary - 8450 Hurlbut St., San Diego, CA 92123

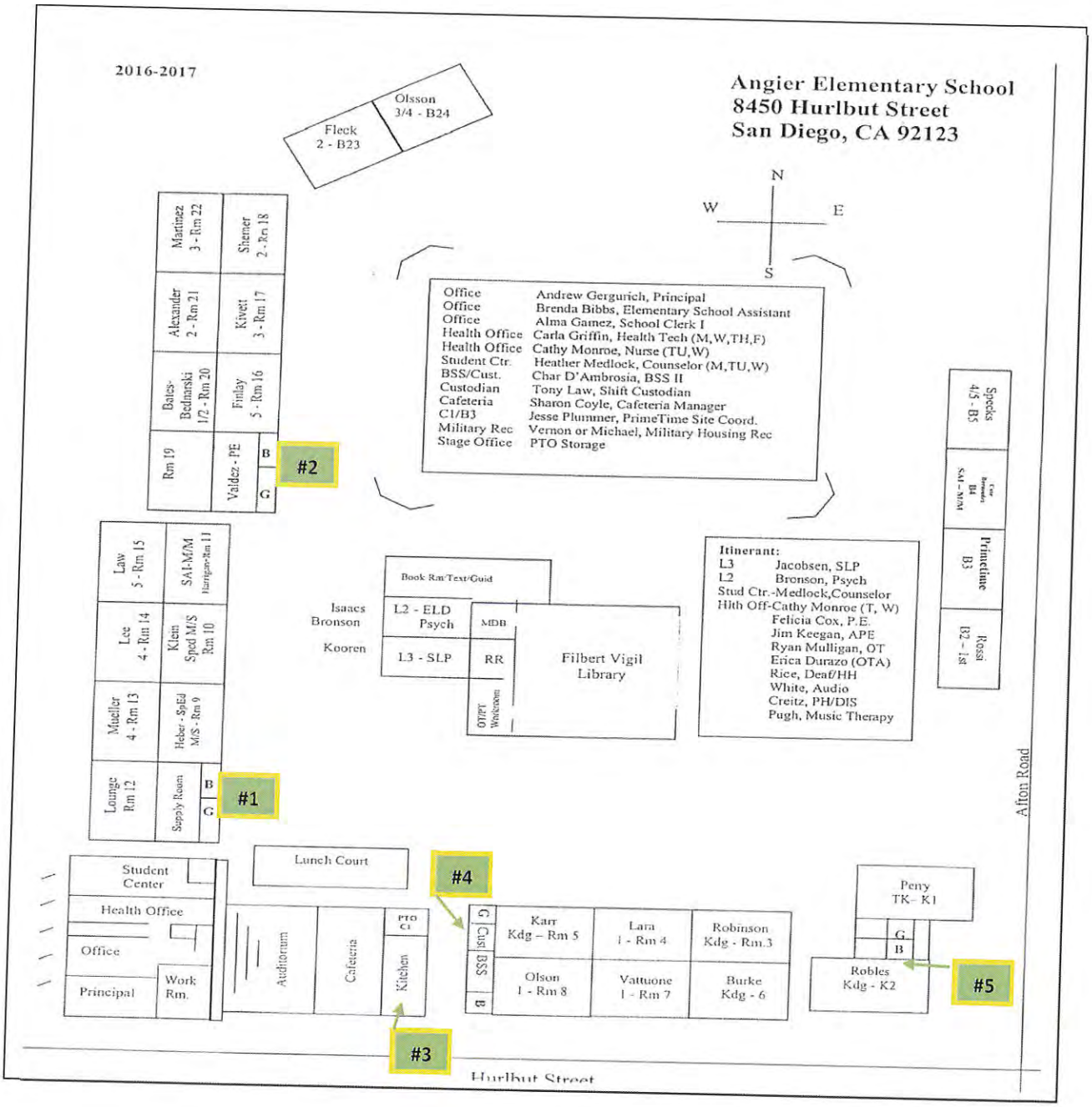

Sample No. 1

School: Angier Elementary - 8450 Hurlbut St., San Diego, CA 92123

Name of Building:

Location Description: Lunch Court area near room 9

Type of Outlet: Bubbler

Description: Far left bubbler

Comments/Miscellaneous: Between girls/boys restroom

City use only below this line

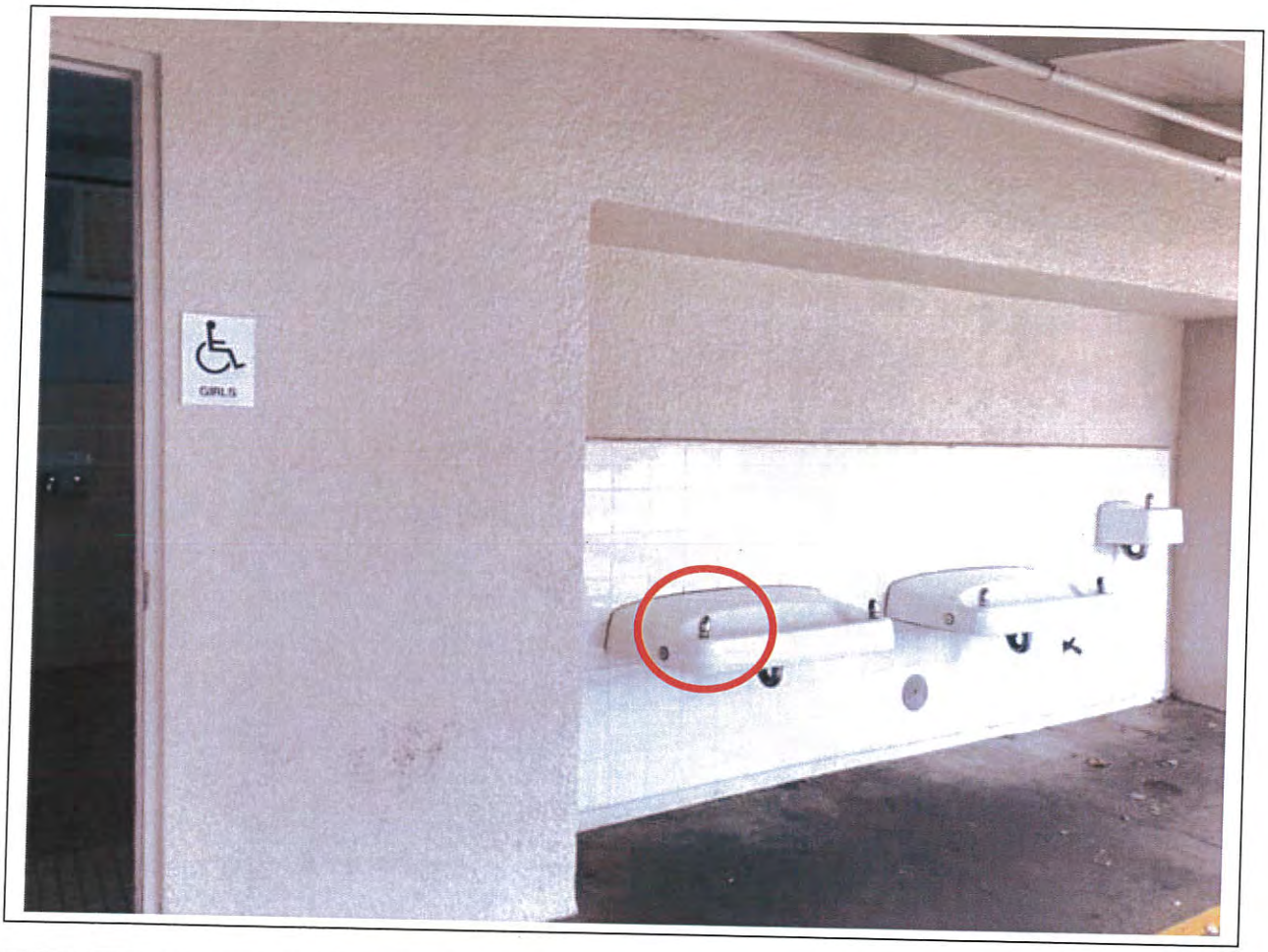

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168186

State Sample ID: 3710020-AJG-A

Date & Time Last Used: 4/21/17 @ 2200

Date & Time Sample Collected: 4/22/17 @0843

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Malloy

Sample No. 2

School: Angier Elementary - 8450 Hurlbut St., San Diego, CA 92123

Name of Building:

Location Description: Exterior next to room 16

Type of Outlet: Bubbler

Description: Far right bubbler

Comments/Miscellaneous: South-East side of building between girls/boys restroom

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168187

State Sample ID: 3710020-AJG-B

Date & Time Last Used: 4/21/17 @ 2200

Date & Time Sample Collected: 4/22/17 @ 0845

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: Angier Elementary - 8450 Hurlbut St., San Diego, CA 92123

Name of Building: Cafeteria/Kitchen

Location Description: South interior wall in Kitchen

Type of Outlet: Spray faucet

Description:

Comments/Miscellaneous: located in corner

City use only below this line

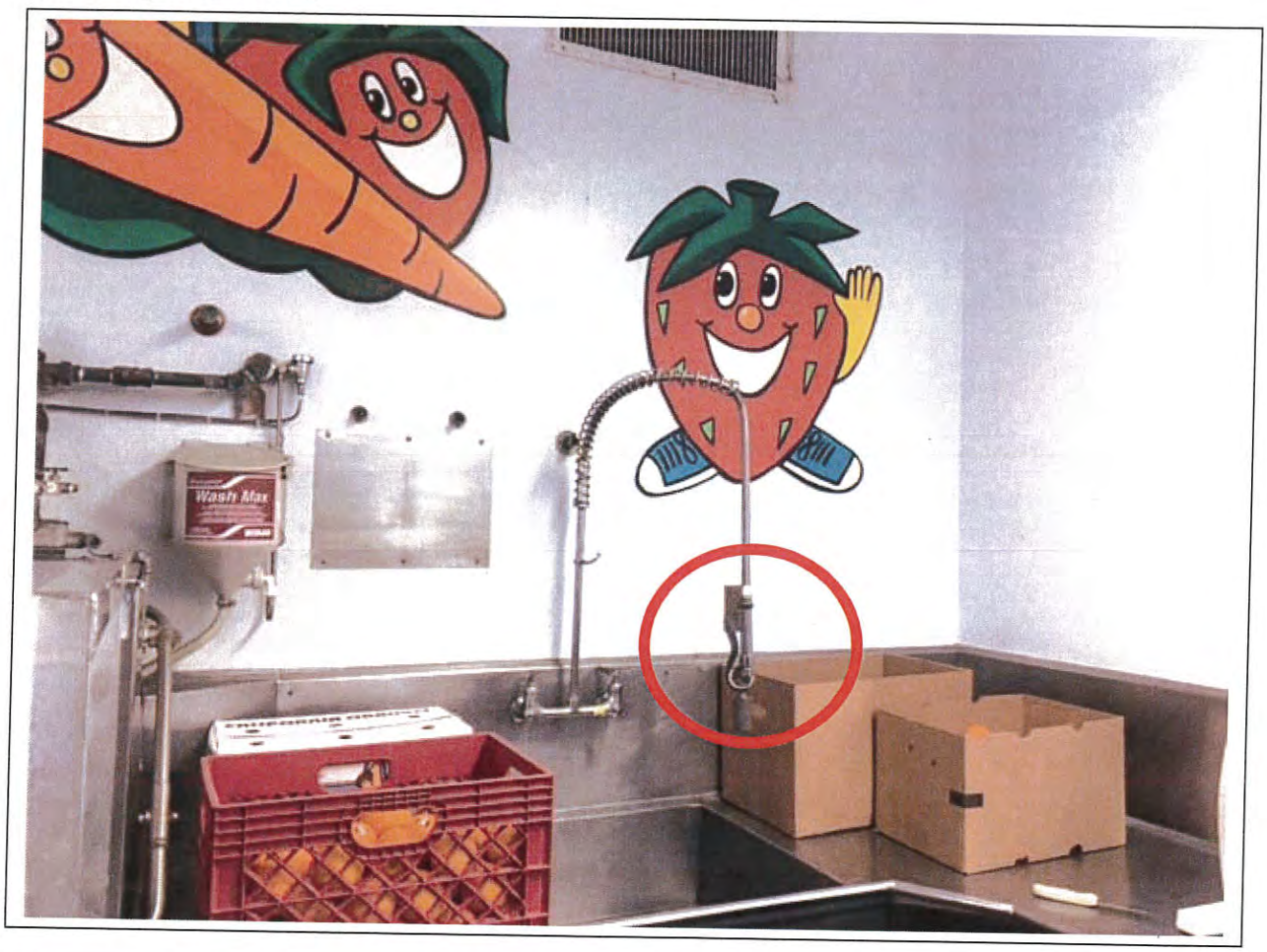

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168188

State Sample ID: 3710020-AJG-C

Date & Time Last Used: 4/21/17 @ 2200

Date & Time Sample Collected: 4/22/17 @ 0849

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: Angier Elementary - 8450 Hurlbut St., San Diego, CA 92123

Name of Building:

Location Description: West exterior wall next to custodial room

Type of Outlet: bubbler

Description: Far right bubbler

Comments/Miscellaneous:

City use only below this line

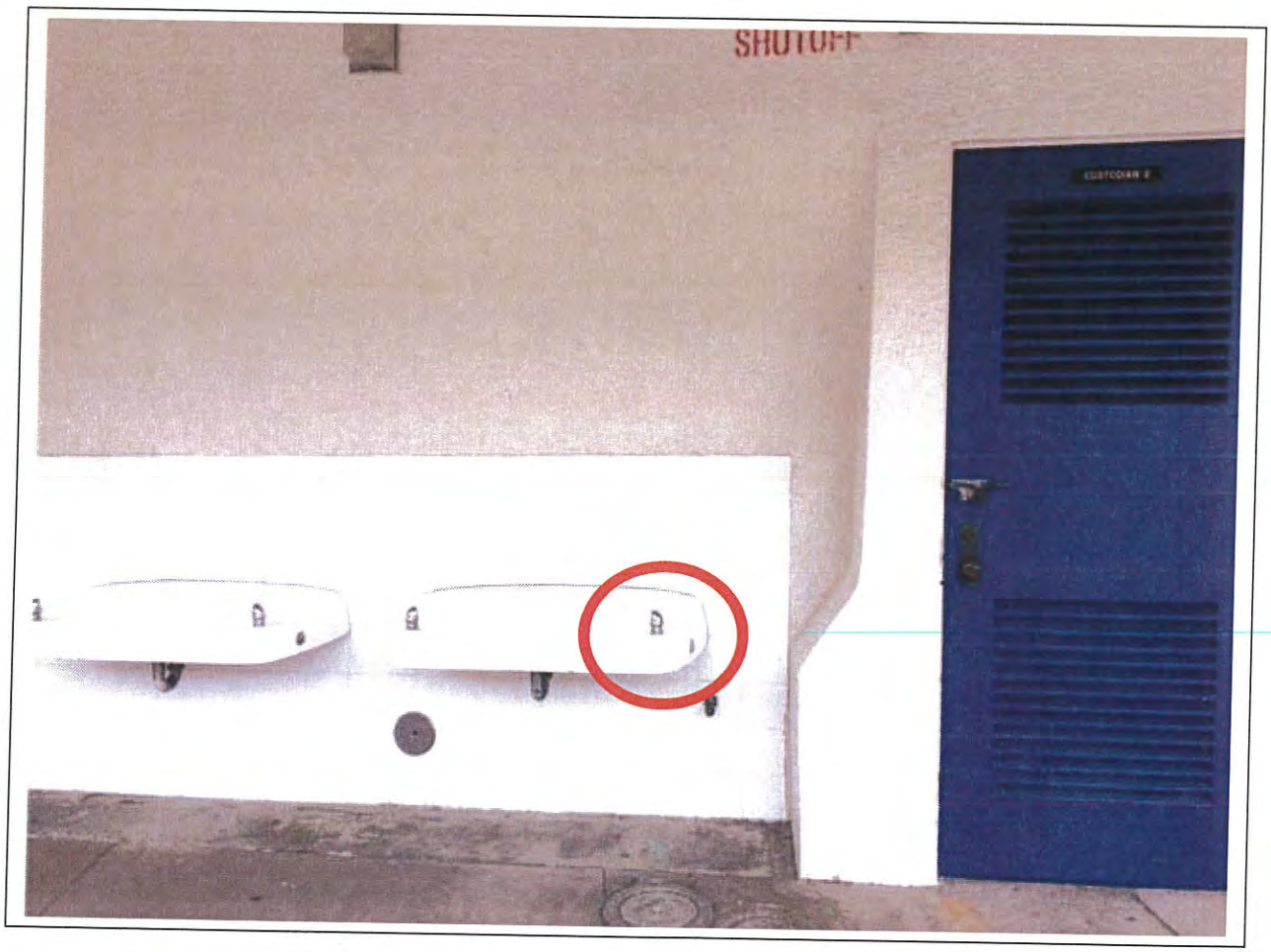

Sample type Initial ☐ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168189

State Sample ID: 3710020-AJG-D

Date & Time Last Used: 4/21/17 @ 2200

Date & Time Sample Collected: 4/22/17 @ 0851

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

left bubbler had a leak

Sample No. 5

School: Angier Elementary - 8450 Hurlbut St., San Diego, CA 92123

Name of Building: Kindergarten

Location Description: Inside K-2

Type of Outlet: Sink bubbler

Description:

Comments/Miscellaneous: Bubbler on right side

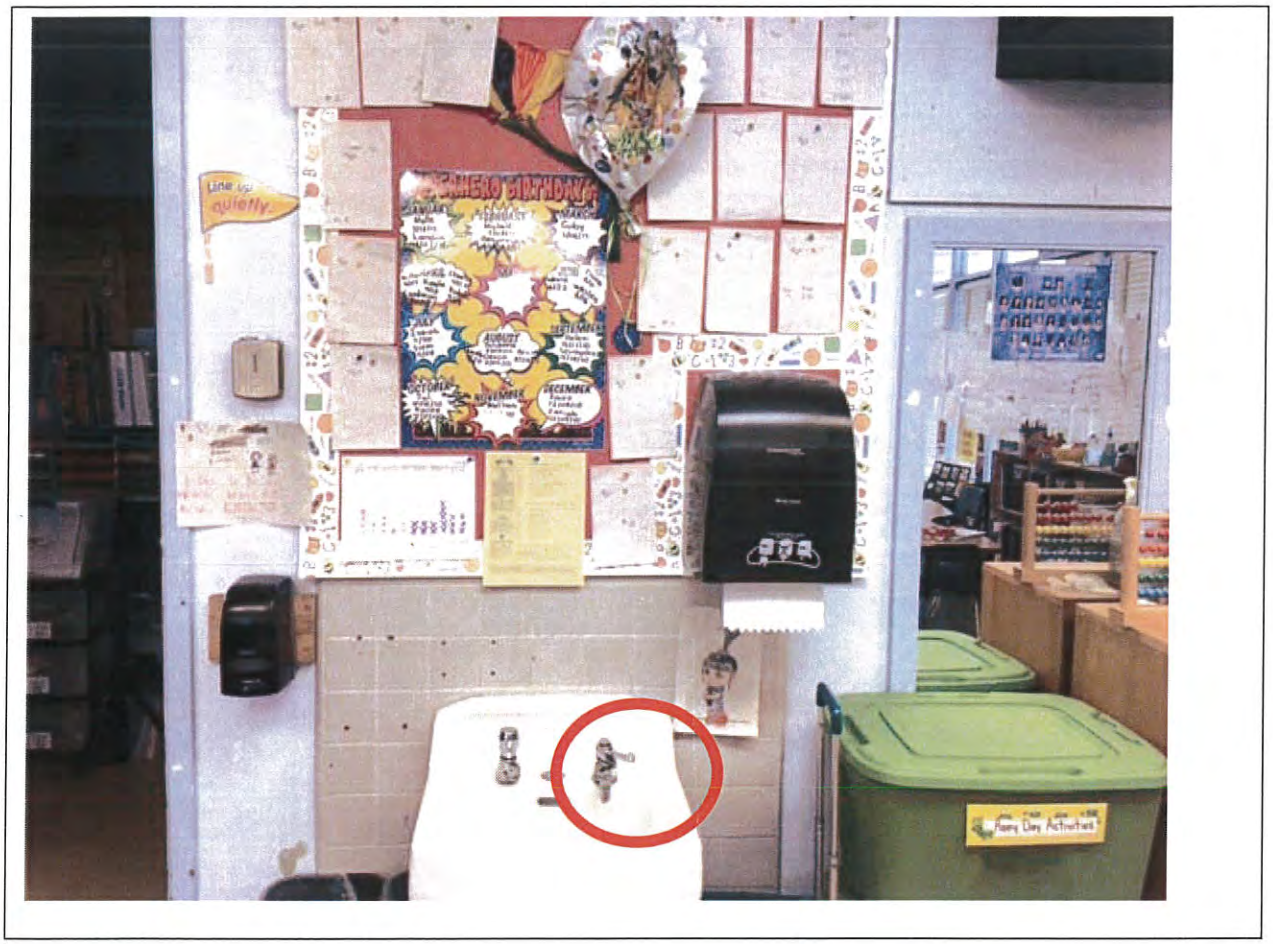

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168189

State Sample ID: 3710020-AJG-E

Date & Time Last Used: ~~4/22/17~~ 4/21/17 @ 2200

Date & Time Sample Collected: 4/22/17 @ 0855

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Malloy

*faucet had a leak

Water Quality Chemistry Services
Chain of Custody Form

21-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168186	Angier Elementary	22-APR-2017	0843	A. Molloy	SAMPLE 1	
2	W1168187	Angier Elementary	22-APR-2017	0845		SAMPLE 2	
3	W1168188	Angier Elementary	22-APR-2017	0849		SAMPLE 3	
4	W1168189	Angier Elementary	22-APR-2017	0851		SAMPLE 4	
5	W1168190	Angier Elementary	22-APR-2017	0855		SAMPLE 5	

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign: AMolloy	Received by: Name: Sign:	Date & Time: 4/22/17 @ 1010 Location: WQL A/V	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 4/22/17
LIMS Received Time: 1012
Reviewed By: AMolloy 4/24/17

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Arroyo Paseo Charter High School

Physical Address of School: 3773 El Cajon Blvd. San Diego, CA 92105

First Bell: 8:30AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/19/2017

Completed by Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 04/19/2017

School's Point of Contact for Sampling Assistance

Name: Daniel Lopez

Phone: (619) 306-3383

Email: dlopez2@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-20-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Arroyo Paseo Charter High School, 3773 El Cajon Blvd. San Diego, CA 92105

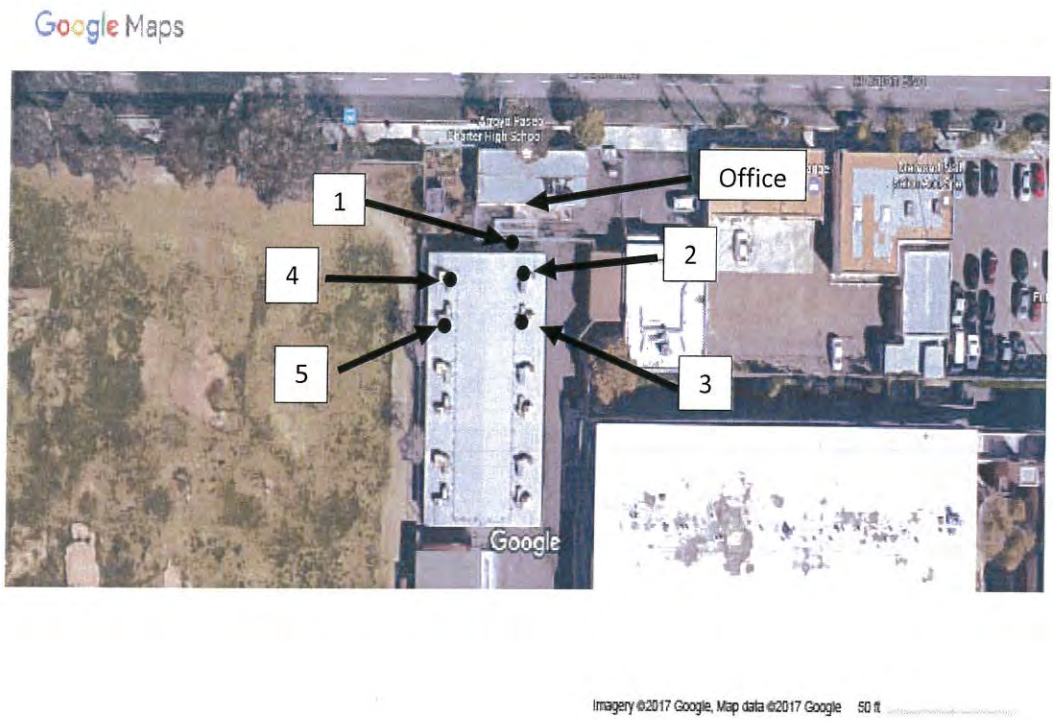

Please Note: SDUSD to obtain a key a day before the sampling from the charter administrator in the main office.

Follow administrator's instruction for key management (Where to live key when complete)

Sample No. 1

School: Arroyo Paseo Charter High School

Name of Building: Main Classroom Building

Location Description: Outside of main classroom on North side wall

Type of Outlet: Triple Bubbler

Description: Bubbler on left side of fountain

Comments/Miscellaneous:

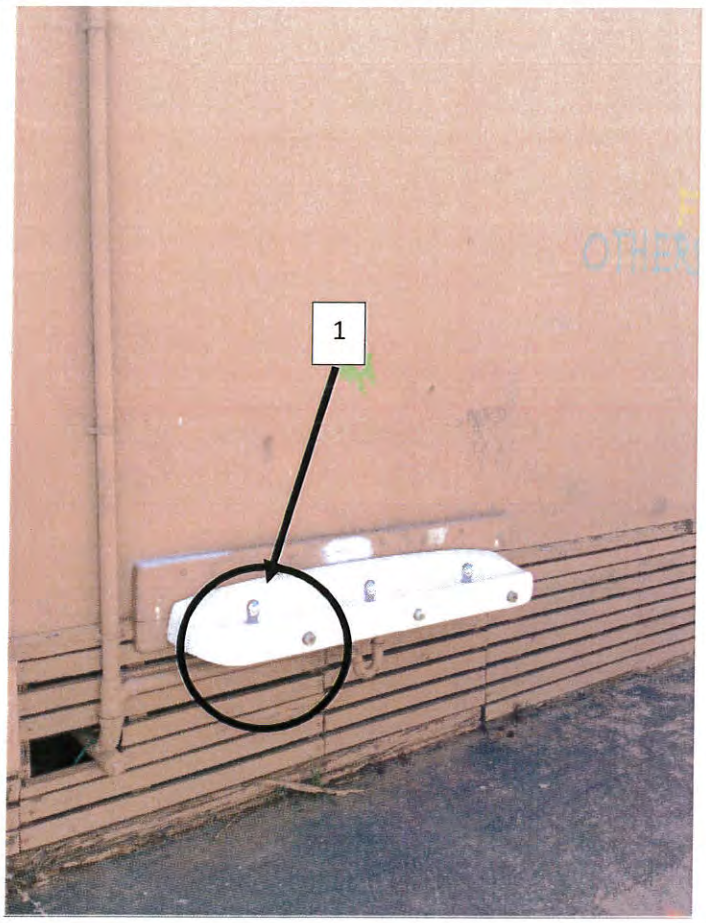

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168022

State Sample ID: 3710020-AIJ-A

Date & Time Last Used: 4/21/17 @ 2200

Date & Time Sample Collected: 4/22/17 @ 0612

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: Arroyo Paseo Charter High School

Name of Building: Main Classroom Building

Location Description: Inside Room 18

Type of Outlet: Bubbler

Description: Single Bubbler on right

Comments/Miscellaneous:

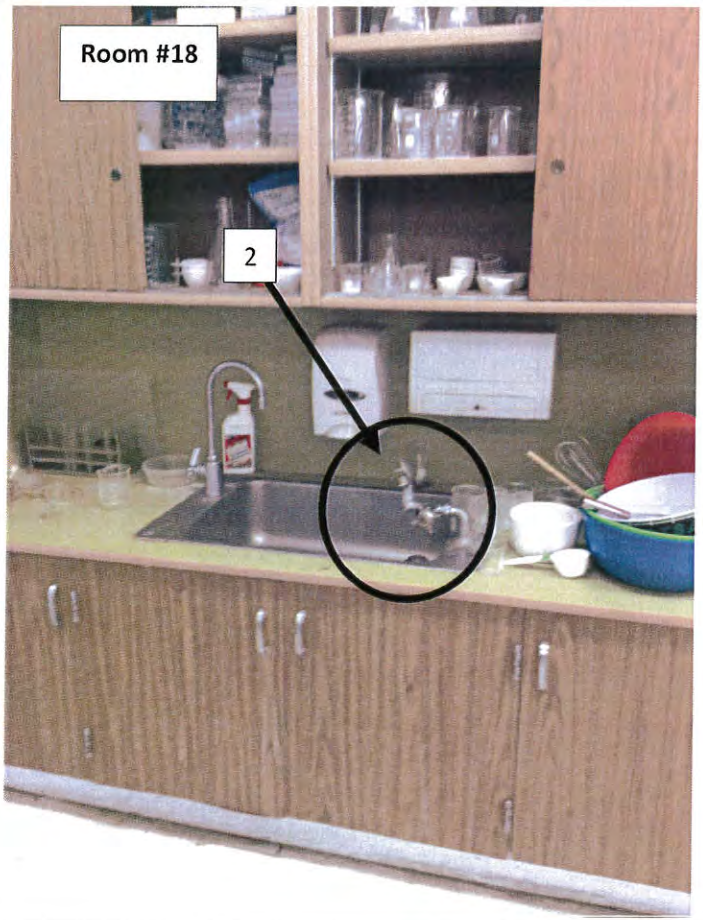

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168023

State Sample ID: 3710020-AIJ-B

Date & Time Last Used: 4/21/2017 @ 2200

Date & Time Sample Collected: 4/22/17 @0604

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: Arroyo Paseo Charter High School

Name of Building: Classroom Building

Location Description: Inside Room #17

Type of Outlet: Single Bubbler

Description: Single Bubbler on right

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168024

State Sample ID: 3710020-AIJ-C

Date & Time Last Used: 4/21/17 @ 2200

Date & Time Sample Collected: 4/22/17 @0608

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: Arroyo Paseo Charter High School

Name of Building: Classroom Building

Location Description: Inside Room 14

Type of Outlet: Bubbler

Description: Bubbler on right

Comments/Miscellaneous:

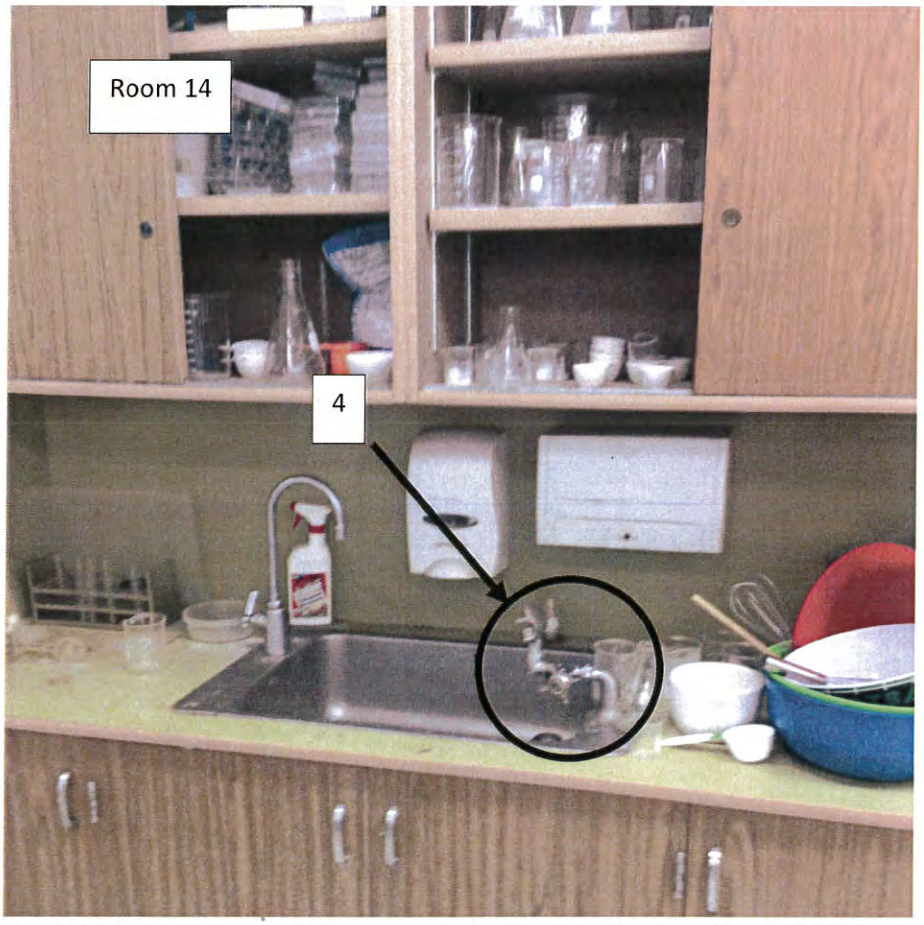

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168025

State Sample ID: 3710020-AIJ-D

Date & Time Last Used: ~~4/22~~ 4/21/17 @ 2200

Date & Time Sample Collected: 4/22/17 @ 0609

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 5

School: Arroyo Paseo Charter High School

Name of Building: Classroom Building

Location Description: Inside Room 13

Type of Outlet: Bubbler

Description: Bubbler on right

Comments/Miscellaneous:

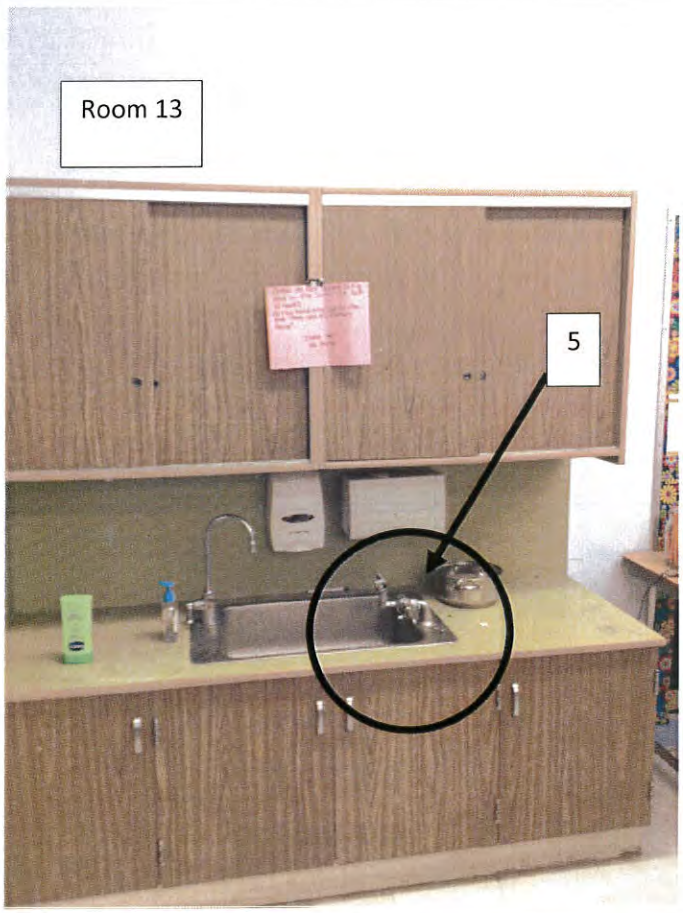

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168026

State Sample ID: 3710020-AIJ-E

Date & Time Last Used: 4/21/17 @ 2200

Date & Time Sample Collected: 4/22/17 @ 0606

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Alejandra Molloy

SD Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel (619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 28-Apr-2017

San Diego Unified School District
Arroyo Paseo High School

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168022	4/22/2017	6:12 AM	SAMPLE 1	3710020-AIJ-A	< 5	µg/L
W1168023	4/22/2017	6:04 AM	SAMPLE 2	3710020-AIJ-B	< 5	µg/L
W1168024	4/22/2017	6:08 AM	SAMPLE 3	3710020-AIJ-C	< 5	µg/L
W1168025	4/22/2017	6:09 AM	SAMPLE 4	3710020-AIJ-D	< 5	µg/L
W1168026	4/22/2017	6:06 AM	SAMPLE 5	3710020-AIJ-E	< 5	µg/L

Source	Source Description
SAMPLE 1	Main classroom building, north exterior wall, triple fountain, left bubbler
SAMPLE 2	Main building, room 18, bubbler at sink
SAMPLE 3	Main building, room 17, bubbler at sink
SAMPLE 4	Main building, room 14, bubbler at sink
SAMPLE 5	Main building, room 13, bubbler at sink

DRL=State Mandated Detection Limit for Reporting (DLR)= 5 µg/L
Action Level (AL) = 15 µg/L

Doug Campbell, Senior Chemist

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

20-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168022	Arroyo Paseo HS	21-APR-2017	0612	A. Molloy	SAMPLE 1	
2	W1168023	Arroyo Paseo HS	21-APR-2017	0604		SAMPLE 2	
3	W1168024	Arroyo Paseo HS	21-APR-2017	0608		SAMPLE 3	
4	W1168025	Arroyo Paseo HS	21-APR-2017	0609		SAMPLE 4	
5	W1168026	Arroyo Paseo HS	21-APR-2017	0606		SAMPLE 5	

586

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign: A Molloy	Received by: Name: Sign:	Date & Time: 4/22/17 @ 1010 Location: WQL AIV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: A Molloy
Received Date: 4/22/17
LIMS Received Time: 1012
Reviewed By: A Molloy 4/26/17

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Ashley Falls Elementary

Physical Address of School: 13030 Ashley Falls Drive

First Bell: 8:10am

Meeting Date: 5-8-2017

Sampling Plan Completion Date: 5/16/17

Completed by Print Name: Mike Curtis

Signature: [illegible] Date: 5/16/17

School's Point of Contact for Sampling Assistance

Name: Patrick Lum

Phone: (858) 864-3473

Email: plum@dmusd.org

City of San Diego 3710020

Approved By: [illegible] 5/24/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Ashley Falls Elementary 13030 Ashley Falls Drive

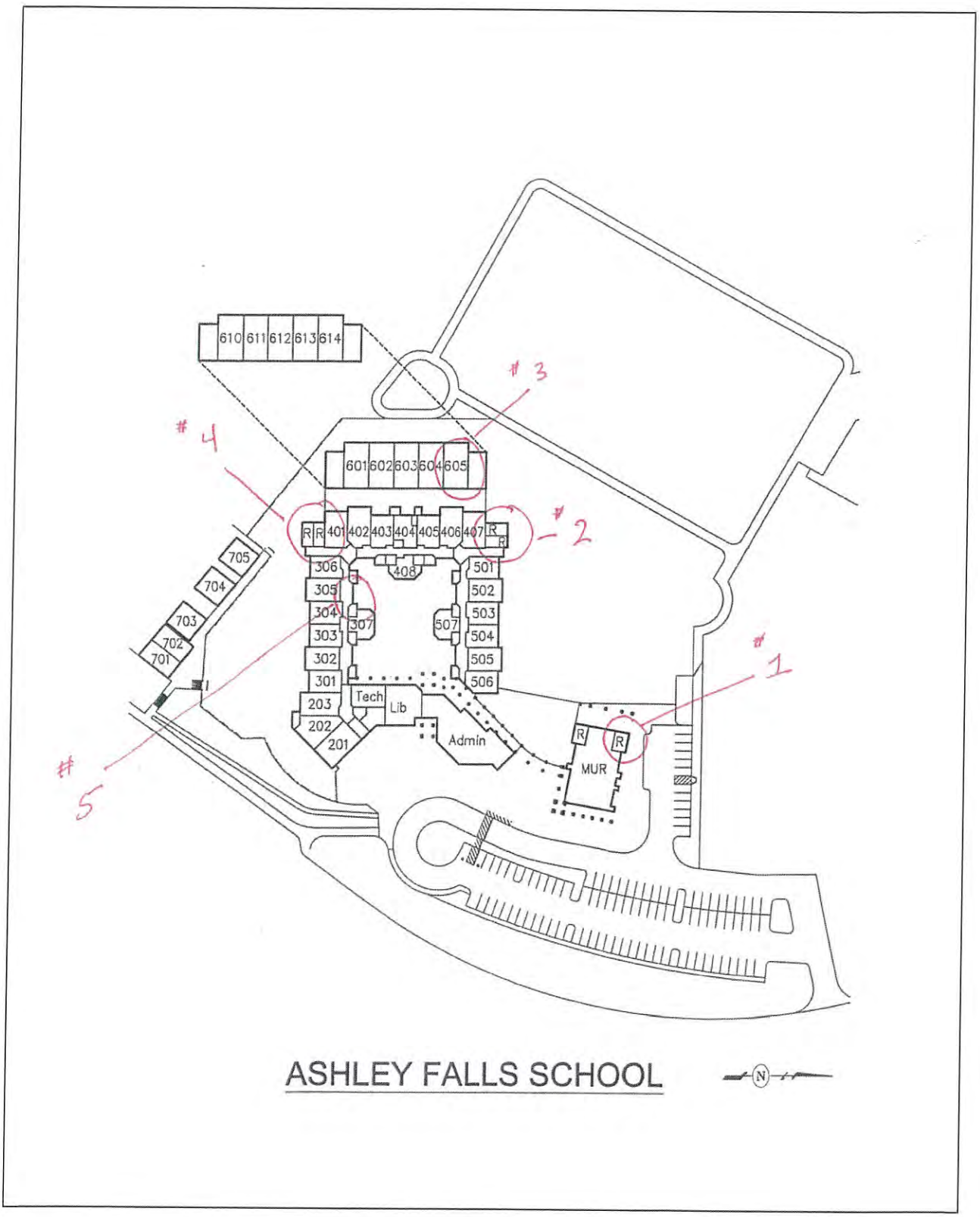
610 611 612 613 614
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R R 401 402 403 404 405 406 407 R R
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Lib
Admin
MUR
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701
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4
5
ASHLEY FALLS SCHOOL
N

Sample No. 1

School: Ashley Falls Elementary

Name of Building: MUR

Location Description: Behind boy's restroom (MUR)

Type of Outlet: Bubbler

Description; right Drinking fountain bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174609

State Sample ID: 3710020-CBG-A

Date & Time Last Used: 6/01/17 @ 1900

Date & Time Sample Collected: 6/02/17 @ 0632

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: Ashley Falls Elementary

Name of Building: 400 wing

Location Description: East side of 400 wing in between boys / girls upper grade restrooms

Type of Outlet: Drinking fountain

Description: Right side bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174610

State Sample ID: 3710020-CBG-B

Date & Time Last Used: 6/01/17 @ 1900

Date & Time Sample Collected: 6/02/17 @ 0635

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: Ashley Falls Elementary

Name of Building: Classroom 605

Location Description: Bottom of two story building right side

Type of Outlet: bubbler

Description: bubbler attached to sink

Comments/Miscellaneous:

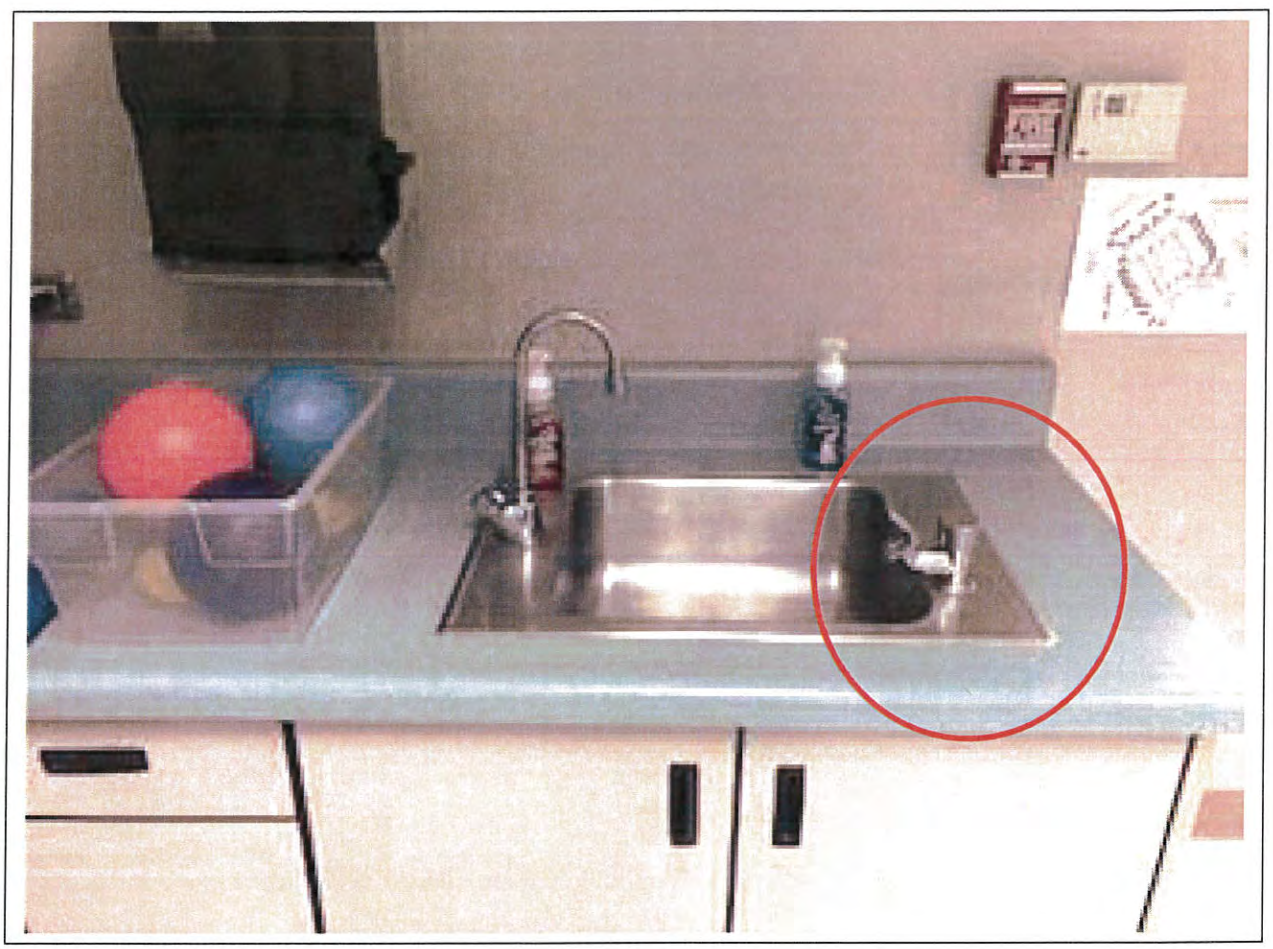

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174611

State Sample ID: 3710020-CBG-C

Date & Time Last Used: 6/01/17 @ 1900

Date & Time Sample Collected: 6/02/17 @ 0637

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: Ashley Falls Elementary

Name of Building: 400 building

Location Description: west end of 400 building

Type of Outlet: Drinking fountain

Description: Right side bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174612

State Sample ID: 3710020-CBG-D

Date & Time Last Used: 6/01/17 @ 1900

Date & Time Sample Collected: 6/02/17 @ 0645

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Holloy

Sample No. 5

School: Ashley Falls Elementary

Name of Building: Wing 300

Location Description: Interior hallway across classroom 305

Type of Outlet: Bubbler

Description: Bubbler attached to sink

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174613

State Sample ID: 3710020-CBG-E

Date & Time Last Used: 6/01/17 @ 1900

Date & Time Sample Collected: 6/02/17 @ 0642

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

01-Jun-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1174609	Ashley Falls Elementary	02-JUN-2017	0632	A. Molloy	SAMPLE 1	
2	W1174610	Ashley Falls Elementary	02-JUN-2017	0635		SAMPLE 2	
3	W1174611	Ashley Falls Elementary	02-JUN-2017	0637		SAMPLE 3	
4	W1174612	Ashley Falls Elementary	02-JUN-2017	0640		SAMPLE 4	
5	W1174613	Ashley Falls Elementary	02-JUN-2017	0642		SAMPLE 5	

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign:	Received by: Name: Keith Rechnecin Sign:	Date & Time: 6/02/17 @ 7:20 Location: AIV WQL	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: KR
Received Date: 6/2/17
LIMS Received Time: 0815
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Audubon K-8

Physical Address of School: 8111 San Vicente, San Diego, CA 92114-4836

First Bell: 7:45 am

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 03/31/2017

Completed by Print Name: Ginette Commins

Signature: GCommins Date: 03/31/2017

School's Point of Contact for Sampling Assistance

Name: Ginette Commins

Phone: (858) 627-7201

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-8-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Audubon K-8, 8111 San Vicente, San Diego, CA 92114-4836

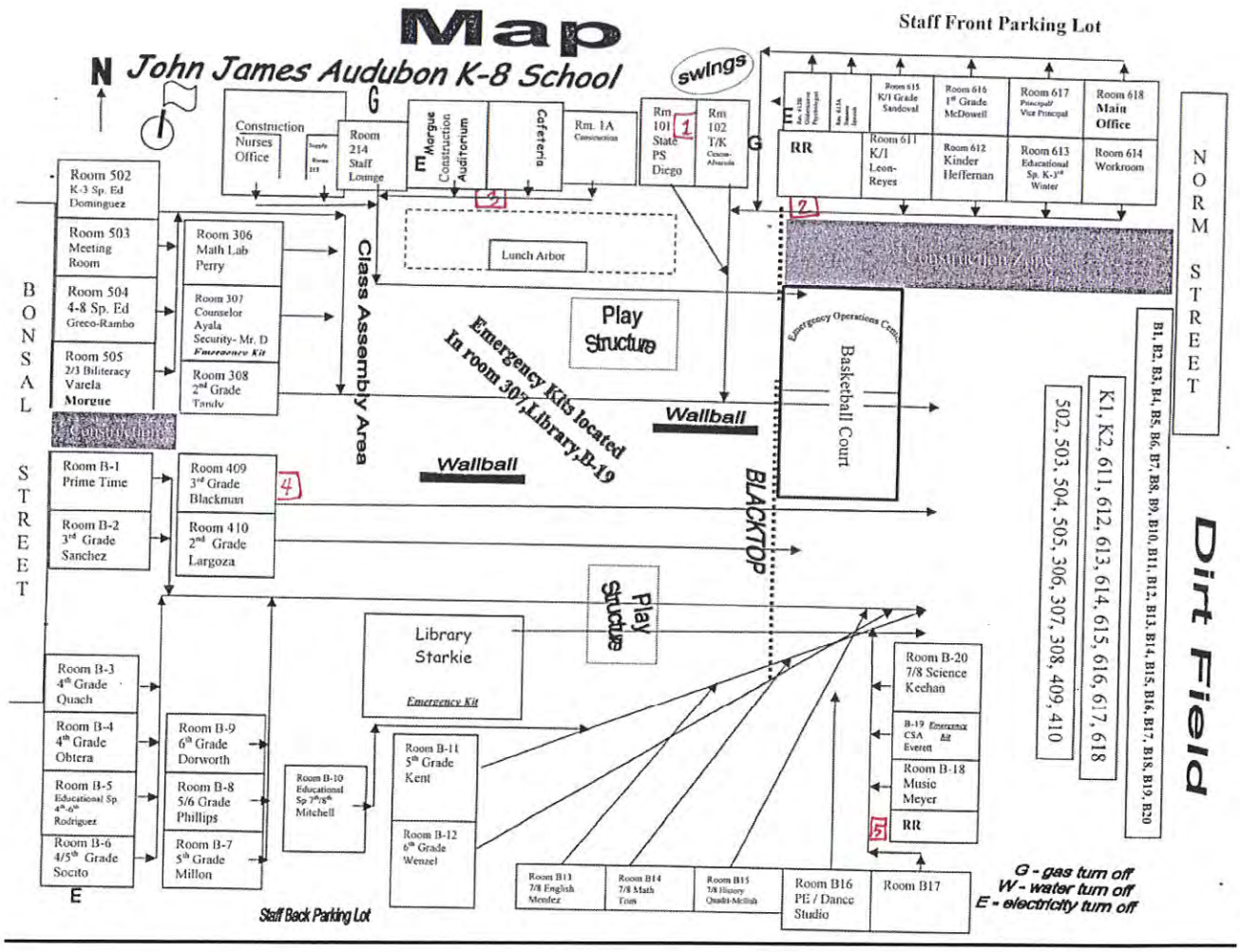

Sample No. 1

School: Audubon K-8

Name of Building: 100s - State Preschool & Transitional Kindergarten Rooms

Location Description: Room 101-Preschool/Transitional Kindergarten, classroom sink/faucet, next to exit door leading to playground

Type of Outlet: bubbler

Description: bubbler at sink with push button cap

Comments/Miscellaneous: indoor drinking water source/SDUSD Location ID# 0009

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165284

State Sample ID: 3710020-ADB-A

Date & Time Last Used: 4/10/17 to 1800 - 2200

Date & Time Sample Collected: 4/11/17 0610

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez

Sample No. 2

School: Audubon K-8

Name of Building: 600s – Kindergarten Rooms

Location Description: Wall mounted exterior, next to Boy's Restroom, facing Dirt Field

Type of Outlet: bubbler

Description: right bubbler head

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location ID# 0009

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165285

State Sample ID: 3710020-ADB-B

Date & Time Last Used: 4/10/17 1800-2200

Date & Time Sample Collected: 4/11/17 0615

Direct Sample ☐ Transfer Sample ☑ *Very Low flow

Name of Water System Sample Collector: E. Alvarez

Sample No. 3

School: Audubon K-8

Name of Building: Assembly

Location Description: Wall mounted exterior, between Assembly Nos. 219 & 220, facing Lunch Arbor

Type of Outlet: bubbler

Description: upper/right bubbler on a dual fountain

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location ID# 0009

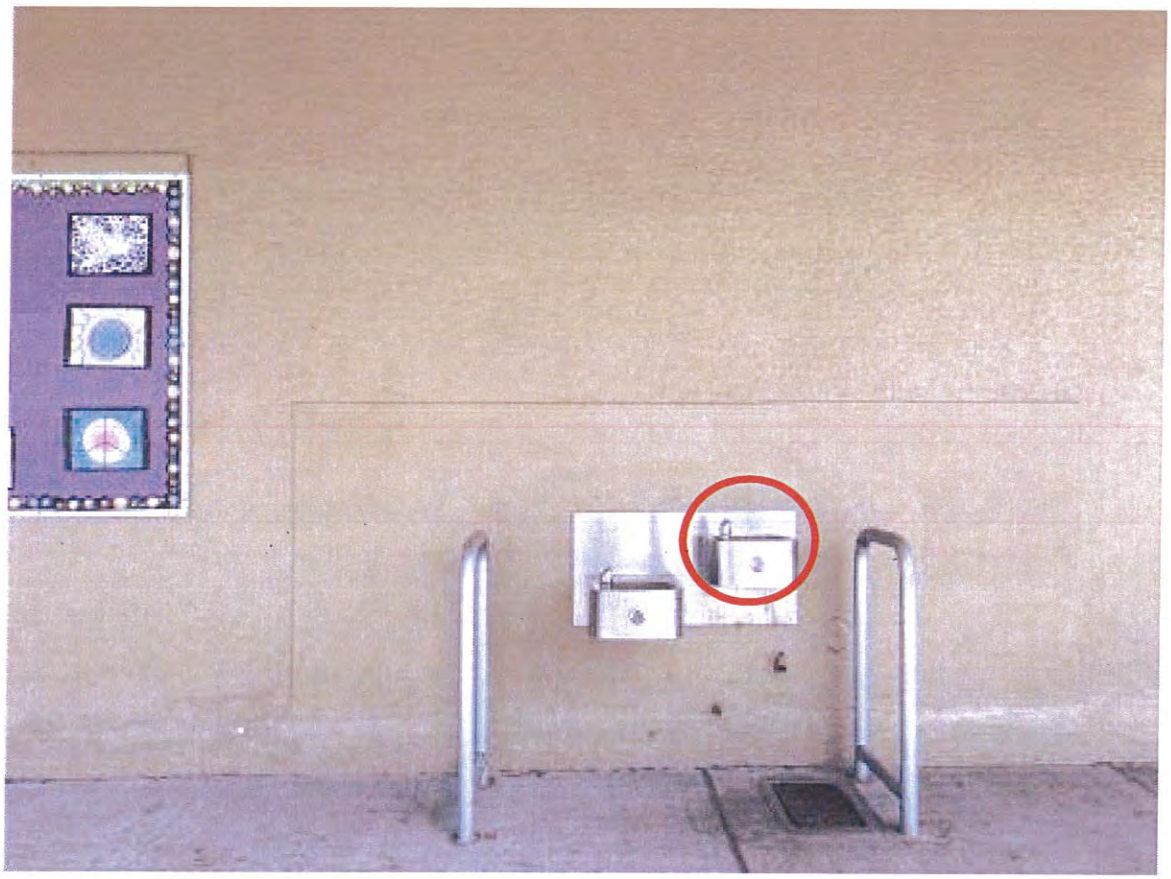

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165286

State Sample ID: 3710020-ADB-C

Date & Time Last Used: ~~4/9/17~~ 4/10/17 1800

Date & Time Sample Collected: 4/11/17 0605

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector:

Sample No. 4

School: Audubon K-8

Name of Building: 400s – 2nd Grade

Location Description: Wall mounted exterior, next to Classroom 409, facing play structure/blacktop

Type of Outlet: bubbler

Description: upper/left bubbler on a dual fountain

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location ID# 0009

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165287

State Sample ID: 3710020-ADB-D

Date & Time Last Used: 4/10/17 1800 - 2200

Date & Time Sample Collected: 4/11/17 0620

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector:

Sample No. 5

School: Audubon K-8

Name of Building: Portable Restroom adjacent to Portable Classrooms B18 – B20

Location Description: Floor mounted exterior, next to Boy's Restroom, facing play structure/blacktop

Type of Outlet: bubbler

Description: back/upper bubbler on a two-station fountain

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location ID# 0009

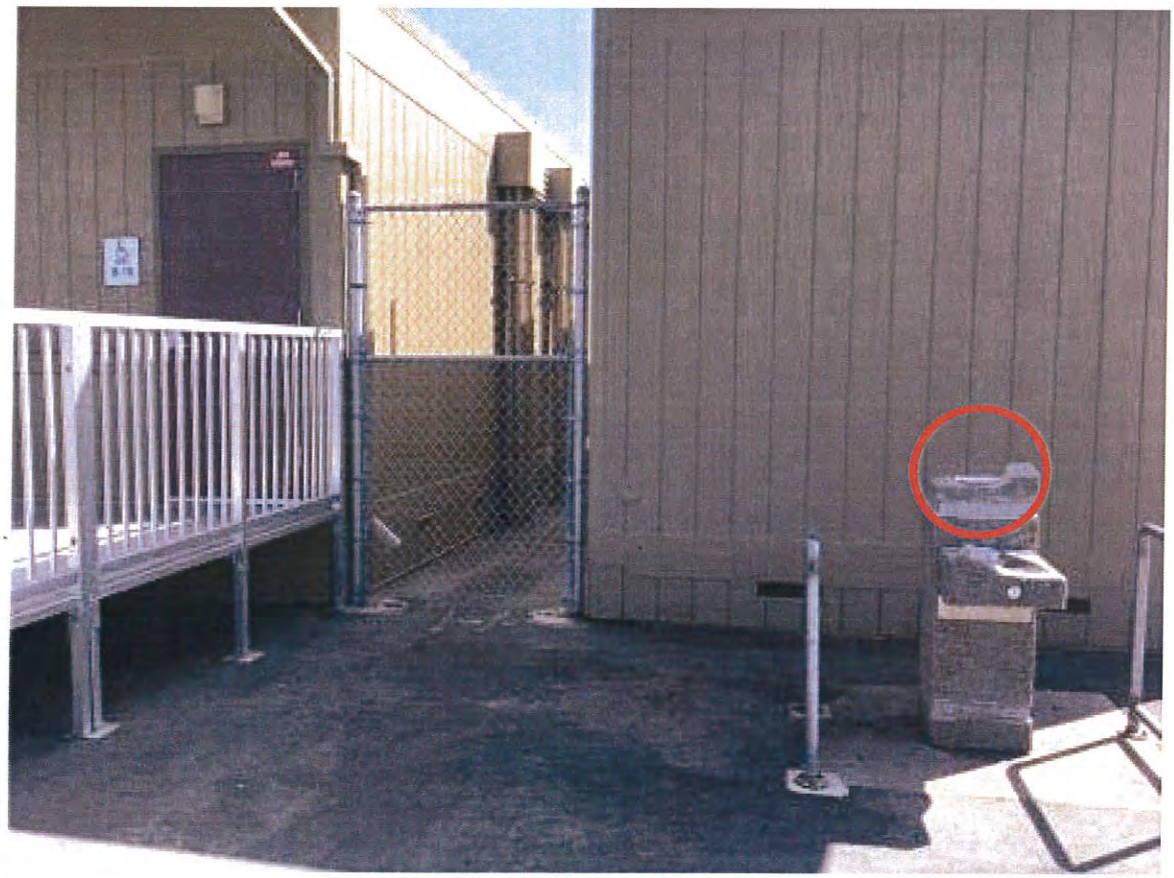

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165288

State Sample ID: 3710020-ADB-E

Date & Time Last Used: 4/10/17 1800-2200

Date & Time Sample Collected: 4/11/17 0625

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: E. Alvarez

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

08-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1165284	Audubon K-8	11-APR-2017	0610	EA	SAMPLE 1	
2	W1165285	Audubon K-8	11-APR-2017	0615	EA	SAMPLE 2	
3	W1165286	Audubon K-8	11-APR-2017	0605	EA	SAMPLE 3	
4	W1165287	Audubon K-8	11-APR-2017	0620	EA	SAMPLE 4	
5	W1165288	Audubon K-8	11-APR-2017	0625	EA	SAMPLE 5	

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Chain of Custody:

Relinquished by: Name: E. Alvarez Sign:	Received by: Name: Tom Burger Sign: TM B. Burger	Date & Time: 4-11-17 0700 Location: ALV LAB	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: [signature]
Received Date: 04/11/17
LIMS Received Time: 0839
Reviewed By:

Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 4/19/17

San Diego Unified School District

Audubon K-8

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1165284	04/11/17	06:10 AM	SAMPLE 1	3710020-ADB-A	< 5	ug/L
W1165285	04/11/17	06:15 AM	SAMPLE 2	3710020-ADB-B	< 5	ug/L
W1165286	04/11/17	06:05 AM	SAMPLE 3	3710020-ADB-C	< 5	ug/L
W1165287	04/11/17	06:20 AM	SAMPLE 4	3710020-ADB-D	< 5	ug/L
W1165288	04/11/17	06:25 AM	SAMPLE 5	3710020-ADB-E	< 5	ug/L

Source	Source Description
SAMPLE 1	100s BLDG, Room 101, next to exit, bubbler in sink
SAMPLE 2	600s BLDG exterior, next to boys resroom, facing dirt field, triple fountain, right bubbler
SAMPLE 3	Assembly, exterior, between 219 and 220, dual fountain, upper right
SAMPLE 4	400's BLDG, exterior, near Room 409, two fountains, upper left single bubbler
SAMPLE 5	Portable restroom, near Rooms B18 - B20, exterior free standing two station, upper bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
Tom Burger, Associate Chemist

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: # 11 Baker Elementary School

Physical Address of School: 4140 T st. San Diego Ca. 92113

First Bell: 8:00

Meeting Date: 3/22/2017

Sampling Plan Completion Date: 3/27/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 3/27/2017

School's Point of Contact for Sampling Assistance

Name: Elizabeth Lara

Phone: 619-302-7616

Email: elara@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 3/30/17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to: Please tag out all multiple fixtures in pictures

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: # 11- Baker Elementary 4140 T st. San Diego , Ca 92113

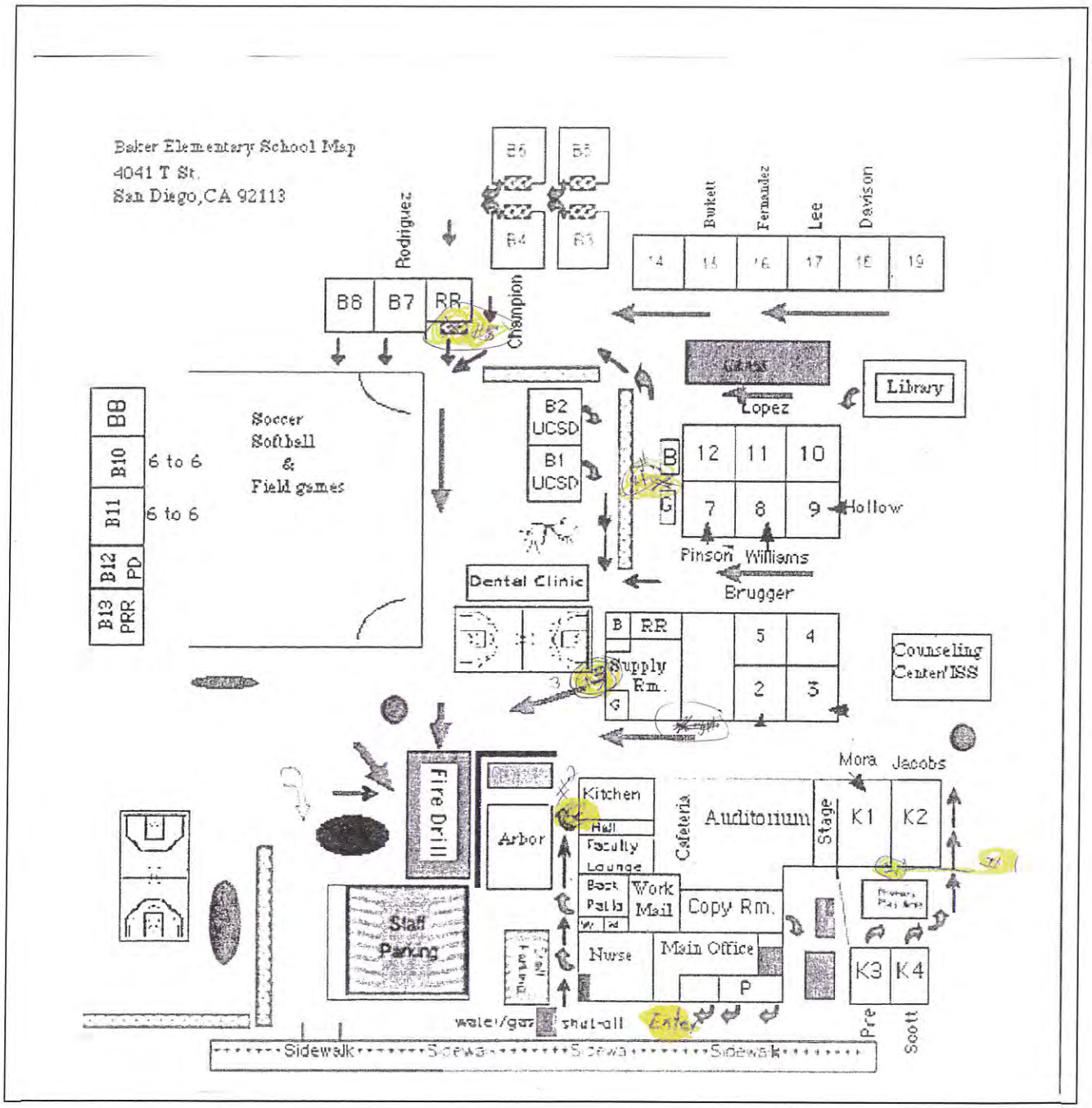

Sample No. 1

School: # 11 Baker Elementary

Name of Building: Administration/Auditorium

Location Description: Outside between K1 & K2 restrooms

Type of Outlet: Bubbler

Description: water fountain on right

Comments/Miscellaneous: Left-side bubbler sample instead the right-side bubbler due to its insufficient flow. WM

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020 AAI - A

LIMS Sample ID: W1164083

Date & Time Last Used: 4-3-2017 @ After School

Date & Time Sample Collected: 4-4-2017 @ 6:05

Name of Water System Sample Collector: Walt Mulderig

Sample No. 2

School: # 11 Baker Elementary

Name of Building: Admin building

Location Description: between electrical meter rm. And hallway door

Type of Outlet: bubbler

Description: Taller water fountain on right side

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020 - AAI - B

LIMS Sample ID: W1164084

Date & Time Last Used: 4-3-2017 Afternoon

Date & Time Sample Collected: 4-4-2017 6:08

Name of Water System Sample Collector: Walt Mulderig

Sample No. 3

School: # 11 Baker Elementary

Name of Building: 1-5 Supply room

Location Description: right fountain near girls' rest room and Supply room door

Type of Outlet: bubbler

Description: water fountain on right

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-AAI-C

LIMS Sample ID: W1164085

Date & Time Last Used: 4-3-2017 Afternoon

Date & Time Sample Collected: 4-4-2017 @ ~~8:11 am~~ WM 6:11

Name of Water System Sample Collector: Walt Mulderig

Sample No. 4

School: #11 Baker Elementary

Name of Building: 7-12

Location Description: next to custodian ups sign and girls restroom

Type of Outlet: bubbler

Description: Right bubbler of a three bubbler fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-AAI-D

LIMS Sample ID: W1164086

Date & Time Last Used: 4-3-2017 Afternoon

Date & Time Sample Collected: 4-4-2017 @ 8:15

Name of Water System Sample Collector: Walt Mulderig

Sample No. 5

School: # 11- Baker Elementary

Name of Building: Field Restrooms

Location Description: Outside of Bungalow restroom near sports field

Type of Outlet: bubbler

Description: Drinking fountain on the right

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-AAI-E

LIMS Sample ID: W1164087

Date & Time Last Used: 4-3-2017 afternoon

Date & Time Sample Collected: 4-4-2017 @ 6:18

Name of Water System Sample Collector: Walt Mulderig

San Diego Water Quality Laboratory

LEAD_SCHOOL For 04-APR-2017 Baker

No.	Sample ID	#	Description	Source	Sample Time	Sampler	Comments
1	W1164083	1	SAMPLE 1	PB_SCHOOL	6:05	WM	Left side bubbler sampled.
2	W1164084	1	SAMPLE 2	PB_SCHOOL	6:08	"	
3	W1164085	1	SAMPLE 3	PB_SCHOOL	6:11	"	
4	W1164086	1	SAMPLE 4	PB_SCHOOL	6:15	"	
5	W1164087	1	SAMPLE 5	PB_SCHOOL	6:18		

Relinquished By: [signature] Date: 4-4-17 Time: 6:27 Received By: [signature] Date: 4/4/17 Time: 6:28 am.

Relinquished By: [signature] Date: 4-4-17 Time: 7:06 Received By: [signature] Date: 4/4/17 Time: 0704

Relinquished By: Date: Time: Received By: Date: Time:

Received By: [signature] 4/4/17
Received Date: 4/4/17
LIMS Received Time: 0749
Reviewed By:

Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 4/12/17

San Diego Unified School District

Baker Elementary School

Sample ID	Sample Date	Sample Time	Description	External ID	Lead	Units
W1164083	04/04/17	06:05 AM	SAMPLE 1	3710020-AAI-A	< 5	ug/L
W1164084	04/04/17	06:08 AM	SAMPLE 2	3710020-AAI-B	< 5	ug/L
W1164085	04/04/17	06:11 AM	SAMPLE 3	3710020-AAI-C	< 5	ug/L
W1164086	04/04/17	06:15 AM	SAMPLE 4	3710020-AAI-D	< 5	ug/L
W1164087	04/04/17	06:18 AM	SAMPLE 5	3710020-AAI-E	< 5	ug/L

SAMPLE 1 Admin/Auditorium btwn K1 & K2 restrooms right bubbler

SAMPLE 2 Admin BLDG. btwn electrical meter rm & hallway door, right, tall bubbler

SAMPLE 3 1-5 Supply Rm. near girls restroom & supply rm. upper right bubbler

SAMPLE 4 7-12 next to custodian ups sign & girls restroom, left bubbler

SAMPLE 5 Field Restrooms, outside bungalow restroom near sports field, lower right bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: # 13 Balboa Elementary

Physical Address of School: 1844 South 40th st. San Diego Ca. 92113

First Bell: 8:15

Meeting Date: 3/22/2017

Sampling Plan Completion Date: 3/27/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 3/27/2017

School's Point of Contact for Sampling Assistance

Name: Elizabeth Lara

Phone: 619-302-7616

Email: elara@sandi.net

City of San Diego 3710020

Tom B. Burger

Approved By: 3/30/17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

TAG OUT ALL FIXTURES IN PICTURES

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: # 13 Balboa Elementary 1844 South 40th st. 92113

Sample No. 1

School: # 13 Balboa Elementary

Name of Building: 100 bldg.

Location Description: outside between boys & girls restrooms

Type of Outlet: bubbler

Description: water fountain on right

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164531

State Sample ID: 3710020-ABJ-A

Date & Time Last Used: 040517 1800 - 2000

Date & Time Sample Collected: 040617 0555

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: [illegible]

Sample No. 2

School: # 13 Balboa Elementary

Name of Building: 400 bldg.

Location Description: Inside hallway at north wall between girls & boys restrooms

Type of Outlet: bubbler

Description: water fountain on right

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164532

State Sample ID: 3710020-ABJ-B

Date & Time Last Used: 040517 1800-2000

Date & Time Sample Collected: 040617 0605

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: [illegible]

Sample No. 3

School: # 13 Balboa Elementary

Name of Building: 300 bldg. lower floor

Location Description: Inside Lower floor right side hallway between girls & boys restrooms

Type of Outlet: bubbler

Description: right water fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164533

State Sample ID: 3710020-ABJ-C

Date & Time Last Used: 040517 1800 - 2000

Date & Time Sample Collected: 040617 0610

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector:

Sample No. 4

School: # 13 Balboa

Name of Building: 300 bldg.-

Location Description: Up Stairs-between girls & boys restrooms right fountain

Type of Outlet: bubbler

Description: right drinking fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164534

State Sample ID: 3710020-ABJ-D

Date & Time Last Used: 040517 1800-2000

Date & Time Sample Collected: 040607 0615

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector:

Sample No. 5

School: # 13 Balboa

Name of Building: 200 bldg.

Location Description: Right bubbler next to teachers' lounge

Type of Outlet: Bubbler

Description: water fountain on right

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164535

State Sample ID: 3710020-ABJ-E

Date & Time Last Used: 040517 1800 - 2000

Date & Time Sample Collected: 040617 0620

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: J-W

SD Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 4/12/17

San Diego Unified School District

Balboa Elementary

Sample ID	Sample Date	Sample Time	Description	External ID	Lead	Units
W1164531	04/06/17	05:55 AM	SAMPLE 1	3710020-ABJ-A	< 5	ug/L
W1164532	04/06/17	06:05 AM	SAMPLE 2	3710020-ABJ-B	< 5	ug/L
W1164533	04/06/17	06:10 AM	SAMPLE 3	3710020-ABJ-C	< 5	ug/L
W1164534	04/06/17	06:15 AM	SAMPLE 4	3710020-ABJ-D	< 5	ug/L
W1164535	04/06/17	06:20 AM	SAMPLE 5	3710020-ABJ-E	< 5	ug/L

SAMPLE 1 BLDG 100, exterior between boys/girls restroom, right bubbler

SAMPLE 2 BLDG 400, inside hallway north, between girls/boys restroom, right bubbler

SAMPLE 3 BLDG 300 lower, right hallway, between boys/girls restroom, right bubbler

SAMPLE 4 BLDG 300 upstairs, between boys/girls restroom, right bubbler

SAMPLE 5 BLDG 200, next to teachers lounge, lower right bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

05-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1164531	Balboa Elementary	06-APR-2017	0555	JERRY WESTON	SAMPLE 1	
2	W1164532	Balboa Elementary	06-APR-2017	0605		SAMPLE 2	
3	W1164533	Balboa Elementary	06-APR-2017	0610		SAMPLE 3	
4	W1164534	Balboa Elementary	06-APR-2017	0615		SAMPLE 4	
5	W1164535	Balboa Elementary	06-APR-2017	0620	JERRY WESTON	SAMPLE 5	

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Chain of Custody:

Relinquished by:	Received by:	Date & Time:	Comments:
Name: Sign:	Name: Tom Burger Sign: Tom Burger	4-6-17 0756 Location: WQ2 LAB	
Name: JERRY WESTON Sign:	Name: Sign:	Date & Time: Location:	
Name: Sign:	Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 4-6-17
LIMS Received Time: 0856
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: # 91 Emerson/BANDINI Elementary School across the Street.

Physical Address of School: ~~3510 Newton Ave~~ San Diego Ca.92113- 35th & Florence

First Bell: 9:00

Meeting Date: 3/22/2017

Sampling Plan Completion Date: 3/27/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 3/27/2017

School's Point of Contact for Sampling Assistance

Name: ~~Elizabeth Lara~~ Dan Lopez

Phone: ~~619-302-7616~~ 619-306-3383

Email: elara@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-7-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: 3510 Newton Ave San Diego Ca.92113 (north campus on 35th Two blocks north of Emerson)

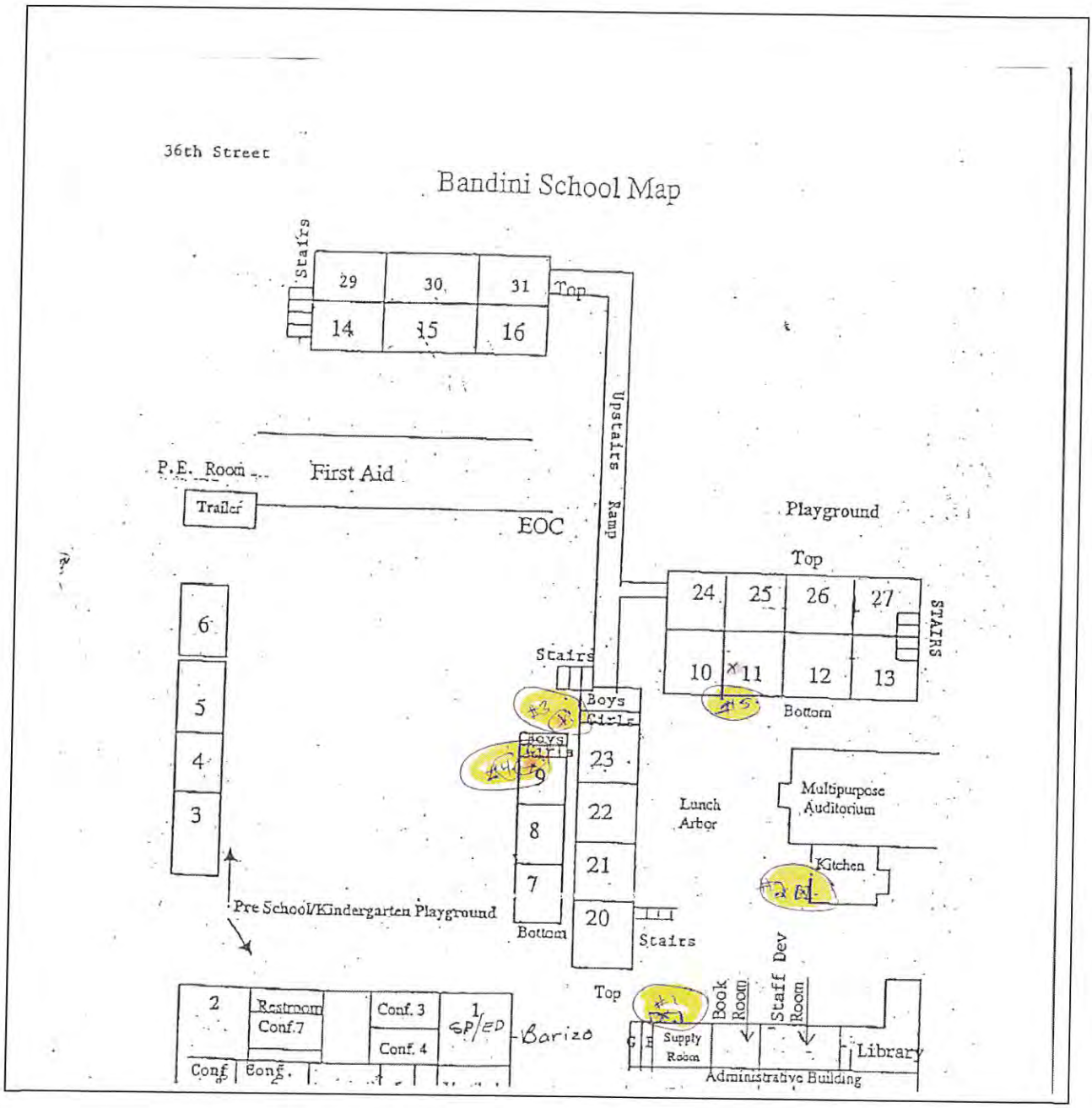

Sample No. 1

School: # 9 Emerson/ **BANDINI** Elementary

Name of Building: Administrative bldg.

Location Description: Outside wall right around corner facing west

Type of Outlet: bubbler

Description: water fountain at right

Comments/Miscellaneous: this campus is two blocks north of Emerson site

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165211

State Sample ID: 3710020-ACH-A

Date & Time Last Used: 050117 @ 1800 → 2200

Date & Time Sample Collected: 050217 @ 0548

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: [illegible]

Sample No. 2

School: Emerson/ **BANDINI** Elementary

Name of Building: Kitchen

Location Description: Outside kitchen service window

Type of Outlet: Bubbler

Description: Drinking fountain bubbler on right

Comments/Miscellaneous:

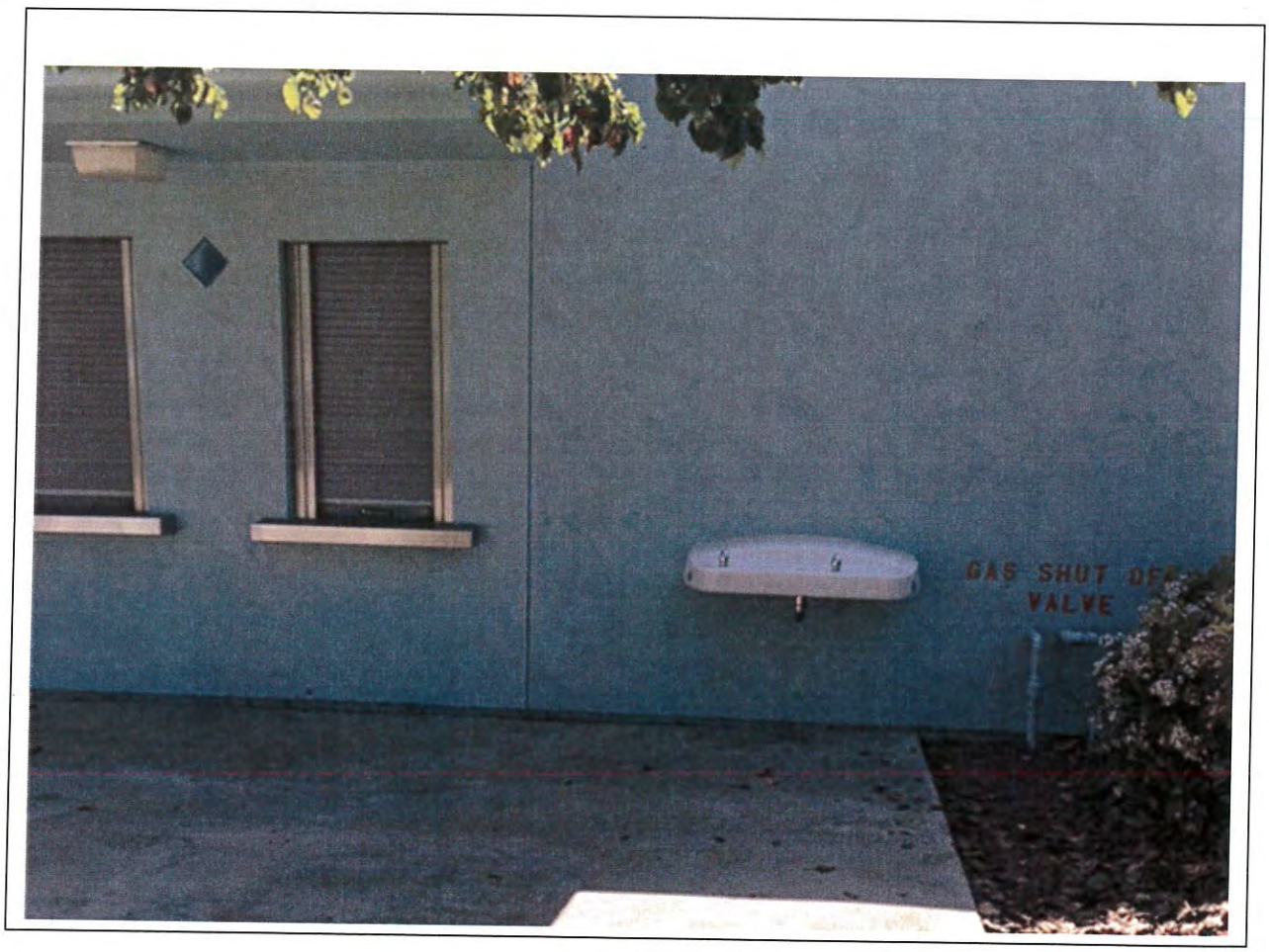

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165212

State Sample ID: 3710020-ACH-B

Date & Time Last Used: 050117 @ 1800 → 2200

Date & Time Sample Collected: 050217 @ 0551

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector:

Sample No. 3

School: Emerson/**BANDINI** Elementary

Name of Building: 7-8-9 building

Location Description: near room 9 around corner of boys and girls restrooms

Type of Outlet: Bubbler

Description: Water fountain bubbler on right

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165213

State Sample ID: 3710020-ACH-C

Date & Time Last Used: 050117 @ 1800 → 2200

Date & Time Sample Collected: 050217 @ ~~0550~~ 0600

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector:

Sample No. 4

School: Emerson /**BANDINI** Elementary

Name of Building: 7-8-9 bldg.

Location Description: Inside room # 9 sink on right

Type of Outlet: bubbler

Description: water fountain at sink right bubbler

Comments/Miscellaneous:

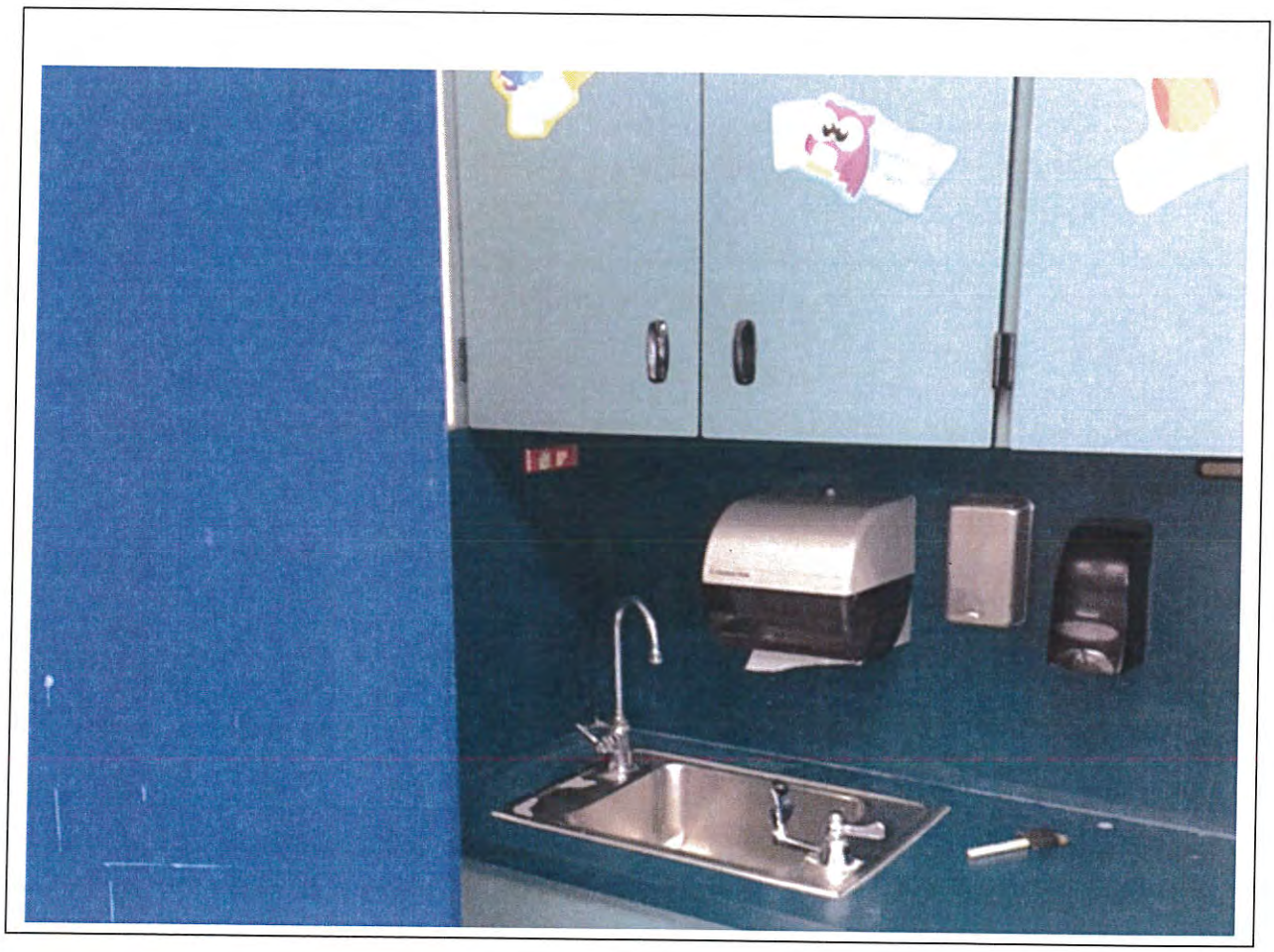

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165214

State Sample ID: 3710020-ACH-D

Date & Time Last Used: 050117 @ 1800 → 2200

Date & Time Sample Collected: 050217 @ 556

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector:

Sample No. 5

School: Emerson/ **BANDINI** Elementary

Name of Building: 10-11-12-13 bldg.

Location Description: Inside room # 11

Type of Outlet: Bubbler

Description: water fountain at sink on left side of room

Comments/Miscellaneous:

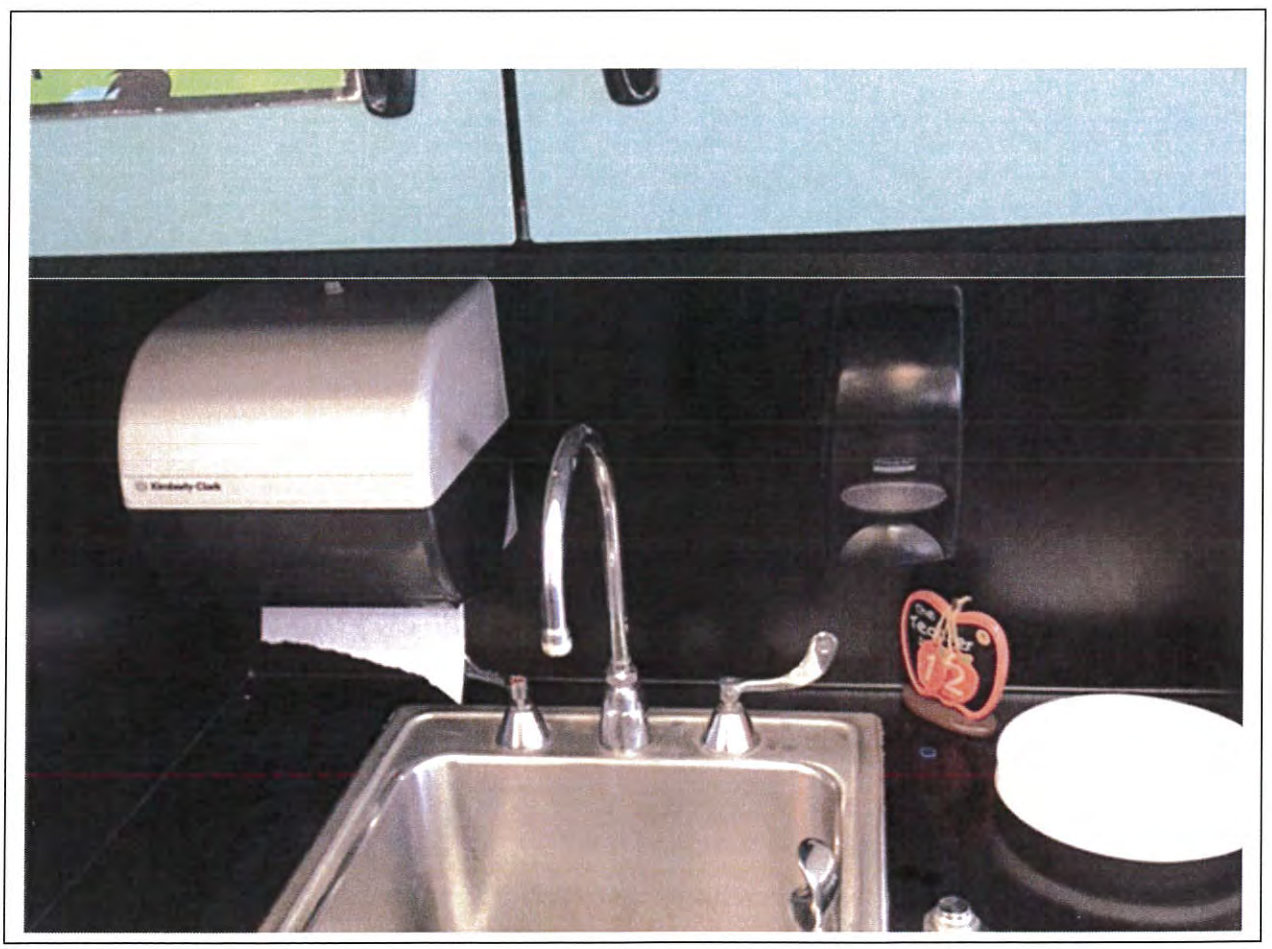

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165215

State Sample ID: 3710020-ACH-E

Date & Time Last Used: 050117 @ 1800 → 2200

Date & Time Sample Collected: 050217 @ ~~0550~~ 0605

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: [illegible]

Water Quality Chemistry Services
Chain of Custody Form

01-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1165211	Bandini Elementary	02-MAY-2017	0548	J Weston	SAMPLE 1	
2	W1165212	Bandini Elementary	02-MAY-2017	0551	J Weston	SAMPLE 2	
3	W1165213	Bandini Elementary	02-MAY-2017	0600	J Weston	SAMPLE 3	
4	W1165214	Bandini Elementary	02-MAY-2017	0556	J Weston	SAMPLE 4	
5	W1165215	Bandini Elementary	02-MAY-2017	0605	J Weston	SAMPLE 5	

Chain of Custody:

Relinquished by: Name: JERRY WESTON Sign: J Weston	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 050217/ 0735 Location: WQL	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/02/17
LIMS Received Time: 0726
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Barnard Elementary

Physical Address of School: 2445 Fogg St., San Diego, CA 92109-4855

First Bell: 7:45 AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 05/13/2017

Completed by Print Name: Ginette Commins

Signature: G Commins Date: 05/15/2017

School's Point of Contact for Sampling Assistance

Name: Ginette Commins

Phone: (858) 627-7201

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/16/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Barnard Elementary, 2445 Fogg St., San Diego, CA 92109-4855

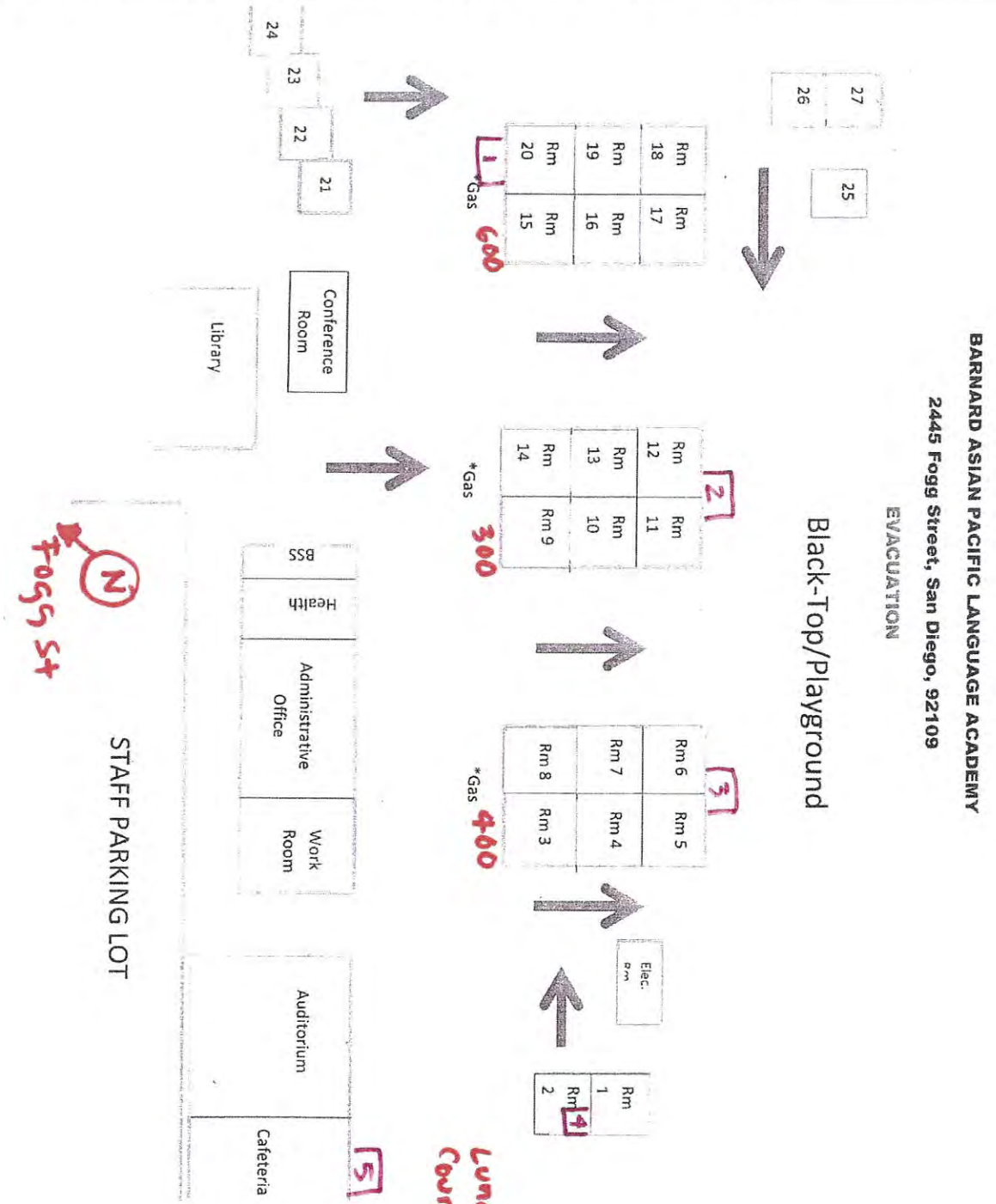

Sample No. 1

School: Barnard Elementary

Name of Building: 600 Classrooms 18-20

Location Description: Wall mounted exterior (North of Bldg), between Boys & Girls Restrooms, facing B28

Type of Outlet: bubbler

Description: Dual fountain – left bubbler head on the left/lower fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #17

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173058

State Sample ID: 3710020-BJI-A

Date & Time Last Used: 5/24/17 2200

Date & Time Sample Collected: 5/25/17 0558

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Brian Kner

Sample No. 2

School: Barnard Elementary

Name of Building: 300 Classrooms 9-14

Location Description: Wall mounted exterior (South of Bldg), between Girls' Restroom & Room 317 Custodian, facing blacktop

Type of Outlet: bubbler

Description: middle bubbler head on a single fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #17

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173059

State Sample ID: 3710020-BJI-B

Date & Time Last Used: 5/24/17 2200

Date & Time Sample Collected: 5/25/17 0601

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Brian Kherr

Sample No. 3

School: Barnard Elementary

Name of Building: 400 Classrooms 3-8

Location Description: Wall mounted exterior (South of Bldg), between Girls' Restroom & Room 412 Storage, facing blacktop

Type of Outlet: bubbler

Description: right bubbler head on a single fountain (MED flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #17

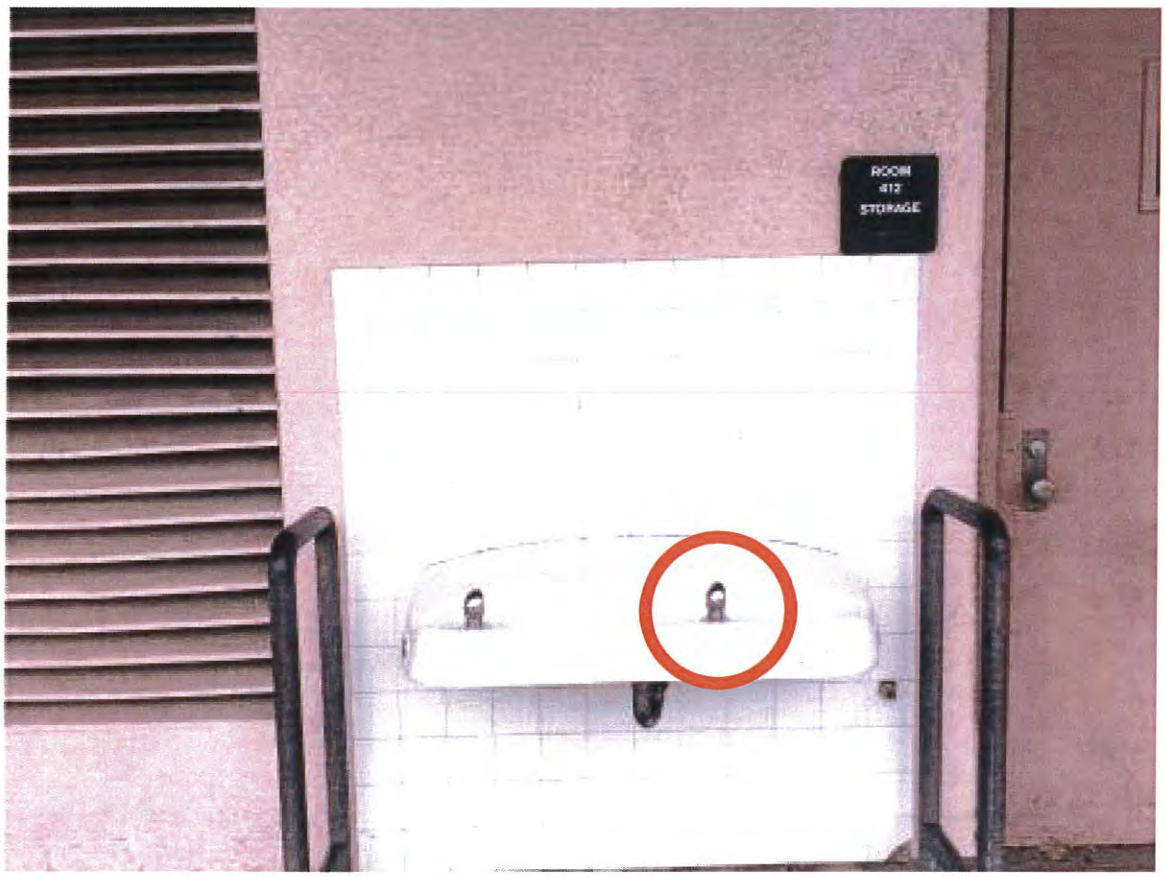

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173060

State Sample ID: 3710020-BJI-C

Date & Time Last Used: 5/24/17 2200

Date & Time Sample Collected: 5/25/17 0603

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Brian Kuerr

Sample No. 4

School: Barnard Elementary

Name of Building: Kindergarten

Location Description: Rm K2, classroom sink/faucet

Type of Outlet: bubbler

Description: dual sink – left side, bubbler with lever handle (MED flow)

Comments/Miscellaneous: indoor drinking water source/SDUSD Location Code #17

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173061

State Sample ID: 3710020-BJI-D

Date & Time Last Used: 5/24/17 2200

Date & Time Sample Collected: 5/25/17 0607

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Brian Knew

Sample No. 5

School: Barnard Elementary

Name of Building: Cafeteria/Auditorium

Location Description: Wall mounted exterior (South of Bldg), facing lunch court

Type of Outlet: bubbler

Description: lower/left bubbler head on a dual fountain

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #17

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173062

State Sample ID: 3710020-BJI-E

Date & Time Last Used: 5/24/17 2200

Date & Time Sample Collected: 5/25/17 0609

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Brian Knerr

Exhibit 1

Water Quality Chemistry Services
Chain of Custody Form

22-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1173058	Barnard Elementary	25-MAY-2017	0558	BK	SAMPLE 1	
2	W1173059	Barnard Elementary	25-MAY-2017	0601		SAMPLE 2	
3	W1173060	Barnard Elementary	25-MAY-2017	0603		SAMPLE 3	
4	W1173061	Barnard Elementary	25-MAY-2017	0607		SAMPLE 4	
5	W1173062	Barnard Elementary	25-MAY-2017	0609		SAMPLE 5	

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Chain of Custody:

Relinquished by: Name: Brian Knerr Sign: BK	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 5/25/17 @ 0630 Location: Alv	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/25/17
LIMS Received Time: 0650
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Bay Park Elementary

Physical Address of School: 2433 Denver St., San Diego, CA 92110

First Bell: 9:00am

Meeting Date: 4/05/2017

Sampling Plan Completion Date: 4/27/17

Completed by Print Name: Lori Sherman

Signature: *Lori Sherman* Date: 4/27/17

School's Point of Contact for Sampling Assistance

Name: Lori Sherman

Phone: 619-301-9086

Email: lsherman1@sandi.net

City of San Diego 3710020

Approved By: 5/8/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Bay Park Elementary - 2433 Denver St., San Diego, CA 92110

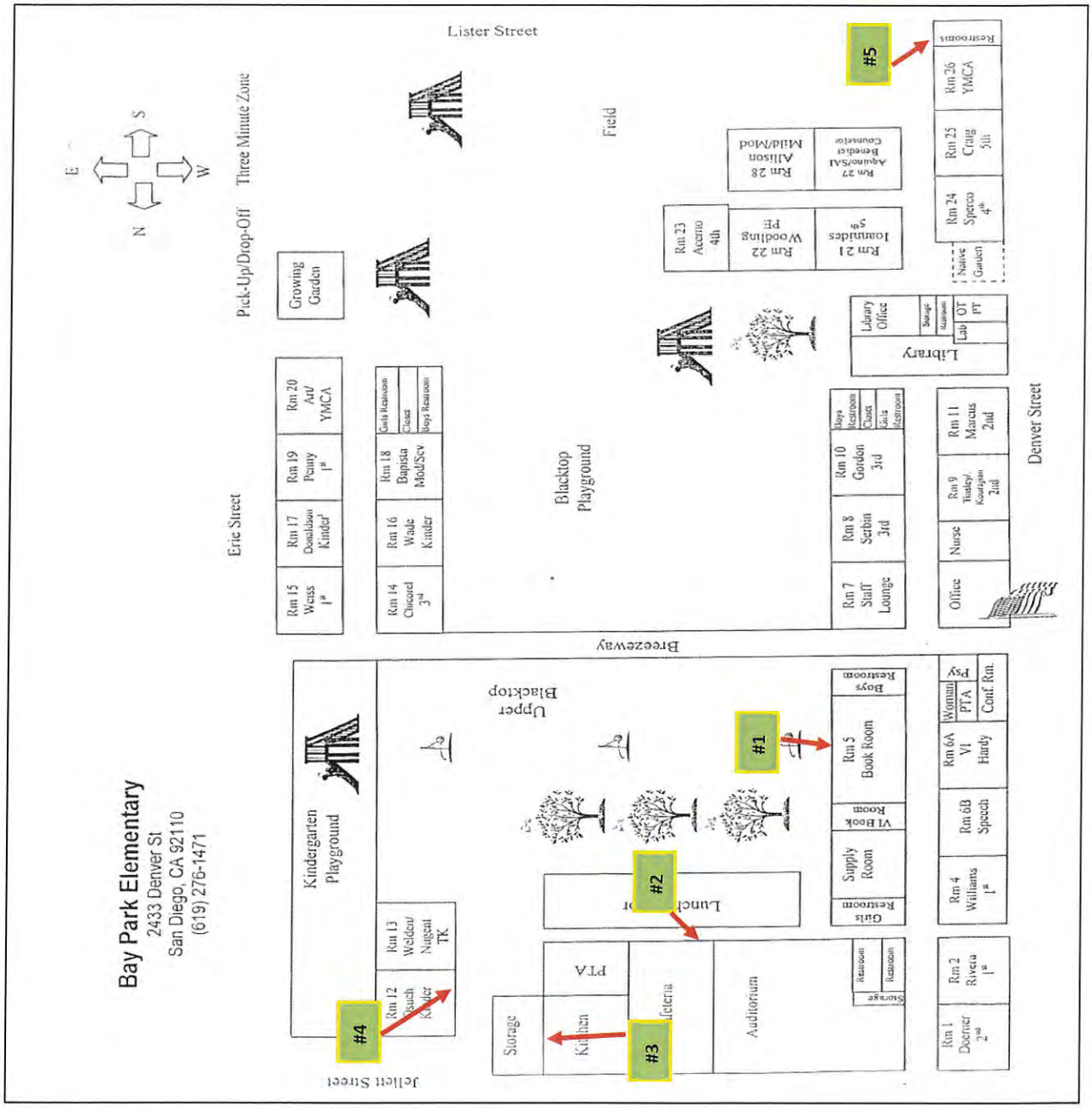

Sample No. 1

School: Bay Park Elementary - 2433 Denver St., San Diego, CA 92110

Name of Building:

Location Description: East exterior wall next to blacktop area

Type of Outlet: Bubbler

Description: Right bubbler

Comments/Miscellaneous: Back side of room 5

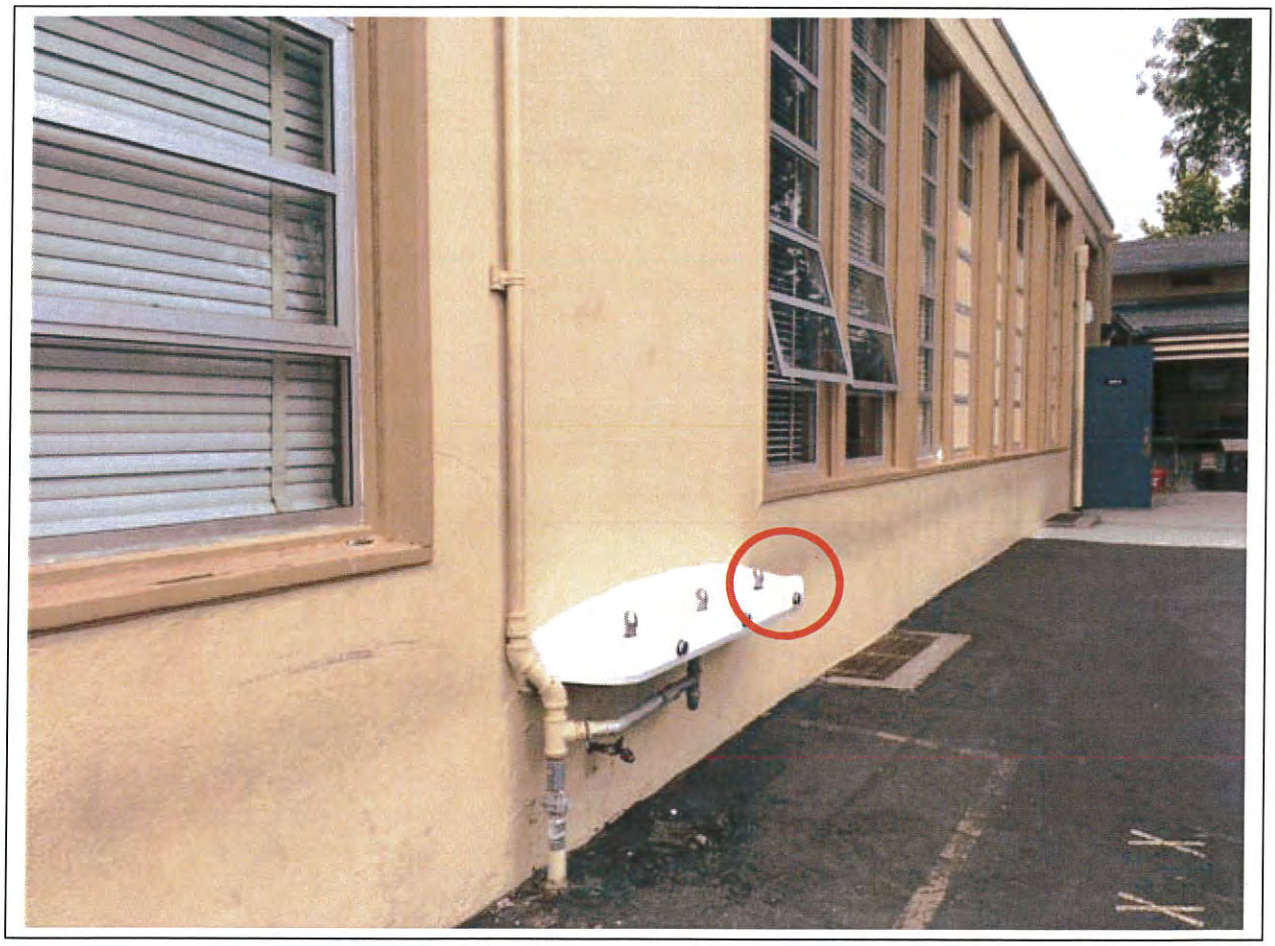

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169385

State Sample ID: 3710020-BEA-A

Date & Time Last Used: 2200 5-10-17

Date & Time Sample Collected: 0618 5-11-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T Borger

Sample No. 2

School: Bay Park Elementary - 2433 Denver St., San Diego, CA 92110

Name of Building: Lunch Arbor

Location Description: North side of lunch arbor

Type of Outlet: Bubbler

Description: Far right bubbler

Comments/Miscellaneous: Next to Cafeteria

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169386

State Sample ID: 3710020-BEA-B

Date & Time Last Used: 2200 5-10-17

Date & Time Sample Collected: 0608 5-11-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: TBurger

Sample No. 3

School: Bay Park Elementary - 2433 Denver St., San Diego, CA 92110

Name of Building: Kitchen

Location Description: East interior wall next to range

Type of Outlet: Sink faucet

Description:

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169387

State Sample ID: 3710020-BEA-C

Date & Time Last Used: 2208 5-10-17

Date & Time Sample Collected: 0605 5-11-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T Burger

Sample No. 4

School: Bay Park Elementary - 2433 Denver St., San Diego, CA 92110

Name of Building: Kindergarten Room 12

Location Description: West interior wall

Type of Outlet: Bubbler

Description: Sink mount bubbler on right side

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169388

State Sample ID: 3710020-BEA-D

Date & Time Last Used: 2200 5-10-17

Date & Time Sample Collected: 0613 5-11-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: J Burger

Sample No. 5

School: Bay Park Elementary - 2433 Denver St., San Diego, CA 92110

Name of Building: Restroom Bungalow

Location Description: East exterior side between boy & girl's restroom

Type of Outlet: Bubbler

Description: Left bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171698

State Sample ID: 3710020-BEA-E

Date & Time Last Used: 2200 5-10-17

Date & Time Sample Collected: 0622 5-11-17

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: T Burger

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

08-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1169385	Bay Park Elementary	11-MAY-2017	0618	T. Burger	SAMPLE 1	
2	W1169386	Bay Park Elementary	11-MAY-2017	0608		SAMPLE 2	
3	W1169387	Bay Park Elementary	11-MAY-2017	0605		SAMPLE 3	
4	W1169388	Bay Park Elementary	11-MAY-2017	0613		SAMPLE 4	
5	W1171698	Bay Park Elementary	11-MAY-2017	0622		SAMPLE 5	

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Chain of Custody:

Relinquished by: Name: Tom Burger Sign: Tom B Burger	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 5-11-17 0703 Location: WQL LAB	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/11/17
LIMS Received Time: 0719
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: **Bell Middle**

Physical Address of School: 620 Briarwood Rd. San Diego, CA 92139-1399

First Bell: 7:35 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 3-30-2017

Completed by Print Name: Cesar Jimenez

Signature: C.J. Date: 3-30-2017

School's Point of Contact for Sampling Assistance

Name: Cesar Jimenez

Phone: 619-261-1588

Email: cjimenez2@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-4-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: 620 Briarwood Rd. San Diego, CA 92139-1399

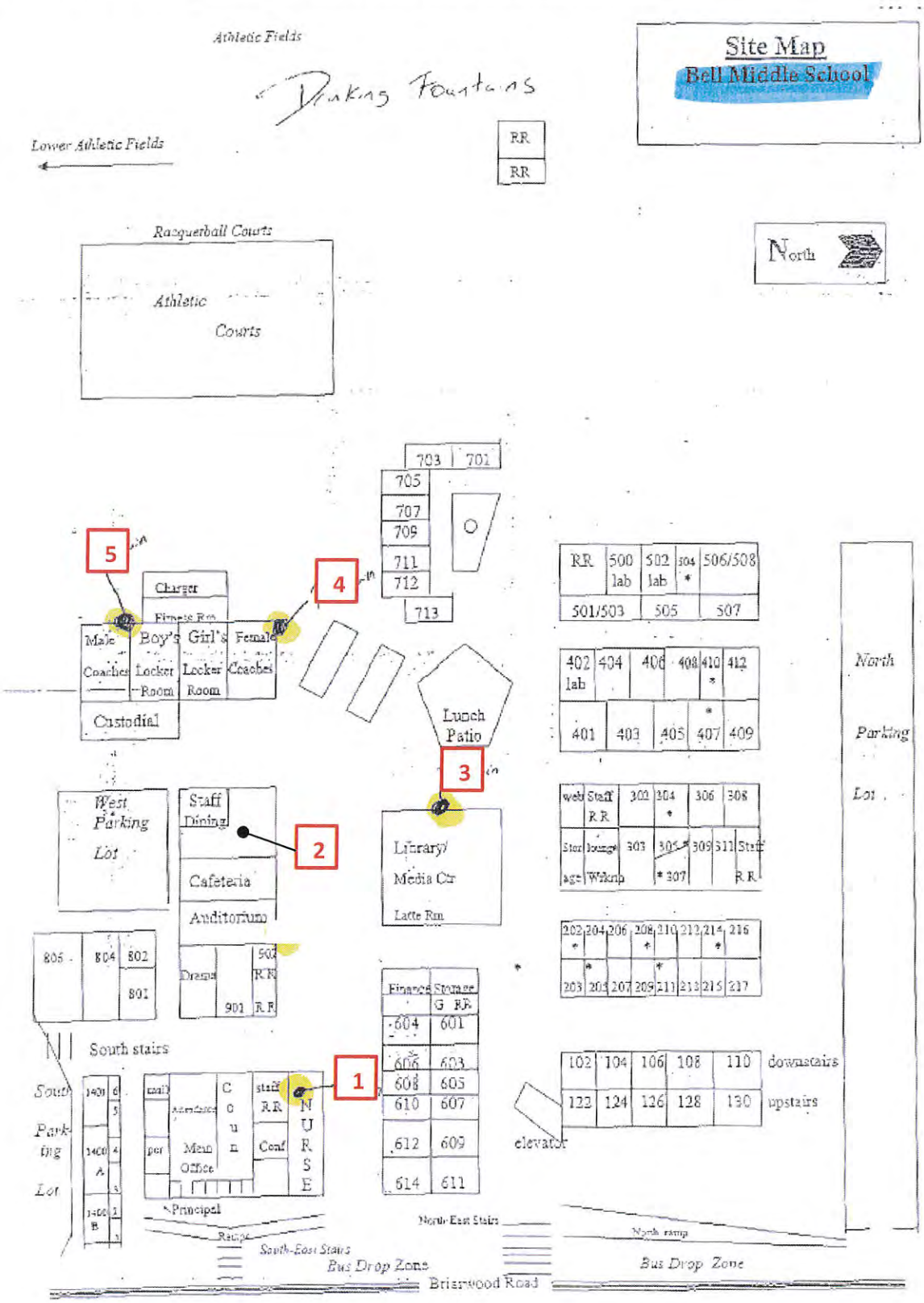

Sample No. 1

School: Bell Middle

Name of Building: Administration Building (Bldg. 1300)

Location Description: Nurse Room (Room 1308) next to sink.

Type of Outlet: Bubbler

Description: Single Drinking Fountain (refrigerated)

Comments/Miscellaneous: Indoor drinking water source

SDUSD ID code #: 302-01

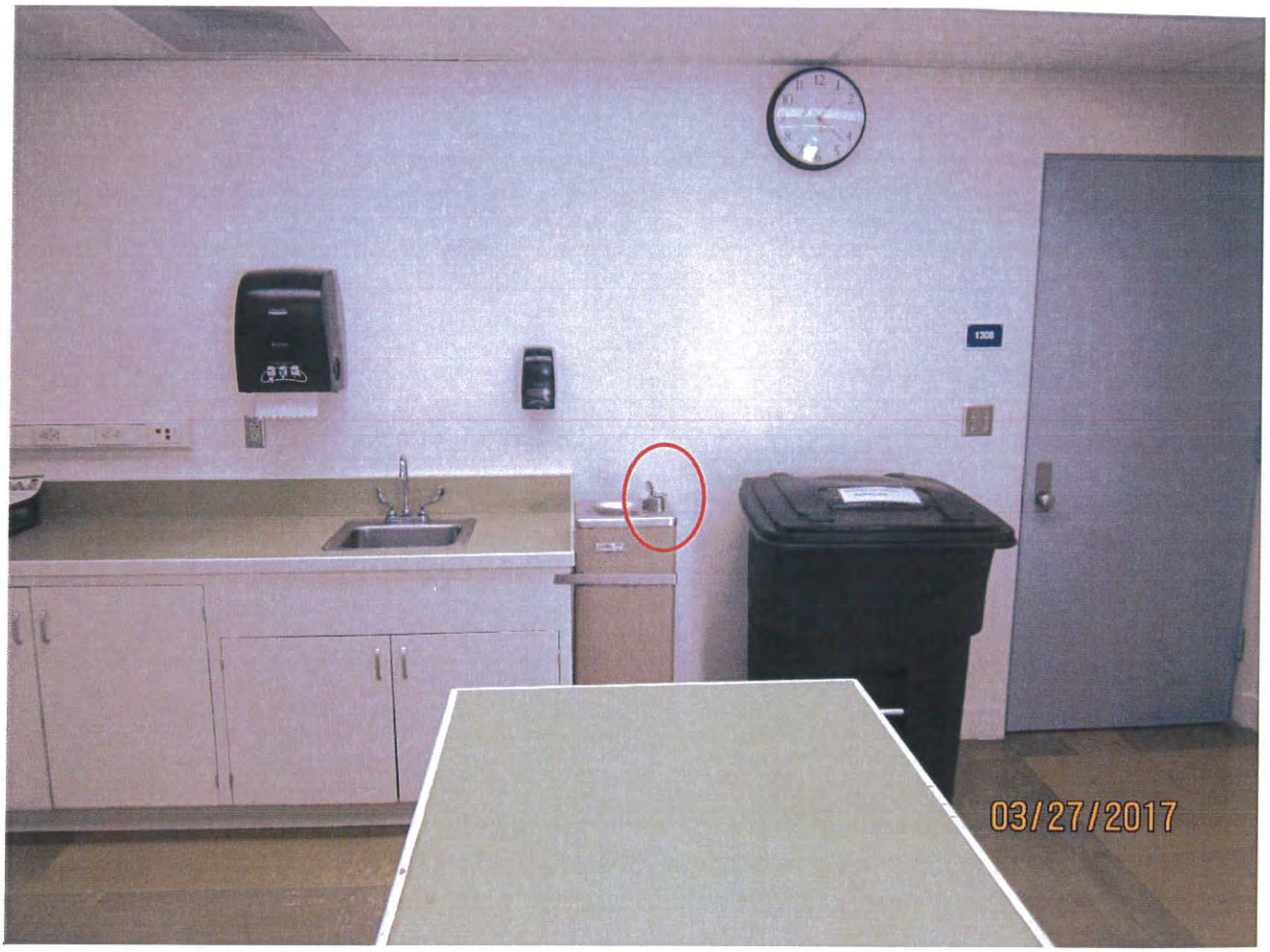

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-ABE-A

LIMS Sample ID: W1164188

Date & Time Last Used: 4/4/17 between 1200-1700

Date & Time Sample Collected: 4/5/17 @ 0620

Name of Water System Sample Collector: Joshua Rambo

- Transfer container used, flow very low.

Sample No. 2

School: Bell Middle

Name of Building: Cafeteria/Auditorium (Bldg. 900)

Location Description: In kitchen

Type of Outlet: Faucet

Description: Lower Faucet on 2-compartment sink

Comments/Miscellaneous: Faucet/sink used for food preparation

SDUSD ID code #: 302-02

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-ABE-B

LIMS Sample ID: W1164189

Date & Time Last Used: 4/4/17 between 1400 - 1700

Date & Time Sample Collected: 4/5/17 @ 0600

Name of Water System Sample Collector: Joshua Rambo

Sample No. 3

School: Bell Middle

Name of Building: Library (Bldg. 1100)

Location Description: Mounted on exterior west wall

Type of Outlet: Bubbler

Description: upper/right bubbler on a dual fountain

Comments/Miscellaneous: Outdoor drinking water source

SDUSD ID code #: 302-03

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-ABE-C

LIMS Sample ID: W1164190

Date & Time Last Used: 4/4/17 @ 1200-1700

Date & Time Sample Collected: 4/5/17 @ 0605

Name of Water System Sample Collector: Joshua Rambo

- Transfer Container used

Sample No. 4

School: Bell Middle

Name of Building: Physical Education (Bldg. 1200)

Location Description: Mounted on exterior north wall next to Girls Looker room

Type of Outlet: Bubbler

Description: Upper/left bubbler on a dual fountain

Comments/Miscellaneous: Outdoor drinking water source

SDUSD ID code #: 302-04

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-ABE-D

LIMS Sample ID: W1164191

Date & Time Last Used: 4/4/17 between 1200-1700

Date & Time Sample Collected: 4/5/17 @ 0610

Name of Water System Sample Collector: Joshua Rambo

- Transfer Container used.

Sample No. 5

School: Bell Middle

Name of Building: Physical Education (Bldg. 1200)

Location Description: Mounted on exterior west wall next to Boys Looker room

Type of Outlet: Bubbler

Description: Upper/left bubbler on a dual fountain

Comments/Miscellaneous: Outdoor drinking water source

SDUSD ID code #: 302-05

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-ABE-E

LIMS Sample ID: W1164192

Date & Time Last Used: 4/4/17 between 1200-1700

Date & Time Sample Collected: 4/5/17 @ 0615

Name of Water System Sample Collector: Joshua Rambo

- Transfer container used.

Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 4/12/17

San Diego Unified School District

Bell Middle School

Sample ID	Sample Date	Sample Time	Description	External ID	Lead	Units
W1164188	04/05/17	06:20 AM	SAMPLE 1	3710020-ABE-A	< 5	ug/L
W1164189	04/05/17	06:00 AM	SAMPLE 2	3710020-ABE-B	< 5	ug/L
W1164190	04/05/17	06:05 AM	SAMPLE 3	3710020-ABE-C	< 5	ug/L
W1164191	04/05/17	06:10 AM	SAMPLE 4	3710020-ABE-D	< 5	ug/L
W1164192	04/05/17	06:15 AM	SAMPLE 5	3710020-ABE-E	< 5	ug/L

Sample #	Sample Site
SAMPLE 1	BLDG 1300; Rm 1308(nurse) bubbler
SAMPLE 2	Cafeteria/Auditorium; lower faucet at two bowl sink
SAMPLE 3	Library BLDG 1100, west wall, upper/right bubbler
SAMPLE 4	PE BLDG 1200, north wall,next girls locker room, upper/left bubbler
SAMPLE 5	Phyiscal Ed BLDG 1200; west wall, next boys locker room, upper/left bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

04-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	~~Analysis Requested~~ Comments
1	W1164188	Bell Middle School	05-APR-2017	0620	Joshua Rambo	SAMPLE 1	Transfer; flow very low
2	W1164189	Bell Middle School	05-APR-2017	0600	Joshua Rambo	SAMPLE 2	
3	W1164190	Bell Middle School	05-APR-2017	0605	Joshua Rambo	SAMPLE 3	Trasfer container used
4	W1164191	Bell Middle School	05-APR-2017	0610	Joshua Rambo	SAMPLE 4	↓
5	W1164192	Bell Middle School	05-APR-2017	0615	Joshua Rambo	SAMPLE 5	

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Chain of Custody:

Relinquished by: Name: Joshua Rambo @0705 Sign: [signature] on 4/5/17	Received by: Name: Alejandra Molloy Sign: [signature]	Date & Time: 4/5/17 @ 0705 Location: WQL	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: [signature]
Received Date: 4/5/17
LIMS Received Time: 0709
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: BENCHLEY / WEINBERGER Elementary

Physical Address of School: 6269 Twin Lake Dr. San Diego Ca 92119

First Bell: 7:40

Meeting Date: 3/22/2017

Sampling Plan Completion Date: 4/13/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 4/13/2017

School's Point of Contact for Sampling Assistance

Name: Elizabeth Lara

Phone: 619-302-7616

Email: elara@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-17-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Benchley Weinburger 6269 Twin Lake Dr. San Diego Ca 92119

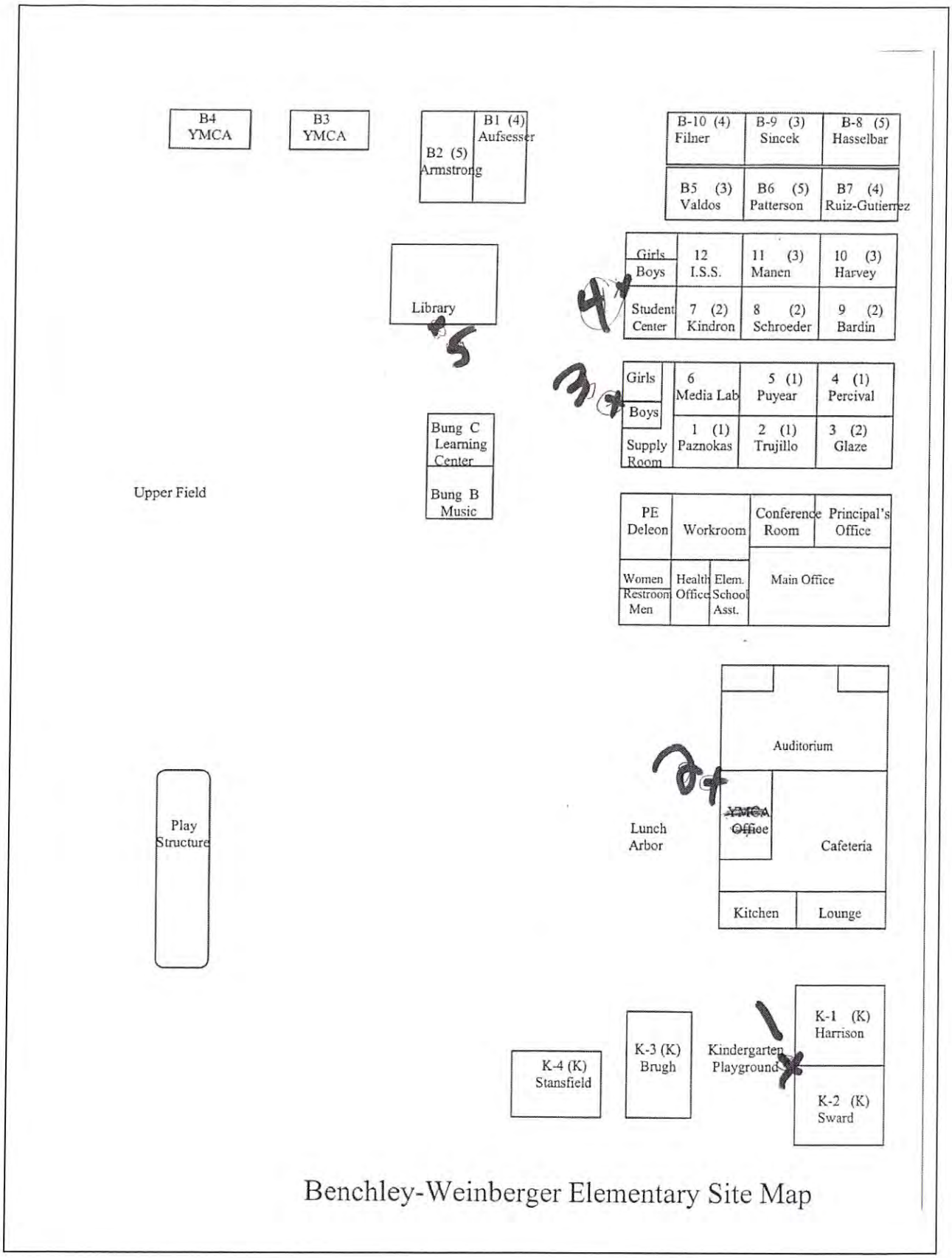

Benchley-Weinberger Elementary Site Map

Sample No. 1

School: BENCHLEY WEINBURGER ELEMENTARY

Name of Building: Kindergarten

Location Description: Outside kindergarten building between boys & girls restrooms

Type of Outlet: Bubbler

Description: LEFT-Bubbler drinking fountain of two

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: ~~DS-W1169999~~ W1166999

State Sample ID: 3710020-AGB-A

Date & Time Last Used: 4/17/17 1810

Date & Time Sample Collected: 4/18/17 0603

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 2

School: BENCHLEY WEINBURGER ELEMENTARY

Name of Building: Auditorium

Location Description: Between assembly door and stage door

Type of Outlet: Bubbler

Description: LEFT- bubbler of left drinking fountain of two near hand washing sink

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167000

State Sample ID: 3710020-AGB-B

Date & Time Last Used: 4/17/17 1810

Date & Time Sample Collected: 4/18/17 0606

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sawersby

Sample No. 3

School: BENCHLEY WEINBURGER ELEMENTARY

Name of Building: 1-6 bldg.

Location Description: near black top playground between boys & girls restrooms

Type of Outlet: Bubbler

Description: LEFT bubbler of LEFT water fountain of two fountains

Comments/Miscellaneous:

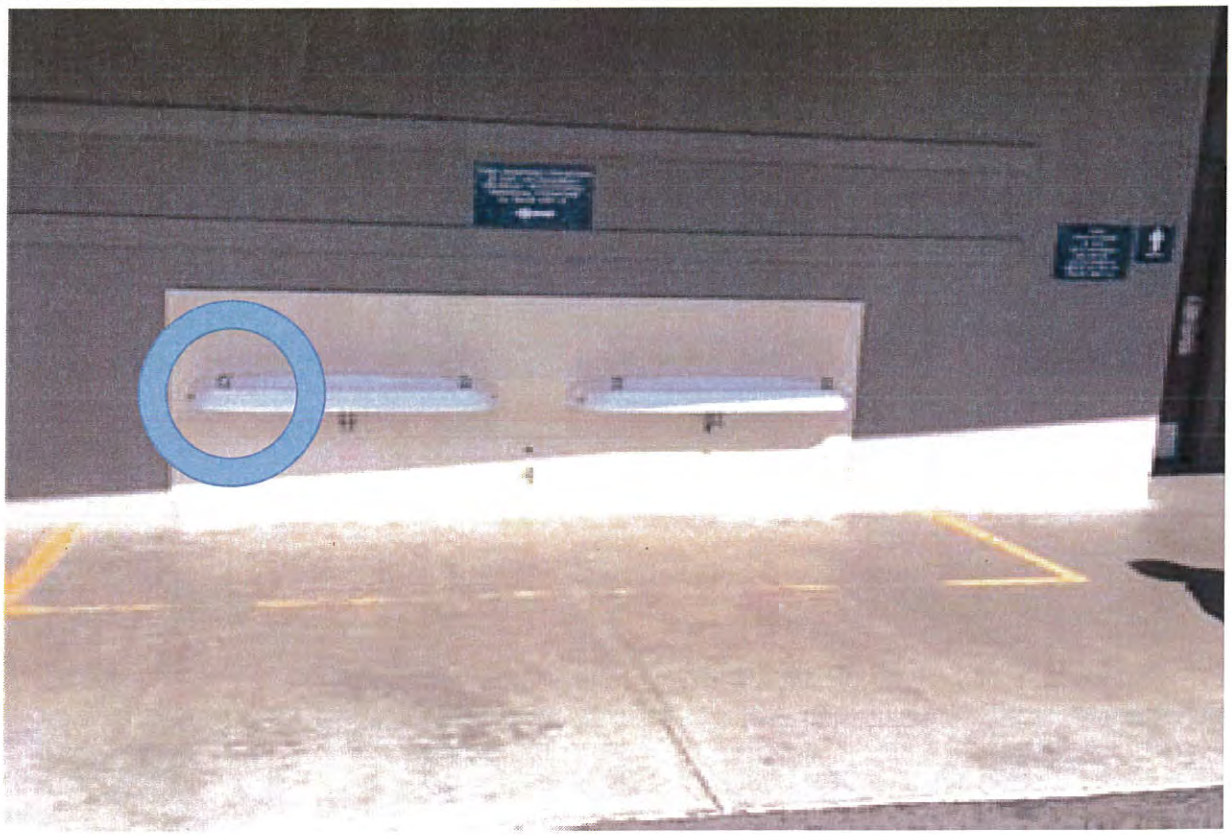

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167001

State Sample ID: 3710020-AGB-C

Date & Time Last Used: 4/17/17 1810

Date & Time Sample Collected: 4/18/17 0608

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 4

School: BENCHLEY WEINBERGER

Name of Building: 7-12 BLDG.

Location Description: Between boys & girls restrooms across from bungalow –C-

Type of Outlet: Bubbler

Description: Single drinking fountain between a dual and single fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167002

State Sample ID: 3710020-AGB-D

Date & Time Last Used: 4/17/17 1810

Date & Time Sample Collected: 4/18/17 0616

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 5

School: BENCHLEY WEINBERGER

Name of Building: LIBRARY

Location Description: Outside Library next to dirt field between adult restrooms

Type of Outlet: Bubbler

Description: LEFT-Drinking fountain of two

Comments/Miscellaneous:

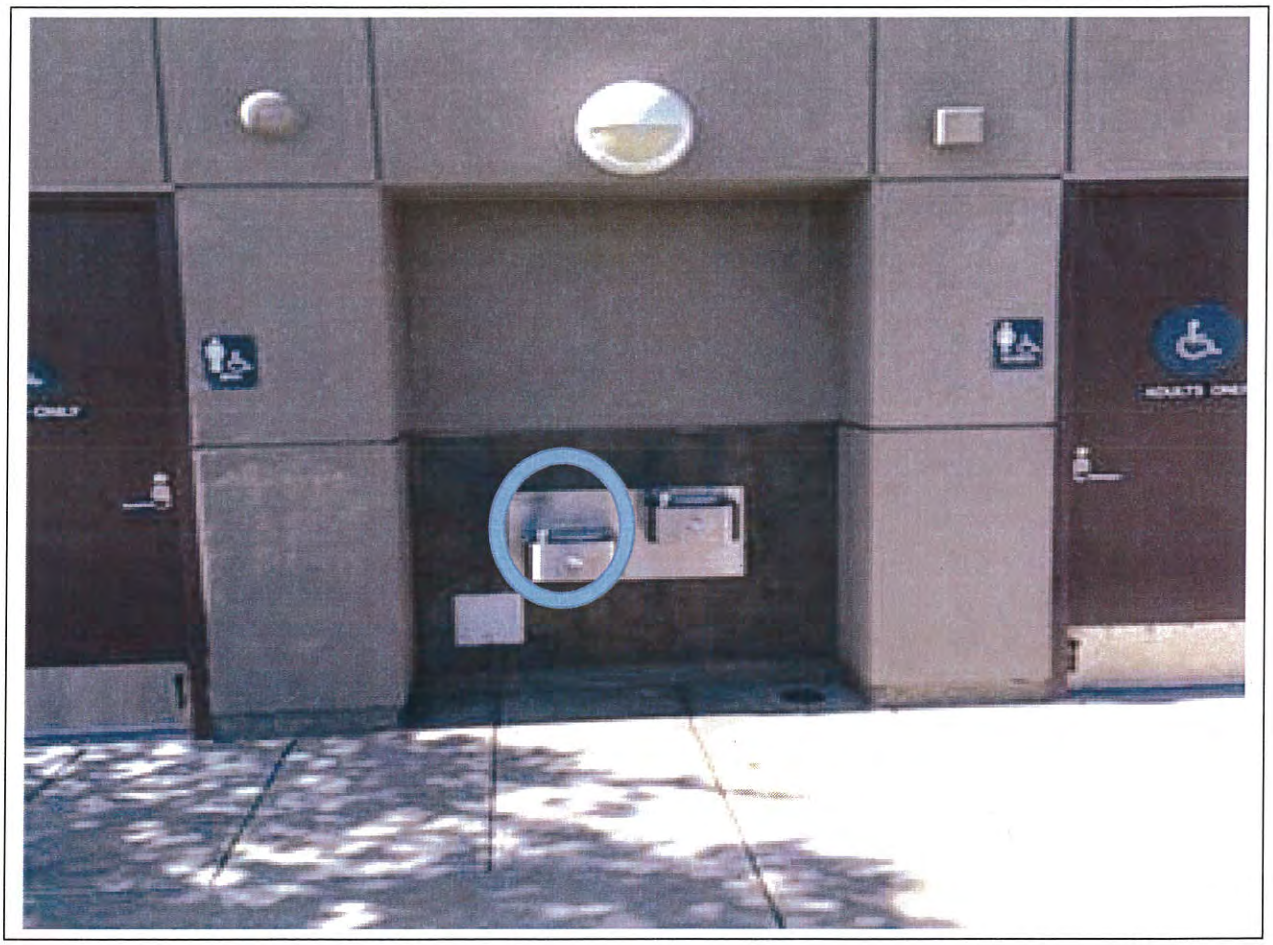

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167003

State Sample ID: 3710020-AGB-E

Date & Time Last Used: 4/17/17 1810

Date & Time Sample Collected: 4/18/17 0613

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sawersby

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

17-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1166999	Benchley Weinberger	18-APR-2017	0603	DS	SAMPLE 1	
2	W1167000	Benchley Weinberger	18-APR-2017	0606	↓	SAMPLE 2	
3	W1167001	Benchley Weinberger	18-APR-2017	0608	↓	SAMPLE 3	
4	W1167002	Benchley Weinberger	18-APR-2017	0616	↓	SAMPLE 4	
5	W1167003	Benchley Weinberger	18-APR-2017	0613	↓	SAMPLE 5	

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Chain of Custody:

Relinquished by:	Received by:	Date & Time:	Comments:
Name: Dan Sowersby Sign: D. Sowersby	Name: Alejandra Molloy Sign: AMolloy	4/18/17 0640 Location: ALV	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 4/18/17
LIMS Received Time: 0639
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Bethune K-8

Physical Address of School: 6835 Benjamin Holt Rd, San Diego, CA 92114-7827

First Bell: 7:20 am

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 03/31/2017

Completed by Print Name: Ginette Commins

Signature: GCommins Date: 03/31/2017

School's Point of Contact for Sampling Assistance

Name: ~~Ginette Commins~~ John Baker

Phone: ~~(858) 627-7201~~

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-5-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Bethune K-8, 6835 Benjamin Holt Rd, San Diego, CA 92114-7827

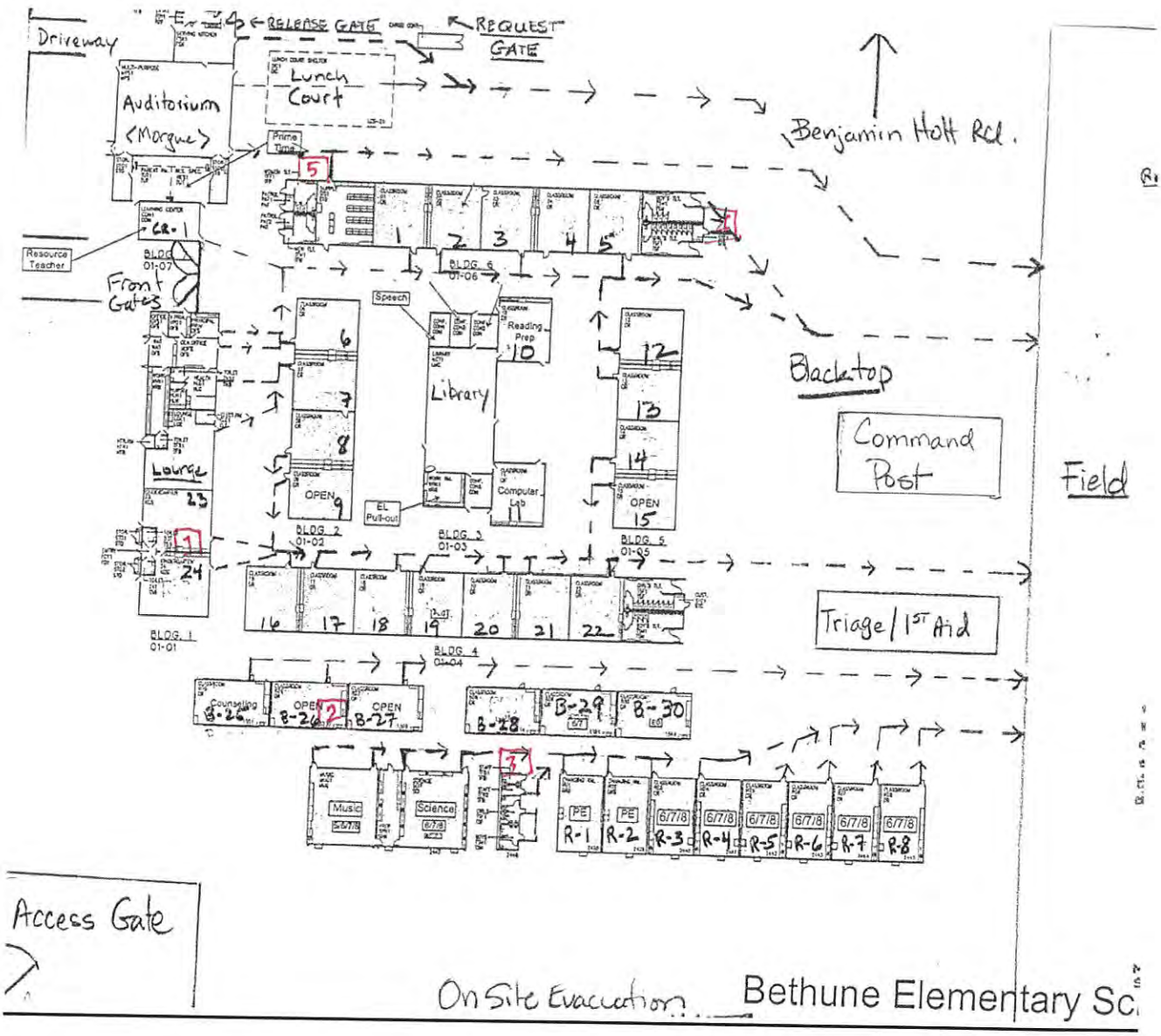

Sample No. 1

School: Bethune K-8

Name of Building: Bldg. 1

Location Description: Room 23-Kindergarten, classroom sink/faucet

Type of Outlet: bubbler

Description: bubbler at sink with turn handle

Comments/Miscellaneous: drinking water source/SDUSD Location ID# 9123

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164640

State Sample ID: 3710020-ACB-A

Date & Time Last Used: 4-5-17 0610

Date & Time Sample Collected: 4-6-17 0633

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Tom Bugel

Dripping rapidly

Sample No. 2

School: Bethune K-8

Name of Building: Portable Classrooms

Location Description: B-26, classroom sink/faucet

Type of Outlet: bubbler

Description: bubbler at sink with lever handle

Comments/Miscellaneous: indoor drinking water source/SDUSD Location ID# 9123

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164641

State Sample ID: 3710020-ACB-B

Date & Time Last Used: 4-5-17 0610

Date & Time Sample Collected: 4-6-17 0629

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Tom Burger

Sample No. 3

School: Bethune K-8

Name of Building: Portable Restroom adjacent to Portable Classrooms R1-R8

Location Description: Floor mounted exterior, next to Men's Restroom

Type of Outlet: bubbler

Description: back/upper bubbler on a two-station fountain

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location ID# 9123

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164642

State Sample ID: 3710020-ACB-C

Date & Time Last Used: 0610 4-5-17

Date & Time Sample Collected: 0621 4-6-17

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: Tom Burger

Sample No. 4

School: Bethune K-8

Name of Building: Bldg. 6

Location Description: Wall mounted exterior, between Custodian (Gear locker) and Boy's Restroom, facing play structure/blacktop

Type of Outlet: bubbler

Description: left bubbler on a triple fountain

Comments/Miscellaneous: drinking water source/SDUSD Location ID# 9123

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164643

State Sample ID: 3710020-ACB-D

Date & Time Last Used: ~~4-5-17 1810~~ 4-5-17 0610

Date & Time Sample Collected: ~~4-6-17 0610~~ 4-6-17 0615

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: Tom Burger

Sample No. 5

School: Bethune K-8

Name of Building: Bldg. 6

Location Description: Wall mounted exterior, next to Supply Room, facing lunch court

Type of Outlet: bubbler

Description: left single fountain sink bubbler

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location ID# 9123

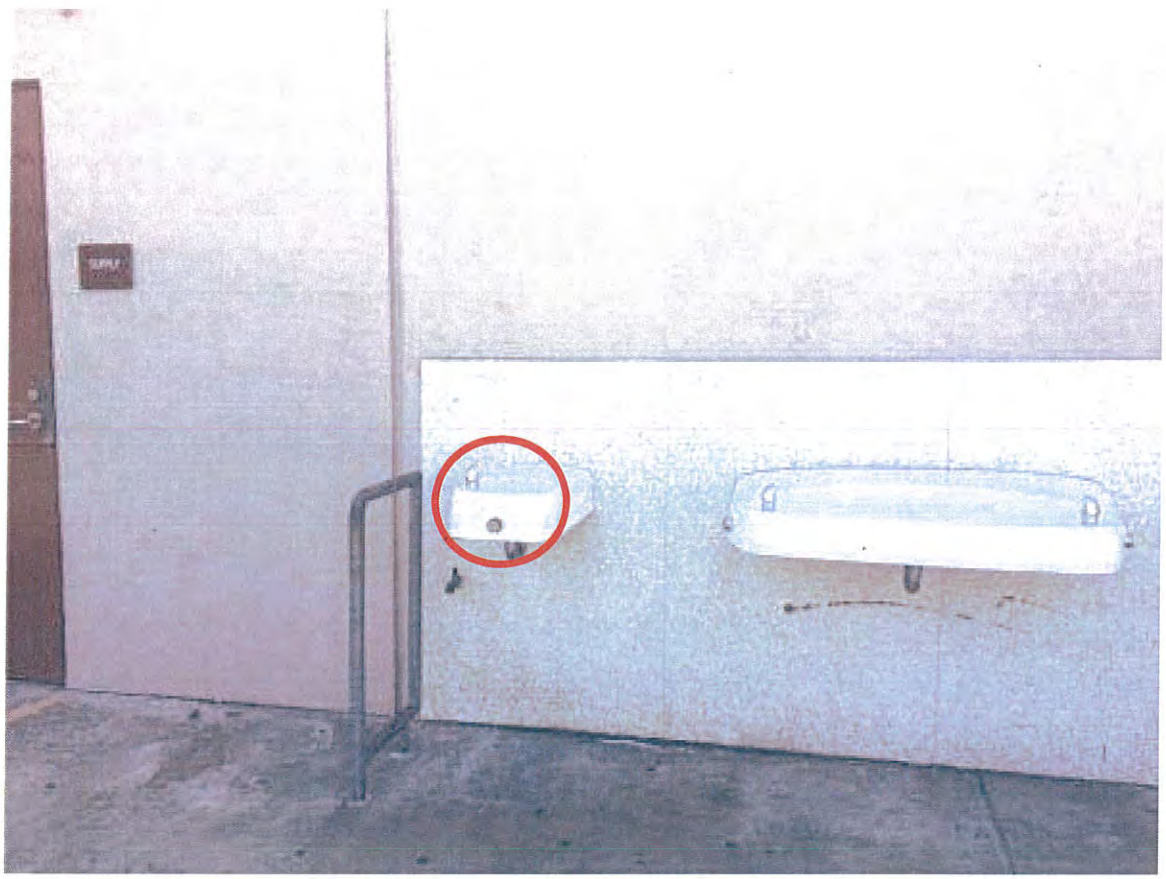

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164644

State Sample ID: 3710020-ACB-E

Date & Time Last Used: 4-5-17 1810

Date & Time Sample Collected: 4-6-17 0610

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: Tom Burger

Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 4/14/17

San Diego Unified School District
Bethune K-8

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1164640	04/06/17	06:33 AM	SAMPLE 1.	3710020-ACB-A	< 5	ug/L
W1164641	04/06/17	06:29 AM	SAMPLE 2	3710020-ACB-B	< 5	ug/L
W1164642	04/06/17	06:21 AM	SAMPLE 3	3710020-ACB-C	< 5	ug/L
W1164643	04/06/17	06:15 AM	SAMPLE 4	3710020-ACB-D	< 5	ug/L
W1164644	04/06/17	06:10 AM	SAMPLE 5	3710020-ACB-E	< 5	ug/L

Source	Source Description
SAMPLE 1.	bldg 1, room 23, kindergarten classroom sink, bubbler at sink
SAMPLE 2	Portable classrooms, room B-26, sink bubbler
SAMPLE 3	Portable restroom adjacent to rooms R1-R8, floor mounted fountain near mens room, upper bubbler on dual fountain
SAMPLE 4	BLDG 6 exterior between custodian (gear locker) and boy's restroom, left single bubbler
SAMPLE 5	BLDG 6 exterior next to supply room, facing lunch court,left single fountain sink bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5
Action Level (AL) = 15 ug/L

Tom B Burger
Tom Burger, Associate Chemist

SD Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 4/12/17

San Diego Unified School District

Bethune K-8

Sample ID	Sample Date	Sample Time	Description	External ID	Lead	Units
W1164640	04/06/17	06:33 AM	SAMPLE 1	3710020-ACB-A	< 5	ug/L
W1164641	04/06/17	06:29 AM	SAMPLE 2	3710020-ACB-B	< 5	ug/L
W1164642	04/06/17	06:21 AM	SAMPLE 3	3710020-ACB-C	< 5	ug/L
W1164643	04/06/17	06:15 AM	SAMPLE 4	3710020-ACB-D	< 5	ug/L

Sample #	Sample Site
SAMPLE 1	BLDG 1, room 23, kindergarten classroom sink, bubbler at sink
SAMPLE 2	Portable classrooms, room B-26, sink bubbler
SAMPLE 3	Portable restroom adjacent to rooms R1-R8, floor mounted fountain near mens room, upper bubbler on dual fountain
SAMPLE 4	BLDG 6 exterior between custodian (gear locker) and boy's restroom, left single bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Water Quality Chemistry Services
Chain of Custody Form

05-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1164640	Bethune K-8	06-APR-2017	0633	T. Burger	SAMPLE 1	Pb
2	W1164641	Bethune K-8	06-APR-2017	0629		SAMPLE 2	
3	W1164642	Bethune K-8	06-APR-2017	0621		SAMPLE 3	
4	W1164643	Bethune K-8	06-APR-2017	0615		SAMPLE 4	
5	W1164644	Bethune K-8	06-APR-2017	0610		SAMPLE 5	

Chain of Custody:

Relinquished by: Name: Sign:	Received by: Name: Gloria Siqueiros Sign:	Date & Time: 4/6/17 @ 0800 Location: Alvarado	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By:
Received Date: 4/6/17
LIMS Received Time: 0810
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: # 29 Bird Rock Elementary School

Physical Address of School: 5271 La Jolla Hermosa Ave San Diego CA 92037

First Bell: 8:25

Meeting Date: 3/22/2017

Sampling Plan Completion Date: 5/1/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 5/1/2017

School's Point of Contact for Sampling Assistance

Name: Elizabeth Lara

Phone: 619-302-7616

Email: elara@sandi.net

City of San Diego 3710020

Approved By: 5/1/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Bird Rock Elementary 5371 La Jolla Hermosa Ave San Diego CA 92037

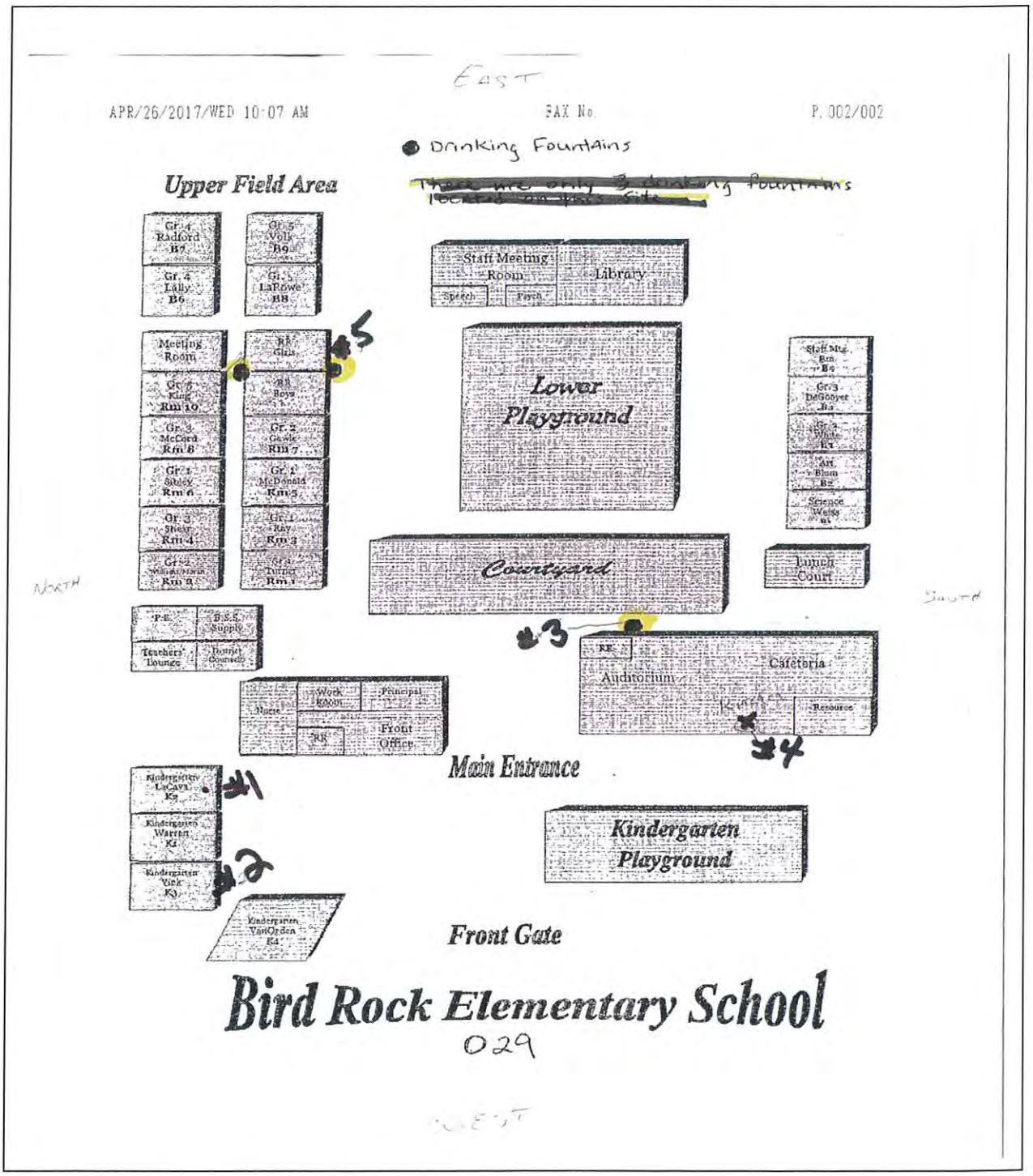

Sample No. 1

School: Bird Rock Elementary School

Name of Building: Kindergarten

Location Description: Inside # K-2

Type of Outlet: Bubbler drinking fountain

Description: at hand washing sink Right side of left sink

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170043

State Sample ID: 3710020-BEJ-A

Date & Time Last Used: 5/10/17 1800-2200

Date & Time Sample Collected: 5/11/17 0616

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarenga

Sample No. 2

School: Bird Rock Elementary

Name of Building: Kindergarten

Location Description: Kindergarten K-3

Type of Outlet: Bubbler drinking fountain

Description: Bubbler drinking fountain at sink

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170044

State Sample ID: 3710020-BEJ-B

Date & Time Last Used: 5/10/17 1800 - 2200

Date & Time Sample Collected: 5/11/17 0615

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarenga

Sample No. 3

School: Bird Rock Elementary School

Name of Building: Auditorium

Location Description: Outside between men's & women's restrooms near lunch court

Type of Outlet: Bubbler drinking fountain

Description: Left drinking fountain of two

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170045

State Sample ID: 3710020-BEJ-C

Date & Time Last Used: 5/10/17 1800-2200

Date & Time Sample Collected: 5/11/17 0555

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez

Sample No. 4

School: Bird Rock Elementary School

Name of Building: Cafeteria

Location Description: Inside Kitchen

Type of Outlet: Single faucet at sink

Description: Single faucet at sink with hot & cold valves

Comments/Miscellaneous: sink with cartoon apple near

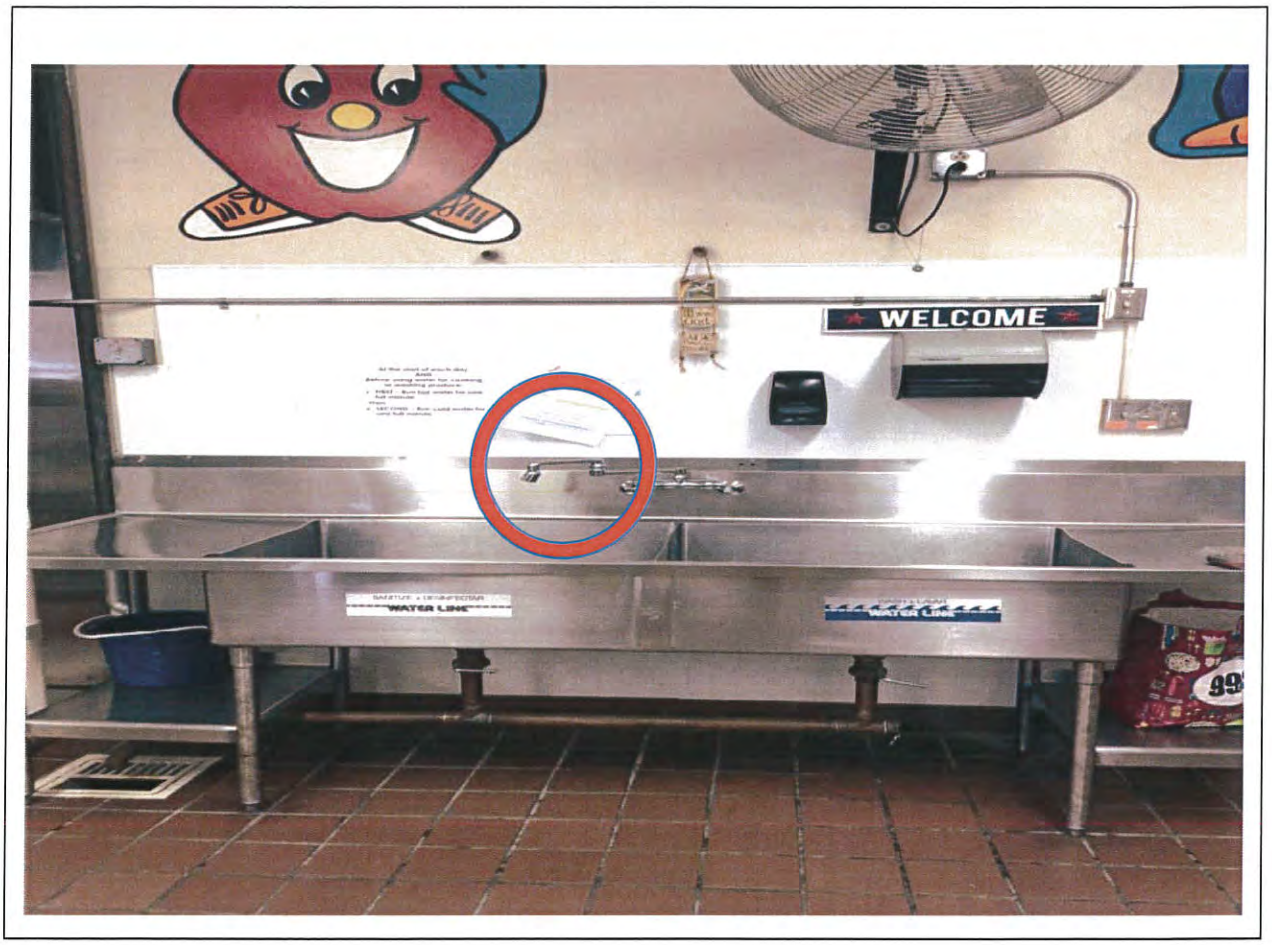

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170046

State Sample ID: 3710020-BEJ-D

Date & Time Last Used: 5/10/17 1800-2200

Date & Time Sample Collected: 5/11/17 0605

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarenga

Sample No. 5

School: Bird Rock Elementary School

Name of Building: 1-7

Location Description: Outside at lower playground

Type of Outlet: Bubbler drinking fountain

Description: Center bubbler of multi bubbler drinking fountain

Comments/Miscellaneous: below painted tree on wall

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170047

State Sample ID: 3710020-BEJ-E

Date & Time Last Used: 5/10/17 1800-2200

Date & Time Sample Collected: 5/11/17 0600

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez

Exhibit 3.1

Water Quality Chemistry Services
Chain of Custody Form

08-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1170043	Bird Rock Elementary	11-MAY-2017	EA ~~0555~~ 0610	EA	SAMPLE 1	
2	W1170044	Bird Rock Elementary	11-MAY-2017	EA ~~0600~~ 0615	EA	SAMPLE 2	
3	W1170045	Bird Rock Elementary	11-MAY-2017	~~06~~ 0555	EA	SAMPLE 3	
4	W1170046	Bird Rock Elementary	11-MAY-2017	0605	EA	SAMPLE 4	
5	W1170047	Bird Rock Elementary	11-MAY-2017	0600	EA	SAMPLE 5	

680

Chain of Custody:

Relinquished by: Name: E Ahuerta 5/11/17 Sign: 0640	Received by: Name: Alejandra Molloy Sign: tMolloy	Date & Time: 5/11/17 @ 0640 Location: WQL AIV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: tMolloy
Received Date: 5/11/17
LIMS Received Time: 0648
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Birney Elementary

Physical Address of School: 4345 Campus Ave., San Diego, CA 92103-2406

First Bell: 9:10 AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/13/2017

Completed by Print Name: Ginette Commins

Signature: GCommins Date: 04/13/2017

School's Point of Contact for Sampling Assistance

Name: ~~Ginette Commins~~ CESAR

Phone: (858) 627-7201 619-261-1588

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 4/28/17 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Birney Elementary, 4345 Campus Ave., San Diego, CA 92103-2406

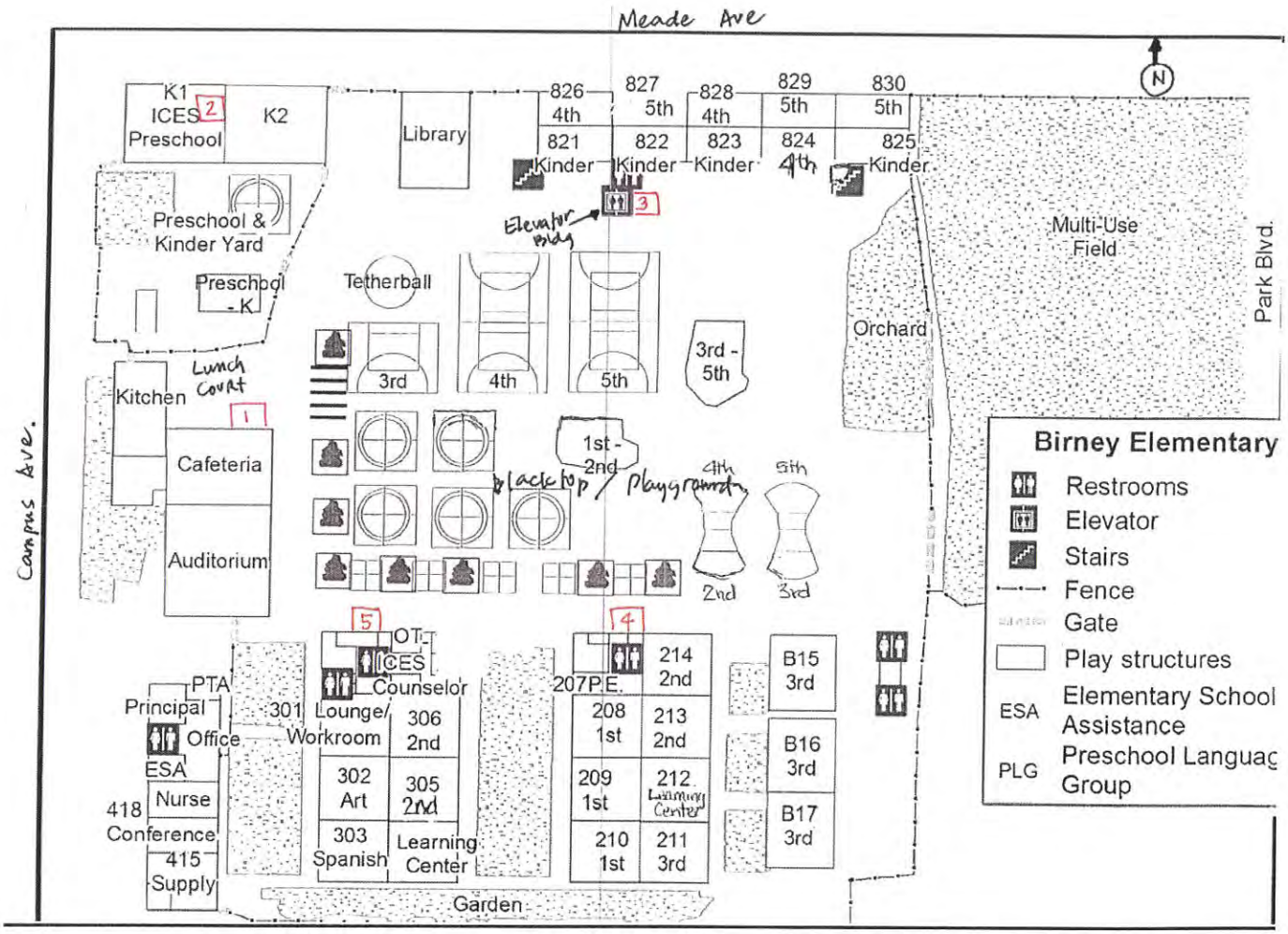

Sample No. 1

School: Birney Elementary

Name of Building: Cafeteria

Location Description: Wall mounted exterior (North of Bldg), facing lunch court

Type of Outlet: bubbler

Description: upper/right bubbler on a dual fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code # 031

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168062

State Sample ID: 3710020-AJJ-A

Date & Time Last Used: 5/1/17 1800-2200

Date & Time Sample Collected: ~~A~~ EA 5/2/17 0630

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarenga

Sample No. 2

School: Birney Elementary

Name of Building: Kindergarten/Preschool

Location Description: Rm K1, classroom sink facing Restrooms

Type of Outlet: bubbler

Description: middle bubbler head with turn handle

Comments/Miscellaneous: indoor drinking water source/SDUSD Location Code # 031

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168063

State Sample ID: 3710020-AJJ-B

Date & Time Last Used: EA 5/1/17 1800-2200

Date & Time Sample Collected: 5/2/17 0630

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarenga

Sample No. 3

School: Birney Elementary

Name of Building: Elevator towards 800 Bldg

Location Description: Wall mounted exterior behind the elevator (East of Bldg), next to Electrical Equipment Rm 911 & Girls Restroom

Type of Outlet: bubbler

Description: lower/left bubbler on a dual fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code # 031

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168064

State Sample ID: 3710020-AJJ-C

Date & Time Last Used: 5/1/17 1800-2200

Date & Time Sample Collected: 5/2/17 0635

Direct Sample ☑ Transfer Sample ☐

E. Alvarado

Name of Water System Sample Collector: _____

Sample No. 4

School: Birney Elementary

Name of Building: 200

Location Description: Wall mounted exterior (North of Bldg), between Storage 202 & 201/Girls & Boys Restrooms, facing Blacktop/playground

Type of Outlet: bubbler

Description: right bubbler head (MED flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code # 031

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168065

State Sample ID: 3710020-AJJ-D

Date & Time Last Used: ~~5/1/17~~ 5/1/17 1800-2200

Date & Time Sample Collected: 5/2/17 0635

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez

Sample No. 5

School: Birney Elementary

Name of Building: 300

Location Description: Wall mounted exterior (North of Bldg), between Girls & Boys Restrooms, facing blacktop

Type of Outlet: bubbler

Description: upper/right bubbler on a dual fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code # 031

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168066

State Sample ID: 3710020-AJJ-E

Date & Time Last Used: 5/1/17 1800-2200

Date & Time Sample Collected: 5/2/17 0640

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarenga

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

01-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168062	Birney Elementary	02-MAY-2017	0630	EA	SAMPLE 1	
2	W1168063	Birney Elementary	02-MAY-2017	0630	EA	SAMPLE 2	
3	W1168064	Birney Elementary	02-MAY-2017	0635	EA	SAMPLE 3	
4	W1168065	Birney Elementary	02-MAY-2017	0635	EA	SAMPLE 4	
5	W1168066	Birney Elementary	02-MAY-2017	0640	EA	SAMPLE 5	

688

Chain of Custody:

Relinquished by: Name: E. Alvarenga 5/2/17 Sign: 0710	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 5/02/17 @ 0710 Location: WQL AIV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/02/17
LIMS Received Time: 0713
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Birney Elementary

Physical Address of School: 4345 Campus Ave., San Diego, CA 92103-2406

First Bell: 9:10 AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/13/2017

Completed by Print Name: Ginette Commins

Signature: G Commins Date: 04/13/2017

School's Point of Contact for Sampling Assistance

Name: Ginette Commins

Phone: (858) 627-7201

Email: gcommins@sandi.net

Re-Sample Burger 6-2-17

City of San Diego 3710020

Approved By: Matt Nelson 4/28/17 — Matthew Nelson

Signature & Date — Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Birney Elementary, 4345 Campus Ave., San Diego, CA 92103-2406

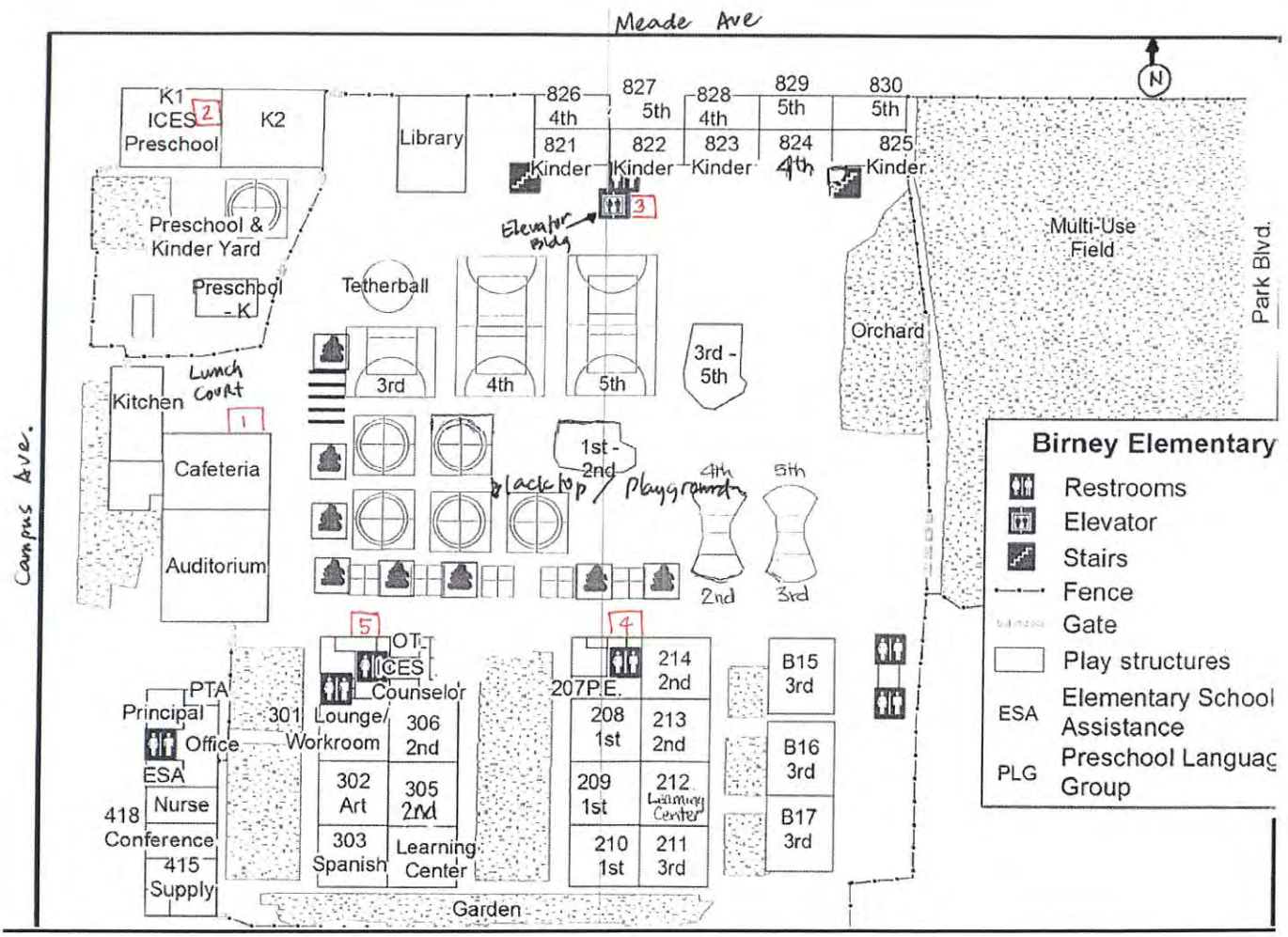

Sample No. 1

School: Birney Elementary

Name of Building: Cafeteria

Location Description: Wall mounted exterior (North of Bldg), facing lunch court

Type of Outlet: bubbler

Description: upper/right bubbler on a dual fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code # 031

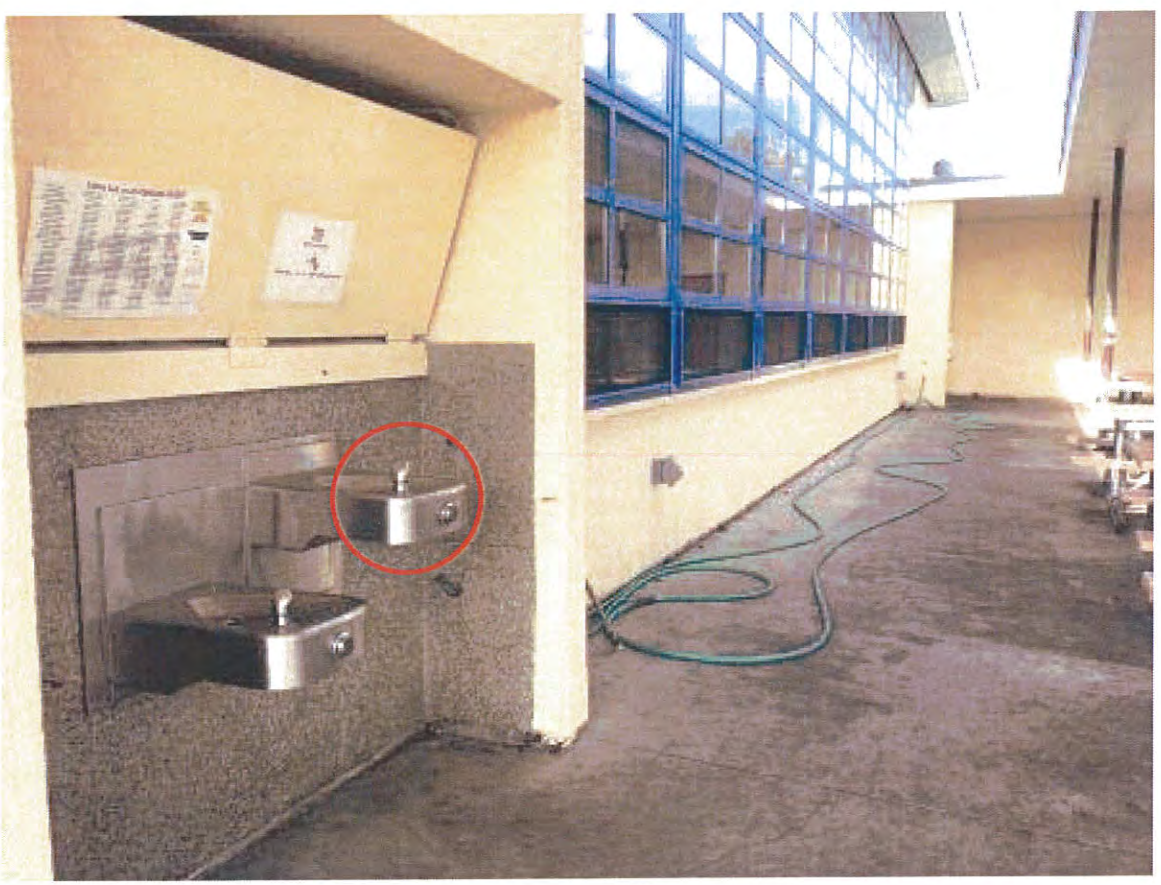

City use only below this line

Sample type Initial ☐ 1st Follow-up ☒ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1176173

State Sample ID: 3710020-AJJ-A

Date & Time Last Used: 2200

Date & Time Sample Collected: 0610 6-2-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Tom Burger

Water Quality Chemistry Services
Chain of Custody Form

01-Jun-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1176173	Birney Elementary	02-JUN-2017	0610	T. Burger	SAMPLE 1 1	ST FO

Chain of Custody:

Relinquished by: Name: Tom Burger Sign: Tom B Burger	Received by: Name: Keith Ruehrwein Sign:	Date & Time: 6-2-17 0908 Location: ALV. LAB	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: KR
Received Date: 6/2/17
LIMS Received Time: 0910
Reviewed By:

Boone

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Boone Elementary

Physical Address of School: 7330 Brookhaven Rd., San Diego, CA 92114-7115

First Bell: 8:20 am

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 03/22/2017

Completed by Print Name: Ginette Commins

Signature: G Commins Date: 03/22/2017

School's Point of Contact for Sampling Assistance

Name: Ginette Commins

Phone: (858) 627-7201

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 3/23/2017 — Tom Burger

Signature & Date — Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

TAG OUT ALL FIXTURES IN PICTURES

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: 7330 Brookhaven Rd., San Diego, CA 92114-7115

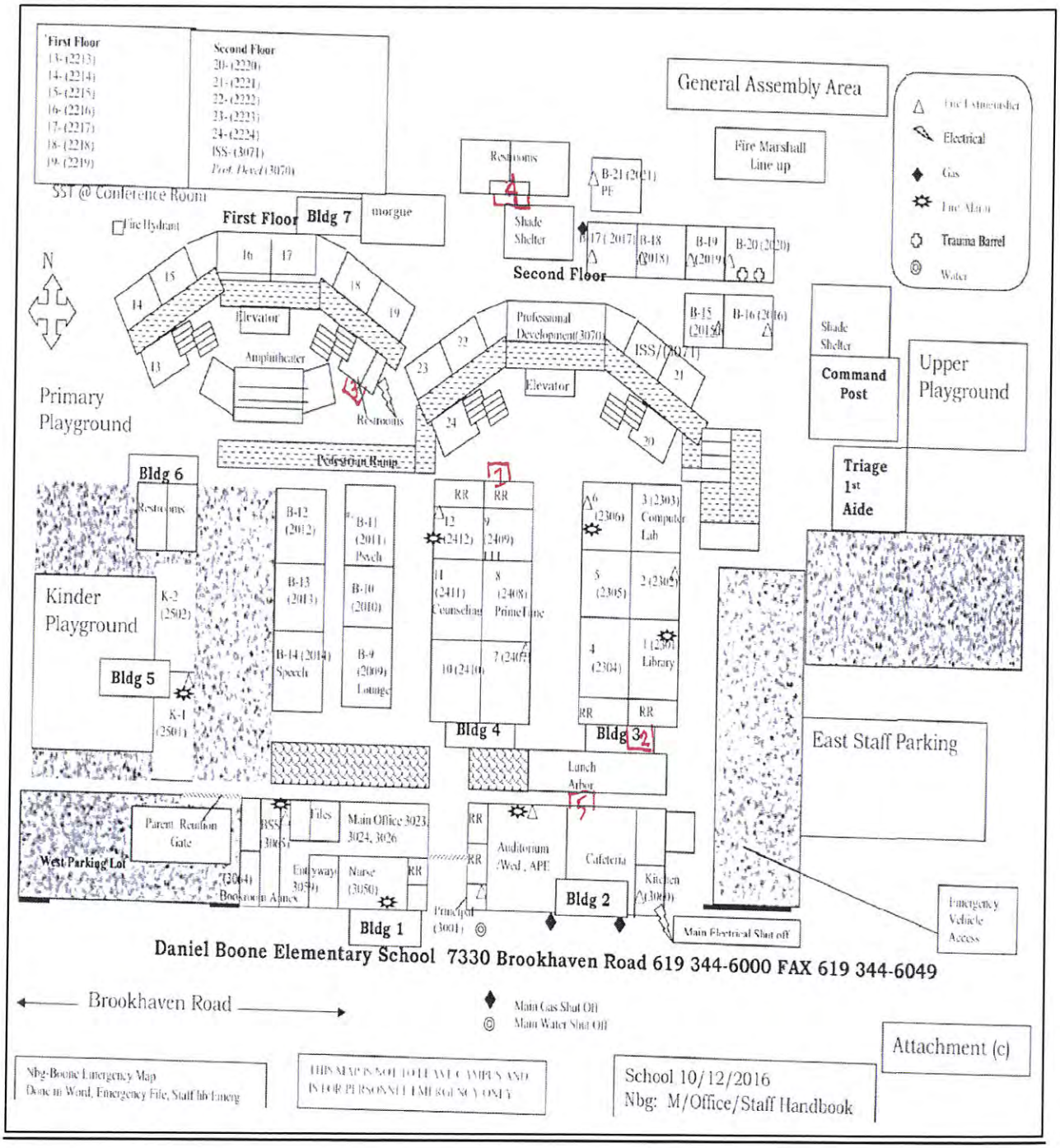

Sample No. 1

School: Boone Elementary

Name of Building: Bldg. 4

Location Description: Wall mounted exterior, next to Boys Restroom and Gardener's Room

Type of Outlet: bubbler

Description: upper/right bubbler on a dual fountain

Comments/Miscellaneous: outdoor drinking water source

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-AAG-A

LIMS Sample ID: W1164073

Date & Time Last Used: 4/3/17 2000

Date & Time Sample Collected: 4/4/17 0620

Name of Water System Sample Collector: D. Sowersby

Sample No. 2

School: Boone Elementary

Name of Building: Bldg. 3

Location Description: Wall mounted exterior, between Girls & Boys Restrooms

Type of Outlet: bubbler

Description: upper/right bubbler on a dual fountain

Comments/Miscellaneous: outdoor drinking water source

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-AAG-B

LIMS Sample ID: W1164074

Date & Time Last Used: 4/3/17 2000

Date & Time Sample Collected: 4/4/17 0613

Name of Water System Sample Collector: D. Sawersby

Sample No. 3

School: Boone Elementary

Name of Building: Bldg. 7

Location Description: Wall mounted exterior, 1st Floor, between Girls & Boys Restroom, facing amphitheater

Type of Outlet: bubbler

Description: upper/right bubbler on a dual fountain

Comments/Miscellaneous: outdoor drinking water source

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020- AAG-C

LIMS Sample ID: W1164075

Date & Time Last Used: 4/3/17 2000

Date & Time Sample Collected: 4/4/17 0622

Name of Water System Sample Collector: D. Sowersby

Sample No. 4

School: Boone Elementary

Name of Building: Portable Restrooms

Location Description: Wall mounted exterior, between Girls & Boys Restrooms, facing shade shelter

Type of Outlet: bubbler

Description: right bubbler on a dual fountain, next to Boys' Restroom

Comments/Miscellaneous: outdoor drinking water source

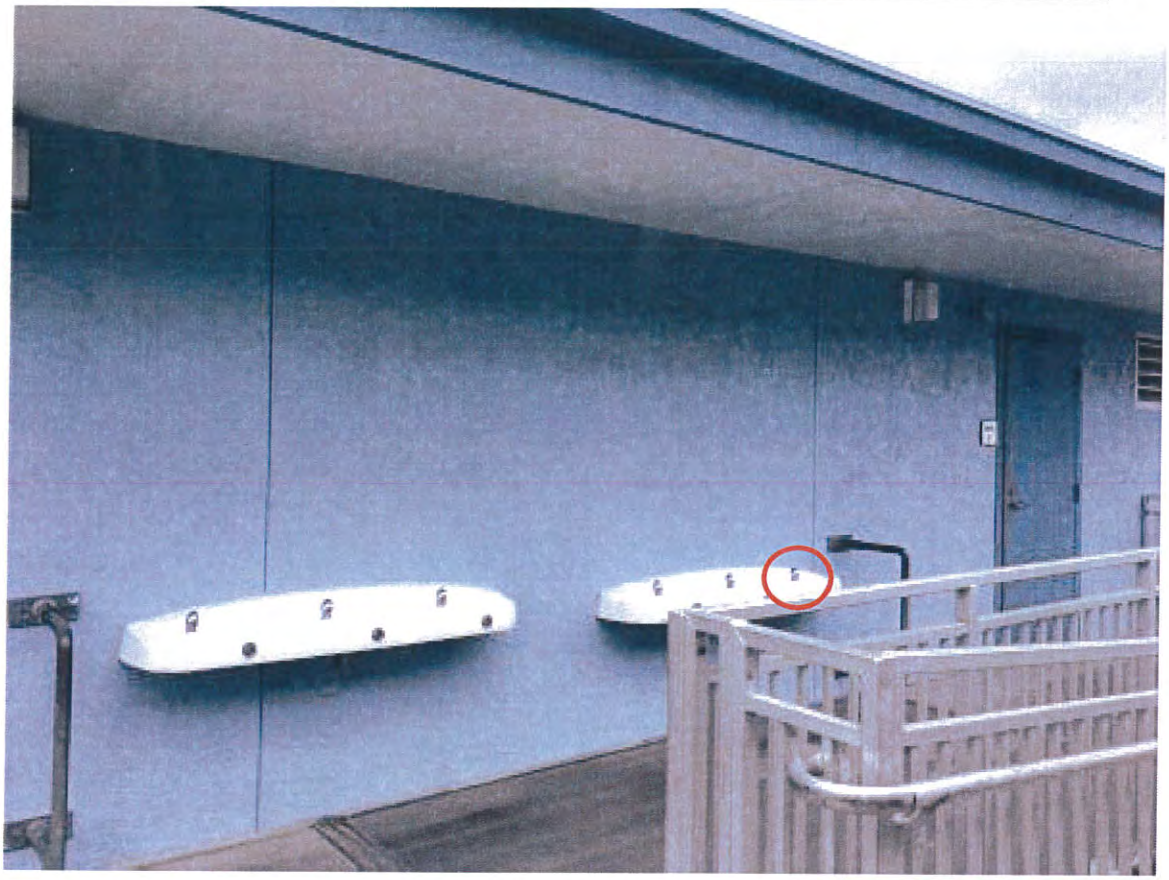

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-AAG-D

LIMS Sample ID: W1164076

Date & Time Last Used: ~~DS~~ 4/3/17 2000

Date & Time Sample Collected: 4/4/17 0628

Name of Water System Sample Collector: D. Sowersby

Sample No. 5

School: Boone Elementary

Name of Building: Cafeteria

Location Description: Wall mounted exterior, facing lunch arbor, between Cafeteria and Auditorium

Type of Outlet: bubbler

Description: upper/right bubbler on a dual fountain

Comments/Miscellaneous: outdoor drinking water source

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020 - AAG - E

LIMS Sample ID: W1164077

Date & Time Last Used: 4/3/17 2000

Date & Time Sample Collected: 4/4/17 0610

Name of Water System Sample Collector: D. Sowersby

San Diego Water Quality Laboratory

LEAD_SCHOOL For 04-APR-2017

Boone

No.	Sample ID	#	Description	Source	Sample Time	Sampler	Comments
1	W1164073	1	SAMPLE 1	PB_SCHOOL	0620	DS	
2	W1164074	1	SAMPLE 2	PB_SCHOOL	0613	DS	
3	W1164075	1	SAMPLE 3	PB_SCHOOL	0622	DS	
4	W1164076	1	SAMPLE 4	PB_SCHOOL	0628	DS	fixture leaking below bubbler
5	W1164077	1	SAMPLE 5	PB_SCHOOL	0610	DS	

Relinquished By: D. Sowersby Date: 4/4/17 Time: 0725 Received By: Tim B Bell Date: 4-4-17 Time: 0725

Relinquished By: Date: Time: Received By: Date: Time:

Relinquished By: Date: Time: Received By: Date: Time:

Received By: Smally
Received Date: 4/4/17
LIMS Received Time: 0738
Reviewed By:

Printed: 03-APR-2017

Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 4/12/17

San Diego Unified School District

Boone Elementary School

Sample ID	Sample Date	Sample Time	Description	External ID	Lead	Units
W1164073	04/04/17	06:20 AM	SAMPLE 1	3710020-AAG-A	< 5	ug/L
W1164074	04/04/17	06:13 AM	SAMPLE 2	3710020-AAG-B	< 5	ug/L
W1164075	04/04/17	06:22 AM	SAMPLE 3	3710020-AAG-C	< 5	ug/L
W1164076	04/04/17	06:28 AM	SAMPLE 4	3710020-AAG-D	< 5	ug/L
W1164077	04/04/17	06:10 AM	SAMPLE 5	3710020-AAG-E	< 5	ug/L

Sample #	Sample Site
SAMPLE 1	BLDG. 4, next to boys restroom and gardener's rm, wall mounted, right bubbler
SAMPLE 2	BLDG. 3, btwn girls and boys' restrooms, wall mounted, right bubbler
SAMPLE 3	BLDG. 7, 1st Floor, btwn girls and boys restroom facing amphitheater, right bubbler
SAMPLE 4	Portable Restrooms, btwn girls and boys restrooms, facing shade shelter, wall mounted right bubbler closet to the boys restroom
SAMPLE 5	Cafeteria, btwn cafeteria and auditorium, facing lunch arbor, wall mounted, right bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Burbank Elementary

Physical Address of School: 2146 Julian Ave, San Diego CA 92113

First Bell: 8:00 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 4-20-2017

Completed by Print Name: Sergio Salinas

Signature: _____ Date: _____

School's Point of Contact for Sampling Assistance

Name: Sergio Salinas

Phone: (619) 302-0564

Email: ssalinas@sandi.net

City of San Diego 3710020

Approved By: _____ 4/28/17 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Burbank Elementary- 2146 Julian Ave, San Diego CA 92113

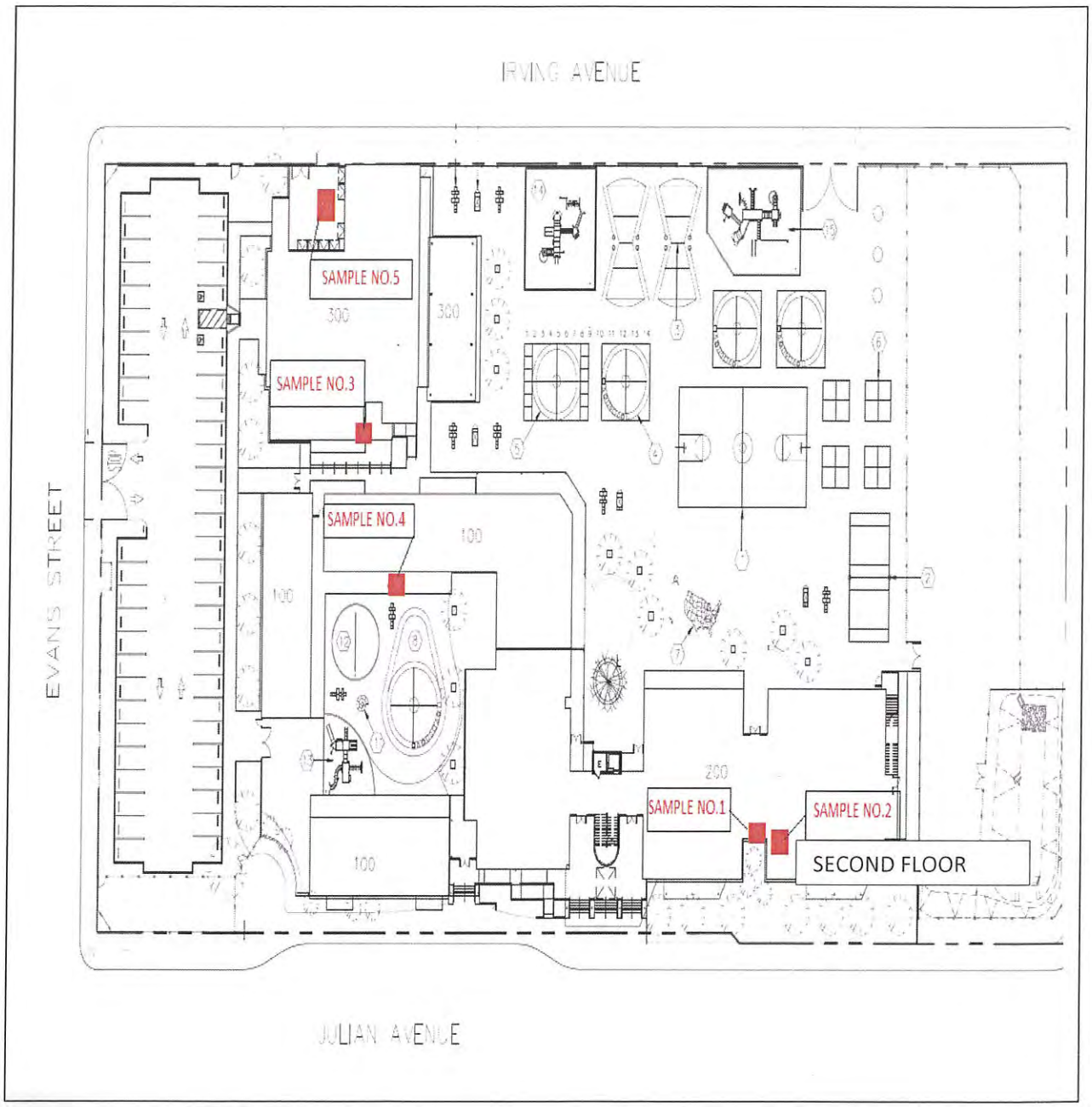

Sample No. 1

School: Burbank Elementary- 2146 Julian Ave, San Diego CA 92113

Name of Building: Building 200 (first floor)

Location Description: Outside drinking fountain next to BDF/IDF/ Girls Bathroom(Hall way)

Type of Outlet: Bubbler

Description: Right Bubbler

Comments/Miscellaneous: (School ID NO.39)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: 3710020-BAA-A

State Sample ID: W1168067

Date & Time Last Used: 050217 @ 1800 → 2200

Date & Time Sample Collected: 050317 @ 0607

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: Jerry Wen

Sample No. 2

School: Burbank Elementary- 2146 Julian Ave, San Diego CA 92113

Name of Building: Building 200 (Second Floor)

Location Description: Outside drinking fountain next to electrical room

Type of Outlet: Bubbler

Description: Right Bubbler

Comments/Miscellaneous: (School ID NO.39)

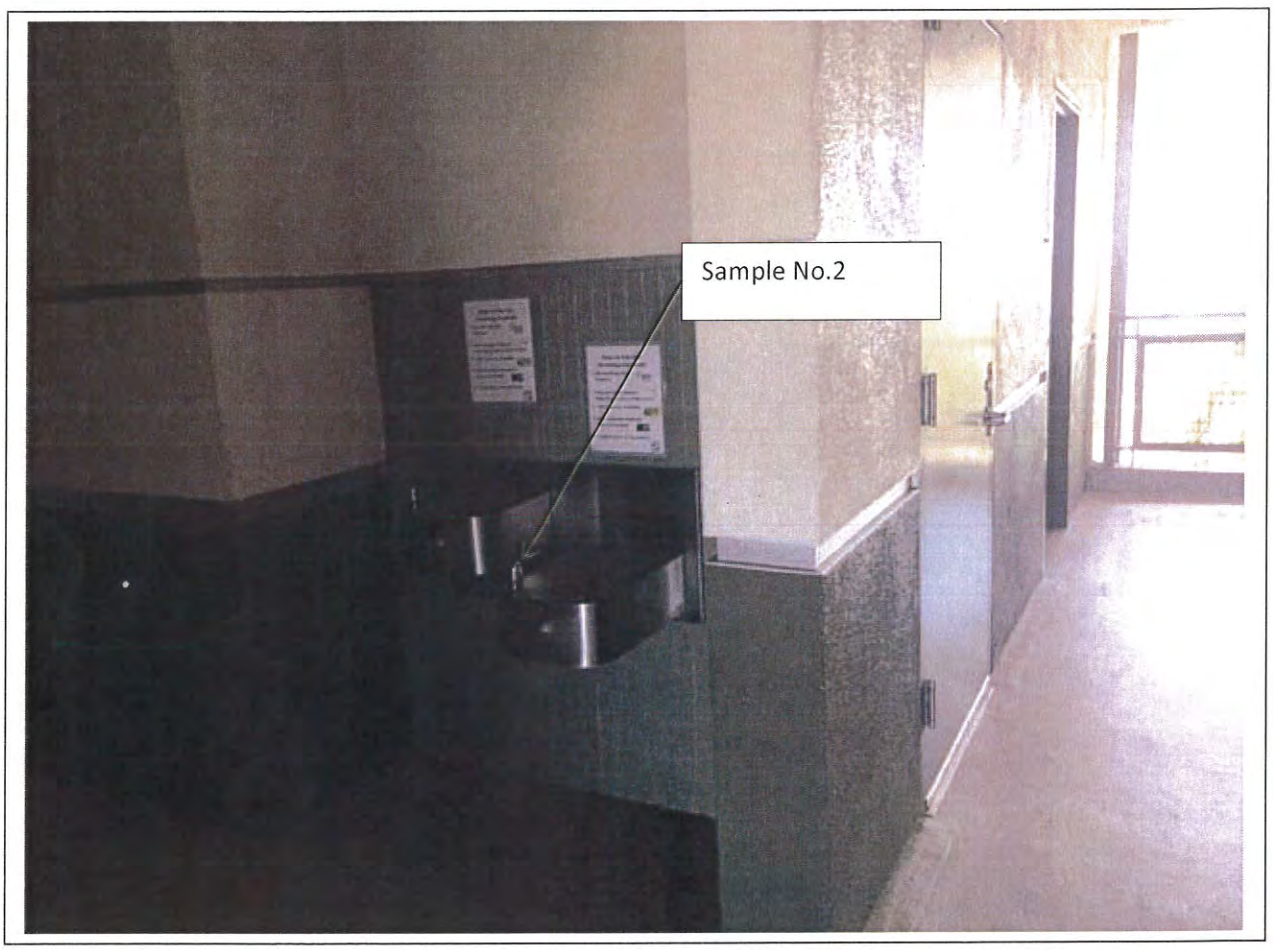

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: 3710020-BAA-B

State Sample ID: W1168068

Date & Time Last Used: 050217 @ 1800 → 2200

Date & Time Sample Collected: 050317 @ 0610

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: Jerry Wister

Sample No. 3

School: Burbank Elementary- 2146 Julian Ave, San Diego CA 92113

Name of Building Building 300

Location Description: Outside drinking fountain next to the 300 building south entrance

Type of Outlet: Bubbler

Description: Left Bubbler

Comments/Miscellaneous: (School ID NO.39)

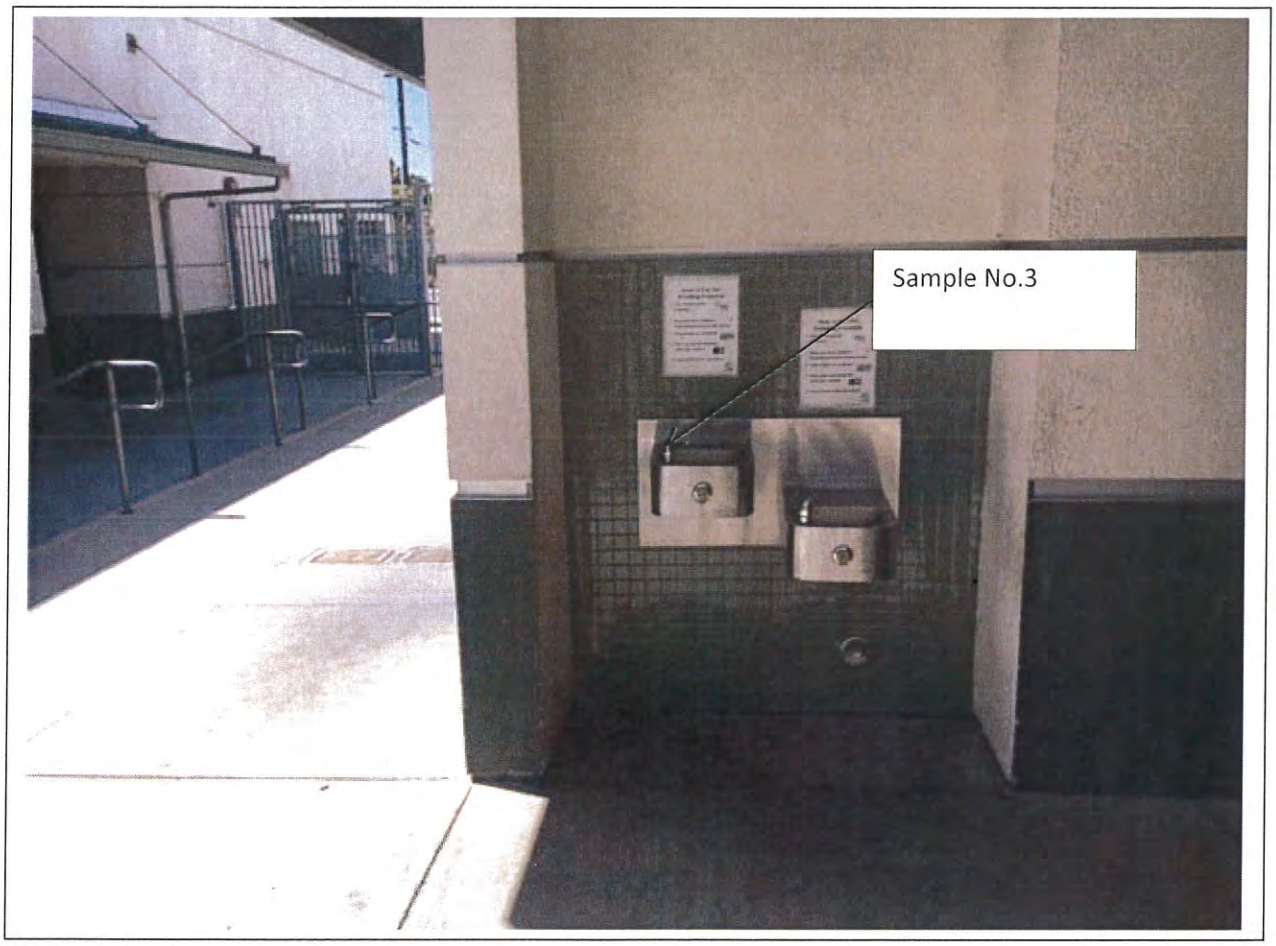

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: 3710020-BAA-C

State Sample ID: W1168069

Date & Time Last Used: 050217 @ 1800 → 2200

Date & Time Sample Collected: 050317 @ 0556

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: Jerry Wh

Sample No. 4

School: Burbank Elementary- 2146 Julian Ave, San Diego CA 92113

Name of Building: Outside building 100 (playground)

Location Description: Outside Drinking fountain in front of Building 100

Type of Outlet: Bubbler

Description: Left Bubbler

Comments/Miscellaneous: (School ID NO.39)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: 3710020-BAA-D

State Sample ID: W1168070

Date & Time Last Used: 050217 @ 1800 → 2200

Date & Time Sample Collected: 050317 @ 0602

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: Jerry Wu

Sample No. 5

School: Burbank Elementary- 2146 Julian Ave. San Diego CA 92113

Name of Building: Building 300 (Kitchen)

Location Description: Inside Kitchen

Type of Outlet: Faucet inside Kitchen

Description: Faucet

Comments/Miscellaneous: (School ID NO.39)

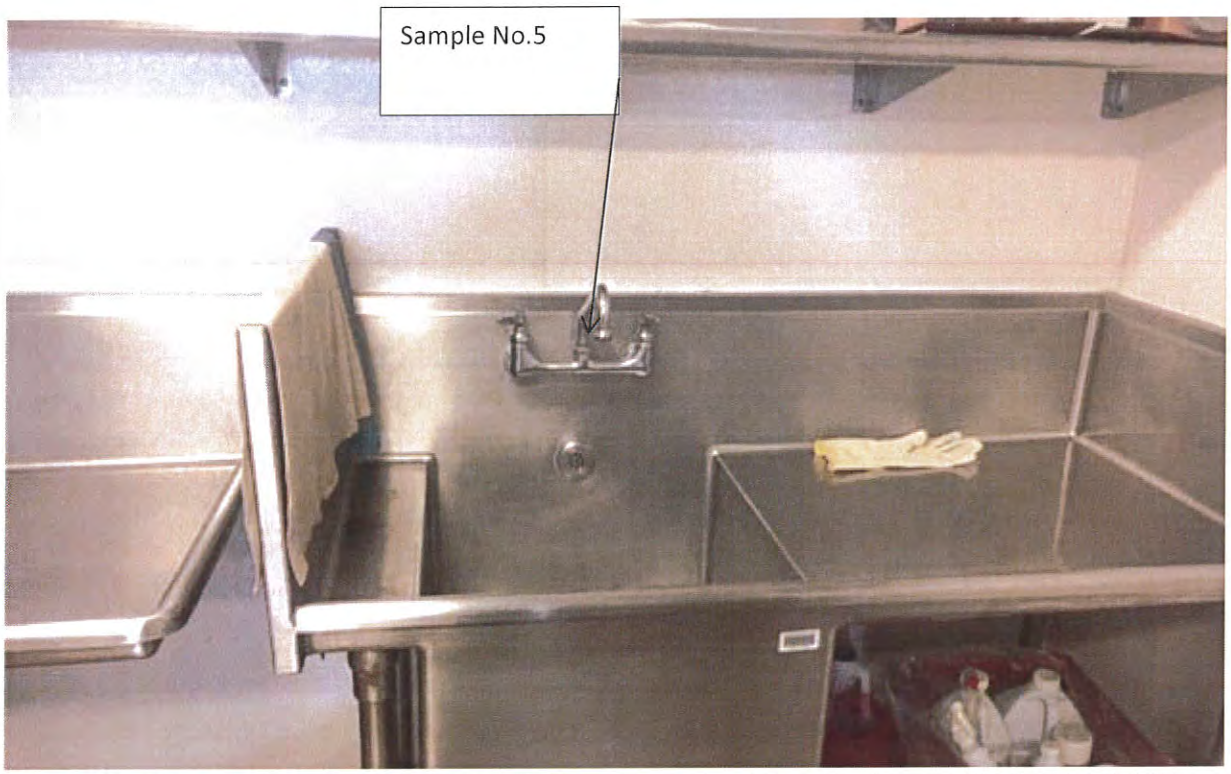

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: 3710020-BAA-E

State Sample ID: W1168071

Date & Time Last Used: 050217 @ 1800 → 2200

Date & Time Sample Collected: 050317 @ 0559

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Jerry [illegible]

Water Quality Chemistry Services
Chain of Custody Form

01-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168067	Burbank Elementary	03-MAY-2017	0607		SAMPLE 1	
2	W1168068	Burbank Elementary	03-MAY-2017	0619		SAMPLE 2	
3	W1168069	Burbank Elementary	03-MAY-2017	0556		SAMPLE 3	
4	W1168070	Burbank Elementary	03-MAY-2017	0602		SAMPLE 4	
5	W1168071	Burbank Elementary	03-MAY-2017	0559		SAMPLE 5	

Chain of Custody:

Relinquished by: Name: JERRY WESTON Sign:	Received by: Name: Tom Burger Sign: Tom B Burger	Date & Time: 5-3-17 0659 Location: ALV. LAB	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-3-17
LIMS Received Time: 0751
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Cabrillo Elementary

Physical Address of School: 3120 Talbot St., San Diego, CA 92106-2447

First Bell: 7:45 AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 05/06/2017

Completed by Print Name: Ginette Commins

Signature: G Commins Date: 05/08/2017

School's Point of Contact for Sampling Assistance

Name: Ginette Commins

Phone: (858) 627-7201

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/20/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Cabrillo Elementary, 3120 Talbot St., San Diego, CA 92106-2447

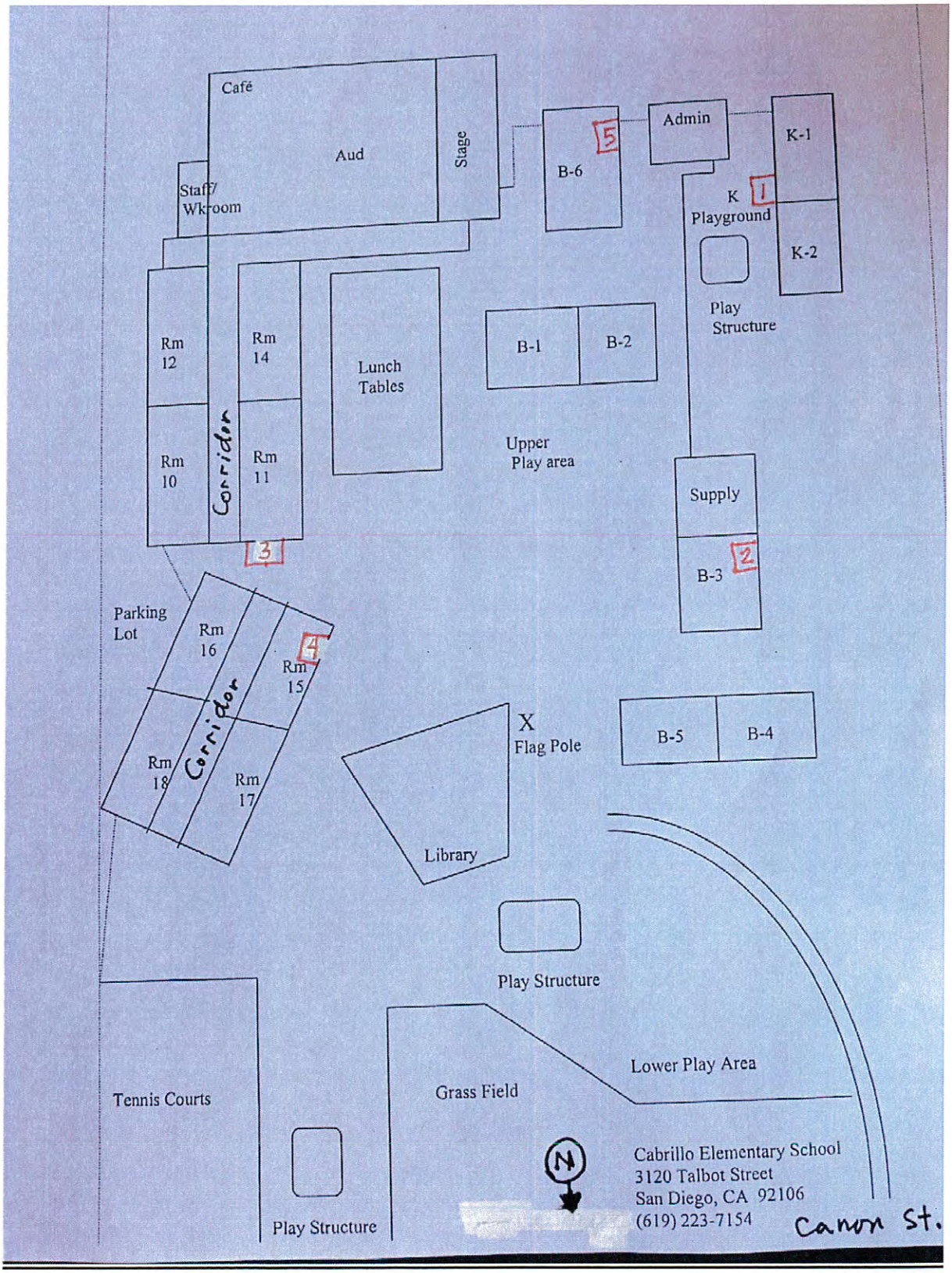

Sample No. 1

School: Cabrillo Elementary

Name of Building: Kindergarten

Location Description: Wall mounted exterior (East of Bldg), between Classroom K1 & Heater Room, facing playground

Type of Outlet: bubbler

Description: bubbler with lever handle on a sink (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #41

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172996

State Sample ID: 3710020-BJE-A

Date & Time Last Used: 5/19/17 2200

Date & Time Sample Collected: 5/20/17 0543

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 2

School: Cabrillo Elementary

Name of Building: Portable Classroom

Location Description: B3, classroom sink/faucet

Type of Outlet: bubbler

Description: bubbler with lever handle on a sink (HIGH flow)

Comments/Miscellaneous: indoor drinking water source/SDUSD Location Code #41

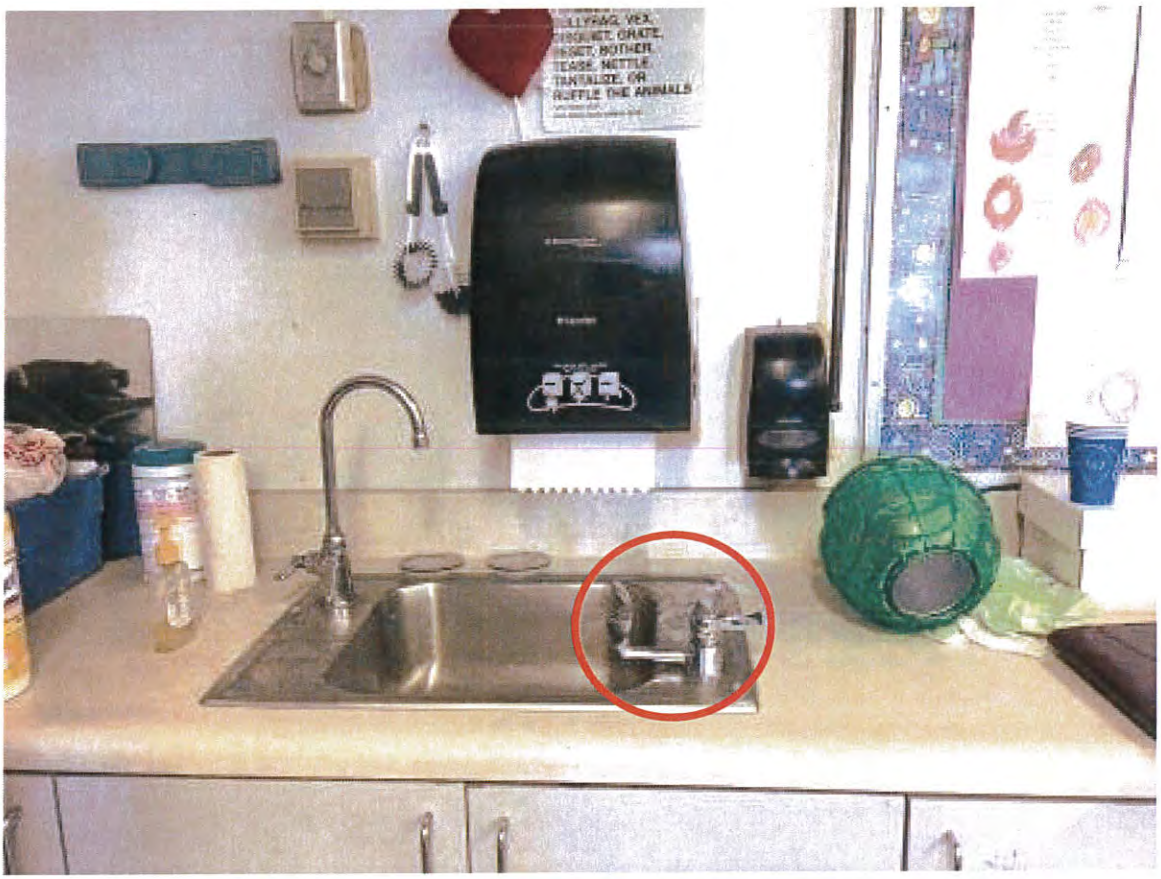

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172997

State Sample ID: 3710020-BJE-B

Date & Time Last Used: 5/19/17 2200

Date & Time Sample Collected: 5/20/17 0549

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 3

School: Cabrillo Elementary

Name of Building: Classrooms 10-14

Location Description: Wall mounted exterior (North of Bldg), between Corridor entrance & Boys Restroom

Type of Outlet: bubbler

Description: lower/right bubbler on a dual fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #41

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172998

State Sample ID: 3710020-BJE-C

Date & Time Last Used: 5/19/17 2200

Date & Time Sample Collected: 5/20/17 0552

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M Nelson

Sample No. 4

School: Cabrillo Elementary

Name of Building: Classrooms 15-18

Location Description: Room15, classroom sink/faucet

Type of Outlet: bubbler

Description: bubbler with lever handle on a sink (HIGH flow)

Comments/Miscellaneous: indoor drinking water source/SDUSD Location Code #41

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172999

State Sample ID: 3710020-BJE-D

Date & Time Last Used: 5/19/17 2200

Date & Time Sample Collected: 5/20/17 0556

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M Nelson

Sample No. 5

School: Cabrillo Elementary

Name of Building: Portable Classroom B6

Location Description: B6, classroom sink/faucet

Type of Outlet: bubbler

Description: bubbler with lever handle on a sink (HIGH flow)

Comments/Miscellaneous: indoor drinking water source/SDUSD Location Code #41

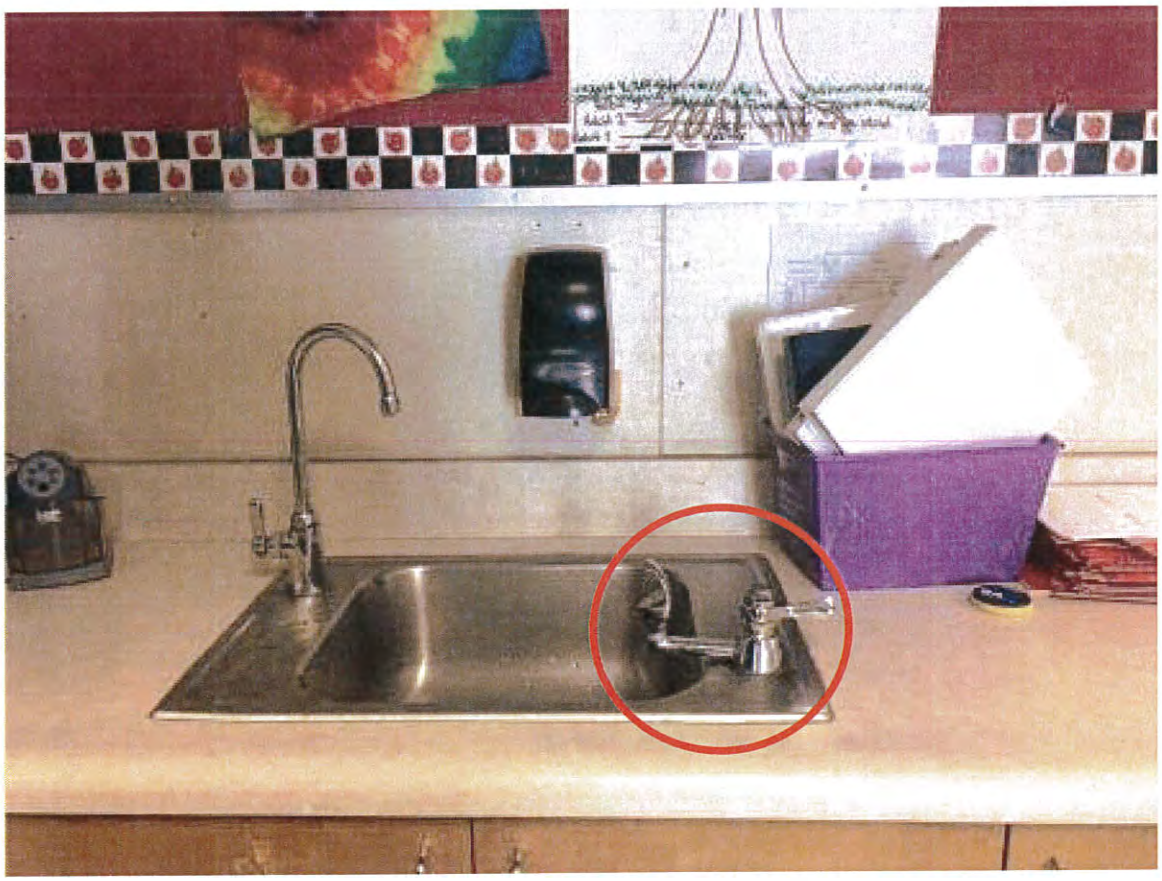

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173000

State Sample ID: 3710020-BJE-E

Date & Time Last Used: 5/19/17 2200

Date & Time Sample Collected: 5/20/17 0601

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M Nelson

Water Quality Chemistry Services
Chain of Custody Form

16-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1172996	Cabrillo Elementary	20-MAY-2017	0543	M. Nelson	SAMPLE 1	
2	W1172997	Cabrillo Elementary	20-MAY-2017	0549		SAMPLE 2	
3	W1172998	Cabrillo Elementary	20-MAY-2017	0552		SAMPLE 3	
4	W1172999	Cabrillo Elementary	20-MAY-2017	0556		SAMPLE 4	
5	W1173000	Cabrillo Elementary	20-MAY-2017	0601		SAMPLE 5	

717

Chain of Custody:

Relinquished by:	Received by:	Date & Time:	Comments:
Name: M. Nelson Sign:	Name: Sign:	5/22/17 @0630 Location: WQL Alv	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: Smaley
Received Date: 5/22/17
LIMS Received Time: 0655
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Cadman Elementary

Physical Address of School: 4370 Kamloop Ave., San Diego, CA 92117

First Bell: 8:55am

Meeting Date: 4/05/2017

Sampling Plan Completion Date: 4/27/17

Completed by Print Name: Lori Sherman

Signature: *Lori Sherman* Date: 4/27/17

School's Point of Contact for Sampling Assistance

Name: ~~Lori Sherman~~ Ginette Conning

Phone: ~~619-301-9086~~ 619-302-5285

Email: lsherman1@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/2/17 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Cadman Elementary - 4370 Kamloop Ave., San Diego, CA 92117

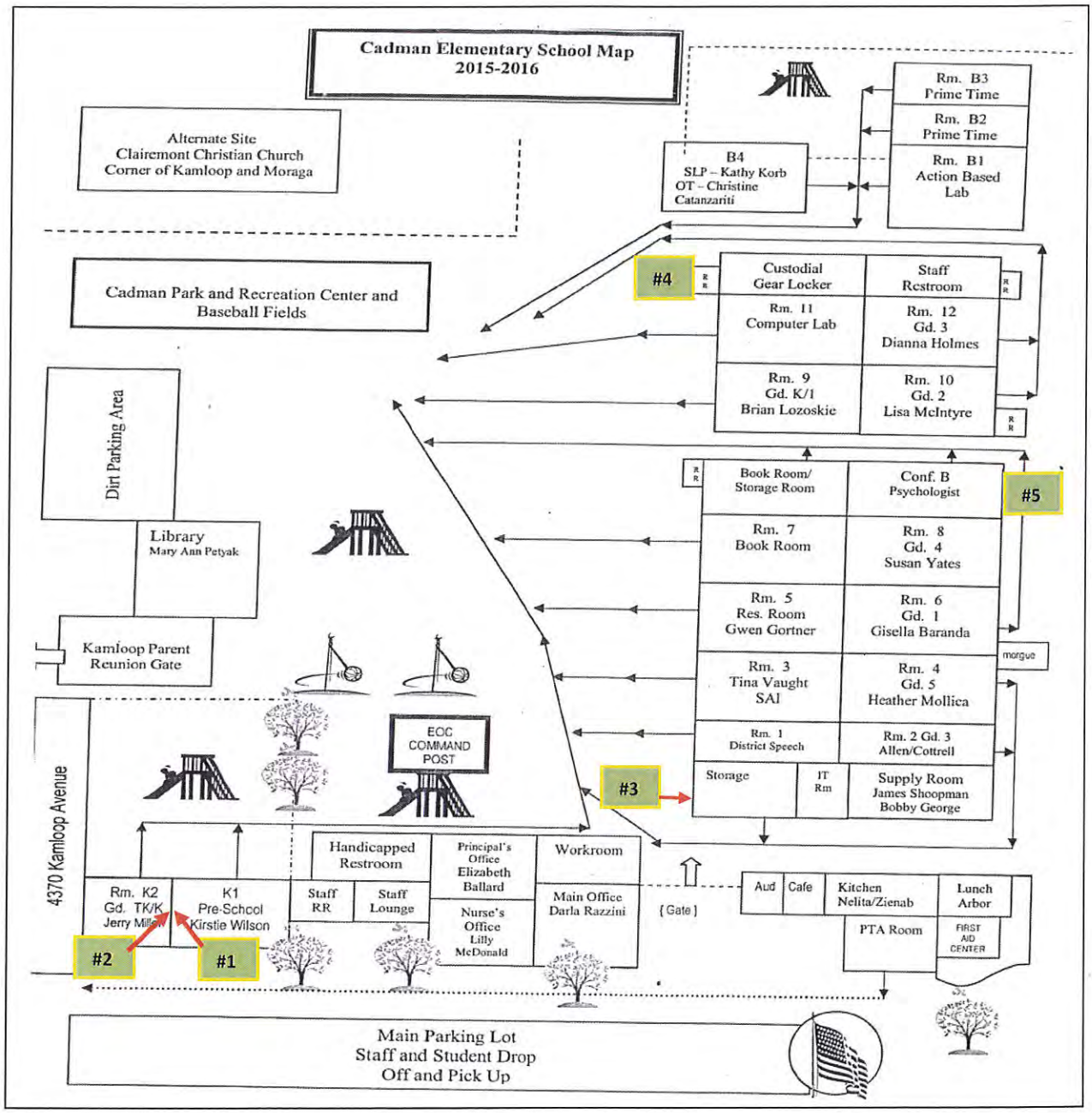

Sample No. 1

School: Cadman Elementary - 4370 Kamloop Ave., San Diego, CA 92117

Name of Building: State Preschool

Location Description: Inside K-1 room next to restroom

Type of Outlet: Bubbler

Description:

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170170

State Sample ID: 3710020-BEB-A

Date & Time Last Used: 5/22/17 @ 2200

Date & Time Sample Collected: 5/23/17 @ 0601

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: Cadman Elementary - 4370 Kamloop Ave., San Diego, CA 92117

Name of Building:

Location Description: Inside K-2 between restrooms

Type of Outlet: Bubbler

Description: Right sink bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170171

State Sample ID: 3710020-BEB-B

Date & Time Last Used: 5/22/17 @ 2200

Date & Time Sample Collected: 5/23/17 @ 0603

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: Cadman Elementary - 4370 Kamloop Ave., San Diego, CA 92117

Name of Building: Classrooms 1-8

Location Description: Exterior corner next to room 1

Type of Outlet: Bubbler

Description:

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170172

State Sample ID: 3710020-BEB-C

Date & Time Last Used: 5/22/17 @ 2200

Date & Time Sample Collected: 5/23/17 @ 0606

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: Cadman Elementary - 4370 Kamloop Ave., San Diego, CA 92117

Name of Building: Classrooms 9-12

Location Description: Exterior wall next to room 11

Type of Outlet: Bubbler

Description: Left bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170173

State Sample ID: 3710020-BEB-D

Date & Time Last Used: 5/22/17 @ 2200

Date & Time Sample Collected: 5/23/17 @ 0609

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: A. Malloy

Sample No. 5

School: Cadman Elementary - 4370 Kamloop Ave., San Diego, CA 92117

Name of Building: Classrooms 1-8

Location Description: Exterior wall next to room 8

Type of Outlet: Bubbler

Description: Left bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170174

State Sample ID: 3710020-BEB-E

Date & Time Last Used: 5/22/17 @ 2200

Date & Time Sample Collected: 5/23/17 @ 0611

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

22-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1170170	Cadman Elementary	23-MAY-2017	0601	A. Molloy	SAMPLE 1	
2	W1170171	Cadman Elementary	23-MAY-2017	0603		SAMPLE 2	
3	W1170172	Cadman Elementary	23-MAY-2017	0606		SAMPLE 3	
4	W1170173	Cadman Elem	23-MAY-2017	0609		SAMPLE 4	
5	W1170174	Cadman Elem	23-MAY-2017	0611		SAMPLE 5	

725

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign: AMolloy	Received by: Name: Brian Kuerr Sign: BK	Date & Time: 5/23/17 0650 Location: Alv.	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/22/17
LIMS Received Time: 0702
Reviewed By:

Water Quality Chemistry Services
Chain of Custody Form

15-Jun-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1178441	Canyon Crest Academy	16-JUN-2017	0616	T. Burger	SAMPLE 1	
2	W1178442	Canyon Crest Academy	16-JUN-2017	0628		SAMPLE 2	
3	W1178443	Canyon Crest Academy	16-JUN-2017	0641		SAMPLE 3	
4	W1178444	Canyon Crest Academy	16-JUN-2017	0632		SAMPLE 4	
5	W1178445	Canyon Crest Academy	16-JUN-2017	0623		SAMPLE 5	

Chain of Custody:

Relinquished by: Name: Tom Burger Sign: Tom Burger	Received by: Name: Alejandra Molloy Sign: A Molloy	Date & Time: 6-16-17 0820 Location: WQL Office	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: Signature
Received Date: 6/16/17
LIMS Received Time: 1045
Reviewed By:

Exhibit 31

726

198

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: CANYON CREST ACADEMY

Physical Address of School: 5951 VILLAGE CTR LOOP RD

First Bell:

Meeting Date: 6-5-17

Sampling Plan Completion Date: 6-8-17

Completed by Print Name: James Mitroff

Signature: Date: 6-8-17

School's Point of Contact for Sampling Assistance

Name: JAMES MITROFF

Phone: 760-802-3586

Email: Jim.Mitroff@SDUHSD.Net

City of San Diego 3710020

Approved By: Signature & Date Tom Burger Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

CANYON CREST ACADEMY @ 5951 VILLAGE LOOP RD. 92130

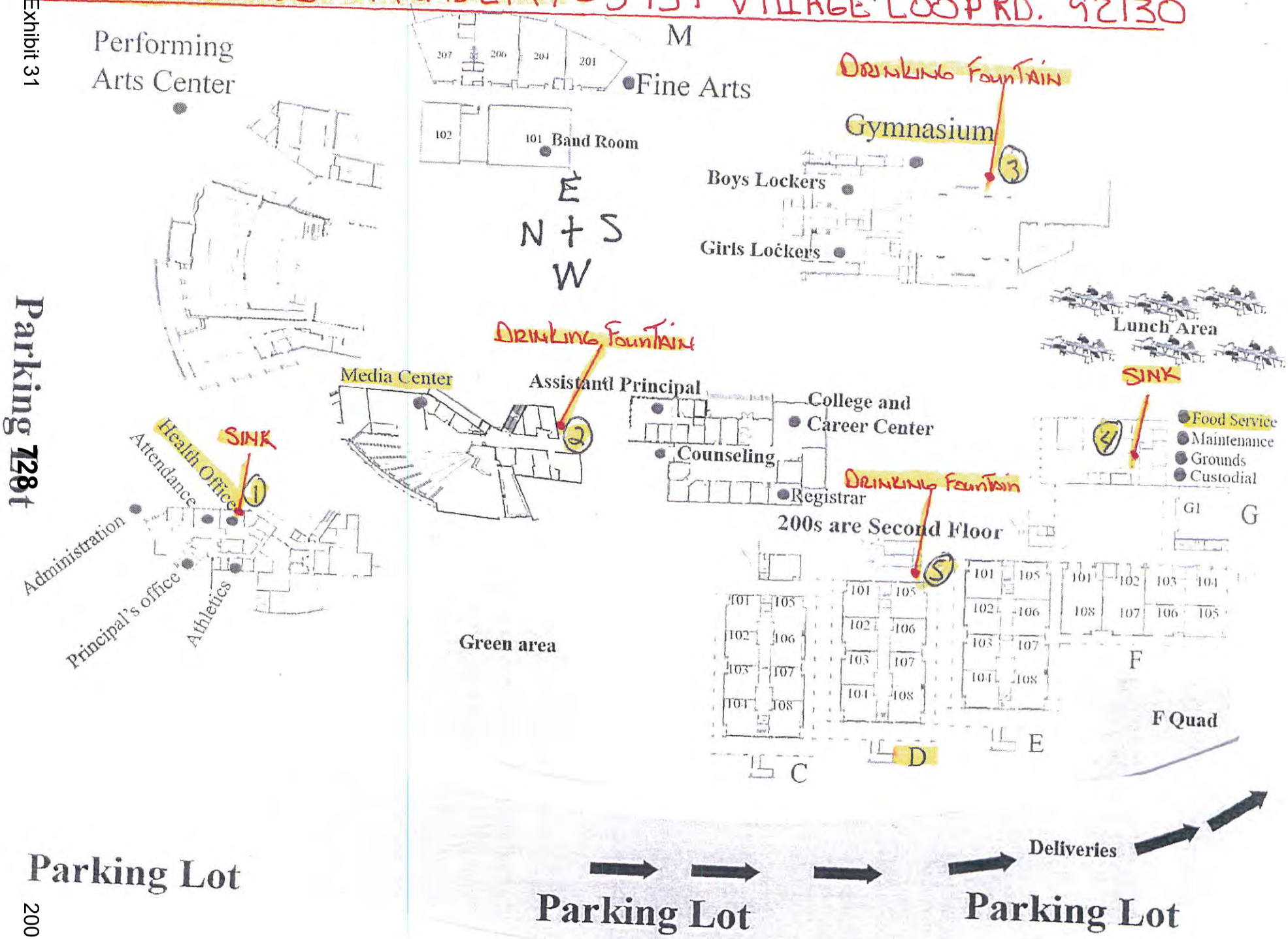

Exhibit 31

Parking 128t

200

Sample No. 1

School: CAMPION CREST ACADEMY

Name of Building:

Location Description: HEALTH OFFICE

Type of Outlet: SINK

Description: Admin BLDG, Nurses Office, faucet at sink

Comments/Miscellaneous:

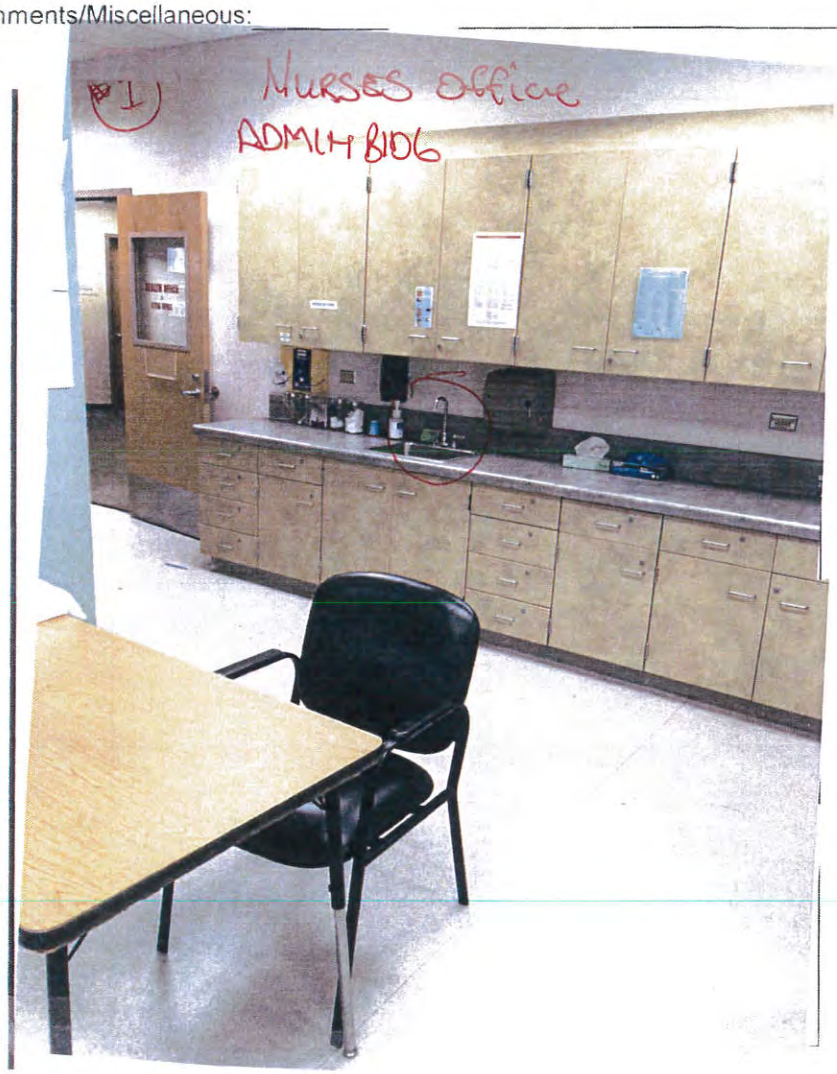

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1178441

State Sample ID: 3710020-CCG-A

Date & Time Last Used: 3:32 pm 6-15-17

Date & Time Sample Collected: 0616 6-16-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: J. Burger

Sample No. 2

School: CANYON CREST ACADEMY

Name of Building: LB\MEDIA CTR

Location Description: South of Boys RR

Type of Outlet: Bottle filler

Description: Library/Media center, south of boys RR, bottle filler on north facing wall Right Filler

Comments/Miscellaneous:

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1178442

State Sample ID: 3710020-CCG-B

Date & Time Last Used: 3:20, 6-15-17

Date & Time Sample Collected: 6:28 6-16-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T. Burger

Sample No. 3

School: _____

Name of Building: GYM

Location Description: BACKSIDE of GYM (OUTSIDE) SOUTH EAST

Type of Outlet: DRINKING FOUNTAIN

Description: Far right drinking fountain ~~Gym, backside of gym, southeast~~ outside wall, far right drinking fountain

Comments/Miscellaneous: _____

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: **W1178443**

State Sample ID: **3710020-CCG-C**

Date & Time Last Used: 3:28 6-15-17

Date & Time Sample Collected: 0641 6-16-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T. Berger

Sample No. 4

School: CANYON CREST ACADEMY

Name of Building: FOOD SERVICE

Location Description:

Type of Outlet: SINK **Food service room, south east wall, faucet at sink, non-pull down**

Description:

Comments/Miscellaneous:

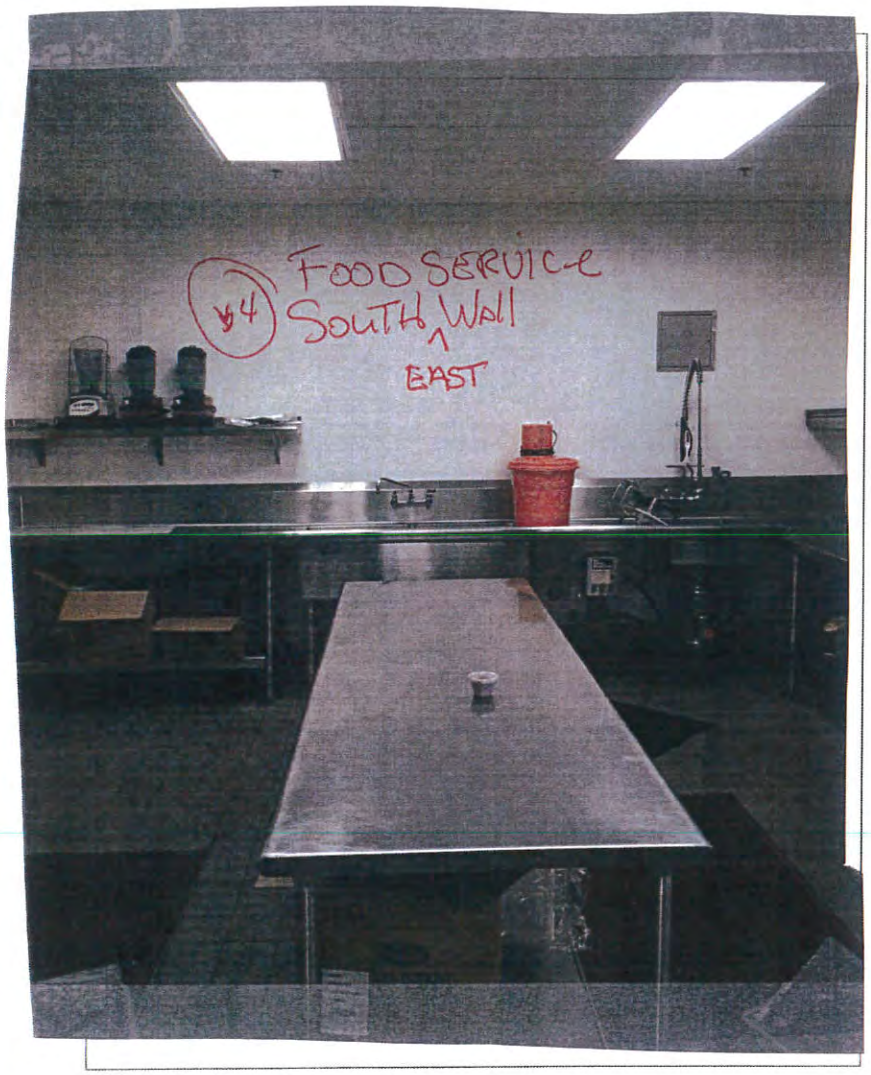

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: **W1178444**

State Sample ID: **3710020-CCG-D**

Date & Time Last Used: 3:10 6-15-17

Date & Time Sample Collected: 0632 6-16-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T Burger

Sample No. 5

School: CANYON CREST ACADEMY

Name of Building: D-BLDG - EASTSIDE

Location Description:

Type of Outlet: Bottle FILLER

Description: BLDG D, outside East side, free standing bottle filler

Comments/Miscellaneous:

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1178445

State Sample ID: 3710020-CCG-E

Date & Time Last Used: 3:15 6-15-17

Date & Time Sample Collected: 0623 6-16-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T Burger

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Carmel Del Mar Elementary

Physical Address of School: 12345 Carmel Park Drive

First Bell: 8:10am

Meeting Date: 5-8-2017

Sampling Plan Completion Date: 5/16/17

Completed by Print Name: Mike Gals

Signature: _____ Date: 5/16/17

School's Point of Contact for Sampling Assistance

Name: Patrick Lum

Phone: (858) 864-3473

Email: plum@dmusd.org

City of San Diego 3710020

Approved By: _____ 5/24/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Carmel Del Mar Elementary

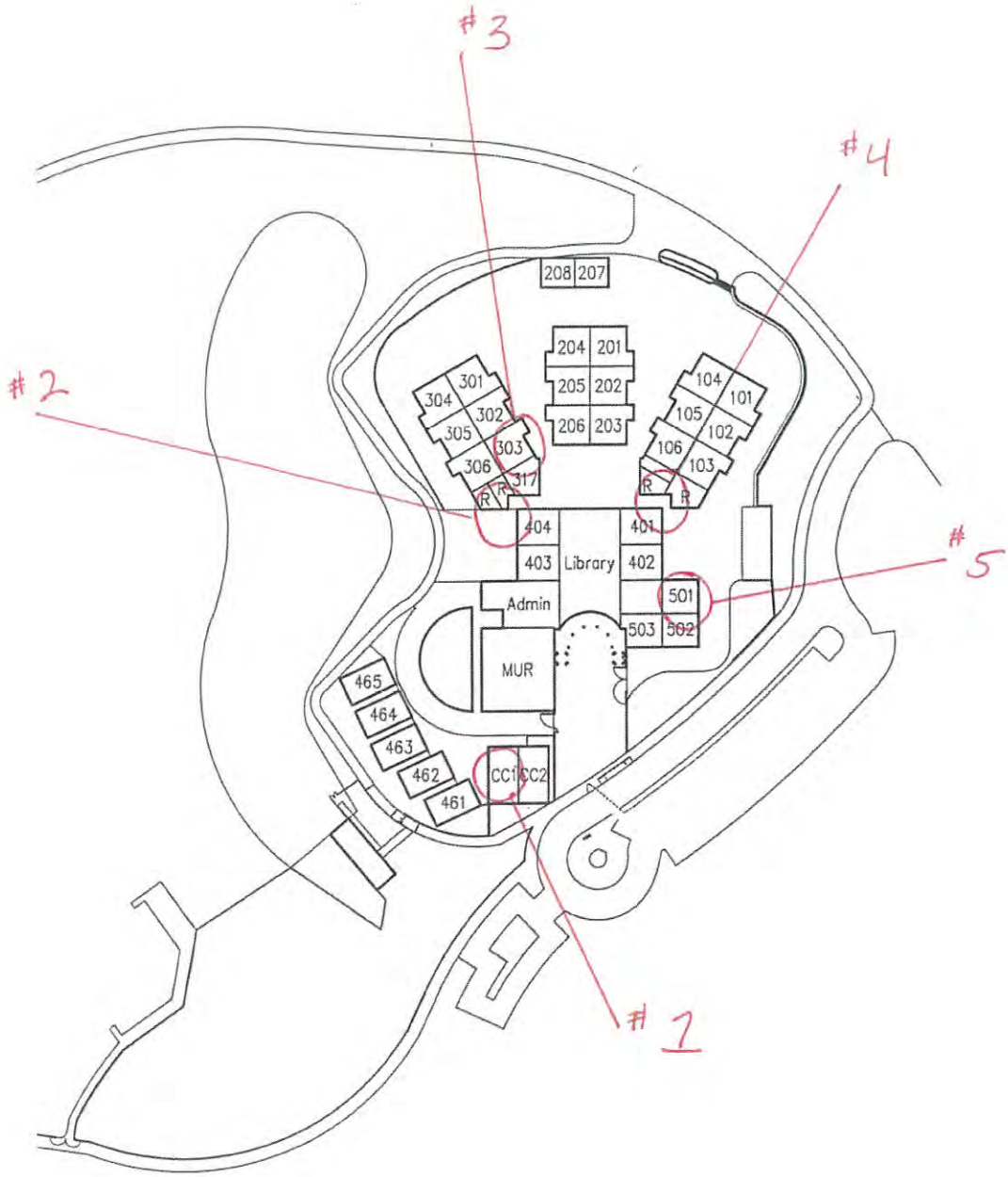

CARMEL DEL MAR SCHOOL

Sample No. 1

School: Carmel Del Mar Elementary

Name of Building: Childcare 1-2

Location Description: West side of school

Type of Outlet: Bubbler

Description: Bubbler attached to sink

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174614

State Sample ID: 3710020-CBH-A

Date & Time Last Used: 6-01-2017 @ 1900

Date & Time Sample Collected: 6/02/17 @ 0957

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: Carmel Del Mar Elementary

Name of Building: 300 wing

Location Description: East side of 300 wing between girls / boys upper grade restrooms

Type of Outlet: Drinking fountain bubbler

Description: Right side drinking fountain bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174615

State Sample ID: 3710020-CBH-B

Date & Time Last Used: 6/01/17 @1900

Date & Time Sample Collected: 6/02/17 @ 0659

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: Carmel Del Mar Elementary

Name of Building: 300 wing

Location Description: Classroom 303

Type of Outlet: Bubbler

Description: Bubbler attached to sink

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174616

State Sample ID: 3710020-CBH-C

Date & Time Last Used: 6/01/17 @ 1900

Date & Time Sample Collected: 6/02/17 @ 0701

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: Carmel Del Mar Elementary

Name of Building: 100 wing

Location Description: east end of wing 100 between girls / boys lower grade restrooms

Type of Outlet: Drinking fountain bubbler

Description: Left drinking fountain bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174617

State Sample ID: 3710020-CBH-D

Date & Time Last Used: 6/01/17 @ 1900

Date & Time Sample Collected: 6/02/17 @ 0703

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 5

School: Carmel Del Mar Elementary

Name of Building: 500 wing (Kindergarten)

Location Description: Classroom 501

Type of Outlet: Bubbler

Description: Bubbler attached to sink in classroom

Comments/Miscellaneous:

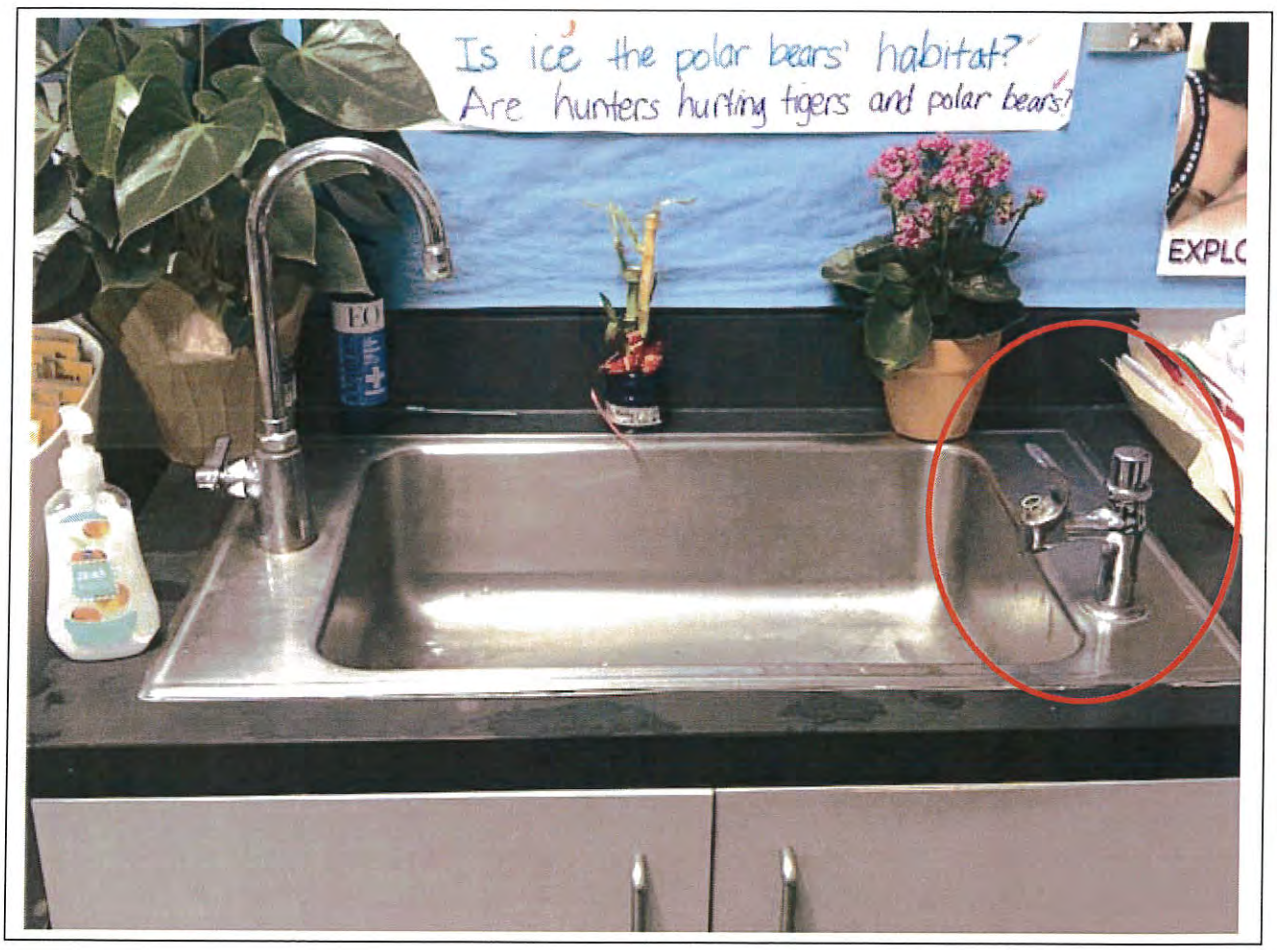

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174618

State Sample ID: 3710020-CBH-E

Date & Time Last Used: 6/01/17 @ 1900

Date & Time Sample Collected: 6/02/17 @0705

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Exhibit 21

Water Quality Chemistry Services
Chain of Custody Form

01-Jun-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1174614	Carmel Del Mar Elementary	02-JUN-2017	0657	A. Molloy	SAMPLE 1	
2	W1174615	Carmel Del Mar Elementary	02-JUN-2017	0659		SAMPLE 2	
3	W1174616	Carmel Del Mar Elementary	02-JUN-2017	0701		SAMPLE 3	
4	W1174617	Carmel Del Mar Elementary	02-JUN-2017	0703		SAMPLE 4	
5	W1174618	Carmel Del Mar Elementary	02-JUN-2017	0705		SAMPLE 5	

741

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign: A Molloy	Received by: Name: Keith Richmen Sign:	Date & Time: 6/02/17 @ 0740 Location: WQL AIV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: KR
Received Date: 06/02/2017
LIMS Received Time: 0915
Reviewed By:

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

12-Jun-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1178601	Carmel Valley MS	13-JUN-2017	0640	T.Burger	SAMPLE 1	
2	W1178602	Carmel Valley MS	13-JUN-2017	0636		SAMPLE 2	
3	W1178603	Carmel Valley MS	13-JUN-2017	0651		SAMPLE 3	
4	W1178604	Carmel Valley MS	13-JUN-2017	0644		SAMPLE 4	
5	W1178605	Carmel Valley MS	13-JUN-2017	0647		SAMPLE 5	

742

Chain of Custody:

Relinquished by: Name: Tom Burger Sign:	Received by: Name: Keith Ruehlwein Sign:	Date & Time: 6-13-17 0955 Location: WQL office	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: KR
Received Date: 0955
LIMS Received Time: 6/13/17
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: CARMEL VALLEY MIDDLE SCHOOL

Physical Address of School: 3800 MYKONOS LANE

First Bell:

Meeting Date: 6-5-17

Sampling Plan Completion Date: 6-7-17

Completed by Print Name: Jim Mitroff

Signature: Date: 6-7-17

School's Point of Contact for Sampling Assistance

Name: JAMES MITROFF

Phone: 760-802-3586

Email: JIM.MITROFF@SDUHSD.NET

City of San Diego 3710020

Approved By: Tom B. Burger 6-12-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

CARMEL VALLEY MIDDLE SCHOOL
3800 MYKONOS LANE
SAN DIEGO CA 92130
858-481-8221 / FAX: 858 -481-8256

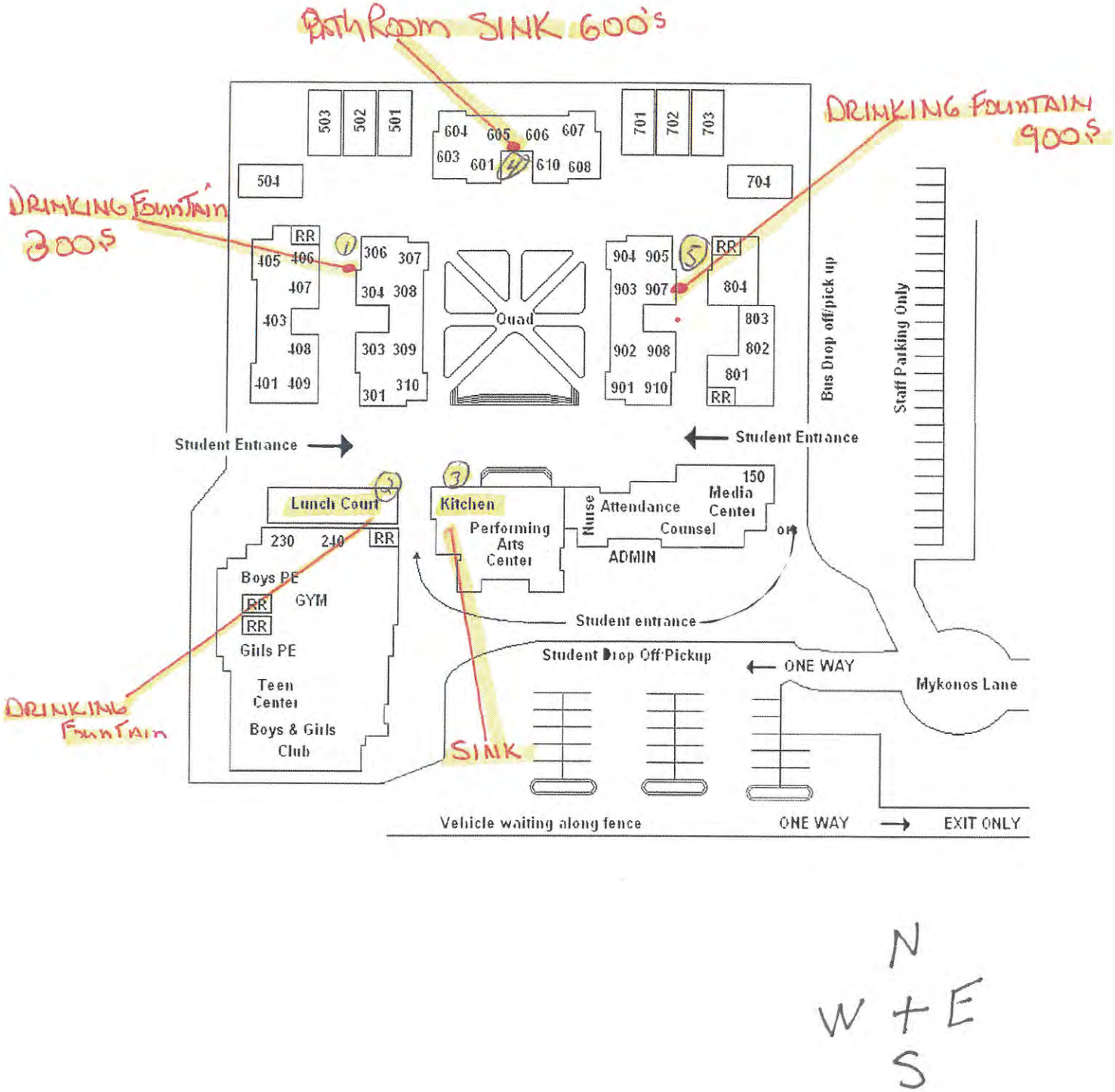

Sample No. 1

School: CARMEL VALLEY M.S.

Name of Building: 300S **BLDG**

Location Description:

Type of Outlet: DRINKING FOUNTAIN \ Bottle filler near RM 306

Description:

Comments/Miscellaneous:

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1178601

State Sample ID: **3710020-CCH-A**

Date & Time Last Used: 1407 6-12-17

Date & Time Sample Collected: 0640 6-13-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: JBurgel

Sample No. 2

School: CARMEL VALLEY M.S.

Name of Building: LUNCH COURT AREA / GYM

Location Description:

Type of Outlet: Bottle filler

Description: Lunch court near gym, bottle filling station near RM 240

Comments/Miscellaneous:

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1178602

State Sample ID: 3710020-CCH-B

Date & Time Last Used: 1411 6-12-17

Date & Time Sample Collected: 0636 6-13-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T Burger

Sample No. 3

School: CARMEL VALLEY MS.

Name of Building: FOOD SERVICE

Location Description:

Type of Outlet: SINK

Description: Kitchen food prep, faucet at two compartment sink on south facing wall

Comments/Miscellaneous:

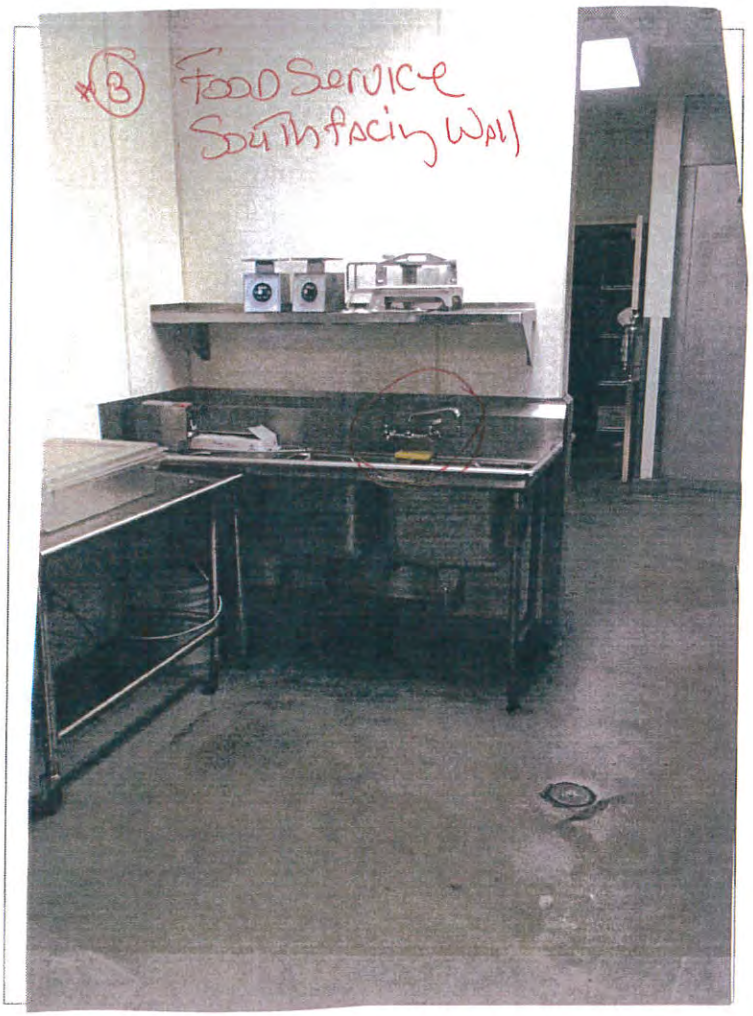

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1178603

State Sample ID: **3710020-CCH-C**

Date & Time Last Used: 1416 6-12-17

Date & Time Sample Collected: 0651 6-13-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T. Burger

Sample No. 4

School: CARMEL VALLEY M.S.

Name of Building: 600's

Location Description:

Type of Outlet: SINK IN Rest Room

Description: 600's BLDG, sink in restroom

Comments/Miscellaneous:

#4

600's Rest Room Sink

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1178604

State Sample ID: **3710020-CCH-D**

Date & Time Last Used: 1405 6-12-17

Date & Time Sample Collected: 0644 6-13-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: TBurger

Sample No. 5

School: CARMEL VALLEY M.S.

Name of Building: 900.S

Location Description:

Type of Outlet: DRINKING FOUNTAIN / Bottle filler

Description:

Comments/Miscellaneous:

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1178605

State Sample ID: **3710020-CCH-E**

Date & Time Last Used: 1400 6-12-17

Date & Time Sample Collected: 0647 6-13-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T Burger

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego
Water System Number: 3710020
DOE School Name: Carson Elementary
Physical Address of School: 6905 Kramer St., San Diego, CA 92111
First Bell: 7:45am (M, T, TH & F) & 7:25am Wednesday

Meeting Date: 4/05/17
Sampling Plan Completion Date: 4/19/17
Completed by Print Name: Lori Sherman
Signature: Lori Sherman Date: 4/19/17

School's Point of Contact for Sampling Assistance

Name: Lori Sherman
Phone: 619-301-9086
Email: lsherman1@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-22-17 Tom Burger
Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Carson Elementary - 6905 Kramer St., San Diego, CA 92111

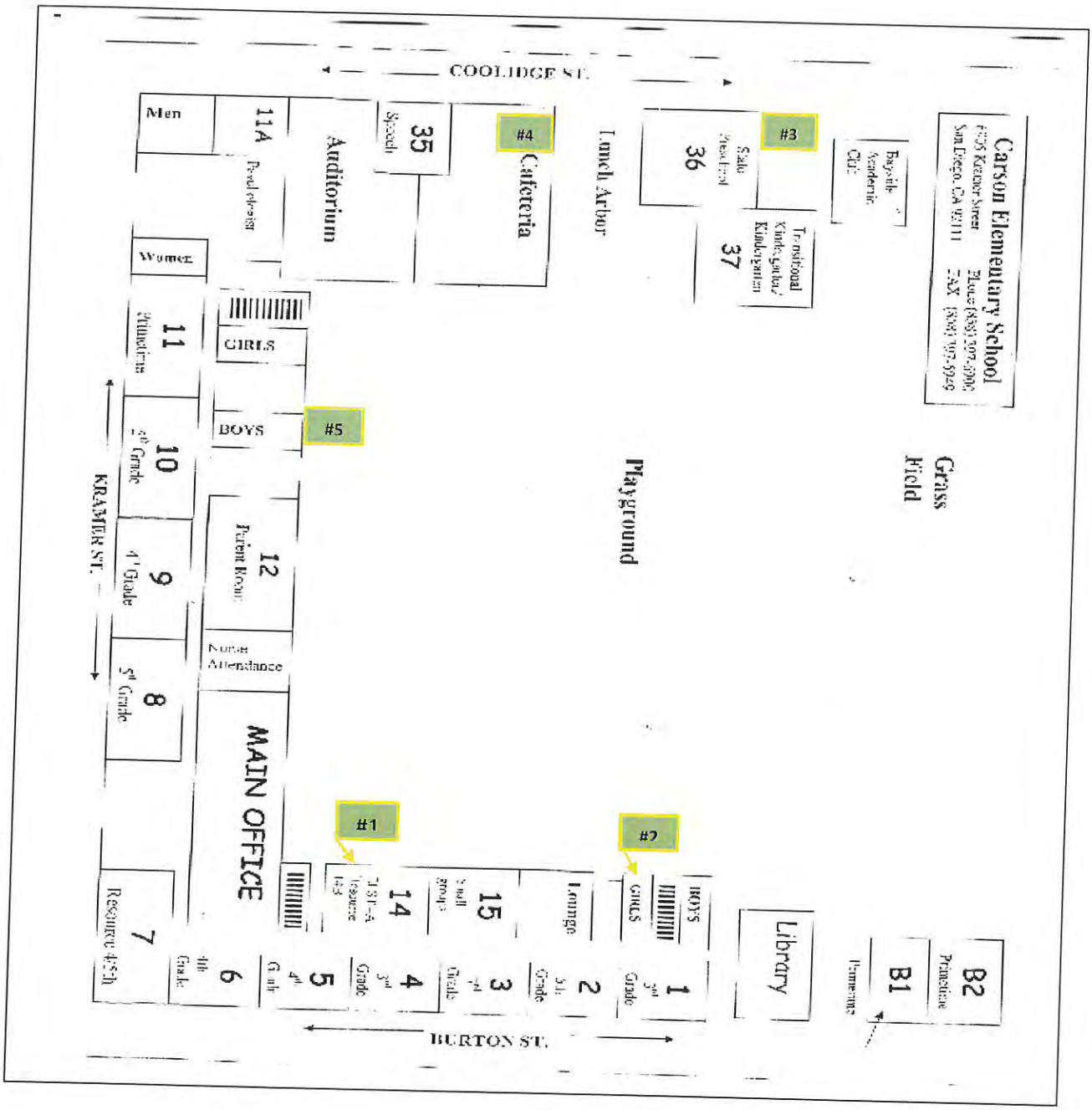

Sample Locations acknowledgement

School and Address: Carson Elementary - 6905 Kramer St., San Diego, CA 92111

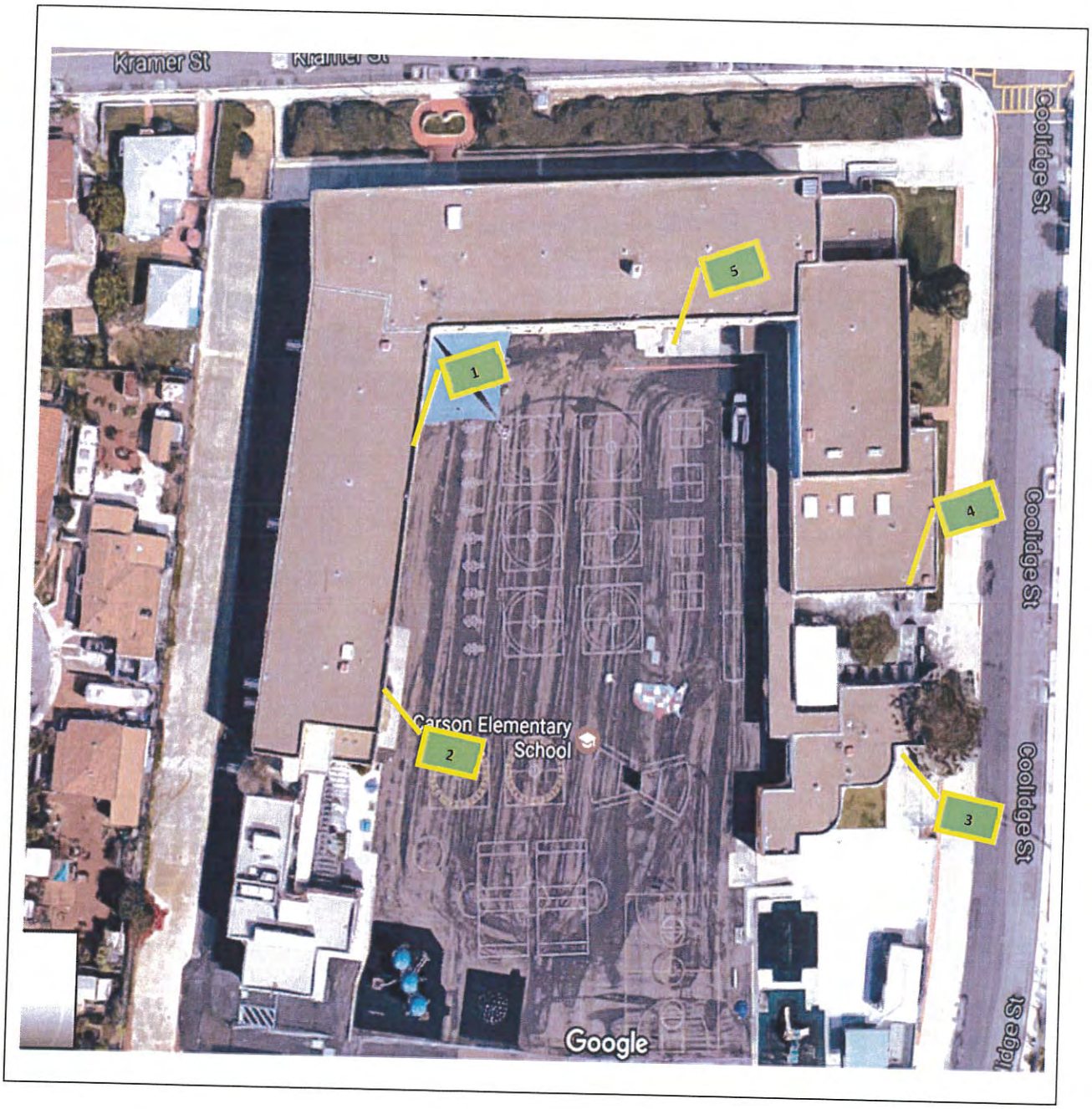

Sample No. 1

School: Carson Elementary - 6905 Kramer St., San Diego, CA 92111

Name of Building:

Location Description: East exterior wall backside of room 14

Type of Outlet: Bubbler

Description: Far left bubbler

Comments/Miscellaneous: Next to playground

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168191

State Sample ID: 3710020-AJI-A

Date & Time Last Used: 4/21/17 @ 2200

Date & Time Sample Collected: 4/22/17 @ 0741

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: Carson Elementary - 6905 Kramer St., San Diego, CA 92111

Name of Building:

Location Description: East exterior wall next to girl's restroom

Type of Outlet: Bubbler

Description: Center bubbler

Comments/Miscellaneous: next to playground south-east wall

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168192

State Sample ID: 3710020-AJI-B

Date & Time Last Used: 4/21/17 @ 2200

Date & Time Sample Collected: 4/22/17 @ ~~0731~~ 0743

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: Carson Elementary - 6905 Kramer St., San Diego, CA 92111

Name of Building:

Location Description: Kindergarten Playground next to room 36

Type of Outlet: Bubbler

Description: Far left bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168193

State Sample ID: 3710020-AJI-C

Date & Time Last Used: 4/21/17 @ 2200

Date & Time Sample Collected: 4/22/17 @ 0746

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: Carson Elementary - 6905 Kramer St., San Diego, CA 92111

Name of Building: Cafeteria

Location Description: Inside kitchen south wall

Type of Outlet: Spray faucet

Description:

Comments/Miscellaneous:

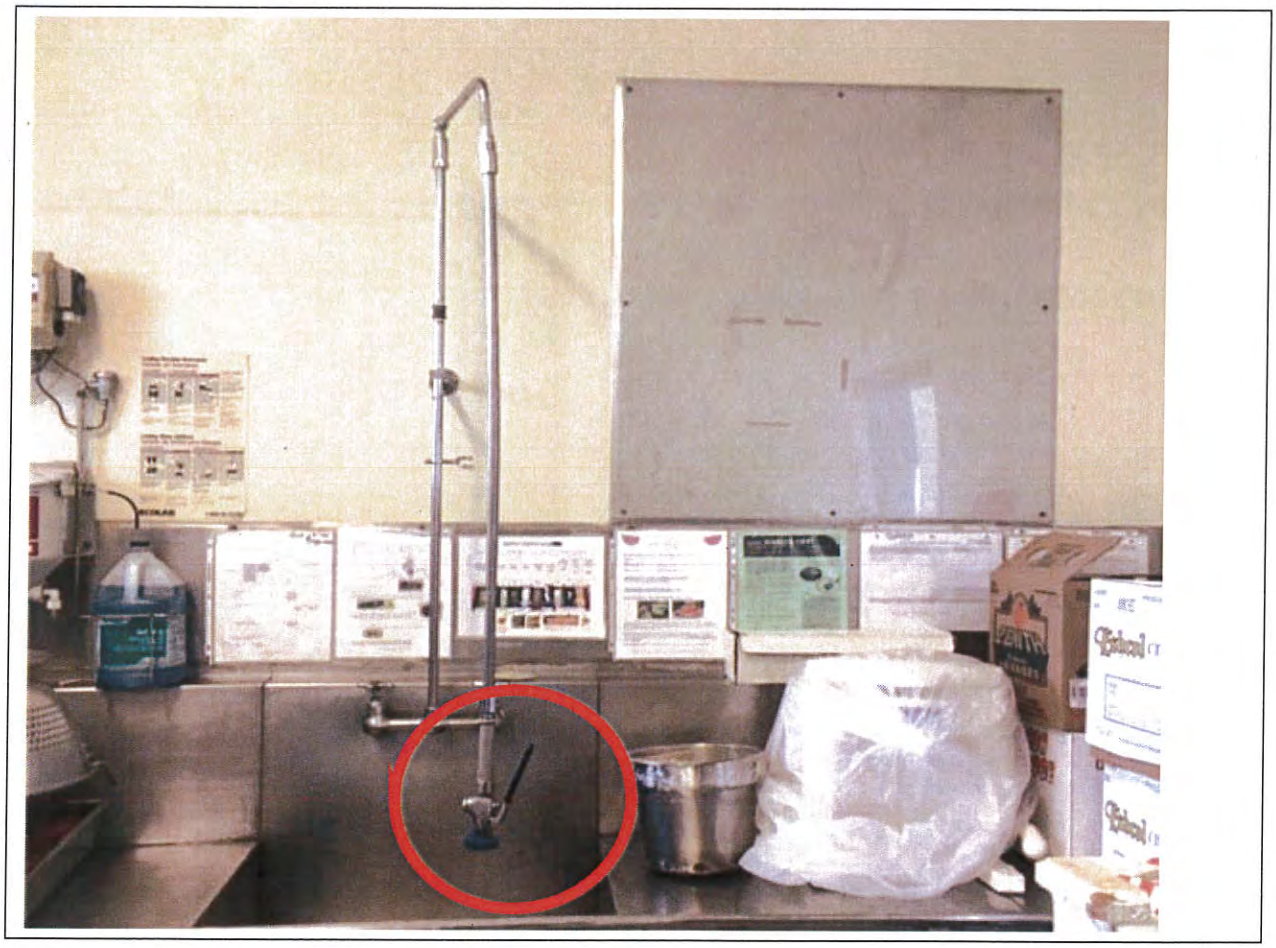

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168194

State Sample ID: 3710020-AJI-D

Date & Time Last Used: 4/21/17 @ 2200

Date & Time Sample Collected: 4/22/17 @ 0750

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Knob leaked while taking sample

Sample No. 5

School: Carson Elementary - 6905 Kramer St., San Diego, CA 92111

Name of Building:

Location Description: South facing exterior wall next to boy's restroom

Type of Outlet: Bubbler

Description: Center bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168195

State Sample ID: 3710020-AJI-E

Date & Time Last Used: 4/21/17 @ 2200

Date & Time Sample Collected: 4/22/17 @ 0753

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Water Quality Chemistry Services
Chain of Custody Form

21-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168191	Carson Elementary	22-APR-2017	0741	A. Molloy	SAMPLE 1	
2	W1168192	Carson Elementary	22-APR-2017	0743		SAMPLE 2	
3	W1168193	Carson Elementary	22-APR-2017	0746		SAMPLE 3	
4	W1168194	Carson Elementary	22-APR-2017	0750		SAMPLE 4	
5	W1168195	Carson Elementary	22-APR-2017	0753		SAMPLE 5	

Chain of Custody:

Relinquished by: Name: AMolloy Sign: Alejandra Molloy	Received by: Name: Sign:	Date & Time: 4/22/17 @ 1010 Location: WQL AV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 4/22/17
LIMS Received Time: 1012
Reviewed By: AMolloy 4/26/17

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Carver Elementry School

Physical Address of School: 3251 Juanita St, San Diego, CA. 92105

First Bell: 7:30AM

Meeting Date:

Sampling Plan Completion Date: 03/23/2017

Completed by Print Name: Daniel Lopez

Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 03/23/2017

School's Point of Contact for Sampling Assistance

Name: Daniel Lopez

Phone: 619-306-3383

Email: dlopez2@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 3/30/17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

TAG OUT ALL FIXTURES IN PICTURES

Or email to: tburger@sandiego.gov
For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

School and Address: 3251 Juanita St, San Diego, CA. 92105

Carver Elementary School Map

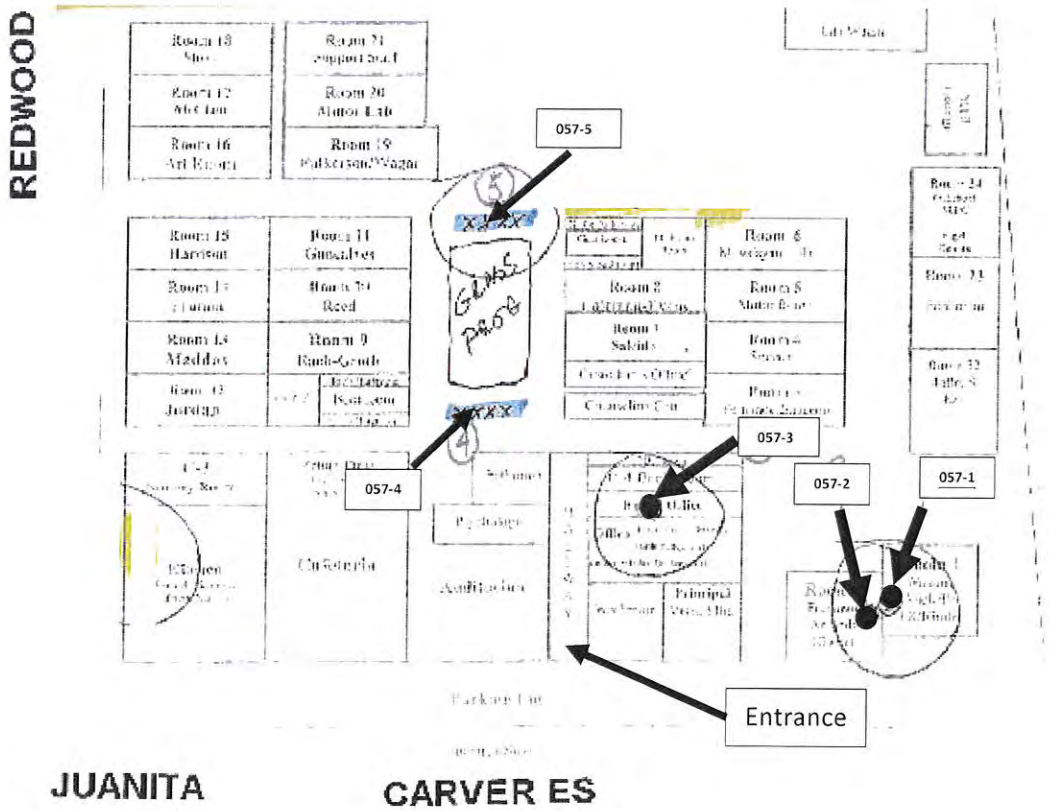

Sample No. 1

School: Carver Elementary School

Name of Building: Kindergarten Building

Location Description: Kindergarten Room ~~#1~~ K-2 TB

Type of Outlet: Bubbler

Description: Sink with bubbler on left (Circled) (057-1)

Comments/Miscellaneous:

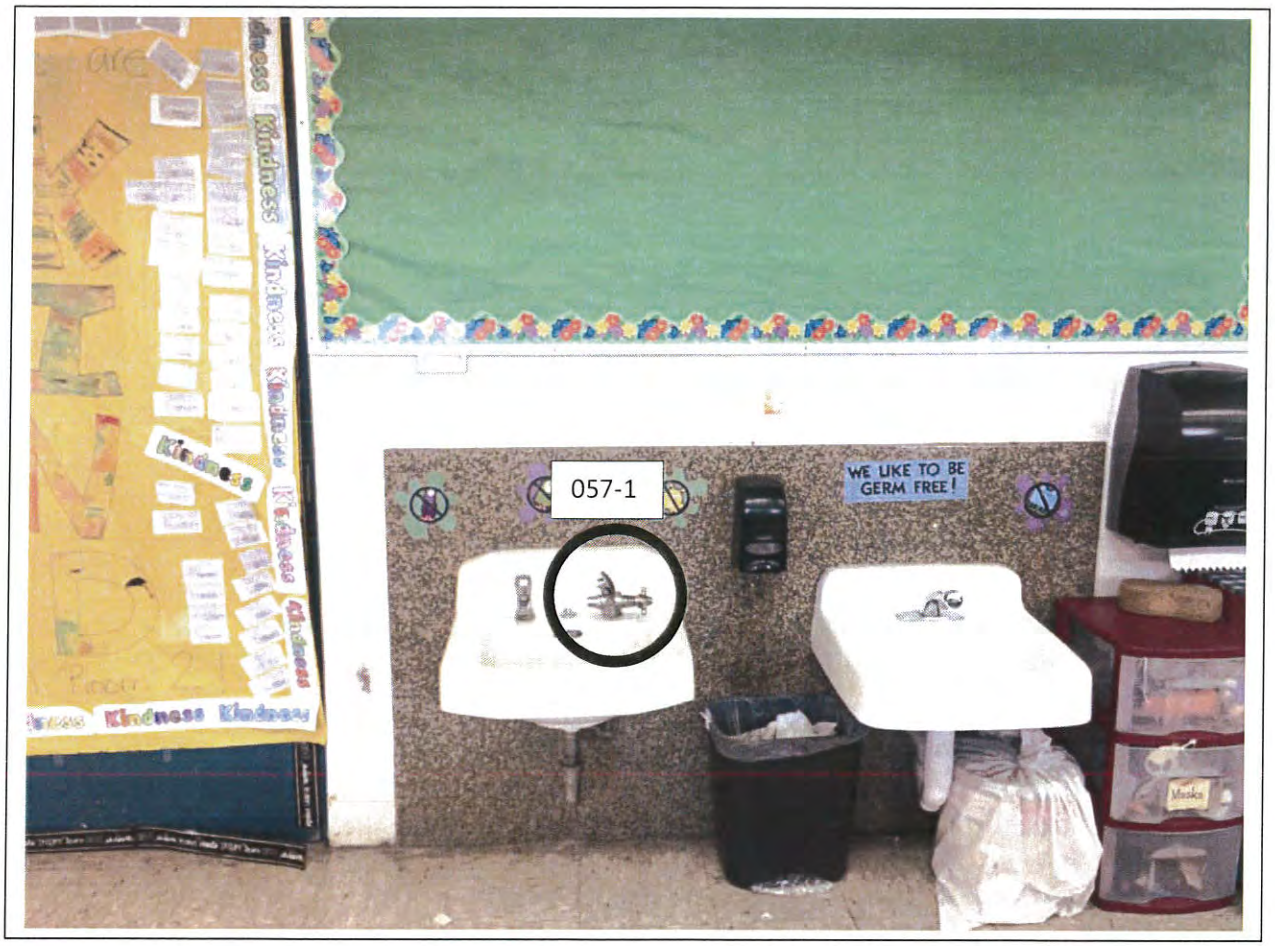

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-AAE-A

LIMS Sample ID: W1163912

Date & Time Last Used: 2200 5-1-17

Date & Time Sample Collected: 0612 5-2-17

Name of Water System Sample Collector: TBurm

direct

Sample No. 2

School: Carver Elementary School

Name of Building: Kindergarten Building

Location Description: K-1

Type of Outlet: Bubbler

Description: Sink with bubbler on right (circled) (057-2)

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID 3710020-AAE-B

LIMS Sample ID: W1163913

Date & Time Last Used: 2200 5-1-17

Date & Time Sample Collected: 0615 5-2-17

Name of Water System Sample Collector: T Burger

direct

Sample No. 3

School: Carver Elementary School

Name of Building: Main Office

Location Description: Nurse's Office

Type of Outlet: Bubbler

Description: Bubbler in main sink (circled) (057-3)

Comments/Miscellaneous:

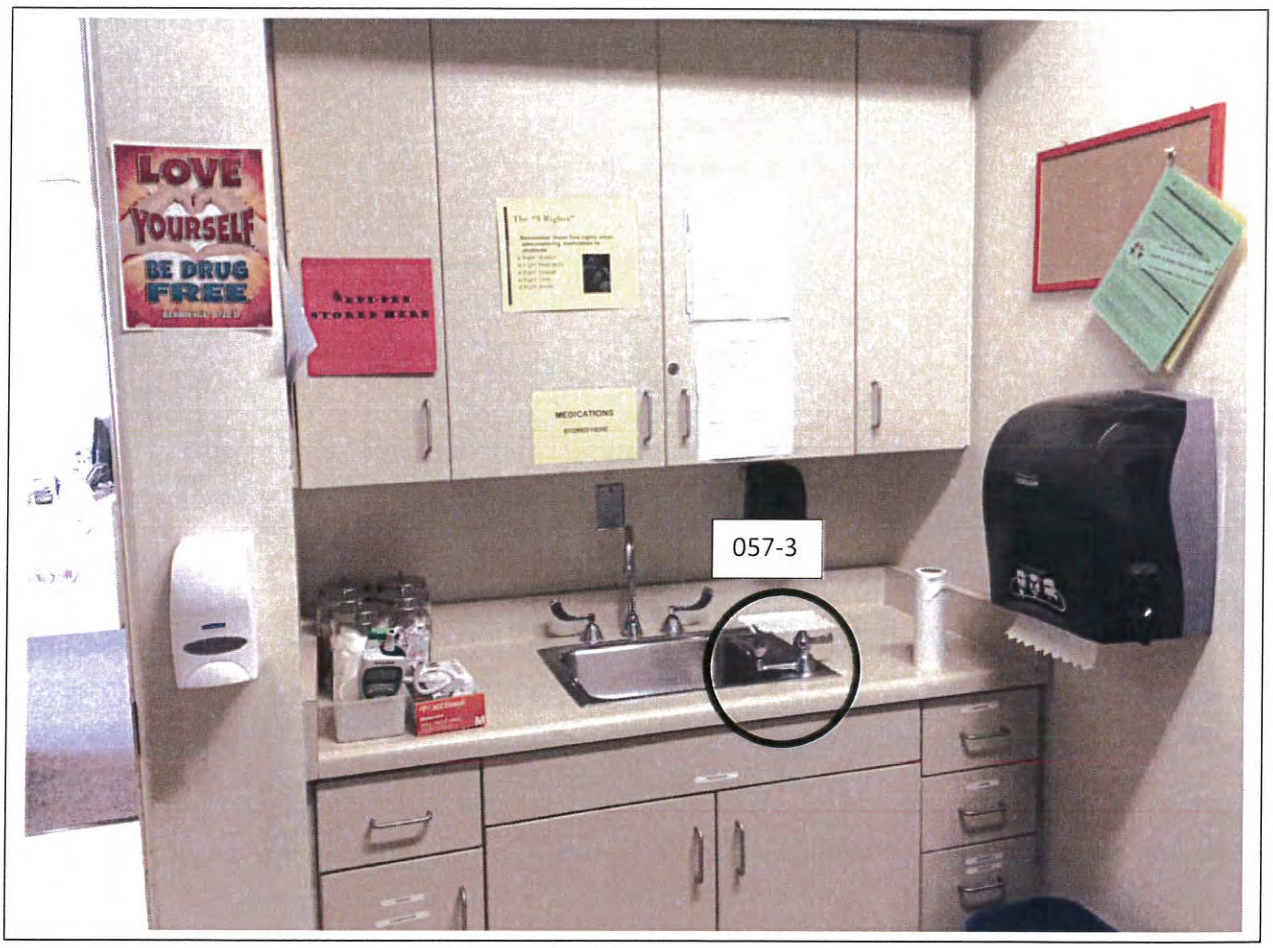

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-AAE-C

LIMS Sample ID: W1163914

Date & Time Last Used: 2200 5-1-17

Date & Time Sample Collected: 0606 5-2-17

Name of Water System Sample Collector: T Burger

direct

Sample No. 4

School: Carver Elementary School

Name of Building: Covered interior patio

Location Description: middle of school near grass area

Type of Outlet: Drinking Fountain

Description: Middle Bubbler on left fountain (057-4)

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-AAE-D

LIMS Sample ID: W1163915

Date & Time Last Used: 2200 5-1-17

Date & Time Sample Collected: 0619 5-2-17

Name of Water System Sample Collector: TBurger

Direct sampler

Sample No. 5

School: Carver Elementary School

Name of Building: Interior Patio

Location Description: East of grass area

Type of Outlet: Fountain

Description: Middle bubbler on right fountain (circled) (057-5)

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-AAE-E

LIMS Sample ID: W1163916

Date & Time Last Used: 2200 5-1-17

Date & Time Sample Collected: 0623 5-2-17

Name of Water System Sample Collector: T Burgh

Direct sample

Water Quality Chemistry Services
Chain of Custody Form

01-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1163912	Carver Elementary	02-MAY-2017	0612	TBurger	SAMPLE 1	
2	W1163913	Carver Elementary	02-MAY-2017	0615		SAMPLE 2	
3	W1163914	Carver Elementary	02-MAY-2017	0606		SAMPLE 3	
4	W1163915	Carver Elementary	02-MAY-2017	0619		SAMPLE 4	
5	W1163916	Carver Elementary	02-MAY-2017	0623		SAMPLE 5	

Chain of Custody:

Relinquished by: Name: Tom Burger Sign: Tom B. Burger	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 5-2-17 0716 Location: ALV. LAB	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/02/17
LIMS Received Time: 0809
Reviewed By:

Exhibit 31

766

238

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Central K-5

Physical Address of School: 4063 Polk Ave. San Diego, CA 92105

First Bell: 7:45AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/19/2017

Completed by Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 04/19/2017

School's Point of Contact for Sampling Assistance

Name: Daniel Lopez

Phone: (619) 306-3383

Email:

City of San Diego 3710020

Approved By: Matt Nelson 4/28/17 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Central K-5 4063 Polk Ave., San Diego, CA 92105

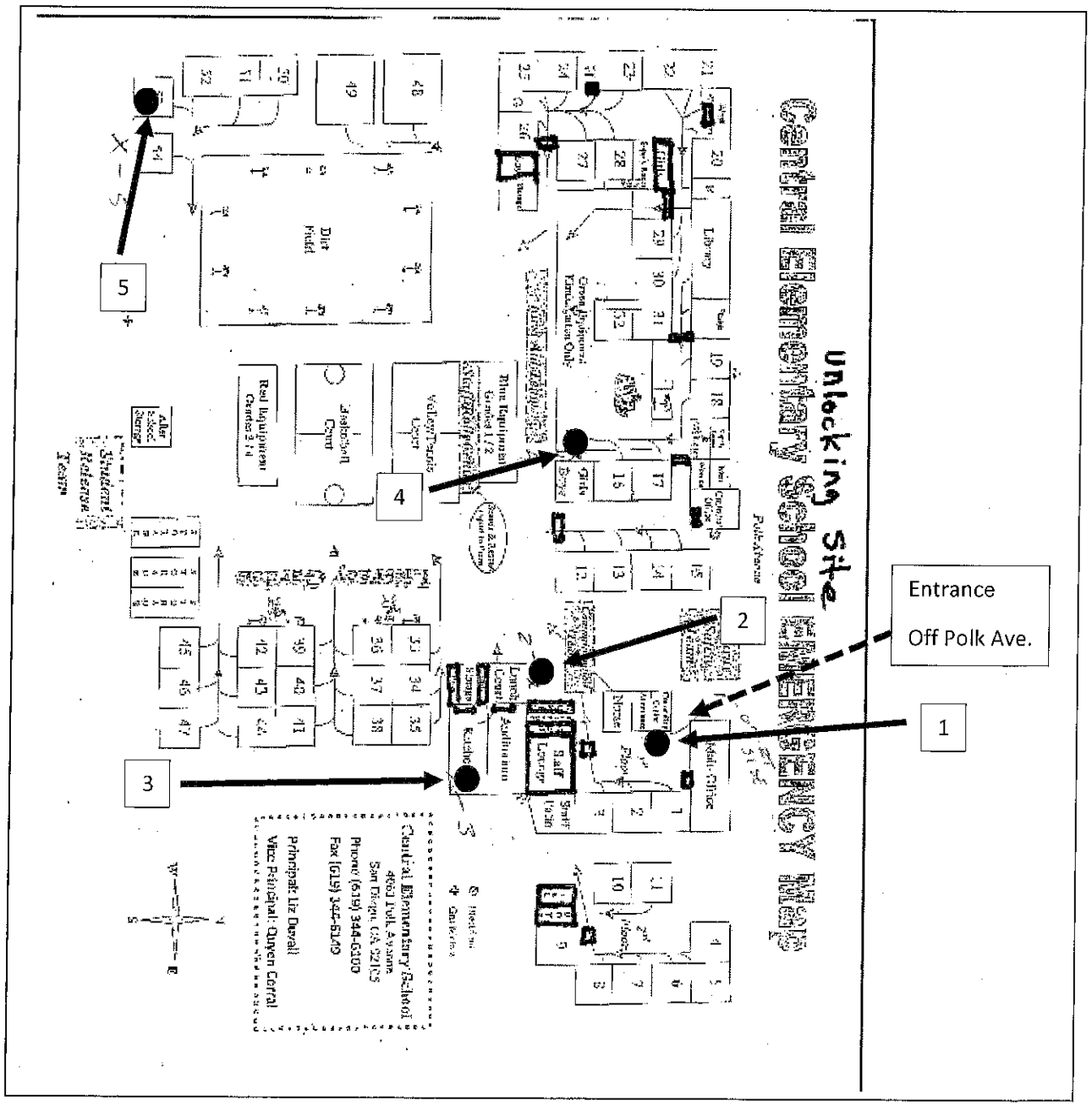

Sample No. 1

School: Central K-5

Name of Building: Main Office Building

Location Description: Outside North End of Campus Downstairs near Nurse's Office

Type of Outlet: Single Bubblers

Description: Bubbler on far right

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168072

State Sample ID: 3710020-BAB-A

Date & Time Last Used: 5/02/17 @ 2200

Date & Time Sample Collected: 5/03/17 @ 0531

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: A. Mellay

Sample No. 2

School: Central K-5

Name of Building: Cafeteria

Location Description: Under covered lunch patio

Type of Outlet: Single Bubblers

Description: Bubbler on left side

Comments/Miscellaneous:

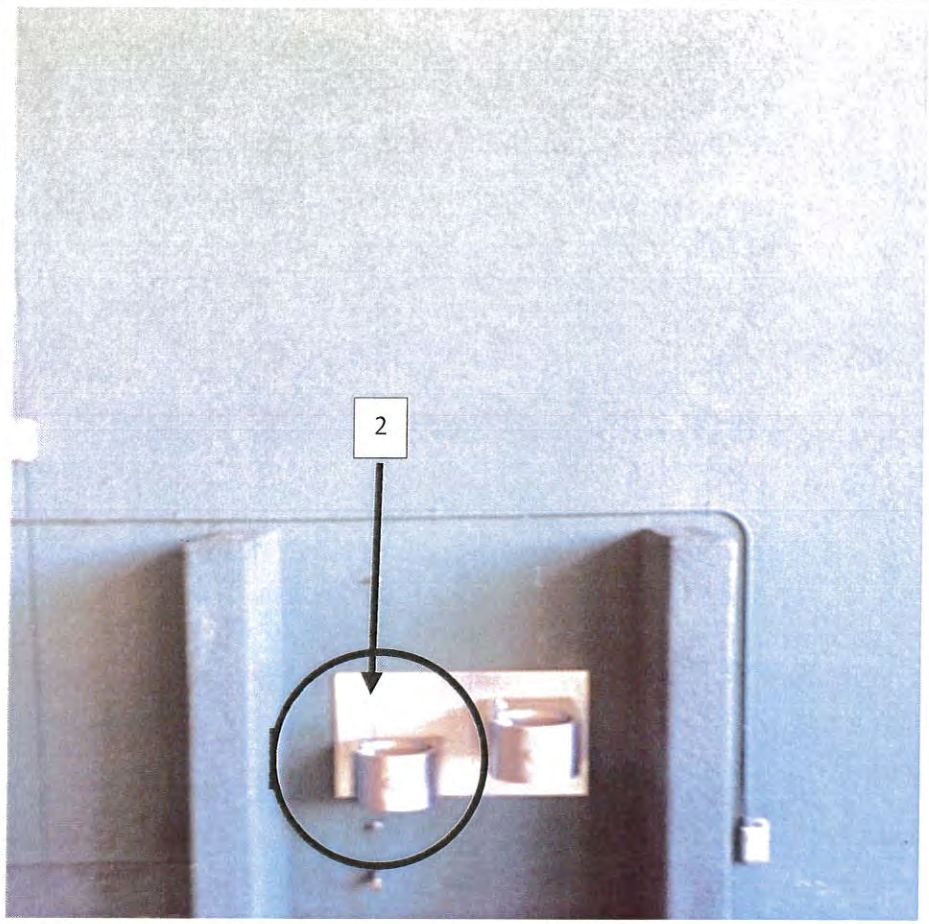

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168073

State Sample ID: 3710020-BAB-B

Date & Time Last Used: 5/02/17 @ 2200

Date & Time Sample Collected: 5/03/17 @ 0534

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: A. Malley

* dropped 5-10 mLs during transfer

Sample No. 3

School: Central K-5

Name of Building: Cafeteria/Kitchen

Location Description: Interior sink located in Southeast corner of kitchen

Type of Outlet: Hot/Cold Water Sink

Description: Regular faucet

Comments/Miscellaneous:

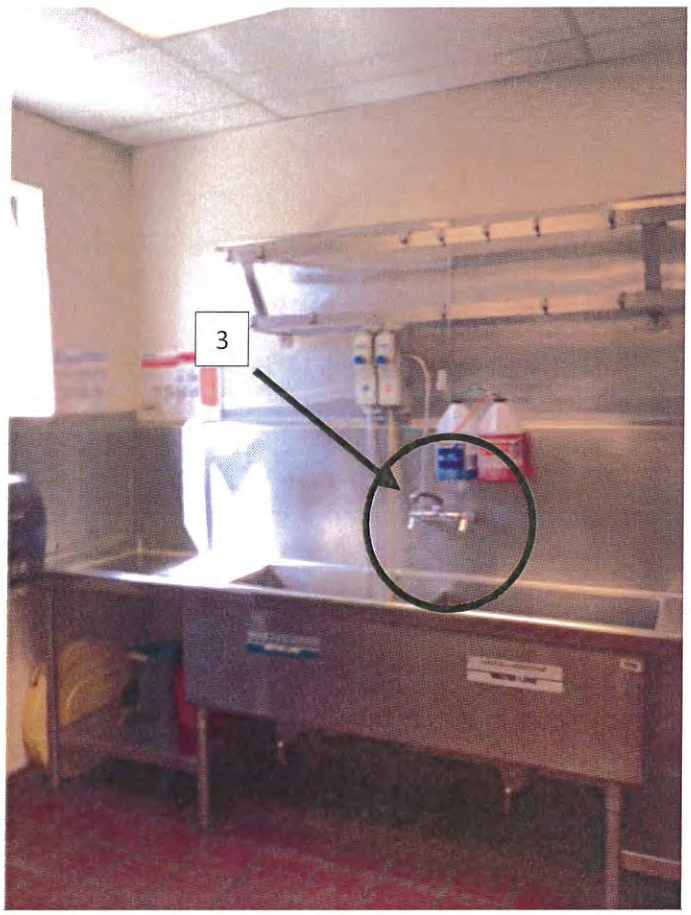

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168074

State Sample ID: 3710020-BAB-C

Date & Time Last Used: 5/02/17 @ 2200

Date & Time Sample Collected: 5/03/17 @ 0536

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: Central K-5

Name of Building: Historic Building

Location Description: On Northwest side of campus interior court yard

Type of Outlet: Single Bubblers

Description: Bubbler on the left side

Comments/Miscellaneous:

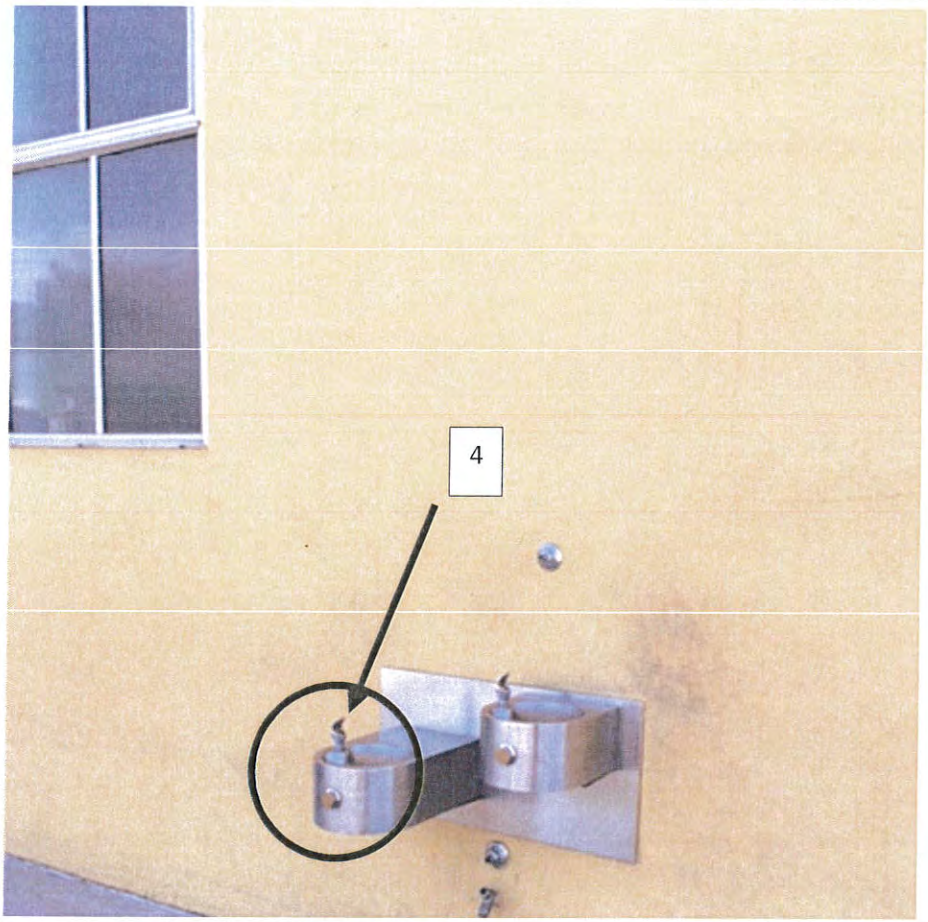

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168075

State Sample ID: 3710020-BAB-D

Date & Time Last Used: 5/02/17 @ 2200

Date & Time Sample Collected: 5/03/17 @ 0541

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: A. Molloy

Sample No. 5

School: Central K-5

Name of Building: Bungalows

Location Description: Room 53 at the Southwest corner of the campus

Type of Outlet: Bubbler

Description: Bubbler on right side of sink

Comments/Miscellaneous:

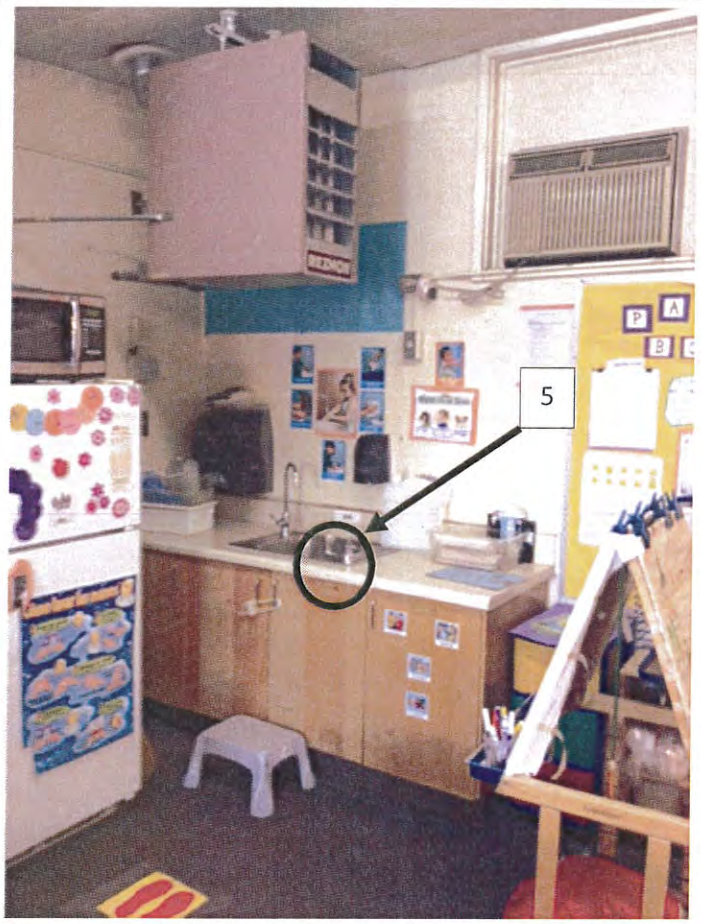

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168076

State Sample ID: 3710020-BAB-E

Date & Time Last Used: 5/02/17 @ 2200

Date & Time Sample Collected: 5/03/17 @ 0546

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Water Quality Chemistry Services
Chain of Custody Form

01-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168072	Central Elementary	03-MAY-2017	0531	A. Molloy	SAMPLE 1	
2	W1168073	Central Elementary	03-MAY-2017	0534		SAMPLE 2	
3	W1168074	Central Elementary	03-MAY-2017	0536		SAMPLE 3	
4	W1168075	Central Elementary	03-MAY-2017	0541		SAMPLE 4	
5	W1168076	Central Elementary	03-MAY-2017	0546		SAMPLE 5	

774

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign: A Molloy	Received by: Name: Tom Burger Sign: TM B Burger	Date & Time: 5/03/17 @ 0655 Location: WQL AIV	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: T Burger
Received Date: 5-3-17
LIMS Received Time: 0746
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: # 60 Cesar Chavez Elementary

Physical Address of School: 1404 S. 40th st. San Diego , Ca 92113

First Bell: 7:40

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 3/27/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 3/27/2017

School's Point of Contact for Sampling Assistance

Name: Elizabeth Lara

Phone: 619-302-7616

Email: elara@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-4-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: # 60 Chavez Elementary 1404 S.40th st. San Diego , Ca 92113

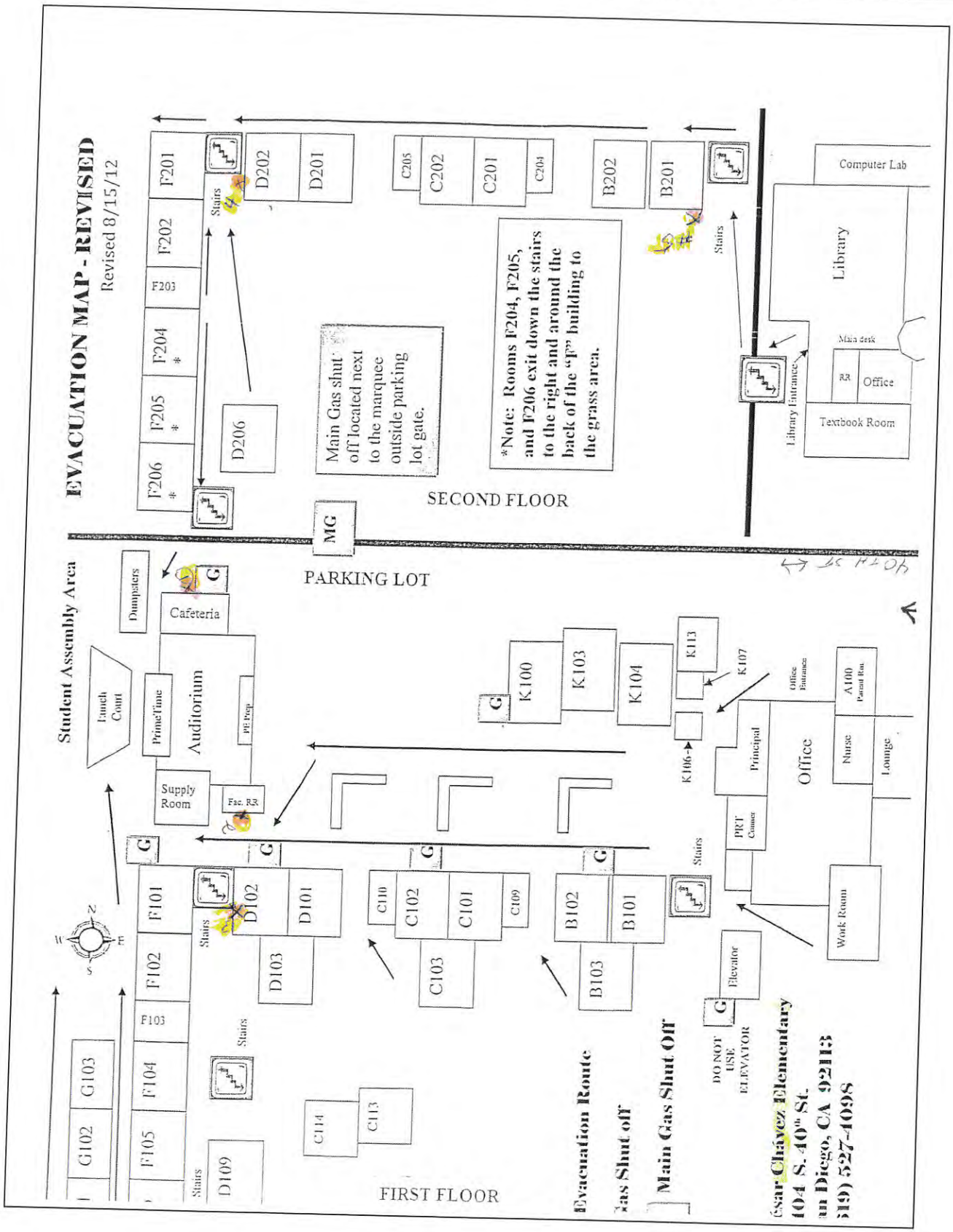

Low

Sample No. 1

School: # 60 Chavez Elementary

Name of Building: Cafeteria /G

Location Description: Outside on wall G near cafeteria

Type of Outlet: Bubbler water fountain

Description: Right water fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164172

State Sample ID: 3710020-ABB-A

Date & Time Last Used: 4-4-17 2200

Date & Time Sample Collected: 0602 4-5-17

Name of Water System Sample Collector: J Burger

Sample No. 2 Low

School: #60 Chavez Elementary

Name of Building: Auditorium

Location Description: Between faculty men's/woman's rest rooms Between E112 - E113

Type of Outlet: bubbler

Description: Right water fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164173

State Sample ID: 3710020-ABB-B

Date & Time Last Used: 1800 - 2000 4-4-17

Date & Time Sample Collected: 0534 4-5-17

Name of Water System Sample Collector: TBuga

Sample No. 3

NO

School: # 60 Chavez Elementary

Name of Building: D-102

Location Description: near boys Restroom marked D-108

Type of Outlet: bubbler

Description: Right side fountain ✓

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164174

State Sample ID: 3710020-ABB-C

Date & Time Last Used: 4-4-17 2200

Date & Time Sample Collected: 4-5-17 0541

Name of Water System Sample Collector: TBuyn

Sample No. 4

School: # 60 Chavez Elementary TB

Name of Building: UP Stairs- ~~D-202~~ D-204

Location Description: Between boys and Girls Restrooms

Type of Outlet: Bubbler

Description: Drinking fountain on right side

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164175

State Sample ID: 3710020-ABB-D

Date & Time Last Used: 4-4-17 2200

Date & Time Sample Collected: 4-5-17 0546

Name of Water System Sample Collector: TBurgin

Sample No. 5

School: # 60 Chavez Elementary

Name of Building: Up Stairs – B-Building

Location Description: Between boys and girls restrooms B-204 & B-205

Type of Outlet: Bubbler

Description: Water fountain on the ~~right~~ TB changed to left because of flow

Comments/Miscellaneous:

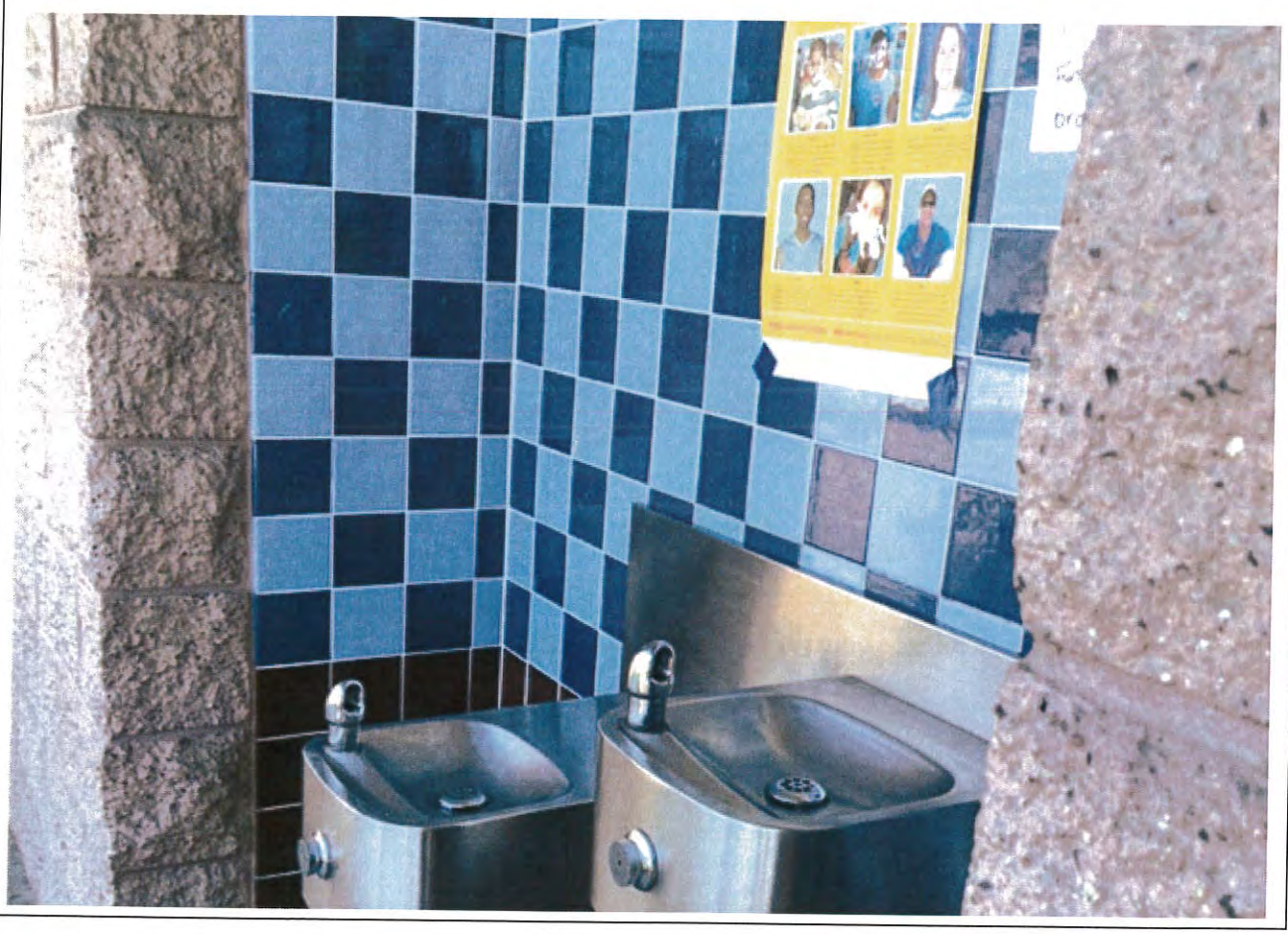

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164175

State Sample ID: 3710020-ABB-E

Date & Time Last Used: 4-4-17 2200

Date & Time Sample Collected: ~~4-5-17 0546~~ TB 0553 4-5-17

Name of Water System Sample Collector: TBurgin

SD Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 4/12/17

San Diego Unified School District

Chavez Elementary

Sample ID	Sample Date	Sample Time	Description	External ID	Lead	Units
W1164172	04/05/17	06:02 AM	SAMPLE 1	3710020-ABB-A	< 5	ug/L
W1164173	04/05/17	05:34 AM	SAMPLE 2	3710020-ABB-B	< 5	ug/L
W1164174	04/05/17	05:41 AM	SAMPLE 3	3710020-ABB-C	< 5	ug/L
W1164175	04/05/17	05:46 AM	SAMPLE 4	3710020-ABB-D	< 5	ug/L
W1164176	04/05/17	05:53 AM	SAMPLE 5	3710020-ABB-E	< 5	ug/L

Sample #	Sample Site
SAMPLE 1	Wall G near cafeteria, right bubbler
SAMPLE 2	Auditorium, between mens/womens faculty rest rooms, right bubbler
SAMPLE 3	D-102, near boys restroom D-108, right bubbler
SAMPLE 4	upstairs D-204, between boys/girls restroom, right bubbler
SAMPLE 5	Upstairs B Building, between restrooms B-204 and B-205, right bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Water Quality Chemistry Services
Chain of Custody Form

04-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1164172	Chavez Elementary	05-APR-2017	0602	TMB	SAMPLE 1	
2	W1164173	Chavez Elementary	05-APR-2017	0534	↓	SAMPLE 2	
3	W1164174	Chavez Elementary	05-APR-2017	0541	↓	SAMPLE 3	
4	W1164175	Chavez Elementary	05-APR-2017	0546	↓	SAMPLE 4	
5	W1164176	Chavez Elementary	05-APR-2017	0553	↓	SAMPLE 5	

Chain of Custody:

Relinquished by:	Received by:	Date & Time:	Comments:
Name: Tom Burger Sign: Tom B Burger	Name: ~~Tom Burger~~ Kerth Rehm Sign:	4-5-17 0856 Location: WQL Laboratory	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: KR
Received Date: 4/5/17
LIMS Received Time: 0854
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Challenger Middle

Physical Address of School: 10810 Parkdale Ave., San Diego, CA 92126-2599

First Bell: 7:40 AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 4/26/2017

Completed by Print Name: Ginette Commins

Signature: G Commins Date: 4/26/2017

School's Point of Contact for Sampling Assistance

Name: ~~Ginette Commins~~ Elizabeth Lara

Phone: ~~(858) 627-7201~~ 619-302-7616

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/1/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Challenger Middle, 10810 Parkdale Ave., San Diego, CA 92126-2599

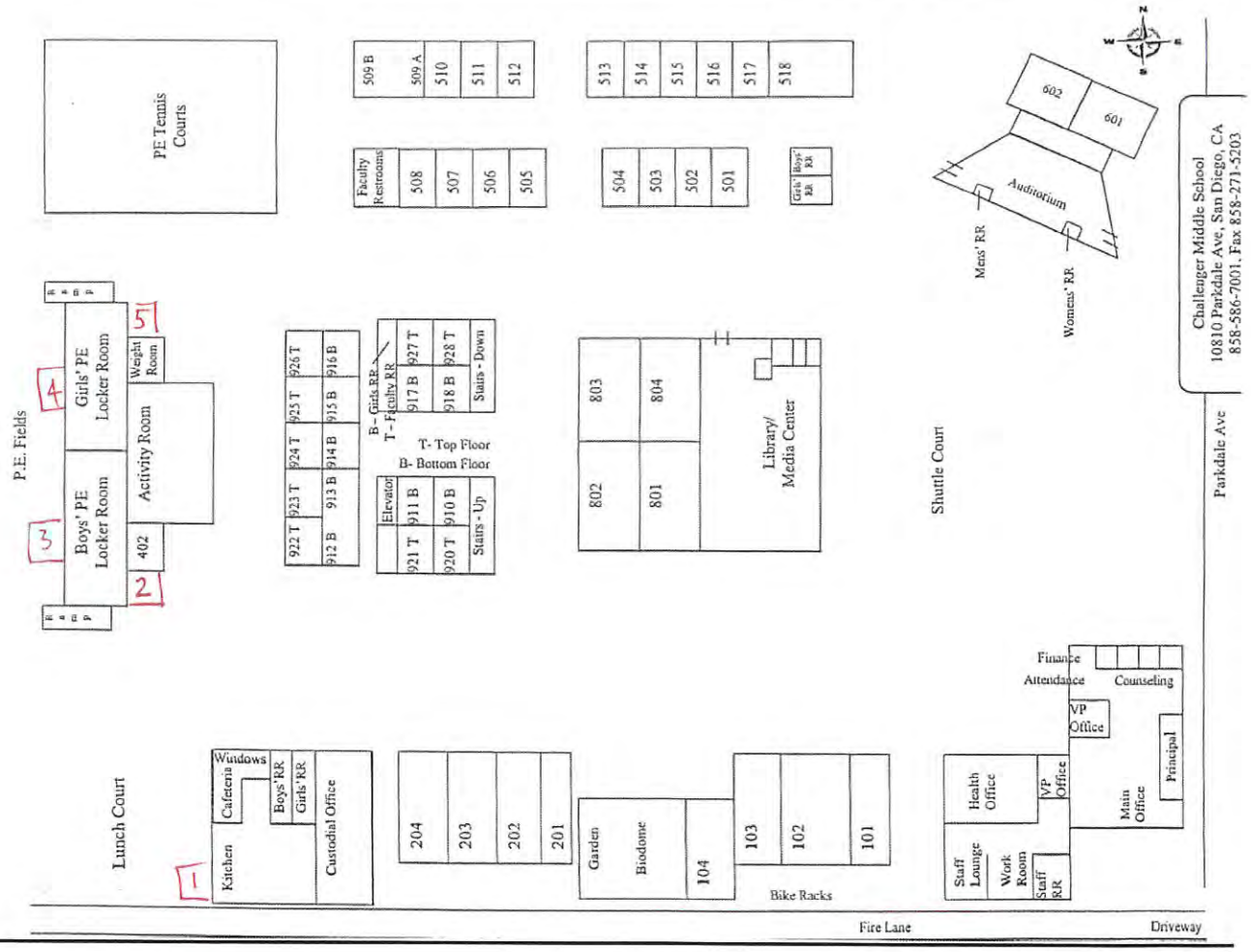

Sample No. 1

School: Challenger Middle

Name of Building: 300 – Food Service Facility

Location Description: Wall mounted exterior (West of Bldg), facing lunch court

Type of Outlet: bubbler

Description: upper/right bubbler on a dual fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #303

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169409

State Sample ID: 3710020-BEE-A

Date & Time Last Used: DS ~~8~~ 5/4/17 2200

Date & Time Sample Collected: DS ~~8~~ 5/5/17 0605

Direct Sample ☒ DS Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 2

School: Challenger Middle

Name of Building: 400 – Physical Education Complex

Location Description: Wall mounted exterior (South of Bldg), next to Boys Restroom, facing lunch court

Type of Outlet: bubbler

Description: lower/left bubbler on a dual fountain (HIGH flow)

Comments/Miscellaneous: drinking water source/SDUSD Location Code #303

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169410

State Sample ID: 3710020-BEE-B

Date & Time Last Used: 5/4/17 2200

Date & Time Sample Collected: 5/5/17 0607

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sawersby

Sample No. 3

School: Challenger Middle

Name of Building: 400 – Physical Education Complex

Location Description: Wall mounted exterior (West of Bldg-RIGHT side fountain), next to Boys P.E. Locker Room, facing P.E. fields

Type of Outlet: bubbler

Description: left bubbler head (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #303

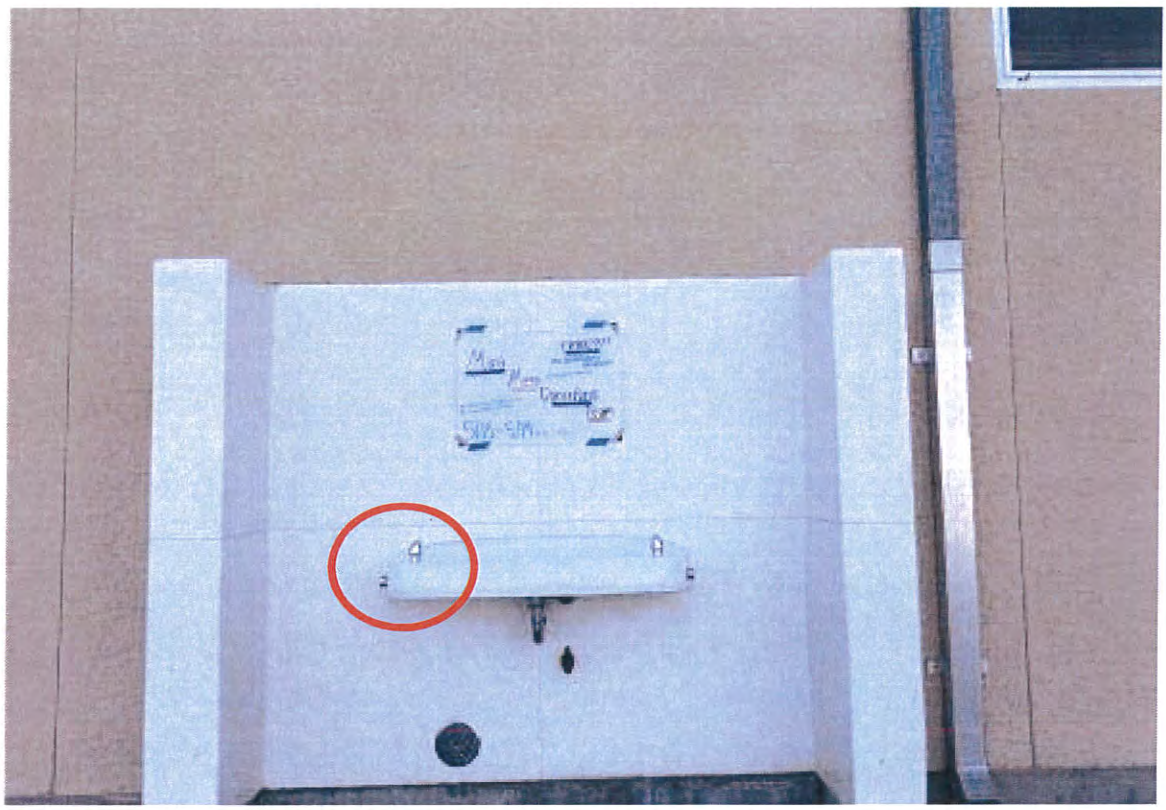

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169411

State Sample ID: 3710020-BEE-C

Date & Time Last Used: ~~5~~ 5/4/17 2200

Date & Time Sample Collected: ~~5~~ 5/5/17 0610

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sawersby

Sample No. 4

School: Challenger Middle

Name of Building: 400 – Physical Education Complex

Location Description: Wall mounted exterior (West of Bldg-LEFT side fountain), next to Girls' P.E. Locker Room, facing P.E. fields

Type of Outlet: bubbler

Description: left bubbler head (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #303

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169412

State Sample ID: 3710020-BEE-D

Date & Time Last Used: 5/4/17 2200

Date & Time Sample Collected: 5/5/17 0612

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 5

School: Challenger Middle

Name of Building: 400 – Physical Education Complex

Location Description: Wall mounted exterior (North of Bldg), next to Girls' Restroom, facing PE Tennis Court

Type of Outlet: bubbler

Description: upper/right bubbler on a dual fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #303

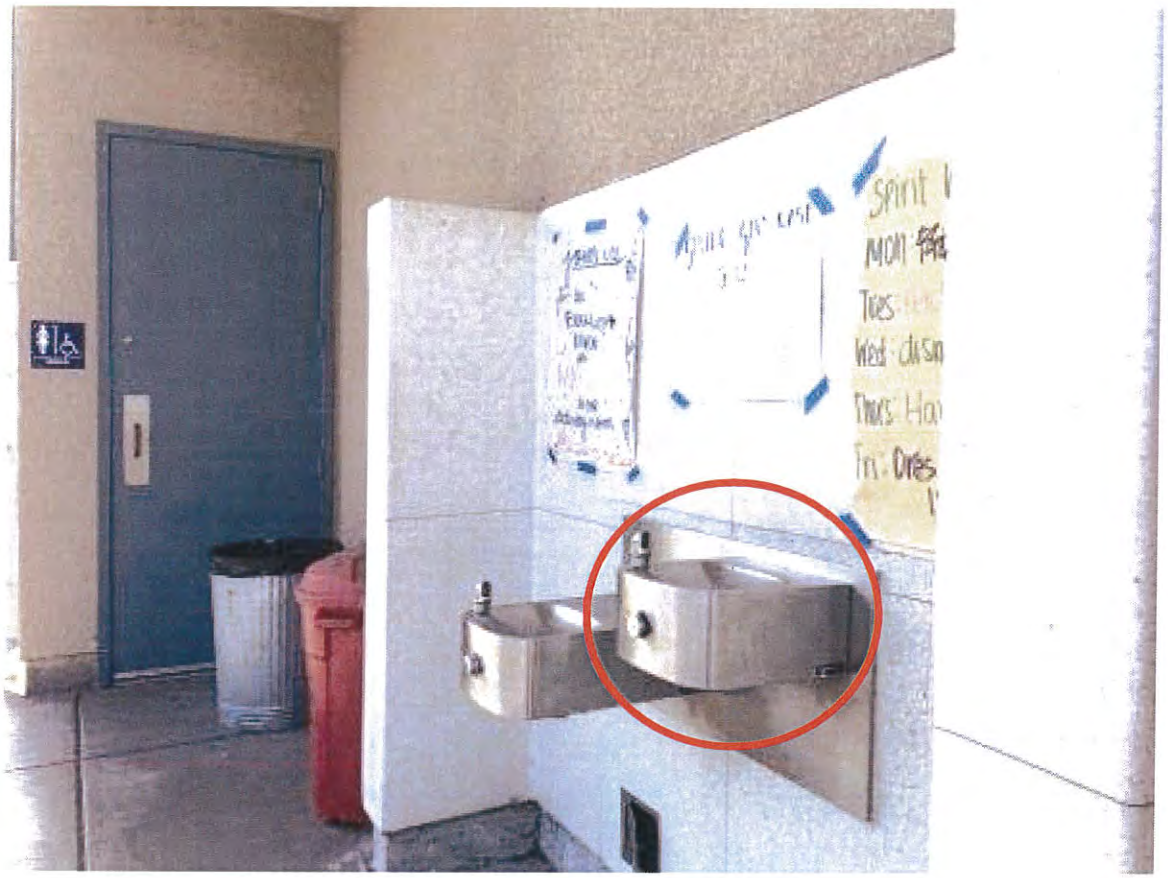

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169413

State Sample ID: 3710020-BEE-E

Date & Time Last Used: ~~05~~ 5/4/17 2200

Date & Time Sample Collected: ~~05~~ 5/5/17 0615

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Water Quality Chemistry Services
Chain of Custody Form

04-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1169409	Challenger Middle	05-MAY-2017	0605	DS	SAMPLE 1	
2	W1169410	Challenger Middle	05-MAY-2017	0607		SAMPLE 2	
3	W1169411	Challenger Middle	05-MAY-2017	0610		SAMPLE 3	
4	W1169412	Challenger Middle	05-MAY-2017	0612		SAMPLE 4	
5	W1169413	Challenger Middle	05-MAY-2017	0615		SAMPLE 5	

Chain of Custody:

Relinquished by: Name: Dan Sowersby Sign: D. Sowersby	Received by: Name: Tom Burger Sign: Tom B. Burger	Date & Time: 5/4 0648 Location: WQL office	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-5-17
LIMS Received Time: 0651
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Cherokee Point Elementary

Physical Address of School: 3735 38th St, San Diego, CA 92105-2414

First Bell: 7:45 AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/11/2017

Completed by Print Name: Ginette Commins

Signature: G Commins Date: 04/11/2017

School's Point of Contact for Sampling Assistance

Name: Ginette Commins

Phone: (858) 627-7201

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 4/28/17 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Cherokee Point Elementary, 3735 38th St., San Diego, CA 92105-2414

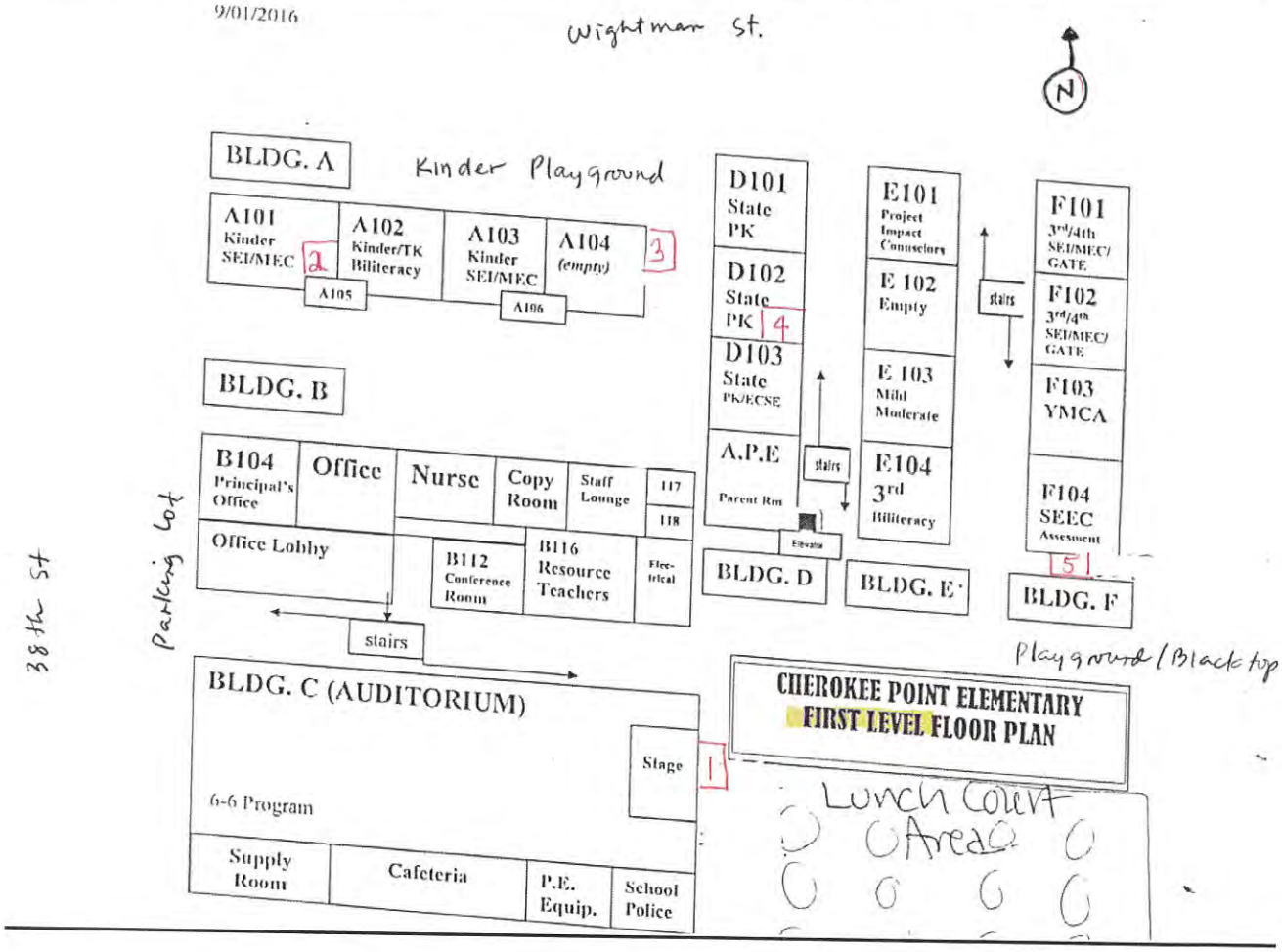

Sample No. 1

School: Cherokee Point Elementary

Name of Building: C

Location Description: Wall mounted exterior (East of Bldg), facing lunch court area

Type of Outlet: bubbler

Description: upper/right bubbler on a dual fountain

Comments/Miscellaneous: outdoor drinking water sources/SDUSD Location Code #062

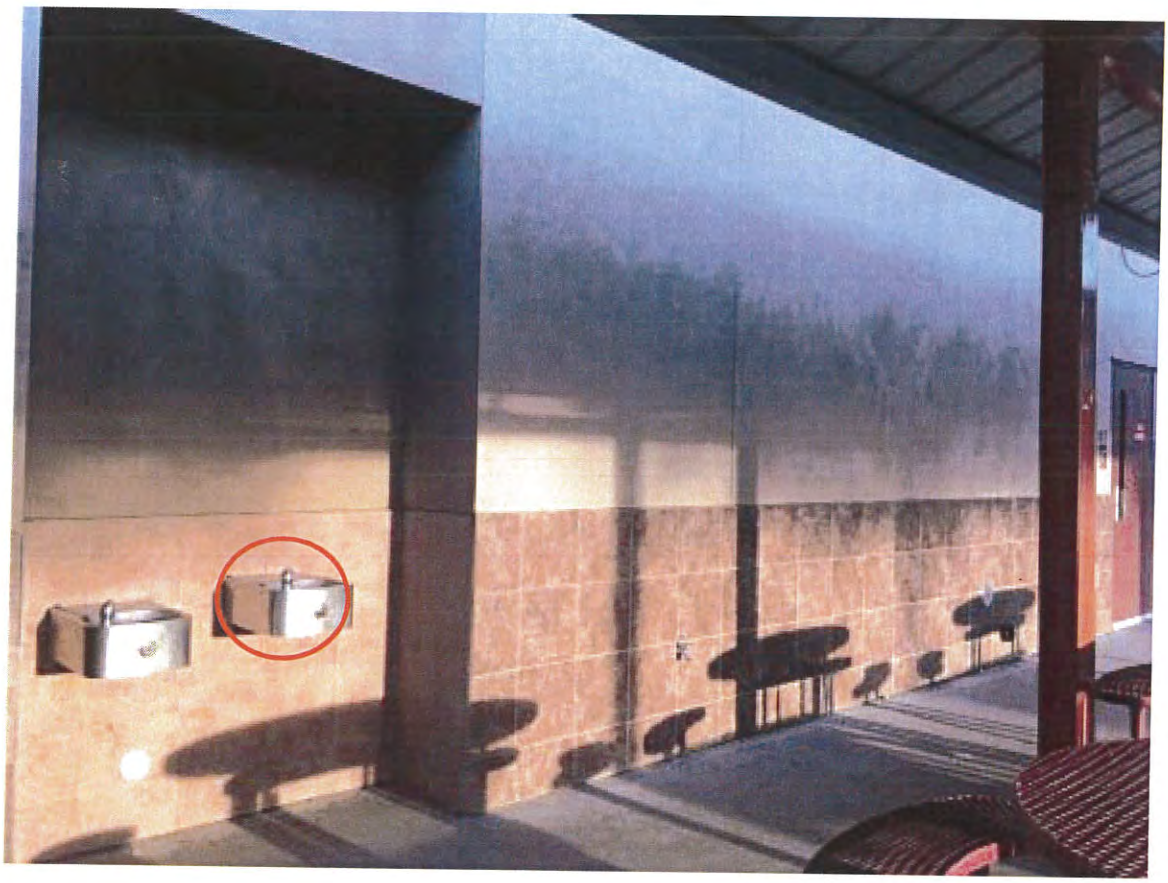

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168277

State Sample ID: 3710020-AHD-A

Date & Time Last Used: 5/02/17 @ 2000

Date & Time Sample Collected: 5/03/17 @ 0608

Direct Sample ☒ + 200mL Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: Cherokee Point Elementary

Name of Building: A - Two story bldg

Location Description: Room A101-Kindergarten, 1st Floor, classroom sink/faucet

Type of Outlet: bubbler

Description: bubbler with lever handle on a sink

Comments/Miscellaneous: indoor drinking water sources/SDUSD Location Code #062

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168278

State Sample ID: 3710020-AHD-B

Date & Time Last Used: 5/02/17 @ 2200

Date & Time Sample Collected: 5/03/17 @ 0621

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: Cherokee Point Elementary

Name of Building: A - Two story bldg

Location Description: Wall mounted exterior (East of Bldg), 1st Floor, facing Bldg D, between A107-Mechanical Room & A104-103, towards Kinder Playground

Type of Outlet: bubbler

Description: lower/left bubbler on a dual fountain

Comments/Miscellaneous: outdoor drinking water sources/SDUSD Location Code #062

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168279

State Sample ID: 3710020-AHD-C

Date & Time Last Used: 5/02/17 @ 2200

Date & Time Sample Collected: 5/03/17 @ 0618

Direct Sample ☒ 200 mL + tr Transfer Sample ☒

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: Cherokee Point Elementary

Name of Building: D - Two story bldg

Location Description: Room D102-Kindergarten, 1st Floor, classroom sink/faucet

Type of Outlet: bubbler

Description: bubbler with lever handle on a sink

Comments/Miscellaneous: indoor drinking water sources/SDUSD Location Code #062

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168280

State Sample ID: 3710020-AHD-D

Date & Time Last Used: 5/02/17 @ 2200

Date & Time Sample Collected: 5/03/17 @ 0616

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Site was not tagged but room secured

Sample No. 5

School: Cherokee Point Elementary

Name of Building: F - Two story bldg

Location Description: Wall mounted exterior (South of Bldg), 1st Floor, next to Boys & Girls Restrooms, facing Playground/Blacktop

Type of Outlet: bubbler

Description: middle bubbler on a triple fountain

Comments/Miscellaneous: outdoor drinking water sources/SDUSD Location Code #062

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168281

State Sample ID: 3710020-AHD-E

Date & Time Last Used: 5/02/17 @ 2200

Date & Time Sample Collected: 5/03/17 @ 0611

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: A. Molloy

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

01-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168277	Cherokee Point Elementary	03-MAY-2017	0608		SAMPLE 1	
2	W1168278	Cherokee Point Elementary	03-MAY-2017	0621		SAMPLE 2	
3	W1168279	Cherokee Point Elementary	03-MAY-2017	0618		SAMPLE 3	
4	W1168280	Cherokee Point Elementary	03-MAY-2017	0616		SAMPLE 4	
5	W1168281	Cherokee Point Elementary	03-MAY-2017	0611		SAMPLE 5	

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign: A Molloy	Received by: Name: Tom Burger Sign: Tom B. Burger	Date & Time: 5/03/17 @0655 Location: WQL Alv	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-3-17
LIMS Received Time: 0744
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Chesterton Elementary

Physical Address of School: 7335 Wheatley St., San Diego, CA 92111

First Bell: 7:30am

Meeting Date: 4/05/2017

Sampling Plan Completion Date: 4/20/17

Completed by Print Name: Lori Sherman

Signature: Lori Sherman Date: 4/20/17

School's Point of Contact for Sampling Assistance

Name: Lori Sherman

Phone: 619-301-9086

Email: lsherman1@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-21-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Chesterton Elementary - 7335 Wheatley St., San Diego, CA 92111

Sample Locations acknowledgement

School and Address: Chesterton Elementary - 7335 Wheatley St., San Diego, CA 92111

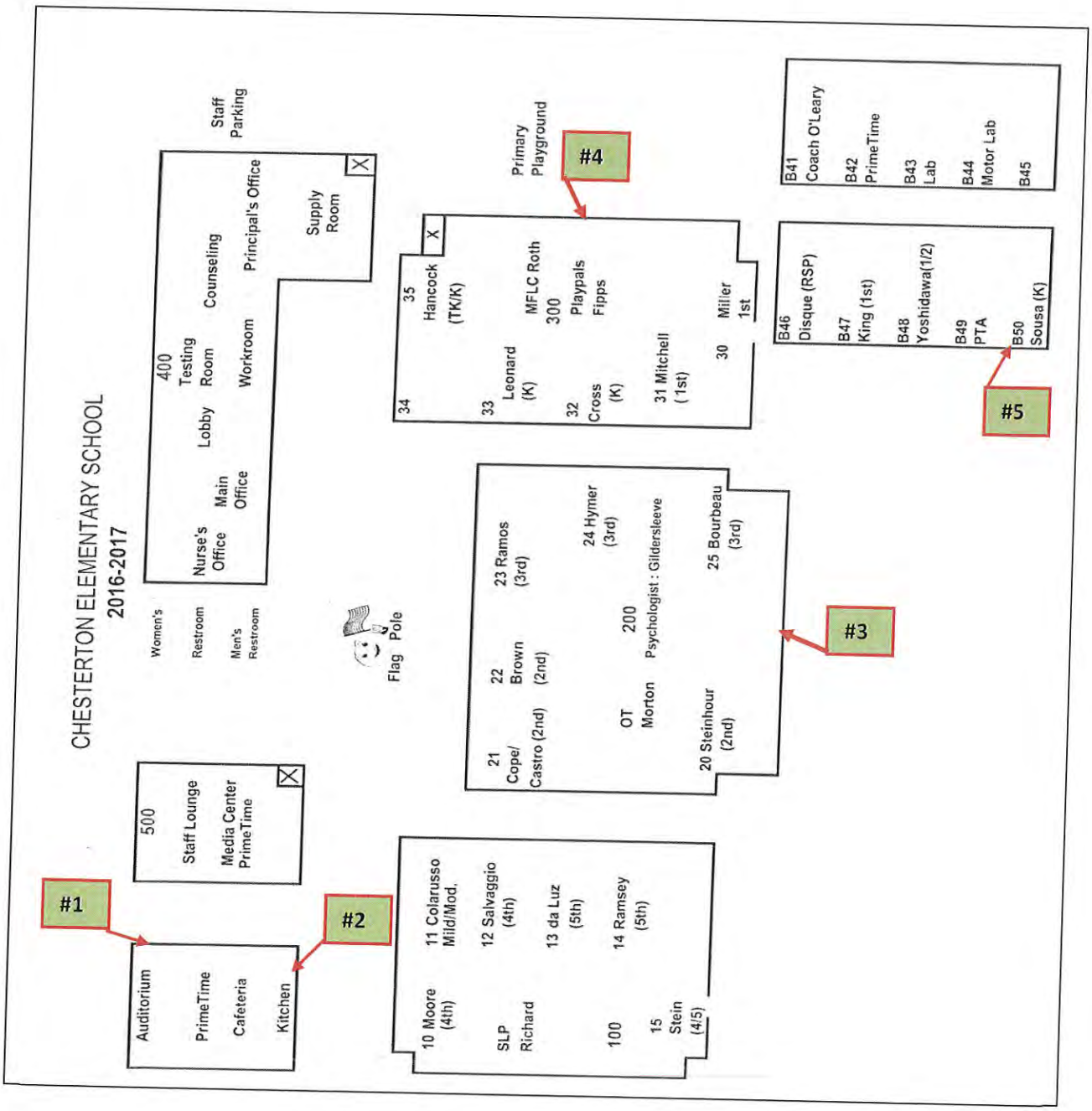

Sample No. 1

School: Chesterton Elementary - 7335 Wheatley St., San Diego, CA 92111

Name of Building: Auditorium

Location Description: North-east exterior corner

Type of Outlet: Bubbler

Description: Left bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168171

State Sample ID: 3710020-AJE-A

Date & Time Last Used: 4/21/17 @ 2200

Date & Time Sample Collected: 4/22/17 @ 0809

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: Chesterton Elementary - 7335 Wheatley St., San Diego, CA 92111

Name of Building: Kitchen/Cafeteria

Location Description: Inside kitchen south wall

Type of Outlet: Sink-mount faucet

Description:

Comments/Miscellaneous: Sink faucet is to the right of range

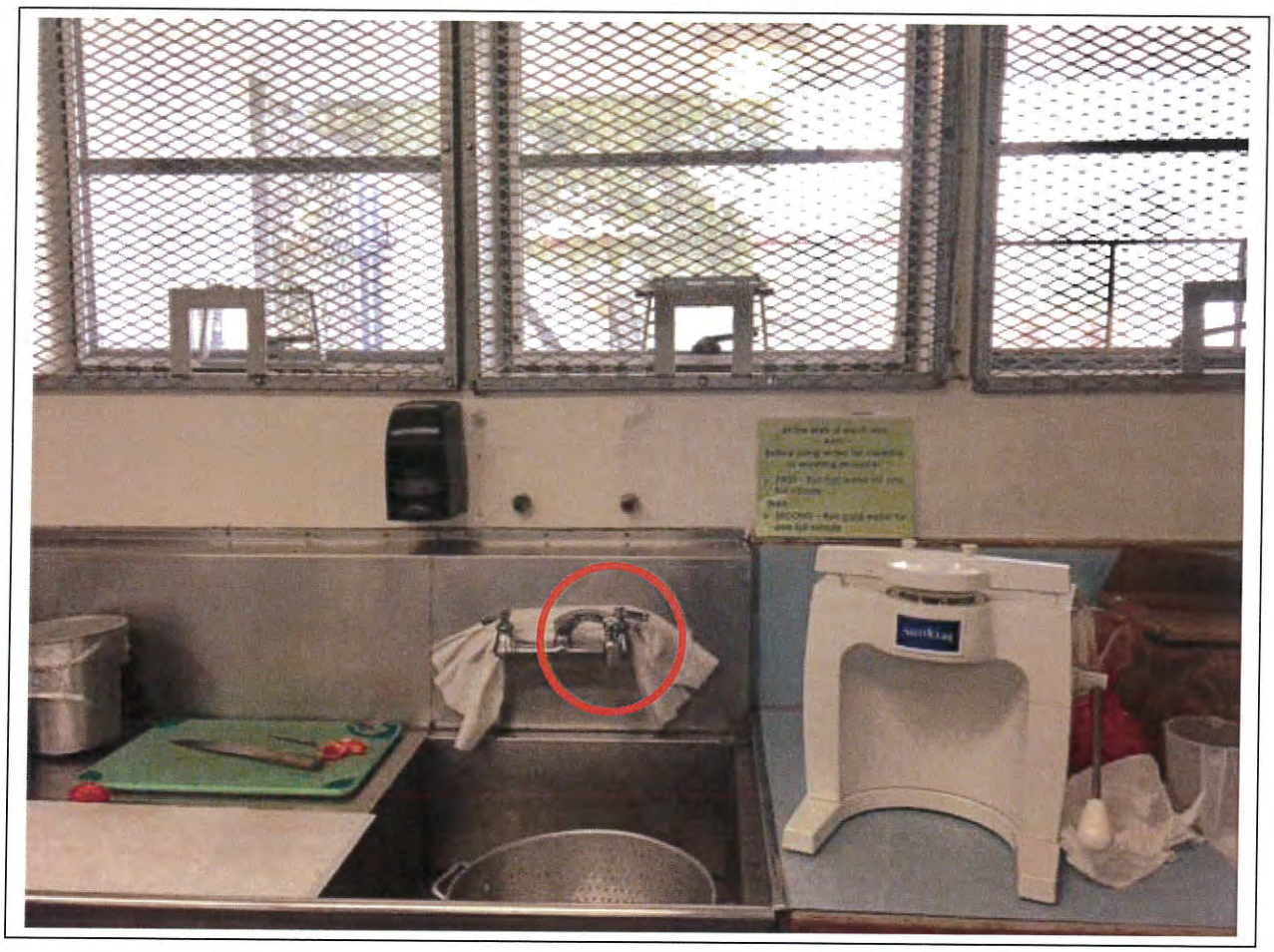

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168172

State Sample ID: 3710020-AJE-B

Date & Time Last Used: ~~4/22~~ 4/21/17 TM

Date & Time Sample Collected: 4/22/17 @0810

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: Chesterton Elementary - 7335 Wheatley St., San Diego, CA 92111

Name of Building: 200 Bldg

Location Description: South exterior wall facing blacktop area

Type of Outlet: Bubbler

Description: Right bubbler

Comments/Miscellaneous:

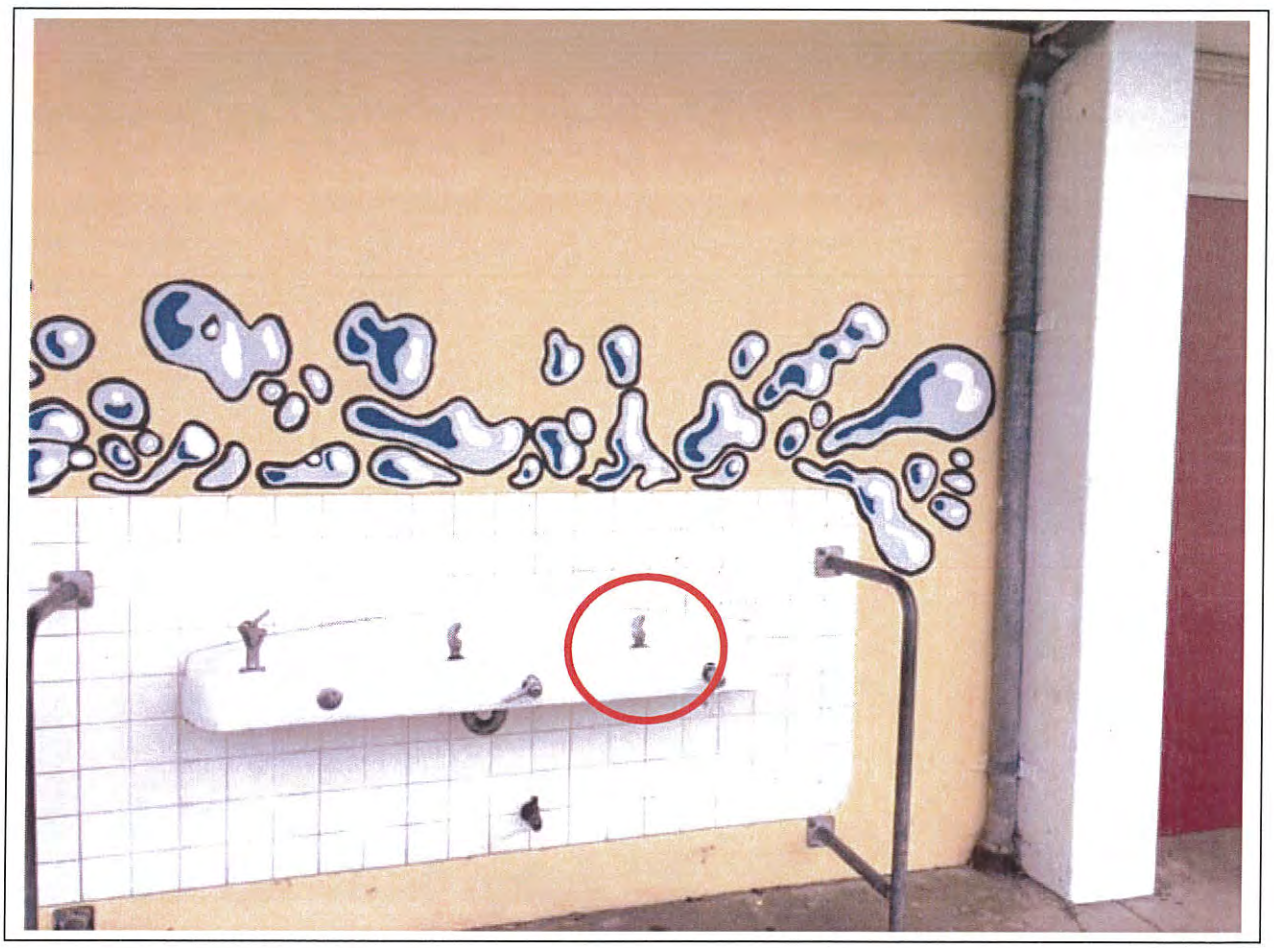

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168173

State Sample ID: 3710020-AJE-C

Date & Time Last Used: 4/21/17 @ 2200

Date & Time Sample Collected: 4/22/17 @ 0815

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: Chesterton Elementary - 7335 Wheatley St., San Diego, CA 92111

Name of Building: 300 Bldg

Location Description: East exterior wall next to girls restroom

Type of Outlet: Bubbler

Description: Center bubbler

Comments/Miscellaneous:

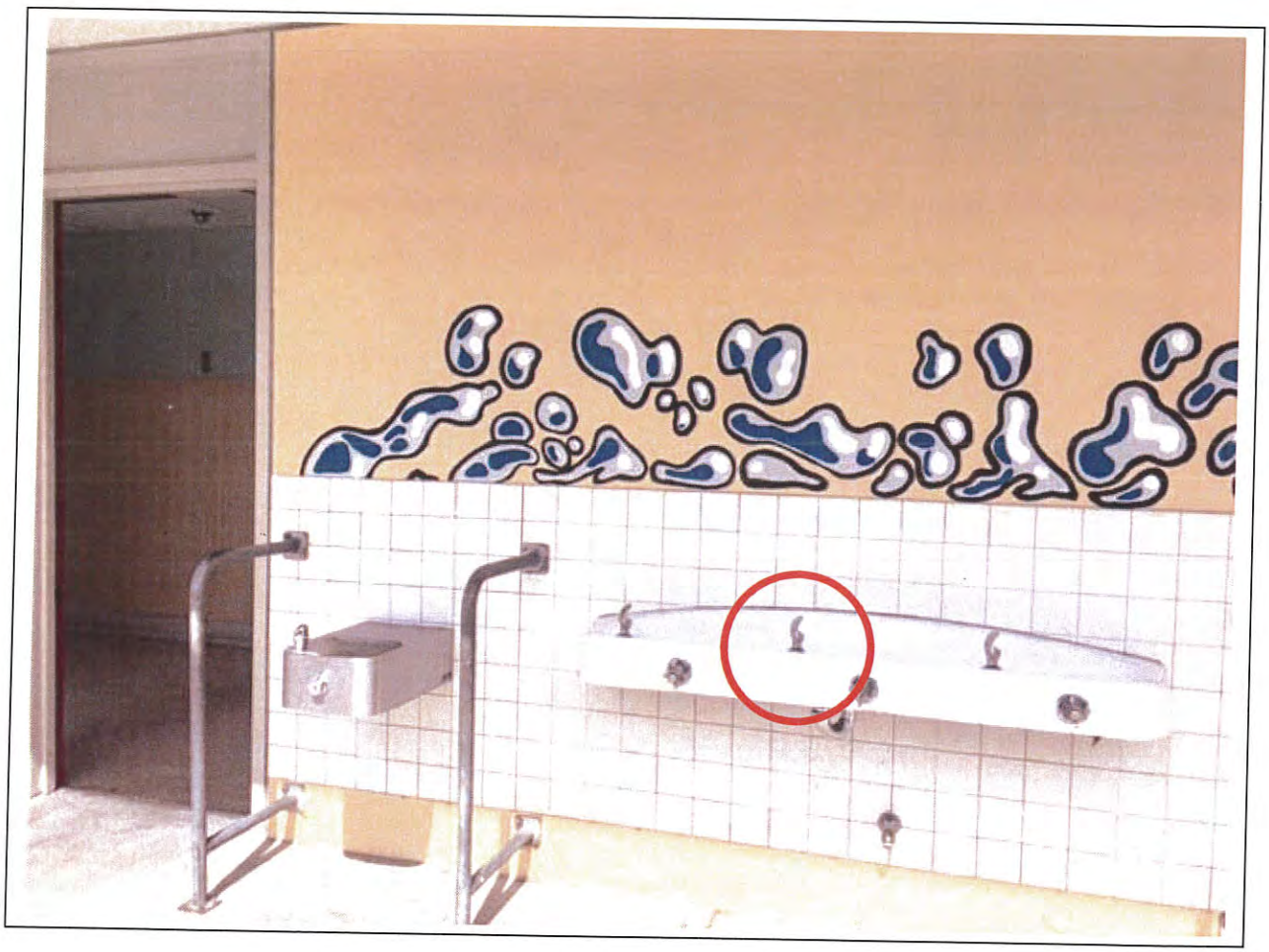

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168174

State Sample ID: 3710020-AJE-D

Date & Time Last Used: 4/21/17 @ 2200

Date & Time Sample Collected: 4/22/17 @0823

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 5

School: Chesterton Elementary - 7335 Wheatley St., San Diego, CA 92111

Name of Building: B-50

Location Description: Inside classroom B-50

Type of Outlet: Sink-mount bubbler

Description: Bubbler is on right side of sink

Comments/Miscellaneous:

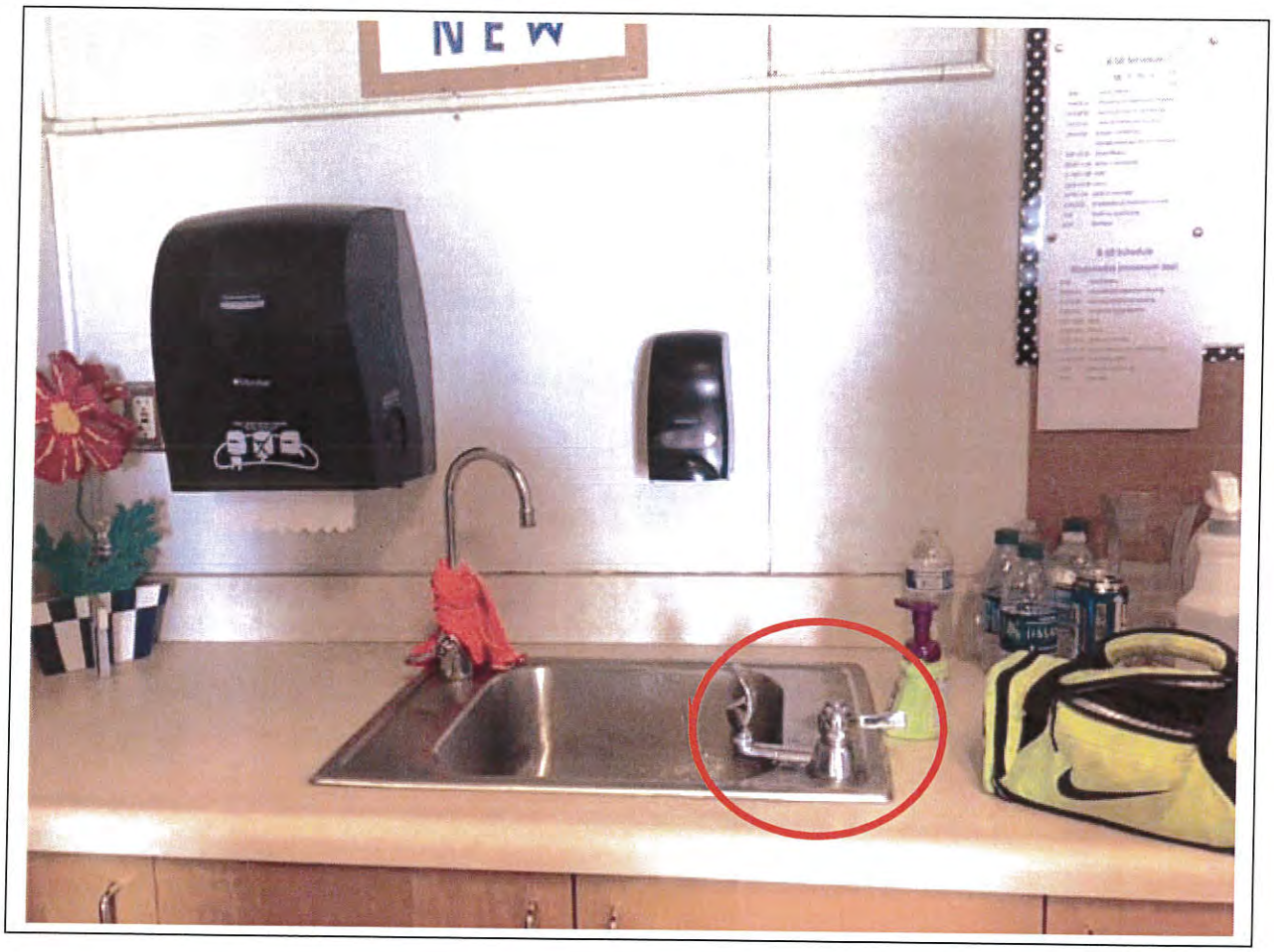

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168175

State Sample ID: 3710020-AJE-E

Date & Time Last Used: 4/21/17 @ 2200

Date & Time Sample Collected: 4/22/17 @ 0818

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Water Quality Chemistry Services
Chain of Custody Form

21-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168171	Chesterton Elementary	22-APR-2017	0809	A. Molloy	SAMPLE 1	
2	W1168172	Chesterton Elementary	22-APR-2017	0810		SAMPLE 2	
3	W1168173	Chesterton Elementary	22-APR-2017	0815		SAMPLE 3	
4	W1168174	Chesterton Elementary	22-APR-2017	0823		SAMPLE 4	
5	W1168175	Chesterton Elementary	22-APR-2017	0818		SAMPLE 5	

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign: AMolloy	Received by: Name: Sign:	Date & Time: 4/22/17 @ 1010 Location: WQL A/V	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 4/22/17
LIMS Received Time: 1012
Reviewed By: AMolloy 4/26/17

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: The Children's School

Physical Address of School: 2225 Torrey Pines Ln. La Jolla, CA 92037

First Bell: 8:00A.M.

Meeting Date: 03-22-2017

Sampling Plan Completion Date: 05-10-2017

Completed by Print Name: Joe Kinkead

Signature: Joe Kinkead Date: 05-10-2017

School's Point of Contact for Sampling Assistance

Name: Joe Kinkead

Phone: 619-559-2294

Email: jkinkead@sandi.net

City of San Diego 3710020

Approved By: 5/16/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: The Children's School 2225 Torrey Pines Ln. La Jolla, CA 92037

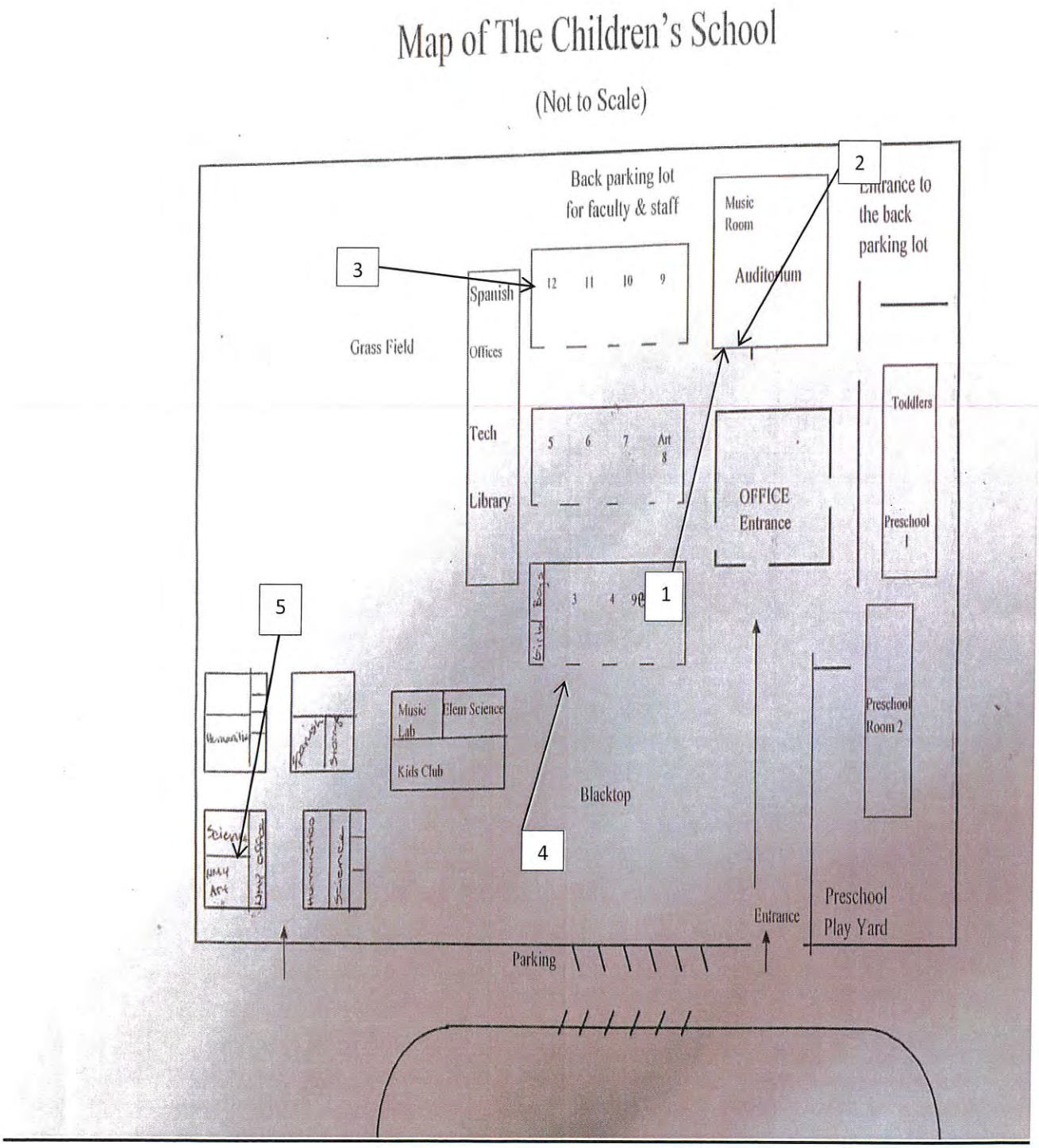

Sample No. 1

School: The Children's School 2225 Torrey Pines Ln. La Jolla, CA 92037

Name of Building: Auditorium building

Location Description: Exterior southeast corner of building

Type of Outlet: Bubbler

Description: Far left bubbler

Comments/Miscellaneous:

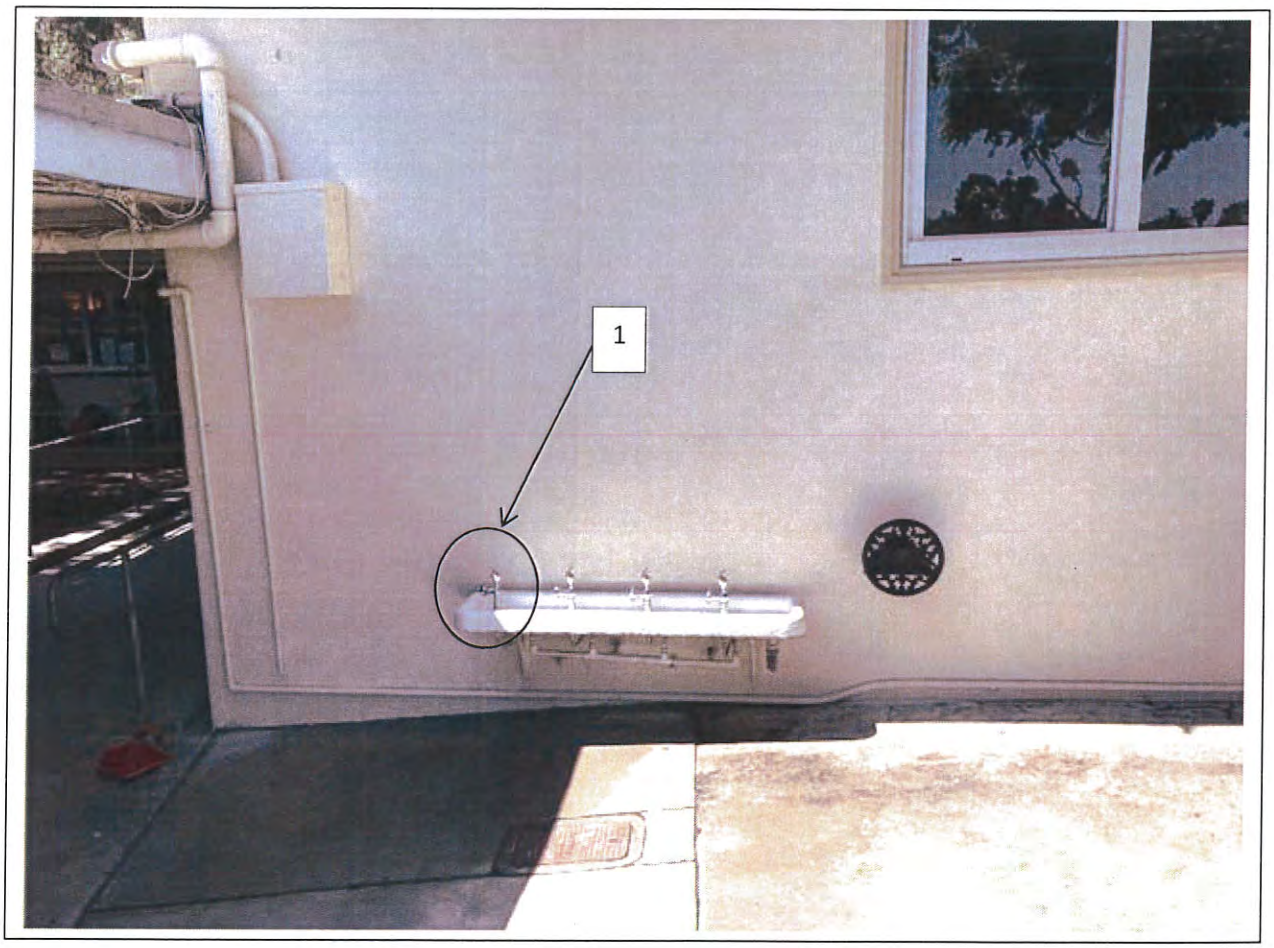

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173063

State Sample ID: 3710020-BJJ-A

Date & Time Last Used: 5/30/17 2200

Date & Time Sample Collected: 6/1/17 0601

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 2

School: The Children's School 2225 Torrey Pines Ln. La Jolla, CA 92037

Name of Building: Auditorium building

Location Description: Interior northeast side of building

Type of Outlet: Sink

Description:

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173064

State Sample ID: 3710020-BJJ-B

Date & Time Last Used: 5/30/17 2200

Date & Time Sample Collected: 6/1/17 0604

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 3

School: The Children's School 2225 Torrey Pines Ln. La Jolla, CA 92037

Name of Building: Classroom building (rooms9-12)

Location Description: Exterior east side of building

Type of Outlet: Bubbler

Description: Far right bubbler

Comments/Miscellaneous:

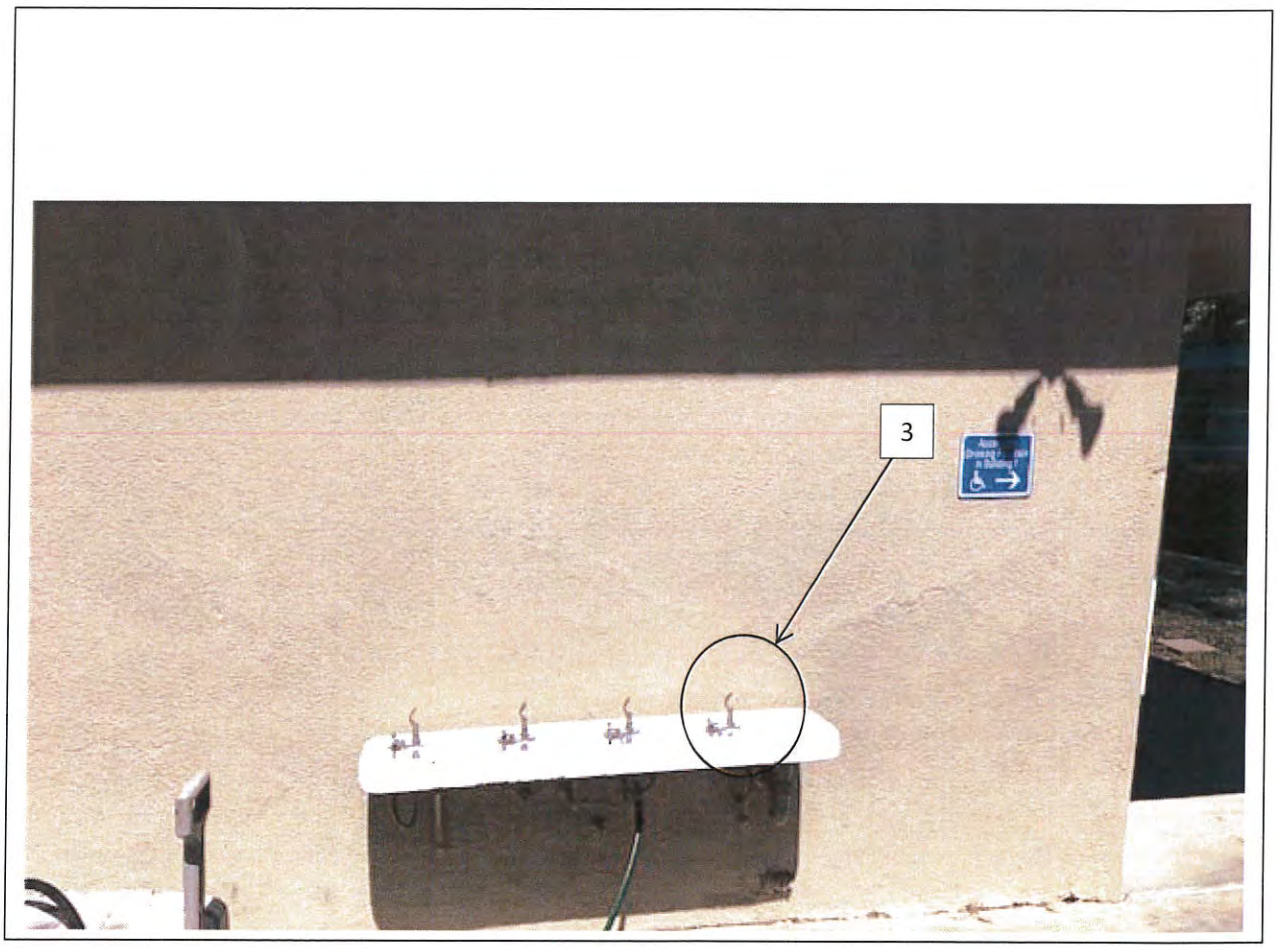

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173065

State Sample ID: 3710020-BJJ-C

Date & Time Last Used: 5/30/17 2200

Date & Time Sample Collected: 6/1/17 0806

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: [illegible]

Sample No. 4

School: The Children's School 2225 Torrey Oines Ln. La Jolla, CA 92037

Name of Building: Classroom building

Location Description: Exterior northeast corner of building

Type of Outlet: Bubbler

Description: Bottom right bubbler

Comments/Miscellaneous:

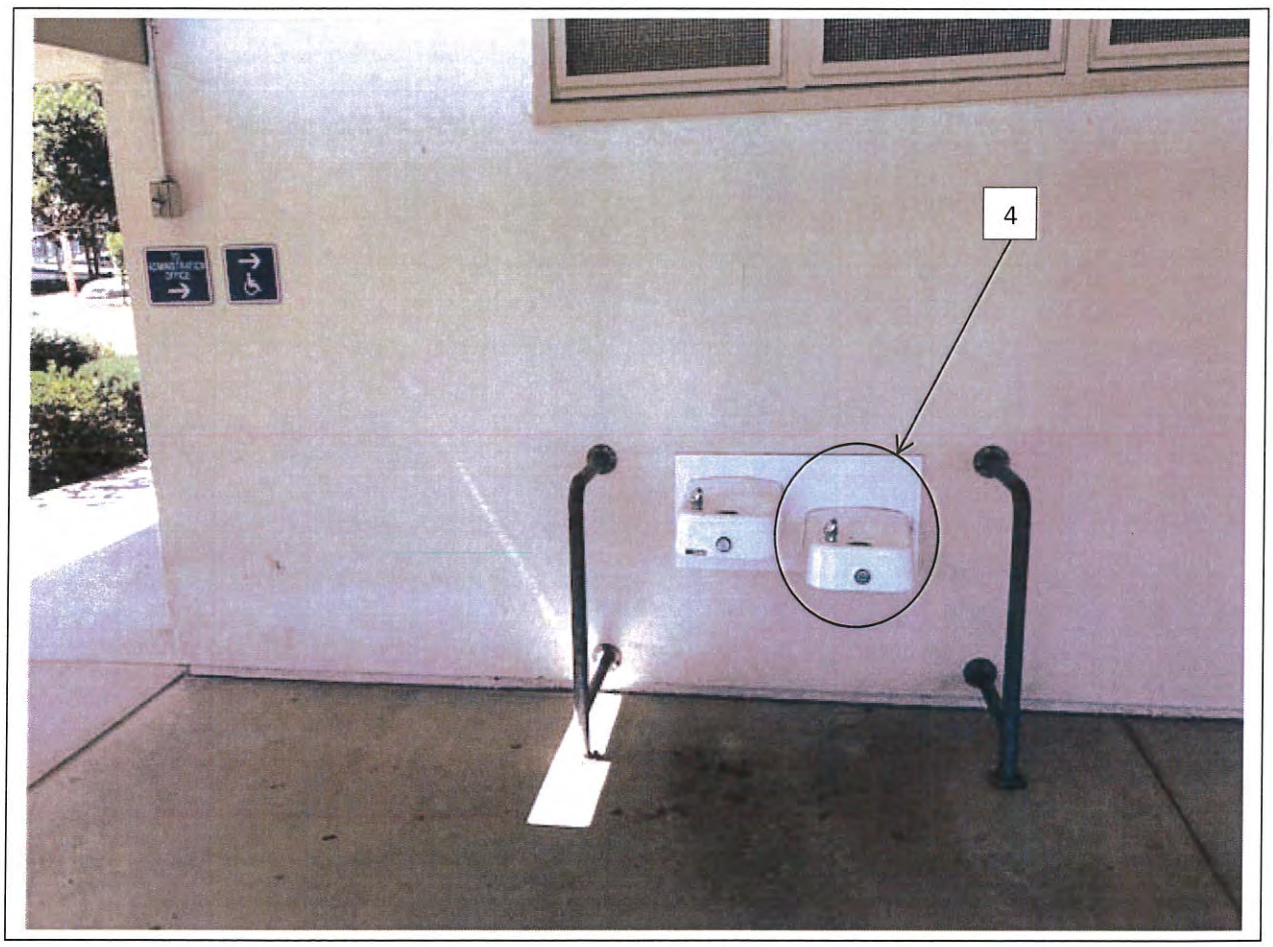

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173066

State Sample ID: 3710020-BJJ-D

Date & Time Last Used: 5/30/17 2200

Date & Time Sample Collected: 6/1/17 0610

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 5

School: The Children's School 2225 Torrey Pines Ln. La Jolla, CA 92037

Name of Building: Alder building

Location Description: Inside room 5 Alder

Type of Outlet: Sink

Description:

Comments/Miscellaneous: Sign next to door has NMY Project Room (Wallace Family)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173067

State Sample ID: 3710020-BJJ-E

Date & Time Last Used: 5/30/17 2200

Date & Time Sample Collected: 6/1/17 0613

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

30-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1173063	The Children's School	01-JUN-2017	0601	M. Nelson	SAMPLE 1	
2	W1173064	The Children's School	01-JUN-2017	0604		SAMPLE 2	
3	W1173065	The Children's School	01-JUN-2017	0606		SAMPLE 3	
4	W1173066	The Children's School	01-JUN-2017	0610		SAMPLE 4	
5	W1173067	The Children's School	01-JUN-2017	0613		SAMPLE 5	

816

Chain of Custody:

Relinquished by: Name: M Nelson Sign:	Received by: Name: Keith Rohrer Sign:	Date & Time: 6/1/17 Location: 1314 AW	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: Keith Rohrer
Received Date: 6/01/17
LIMS Received Time: 1313
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: The Child's Primary School (CDS 37 68338 6927586)

Physical Address of School: 3811 Mount Acadia Blvd, San Diego, CA 92111

First Bell: 8:30a

Meeting Date: June 5, 2017

Sampling Plan Completion Date: June 5, 2017

Completed by Print Name: Mariel Cairns, Business Administrator

Signature: Mariel Cairns Date: June 5, 2017

School's Point of Contact for Sampling Assistance

Name: Mariel Cairns, Business Administrator

Phone: 858-576-2120

Email: mcairns@tcps.org

City of San Diego 3710020

Approved By: 6/5/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: The Child's Primary School, 3811 Mount Acadia Blvd, San Diego, CA 92111

3811 Mount Acadia Blvd

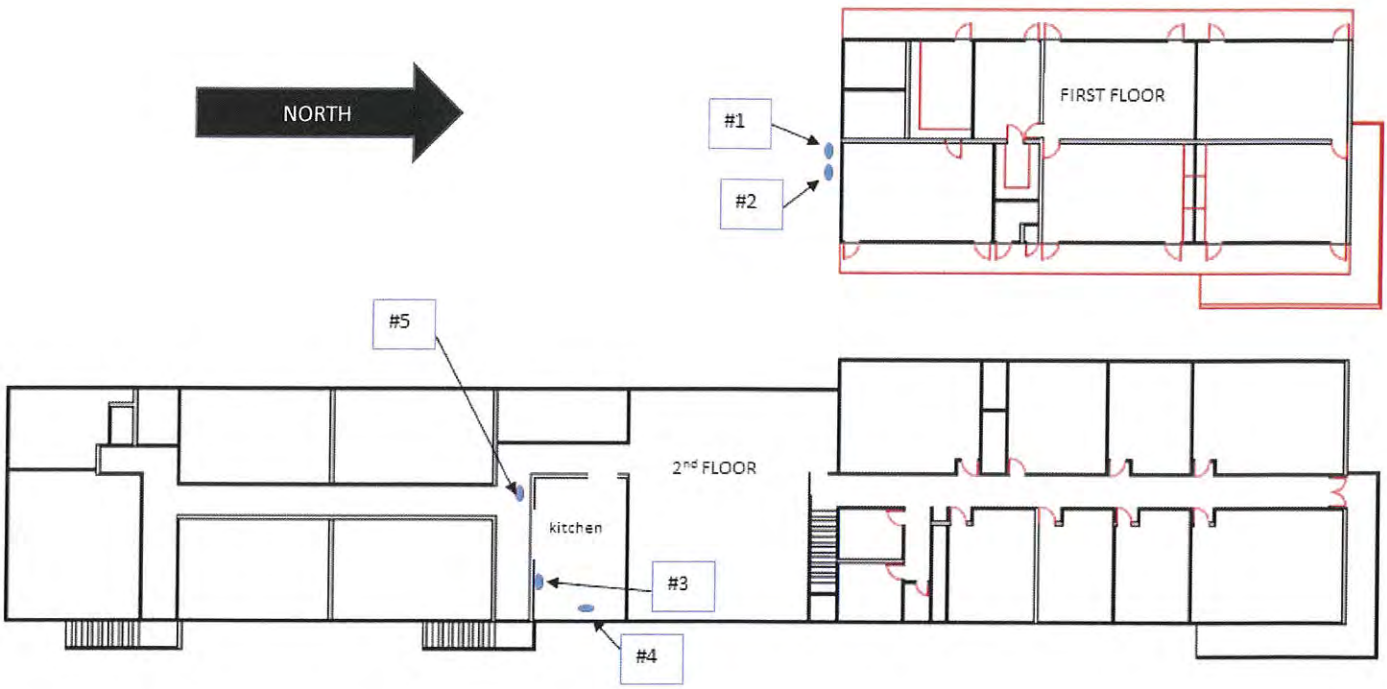

Sample No. 1

School: The Child's Primary School

Name of Building:

Location Description: exterior, downstairs, near lockers and girls bathroom

Type of Outlet: drinking fountain

Description: left water fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1176667

State Sample ID: 3710020-CCF-A

Date & Time Last Used: 6-7-17 3:40

Date & Time Sample Collected: 6-6-17 0633

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T. Burger

Sample No. 2

School: The Child's Primary School

Name of Building:

Location Description: exterior, downstairs near lockers and girls bathroom

Type of Outlet: drinking fountain

Description: right drinking fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1176668

State Sample ID: 3710020-CCF-B

Date & Time Last Used: 6-7-17 3:42

Date & Time Sample Collected: 6-8-17 0635

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T. Burger

Sample No. 3

School: The Child's Primary School

Name of Building:

Location Description: upstairs - kitchen prep sink along south wall

Type of Outlet: faucet

Description: prep faucet for cooking

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1176669

State Sample ID: 3710020-CCF-C

Date & Time Last Used: 6-7-17 3:35

Date & Time Sample Collected: 6-8-17 0639

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T. Burger

Sample No. 4

School: The Child's Primary School

Name of Building:

Location Description: upstairs - kitchen prep sink under window

Type of Outlet: faucet

Description: prep faucet for cooking

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1176670

State Sample ID: 3710020-CCF-D

Date & Time Last Used: 6-7-17 3:37 pm

Date & Time Sample Collected: 6-8-17 0642

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T. Burger

Sample No. 5

School: The Child's Primary School

Name of Building:

Location Description: upstairs hallway - around the corner from kitchen and Storage O

Type of Outlet: drinking fountain

Description: drinking fountain

Comments/Miscellaneous:

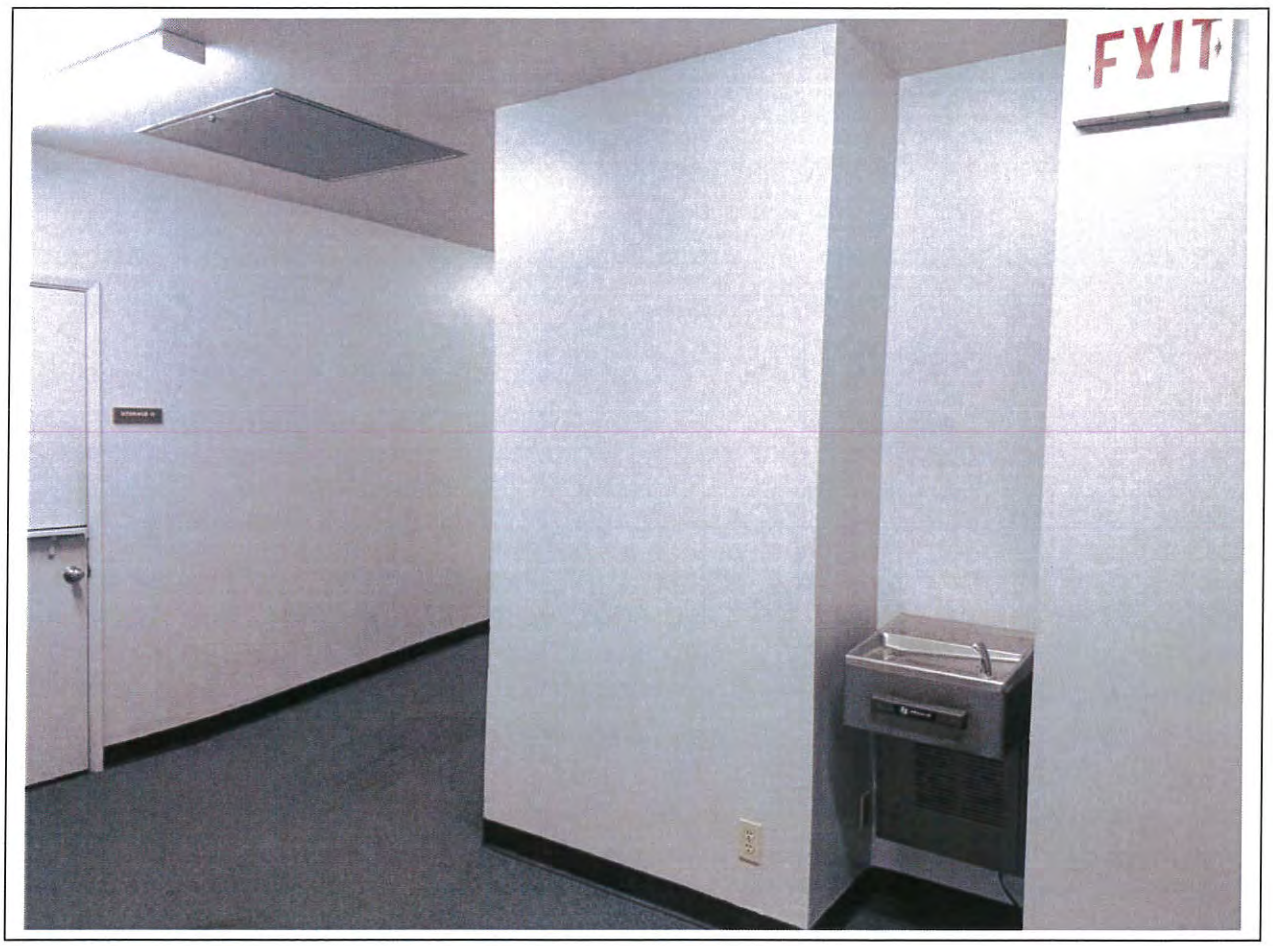

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1176671

State Sample ID: 3710020-CCF-E

Date & Time Last Used: 6-7-17 330pm

Date & Time Sample Collected: 6-8-17 0645

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T. Burger

Water Quality Chemistry Services
Chain of Custody Form

08-Jun-2017

296

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1176667	The Child◆s Primary School	08-JUN-2017	0633	T. Burger	SAMPLE 1	
2	W1176668	The Child◆s Primary School	08-JUN-2017	0635		SAMPLE 2	
3	W1176669	The Child◆s Primary School	08-JUN-2017	0639		SAMPLE 3	
4	W1176670	The Child◆s Primary School	08-JUN-2017	0642		SAMPLE 4	
5	W1176671	The Child◆s Primary School	08-JUN-2017	0645		SAMPLE 5	

824

Chain of Custody:

Relinquished by: Name: Tom Burger Sign: TMB Burger	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 6-8-17 0730 Location: ALV. LAB	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: SMalle
Received Date: 6/08/17
LIMS Received Time: 0732
Reviewed By:

Exhibit 31

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Chollas/ Mead Elementary

Physical Address of School: 401 North 45 TH Street San Diego CA 92102

First Bell: 8:40 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 4-12-2017

Completed by Print Name: Sergio Salinas

Signature: signature on file Date:

School's Point of Contact for Sampling Assistance

Name: Sergio Salinas

Phone: (619) 302-0564

Email: ssalinas@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-14-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Chollas/ Mead ES- 401 North 45 TH Street San Diego CA 92102

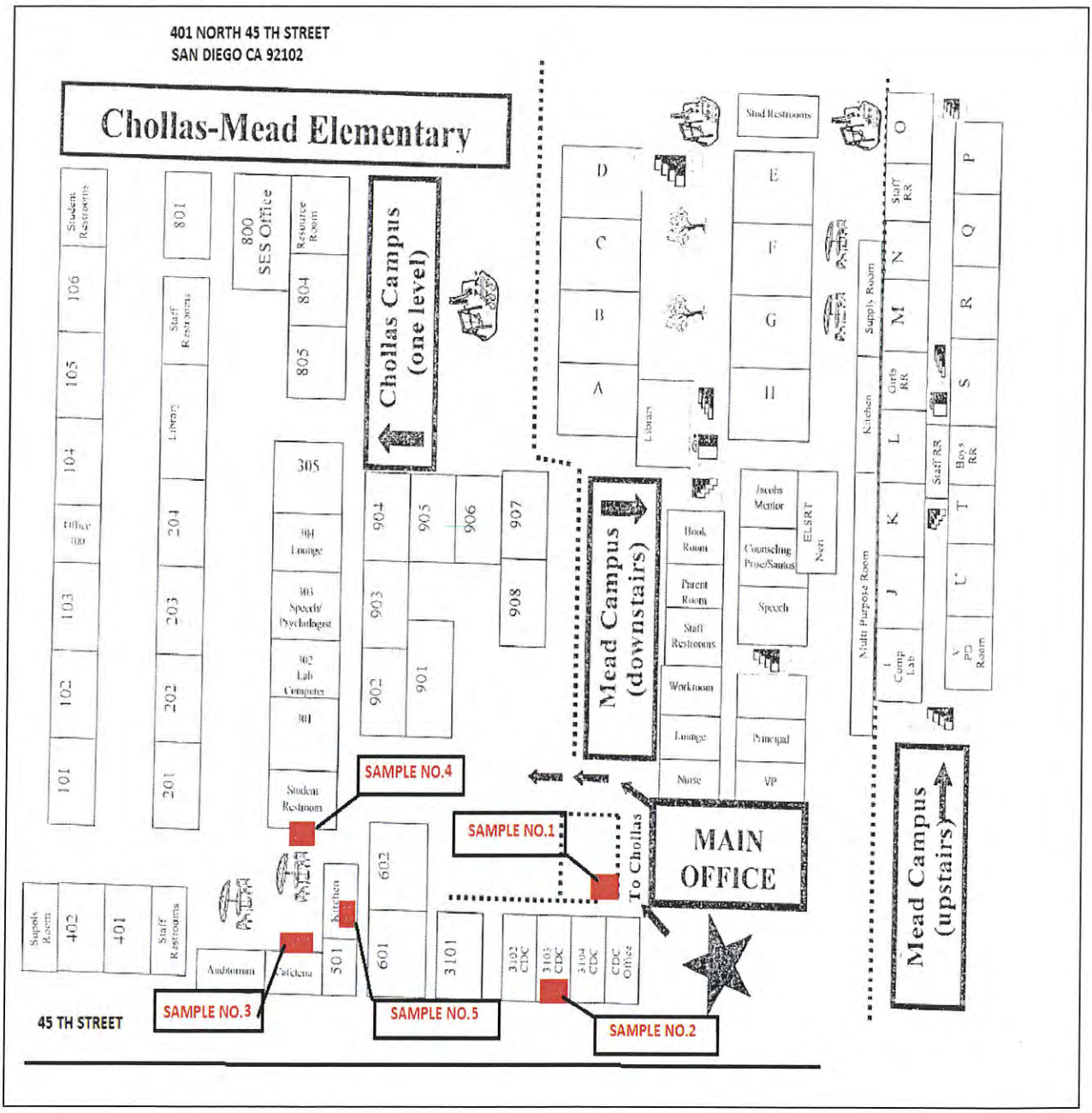

Sample No. 1

School: Chollas/ Mead ES- 401 North 45 TH Street San Diego CA 92102

Name of Building: CDC building

Location Description: Outside fountain in playground

Type of Outlet: Bubbler

Description: Right Bubbler

Comments/Miscellaneous: (School ID NO.63)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166828

State Sample ID: 3710020-AEJ-A

Date & Time Last Used: 1800 4/14/17

Date & Time Sample Collected: 0645 4/15/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 2

School: Chollas/ Mead ES- 401 North 45 TH Street San Diego CA 92102

Name of Building: CDC Building

Location Description: Room # 3103

Type of Outlet: Bubbler

Description: Bubbler at sink

Comments/Miscellaneous: (School ID NO.63)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166829

State Sample ID: 3710020-AEJ-B

Date & Time Last Used: 1800 8/14/17

Date & Time Sample Collected: 0641 8/15/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 3

School: Chollas/ Mead ES- 401 North 45 TH Street San Diego CA 92102

Name of Building Cafeteria

Location Description: Outside drinking fountain in front of Cafeteria

Type of Outlet: Bubbler

Description: Right Bubbler

Comments/Miscellaneous: (School ID NO.63)

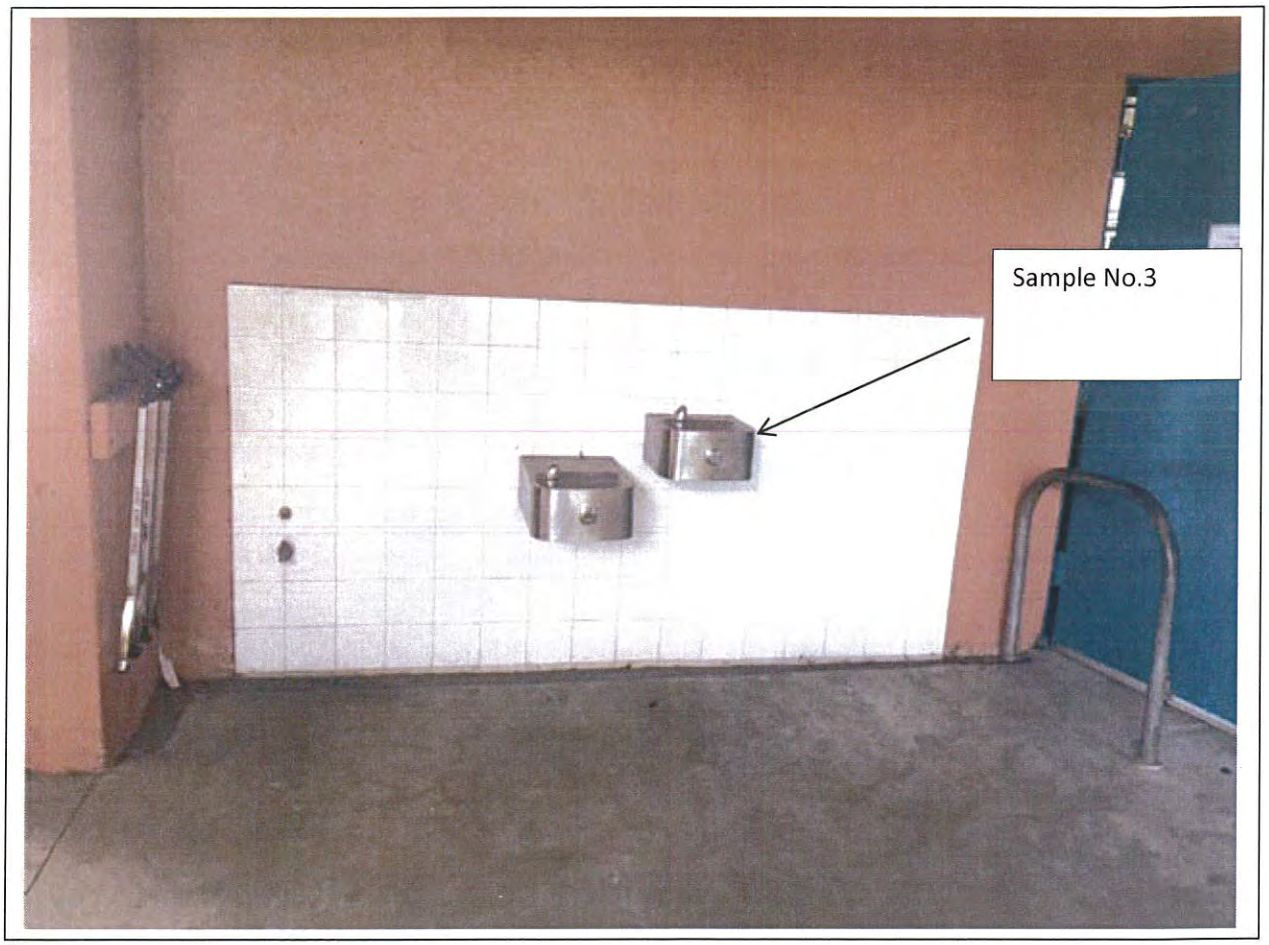

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166830

State Sample ID: 3710020-AEJ-C

Date & Time Last Used: 1800 4/14/17

Date & Time Sample Collected: 0648 4/15/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 4

School: Chollas/ Mead ES- 401 North 45 TH Street San Diego CA 92102

Name of Building: 300 Building

Location Description: Outside Drinking fountain next to bathrooms

Type of Outlet: Bubbler

Description: Middle Bubbler

Comments/Miscellaneous: (School ID NO.63)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166831

State Sample ID: 3710020-AEJ-D

Date & Time Last Used: 1800 4/14/17

Date & Time Sample Collected: 0650 4/15/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 5

School: Chollas/ Mead ES- 401 North 45 TH Street San Diego CA 92102

Name of Building: Kitchen

Location Description: Inside Kitchen

Type of Outlet: Faucet inside kitchen

Description: Faucet

Comments/Miscellaneous: (School ID NO.15) No access to room (Key doesn't work)

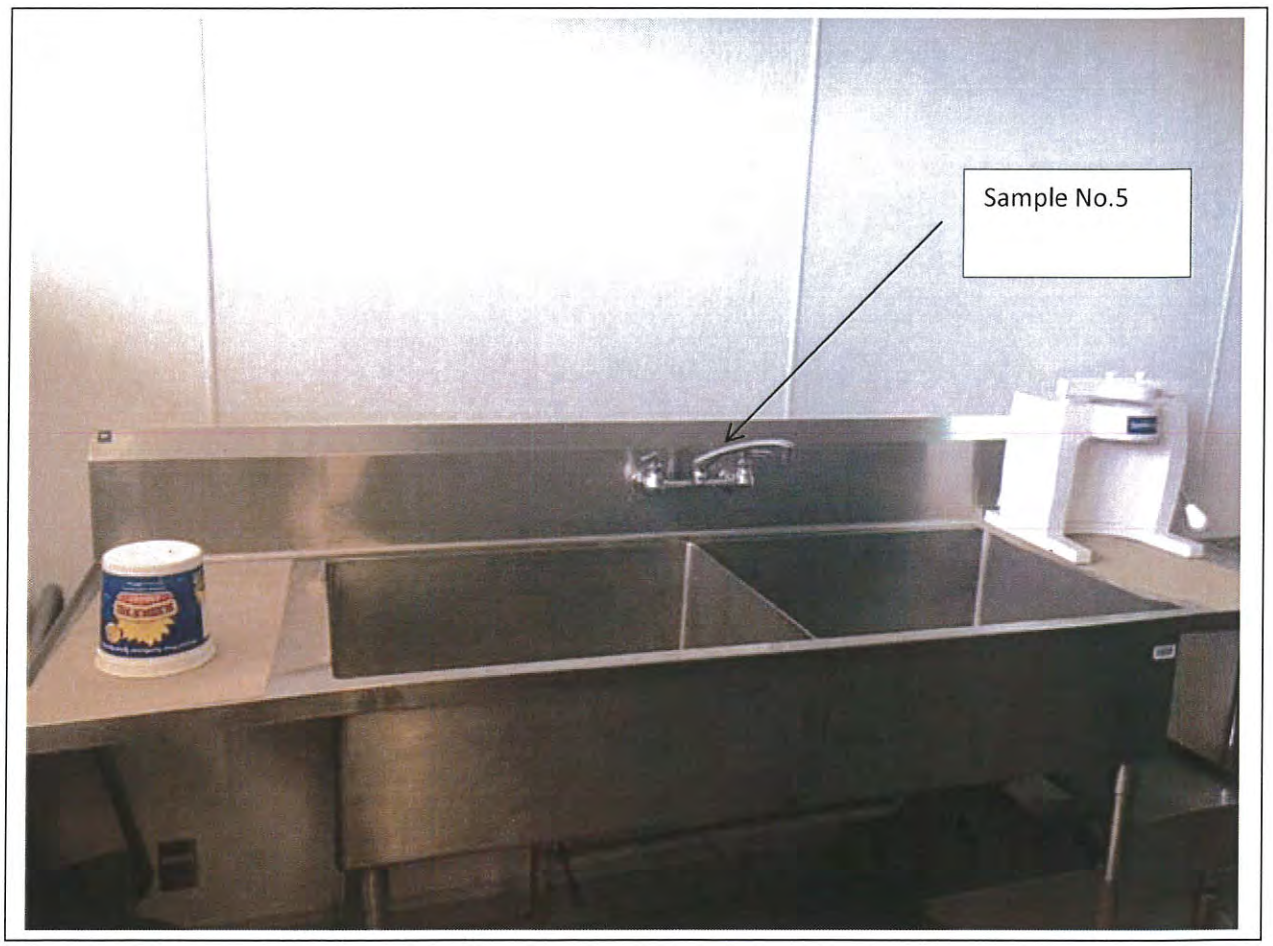

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166832

State Sample ID: 3710020-AEJ-E

Date & Time Last Used:

Date & Time Sample Collected:

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector:

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

14-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1166828	Chollas/Mead	15-APR-2017	0645	David Mayo	SAMPLE 1	
2	W1166829	Chollas/Mead	15-APR-2017	0641	↓	SAMPLE 2	
3	W1166830	Chollas/Mead	15-APR-2017	0646	↓	SAMPLE 3	
4	W1166831	Chollas/Mead	15-APR-2017	0650	↓	SAMPLE 4	
5	W1166832	Chollas/Mead	15-APR-2017			SAMPLE 5	Not sampled. No Access to room.

Chain of Custody:

Relinquished by: Name: David Mayo Sign: David Mayo	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 4/15/17 9:30 Location: AIV	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 4/17/17
LIMS Received Time: 0736
Reviewed By: W

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Chollas/ Mead Elementary

Physical Address of School: 401 North 45 TH Street San Diego CA 92102

First Bell: 8:40 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 4-12-2017

Completed by Print Name: Sergio Salinas

Signature: Date: 4/12/2017

School's Point of Contact for Sampling Assistance

Name: Sergio Salinas

Phone: (619) 302-0564

Email: ssalinas@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-14-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Chollas/ Mead ES- 401 North 45 TH Street San Diego CA 92102

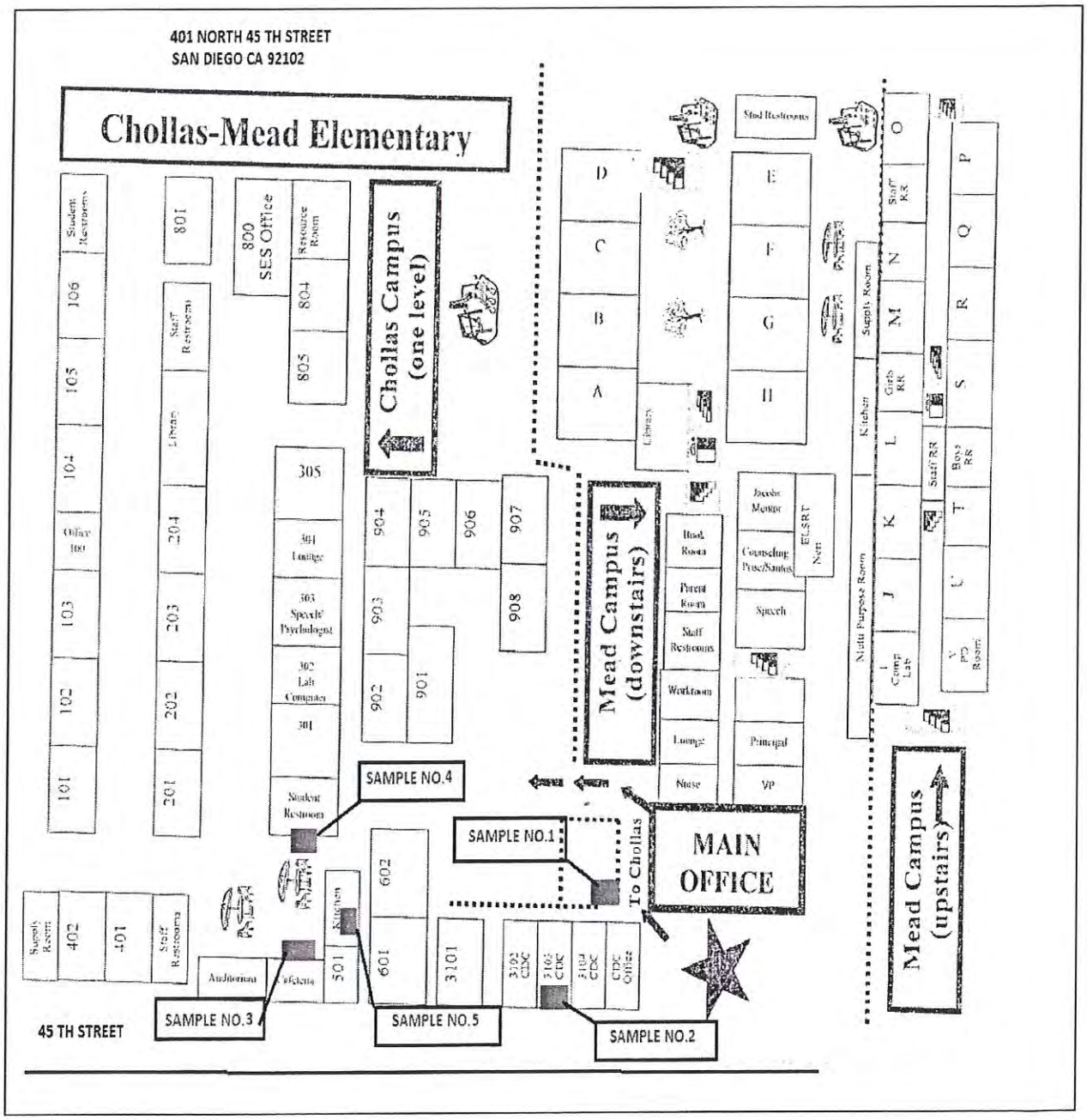

Sample No. 5

School: Chollas/ Mead ES- 401 North 45 TH Street San Diego CA 92102

Name of Building: Kitchen

Location Description: Inside Kitchen

Type of Outlet: Faucet inside kitchen two compartment sink

Description: Faucet

Comments/Miscellaneous: (School ID NO.15)

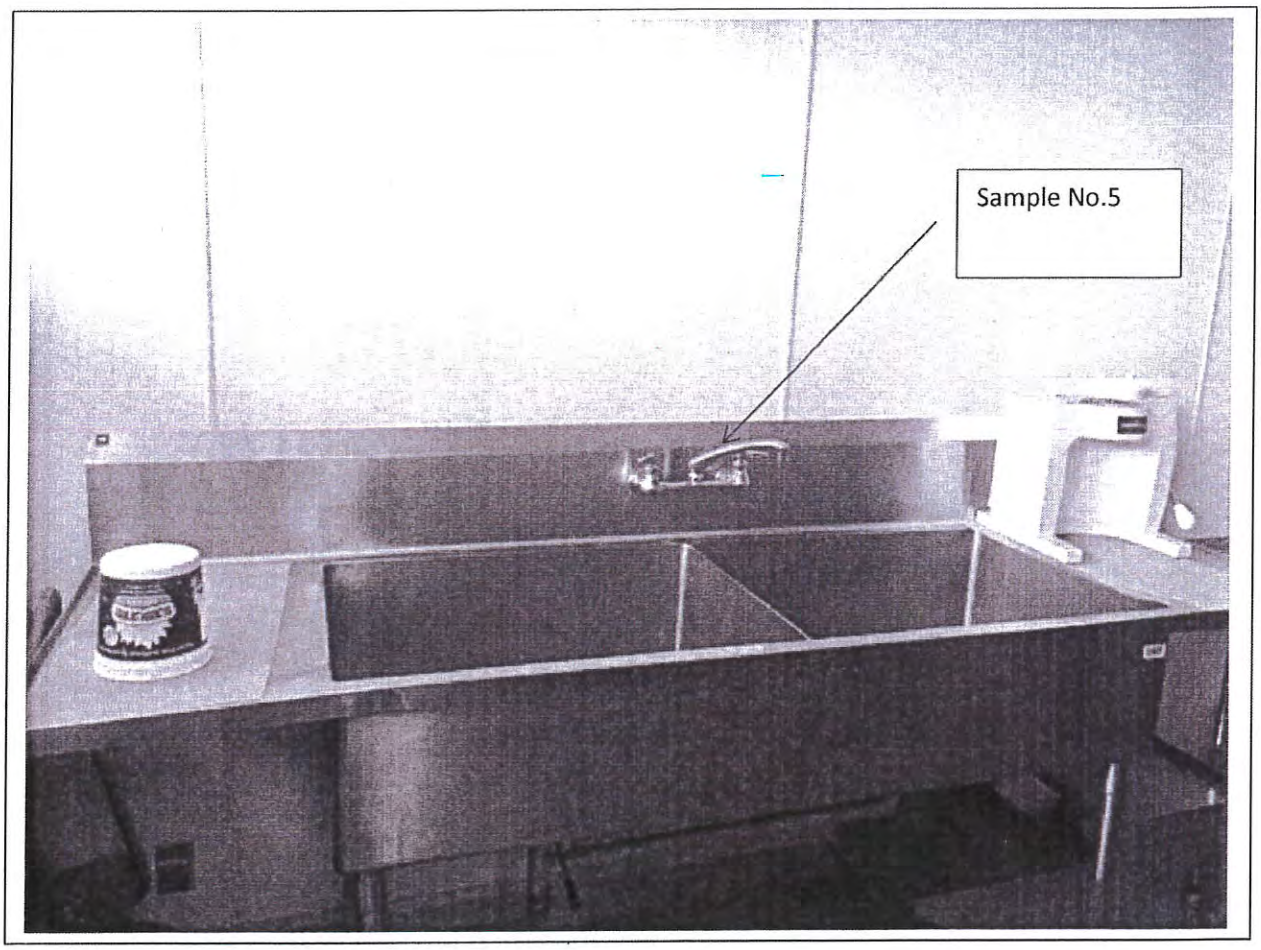

City use only below this line

Sample type Initial ☐ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167379

State Sample ID: 3710020 - AEH-E

Date & Time Last Used: 2200 4-18-17

Date & Time Sample Collected: 0700 4-19-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Tom Burger

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

18-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1167379	Chollas/Mead	19-APR-2017	0700	TBurger	SAMPLE 5	

836

Chain of Custody:

Relinquished by: Name: Tom Burger Sign:	Received by: Name: Alejandra Molloy Sign: AMolly	Date & Time: 4-19-17 0806 Location: ALV Lab	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolly
Received Date: 4/19/17
LIMS Received Time: 0850 ✓
Reviewed By: AMolly 4/25/17

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Clairemont High School

Physical Address of School: 4150 Ute Drive, San Diego Calif 92117

First Bell: 7:35

Meeting Date: 5/3/2017

Sampling Plan Completion Date: 5/3/2017

Completed by Print Name: Timothy A Brown

Signature: Timothy A Brown Date: 5/3/2017

School's Point of Contact for Sampling Assistance

Name: Timothy A Brown OR LORI SHERMAN

Phone: 1-619-302-9427 619-301-9086

Email: tbrown@sandi.net

City of San Diego 3710020

Approved By: 5/9/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Clairemont High School-4150 Ute Drive; San Diego Calif, 92117

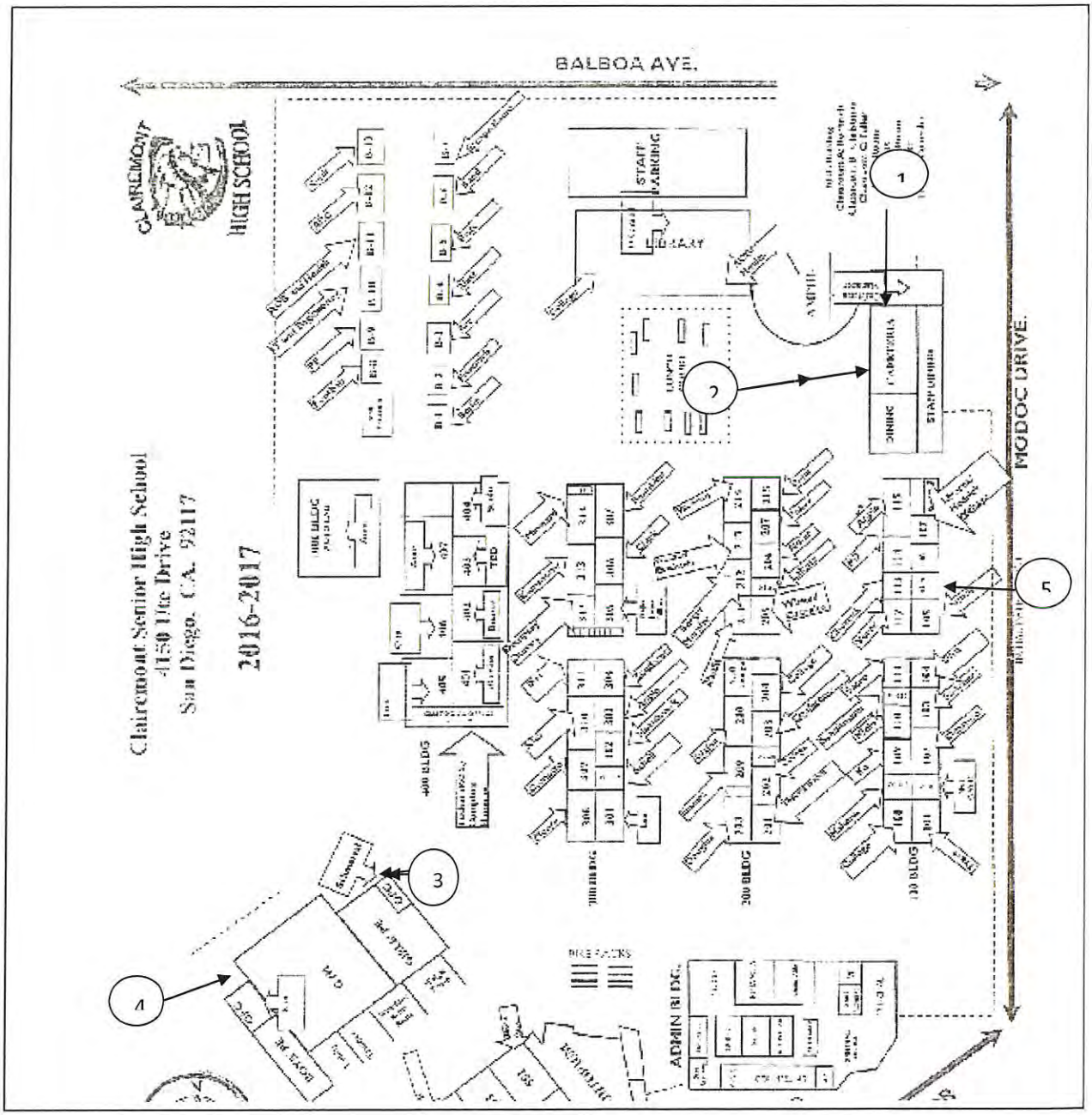

Sample No. 1

School: Clairemont High School

Name of Building: Cafeteria Kitchen

Location Description: East Interior Wall

Type of Outlet: Spray Outlet

Description: Vegetable/ Fruit Prep- Hot/ Cold running Water

Comments/Miscellaneous:

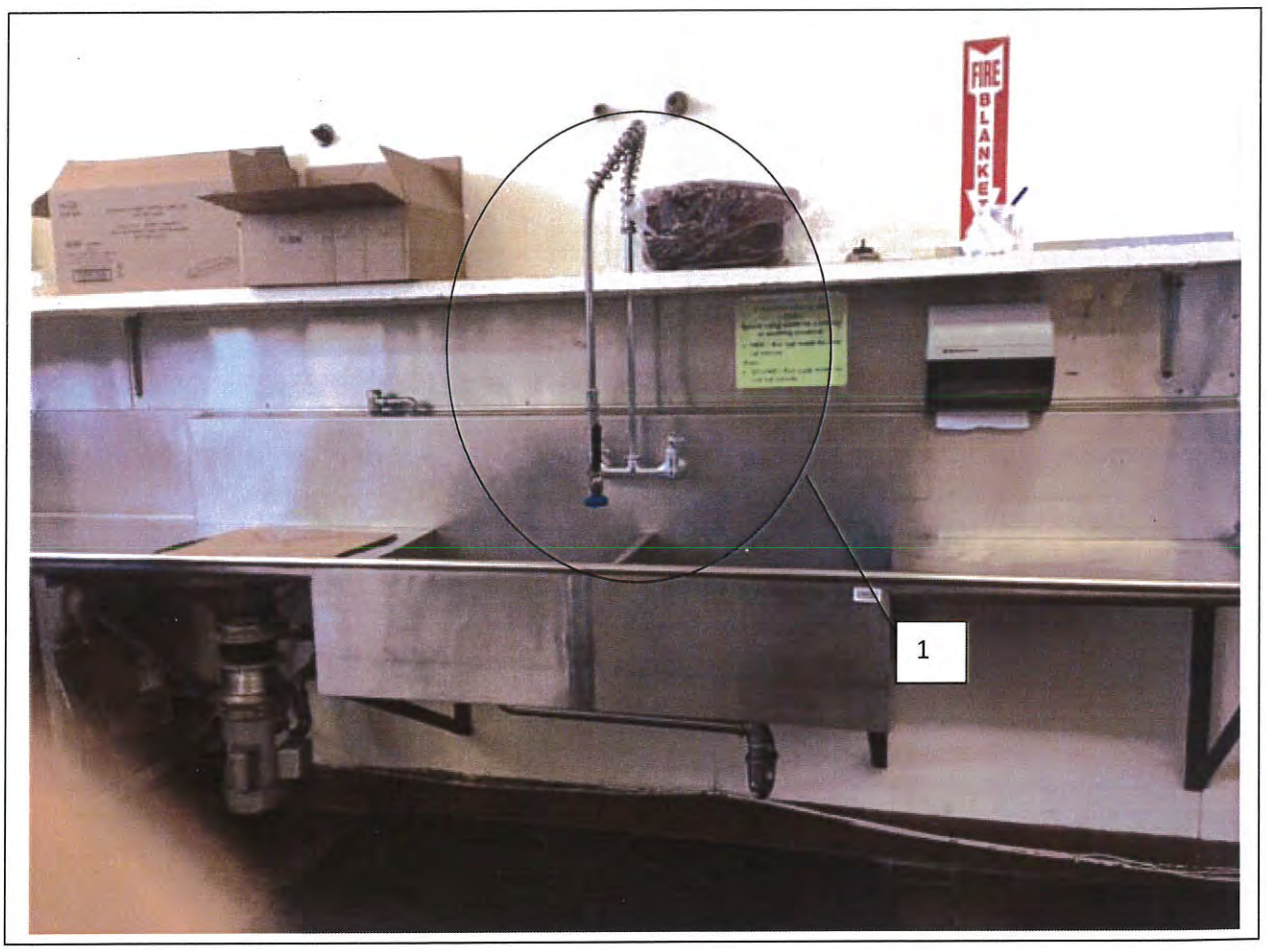

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172133

State Sample ID: 3710020-BHC-A

Date & Time Last Used: 5/9/17 between 6-10pm

Date & Time Sample Collected: 5/10/17 @ 0624

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

- Slight leak from faucet into sink

Sample No. 2

School: Clairemont High School

Name of Building: Cafeteria

Location Description: Lunch Court Area/ West Exterior Wall

Type of Outlet: Exterior Wall Mounted Bubbler

Description: Sample Middle bubbler of Left Drinking Station

Comments/Miscellaneous:

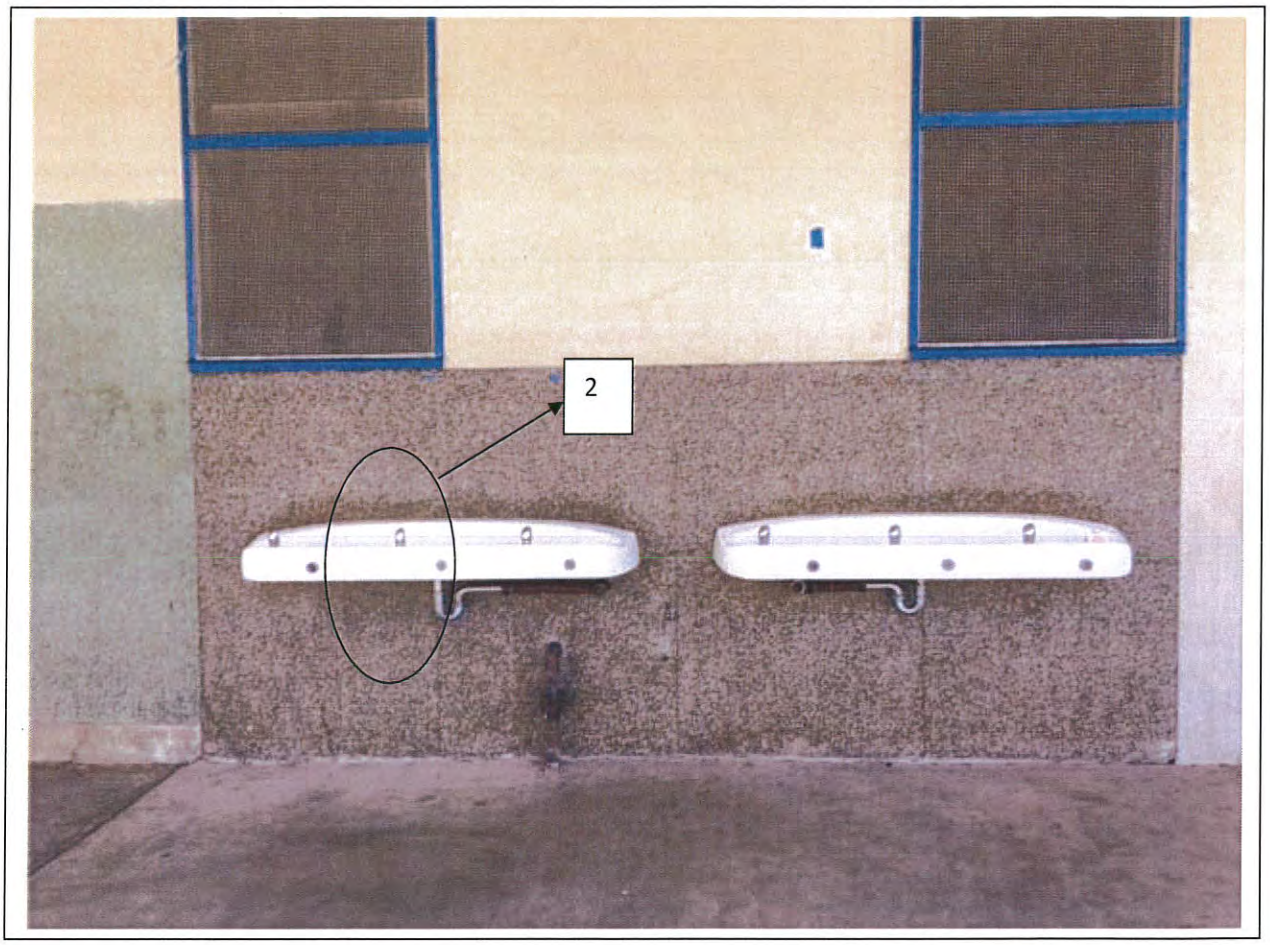

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172134

State Sample ID: 3710020-BHC-B

Date & Time Last Used: 5/9/17 between 6-10pm

Date & Time Sample Collected: 5/10/17 @ 0620

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Ranke

Sample No. 3

School: Clairemont High School

Name of Building: 600 BLDG

Location Description: Girls Lockeroom-East Exterior Wall

Type of Outlet: Exterior Wall Mounted 3 Bubbler System

Description: Sample far left Bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172135

State Sample ID: 3710020-BHC-C

Date & Time Last Used: 5/9/17 between 6-10pm

Date & Time Sample Collected: 5/10/17 @ 0630

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rante

Sample No. 4

School: Clairemont High School

Name of Building: 600 BLDG

Location Description: Boys Lockeroom / West Exterior Wall

Type of Outlet: Exterior Wall Mounted 3 bubbler System

Description: Sample Far Right Bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172136

State Sample ID: 3710020-BHC-D

Date & Time Last Used: 5/9/17 between 6-10pm

Date & Time Sample Collected: 5/10/17 @ 0633

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rankin

Sample No. 5

School: Clairemont High School

Name of Building: 100 BLDG

Location Description: East Exterior Wall at Rm 105/ Boys Restroom

Type of Outlet: Two Exterior wall mounted two bubbler station

Description: Sample Far Left Bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172137

State Sample ID: 3710020-BHC-E

Date & Time Last Used: 5/9/17 between 6-10pm

Date & Time Sample Collected: 5/10/17 @ 0615

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

09-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1172133	Clairemont High	10-MAY-2017	0624	JR	SAMPLE 1	
2	W1172134	Clairemont High	10-MAY-2017	0620	JR	SAMPLE 2	
3	W1172135	Clairemont High	10-MAY-2017	0630	JR	SAMPLE 3	
4	W1172136	Clairemont High	10-MAY-2017	0633	JR	SAMPLE 4	
5	W1172137	Clairemont High	10-MAY-2017	0615	JR	SAMPLE 5	

844

Chain of Custody:

Relinquished by: Name: Joshua Rambo Sign:	Received by: Name: Tom Burger Sign: Tom B. Burger	Date & Time: 5/10/17 @ 1025 Location: ALV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-10-17
LIMS Received Time: 1029
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Clay Elementary School

Physical Address of School: 6506 Solita Avenue, San Diego, CA 92115

First Bell: 8:00 AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/07/17

Completed by Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 04/07/17

School's Point of Contact for Sampling Assistance

Name: Dan Lopez

Phone: 619-306-3383

Email:

City of San Diego 3710020

Approved By: Tom B. Burger 4-13-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Clay Elementary School, 6506 Solita Avenue, San Diego, CA 92115

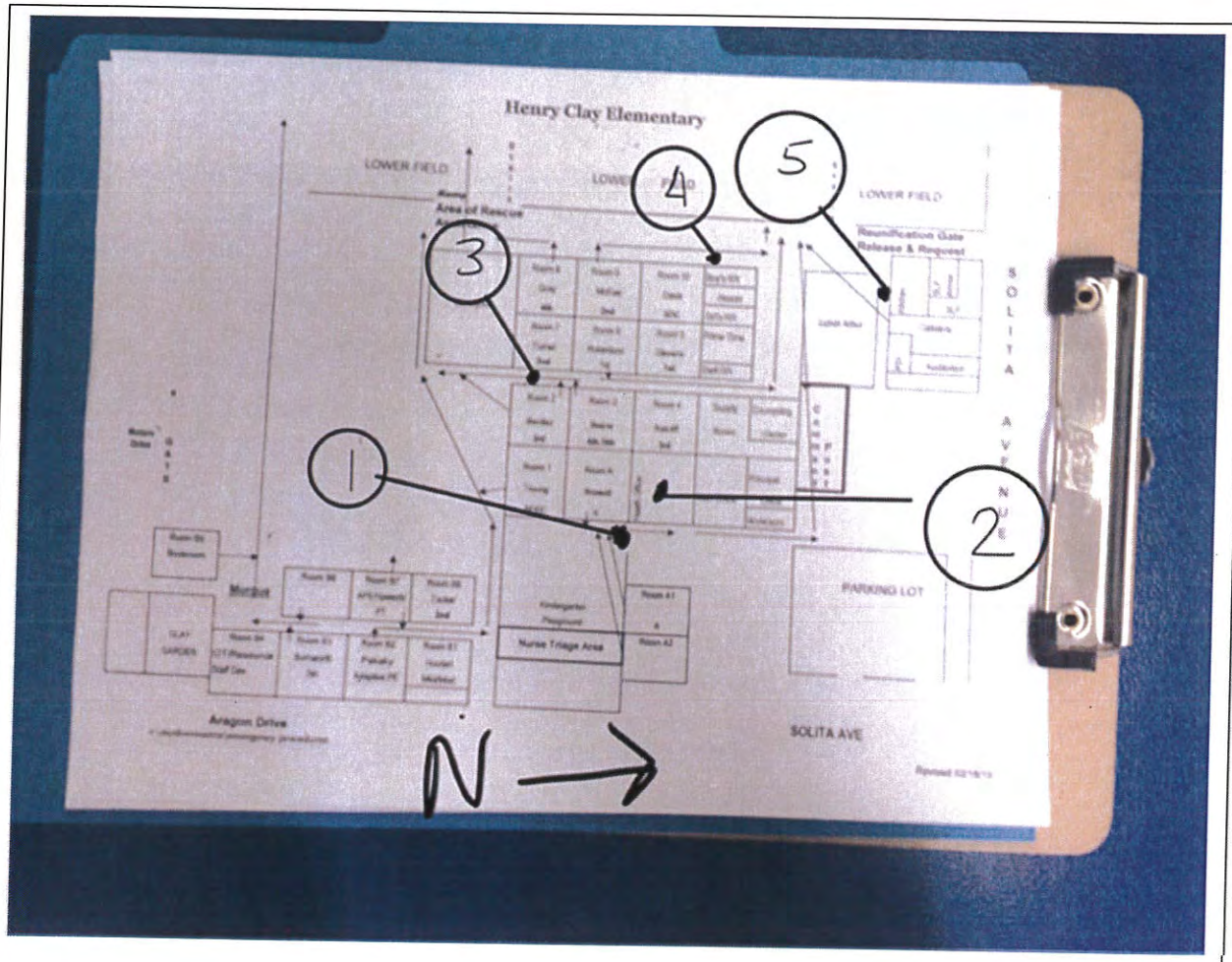

Sample No. 1

School: Clay Elementary School

Name of Building: Kindergarten Building

Location Description: Outside bubbler near gate

Type of Outlet: Single bubbler on East facing wall

Description: Single bubbler

Comments/Miscellaneous:

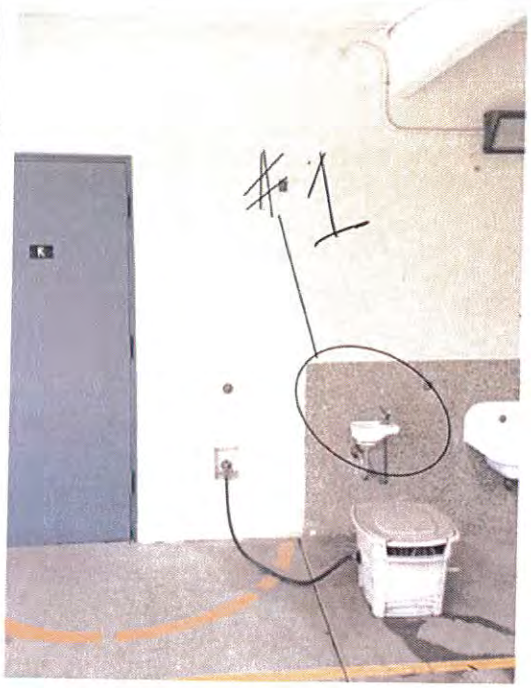

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166678

State Sample ID: 3710020-AFA-A

Date & Time Last Used: 2200 4-13-17

Date & Time Sample Collected: 0601 4-14-17

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: T Burger

Sample No. 2

School: Clay Elementary School

Name of Building: Main building

Location Description: Nurses Office

Type of Outlet: Regular sink

Description: Single faucet

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166679

State Sample ID: 3710020-AFA-B

Date & Time Last Used: 2200 4-13-17

Date & Time Sample Collected: 0604 4-14-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: TBurger

Sample No. 3

School: Clay Elementary School

Name of Building: Main building

Location Description: Outside of Room #2

Type of Outlet: Triple Bubbler West facing wall

Description: Far right bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166680

State Sample ID: 3710020-AFA-C

Date & Time Last Used: 2200 4-13-17

Date & Time Sample Collected: 0609 4-14-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T Burger

Sample No. 4

School: Clay Elementary School

Name of Building: Second classroom building

Location Description: Next to Room #10

Type of Outlet: Triple bubbler West facing wall

Description: Middle bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166681

State Sample ID: 3710020-AFA-D

Date & Time Last Used: 2200 4-13-17

Date & Time Sample Collected: 0618 4-14-17

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector: T. Burger

Sample No. 5

School: Clay Elementary School

Name of Building: Cafeteria building

Location Description: Outside bubbler on South facing wall

Type of Outlet: Single bubblers

Description: Lower bubbler on right

Comments/Miscellaneous:

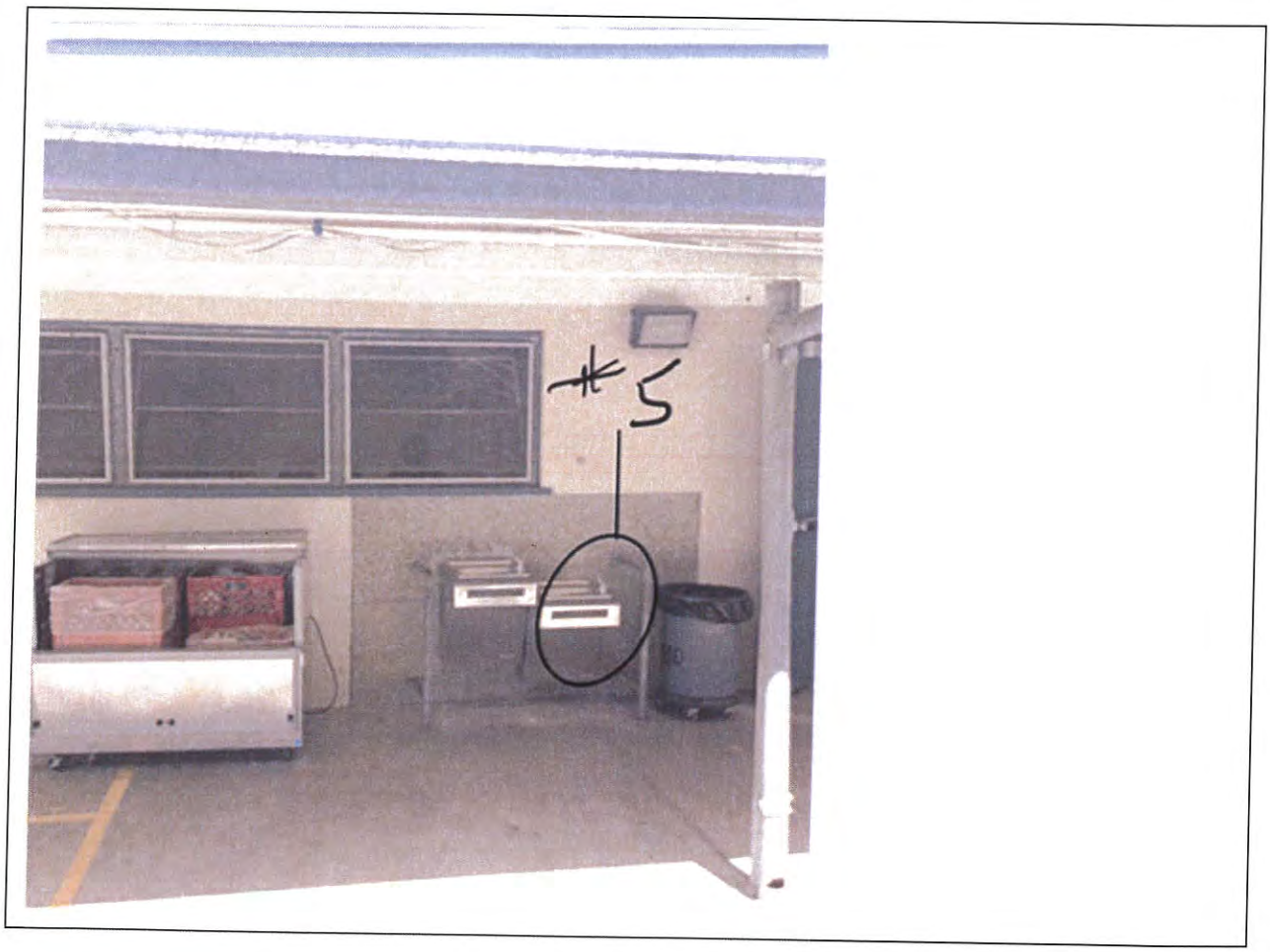

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166682

State Sample ID: 3710020-AFA-E

Date & Time Last Used: 2200 4-13-17

Date & Time Sample Collected: 0614 4-14-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T Burger

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

13-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1166678	Clay Elementary	14-APR-2017	0601	T Burger	SAMPLE 1	
2	W1166679	Clay Elementary	14-APR-2017	0604		SAMPLE 2	
3	W1166680	Clay Elementary	14-APR-2017	0609		SAMPLE 3	
4	W1166681	Clay Elementary	14-APR-2017	0618		SAMPLE 4	
5	W1166682	Clay Elementary	14-APR-2017	0614		SAMPLE 5	

852

Chain of Custody:

Relinquished by: Name: Tom Burger Sign: Tom B Burger	Received by: Name: Keith Ruehrwein Sign:	Date & Time: 4-14-17 0857 Location: ALV. LAB	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: KR
Received Date: 4/18/17
LIMS Received Time: 1245
Reviewed By: [illegible]
4/25

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Correia Middle

Physical Address of School: 4302 Valeta St., San Diego, CA 92107-1510

First Bell: 7:25 AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 05/09/2017

Completed by Print Name: Ginette Commins

Signature: G Commins Date: 05/10/2017

School's Point of Contact for Sampling Assistance

Name: ~~Ginette Commins~~ Tim Brown

Phone: ~~(858) 627-7201~~ 619-302-9427

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/15/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Correia Middle, 4302 Valeta St., San Diego, CA 92107-151-

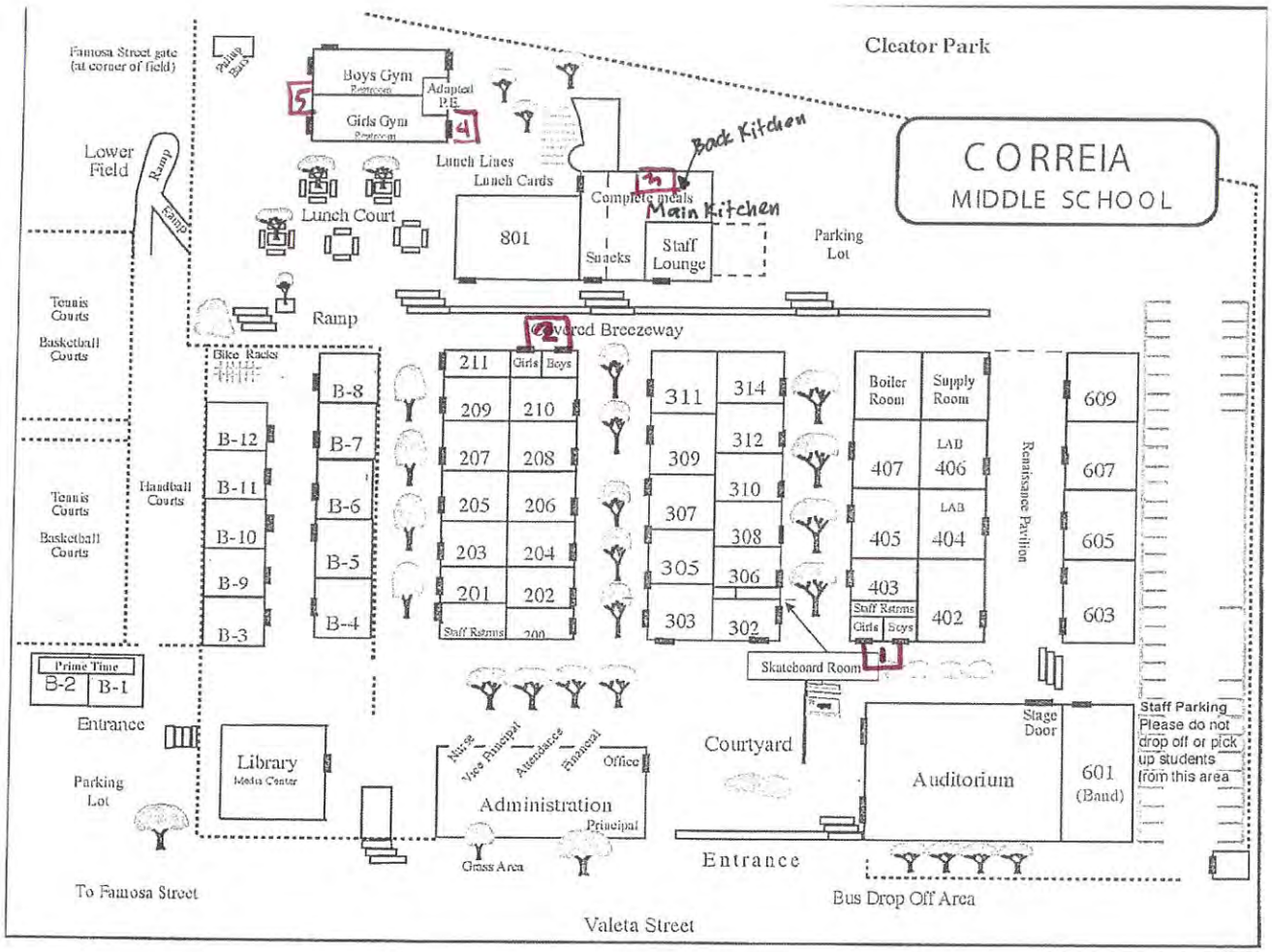

Sample No. 1

School: Correia Middle

Name of Building: 400

Location Description: Wall mounted exterior, between Girls & Boys Restrooms

Type of Outlet: bubbler

Description: Triple fountain - left bubbler head on the left fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #304

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173068

State Sample ID: 3710020-CAA-A

Date & Time Last Used: 5/23/17 between 6-10pm

Date & Time Sample Collected: 5/24/17 @ 0600

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

Sample No. 2

School: Correia Middle

Name of Building: 200

Location Description: Wall mounted exterior on a covered breezeway, between Boys & Girls Restrooms

Type of Outlet: bubbler

Description: Dual fountain - left bubbler head on the left fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #304

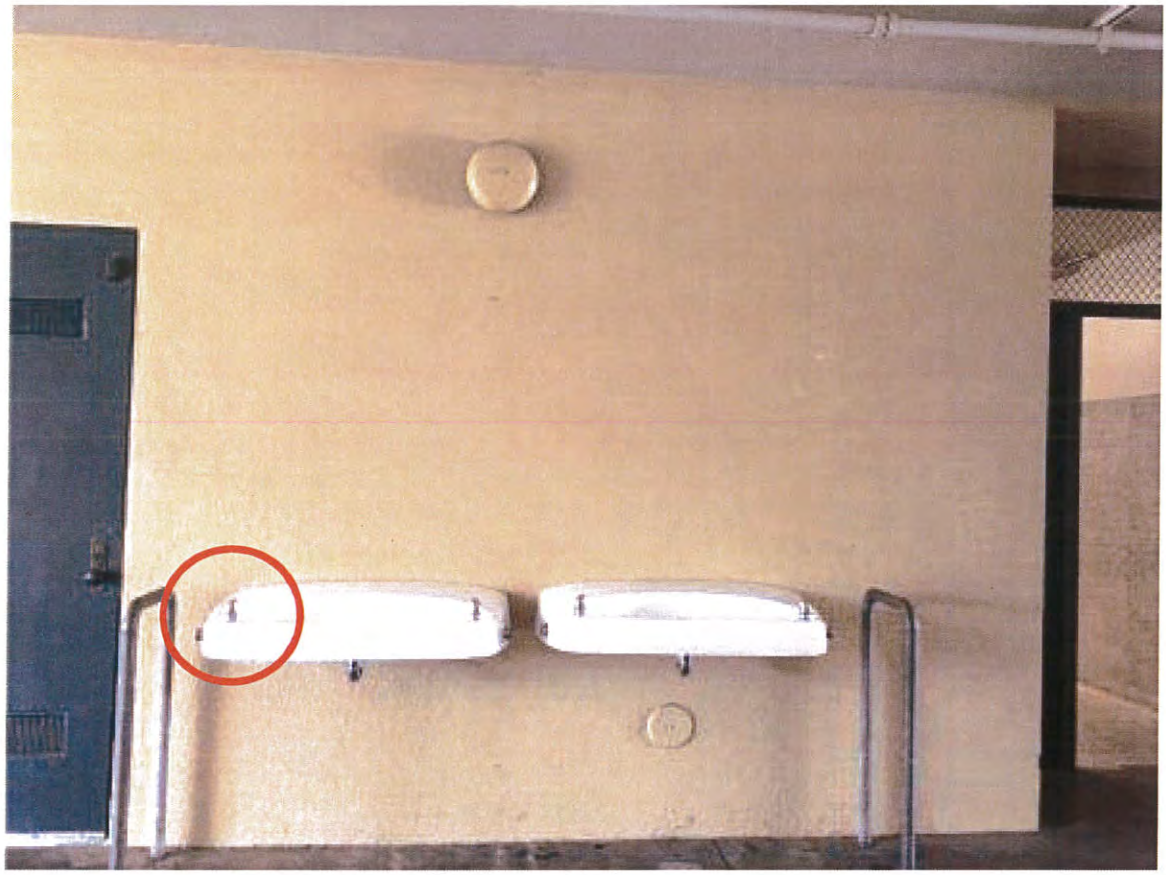

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173069

State Sample ID: 3710020-CAA-B

Date & Time Last Used: 5/23/17 between 6-10pm

Date & Time Sample Collected: 5/24/17 @ 0617

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rank

Sample No. 3

School: Correia Middle

Name of Building: Kitchen/Cafe

Location Description: Small three-compartment sink in the Back Kitchen Room, before the door of Cashiers' Room

Type of Outlet: kitchen faucet

Description: cold water faucet with color blue indicator (HIGH flow)

Comments/Miscellaneous: indoor water source for cooking/SDUSD Location Code #304

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173070

State Sample ID: 3710020-CAA-C

Date & Time Last Used: 5/23/17 between 6-10pm

Date & Time Sample Collected: 5/24/17 @ 0608

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rank

Sample No. 4

School: Correia Middle

Name of Building: Gym

Location Description: Wall mounted exterior, next to Adapted P.E. Room, on the side of Girls' P.E.

Type of Outlet: bubbler

Description: Dual fountain - left bubbler head on the left fountain (HIGH flow)

Comments/Miscellaneous: drinking water source/SDUSD Location Code #304

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173071

State Sample ID: 3710020-CAA-D

Date & Time Last Used: 5/23/17 between 6-10pm

Date & Time Sample Collected: 5/24/17 @ 0611

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

Sample No. 5

School: Correia Middle

Name of Building: Gym

Location Description: Wall mounted exterior, between Boys' PE & Girls' PE, facing ramp to Lower Field

Type of Outlet: bubbler

Description: Dual fountain – left bubbler head on the left fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #304

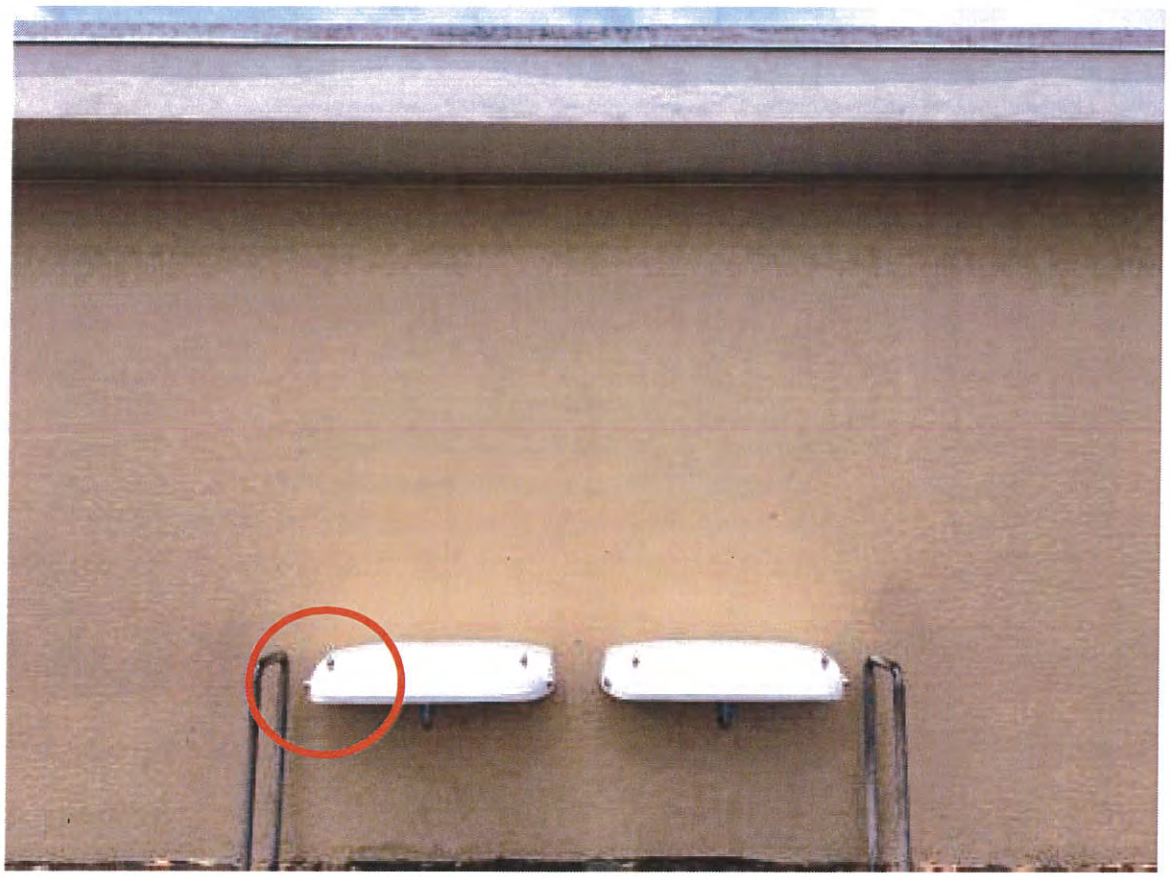

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173072

State Sample ID: 3710020-CAA-E

Date & Time Last Used: 5/23/17 between 6-10pm

Date & Time Sample Collected: 5/24/17 @ 0614

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

Water Quality Chemistry Services
Chain of Custody Form

22-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1173068	Correia Middle	24-MAY-2017	0600	JR	SAMPLE 1	
2	W1173069	Correia Middle	24-MAY-2017	0617	JR	SAMPLE 2	
3	W1173070	Correia Middle	24-MAY-2017	0608	JR	SAMPLE 3	
4	W1173071	Correia Middle	24-MAY-2017	0611	JR	SAMPLE 4	
5	W1173072	Correia Middle	24-MAY-2017	0614	JR	SAMPLE 5	

Chain of Custody:

Relinquished by: Name: Joshua Rambo Sign: [signature]	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 5/24/17 @ 0645 Location: ALV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/24/17
LIMS Received Time: 0656
Reviewed By:

332

860

Exhibit 31

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: CPMA (Creative, Performing, Media Arts)

Physical Address of School: 5050 Conrad Ave,San Diego Calif; 92117

First Bell:

Meeting Date: 5/4/2016

Sampling Plan Completion Date: 5/4/2016

Completed by Print Name: Timothy A Brown

Signature: Timothy A Brown Date: 5/5/2017

School's Point of Contact for Sampling Assistance

Name: Tim Brown

Phone: 1-619-302-9427

Email: tbrown1@sandi.net

City of San Diego 3710020

Approved By: 5/16/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: CPMA-5050 Conrad Ave, San Diego Calif; 92117

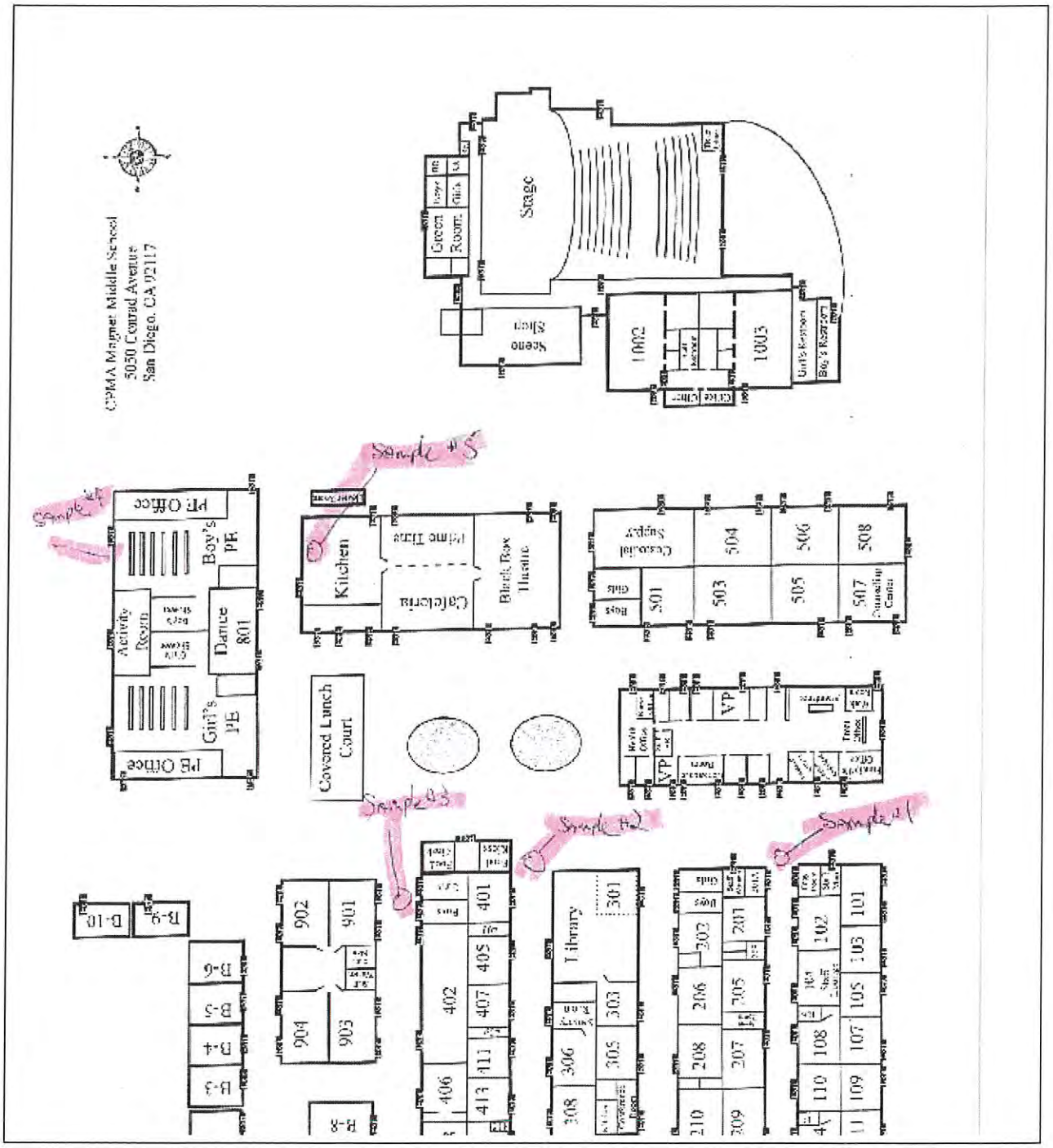

Sample No. 1

School: CPMA

Name of Building: 100/200 BLDG

Location Description: East end of Bldgs 100/200; breezeway; East Facing

Type of Outlet: 2 single Mounted Bubbler System

Description: Sample Right Bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170311

State Sample ID: 3710020-BJG-A

Date & Time Last Used: 5/19/17 2200

Date & Time Sample Collected: 5/20/17 0801

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 2

School: CPMA

Name of Building: 300/400 bldg

Location Description: East End of Bldg300/ 400 Breezeway

Type of Outlet: East Facing, 2 Single Mounted Bubbler

Description: Sample Left Bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170312

State Sample ID: 3710020-BJG-B

Date & Time Last Used: 5/19/17 2200

Date & Time Sample Collected: 5/20/17 0758

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 3

School: CPMA

Name of Building: 400 bldg

Location Description: 400 Bldg at Custodial #2 between Boys and Girls Restroom

Type of Outlet: 2 Wall Mounted; 2 bubbler system

Description: Sample Left Bubbler of Right 2 bubbler system

Comments/Miscellaneous:

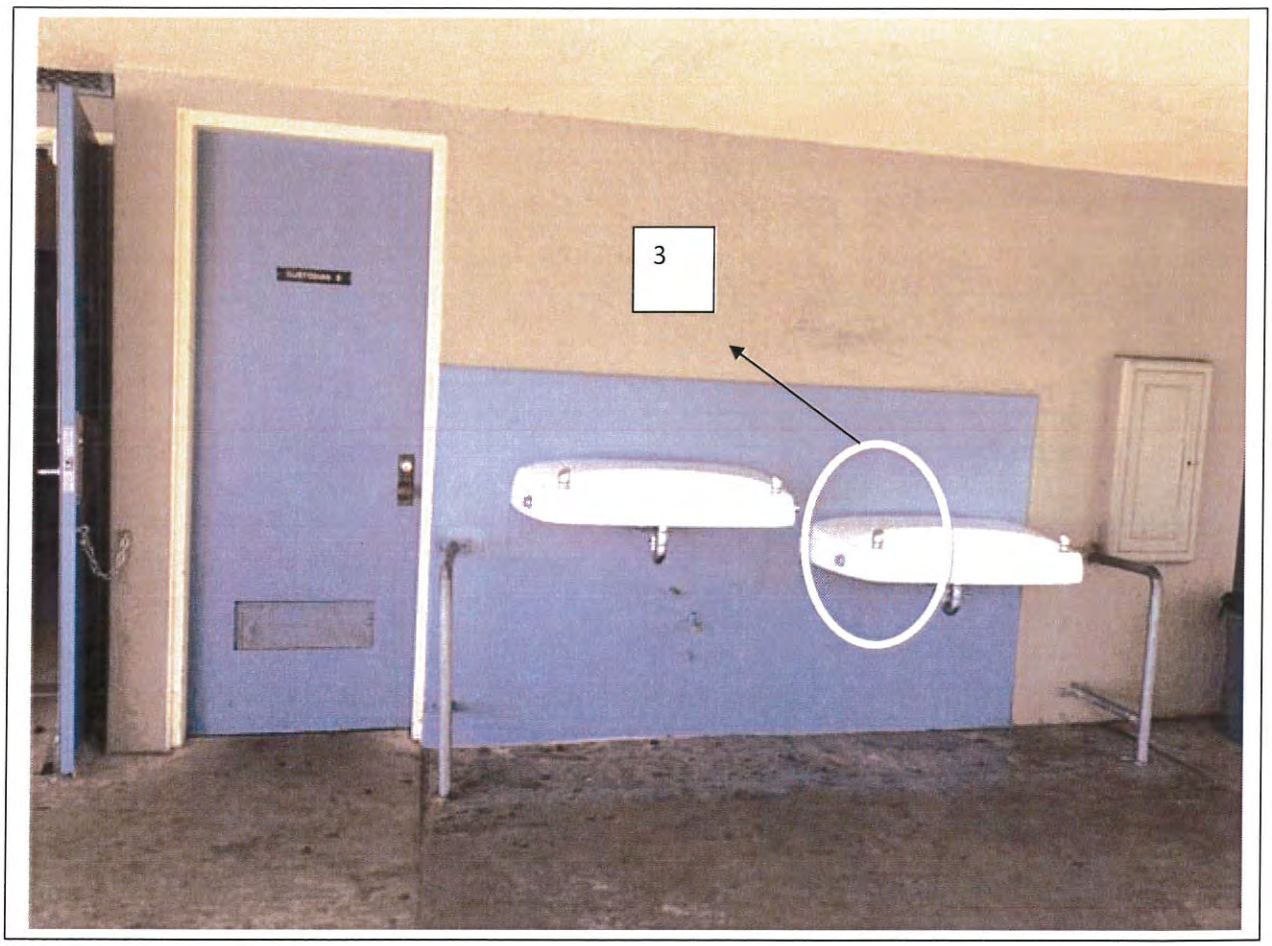

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170313

State Sample ID: 3710020-BJG-C

Date & Time Last Used: 5/19/17 2200

Date & Time Sample Collected: 5/20/17 0755

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M Nelson

Sample No. 4

School: CPMA

Name of Building: Boys PE

Location Description: North/ East Exterior Wall

Type of Outlet: North facing Exterior Wall; 2 bubbler System

Description: Sample Right Bubbler

Comments/Miscellaneous:

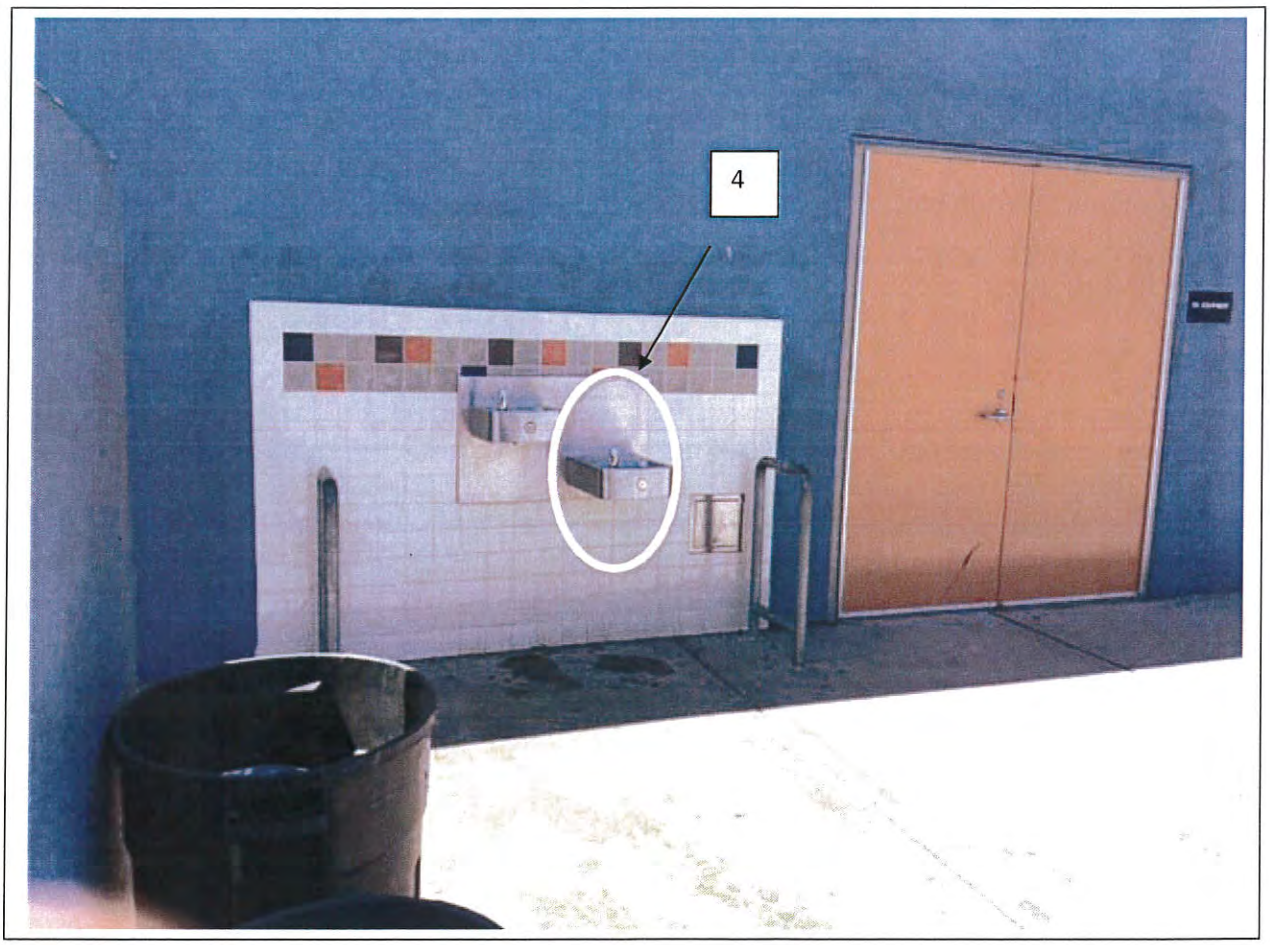

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170314

State Sample ID: 3710020-BJG-D

Date & Time Last Used: 5/19/17 2200

Date & Time Sample Collected: 5/20/17 0751

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 5

School: CPMA

Name of Building: Cafeteria/ Kitchen- Food Prep

Location Description: North Facing Interior Wall

Type of Outlet: Swing arm faucet and Sprayer- Hot/ Cold Water

Description: Sample Faucet

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170315

State Sample ID: 3710020-BJG-E

Date & Time Last Used: 5/19/17 2200

Date & Time Sample Collected: 5/20/17 0748

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

16-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1173011	Creative, Performing, and Medi	20-MAY-2017	0801	M. Nelson	SAMPLE 1	
2	W1173012	Creative, Performing, and Medi	20-MAY-2017	0758		SAMPLE 2	
3	W1173013	Creative, Performing, and Medi	20-MAY-2017	0755		SAMPLE 3	
4	W1173014	Creative, Performing, and Medi	20-MAY-2017	0751		SAMPLE 4	
5	W1173015	Creative, Performing, and Medi	20-MAY-2017	0748		SAMPLE 5	

868

Chain of Custody:

Relinquished by: Name: M. Nelson Sign:	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 5/22/17 @0630 Location: WQL AIV	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/22/17
LIMS Received Time: 0718
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Crawford High School

Physical Address of School: 4191 Colts Way San Diego, CA 92115

First Bell: 7:30 AM

Meeting Date: 03-22-2017

Sampling Plan Completion Date: 04-06-2017

Completed by Print Name: Joe Kinkead

Signature: _____ Date: 04-06-2017

School's Point of Contact for Sampling Assistance

Name: ~~Joe Kinkead~~ Ginette Commins

Phone: ~~619-559-2294~~ 619-302-5285

Email: jkinkead@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-11-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Crawford High School 4191 Colts Way San Diego, CA 92115

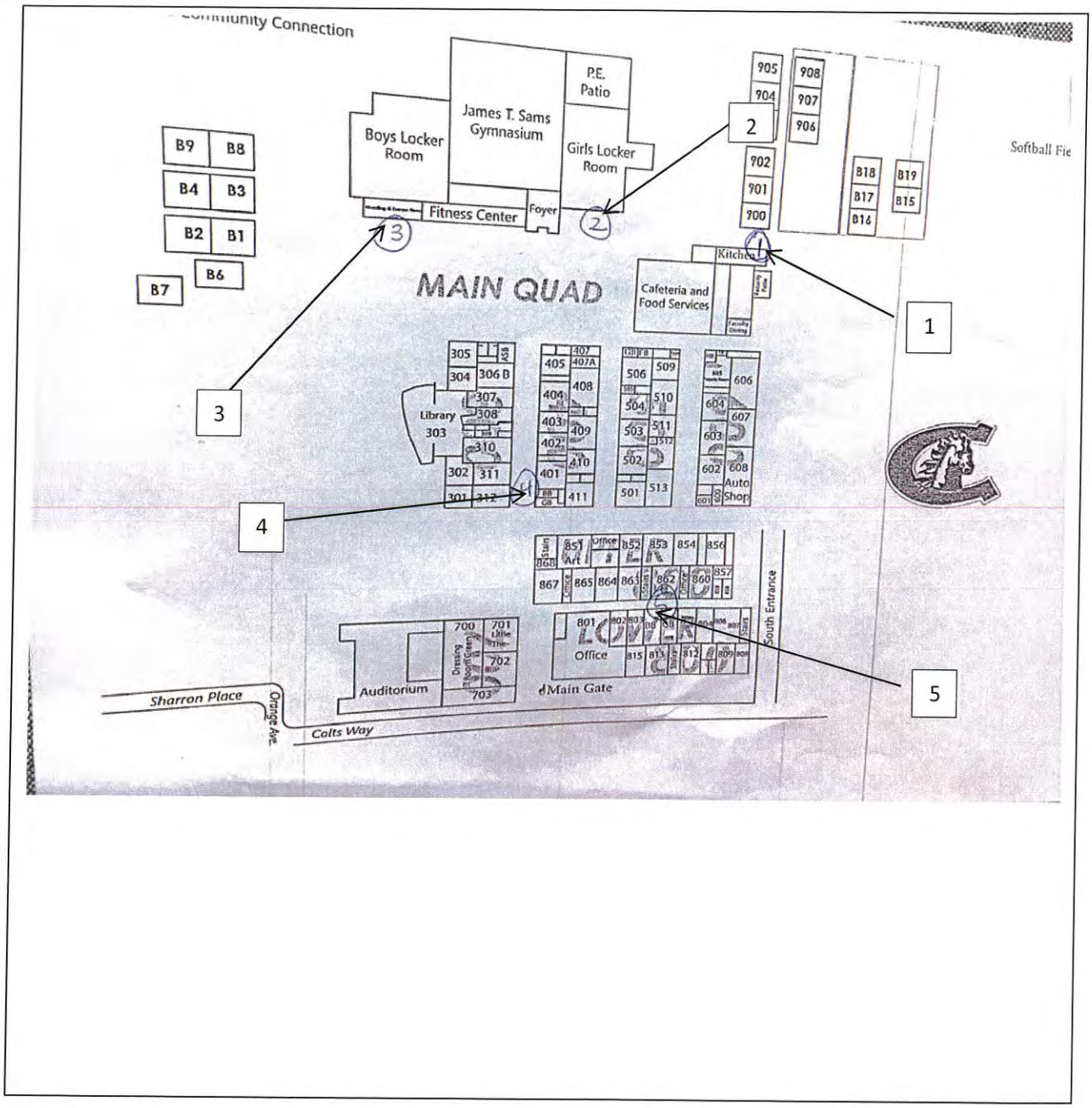

Sample No. 1

School: Crawford High School 4191 Colts Way San Diego, CA 92115

Name of Building: Kitchen

Location Description: Sink located along south wall in furthest southwest corner

Type of Outlet: side by side deep sink

Description:

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166088

State Sample ID: 3710020-ADI-A

Date & Time Last Used: 4/11/17 1800-2200

Date & Time Sample Collected: 4/12/17 0620

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarenga

* Hot & Cold water ran in all other sinks

Sample No. 2

School: Crawford High School 4191 Colts Way San Diego, CA 92115

Name of Building: 900 Buildng

Location Description: West wall outside girls locker room

Type of Outlet: Bubbler

Description: Right side bubbler

Comments/Miscellaneous:

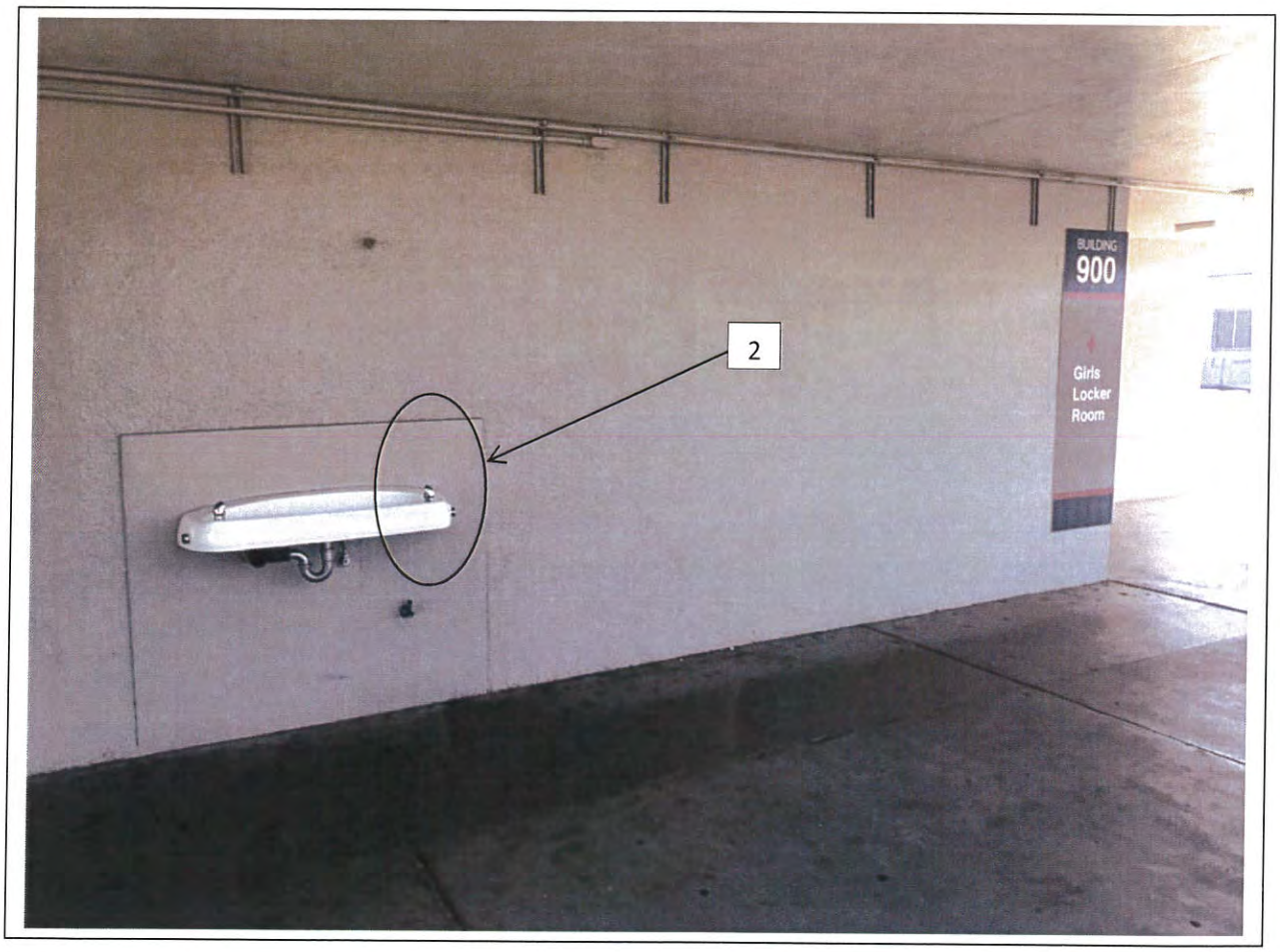

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166089

State Sample ID: 3710020-ADI-B

Date & Time Last Used: 4/11/17 1800-2200

Date & Time Sample Collected: 4/12/17 0615

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarenga

Sample No. 3

School: Crawford High School 4191 Colts Way San Diego, CA 92115

Name of Building: 900 Building

Location Description: West wall of 900 building outside of boy's locker room

Type of Outlet: Bubbler

Description: Left side bubbler

Comments/Miscellaneous:

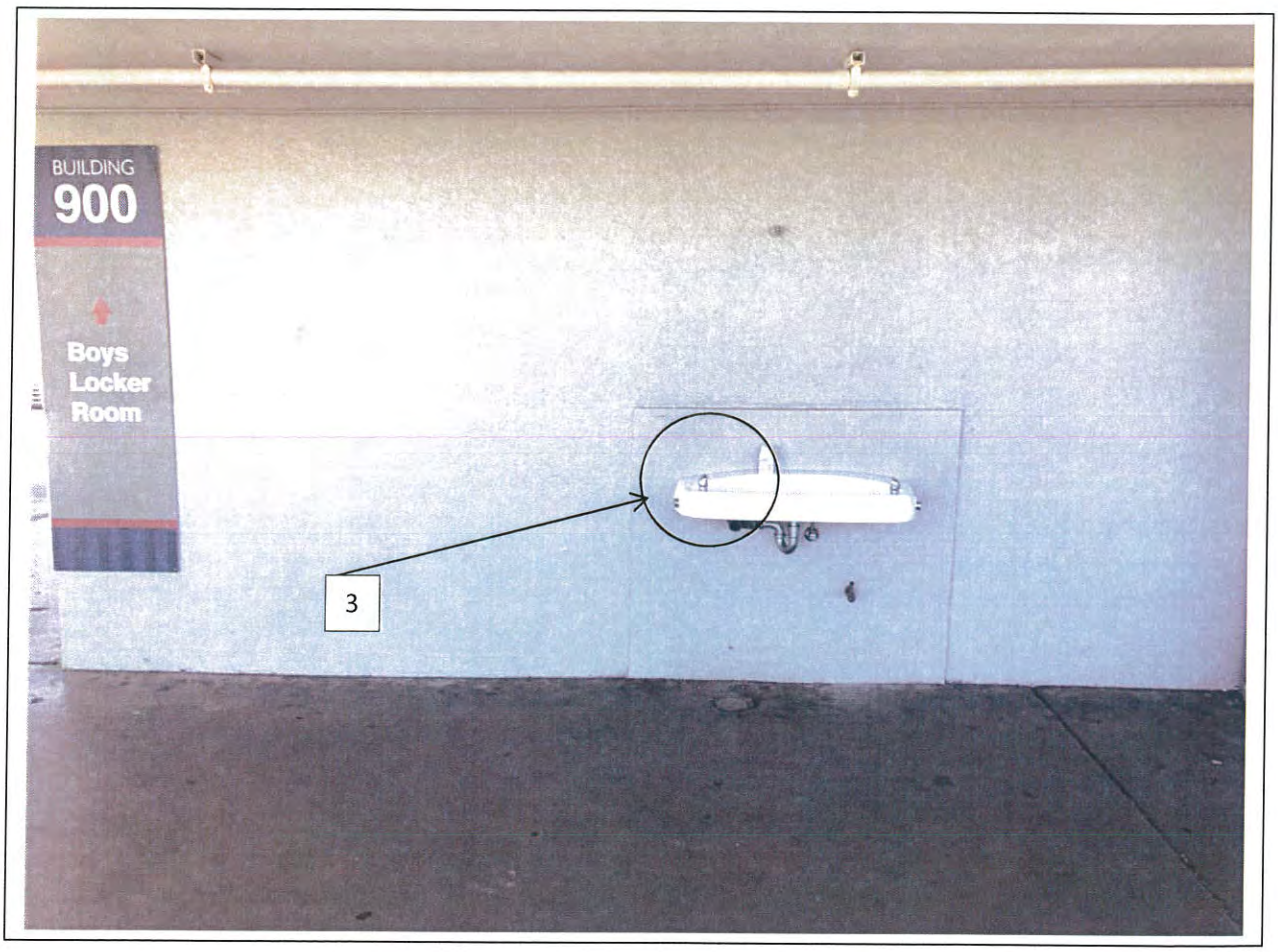

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166090

State Sample ID: 3710020-ADI-C

Date & Time Last Used: 6/11/17 1800 - 2200

Date & Time Sample Collected: 6/12/17 0610

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez-ga

Sample No. 4

School: Crawford High School 4191 Colts Way San Diego, CA 92115

Name of Building: 400 Building

Location Description: Northwest side of building between restrooms next to custodial locker

Type of Outlet: bubbler

Description: upper right bubbler

Comments/Miscellaneous:

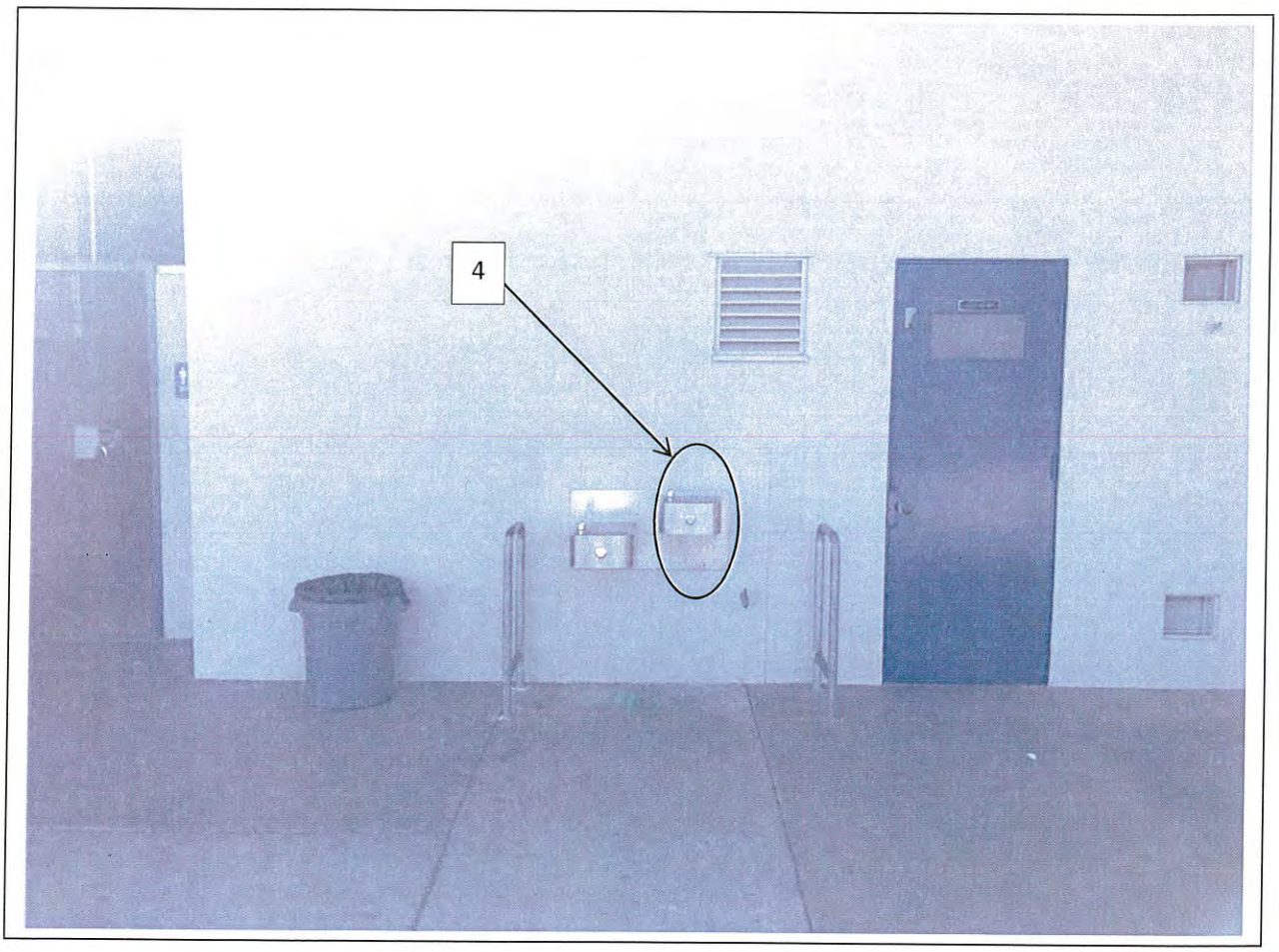

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166091

State Sample ID: 3710020-ADI-D

Date & Time Last Used: 4/11/17 1800-2200

Date & Time Sample Collected: 4/12/17 0605

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez

Sample No. 5

School: Crawford High School 4191 Colts Way San Diego, CA 92115

Name of Building: 800 Building (lower level)

Location Description: 1st floor between restrooms next to custodial locker *(5)* across from elevator

Type of Outlet: Bubbler

Description: upper right bubbler

Comments/Miscellaneous:

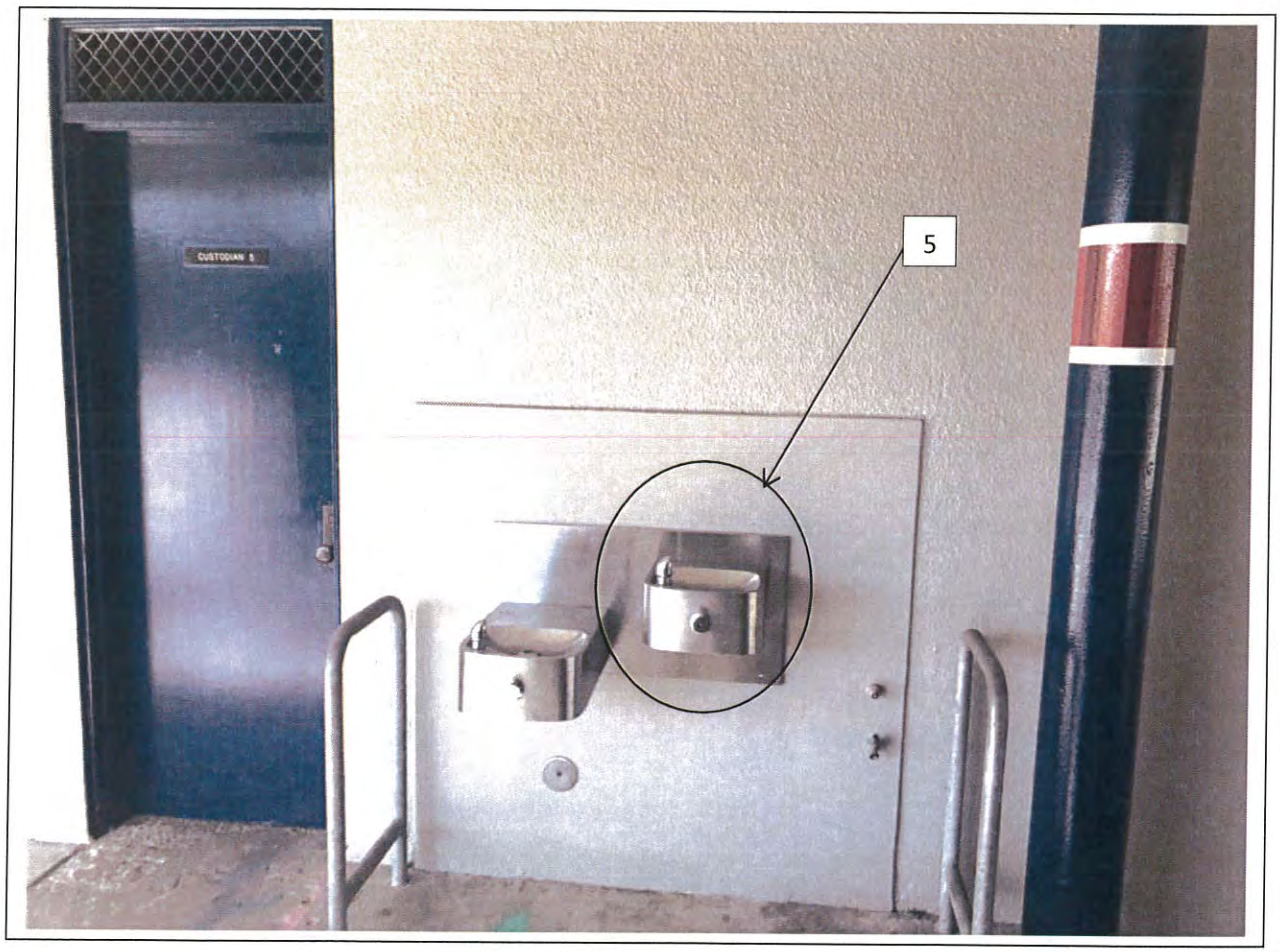

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166092

State Sample ID: 3710020-ADI-E

Date & Time Last Used: 4/11/17 1800-2200

Date & Time Sample Collected: 4/12/17 0600

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarenga

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

11-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1166088	Crawford High School	12-APR-2017	0620	EA	SAMPLE 1	
2	W1166089	Crawford High Schoo	12-APR-2017	0615	EA	SAMPLE 2	
3	W1166090	Crawford High Schoo	12-APR-2017	0610	EA	SAMPLE 3	
4	W1166091	Crawford High Schoo	12-APR-2017	0605	EA	SAMPLE 4	
5	W1166092	Crawford High Schoo	12-APR-2017	0600	EA	SAMPLE 5	

Chain of Custody:

Relinquished by: Name: E. Alvarado 4/12/17 Sign: 0640	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 4/12/17 @ 0640 Location: WQL	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 4/12/17
LIMS Received Time: 0644
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: #73 Crown Point Elementary School

Physical Address of School: 4033 Ingraham St. San Diego CA 92109

First Bell: 7:37

Meeting Date: 3/22/2017

Sampling Plan Completion Date: 5/2/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 5/2/2017

School's Point of Contact for Sampling Assistance

Name: ~~Elizabeth Lara~~ Ginette Commins

Phone: ~~619-302-7616~~ 619-302-5285

Email: elara@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/8/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Crown Point Elementary School 4033 Ingraham St San Diego CA 92109

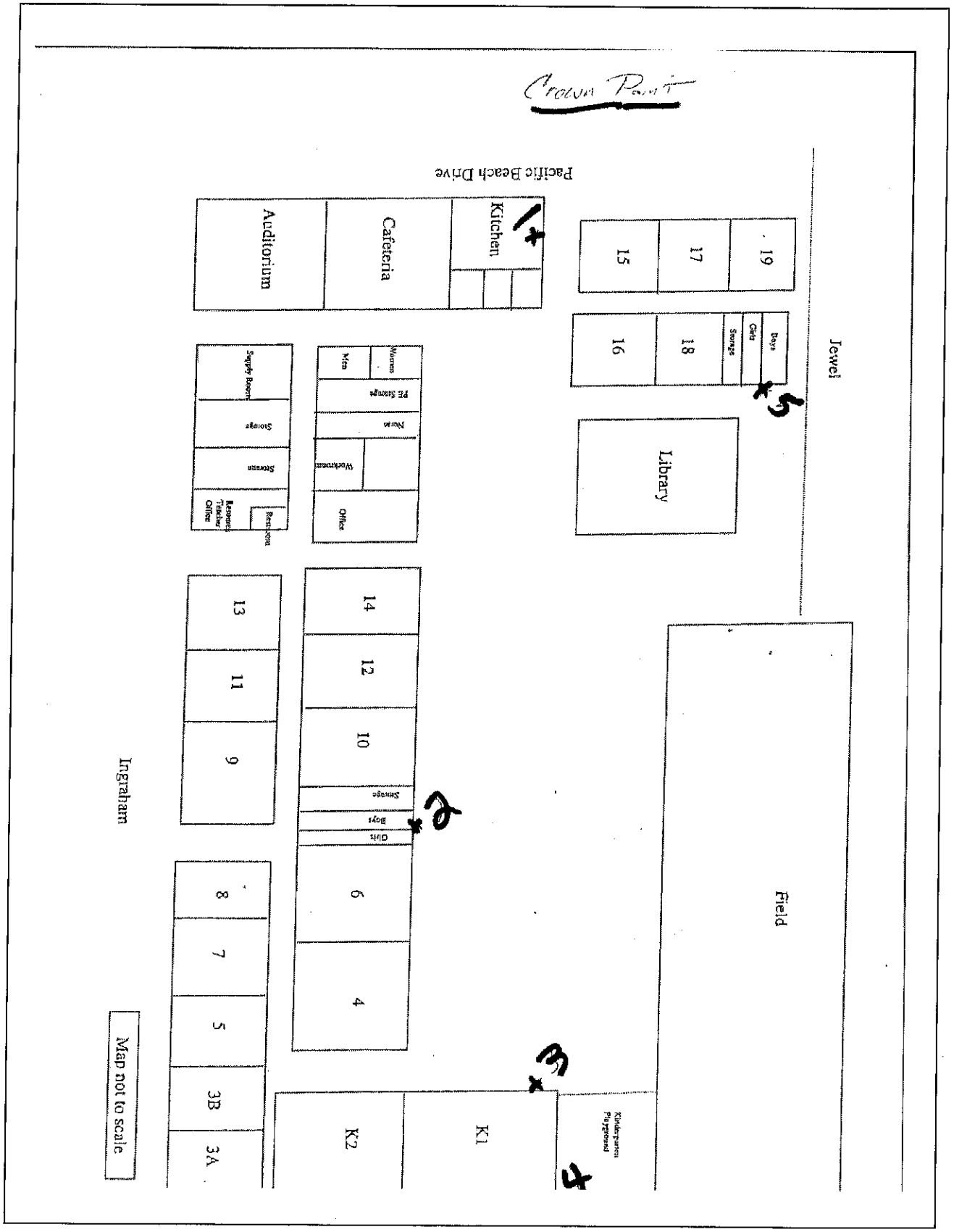

Sample No. 1

School: Crown Point Elementary School

Name of Building: Kitchen

Location Description: Inside kitchen at food prep sink below window

Type of Outlet: Standard kitchen faucet with hot & cold valves

Description: Single Standard kitchen faucet at double sink

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171679

State Sample ID: 3710020-BGG-A

Date & Time Last Used: 5/10/17 2200

Date & Time Sample Collected: 5/11/17 0609

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Brian Knerr

Sample No. 2

School: Crown Point Elementary School

Name of Building: 4-14

Location Description: Outside between restrooms and #10

Type of Outlet: Bubbler drinking fountain

Description: Left drinking fountain of two (Left Bubbler of two)

Comments/Miscellaneous:

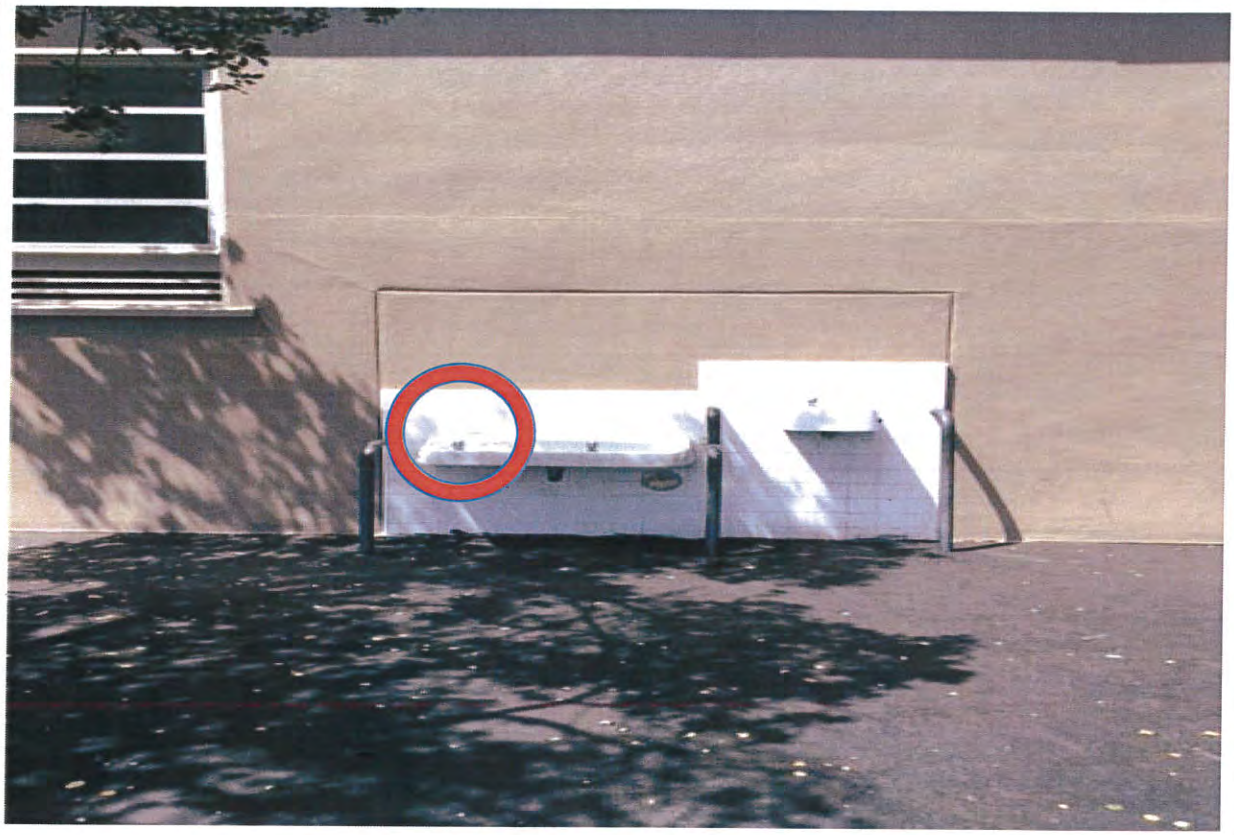

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171680

State Sample ID: 3710020-BGG-B

Date & Time Last Used: 5/10/17 2200

Date & Time Sample Collected: 5/11/17 0615

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: Brian Knerr

Sample No. 3

School: Crown Point Elementary School

Name of Building: K 1

Location Description: Outside K-1 north wall at black top playground

Type of Outlet: Bubbler drinking fountain

Description: Right drinking fountain with single bubbler , metal with white tile wall behind it

Comments/Miscellaneous:

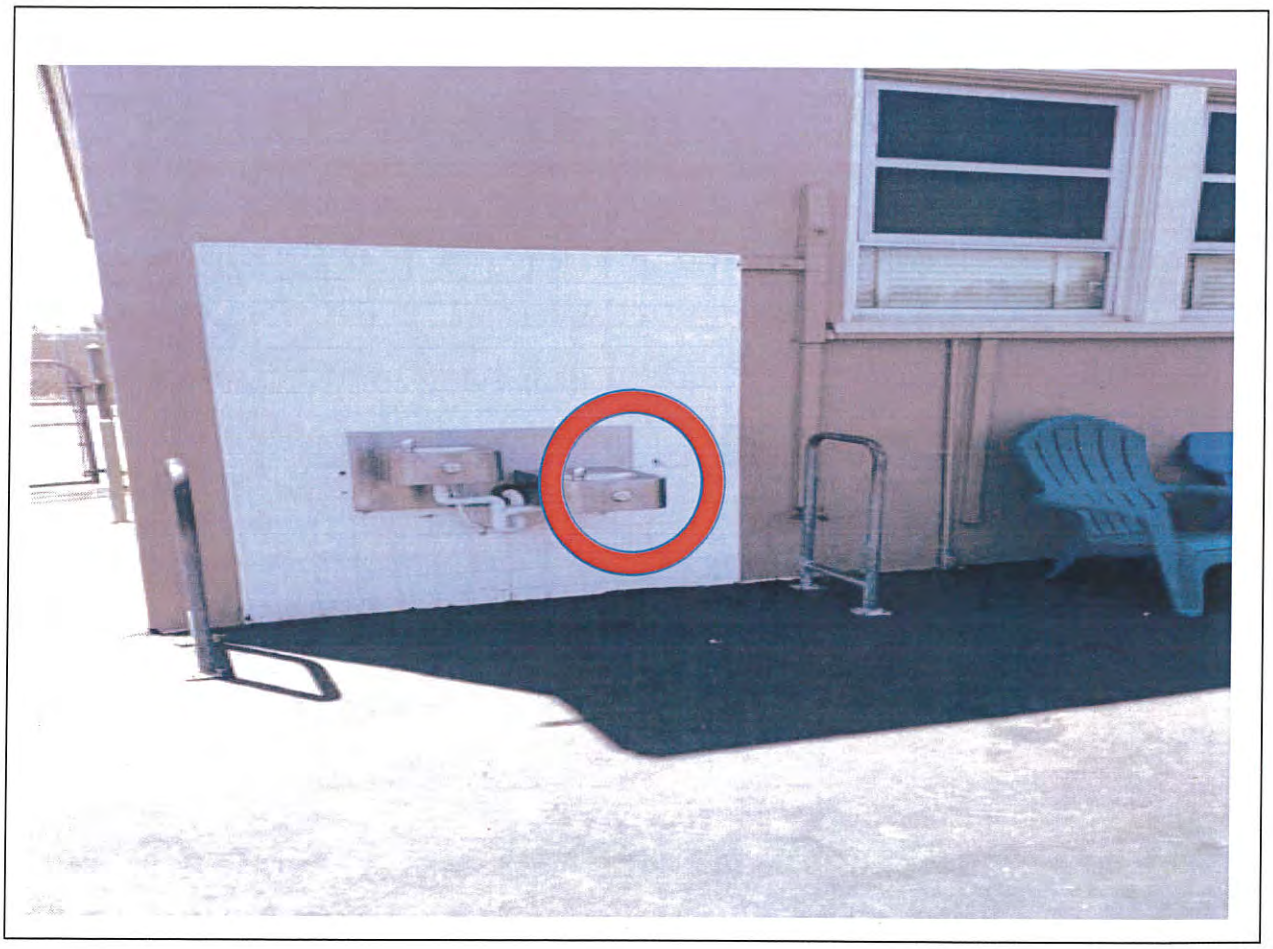

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171681

State Sample ID: 3710020-BGG-C

Date & Time Last Used: 5/10/17 2200

Date & Time Sample Collected: 5/11/17 0618

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Brian Knerr

Sample No. 4

School: Crown Point Elementary School

Name of Building: K-1

Location Description: South wall near kinder playground

Type of Outlet: Bubbler drinking fountain

Description: Single bubbler drinking fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171682

State Sample ID: 3710020-BGG-D

Date & Time Last Used: 5/10/17 2200

Date & Time Sample Collected: 5/11/17 0621

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Brian Knerr

Sample No. 5

School: Crown Point Elementary School

Name of Building: 16-18

Location Description: Outside Between boys & girls restrooms

Type of Outlet: Bubbler drinking fountain

Description: Center bubbler of three at single staition

Comments/Miscellaneous:

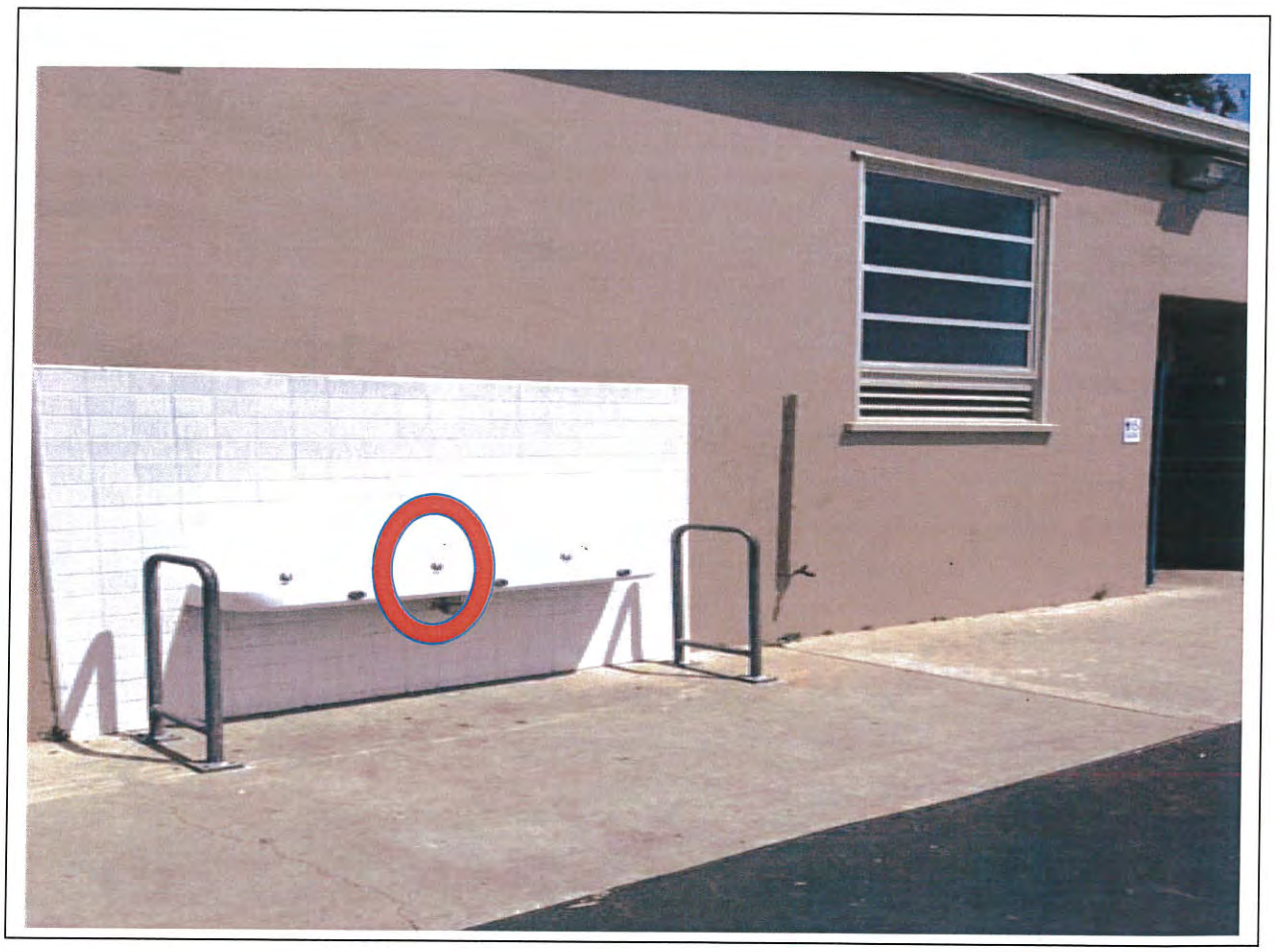

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171683

State Sample ID: 3710020-BGG-E

Date & Time Last Used: 5/10/17 2200

Date & Time Sample Collected: 5/11/17 0625

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Brian Knerr

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

08-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1171679	Crown Point Elementary	11-MAY-2017	0609 ✓	BK	SAMPLE 1	
2	W1171680	Crown Point Elementary	11-MAY-2017	0615 ✓	BK	SAMPLE 2	
3	W1171681	Crown Point Elementary	11-MAY-2017	0618 ✓	BK	SAMPLE 3	
4	W1171682	Crown Point Elementary	11-MAY-2017	0621 ✓	BK	SAMPLE 4	
5	W1171683	Crown Point Elementary	11-MAY-2017	0625 ✓	BK	SAMPLE 5	

885

Chain of Custody:

Relinquished by: Name: Brian Knerr Sign:	Received by: Name: Alejandra Molloy Sign:	Date & Time: 5/11/17 0710 Location: Alv.	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/11/17
LIMS Received Time: 0713
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Cubberley Elementary

Physical Address of School: 3201 Marathon Dr., San Diego, CA 92123

First Bell: 7:25am

Meeting Date: 4/05/2017

Sampling Plan Completion Date: 4/20/17

Completed by Print Name: Lori Sherman

Signature: *Lori Sherman* Date: 4/20/17

School's Point of Contact for Sampling Assistance

Name: Lori Sherman

Phone: 619-301-9086

Email: lsherman1@sandi.net

City of San Diego 3710020

Approved By: 4/28/17 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Cubberley Elementary - 3201 Marathon Dr., San Diego, CA 92123

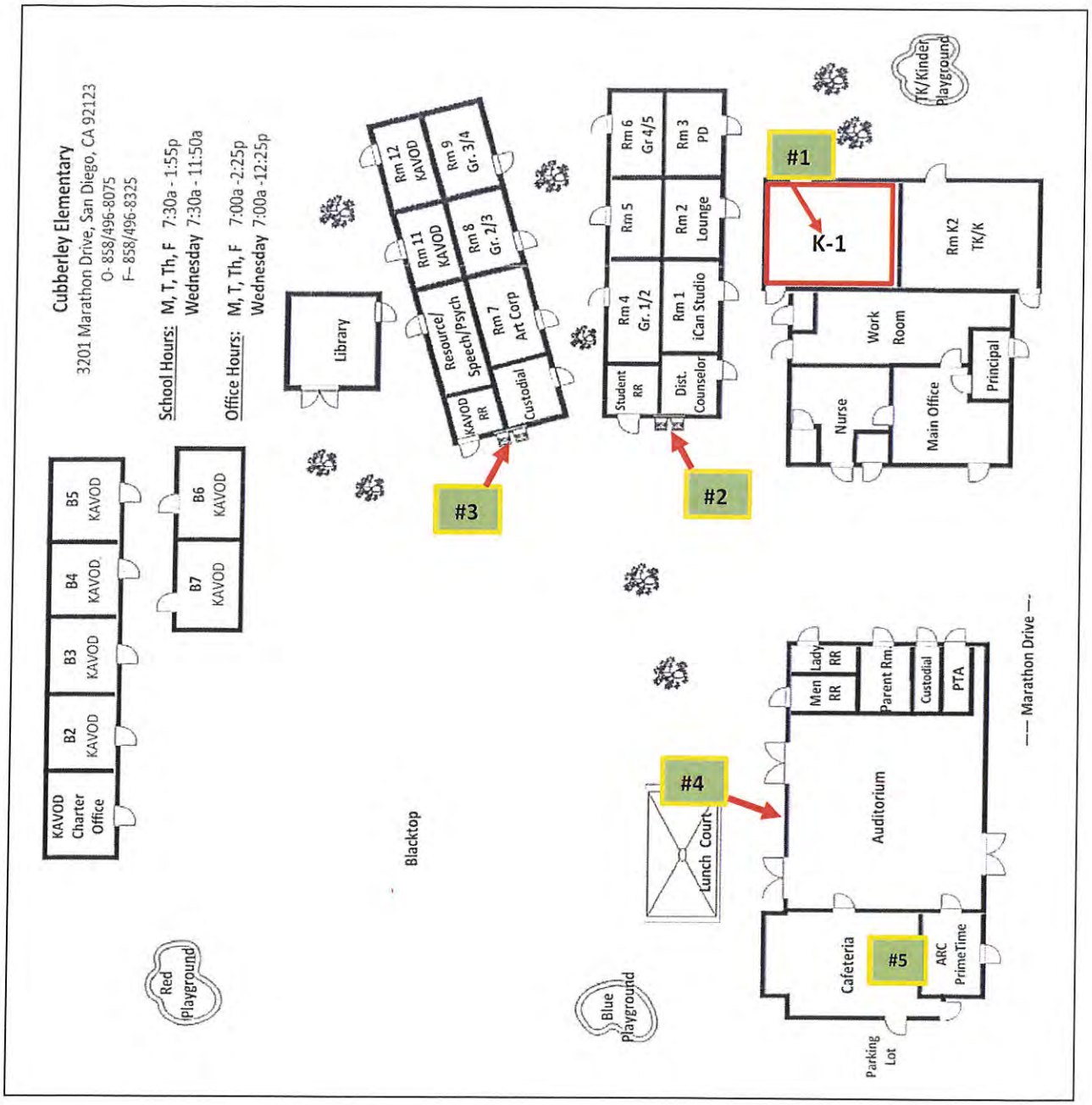

Sample No. 1

School: Cubberley Elementary - 3201 Marathon Dr., San Diego, CA 92123

Name of Building: Kindergarten

Location Description: Inside K-1 in Center Island

Type of Outlet: Bubbler

Description: Sink-mount bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168597

State Sample ID: 3710020-BBJ-A

Date & Time Last Used: 5/05/17 @ 2200

Date & Time Sample Collected: 5/06/17 @ ~~0709~~ 0707 AM

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: Cubberley Elementary - 3201 Marathon Dr., San Diego, CA 92123

Name of Building: Classrooms 1-6

Location Description: North exterior side of building

Type of Outlet: Bubbler

Description: Left bubbler

Comments/Miscellaneous:

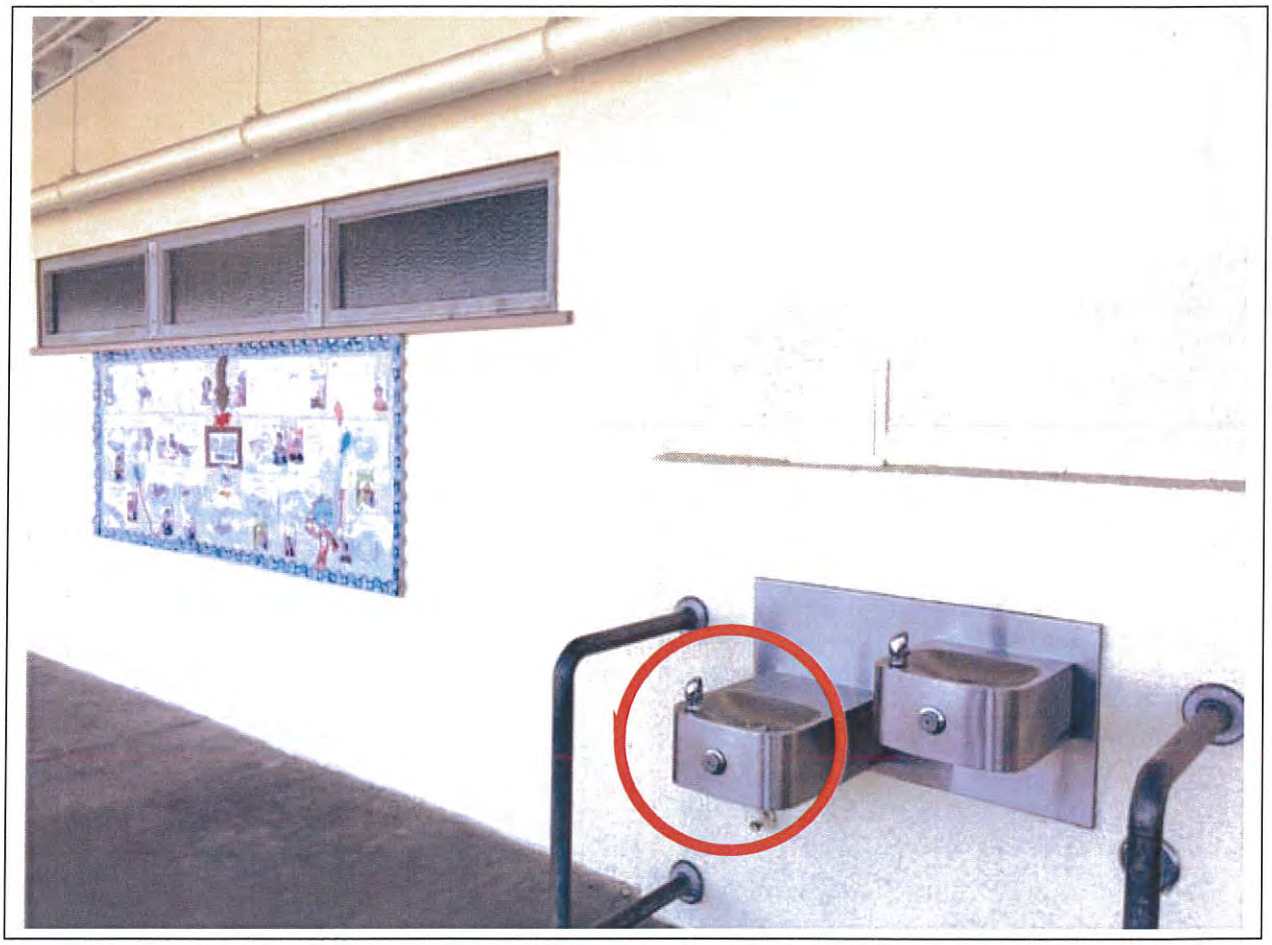

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168598

State Sample ID: 3710020-BBJ-B

Date & Time Last Used: 5/05/17 @ 2200

Date & Time Sample Collected: 5/06/17 @ 711

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: Cubberley Elementary - 3201 Marathon Dr., San Diego, CA 92123

Name of Building: Classrooms 7-12

Location Description: North exterior side of building

Type of Outlet: Bubbler

Description: Right bubbler

Comments/Miscellaneous:

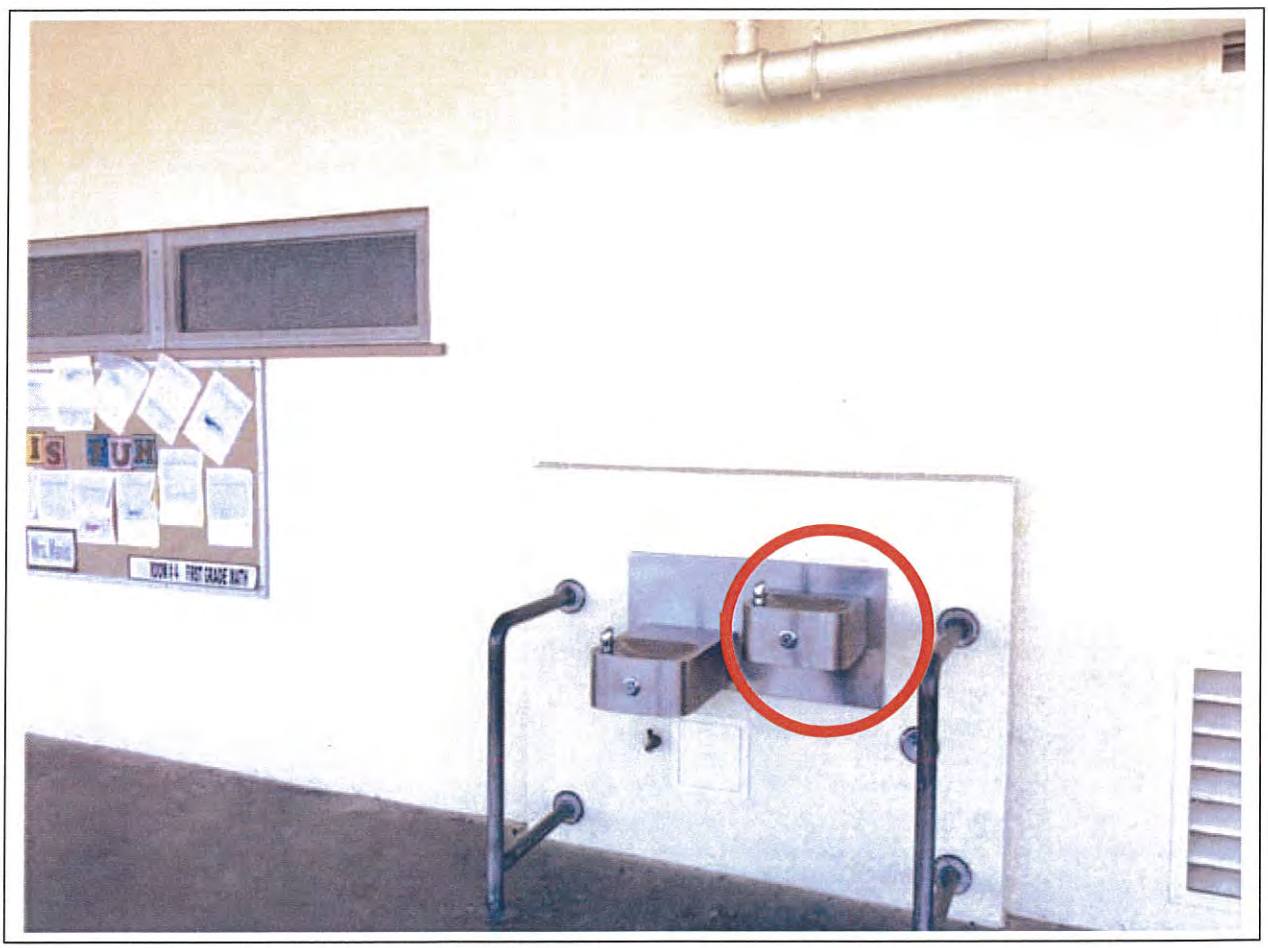

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168599

State Sample ID: 3710020-BBJ-C

Date & Time Last Used: 5/05/17 @2200

Date & Time Sample Collected: 5/06/17 @0700

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: Cubberley Elementary - 3201 Marathon Dr., San Diego, CA 92123

Name of Building: Cafeteria

Location Description: East exterior side of building

Type of Outlet: Bubbler

Description: Far right bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168600

State Sample ID: 3710020-BBJ-D

Date & Time Last Used: 5/05/17 @ 2200

Date & Time Sample Collected: 5/06/17 @ 0714

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Base of nozzle leaking

Sample No. 5

School: Cubberley Elementary - 3201 Marathon Dr., San Diego, CA 92123

Name of Building: Kitchen

Location Description: West interior wall of kitchen

Type of Outlet: Spray nozzle

Description:

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168601

State Sample ID: 3710020-BBJ-E

Date & Time Last Used: 5/05/17 @ 2200

Date & Time Sample Collected: 5/06/17 @ 0717

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Nozzle dripped

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

05-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168597	Cubberley Elementary	06-MAY-2017	0707	A. Molloy	SAMPLE 1	
2	W1168598	Cubberley Elementary	06-MAY-2017	0711		SAMPLE 2	
3	W1168599	Cubberley Elementary	06-MAY-2017	0712		SAMPLE 3	
4	W1168600	Cubberley Elementary	06-MAY-2017	0714		SAMPLE 4	
5	W1168601	Cubberley Elementary	06-MAY-2017	0717		SAMPLE 5	

893

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign: AMolloy	Received by: Name: Sign:	Date & Time: 5/06/17 @0915 Location: WQL A/V	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/06/17
LIMS Received Time: 0946
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Curie Elementary School

Physical Address of School: 4080 Governor Dr.

First Bell: 7:30AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 05/01/2017

Completed by Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 05/01/2017

School's Point of Contact for Sampling Assistance

Name: ~~Daniel Lopez~~ Tim Brown

Phone: ~~619-306-3383~~ 619-302-9427

Email: dlopez@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/1/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Curie Elementary School 4080 Governor Dr. San Diego, CA 92122

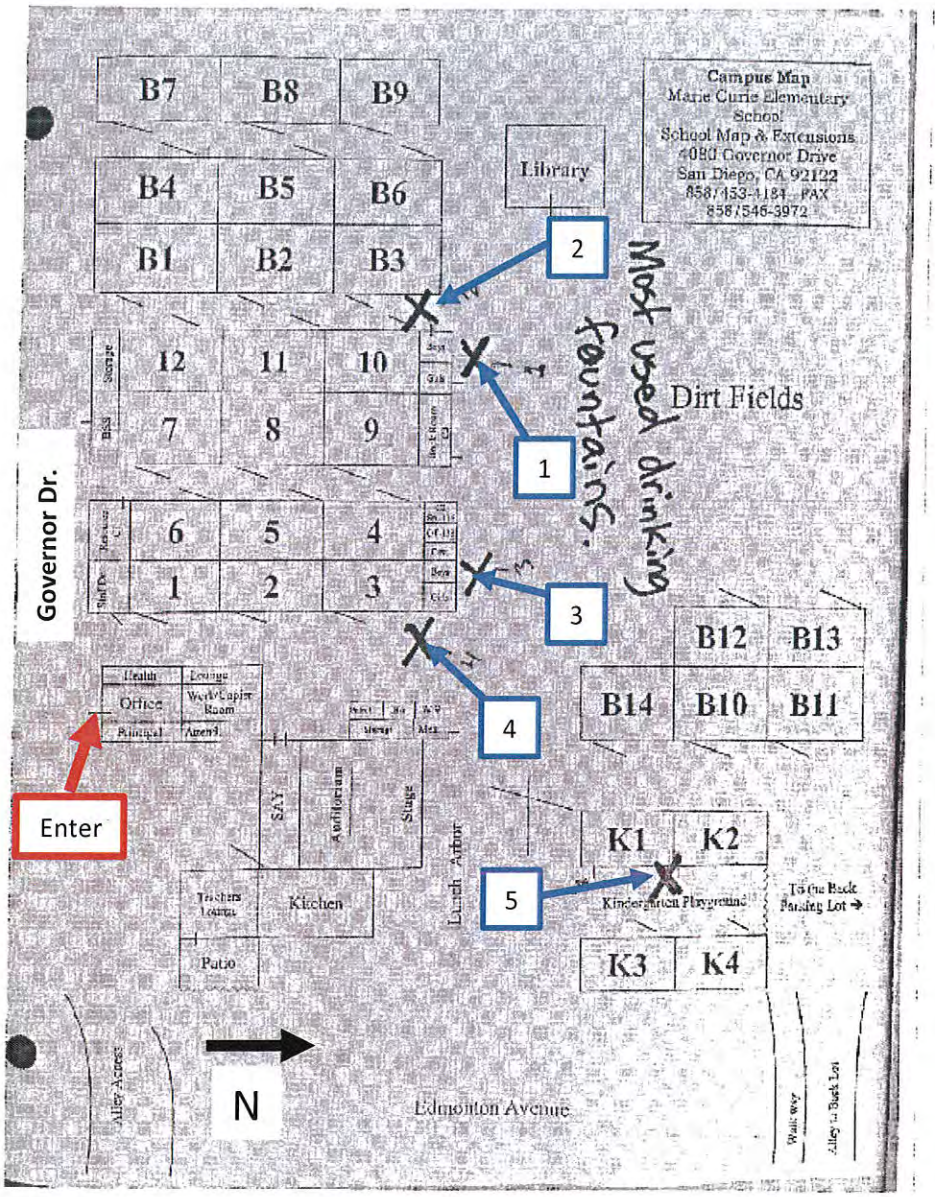

Sample No. 1

School: Curie Elementary School

Name of Building: Classroom Building Rooms 7-10

Location Description: North Side of building in front of girls restroom

Type of Outlet: Triple Bubbler

Description: Center Bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170048

State Sample ID: 3710020-BFA-A

Date & Time Last Used: 05/10/17 2200

Date & Time Sample Collected: 05/11/17 0613

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: Jessica Mathews

Sample No. 2

School: Curie Elementary School

Name of Building: Classroom Building Rooms 7-10

Location Description: West side of building next to boys restroom

Type of Outlet: Triple Bubbler

Description: Right Bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170049

State Sample ID: 3710020-BFA-B

Date & Time Last Used: 05/10/17 2200

Date & Time Sample Collected: 05/11/17 0614

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: Jessica Mathews

Sample No. 3

School: Curie Elementary School

Name of Building: Classroom Building Rooms 1-6

Location Description: In front of boy's restroom

Type of Outlet: 2 single bubblers

Description: Bubbler on left side facing north

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170050

State Sample ID: 3710020-BFA-C

Date & Time Last Used: 05/10/17 2200

Date & Time Sample Collected: 05/11/17 0609

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: Jessica Mathews

Sample No. 4

School: Curie Elementary School

Name of Building: Classroom Building Rooms 1-6

Location Description: In front of girl's restroom on east side of building

Type of Outlet: Triple Bubbler

Description: Center Bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170051

State Sample ID: 3710020-BFA-D

Date & Time Last Used: 05/10/17 2200

Date & Time Sample Collected: 05/11/17 0606

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: Jessica Mathews

Sample No. 5

School: Curie Elementary School

Name of Building: Kindergarten Building

Location Description: Outside in the play area between K1 and K2

Type of Outlet: 2 Single Bubblers

Description: Bubbler on left

Comments/Miscellaneous:

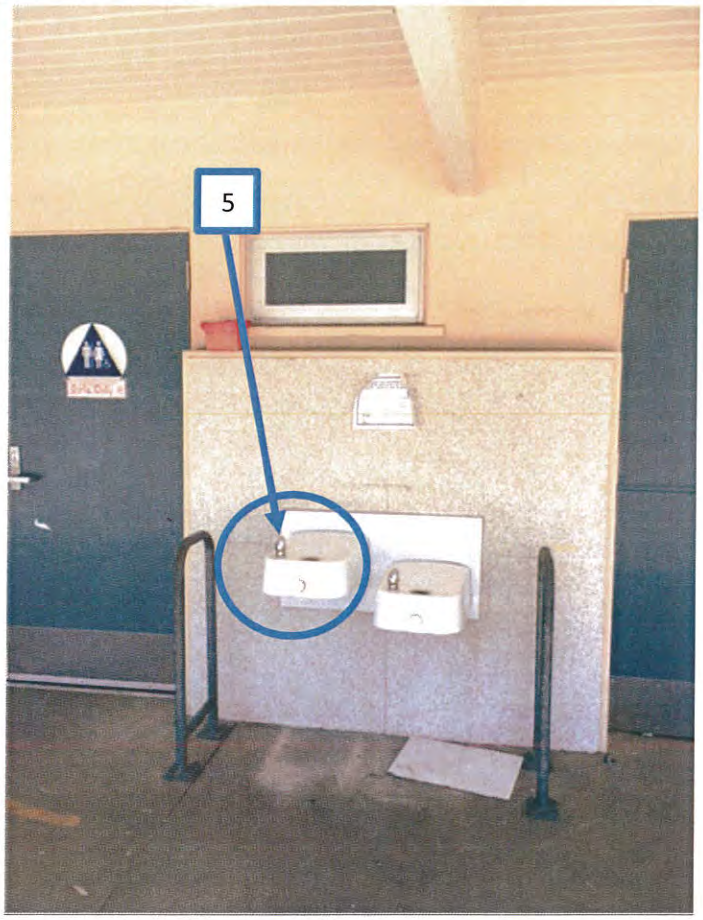

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170052

State Sample ID: 3710020-BFA-E

Date & Time Last Used: 05/10/17 2200

Date & Time Sample Collected: 05/11/17 0617

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: Jessica Mathews

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

08-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1170048	Curie Elementary	11-MAY-2017	0613	Jessica Mathews	SAMPLE 1	
2	W1170049	Curie Element	11-MAY-2017	0614	Jessica Mathews	SAMPLE 2	
3	W1170050	Curie Element	11-MAY-2017	0609	Jessica Mathews	SAMPLE 3	
4	W1170051	Curie Element	11-MAY-2017	0606	Jessica Mathews	SAMPLE 4	
5	W1170052	Curie Element	11-MAY-2017	0617	Jessica Mathews	SAMPLE 5	

901

Chain of Custody:

Relinquished by: Name: Jessica Mathews Sign: Jessica A Mathews	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 05/11/17 0645 Location: WQL Alv	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/11/17
LIMS Received Time: 0651
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: # 78 Dailard Elementary

Physical Address of School: 6425 Cibola Road San Diego , Ca 92120

First Bell: 7:30

Meeting Date: ...3/22/2017

Sampling Plan Completion Date: 4/7/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 4/7/2017

School's Point of Contact for Sampling Assistance

Name: ~~Elizabeth Lara~~ Lori Sherman

Phone: ~~619-302-7617~~ 619-301-9086

Email: elara@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-12-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Dailard Elementary School 6425 Cibola Road San Diego , Ca 92120

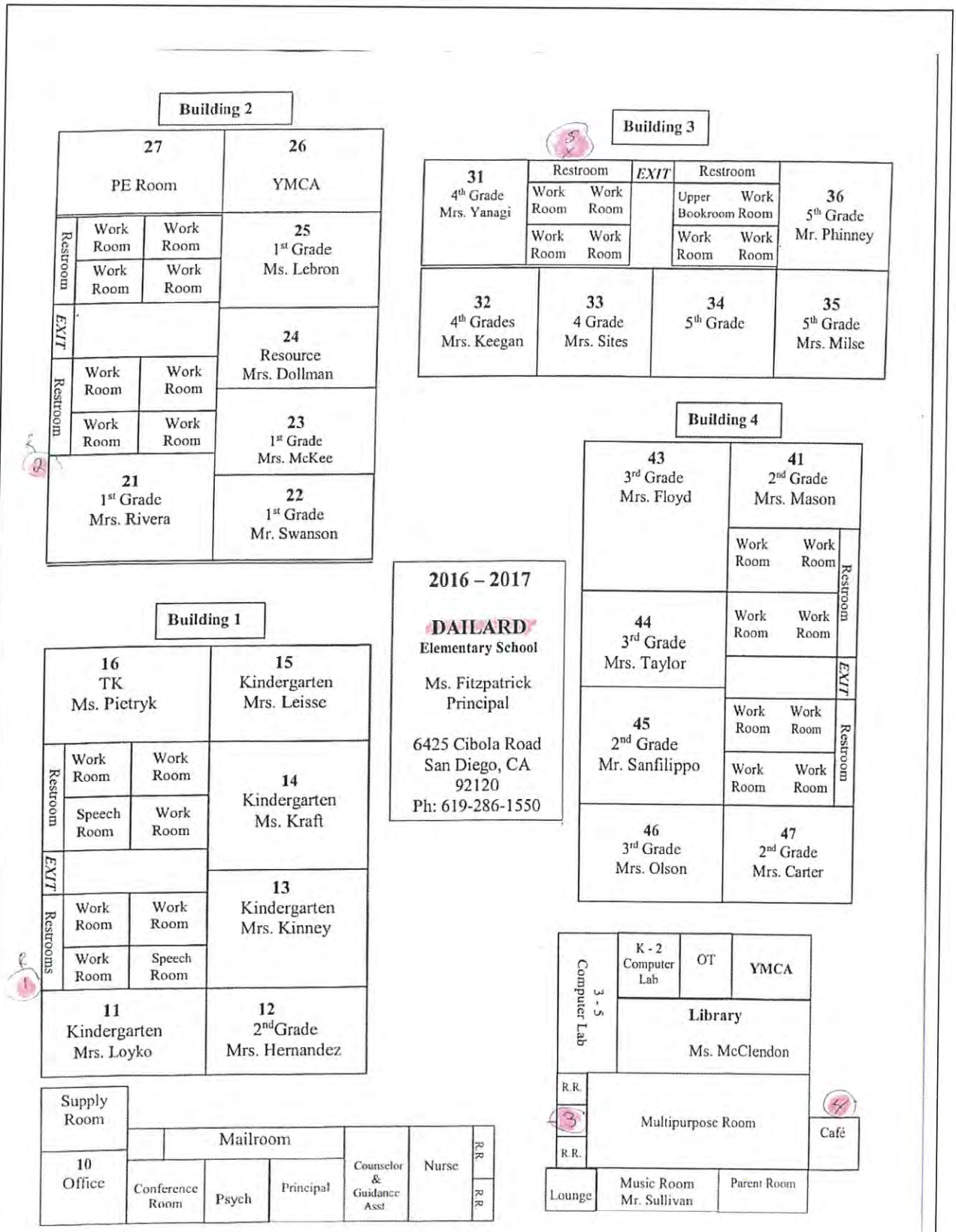

Sample No. 1

School: Dailard Elementary

Name of Building: Bldg. #1

Location Description: Next to Girls restroom & custodial rm.

Type of Outlet: Bubbler

Description: Water fountain RIGHT bubbler

Comments/Miscellaneous: #78

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166508

State Sample ID: 3710020-AEE-A

Date & Time Last Used: 4/12/17 between 6-10pm

Date & Time Sample Collected: 4/13/17 @ 0600

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: Joshua Rambo

Sample No. 2

School: Dailard Elementary school

Name of Building: #2

Location Description: east –near restroom & room 21

Type of Outlet: Bubbler

Description: Drinking fountain RIGHT bubbler

Comments/Miscellaneous: 78

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166509

State Sample ID: 3710020-AEE-B

Date & Time Last Used: 4/12/17 between 6-10pm

Date & Time Sample Collected: 4/13/17 0556

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: Joshua Rambo

Sample No. 3

School: Dailard Elementary School

Name of Building: #5

Location Description: Outside Between restrooms of multipurpose room

Type of Outlet: Bubbler

Description: Right bubbler water fountain

Comments/Miscellaneous: 78

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166510

State Sample ID: 3710020-AEE-C

Date & Time Last Used: 4/12/17 between 6-10pm

Date & Time Sample Collected: 4/13/17 @ 0540

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: Joshua Rambo

Sample No. 4

School: Dailard Elementary School

Name of Building: CAFE

Location Description: Outside near lunch court

Type of Outlet: Bubbler

Description: Right bubbler of water fountain

Comments/Miscellaneous: 78

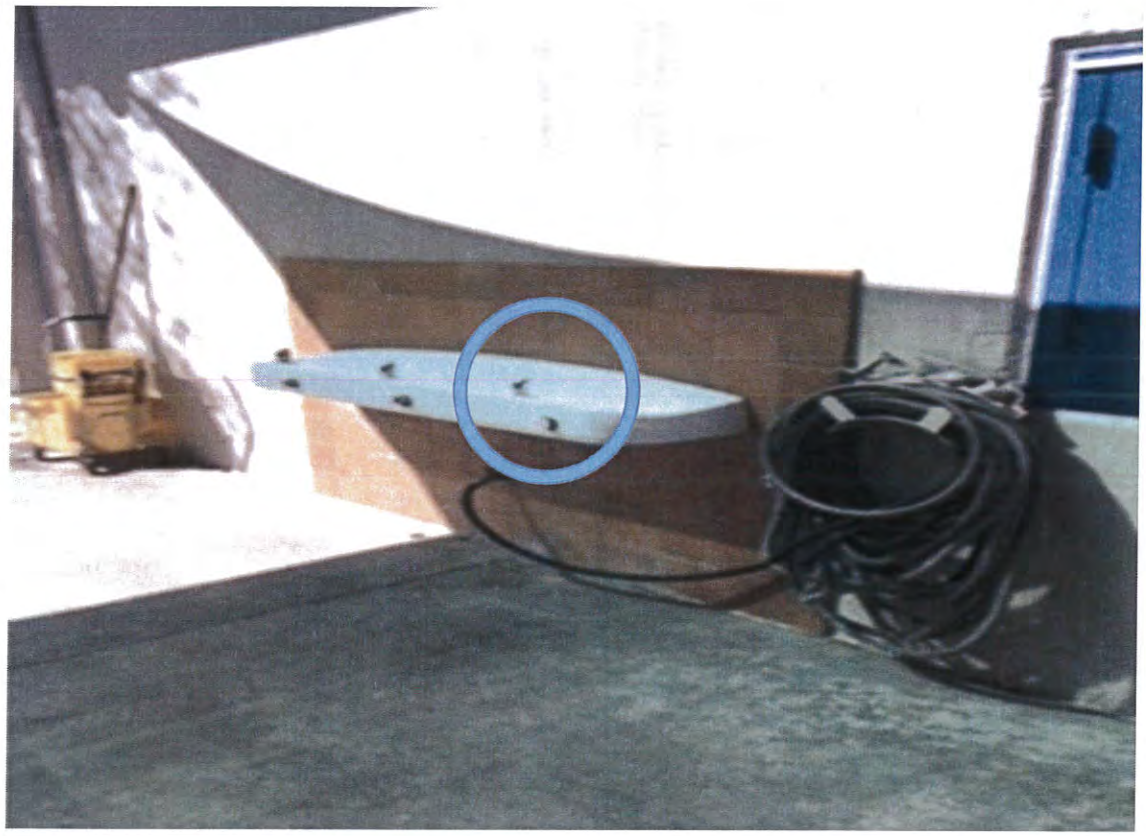

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166511

State Sample ID: 3710020-AEE-D

Date & Time Last Used: 4/12/17 between 6-10pm

Date & Time Sample Collected: 4/13/17 @ 0543

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: Joshua Rando

Sample No. 5

School: Dailard Elementary School

Name of Building: #3

Location Description: East –next to restroom

Type of Outlet: Bubbler

Description: Water fountain ~~RIGHT~~ bubbler left Jbm

Comments/Miscellaneous: 78- fountain has wooden cover need key 50-K

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166512

State Sample ID: 3710020-AEE-E

Date & Time Last Used: 4/12/17 between 6-10 pm

Date & Time Sample Collected: 4/13/17 @ 0550

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: Joshua Rambo

– Right bubbler slow flow so left bubbler selected

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

12-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1166508	Dailard Elementary	13-APR-2017	0600	JR	SAMPLE 1	
2	W1166509	Dailard Elementary	13-APR-2017	0556	JR	SAMPLE 2	
3	W1166510	Dailard Elementary	13-APR-2017	0540	JR	SAMPLE 3	
4	W1166511	Dailard Elementary	13-APR-2017	0543	JR	SAMPLE 4	
5	W1166512	Dailard Elementary	13-APR-2017	0550	JR	SAMPLE 5	

Chain of Custody:

Relinquished by:	Received by:	Date & Time:	Comments:
Name: Joshua Rambo Sign:	Name: Tom Burger Sign: Tom B Burger	4/13/17 @ 0630 Location: ALV	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 4-13-17
LIMS Received Time: 0700
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Dana

Physical Address of School: 1775 Chatsworth Blvd., San Diego, CA 92106-3709

First Bell: 7:35 AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 05/01/2017

Completed by Print Name: Ginette Commins

Signature: G Commins Date: 05/04/2017

School's Point of Contact for Sampling Assistance

Name: Ginette Commins

Phone: (858) 627-7201

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/16/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Dana, 1775 Chatsworth Blvd, San Diego, CA 92106-3709

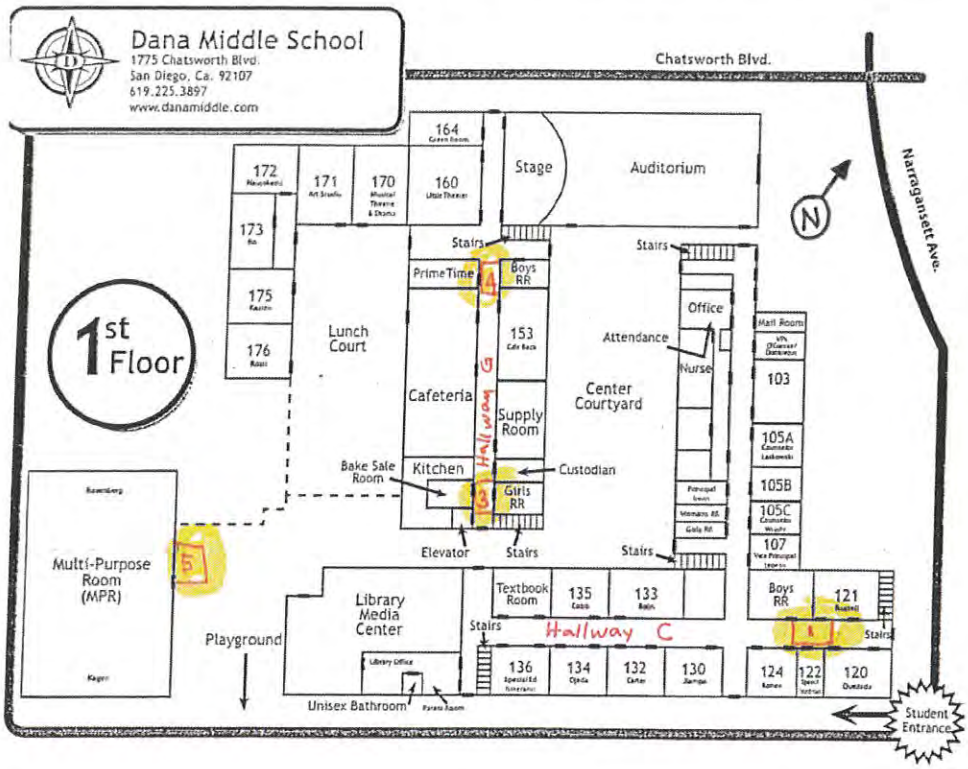

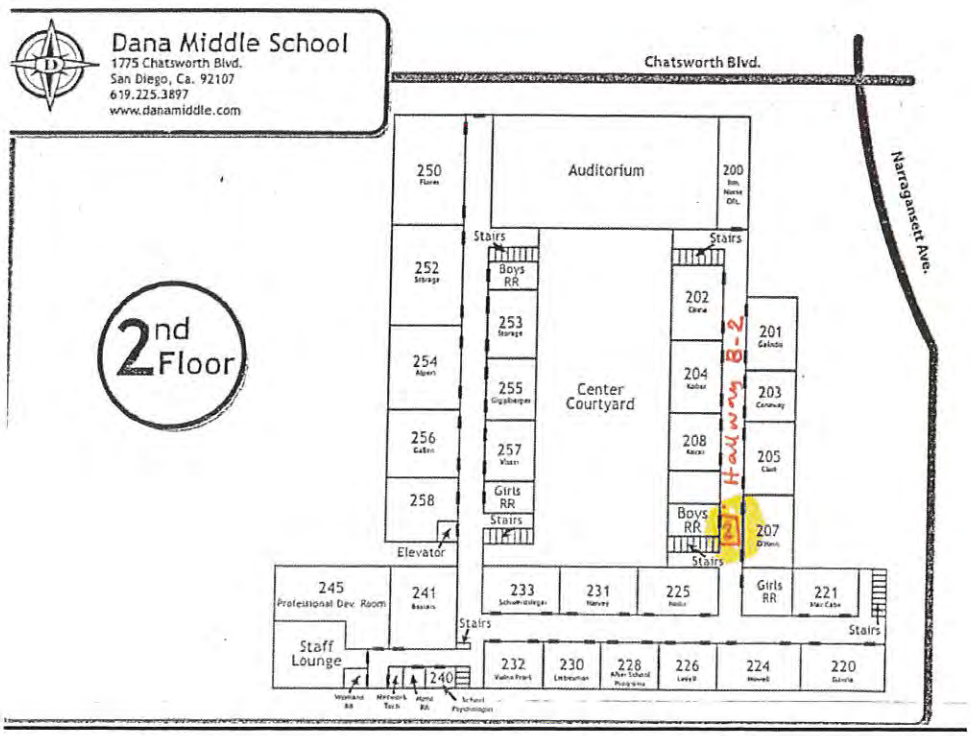

Sample No. 1

School: Dana

Name of Building: 120s – Hallway C, 1st Floor

Location Description: Wall mounted interior, in the hall way, between Boys Restroom & Classroom 121, facing Office 122

Type of Outlet: bubbler

Description: single fountain (MED flow)

Comments/Miscellaneous: indoor drinking water source/SDUSD Location Code #80

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173001

State Sample ID: 3710020-BJD-A

Date & Time Last Used: 5/19/17 2200

Date & Time Sample Collected: 5/20/17 0625

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 2

School: Dana

Name of Building: 200 – Hallway B-2, 2nd Floor

Location Description: Wall mounted interior, in the hallway, between Boys Restroom & Janitor 212 Rm, facing Classroom 207

Type of Outlet: bubbler

Description: single fountain (HIGH flow)

Comments/Miscellaneous: indoor drinking water source/SDUSD Location Code #80

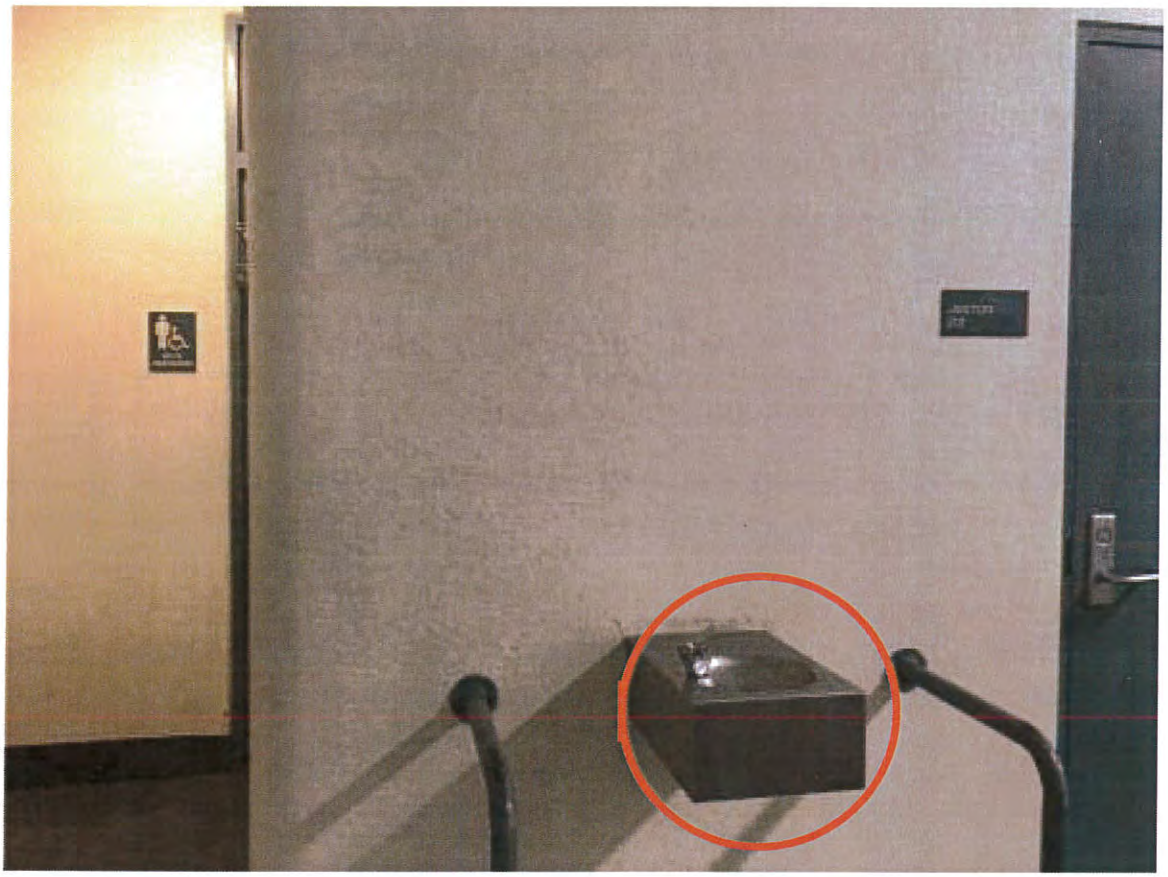

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173002

State Sample ID: 3710020-BJD-B

Date & Time Last Used: 5/19/17 2200

Date & Time Sample Collected: 5/20/17 0022

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 3

School: Dana

Name of Building: 150s – Hallway G, 1st Floor

Location Description: Wall mounted interior, in the hallway, next to Girls Restroom, facing kitchen

Type of Outlet: bubbler

Description: single fountain (MED flow)

Comments/Miscellaneous: indoor drinking water source/SDUSD Location Code #80

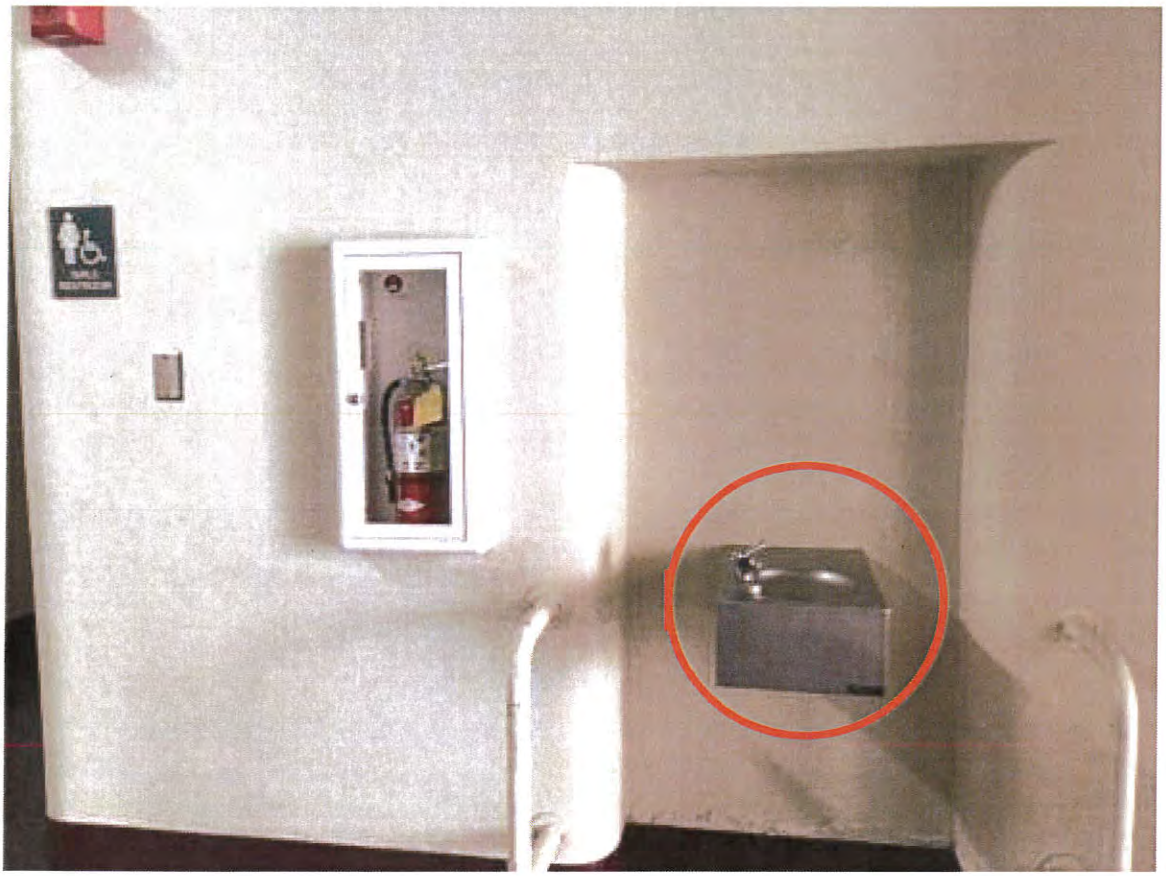

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173003

State Sample ID: 3710020-BJD-C

Date & Time Last Used: 5/19/17 2200

Date & Time Sample Collected: 5/20/17 0630

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 4

School: Dana

Name of Building: 150s – Hallway G, 1st Floor

Location Description: Wall mounted interior, in the hallway, next to Classroom 153, facing Cafeteria

Type of Outlet: bubbler

Description: single fountain (MED flow)

Comments/Miscellaneous: indoor drinking water source/SDUSD Location Code #80

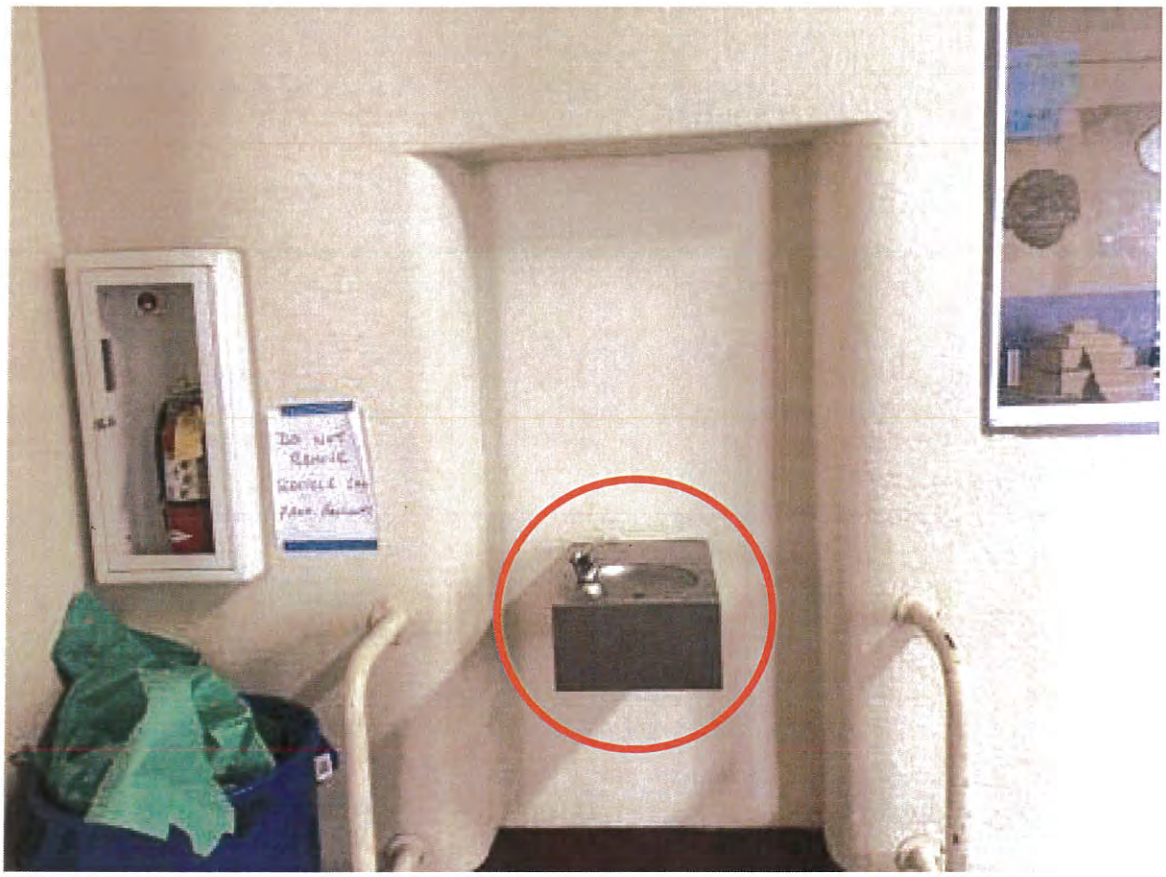

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173004

State Sample ID: 3710020-BJD-D

Date & Time Last Used: 5/19/17 2200

Date & Time Sample Collected: 5/20/17 0633

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 5

School: Dana

Name of Building: Multi Purpose Room

Location Description: Wall mounted exterior (West of Bldg), facing Library Bldg, next to back staff parking lot

Type of Outlet: bubbler

Description: upper/left bubbler on a dual fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #80

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173005

State Sample ID: 3710020-BJD-E

Date & Time Last Used: 5/19/17 2200

Date & Time Sample Collected: 5/20/17 0638

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

16-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1173001	Dana	20-MAY-2017	0625	M. Nelson	SAMPLE 1	
2	W1173002	Dana	20-MAY-2017	0622		SAMPLE 2	
3	W1173003	Dana	20-MAY-2017	0630		SAMPLE 3	
4	W1173004	Dana	20-MAY-2017	0633		SAMPLE 4	
5	W1173005	Dana	20-MAY-2017	0638		SAMPLE 5	

917

Chain of Custody:

Relinquished by: Name: M. Nelson Sign:	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 5/22/17 @0630 Location: WQL A/V	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/22/17
LIMS Received Time: 0711
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Darnell Charter School

Physical Address of School: 6020 Hughes Street, SanDiego, CA 92115

First Bell: 7:30AM

Meeting Date: 03/23/2017

Sampling Plan Completion Date: 03/29/2017

Completed by Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 03/29/2017

School's Point of Contact for Sampling Assistance

Name: Daniel Lopez

Phone: 619-306-3383

Email: dlopez2@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/2/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Darnall Charter 6020 Hughes Street, San Diego, CA 92115

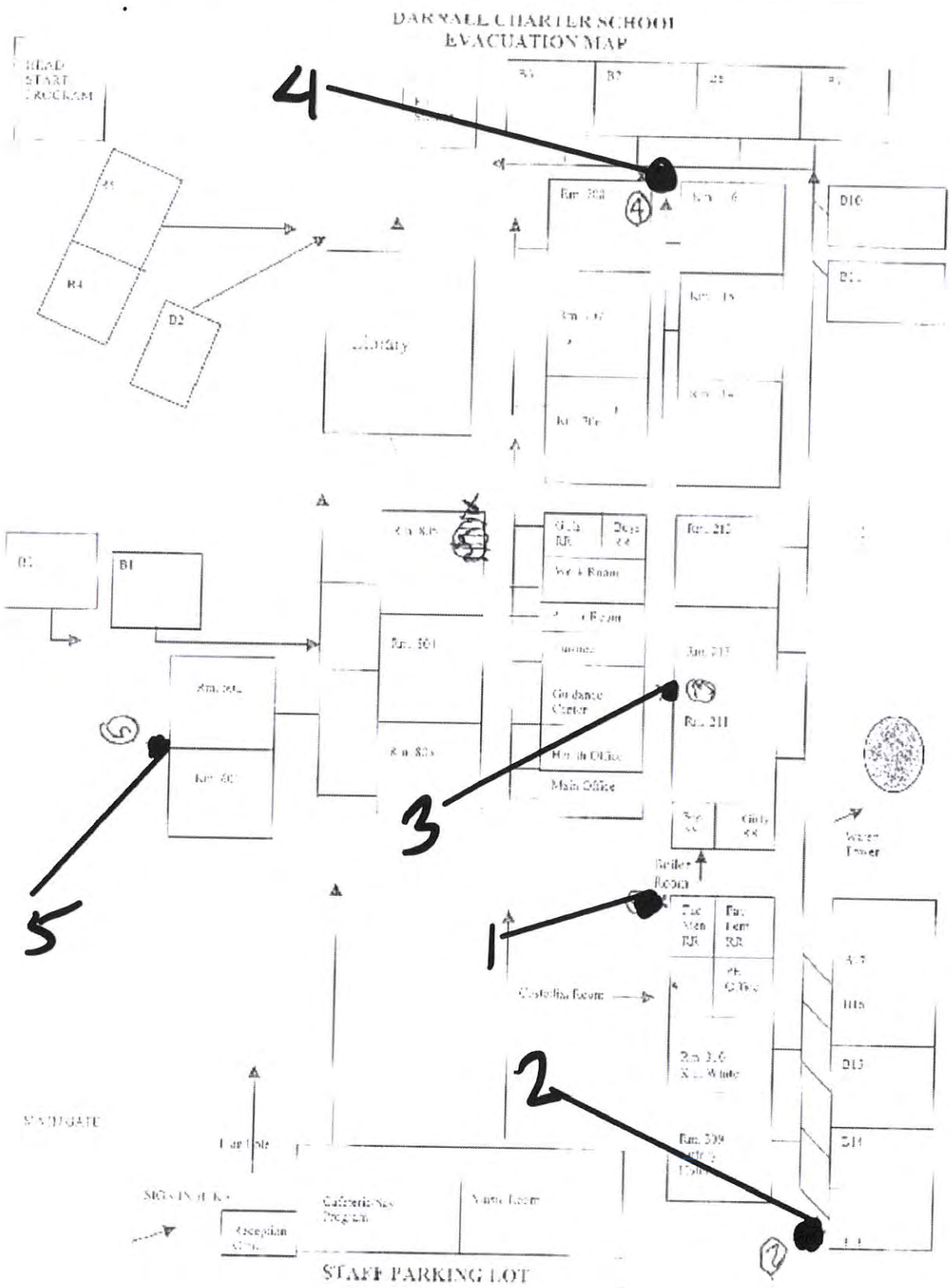

Sample No. 1

School: Darnall Charter School

Name of Building: 300 Building

Location Description: Lunch Area outside of Men's Faculty Restroom

Type of Outlet: Bubbler

Description: Bubbler on right side.

Comments/Miscellaneous:

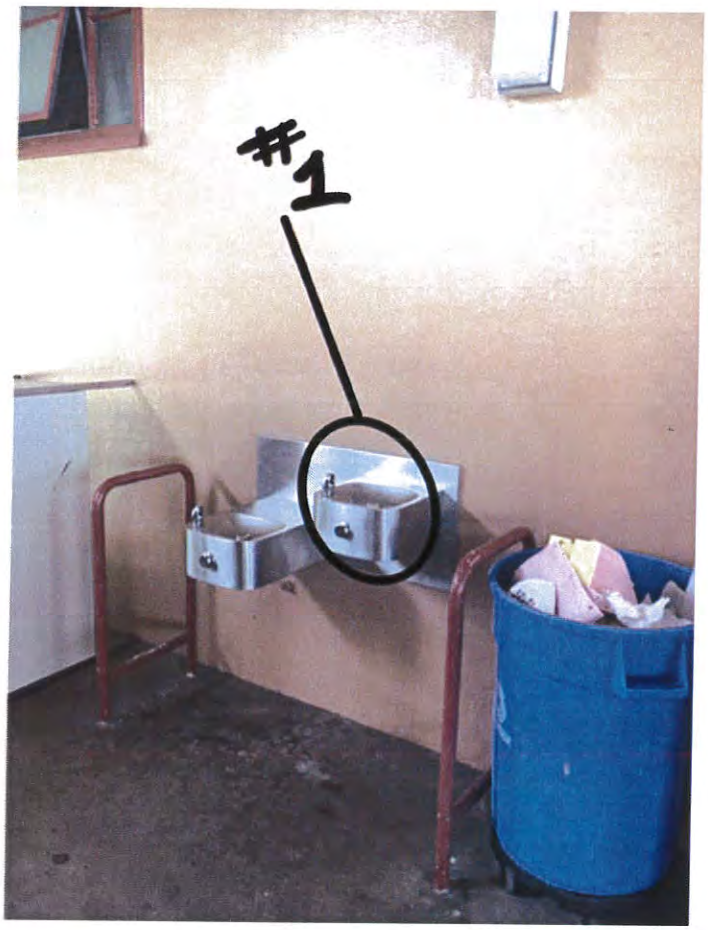

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169434

State Sample ID: 3710020-AHG-A

Date & Time Last Used: 5/2/17 1800

Date & Time Sample Collected: 5/3/17 0606

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mungo

Sample No. 2

School: Darnall Charter School

Name of Building: Bungalow Next to B-13

Location Description: Playground Area

Type of Outlet: 3 bubbler fountain

Description: Far right bubbler

Comments/Miscellaneous:

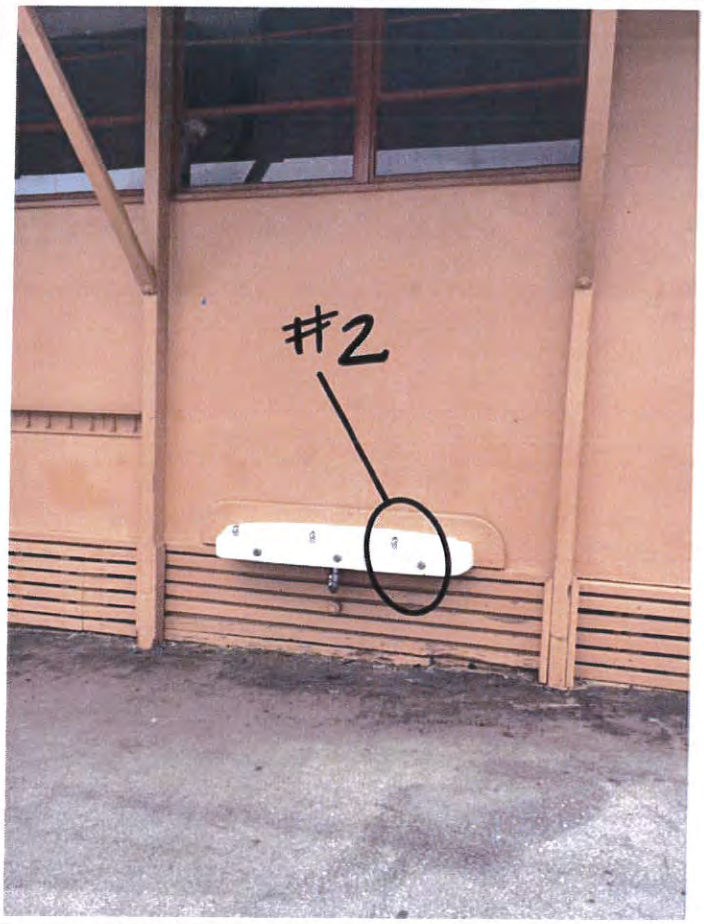

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169435

State Sample ID: 3710020-AHG-B

Date & Time Last Used: 5/2/17 1800

Date & Time Sample Collected: 5/3/17 0608

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 3

School: Darnall Charter School

Name of Building: 200 Building

Location Description: Near room 212

Type of Outlet: 2 bubbler fountain

Description: far left bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169436

State Sample ID: 3710020-AHG-C

Date & Time Last Used: 5/2/17 1800

Date & Time Sample Collected: 5/3/17 0611

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 4

School: Darnall Charter School

Name of Building: 700 Building

Location Description: Corner of building

Type of Outlet: 3bubbler fountain

Description: Far left bubbler

Comments/Miscellaneous:

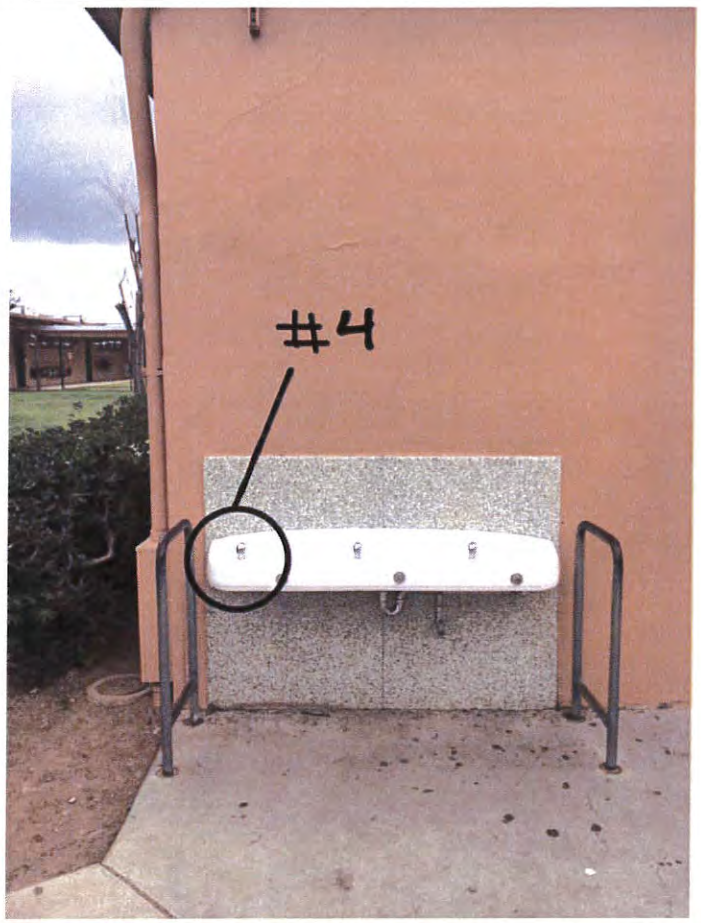

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169437

State Sample ID: 3710020-AHG-D

Date & Time Last Used: 5/2/17 1800

Date & Time Sample Collected: 5/3/17 0614

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 5

School: Darnall Charter School

Name of Building: 600 building

Location Description: Near boiler room and storage room

Type of Outlet: single bubbler

Description: 1 bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169438

State Sample ID: 3710020-AHG-E

Date & Time Last Used: 05/2/17 1800

Date & Time Sample Collected: 5/3/17 0617

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

02-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1169434	Darnall Charter	03-MAY-2017	0666	David Mayo	SAMPLE 1	
2	W1169435	Darnall Charter	03-MAY-2017	0608		SAMPLE 2	
3	W1169436	Darnall Charter	03-MAY-2017	0611		SAMPLE 3	
4	W1169437	Darnall Charter	03-MAY-2017	0614		SAMPLE 4	
5	W1169438	Darnall Charter	03-MAY-2017	0617		SAMPLE 5	

925

Chain of Custody:

Relinquished by: Name: David Mayo Sign: David Mayo	Received by: Name: TOM Burger Sign: TOM B Burger	Date & Time: 5/3/17 6:45 Location: AIU	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: T Burger
Received Date: 5-3-17
LIMS Received Time: 0651
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: de Portola Middle School

Physical Address of School: 11010 Claremont Mesa Blvd. San Diego, CA 92124

First Bell: 7:30AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/26/2017

Completed by Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 04/26/2017

School's Point of Contact for Sampling Assistance

Name: Daniel Lopez

Phone: 619-306-3383

Email: dlopez2@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/1/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: de Portola Middle School 11010 Claremont Mesa Blvd. San Diego, CA 92124

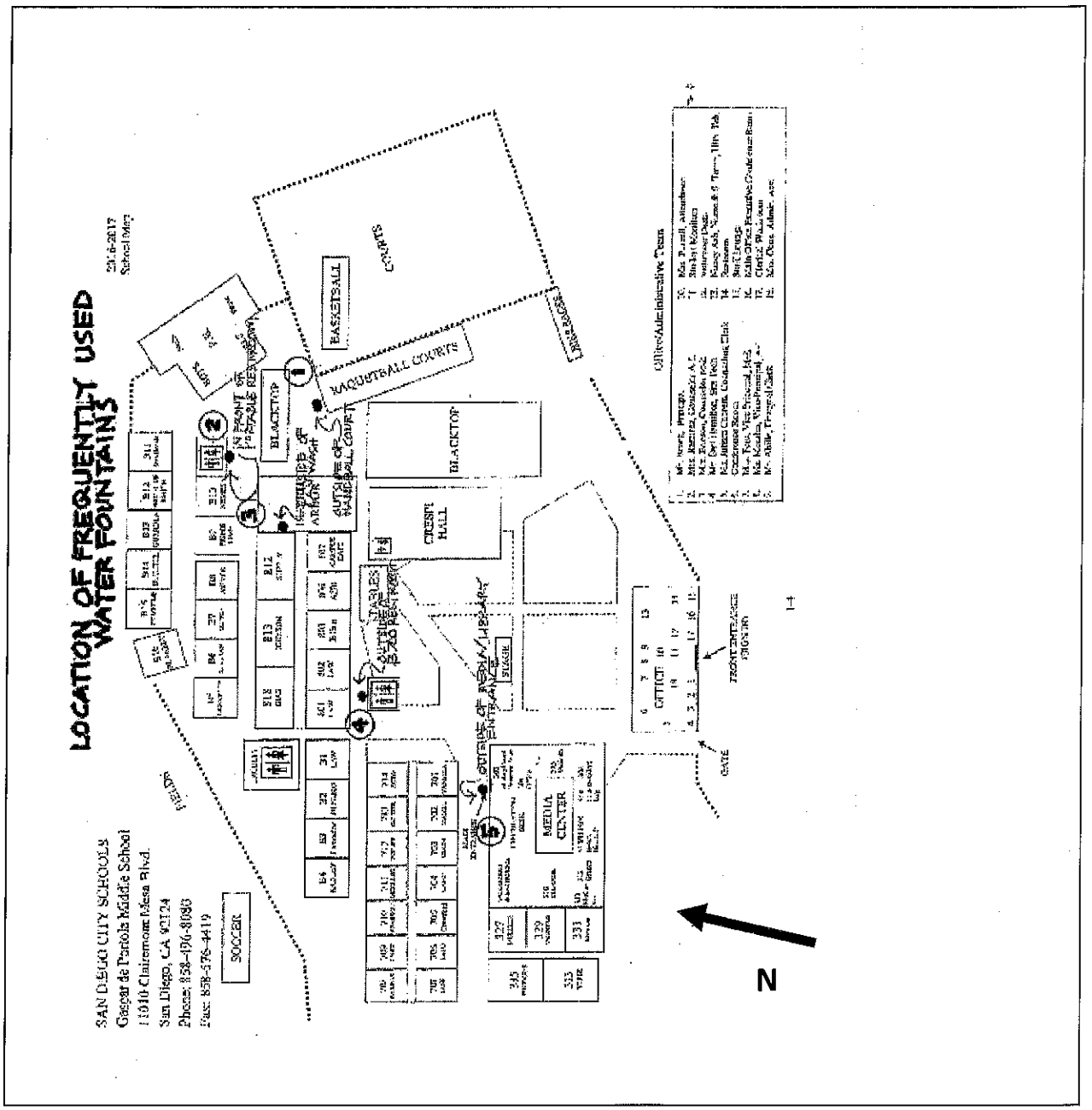

Sample No. 1

School: de Portola Middle School

Name of Building: Basketball court area east side of campus

Location Description: Outside of courts next to bleachers

Type of Outlet: Triple bubbler

Description: Bubbler on right side

Comments/Miscellaneous:

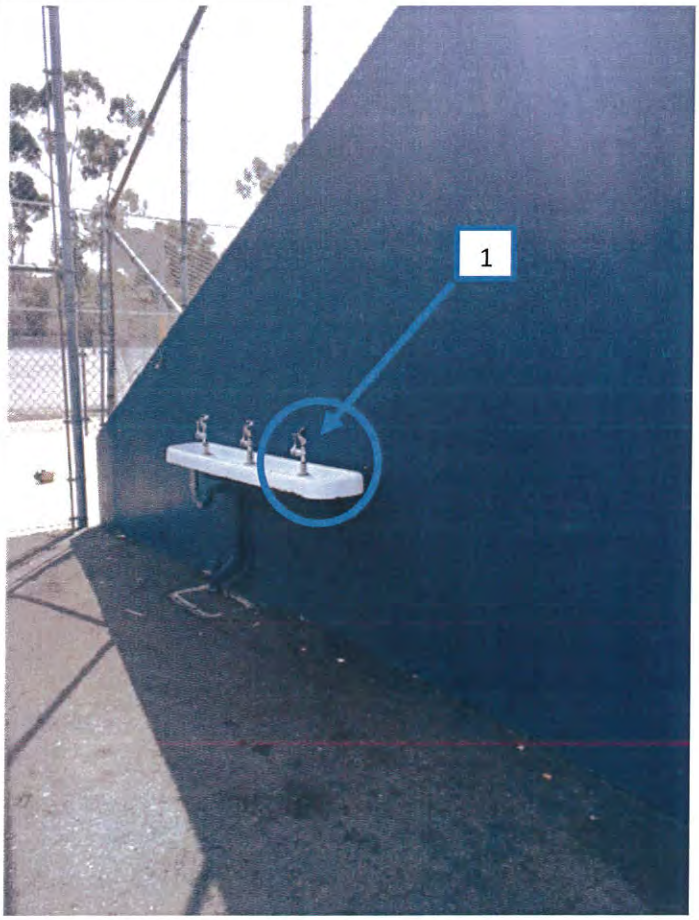

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169424

State Sample ID: 3710020-BEF-A

Date & Time Last Used: 5/05/17 @ 2200

Date & Time Sample Collected: 5/06/17 @ 0628

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: de Portola Middle School

Name of Building: Bungalow restrooms

Location Description: North side of campus across asphalt area

Type of Outlet: 2 single bubblers

Description: Bubbler on left

Comments/Miscellaneous:

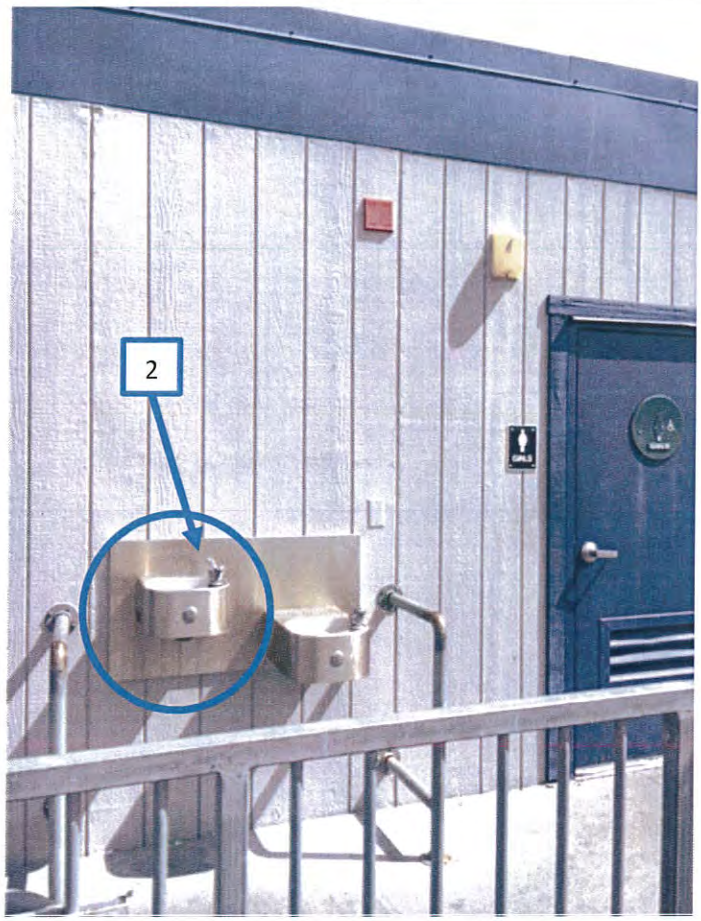

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169425

State Sample ID: 3710020-BEF-B

Date & Time Last Used: 5/06/17 ~~22~~ tm @ 2200

Date & Time Sample Collected: 5/06/17 @ 0624

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Alejandra Molloy

Sample No. 3

School: de Portola Middle School

Name of Building: Lunch Arbor

Location Description: Next to can washing area east facing wall

Type of Outlet: Triple bubbler

Description: Center bubbler

Comments/Miscellaneous:

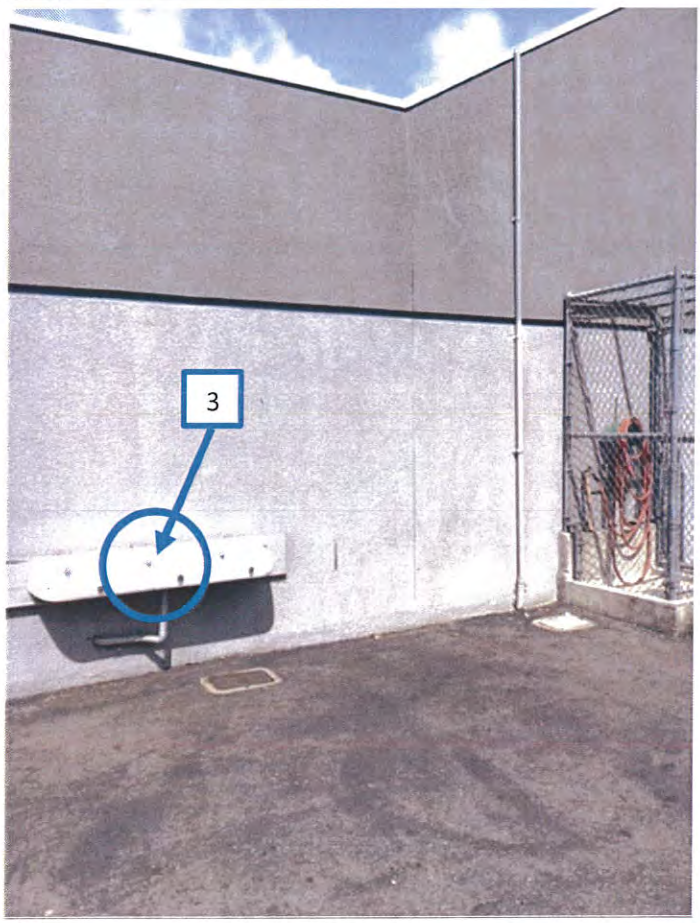

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169426

State Sample ID: 3710020-BEF-C

Date & Time Last Used: 5/05/17 @ 2230

Date & Time Sample Collected: 5/06/17 @ 0024

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: de Portola Middle School

Name of Building: Restroom building

Location Description: Back side of restroom building across from Room #801

Type of Outlet: Double bubbler

Description: Right side bubbler

Comments/Miscellaneous:

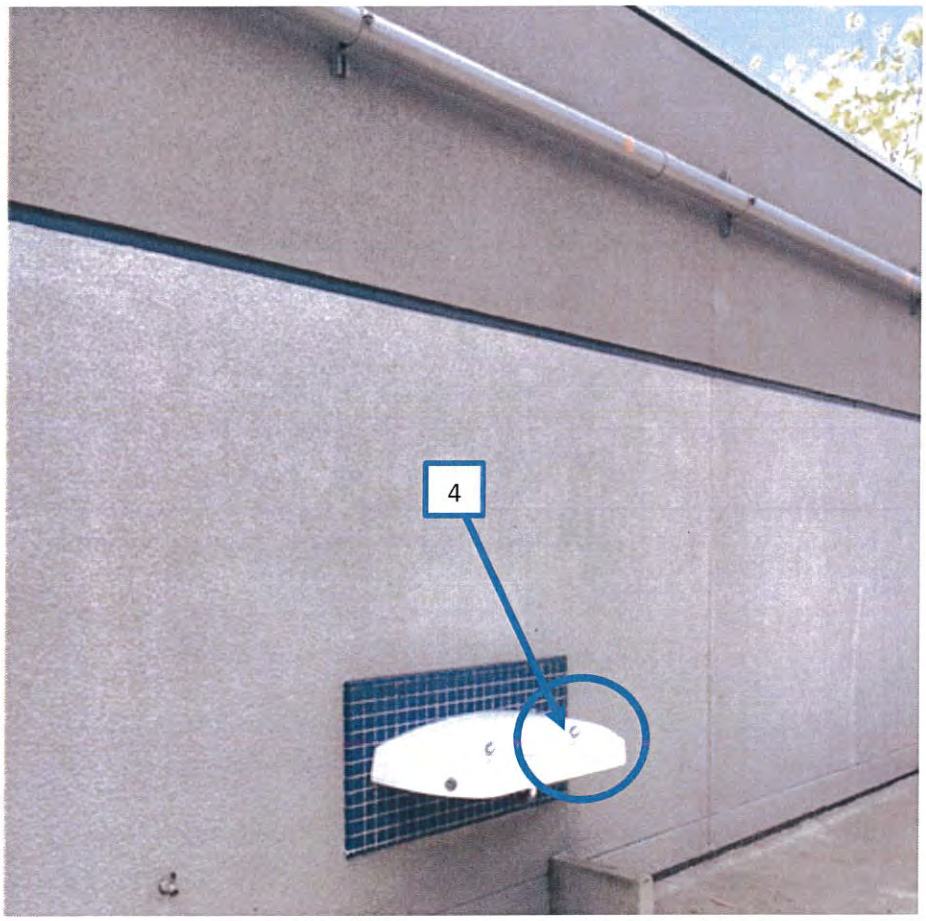

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169427

State Sample ID: 3710020-BEF-D

Date & Time Last Used: 5/05/17 @ 2300

Date & Time Sample Collected: 5/06/17 @ 0622

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 5

School: de Portola Middle School

Name of Building: Media Center Building

Location Description: In front of main entrance to Media Center

Type of Outlet: Double bubbler

Description: Left side bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169428

State Sample ID: 3710020-BEF-E

Date & Time Last Used: 5/05/17 @ 2200

Date & Time Sample Collected: 5/06/17 @0619

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: A. Molloy

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

05-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1169424	de Portola Middle	06-MAY-2017	0628	A. Molloy	SAMPLE 1	
2	W1169425	de Portola Middle	06-MAY-2017	0626		SAMPLE 2	
3	W1169426	de Portola Middle	06-MAY-2017	0624		SAMPLE 3	
4	W1169427	de Portola Middle	06-MAY-2017	0622		SAMPLE 4	
5	W1169428	de Portola Middle	06-MAY-2017	0619		SAMPLE 5	

933

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign: AMolloy	Received by: Name: Sign:	Date & Time: 5/06/17 @ 0915 Location: WQL A/V	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/06/17
LIMS Received Time: 0946
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Del Mar Heights Elementary

Physical Address of School: 13555 Boquita Drive

First Bell: 8:10am

Meeting Date: 5-6-2017

Sampling Plan Completion Date: 5/16/17

Completed by Print Name: [illegible]

Signature: [illegible] Date: 5/16/17

School's Point of Contact for Sampling Assistance

Name: Patrick Lum

Phone: (858) 884-3473

Email: Plum@dmusd.org

City of San Diego 3710020

Approved By: [illegible] 5/24/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Del Mar Heights Elementary 13555 Boquita Drive

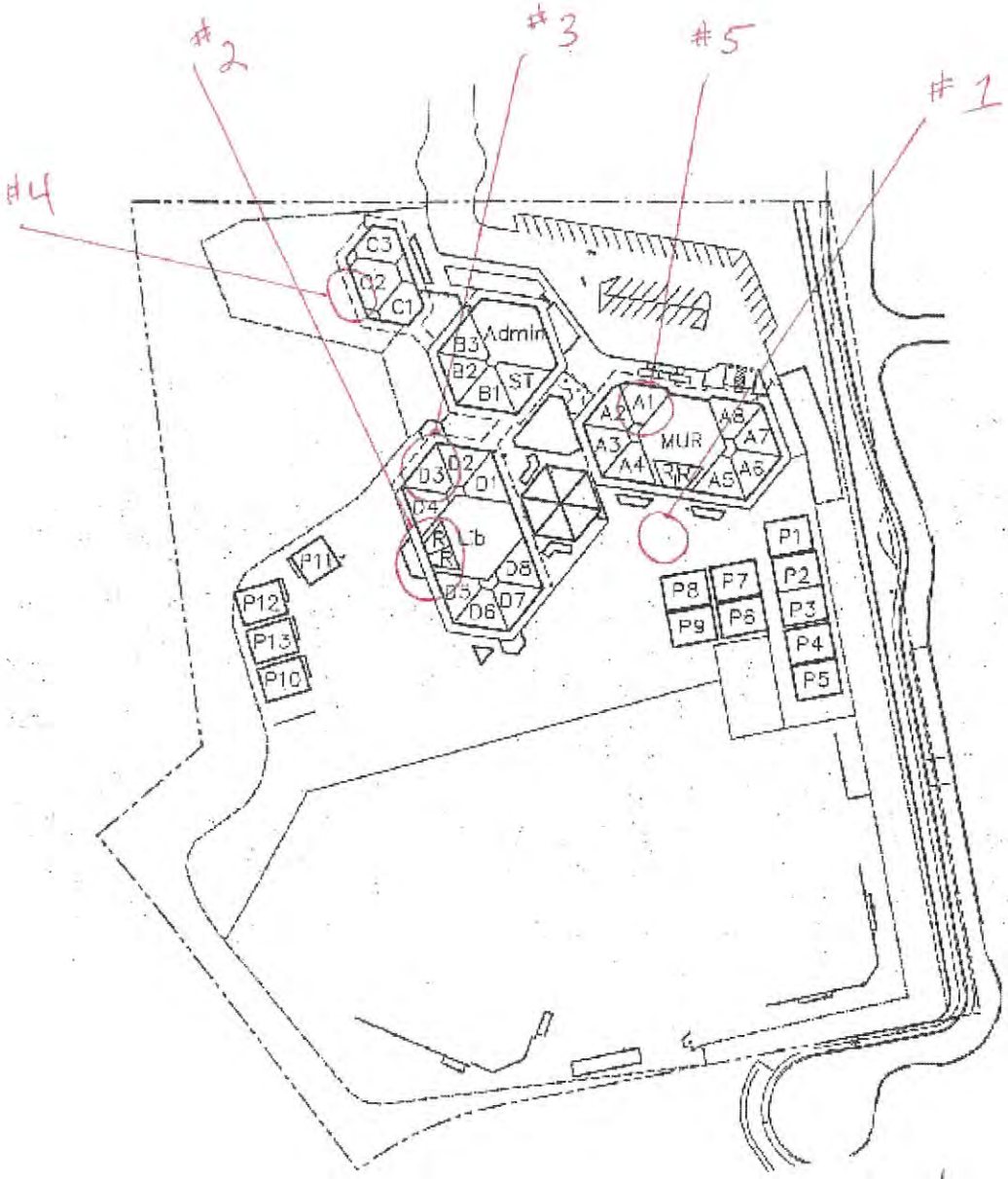

DEL MAR HEIGHTS SCHOOL

Sample No. 1

School: Del Mar Heights Elementary

Name of Building: East playground Area

Location Description: In between Girls / Boys lower grade restrooms

Type of Outlet: Drinking fountain

Description: Left side drinking fountain bubbler

Comments/Miscellaneous:

Paste picture of

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174619

State Sample ID: 3710020-CBI-A

Date & Time Last Used: 5/31/17 @ 2200

Date & Time Sample Collected: 6/01/17 @ 0634

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: Del Mar Heights Elementary

Name of Building: D building

Location Description: West side of D building in between boys / girls upper grade restrooms

Type of Outlet: Drinking fountain

Description: Right side drinking fountain bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174620

State Sample ID: 3710020-CBI-B

Date & Time Last Used: 5/31/17 @ 2200

Date & Time Sample Collected: 6/01/17 @ 0640

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: Del Mar Heights Elementary

Name of Building: D building

Location Description: Classroom D-3 back corner of room

Type of Outlet: bubbler

Description: Bubbler attached to sink

Comments/Miscellaneous:

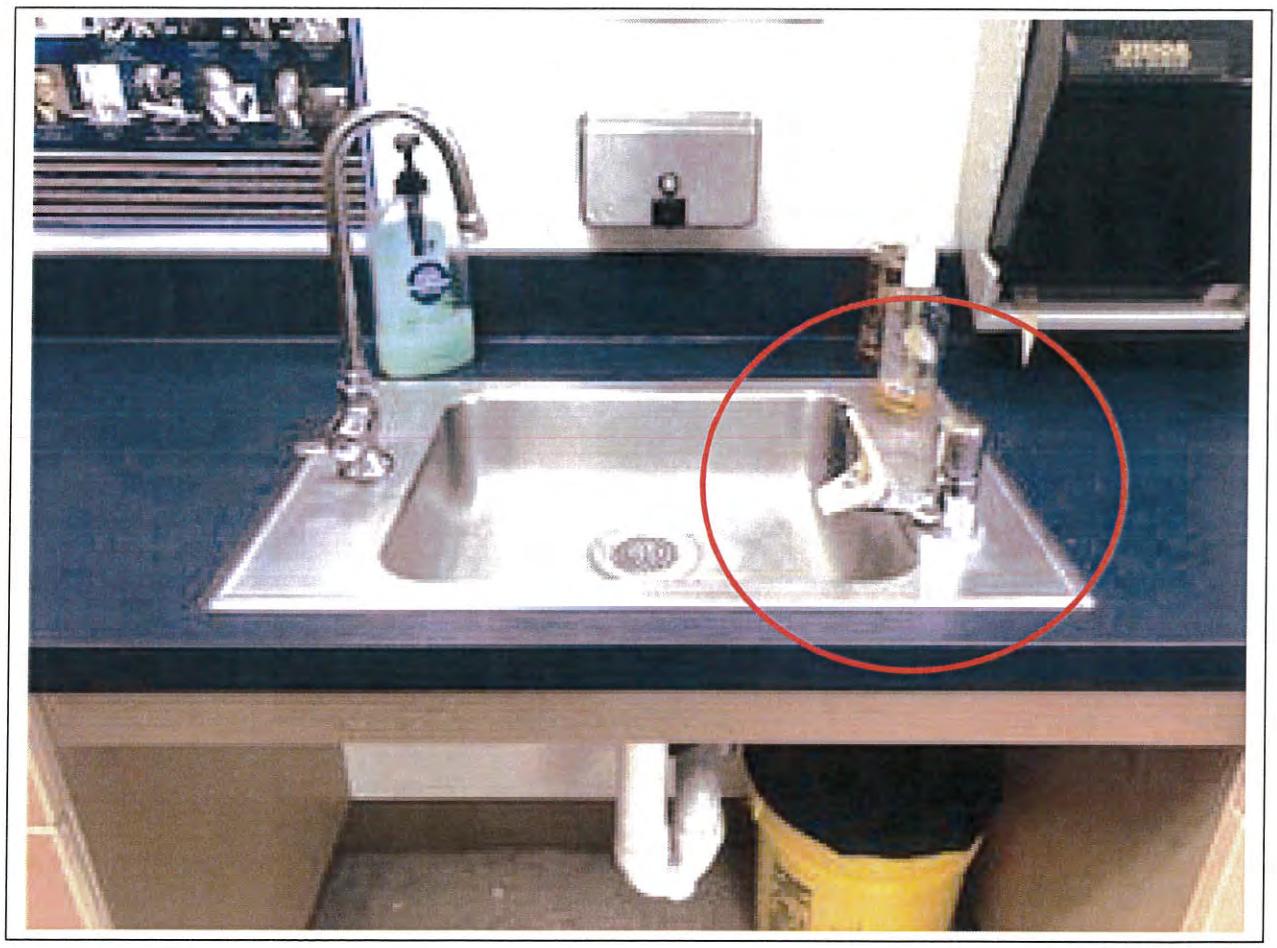

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174621

State Sample ID: 3710020-CBI-C

Date & Time Last Used: 5/31/17 @ 2200

Date & Time Sample Collected: 6/01/17 @ 0602

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: Del Mar Heights Elementary

Name of Building: C - wing

Location Description: west end of C-wing

Type of Outlet: Drinking fountain

Description: Bubbler on right side

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174622

State Sample ID: 3710020-CBI-D

Date & Time Last Used: 5/31/17 @ 2200

Date & Time Sample Collected: 06/01/17 @ 0645

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 5

School: Del Mar Heights Elementary

Name of Building: A Building

Location Description: Classroom A-1

Type of Outlet: Bubbler

Description: Bubbler attached to sink

Comments/Miscellaneous:

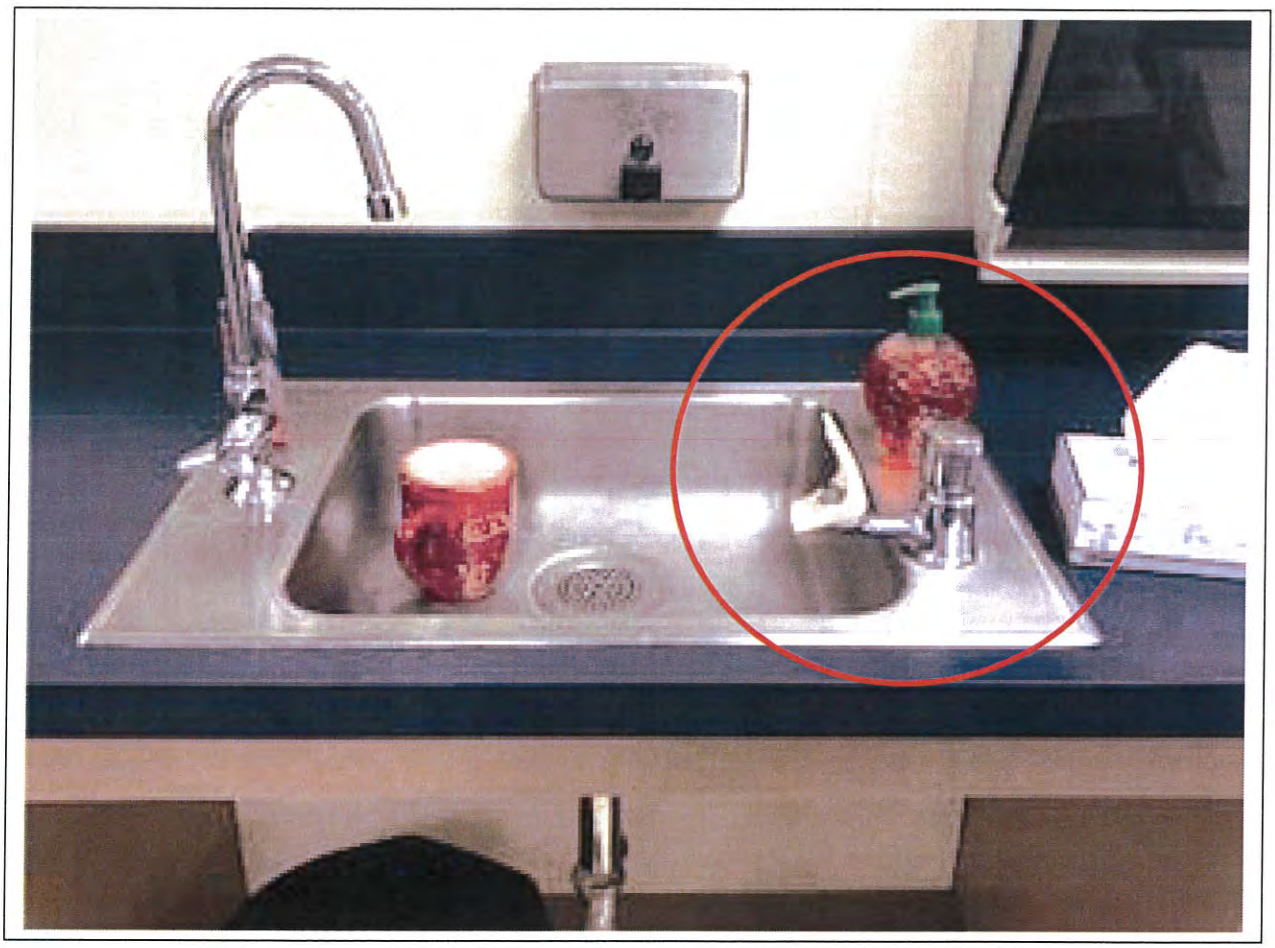

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174623

State Sample ID: 3710020-CBI-E

Date & Time Last Used: 5/31/17 @ 2200

Date & Time Sample Collected: 6/01/17 @ 0647

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

30-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1174619	Del Mar Heights Elementary	01-JUN-2017	0636	A. Molloy	SAMPLE 1	
2	W1174620	Del Mar Heights Elementary	01-JUN-2017	0640		SAMPLE 2	
3	W1174621	Del Mar Heights Elementary	01-JUN-2017	0642		SAMPLE 3	
4	W1174622	Del Mar Heights Elementary	01-JUN-2017	0645		SAMPLE 4	
5	W1174623	Del Mar Heights Elementary	01-JUN-2017	0647		SAMPLE 5	

941

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign: AMolloy	Received by: Name: Tom Burger Sign: TM B Burger	Date & Time: 6/01/17 @ 0730 Location: WQL Alv	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: [signature]
Received Date: 6/1/17
LIMS Received Time: 1151
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Del Mar Hills Elementary

Physical Address of School: 14085 Mango Dr.

First Bell: 8:10AM

Meeting Date: 5-8-2017

Sampling Plan Completion Date: 5/16/17

Completed by Print Name: Mike Ennis

Signature: [illegible] Date: 5/16/17

School's Point of Contact for Sampling Assistance

Name: Patrick Lum

Phone: (858) 884-3473

Email: plum@dmusd.org

City of San Diego 3710020

Approved By: [illegible] 5/25/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Del Mar Hill Academy 14085 Mango Dr. Del Mar, Ca 92014

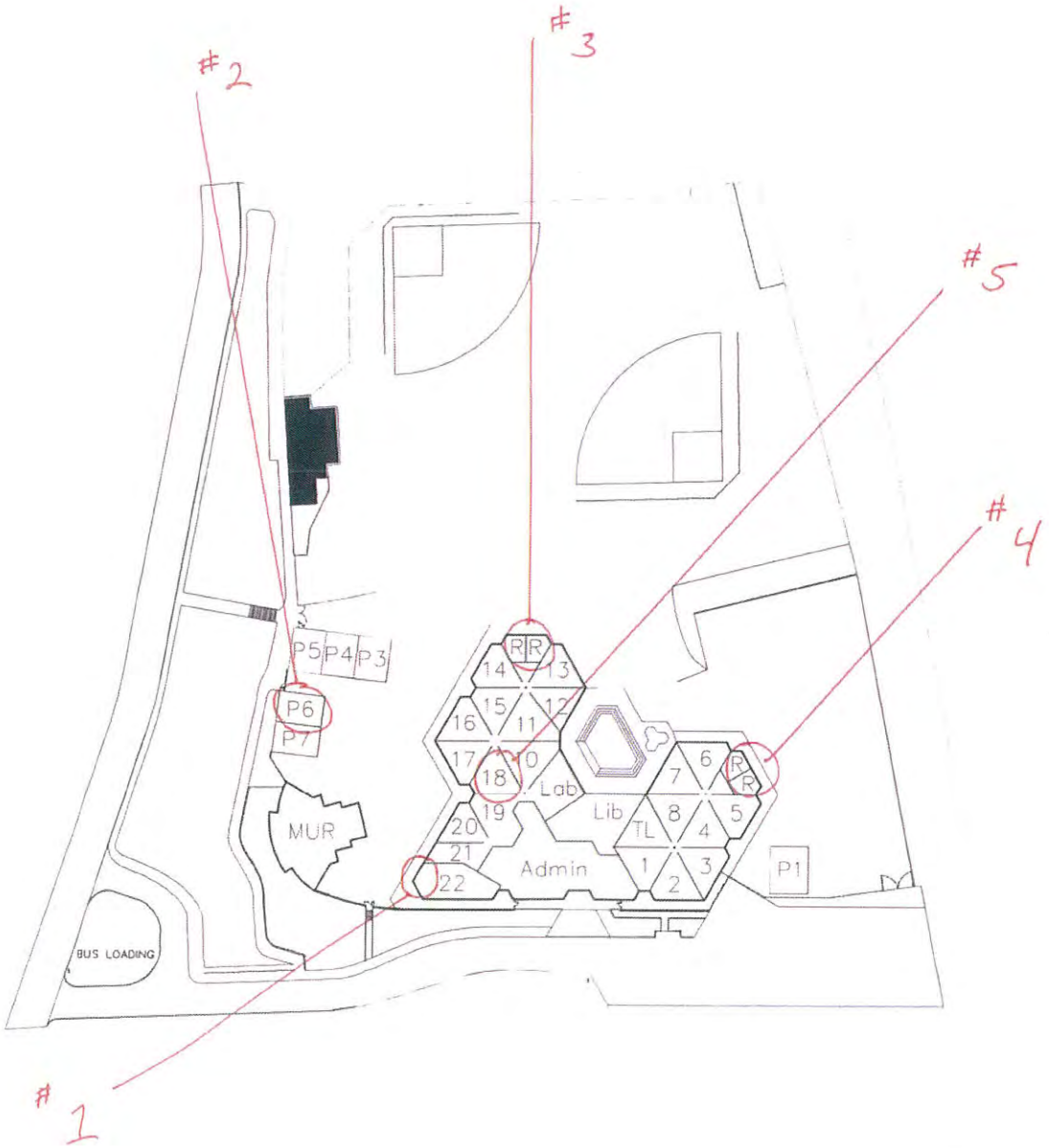

DEL MAR HILLS SCHOOL

Sample No. 1

School: Del Mar Hills Elementary

Name of Building: Exterior drinking fountain outside room 22

Location Description: Kindergarten Area

Type of Outlet: Drinking Fountain

Description: Bubbler

Comments/Miscellaneous: Right Side drinking fountain bubbler

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174624

State Sample ID: 3710020-CBJ-A

Date & Time Last Used: 5/31/17 @ 2200

Date & Time Sample Collected: 6/01/17 @ 0616

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: Del Mar hills Elementary

Name of Building: Room P-6

Location Description: Childcare room

Type of Outlet: Bubbler

Description: Bubbler attached to sink in classroom / south corner of room

Comments/Miscellaneous:

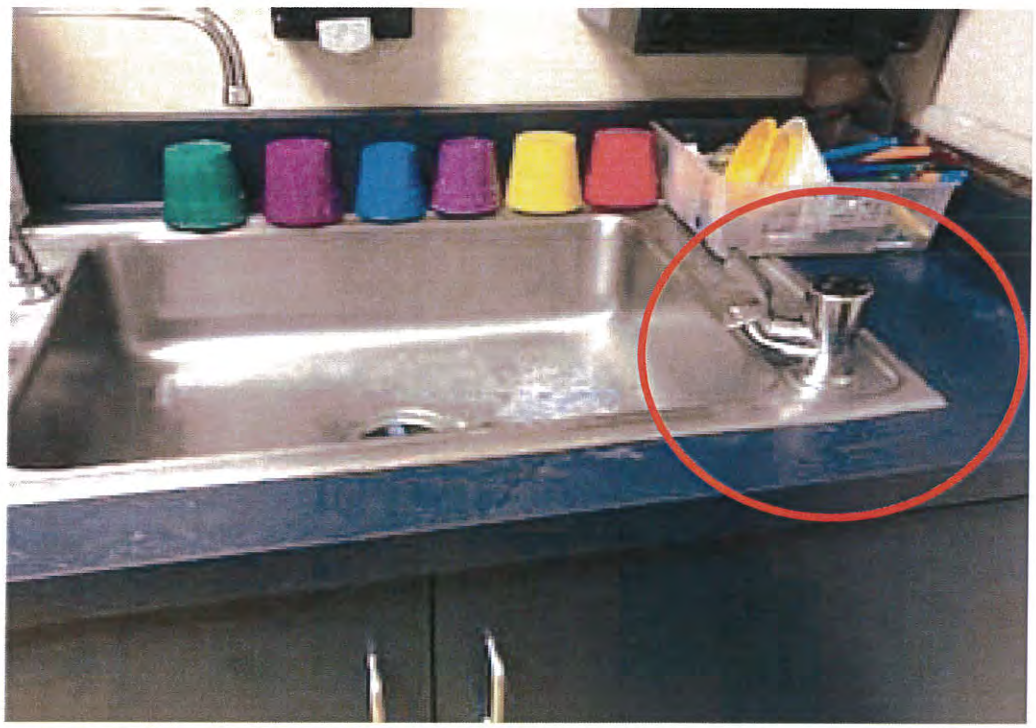

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174625

State Sample ID: 3710020-CBJ-B

Date & Time Last Used: 5/31/17 @ 2200

Date & Time Sample Collected: 6/01/17 @ 0618

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: Del Mar Hills Elementary

Name of Building: Main

Location Description: Back of school in between Boys / Girls lower grade restrooms

Type of Outlet: Exterior drinking fountain

Description: Left side drinking fountain bubbler

Comments/Miscellaneous:

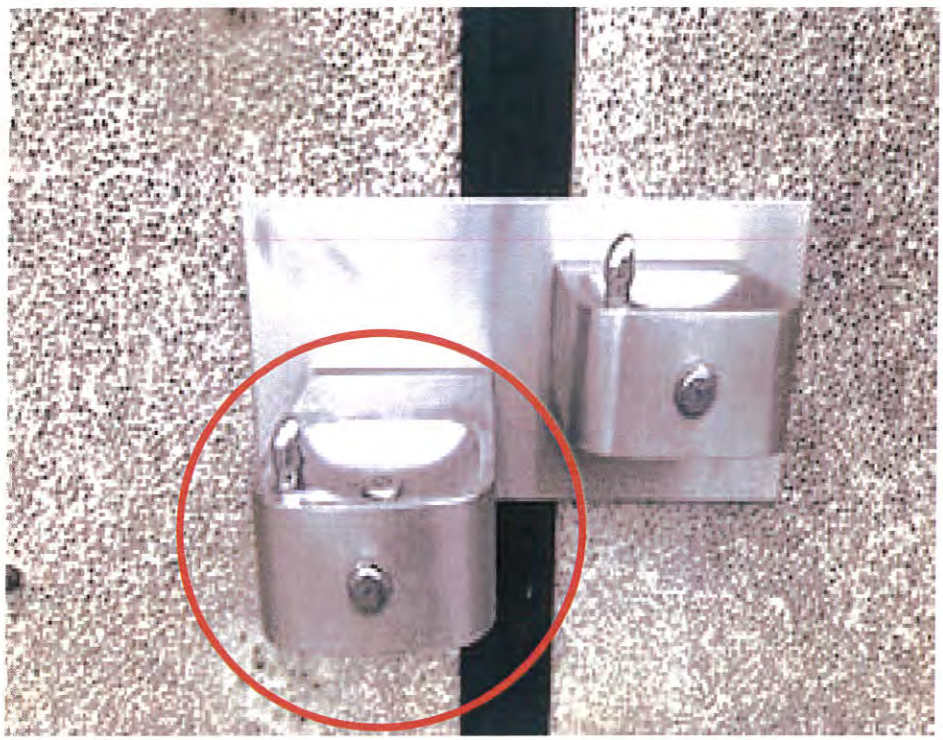

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174626

State Sample ID: 3710020-CBJ-C

Date & Time Last Used: 5/31/17 @ 2200

Date & Time Sample Collected: 6/01/17 @ 0621

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: Del Mar Hills Elementary

Name of Building: Main

Location Description: East side of school in between Boys / Girls upper grade restrooms

Type of Outlet: Exterior drinking fountain

Description: Drinking fountain bubbler right side

Comments/Miscellaneous:

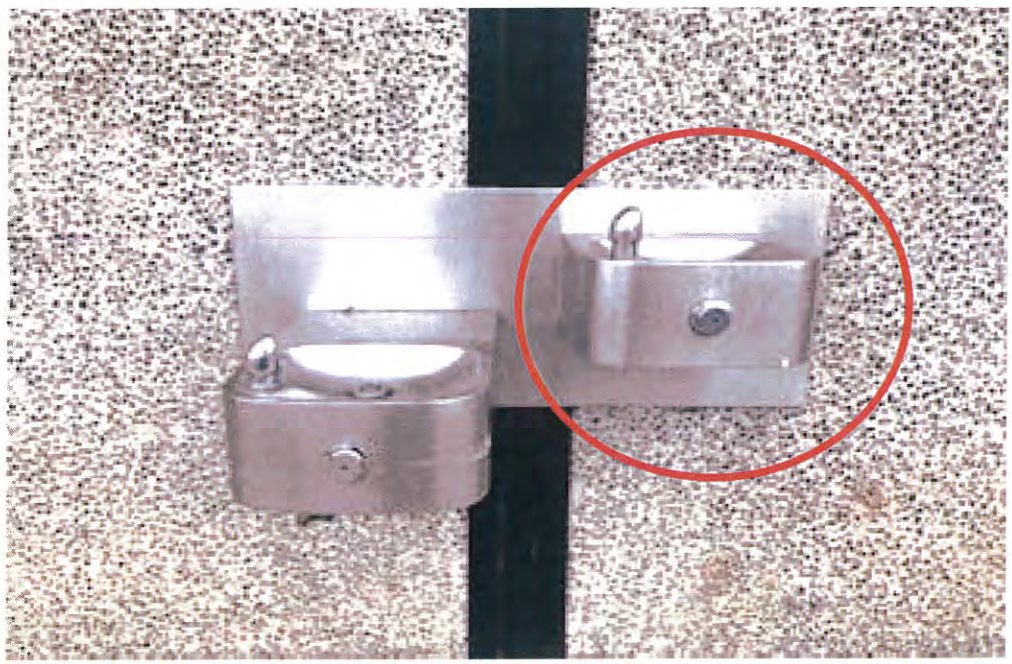

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174627

State Sample ID: 3710020-CBJ-D

Date & Time Last Used: 5/31/17 @ 2200

Date & Time Sample Collected: 6/01/17 @ 0627

Direct Sample ☒ Transfer Sample ☒

Name of Water System Sample Collector: A Molloy

Sample No. 5

School: Del Mar Hills Elementary

Name of Building: Main

Location Description: Room 18

Type of Outlet: Bubbler

Description: Bubbler attached to sink in classroom

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174628

State Sample ID: 3710020-CBJ-E

Date & Time Last Used: 5/31/17

Date & Time Sample Collected: 6/01/17 @ 0623

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

30-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1174624	Del Mar Hills Elementary	01-JUN-2017	0616	A Molloy	SAMPLE 1	
2	W1174625	Del Mar Hills Elementary	01-JUN-2017	0618		SAMPLE 2	
3	W1174626	Del Mar Hills Elementary	01-JUN-2017	0621		SAMPLE 3	
4	W1174627	Del Mar Hills Elementary	01-JUN-2017	0627		SAMPLE 4	
5	W1174628	Del Mar Hills Elementary	01-JUN-2017	0623		SAMPLE 5	

949

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign: AMolloy	Received by: Name: Tom Burger Sign: Tom B Burger	Date & Time: 6/01/17 @ 0730 Location: WQL A/V	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: [signature]
Received Date: 6/1/17
LIMS Received Time: 1151
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name Dewey Elementary:

Physical Address of School: 3251 Rosecrans St., San Diego, CA 92110-4835

First Bell: 8:30 AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 05/08/2017

Completed by Print Name: Ginette Commins

Signature: G Commins Date: 05/09/2017

School's Point of Contact for Sampling Assistance

Name: Ginette Commins

Phone: ~~(858) 627-7201~~ 619 302-5285

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/16/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Dewey Elementary, 3251 Rosecrans St., San Diego, CA 92110-4835

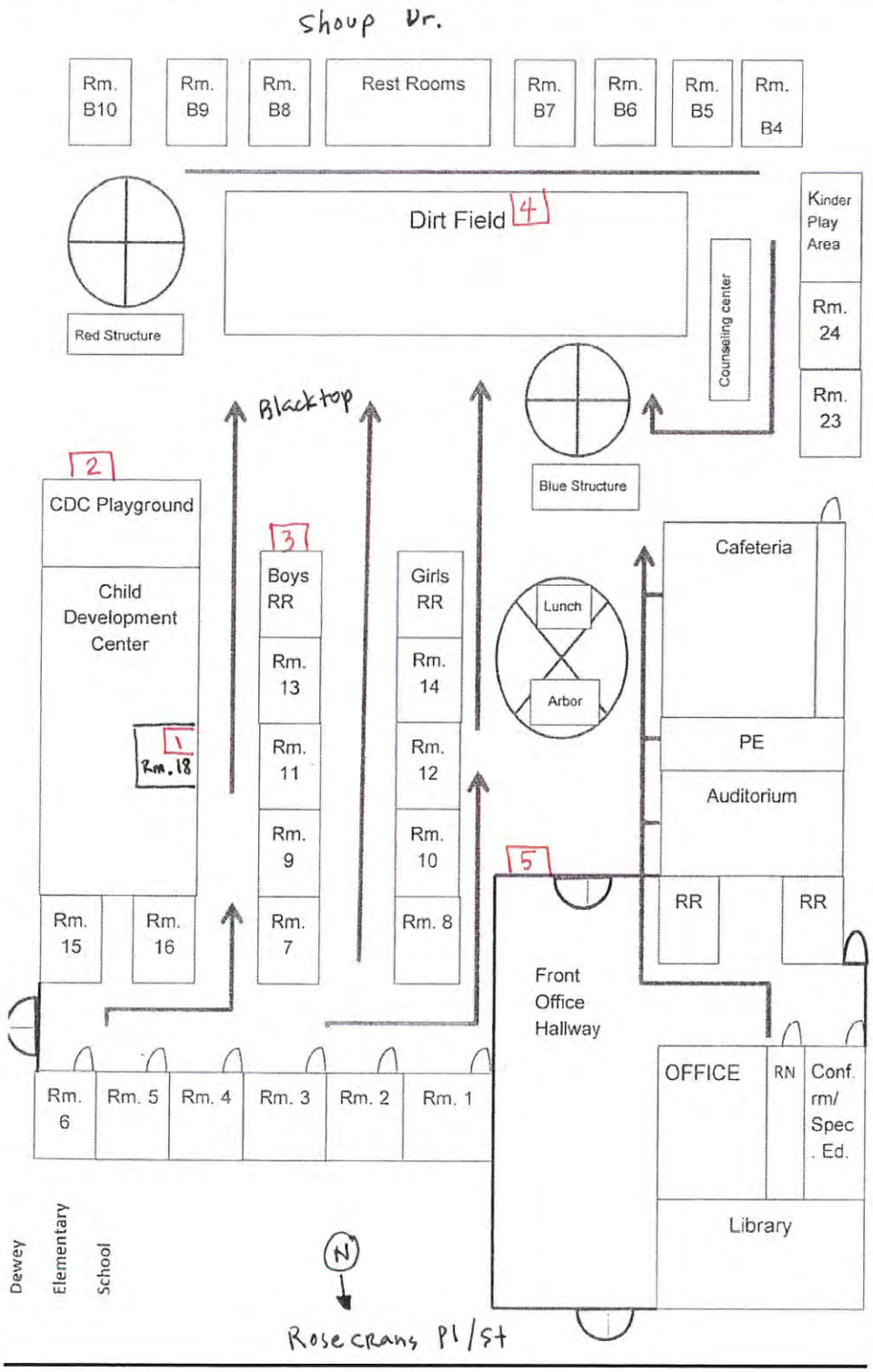

Sample No. 1

School: Dewey Elementary

Name of Building: Child Development Center (former, but as written on map), Rooms 15-22

Location Description: Room 18, classroom sink/faucet

Type of Outlet: bubbler

Description: bubbler with lever handle on a sink (HIGH flow)

Comments/Miscellaneous: indoor drinking water source/SDUSD Location Code #85

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173073

State Sample ID: 3710020-CAB-A

Date & Time Last Used: 5/23/17 2200

Date & Time Sample Collected: 5/24/17 0551

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 2

School: Dewey Elementary

Name of Building: Child Development Center (former, but as written on map), Rooms 15-22

Location Description: Wall mounted exterior (South of Bldg), next to Hallway door, facing CDC Playground/lunch arbor

Type of Outlet: bubbler

Description: right bubbler head on a single fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #85

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173074

State Sample ID: 3710020-CAB-B

Date & Time Last Used: 5/23/17 2200

Date & Time Sample Collected: 5/24/17 0554

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M Nelson

Sample No. 3

School: Dewey Elementary

Name of Building: Rooms 7-13

Location Description: Wall mounted exterior (South of Bldg), next to Hallway door, facing blacktop

Type of Outlet: bubbler

Description: right bubbler head on a single fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #85

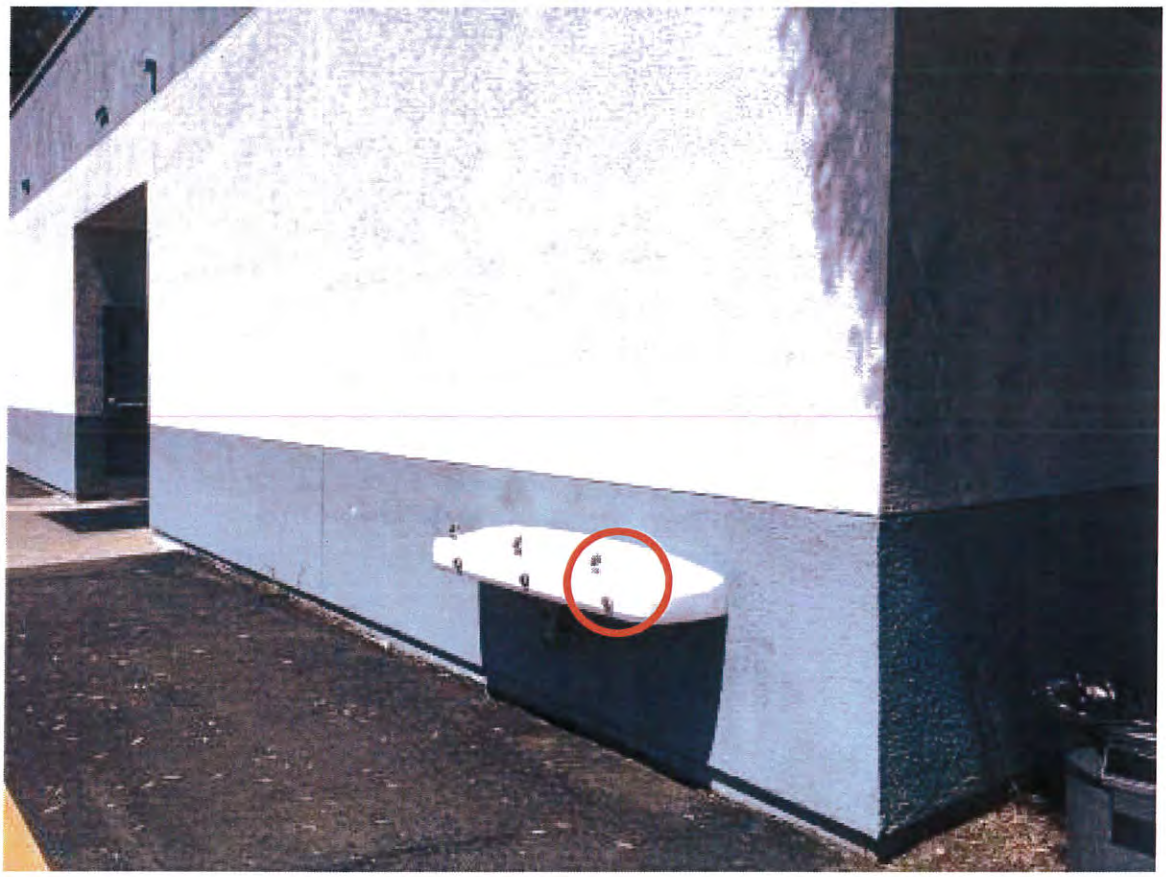

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173075

State Sample ID: 3710020-CAB-C

Date & Time Last Used: 5/23/17 2200

Date & Time Sample Collected: 5/24/17 0601

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 4

School: Dewey Elementary

Name of Building: Dirt Field (closer to Portable Classrooms & Restrooms)

Location Description: Floor mounted exterior (South of Dirt field)

Type of Outlet: bubbler

Description: lower/left bubbler on a two-station fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #85

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173076

State Sample ID: 3710020-CAB-D

Date & Time Last Used: 5/23/17 2200

Date & Time Sample Collected: 5/24/17 0557

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 5

School: Dewey Elementary

Name of Building: Front Office/Hallway

Location Description: Wall mounted exterior (South of Bldg), facing Lunch Arbor

Type of Outlet: bubbler

Description: lower/left bubbler on a dual fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #85

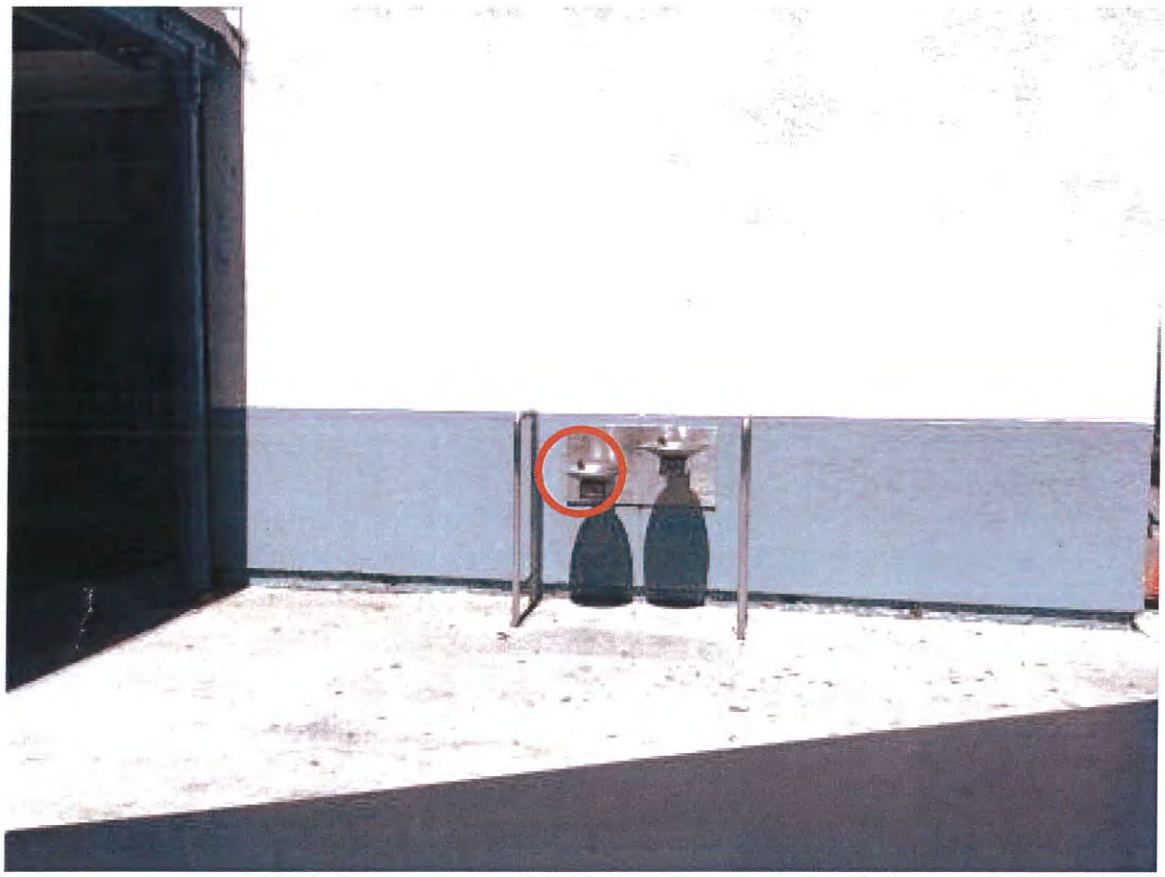

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173077

State Sample ID: 3710020-CAB-E

Date & Time Last Used: 5/23/17 2200

Date & Time Sample Collected: 5/24/17 0605

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Exhibit A1

Water Quality Chemistry Services
Chain of Custody Form

22-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1173073	Dewey Elementary	24-MAY-2017	0551	M. Nelson	SAMPLE 1	
2	W1173074	Dewey Elementary	24-MAY-2017	0554		SAMPLE 2	
3	W1173075	Dewey Elementary	24-MAY-2017	0601		SAMPLE 3	
4	W1173076	Dewey Elementary	24-MAY-2017	0557		SAMPLE 4	
5	W1173077	Dewey Elementary	24-MAY-2017	0605		SAMPLE 5	

957

Chain of Custody:

Relinquished by:	Received by:	Date & Time:	Comments:
Name: M. Nelson Sign:	Name: Alejandra Molloy Sign:	5/24/17 @ 0645 Location: WQL A1V	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/24/17
LIMS Received Time: 0659
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: #86 Dingeman Elementary School

Physical Address of School: 11840 Scripps Creek Dr. San Diego 92131

First Bell: 7:50

Meeting Date: ...3/22/2017

Sampling Plan Completion Date: 4/24/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 4/24/2017

School's Point of Contact for Sampling Assistance

Name: Elizabeth Lara

Phone: 619-302-7616

Email: elara@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-26-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Dingman Elementary 11840 Scripps Creek Dr. San Diego 92131

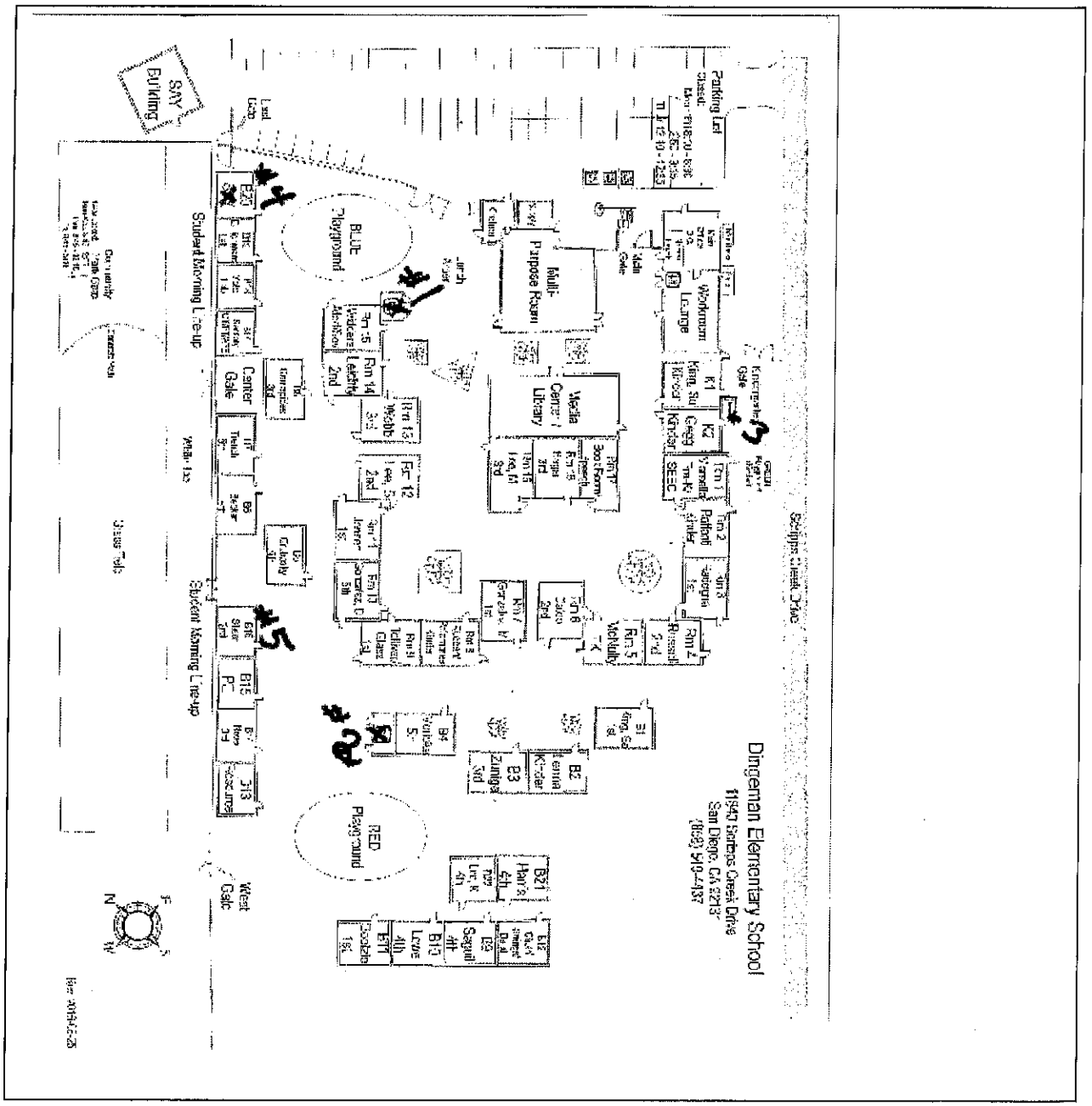

Sample No. 1

School: Dingman Elementary

Name of Building: Restroom near Lunch Arbor

Location Description: Between boys & girls Restrooms and Custodian gear locker door

Type of Outlet: Bubbler drinking fountain

Description: Single drinking fountain on Right side

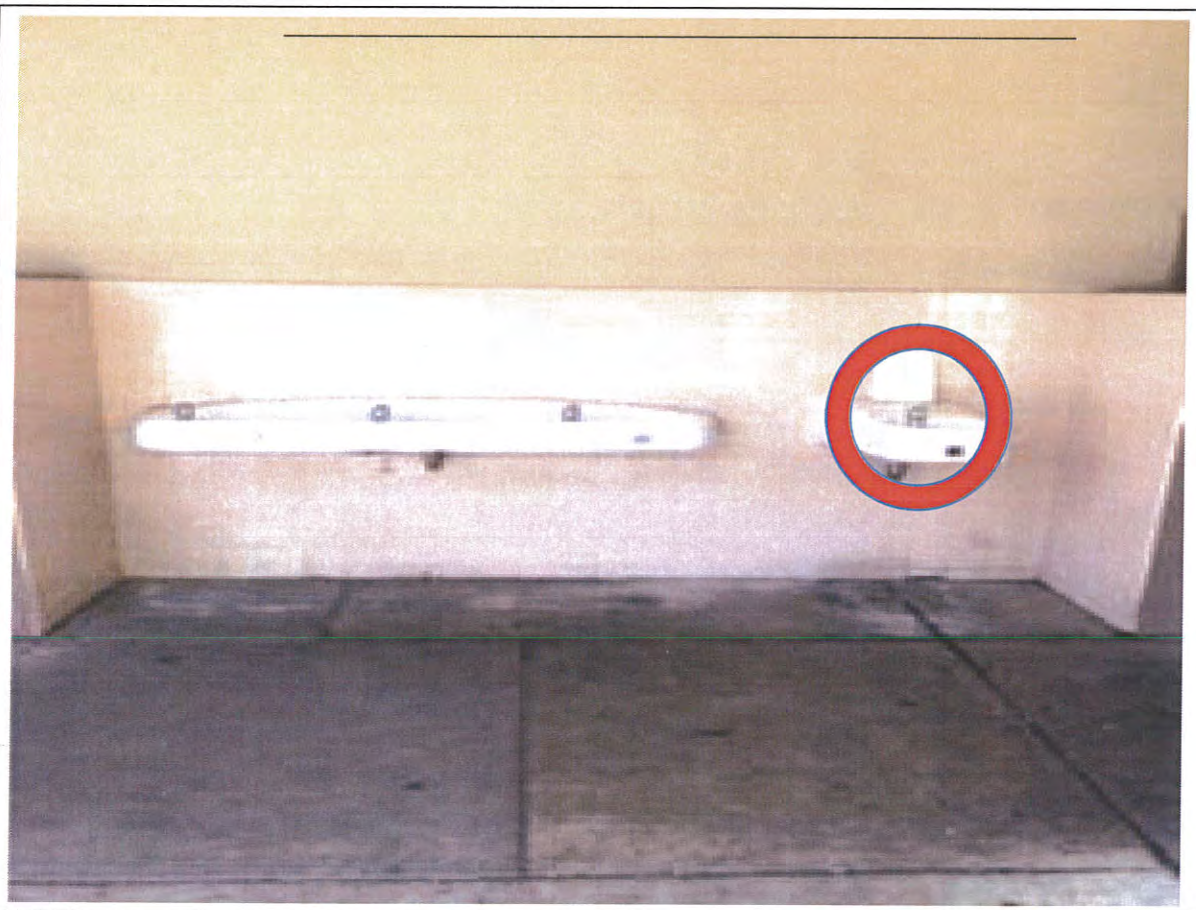

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168602

State Sample ID: 3710020-BCA-A

Date & Time Last Used: 4/26/2017 @2200

Date & Time Sample Collected: 4/27/17 @559

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: Dingman Elementary School

Name of Building: B-4

Location Description: NW end near restrooms, near RED playground equipment

Type of Outlet: Bubbler drinking fountain

Description: Right bubbler of three of right set of fountains

Comments/Miscellaneous:

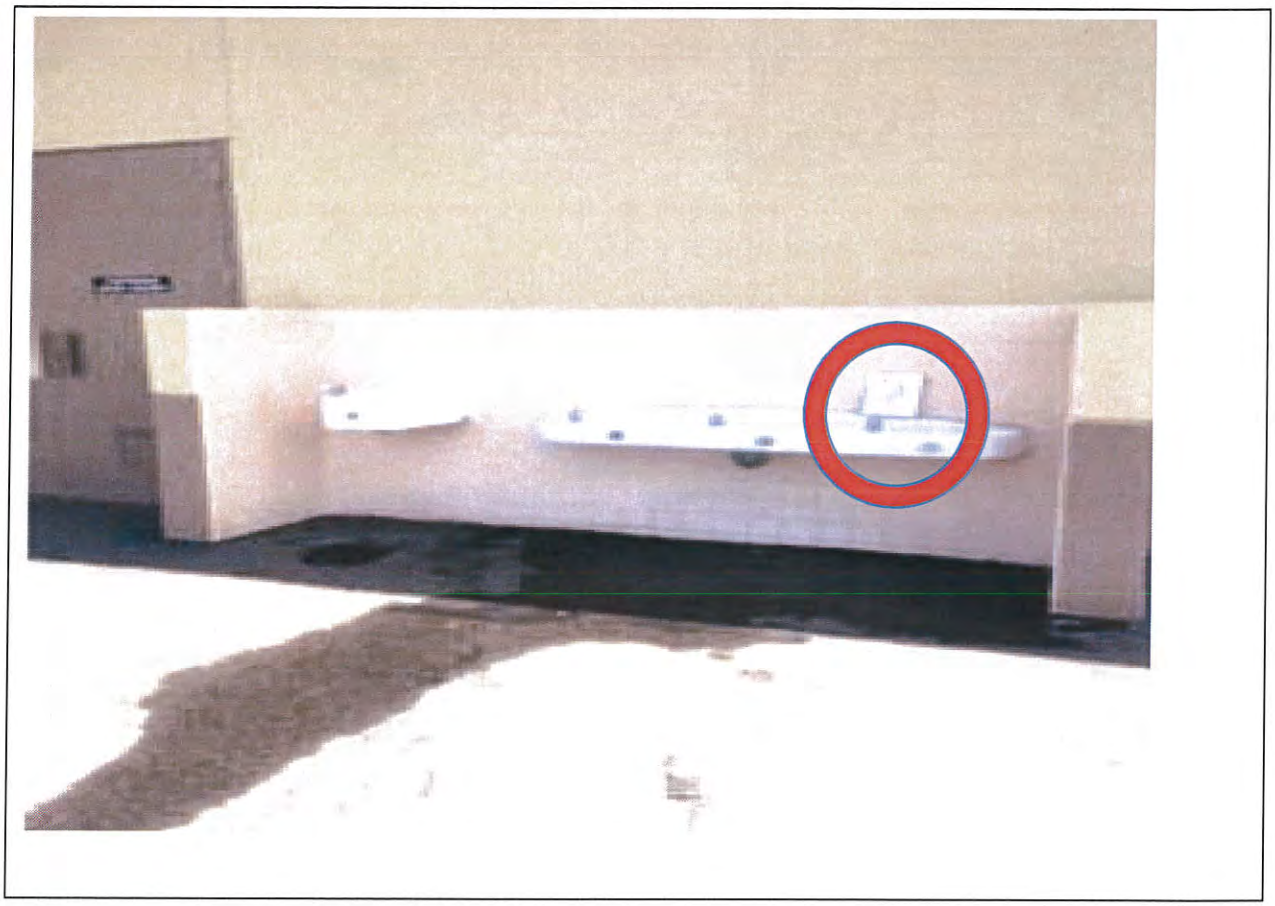

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168603

State Sample ID: 3710020-BCA-B

Date & Time Last Used: 4/26/17 @ 2200

Date & Time Sample Collected: 4/27/17 @ 0606

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

→ faucet has a big leak insisted that same one get sampled

Sample No. 3

School: Dingman Elementary

Name of Building: Kinder playground Green Playground

Location Description: Kinder playground behind kinder classrooms near street

Type of Outlet: Bubbler drinking fountain

Description: Single bubbler drinking fountain

Comments/Miscellaneous: use small container to sample, low water flow

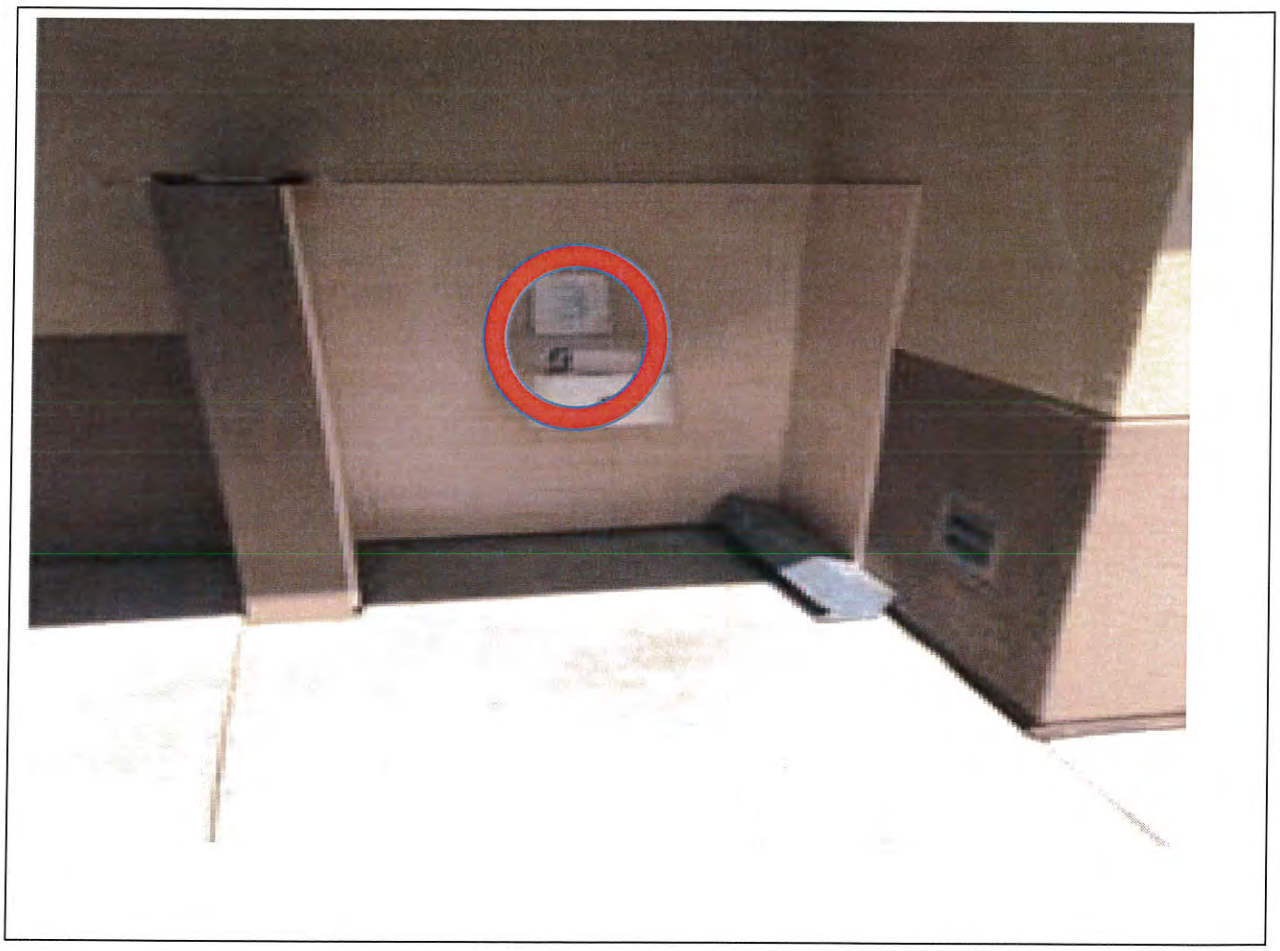

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168604

State Sample ID: 3710020-BCA-C

Date & Time Last Used: 4/26/17 @ 2200

Date & Time Sample Collected: 4/27/17 @ 614

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: Dingman Elementary

Name of Building: B-20

Location Description: Near Blue playground inside classroom B-20 back of the room

Type of Outlet: Bubbler

Description: Drinking fountain at sink

Comments/Miscellaneous:

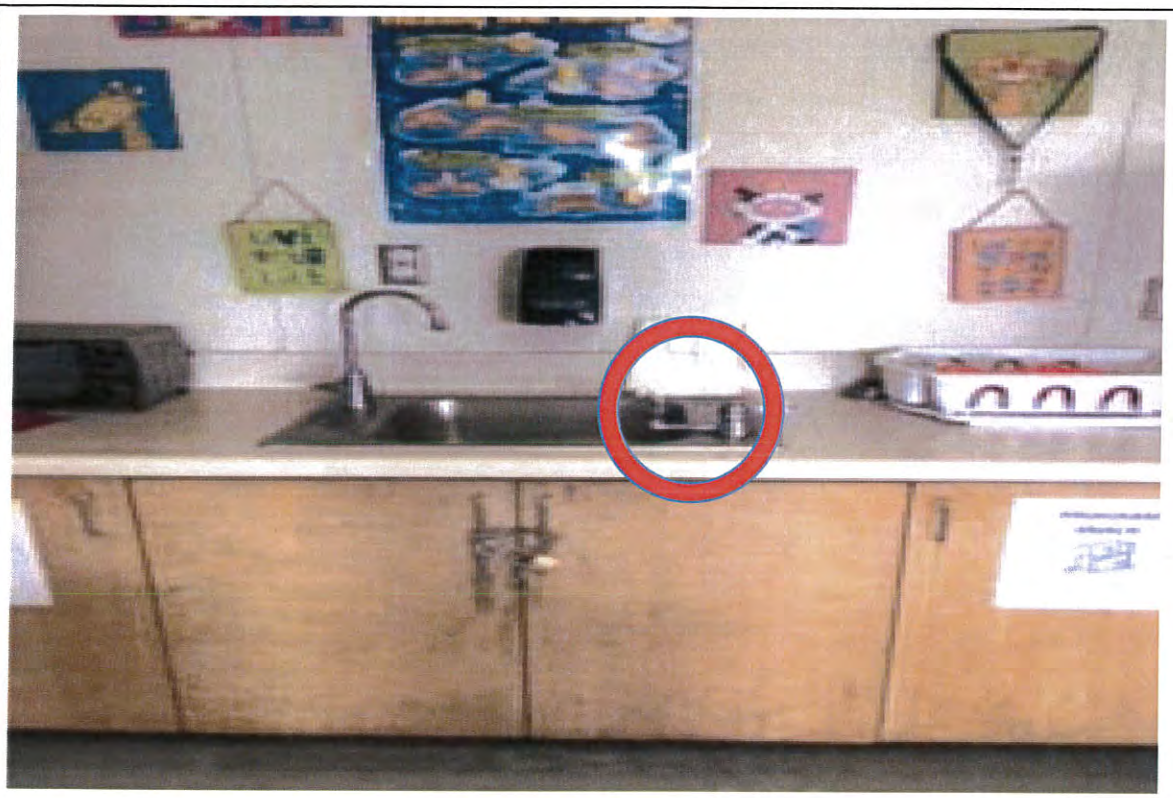

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168605

State Sample ID: 3710020-BCA-D

Date & Time Last Used: 4/26/17 @ 2200

Date & Time Sample Collected: 4/27/17 @ 600

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 5

School: Dingman Elementary

Name of Building: Bungalows

Location Description: B-16 near Red playground

Type of Outlet: Bubbler drinking fountain

Description: Drinking fountain at sink in classroom

Comments/Miscellaneous:

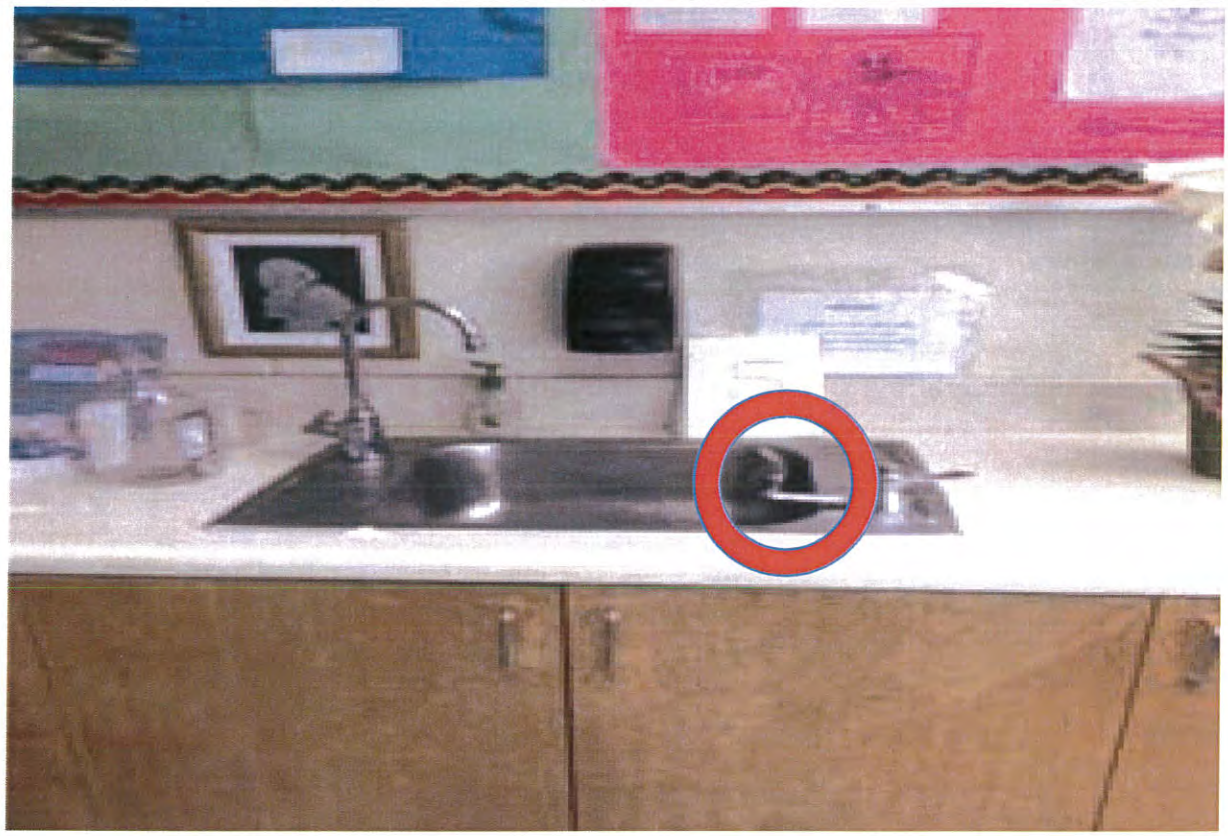

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168606

State Sample ID: 3710020-BCA-E

Date & Time Last Used: ~~4/4~~ 4/26/17 @ 2200

Date & Time Sample Collected: 4/27/17 @ 608

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

26-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168602	Dingeman Elementary	27-APR-2017	0559	A. Molloy	SAMPLE 1	
2	W1168603	Dingeman Elementary	27-APR-2017	0606		SAMPLE 2	
3	W1168604	Dingeman Elementary	27-APR-2017	0614		SAMPLE 3	
4	W1168605	Dingeman Elementary	27-APR-2017	0602		SAMPLE 4	
5	W1168606	Dingeman Elementary	27-APR-2017	0608		SAMPLE 5	

965

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign: AMolloy	Received by: Name: TOM BURGER Sign: Tom B Burger	Date & Time: 4/27/17 @0650 Location: WQL Alv	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 4-27-17
LIMS Received Time: 1033
Reviewed By: AMolloy 4/27/17

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Doyle Elementary School

Physical Address of School: 3950 Berino Ct. San Diego, CA 92122

First Bell: 7:30AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 05/02/2017

Completed by Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 05/02/2017

School's Point of Contact for Sampling Assistance

Name: Daniel Lopez

Phone: 619-306-3383

Email: dlopez2@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/8/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Doyle Elementary School 3950 Berino Ct. San Diego, CA 92122

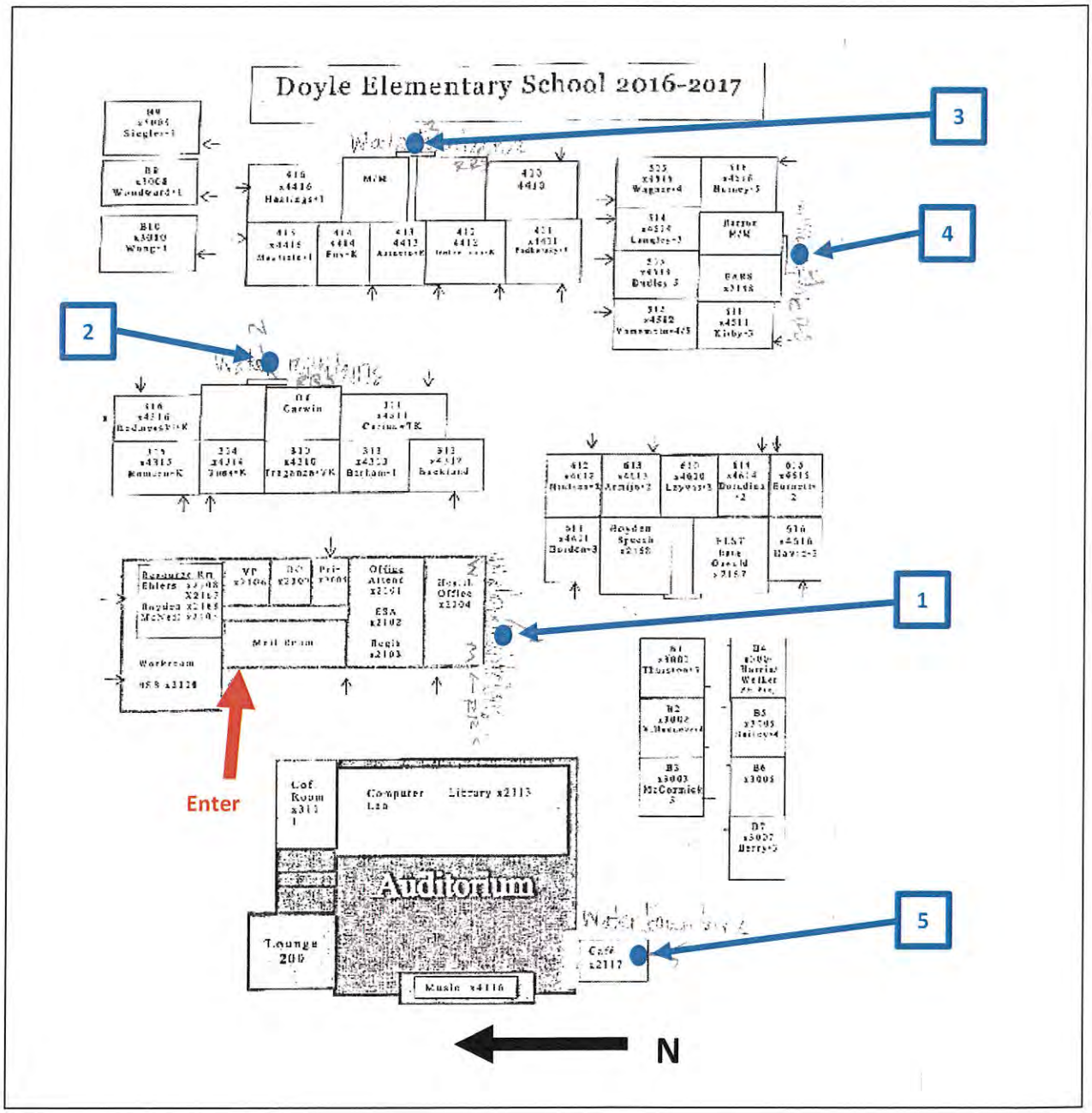

Sample No. 1

School: Doyle Elementary School

Name of Building: Admin Building

Location Description: South side of Admin. Building near restrooms

Type of Outlet: 2 Single Bubblers

Description: Bubbler on right side

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171640

State Sample ID: 3710020-BGD-A

Date & Time Last Used: 5/8/17 1800-2200

Date & Time Sample Collected: 5/9/17 0600

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez

Sample No. 2

School: Doyle Elementary School

Name of Building: 300 Building

Location Description: West side of building near restrooms

Type of Outlet: Triple bubbler

Description: Bubbler on far right

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171641

State Sample ID: 3710020-BGD-B

Date & Time Last Used: 5/8/17 1800 - 2200

Date & Time Sample Collected: 5/9/17 0600

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez-gg

Sample No. 3

School: Doyle Elementary School

Name of Building: 400 Building

Location Description: West side of building near restrooms

Type of Outlet: Triple bubbler

Description: Far right bubbler

Comments/Miscellaneous:

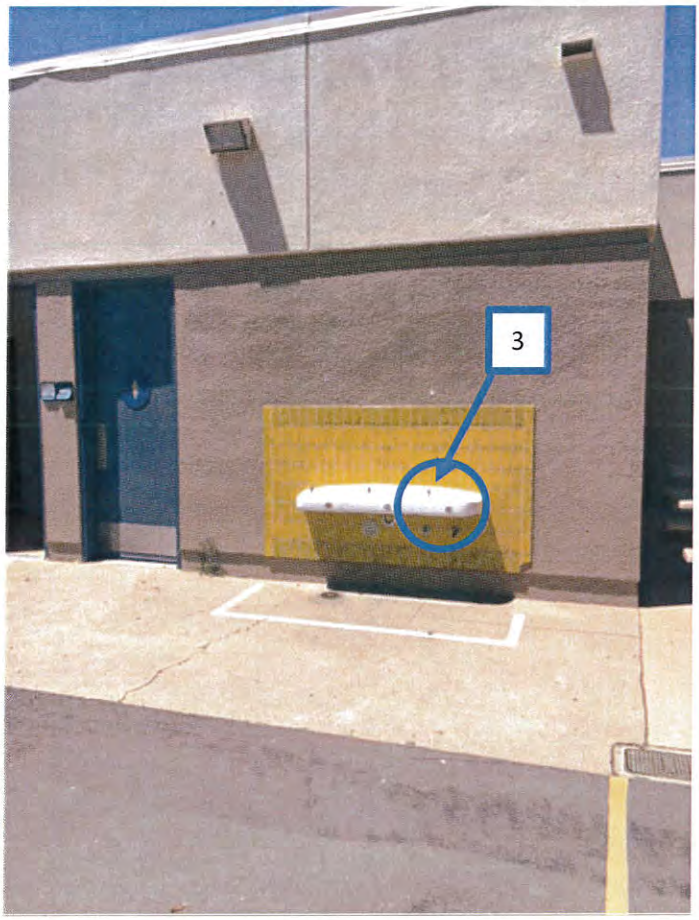

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171642

State Sample ID: 3710020-BGD-C

Date & Time Last Used: 5/8/17 1800-2200

Date & Time Sample Collected: 5/9/17 0605

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarenga

Sample No. 4

School: Doyle Elementary School

Name of Building: 500 Building

Location Description: South side of building

Type of Outlet: Triple bubbler

Description: Bubbler on far right

Comments/Miscellaneous:

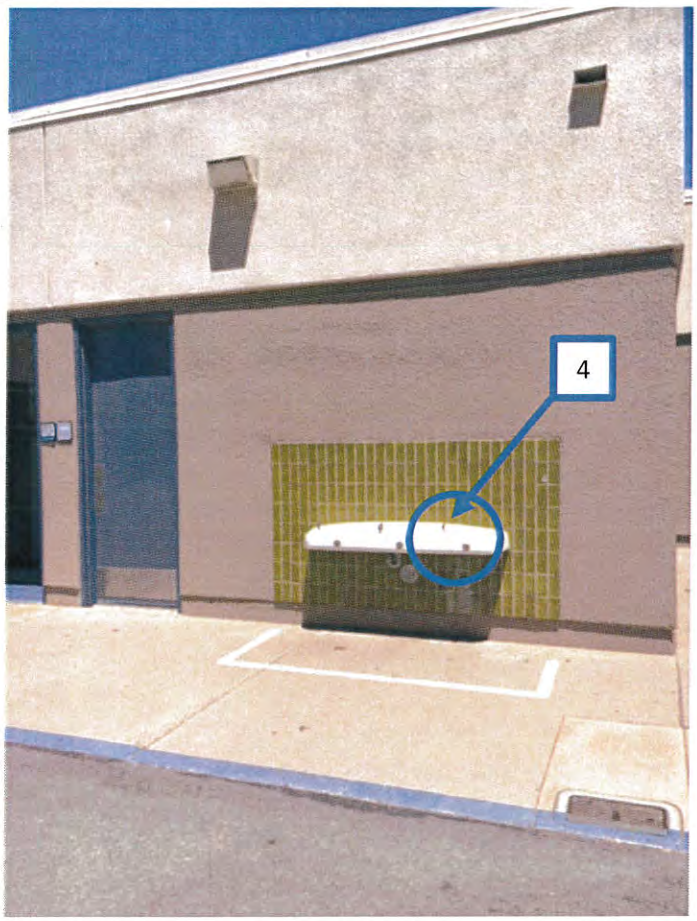

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171643

State Sample ID: 3710020-BGD-D

Date & Time Last Used: 5/8/17 1800-2200

Date & Time Sample Collected: 5/9/17 0605

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez

Sample No. 5

School: Doyle Elementary School

Name of Building: Café Building (Kitchen)

Location Description: East side of campus south side of Auditorium

Type of Outlet: Kitchen Sink without the hose extension

Description: Regular faucet

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171644

State Sample ID: 3710020-BGD-E

Date & Time Last Used: 5/8/17 1800-2200

Date & Time Sample Collected: 5/9/17 0615

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarenga

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

08-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1171640	Doyle Elementary	09-MAY-2017	0606 ✓	EA	SAMPLE 1	
2	W1171641	Doyle Elementary	09-MAY-2017	0600 ✓	EA	SAMPLE 2	
3	W1171642	Doyle Elementary	09-MAY-2017	0605 ✓	EA	SAMPLE 3	
4	W1171643	Doyle Elementary	09-MAY-2017	0605 ✓	EA	SAMPLE 4	
5	W1171644	Doyle Elementary	09-MAY-2017	0615 ✓	EA	SAMPLE 5	

973

Chain of Custody:

Relinquished by: Name: E. Alvarenga 5/9/17 0645 Sign:	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 5/09/17 @ 0645 Location: WQL AIV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/09/17
LIMS Received Time: 0700
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: East Village High School

Physical Address of School: 1405 Park Blvd., San Diego, CA 92101

First Bell: 9:00am

Meeting Date: 4/05/17

Sampling Plan Completion Date: 4/25/17

Completed by Print Name: Lori Sherman

Signature: *Lori Sherman* Date: 4/25/17

School's Point of Contact for Sampling Assistance

Name: ~~Lori Sherman~~ Daniel Lopez

Phone: ~~619-301-9086~~ (619) 306-3383

Email: lsherman1@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-27-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: East Village High - 1405 Park Blvd., San Diego, CA 92101 **(located on the north side of San Diego HS and next to a baseball field)**

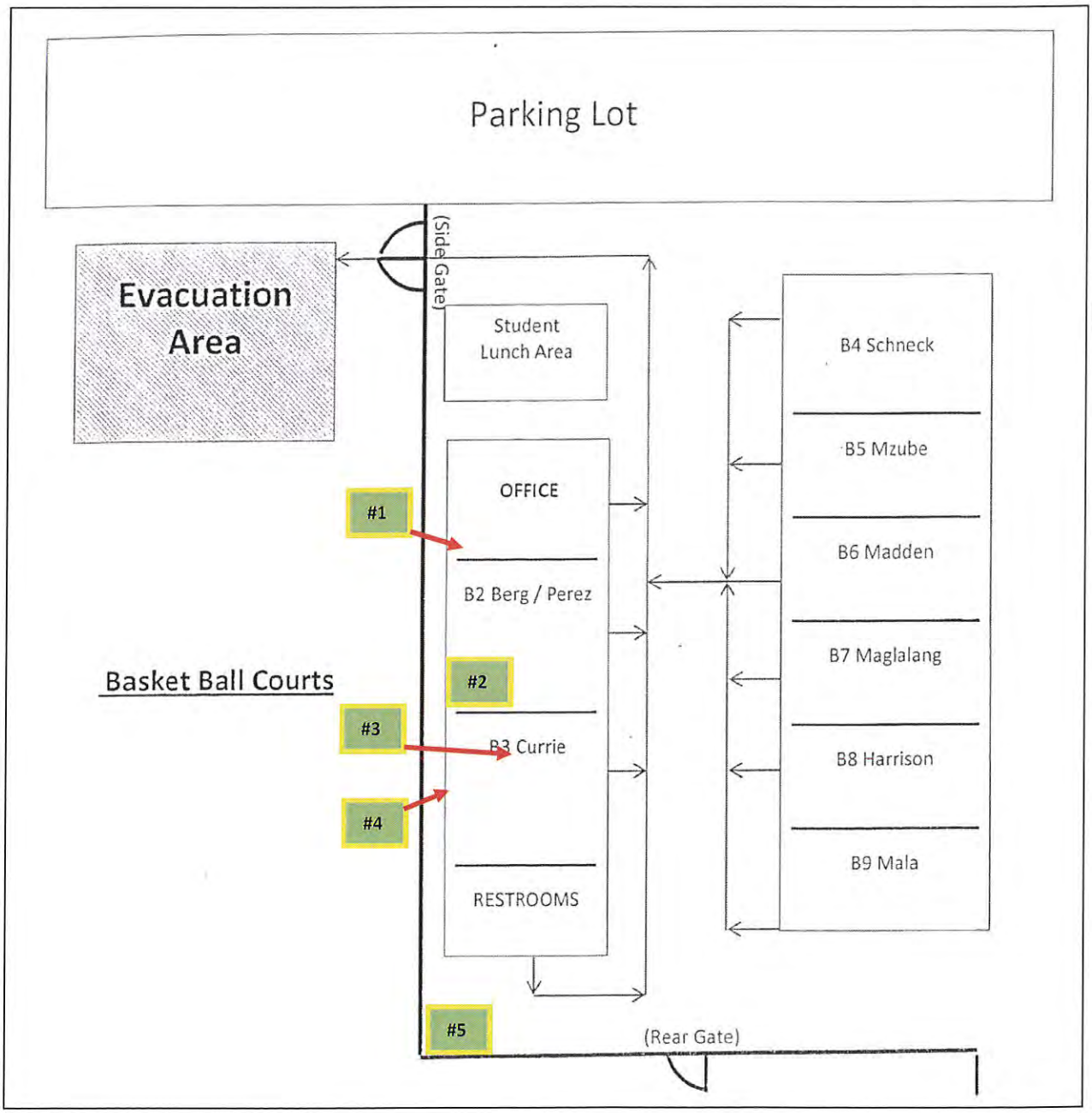

Sample No. 1

School: East Village High - 1405 Park Blvd., San Diego, CA 92101

Name of Building: Main Office/Break room

Location Description: East interior wall of staff break room

Type of Outlet: Bubbler

Description: Right sink mounted bubbler

Comments/Miscellaneous: water leaked out bottom of nozzle when pressed

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168627

State Sample ID: 3710020-B6B-B

Date & Time Last Used: 4/27/17 1800

Date & Time Sample Collected: 4/28/17 5:50

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 2

School: East Village High - 1405 Park Blvd., San Diego, CA 92101

Name of Building:

Location Description: B-2 Art room

Type of Outlet: Bubbler

Description: Sink mount bubbler

Comments/Miscellaneous: Next to deep sink

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168628

State Sample ID: 3710020-BGB-A

Date & Time Last Used: 4/27/17 1800

Date & Time Sample Collected: 4/28/17 05:55

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 3

School: East Village High - 1405 Park Blvd., San Diego, CA 92101

Name of Building: B-3

Location Description: In island near front of classroom

Type of Outlet: Bubbler

Description: Sink mount bubbler

Comments/Miscellaneous:

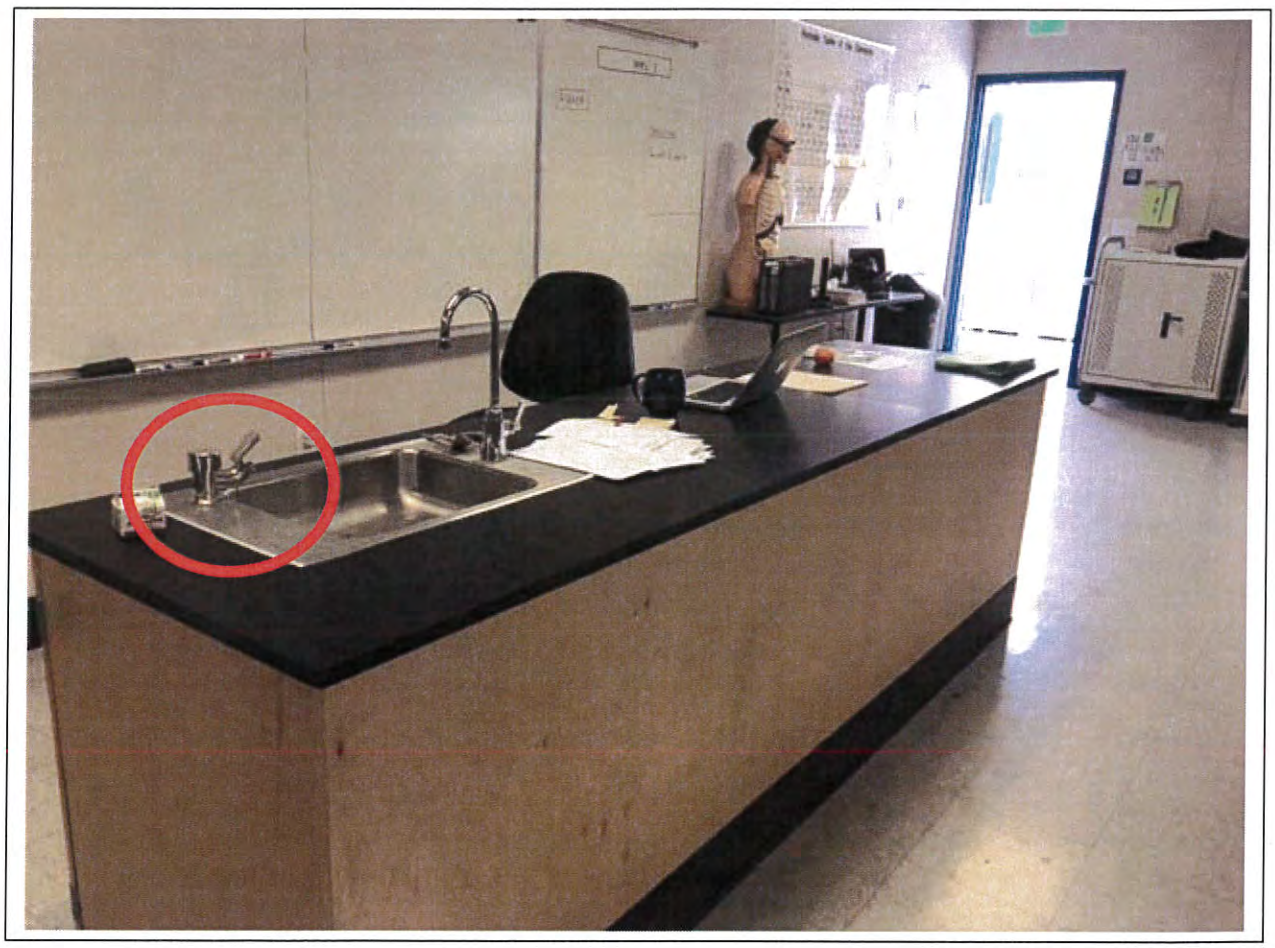

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168629

State Sample ID: 3710020-BGB-C

Date & Time Last Used: 4/27/17 1800

Date & Time Sample Collected: 4/28/17 0600

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 4

School: East Village High - 1405 Park Blvd., San Diego, CA 92101

Name of Building: B-2

Location Description: South interior wall next to refrigerator

Type of Outlet: Bubbler

Description: Sink mounted bubbler on right side

Comments/Miscellaneous:

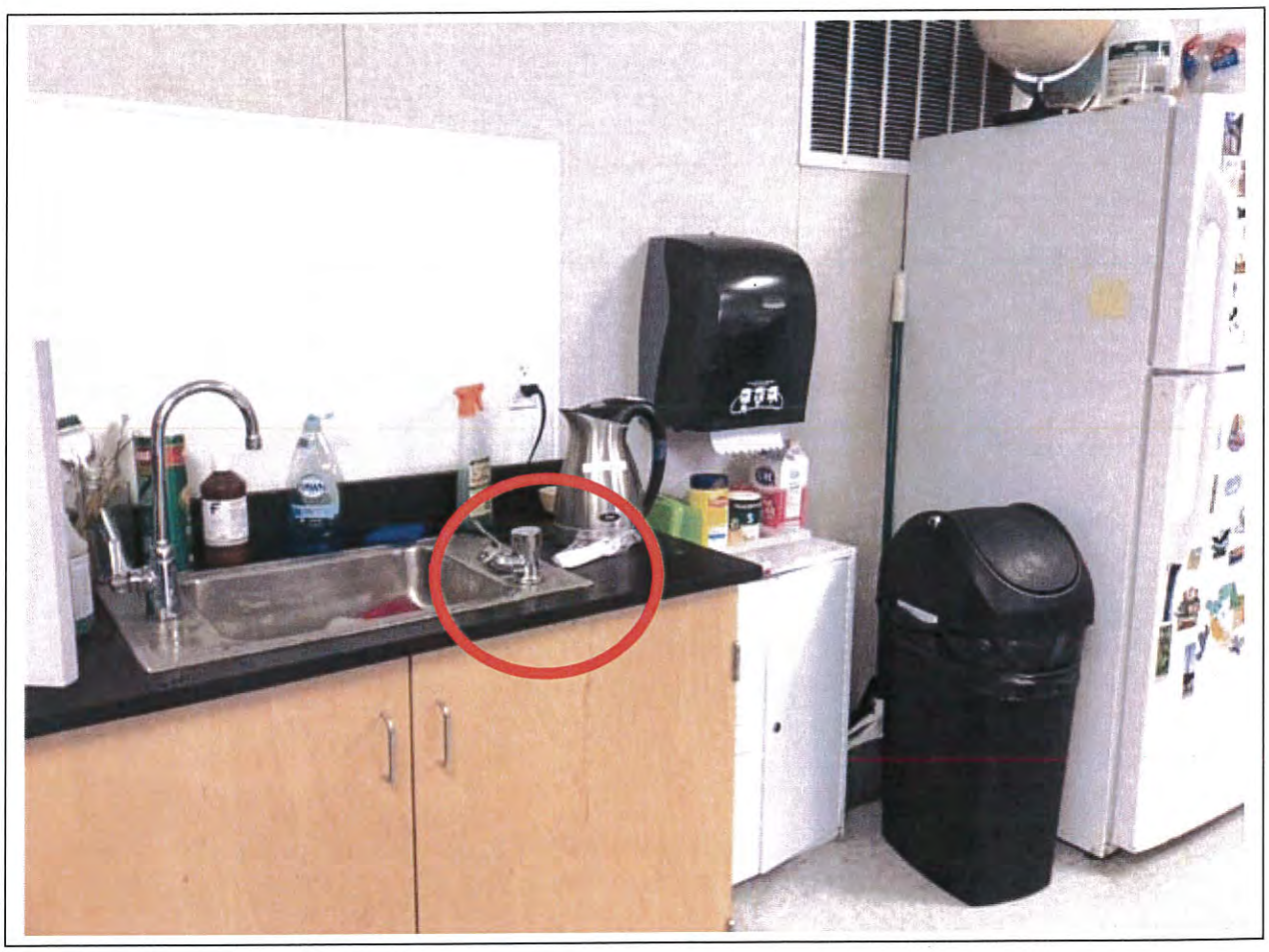

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168630

State Sample ID: 3710020-BGB-D

Date & Time Last Used: 4/27/17 1800

Date & Time Sample Collected: 4/28/17 0607

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Daniel Mayer

Sample No. 5

School: East Village High - 1405 Park Blvd., San Diego, CA 92101

Name of Building:

Location Description: East side of campus next to fence

Type of Outlet: Bubbler

Description: Left bubbler

Comments/Miscellaneous: across from restrooms

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168631

State Sample ID: 3710020-BGB-E

Date & Time Last Used: 4/27/17 1800

Date & Time Sample Collected: 4/28/17 0605

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

27-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168627	East Village High	28-APR-2017	0550	David Mayo	SAMPLE 1	
2	W1168628	East Village High	28-APR-2017	0555		SAMPLE 2	
3	W1168629	East Village High	28-APR-2017	0600		SAMPLE 3	
4	W1168630	East Village High	28-APR-2017	0602		SAMPLE 4	
5	W1168631	East Village High	28-APR-2017	0605		SAMPLE 5	

Chain of Custody:

Relinquished by: Name: David Mayo Sign: David Mayo	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 4/28/17 06:30 Location: ALV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 4/28/17
LIMS Received Time: 0957
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Edison Elementary School

Physical Address of School: 4077 35th St.

First Bell: 7:30AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/17/2017

Completed by Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 04/17/2017

School's Point of Contact for Sampling Assistance

OK 7

Name: ~~Daniel Lopez~~

Phone: ~~619-306-3383~~

Email: dlopez2@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 4/28/17 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Euclid Elementary School, 4077 35th St, San Diego, CA 92104

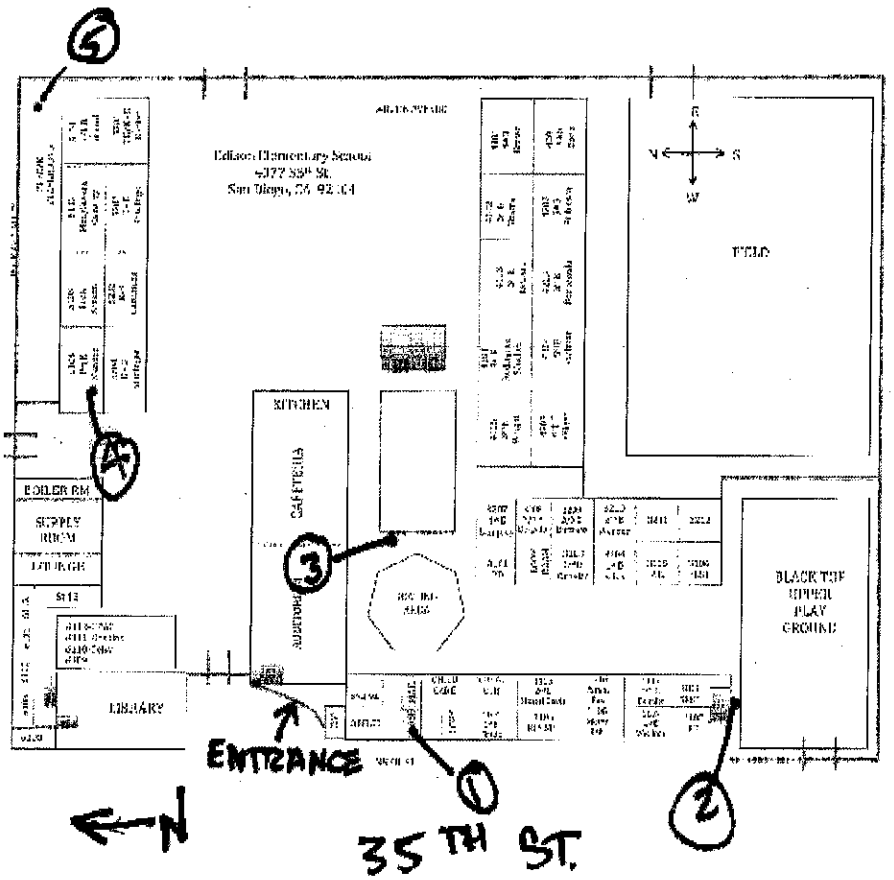

Sample No. 1

School: Edison Elementary School

Name of Building: 1000 Building (Main Office)

Location Description: Nurse Office in Main Office

Type of Outlet: Regular Faucet

Description: Regular Faucet

Comments/Miscellaneous:

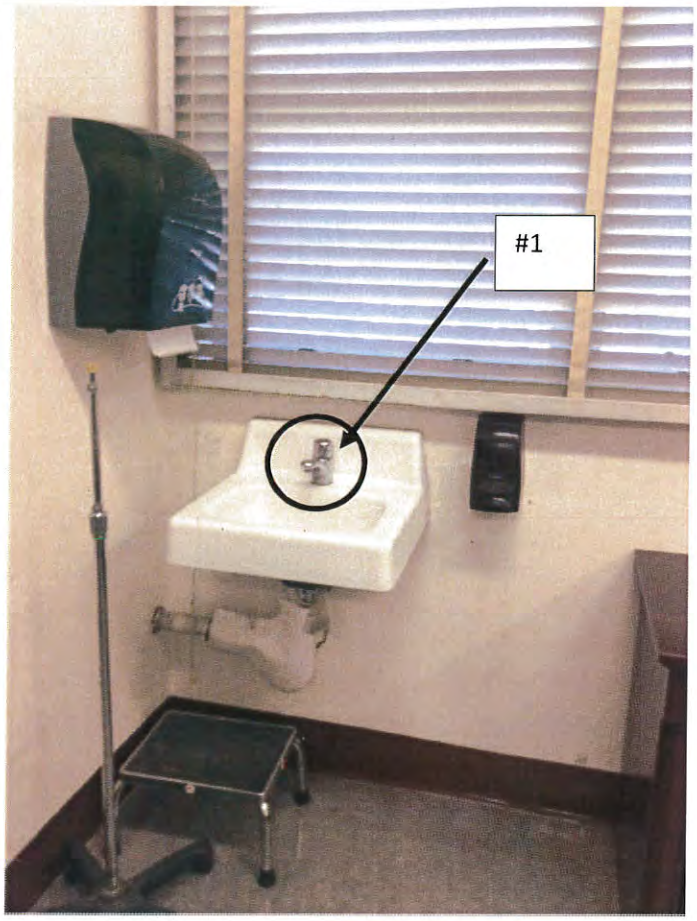

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168282

State Sample ID: 3710020-AHC-A

Date & Time Last Used: 5/9/17 2200

Date & Time Sample Collected: 5/10/17 0614

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 2

School: Edison Elementary School

Name of Building: 1000 Building

Location Description: South end of building

Type of Outlet: Single Bubblers

Description: Bubbler on left

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168283

State Sample ID: 3710020-AHC-B

Date & Time Last Used: 5/9/17 1200

Date & Time Sample Collected: 5/10/17 0608

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: M. Nelson

Sample No. 3

School: Edison Elementary School

Name of Building: Restroom Building

Location Description: West end of building in front of restrooms and patio area

Type of Outlet: single bubblers

Description: left bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168284

State Sample ID: 3710020-AHC-AC

Date & Time Last Used: 5/9/17 2200

Date & Time Sample Collected: 5/10/17 0603

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: M. Nelson

Sample No. 4

School: Edison Elementary School

Name of Building: 5000 Bulding

Location Description: North end of campus two story building

Type of Outlet: Indoor bubbler room 5104

Description: Single Bubbler

Comments/Miscellaneous:

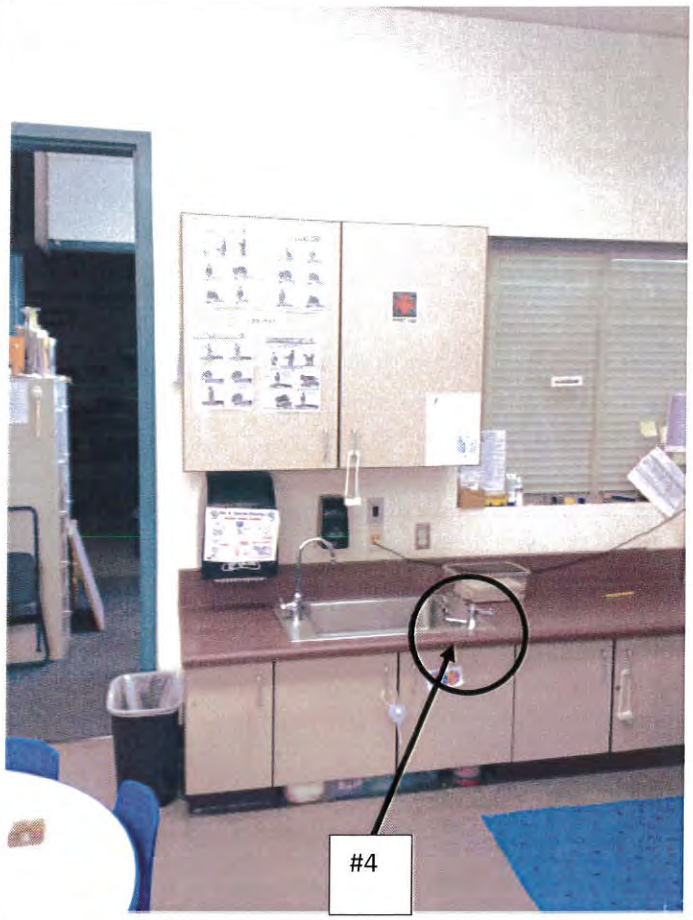

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168285

State Sample ID: 3710020-AHC-AD

Date & Time Last Used: 5/9/17 2200

Date & Time Sample Collected: 5/10/17 0556

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 5

School: Edison Elementary School

Name of Building: 5000 Building

Location Description: Outdoor North end of campus in pre-school and kindergarten area

Type of Outlet: Single Bubblers

Description: Bubbler on left side.

Comments/Miscellaneous:

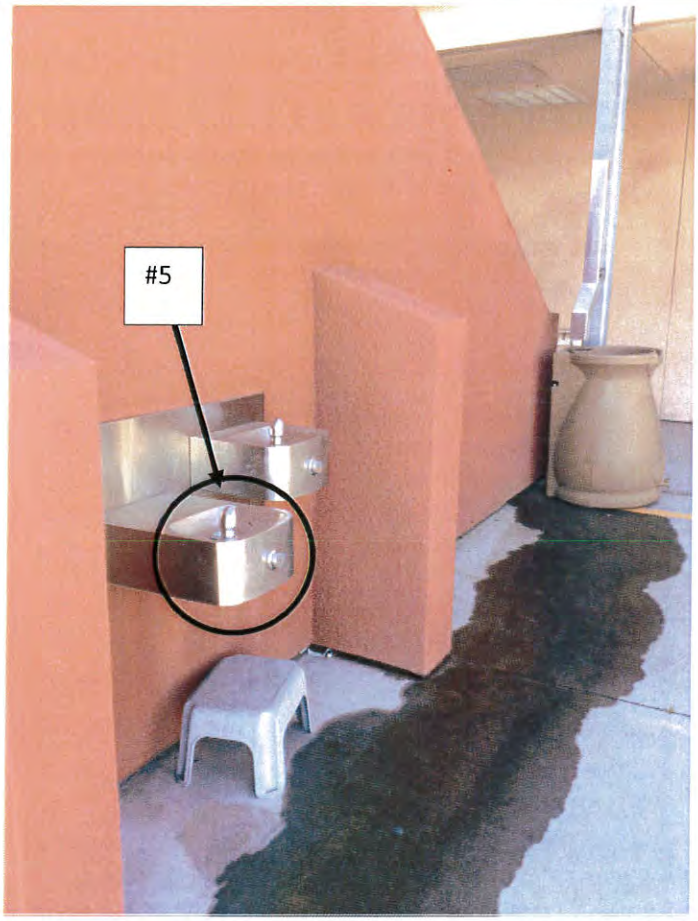

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168286

State Sample ID: 3710020-AHC-C

Date & Time Last Used: 5/9/17 2200

Date & Time Sample Collected: 5/10/17 0559

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

08-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168282	Edison Elementary	10-MAY-2017	0614	M. Nelson	SAMPLE 1	
2	W1168283	Edison Elementary	10-MAY-2017	0608		SAMPLE 2	
3	W1168284	Edison Elementary	10-MAY-2017	0603		SAMPLE 3	
4	W1168285	Edison Elementary	10-MAY-2017	0556		SAMPLE 4	
5	W1168286	Edison Elementary	10-MAY-2017	0559		SAMPLE 5	

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Chain of Custody:

Relinquished by: Name: M. Nelson Sign:	Received by: Name: AMally Sign: Alejandra Molloy	Date & Time: 5/10/17 @ 1320 Location: WQL AW	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMally
Received Date: 5/10/17
LIMS Received Time: 1332
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: #90 Ellen Browning Scripps Elementary School

Physical Address of School: 11778 Cypress Canyon rd San Diego CA 92131

First Bell: 8:40

Meeting Date: ...3/22/2017

Sampling Plan Completion Date: 4/25/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 4/25/2017

School's Point of Contact for Sampling Assistance

Name: Elizabeth Lara

Phone: 619-302-7616

Email: elara@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-27-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: 11778 Cypress Canyon Rd San Diego CA 92131

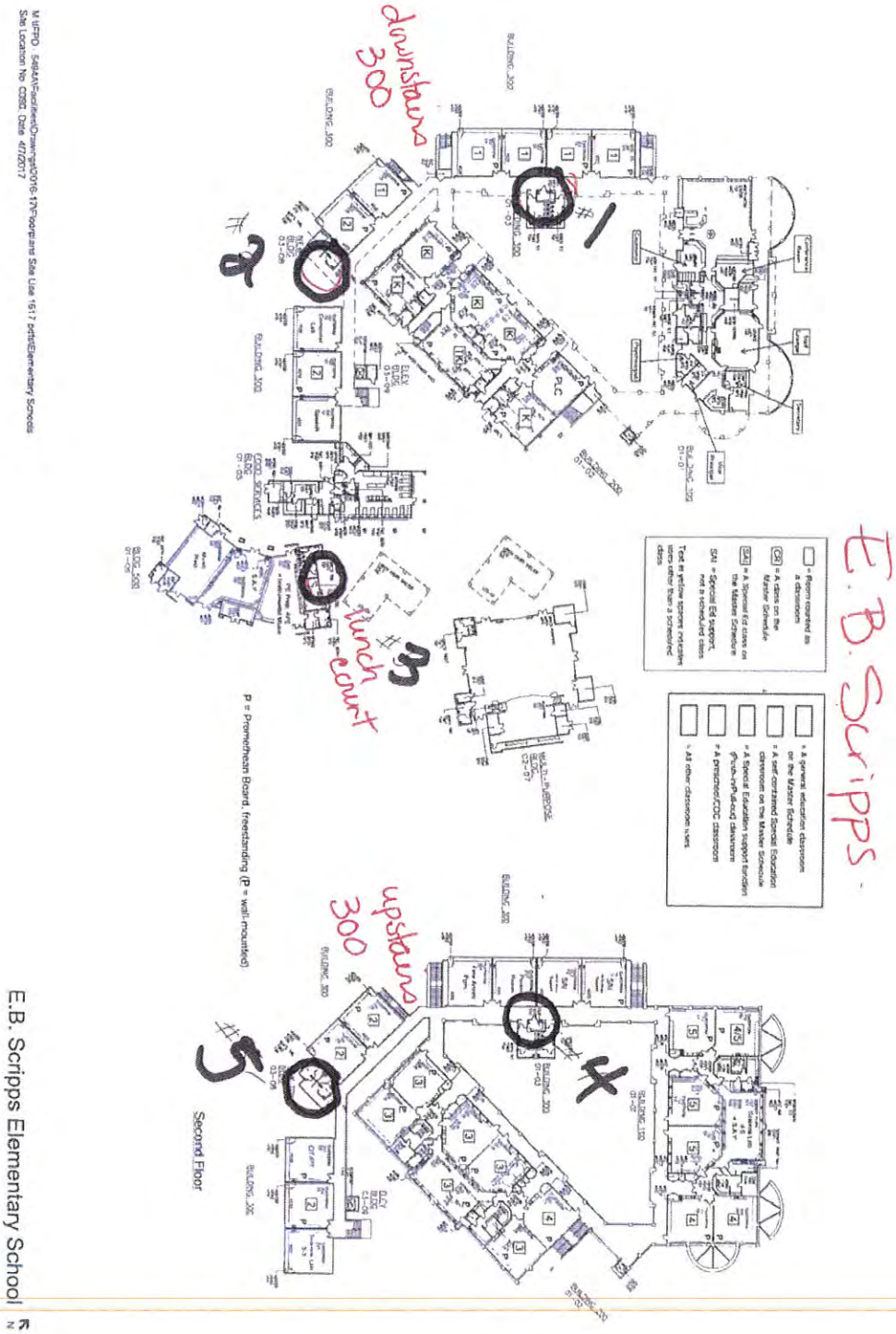

Sample No. 1

School: Ellen Browning Scripps Elementary

Name of Building: 300

Location Description: Down stairs hallway near custodian door 2 & girls /boys restrooms

Type of Outlet: Bubbler drinking fountain of two

Description: lower right fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168607

State Sample ID: 3710020-BCB-A

Date & Time Last Used: 4/27/17 6pm-10pm

Date & Time Sample Collected: 4/28/17 6:01am

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Feryal Moshavegh

Sample No. 2

School: Ellen Browning Scripps Elementary School

Name of Building: 300

Location Description: Down stairs between 306 & restroom

Type of Outlet: Bubbler drinking fountain

Description: Right drinking fountain of two

Comments/Miscellaneous:

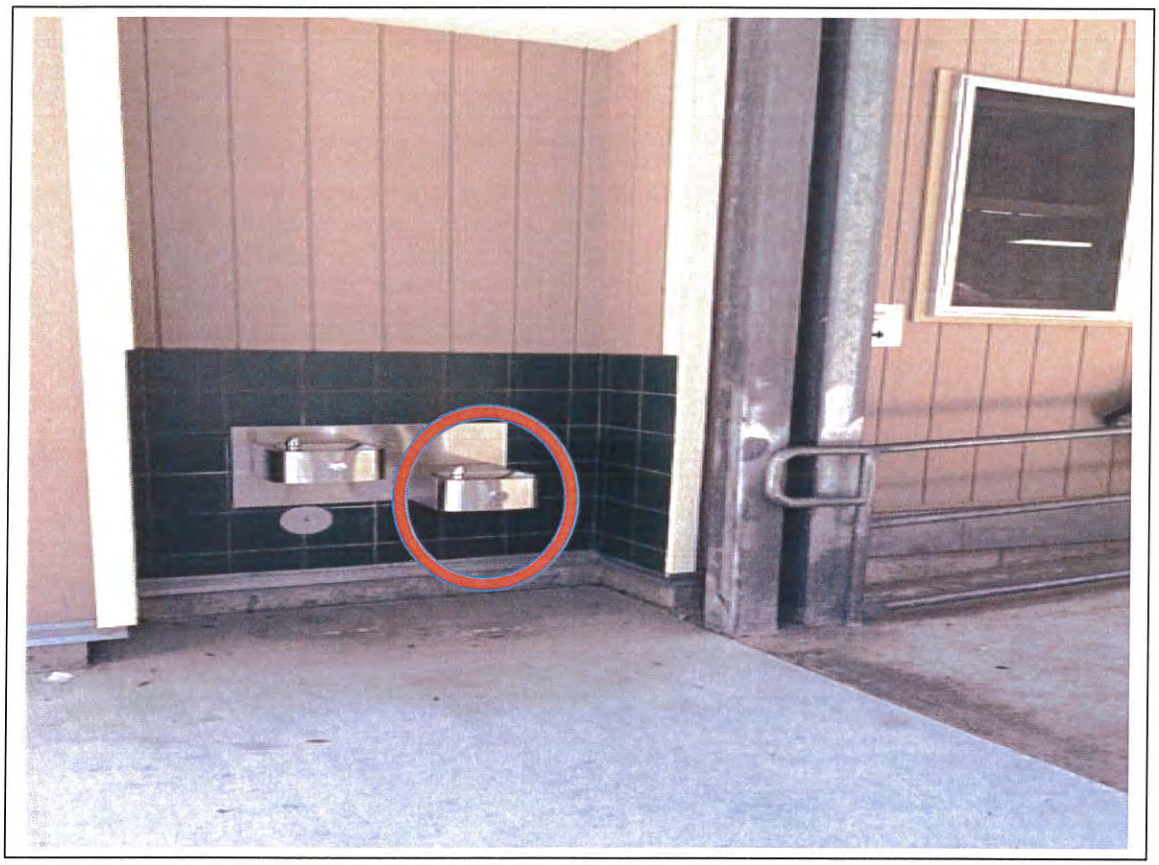

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168608

State Sample ID: 3710020-BCB-B

Date & Time Last Used: 4/27/17 6pm-10:pm

Date & Time Sample Collected: 4/28/17 6:03am

Direct Sample ☐ Transfer ☒

SampleName of Water System Sample Collector: Feryal Mosharagh

Sample No. 3

School: Ellen Browning Scripps Elementary School

Name of Building: Lunch Court yard-Restrooms

Location Description: south end of lunch court

Type of Outlet: Bubbler drinking fountain

Description: Left drinking fountain of two

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168609

State Sample ID: 3710020-BCB-C

Date & Time Last Used: 4/27/17 6pm-10:pm

Date & Time Sample Collected: 4/28/17 6:08 am

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector:

Sample No. 4

School: Ellen Browning Scripps Elementary School

Name of Building: 300 Up Stairs

Location Description: near 356

Type of Outlet: Bubbler drinking fountain

Description: Right drinking fountain of two

Comments/Miscellaneous:

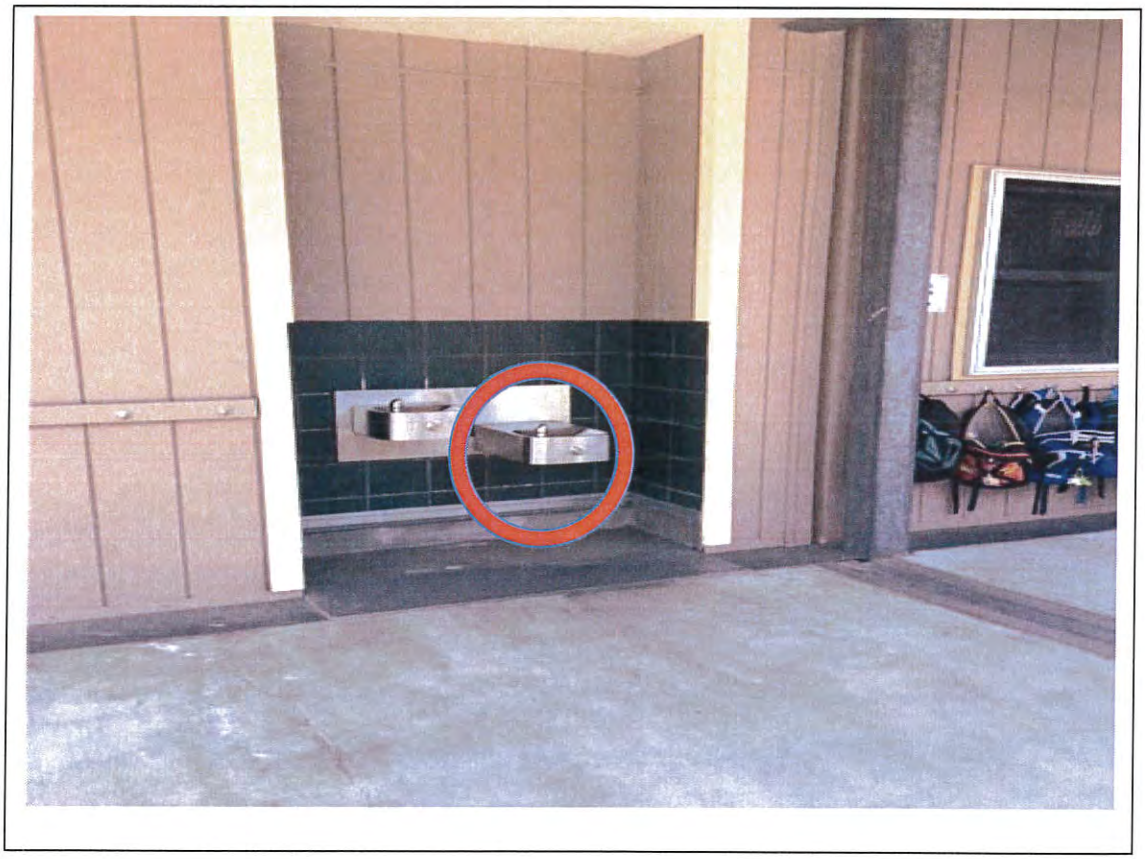

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168610

State Sample ID: 3710020-BCB-D

Date & Time Last Used: 4/27/17 6pm-10pm

Date & Time Sample Collected: 4/28/17 6:11am

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: Feryal Mosharegh

Sample No. 5

School: Ellen Browning Scripps Middle School

Name of Building: 300 up stairs

Location Description: next to boys /girls restroom & custodian door #3

Type of Outlet: Bubbler drinking fountain

Description: Left drinking fountain of two

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168611

State Sample ID: 3710020-BCB-E

Date & Time Last Used: 4/27/17, 6:03 pm

Date & Time Sample Collected: 4/28/17, 6:13 am

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Fergal Moshaveyh

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

27-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168607	Scripps Elementary	28-APR-2017	6:01 am	FM	SAMPLE 1	
2	W1168608	Scripps Elementary	28-APR-2017	6:03 am	FM	SAMPLE 2	
3	W1168609	Scripps Elementary	28-APR-2017	6:08 am	FM	SAMPLE 3	
4	W1168610	Scripps Elementary	28-APR-2017	6:11 am	FM	SAMPLE 4	
5	W1168611	Scripps Elementary	28-APR-2017	6:13 am	FM	SAMPLE 5	

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Chain of Custody:

Relinquished by: Name: FERYAL MOSHAVEGH Sign: Feryal Moshavegh	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 4/28/17 @0705 Location: ALV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 4/28/17
LIMS Received Time: 0959
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Emerson Elementary

School Address: 3510 Newton AVE

First Bell:

Meeting Date: 2-21-17

Tom B Burger 2-21-17
Signature & Date Water System

Tom Burger
Print Name

J D Baker 2/21/2017
Signature & Date School Representative

John D. Baker
Print Name

Sampling Plan Completion Date: 3/2/17

Completed by: DANIEL LOPEZ

Signature: Daniel Lopez

School Sampling Contact:

Name: DAN Lopez

Phone: 619-306-3383

Email: dlopez@sandinet

Send completed sampling plan to:
A MS word document is preferred in addition to a scanned signed page.

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

Sample Locations acknowledgement

Emerson/Bandini (K-6) - 3510 Newton Ave. (92113)

Sample No. 1

School: Emerson

Name of Building: office

Location Description: Health office

Type of Outlet faucet

Description faucet in health office sink

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample I.D.: 3710020-002-1

LIMS Sample ID: W1158860

Date & Time Last Used: 2:00 - 4:00 pm 3-2-17

Date Sample Collected: 3-3-17

Time Sample Collected: 0607

Name of Water System Sample Collector Tom Burger TMB

Sample No. 2

School: Emerson

Name of Building: Cafeteria

Location Description: Cafeteria

Type of Outlet Pull down rinse/fill spout

Description back left corner sink

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-002-2

LIMS Sample ID: W11599031

Date & Time Last Used: 1400 3-6-17

Date Sample Collected: 3-7-17

Time Sample Collected: 0602

Name of Water System Sample Collector Tom Burger

Re-sample for W11588661

Sample No. 2

School: Emerson

Name of Building:

Location Description: Cafeteria

Type of Outlet Fill faucet

Description near back left corner

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample I.D.: 3710020-002-1

LIMS Sample ID: W1158861

Date & Time Last Used:

Date Sample Collected: N.S.

Time Sample Collected:

Name of Water System Sample Collector

Hot water was feeding pull down

Sample No. 3

School: Emerson

Name of Building: near room 115

Location Description: between rest rooms

Type of Outlet Drinking fountain

Description Right bubbla on double fountain

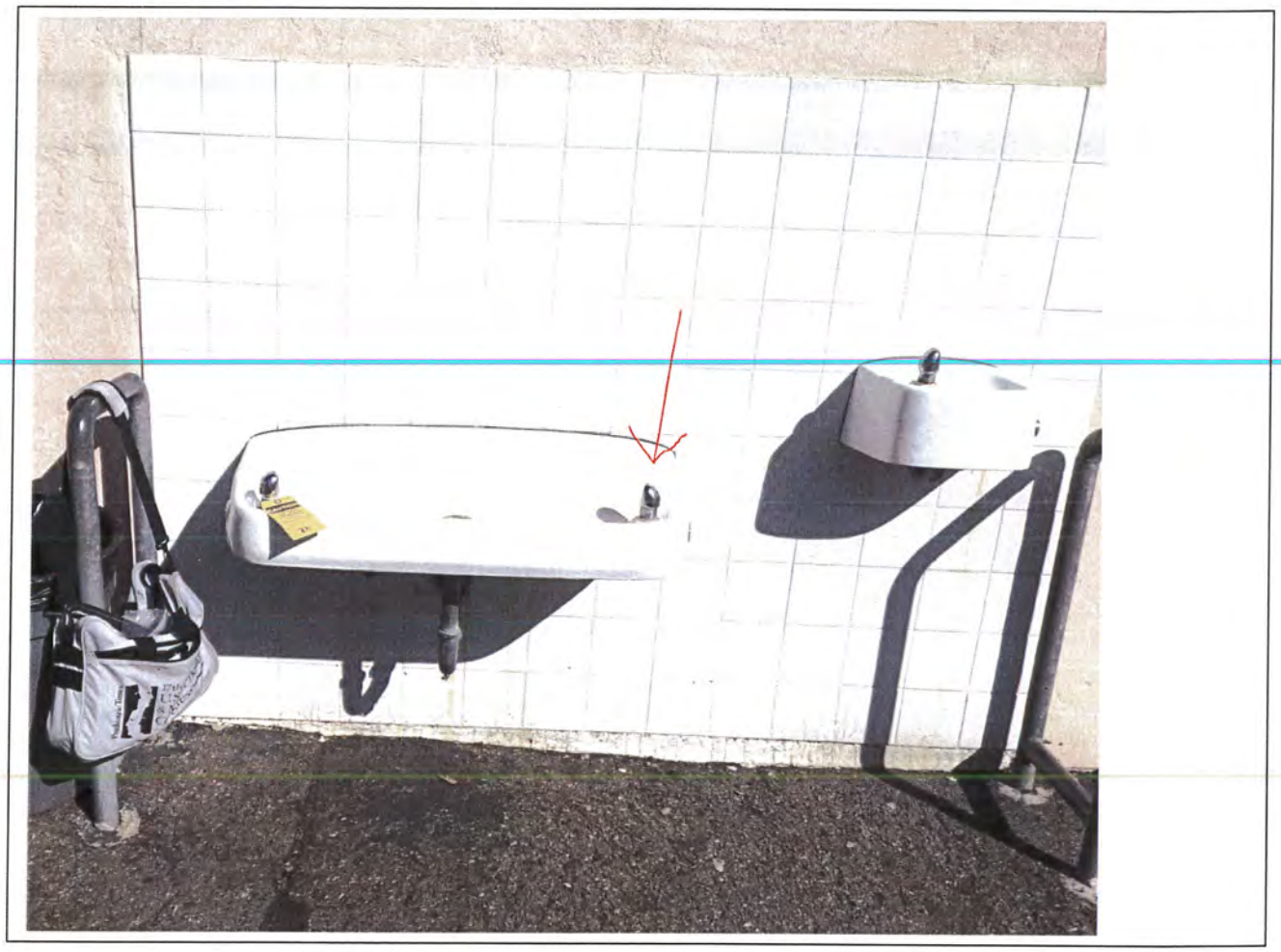

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample I.D.: 3710020-002-3

LIMS Sample ID: W1158862

Date & Time Last Used: between 2:00 - 4:00 pm 3-2-17

Date Sample Collected: 3-3-17

Time Sample Collected: 0616

Name of Water System Sample Collector Tom Burger TMB

Sample No. 4

School: Emerson

Name of Building:

Location Description: in room 106

Type of Outlet drinking bubbler

Description back right corner sink

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample I.D.: 3710020-002-4

LIMS Sample ID: W11588863

Date & Time Last Used: between 2:00-4:00 pm 3-2-17

Date Sample Collected: 3-3-17

Time Sample Collected: 0624

Name of Water System Sample Collector Tom Burger TMB

Sample No. 5

School: Emerson

Name of Building:

Location Description: Right of room 107

Type of Outlet drinking fountain

Description left bubbler between rest rooms

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample I.D.: 3710020-002-5

LIMS Sample ID: W1158864

Date & Time Last Used: between 2:00-4:00 pm 3-2-17

Date Sample Collected: 3-3-17

Time Sample Collected: 0622

Name of Water System Sample Collector Tom Burger TMB

San Diego Water Quality Laboratory

LEAD_SCHOOL For 03-MAR-2017 Emerson Elementary

No.	Sample ID	#	Description	Source	Sample Time	Sampler	Comments
1	W1158860	1	ICPMS-LEAD	PB_SCHOOL	0607	TMB	Health office
2	W1158861	1	ICPMS-LEAD	PB_SCHOOL *	NS.	TMB	Cafeteria Sink
3	W1158862	1	ICPMS-LEAD	PB_SCHOOL	0616	TMB	DW near Rm 115
4	W1158863	1	ICPMS-LEAD	PB_SCHOOL	0624	TMB	DW in Rm 106
5	W1158864	1	ICPMS-LEAD	PB_SCHOOL	0622	TMB	DW near Rm 107

* Not sampled. Hot water was on supplying rinse faucet

Relinquished By: Tim B Burger Date: 3-3-17 Time: 0947 Received By: [illegible] Date: 3/3/17 Time: 0948

Relinquished By: Date: Time: Received By: Date: Time:

Relinquished By: Date: Time: Received By: Date: Time:

Received By: [illegible]
Received Date: 03/03/17
LIMS Received Time: 0948
Reviewed By:

San Diego Water Quality Laboratory

LEAD_SCHOOL For 07-MAR-2017

No.	Sample ID	#	Description	Source	Sample Time	Sampler	Comments
1	W1158855	1	ICPMS-LEAD	PB_SCHOOL	0636	TMB	RM 127
2	W1158856	1	ICPMS-LEAD	PB_SCHOOL	0641	TMB	Rm 128
3	W1158857	1	ICPMS-LEAD	PB_SCHOOL	0630	TMB	Rm 132
4	W1158858	1	ICPMS-LEAD	PB_SCHOOL	0625	TMB	Rm 129
5	W1158859	1	ICPMS-LEAD	PB_SCHOOL	0619	TMB	Rm 130
6	W1159031		LEAD	PB_SCHOOL	0602	TMB	Cafeteria

Order of Pics

130
129

Relinquished by: Tom B. Burger
Signiture: Tom Burger
Date/Time 3-7-17 0810

Received by: Alejandra Molloy
Signiture: A Molloy
Date/Time: 3/7/17 @ 0812

NOTES:

Received By:
Received Date:
Received Time:
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Emerson Elementary

Physical Address of School: 3510 Newton

First Bell: _____

Meeting Date: _____

Sampling Plan Completion Date: _____

Completed by Print Name: _____

Signature: _____ Date: _____

School's Point of Contact for Sampling Assistance

Name: _____

Phone: _____

Email: _____

City of San Diego 3710020

Approved By: Tom B Burger _____
Signature & Date Print Name

Re sample plan Previously Approved

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: _____

Sample No. 3

School: Emerson

Name of Building:

Location Description: near room 115, between restrooms

Type of Outlet: Drinking Fountain

Description: right bubbler on double fountain

Comments/Miscellaneous:

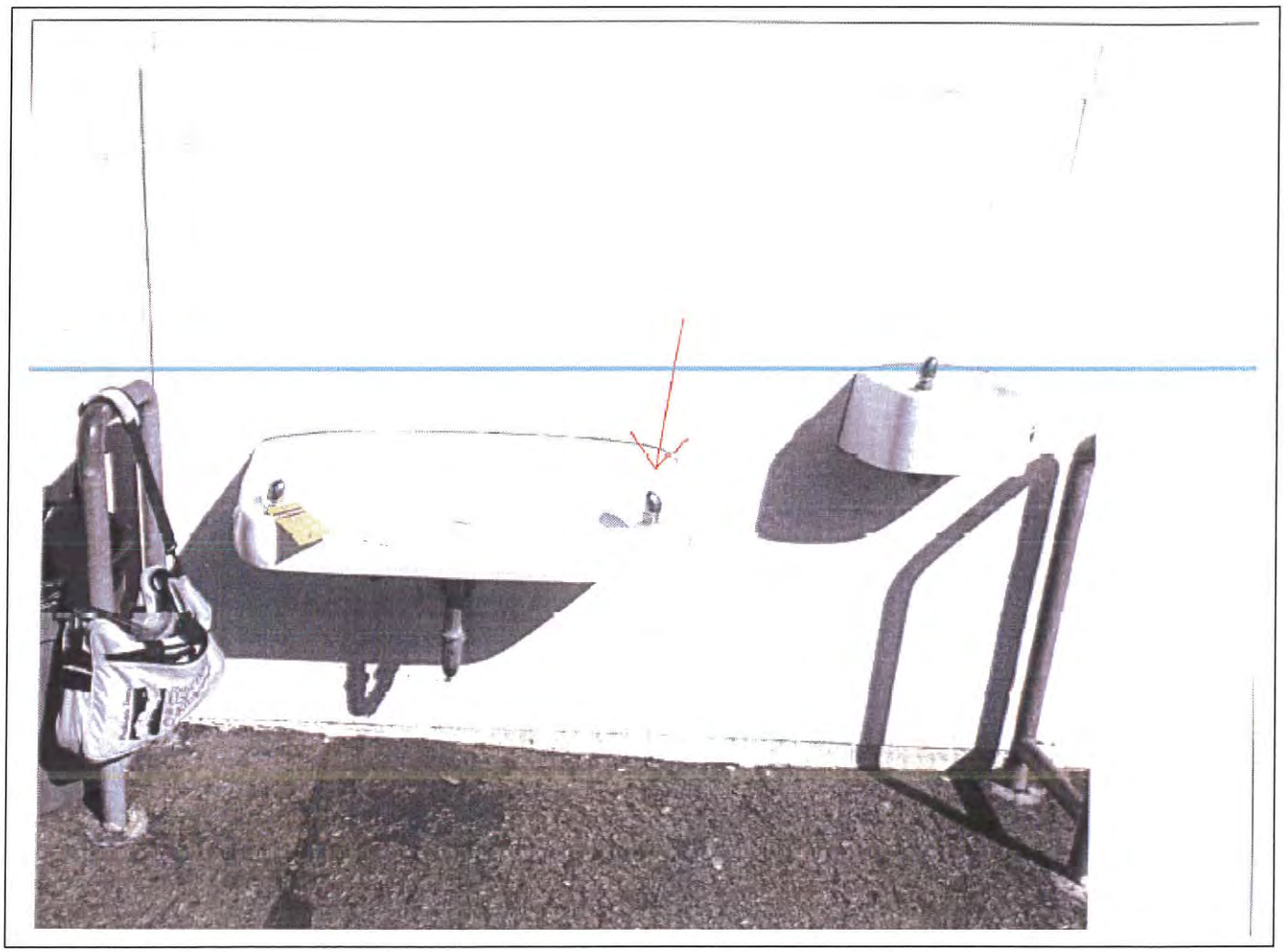

City use only below this line

Sample type Initial ☐ 1st Follow-up ■ 2nd Follow-up ☐ Post-corrective action ■

State Sample ID: 3710020-AAC-C

LIMS Sample ID: W1164332

Date & Time Last Used: 4-5-17 2200

Date & Time Sample Collected: 4-6-17 0707

Name of Water System Sample Collector: TBurr

Comments:

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

05-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1164332	Emerson Elementary	06-APR-2017	0707	T. Burger	SAMPLE 3	Pb

Chain of Custody:

Relinquished by: Name: Tom Burger Sign: Tom Burger	Received by: Name: Gloria Siqueiros Sign: Siqueiros	Date & Time: 4/6/17 @ 0815 Location: Alvarado	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: Siqueiros
Received Date: 4/6/17
LIMS Received Time: 0816
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Encanto Elementary School

Physical Address of School: 822 65th St., San Diego, CA 92114

First Bell: 7:30AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 03/28/2017

Completed by Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 03/28/2017

School's Point of Contact for Sampling Assistance

Name: Daniel Lopez

Phone: 619-306-3383

Email: dlopez2@sandi.net

City of San Diego 3710020

Approved By: Tom B Burger 4-3-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Encanto Elementary School

Physical Address of School: 822 65th St., San Diego, CA 92114

First Bell: 7:30AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 03/28/2017

Completed by Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 03/28/2017

School's Point of Contact for Sampling Assistance

Name: Daniel Lopez

Phone: 619-306-3383

Email: dlopez2@sandi.net

City of San Diego 3710020

Approved By: _____ _____

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

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Sample Locations acknowledgement

School and Address: Encanto Elementary School 822 65th St. San Diego, CA 92114

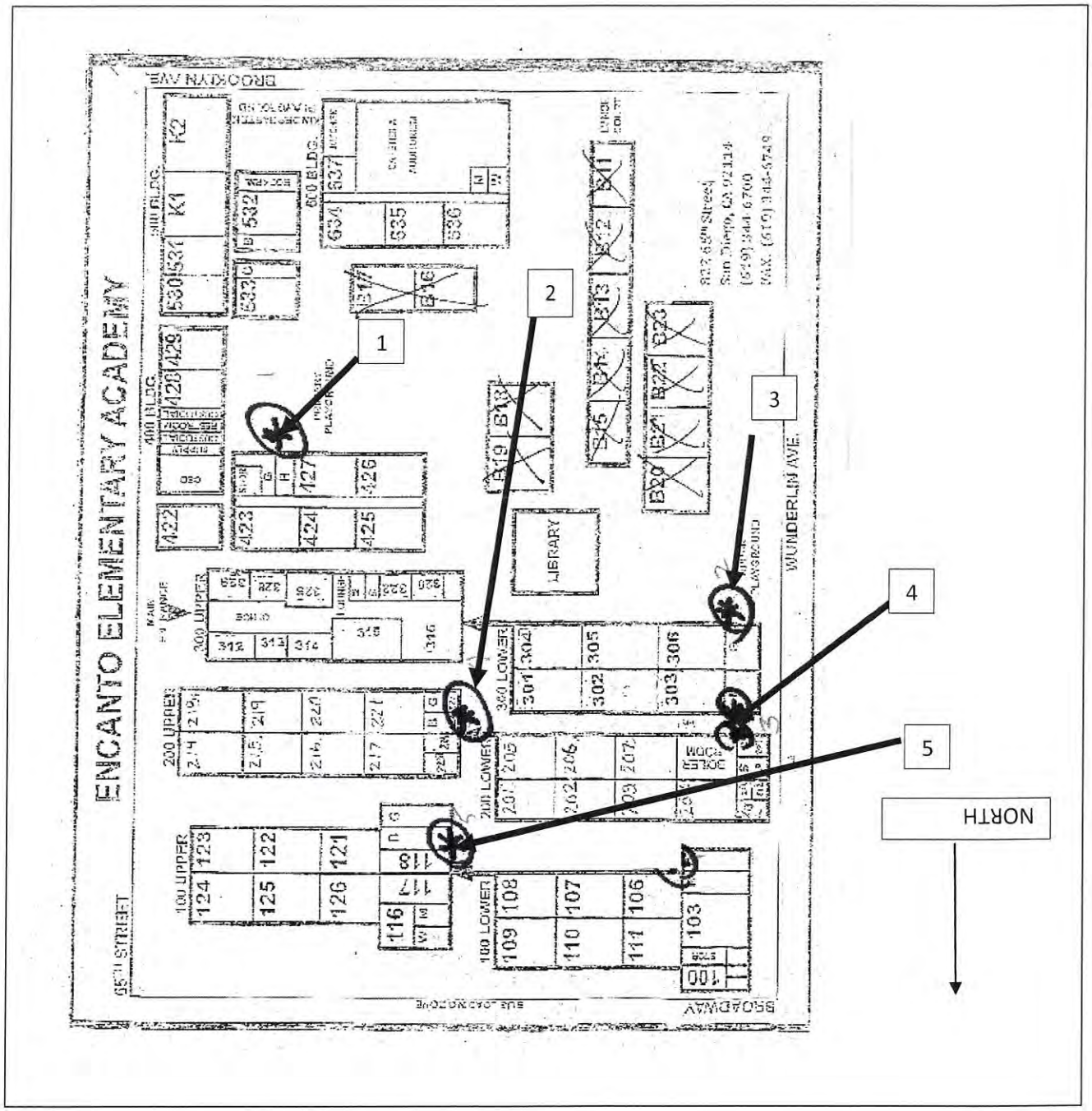

Sample No. 1

School: Encanto Elementary School

Name of Building: 400 Building

Location Description: Outside bubbler located on wall

Type of Outlet: Bubbler

Description: Far right bubbler

Comments/Miscellaneous:

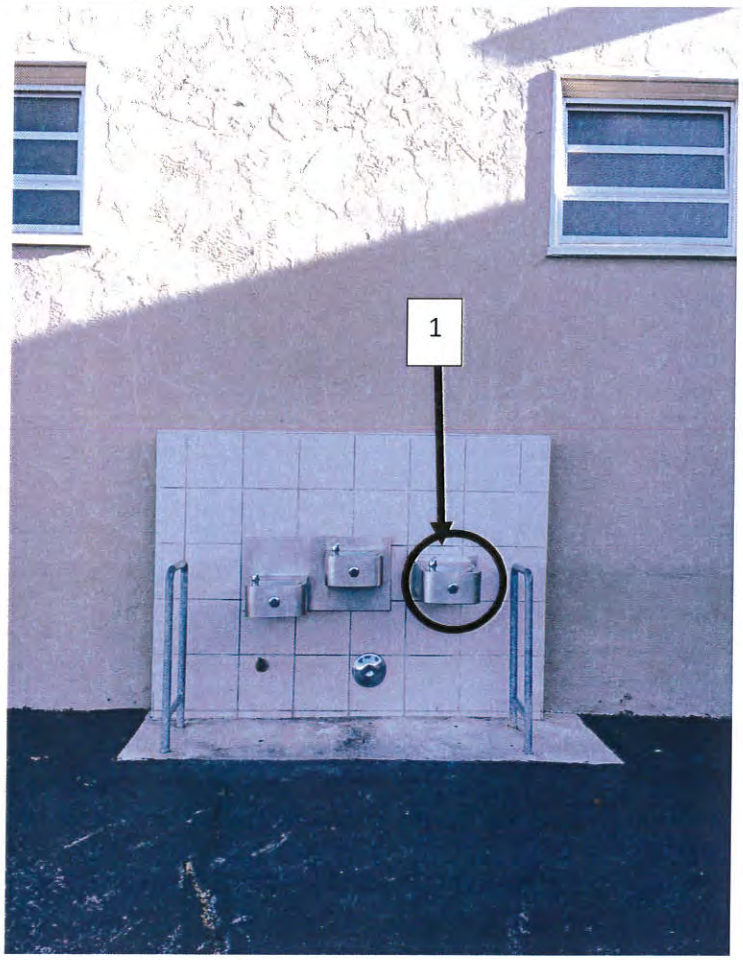

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-AAJ-A

LIMS Sample ID: W1163952

Date & Time Last Used: 4/3/17 unknown time

Date & Time Sample Collected: 4/4/17 0545

Name of Water System Sample Collector: E. Alwaeyy

Sample No. 2

School: Encanto Elementary School

Name of Building: Building 300

Location Description: Lower Level SW corner of building

Type of Outlet: Bubbler

Description: Far right bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020- AAJ-B

LIMS Sample ID: W1163953

Date & Time Last Used: 4/3/17 Time unknown

Date & Time Sample Collected: 4/4/17 0550

Name of Water System Sample Collector: E. Alvarenga

Sample No. 3

School: Encanto Elementary School

Name of Building: 200 Building

Location Description: Lower level ~~far~~ SW corner of building

Type of Outlet: triple fountain Bubbler

Description: Far right bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020 - AAJ - B

LIMS Sample ID: W1163954

Date & Time Last Used: 4/3/17 time unknown

Date & Time Sample Collected: ~~4/4/17~~ 4/4/17 0555

Name of Water System Sample Collector: E. Alvarenga

Sample No. 4

School: Encanto Elementary School

Name of Building: 200 Building

Location Description: Upper level ~~far~~ SW corner

Type of Outlet: Bubbler

Description: far right bubbler on 3 piece fountain

Comments/Miscellaneous:

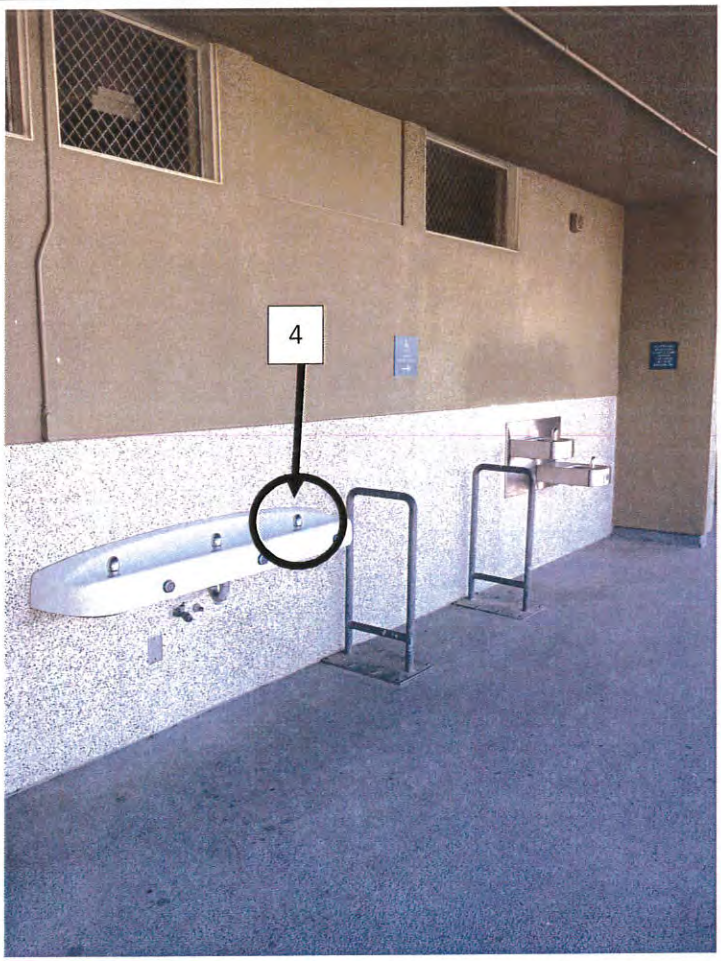

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-AAJ-D

LIMS Sample ID: W116 3955

Date & Time Last Used: 4/3/17 time unknown

Date & Time Sample Collected: 4/4/17 0600

Name of Water System Sample Collector: E. Alvarez

Sample No. 5

School: Encanto Elementary School

Name of Building: 100 building

Location Description: upper level ~~far~~ SW corner of building

Type of Outlet: bubbler

Description: right bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-AAJ-E

LIMS Sample ID: W1163956

Date & Time Last Used: 4/3/17 time unknown

Date & Time Sample Collected: 4/4/17 0605

Name of Water System Sample Collector: E. Alvarenga

San Diego Water Quality Laboratory

LEAD_SCHOOL For 04-APR-2017

Encanto

No.	Sample ID	#	Description	Source	Sample Time	Sampler	Comments
1	W1163952	1	SAMPLE 1	PB_SCHOOL	0545	EA	
2	W1163953	1	SAMPLE 2	PB_SCHOOL	0550	EA	
3	W1163954	1	SAMPLE 3	PB_SCHOOL	0555	EA	
4	W1163955	1	SAMPLE 4	PB_SCHOOL	0600	EA	
5	W1163956	1	SAMPLE 5	PB_SCHOOL	0605	EA	

Relinquished By: E. Alvarenga Date: 4/4/17 Time: 0635 Received By: Alejandra Molloy Date: 4/04/17 Time: 0708

Relinquished By: Date: Time: Received By: Date: Time:

Relinquished By: Date: Time: Received By: Date: Time:

Received By: 4/4/17

Received Date: 4/4/17

LIMS Received Time: 0750

Reviewed By:

Printed: 03-APR-2017

Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 4/12/17

San Diego Unified School District

Encanto Elementary School

Sample ID	Sample Date	Sample Time	Description	External ID	Lead	Units
W1163952	04/04/17	05:45 AM	SAMPLE 1	3710020-AAJ-A	5.15	ug/L
W1163953	04/04/17	05:50 AM	SAMPLE 2	3710020-AAJ-B	< 5	ug/L
W1163954	04/04/17	05:55 AM	SAMPLE 3	3710020-AAJ-C	5.73	ug/L
W1163955	04/04/17	06:00 AM	SAMPLE 4	3710020-AAJ-D	9.19	ug/L
W1163956	04/04/17	06:05 AM	SAMPLE 5	3710020-AAJ-E	< 5	ug/L

Sample #	Sample Site
SAMPLE 1	400 BLDG, outside wall bubbler, right bubbler
SAMPLE 2	300 BLDG, lower level SW corner of building, right bubbler
SAMPLE 3	200 BLDG, lower level SW corner
SAMPLE 4	200 BLDG, upper level SW corner
SAMPLE 5	100 BLDG, upper level SW corner

DLR= State Mandated Detection Limit for Reporting (DLR)= 5
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: English French Learning Academy

Physical Address of School: 3219 Clairemont Mesa Boulevard, San Diego, CA 92117

First Bell: 9:00 AM

Meeting Date: May 15, 2017

Sampling Plan Completion Date: May 15, 2017

Completed by Print Name: Shelley Samaritoni

Signature: Shelley Samaritoni Date: May 15, 2017

School's Point of Contact for Sampling Assistance

Name: Shelley Samaritoni

Phone: 858-231-1762

Email: shelley@shelleycakes.com

Meet at [redacted] 7am

City of San Diego 3710020

Approved By: Tom B. Burger 5-16-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: 3219 Clairemont Mesa Boulevard, San Diego, CA 92117

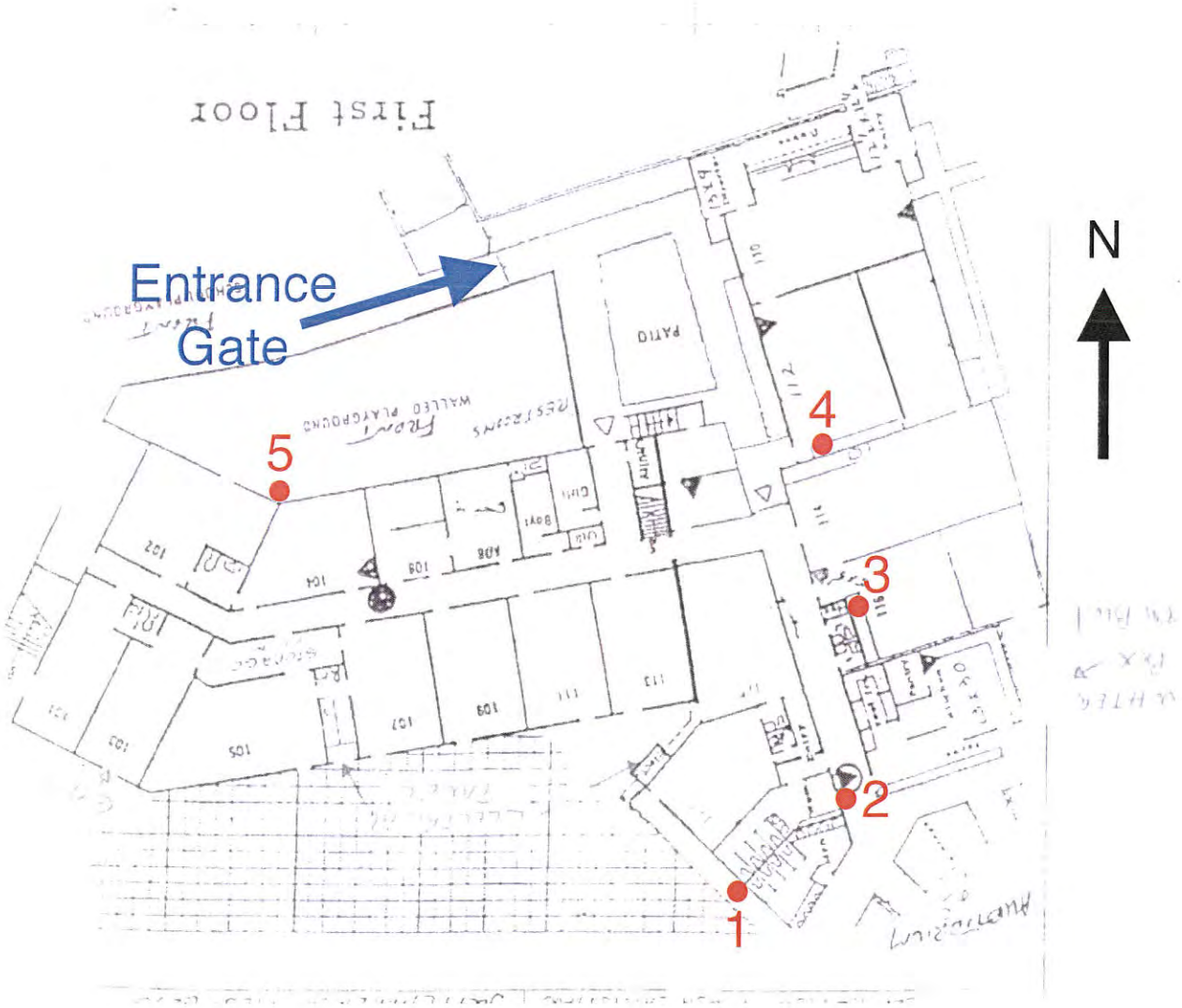

Entrance
Gate
Jutland Dr
First Chinese
Southern Baptist
Lord's Presbyterian
Church
78-Iglesia Familiar
Clairemont
La Petite Ecole de San
Diego - French English...
Clairemont Mesa Blvd
Clairemont Mesa Blvd
1
2
3
4
5
Google

Sample No. 1

School: English French Learning Academy

Name of Building: Outside of Main Building on the South Side

Location Description: Along outside wall between main hallway exit and outside door to Room 117

Type of Outlet: Water Fountain (single fixture) Bubbler

Description: This water fountain is the only outdoor water fountain for the elementary age playground/blacktop area.

Comments/Miscellaneous: This water fountain is located along the outside of the building off of the blacktop area.

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171655

State Sample ID: 3710020-BJH-A

Date & Time Last Used: 5/25/17 1800-2260

Date & Time Sample Collected: 5/26/17 0710

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarenga

Sample No. 2

School: English French Learning Academy

Name of Building: Main Building, First Floor

Location Description: In the hallway next to the fire extinguisher and fire hose, across from the kitchen entrance

Type of Outlet: Water Fountain (single fixture) Bubbler

Description: Main indoor water fountain used by students

Comments/Miscellaneous:

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171656

State Sample ID: 3710020-BJH-B

Date & Time Last Used: 5/25/17 1800-2200

Date & Time Sample Collected: 5/26/17 0705

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez

Sample No. 3

School: English French Learning Academy

Name of Building: Main Building, First Floor

Location Description: In teachers lounge along west wall, Room 116

Type of Outlet: Single sink faucet

Description: Used to fill pitchers of water for students in classrooms without sinks

Comments/Miscellaneous: Sample sink faucet, water spigot is not connected

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171657

State Sample ID: 3710020-BJH-C

Date & Time Last Used: 5/25/17 1800-2200

Date & Time Sample Collected: 5/26/17 0705

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez

Sample No. 4

School: English French Learning Academy

Name of Building: Main Building, First Floor

Location Description: In classroom 112, along the south wall

Type of Outlet: Single sink faucet

Description: Used to fill pitchers of water for students in classrooms without sinks

Comments/Miscellaneous:

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171658

State Sample ID: 3710020-BJH-D

Date & Time Last Used: 5/25/17 1800-2200

Date & Time Sample Collected: 5/26/17 0700

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarenga

Sample No. 5

School: English French Learning Academy

Name of Building: Outside of Main Building on the North Side

Location Description: Along the south wall of the walled playground (preschool playground)

Type of Outlet: Water Fountain (single fixture) Bubbler

Description: This water fountain is the only outdoor water fountain for the preschool age playground

Comments/Miscellaneous: To the east of the outside door of classroom 102

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171659

State Sample ID: 3710020-BJH-E

Date & Time Last Used: 5/25/17 1800-2200

Date & Time Sample Collected: 5/26/17 0700

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez

Exhibit 3

Water Quality Chemistry Services
Chain of Custody Form

23-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1171655	English French Learning Academ	26-MAY-2017	0710	EA	SAMPLE 1	
2	W1171656	English French Learning Academ	26-MAY-2017	0705	EA	SAMPLE 2	
3	W1171657	English French Learning Academ	26-MAY-2017	0705	EA	SAMPLE 3	
4	W1171658	English French Learning Academ	26-MAY-2017	0700	EA	SAMPLE 4	
5	W1171659	English French Learning Academ	26-MAY-2017	0700	EA	SAMPLE 5	

1030

Chain of Custody:

Relinquished by: Name: E Alvarez 5/26/17 Sign: 0735	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 5/26/17 @ 0740 Location: WQL Alv	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/26/17
LIMS Received Time: 0746
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Ericson Elementary

Physical Address of School: 11174 Westonhill Dr., San Diego, CA 92126-1943

First Bell: 7:50 AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 4/21/2017

Completed by Print Name: Ginette Commins

Signature: G Commins Date: 4/21/2017

School's Point of Contact for Sampling Assistance

Name: ~~Ginette Commins~~ Elizabeth Lara

Phone: ~~(858) 627-7201~~ 619-302-7616

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/1/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Ericson Elementary, 11174 Westonhill Dr, San Diego, CA 92126-1943

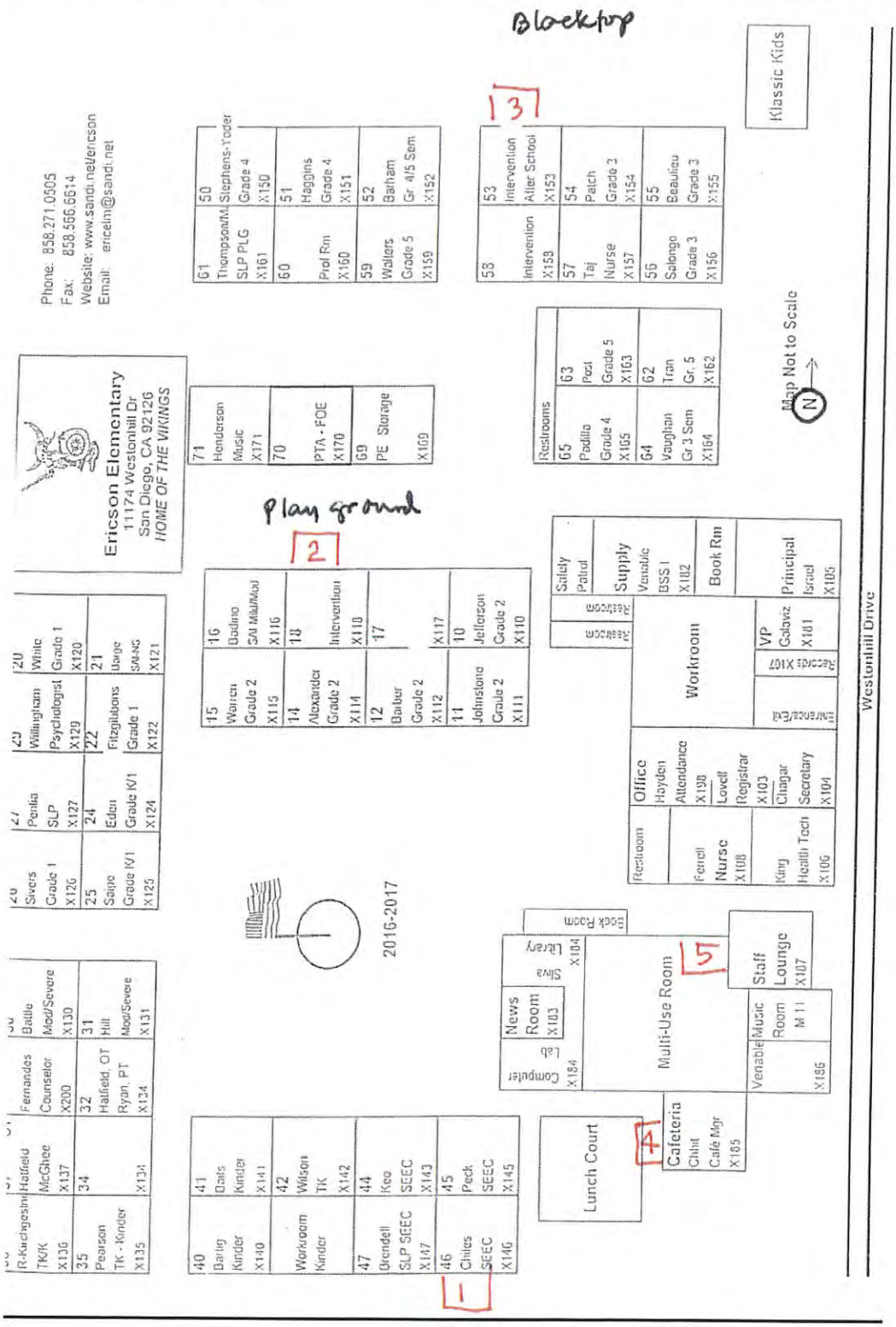

Sample No. 1

School: Ericson Elementary

Name of Building: 40s

Location Description: Wall mounted exterior (South of Bldg), next to Girls' Restroom, facing blacktop

Type of Outlet: bubbler

Description: left bubbler with lever handle (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #217

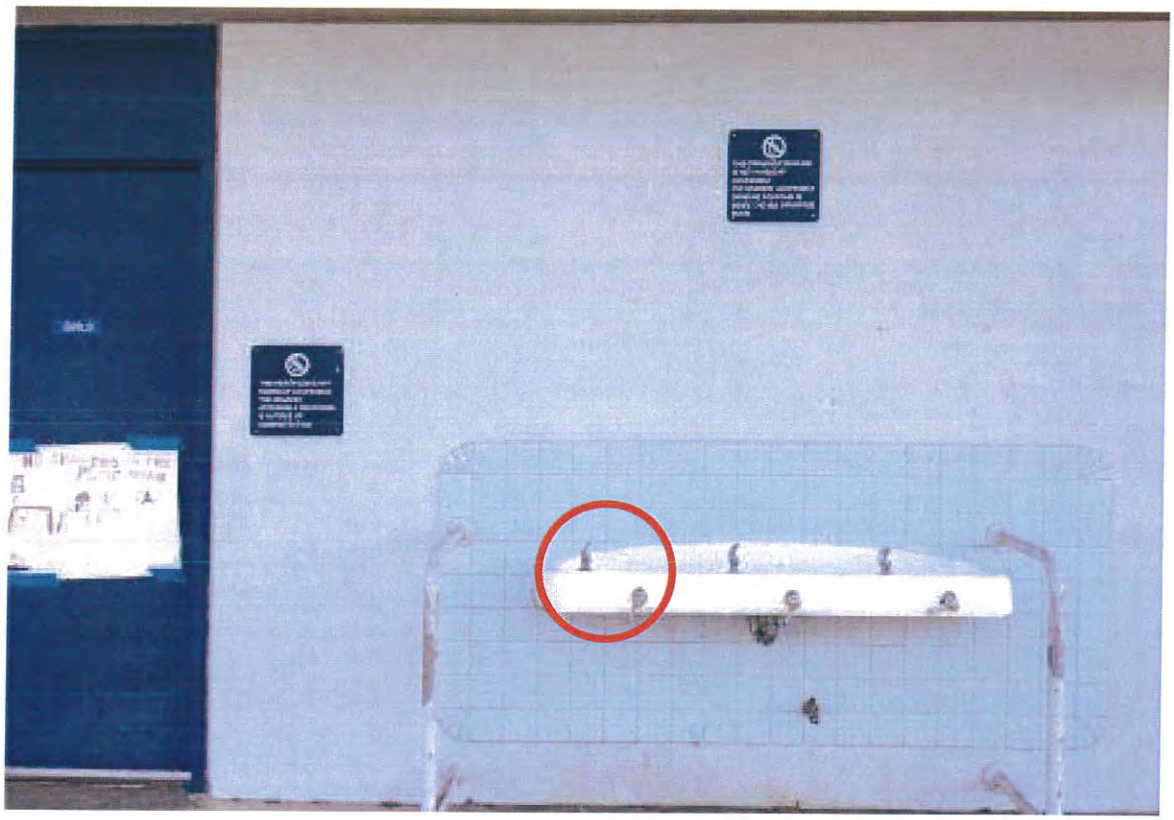

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170033

State Sample ID: 3710020-BEH-A

Date & Time Last Used: ~~5/16/17~~ 5/15/17 @ 2200

Date & Time Sample Collected: 5/16/17 @0003

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: Ericson Elementary

Name of Building: 10s

Location Description: Wall mounted exterior (North of Bldg), next to Girls Restroom, facing playground

Type of Outlet: bubbler

Description: middle bubbler with turn handle (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #217

handle leaked while taking sample

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170034

State Sample ID: 3710020-BEH-B

Date & Time Last Used: 5/15/17 @ 2200

Date & Time Sample Collected: 5/16/17 @ 0610

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: Ericson Elementary

Name of Building: 50s

Location Description: Wall mounted exterior (North of Bldg), next to Room 53 & wall, facing blacktop

Type of Outlet: bubbler

Description: middle/upper bubbler on a triple fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #217

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170035

State Sample ID: 3710020-BEH-C

Date & Time Last Used: 5/15/17 @ 2200

Date & Time Sample Collected: 5/16/17 @ 0613

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: Ericson Elementary

Name of Building: Cafeteria

Location Description: Wall mounted exterior (West of Bldg), facing lunch court

Type of Outlet: bubbler

Description: left bubbler (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #217

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170036

State Sample ID: 3710020-BEH-D

Date & Time Last Used: 5/15/17 @ 2200

Date & Time Sample Collected: 5/16/17 @ 0605

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: A. Malloy

Sample No. 5

School: Ericson Elementary

Name of Building: MultiPurpose Room

Location Description: Wall mounted interior (North of the Room)

Type of Outlet: bubbler

Description: upper/left bubbler on a dual fountain (HIGH flow)

Comments/Miscellaneous: indoor drinking water source/SDUSD Location Code #217

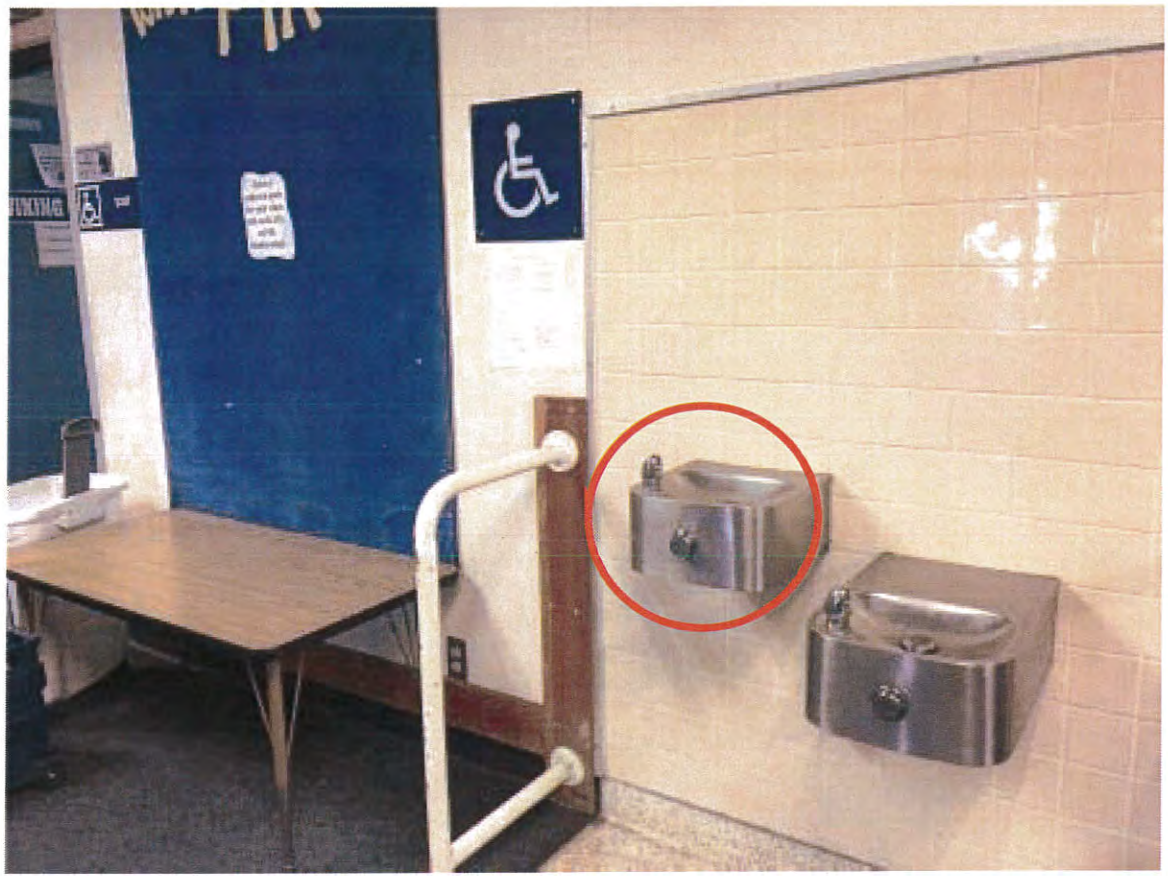

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170037

State Sample ID: 3710020-BEH-E

Date & Time Last Used: 5/15/17 @ 2200

Date & Time Sample Collected: 5/16/17 @ 0607

Direct Sample ☒ Transfer Sample ☒ (~100mLs)

Name of Water System Sample Collector: A. Molloy

Exhibit 3.1

Water Quality Chemistry Services
Chain of Custody Form

09-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1170033	Ericson Elementary	16-MAY-2017	0603	A. Molloy	SAMPLE 1	
2	W1170034	Ericson Elementary	16-MAY-2017	0610		SAMPLE 2	
3	W1170035	Ericson Elementary	16-MAY-2017	0613		SAMPLE 3	
4	W1170036	Ericson Elementary	16-MAY-2017	0605		SAMPLE 4	
5	W1170037	Ericson Elementary	16-MAY-2017	0607		SAMPLE 5	

1038

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign: A Molloy	Received by: Name: Sign:	Date & Time: 5/16/17 @ 0645 Location: WQL A1V	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-16-17
LIMS Received Time: 0729
Reviewed By: _____

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Euclid Elementary School

Physical Address of School: 4166 Euclid Ave. San Diego, CA 92105

First Bell: 8:30AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/17/2017

Completed by Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 04/17/2017

School's Point of Contact for Sampling Assistance

Name: ~~Daniel Lopez~~ TIM BROWN

Phone: ~~619-306-3383~~ 619.302-9247

Email: dlopez2@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 4/28/17 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Euclid Elementary School 4166 Euclid Ave. San Diego, CA 92105

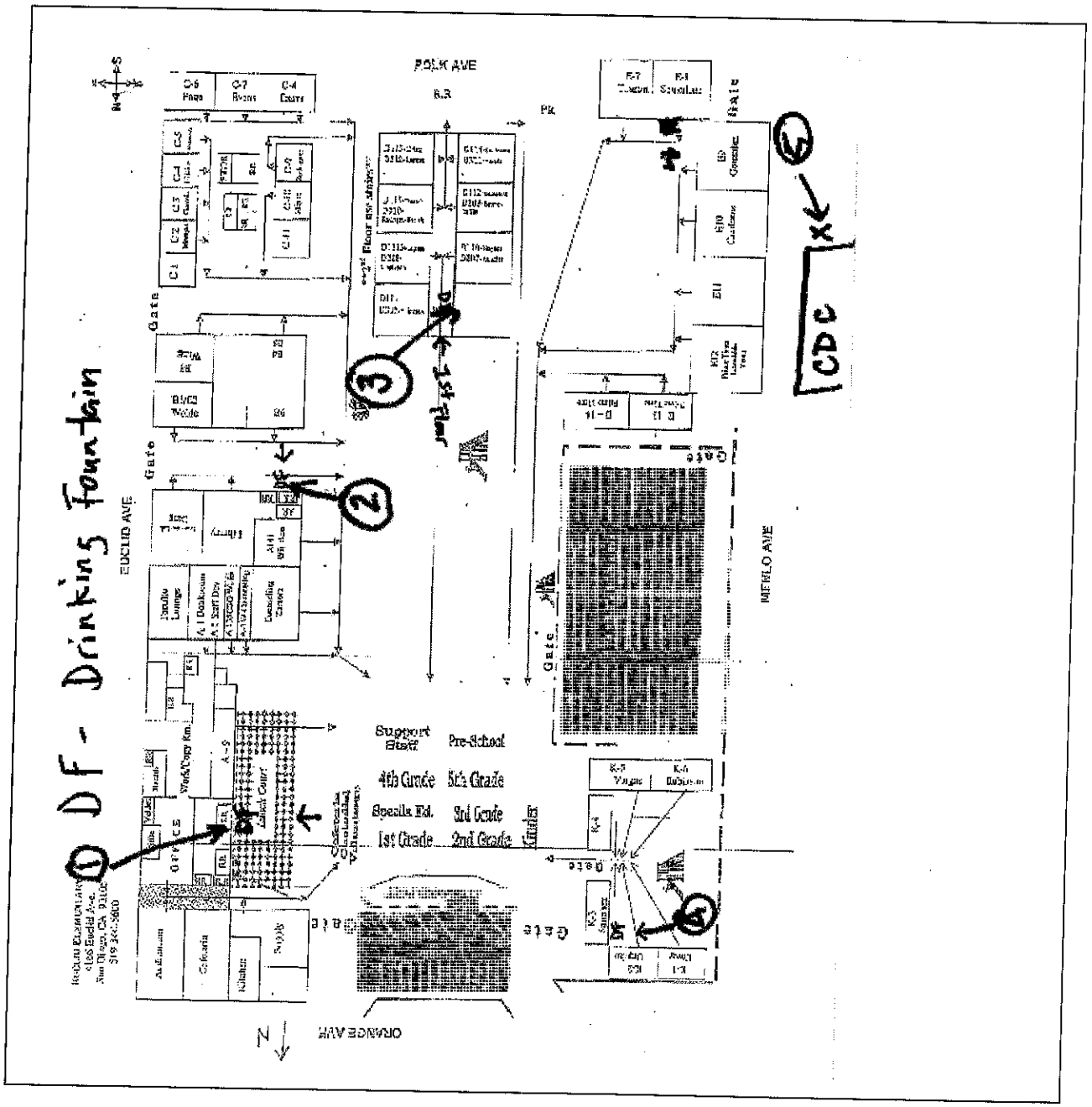

Sample No. 1

School: Euclid Elementary School

Name of Building: Building A

Location Description: Lunch Patio on North end of campus near office

Type of Outlet: Double Bubbler

Description:

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168292

State Sample ID: 3710020-AHB-A

Date & Time Last Used: 5/4/17 between 6-10pm

Date & Time Sample Collected: 5/5/17 @ 0602

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

Sample No. 2

School: Euclid Elementary School

Name of Building: Building A

Location Description: South end of building A

Type of Outlet: Triple Bubbler

Description: Far right bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168293

State Sample ID: 3710020-AHB-B

Date & Time Last Used: 5/4/17 between 6-10pm

Date & Time Sample Collected: 5/5/17 0605

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rumbo

Sample No. 3

School: Euclid Elementary School

Name of Building: D building

Location Description: North end indoors first floor near restrooms

Type of Outlet: Single bubblers

Description: Far right bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168294

State Sample ID: 3710020-AHB-C

Date & Time Last Used: 5/4/17 between 6-10pm

Date & Time Sample Collected: 5/5/17 @ 0609

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: Joshua Rambo

Sample No. 4

School: Euclid Elementary School

Name of Building: K Building

Location Description: Outdoor bubbler facing west

Type of Outlet: Single bubblers

Description: Bubbler on left side

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168295

State Sample ID: 3710020-AHB-D

Date & Time Last Used: 5/4/17 between 6-10pm

Date & Time Sample Collected: 5/5/17 @ 0622

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

Sample No. 5

School: Euclid Elementary

Name of Building: Child Development Center (CDC)

Location Description: West end of campus next to employee parking lot

Type of Outlet: Single Bubblers

Description: Bubbler on left side

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168296

State Sample ID: 3710020-AHB-E

Date & Time Last Used: 5/4/17 between 6-10pm

Date & Time Sample Collected: 5/5/17 @ 0615

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

Water Quality Chemistry Services
Chain of Custody Form

04-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168292	Euclid Elementary	05-MAY-2017	0602	JR	SAMPLE 1	
2	W1168293	Euclid Elementary	05-MAY-2017	0605	JR	SAMPLE 2	
3	W1168294	Euclid Elementary	05-MAY-2017	0609	JR	SAMPLE 3	
4	W1168295	Euclid Elementary	05-MAY-2017	0622	JR	SAMPLE 4	
5	W1168296	Euclid Elementary	05-MAY-2017	0615	JR	SAMPLE 5	

Chain of Custody:

Relinquished by: Name: Joshua Rambo Sign:	Received by: Name: Tom Burger Sign: TM B. Burger	Date & Time: 5/5/17 @ 0650 Location: ALV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-5-17
LIMS Received Time: 0658
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Farb Middle School

Physical Address of School: 4880 La Cuenta Dr. San Diego, CA 92124

First Bell: 7:30AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/26/2017

Completed by Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 04/26/2017

School's Point of Contact for Sampling Assistance

Name: Daniel Lopez

Phone: 619-306-3383

Email: dlopez2@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/1/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Farb Middle School 4880 La Cuenta Dr. San Diego, CA 92124

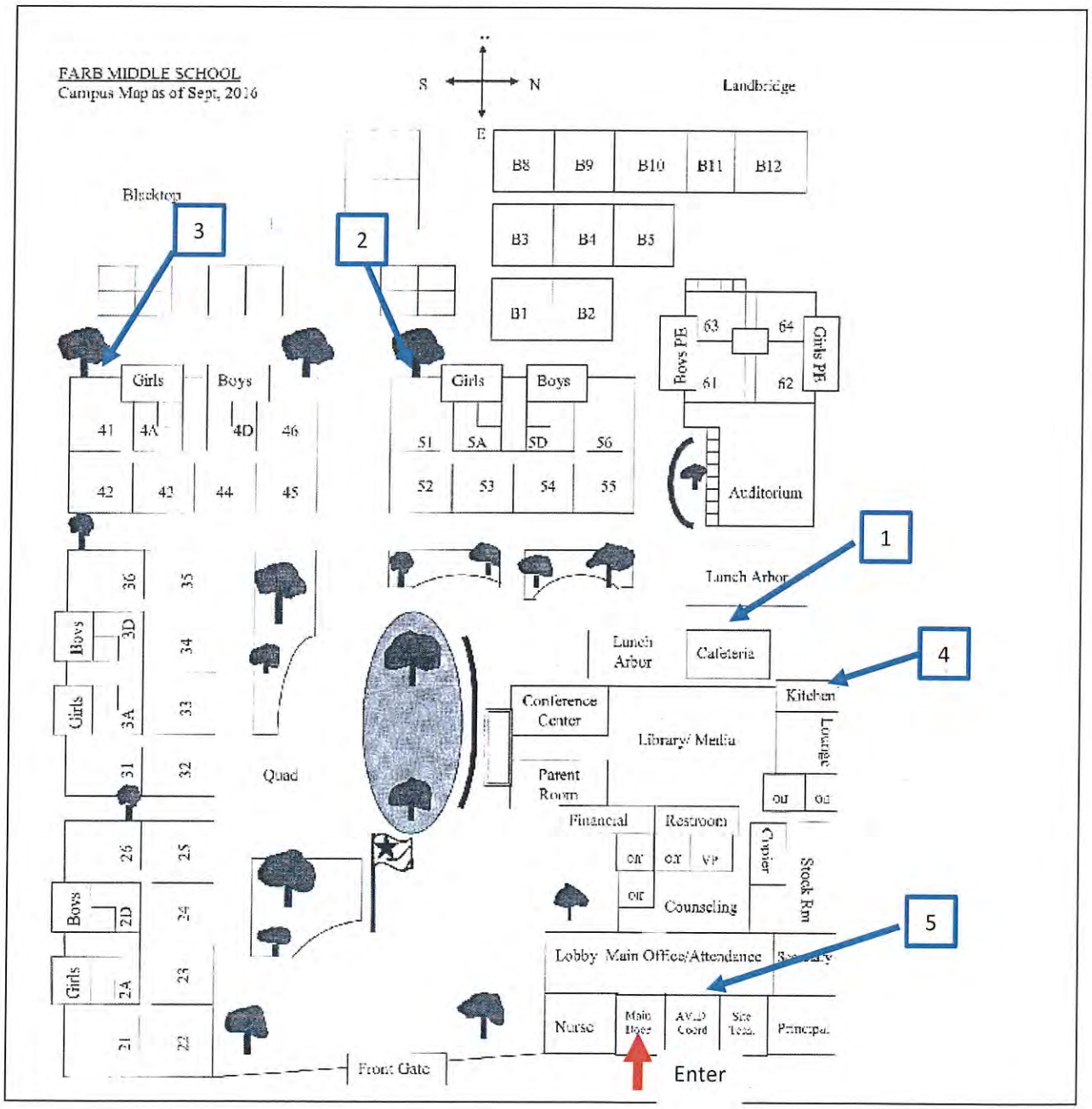

Sample No. 1

School: Farb Middle School

Name of Building: Cafeteria Building

Location Description: Outside West facing wall next to Cafeteria

Type of Outlet: Triple bubbler

Description: Center bubbler

Comments/Miscellaneous:

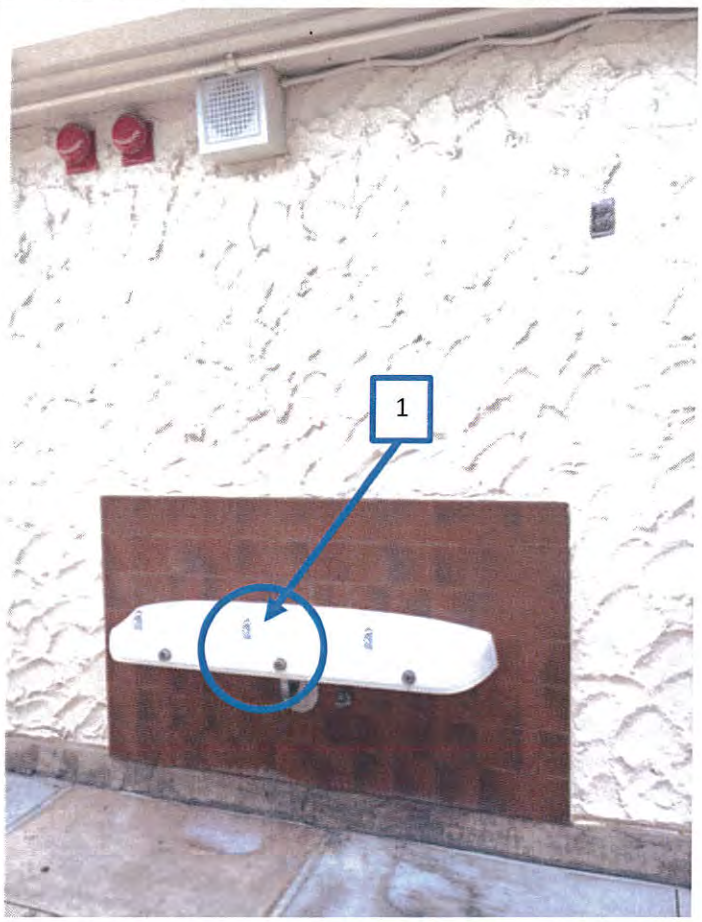

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169429

State Sample ID: 3710020-BEG-A

Date & Time Last Used: 5/05/17 @ 2200

Date & Time Sample Collected: 5/06/17 @ 0640

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: Farb Middle School

Name of Building: Building Rooms 50-56

Location Description: West facing wall next to Room 51

Type of Outlet: Triple bubbler

Description: Far right bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169430

State Sample ID: 3710020-BEG-B

Date & Time Last Used: 5/05/17 @ 2200

Date & Time Sample Collected: 5/06/17 @ 0647

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: Farb Middle School

Name of Building: Building Rooms 41-46

Location Description: West facing wall next to Room 41

Type of Outlet: Triple bubbler

Description: Far left bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169431

State Sample ID: 3710020-BEG-C

Date & Time Last Used: 5/05/17 @ 2200

Date & Time Sample Collected: 5/06/17 @ 0649

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: Farb Middle School

Name of Building: Kitchen

Location Description: Interior faucet

Type of Outlet: Faucet with spray hose attached

Description: Faucet with spray hose attached

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169432

State Sample ID: 3710020-BEG-D

Date & Time Last Used: 5/5/17 @ 2200

Date & Time Sample Collected: 5/06/17 @ 0643

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Malloy

Sample No. 5

School: Farb Middle School

Name of Building: Administration/Main Office Building

Location Description: Interior bubblers center of office

Type of Outlet: 2 single bubblers

Description: Bubbler on left side

Comments/Miscellaneous:

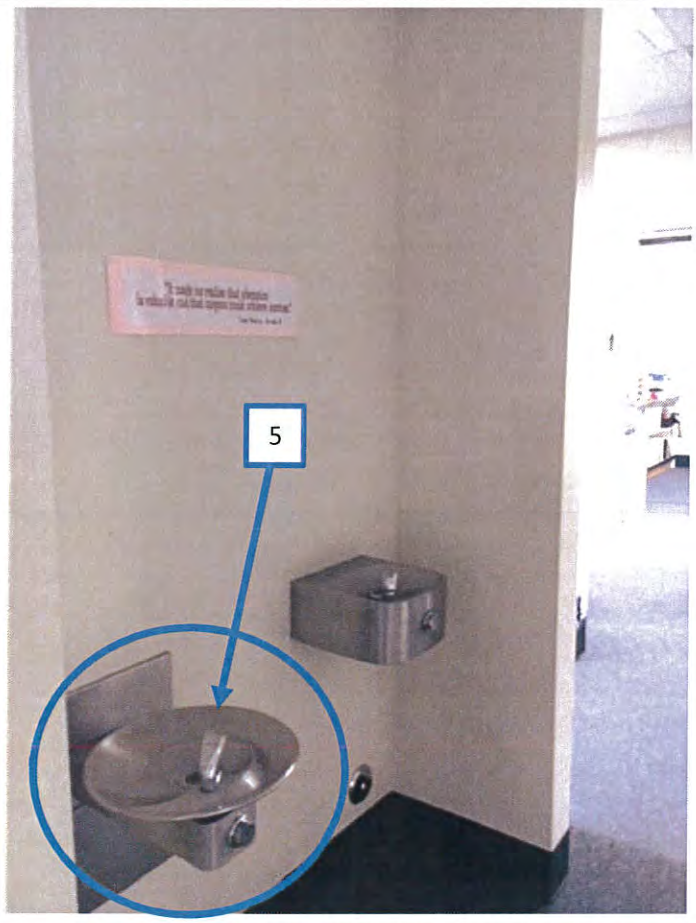

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169433

State Sample ID: 3710020-BEG-E

Date & Time Last Used: 5/05/17 @ 2200

Date & Time Sample Collected: 5/06/17 @ 0053

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Water Quality Chemistry Services
Chain of Custody Form

05-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1169429	Farb Middle	06-MAY-2017	0640	A. Molloy	SAMPLE 1	
2	W1169430	Farb Middle	06-MAY-2017	0647		SAMPLE 2	
3	W1169431	Farb Middle	06-MAY-2017	0649		SAMPLE 3	
4	W1169432	Farb Middle	06-MAY-2017	0643		SAMPLE 4	
5	W1169433	Farb Middle	06-MAY-2017	0653		SAMPLE 5	

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign: AMolloy	Received by: Name: Sign:	Date & Time: 5/06/17 @ 0915 Location: WQL Alv.	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/06/17
LIMS Received Time: 0946
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Mary Lanyon Fay Elementary School

Physical Address of School: 4080 52nd Street San Diego, CA 92105

First Bell: 8:40 AM

Meeting Date: 03-22-17

Sampling Plan Completion Date: 04-05-2017

Completed by Print Name: Joe Kinkead

Signature: _____ Date: 04-05-2017

School's Point of Contact for Sampling Assistance

Name: Joe Kinkead Ginkette

Phone: 619-559-2294 619-302-5285

Email: jkinkead@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/1/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Fay Elementary 4080 52nd Street San Diego, CA 92105

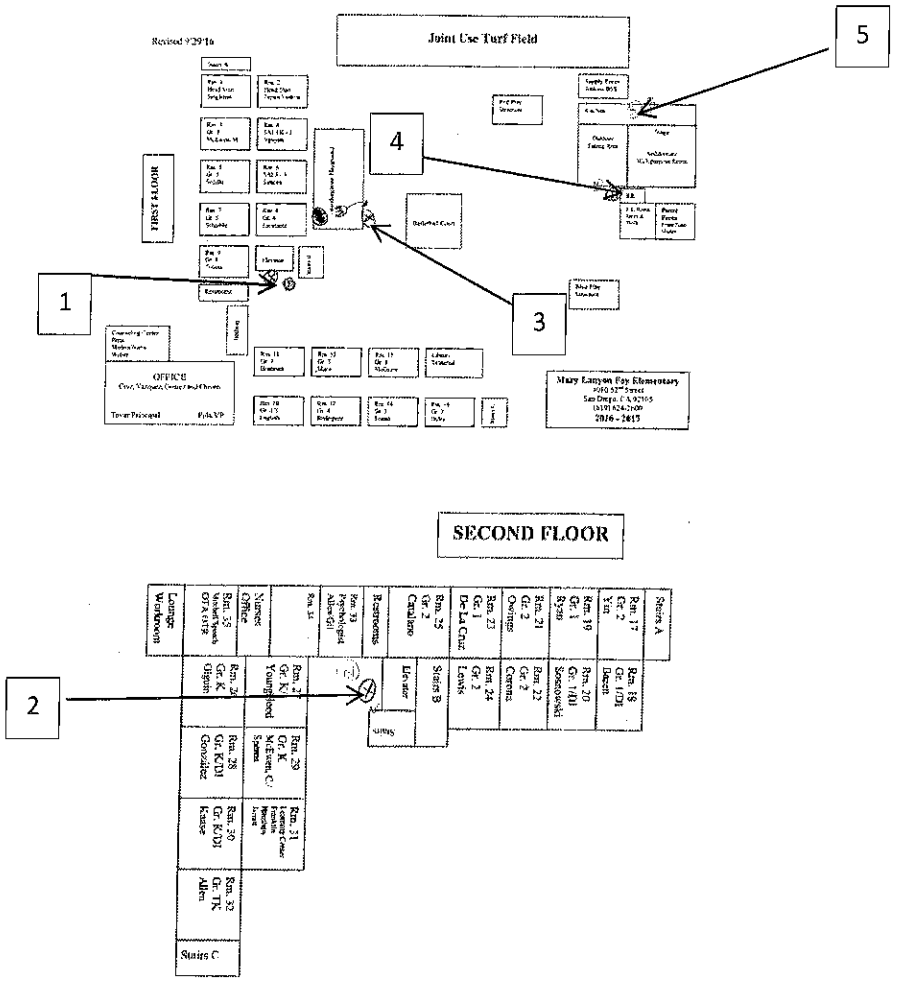

School: Fay Elementary

Name of Building: Main Building

Location Description :Next to elevator mechanical room

Type of Outlet: Bubbler

Description: Bubbler on top right

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166936

State Sample ID: 3710020-AFF-A

Date & Time Last Used: 5/1/17 2200

Date & Time Sample Collected: 5/2/17 0558

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sawersby

Sample No. 2

School: Fay Elementary

Name of Building: main buiding

Location Description: 2nd floor next to custodial storage

Type of Outlet: Bubbler

Description: lower left bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166937

State Sample ID: 3710020-AFF-B

Date & Time Last Used: 5/1/17 2200

Date & Time Sample Collected: 5/2/17 0612

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 3

School: Fay Elementary

Name of Building: Kindergarten Building

Location Description: outside north wall

Type of Outlet: Bubbler

Description: upper right bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166938

State Sample ID: 3710020-AFF-C

Date & Time Last Used: 5/1/17 2200

Date & Time Sample Collected: 5/2/17 0600

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 4

School: Fay Elementary

Name of Building: Cafeteria/Auditorium

Location Description: Outside south wall between boys and girls restroom

Type of Outlet: Bubbler

Description: Lower right bubbler

Comments/Miscellaneous:

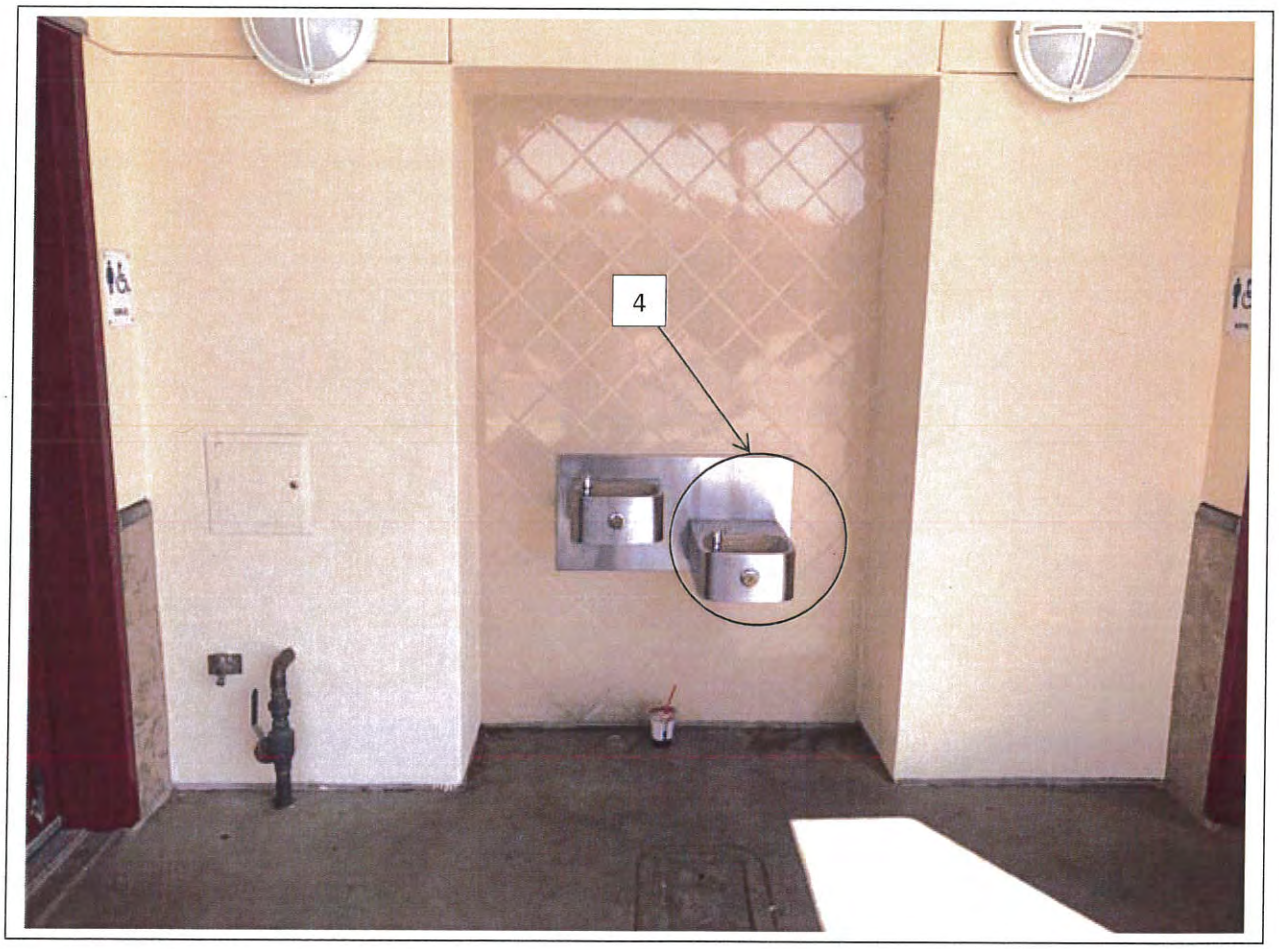

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166939

State Sample ID: 3710020-AFF-D

Date & Time Last Used: 5/1/17 2200

Date & Time Sample Collected: 5/2/17 0605

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 5

School: Fay Elementary

Name of Building: Kitchen

Location Description: deep sink next to 3 stage sink

Type of Outlet: Sink

Description:

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166940

State Sample ID: 3710020-AFF-E

Date & Time Last Used: 5/1/17 2200

Date & Time Sample Collected: 5/2/17 0607

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sawersby

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

01-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1166936	Fay Elementary	02-MAY-2017	0558	D.S.	SAMPLE 1	
2	W1166937	Fay Elementary	02-MAY-2017	0612		SAMPLE 2	
3	W1166938	Fay Elementary	02-MAY-2017	0600		SAMPLE 3	
4	W1166939	Fay Elementary	02-MAY-2017	0605		SAMPLE 4	
5	W1166940	Fay Elementary	02-MAY-2017	0607		SAMPLE 5	

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Chain of Custody:

Relinquished by: Name: Dan Sowersby Sign: Dc Sowersby	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 5/2/17 0645 Location: ALV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/02/17
LIMS Received Time: 0706
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Field Elementary

Physical Address of School: 4375 Bannock Ave., San Diego, CA 92117

First Bell: 7:40am

Meeting Date: 4/05/2017

Sampling Plan Completion Date: 4/27/17

Completed by Print Name: Lori Sherman

Signature: *Lori Sherman* Date: 4/27/17

School's Point of Contact for Sampling Assistance

Name: Lori Sherman

Phone: 619-301-9086

Email: lsherman1@sandi.net

City of San Diego 3710020

Approved By: 5/2/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Field Elementary - 4375 Bannock Ave., San Diego, CA 92117

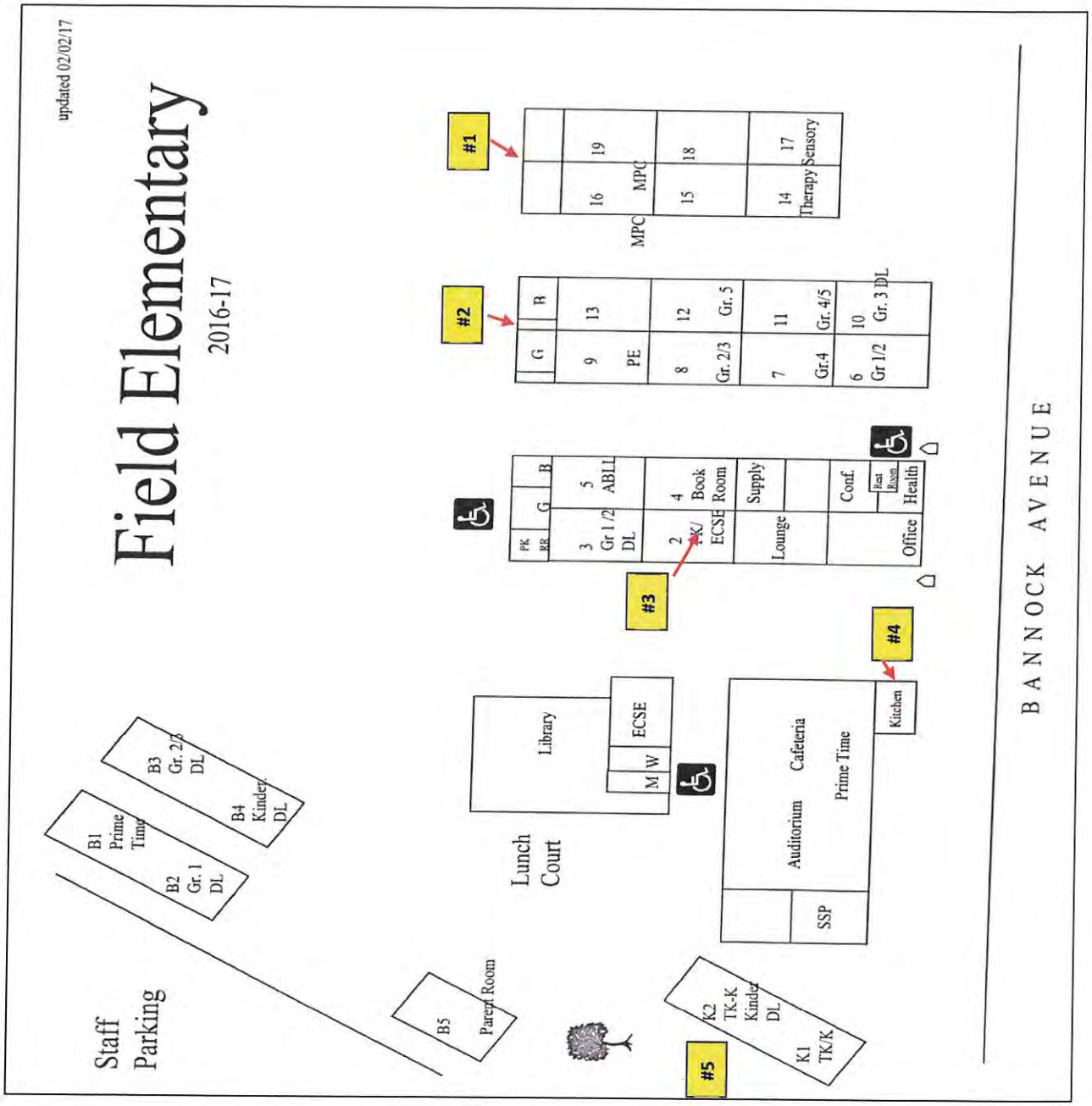

Sample No. 1

School: Field Elementary - 4375 Bannock Ave., San Diego, CA 92117

Name of Building: Classrooms 14-19

Location Description: South exterior side next to boy's restroom

Type of Outlet: Bubbler

Description: Left bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170243

State Sample ID: 3710020-BEC-A

Date & Time Last Used: 051017 1800 to 2200

Date & Time Sample Collected: 051117 @ 0604

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector:

Sample No. 2

School: Field Elementary - 4375 Bannock Ave., San Diego, CA 92117

Name of Building: Classrooms 6-13

Location Description: South exterior side next to boy's restroom

Type of Outlet: Bubbler

Description: Left bubbler

Comments/Miscellaneous: Near gardener's room

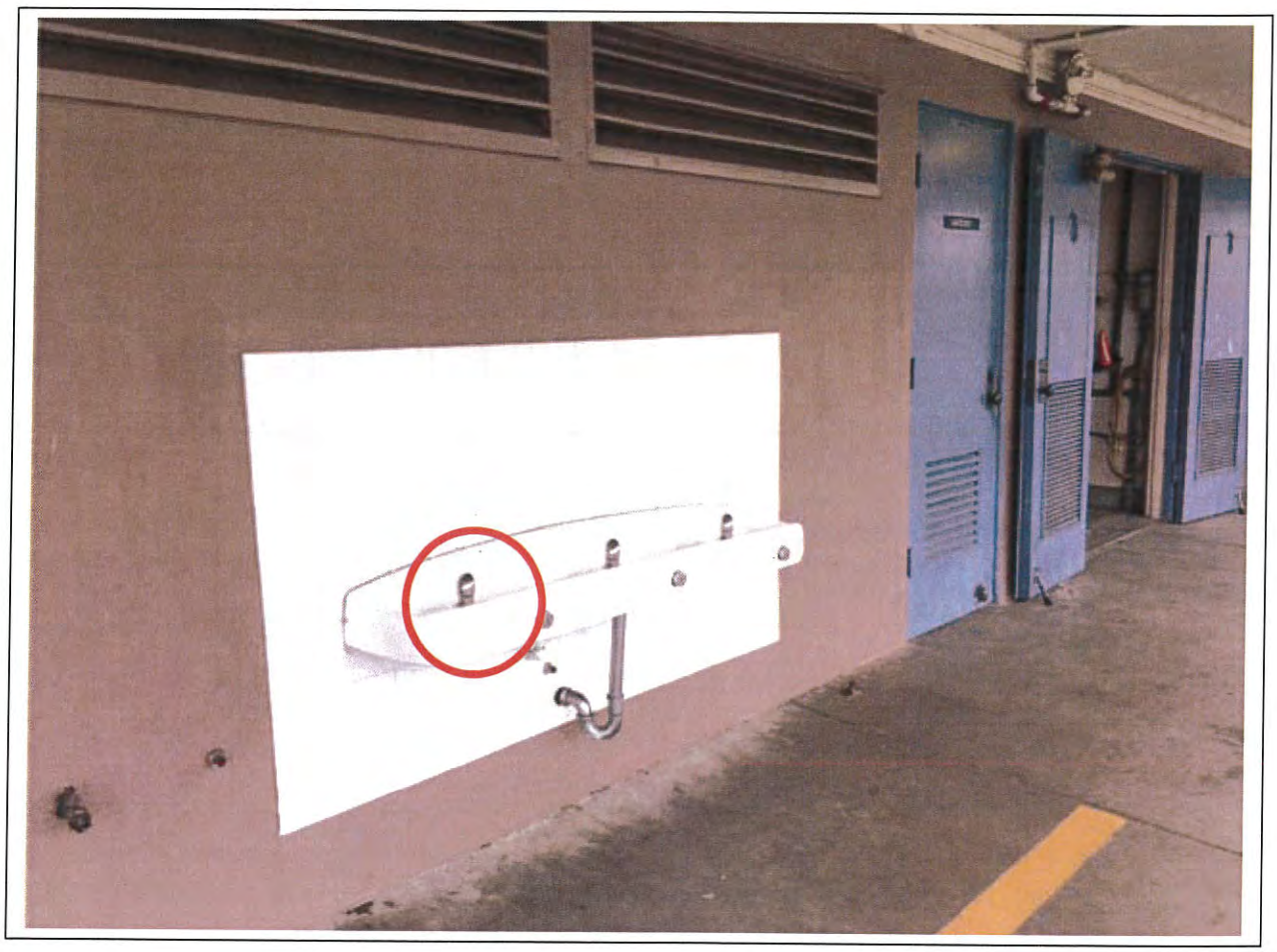

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170244

State Sample ID: 3710020-BEC-B

Date & Time Last Used: 051017 @ 1900 → 2200

Date & Time Sample Collected: 051117 @ 0600

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector:

Sample No. 3

School: Field Elementary - 4375 Bannock Ave., San Diego, CA 92117

Name of Building: Classrooms 2-4

Location Description: Inside classroom 2 on west wall

Type of Outlet: Bubbler

Description:

Comments/Miscellaneous:

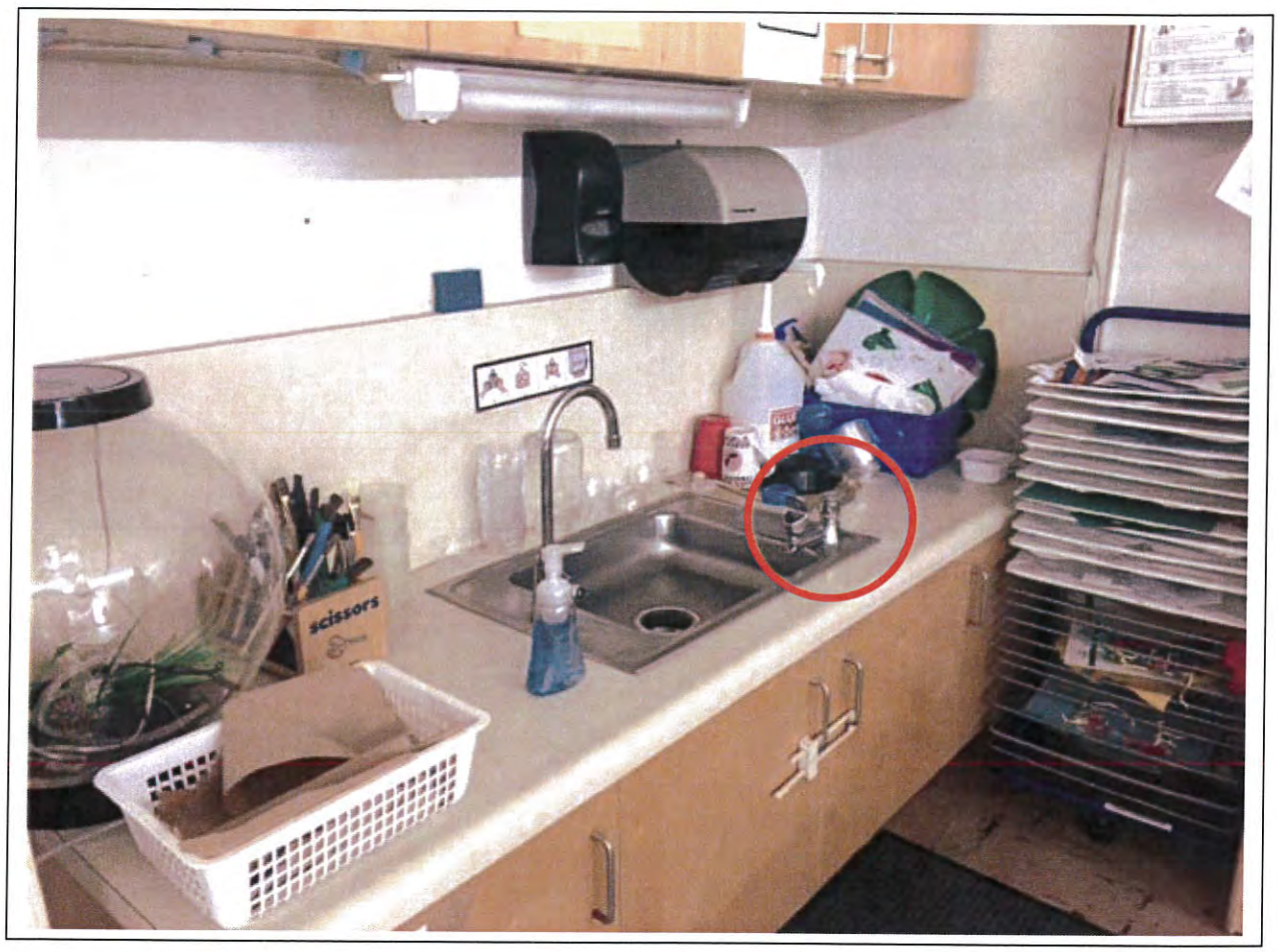

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170245

State Sample ID: 3710020-BEC-C

Date & Time Last Used: 051017 @ 1800 → 2200

Date & Time Sample Collected: 051117 @ 0555

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector:

Sample No. 4

School: Field Elementary - 4375 Bannock Ave., San Diego, CA 92117

Name of Building: Kitchen

Location Description: West interior wall

Type of Outlet: Sink faucet

Description:

Comments/Miscellaneous: in corner

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170246

State Sample ID: 3710020-BEC-D

Date & Time Last Used: 051017 @ 1800 → 2200

Date & Time Sample Collected: 051117 @ 0547

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Jerry W

Sample No. 5

School: Field Elementary - 4375 Bannock Ave., San Diego, CA 92117

Name of Building: Kindergarten

Location Description: Exterior east side between K-1 & K-2

Type of Outlet: Bubbler

Description:

Comments/Miscellaneous: Between restrooms

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170247

State Sample ID: 3710020-BEC-E

Date & Time Last Used: 051017 @ 1900 → 2200

Date & Time Sample Collected: 051117 @ 0551

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector:

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

08-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1170243	Field Elementary	11-MAY-2017	0604	JW	SAMPLE 1	
2	W1170244	Field Elementary	11-MAY-2017	0600	JW	SAMPLE 2	
3	W1170245	Field Elementary	11-MAY-2017	0555	JW	SAMPLE 3	
4	W1170246	Field Elementary	11-MAY-2017	0547	JW	SAMPLE 4	
5	W1170247	Field Elementary	11-MAY-2017	0551	JW	SAMPLE 5	

1070

Chain of Custody:

Relinquished by: Name: JERRY WESTON Sign: Jerry Weston	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 5/11/17 @ 0650 Location: WQL Alv	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/11/17
LIMS Received Time: 0716
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Fletcher Elementary

Physical Address of School: 7666 Bobolink Way, San Diego, CA 92123

First Bell: 7:55am

Meeting Date: 4/05/2017

Sampling Plan Completion Date: 4/20/17

Completed by Print Name: Lori Sherman

Signature: *Lori Sherman* Date: 4/20/17

School's Point of Contact for Sampling Assistance

Name: ~~Lori Sherman~~ Tim Brown

Phone: ~~619-301-9086~~ 619-302-9427

Email: lsherman1@sandi.net

City of San Diego 3710020

Approved By: 4/28/17 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Fletcher Elementary - 7666 Bobolink Way, San Diego, CA 92123

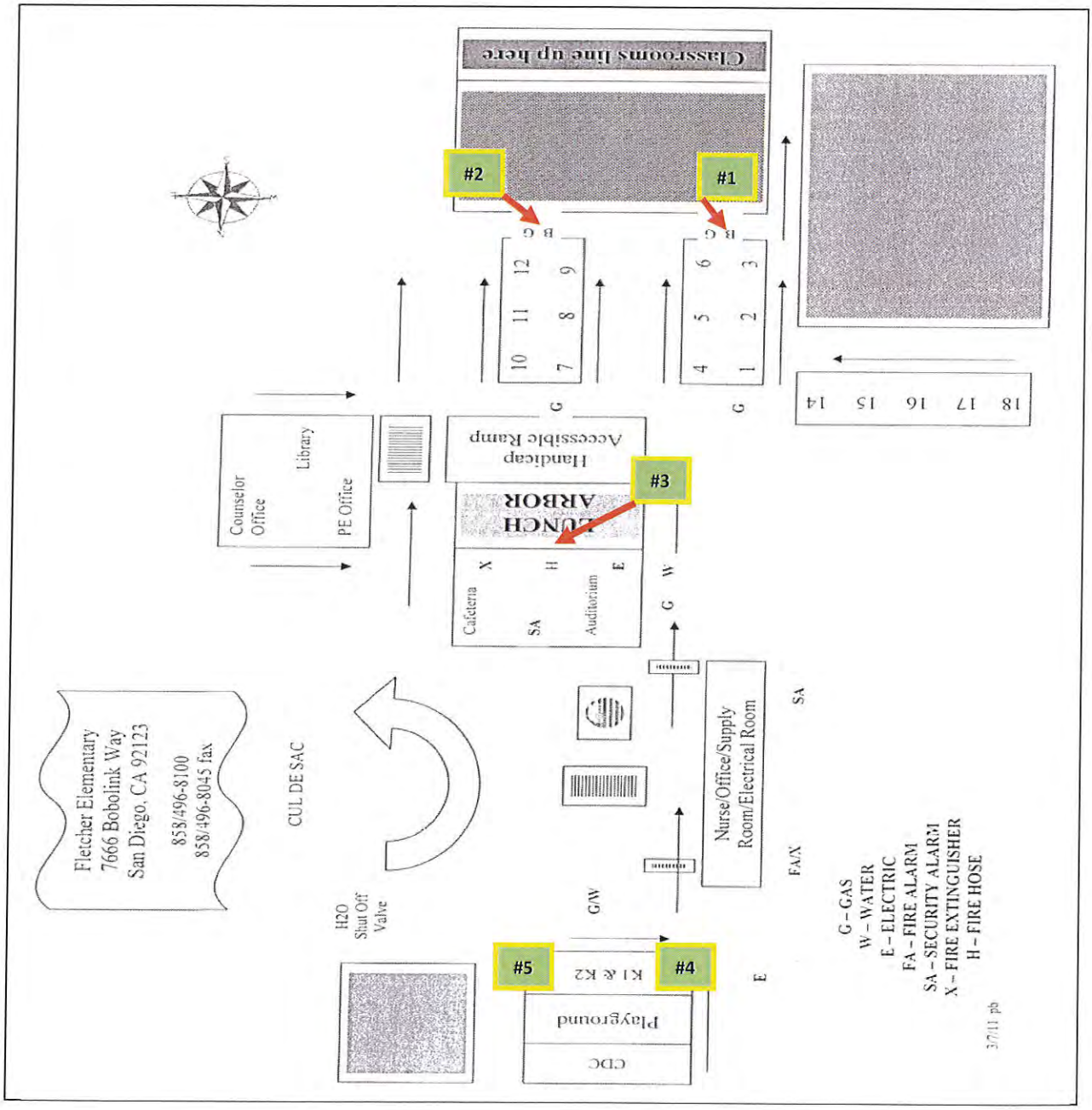

Sample No. 1

School: Fletcher Elementary - 7666 Bobolink Way, San Diego, CA 92123

Name of Building: Classrooms 1-6

Location Description: South exterior end of building near basketball court

Type of Outlet: Bubbler

Description: Left bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168612

State Sample ID: 3710020-BCC-A

Date & Time Last Used: 5/8/17 2200

Date & Time Sample Collected: 5/9/17 0557

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 2

School: Fletcher Elementary - 7666 Bobolink Way, San Diego, CA 92123

Name of Building: Classrooms 7-12

Location Description: South end of building near black top play area

Type of Outlet: Bubbler

Description: Left bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168613

State Sample ID: 3710020-BCC-B

Date & Time Last Used: 5/8/17 2200

Date & Time Sample Collected: 5/9/17 0601

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 3

School: Fletcher Elementary - 7666 Bobolink Way, San Diego, CA 92123

Name of Building: Cafeteria

Location Description: Outside next to lunch court

Type of Outlet: Bubbler

Description: Left Bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168614

State Sample ID: 3710020-BCC-C

Date & Time Last Used: 5/8/17 2200

Date & Time Sample Collected: 5/9/17 0552

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 4

School: Fletcher Elementary - 7666 Bobolink Way, San Diego, CA 92123

Name of Building: Kindergarten Bldg

Location Description: Inside K-1

Type of Outlet: Bubbler

Description: Bubbler on right side of sink

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168615

State Sample ID: 3710020-BCC-D

Date & Time Last Used: 5/8/17 2200

Date & Time Sample Collected: 5/9/17 0608

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M Nelson

Sample No. 5

School: Fletcher Elementary - 7666 Bobolink Way, San Diego, CA 92123

Name of Building: Kindergarten Bldg

Location Description: Inside K-2 classroom

Type of Outlet: Bubbler

Description: Bubbler on right side of sink

Comments/Miscellaneous:

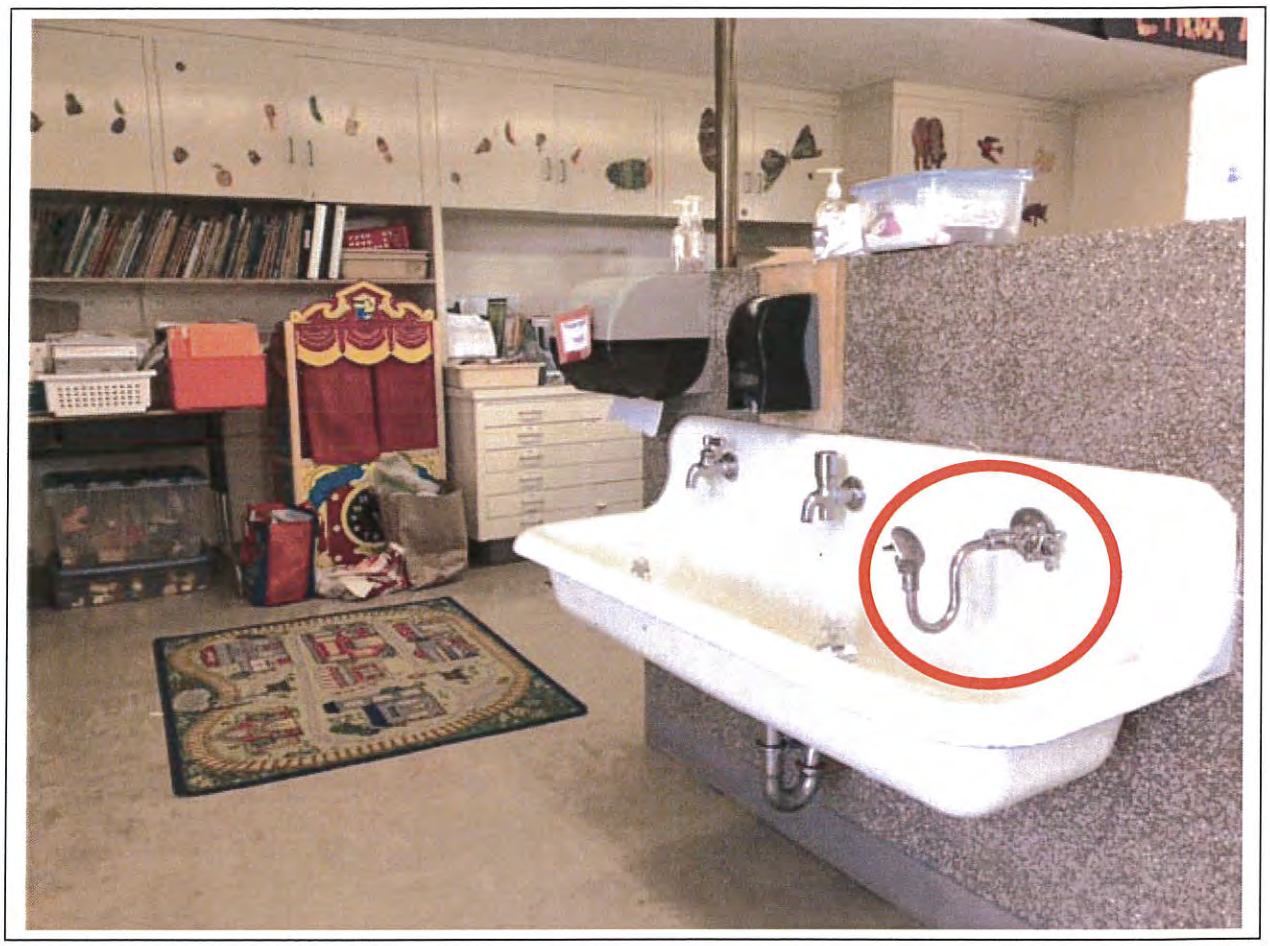

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168616

State Sample ID: 3710020-BCC-E

Date & Time Last Used: 5/8/17 2200

Date & Time Sample Collected: 5/9/17 0611

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

08-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168612	Fletcher Elementary	09-MAY-2017	0557	M. Nelson	SAMPLE 1	
2	W1168613	Fletcher Elementary	09-MAY-2017	0601		SAMPLE 2	
3	W1168614	Fletcher Elementary	09-MAY-2017	0552		SAMPLE 3	
4	W1168615	Fletcher Elementary	09-MAY-2017	0608		SAMPLE 4	
5	W1168616	Fletcher Elementary	09-MAY-2017	0611		SAMPLE 5	

Chain of Custody:

Relinquished by: Name: M. Nelson Sign:	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 5/09/17 @ 0650 Location: WQL A1V	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/09/17
LIMS Received Time: 0703
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Florence Elementary

Physical Address of School: 3914 First Ave., San Diego, CA 92103-3089

First Bell:

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 4/12/2017

Completed by Print Name: Ginette Commins

Signature: G Commins Date: 4/12/2017

School's Point of Contact for Sampling Assistance

Name: ~~Ginette Commins~~ Lori Sherman

Phone: ~~(858) 627-7201~~ 619-301-9086

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-21-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Florence Elementary, 3914 First Ave, San Diego, CA 92103-3089

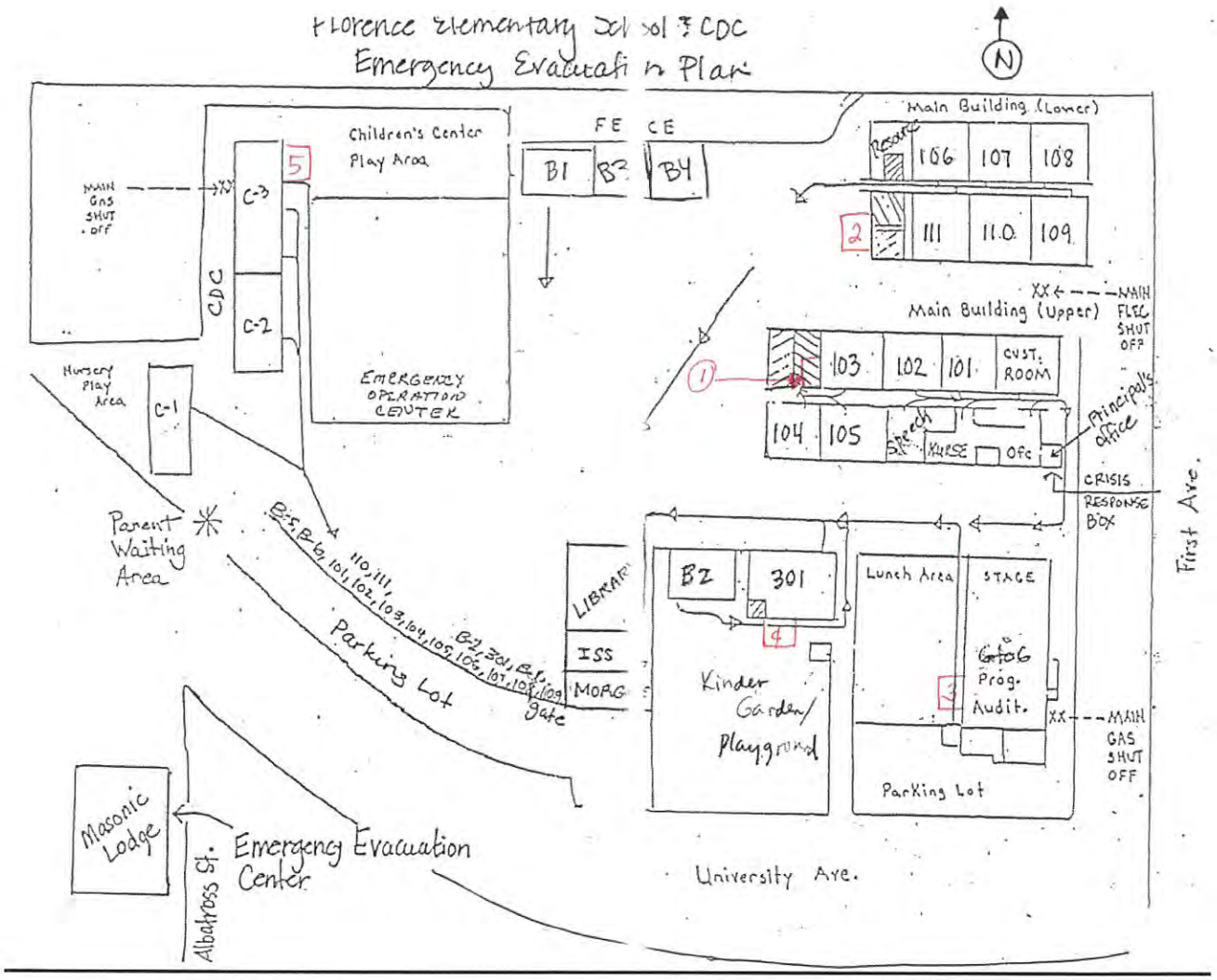

Sample No. 1

School: Florence Elementary

Name of Building: Main Bldg. (Upper)

Location Description: Wall mounted exterior (West of Bldg.), 2nd Floor, next to Boys Restroom, facing stairs

Type of Outlet: bubbler

Description: lower/left bubbler (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #107

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168166

State Sample ID: 3710020-AGJ-A

Date & Time Last Used: 4/21/17 @ 2200

Date & Time Sample Collected: 4/22/17 @ 0707

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: Florence Elementary

Name of Building: Main Bldg. (Lower)

Location Description: Wall mounted exterior (West of Bldg.), between Girls & Boys Restrooms, facing Blacktop

Type of Outlet: bubbler

Description: right bubbler (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #107

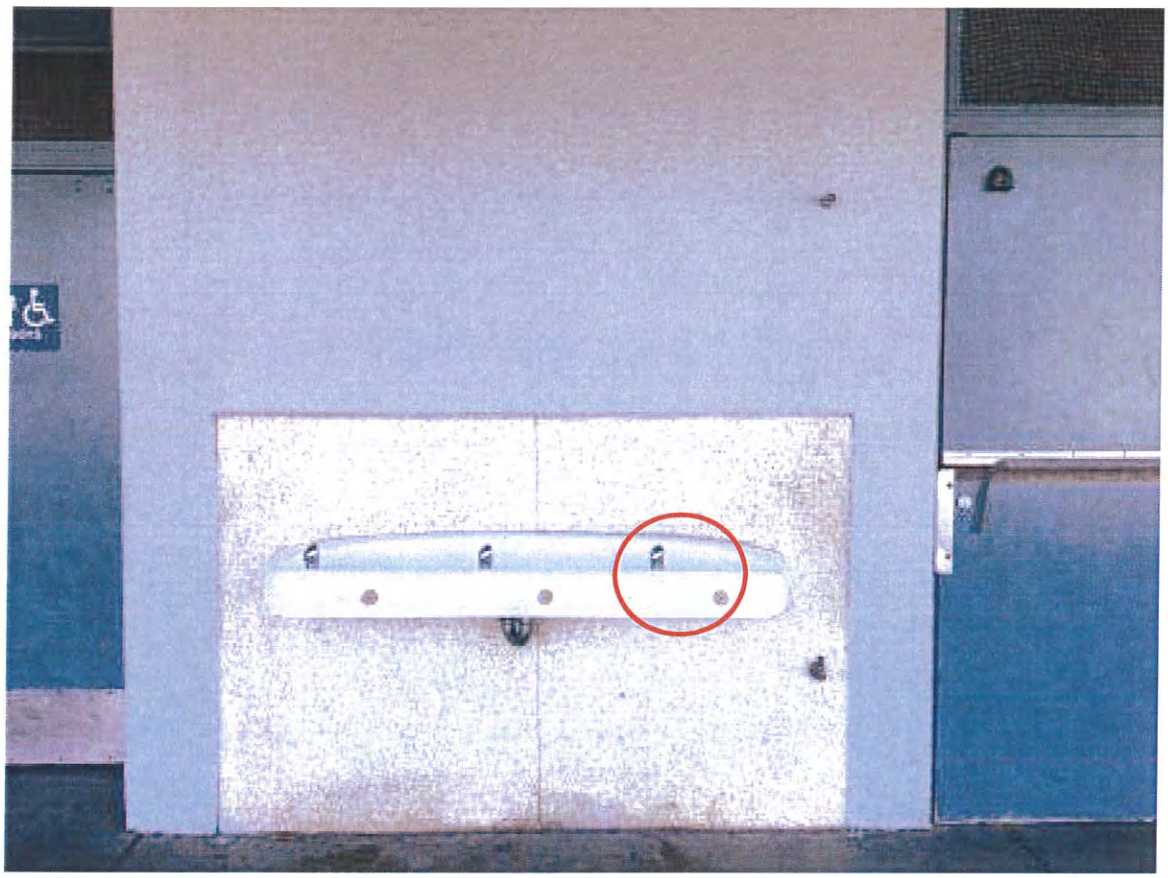

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168167

State Sample ID: 3710020-AGJ-B

Date & Time Last Used: ~~4/23 pm~~ 4/21/17 @ 2200

Date & Time Sample Collected: ~~4~~ am 4/22/17 @ 0709

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: Florence Elementary

Name of Building: Cafeteria/Auditorium

Location Description: Wall mounted exterior (West of Bldg.), facing lunch court

Type of Outlet: bubbler

Description: lower/left on a dual fountain (HIGH flow *if you push button hard enough*)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #107

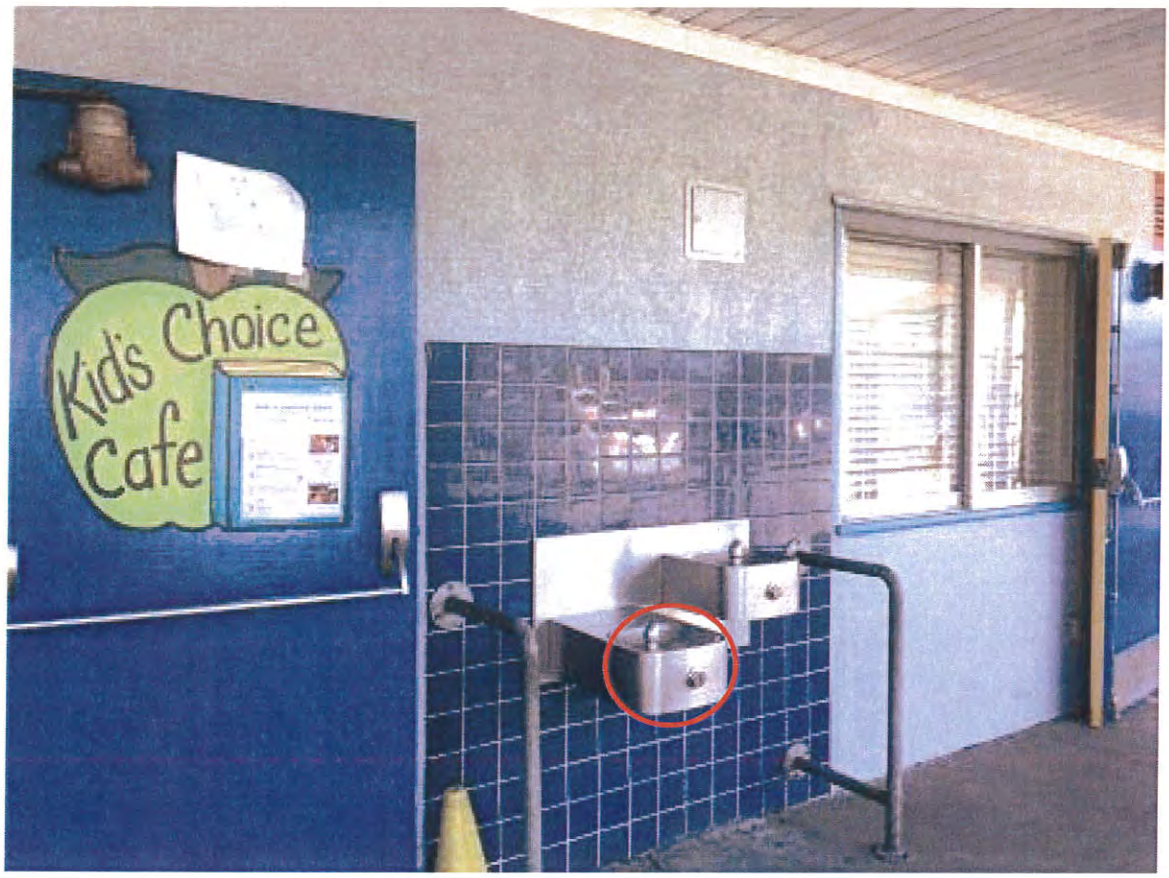

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168168

State Sample ID: 3710020-AGJ-C

Date & Time Last Used: 4/21/17 @ 2200

Date & Time Sample Collected: 4/22/17 @0717

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: Florence Elementary

Name of Building: 301

Location Description: Wall mounted exterior, between Boys & Girls Restrooms, facing Kinder garden/blacktop/playground

Type of Outlet: bubbler

Description: upper/right bubbler

Comments/Miscellaneous: drinking water source/SDUSD Location Code #107

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168169

State Sample ID: 3710020-AGJ-D

Date & Time Last Used: 4/21/17 @2200

Date & Time Sample Collected: 4/22/17 @ 0700

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 5

School: Florence Elementary

Name of Building: CDC (Rooms C3 & C2)

Location Description: Wall mounted exterior (East of Bldg.), facing Children's Center Play Area

Type of Outlet: bubbler

Description:

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #107

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168170

State Sample ID: 3710020-AGJ-E

Date & Time Last Used: 4/21/17 @ 2200

Date & Time Sample Collected: 4/22/17 @0713

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: A. Molloy

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

21-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168166	Florence Elementary	22-APR-2017	0707	A. Molloy	SAMPLE 1	
2	W1168167	Florence Elementary	22-APR-2017	0709		SAMPLE 2	
3	W1168168	Florence Elementary	22-APR-2017	0717		SAMPLE 3	
4	W1168169	Florence Elementary	22-APR-2017	0720		SAMPLE 4	
5	W1168170	Florence Elementary	22-APR-2017	0713		SAMPLE 5	

1086

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign: AMolloy	Received by: Name: Sign:	Date & Time: 4/22/17 Location: WQL Alv	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 4/22/17
LIMS Received Time: 1012
Reviewed By: AMolloy 4/26/17

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Foster Elementary

Physical Address of School: 6550 51st St. San Diego , Ca. 92103

First Bell: 7:45

Meeting Date: 3/22/2017

Sampling Plan Completion Date: 4/6/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 4/7/2017

School's Point of Contact for Sampling Assistance

Name: Elizabeth Lara

Phone: 619-302-7678

Email: elara@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-12-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: FOSTER ELEMENTARY 6550 51st. San Diego , Ca. 92120

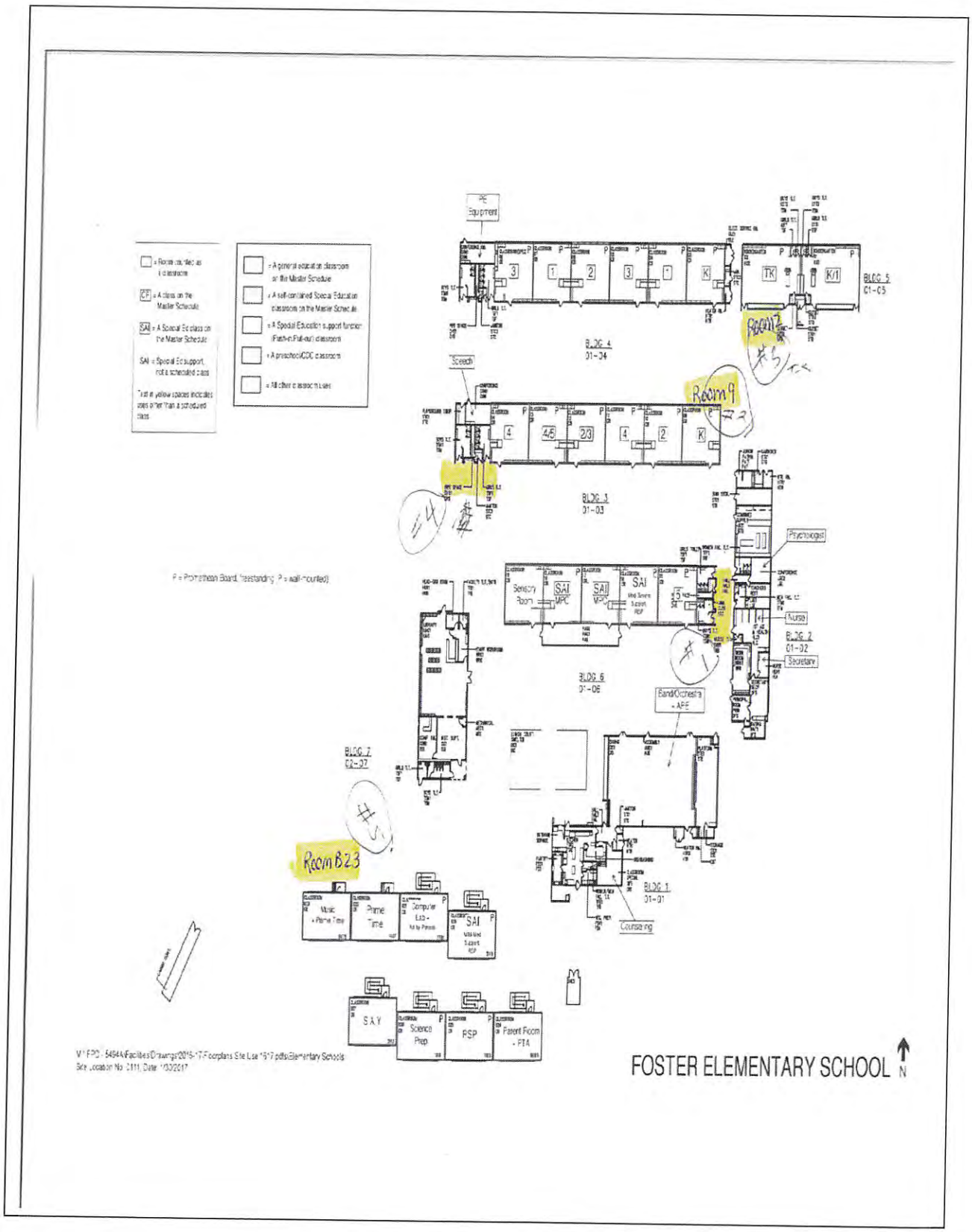

Sample No. 1

School: FOSTER ELEMENTARY

Name of Building: Building 3

Location Description: East end between boy's restroom & gear locker door

Type of Outlet: bubbler

Description: LEFT water fountain LEFT bubbler

Comments/Miscellaneous: #111

City use only below this line

* pine needle in sample

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166357

State Sample ID: 3710020-AED-A

Date & Time Last Used: 4/12/17 @ 6-10 pm

Date & Time Sample Collected: 0607 4/13/17

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: A. Mollo

Sample No. 2

School: FOSTER ELEMENTARY

Name of Building: BLDG 3

Location Description: INSIDE ROOM 9

Type of Outlet: BUBBLER

Description: BUBBLER AT SINK

Comments/Miscellaneous: #111

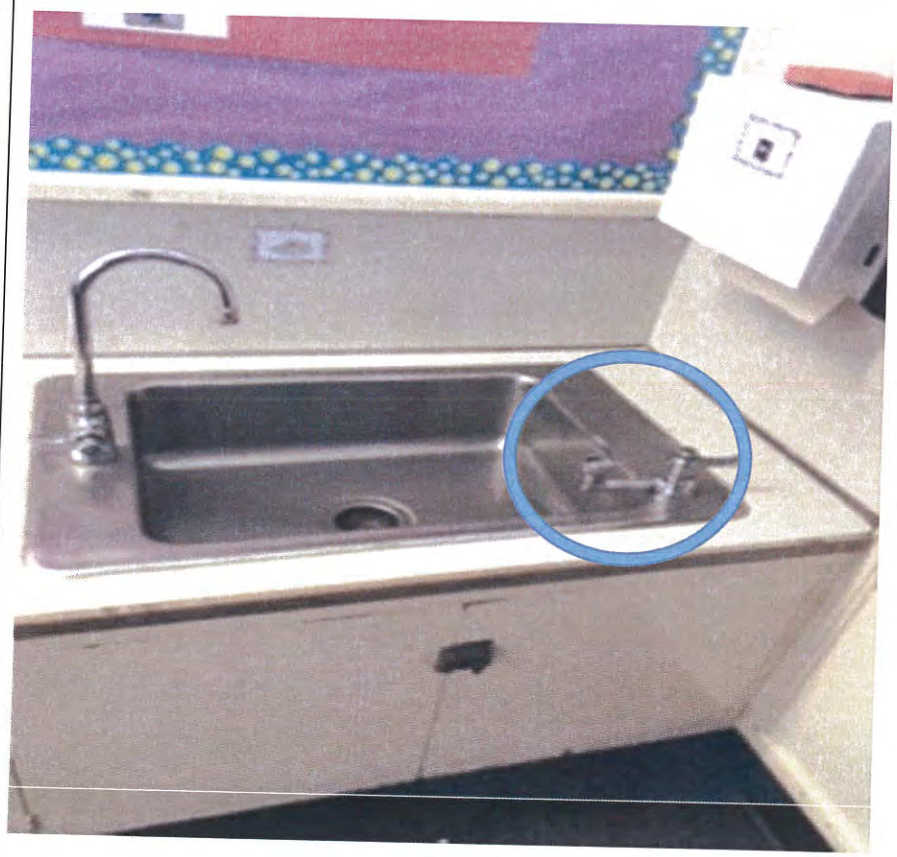

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166358

State Sample ID: 3710020-AED-B

Date & Time Last Used: 4/13/17 @ bton 6-10 pm

Date & Time Sample Collected: 4/13/17 @ 610

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: FOSTER ELEMENTARY

Name of Building: BUILDING 4

Location Description: INSIDE ROOM #2

Type of Outlet: BUBBLER

Description: BUBBLER FOUNTAIN AT SINK

Comments/Miscellaneous: #111

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166359

State Sample ID: 3710020-AED-C

Date & Time Last Used: 4/12/17 between 6-10 pm

Date & Time Sample Collected: 4/13/17 @ 0643

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: FOSTER ELEMENTAY

Name of Building: BUILDING 3

Location Description: Near SOUTH end BETWEEN BOYS RR & CUSTODIAL CLOSET

Type of Outlet: BUBBLER

Description: RIGHT BUBBLER OF LEFT DRINKING FOUNTAIN

Comments/Miscellaneous: #111

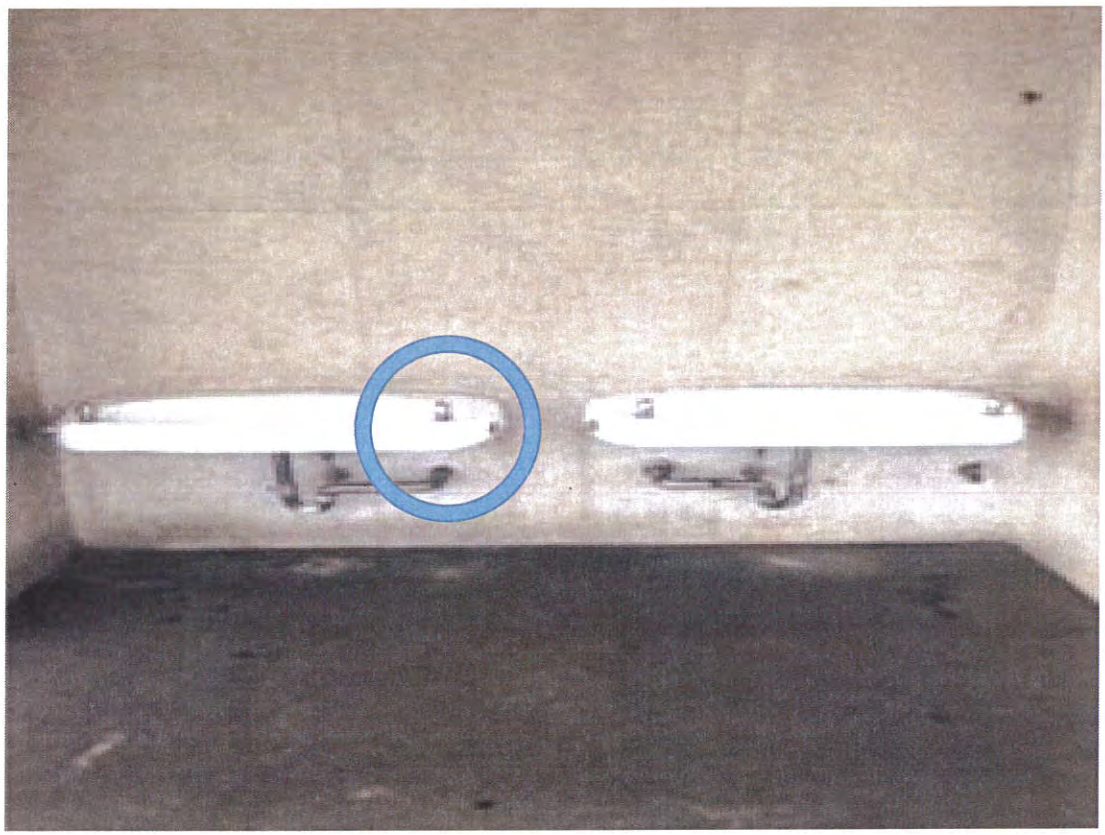

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166360

State Sample ID: 3710020-AED-D

Date & Time Last Used: 4/12/17 btwn 6-10 pm

Date & Time Sample Collected: 4/13/17 @ 0617

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: A. Molloy

Sample No. 5

School: FOSTER ELEMENTARY

Name of Building: BUILDING 5

Location Description: B-23

Type of Outlet: BUBBLER

Description : INSIDE CLASSROOM- BUBBLER DRINKING FOUNTAIN AT SINK

Comments/Miscellaneous: #111

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166361

State Sample ID: 3710020-AED-E

Date & Time Last Used: 4/12/17 @ 6-10 pm

Date & Time Sample Collected: 4/13/17 @620

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

12-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1166357	Foster Elementary	13-APR-2017	0607	A. Molloy	SAMPLE 1	
2	W1166358	Foster Elementary	13-APR-2017	0610		SAMPLE 2	
3	W1166359	Foster Elementary	13-APR-2017	0613		SAMPLE 3	
4	W1166360	Foster Elementary	13-APR-2017	0617		SAMPLE 4	
5	W1166361	Foster Elementary	13-APR-2017	0620		SAMPLE 5	

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign: A Molloy	Received by: Name: Tom Burger Sign: Tom B. Burger	Date & Time: 4/13/17 @ 0650 Location: WQL	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 4-13-17
LIMS Received Time: 0710
Reviewed By: [illegible]

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Franklin Elementary

Physical Address of School: 4481 Copeland Ave, San Diego, CA 92116-4802

First Bell: 7:50 AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date:

Completed by Print Name: Ginette Commins

Signature: GCommins Date: 04/07/2017

School's Point of Contact for Sampling Assistance

Name: Ginette Commins

Phone: (858) 627-7201

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-12-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Franklin Elementary, 4481 Copeland Ave, San Diego, CA 92116-4802

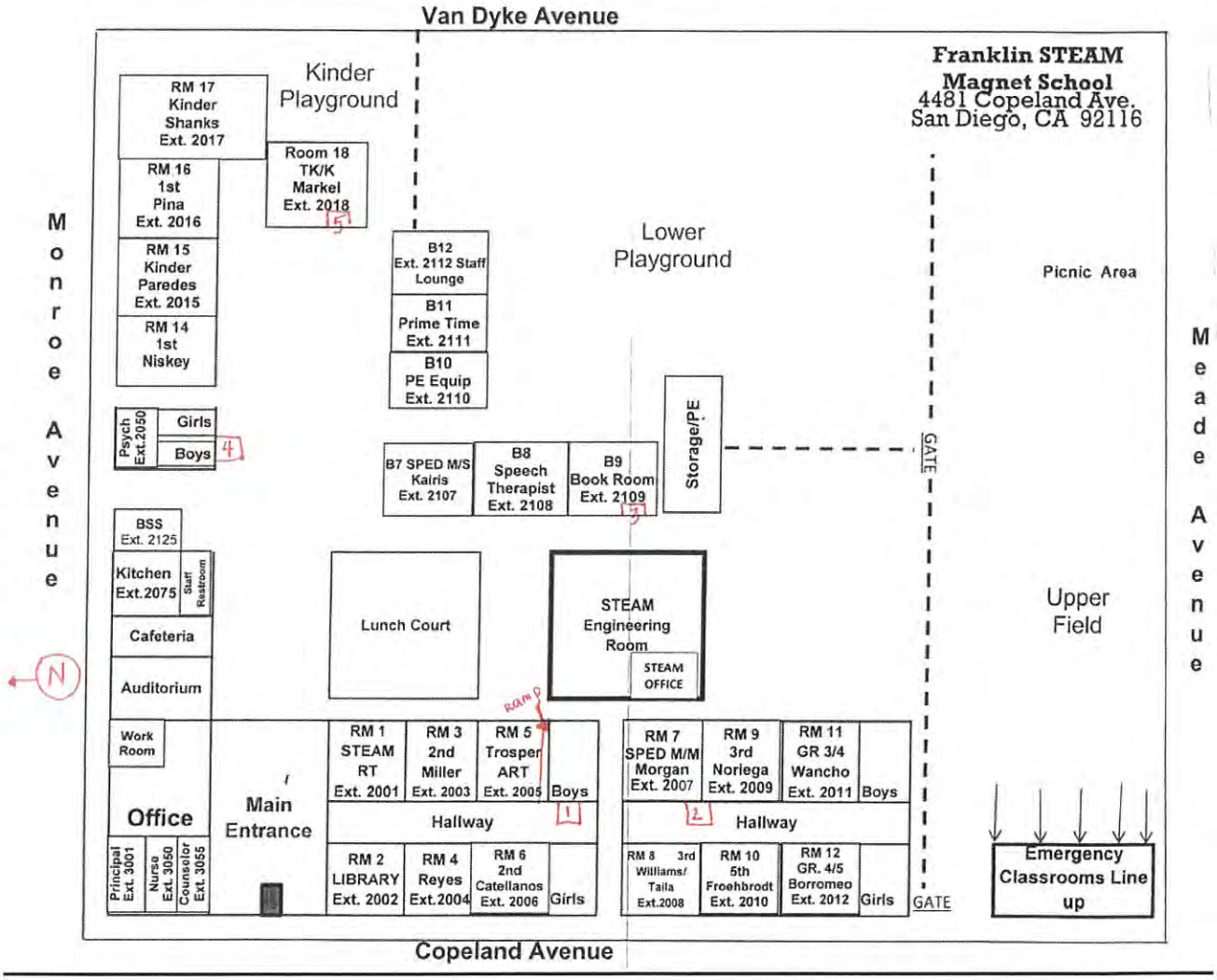

Sample No. 1

School: Franklin Elementary

Name of Building: Rooms 1-6

Location Description: Wall mounted in the Hallway, next to ramp, facing Girl's Restroom

Type of Outlet: bubbler

Description: left bubbler head

Comments/Miscellaneous: SDUSD Location Code #113

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166313

State Sample ID: 3710020-AEC-A

Date & Time Last Used: 1800 4/12/17

Date & Time Sample Collected: 0554

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Notes:

Sample No. 2

School: Franklin Elementary

Name of Building: Rooms 7-12

Location Description: Wall mounted in the Hallway, between Rooms 7 & 9

Type of Outlet: bubbler

Description: left bubbler head

Comments/Miscellaneous: SDUSD Location Code #113

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166314

State Sample ID: 3710020-AEC-B

Date & Time Last Used: 1800 4/12/17

Date & Time Sample Collected: 0558 4/13/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Notes:

Sample No. 3

School: Franklin Elementary

Name of Building: Portable Classrooms B7-B9

Location Description: Room B9, classroom sink/faucet

Type of Outlet: bubbler

Description: bubbler with push button on a sink

Comments/Miscellaneous: SDUSD Location Code #113

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166315

State Sample ID: 3710020-AEC-C

Date & Time Last Used: 1800 4/12/17

Date & Time Sample Collected: 0609 4/13/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Notes:

Sample No. 4

School: Franklin Elementary

Name of Building: Rooms 14-17

Location Description: Wall mounted exterior, between Boys & Girls Restrooms, facing courtyard

Type of Outlet: bubbler

Description: lower/left bubbler on a dual fountain

Comments/Miscellaneous: SDUSD Location Code #113

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166316

State Sample ID: 3710020-AEC-D

Date & Time Last Used: 1800 4/12/17

Date & Time Sample Collected: 0604 4/13/17

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: David Mayo

Notes:

Sample No. 5

School: Franklin Elementary

Name of Building: Kindergarten

Location Description: Room 18, classroom sink between Storage Room & Girls Restroom

Type of Outlet: bubbler

Description: bubbler at sink with lever handle

Comments/Miscellaneous: SDUSD Location Code #113

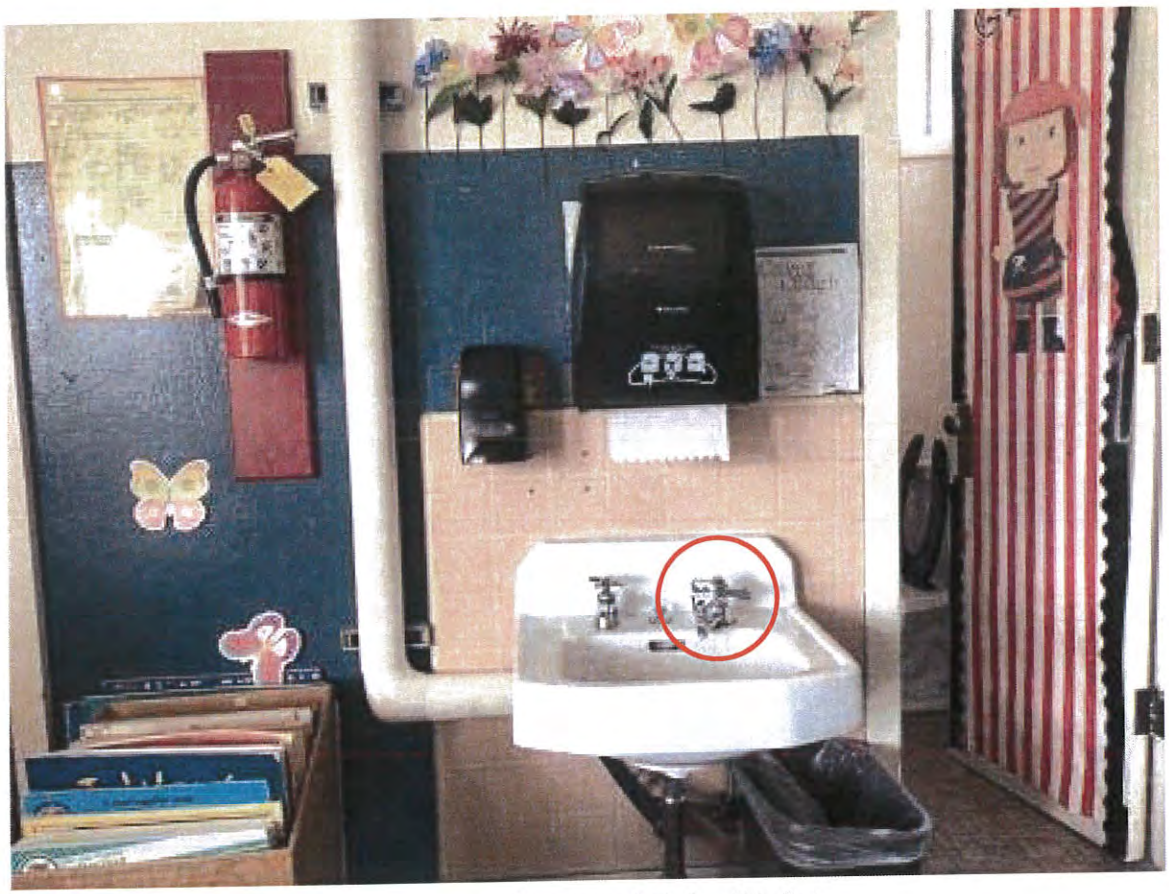

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166317

State Sample ID: 3710020-AEC-E

Date & Time Last Used: 1800 4/12/17

Date & Time Sample Collected: 0607 4/13/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Notes:

Exhibit 3

Water Quality Chemistry Services
Chain of Custody Form

12-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1166313	Franklin Elementary	13-APR-2017	0554	David Mayo	SAMPLE 1	
2	W1166314	Franklin Elementary	13-APR-2017	0558		SAMPLE 2	
3	W1166315	Franklin Elementary	13-APR-2017	0609		SAMPLE 3	
4	W1166316	Franklin Elementary	13-APR-2017	0604		SAMPLE 4	
5	W1166317	Franklin Elementary	13-APR-2017	0607		SAMPLE 5	

Chain of Custody:

Relinquished by: Name: David Mayo Sign: David Mayo	Received by: Name: Tom Burger Sign: Tom B Burger	Date & Time: 4/13/17 6:41 Location: AIV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: tMall
Received Date: 4/13/17
LIMS Received Time: 0716
Reviewed By: TM

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Freese Elementary

Physical Address of School: 8140 Greenlawn Dr, San Diego, CA 92114-7309

First Bell: 7:45 am

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/03/2017

Completed by Print Name: Ginette Commins

Signature: GCommins Date: 04/03/2017

School's Point of Contact for Sampling Assistance

Name: ~~Ginette Commins~~ **Cesar Jimenez**

Phone: ~~(858) 627-7201~~ **619-261-1588**

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Tom B Burger 4-5-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Freese Elementary, 8140 Greenlawn Dr, San Diego, CA 92114-7309

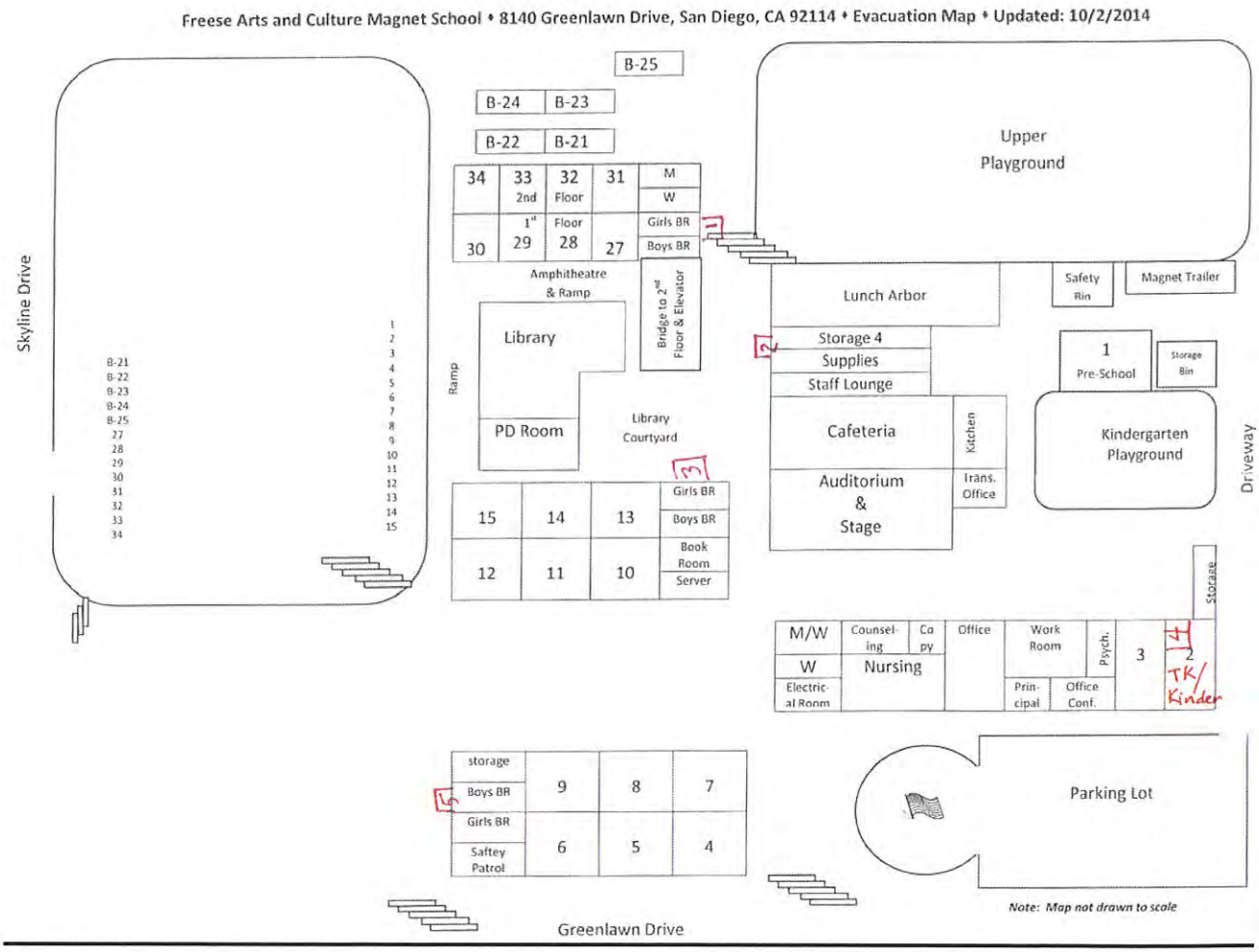

Sample No. 1

School: Freese Elementary

Name of Building: Two-story bldg. for Rooms 27-34

Location Description: Wall mounted exterior, 1st Floor, between Girls & Boys Restrooms, facing blacktop

Type of Outlet: bubbler

Description: lower/left bubbler on a dual fountain

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location ID# 9115

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164613

State Sample ID: 3710020-ACA-A

Date & Time Last Used: 4/5/17 @ 1810

Date & Time Sample Collected: 4/6/17 @ 0629

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: Gloria Siqueiros

Sample No. 2

School: Freese Elementary

Name of Building: Cafeteria

Location Description: Wall mounted exterior, between Storage 4 & Supply Rooms, facing library courtyard

Type of Outlet: bubbler

Description: left bubbler head

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location ID# 9115

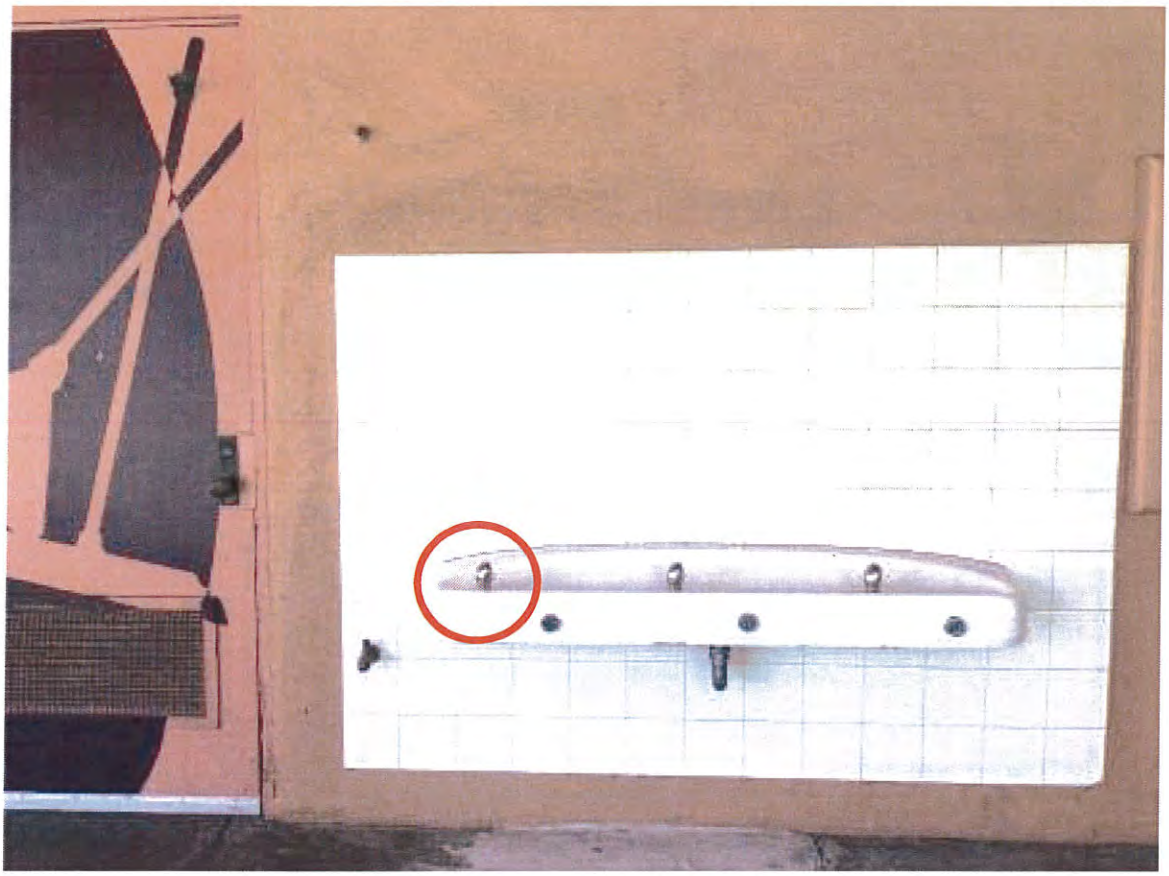

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164614

State Sample ID: 3710020-ACA-B

Date & Time Last Used: 4/5/17 @ 1810

Date & Time Sample Collected: 4/6/17 @ 0625

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Gloria Siqueiros

Sample No. 3

School: Freese Elementary

Name of Building: Rooms 10-13

Location Description: Wall mounted exterior, next to room 13, facing library courtyard

Type of Outlet: bubbler

Description: lower/left bubbler on a dual fountain

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location ID# 9115

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164615

State Sample ID: 3710020-ACA-C

Date & Time Last Used: 4/5/17 @ 1810

Date & Time Sample Collected: 4/6/17 @ 0616

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Gloria Siqueiros

Sample No. 4

School: Freese Elementary

Name of Building: Main Bldg

Location Description: Room 2-Transitional Kinder/Kindergarten, classroom sinks/faucets, next to exit door

Type of Outlet: bubbler

Description: dual sink - left side and bubbler with lever handle

Comments/Miscellaneous: indoor drinking water source/SDUSD Location ID# 9115

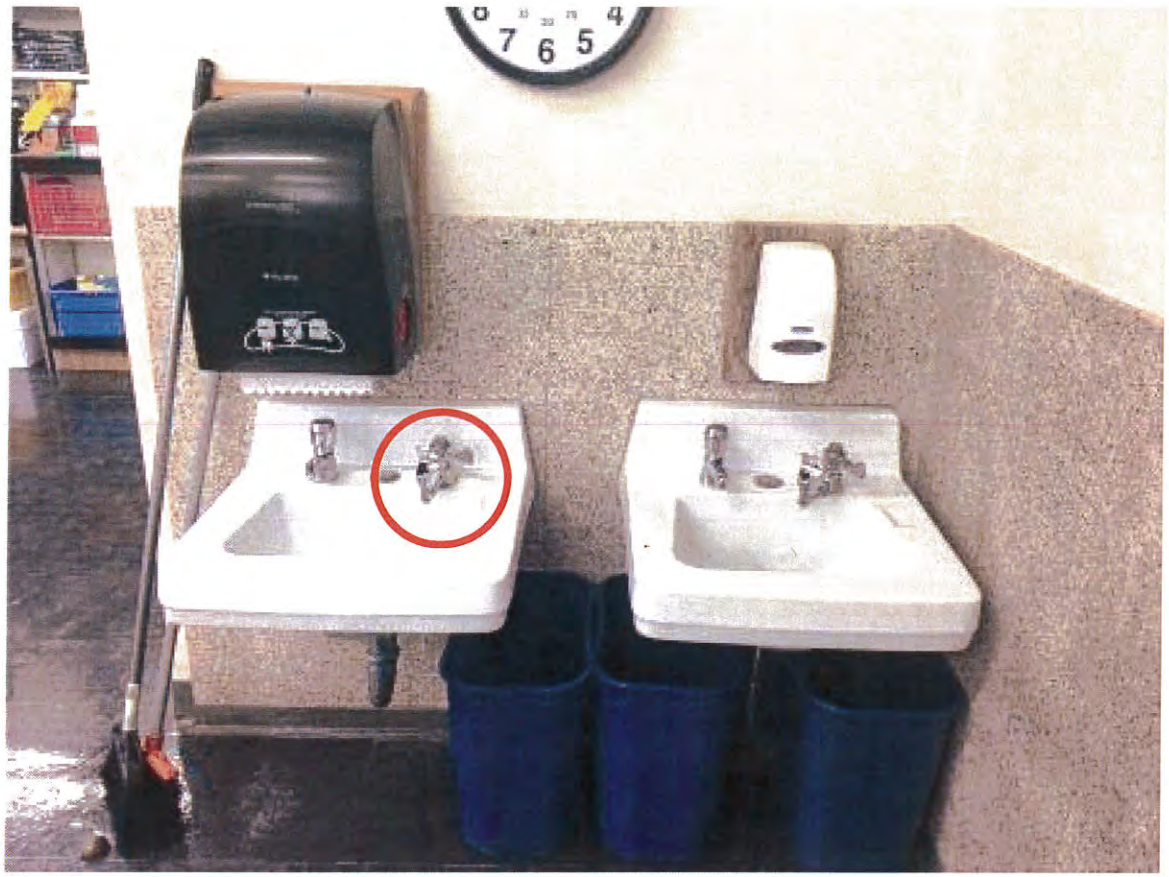

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164616

State Sample ID: 3710020-ACA-D

Date & Time Last Used: 4/5/17 @ 1830

Date & Time Sample Collected: 4/6/17 @ 0612

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Gloria Siqueiros

Sample No. 5

School: Freese Elementary

Name of Building: Rooms 4-9

Location Description: Wall mounted exterior, between Boys & Girls Restrooms, facing blacktop

Type of Outlet: bubbler

Description: right bubbler head

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location ID# 9115

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164617

State Sample ID: 3710020-ACA-E

Date & Time Last Used: 4/5/17 @ 1800

Date & Time Sample Collected: 4/6/17 @ 0621

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: Gloria Siqueiros

Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 4/12/17

San Diego Unified School District

Freese Elementary

Sample ID	Sample Date	Sample Time	Description	External ID	Lead	Units
W1164613	04/06/17	06:29 AM	SAMPLE 1	3710020-ACA-A	< 5	ug/L
W1164614	04/06/17	06:25 AM	SAMPLE 2	3710020-ACA-B	< 5	ug/L
W1164615	04/06/17	06:16 AM	SAMPLE 3	3710020-ACA-C	< 5	ug/L
W1164616	04/06/17	06:12 AM	SAMPLE 4	3710020-ACA-D	< 5	ug/L
W1164617	04/06/17	06:21 AM	SAMPLE 5	3710020-ACA-E	< 5	ug/L

SAMPLE 1 two story BLDG w/rooms 27-34, exterior, 1st floor, between girls/boys restrooms, facing blacktop, lower left bubbler

SAMPLE 2 Cafeteria exterior, between storage 4 & supply rooms, facing library courtyard

SAMPLE 3 rooms 10-13, ext next to room 13, facing library courtyard, lower left bubbler

SAMPLE 4 Main BLDG, room 2, classroom sinks, next to exit, bubbler on left sink

SAMPLE 5 Rooms 4-9, exterior between boys/girls restrooms, triple fountain, right bubbler

DLR= State Mandated Detection Limit for Reporting (DI
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

05-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1164613	Freese Elementary	06-APR-2017	0629	G. Siqueiros	SAMPLE 1	Pb
2	W1164614	Freese Elementary	06-APR-2017	0625		SAMPLE 2	
3	W1164615	Freese Elementary	06-APR-2017	0616		SAMPLE 3	
4	W1164616	Freese Elementary	06-APR-2017	0612		SAMPLE 4	
5	W1164617	Freese Elementary	06-APR-2017	0621		SAMPLE 5	

Chain of Custody:

Relinquished by: Name: Gloria Siqueiros Sign:	Received by: Name: Tom Burger Sign: Tom B Burger	Date & Time: 4/6/17 @ 0758 Location: alvarado	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 4-6-17
LIMS Received Time: 0959
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Fulton K-8

Physical Address of School: 7055 Skyline Dr, San Diego, CA 92114-5930

First Bell: 7:30 am

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 03/22/2017

Completed by Print Name: Ginette Commins

Signature: GCommins Date: 03/22/2017

School's Point of Contact for Sampling Assistance

Name: Ginette Commins

Phone: (858) 627-7201

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 3/30/17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to: Sample 2,3,4,5 please tag out all fixtures in picture

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: 7055 Skyline Dr, San Diego, CA 92114-5930

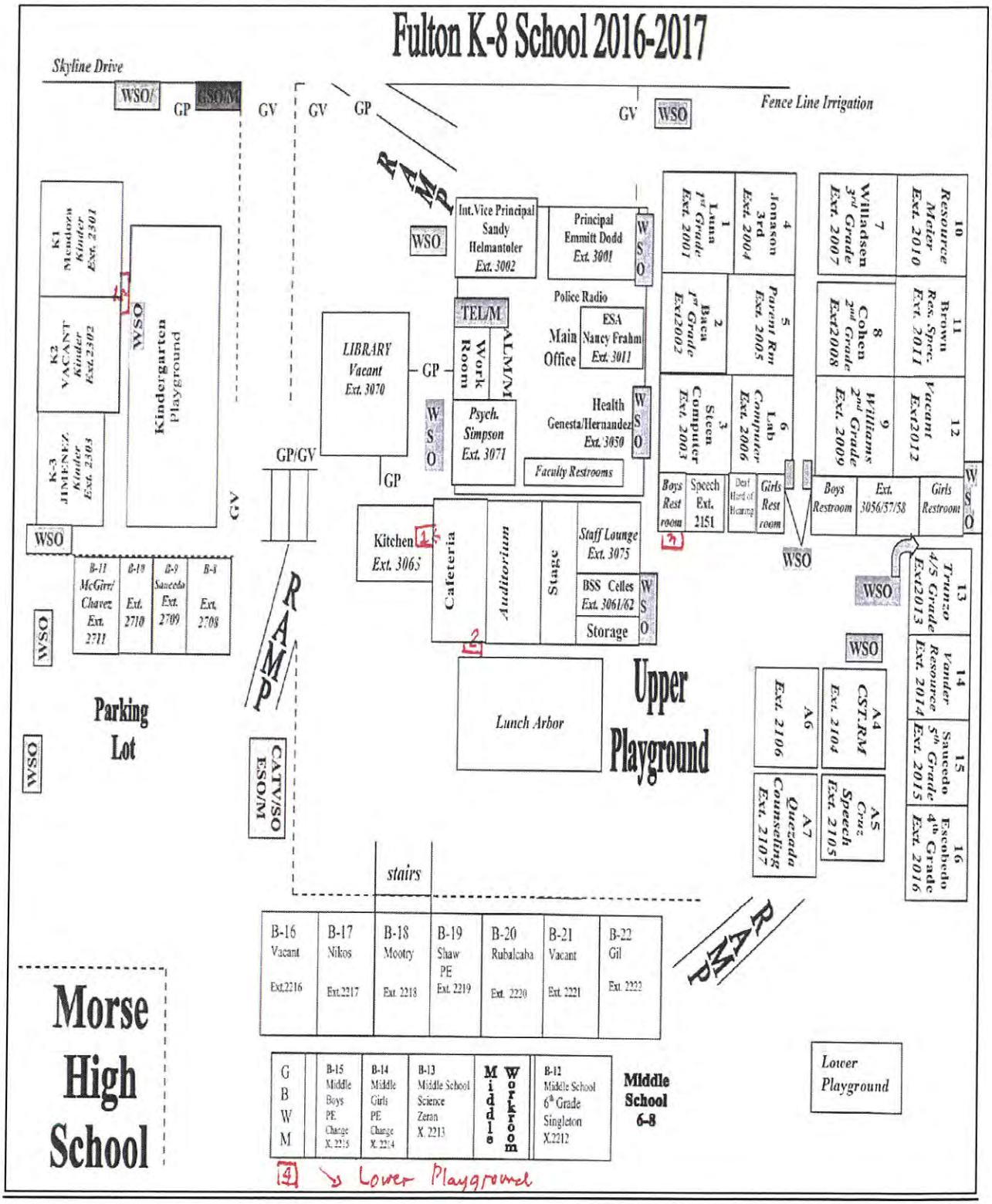

Sample No. 1

School: Fulton K-8

Name of Building: Cafeteria

Location Description: Sink in the Prep Kitchen, near the kitchen door facing cafeteria's dining area

Type of Outlet: kitchen faucet

Description: cold water faucet with color blue indicator

Comments/Miscellaneous: indoor water source for daily cooking/ SDUSD Location ID# 9119

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-ABF-A

LIMS Sample ID: W1164193

Date & Time Last Used: 18:10 4/5/17

Date & Time Sample Collected: 05:55 4/6/17

Name of Water System Sample Collector: David Mayo

Sample No. 2

School: Fulton K-8

Name of Building: Cafeteria

Location Description: Wall mounted exterior, facing lunch court, between Cafeteria and Auditorium

Type of Outlet: bubbler

Description: upper/right bubbler on a dual fountain

Comments/Miscellaneous: outdoor drinking water source/ SDUSD Location ID# 9119

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-ABF-B

LIMS Sample ID: W1164194

Date & Time Last Used: 18:10 4/5/17

Date & Time Sample Collected: 05:59 4/6/17

Name of Water System Sample Collector: David Mayo

Sample No. 3

School: Fulton K-8

Name of Building: Building Rooms 1-6

Location Description: Wall mounted exterior, next to Speech Pathologist Room, facing upper playground

Type of Outlet: bubbler

Description: right bubbler head

Comments/Miscellaneous: outdoor drinking water source/ SDUSD Location ID# 9119

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-ABF-C

LIMS Sample ID: W1164195

Date & Time Last Used: 18:10 4/5/17

Date & Time Sample Collected: 0602 4/6/17

Name of Water System Sample Collector: David Mayo

Sample No. 4

School: Fulton K-8

Name of Building: Portable Restrooms

Location Description: Floor mounted exterior, next to Men's Restroom, facing lower playground

Type of Outlet: bubbler

Description: front/lower bubbler on a two-station fountain

Comments/Miscellaneous: outdoor drinking water source/ SDUSD Location ID# 9119

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-ABF-D

LIMS Sample ID: W1164196

Date & Time Last Used: 1810 4/5/17

Date & Time Sample Collected: 0605 4/6/17

Name of Water System Sample Collector: David Mayo

Sample No. 5

School: Fulton K-8

Name of Building: Kindergarten Rooms K1-K3

Location Description: Wall mounted exterior, next to Storage Room 3, between K2 & K1, facing Kinder playground

Type of Outlet: bubbler

Description: right bubbler head

Comments/Miscellaneous: outdoor drinking water source/ SDUSD Location ID# 9119

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-ABF-E

LIMS Sample ID: W1164197

Date & Time Last Used: 18:10 4/5/17

Date & Time Sample Collected: 06:11 4/6/17

Name of Water System Sample Collector: David Mayo

Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 4/12/17

San Diego Unified School District

Fulton K-8

Sample ID	Sample Date	Sample Time	Description	External ID	Lead	Units
W1164421	04/06/17	05:55 AM	SAMPLE 1	3710020-ABF-A	< 5	ug/L
W1164422	04/06/17	05:59 AM	SAMPLE 2	3710020-ABF-B	< 5	ug/L
W1164423	04/06/17	06:02 AM	SAMPLE 3	3710020-ABF-C	< 5	ug/L
W1164424	04/06/17	06:05 AM	SAMPLE 4	3710020-ABF-D	< 5	ug/L
W1164425	04/06/17	06:11 AM	SAMPLE 5	3710020-ABF-E	5.41	ug/L

SAMPLE 1 Cafeteria; Prep Kitchen Sink, near door

SAMPLE 2 Cafeteria; btwn cafeteria & auditorium; upper right bubbler

SAMPLE 3 BLDG Rms 1-6; near speech pathologist rm, right bubbler

SAMPLE 4 Portable Restroom; next men's restroom facing playground; front/lower bubbler

SAMPLE 5 Kindergarten Rms K1 - K3; btwn K2&K1 facing playground; right bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Water Quality Chemistry Services
Chain of Custody Form

05-Apr-2017

592

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1164421	Fulton K-8	06-APR-2017	05:55	David Mayo	SAMPLE 1	Pb
2	W1164422	Fulton K-8	06-APR-2017	05:59		SAMPLE 2	
3	W1164423	Fulton K-8	06-APR-2017	06:02		SAMPLE 3	
4	W1164424	Fulton K-8	06-APR-2017	06:05		SAMPLE 4	
5	W1164425	Fulton K-8	06-APR-2017	06:11		SAMPLE 5	

1120

Chain of Custody:

Relinquished by: Name: David Mayo Sign: David Mayo	Received by: Name: Gloria Siqueiros Sign: Siqueiros	Date & Time: 4/6/17 07:00 Location: Alvarado	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: Siqueiros
Received Date: 4/6/17
LIMS Received Time: 0806
Reviewed By:

Exhibit 31

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: #121 GAGE ELEMENTARY

Physical Address of School: 6811 Bisby Lake Ave. San Diego 92119

First Bell: 7:25

Meeting Date: 3/22/2017

Sampling Plan Completion Date: 4/7/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 4/7/2017

School's Point of Contact for Sampling Assistance

Name: Elizabeth Lara

Phone: 619-302-7616

Email: elara@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-13-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: 6811 Bisby Lake Ave. San Diego , Ca 92119

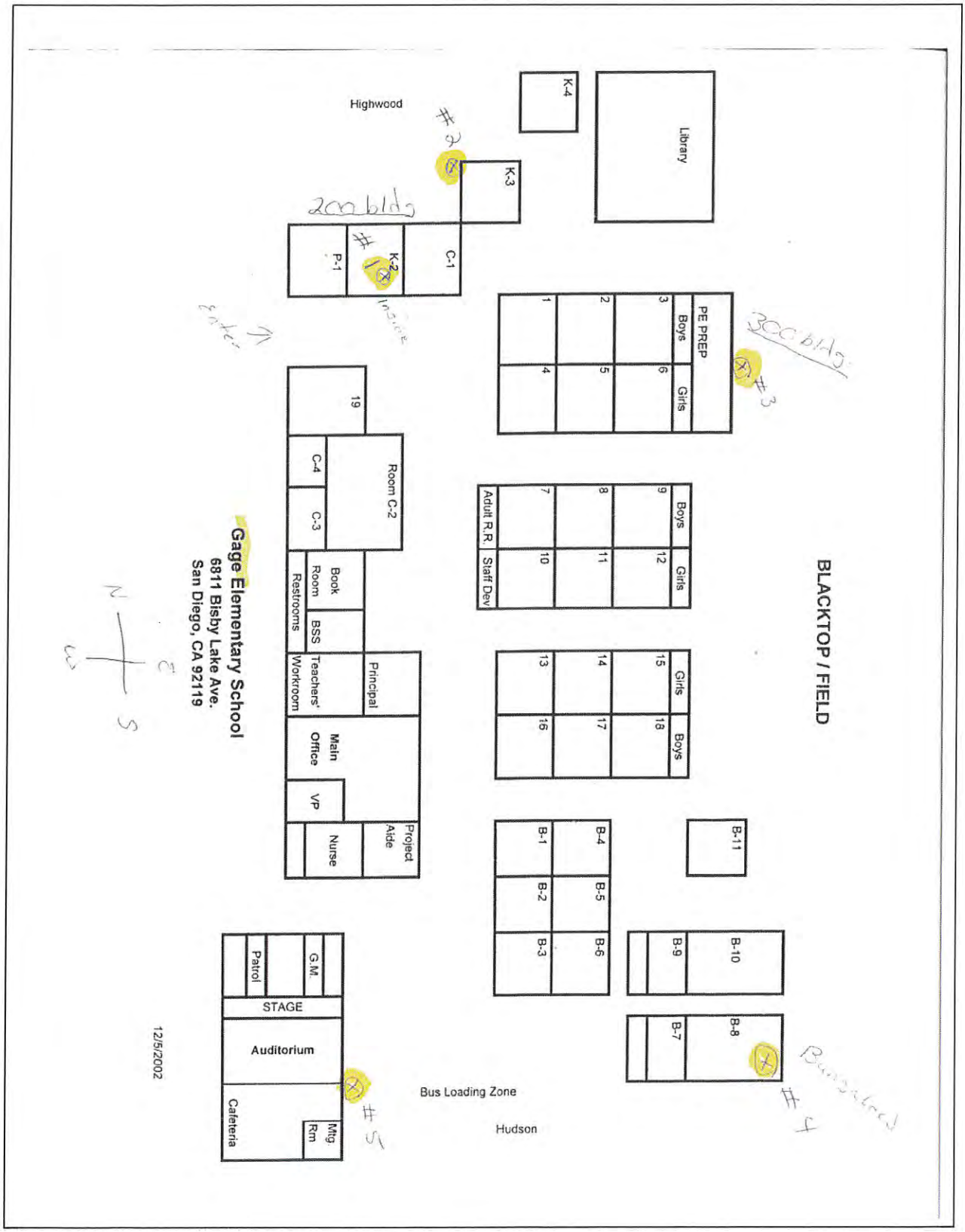

Sample No. 1

School: GAGE ELEMENTARY

Name of Building: 200 BLDG

Location Description: Inside room K-2

Type of Outlet: Bubbler

Description: Bubbler water fountain at sink right side

Comments/Miscellaneous: #121

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166639

State Sample ID: 3710020-AEF-A

Date & Time Last Used: 4/13/17 1800-2200

Date & Time Sample Collected: 4/14/17 0605

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Ahwenya

Sample No. 2

School: GAGE ELEMENTARY

Name of Building: 200 BLDG

Location Description: West corner- Next to K-3 & Girls RR

Type of Outlet: Bubbler

Description: Drinking fountain –LEFT - bubbler of three

Comments/Miscellaneous: 121

City use only below this line

Sample type Initial ☐ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166640

State Sample ID: 3710020-AEF-B

Date & Time Last Used: 4/13/17 1800-2200

Date & Time Sample Collected: 4/14/17 0605

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez

Sample No. 3

School: GAGE ELEMENTARY

Name of Building: 300 bldg.

Location Description: East between custodial room & Girls restroom

Type of Outlet: Bubbler

Description: Single Bubbler Drinking fountain –Right Side

Comments/Miscellaneous: 121

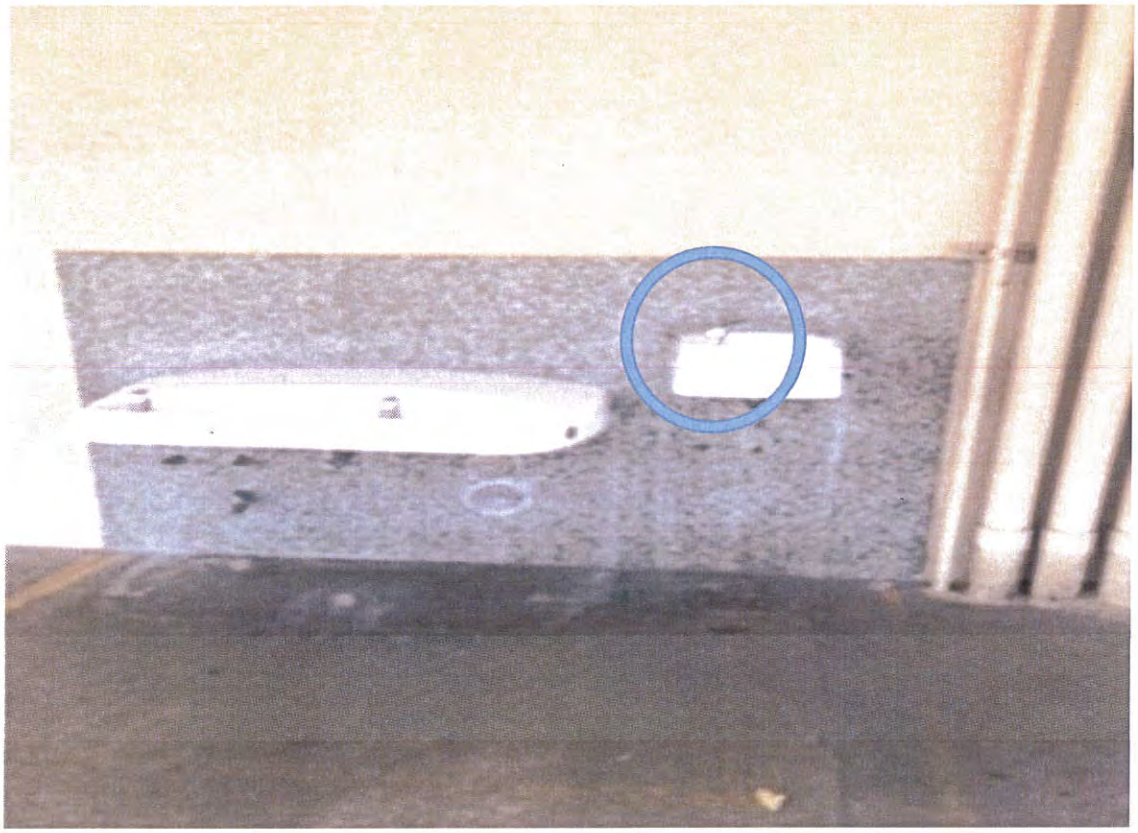

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166641

State Sample ID: 3710020-AEF-C

Date & Time Last Used: 4/13/17 1800-2200

Date & Time Sample Collected: 4/14/17 0610

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez

Sample No. 4

School: GAGE ELEMENTARY SCHOOL

Name of Building: Bldg. #4

Location Description: Inside Classroom **B-8**

Type of Outlet: Bubbler

Description: Bubbler drinking fountain at sink

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166642

State Sample ID: 3710020-AEF-D

Date & Time Last Used: 4/13/17 1800-2200

Date & Time Sample Collected: 4/14/17 0615

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez

Sample No. 5

School: GAGE ELEMENTARY

Name of Building: Building #5 Lunch Court

Location Description: Lunch Court

Type of Outlet: Bubbler

Description: LEFT Water fountain next to handwashing sink

Comments/Miscellaneous: 121

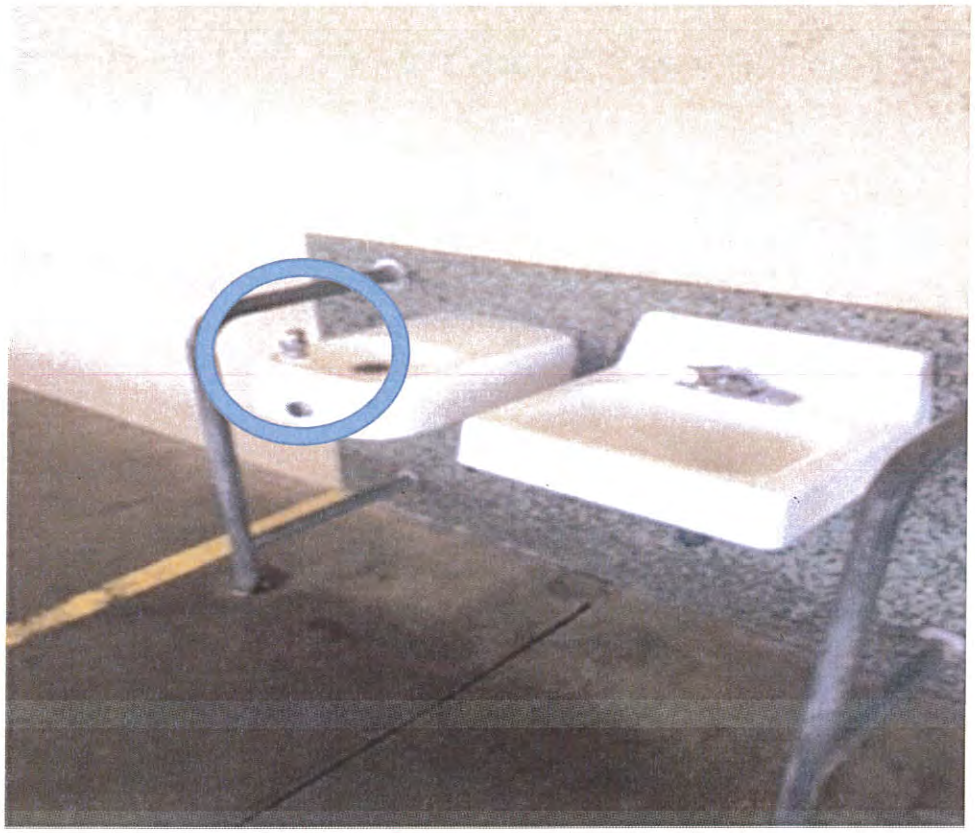

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166643

State Sample ID: 3710020-AEF-E

Date & Time Last Used: 4/13/17 1800-2200

Date & Time Sample Collected: 4/14/17 0615

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: BL E. Alvarenga

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

13-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1166639	Gage Elementary	14-APR-2017	0605	EA	SAMPLE 1	
2	W1166640	Gage Elementary	14-APR-2017	0605	EA	SAMPLE 2	
3	W1166641	Gage Elementary	14-APR-2017	0610	EA	SAMPLE 3	
4	W1166642	Gage Elementary	14-APR-2017	0615	EA	SAMPLE 4	
5	W1166643	Gage Elementary	14-APR-2017	0615	EA	SAMPLE 5	

1128

Chain of Custody:

Relinquished by: Name: E. Abarenga 4/14/17 Sign: 0635	Received by: Name: Tom Burger Sign: Tom B Burger	Date & Time: 4-14-17 0635 Location: ARV. LAB	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 4-14-17
LIMS Received Time: 0656
Reviewed By: SMally 4/25/17

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Garfield Elementary

Physical Address of School: 4487 Oregon St., San Diego, CA 92116-3018

First Bell: 8:30AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/12/2017

Completed by Print Name: Ginette Commins

Signature: G Commins Date: 04/12/2017

School's Point of Contact for Sampling Assistance

Name: Ginette Commins

Phone: (858) 627-7201

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 4/28/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Garfield Elementary, 4487 Oregon St., San Diego, CA 92116-3018

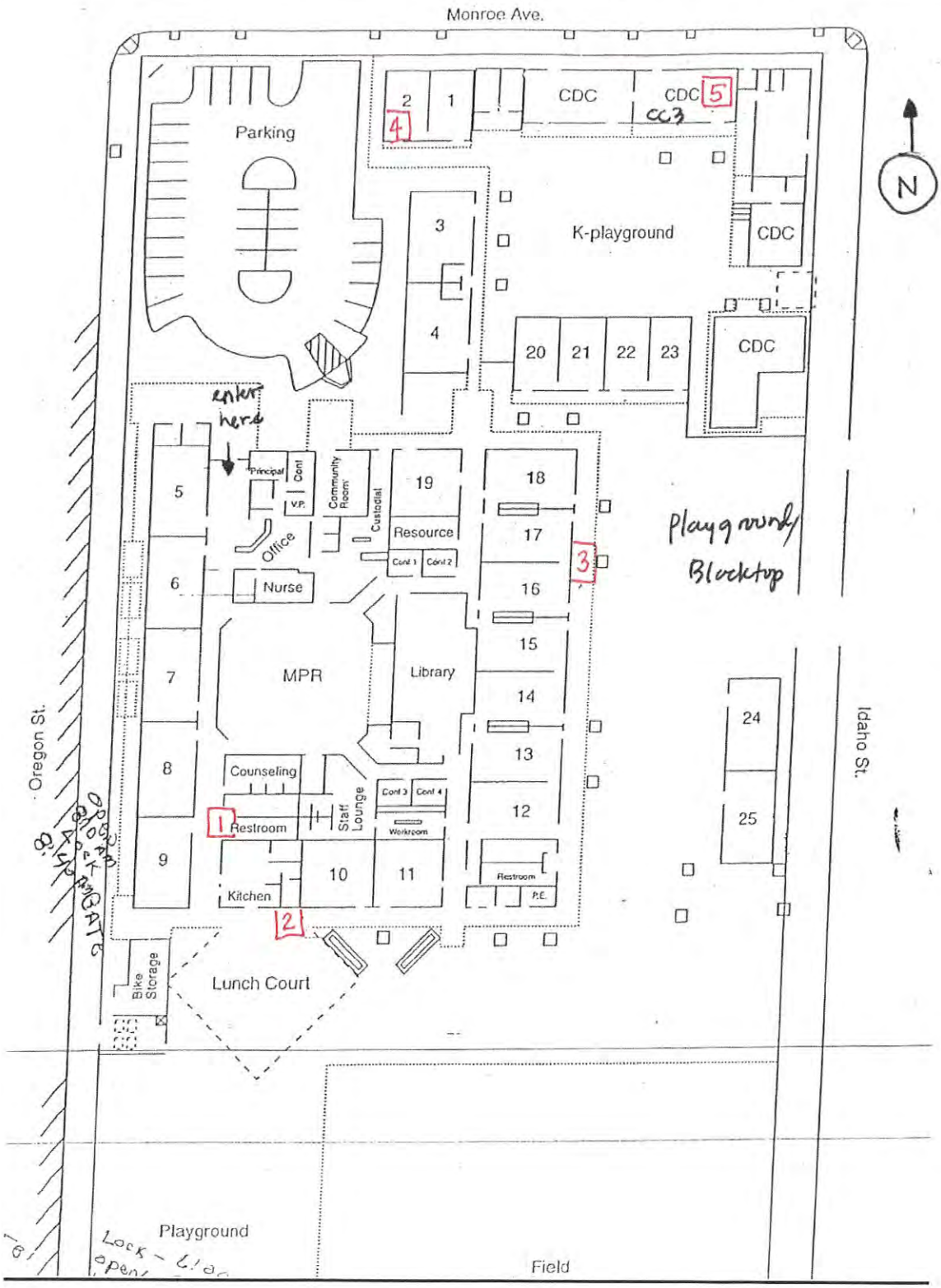

Sample No. 1

School: Garfield Elementary

Name of Building: MultPurpose Room (MPR)/Kitchen

Location Description: Wall mounted along the hallway, between Girls & Boys Restrooms, facing Classroom 9

Type of Outlet: bubbler

Description: right bubbler (MEDIUM flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #124

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168297

State Sample ID: 3710020-BAD-A

Date & Time Last Used: 5/2/17 2200

Date & Time Sample Collected: 5/3/17 0602

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 2

School: Garfield Elementary

Name of Building: Kitchen

Location Description: Wall mounted exterior (South of Bldg), between Kitchen & Rm 10, facing Lunch Court

Type of Outlet: bubbler

Description: left bubbler (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #124

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168298

State Sample ID: 3710020-BAD-B

Date & Time Last Used: 6/2/17 2200

Date & Time Sample Collected: 6/3/17 0604

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 3

School: Garfield Elementary

Name of Building: Classrooms 12-18

Location Description: Wall mounted exterior (East of Bldg), between Classrooms 17 & 16, facing playground/blacktop

Type of Outlet: bubbler

Description: left bubbler (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #124

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168299

State Sample ID: 3710020-BAD-C

Date & Time Last Used: 5/2/17 2200

Date & Time Sample Collected: 5/3/17 0607

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 4

School: Garfield Elementary

Name of Building: Classrooms 1-2

Location Description: Rm 2, classroom sink/faucet

Type of Outlet: bubbler

Description: bubbler with push button cap on a sink (HIGH flow)

Comments/Miscellaneous: indoor drinking water source/SDUSD Location Code #124

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168300

State Sample ID: 3710020-BAD-D

Date & Time Last Used: 6/2/17 2200

Date & Time Sample Collected: 6/3/17 0615

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 5

School: Garfield Elementary

Name of Building: CDC

Location Description: CC3, classroom sink/faucet

Type of Outlet: bubbler

Description: dual sink - right & bubbler with lever handle (HIGH flow)

Comments/Miscellaneous: indoor drinking water source/SDUSD Location Code #124

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168301

State Sample ID: 3710020-BAD-E

Date & Time Last Used: 5/2/17 2200

Date & Time Sample Collected: 5/3/17 0613

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

01-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168297	Garfield Elementary	03-MAY-2017	0602	DS.	SAMPLE 1	
2	W1168298	Garfield Elementary	03-MAY-2017	0604	↓	SAMPLE 2	
3	W1168299	Garfield Elementary	03-MAY-2017	0607	↓	SAMPLE 3	
4	W1168300	Garfield Elementary	03-MAY-2017	0615	↓	SAMPLE 4	
5	W1168301	Garfield Elementary	03-MAY-2017	0613	↓	SAMPLE 5	

1136

Chain of Custody:

Relinquished by: Name: Dan Sowersby Sign: D. Sowersby	Received by: Name: Tom Burger Sign: Tom B Burger	Date & Time: 5/3/17 0640 Location: ALV	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-3-17
LIMS Received Time: 0648
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Garfield High School

Physical Address of School: 1255 16th St, San Diego, CA 92101

First Bell: 8:30am

Meeting Date: 4/05/2017

Sampling Plan Completion Date: 4/13/2017

Completed by Print Name: Lori Sherman

Signature: Lori Sherman Date: 4/13/2017

School's Point of Contact for Sampling Assistance

Name: Lori Sherman

Phone: 619-301-9086

Email: lsherman1@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-17-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Garfield High School - 1255 16th St, San Diego, CA 92101

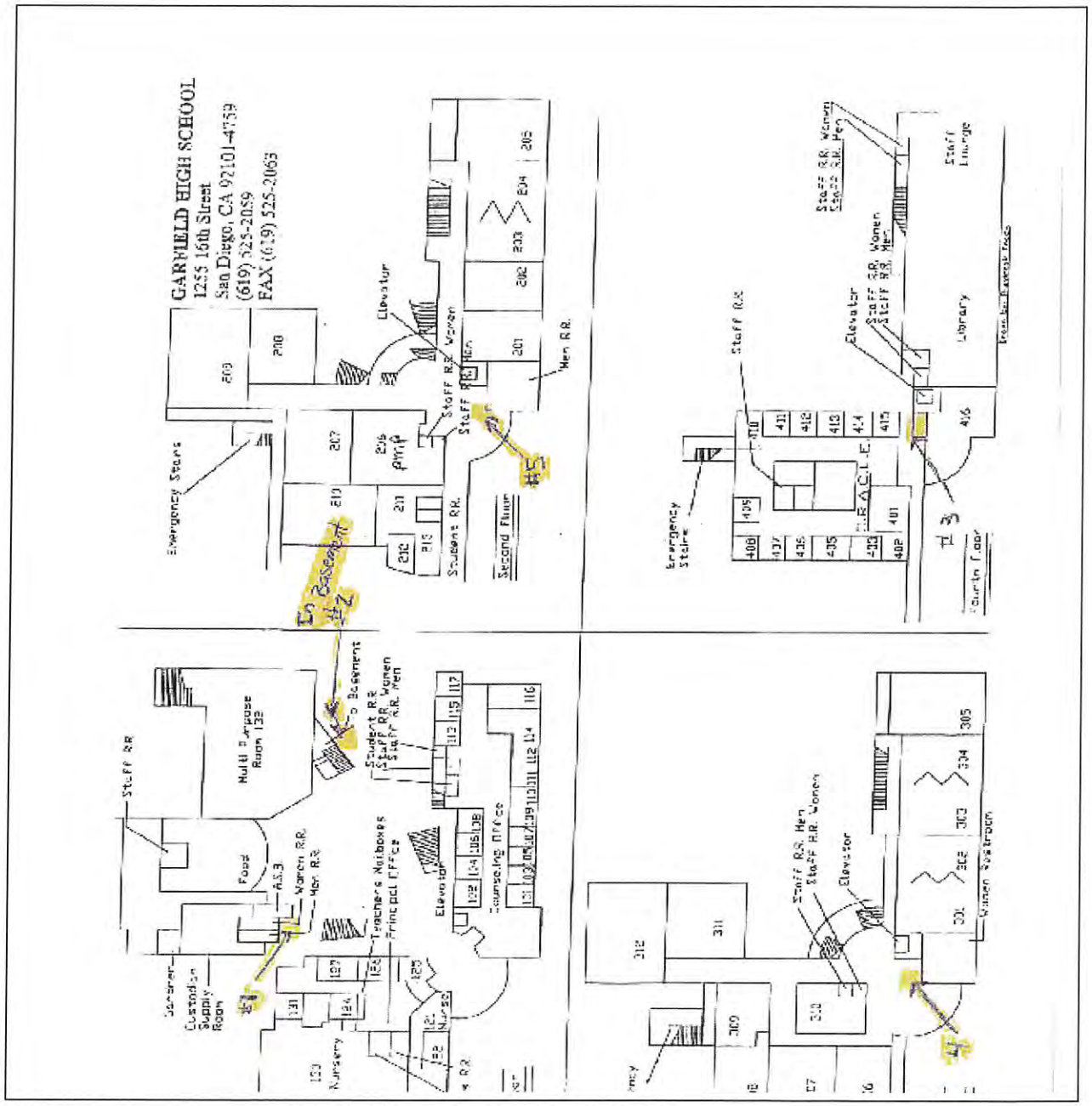

Sample No. 1

School: Garfield High School - 1255 16th St, San Diego, CA 92101

Name of Building: East Wing

Location Description: 1st floor east wall between men and women's restroom

Type of Outlet: Bubbler

Description: Left Bubbler

Comments/Miscellaneous: Near custodial / supply room

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167057

State Sample ID: 3710020-AGG-A

Date & Time Last Used: 2200 4-17-17

Date & Time Sample Collected: 0559 4-18-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Tom Burger

Sample No. 2

School: Garfield High School - 1255 16th St, San Diego, CA 92101

Name of Building:

Location Description: Culinary Arts Kitchen

Type of Outlet: Sink Faucet

Description: Right sink faucet

Comments/Miscellaneous: Located below Multi-Purpose room (basement)

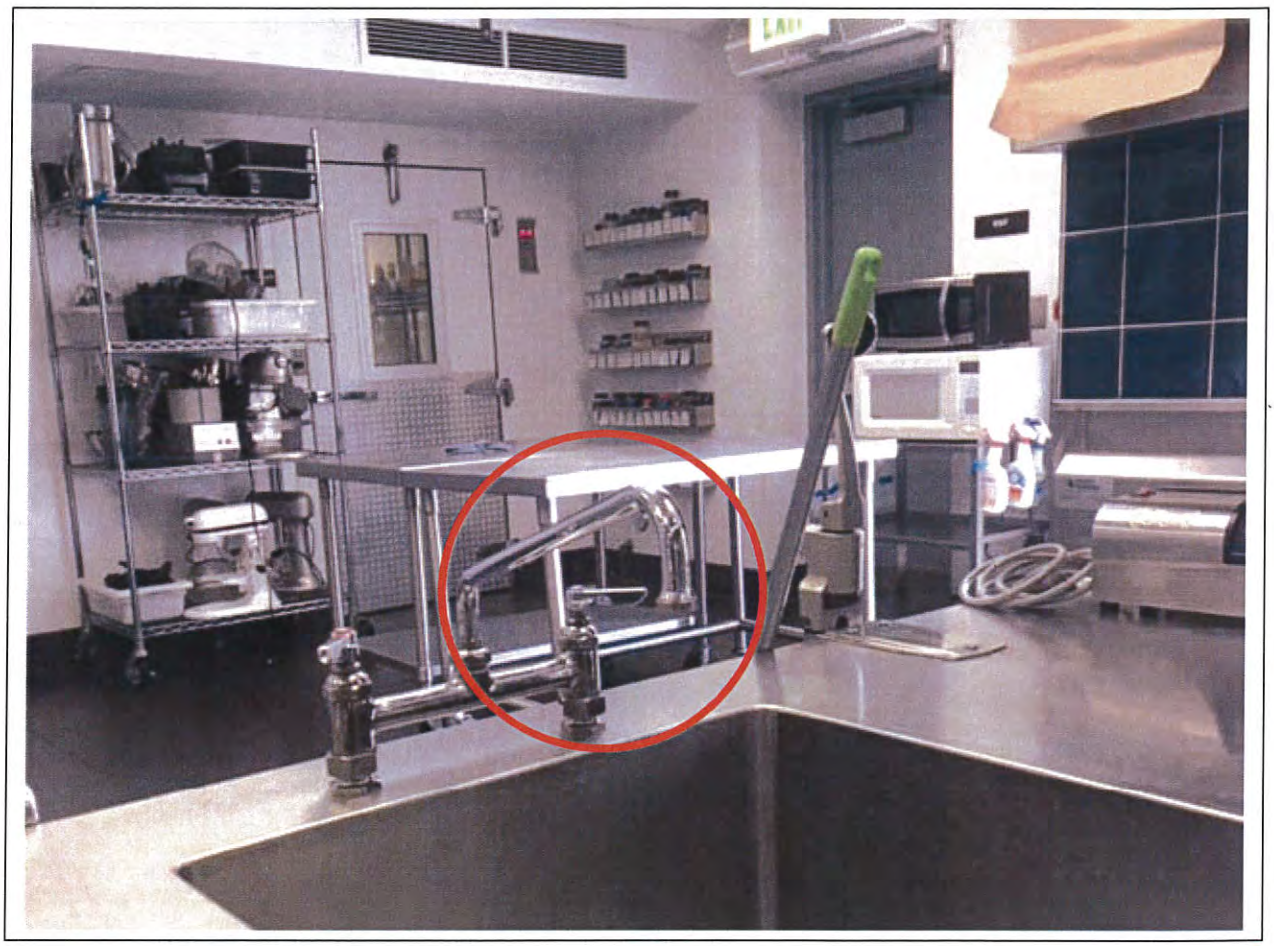

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167058

State Sample ID: 3710020-AGG-B

Date & Time Last Used: 2200 4-17-17

Date & Time Sample Collected: 0603 H 4-18-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Tom Burger

Sample No. 3

School: Garfield High School - 1255 16th St, San Diego, CA 92101

Name of Building: West Wing

Location Description: Fourth floor exterior west wall next to elevator

Type of Outlet: Bubbler

Description: Left bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167059

State Sample ID: 3710020-AGG-C

Date & Time Last Used: 2200 4-17-17

Date & Time Sample Collected: 0609 4-18-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Tom Burger

Sample No. 4

School: Garfield High School - 1255 16th St, San Diego, CA 92101

Name of Building: West Wing

Location Description: 3rd floor exterior west wall across from women's restroom

Type of Outlet: Bubbler

Description: Left bubbler

Comments/Miscellaneous: Next to gated door

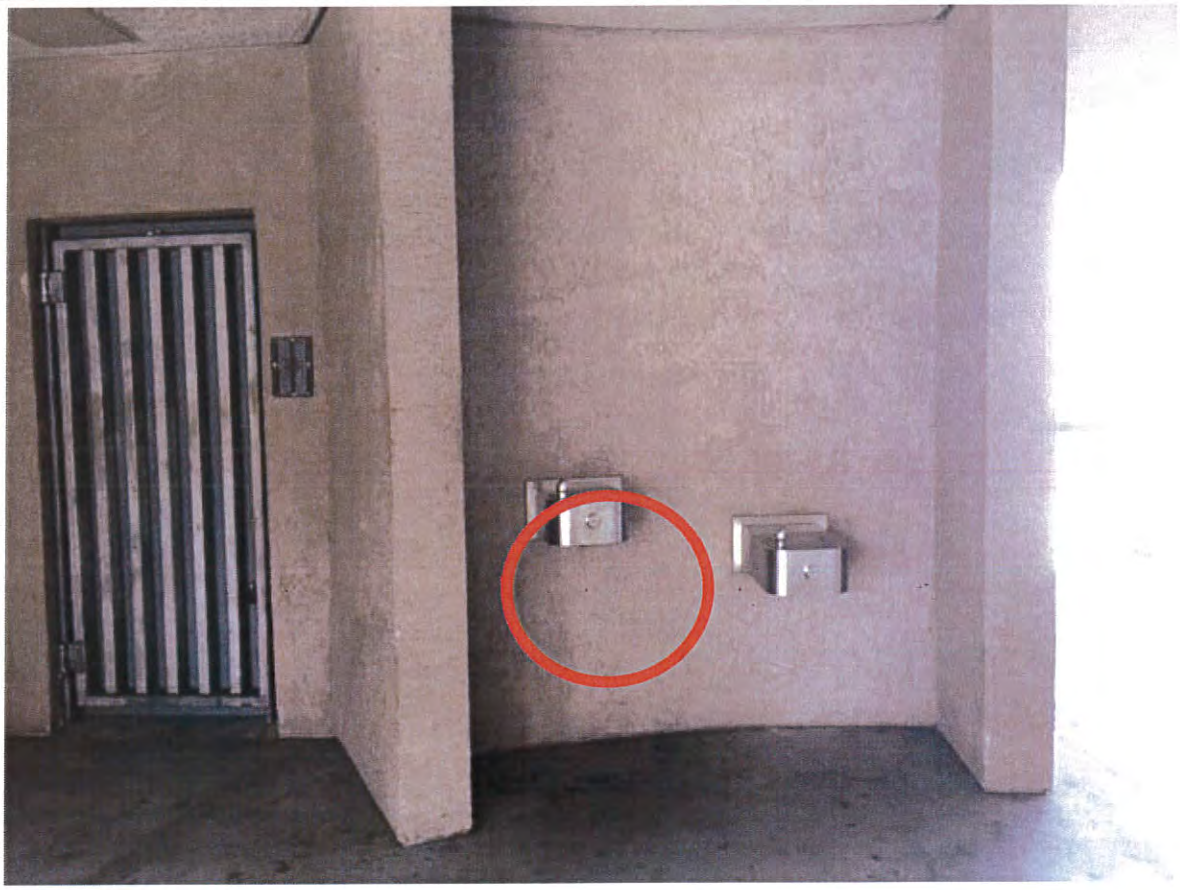

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167060

State Sample ID: 3710020-AGG-D

Date & Time Last Used: 2200 4-17-17

Date & Time Sample Collected: 0613 4-18-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Tom Burger

Sample No. 5

School: Garfield High School - 1255 16th St, San Diego, CA 92101

Name of Building: West Wing

Location Description: 2nd floor exterior west wall next to men's restroom

Type of Outlet: Bubbler

Description: Right bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167061

State Sample ID: 3710020-AGG-E

Date & Time Last Used: 2200 4-17-17

Date & Time Sample Collected: 0616 4-18-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Tom Burger

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

17-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1167057	Garfield HS	18-APR-2017	0559	TBurger	SAMPLE 1	
2	W1167058	Garfield HS	18-APR-2017	0603		SAMPLE 2	
3	W1167059	Garfield HS	18-APR-2017	0609		SAMPLE 3	
4	W1167060	Garfield HS	18-APR-2017	0613		SAMPLE 4	
5	W1167061	Garfield HS	18-APR-2017	0616		SAMPLE 5	

Chain of Custody:

Relinquished by: Name: Tom Burger Sign: TM B Burger	Received by: Name: Alejandra Malloy Sign: AMally	Date & Time: 4-18-17 0704 Location: ALV LAB	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMally
Received Date: 4/18/17
LIMS Received Time: 0728
Reviewed By: M

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: George Nicoloff

Physical Address of School: 1777 Howard Ave. San Ysidro, Ca 92173 - 1235

First Bell: 8:00 a.m.

Meeting Date: Monday, April 17, 2017

Sampling Plan Completion Date: _____

Completed by Print Name: _____

Signature: _____ Date: _____

School's Point of Contact for Sampling Assistance

Name: Don Visnick Franco

Phone: 619 – 778 – 6659 619-850-3645

Email: dvisnick@sbusd.org

Francisco (Franco)
619-850-3645

City of San Diego 3710020

Approved By: Tom B. Burger 5-8-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Nicoloff Elementary 1777 Howard Ave, San Ysidro, Ca 92173 - 1235

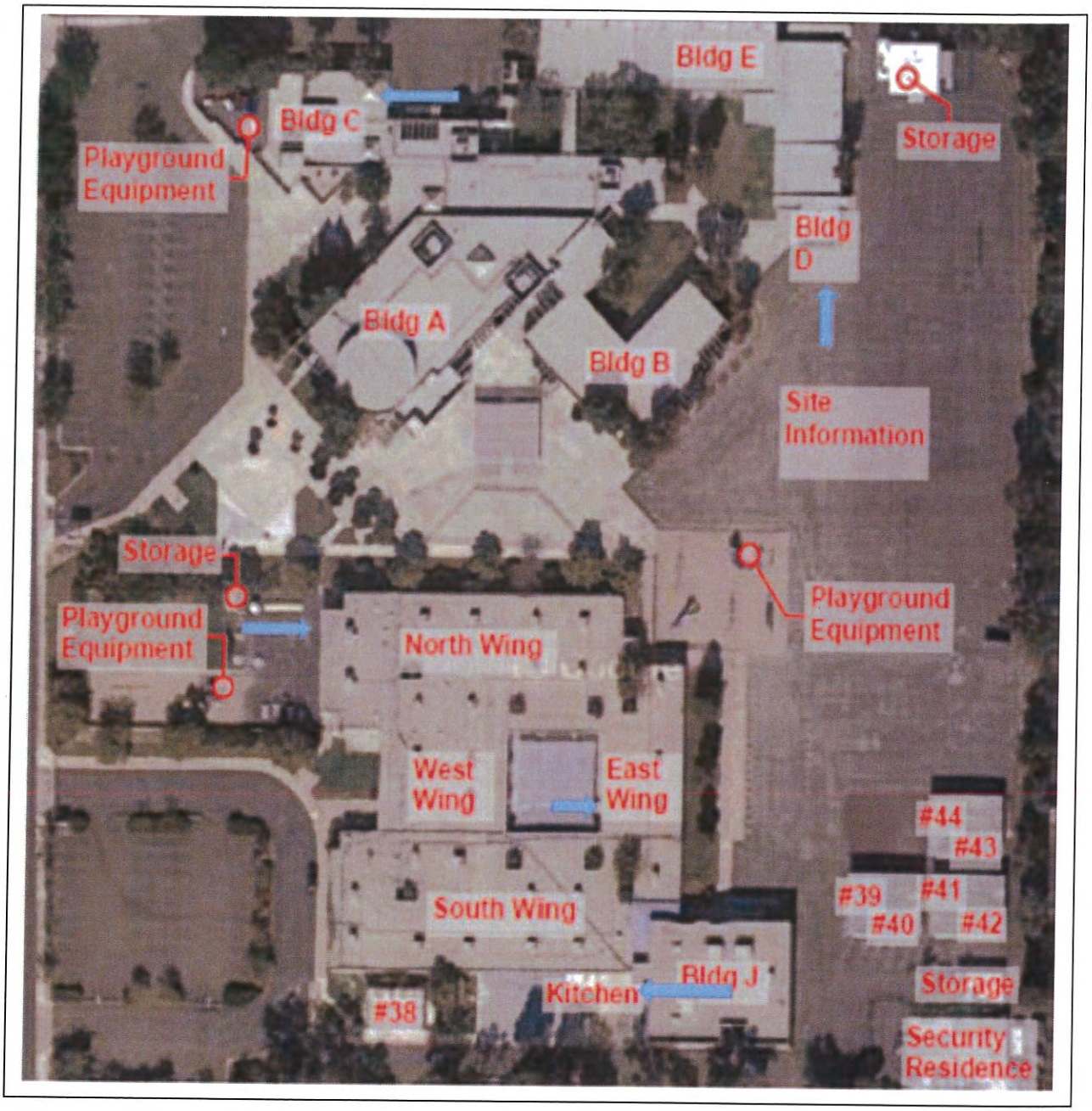

Sample No. 1

School: George Nicoloff Elementary School North

Name of Building: Building C Room 37

Location Description: Drinking fountain inside pre – school classroom. Room #37

Type of Outlet: Drinking faucet bubbler

Description: Drinking faucet for student use in classroom.

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171714

State Sample ID: 3710020-AAB-A

Date & Time Last Used: 050817 @ 1800 → 2200

Date & Time Sample Collected: 050917 @ 0625

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector:

Sample No. 2

School: George Nicoloff Elementary School

Name of Building: Kitchen Next to building J on South Campus

Location Description: Faucet/sink on West Wall

Type of Outlet: Faucet/sink used for food preparation

Description:

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171715

State Sample ID: 3710020-AAB-B

Date & Time Last Used: 050817 @ 1800 → 2200

Date & Time Sample Collected: 050917 @ 0607

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector:

Sample No. 3

School: George Nicoloff Elementary School North

Name of Building: Building D

Location Description: South Side of Building D on playground

Type of Outlet: Dual Water Fountain

Description: left bubbler

Comments/Miscellaneous:

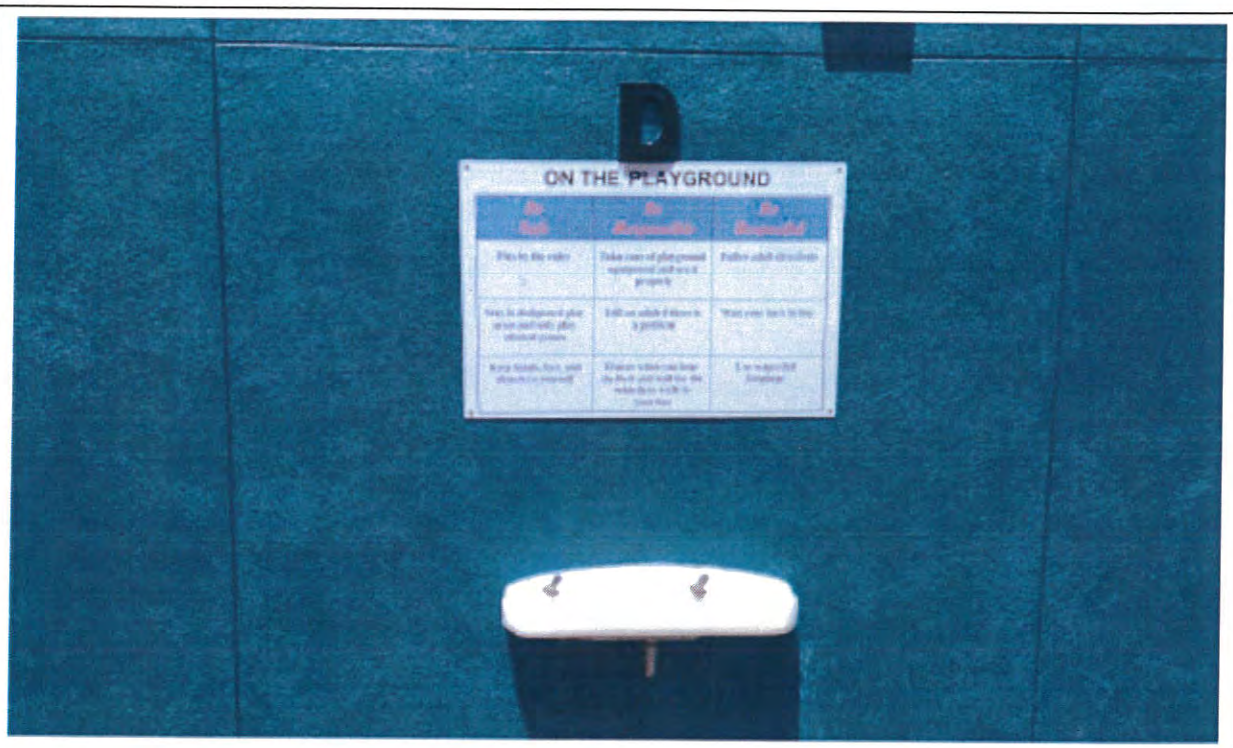

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171716

State Sample ID: 3710020-AAB-C

Date & Time Last Used: 050817 @ 1800 → 2200

Date & Time Sample Collected: 050917 @ 0620

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector:

Sample No. 4

School: George Nicoloff Elementary School South

Name of Building: East Wing by girls' bathroom in quad area

Location Description: By girls' bathroom on East Building in the quad area

Type of Outlet: Two single fountains wall mounted

Description: upper left fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171717

State Sample ID: 3710020-AAB-D

Date & Time Last Used: 050817 @ 1800 → 2200

Date & Time Sample Collected: 050917 @ 0609

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector:

Sample No. 5

School: George Nicoloff Elementary School South

Name of Building: North Wing

Location Description: Kindergarten Classroom K2

Type of Outlet: bubbler at sink

Description: bubbler

Comments/Miscellaneous:

City use only below this line

Sample type *Initial* ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171717

State Sample ID: 3710020-AAB-D

Date & Time Last Used: 050817 @ 1800 → 2200

Date & Time Sample Collected: 050917 @ 0615

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector:

Water Quality Chemistry Services
Chain of Custody Form

08-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1171714	Geogre Nicoloff ES	09-MAY-2017	0625	JW	SAMPLE 1	
2	W1171715	Geogre Nicoloff ES	09-MAY-2017	0607	JW	SAMPLE 2	
3	W1171716	Geogre Nicoloff ES	09-MAY-2017	0620	JW	SAMPLE 3	
4	W1171717	Geogre Nicoloff ES	09-MAY-2017	0609	JW	SAMPLE 4	
5	W1171718	Geogre Nicoloff ES	09-MAY-2017	0615	JW	SAMPLE 5	

Chain of Custody:

Relinquished by: Name: JERRY WESTON Sign: Jerry Weston	Received by: Name: TOM Burger Sign: TOM B Burger	Date & Time: 5-9-17 Location: WQL office	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-9-17
LIMS Received Time: 1103
Reviewed By:

624

1152

Exhibit 31

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Golden Hill K-8

Physical Address of School: 1240 33rd St., San Diego, CA 92102-2409

First Bell: 9:00 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 5-1-2017

Completed by Print Name: Cesar Jimenez

Signature: C.J. Date: 5-1-2017

School's Point of Contact for Sampling Assistance

Name: ~~Cesar Jimenez~~ Tim Brown

Phone: ~~619-261-1588~~ 619-302-9427

Email: cjimenez2@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 5-3-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Golden Hill K-8 - 1240 33rd St., San Diego, CA 92102-2409

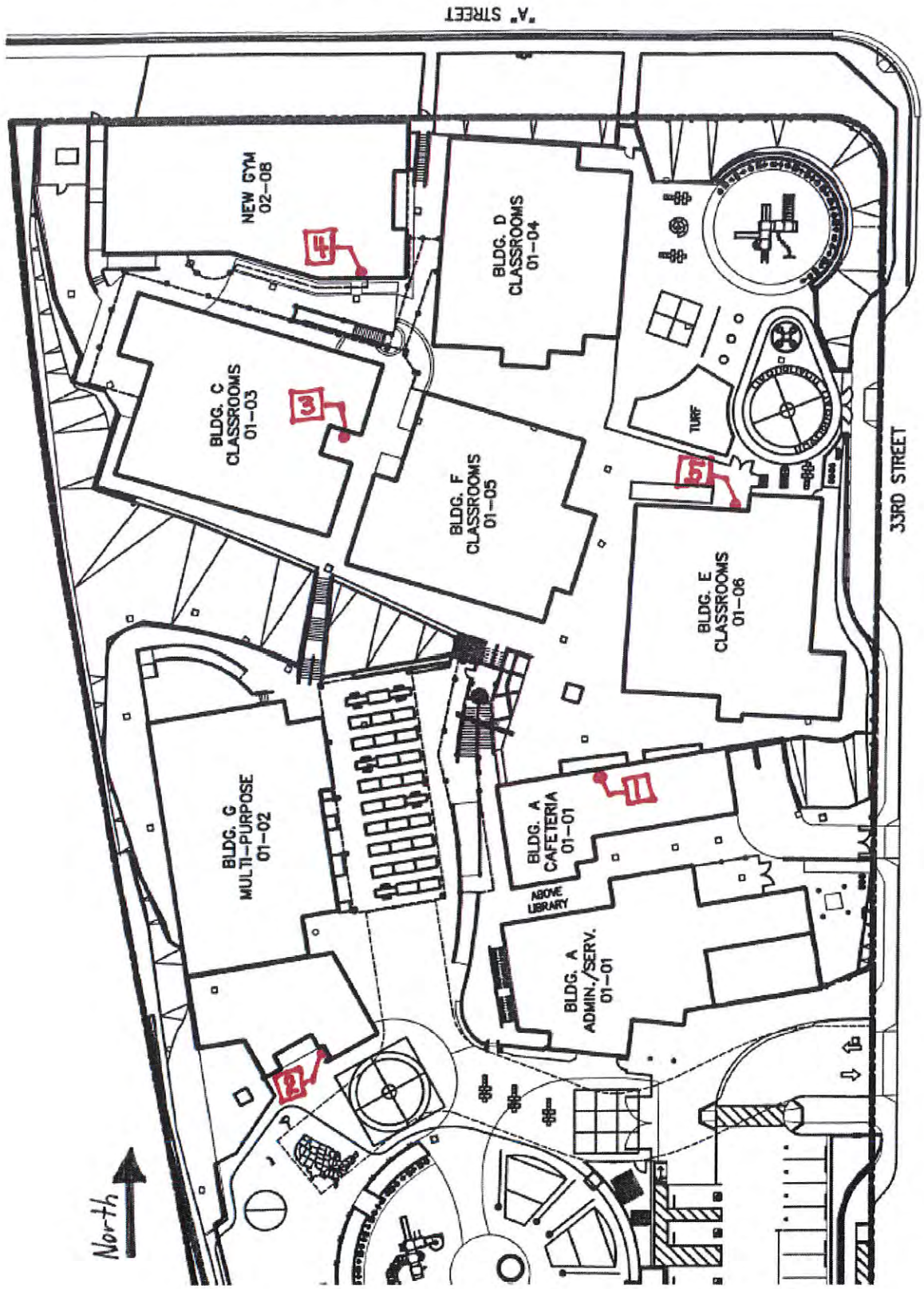

Sample No. 1

School: Golden Hill K-8

Name of Building: Bldg. A – Administration/Cafeteria

Location Description: North wall of kitchen

Type of Outlet: Faucet

Description: Faucet on a 2-compartment sink

Comments/Miscellaneous: SDUSD ID code #: 128-01

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170216

State Sample ID: 3710020-BGA-A

Date & Time Last Used: 5/3/17 1860

Date & Time Sample Collected: 5/4/17 0554

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 2

School: Golden Hill K-8

Name of Building: Bldg. G/ Multi-purpose

Location Description: South side of Bldg., exterior west wall of Men Restrooms

Type of Outlet: Bubbler

Description: Left bubbler on a triple fountain

Comments/Miscellaneous: SDUSD ID code #: 128-02

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170217

State Sample ID: 3710020-BGA-B

Date & Time Last Used: 5/3/17 1800

Date & Time Sample Collected: 5/4/17 0557

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 3

School: Golden Hill K-8

Name of Building: Bldg. C- classrooms

Location Description: East side of Bldg., exterior South Wall of Staff Restrooms

Type of Outlet: Bubbler

Description: Right/ Lower Bubbler on a triple fountain

Comments/Miscellaneous: SDUSD ID code #: 128-03

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170218

State Sample ID: 3710020-BGA-C

Date & Time Last Used: 5/3/17 1800

Date & Time Sample Collected: 5/4/17 0600

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 4

School: Golden Hill K-8

Name of Building: New Gym

Location Description: Interior south wall

Type of Outlet: Bubbler

Description: Left/lower bubbler on a double fountain

Comments/Miscellaneous: SDUSD ID code #: 128-04

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170219

State Sample ID: 3710020-BGA-D

Date & Time Last Used: 5/3/17 1800

Date & Time Sample Collected: 5/4/17 0603

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 5

School: Golden Hill K-8

Name of Building: Bldg. E- classrooms

Location Description: Exterior North Wall

Type of Outlet: Bubbler

Description: Left/lower bubbler on a double fountain

Comments/Miscellaneous: SDUSD ID code #: 128-05

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170220

State Sample ID: 3710020-BGA-E

Date & Time Last Used: 5/3/17 1800

Date & Time Sample Collected: 5/4/17 0606

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: David Moyo

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

03-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1170216	Golden Hill K-8	04-MAY-2017	0557	David Mayo	SAMPLE 1	
2	W1170217	Golden Hill K-8	04-MAY-2017	0557		SAMPLE 2	
3	W1170218	Golden Hill K-8	04-MAY-2017	0600		SAMPLE 3	
4	W1170219	Golden Hill K-8	04-MAY-2017	0603		SAMPLE 4	
5	W1170220	Golden Hill K-8	04-MAY-2017	0606		SAMPLE 5	

1161

Chain of Custody:

Relinquished by: Name: David Mayo Sign: David Mayo	Received by: Name: Tom Burger Sign: Tom B. Burger	Date & Time: 5/4/17 06:45 Location: AIV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: tMalej
Received Date: 5/04/17
LIMS Received Time: 0724
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Gompers Prepartory Academy

Physical Address of School: 1005 47th Street; San Diego Califoenia; 92102

First Bell: 7;30 am

Meeting Date: 3/28/2017

Sampling Plan Completion Date: 3/29/2017

Completed by Print Name: Timothy A Brown

Signature: _____ Date: 3/29/2017

School's Point of Contact for Sampling Assistance

Name: ~~Timothy Brown~~ Lori Sherman

Phone: ~~619-302-9427~~ 619-301-9086

Email: tbrown1@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-11-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Gompers Prepartory Academy; 1005 47th Street; San Diego California; 92102

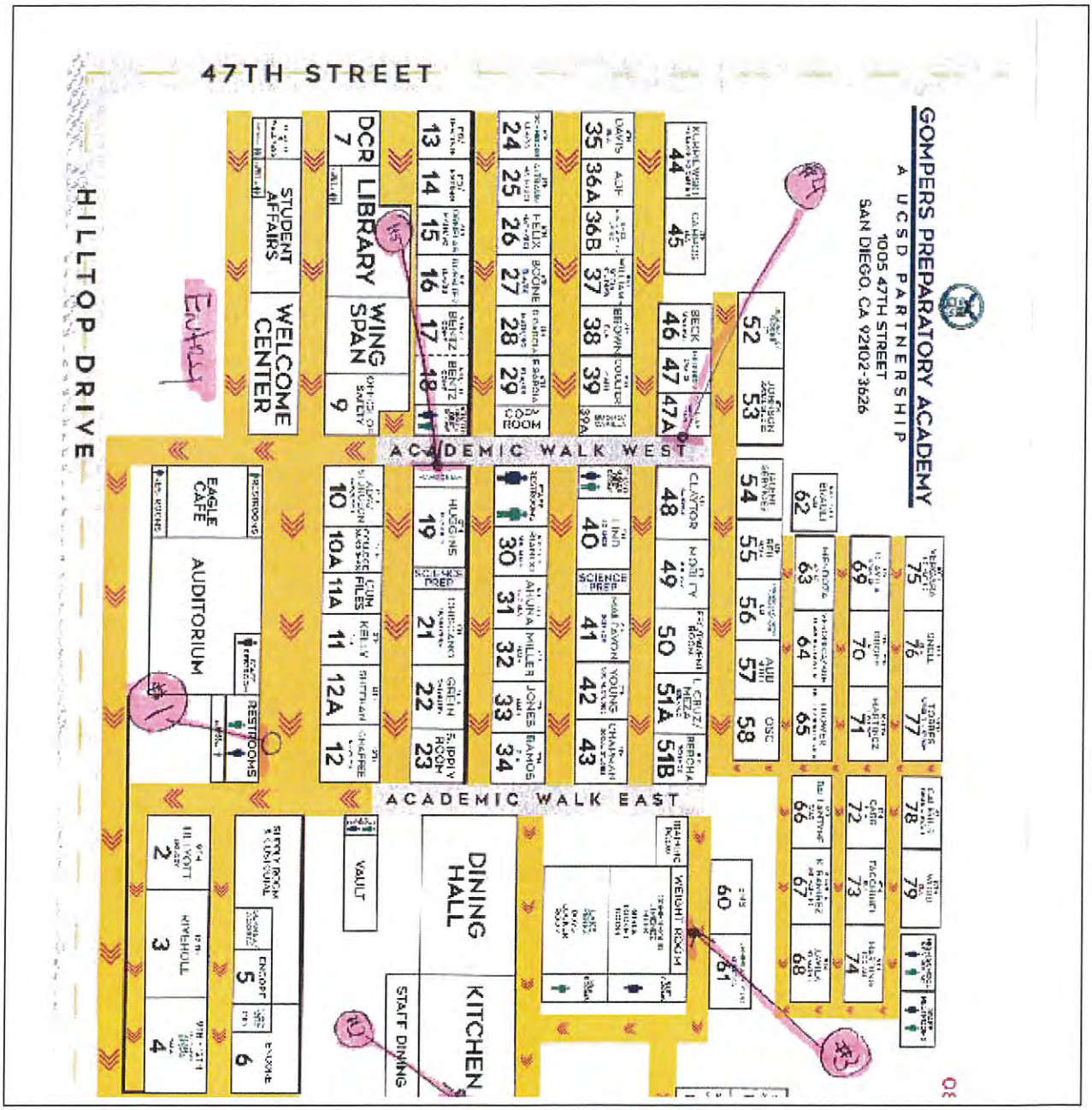

Sample No. 1

School: Gompers Preparatory Academy ; 1005 47th Street; San Diego California; 92102

Name of Building: Auditorium

Location Description: North Wall, Exterior Mounted, between Boys/Girls Restroom

Type of Outlet: Bubbler

Description: 2 Bubbler Drinking Station

Comments/Miscellaneous: Sample Left Bubbler

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166057

State Sample ID: 3710020-ADG-A

Date & Time Last Used: 4/11/17 between 6-10pm

Date & Time Sample Collected: 4/12/17 @ 0540

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: Joshua Rambo

Sample No. 2

School: Gompers Preparatory Academy; 1005 47th Street; San Diego California; 92102

Name of Building: Cafeteria

Location Description: Kitchen; Food Prep Area; East Wall

Type of Outlet: Swing Arm Faucet/ Hot and Cold Water

Description: Faucet

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166058

State Sample ID: 3710020-ADG-B

Date & Time Last Used: 4/11/17 between 6-10pm

Date & Time Sample Collected: 4/12/17 @ 0545

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

Sample No. 3

School: Gompers Preparatory Academy; 1005 47th Street; San Diego California; 92102

Name of Building: Locker Room

Location Description: North Exterior Wall at Exercise Room

Type of Outlet: Bubbler

Description: Exterior Wall Mounted; 2 station drinking fountain

Comments/Miscellaneous: sample Right Bubbler

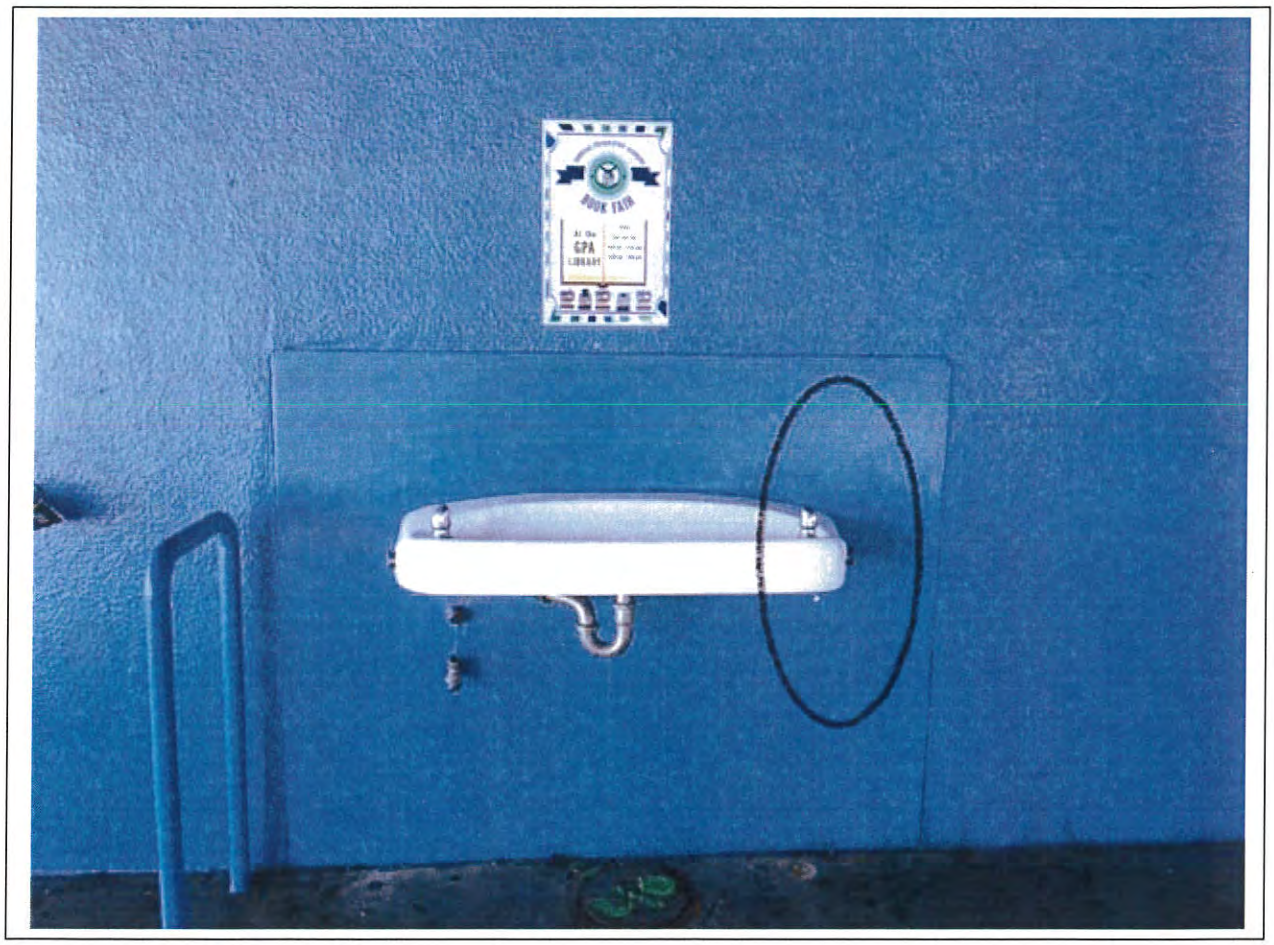

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166059

State Sample ID: 3710020-ADG-C

Date & Time Last Used: 4/11/17 between 6-10pm

Date & Time Sample Collected: 4/12/17 @ 0548

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: Joshua Rocha

Sample No. 4

School: Gompers Preparatory Academy; 1005 47th Street; San Diego California; 92102

Name of Building: Classrooms 46-47A; Academic Walk West (Hallway)

Location Description: West Wall at 47A

Type of Outlet: Bubbler

Description: Exterior Wall 2 Bubbler Drinking Fountain

Comments/Miscellaneous: Sample Right Bubbler

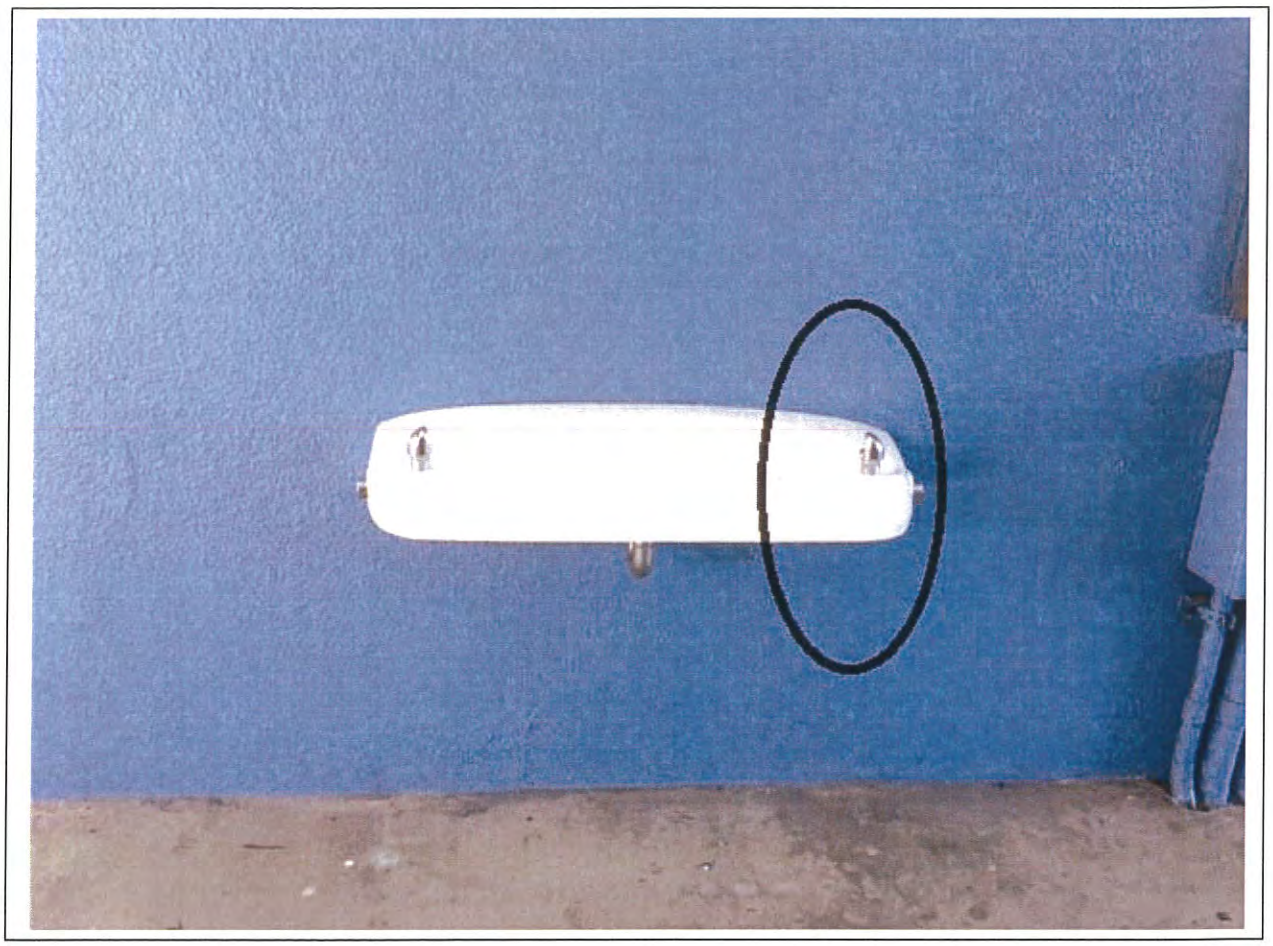

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166060

State Sample ID: 3710020-ADG-D

Date & Time Last Used: 4/11/17 between 6-10pm

Date & Time Sample Collected: 4/12/17 @ 0552

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: Joshua Rombo

Sample No. 5

School: Gompers Preparatory Academy; 1005 47th Street; San Diego California; 92102

Name of Building: Classrooms 10-12; Academic Walk West (Hallway)

Location Description: East Wall across from 6th-7th Grade Restroom

Type of Outlet: Bubbler

Description: Exterior Wall Mounted Drinking Foutains

Comments/Miscellaneous: Sample Right Bubbler

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166061

State Sample ID: 3710020-ADG-E

Date & Time Last Used: 4/11/17 between 6-10pm

Date & Time Sample Collected: 4/12/17 @ 0556

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: Joshua Rambo

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

11-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1166057	Gompers Prep	12-APR-2017	0540	Joshua Rambo	SAMPLE 1	
2	W1166058	Gompers Prep	12-APR-2017	0545		SAMPLE 2	
3	W1166059	Gompers Prep	12-APR-2017	0548		SAMPLE 3	
4	W1166060	Gompers Prep	12-APR-2017	0552		SAMPLE 4	
5	W1166061	Gompers Prep	12-APR-2017	0556		SAMPLE 5	

1169

Chain of Custody:

Relinquished by: Name: Joshua Rambo Sign:	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 4/12/17 @ 0630 Location: ALV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 4/12/17
LIMS Received Time: 0636
Reviewed By:

641

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Grant K-8

Physical Address of School: 1425 Washington Pl, San Diego, CA 92103

First Bell: 7:40am

Meeting Date: 4/05/2017

Sampling Plan Completion Date: 4/12/2017

Completed by Print Name: Lori Sherman

Signature: *Lori Sherman* Date: 4/12/2017

School's Point of Contact for Sampling Assistance

Name: Lori Sherman

Phone: 619-301-9086

Email: lsherman1@sandi.net

City of San Diego 3710020

Approved By: Tm B Burger 4-17-17 4 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

ERIK ALVARENGA Received by Tm Burger
Relinquished by
4-18-17 @ 0656

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Grant K-8 - 1425 Washington Pl, San Diego, CA 92103

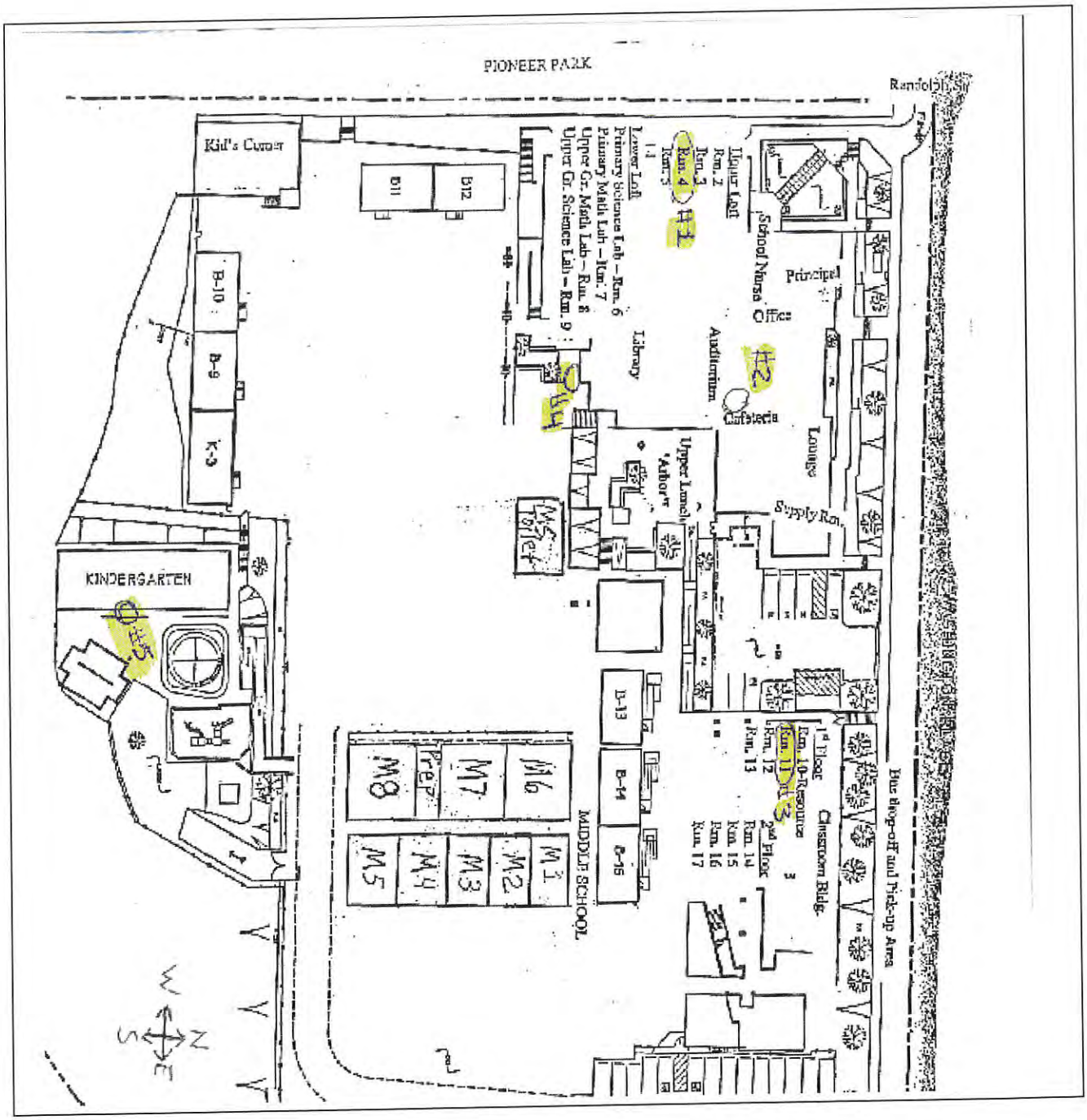

Sample No. 1

School: Grant K-8 - 1425 Washington Pl, San Diego, CA 92103

Name of Building: Administrative Building

Location Description: UL4 interior west wall near girl's restroom

Type of Outlet: Bubbler

Description: Single wall mount bubbler

Comments/Miscellaneous: Upper Level Room 4 (UL4)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167251

State Sample ID: 3710020-AGF-A

Date & Time Last Used: 4/17/17 1800-2200

Date & Time Sample Collected: 4/18/17 0605

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez

Sample No. 2

School: Grant K-8 - 1425 Washington Pl, San Diego, CA 92103

Name of Building: Administrative Building

Location Description: East interior wall of Auditorium next to Food Service room 221

Type of Outlet: Bubbler

Description: Single wall mount bubbler

Comments/Miscellaneous: Auditorium (multi-purpose room)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167252

State Sample ID: 3710020-AGF-B

Date & Time Last Used: 4/17/17 1800-2200

Date & Time Sample Collected: 4/18/17 0600

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarado

Sample No. 3

School: Grant K-8 - 1425 Washington Pl, San Diego, CA 92103

Name of Building: 700 Building

Location Description: Interior of classroom 11

Type of Outlet: Bubbler

Description: Sink-mount bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167253

State Sample ID: 3710020-AGF-C

Date & Time Last Used: 4/17/17 1900 - 2260

Date & Time Sample Collected: 4/18/17 0620

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector: E. Alarcon

Sample No. 4

School: Grant K-8 - 1425 Washington Pl, San Diego, CA 92103

Name of Building: Administrative Building

Location Description: South-West exterior side of building next to PE Equipment Room 232

Type of Outlet: Bubbler

Description: Right Bubbler

Comments/Miscellaneous:

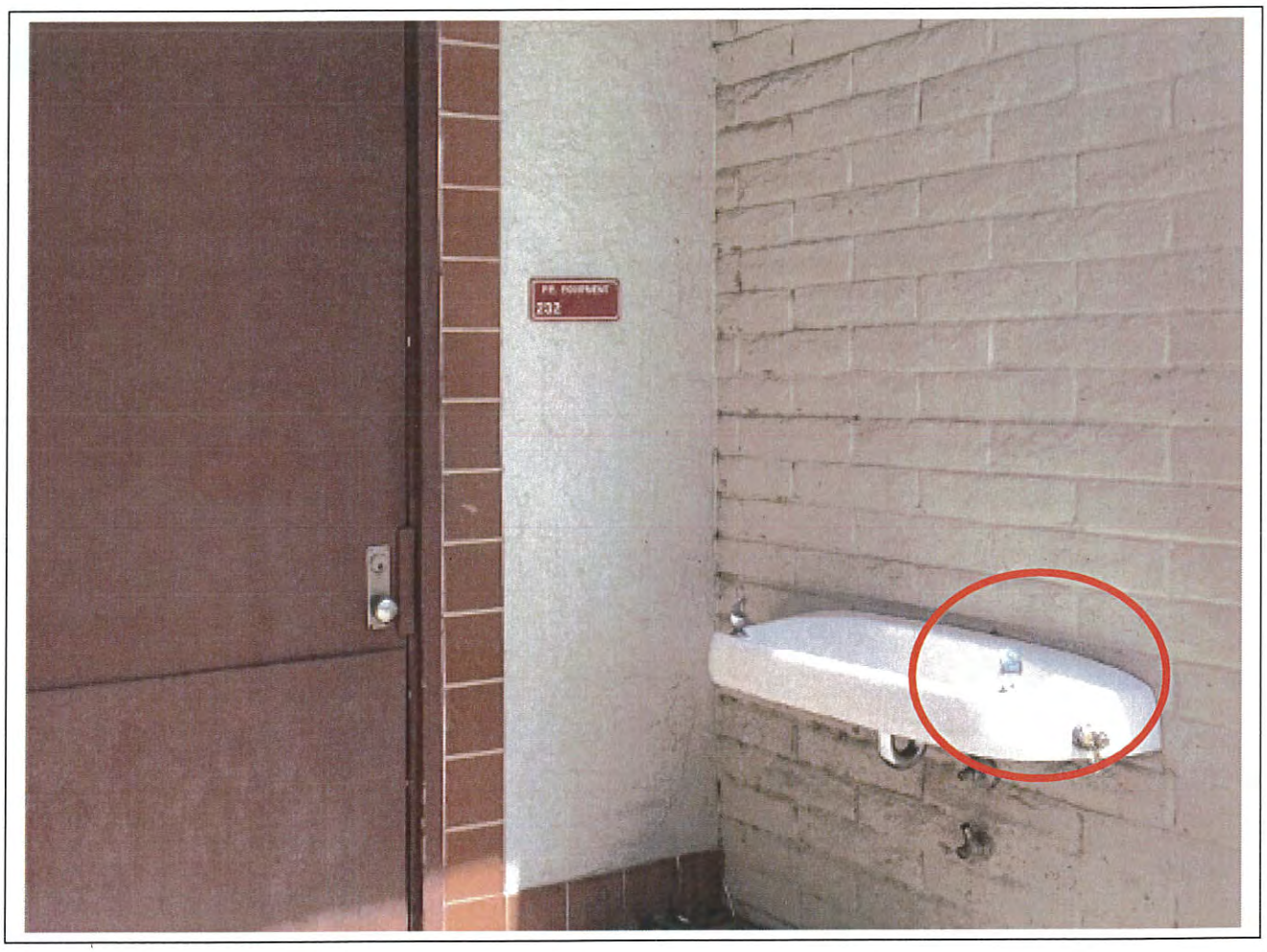

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167254

State Sample ID: 3710020-AGF-D

Date & Time Last Used: 4/17/17 1800-2200

Date & Time Sample Collected: 4/18/17 0610

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez

Sample No. 5

School: Grant K-8 - 1425 Washington Pl, San Diego, CA 92103

Name of Building: Kindergarten Building

Location Description: Right sink inside of classroom K-1

Type of Outlet: Bubbler

Description: Sink-mount bubbler on right side

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167255

State Sample ID: 3710020-AGF-E

Date & Time Last Used: 4/17/17 1800 - 2200

Date & Time Sample Collected: 4/18/17 0615

E. Alvarez Direct Sample

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector: _____

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

18-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1167251	Grant K-8	18-APR-2017	0605	E. Alvarenga	SAMPLE 1	
2	W1167252	Grant K-8	18-APR-2017	0600		SAMPLE 2	
3	W1167253	Grant K-8	18-APR-2017	0620		SAMPLE 3	
4	W1167254	Grant K-8	18-APR-2017	0610		SAMPLE 4	
5	W1167255	Grant K-8	18-APR-2017	0615		SAMPLE 5	

Chain of Custody:

Relinquished by:	Received by:	Date & Time:	Comments:
Name: Sign: Please see front of Sampling	Name: Sign: Plan.	4/18/17 @ 0656 Location: WQL	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: A Nally
Received Date: 4/18/17
LIMS Received Time: 0823
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Green Elementary School

Physical Address of School: 7030 Wandermere Dr. San Diego Ca 92119

First Bell: 7:40

Meeting Date: 3/22/2017

Sampling Plan Completion Date: 4/7/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 4/7/2017

School's Point of Contact for Sampling Assistance

Name: ~~Elizabeth Lara~~ Lori Sherman

Phone: ~~619-302-7616~~ 619-301-9086

Email: elara@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-13-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Green Elementary 7030 Wandermere Dr.San Diego 92119

Myron B. Green Elementary School 2016/2017

7030 Wandermere Dr.
San Diego, CA 92119
619 465-8814

Site Map

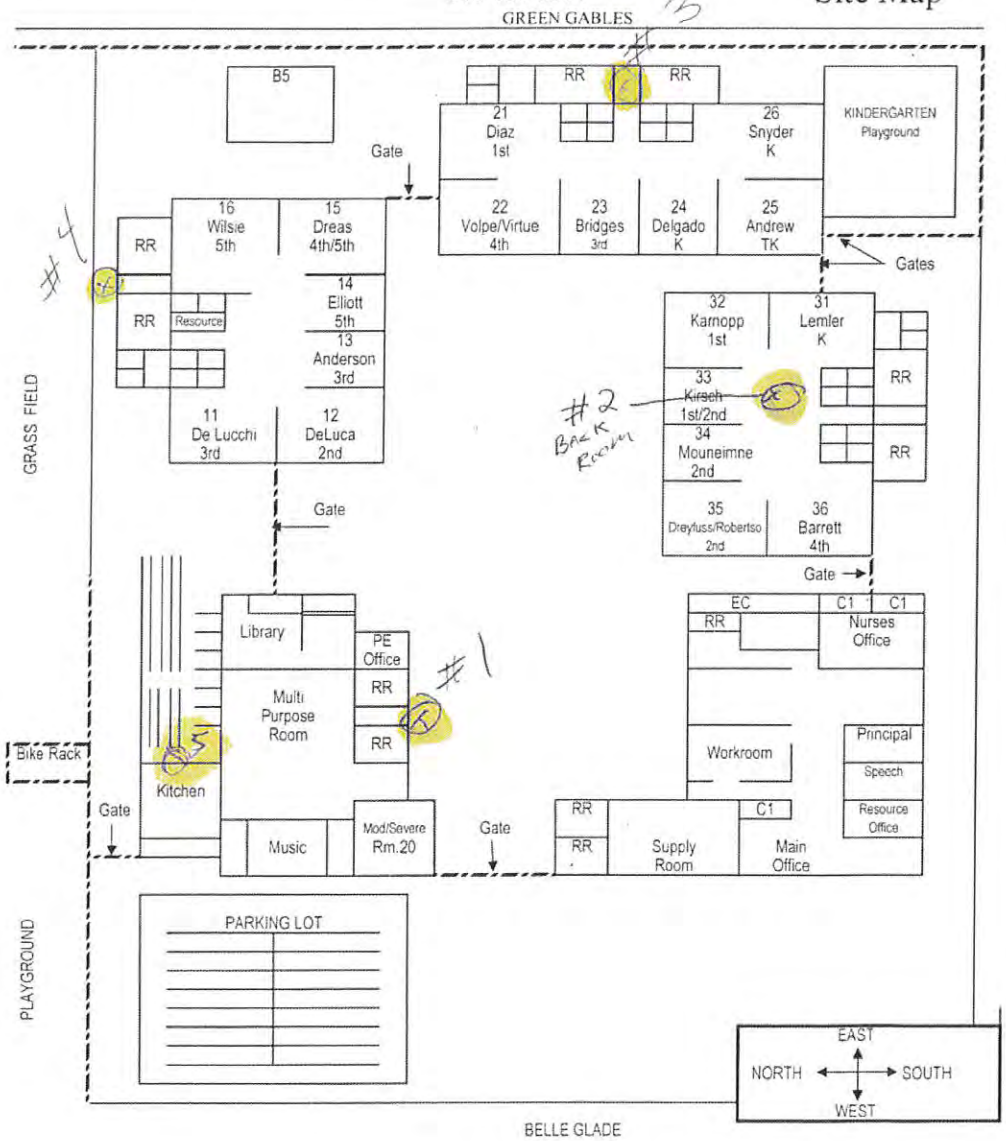

Revised 8/18/16

Sample No. 1

School: Green Elementary

Name of Building: Multipurpose

Location Description: outside south side near restrooms and auditorium near room 20

Type of Outlet: Bubbler

Description: Left bubbler of left drinking fountain

Comments/Miscellaneous: 131

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166644

State Sample ID: 3710020-AEI-A

Date & Time Last Used: 1800 4/13/17

Date & Time Sample Collected: 0534 4/14/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 2

School: Green Elementary School

Name of Building: k-36 building

Location Description: Back room of room 33

Type of Outlet: Bubbler

Description: Bubbler drinking fountain at sink

Comments/Miscellaneous: 131

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166645

State Sample ID: 3710020-AEI-B

Date & Time Last Used: 1800 4/13/17

Date & Time Sample Collected: 0536 4/14/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 3

School: Green Elementary

Name of Building: TK-26

Location Description: East outside next to restroom & custodial closet

Type of Outlet: Bubbler

Description: Bubbler drinking fountain LEFT bubbler

Comments/Miscellaneous: 131 fountain has wooden box cover need key 50-k

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166646

State Sample ID: 3710020-AEI-C

Date & Time Last Used: 1800 4/13/17

Date & Time Sample Collected: 0340 4/14/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 4

School: Green Elementary

Name of Building: 11-16 bulding

Location Description: Near playing field between restrooms

Type of Outlet: Bubbler

Description: Bubbler drinking fountain CENTER bubbler

Comments/Miscellaneous: 131 fountain has wooden cover 50-K key needed

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166647

State Sample ID: 3710020-AEI-D

Date & Time Last Used: 1800 4/13/17

Date & Time Sample Collected: 0543 4/14/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 5

School: Green Elementary

Name of Building: Kitchen

Location Description: Outside Kitchen near lunch court

Type of Outlet: Bubbler

Description: Bubbler drinking fountain CENTER bubbler

Comments/Miscellaneous: 131

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166648

State Sample ID: 3710020-AEI-E

Date & Time Last Used: 1800 4/13/17

Date & Time Sample Collected: 0529 4/14/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

13-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1166644	Green Elementary	14-APR-2017	0534	David Mayo	SAMPLE 1	
2	W1166645	Green Elementary	14-APR-2017	0536		SAMPLE 2	
3	W1166646	Green Elementary	14-APR-2017	0540		SAMPLE 3	
4	W1166647	Green Elementary	14-APR-2017	0543		SAMPLE 4	
5	W1166648	Green Elementary	14-APR-2017	0529		SAMPLE 5	

1186

Chain of Custody:

Relinquished by: Name: David Mayo Sign: David Mayo	Received by: Name: Tom Burger Sign: Tom B Burger	Date & Time: 4/14/17 6:00 Location: AIV	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 4-14-17
LIMS Received Time: 0653
Reviewed By: [illegible] 4/25/17

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Hage Elementary School

Physical Address of School: 9750 Galvin

First Bell: 7:35

Meeting Date: 3/22/2017

Sampling Plan Completion Date: 4/20/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 4/20/2017

School's Point of Contact for Sampling Assistance

Name: ~~Elizabeth Lara~~ Lori Sherman

Phone: ~~619-302-7616~~ 619-301-9086

Email:

City of San Diego 3710020

Approved By: Tom B. Burger 4-24-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: 9750 Galvin San Diego , Ca 92126

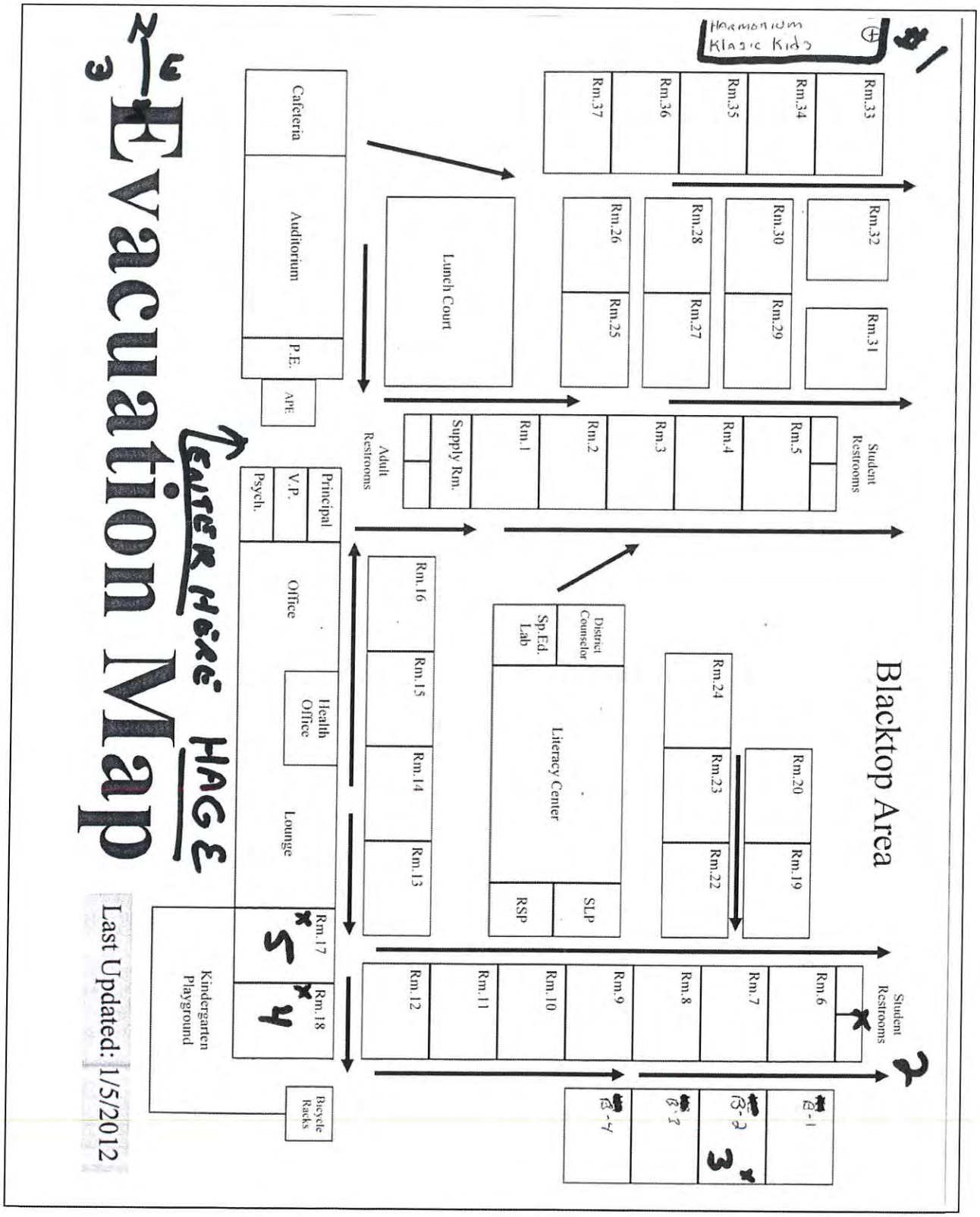

Sample No. 1

School: Hage Elementary School

Name of Building: Harmonium

Location Description Inside first classroom door east wall

Type of Outlet: Bubbler drinking fountain

Description: single drinking fountain

Comments/Miscellaneous: Tag out with do not operate tag before 6:00 pm day before sampling

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168383

State Sample ID: 3710020-BAG-A

Date & Time Last Used: 04.24.17 @ 1800 → 2200

Date & Time Sample Collected: 04.25.17 @ 0020

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: J. Weston

Sample No. 2

School: Hage Elementary School

Name of Building: 6-12 bldg.

Location Description: East end between boys restroom & custodial closet

Type of Outlet: Bubbler drinking fountain

Description: Far left drinking fountain of Two singles and a duel fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168384

State Sample ID: 3710020-BAG-B

Date & Time Last Used: N/A NOT TAGGED / BUBBLERS AND BAKIN DRY

Date & Time Sample Collected: 04.25.17 @ 0613

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: J. WESTON

Sample No. 3

School: Hage Elementary School

Name of Building: B-2

Location Description: South side of site inside classroom B-2

Type of Outlet: Bubbler

Description: Bubbler drinking fountain at sink

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168385

State Sample ID: 3710020-BAG-C

Date & Time Last Used: 04.24.17 @ 1800 - 2200

Date & Time Sample Collected: 04.25.17 @ 0600

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: JJ WELTON

Sample No. 4

School: Hage Elementary School

Name of Building: Kindergarten

Location Description: Rm # 18

Type of Outlet: Bubbler

Description: Inside classroom Bubbler drinking fountain at sink

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168386

State Sample ID: 3710020-BAG-D

Date & Time Last Used: 04.24.17 1800 → 2200

Date & Time Sample Collected: 04.25.17 @ 0605

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: J. WESTON

Sample No. 5

School: Hage Elementary School

Name of Building: Kindergarten

Location Description: admin bldg. Rm. 17

Type of Outlet: Bubbler

Description: Bubbler drinking fountain at sink

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168387

State Sample ID: 3710020-BAG-E

Date & Time Last Used: 04.24.17 1800 – 2200

Date & Time Sample Collected: 04.25.17 @ 0600

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector: J WESTON

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

24-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168383	Hage Elementary	25-APR-2017	0620	J, WESTON	SAMPLE 1	
2	W1168384	Hage Elementary	25-APR-2017	0613		SAMPLE 2	
3	W1168385	Hage Elementary	25-APR-2017	0608		SAMPLE 3	
4	W1168386	Hage Elementary	25-APR-2017	0605		SAMPLE 4	
5	W1168387	Hage Elementary	25-APR-2017	0600	J, WESTON	SAMPLE 5	

Chain of Custody:

Relinquished by: Name: JERRY WESTON Sign: J-W	Received by: Name: TOM Burger Sign: Tom B Burger	Date & Time: 4-25-17 0741 Location: ALV LAB	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: LMally
Received Date: 4/25/17
LIMS Received Time: 0846
Reviewed By: LMally 4/26/17

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Hamilton Elementary School

Physical Address of School: 2807 Fairmount Ave, San Diego, CA 92105

First Bell: 7:30AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 03/28/2017

Completed by Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 03/28/2017

School's Point of Contact for Sampling Assistance

Name: Daniel Lopez

Phone: 619-306-3383

Email: dlopez2@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/9/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Hamilton Elementary School, 2807 Fairmount Ave, San Diego, CA 92105

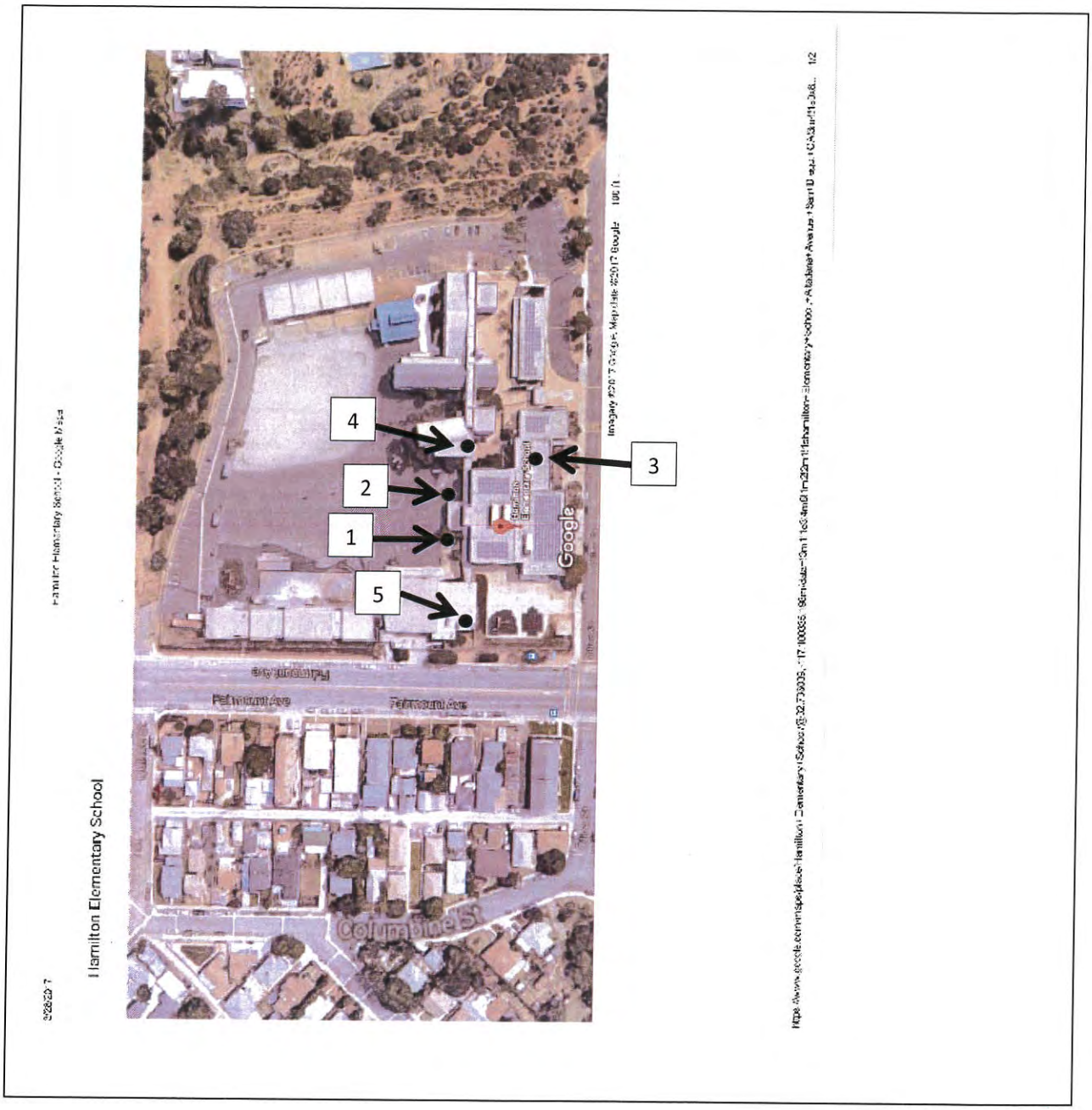

Sample No. 1

School: Hamilton Elementary School

Name of Building: Outside of PE storage on main building

Location Description: Asphalt play area on building corner

Type of Outlet: Bubbler

Description: Lower right bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168052

State Sample ID: 3710020-AJA-A

Date & Time Last Used: 5/15/17 2200

Date & Time Sample Collected: 5/16/17 0601

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M Nelson

Sample No. 2

School: Hamilton Elementary School

Name of Building: Main Building

Location Description: Facing asphalt PE/Play Area

Type of Outlet: Bubbler

Description: Left Bubbler

Comments/Miscellaneous: Around the corner from Sample Point 1

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168053

State Sample ID: 3710020-AJA-B

Date & Time Last Used: 5/15/17 2200

Date & Time Sample Collected: 5/16/17 0559

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 3

School: Hamilton Elementary School

Name of Building: Main Building

Location Description: Nurse's/Health Office

Type of Outlet: Goose Neck Fountain

Description: One Goose Neck Fountain

Comments/Miscellaneous: Inside main office. Enter the Health Office through from desk area.

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168054

State Sample ID: 3710020-AJA-C

Date & Time Last Used: 5/15/17 2200

Date & Time Sample Collected: 5/16/17 0608

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 4

School: Hamilton Elementary School

Name of Building: 300 Building

Location Description: Outside bubbler (corner of building)

Type of Outlet: Bubbler

Description: Lower right bubbler

Comments/Miscellaneous: First floor of two story building on corner.

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168055

State Sample ID: 3710020-AJA-D

Date & Time Last Used: 5/15/17 2200

Date & Time Sample Collected: 5/16/17 0553

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: M. Nelson

Sample No. 5

School: Hamilton Elementary School

Name of Building: Cafeteria Building

Location Description: Kitchen Area

Type of Outlet: Far sink used for cooking

Description: Regular sink faucet

Comments/Miscellaneous: Far sink is for food.

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168056

State Sample ID: 3710020-AJA-E

Date & Time Last Used: 5/15/17 2200

Date & Time Sample Collected: 5/16/17 0605

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Nelson

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

09-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168052	Hamilton Elementary	16-MAY-2017	0601	M. Nelson	SAMPLE 1	
2	W1168053	Hamilton Elementary	16-MAY-2017	0559		SAMPLE 2	
3	W1168054	Hamilton Elementary	16-MAY-2017	0608		SAMPLE 3	
4	W1168055	Hamilton Elementary	16-MAY-2017	0553		SAMPLE 4	
5	W1168056	Hamilton Elementary	16-MAY-2017	0605		SAMPLE 5	

1202

Chain of Custody:

Relinquished by: Name: M. Nelson Sign:	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 5/16/17 @ 0645 Location: WQL Alv	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/16/17
LIMS Received Time: 0657
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Hancock Elementary School

Physical Address of School: 3303 Taussig St. San Diego, CA 92124

First Bell: 7:30AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/25/2017

Completed by Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 04/25/2017

School's Point of Contact for Sampling Assistance

Name: ~~Daniel Lopez~~ Ginette Commins

Phone: ~~(619) 306-3383~~ 619-302-5285

Email: dlopez2@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-27-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Hancock Elementary, 3303 Taussig St. San Diego, CA 92124

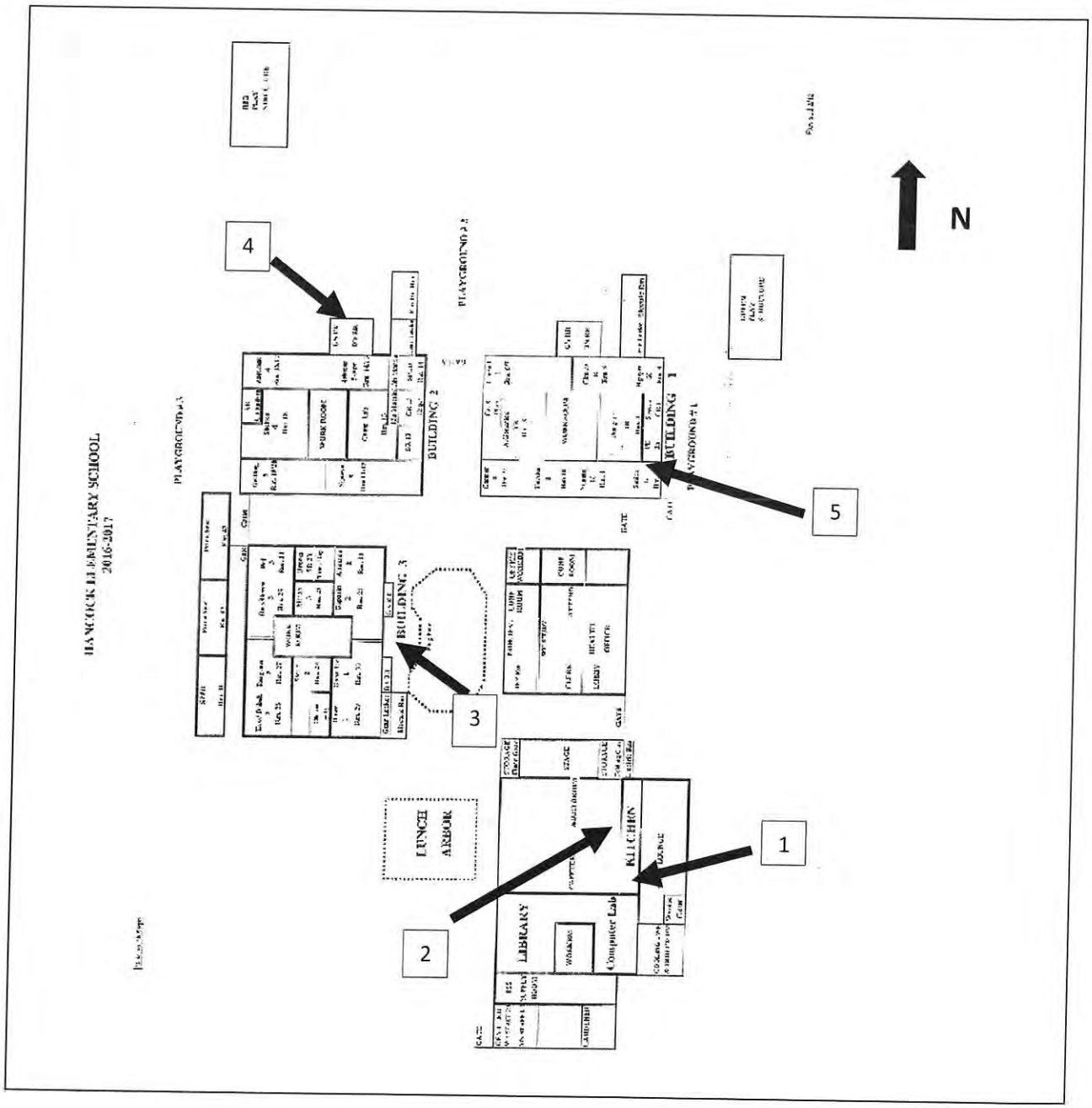

Sample No. 1

School: Hancock Elementary School

Name of Building: Kitchen

Location Description: Southeast end of school inside cafeteria

Type of Outlet: Regular sink

Description: Regular sink

Comments/Miscellaneous: Leaking

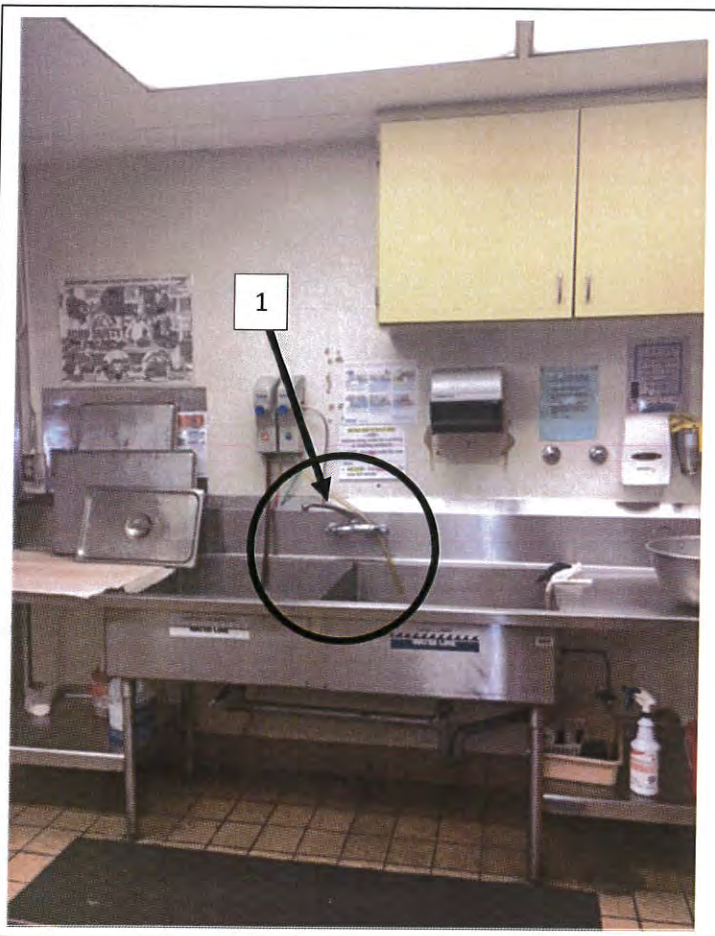

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168771

State Sample ID: 3710020-BCF-A

Date & Time Last Used: 4/27/17 1800-2200

Date & Time Sample Collected: 4/28/17 0610

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez

Sample No. 2

School: Hancock Elementary School

Name of Building: Cafeteria

Location Description: Southeast corner of school inside cafeteria

Type of Outlet: Bubbler

Description: Singe Bubbler

Comments/Miscellaneous:

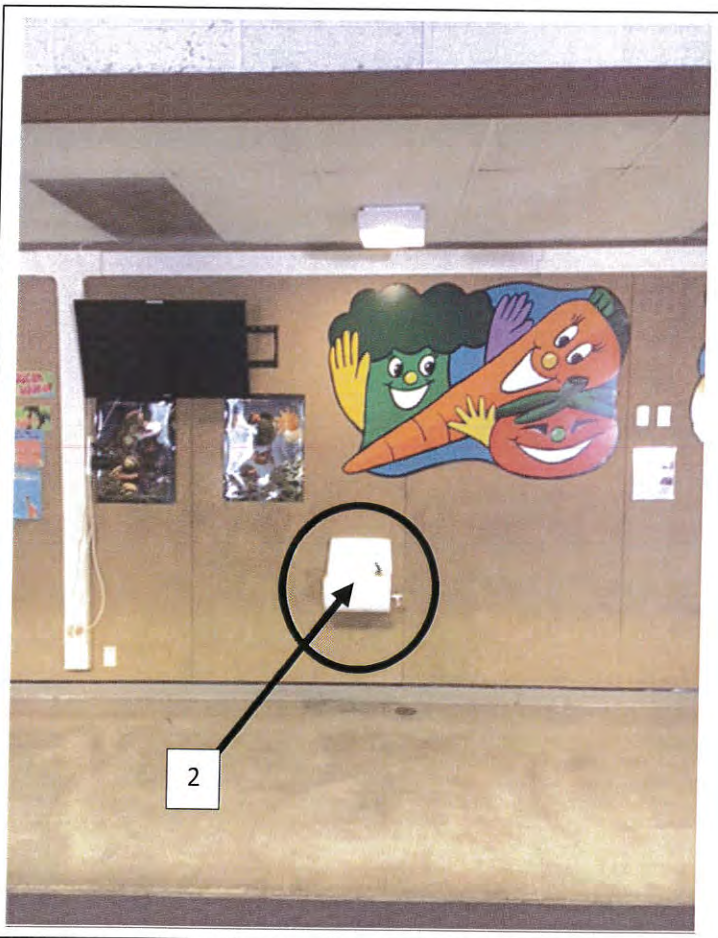

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168772

State Sample ID: 3710020-BCF-B

Date & Time Last Used: 4/27/17 1800-2200

Date & Time Sample Collected: 4/28/17 0610

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarenga

Sample No. 3

School: Hancock Elementary School

Name of Building: Building 3

Location Description: Outside of rooms 30 and 21 next to restrooms

Type of Outlet: Single bubblers

Description: Bubbler on left

Comments/Miscellaneous:

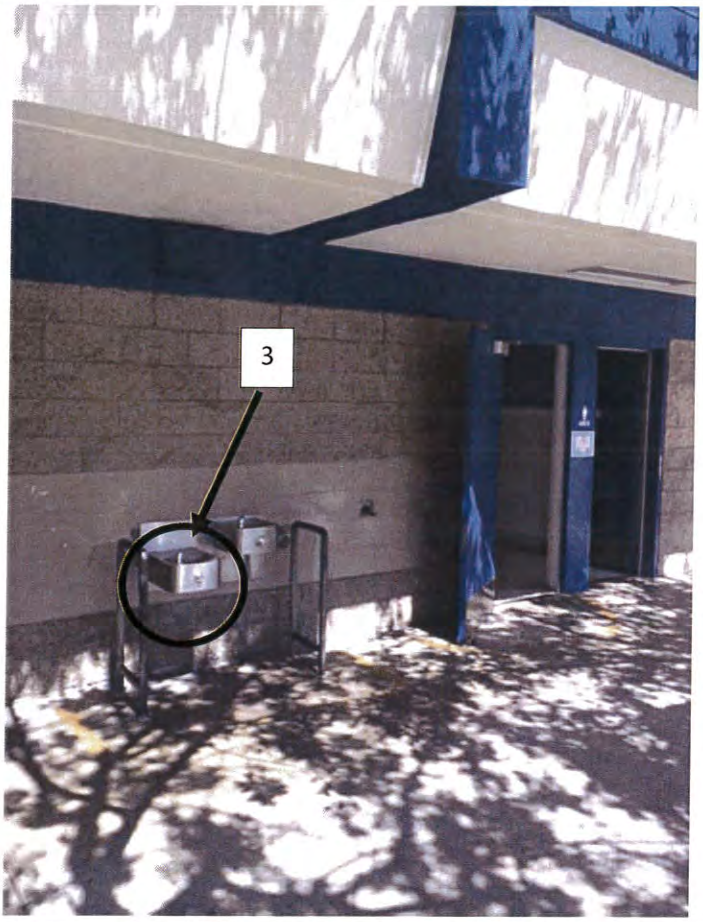

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168773

State Sample ID: 3710020-BCF-C

Date & Time Last Used: 4/27/17 1800-2200

Date & Time Sample Collected: 4/28/17 0615

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alanga

Sample No. 4

School: Hancock Elementary School

Name of Building: Building 2

Location Description: North end of Building 2

Type of Outlet: Triple Bubbler

Description: Center bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168774

State Sample ID: 3710020-BCF-D

Date & Time Last Used: 4/27/17 1800-2200

Date & Time Sample Collected: 4/28/17 0615 ✓

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alarcon

Sample No. 5

School: Hancock Elementary School

Name of Building: Building 1

Location Description: Inside Room 1

Type of Outlet: Single Bubbler

Description: Single Bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168775

State Sample ID: 3710020-BCF-E

Date & Time Last Used: 4/27/17 1800-2200

Date & Time Sample Collected: 4/28/17 0620 ✓

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

27-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168771	Hancock Elementary	28-APR-2017	0610	EA	SAMPLE 1	
2	W1168772	Hancock Elementary	28-APR-2017	0610	EA	SAMPLE 2	
3	W1168773	Hancock Elementary	28-APR-2017	0615	EA	SAMPLE 3	
4	W1168774	Hancock Elementary	28-APR-2017	~~0620~~ 0615 EA	EA	SAMPLE 4	
5	W1168775	Hancock Elementary	28-APR-2017	0620	EA	SAMPLE 5	

1210

Chain of Custody:

Relinquished by: Name: E Alvarez 4/28/17 0645 Sign:	Received by: Name: Alejandra Mollay Sign:	Date & Time: 4/28/17 0705 Location: WQL A/V	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By:
Received Date: 4/28/17
LIMS Received Time: 0940
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Hardy Elementary School

Physical Address of School: 5420 Montezuma Road, San Diego, CA 92115

First Bell: 7:40 AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/07/17

Completed by Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 04/07/17

School's Point of Contact for Sampling Assistance

Name: Daniel Lopez

Phone: (619)988-0458

Email: dlopez2@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-14-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Hardy Elementary School 5420 Montezuma Road, San Diego, CA 92115

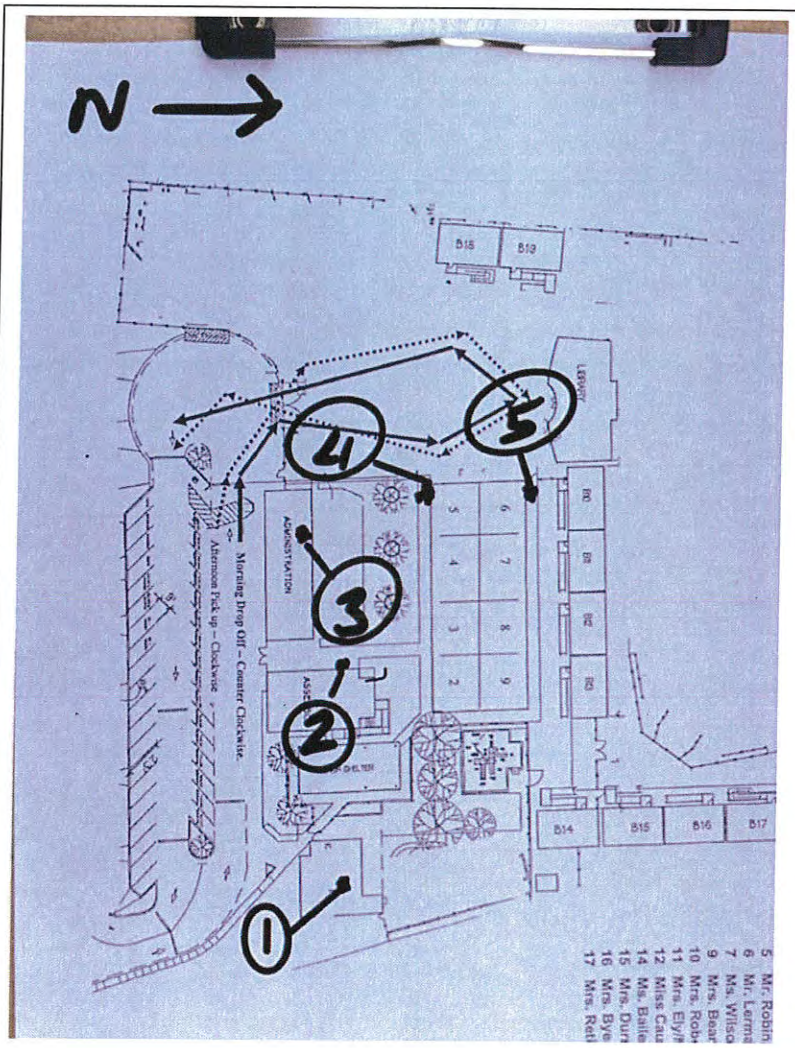

Sample No. 1

School: Hardy Elementary School

Name of Building: Kindergarten Building

Location Description: Kindergarten Play Area

Type of Outlet: Bubbler

Description: Outside bubbler on North facing wall

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-AEG-A

LIMS Sample ID: W1166868

Date & Time Last Used: 1800 4/14/17

Date & Time Sample Collected: 0756 4/15/17

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: David Mayo

Sample No. 2

School: Hardy Elementary School

Name of Building: Auditorium Building

Location Description: Area outside of auditorium West side

Type of Outlet: Bubbler

Description: Right bubbler on west facing wall

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-AEG-b

LIMS Sample ID: W1166869

Date & Time Last Used: 1800 4/14/17

Date & Time Sample Collected: 0752 / 4/15/17

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: David Mayo

Sample No. 3

School: Hardy Elementary School

Name of Building: Administration Building

Location Description: Nurses Office

Type of Outlet: Regular faucet

Description: Single faucet

Comments/Miscellaneous: hot water valve not accessable (still on)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-AEG-C

LIMS Sample ID: W1166870

Date & Time Last Used: 1800 4/14/17

Date & Time Sample Collected: 0807 4/15/17

Name of Water System Sample Collector: David Mayo

Sample No. 4

School: Hardy Elementary School

Name of Building: Main classroom Building

Location Description: Near Room #5

Type of Outlet: Triple bubbler on south facing wall

Description: Bubbler on far right on sink.

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-AEG-D

LIMS Sample ID: W1166871

Date & Time Last Used: 1800 4/14/17

Date & Time Sample Collected: 0800 4/15/17

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: David Munyo

Sample No. 5

School: Hardy Elementary School

Name of Building: Main Classroom Building

Location Description: Triple bubbler on North facing wall near Room #6

Type of Outlet: Triple bubbler

Description: Bubbler on far left side

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-AEG-E

LIMS Sample ID: W1166872

Date & Time Last Used: 1800 4/14/17

Date & Time Sample Collected: 0804 4/15/17

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: David Mayo

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

14-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1166868	Hardy Elementary	15-APR-2017	0756	David Mayo	SAMPLE 1	
2	W1166869	Hardy Elementary	15-APR-2017	0752		SAMPLE 2	
3	W1166870	Hardy Elementary	15-APR-2017	0807		SAMPLE 3	
4	W1166871	Hardy Elementary	15-APR-2017	0800		SAMPLE 4	
5	W1166872	Hardy Elementary	15-APR-2017	0804		SAMPLE 5	

1218

Chain of Custody:

Relinquished by: Name: David Mayo Sign: David Mayo	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 4/15/17 9:30 Location: AIV	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 4/17/17
LIMS Received Time: 0748
Reviewed By: KR

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Harold J. Ballard

Physical Address of School: 2375 Congress Street San Diego CA , 92110

First Bell: 8:30 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 4-17-2017

Completed by Print Name: Sergio Salinas

Signature: _____ Date: _____

School's Point of Contact for Sampling Assistance

Name: ~~Sergio Salinas~~ Cesar Jimenez

Phone: ~~(619) 302-0564~~ 619-261-1588

Email: ssalinas@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-20-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Harold J Ballard- 2375 Congress Street San Diego CA , 92110

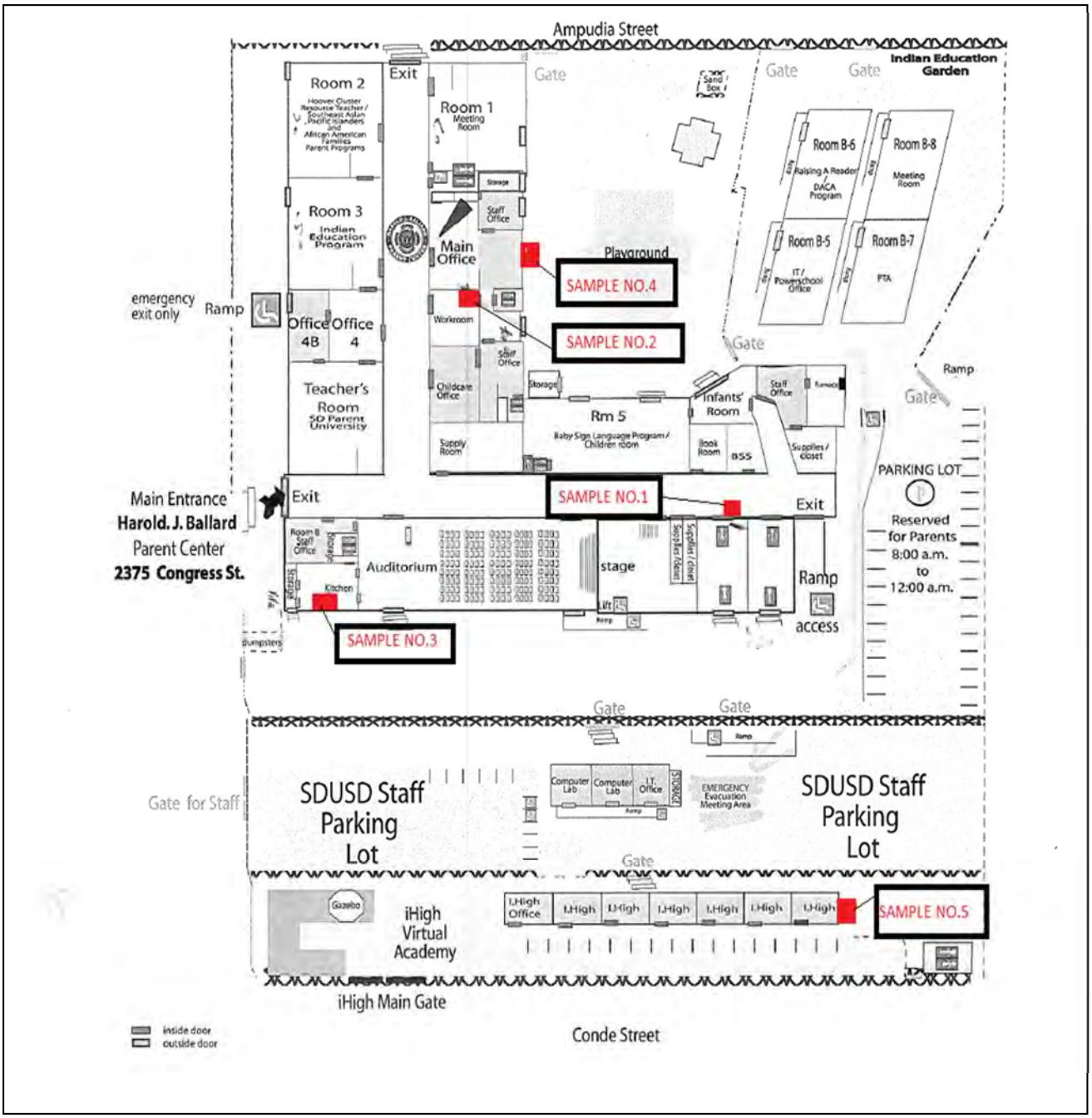

NORTH

Sample No. 1

School: Harold J Ballard- 2375 Congress Street San Diego CA , 92110

Name of Building: Building Auditorium / bathrooms

Location Description: Outside Bathrooms next to the Auditorium

Type of Outlet: Bubbler

Description: Left Bubbler

Comments/Miscellaneous: (School ID NO.117)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168009

State Sample ID: 3710020-AHI-A

Date & Time Last Used: _____

Date & Time Sample Collected: _____

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector: _____

Sample No. 2

School: Harold J Ballard- 2375 Congress Street San Diego CA , 92110

Name of Building: Inside the Workroom /Staff Lounge

Location Description: Inside workroom

Type of Outlet: Faucet inside the workroom

Description: Faucet

Comments/Miscellaneous: (School ID NO.117)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168010

State Sample ID: 3710020-AHI-B

Date & Time Last Used: _____

Date & Time Sample Collected: _____

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector: _____

Sample No. 3

School: Harold J Ballard- 2375 Congress Street San Diego CA , 92110

Name of Building Kitchen

Location Description: Inside Kitchen

Type of Outlet: Faucet Inside kitchen

Description: Faucet

Comments/Miscellaneous: (School ID NO.117)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168011

State Sample ID: 3710020-AHI-C

Date & Time Last Used: _____

Date & Time Sample Collected: _____

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector: _____

Sample No. 4

School: Harold J Ballard- 2375 Congress Street San Diego CA , 92110

Name of Building: Building Main Office

Location Description: Outside Drinking fountain behind the main office in the playground

Type of Outlet: Bubbler

Description: Left Bubbler

Comments/Miscellaneous: (School ID NO.117)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168012

State Sample ID: 3710020-AHI-D

Date & Time Last Used: _____

Date & Time Sample Collected: _____

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector: _____

Sample No. 5

School: Harold J Ballard- 2375 Congress Street San Diego CA , 92110

Name of Building: Outside of the last - I.High building

Location Description: Outside of I.High building South East end of building

Type of Outlet: Bubbler

Description: Middle Right Bubbler 2 dual fountains right set, upper left bubbler

Comments/Miscellaneous: (School ID NO.117)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168013

State Sample ID: 3710020-AHI-E

Date & Time Last Used: _____

Date & Time Sample Collected: _____

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector: _____

Water Quality Chemistry Services
Chain of Custody Form

20-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168009	Ballard Elementary	21-APR-2017	0620	David Mayo	SAMPLE 1	
2	W1168010	Ballard Elementary	21-APR-2017	0626		SAMPLE 2	
3	W1168011	Ballard Elementary	21-APR-2017	0623		SAMPLE 3	
4	W1168012	Ballard Elementary	21-APR-2017	0618		SAMPLE 4	
5	W1168013	Ballard Elementary	21-APR-2017	0610		SAMPLE 5	

Chain of Custody:

Relinquished by: Name: David Mayo Sign: David Mayo	Received by: Name: Tom Burger Sign: Tom B Burger	Date & Time: 4/21/17 0650 Location: AIV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: S Mally
Received Date: 4/21/17
LIMS Received Time: 0707
Reviewed By: S Mally 4/26/17

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Harriet Tubman Charter School

Physical Address of School: 6880 Mohawk St. San Diego, CA 92115

First Bell: 8:00AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/20/2017

Completed by Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 04/20/2017

School's Point of Contact for Sampling Assistance

Name: Cesa Jimenez

Phone: 619-261-1588

Email:

City of San Diego 3710020

Approved By: Tom B. Burger 4-25-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Harriet Tubman Charter School 6880 Mohawk St. San Diego, CA 92115

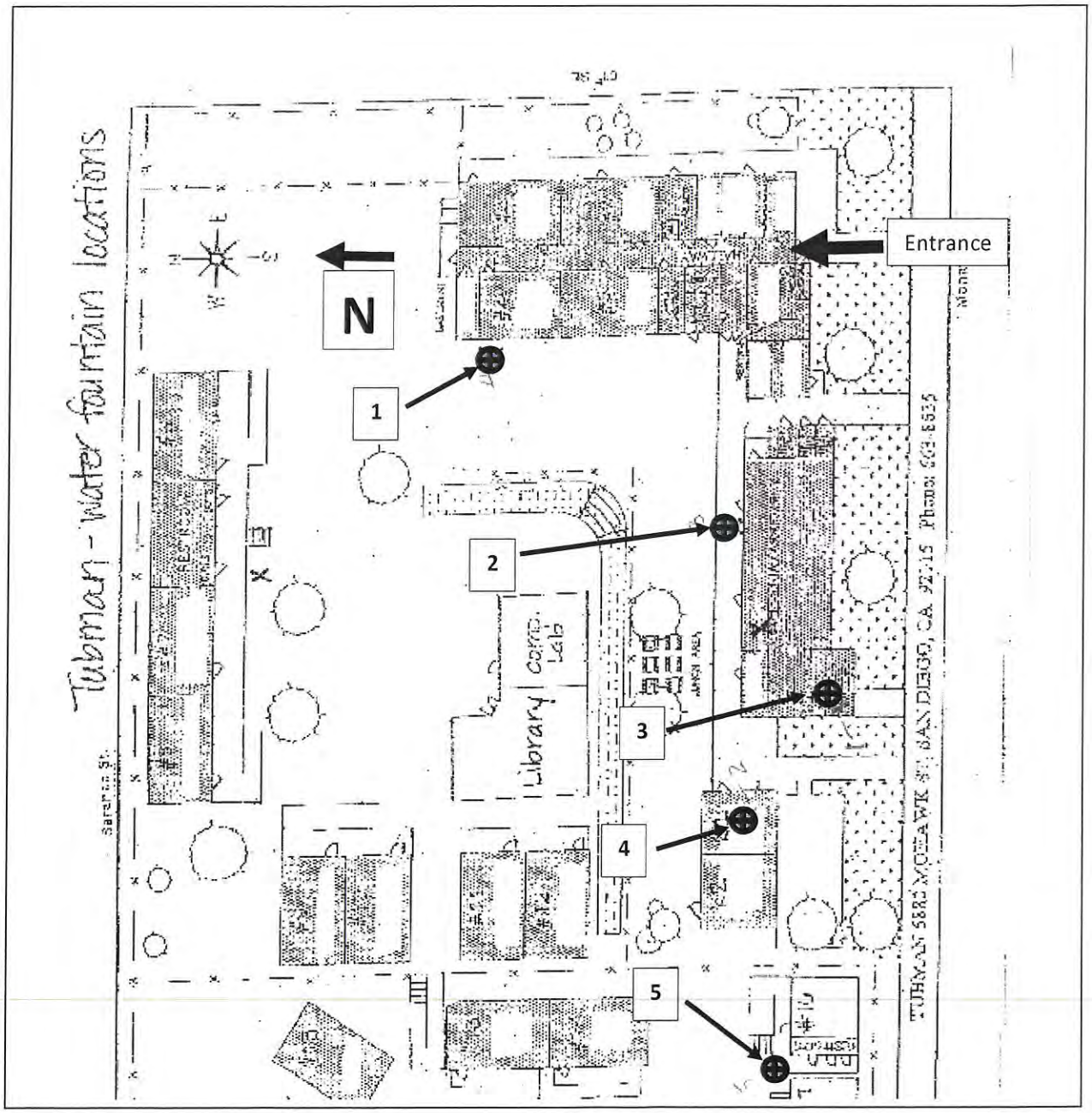

Sample No. 1

School: Harriet Tubman Charter School

Name of Building: Main (Admin) Building

Location Description: Outside (NW corner) of main building on West facing wall

Type of Outlet: Triple bubbler

Description: Middle bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168343

State Sample ID: 3710020-BAE-A

Date & Time Last Used: 2200 5-25-17

Date & Time Sample Collected: 0615 5-26-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T. Burger

Sample No. 2

School: Harriet Tubman Charter School

Name of Building: Cafeteria Building

Location Description: Outside wall facing North

Type of Outlet: Single bubblers

Description: Center Right bubbler

Comments/Miscellaneous:

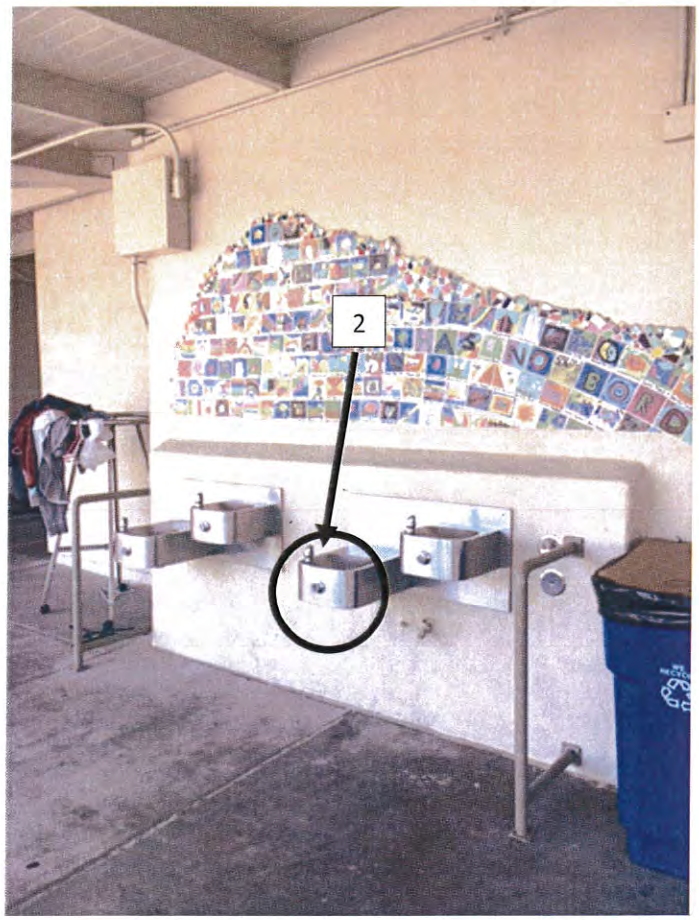

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168344

State Sample ID: 3710020-BAE-B

Date & Time Last Used: 2200 5-25-17

Date & Time Sample Collected: 0612 5-26-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T. Burger

Sample No. 3

School: Harriet Tubman Charter School

Name of Building: Kitchen

Location Description: Inside Kitchen far ~~South~~ wall west

Type of Outlet: Regular faucet

Description: Regular single faucet swing arm

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168345

State Sample ID: 3710020-BAE-C

Date & Time Last Used: 2200 4-25-17

Date & Time Sample Collected: 0609 4-26-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T. Burger

Sample No. 4

School: Harriet Tubman Charter School

Name of Building: Kindergarten Building

Location Description: Room K-1

Type of Outlet: Single Bubbler on sink Two single sink/bubblers

Description: Single Bubbler right sink

Comments/Miscellaneous:

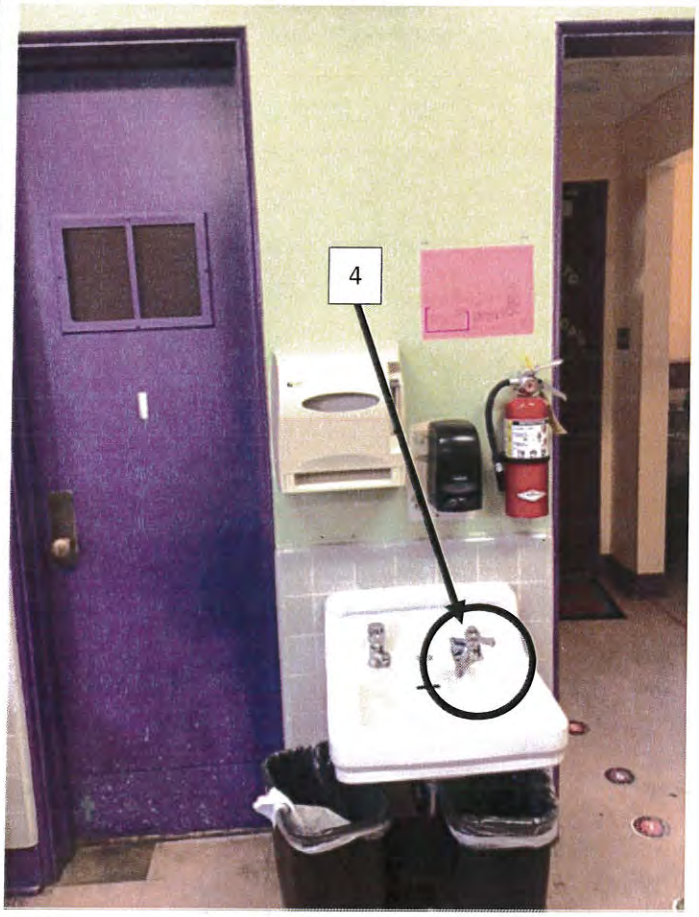

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168346

State Sample ID: 3710020-BAE-D

Date & Time Last Used: 2200 5-25-17

Date & Time Sample Collected: 0627 5-26-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: TBeagy

Sample No. 5

School: Harriet Tubman Charter School

Name of Building: Bungalow Building

Location Description: Outside of Room 16

Type of Outlet:

Description:

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168347

State Sample ID: 3710020-BAE-E

Date & Time Last Used: 2200 5-25-17

Date & Time Sample Collected: 0620 5-26-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T. Burger

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

25-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168343	Harriet Tubman Charter	26-APR-2017	0615	T. Burger	SAMPLE 1	
2	W1168344	Harriet Tubman Charter	26-APR-2017	0612		SAMPLE 2	
3	W1168345	Harriet Tubman Charter	26-APR-2017	0609		SAMPLE 3	
4	W1168346	Harriet Tubman Charter	26-APR-2017	0627		SAMPLE 4	
5	W1168347	Harriet Tubman Charter	26-APR-2017	0620		SAMPLE 5	

1234

Chain of Custody:

Relinquished by: Name: Tom Burger Sign: Tom Burger	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 4-26-17 0750 Location: ALV. LAB	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 4/26/17
LIMS Received Time: 0753
Reviewed By: AMolloy 4/26/17

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Hawthorne Elementary School

Physical Address of School: 4750 Lehrer Dr. San Diego, CA 92117

First Bell: 7:30AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 05/01/2017

Completed by Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 05/01/2017

School's Point of Contact for Sampling Assistance

Name: Daniel Lopez

Phone: 619-306-3383

Email: dlopez2@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/1/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Hawthorne Elementary School 4750 Lehrer Dr. San Diego, CA 92117

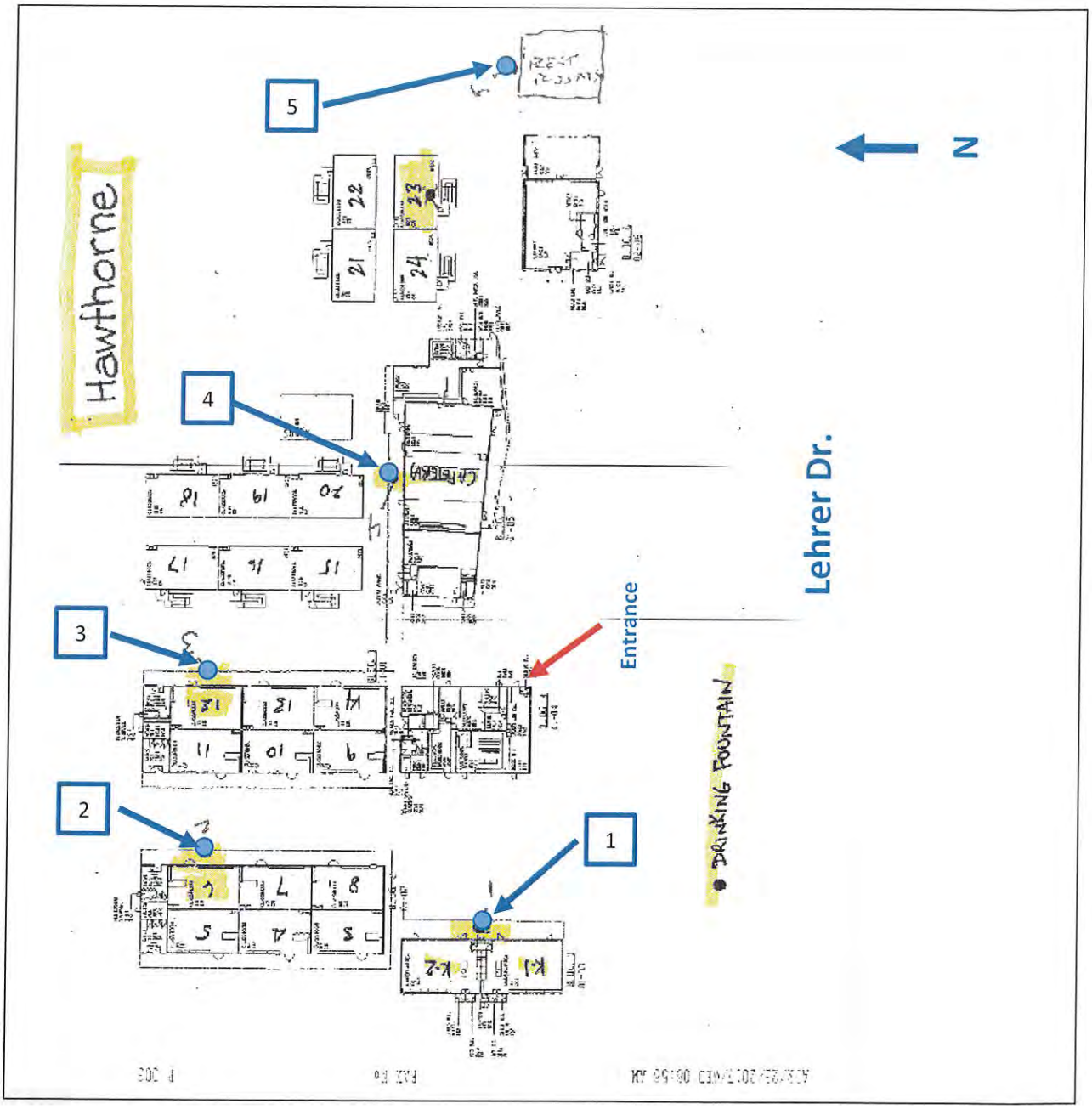

Sample No. 1

School: Hawthorne Elementary School

Name of Building: Kindergarten Building

Location Description: West side of campus outside between K-1 and K-2

Type of Outlet: Sink with bubbler

Description: Bubbler on right side

Comments/Miscellaneous:

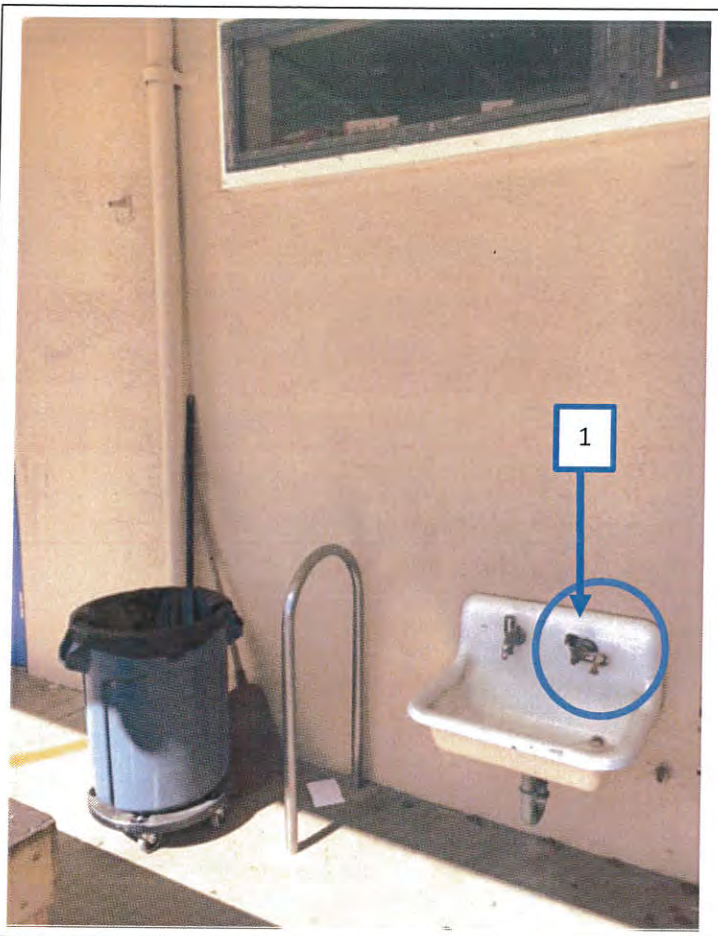

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170053

State Sample ID: 3710020-BFB-A

Date & Time Last Used: 5/19/17 2200

Date & Time Sample Collected: 5/20/17 0718

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 2

School: Hawthorne Elementary School

Name of Building: Building 2

Location Description: West side of campus near room 6 (east facing wall)

Type of Outlet: Triple Bubbler

Description: Center bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170054

State Sample ID: 3710020-BFB-B

Date & Time Last Used: 5/19/17 2200

Date & Time Sample Collected: 5/20/17 0713

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 3

School: Hawthorne Elementary School

Name of Building: Building 4

Location Description: East side of building 4 near room 12

Type of Outlet: Double bubbler and single bubbler

Description: Right bubbler on double unit

Comments/Miscellaneous:

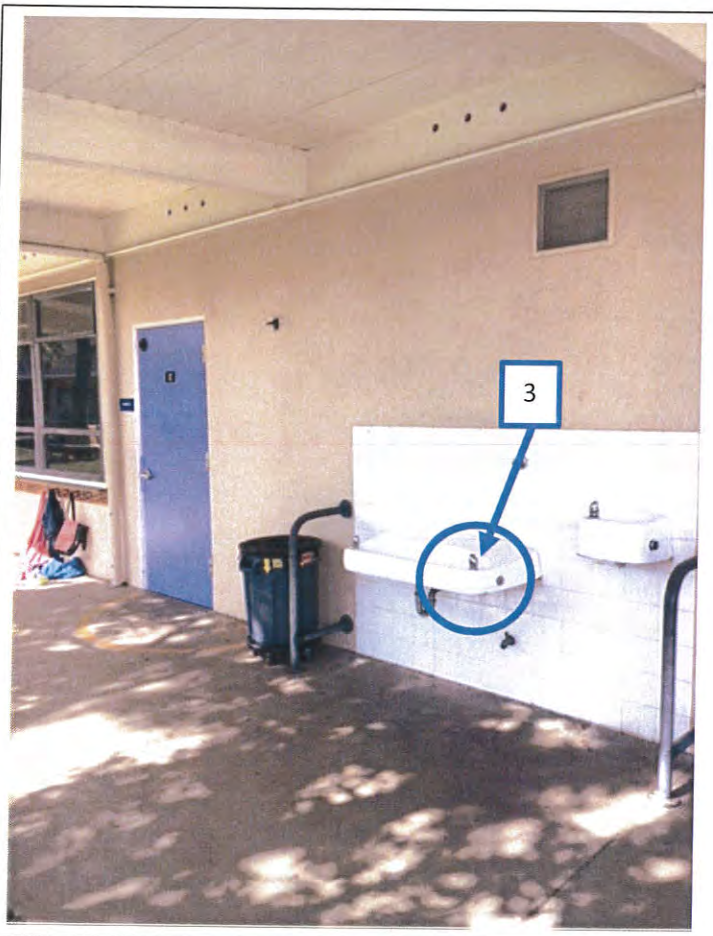

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170055

State Sample ID: 3710020-BFB-C

Date & Time Last Used: 5/19/17 2200

Date & Time Sample Collected: 5/20/17 0710

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 4

School: Hawthorne Elementary School

Name of Building: Cafeteria Building

Location Description: North facing wall in front of cafeteria (

Type of Outlet: 2 Triple Bubbler

Description: Center Bubbler on far west unit

Comments/Miscellaneous:

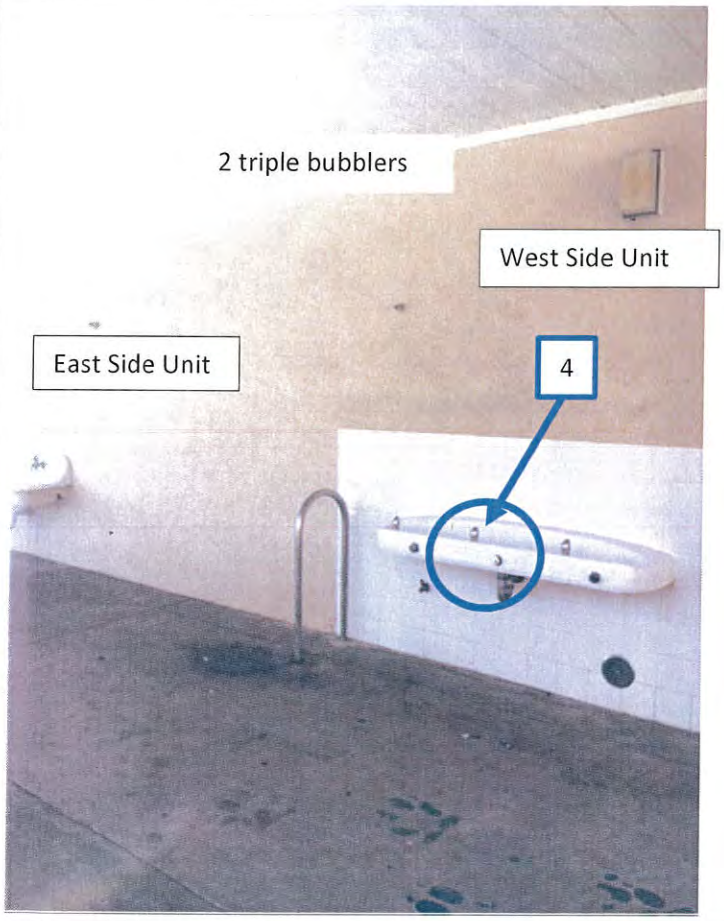

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170056

State Sample ID: 3710020-BFB-D

Date & Time Last Used: 5/19/17 2200

Date & Time Sample Collected: 5/20/17 0723

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 5

School: Hawthorne Elementary School

Name of Building: Restroom Building on far east side of campus

Location Description: Outside bubbler attached to single Restroom bungalow

Type of Outlet: Double Bubbler and a single bubbler (See hand drawn building on map)

Description: Left bubbler on double unit

Comments/Miscellaneous:

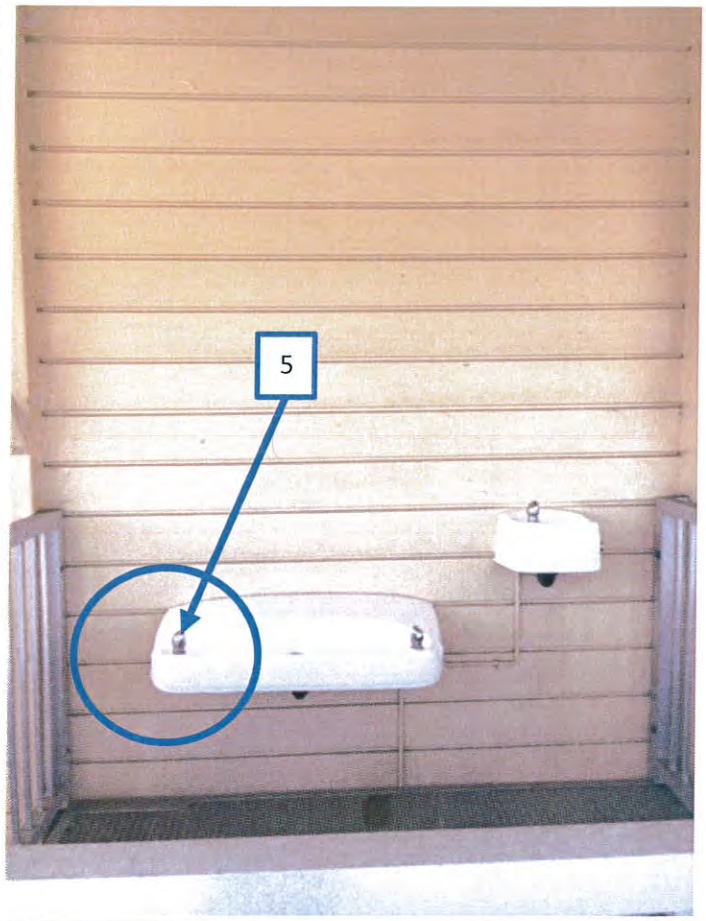

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170057

State Sample ID: 3710020-BFB-E

Date & Time Last Used: 5/19/17 2200

Date & Time Sample Collected: 5/20/17 0727

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

15-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1170053	Hawthorne Elementary	20-MAY-2017	0718	M. Nelson	SAMPLE 1	
2	W1170054	Hawthorne Elementary	20-MAY-2017	0713		SAMPLE 2	
3	W1170055	Hawthorne Elementary	20-MAY-2017	0710		SAMPLE 3	
4	W1170056	Hawthorne Elementary	20-MAY-2017	0723		SAMPLE 4	
5	W1170057	Hawthorne Elementary	20-MAY-2017	0727		SAMPLE 5	

1242

Chain of Custody:

Relinquished by: Name: M. Nelson Sign:	Received by: Name: Alejandra Molloy Sign:	Date & Time: 5/22/17 @0630 Location: WQL A1V	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/22/17
LIMS Received Time: 0725
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Hearst Elementary School

Physical Address of School: 6230 Del Cerro Blvd San Diego Ca 92120

First Bell: 7:40

Meeting Date: 3/22/2017

Sampling Plan Completion Date: 7/13/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 4/13/2017

School's Point of Contact for Sampling Assistance

Name: Elizabeth Lara

Phone: 619-302-7616

Email: elara@sandi.net

City of San Diego 3710020

Approved By: Tom B Burger 4-17-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: HEARST ELEMENTARY 6230 Del Cerro Blvd , San Diego Ca 92120

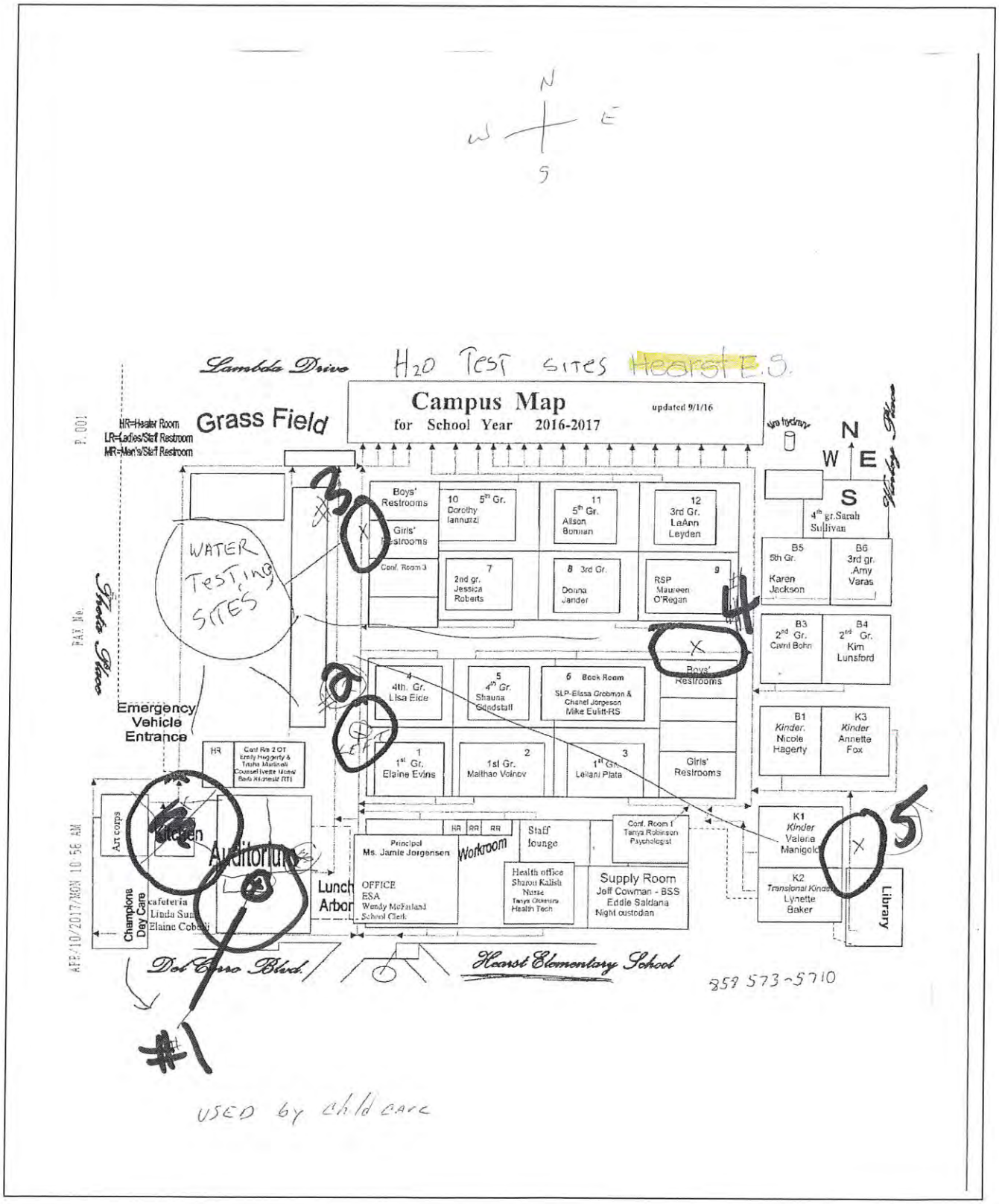

Sample No. 1

School: Hearst Elementary

Name of Building: Auditorium / Serving room

Location Description: Inside serving room near kitchen roll up door

Type of Outlet: Bubbler drinking fountain

Description: large hand washing sink with bubbler drinking fountain on right

Comments/Miscellaneous: student /child care use- map drawing not exact

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167256

State Sample ID: 3710020 - AFJ - A

Date & Time Last Used: 4/17/17 btwn 1800 - 2200

Date & Time Sample Collected: 4/18/17 @ 0611

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: HEARST ELEMENTARY

Name of Building: 1-5 bldg.

Location Description: west-Outside near black top playground and Lunch court

Type of Outlet: Bubbler drinking fountain

Description: LEFT drinking fountain of two

Comments/Miscellaneous:

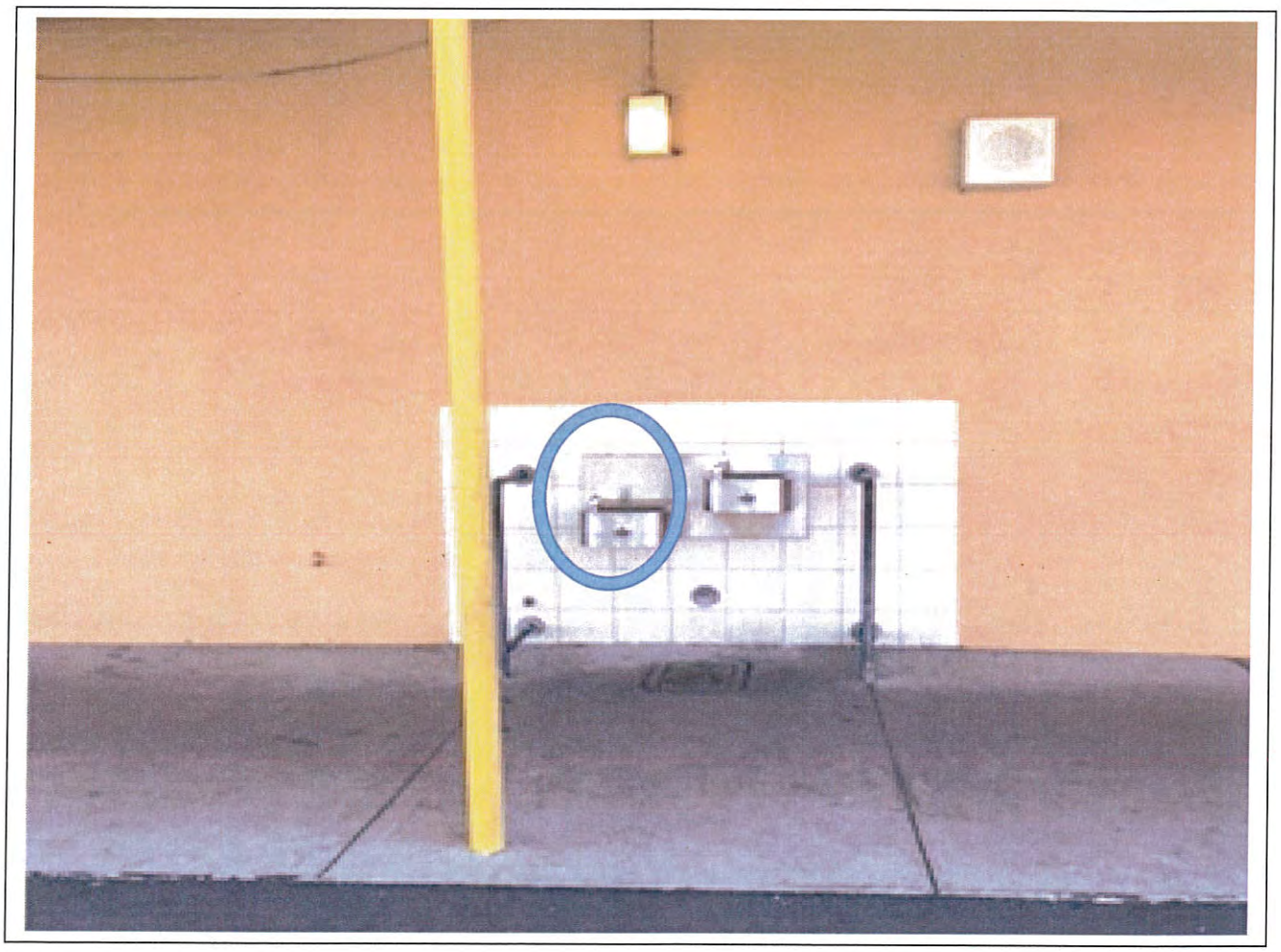

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167257

State Sample ID: 3710020 - AFJ - B

Date & Time Last Used: 4/17/17 @ btwn 1800 - 2200

Date & Time Sample Collected: 4/18/17 @ 0613

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: HEARST ELEMENTARY

Name of Building: 7-12 BLDG

Location Description: west-near black top playground basketball area

Type of Outlet: Bubbler

Description: LEFT-Bubbler of a three bubbler water fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167258

State Sample ID: 3710020 - AFJ-C

Date & Time Last Used: 4/17/17 btwn 1800-2200

Date & Time Sample Collected: 4/18/17 @ 0645

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: HEARST ELEMENTARY

Name of Building: 1-6 BLDG

Location Description: North-Outside wall

Type of Outlet: Bubbler drinking fountain

Description: LEFT- bubbler of three at drinking water fountain near corner of building

Comments/Miscellaneous:

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167259

State Sample ID: 3710020 - AFS-D

Date & Time Last Used: 4/17/17 @ btwn 1800 - 2200

Date & Time Sample Collected: 4/18/17 @ 0617

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 5

School: HEARST ELEMENTARY

Name of Building: Kinder play ground

Location Description: Outside -kinder classrooms between toy storage doors

Type of Outlet: Bubbler drinking fountain

Description: LEFT- drinking fountain of two

Comments/Miscellaneous:

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167220

State Sample ID: 3710000 - AFJ-E

Date & Time Last Used: 4/17/17 btwn 1800-2200

Date & Time Sample Collected: 4/18/17 @0620

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

18-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1167256	Hearst Elementary	18-APR-2017	0611	A. Molloy	SAMPLE 1	
2	W1167257	Hearst Elementary	18-APR-2017	0613		SAMPLE 2	
3	W1167258	Hearst Elementary	18-APR-2017	0615		SAMPLE 3	
4	W1167259	Hearst Elementary	18-APR-2017	0617		SAMPLE 4	
5	W1167260	Hearst Elementary	18-APR-2017	0620		SAMPLE 5	

1250

Chain of Custody:

Relinquished by:	Received by:	Date & Time:	Comments:
Name: Alejandra Molloy Sign:	Name: Tom Burger Sign: TM Burger	4-18-17 0630 Location: ALV LAB	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy / TBurger
Received Date: 4/18/17
LIMS Received Time: 0924
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Hickman Elementary

Physical Address of School: 10850 Montongo St., San Diego, CA 92126-2629

First Bell:

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 4/20/2017

Completed by Print Name: Ginette Commins

Signature: G Commins Date: 4/20/2017

School's Point of Contact for Sampling Assistance

Name: Ginette Commins

Phone: (858) 627-7201

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-24-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Hickman Elementary, 10850 Montongo St, San Diego, CA 92126-2629

Sample No. 1

School: Hickman Elementary

Name of Building: Hickman Hall

Location Description: Sink in the Prep Kitchen (South of Bldg)

Type of Outlet: kitchen faucet

Description: cold water faucet with cold blue indicator (HIGH flow)

Comments/Miscellaneous: indoor water source for daily cooking/SDUSD Location Code #201

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168388

State Sample ID: 3710020-BAH-A

Date & Time Last Used: 4/24/17 2200

Date & Time Sample Collected: 4/25/17 0632

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 2

School: Hickman Elementary

Name of Building: Hickman Hall

Location Description: Wall mounted exterior (South of Bldg), outside of Prep Kitchen, facing lunch court

Type of Outlet: bubbler

Description: left bubbler head with lever handle (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #201

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168389

State Sample ID: 3710020-BAH-B

Date & Time Last Used: 4/24/17 2200

Date & Time Sample Collected: 4/25/17 0635

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 3

School: Hickman Elementary

Name of Building: 10s Bldg (Rms 10-16)

Location Description: Wall mounted exterior (South of Bldg), between Girls Restroom & Custodian Gearlocker, facing grass courtyard

Type of Outlet: bubbler

Description: right bubbler head (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #201

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168390

State Sample ID: 3710020-BAH-C

Date & Time Last Used: 4/24/17 2200

Date & Time Sample Collected: 4/25/17 0640

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 4

School: Hickman Elementary

Name of Building: 20s Bldg (Rms 21-26)

Location Description: Wall mounted exterior (West of Bldg), between Girls Restroom & Custodian Gearlocker, facing Blacktop

Type of Outlet: bubbler

Description: middle bubbler head (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #201

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168391

State Sample ID: 3710020-BAH-D

Date & Time Last Used: 4/24/17 2200

Date & Time Sample Collected: 4/25/17 0642

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 5

School: Hickman Elementary

Name of Building: 40s Bldg (Rms 41-46)

Location Description: Wall mounted exterior (North of Bldg), between Girls Restroom & Custodian Gearlocker, facing Playground

Type of Outlet: bubbler

Description: right bubbler head (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #201

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168392

State Sample ID: 3710020-BAH-E

Date & Time Last Used: 4/24/17 2200

Date & Time Sample Collected: 4/25/17 0647

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Exhibit 3-1

Water Quality Chemistry Services
Chain of Custody Form

24-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168388	Hickman Elementary	25-APR-2017	0632	DS	SAMPLE 1	
2	W1168389	Hickman Elementary	25-APR-2017	0635	↓	SAMPLE 2	
3	W1168390	Hickman Elementary	25-APR-2017	0640	↓	SAMPLE 3	
4	W1168391	Hickman Elementary	25-APR-2017	0642	↓	SAMPLE 4	
5	W1168392	Hickman Elementary	25-APR-2017	0647	↓	SAMPLE 5	

1258

Chain of Custody:

Relinquished by:	Received by:	Date & Time:	Comments:
Name: Dan Sowersby Sign: D. Sowersby	Name: Tom Burger Sign: Tom B Burger	4/25/17 0745 Location: ALV	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: Mally
Received Date: 4/25/17
LIMS Received Time: 0835
Reviewed By: SMalley 4/24/17

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Holly Drive Leadership Academy

Physical Address of School: 4801 Elm St., San Diego, CA 92102-1354

First Bell: 8:00 AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/10/2017

Completed by Print Name: Ginette Commins

Signature: G Commins Date: 04/10/2017

School's Point of Contact for Sampling Assistance

Name: ~~Ginette Commins~~ Lori Sherman

Phone: ~~(858) 627-7201~~ 619-301-9086

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-18-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Holly Drive Leadership Academy, 4801 Elm St., San Diego, CA 92101

Holly Drive is located on shared property with Webster Elementary, the entrance is at 47th Street. If you are using a Mobile GPS, enter this address:

1647 47th St, San Diego, CA 92101

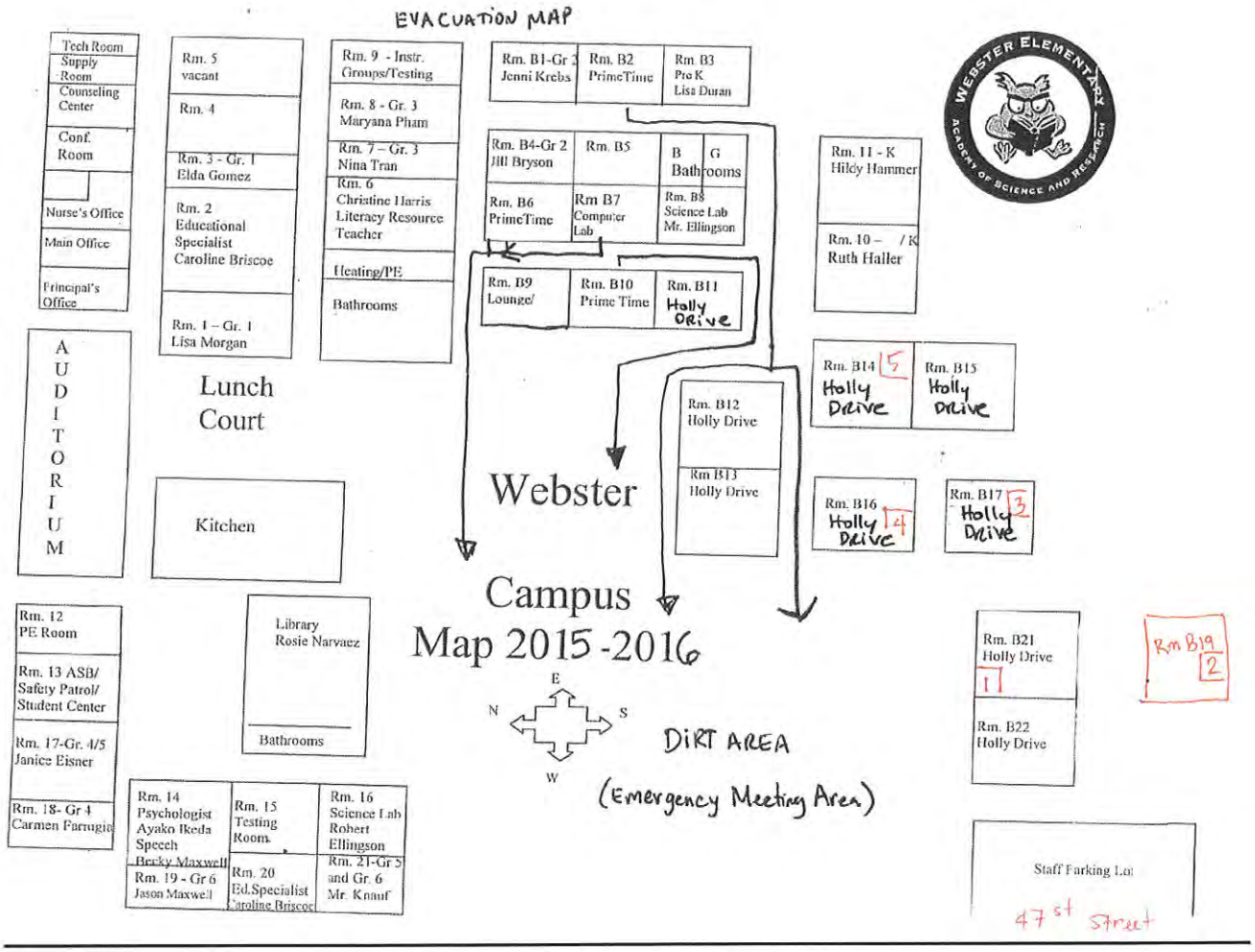
EVACUATION MAP
Tech Room
Supply Room
Counseling Center
Conf. Room
Nurse's Office
Main Office
Principal's Office
Rm. 5 vacant
Rm. 4
Rm. 3 - Gr. 1 Elda Gomez
Rm. 2 Educational Specialist Caroline Briscoe
Rm. 1 – Gr. 1 Lisa Morgan
Rm. 9 - Instr. Groups/Testing
Rm. 8 - Gr. 3 Maryana Pham
Rm. 7 – Gr. 3 Nina Tran
Rm. 6 Christine Harris Literacy Resource Teacher
Heating/PE
Bathrooms
Rm. B1-Gr 2 Jenni Krebs
Rm. B2 PrimeTime
Rm B3 Pre K Lisa Duran
Rm. B4-Gr 2 Jill Bryson
Rm. B5
B Bathrooms G
Rm. B6 PrimeTime
Rm B7 Computer Lab
Rm. B8 Science Lab Mr. Ellingson
Rm. B9 Lounge/
Rm. B10 Prime Time
Rm. B11 Holly Drive
Rm. 11 - K Hildy Hammer
Rm. 10 – / K Ruth Haller
WEBSTER ELEMENTARY ACADEMY OF SCIENCE AND RESEARCH
AUDITORIUM
Lunch Court
Kitchen
Webster Campus Map 2015 -2016
Rm. B12 Holly Drive
Rm B13 Holly Drive
Rm. B14 5 Holly Drive
Rm. B15 Holly Drive
Rm. B16 Holly Drive 4
Rm. B17 Holly Drive 3
Rm. 12 PE Room
Rm. 13 ASB/ Safety Patrol/ Student Center
Rm. 17-Gr. 4/5 Janice Eisner
Rm. 18- Gr 4 Carmen Farrugia
Library Rosie Narvaez
Bathrooms
E
N
S
W
DIRT AREA
(Emergency Meeting Area)
Rm. B21 Holly Drive 1
Rm. B22 Holly Drive
Rm B19 2
Rm. 14 Psychologist Ayako Ikeda Speech Becky Maxwell
Rm. 15 Testing Room
Rm. 16 Science Lab Robert Ellingson
Rm. 19 - Gr 6 Jason Maxwell
Rm. 20 Ed.Specialist Caroline Briscoe
Rm. 21-Gr 5 and Gr. 6 Mr. Knauf
Staff Parking Lot
47st Street

Sample No. 1

School: Holly Drive Leadership Academy

Name of Building: Portable Classrooms

Location Description: B-21, classroom sink

Type of Outlet: bubbler

Description: bubbler with lever handle on a sink

Comments/Miscellaneous: indoor drinking water source/SDUSD Location Code #289

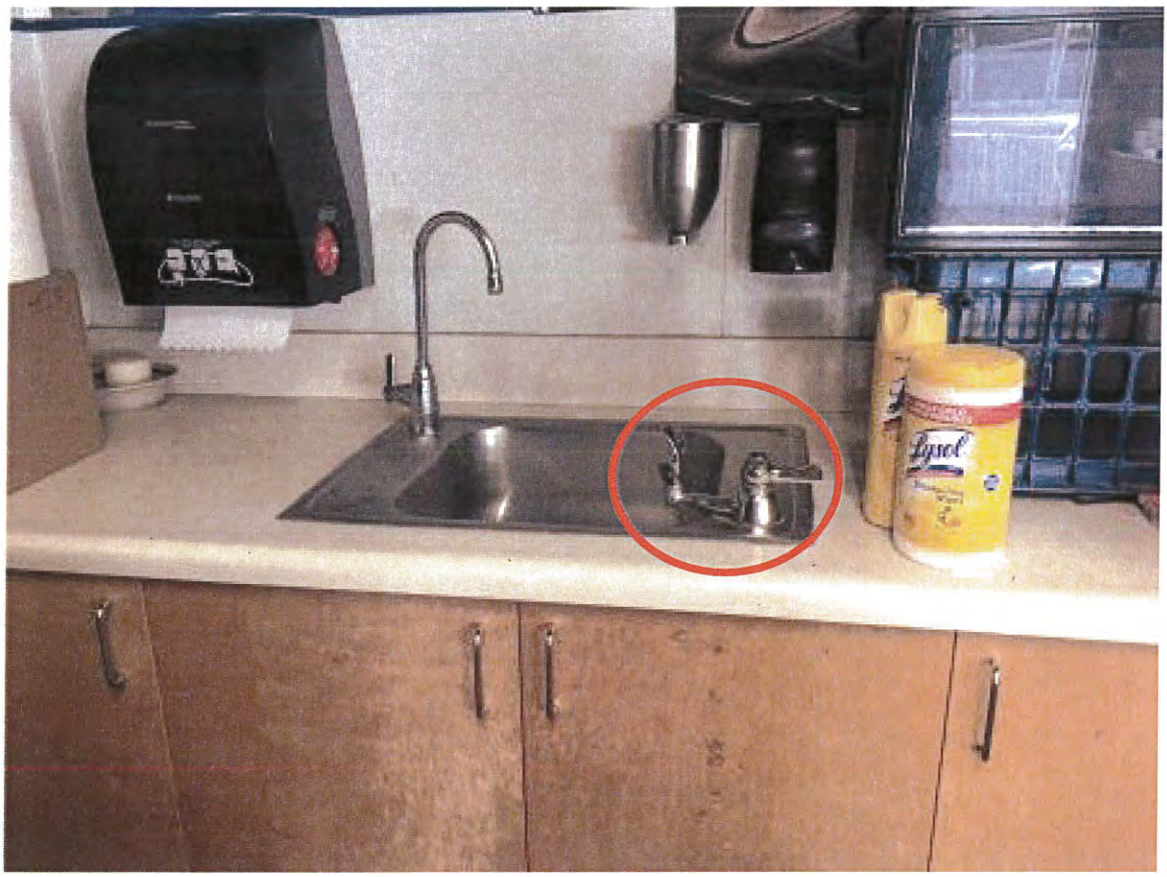

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166990

State Sample ID: 3710020-AFH-A

Date & Time Last Used: 1800 4/18/17

Date & Time Sample Collected: 0550 4/19/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 2

School: Holly Drive Leadership Academy

Name of Building: Portable Classrooms

Location Description: B-19, classroom sink

Type of Outlet: bubbler

Description: bubbler with push button cap on a sink

Comments/Miscellaneous: indoor drinking water source/SDUSD Location Code #289

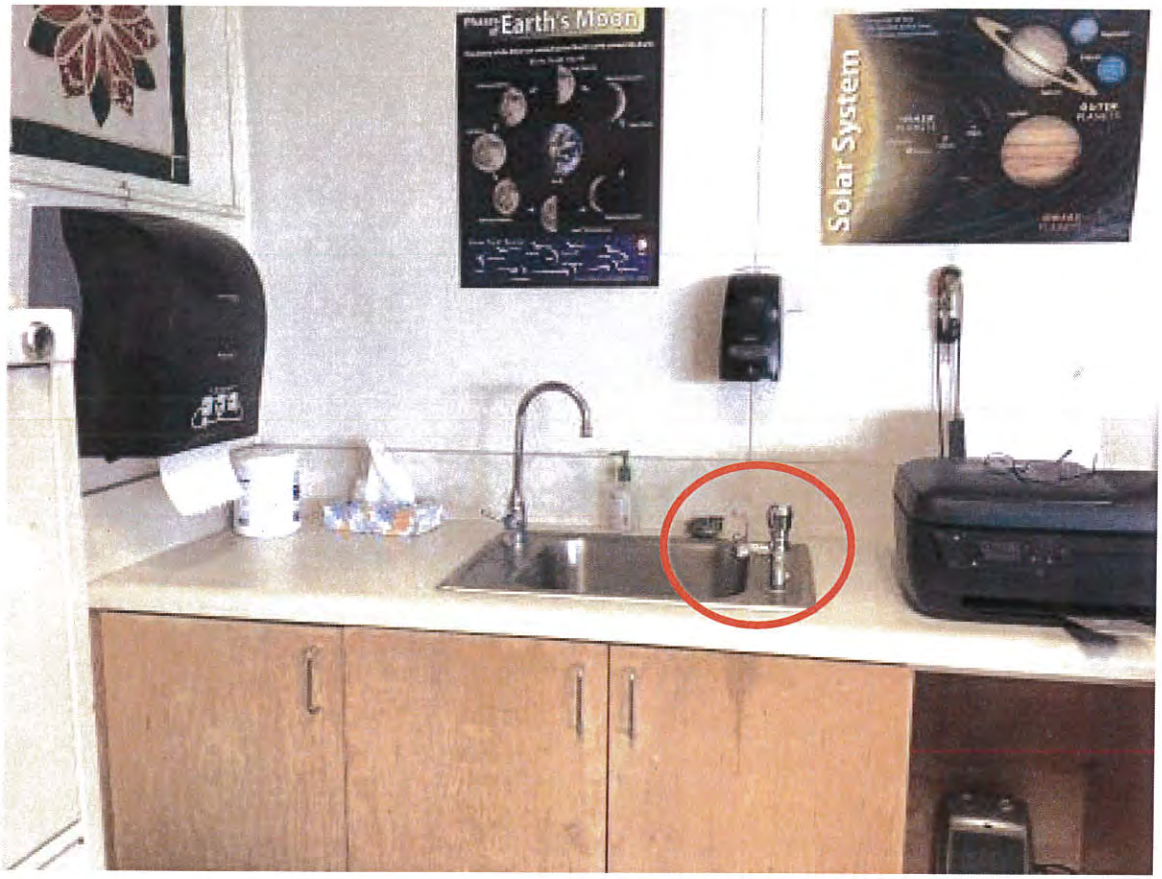

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166991

State Sample ID: 3710020-AFH-B

Date & Time Last Used: 1800 4/18/17

Date & Time Sample Collected: 0555 4/19/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 3

School: Holly Drive Leadership Academy

Name of Building: Portable Classrooms

Location Description: B-17, classroom sink

Type of Outlet: bubbler

Description: bubbler with push button on a sink

Comments/Miscellaneous: indoor drinking water source/SDUSD Location Code #289

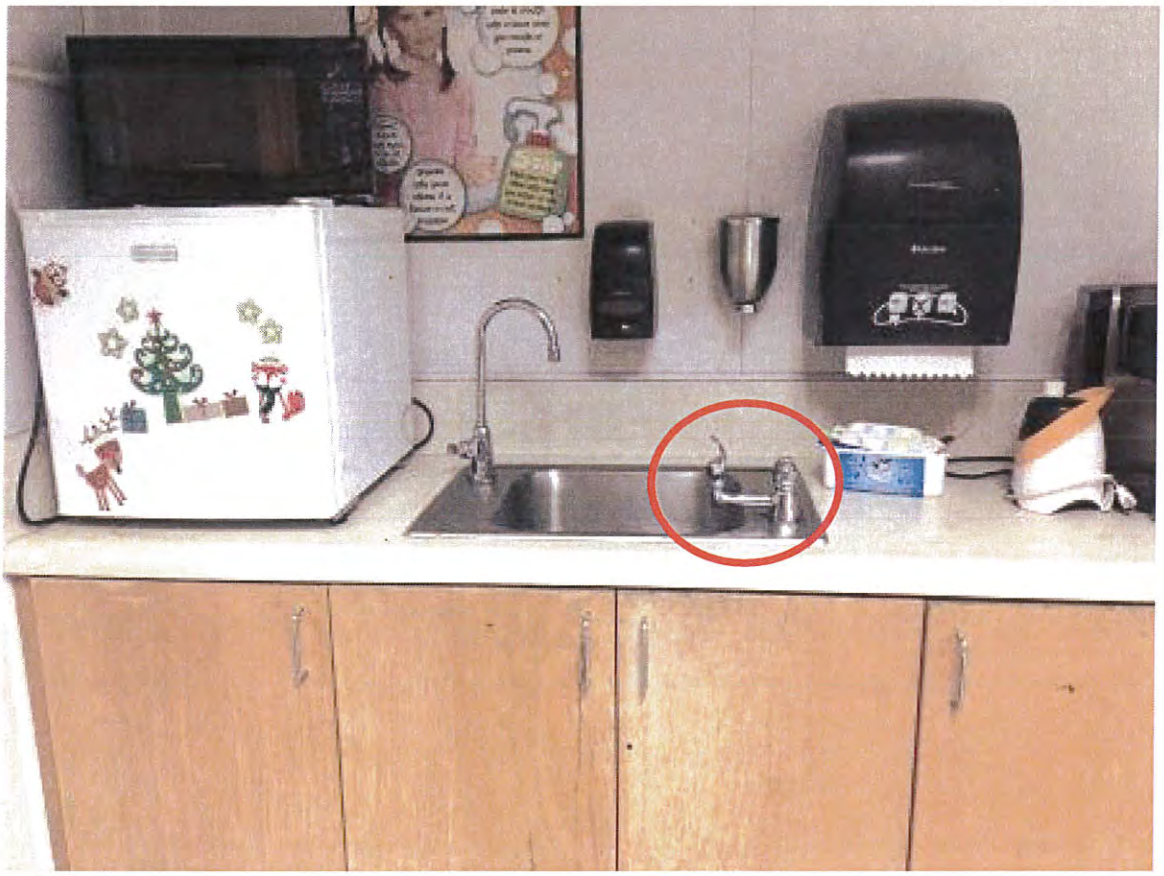

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166992

State Sample ID: 3710020-AFH-C

Date & Time Last Used: 1800 4/18/17

Date & Time Sample Collected: 0607 4/19/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 4

School: Holly Drive Leadership Academy

Name of Building: B-16, Portable Classrooms

Location Description: , classroom sink

Type of Outlet: bubbler

Description: bubbler with push button on a sink

Comments/Miscellaneous: indoor drinking water source/SDUSD Location Code #289

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166993

State Sample ID: 3710020-AFH-D

Date & Time Last Used: 1800 4/18/17

Date & Time Sample Collected: 0559 4/19/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 5

School: Holly Drive Leadership Academy

Name of Building: Portable Classrooms

Location Description: B-14, classroom sink

Type of Outlet: bubbler

Description: bubbler with lever handle on a sink

Comments/Miscellaneous: indoor drinking water source/SDUSD Location Code #289

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166994

State Sample ID: 3710020-AFH-E

Date & Time Last Used: 1800 4/18/17

Date & Time Sample Collected: 0603 4/19/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 4/28/17

San Diego Unified School District

Holly Drive Leadership

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1166990	04/19/17	05:50 AM	SAMPLE 1	3710020-AFH-A	< 5	ug/L
W1166991	04/19/17	05:55 AM	SAMPLE 2	3710020-AFH-B	< 5	ug/L
W1166992	04/19/17	06:07 AM	SAMPLE 3	3710020-AFH-C	< 5	ug/L
W1166993	04/19/17	05:59 AM	SAMPLE 4	3710020-AFH-D	< 5	ug/L
W1166994	04/19/17	06:03 AM	SAMPLE 5	3710020-AFH-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Room B-21 Bubbler in sink
SAMPLE 2	Room B-19 Bubbler in sink
SAMPLE 3	Room B-17 Bubbler in sink
SAMPLE 4	Room B-16 Bubbler in sink
SAMPLE 5	Room B-14 Bubbler in sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
Tom Burger, Associate Chemist

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

18-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1166990	Holly Drive Leadership	19-APR-2017	0550 ✓	David Mayo ✓	SAMPLE 1	
2	W1166991	Holly Drive Leadership	19-APR-2017	0555 ✓	↓	SAMPLE 2	
3	W1166992	Holly Drive Leadership	19-APR-2017	0607 ✓	↓	SAMPLE 3	
4	W1166993	Holly Drive Leadership	19-APR-2017	0559 ✓	↓	SAMPLE 4	
5	W1166994	Holly Drive Leadership	19-APR-2017	0603 ✓	↓	SAMPLE 5	

1268

Chain of Custody:

Relinquished by: Name: David Mayo Sign: David Mayo	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 4/19/17 6:45 Location: A\V	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 4/19/17 ✓
LIMS Received Time: 0658 ✓
Reviewed By: AMolloy 4/25/17

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Holmes Elemantary School

Physical Address of School: 4902 Mount Ararat Drive San Diego, CA 92111

First Bell: 8:30 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 4-26-2017

Completed by Print Name: Sergio Salinas

Signature: _____ Date: _____

School's Point of Contact for Sampling Assistance

Name: ~~Sergio Salinas~~ Elizabeth Lara

Phone: ~~(619) 302-0564~~ 619 302 7616

Email: ssalinas@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/22/2017 — Matthew Nelson

Signature & Date — Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Holmes Elementary School -4902 Mount Ararat Drive San Diego, CA 92111

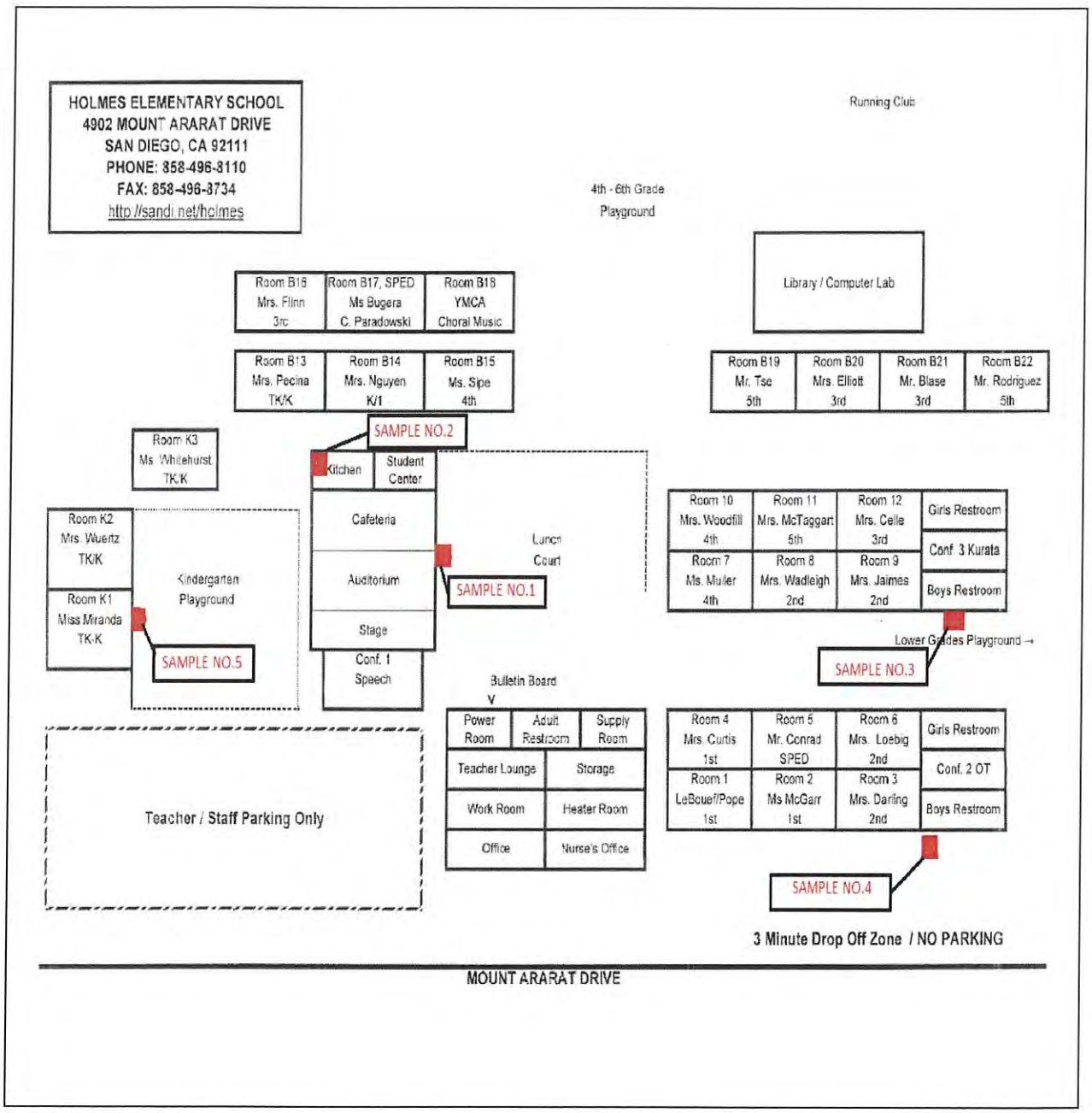

Sample No. 1

School: Holmes Elementary School -4902 Mount Ararat Drive San Diego, CA 92111

Name of Building: Auditorium

Location Description: Outside Auditorium next to lunch court

Type of Outlet: Bubbler

Description: Right Bubbler

Comments/Miscellaneous: (School ID NO.147)

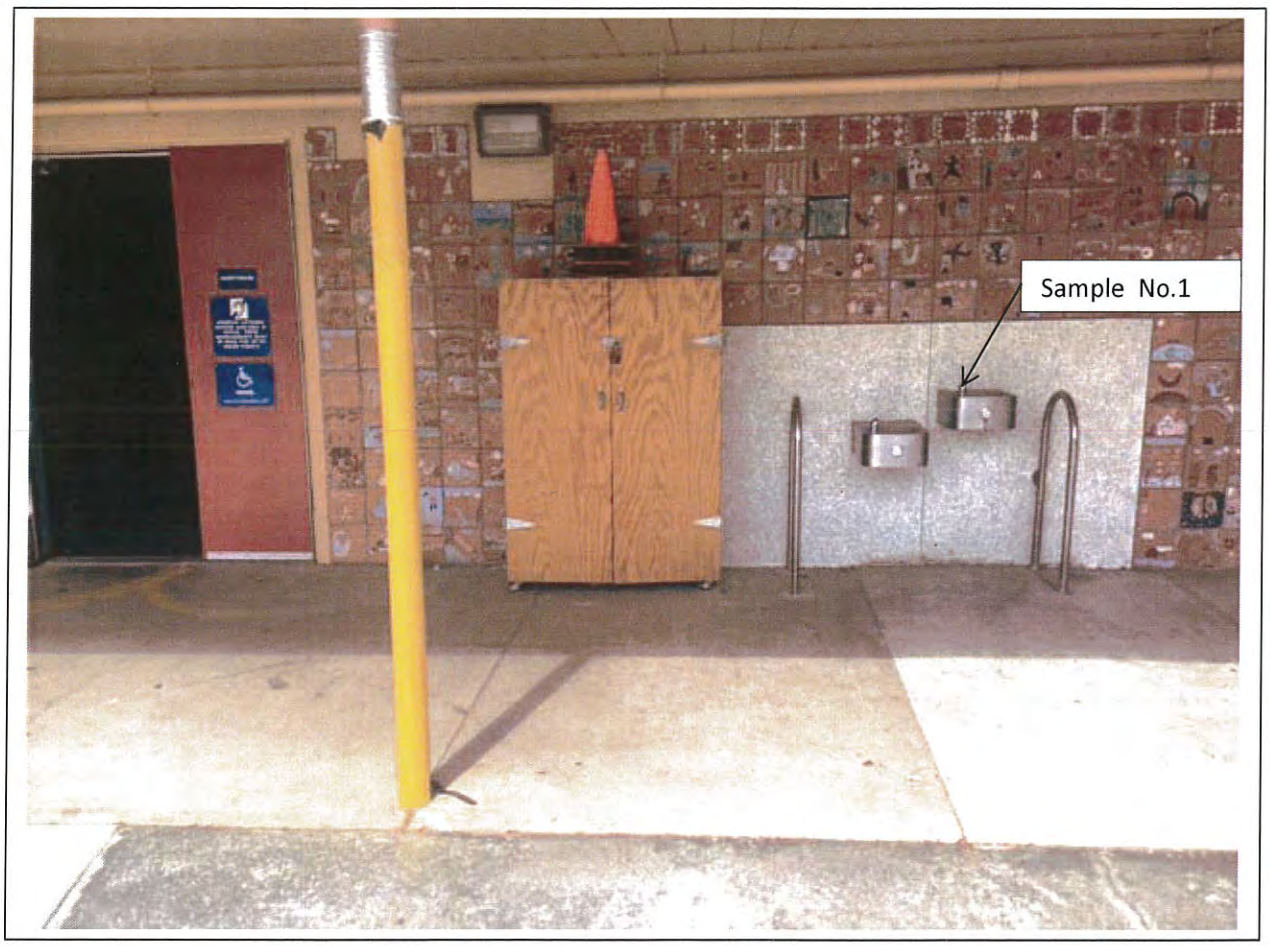

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170221

State Sample ID: 3710020-CAJ-A

Date & Time Last Used: 5/24/17 1800

Date & Time Sample Collected: 5/25/17 606

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 2

School: Holmes Elementary School -4902 Mount Ararat Drive San Diego, CA 92111

Name of Building: Kitchen

Location Description: Inside Kitchen

Type of Outlet: Faucet

Description: Faucet inside kitchen

Comments/Miscellaneous: (School ID NO.147)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170222

State Sample ID: 3710020-CAJ-B

Date & Time Last Used: 5/24/17 1800

Date & Time Sample Collected: 5/25/17 618

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 3

School: Holmes Elementary School -4902 Mount Ararat Drive San Diego, CA 92111

Name of Building Room 9

Location Description: Outside fountain next to room 9 and bathrooms

Type of Outlet: Bubbler

Description: Middle Bubbler

Comments/Miscellaneous: (School ID NO.147)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170223

State Sample ID: 3710020-CAJ-C

Date & Time Last Used: 5/24/17 1800

Date & Time Sample Collected: 5/25/17 609

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 4

School: Holmes Elementary School -4902 Mount Ararat Drive San Diego, CA 92111

Name of Building: Next to room 3

Location Description: Outside fountain next to room 3 and bathrooms

Type of Outlet: Bubbler

Description: Far right Bubbler

Comments/Miscellaneous: (School ID NO.147)

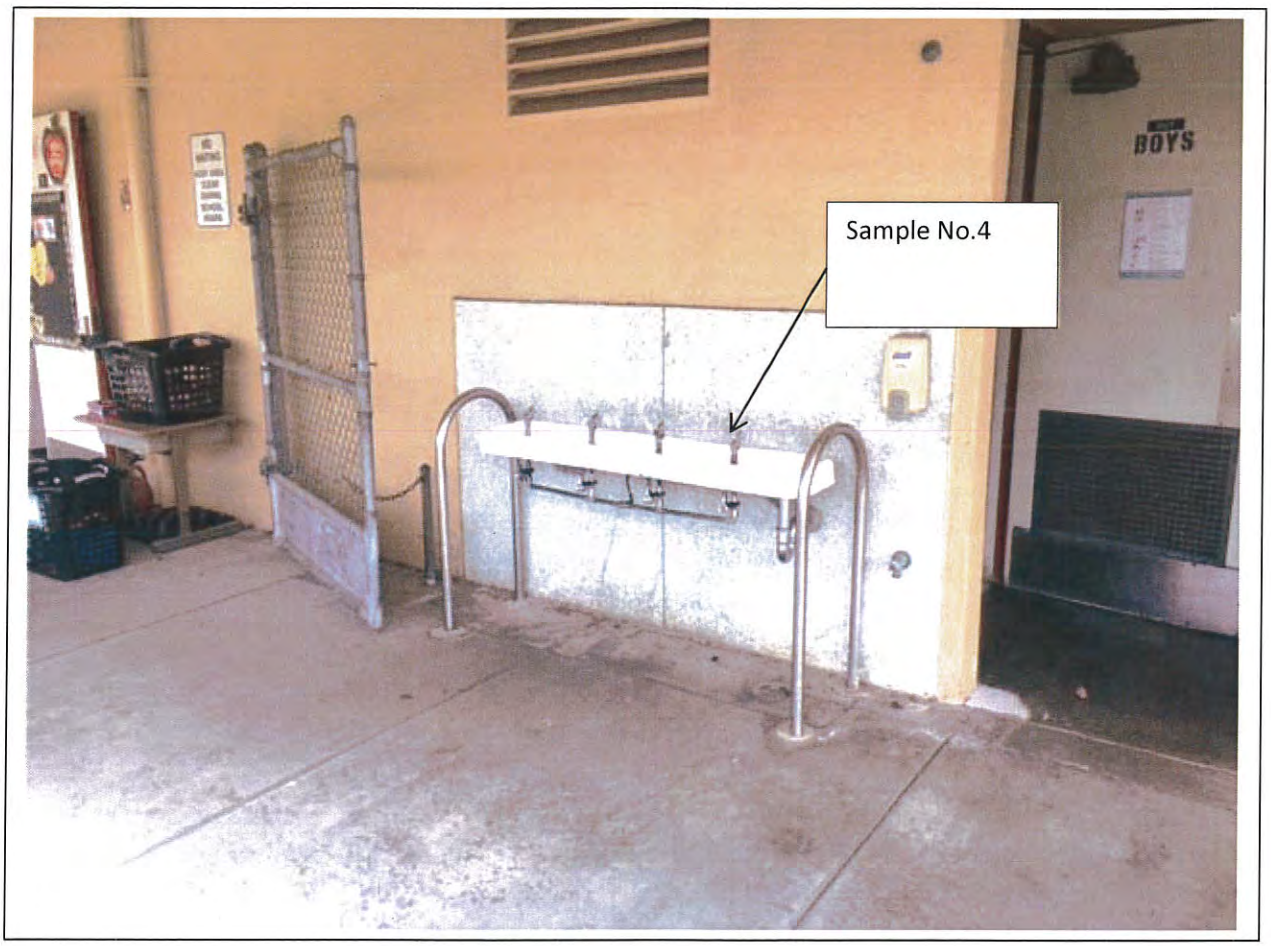

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170224

State Sample ID: 3710020-CAJ-D

Date & Time Last Used: 5/24/17

Date & Time Sample Collected: 5/25/17 612

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 5

School: Holmes Elementary School -4902 Mount Ararat Drive San Diego, CA 92111

Name of Building: Room K-1

Location Description: Outside playground in front of K-1

Type of Outlet: Bubbler

Description: Left Bubbler

Comments/Miscellaneous: (School ID NO.147)

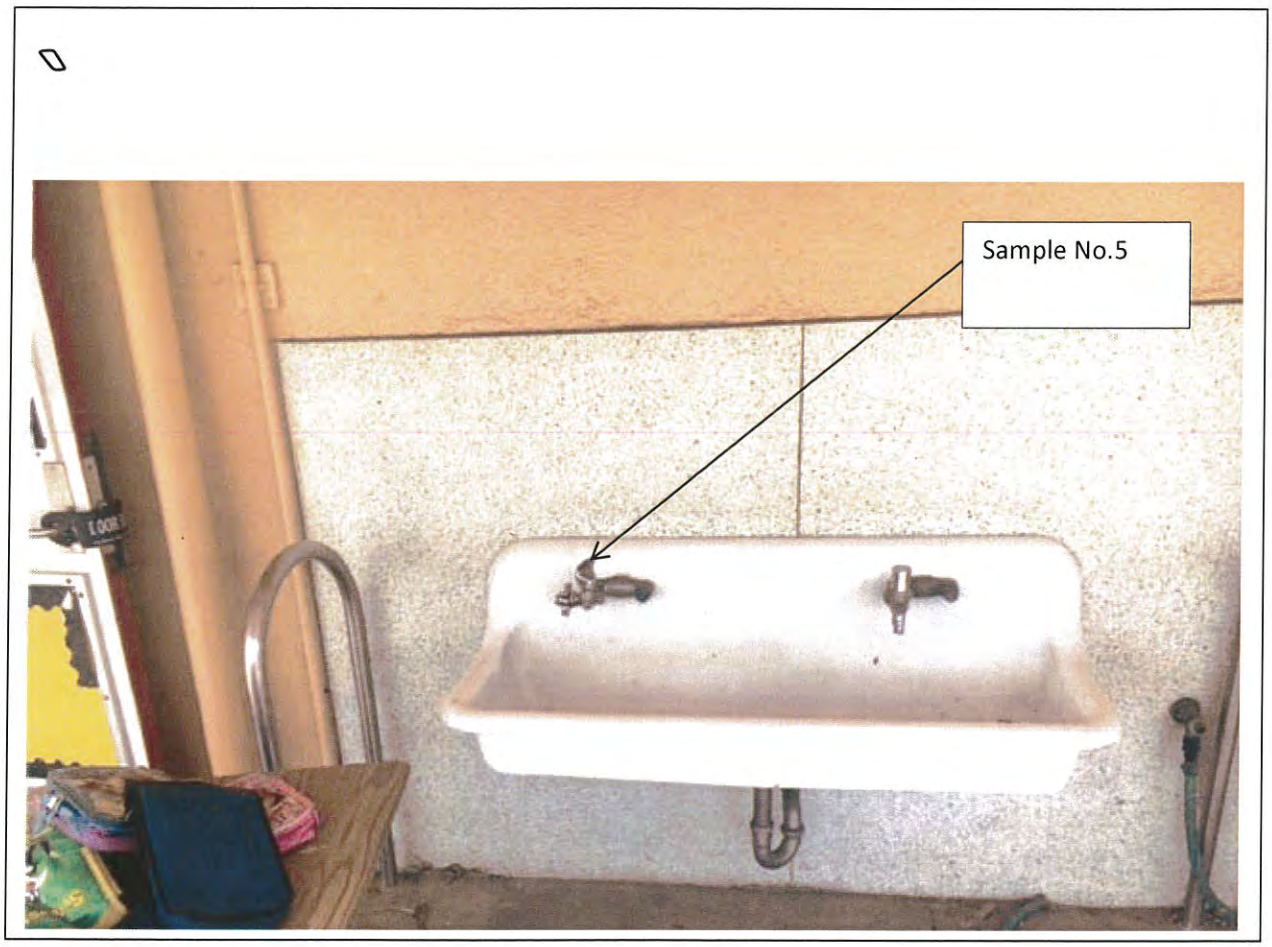

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170225

State Sample ID: 3710020-CAJ-E

Date & Time Last Used: 5/24/17 1800

Date & Time Sample Collected: 5/25/17 601

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Murry

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

22-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1170221	Holmes Elementary	25-MAY-2017	0606	David Mayo	SAMPLE 1	
2	W1170222	Holmes Elementary	25-MAY-2017	0614		SAMPLE 2	
3	W1170223	Holmes Elementary	25-MAY-2017	0609		SAMPLE 3	
4	W1170224	Holmes Elementary	25-MAY-2017	0612		SAMPLE 4	
5	W1170225	Holmes Elementary	25-MAY-2017	0601		SAMPLE 5	

1276

Chain of Custody:

Relinquished by: Name: David Mayo Sign: David Mayo	Received by: Name: A Molly Sign: Alejandra Molloy	Date & Time: 5/25/17 6:45 Location: AIV labs	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: A Molly
Received Date: 5/25/17
LIMS Received Time: 0636
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Hoover High School

Physical Address of School: 4474 El Cajon Blvd. San Diego, CA 92115

First Bell: 7:30 AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/12/2017

Completed by: Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 04/12/2017

School's Point of Contact for Sampling Assistance

Name: Daniel Lopez

Phone: 619-306-3383

Email: dlopez2@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-14-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Hoover High School 4474 El Cajon Blvd. San Diego CA 92115

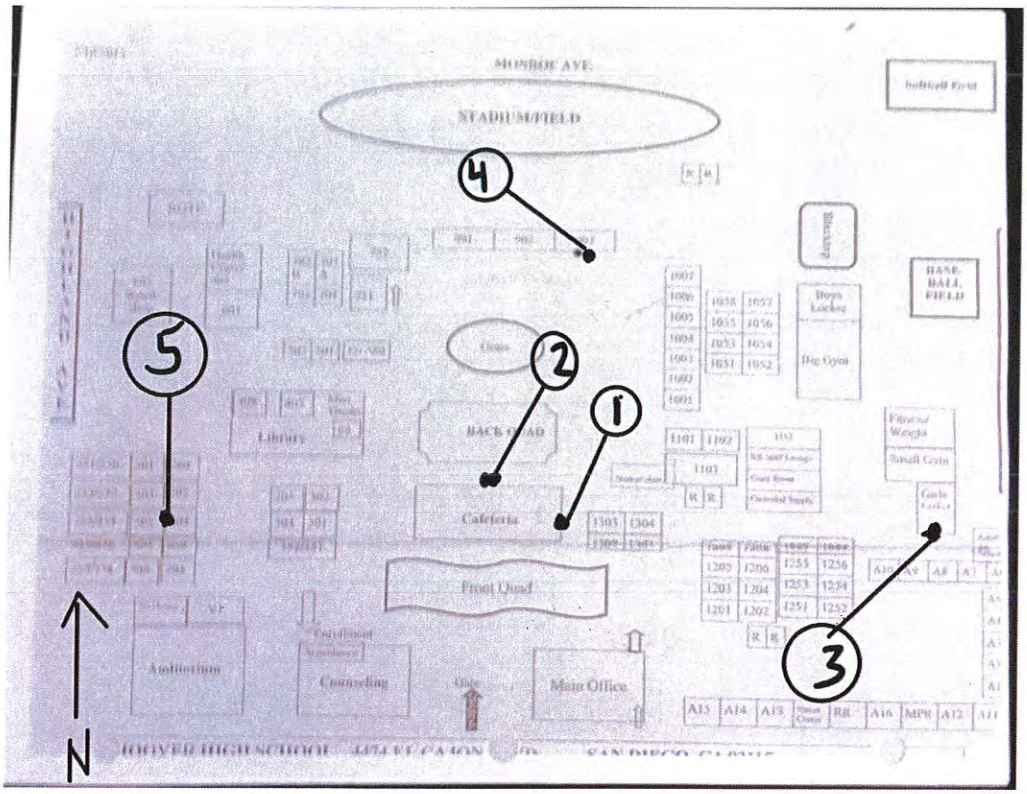

Sample No. 1

School: Hoover High School

Name of Building: Cafeteria Building

Location Description: East side of Cafeteria Building

Type of Outlet: Bubbler

Description: Far right bubbler

Comments/Miscellaneous: Near faculty lunch room

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166873

State Sample ID: 3710020-AFC-A

Date & Time Last Used: 1800 4/14/17

Date & Time Sample Collected: 0722 4/15/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Munoz

Sample No. 2

School: Hoover High School

Name of Building: Cafeteria building

Location Description: North side of Cafeteria building

Type of Outlet: Bubbler (Faucet WM)

Description: Far right bubbler (Single Faucet on 2-compartment sink WM)

Comments/Miscellaneous: Next to food service windows

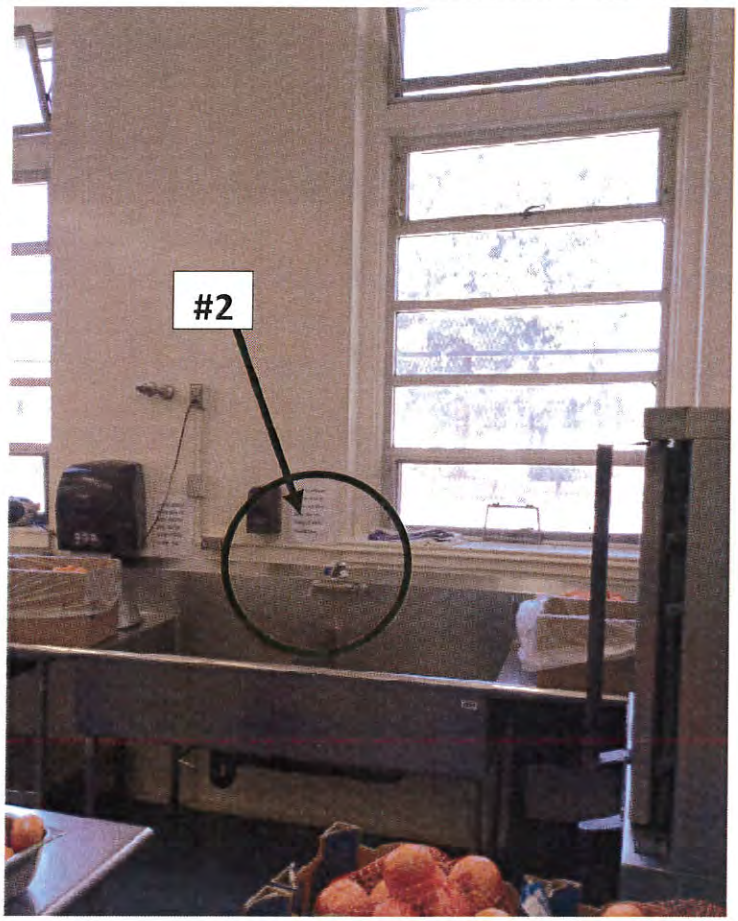

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166874

State Sample ID: 3710020-AFC-B

Date & Time Last Used: 1800 4/14/17

Date & Time Sample Collected: 0724 4/15/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 3

School: Hoover High School

Name of Building: Girls Locker Room Building

Location Description: South side of Girls Locker Room

Type of Outlet: Bubbler

Description: Far right bubbler

Comments/Miscellaneous:

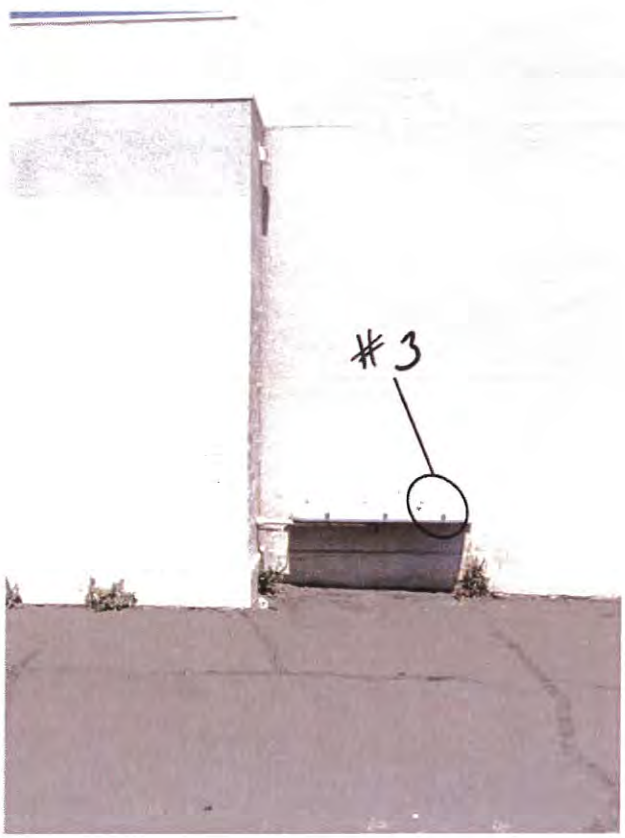

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166875

State Sample ID: 3710020-AFC-C

Date & Time Last Used: 1800 4/14/17

Date & Time Sample Collected: 0719 4/15/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Derrick Mayo

Sample No. 4

School: Hoover High School

Name of Building: 900 Building

Location Description: South side of 900 building (Southeast corner)

Type of Outlet: Bubbler

Description: Far right and upper bubbler of 2 separate single fountains

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166876

State Sample ID: 3710020-AFC-D

Date & Time Last Used: 1800 4/14/17

Date & Time Sample Collected: 0728 4/15/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 5

School: Hoover High School

Name of Building: 200 Building

Location Description: Inside hallway next to Room 205

Type of Outlet: Bubbler

Description: Far right bubbler

Comments/Miscellaneous: Downstairs hallway

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166877

State Sample ID: 3710020-AFC-E

Date & Time Last Used: 1800 4/18/17

Date & Time Sample Collected: 0733 4/19/17

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: David Mayo

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

14-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1166873	Hoover High	15-APR-2017	0722	David Mayo	SAMPLE 1	
2	W1166874	Hoover High	15-APR-2017	0724		SAMPLE 2	
3	W1166875	Hoover High	15-APR-2017	0719		SAMPLE 3	
4	W1166876	Hoover High	15-APR-2017	0728		SAMPLE 4	
5	W1166877	Hoover High	15-APR-2017	0733		SAMPLE 5	

1284

Chain of Custody:

Relinquished by: Name: David Mayo Sign: David Mayo	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 4/15/17 9:30 Location: AIV	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 4/17/17
LIMS Received Time: 0801
Reviewed By: ✓

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Horton Elementary School

Physical Address of School: 5050 Guymon Street; San Diego; Calif; 92102

First Bell: 7;30am

Meeting Date: 3/27/2017

Sampling Plan Completion Date: 3/28/2017

Completed by Print Name: Timothy Brown

Signature: Tim A. Br Date: 3/27/2017

School's Point of Contact for Sampling Assistance

Name: Tim Brown

Phone: 619-302-9427

Email: tbrown1@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 3/30/17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Sample 1,2,3,4 please tag out all fixtures
Sample 5 please confirm hot and cold are correctly identified before tagout

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Horton Elementary School;5050 Guymon Street; San Diego; California; 92102

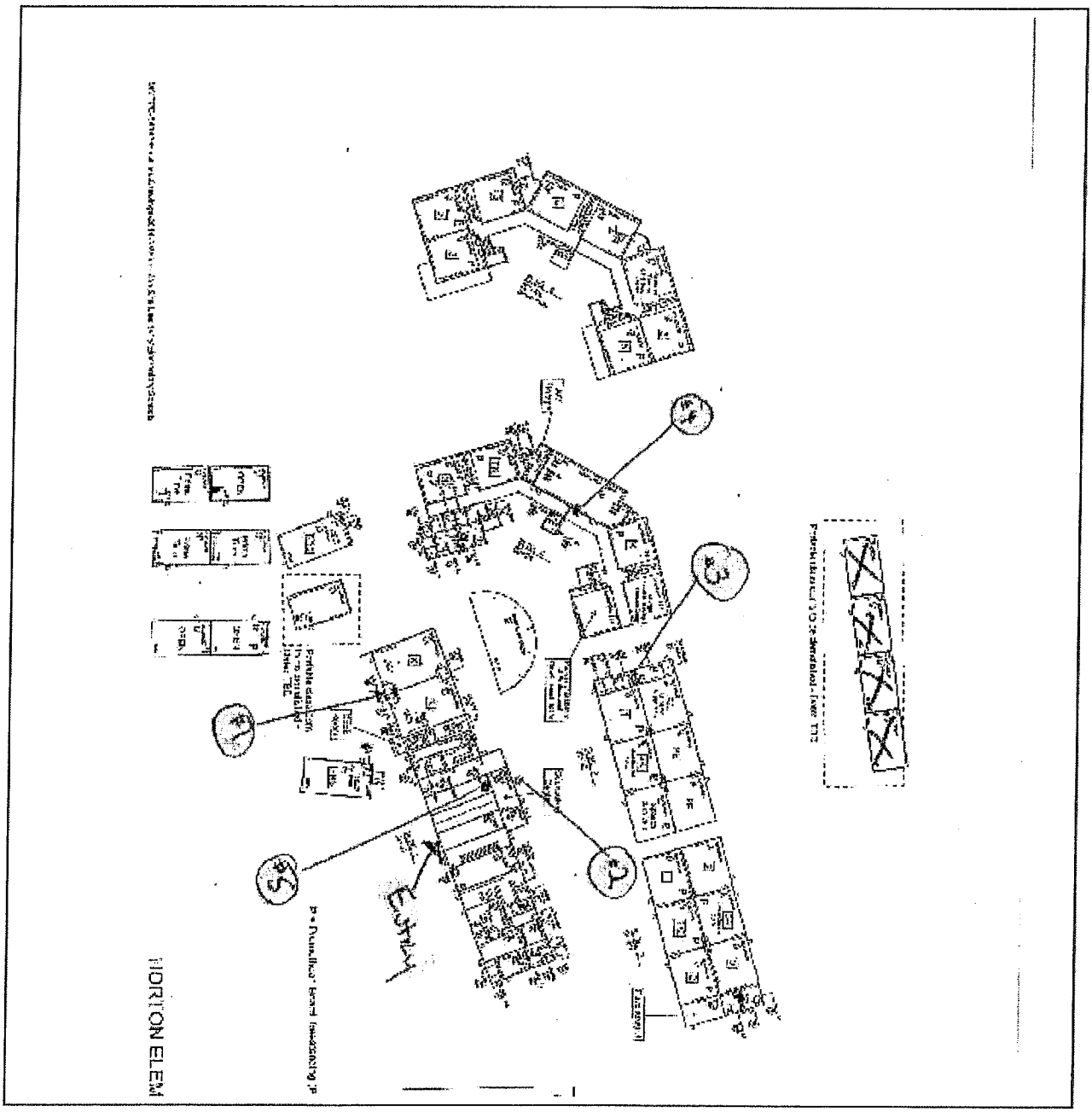

Sample No. 1

School: Horton Elementary School; 5050 Guymon Street; San Diego; California; 92102

Name of Building: Kindergarten

Location Description: Kindergarten Play Area; South Wall; Loc Code 149-01

Type of Outlet: Bubbler

Description: Exterior Wall Mount; South Wall; Left Bubbler

Comments/Miscellaneous:

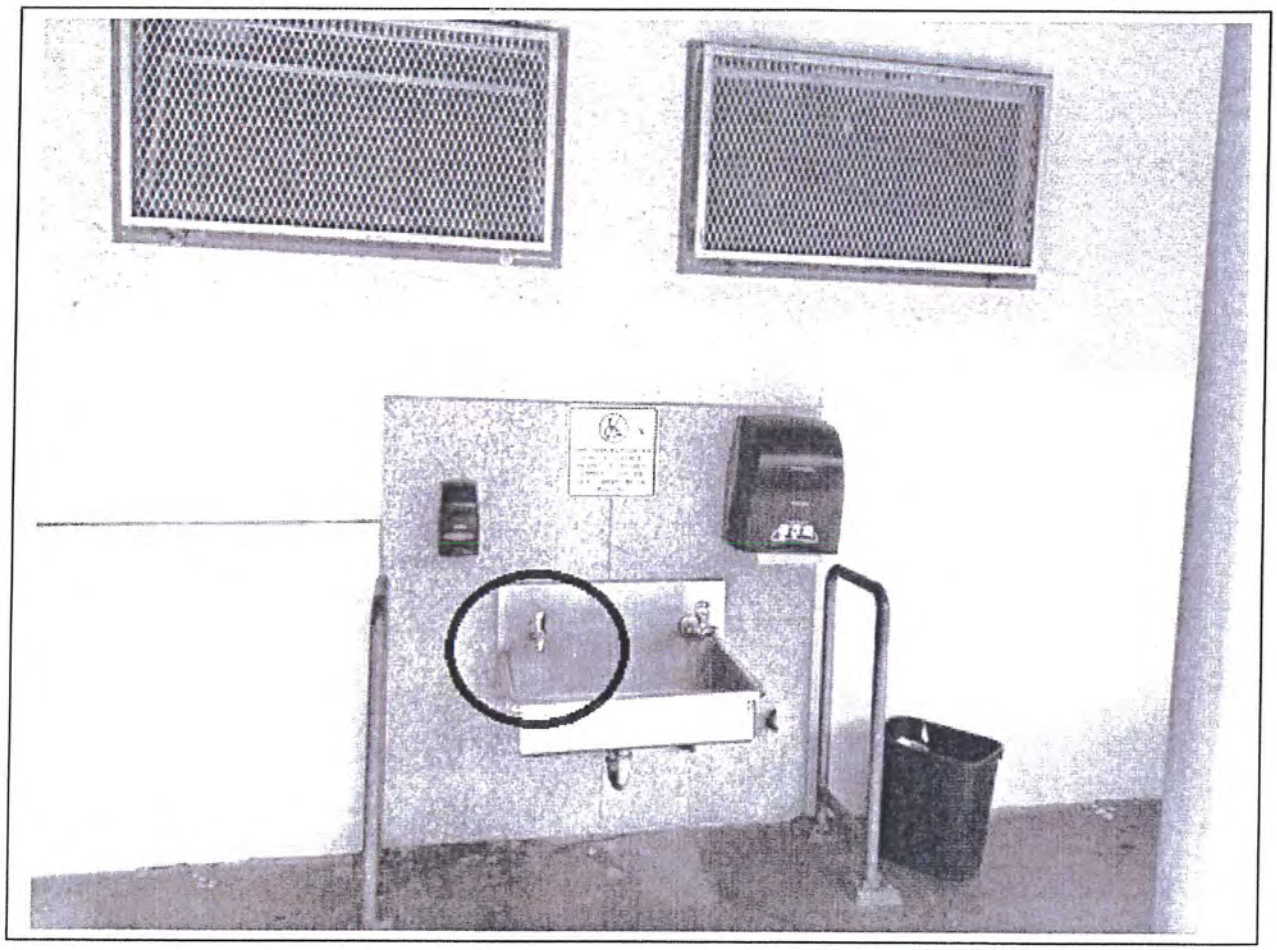

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710030-ABA-A

LIMS Sample ID: W1163972

Date & Time Last Used: 4-3-17 1400

Date & Time Sample Collected: 4-4-17 0559

Name of Water System Sample Collector: Tom Bun

Sample No. 2

School: Horton Elementary School; 5050 Guymon Street; San Diego; California; 92102

Name of Building: Cafeteria

Location Description: Cafeteria Lunch Court; South Wall-Loc Code 149-02

Type of Outlet: Bubbler

Description: Exterior Wall Mount; South Wall; 3 bubbler Fixture;

Comments/Miscellaneous: Sample Far Right Bubbler

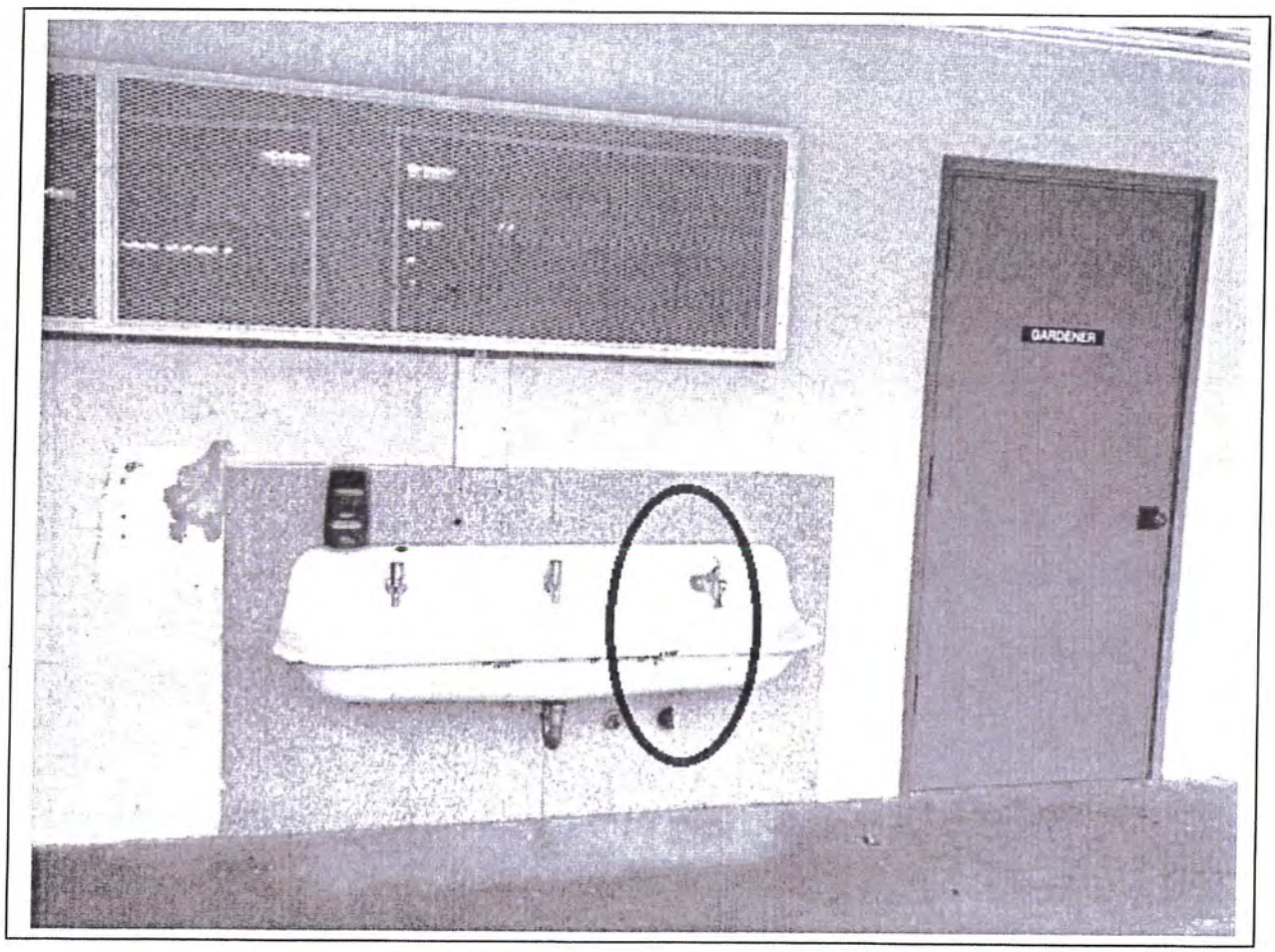

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710030-ABA-B

LIMS Sample ID: W1163973

Date & Time Last Used: 4-3-17 ~~040~~ 1600

Date & Time Sample Collected: 4-4-17 0603

Name of Water System Sample Collector: [illegible]

Sample No. 3

School: Horton Elementary School; 5050 Guymon Street; San Diego California 92102

Name of Building: 100 Building

Location Description: West Wall in hallway, Between Boys Restroom(104) and Girls Restroom (103)

Type of Outlet: Bubbler

Description: Exterior Wall Mounted 3 station Drinking Fountain

Comments/Miscellaneous: Loc Code149-03

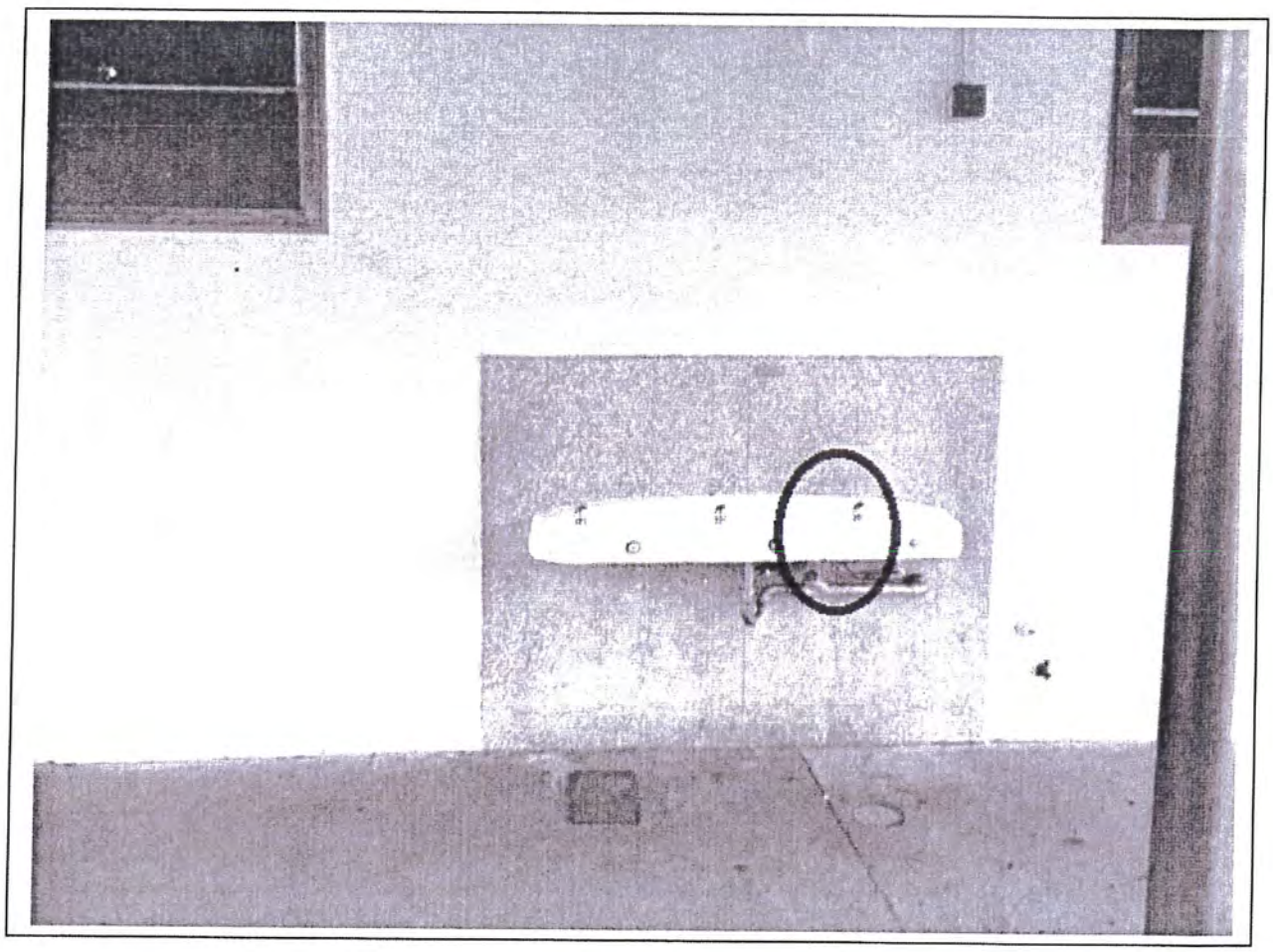

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-ABA-C

LIMS Sample ID: W1163974

Date & Time Last Used: 4-3-17

Date & Time Sample Collected: 4-4-17 0615

Name of Water System Sample Collector: TBell

TRANSFER SAMPLE

Sample No. 4

School: Horton Elementary School; 5050 Guymon Street; San Diego California; 92102

Name of Building: Classroom

Location Description: West Wall between Boys Restroom #2 and Girls Restroom #2-Loc Code 149-04

Type of Outlet: Bubbler

Description: Two Exterior Wall Mounted Drinking Faucet

Comments/Miscellaneous: Sample Left Bubbler

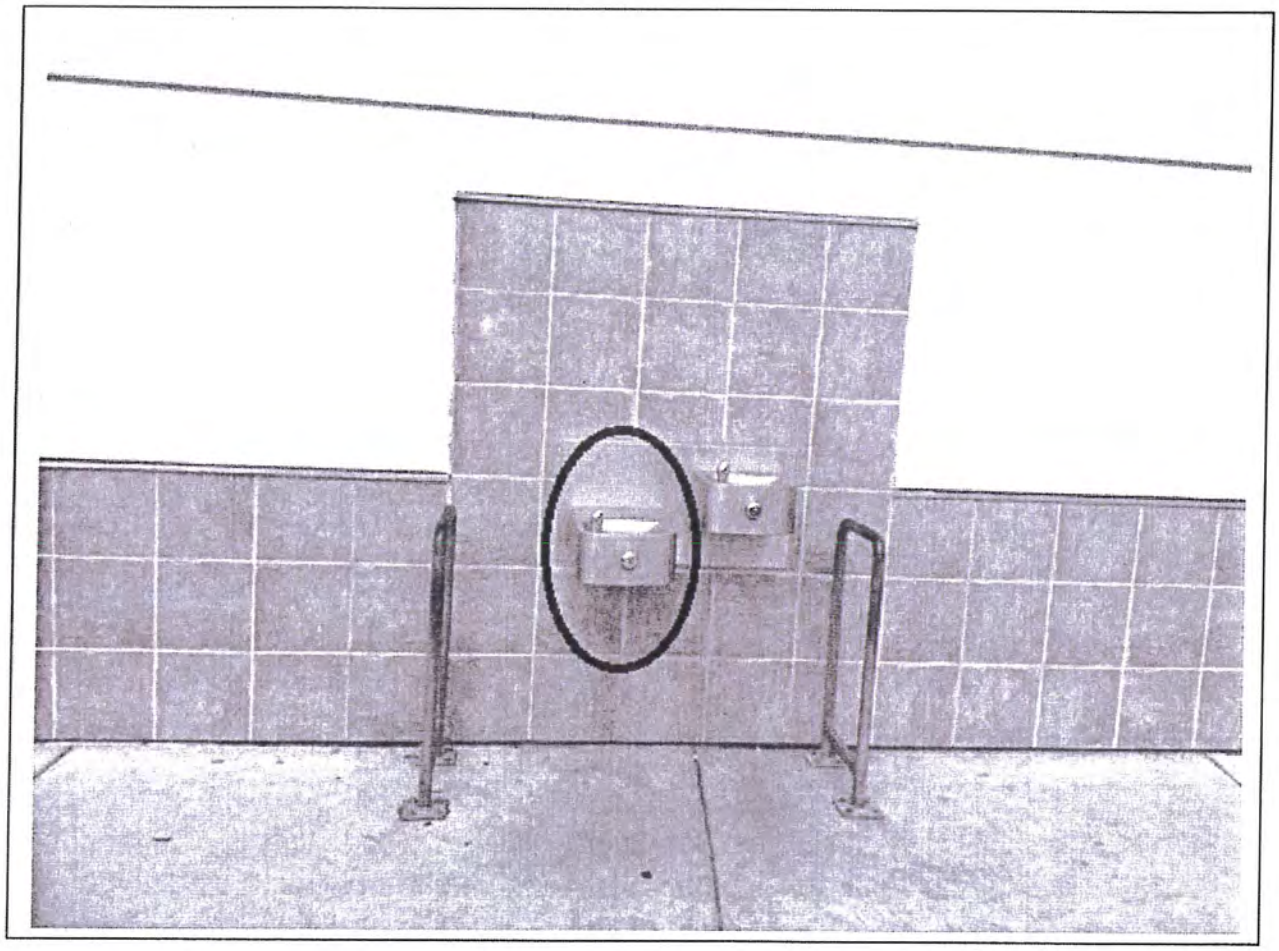

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-ABA-D

LIMS Sample ID: W1163975

Date & Time Last Used: 4-3-17

Date & Time Sample Collected: 4-4-17 0614

Name of Water System Sample Collector: [illegible]

TRANSFER SAMPLE

Sample No. 5

School: Horton Elementary School; 5050 Guymon Street; San Diego California; 92102

Name of Building: Cafeteria

Location Description: Kitchen Area; North Wall; Food Preparation –Loc Code 149-05

Type of Outlet: Faucet

Description: Swing Arm Faucet; Hot and Cold Water

Comments/Miscellaneous:

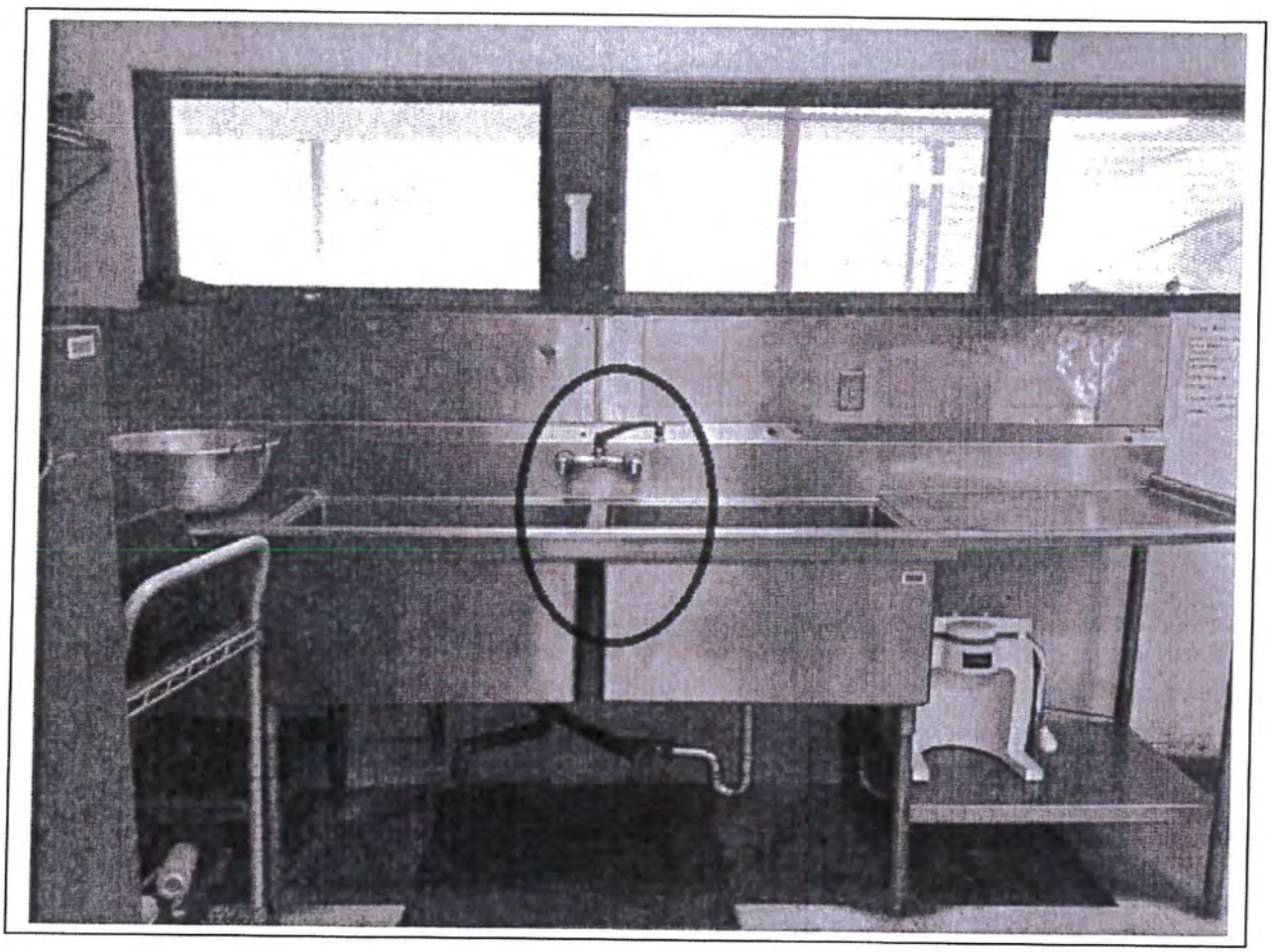

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-ABA-E

LIMS Sample ID: W1163976

Date & Time Last Used: 4-3-17 1600

Date & Time Sample Collected: 4-4-17 0606

Name of Water System Sample Collector: T Buya

San Diego Water Quality Laboratory

LEAD_SCHOOL For 04-APR-2017

Horton

No.	Sample ID	#	Description	Source	Sample Time	Sampler	Comments
1	W1163972	1	SAMPLE 1	PB_SCHOOL	0559	TMB	
2	W1163973	1	SAMPLE 2	PB_SCHOOL	0603		
3	W1163974	1	SAMPLE 3	PB_SCHOOL	0615		
4	W1163975	1	SAMPLE 4	PB_SCHOOL	0611		
5	W1163976	1	SAMPLE 5	PB_SCHOOL	0606		

Relinquished By: Tom Burgi Date: 4-4-17 Time: 0714 Received By: [illegible] Date: 4/4/17 Time: 0719

Relinquished By: Date: Time: Received By: Date: Time:

Relinquished By: Date: Time: Received By: Date: Time:

Received By: [illegible]
Received Date: 04/04/17
LIMS Received Time: 0751
Reviewed By:

Printed: 03-APR-2017

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: High Tech Elementary

Physical Address of School: 2150 Cushing Road, San Diego, CA 92106

First Bell: 9:05am

Meeting Date: 4/10/17

Sampling Plan Completion Date: 4/10/17

Completed by Print Name: Paul W. Dooley

Signature: Paul W. Dooley Date: 4/10/17

School's Point of Contact for Sampling Assistance

Name: Paul W. Dooley

Phone: 760-759-2735 or 760-846-2154 (cell)

Email: pdooley@hightechhigh.org

City of San Diego 3710020

Approved By: Tom B. Burger 4-28-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Exhibit 31

High Tech High Point Loma Campus
Vicinity Map

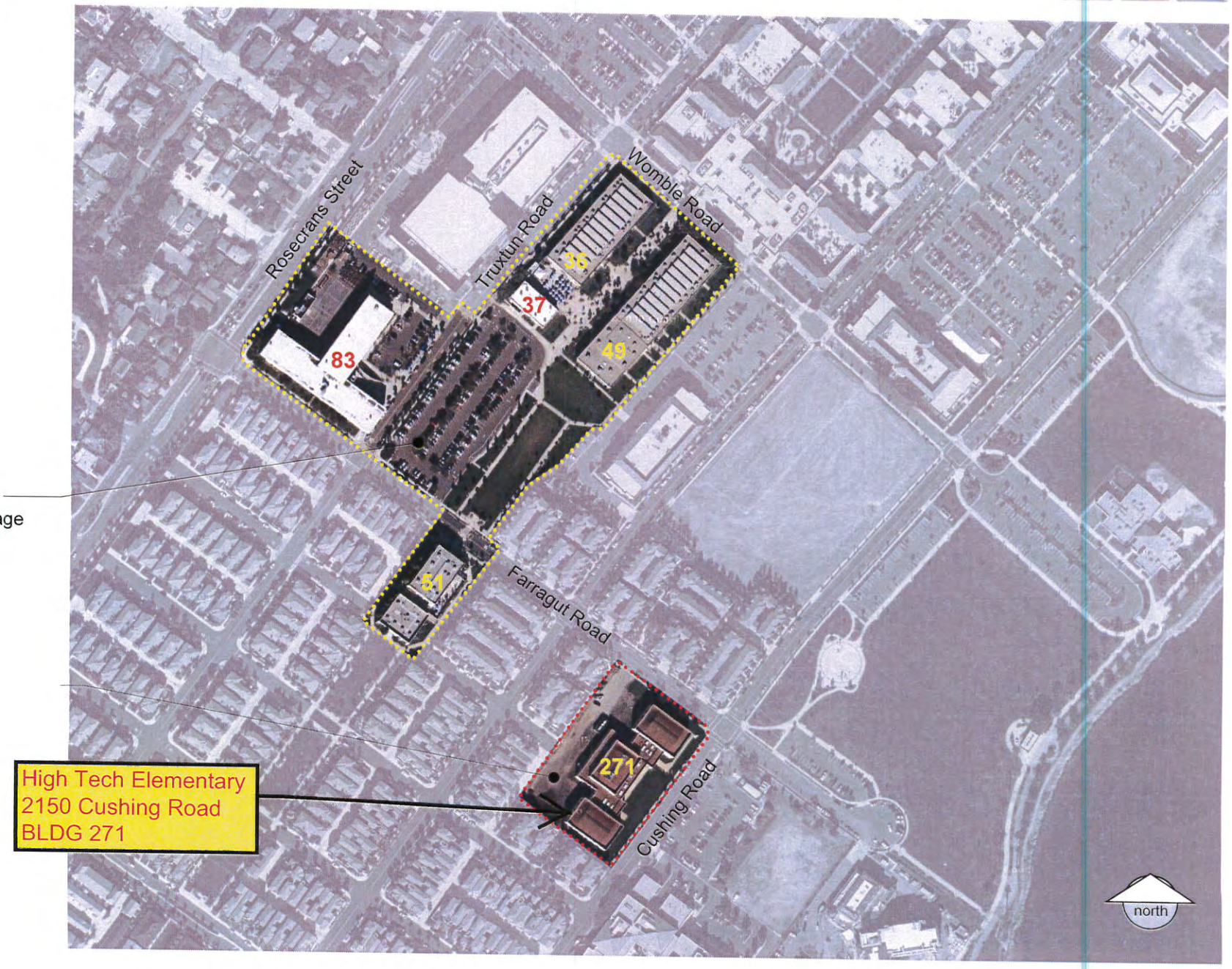

271 HIGH TECH ELEMENTARY
2150 Cushing Road, Level One

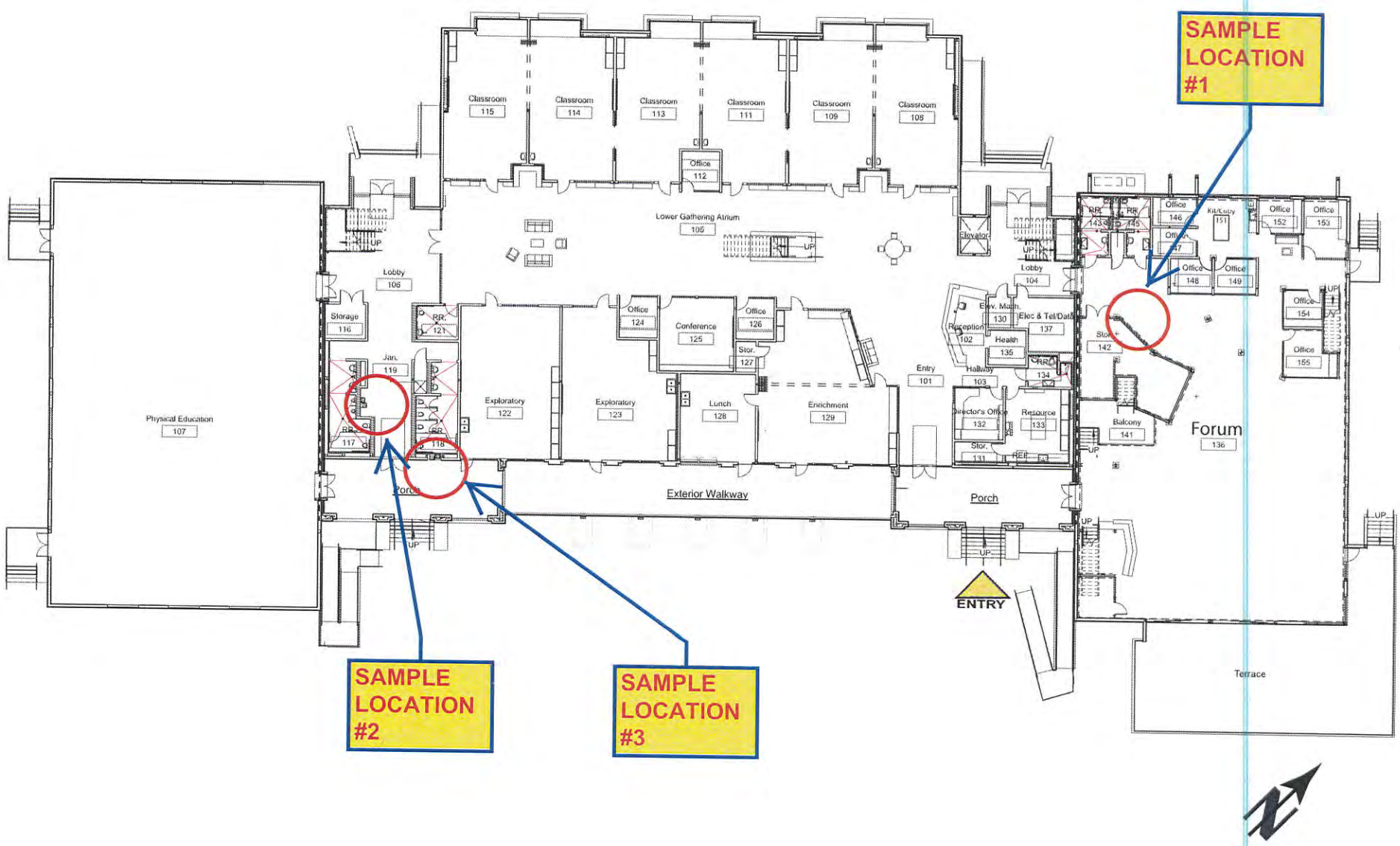

Exhibit 31

1295

767

271 HIGH TECH ELEMENTARY
2150 Cushing Road, Level Two

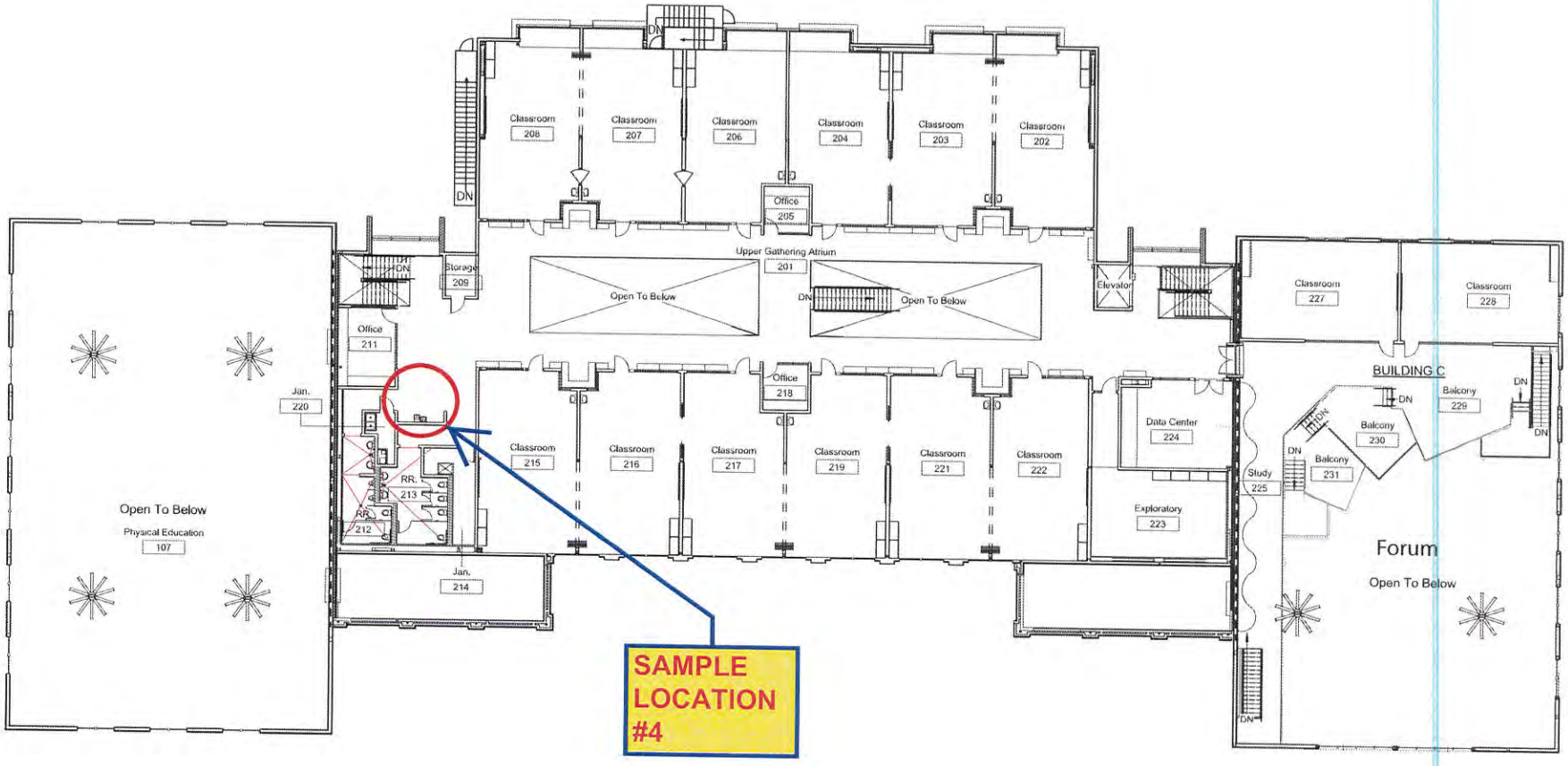

Exhibit 31

1296

768

Sample No. 1

School: High Tech Elementary

Name of Building: 2150 Cushing Road, San Diego, CA 92106

Location Description: 1st Floor corridor drinking fountain adjacent to Storage Room 142

Type of Outlet: Hi-Lo Drinking Fountain with bottle filler

Description: Test to be taken from the upper fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: ~~W1169385~~ JBrown W1170175

State Sample ID: 3710020-AIA-A

Date & Time Last Used: no tag looks dirty, building not secure

Date & Time Sample Collected: 5/4/17 755

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 2

School: High Tech Elementary

Name of Building: 2150 Cushing Road, San Diego, CA 92106

Location Description: 1st Floor Corridor drinking fountain between Boys and Girls Restrooms

Type of Outlet: Hi-Lo Drinking Fountain with separate bottle filler

Description: Test to be taken from the upper fountain

Comments/Miscellaneous:

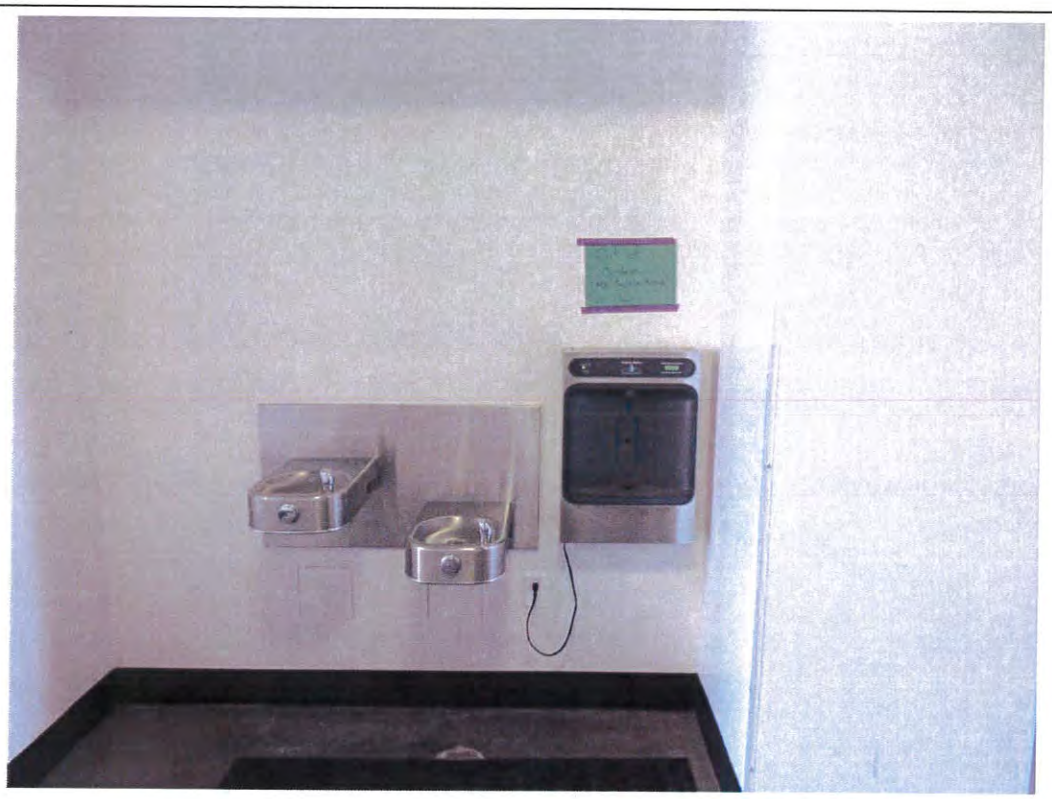

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: ~~W1169386~~ W1170176

State Sample ID: 3710020-AIA-B 752

Date & Time Last Used: no tag appears dry, building not secure

Date & Time Sample Collected: 5/21/17

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 3

School: High Tech Elementary

Name of Building: 2150 Cushing Road, San Diego, CA 92106

Location Description: Exterior Drinking Fountain on Play Yard Porch

Type of Outlet: Hi-Lo Drinking Fountain

Description: Test to be taken from the upper fountain

Comments/Miscellaneous:

Not Sampled - kids drinking out of them, Building not Secure

City use only below this line

Sample type ☐Initial 1st Follow-up 2nd Follow-up Post-corrective action

LIMS Sample ID: ~~W1169386~~ W1170177

State Sample ID: 3710020-AIA-C

Date & Time Last Used:

Date & Time Sample Collected:

Direct Sample Transfer Sample

Name of Water System Sample Collector:

Sample No. 4

School: High Tech Elementary

Name of Building: 2150 Cushing Road, San Diego, CA 92106

Location Description: 2nd Floor Drinking Fountain between Boys and Girls Restrooms

Type of Outlet: Hi-Lo Drinking Fountain

Description: Test to be taken from the upper fountain

Comments/Miscellaneous:

City use only below this line

Sample type ☐Initial 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: ~~W1169388~~ W1170178

State Sample ID: 3710020-AIA-D

Date & Time Last Used: no tag looks dry, building not secure

Date & Time Sample Collected: 5/4/17 7:59

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

02-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes: Students & faculty on premises. Drinking fountain for sample 3 was in use

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1170175	High Tech Elementary	04-MAY-2017	755	M. Nelson	SAMPLE 2	
2	W1170176	High Tech Elementary	04-MAY-2017	752	/	SAMPLE 3	
3	W1170177	High Tech Elementary	04-MAY-2017			SAMPLE 4	
4	W1170178	High Tech Elementary	04-MAY-2017	759	M. Nelson	SAMPLE 5	

1301

Chain of Custody:

Relinquished by: Name: M. Nelson Sign:	Received by: Name: Tom Burger Sign: TM R Burger	Date & Time: 1351 5-4-17 Location: WQL LAB	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-4-17
LIMS Received Time: 1514
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Ibarra Elementary

Physical Address of School: 4877 Orange Ave., San Diego, CA 92115-4947

First Bell: 8:40 AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/10/2017

Completed by Print Name: Ginette Commins

Signature: G Commins Date: 04/10/2017

School's Point of Contact for Sampling Assistance

Name: Ginette Commins

Phone: (858) 627-7201

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 4/28/17 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Ibarra Elementary, 4877 Orange Ave, San Diego, CA 92115-4047

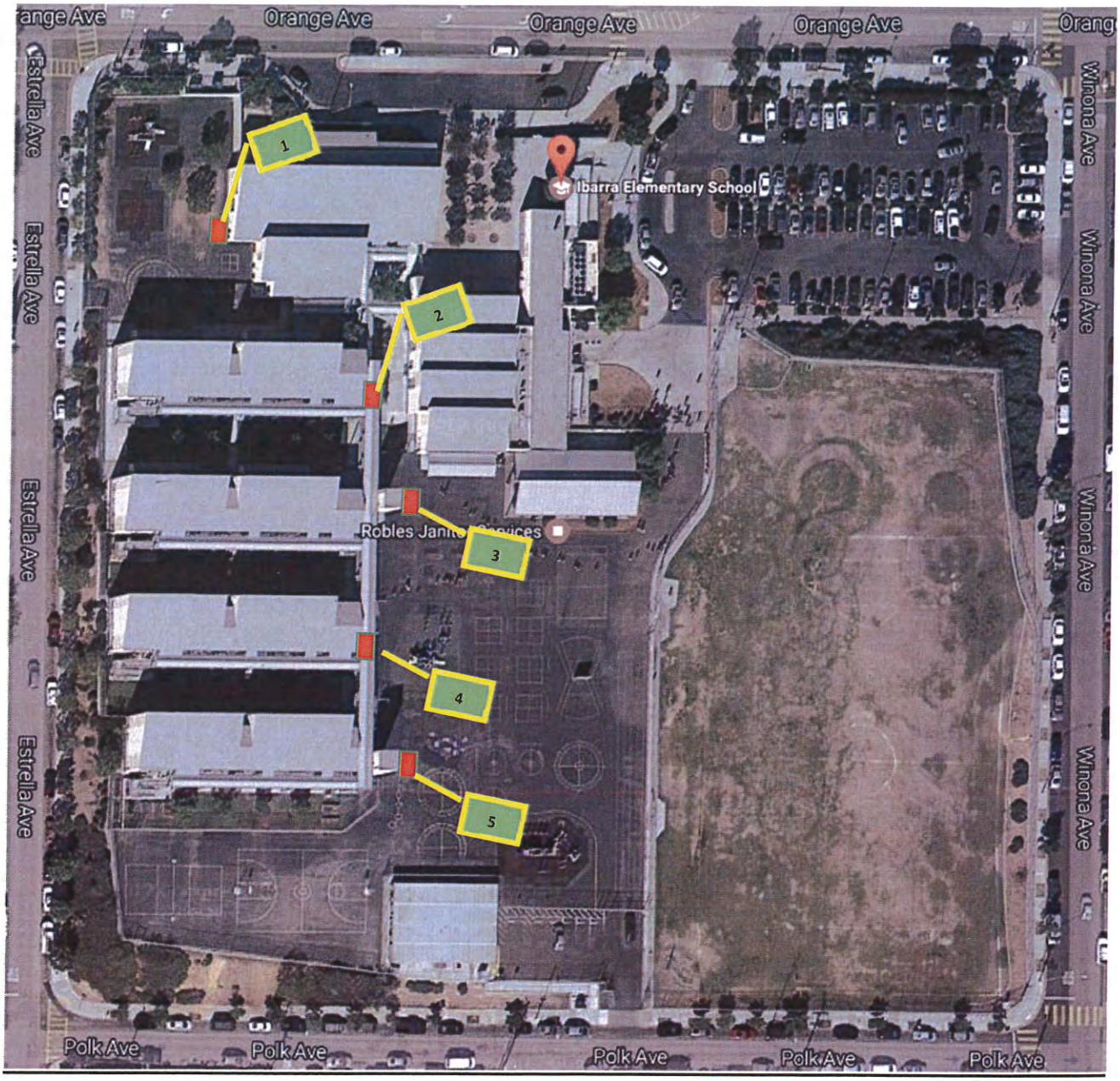

Map Wrong - Sample 4 an 5 are switched.

Correct Map

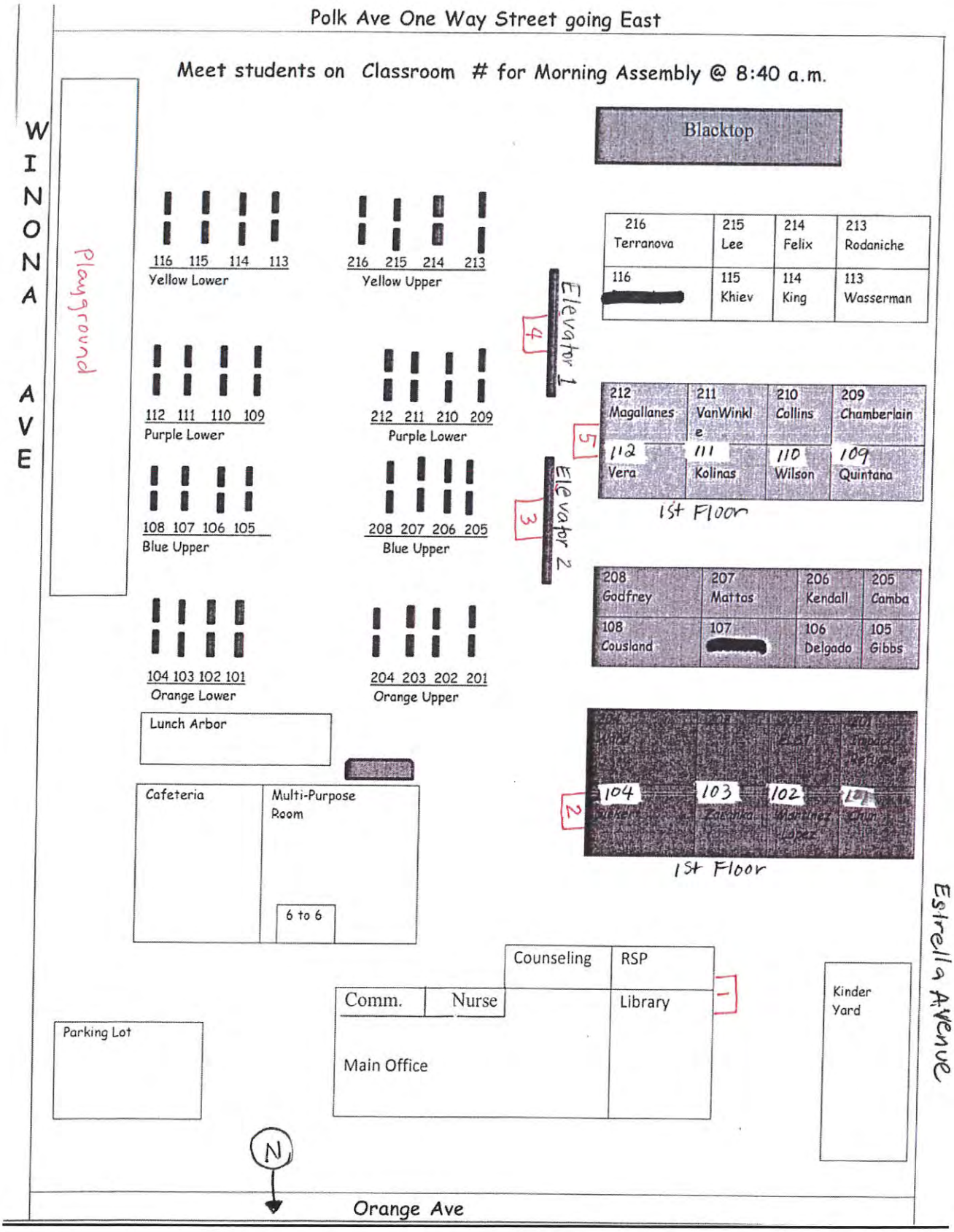
Polk Ave One Way Street going East
Meet students on Classroom # for Morning Assembly @ 8:40 a.m.
WINONA AVE
Playground
Blacktop
116 115 114 113
Yellow Lower
216 215 214 213
Yellow Upper
112 111 110 109
Purple Lower
212 211 210 209
Purple Lower
108 107 106 105
Blue Upper
208 207 206 205
Blue Upper
104 103 102 101
Orange Lower
204 203 202 201
Orange Upper
Elevator 1
4
216 Terranova
215 Lee
214 Felix
213 Rodaniche
116 [redacted]
115 Khiev
114 King
113 Wasserman
Elevator 2
3
5
212 Magallanes
211 VanWinkle
210 Collins
209 Chamberlain
112 Vera
111 Kolinas
110 Wilson
109 Quintana
1st Floor
208 Godfrey
207 Mattos
206 Kendall
205 Camba
108 Cousland
107 [redacted]
106 Delgado
105 Gibbs
2
104
103
102
1st Floor
Lunch Arbor
Cafeteria
Multi-Purpose Room
6 to 6
Counseling
RSP
Comm.
Nurse
Library
1
Main Office
Parking Lot
Kinder Yard
Estrella Avenue
N
Orange Ave

Sample No. 1

School: Ibarra Elementary

Name of Building: Library

Location Description: Wall mounted exterior, facing Kinder Yard

Type of Outlet: bubbler

Description: lower/left bubbler on a dual fountain

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #150

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168348

State Sample ID: 3710020-BAF-A

Date & Time Last Used: 6/3/17 2200

Date & Time Sample Collected: 6/4/17 0601

DS ~~Direct Sample ☒~~ Transfer Sample ☒

Name of Water System Sample Collector: D. Sowersby

Sample No. 2

School: Ibarra Elementary

Name of Building: Rooms 104-101 Two-story bldg.

Location Description: Wall mounted exterior, 1st Floor, next to restrooms, hallway facing Multipurpose Bldg.

Type of Outlet: bubbler

Description: lower/left bubbler on a dual fountain

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #150

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168349

State Sample ID: 3710020-BAF-B

Date & Time Last Used: 6/3/17 2200

Date & Time Sample Collected: 6/4/17 0605

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 3

School: Ibarra Elementary

Name of Building: Elevator 2

Location Description: Wall mounted exterior, behind Elevator bldg., facing stage/blacktop/lunch arbor

Type of Outlet: bubbler

Description: middle/higher/bubbler on a triple fountain

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #150

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168350

State Sample ID: 3710020-BAF-C

Date & Time Last Used: 6/3/17 2200

Date & Time Sample Collected: 6/4/17 0615

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sawersby

Sample No. 4

School: Ibarra Elementary

Name of Building: Elevator 1

Location Description: Wall mounted exterior, behind Elevator bldg., facing blacktop

Type of Outlet: bubbler

Description: lower/left on a triple fountain

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #150

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168351

State Sample ID: 3710020-BAF-D

Date & Time Last Used: 6/3/17 2200

Date & Time Sample Collected: 6/4/17 0612

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sawersby

Sample No. 5

School: Ibarra Elementary

Name of Building: Rooms 112-109 Two-story bldg.

Location Description: Wall mounted exterior, next to Restrooms, facing stairs

Type of Outlet: bubbler

Description: upper/right bubbler on a dual fountain

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #150

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168352

State Sample ID: 3710020-BAF-E

Date & Time Last Used: 6/3/17 2200

Date & Time Sample Collected: 6/4/17 0610

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sawersby

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

03-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168348	Ibarra Elementary	04-MAY-2017	0601	DS	SAMPLE 1	
2	W1168349	Ibarra Elementary	04-MAY-2017	0605		SAMPLE 2	
3	W1168350	Ibarra Elementary	04-MAY-2017	0615		SAMPLE 3	
4	W1168351	Ibarra Elementary	04-MAY-2017	0612		SAMPLE 4	
5	W1168352	Ibarra Elementary	04-MAY-2017	0610		SAMPLE 5	

1310

Chain of Custody:

Relinquished by: Name: DAN Sowersby Sign: D. Sowersby	Received by: Name: ~~Tom~~ Burger Sign: TM B Burger	Date & Time: 0645 ~~0545~~ 5-4-17 Location: WQL LAB	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: tMall
Received Date: 5/04/17
LIMS Received Time: 0719
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Ingenuity Charter

Physical Address of School: 6130 Skyline Dr., San Diego, CA 92114-5620

First Bell: 7:00 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 5-22-2017

Completed by Print Name: Cesar Jimenez

Signature: C.J. Date: 5-22-2017

School's Point of Contact for Sampling Assistance

Name: Cesar Jimenez

Phone: 619-261-1588

Email: cjimenez2@sandi.net

City of San Diego 3710020

Approved By: 5/23/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Ingenuity Charter- 6130 Skyline Dr., San Diego, CA 92114-5620

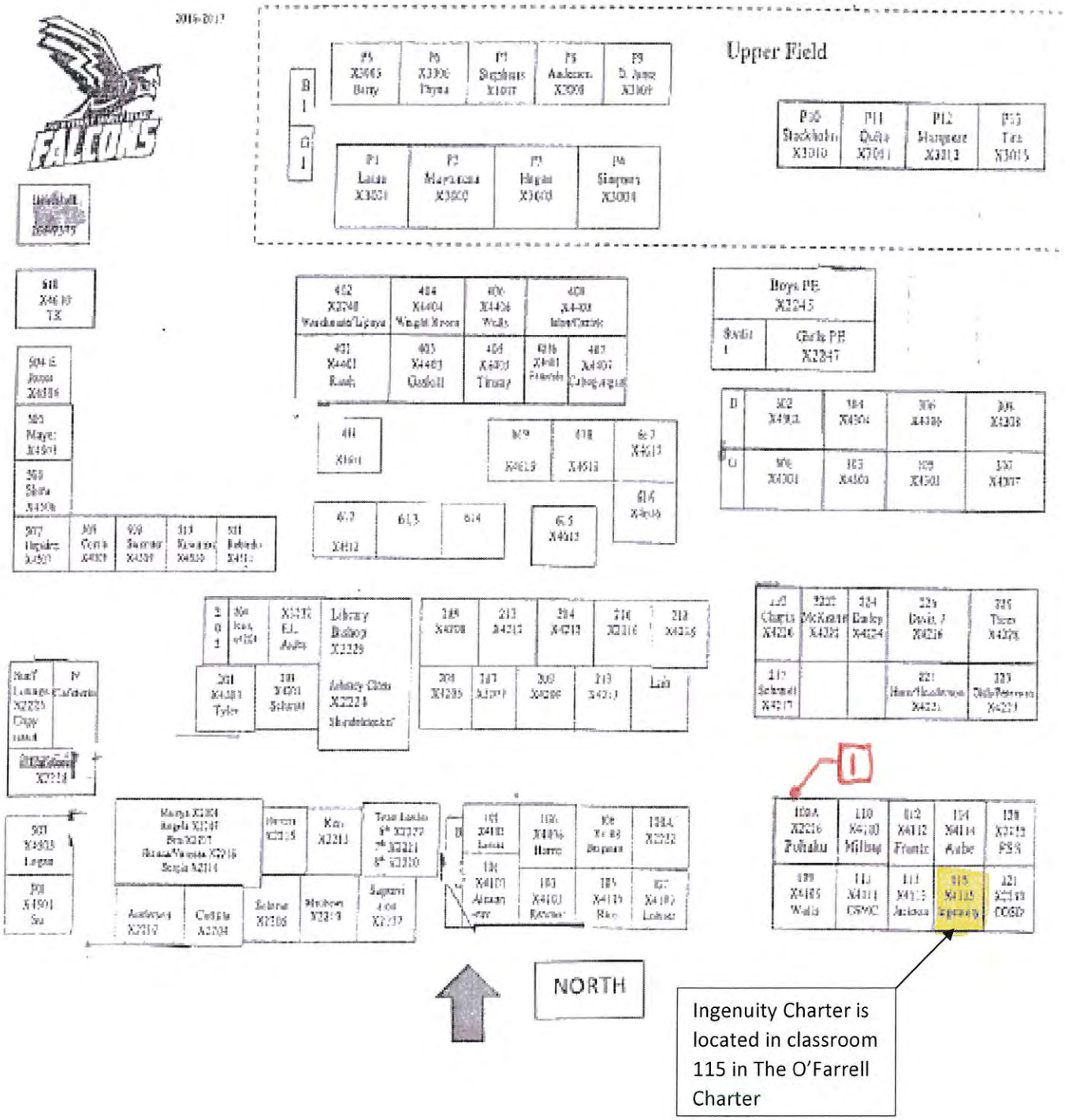

Sample No. 1

School: Ingenuity Charter

Name of Building: Classroom Bldg. 100C

Location Description: Exterior North wall, adjacent to office 100A.

Type of Outlet: Bubbler

Description: ~~Right~~ left bubbler on a double fountain.

Comments/Miscellaneous:

Right bubbler not working, switched to left bubbler

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172142

State Sample ID: 3710020-CBC-A

Date & Time Last Used: 5/25/17 2200

Date & Time Sample Collected: 5/26/17 0601

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Exhibit 3A

Water Quality Chemistry Services
Chain of Custody Form

23-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1172142	Ingenuity Charter	26-MAY-2017	0601	M. Nelson	SAMPLE 1	

1314

Chain of Custody:

Relinquished by: Name: M. Nelson Sign:	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 5/26/17 @ 0730 Location: WQL A/V	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/26/17 a
LIMS Received Time: 0821
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Innovation Middle School

Physical Address of School: 5095 Arvinels Avenue; San Diego Calif; 92117

First Bell: 8;00

Meeting Date: 5/5/2017

Sampling Plan Completion Date: 5/5/2017

Completed by Print Name: Timothy A Brown

Signature: Timothy A Brown Date: 5/5/2017

School's Point of Contact for Sampling Assistance

Name: Tim Brown

Phone: 1-619-302-9427

Email: tbrown1@sandi.net

City of San Diego 3710020

Approved By: 5/16/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: 5095 Arvinels Avenue; San Diego Calif; 92117

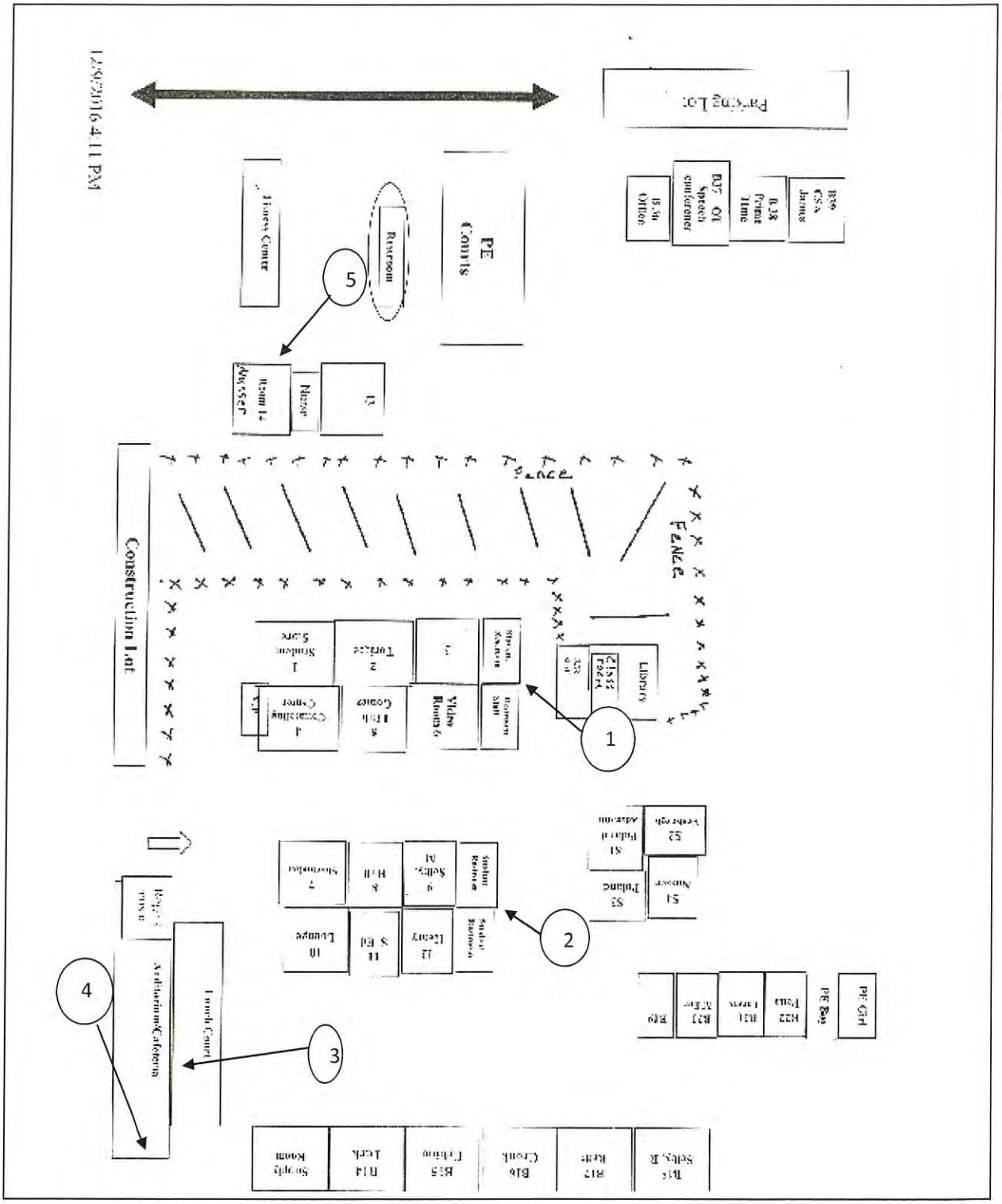

Sample No. 1

School: Innovation Middle School

Name of Building: Classrooms 1-6

Location Description: East end of Bldg between Staff and Student Restrooms

Type of Outlet: 2 Exterior mounted, Single bubbler system

Description: Sample Right bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173006

State Sample ID: 3710020-BJF-A

Date & Time Last Used: 5/19/17 2200

Date & Time Sample Collected: 5/20/17 0826

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 2

School: Innovations Middle School

Name of Building: Classrooms 7-12

Location Description: East end of bldg between Student Restrooms

Type of Outlet: 2 Exterior Mounted single bubbler systems

Description: Sample Right bubbler

Comments/Miscellaneous:

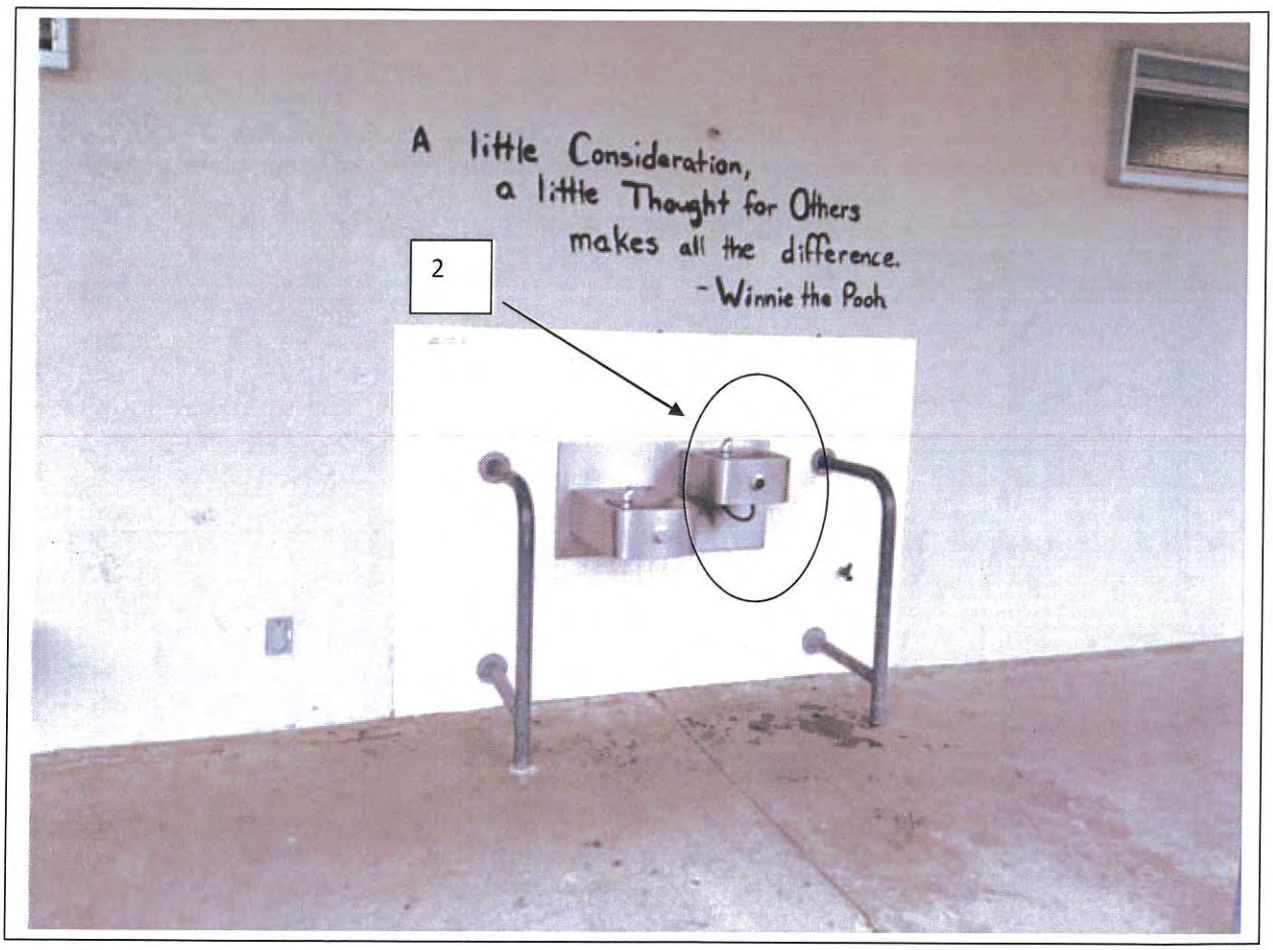

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173007

State Sample ID: 3710020-BJF-B

Date & Time Last Used: 5/19/17 2200

Date & Time Sample Collected: 5/20/17 0829

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 3

School: Innovation Middle School

Name of Building: Lunch Court

Location Description: East Exterior Wall

Type of Outlet: 2 Exterior Mounted single bubbler system

Description: Sample Right bubbler(low water pressure)

Comments/Miscellaneous:

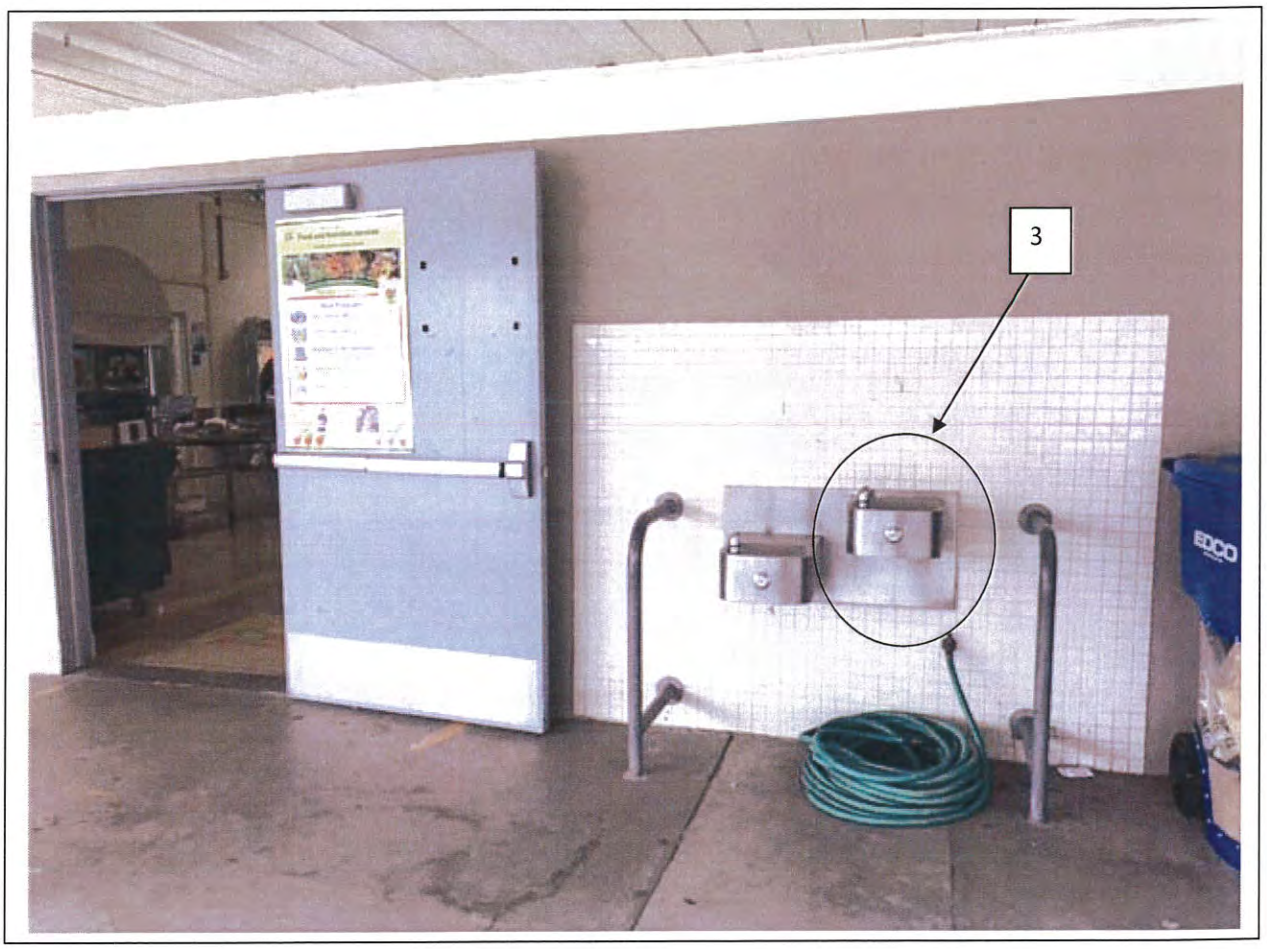

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173008

State Sample ID: 3710020-BJF-C

Date & Time Last Used: 5/19/17 2200

Date & Time Sample Collected: 5/20/17 0834

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Wilson

Sample No. 4

School: Innovation Middle School

Name of Building: Kitchen Prep Area

Location Description: East Interior Wall

Type of Outlet: Swing Arm Faucet/ Sprayer- Hot/ Cold Water

Description: Sample Faucet

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173009

State Sample ID: 3710020-BJF-D

Date & Time Last Used: 5/19/17 2200

Date & Time Sample Collected: 5/20/17 0840

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 5

School: Innovation Middle School

Name of Building: Room 14, next to Nurse office and Custodial office

Location Description: North Exterior Wall

Type of Outlet: 2 exterior Mounted single bubbler system

Description: Sample Left Bubbler

Comments/Miscellaneous:

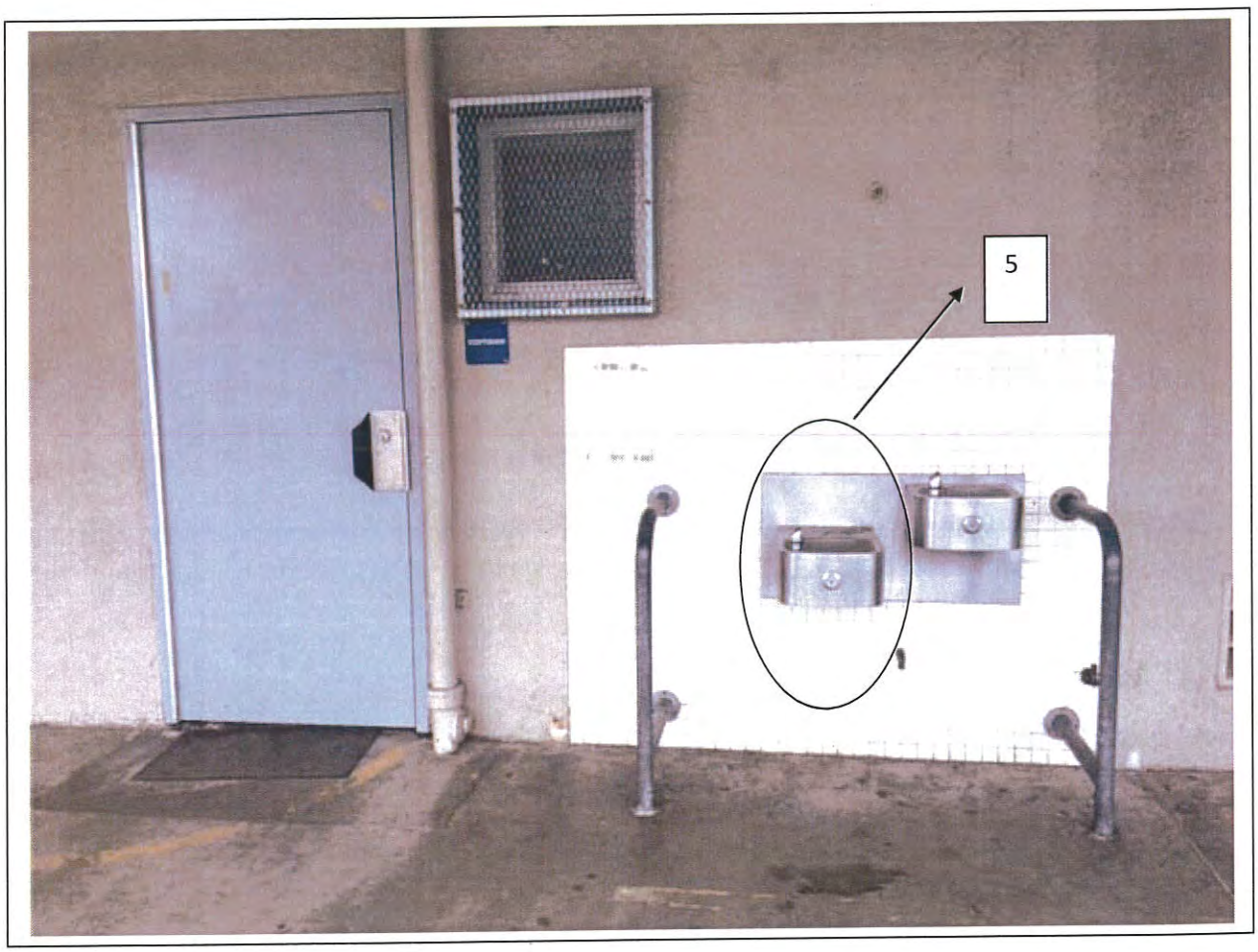

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173010

State Sample ID: 3710020-BJF-E

Date & Time Last Used: 5/19/17 2200

Date & Time Sample Collected: 5/20/17 0819

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

16-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1173006	Innovation Middle	20-MAY-2017	0826	M. Nelson	SAMPLE 1	
2	W1173007	Innovation Middle	20-MAY-2017	0829		SAMPLE 2	
3	W1173008	Innovation Middle	20-MAY-2017	0834		SAMPLE 3	
4	W1173009	Innovation Middle	20-MAY-2017	0840		SAMPLE 4	
5	W1173010	Innovation Middle	20-MAY-2017	0819		SAMPLE 5	

1322

Chain of Custody:

Relinquished by: Name: M. Nelson Sign:	Received by: Name: AMally Sign: Alejandra Molloy	Date & Time: ~~W~~ 5/22/17 @ 0630 ~~TM~~ Location: WQL Alv	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMally
Received Date: 5/22/17
LIMS Received Time: 0714
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Innovations Academy Charter School

Physical Address of School: 10380 Spring Canyon Rd. San Diego CA 92131

First Bell: 8:45

Meeting Date: 3/22/2017

Sampling Plan Completion Date: 4/25/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 4/25/2017

School's Point of Contact for Sampling Assistance

Name: ~~Elizabeth Lara~~ Cesar Jimenez

Phone: ~~619-302-7616~~ 619-261-1588

Email: elara@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 4/28/17 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Innovations Academy Charter School 10380 Spring Canyon Rd

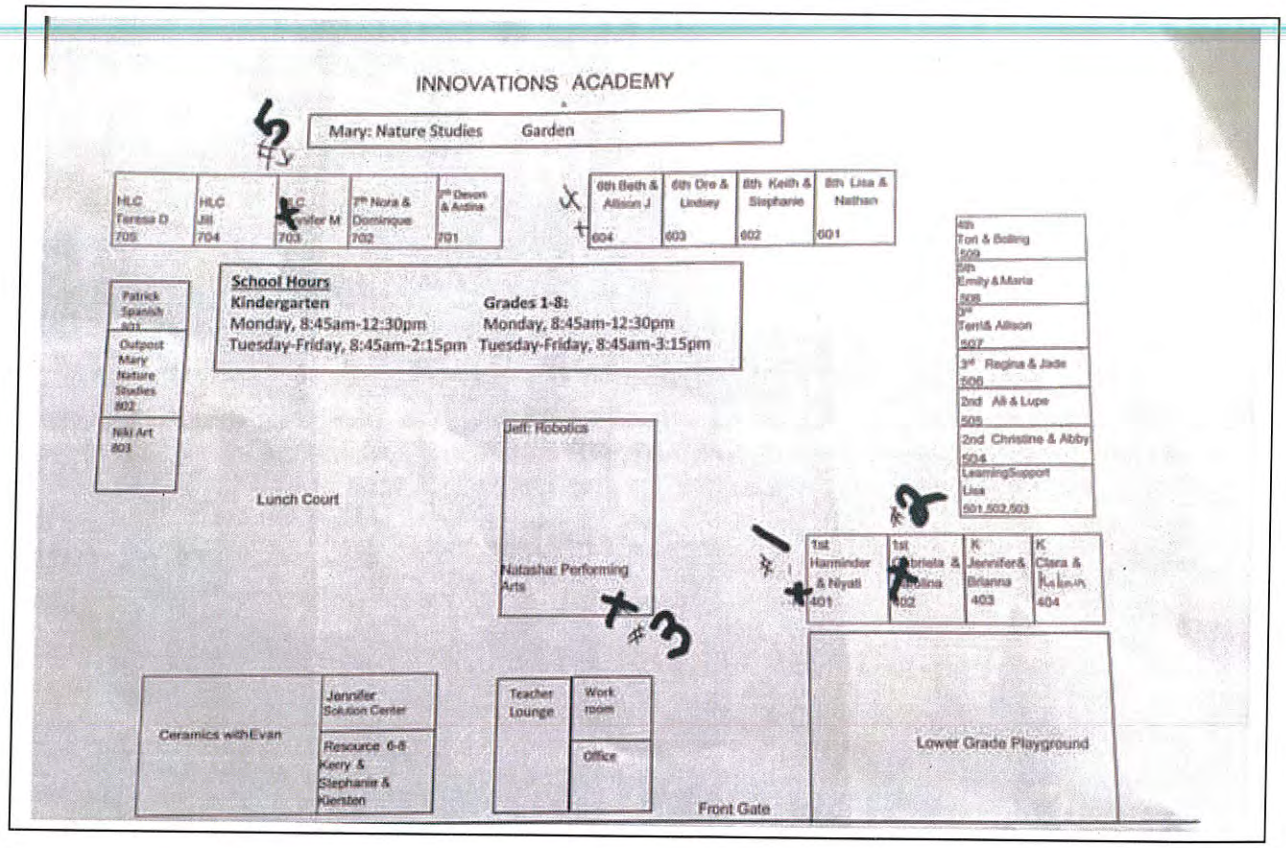

Sample No. 1

School: Innovations Academy Charter School

Name of Building: 400

Location Description: Outside 400 bldg. restrooms

Type of Outlet: Bubbler Drinking Fountain

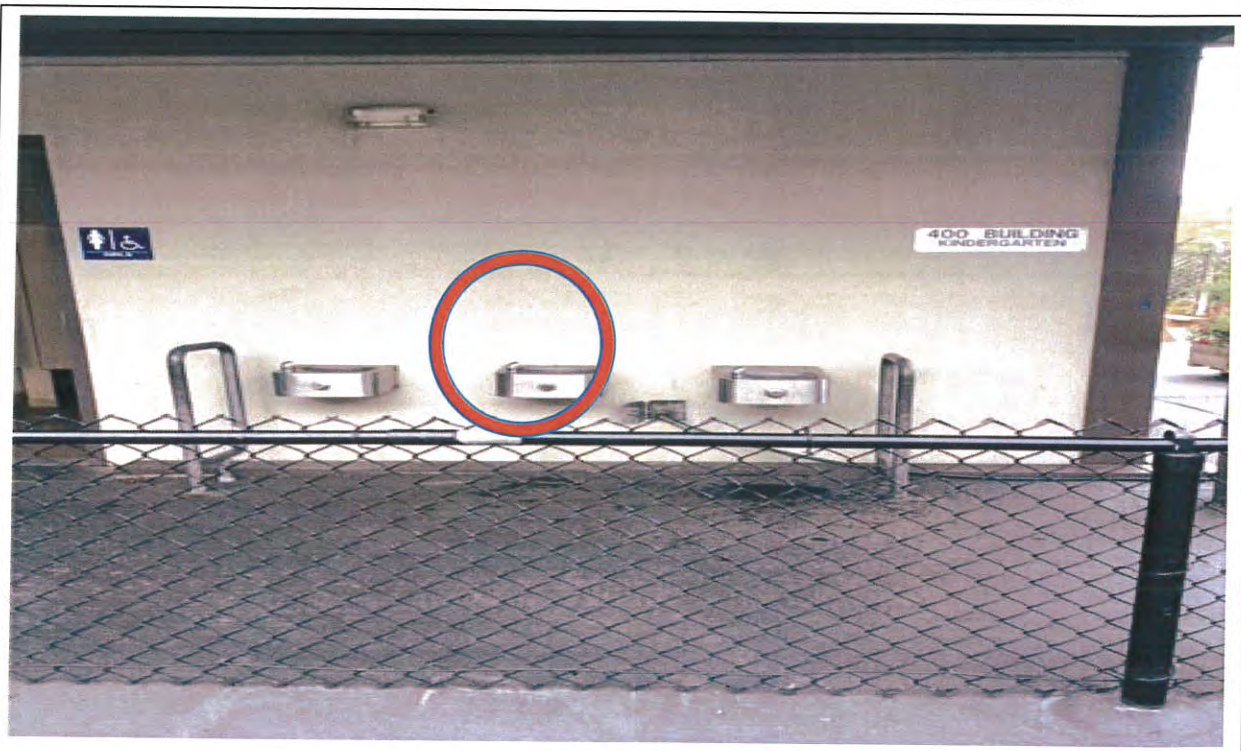

Description: Center bubbler drinking fountain of three

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168781

State Sample ID: 3710020-BCG-A

Date & Time Last Used: 5/11/17 @ 2200

Date & Time Sample Collected: 5/12/17 @ 0606

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: Innovations Academy Charter School

Name of Building: 400

Location Description: Inside room 402

Type of Outlet: Bubbler Drinking Fountain

Description: Bubbler drinking fountain right side of sink , left side of room past boards

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168782

State Sample ID: 3710020-BCG-B

Date & Time Last Used: 5/11/17 @2200

Date & Time Sample Collected: 5/12/17 @ 0608

had a leak

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 3

Name of Building: 300 bldg./MPR

Location Description: Outside near girls restroom and wheel chair symbol

Type of Outlet: Bubbler drinking fountain

Description: Right drinking fountain

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168783

State Sample ID: 3710020-BCG-C

Date & Time Last Used: 5/11/17 @ 2200

Date & Time Sample Collected: 5/12/17 @ 0604

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: Innovations Academy Charter School

Name of Building: 600

Location Description: next to girls restroom

Type of Outlet: Bubbler Drinking Fountain

Description: Center fountain of three

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168784

State Sample ID: 3710020-BCG-D

Date & Time Last Used: 5/11/17 @ 2200

Date & Time Sample Collected: 5/12/17 @ 0612

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: A. Molloy

Sample No. 5

School: Innovations Academy Charter School

Name of Building: 700

Location Description: Inside room 703

Type of Outlet: Bubbler

Description: Bubbler drinking fountain at sink

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168785

State Sample ID: 3710020-BCG-E

Date & Time Last Used: 5/11/17 @ 2200

Date & Time Sample Collected: 5/12/17 @ 0613

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

08-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168781	Innovations Academy	12-MAY-2017	0606	A. Molloy	SAMPLE 1	
2	W1168782	Innovations Academy	12-MAY-2017	0608		SAMPLE 2	
3	W1168783	Innovations Academy	12-MAY-2017	0604		SAMPLE 3	
4	W1168784	Innovations Academy	12-MAY-2017	0612		SAMPLE 4	
5	W1168785	Innovations Academy	12-MAY-2017	0613		SAMPLE 5	

1330

Chain of Custody:

Relinquished by: Name: AMolloy Sign: Alejandra Molloy	Received by: Name: Sign:	Date & Time: 5/12/17 @ 0700 Location: WQL AW	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-12-17
LIMS Received Time: 0716
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Jefferson Elementary

Physical Address of School: 3770 Utah St, San Diego, CA 92104-3532

First Bell: 8:15 AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/13/2017

Completed by Print Name: Ginette Commins

Signature: Gcommins Date: 04/13/2017

School's Point of Contact for Sampling Assistance

Name: ~~Ginette Commins~~ Lori Sherman

Phone: ~~(858) 627-7201~~ 619-301-9086

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-20-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Jefferson Elementary, 3770 Utah St., San Diego, CA 92104-3532

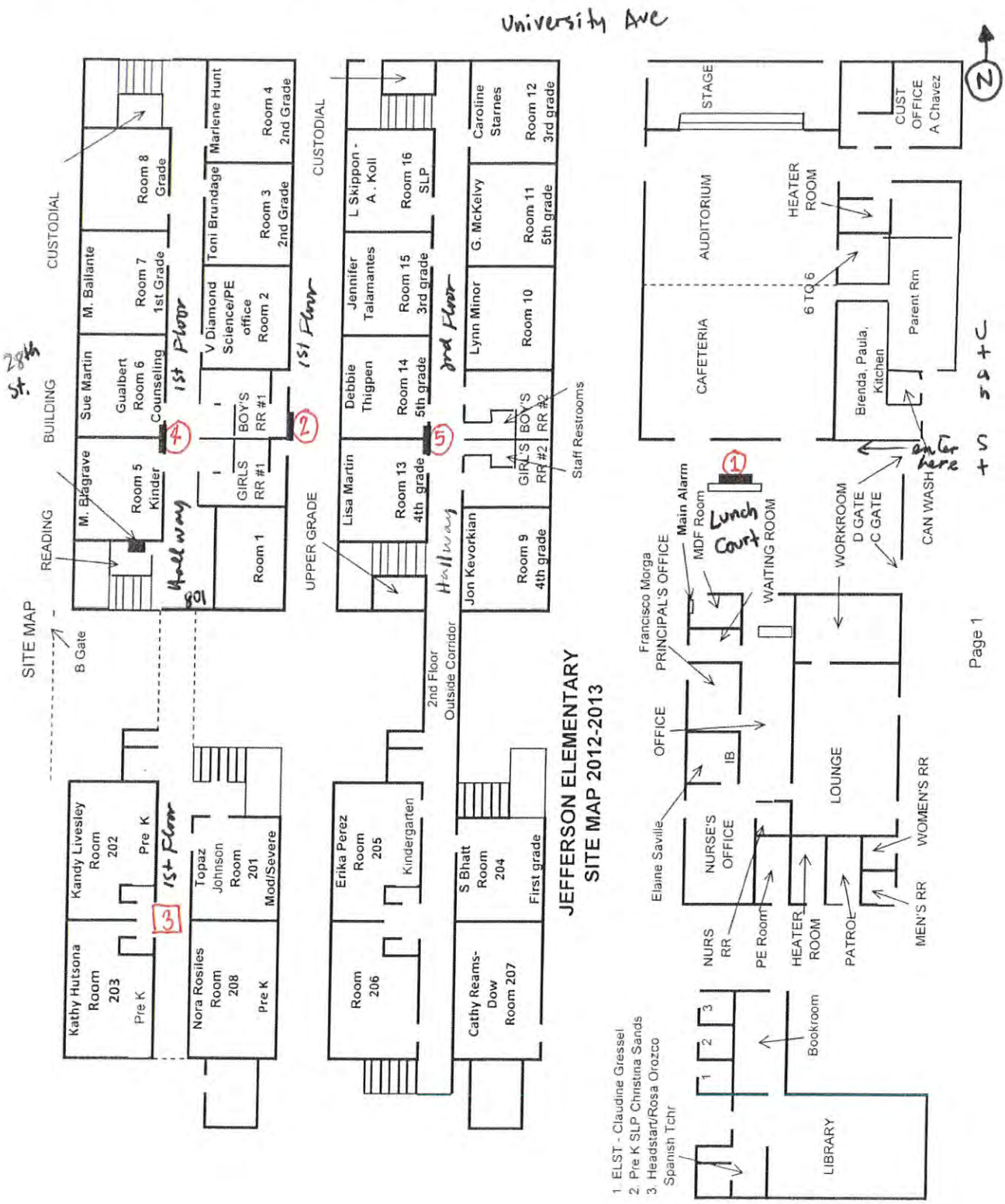

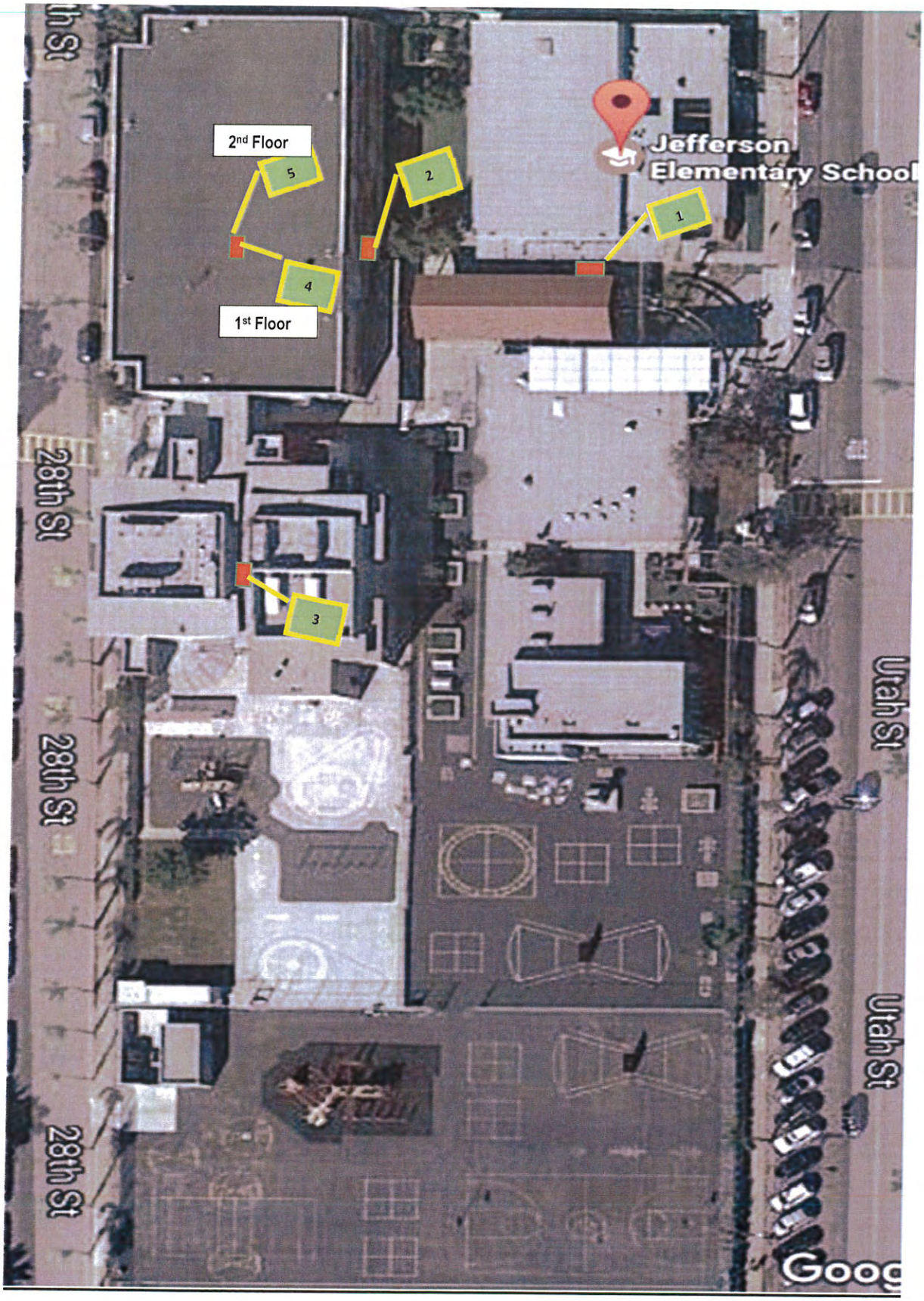
Jefferson
Elementary School
1st Floor
2nd Floor
1
2
3
4
5
Utah St
Utah St
28th St
28th St
28th St

Sample No. 1

School: Jefferson Elementary (enter "D Gate" from Utah St.)

Name of Building:

Location Description: Wall mounted, facing Cafeteria/Assembly (South of 900 Bldg) and by the Lunch Court

Type of Outlet: bubbler

Description: right/upper bubbler on a dual fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #155

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168027

State Sample ID: 3710020-AIG-A

Date & Time Last Used: 2200 4-20-17

Date & Time Sample Collected: 0600 4-21-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Tom Burger

Sample No. 2

School: Jefferson Elementary

Name of Building: 800

Location Description: Wall mounted exterior (East of Bldg), facing lunch court, between Girls & Boys Restrooms

Type of Outlet: bubbler

Description: left bubbler head (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #155

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168028

State Sample ID: 3710020-AIG-B

Date & Time Last Used: 2200 4-20-17

Date & Time Sample Collected: 0604 4-21-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Tom Burger

Sample No. 3

School: Jefferson Elementary

Name of Building: 200 Two-story Bldg

Location Description: Wall mounted, 1st Floor along the hallway, between Kindergarten Rm 203 & 202, facing Kindergarten Classroom 1

Type of Outlet: bubbler

Description: right bubbler head (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #155

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168029

State Sample ID: 3710020-AIG-C

Date & Time Last Used: 4-20-17 2200

Date & Time Sample Collected: 4-21-17 0615

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: Tom Burger

Sample No. 4

School: Jefferson Elementary

Name of Building: 800 Two-story Bldg

Location Description: Wall mounted, 1st Floor along Hallway 801, between Classrooms 5 & 6, facing Boys & Girls Restrooms

Type of Outlet: bubbler

Description: right bubbler head (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #155

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168030

State Sample ID: 3710020-AIG-D

Date & Time Last Used: 2200 4-20-17

Date & Time Sample Collected: 0607 4-21-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Tom Burger

Sample No. 5

School: Jefferson Elementary

Name of Building: 800 Two-story Bldg

Location Description: Wall mounted, 2nd Floor along Hallway 801, between Classrooms 13 & 14, facing Men's & Women's Restrooms

Type of Outlet: bubbler

Description: left bubbler head (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #155

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168031

State Sample ID: 3710020-AIG-E

Date & Time Last Used: 2200 4-20-17

Date & Time Sample Collected: 0611 4-21-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Tom Burger

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

20-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168027	Jefferson Elementary	21-APR-2017	0600	T. Burger	SAMPLE 1	
2	W1168028	Jefferson Elementary	21-APR-2017	0604		SAMPLE 2	
3	W1168029	Jefferson Elementary	21-APR-2017	0615		SAMPLE 3	
4	W1168030	Jefferson Elementary	21-APR-2017	0607		SAMPLE 4	
5	W1168031	Jefferson Elementary	21-APR-2017	0611		SAMPLE 5	

1339

Chain of Custody:

Relinquished by: Name: Tom Burger Sign: Tom B Burger	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 4-21-17 0706 Location: ALV. LAB	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 4/21/17
LIMS Received Time: 0710
Reviewed By: AMolloy 4/26/17

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Jerabek Elementary School

Physical Address of School: 10050 Avenida Magnifica San Diego Ca 92131

First Bell: 7:50

Meeting Date: ...3/22/2017

Sampling Plan Completion Date: 4/25/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 4/25/2017

School's Point of Contact for Sampling Assistance

Name: Elizabeth Lara

Phone: 619-302-7616

Email: elara@sandi.net

City of San Diego 3710020

Approved By: 4/28/17 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Jerabek Elementary 10050 Avenida Magnifica San Diego Ca 92131

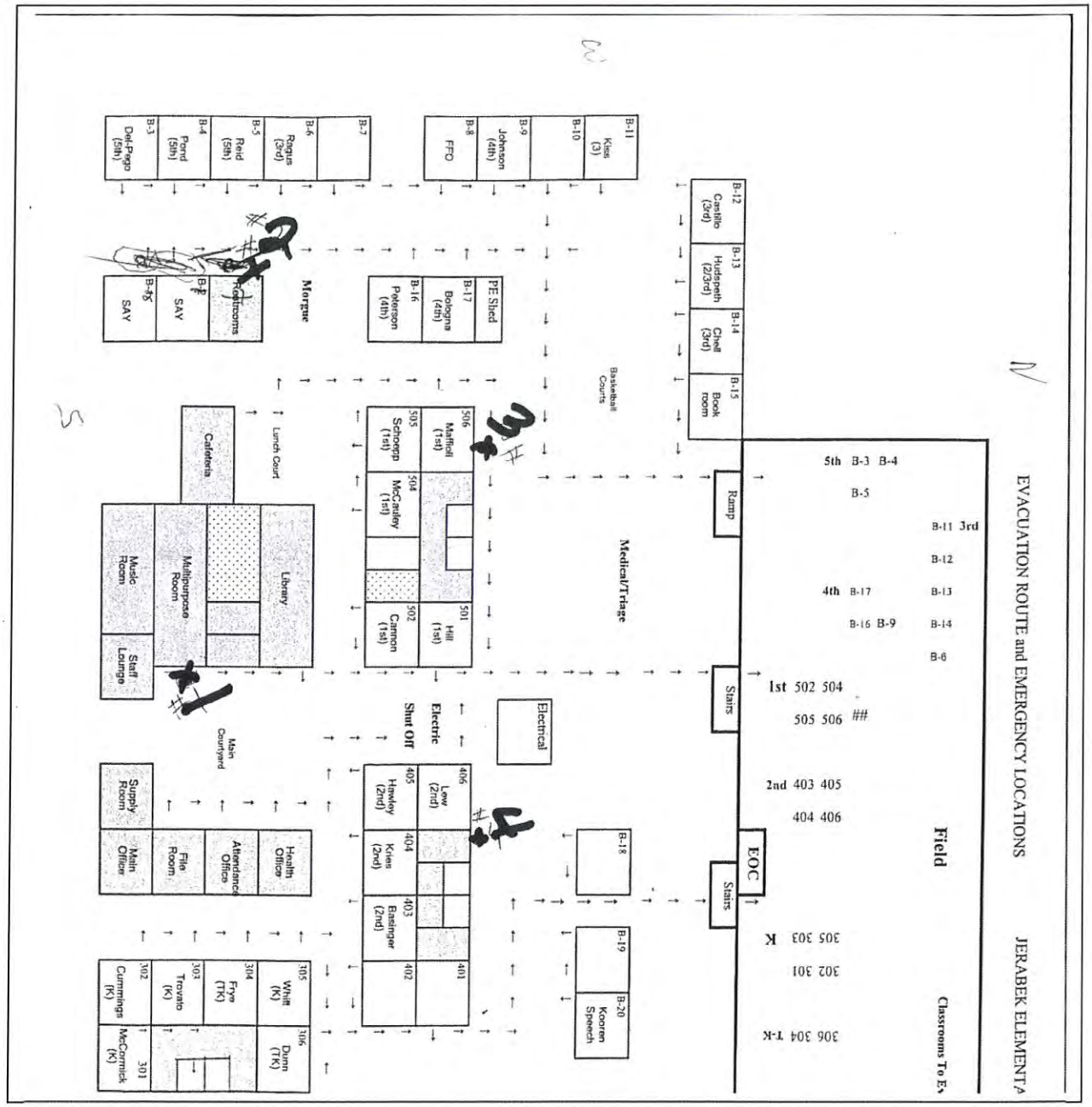

Sample No. 1

School: Jerabek Elementary School

Name of Building: Multi-Purpose room

Location Description: Outside near door to MPR

Type of Outlet: Bubbler drinking fountain—Left fountain

Description:

Comments/Miscellaneous: Left fountain of two

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169355

State Sample ID: 3710020-BDE-A

Date & Time Last Used: 5/11/17 2200

Date & Time Sample Collected: 5/12/17 0600

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: M. Nelson

Sample No. 2

School: Jerabek Elementary

Name of Building: Say/Restrooms

Location Description: Outside bungalow restrooms next to B-1

Type of Outlet: Bubbler drinking fountain with three bubblers

Description: Left bubbler of Left drinking fountain

Comments/Miscellaneous:

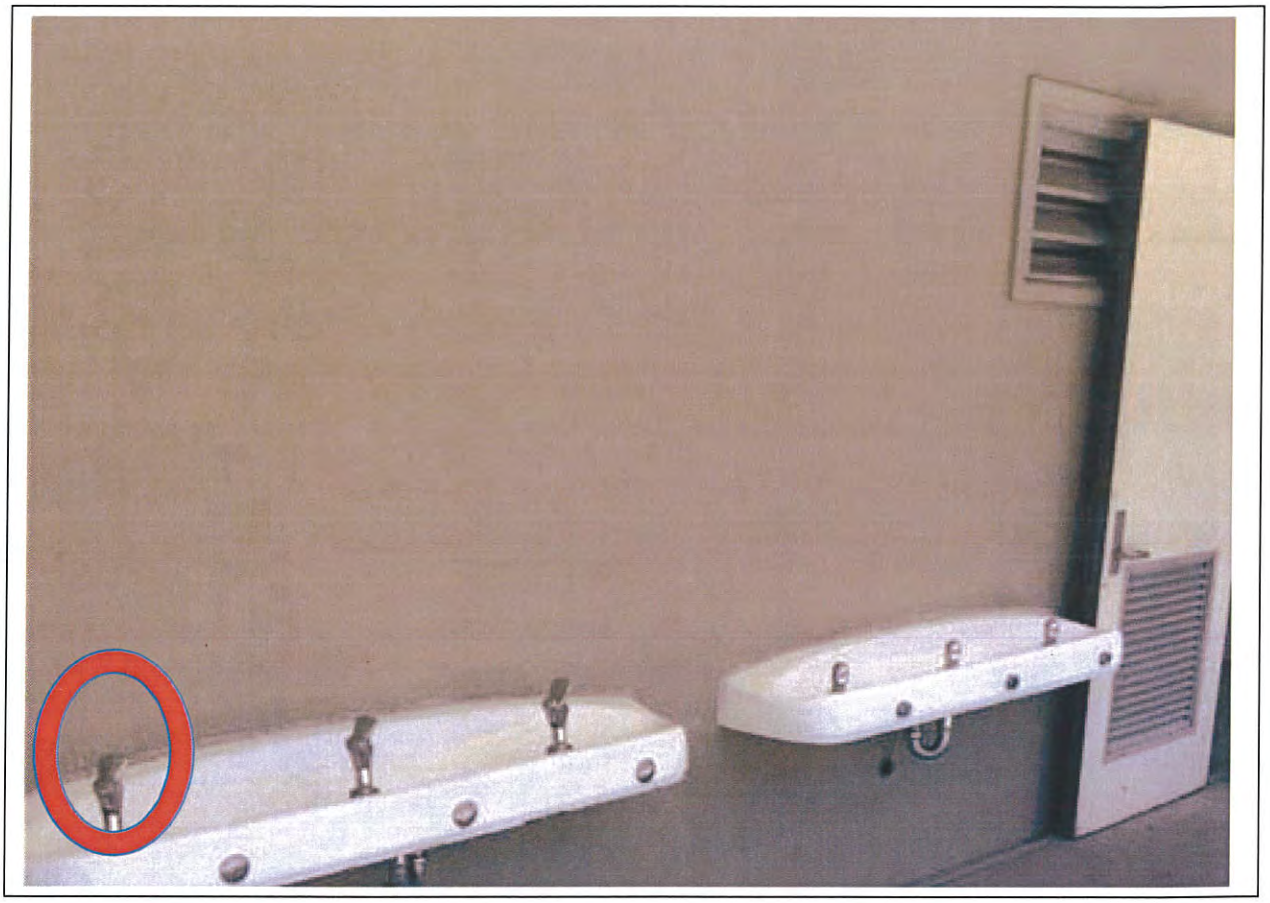

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169356

State Sample ID: 3710020-BDE-B

Date & Time Last Used: 5/11/17 2200

Date & Time Sample Collected: 5/12/17 0608

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 3

School: Jerabek Elementary School

Name of Building: 500

Location Description: at wall near Red playground

Type of Outlet: Bubbler drinking fountain

Description: Left bubbler of Left drinking fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169357

State Sample ID: 3710020-BDE-C

Date & Time Last Used: 5/11/17 2200

Date & Time Sample Collected: 5/12/17 0611

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 4

School: Jerabek Elementary School

Name of Building: 400

Location Description: Outside wall near blue playground equipment

Type of Outlet: Bubbler drinking fountain

Description: Right bubbler of three

Comments/Miscellaneous:

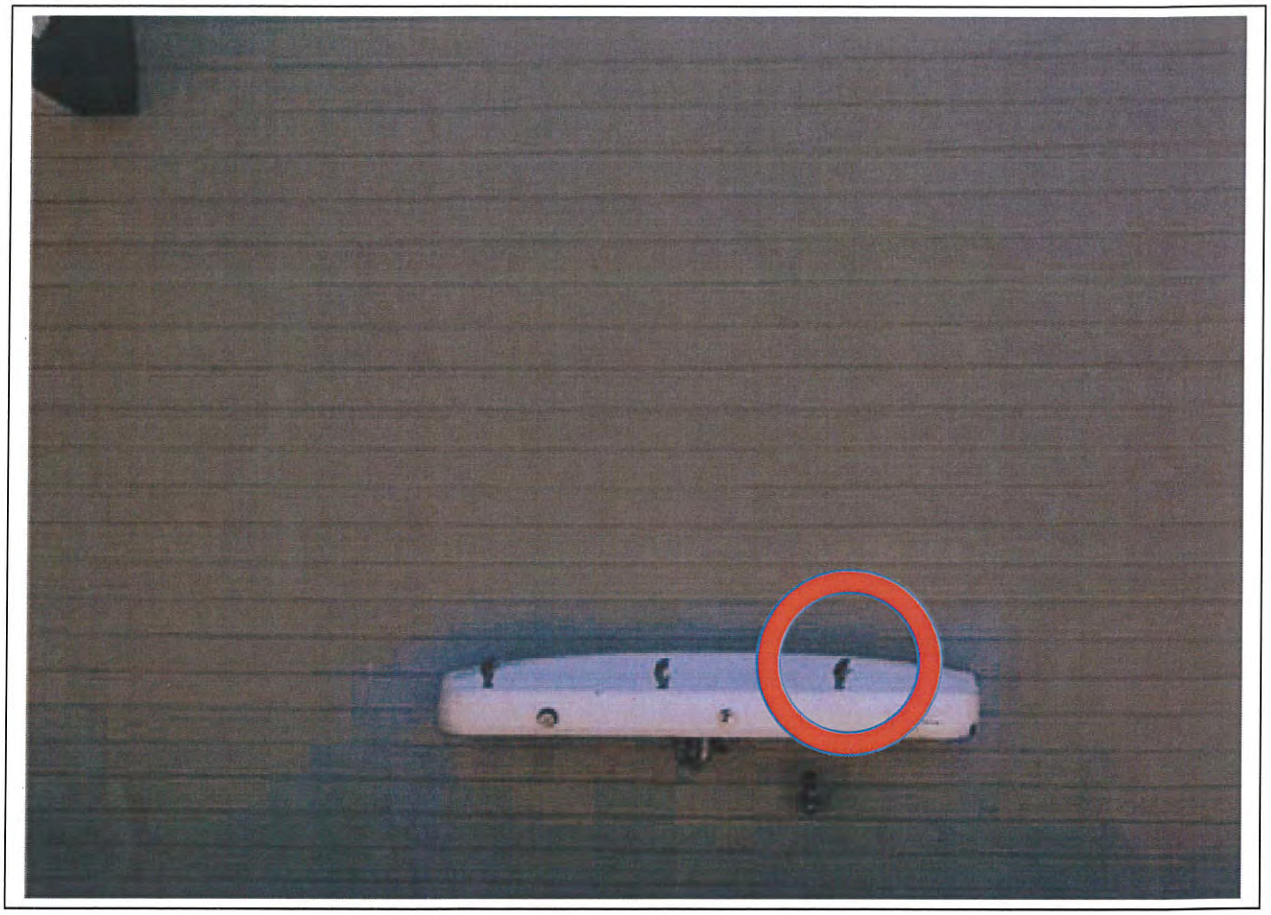

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169358

State Sample ID: 3710020-BDE-D

Date & Time Last Used: 5/11/17 2200

Date & Time Sample Collected: 5/12/17 0614

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 5

School: Jerabek Elementary School

Name of Building: Kindergarten

Location Description: Outside wall near kinder playground

Type of Outlet: Bubbler drinking fountain

Description: Left drinking fountain of two

Comments/Miscellaneous:

no flow on lower fountain
Moved to upper right

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169359

State Sample ID: 3710020-BDE-F

Date & Time Last Used: 5/11/17 2200

Date & Time Sample Collected: 5/12/17 0620

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: M. Nelson

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

08-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes: Sample #5: Sampled from upper right fountain instead of lower left fountain. Noted in Sampling plan.

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1169355	Jerabek Elementary	12-MAY-2017	0600	M. Nelson	SAMPLE 1	
2	W1169356	Jerabek Elementary	12-MAY-2017	0608		SAMPLE 2	
3	W1169357	Jerabek Elementary	12-MAY-2017	0611		SAMPLE 3	
4	W1169358	Jerabek Elementary	12-MAY-2017	0614		SAMPLE 4	
5	W1169359	Jerabek Elementary	12-MAY-2017	0620		SAMPLE 5	

1347

Chain of Custody:

Relinquished by: Name: M. Nelson Sign:	Received by: Name: A Molly Sign: Alejandra Molloy	Date & Time: 5/12/17 @ 1300 Location: WQLAIV	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: A Molly
Received Date: 5/12/17
LIMS Received Time: 1404
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: John Muir

Physical Address of School: 4431 Mt. Herbert San Diego, CA 92117

First Bell: 8:50 A.M.

Meeting Date: 03-22-2017

Sampling Plan Completion Date: 05-08-2017

Completed by Print Name: Joe Kinkead

Signature: Joe Kinkead Date: 05-08-2017

School's Point of Contact for Sampling Assistance

Name: ~~Joe Kinkead~~ Elizabeth Lara

Phone: ~~619-559-2294~~ 619 302 7616

Email: jkinkead@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/10/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: John Muir 4431 Mt. Herbert San Diego, CA 92117

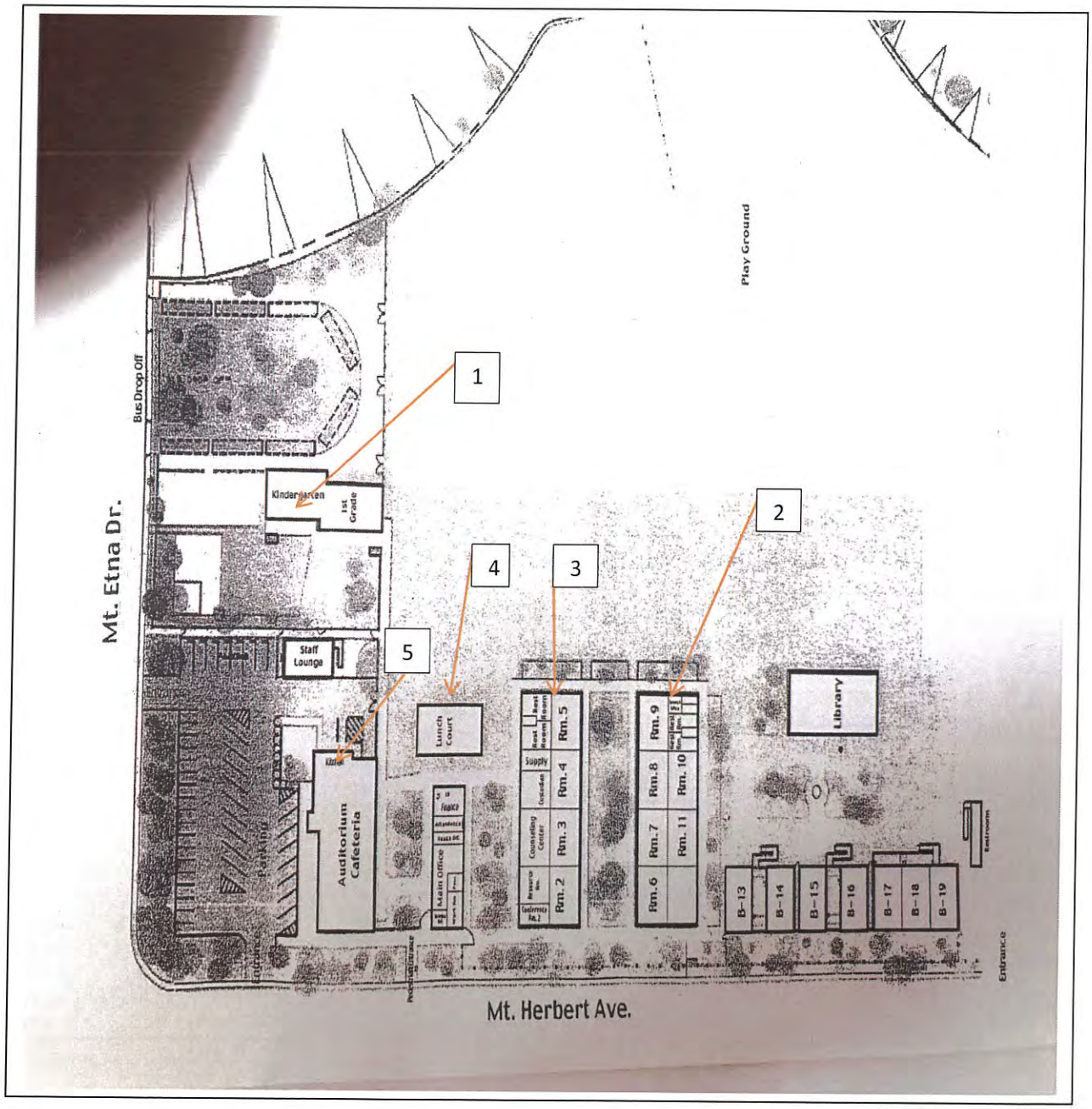

Sample No. 1

School: John Muir 4431 Mt. Herbert San Diego, CA 92117

Name of Building: Kindergarten/1st. Grade building

Location Description: Inside K-TK classroom

Type of Outlet: Double bubbler/faucet

Description: Left side bubbler

Comments/Miscellaneous:

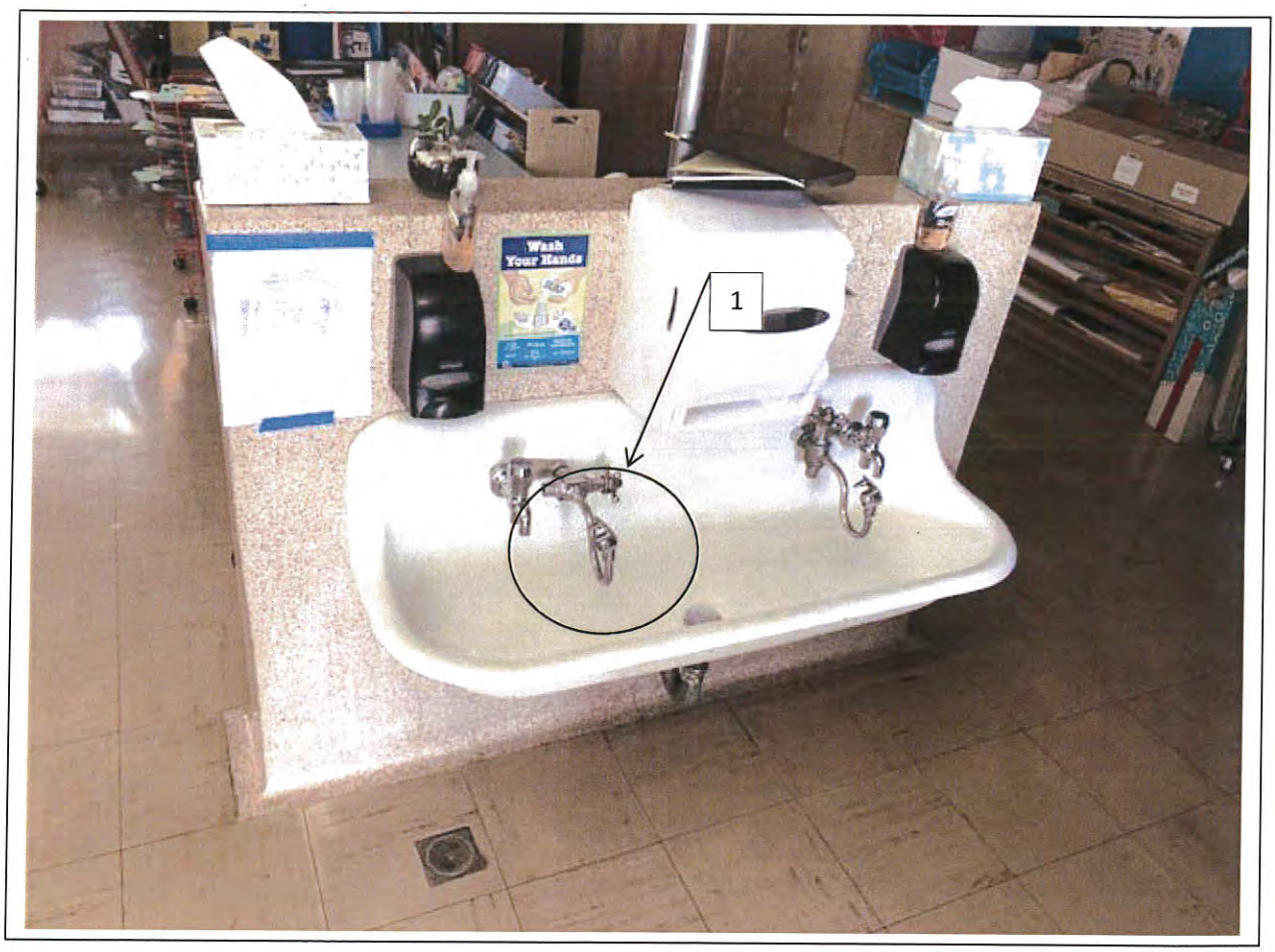

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172555

State Sample ID: 3710020-BHI-A

Date & Time Last Used: 5/16/17 2200

Date & Time Sample Collected: 5/17/17 0625

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 2

School: John Muir 4431 Mt. Herbert San Diego, CA 92117

Name of Building: Classroom building (rooms 6-11)

Location Description: East side of building

Type of Outlet: Triple bubbler

Description: Far left bubbler

Comments/Miscellaneous:

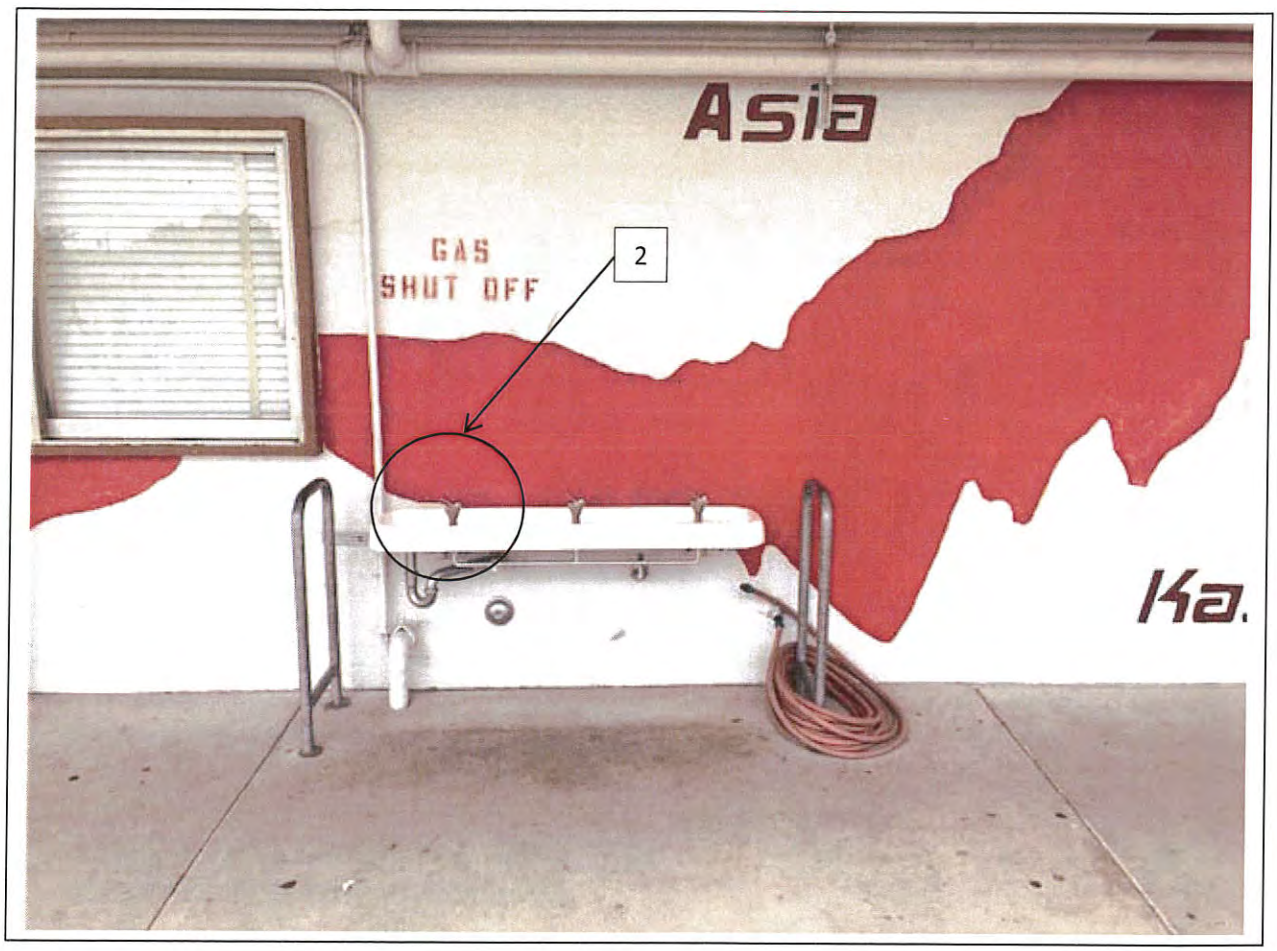

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172556

State Sample ID: 3710020-BHI-B

Date & Time Last Used: 5/16/17 2200

Date & Time Sample Collected: 5/17/17 0633

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: M. Nelson

Sample No. 3

School: John Muir 4431 Mt. Herbert San Diego, CA 92117

Name of Building: Classroom building Rooms 2-5 – offices)

Location Description: East side of building

Type of Outlet: Double bubbler

Description: Upper left bubbler

Comments/Miscellaneous:

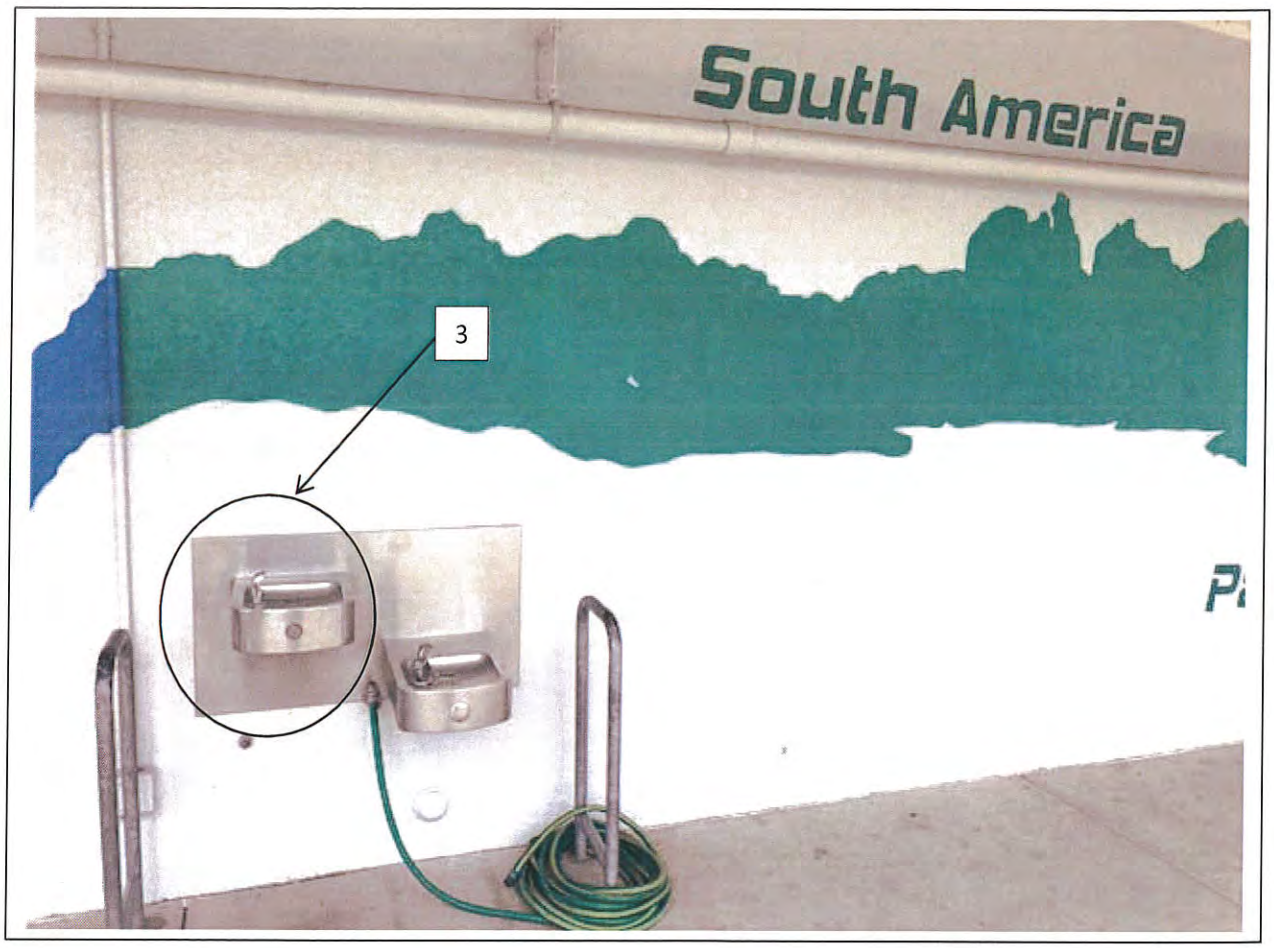

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172557

State Sample ID: 3710020-BHI-C

Date & Time Last Used: 5/16/17 2200 ~~No Tags – dry~~ tags pulled & on ground

Date & Time Sample Collected: 5/17/17 0635

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 4

School: John Muir 4431 Mt. Herbert San Diego, CA 92117

Name of Building: Lunch court

Location Description: Fountains outside lunch court east side

Type of Outlet: Triple bubbler

Description: Far right bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172558

State Sample ID: 3710020-BHI-D

Date & Time Last Used: 5/16/17 2200

Date & Time Sample Collected: 5/17/17 0638

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 5

School: John Muir 4431 Mt. Herbert San Diego, CA 92117

Name of Building: Kitchen/Auditourium

Location Description: Inside kitchen east wall

Type of Outlet: Faucet

Description: Single faucet sink along east wall

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172559

State Sample ID: 3710020-BHI-E

Date & Time Last Used: 5/16/17 2200

Date & Time Sample Collected: 5/17/17 0641

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

10-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes: Sample #3: Tags had been pulled and were laying on ground. Fountain appeared dry and un-used

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1172555	John Muir	17-MAY-2017	0625 ✓	M. Nelson	SAMPLE 1	
2	W1172556	John Muir	17-MAY-2017	0633 ✓		SAMPLE 2	
3	W1172557	John Muir	17-MAY-2017	0635 ✓		SAMPLE 3	
4	W1172558	John Muir	17-MAY-2017	0638 ✓		SAMPLE 4	
5	W1172559	John Muir	17-MAY-2017	0641 ✓		SAMPLE 5	

1355

Chain of Custody:

Relinquished by: Name: M. Nelson Sign: [signature]	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 5/17/17 @ 0730 Location: WQL	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/17/17
LIMS Received Time: 10 29
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Johnson Elementary School

Physical Address of School: 1355 Kelton Road; San Diego California; 92114

First Bell: 7;30am

Meeting Date: 3/30/2017

Sampling Plan Completion Date: 3/30/2017

Completed by Print Name: Timothy Brown

Signature: _____ Date: 3/30/2017

School's Point of Contact for Sampling Assistance

Name: Timothy Brown

Phone: 619-302-9427

Email: tbrown1@sandi.net

City of San Diego 3710020

Approved By: _____ _____

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Johnson Elementary School; 1355 Kelton Road; San Diego Californoa; 92114

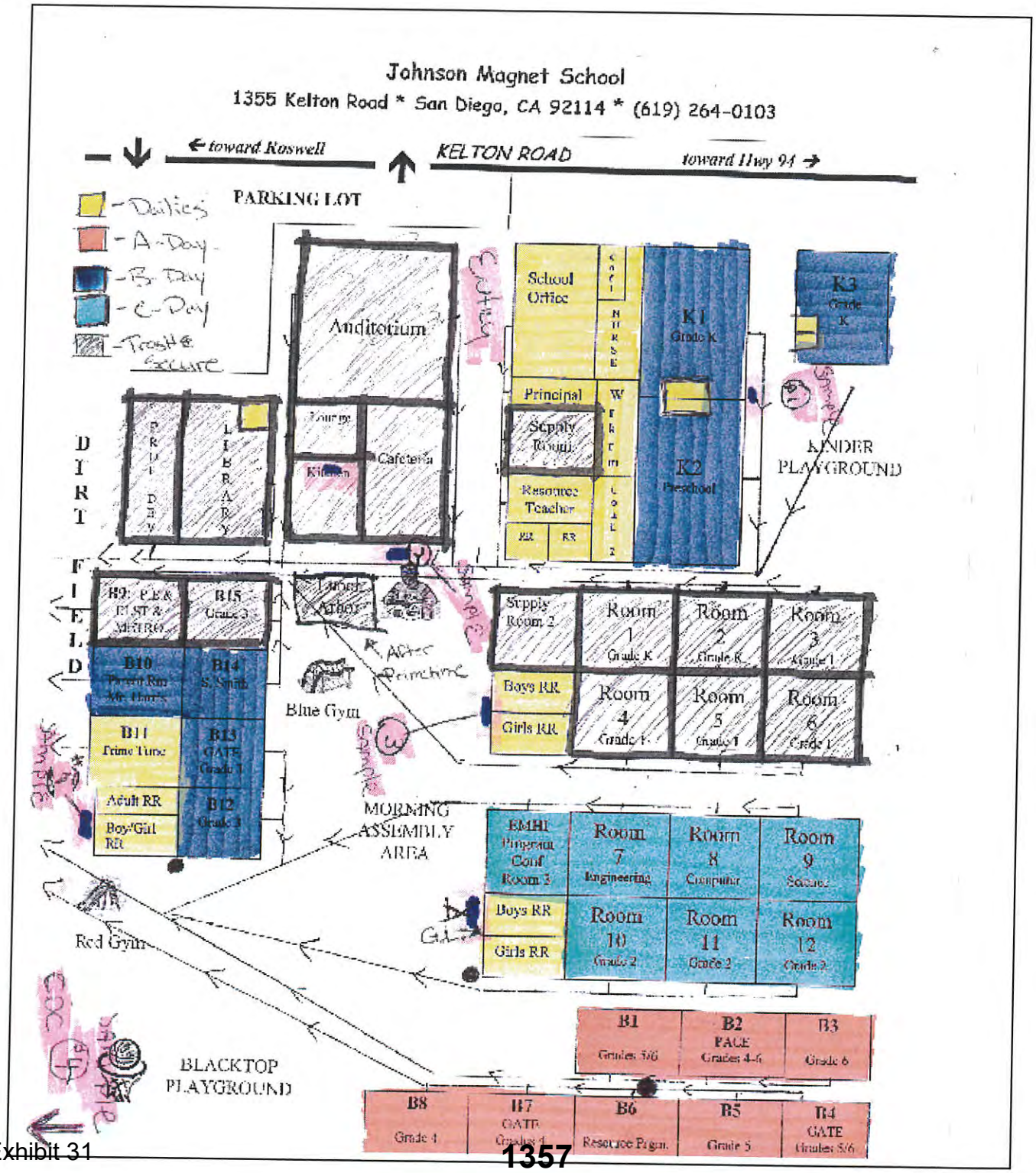

Sample No. 1

School: Johnson Elementary School; 1355 Kelton Road; San Diego Californoa; 92114

Name of Building: Kindergarten

Location Description: South Exterior Wall in playground area at Rm K1 AND Storage Rm 1-Loc Code 157-01

Type of Outlet: 1-Bubbler/ 1 Hand Washing Faucet

Description: Exterior Wall Mounted Drinking and Hand Washing Staion

Comments/Miscellaneous: Sample Right Bubbler

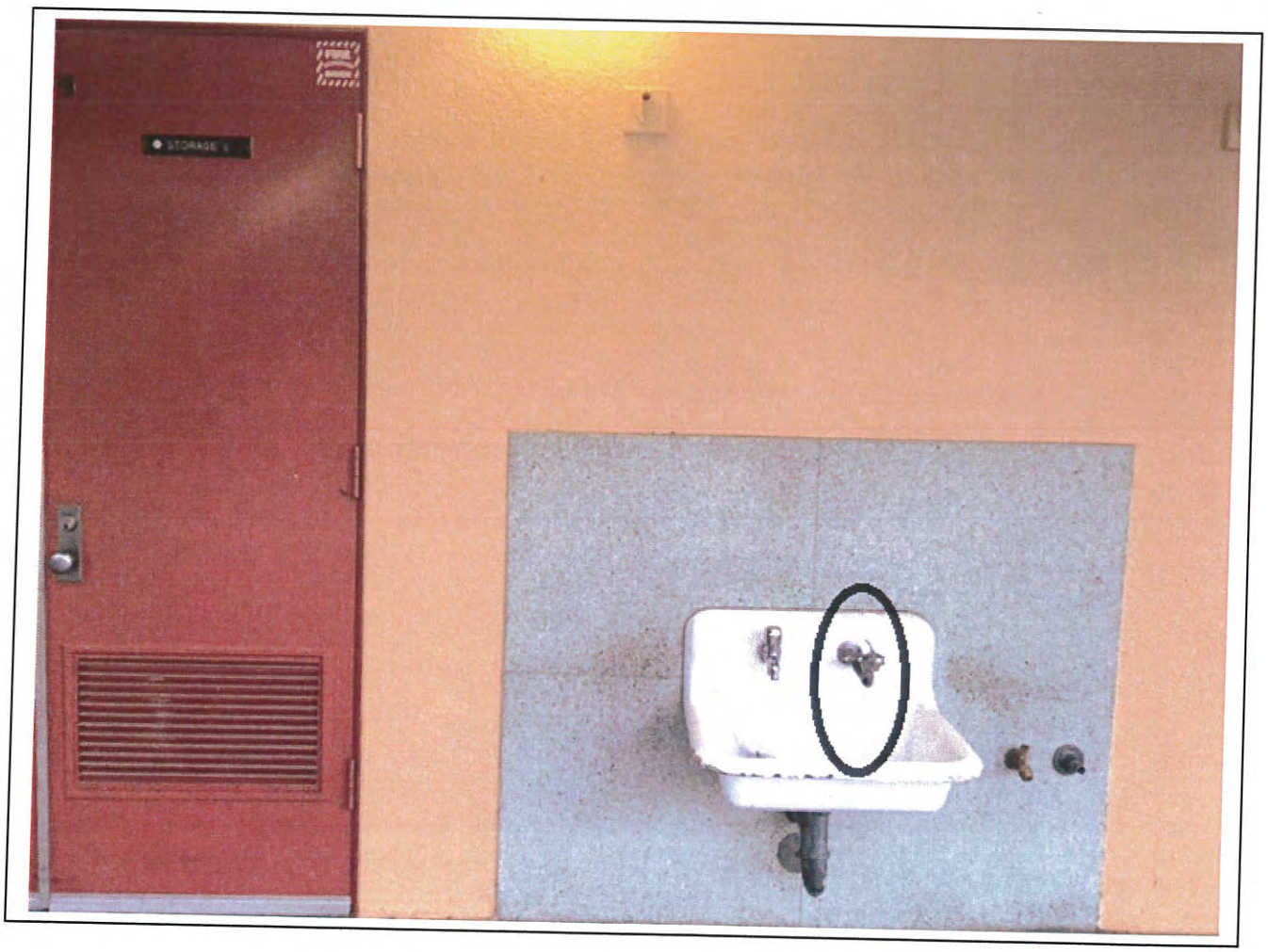

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID:

LIMS Sample ID: W1164268

Date & Time Last Used: 4/4/17 1800 - 2100

Date & Time Sample Collected: 4/5/17 0550

Name of Water System Sample Collector: E. Alvarenga

Sample No. 2

School: Johnson Elementary School; 1355 Kelton Road; San Diego Californoa; 92114

Name of Building: Cafeteria

Location Description: East Exterior Wall at the Lunch Court-Loc Code 157-02

Type of Outlet: Bubbler

Description: 2 single Mounted Exterior Drinking Fountains

Comments/Miscellaneous: Sample Left Bubbler

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID:

LIMS Sample ID: W1164269

Date & Time Last Used: 4/4/17 used before 1800

Date & Time Sample Collected: 4/5/17 0555

Name of Water System Sample Collector: E. Alvarez-gt

Brown full bottle used

Sample No. 3

School: Johnson Elementary School; 1355 Kelton Road; San Diego Californoa; 92114

Name of Building: Classroom Building/ Rooms 1-6

Location Description: South Exterior Wall facing Lunch court at Girls Restroom and Room 4-Loc Code 157-03

Type of Outlet: Bubbler

Description: Exterior Wall Mounted 3 Station Drinking Fountain

Comments/Miscellaneous: Sample ~~Middle~~ Right Bubbler

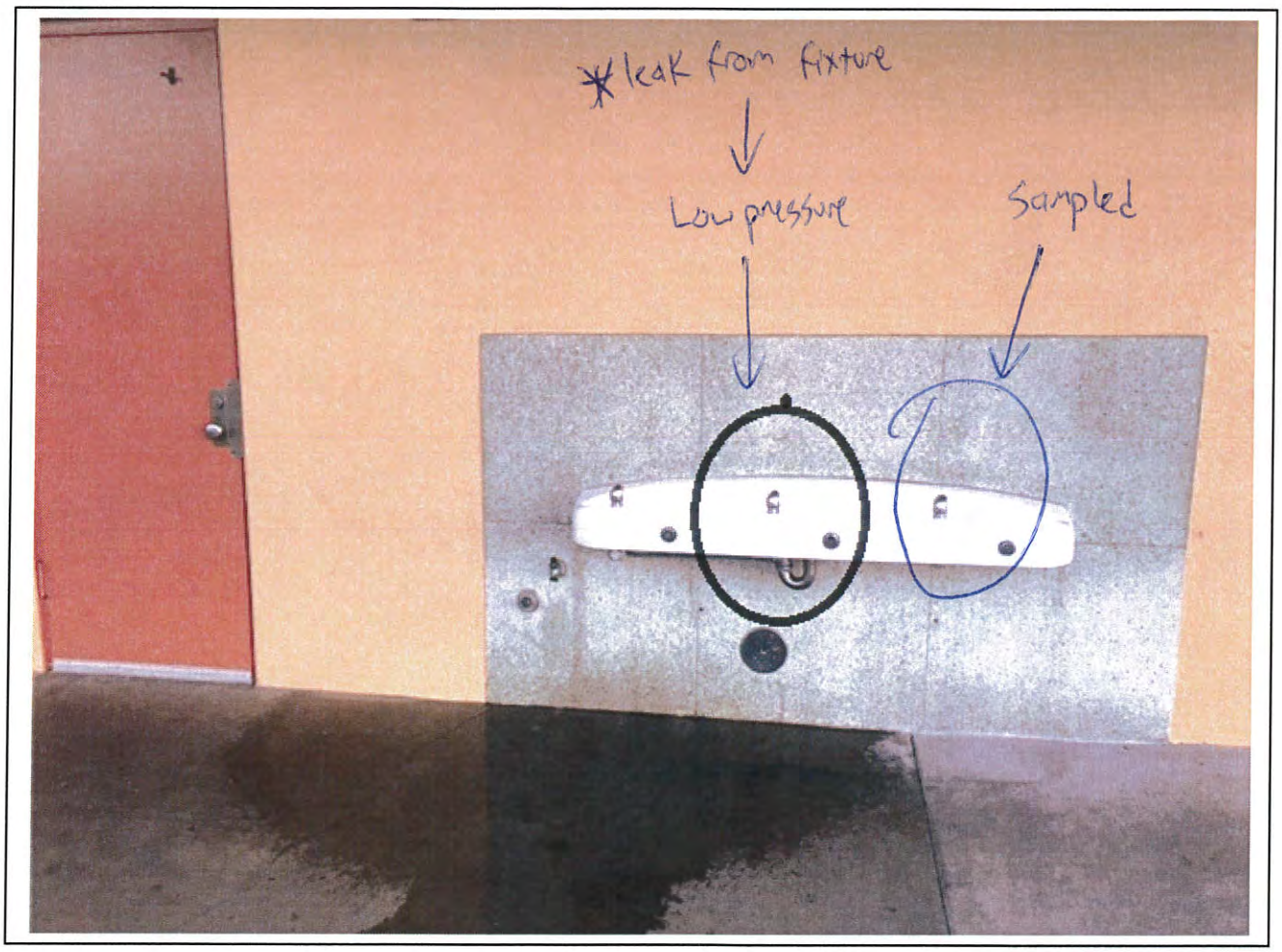

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID:

LIMS Sample ID: W1164270

Date & Time Last Used: 4/4/17 before 1800

Date & Time Sample Collected: 4/5/17 0600

Name of Water System Sample Collector: E. Alvarenga

Brown fill bottle used

Sample No. 4

School: Johnson Elementary School; 1355 Kelton Road; San Diego Californoa; 92114

Name of Building: Child Development Center Loc Code 157-04

Location Description: CDC at South/East corner of property; East exterior wall of outdoor playground

Type of Outlet: 1 Bubbler/ 1 Hand Washing Station

Description: 1 Exterior Wall Mounted Drinking fountain/ 1 Exterior mounted Hand Washing Station

Comments/Miscellaneous: Sample Left Bubbler

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID:

LIMS Sample ID: W1164271

Date & Time Last Used: 4/4/17 before 1800

Date & Time Sample Collected: 4/5/17 0610

Name of Water System Sample Collector: E. Alvarez

Brown fill bottle used

Sample No. 5

School: Johnson Elementary School; 1355 Kelton Road; San Diego Californoa; 92114

Name of Building: Staff and Student Re-locatable Restrooms Loc Code-157-05

Location Description: South Exterior Wall of Re-locatable between Men/Women's restroom

Type of Outlet: Bubbler

Description: 2 single exterior wall mounted Drinking Fountains

Comments/Miscellaneous: Sample Right Bubbler

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID:

LIMS Sample ID: W1164272

Date & Time Last Used: 4/4/17 before 1800

Date & Time Sample Collected: 4/5/17 0615

Name of Water System Sample Collector: E. Alvarez-gu

Brown Fill bottle used

Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 4/12/17

San Diego Unified School District

Johnson Elementary School

Sample ID	Sample Date	Sample Time	Description	External ID	Lead	Units
W1164268	04/05/17	05:50 AM	SAMPLE 1	3710020-ABH-A	< 5	ug/L
W1164269	04/05/17	05:55 AM	SAMPLE 2	3710020-ABH-B	< 5	ug/L
W1164270	04/05/17	06:00 AM	SAMPLE 3	3710020-ABH-C	< 5	ug/L
W1164271	04/05/17	06:10 AM	SAMPLE 4	3710020-ABH-D	< 5	ug/L
W1164272	04/05/17	06:15 AM	SAMPLE 5	3710020-ABH-E	< 5	ug/L

SAMPLE 1 Kindergarten; S. wall Btwn Rm K1 & Storage RM 1. Right bubbler

SAMPLE 2 Cafeteria; E. wall @ Lunch Court; Upper/Left Bubbler

SAMPLE 3 Rm 1-6; S. wall btwn girls restroom & RM 4; right bubbler

SAMPLE 4 Child Development Cntr. S/E corner; E. wall playground; left bubbler

SAMPLE 5 Staff/Student portable restrooms/ btwn men&women's restroom. Lower/right bubbler

DLR= State Mandated Detection Limit for Reporting (DLF
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Exhibit 3A

Water Quality Chemistry Services
Chain of Custody Form

04-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	~~Analysis Requested~~ Comments
1	W1164268	Johnson Elementary School	05-APR-2017	0550	EA	SAMPLE 1	
2	W1164269	Johnson Elementary School	05-APR-2017	0555	EA	SAMPLE 2	Transfer bottle used
3	W1164270	Johnson Elementary School	05-APR-2017	0600	EA	SAMPLE 3	Transfer bottle used. * leak from fixture
4	W1164271	Johnson Elementary School	05-APR-2017	0610	EA	SAMPLE 4	Transfer bottle used
5	W1164272	Johnson Elementary School	05-APR-2017	0615	EA	SAMPLE 5	Transfer bottle used.

1366

Chain of Custody:

Relinquished by: 4/5/17 0650 Name: E. Alvarenga Sign:	Received by: Name: Alejandra Molloy Sign:	Date & Time: 4/05/17 @649 Location: WQL	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: Alejandra Molloy
Received Date: 4/5/17
LIMS Received Time: 0650
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Jonas Salk Elementary

Physical Address of School: 7825 Flanders Dr., San Diego, CA 92126-3449

First Bell: 7:40 AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/24/2016

Completed by Print Name: Ginette Commins

Signature: G Commins Date: 04/24/2016

School's Point of Contact for Sampling Assistance

Name: ~~Ginette Commins~~ Tim Brown

Phone: ~~(858) 627-7201~~ 619 302 9427

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/15/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Jonas Salk Elementary, 7825 Flanders Dr., San Diego, CA 92126-3449

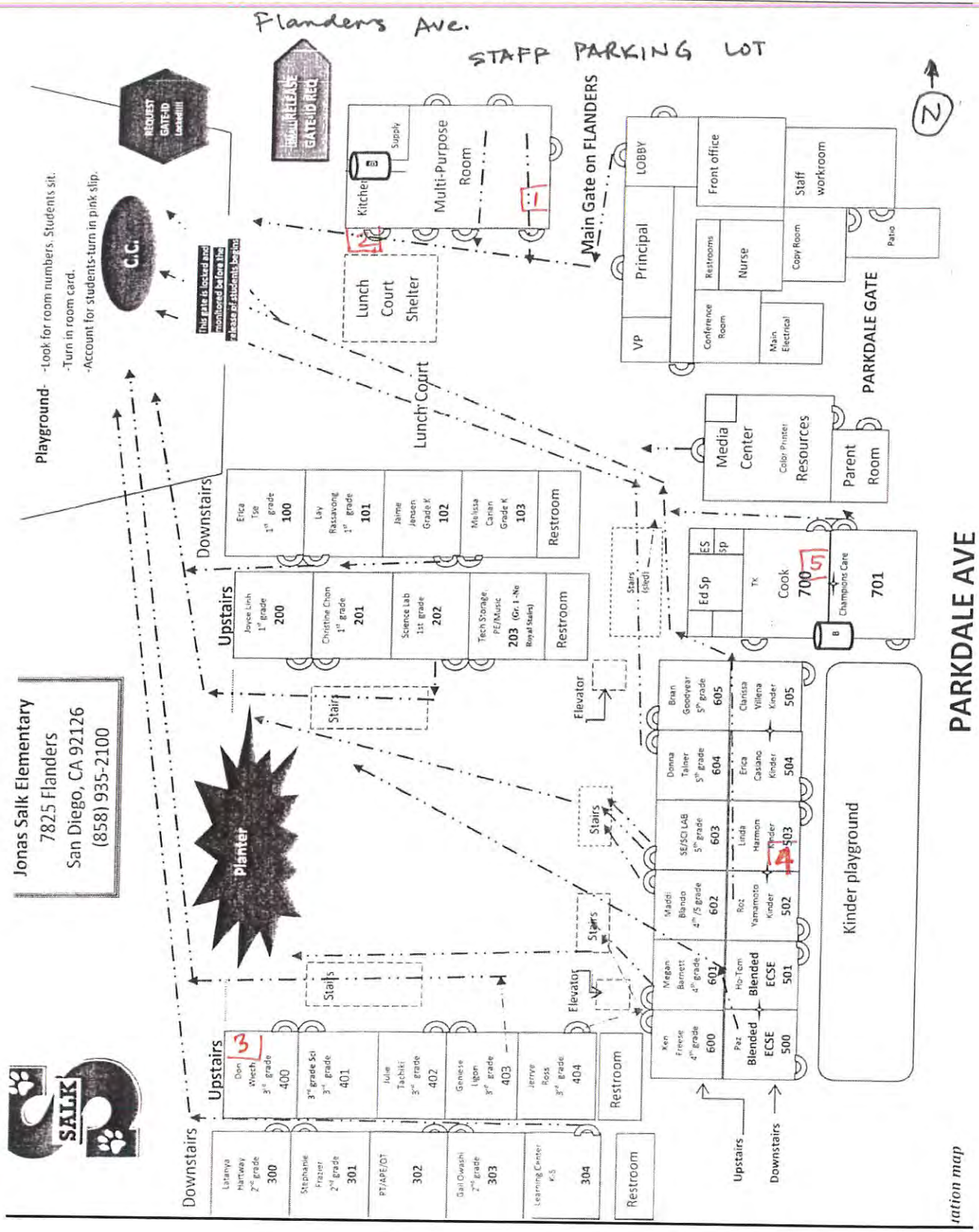

Sample No. 1

School: Jonas Salk Elementary

Name of Building: Multi-Purpose Room

Location Description: Wall mounted interior (East of the Room), facing stage, next to restroom

Type of Outlet: bubbler

Description: lower/right bubbler (HIGH flow)

Comments/Miscellaneous: indoor drinking water source/SDUSD Location Code #200

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172842

State Sample ID: 3710020-BID-A

Date & Time Last Used: 5/16/17 @ 2200

Date & Time Sample Collected: 5/17/17 @ 0539

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: Jonas Salk Elementary

Name of Building: Multi-Purpose Room/Kitchen

Location Description: Wall mounted exterior (Southwest of the Bldg), facing lunch court, next to Gas Shut off

Type of Outlet: bubbler

Description: upper/left bubbler (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #200

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172843

State Sample ID: 3710020-BID-B

Date & Time Last Used: 5/16/17 @ 2200

Date & Time Sample Collected: 5/17/17 @ 0542

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: Jonas Salk Elementary

Name of Building: 400-Upstairs

Location Description: Classroom 400 (West of Bldg), classroom sink

Type of Outlet: bubbler

Description: bubbler with push button on a sink (MED flow)

Comments/Miscellaneous: indoor drinking water source/SDUSD Location Code #200

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172844

State Sample ID: 3710020-BID-C

Date & Time Last Used: 5/16/17 @ 2200

Date & Time Sample Collected: 5/17/17 @ 0547

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: Jonas Salk Elementary

Name of Building: 500-Downstairs

Location Description: Kindergarten 503, classroom sink

Type of Outlet: bubbler

Description: bubbler with push button on a sink (HIGH flow)

Comments/Miscellaneous: indoor drinking water source/SDUSD Location Code #200

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172845

State Sample ID: 3710020-BID-D

Date & Time Last Used: 5/16/17 @ 2200

Date & Time Sample Collected: 5/17/17 @ 0550

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 5

School: Jonas Salk Elementary

Name of Building: 700

Location Description: Classroom 700, classroom sink, between ES Office & Classroom 701

Type of Outlet: bubbler

Description: bubbler with push button on a sink (HIGH flow)

Comments/Miscellaneous: indoor drinking water source/SDUSD Location Code #200

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172846

State Sample ID: 3710020-BID-E

Date & Time Last Used: 5/16/17 @ 2200

Date & Time Sample Collected: 5/17/17 @ 0553

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

15-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1172842	Jonas Salk Elementary	17-MAY-2017	0539	Alejandra Molloy	SAMPLE 1	
2	W1172843	Jonas Salk Elementary	17-MAY-2017	0542		SAMPLE 2	
3	W1172844	Jonas Salk Elementary	17-MAY-2017	0547		SAMPLE 3	
4	W1172845	Jonas Salk Elementary	17-MAY-2017	0550		SAMPLE 4	
5	W1172846	Jonas Salk Elementary	17-MAY-2017	0553		SAMPLE 5	

1374

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign: AMolloy	Received by: Name: Sign:	Date & Time: 5/17/17 @ 0625 Location: WQL Alv	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-17-17
LIMS Received Time: 0742
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Jones Elementary

Physical Address of School: 2751 Greyling Dr., San Diego, CA 92123

First Bell: 7:30am

Meeting Date: 4/05/2017

Sampling Plan Completion Date: 4/21/17

Completed by Print Name: Lori Sherman

Signature: *Lori Sherman* Date: 4/21/17

School's Point of Contact for Sampling Assistance

Name: ~~Lori Sherman~~ Ginette Commins

Phone: ~~619-301-9086~~ 619-302-5285

Email: lsherman1@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-28-17
Signature & Date

Tom Burger
Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Jones Elementary - 2751 Greyling Dr., San Diego, CA 92123

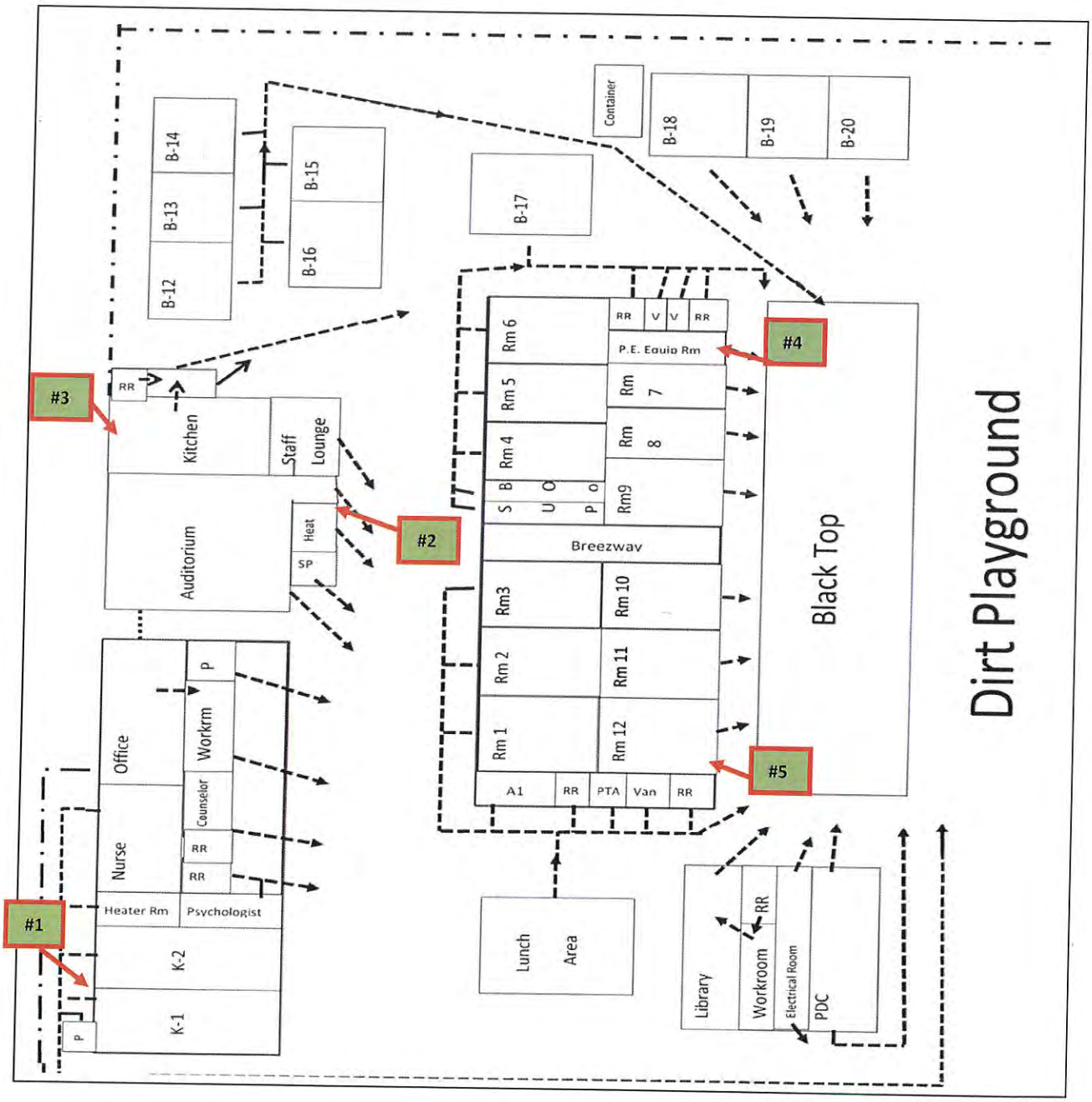

Sample No. 1

School: Jones Elementary - 2751 Greyling Dr., San Diego, CA 92123

Name of Building: Kindergarten

Location Description: West exterior side between K-1 & K-2

Type of Outlet: Bubbler

Description: Left Bubbler

Comments/Miscellaneous: Next to playground

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169343

State Sample ID: 3710020-BDB-A

Date & Time Last Used: 4/28/17 @ 2200

Date & Time Sample Collected: 4/29/17 @ 656

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: Jones Elementary - 2751 Greyling Dr., San Diego, CA 92123

Name of Building: Auditorium/Multipurpose

Location Description: East exterior wall between heater room & cafeteria door

Type of Outlet: Bubbler

Description: Left Bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169344

State Sample ID: 3710020-BDB-B

Date & Time Last Used: 4/28/17 @ 2200

Date & Time Sample Collected: 4/29/17 @ 0648

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: Jones Elementary - 2751 Greyling Dr., San Diego, CA 92123

Name of Building: Kitchen

Location Description: West interior wall in kitchen

Type of Outlet: Spray nozzle

Description:

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169345

State Sample ID: 3710020-BDB-C

Date & Time Last Used: 4/28/17 @ 2200

Date & Time Sample Collected: 4/29/17 @ 1652

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

wide mouth sprayer, portion of sample missed

Sample No. 4

School: Jones Elementary - 2751 Greyling Dr., San Diego, CA 92123

Name of Building:

Location Description: North-East exterior next to room 7 & P.E. Equipment room

Type of Outlet: Bubbler

Description: Left bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169346

State Sample ID: 3710020-BDB-D

Date & Time Last Used: 4/28/17 @ 2200

Date & Time Sample Collected: 4/29/17 @ 0703

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Base of nozzle had a leak.

Sample No. 5

School: Jones Elementary - 2751 Greyling Dr., San Diego, CA 92123

Name of Building:

Location Description: South-East exterior wall close to room 12

Type of Outlet: Bubbler

Description: Left bubbler

Comments/Miscellaneous:

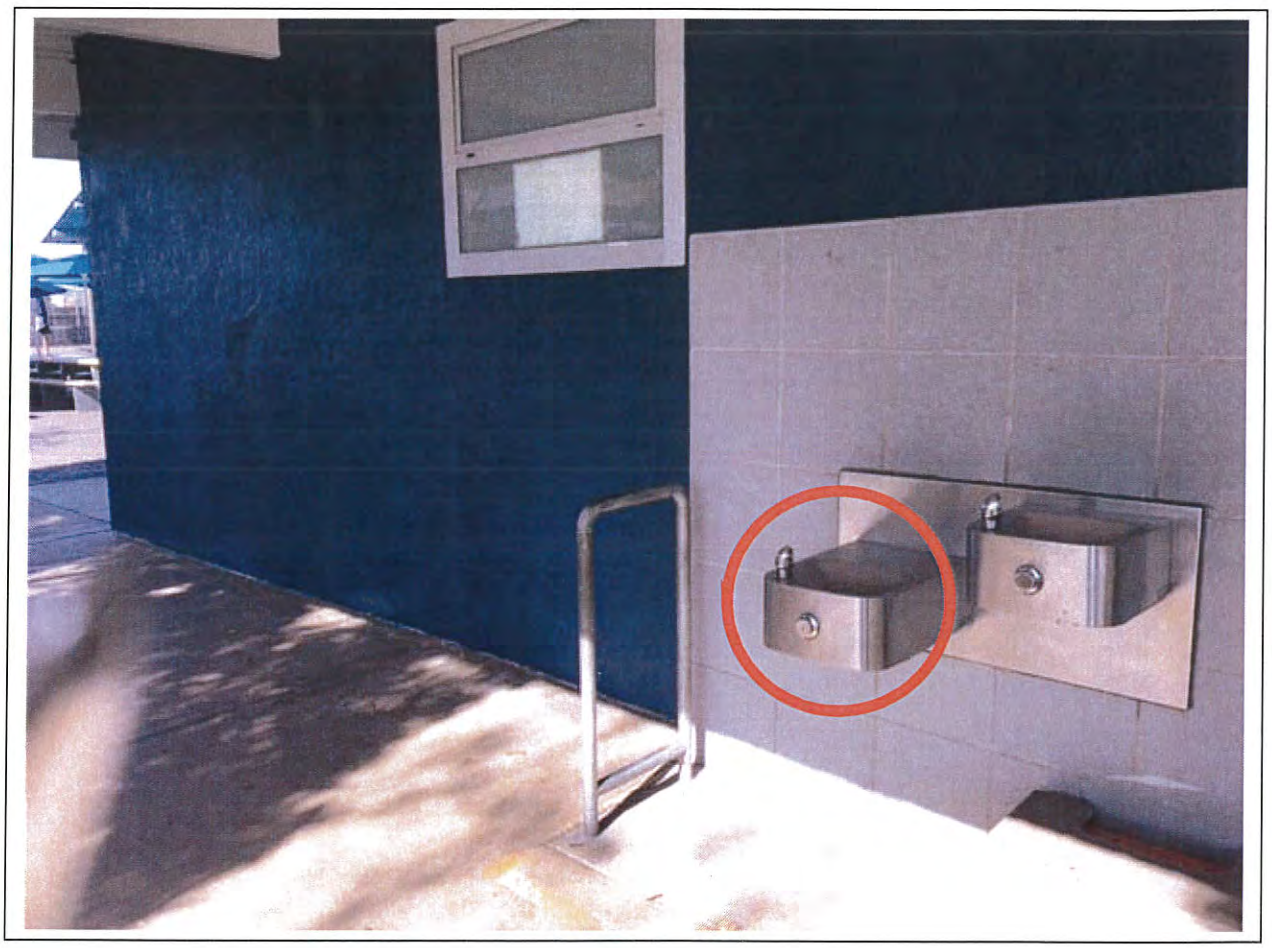

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169347

State Sample ID: 3710020-BDB-E

Date & Time Last Used: 4/28/17 @ 2200

Date & Time Sample Collected: 4/29/17 @ 700

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

28-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1169343	Jones Elementary	29-APR-2017	0656	A. Molloy	SAMPLE 1	Pb
2	W1169344	Jones Elementary	29-APR-2017	0648		SAMPLE 2	
3	W1169345	Jones Elementary	29-APR-2017	0652		SAMPLE 3	
4	W1169346	Jones Elementary	29-APR-2017	0703		SAMPLE 4	
5	W1169347	Jones Elementary	29-APR-2017	0700		SAMPLE 5	

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign: AMolloy	Received by: Name: Gloria Siqueiros Sign:	Date & Time: 4/29/17 @ 0820 Location: WQL Alv.	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 4/29/17
LIMS Received Time: 0830
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: *Joyner # 130

Physical Address of School: 4271 Myrtle Ave. San Diego 92105

First Bell: 7:10

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 3/23/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 3/23/2017

School's Point of Contact for Sampling Assistance

Name: ~~Elizabeth Lara~~ Cesar Jimenez

Phone: ~~619-302-7616~~ 619-261-1588

Email: elara@sandi.net

City of San Diego 3710020

Approved By: 4/28/17 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: #130- Joyner Elementary 4271 Myrtle Ave. San Diego Ca. 92105

SEE LAST PAGE FOR NUMBERED MAP

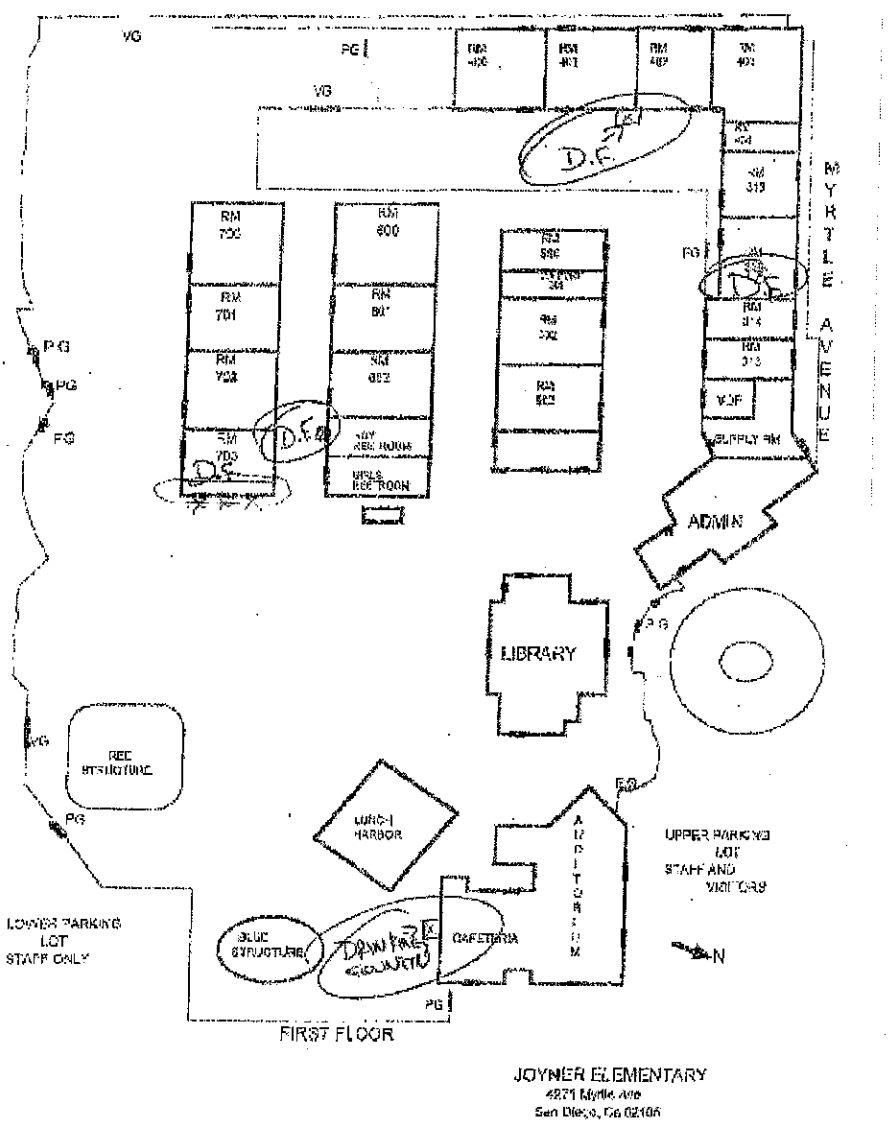

Sample No. 1

School: *#130 Joyner

Name of Building: Cafeteria

Location Description: outside - Next to lunch court and women restroom at checkered wall

Type of Outlet: bubbler

Description: Left Bubbler of Two bubbler water fountain

Comments/Miscellaneous:* this is a year around campus

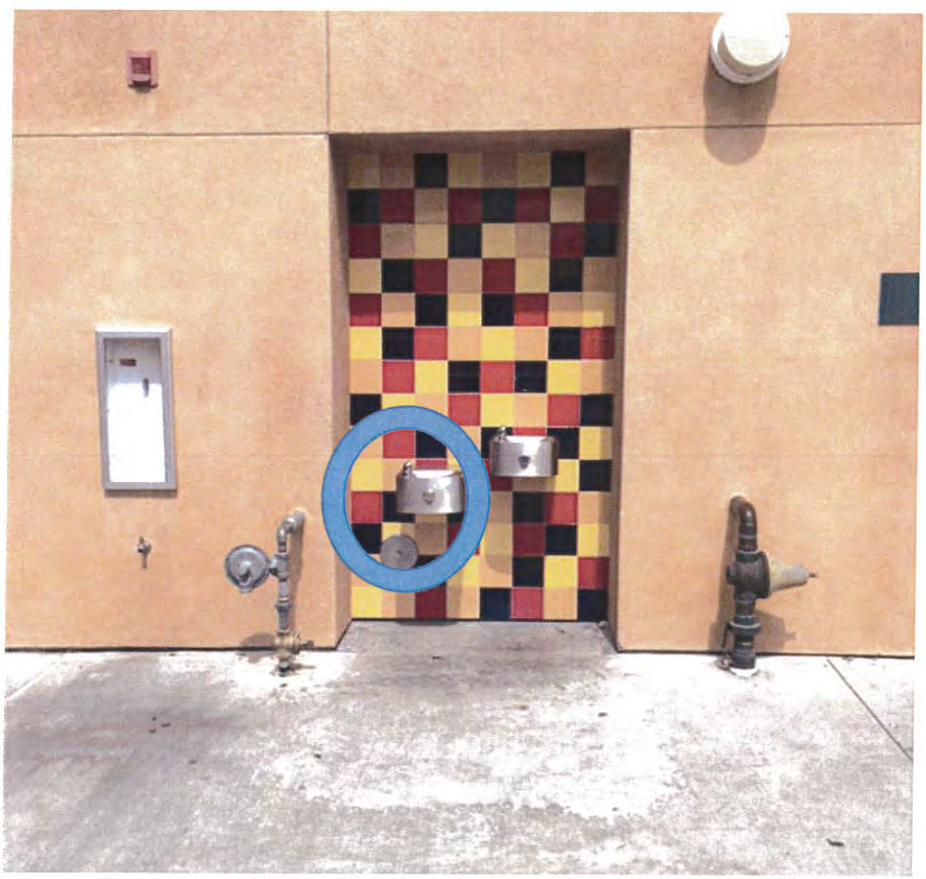

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168592

State Sample ID: 3710020-AJB-A

Date & Time Last Used: 5/04/17 @ 2200

Date & Time Sample Collected: 5/05/17 @0601

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: # 130 Joyner Elementary

Name of Building: 700 bldg.

Location Description: Inside rm. 703 at sink

Type of Outlet: Bubbler

Description: Bubbler drinking fountain located at sink

Comments/Miscellaneous: Site # 130

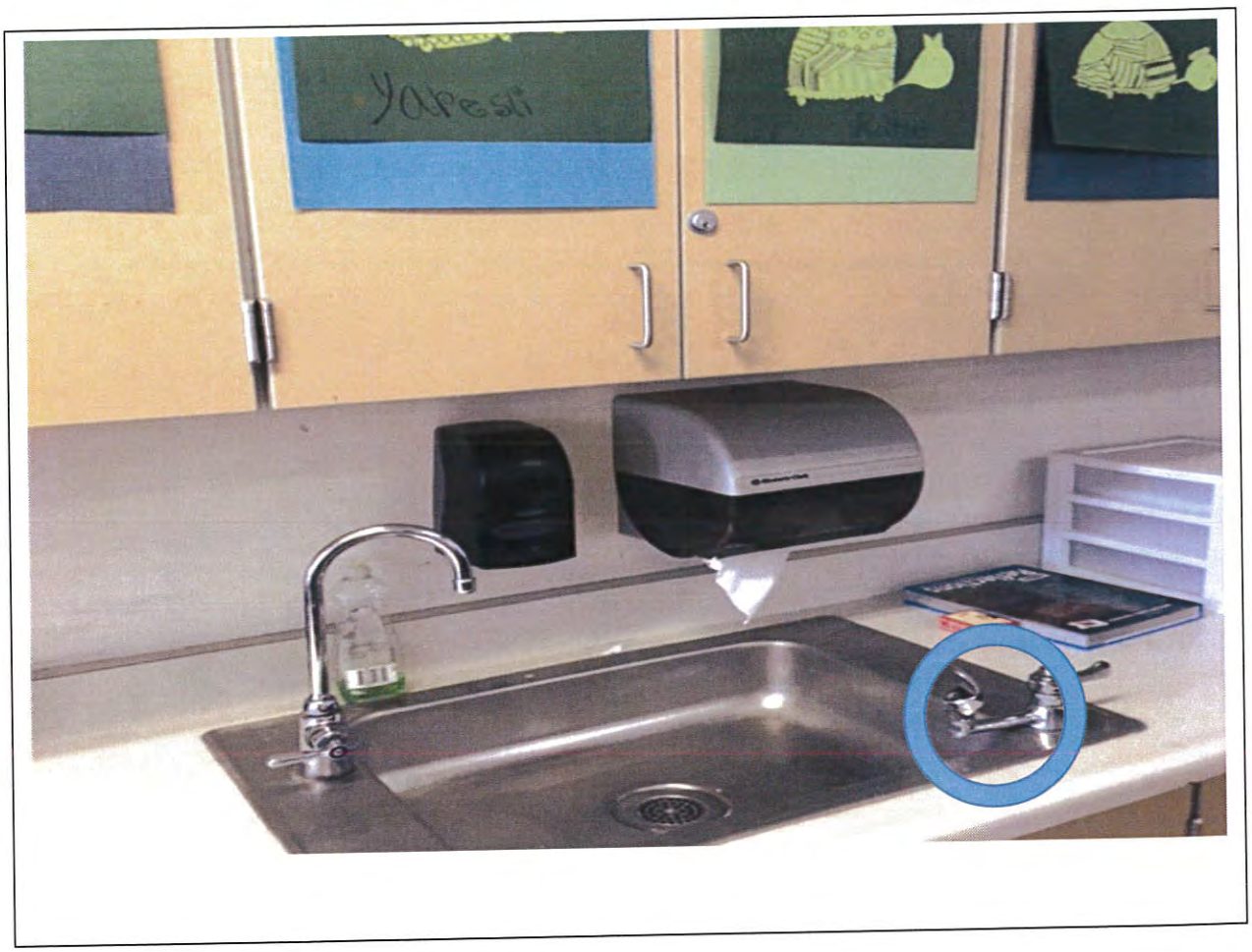

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168593

State Sample ID: 3710020-AJB-B

Date & Time Last Used: 5/04/17 @ 2200

Date & Time Sample Collected: 5/05/17 @ 606

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: # 130 Joyner Elementary

Name of Building: 600 bldg.

Location Description: outside next to women restroom

Type of Outlet: bubbler drinking fountain

Description: Left drinking fountain of 4 bubbler drinking fountains

Comments/Miscellaneous: Site # 130

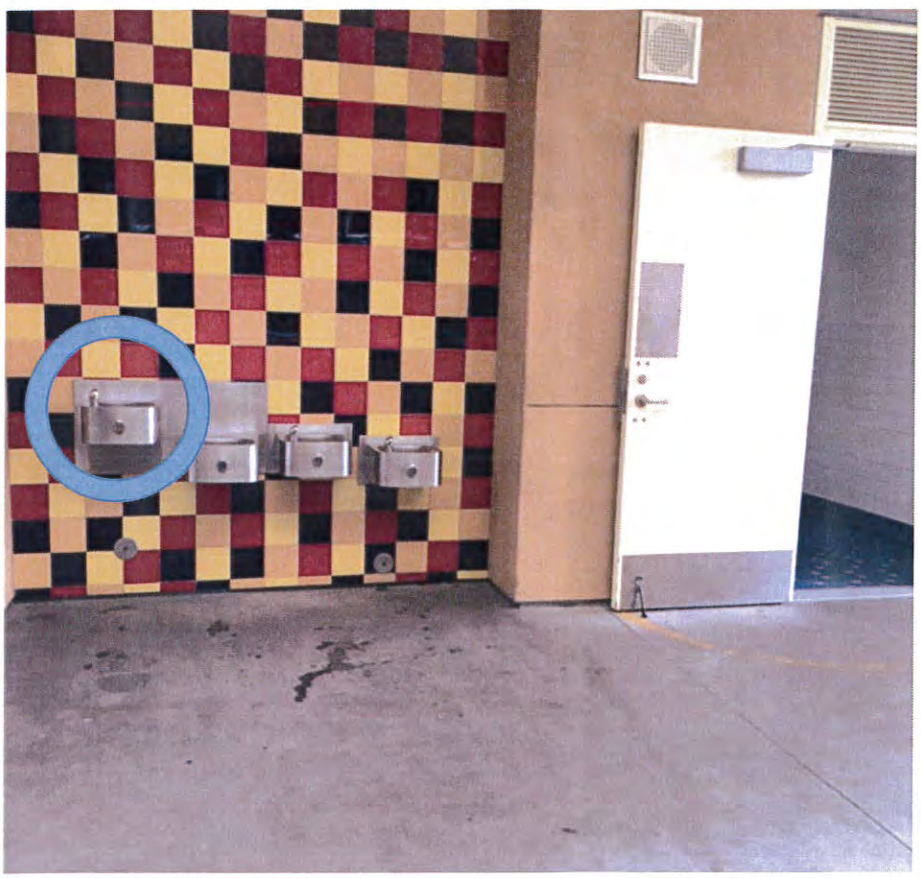

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168594

State Sample ID: 3710020-AJB-C

Date & Time Last Used: 5/04/17 @ 2200

Date & Time Sample Collected: 5/05/17 @ 0004

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: # 130 Joyner Elementary

Name of Building: 300 bldg.

Location Description: inside room 315 at sink

Type of Outlet: bubbler

Description: one drinking fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168595

State Sample ID: 3710020-AJB-D

Date & Time Last Used: 5/04/17 @ 2200

Date & Time Sample Collected: 5/05/17 @ 0609

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 5

School: # 130 Joyner Elementary

Name of Building: 400 bldg.

Location Description: outside near room 402

Type of Outlet: bubbler

Description: Left drinking fountain of two bubbler drinking fountains

Comments/Miscellaneous: Site # 130

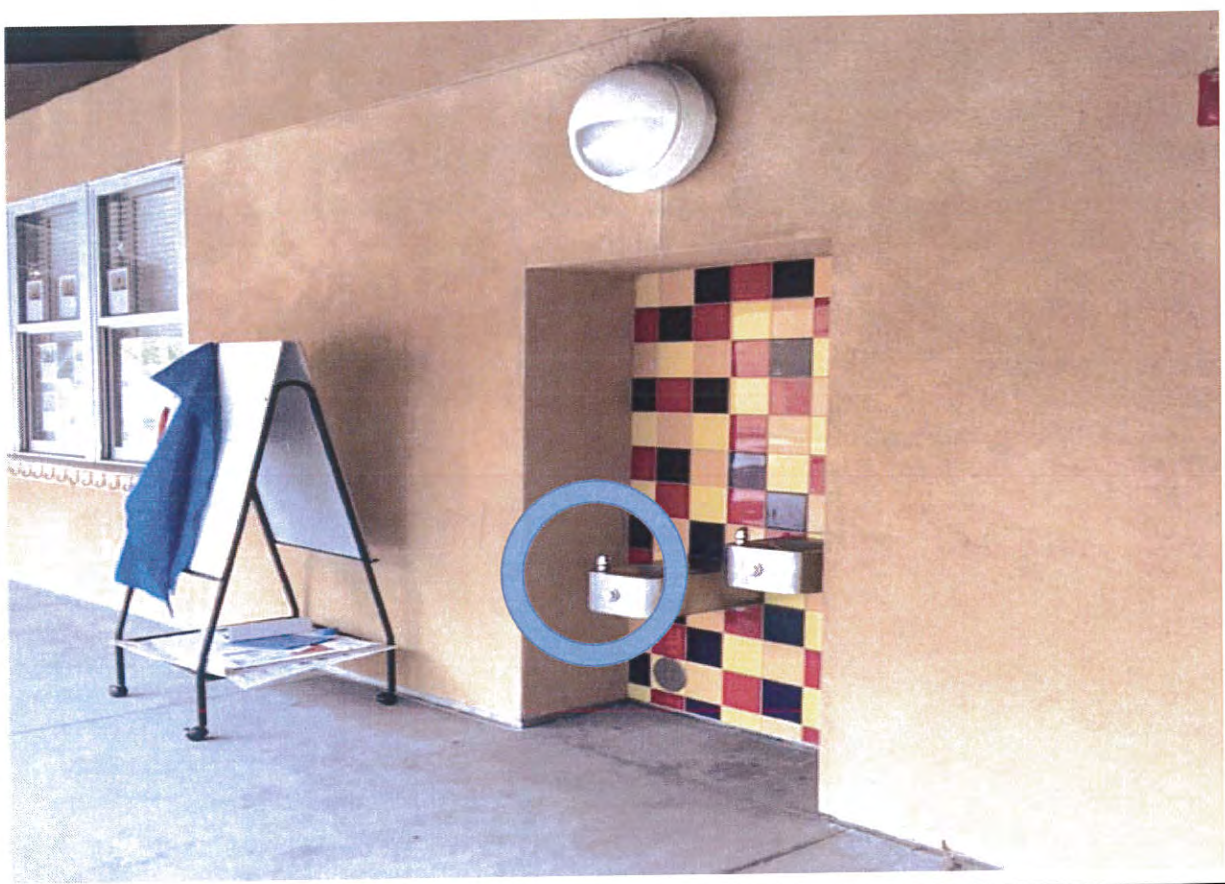

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168596

State Sample ID: 3710020-AJB-E

Date & Time Last Used: 5/04/17 @ 2200

Date & Time Sample Collected: 5/05/17 @ 0611

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample Locations acknowledgement

School and Address: #130- Joyner Elementary 4271 Myrtle Ave. San Diego Ca. 92105

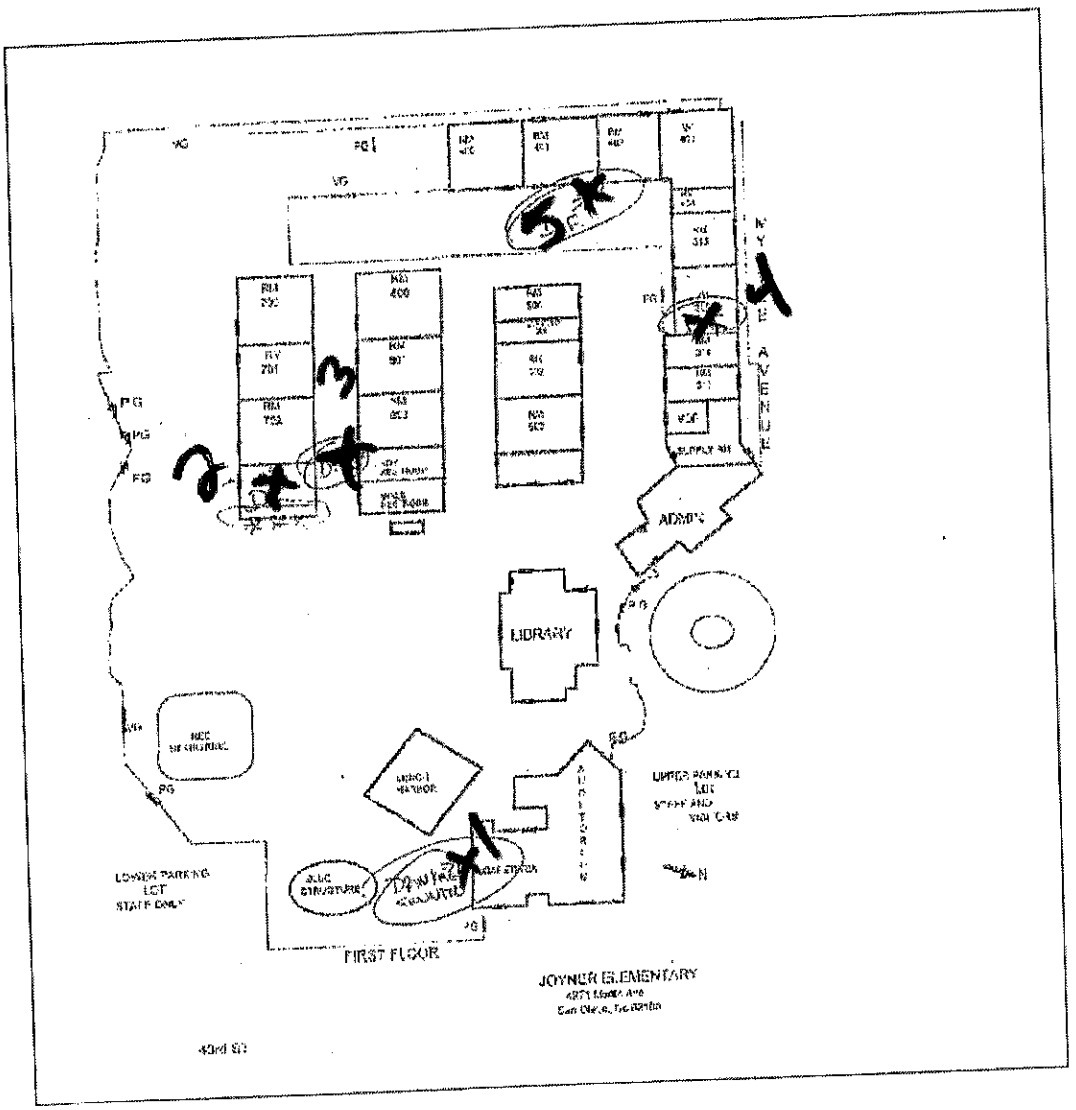

Water Quality Chemistry Services
Chain of Custody Form

05-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168592	Joyner Elementary	05-MAY-2017	0601	A. Molloy	SAMPLE 1	
2	W1168593	Joyner Elementary	05-MAY-2017	0606		SAMPLE 2	
3	W1168594	Joyner Elementary	05-MAY-2017	0604		SAMPLE 3	
4	W1168595	Joyner Elementary	05-MAY-2017	0609		SAMPLE 4	
5	W1168596	Joyner Elementary	05-MAY-2017	0611		SAMPLE 5	

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign: A Molloy	Received by: Name: TOM Burger Sign: Tom B. Burger	Date & Time: 05/05/17 @ 0635 Location: WQL Alv	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-5-17
LIMS Received Time: 0654
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Juarez Elementary

Physical Address of School: 2633 Melbourne Dr., San Diego, CA 92123

First Bell: 9:10am

Meeting Date: 4/05/2017

Sampling Plan Completion Date: 4/21/17

Completed by Print Name: Lori Sherman

Signature: *Lori Sherman* Date: 4/21/17

School's Point of Contact for Sampling Assistance

Name: ~~Lori Sherman~~ Ginette Commins

Phone: ~~619-301-9086~~ 619-302-5285

Email: lsherman1@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-28-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Juarez Elementary - 2633 Melbourne Dr., San Diego, CA 92123

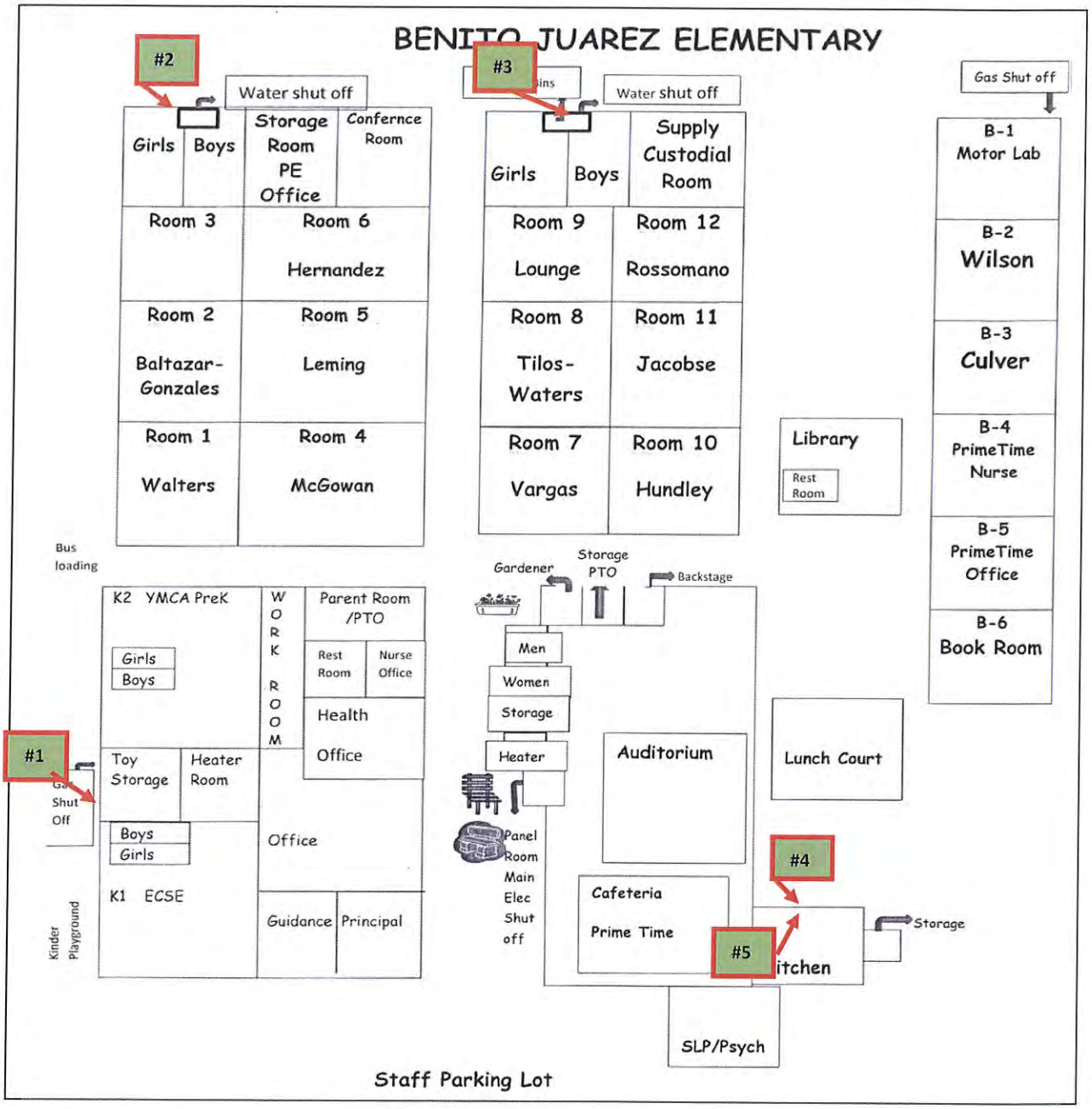

Sample No. 1

School: Juarez Elementary - 2633 Melbourne Dr., San Diego, CA 92123

Name of Building: Kindergarten

Location Description: Between K-1 & K-2 and next to girl's restroom

Type of Outlet: Bubbler

Description: Left bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169338

State Sample ID: 3710020-BDA-A

Date & Time Last Used: 4/28/17 @ 2200

Date & Time Sample Collected: 4/29/17 @ 717

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: Juarez Elementary - 2633 Melbourne Dr., San Diego, CA 92123

Name of Building: Classrooms 1-6

Location Description: North-East end of building next to boy/girl restrooms

Type of Outlet: Bubbler

Description: Right bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169339

State Sample ID: 3710020-BDA-B

Date & Time Last Used: 4/28/17 @ 2200

Date & Time Sample Collected: 4/29/17 @ 724

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: Juarez Elementary - 2633 Melbourne Dr., San Diego, CA 92123

Name of Building: Classrooms 9-12

Location Description: East end of building next to boy's restroom and P.E. Equipment room

Type of Outlet: Bubbler

Description: Right bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169340

State Sample ID: 3710020-BDA-C

Date & Time Last Used: 4/28/17 @ 2200

Date & Time Sample Collected: 4/29/17 @ 0726

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: Juarez Elementary - 2633 Melbourne Dr., San Diego, CA 92123

Name of Building: Lunch Court

Location Description: East exterior wall of kitchen next to lunch court

Type of Outlet: Bubbler

Description: Right bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169341

State Sample ID: 3710020-BDA-D

Date & Time Last Used: 4/28/17 @2200

Date & Time Sample Collected: 4/29/17 @0728

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 5

School: Juarez Elementary - 2633 Melbourne Dr., San Diego, CA 92123

Name of Building: Kitchen

Location Description: East interior wall of kitchen

Type of Outlet: ~~Spray nozzle~~ Faucet sampled per AMolloy Tbagh

Description:

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169342

State Sample ID: 3710020-BDA-E

Date & Time Last Used: 4/28/17 @ 2200

Date & Time Sample Collected: 4/29/17 @ 730

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

from sink faucet not spray nozzle

Exhibit 3d

Water Quality Chemistry Services
Chain of Custody Form

28-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1169338	Juarez Elementary	29-APR-2017	0717	A. Molloy	SAMPLE 1	Pb
2	W1169339	Juarez Elementary	29-APR-2017	0724		SAMPLE 2	
3	W1169340	Juarez Elementary	29-APR-2017	0726		SAMPLE 3	
4	W1169341	Juarez Elementary	29-APR-2017	0728		SAMPLE 4	
5	W1169342	Juarez Elementary	29-APR-2017	0730		SAMPLE 5	

1399

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign: AMolloy	Received by: Name: Gloria Siqueiros Sign:	Date & Time: 4/29/17 @0820 Location: WQL A/V	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 4/29/17
LIMS Received Time: 0830
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Kavod ES Charter

Physical Address of School: 3201 Marathon Drive, San Diego, CA 92123

First Bell: 8:30 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 4-26-2017

Completed by Print Name: Sergio Salinas

Signature: _____ Date: _____

School's Point of Contact for Sampling Assistance

Name: ~~Sergio Salinas~~ Daniel Lopez

Phone: ~~(619) 302-0564~~ 619 306 3383 (858) 573-5873

Email: ssalinas@sandi.net

City of San Diego 3710020

Approved By: _____ 5/22/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Kavod ES Charter -3201 Marathon Drive, San Diego, CA 92123

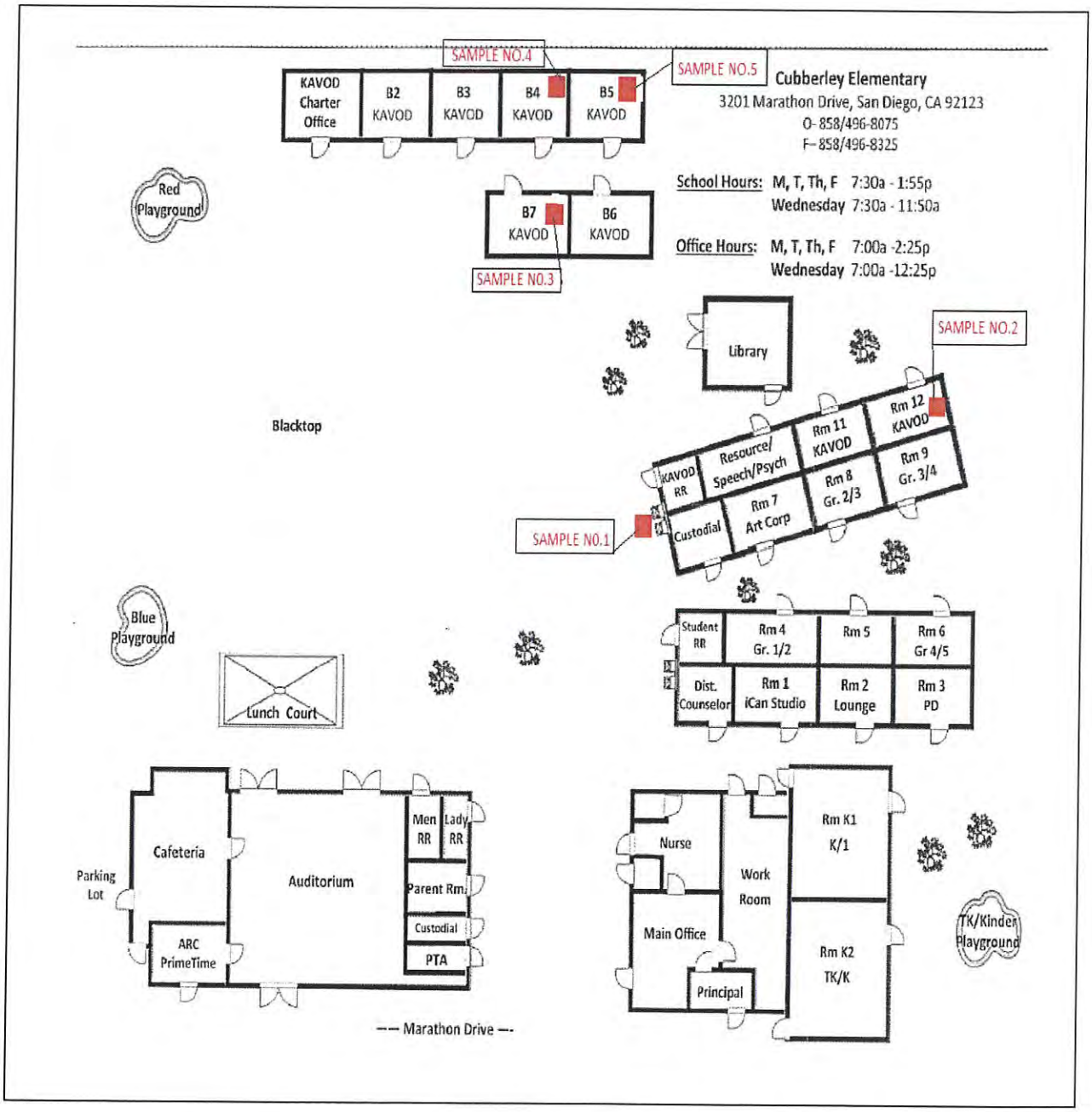

NORTH

Sample No. 1

School: Kavod ES Charter -3201 Marathon Drive, San Diego, CA 92123

Name of Building: Bathrooms and custodial room (next to rooms 7-12)

Location Description: Outside Bathrooms next to custodial room

Type of Outlet: Bubbler

Description: Right Bubbler

Comments/Miscellaneous: (School ID NO.075)

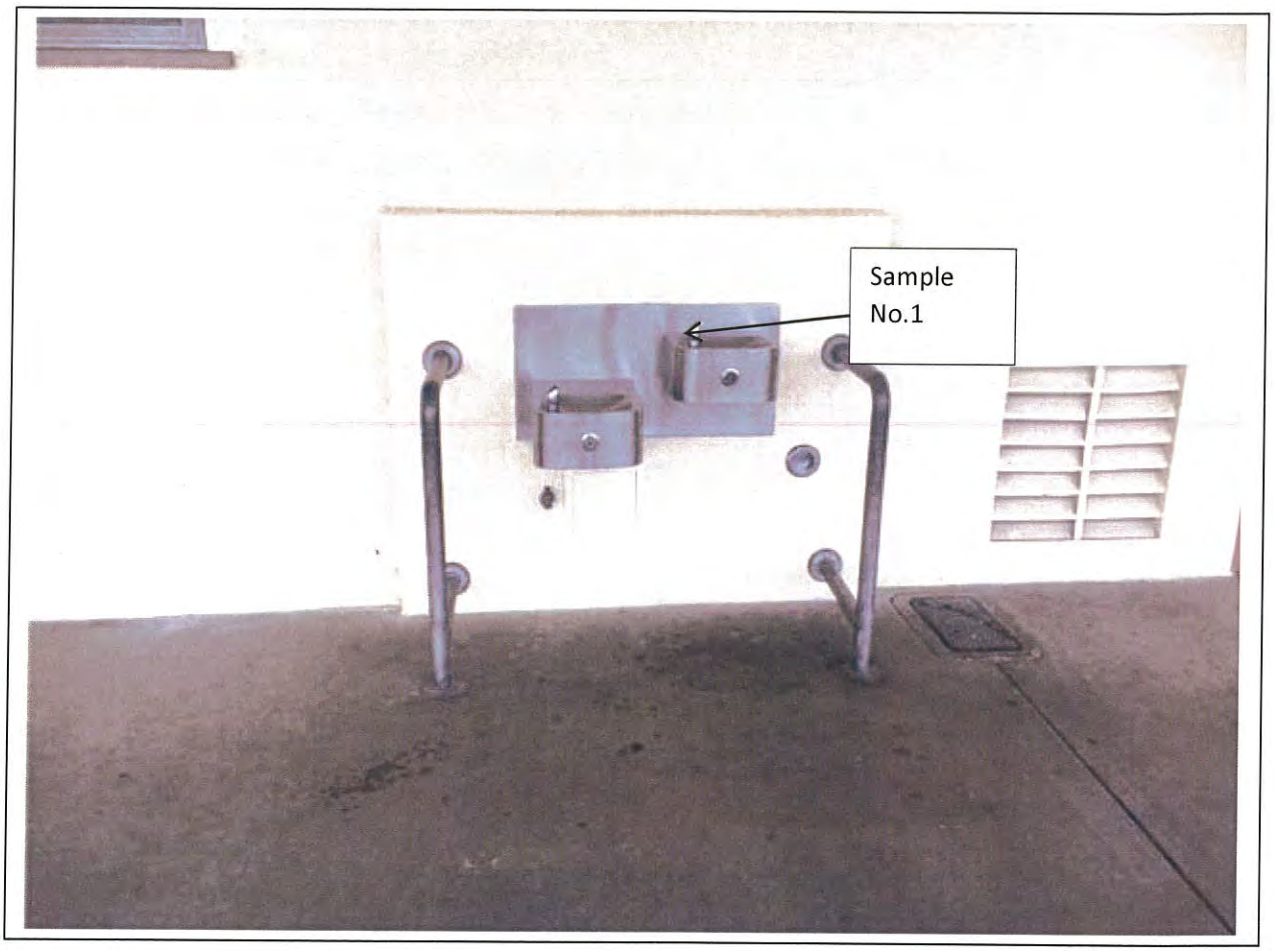

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174220

State Sample ID: 3710020-CAG-A

Date & Time Last Used: 5/22/17 6-10pm

Date & Time Sample Collected: 5/23/17 5:45AM

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Feryal Moshavegh

Sample No. 2

School: Kavod ES Charter -3201 Marathon Drive, San Diego, CA 92123

Name of Building: Building Room 12

Location Description: Room 12

Type of Outlet: Bubbler

Description: Bubbler at sink

Comments/Miscellaneous: (School ID NO.075)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174221

State Sample ID: 3710020-CAG-B

Date & Time Last Used: 5/22/17 - 6:10pm

Date & Time Sample Collected: 5/23/17 5:50 am

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Feryal Moshavegh

Sample No. 3

School: Kavod ES Charter -3201 Marathon Drive, San Diego, CA 92123

Name of Building Room ~~7~~ B4

Location Description: Sink inside Room ~~4~~ B4

Type of Outlet: Bubbler

Description: Bubbler at sink

Comments/Miscellaneous: (School ID NO.075)

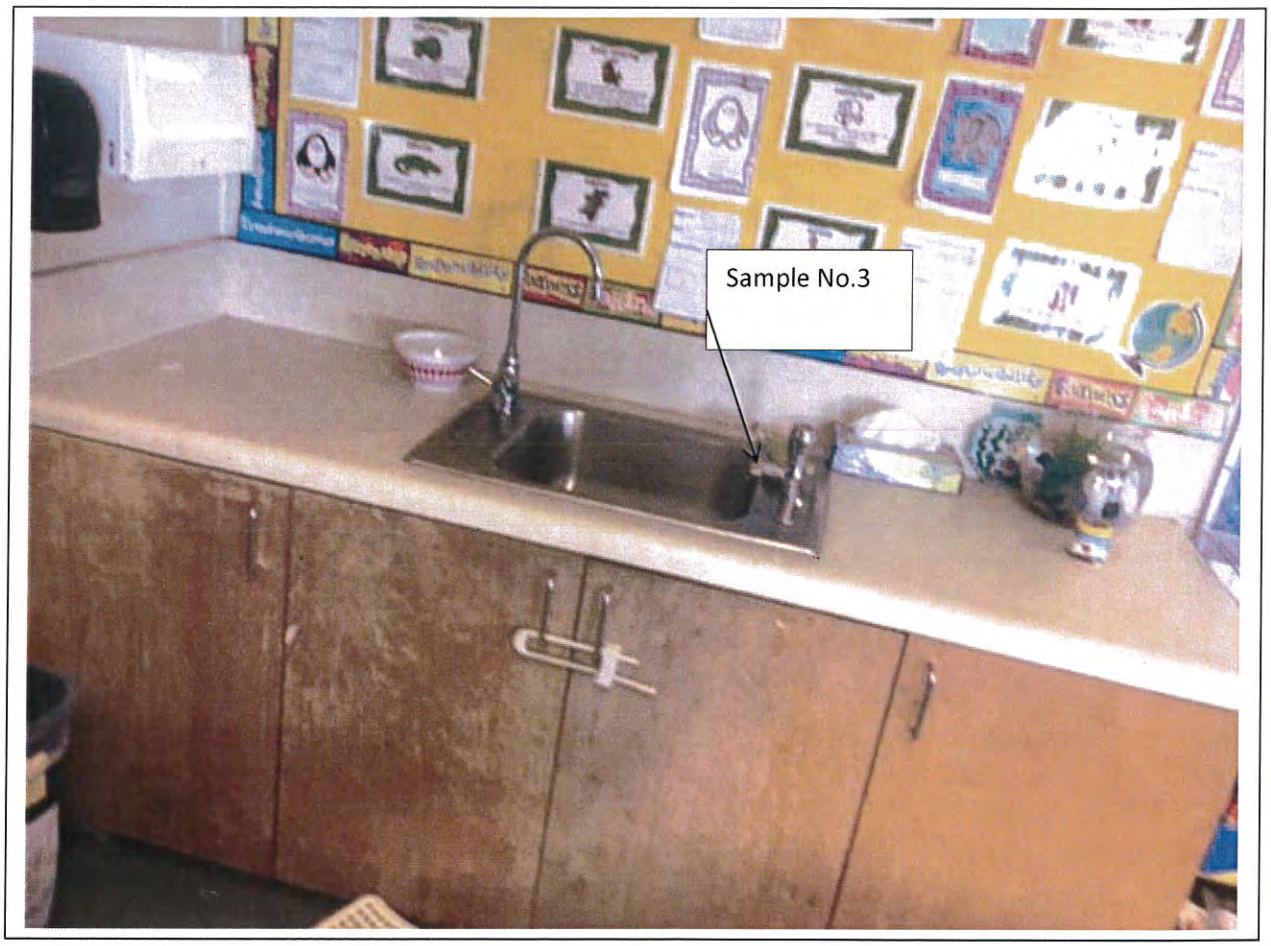

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174222

State Sample ID: 3710020-CAG-C

Date & Time Last Used: 5/22/17 - 6-10 pm

Date & Time Sample Collected: 5/23/17 6:05

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Feryal Mosharvegh

Sample No. 4

School: Kavod ES Charter -3201 Marathon Drive, San Diego, CA 92123

Name of Building: Room B6

Location Description: Sink inside room B6

Type of Outlet: Bubbler

Description: Bubbler at sink

Comments/Miscellaneous: (School ID NO.075)

New Sample 4 P.C

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174223

State Sample ID: 3710020-CAG-D

Date & Time Last Used:

Date & Time Sample Collected:

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector:

Sample No. 4

School: Kavod ES Charter -3201 Marathon Drive, San Diego, CA 92123

Name of Building: Room 4 6

Location Description: Sink inside room 4 6

Type of Outlet: Bubbler

Description: Bubbler at sink

Comments/Miscellaneous: (School ID NO.075)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174223

State Sample ID: 3710020-CAG-D

Date & Time Last Used: 5/22/17 6-10pm

Date & Time Sample Collected: 5/23/17 6:07

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Feryal Moshavegh

Sample No. 5

School: Kavod ES Charter -3201 Marathon Drive, San Diego, CA 92123

Name of Building: Room ~~5~~ 7

Location Description: Sink inside room ~~5~~ 7

Type of Outlet: Bubbler

Description: Bubbler at sink

Comments/Miscellaneous: (School ID NO.075)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174224

State Sample ID: 3710020-CAG-E

Date & Time Last Used: 5/22/17 6:10pm

Date & Time Sample Collected: 5/23/17 6:10

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Feryal Moshavegh

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

22-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1174220	Kavod Elementary Charter	23-MAY-2017	5:45am	Feryal	SAMPLE 1	
2	W1174221	Kavod Elementary Charter	23-MAY-2017	5:50 am	Feryal	SAMPLE 2	
3	W1174222	Kavod Elementary Charter	23-MAY-2017	6:05 am	Feryal	SAMPLE 3	
4	W1174223	Kavod Elementary Charter	23-MAY-2017	6:07am	Feryal	SAMPLE 4	
5	W1174224	Kavod Elementary Charter	23-MAY-2017	6:10am	Feryal	SAMPLE 5	

1408

Chain of Custody:

Relinquished by: Name: FERYAL MOSHAVEGH Sign: Feryal Moshavegh	Received by: Name: Alejandra Molloy Sign: A Molloy	Date & Time: 5/23/17 @0645 Location: ALV	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: A Molloy
Received Date: 5/23/17
LIMS Received Time: 0742
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Kearny High School

Physical Address of School: 7651 Wellington Way, San Diego, Calif, 92111

First Bell: 7:30am

Meeting Date:

Sampling Plan Completion Date: 5/2/2017

Completed by Print Name: Timothy Brown

Signature: Date:

School's Point of Contact for Sampling Assistance

Name: ~~Timothy Brown~~ DAN LOPEZ

Phone: ~~619-302-9427~~ 619-306-383

Email: tbrown1@sandi.net

City of San Diego 3710020

Approved By: 5/9/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Kearny High School-7651 Wellington Way, San Diego, Calif 92111

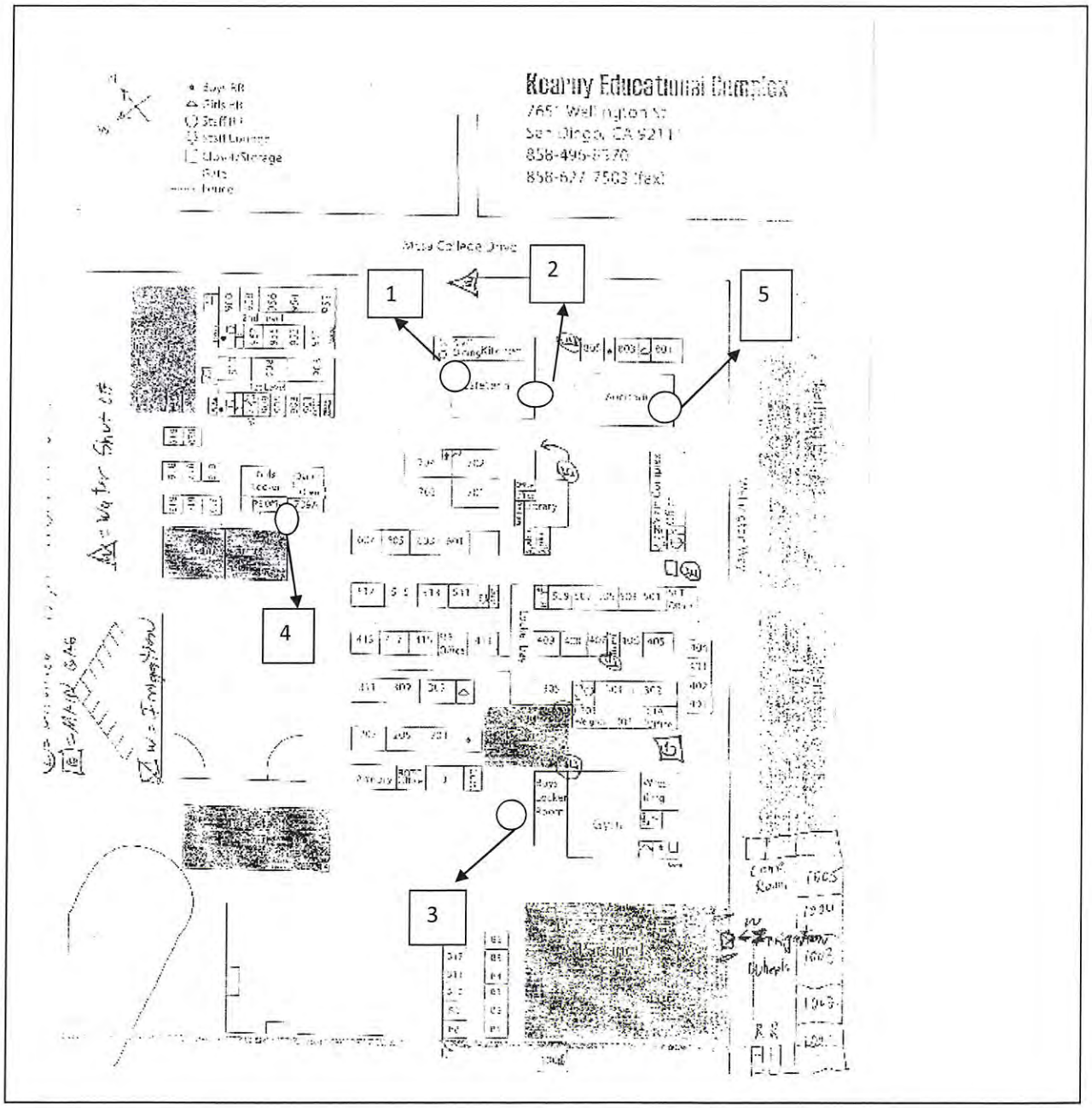

Sample No. 1

School: Kearny High School

Name of Building: Cafeteria

Location Description: West Interior Wall

Type of Outlet: Single Faucet

Description: Hot/ Cold Water- swing arm Faucet

Comments/Miscellaneous: Fruit and vegetable rinsing area

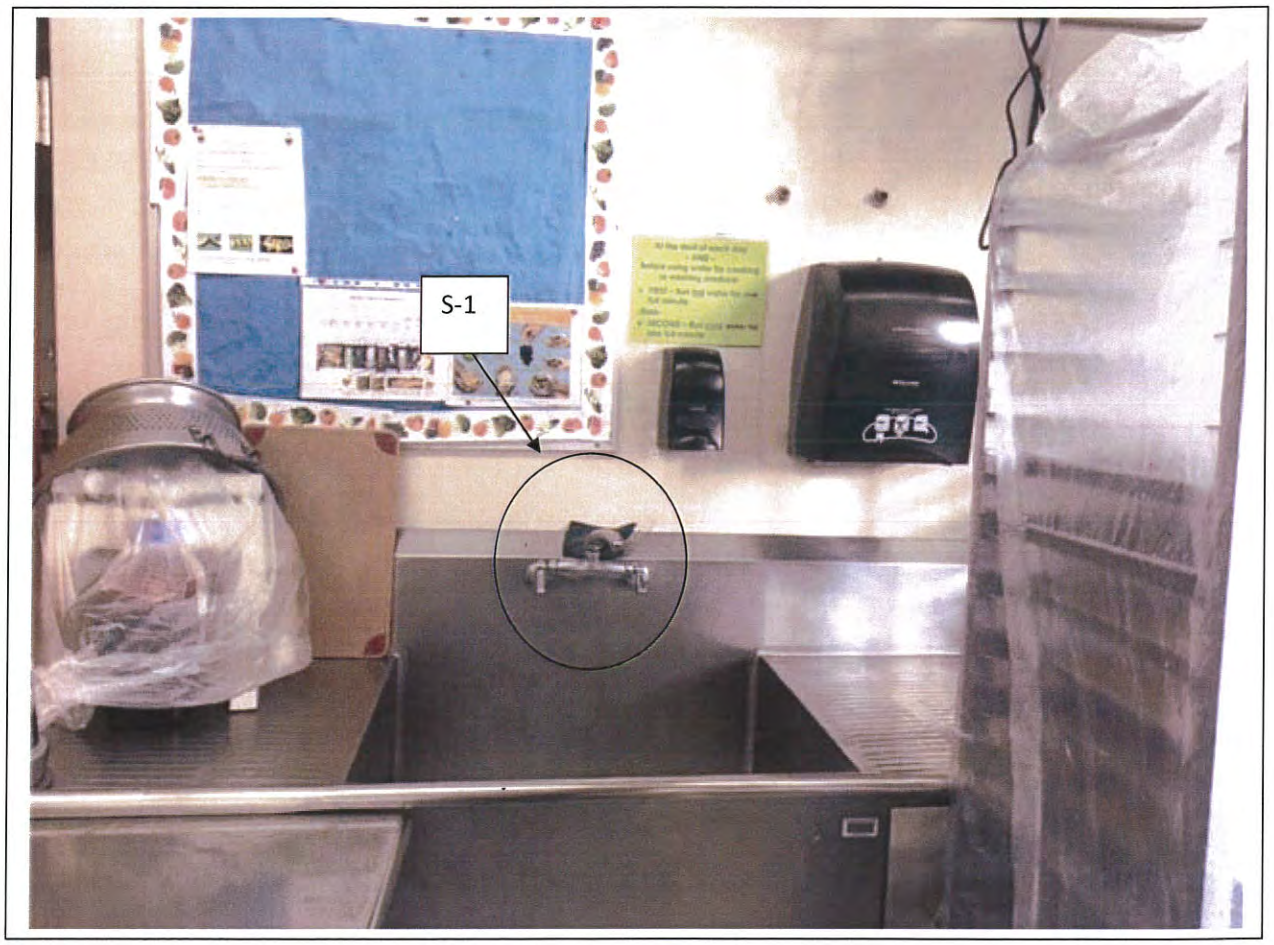

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171684

State Sample ID: 3710020-BHE-A

Date & Time Last Used: 5/11/17 between 6-10pm

Date & Time Sample Collected: 5/12/17 @ 0605

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rumble

Sample No. 2

School: Kearny High School

Name of Building: Lunch Court

Location Description: East Facing Wall,

Type of Outlet: Exterior mounted bubbler

Description: two single mounted bubblers

Comments/Miscellaneous: Sample right Bubbler

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171685

State Sample ID: 3710020-BHE-B

Date & Time Last Used: 5/11/17 between 6-10pm

Date & Time Sample Collected: 5/12/17 @ 0600

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rombo

Sample No. 3

School: Kearny High School

Name of Building: Boys Locker Room

Location Description: East Facing Exterior Wall

Type of Outlet: 3 Bubbler System

Description: Sample Right Bubbler

Comments/Miscellaneous:

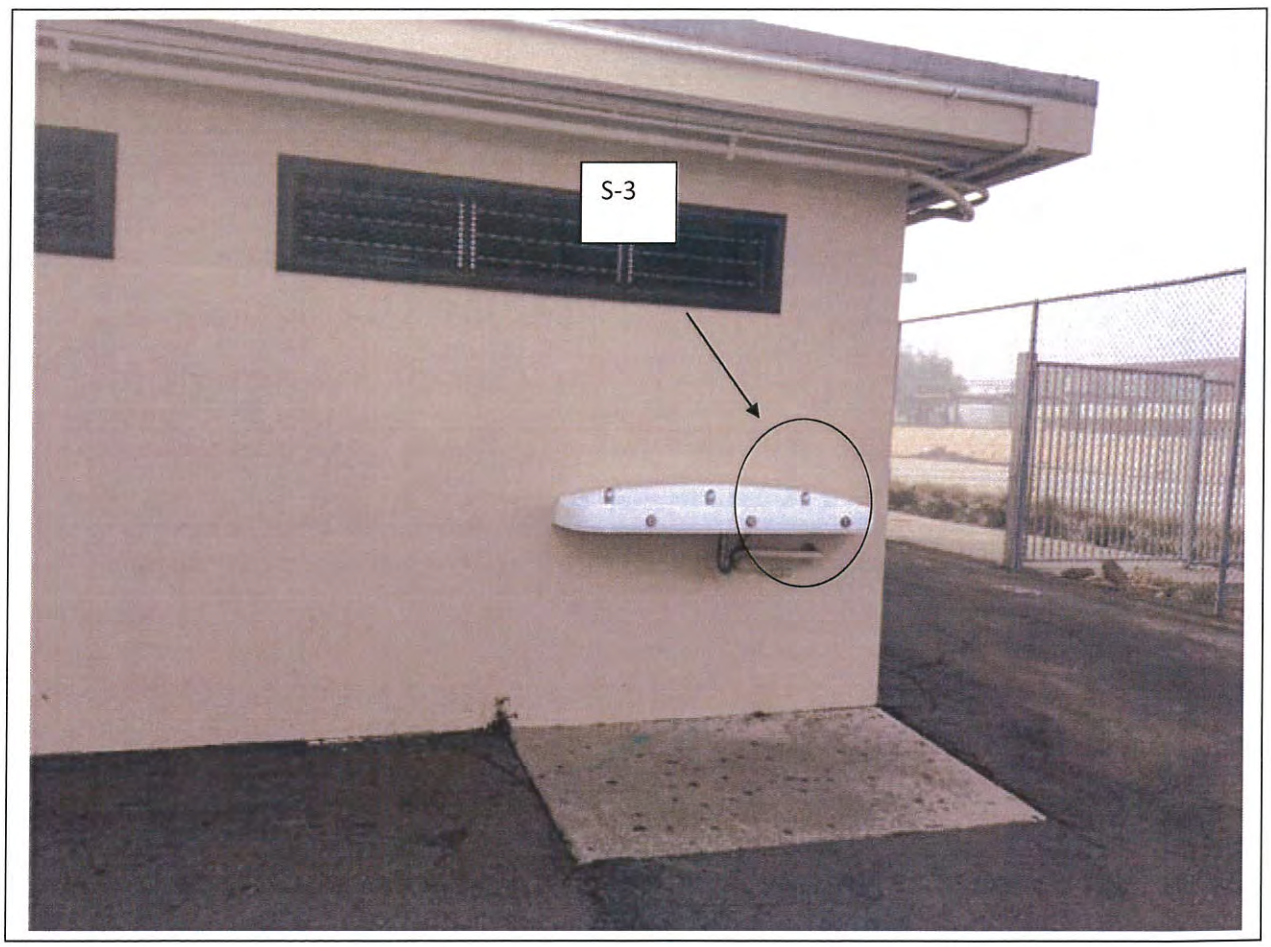

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171686

State Sample ID: 3710020-BHE-C

Date & Time Last Used: 5/11/17 between 6-10pm

Date & Time Sample Collected: 5/12/17 @ 0615

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

Sample No. 4

School: Kearny High School

Name of Building: Girls Gym

Location Description: South Exterior Wall

Type of Outlet: Exterior Wall Mounted 3 bubbler

Description: Sample far Left Bubbler

Comments/Miscellaneous:

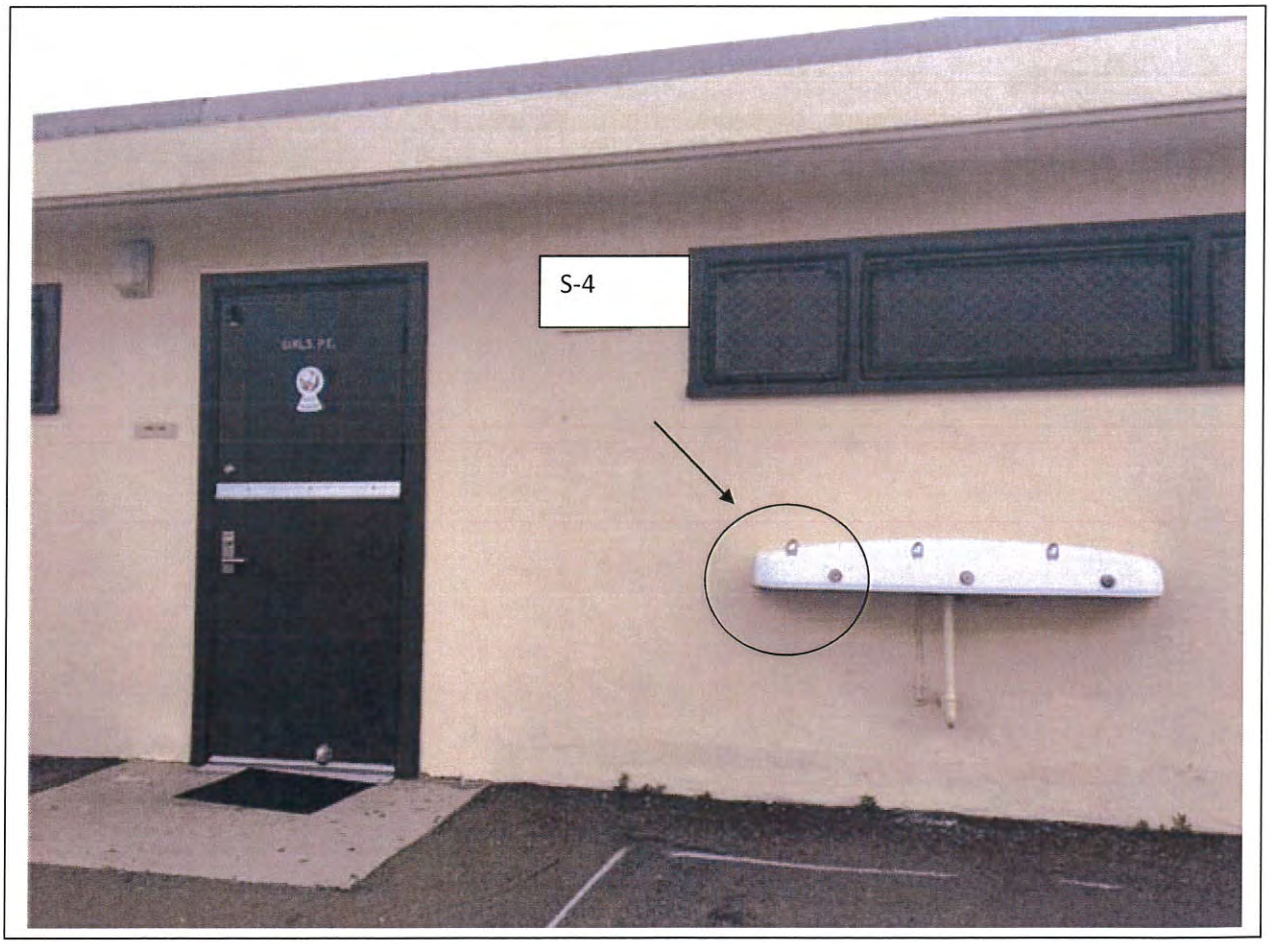

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171687

State Sample ID: 3710020-BHE-D

Date & Time Last Used: 5/11/17 between 6-10pm

Date & Time Sample Collected: 5/12/17 @ 0608

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: Joshua Rambo

Sample No. 5

School: Kearny High School

Name of Building: Auditorium

Location Description: Interior wall mounted, left side as you enter building

Type of Outlet: 2 single wall mounted bubbler

Description: Sample left fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171688

State Sample ID: 3710020-BHE-E

Date & Time Last Used: 5/11/17 between 6-10pm

Date & Time Sample Collected: 5/12/17 @ 0558

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rank

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

09-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1171684	Kearny SCT	12-MAY-2017	0605 ✓	JR	SAMPLE 1	
2	W1171685	Kearny SCT	12-MAY-2017	0600 ✓	JR	SAMPLE 2	
3	W1171686	Kearny SCT	12-MAY-2017	0615 ✓	JR	SAMPLE 3	
4	W1171687	Kearny SCT	12-MAY-2017	0608 ✓	JR	SAMPLE 4	
5	W1171688	Kearny SCT	12-MAY-2017	0558 ✓	JR	SAMPLE 5	

1416

Chain of Custody:

Relinquished by: Name: Joshua Rambo Sign: [signature]	Received by: Name: Tom Burger Sign: TM B. Burger	Date & Time: 5/12/17 @ 0650 Location: ALV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: Mally
Received Date: 5/12/17
LIMS Received Time: 0715
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Keiller Leadership Academy

Physical Address of School: 7270 Lisbon St, San Diego, CA 9211403007

First Bell: 7:30 am

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/05/2017

Completed by Print Name: Ginette Commins

Signature: GCommins Date: 04/05/2017

School's Point of Contact for Sampling Assistance

Name: Ginette Commins

Phone: (858) 627-7201

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-19-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Keiller Leadership Academy, 7270 Lisbon St,, San Diego, CA 92114-3007

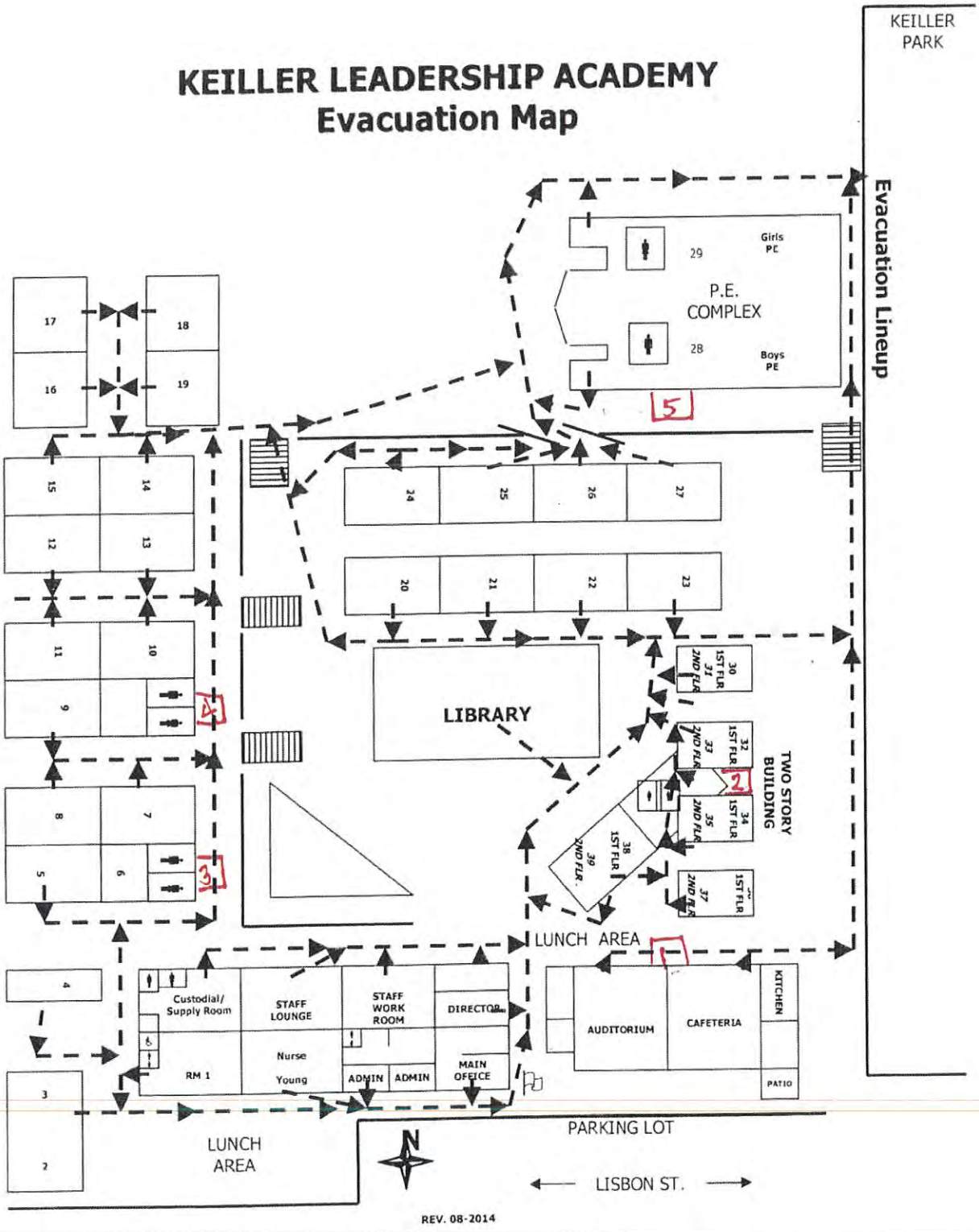

Sample No. 1

School: Keiller Leadership Academy

Name of Building: Auditorium/Cafeteria (South side on the map)

Location Description: Wall mounted exterior, between Auditorium & Cafeteria, facing lunch area

Type of Outlet: bubbler

Description: left bubbler head

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location ID# 0365

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167409

State Sample ID: 3710020-AGE-A

Date & Time Last Used: 4/18/17 1810 — tagger says tags reused from Tues 4/18 but placed on 4/19

Date & Time Sample Collected: 4/20/17 0600

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez

Sample No. 2

School: Keiller Leadership Academy

Name of Building: Two-story Bldg. with Elevator (East side on the map)

Location Description: Wall mounted exterior, 1st Floor, next to Equipment Room (H101A), facing Rooms 32-34

Type of Outlet: bubbler

Description: lower/right bubbler on a dual fountain

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location ID# 0365

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167410

State Sample ID: 3710020-AGE-B

Date & Time Last Used: 4/18/17 EA ~~06~~ 1400 - see sample 1 note

Date & Time Sample Collected: 4/20/17 0605

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarenga

Sample No. 3

School: Keiller Leadership Academy

Name of Building: Rooms 5-8 (West side on the map)

Location Description: Wall mounted exterior, next to Boys Restroom, facing courtyard & 2-story bldg.

Type of Outlet: bubbler

Description: right bubbler head

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location ID# 0365

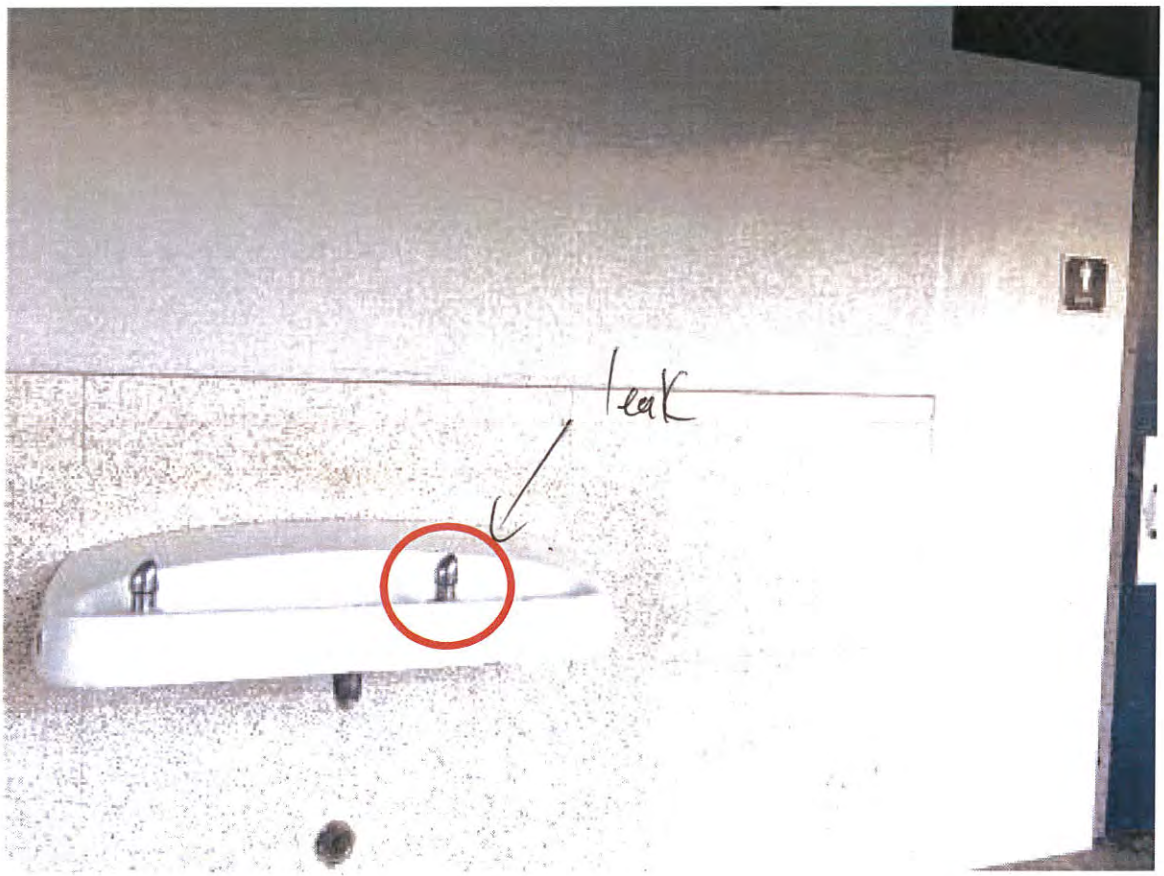

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167411

State Sample ID: 3710020-AGE-C

Date & Time Last Used: 4/18/17 1800 - see note on sample 1

Date & Time Sample Collected: 4/20/17 ~~0610~~ EA 0615

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez

* leaking from bottom of fountain head

Sample No. 4

School: Keiller Leadership Academy

Name of Building: Rooms 9-11 (West side on the map)

Location Description: Wall mounted exterior, next to a room (storage), facing Library

Type of Outlet: bubbler

Description: left bubbler head

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location ID# 0365

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167412

State Sample ID: 3710020-AGE-D

Date & Time Last Used: 4/18/17 1810 – see note

Date & Time Sample Collected: 4/20/17 0615

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez

Sample No. 5

School: Keiller Leadership Academy

Name of Building: P.E. Complex (North side on the map)

Location Description: Wall mounted exterior, between Boys Restroom and Coaches Office

Type of Outlet: bubbler

Description: right bubbler head

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location ID# 0365

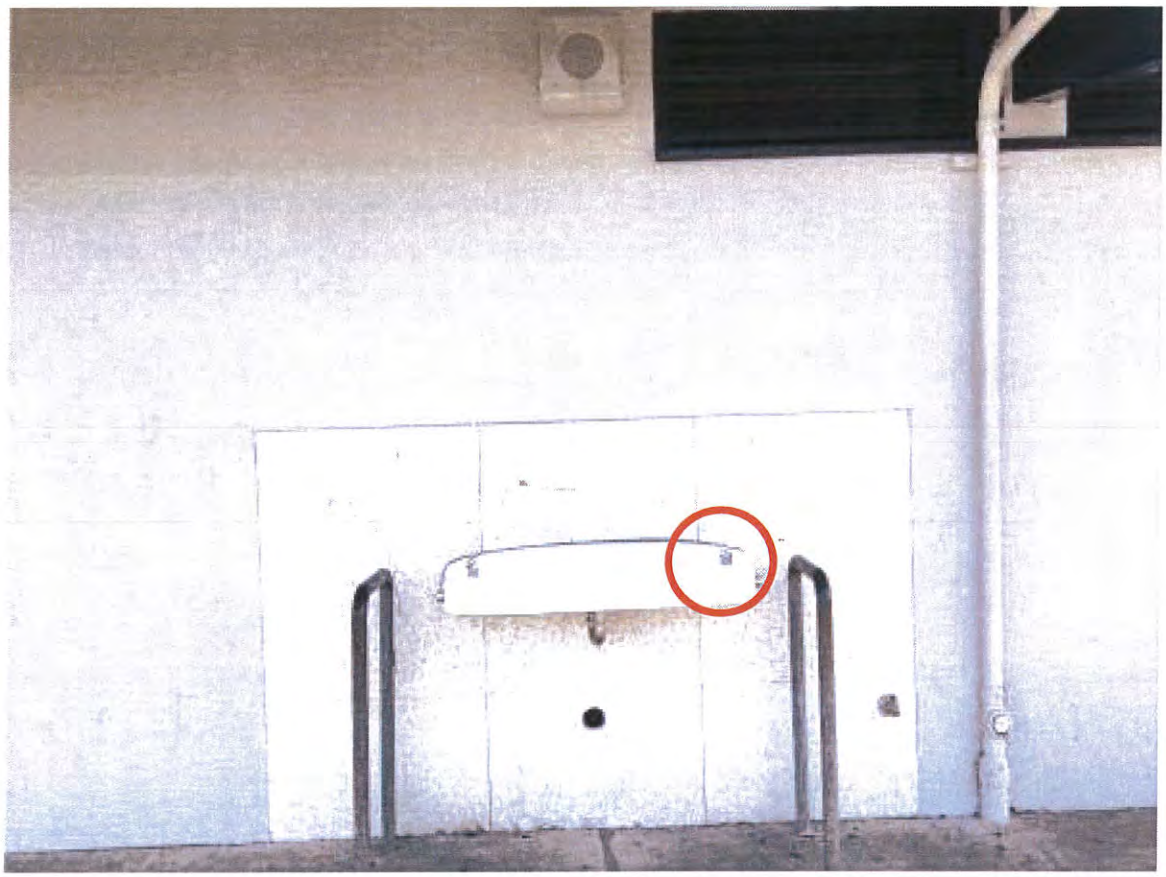

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167413

State Sample ID: 3710020-AGE-E

Date & Time Last Used: 4/18/17 1800 - see note

Date & Time Sample Collected: 4/20/17 0610

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Ahrenga

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

19-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1167409	Keiler Leadership	20-APR-2017	0600 ✓	EA	SAMPLE 1	
2	W1167410	Keiler Leadership	20-APR-2017	0605 ✓	EA	SAMPLE 2	
3	W1167411	Keiler Leadership	20-APR-2017	~~0610~~ 0615 ✓	EA	SAMPLE 3	
4	W1167412	Keiler Leadership	20-APR-2017	0610 ✓	EA	SAMPLE 4	
5	W1167413	Keiler Leadership	20-APR-2017	0610	EA	SAMPLE 5	

1424

Chain of Custody:

Relinquished by: Name: E. Ahanigg Sign: 4/20/17 0635	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 4/20/2017 @ 0643 Location: WQL AIV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 4/20/17
LIMS Received Time: 0644
Reviewed By: AMolloy

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: **Kimbrough Elementary**

Physical Address of School: 321 Hoitt St., San Diego, CA 92102-3132

First Bell: 7:40 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 4-24-2017

Completed by Print Name: Cesar Jimenez

Signature: C.J. Date: 4-24-2017

School's Point of Contact for Sampling Assistance

Name: Cesar Jimenez

Phone: 619-261-1588

Email: cjimenez2@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 4/28/17 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Kimbrough Elementary - 321 Hoitt St., San Diego, CA 92102-3132

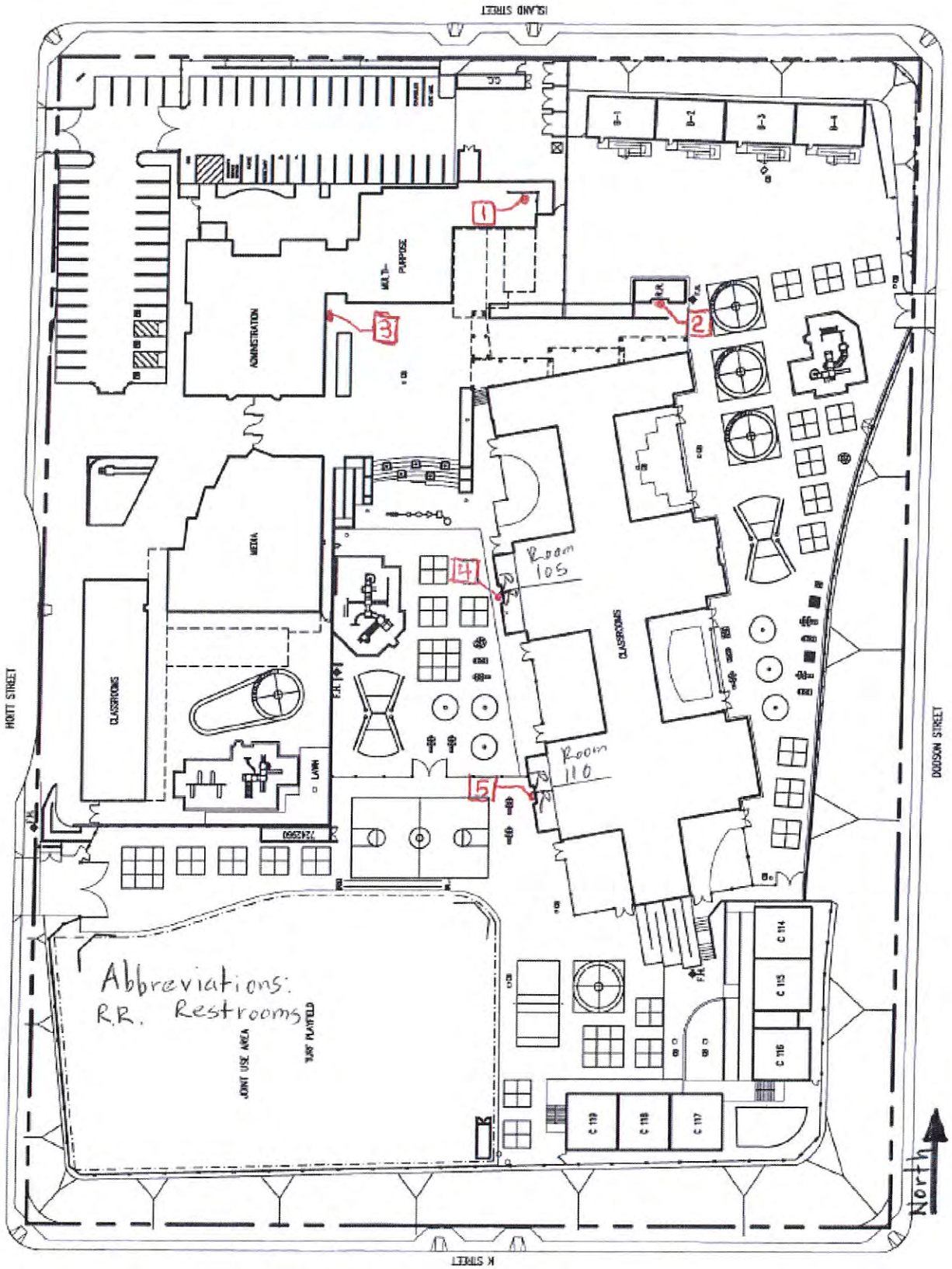

Sample No. 1

School: Kimbrough Elementary

Name of Building: Multipurpose Bldg.

Location Description: North wall of Kitchen

Type of Outlet: Faucet

Description: Faucet on a 2- compartment sink

Comments/Miscellaneous: SDUSD ID code #: 162-01

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168358

State Sample ID: 3710020-BBB-A

Date & Time Last Used: 5/3/17 between 6-10pm

Date & Time Sample Collected: 5/4/17 @ 0605

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rawle

Sample No. 2

School: Kimbrough Elementary

Name of Building: Restrooms Bldg.

Location Description: South wall

Type of Outlet: Bubbler

Description: Left/Lower Bubbler on a double fountain

Comments/Miscellaneous: SDUSD ID code #: 162-02

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168359

State Sample ID: 3710020-BBB-B

Date & Time Last Used: 5/3/17 between 6-10pm

Date & Time Sample Collected: 5/4/17 @ 0609

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: Joshua Rambo

– Slow leak from both bubblers

Sample No. 3

School: Kimbrough Elementary

Name of Building: Administration Bldg.

Location Description: East wall

Type of Outlet: Bubbler

Description: Left bubbler on a quadruple fountain

Comments/Miscellaneous: SDUSD ID code #: 162-03

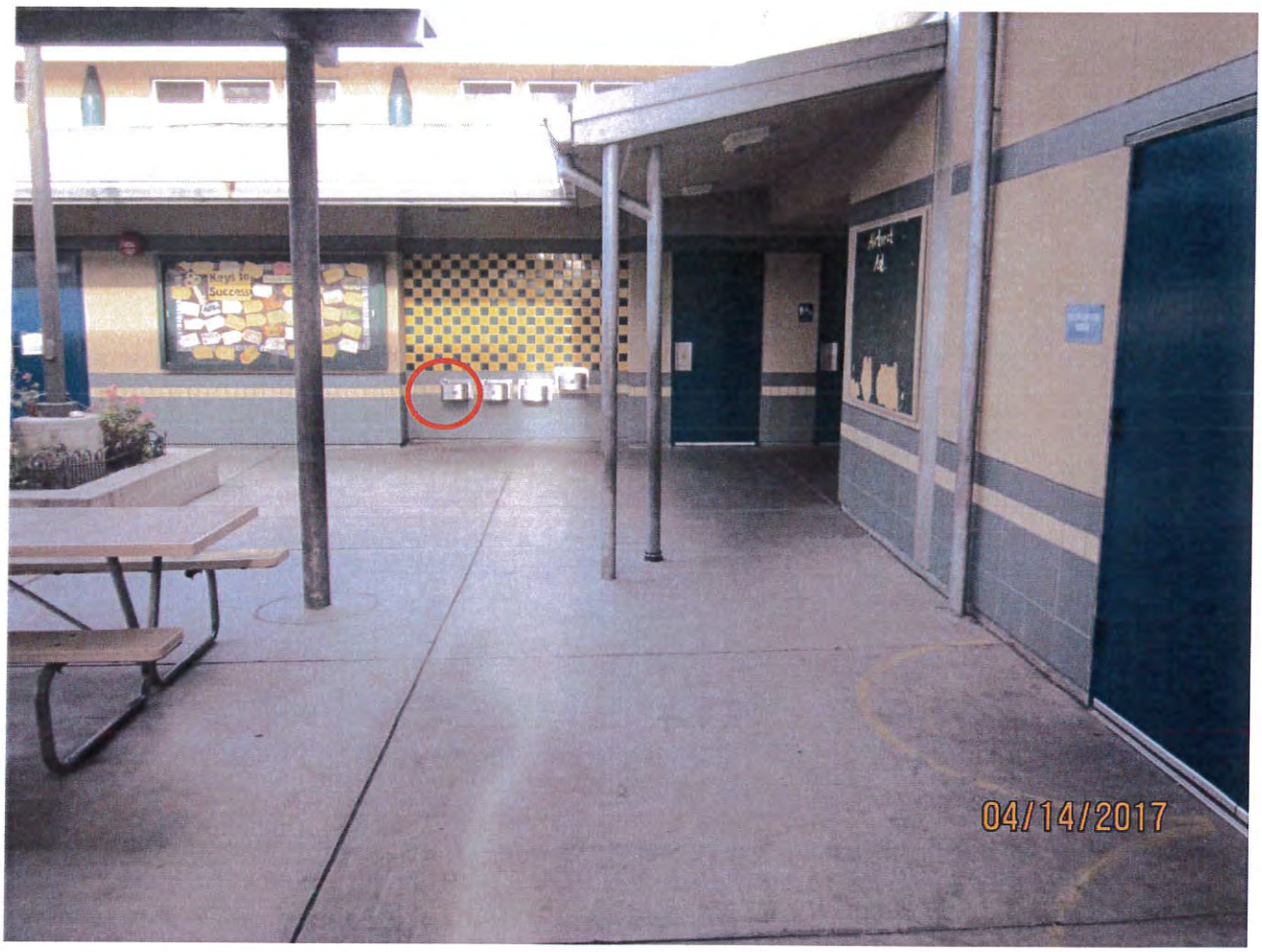

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168360

State Sample ID: 3710020-BBB-C

Date & Time Last Used: 5/3/17 between 6-10pm

Date & Time Sample Collected: 5/4/17 @ 0609

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: Joshua Rambo

Sample No. 4

School: Kimbrough Elementary

Name of Building: Classroom Bldg. 100

Location Description: West wall of restrooms near room 105

Type of Outlet: Bubbler

Description: Middle Bubbler on a quintuple fountain

Comments/Miscellaneous: SDUSD ID code #: 162-04

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168361

State Sample ID: 3710020-BBB-D

Date & Time Last Used: 5/3/17 between 6-10pm

Date & Time Sample Collected: 5/4/17 @ 0613

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

Sample No. 5

School: Kimbrough Elementary

Name of Building: Classroom Bldg. 100

Location Description: West wall of restrooms near room 110

Type of Outlet: Bubbler

Description: Middle Bubbler on a quintuple fountain

Comments/Miscellaneous: SDUSD ID code #: 162-05

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168362

State Sample ID: 3710020-BBB-E

Date & Time Last Used: 5/3/17 between 6-10pm

Date & Time Sample Collected: 5/4/17 @ 0615

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rubio

Water Quality Chemistry Services
Chain of Custody Form

03-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168353	Kimbrough Elementary	04-MAY-2017	0605	JR	SAMPLE 1	
2	W1168354	Kimbrough Elementary	04-MAY-2017	0609	JR	SAMPLE 2	
3	W1168355	Kimbrough Elementary	04-MAY-2017	0600	JR	SAMPLE 3	
4	W1168356	Kimbrough Elementary	04-MAY-2017	JR ~~0615~~ 0613	JR	SAMPLE 4	
5	W1168357	Kimbrough Elementary	04-MAY-2017	0615	JR	SAMPLE 5	

Chain of Custody:

Relinquished by: Name: Justin Rombo Sign:	Received by: Name: Tom Burger Sign: Tom B Burger	Date & Time: 5/4/17 @ 0725 Location: ALV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-9-17
LIMS Received Time: 0725
Reviewed By:

Exhibit 31

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: King/Chavez Academy

Physical Address of School: 415 31th Street San Diego, CA 92102

First Bell: 8:30 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 4-19-2017

Completed by Print Name: Sergio Salinas

Signature: Date: 4/19/2017

School's Point of Contact for Sampling Assistance

Name: Sergio Salinas

Phone: (619) 302-0564

Email: ssalinas@sandi.net

City of San Diego 3710020

Approved By: _____ _____

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: King/Chavez Academy- 415 31th Street San Diego, CA 92102

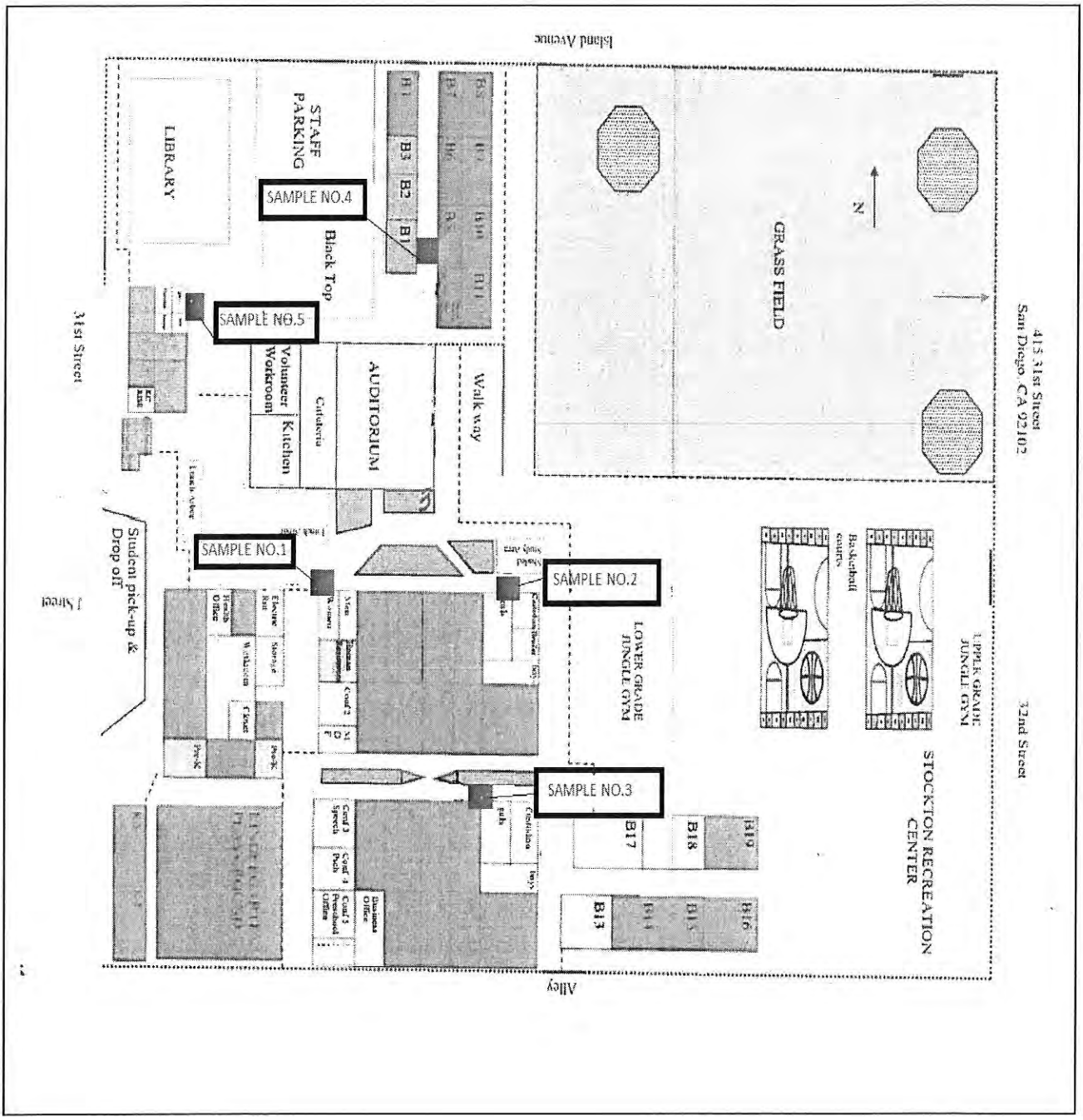

NORTH

Sample No. 1

School: King/Chavez Academy- 415 31th Street San Diego, CA 92102

Name of Building: Bathrooms next to the main office

Location Description: Outside Bathrooms east of main office

Type of Outlet: Bubbler

Description: Right Bubbler

Comments/Miscellaneous: (School ID NO.267)

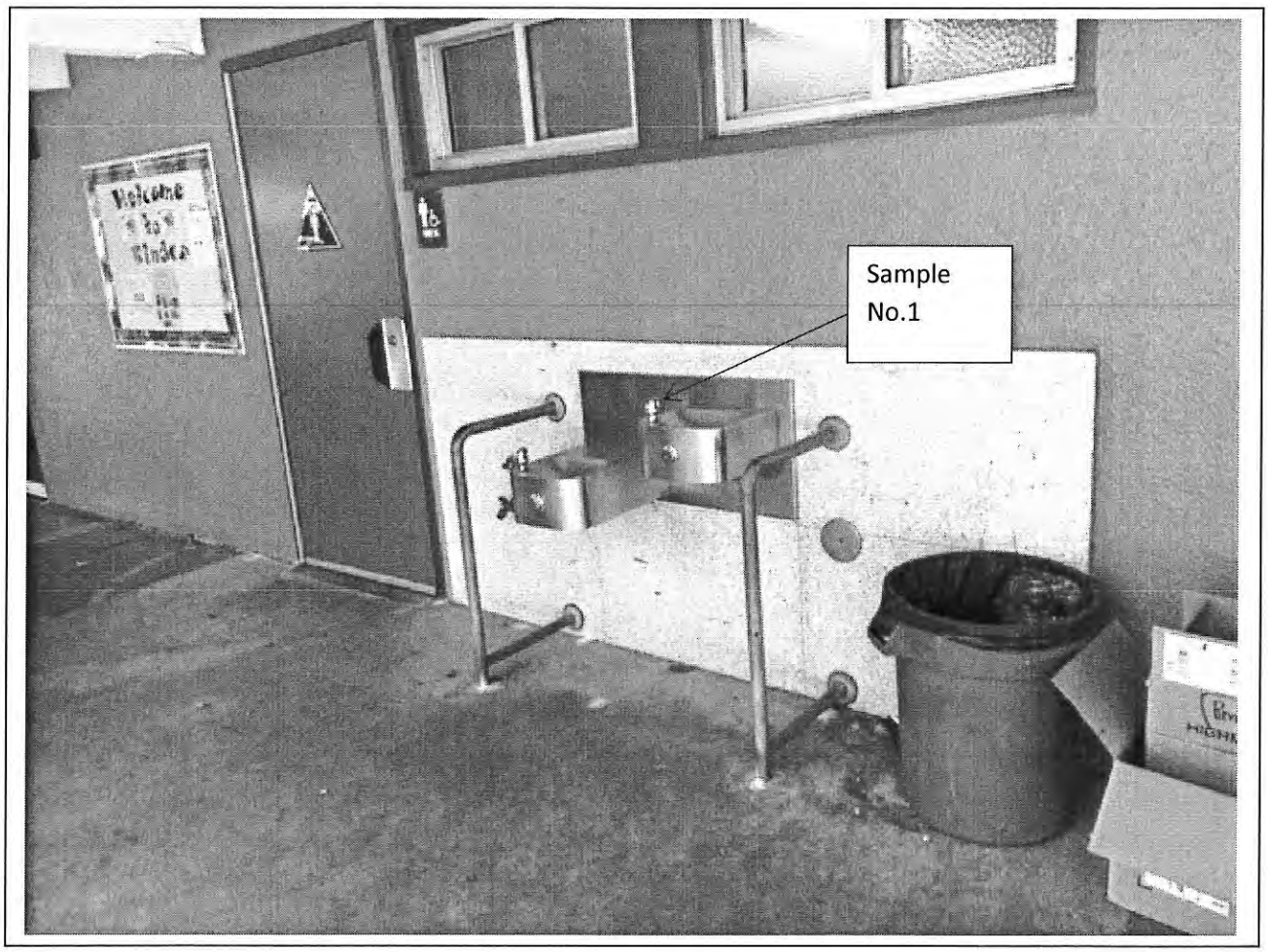

City use only below this line

Sample type Initial ☐ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID:

State Sample ID:

Date & Time Last Used:

Date & Time Sample Collected:

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector:

Sample No. 2

School: King/Chavez Academy- 415 31th Street San Diego, CA 92102

Name of Building: Next to girls bathroom and jungle gym

Location Description: Outside drinking fountain

Type of Outlet: Bubbler

Description: Middle Bubbler

Comments/Miscellaneous: (School ID NO.267)

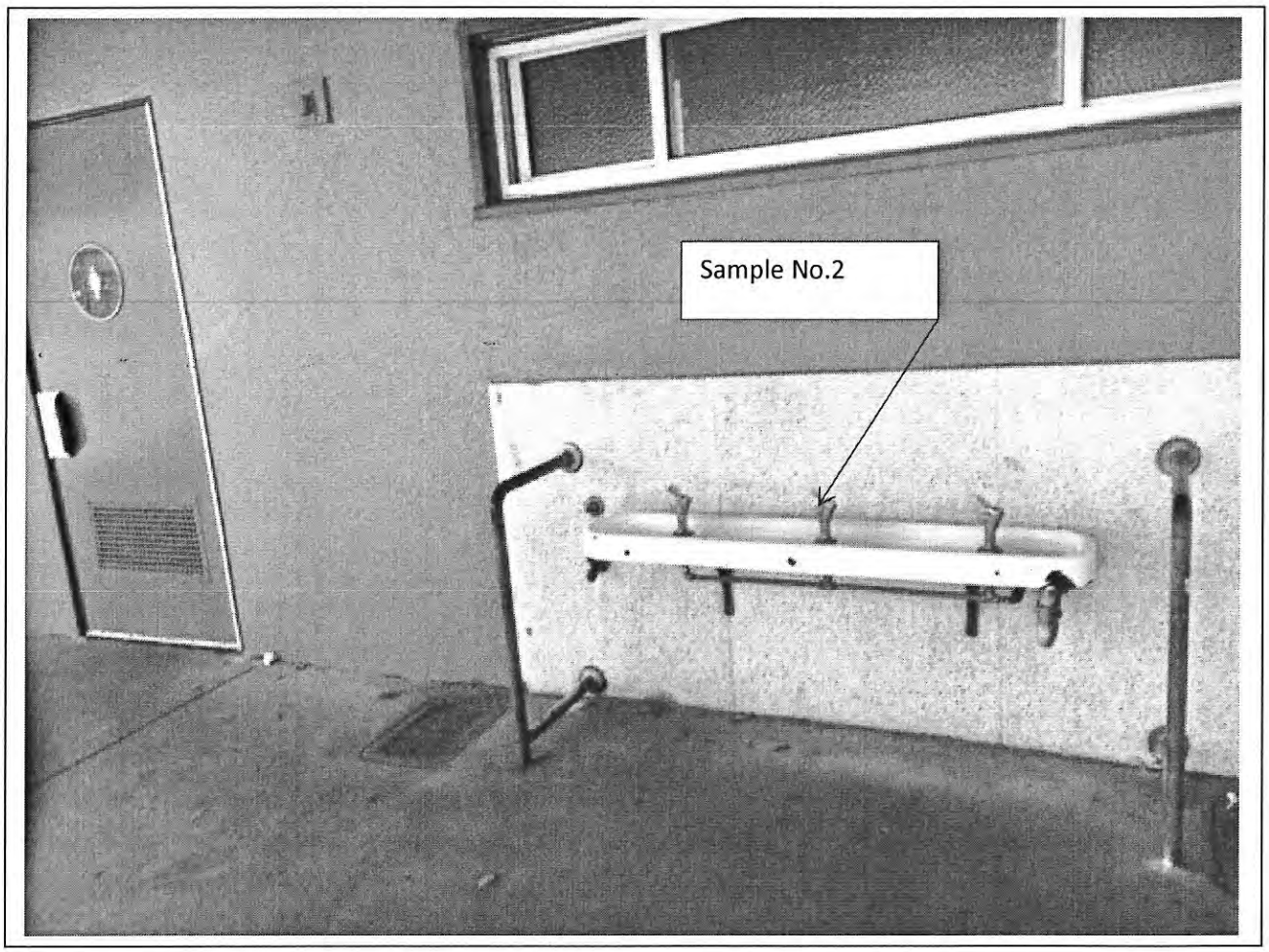

City use only below this line

Sample type Initial ☐ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID:_____

State Sample ID:_____

Date & Time Last Used:_____

Date & Time Sample Collected:_____

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector:_____

Sample No. 3

School: King/Chavez Academy- 415 31th Street San Diego, CA 92102

Name of Building East of room 13

Location Description: Outside drinking fountain next to room 13

Type of Outlet: Bubbler

Description: Middle Bubbler

Comments/Miscellaneous: (School ID NO.267)

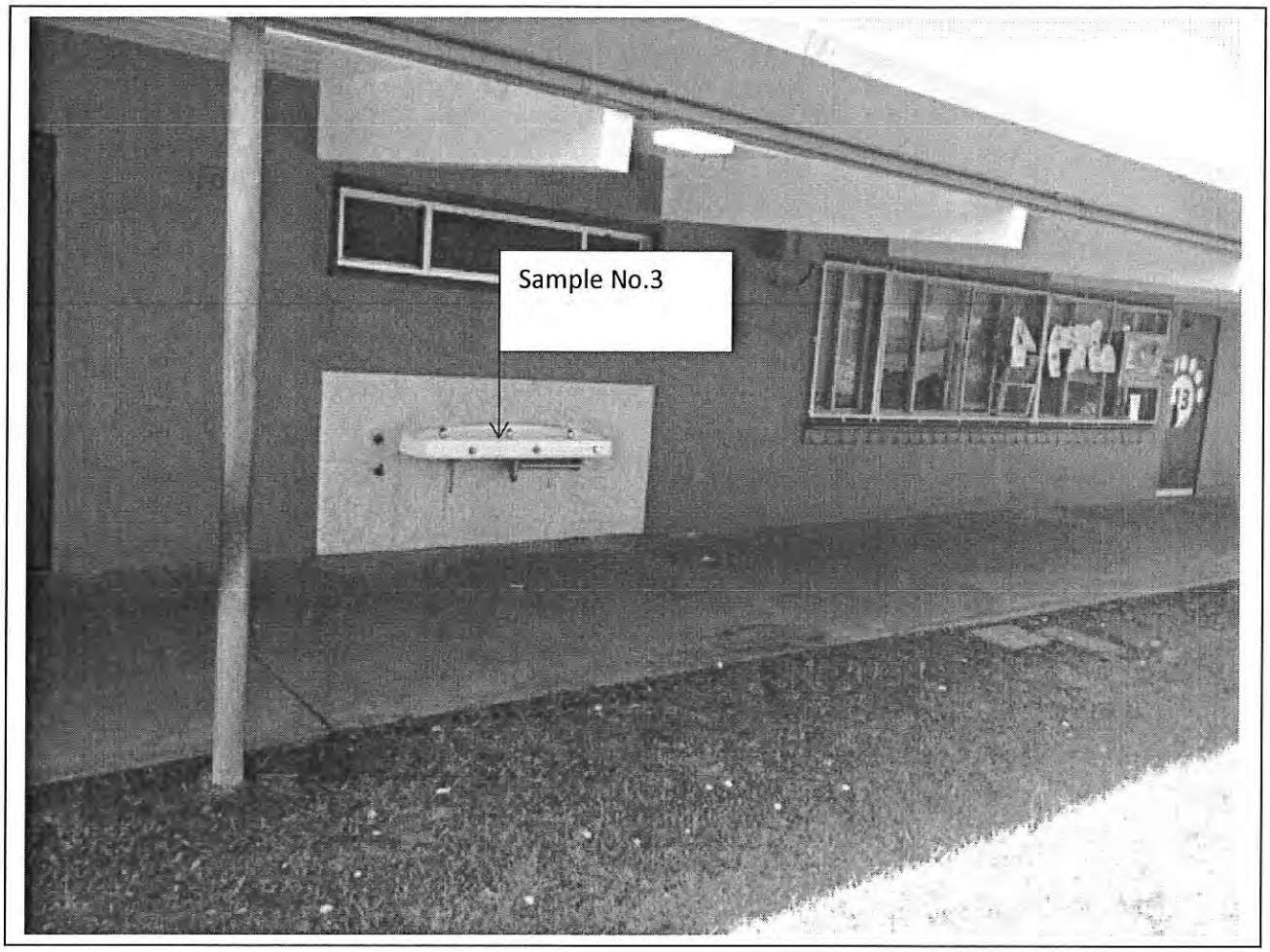

City use only below this line

Sample type Initial ☐ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID:

State Sample ID:

Date & Time Last Used:

Date & Time Sample Collected:

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector:

Sample No. 4

School: King/Chavez Academy- 415 31th Street San Diego, CA 92102

Name of Building: Outside bathroom next to the Auditorium

Location Description: Outside Drinking fountain in front of Bathrooms

Type of Outlet: Bubbler

Description: Right Bubbler

Comments/Miscellaneous: (School ID NO.267)

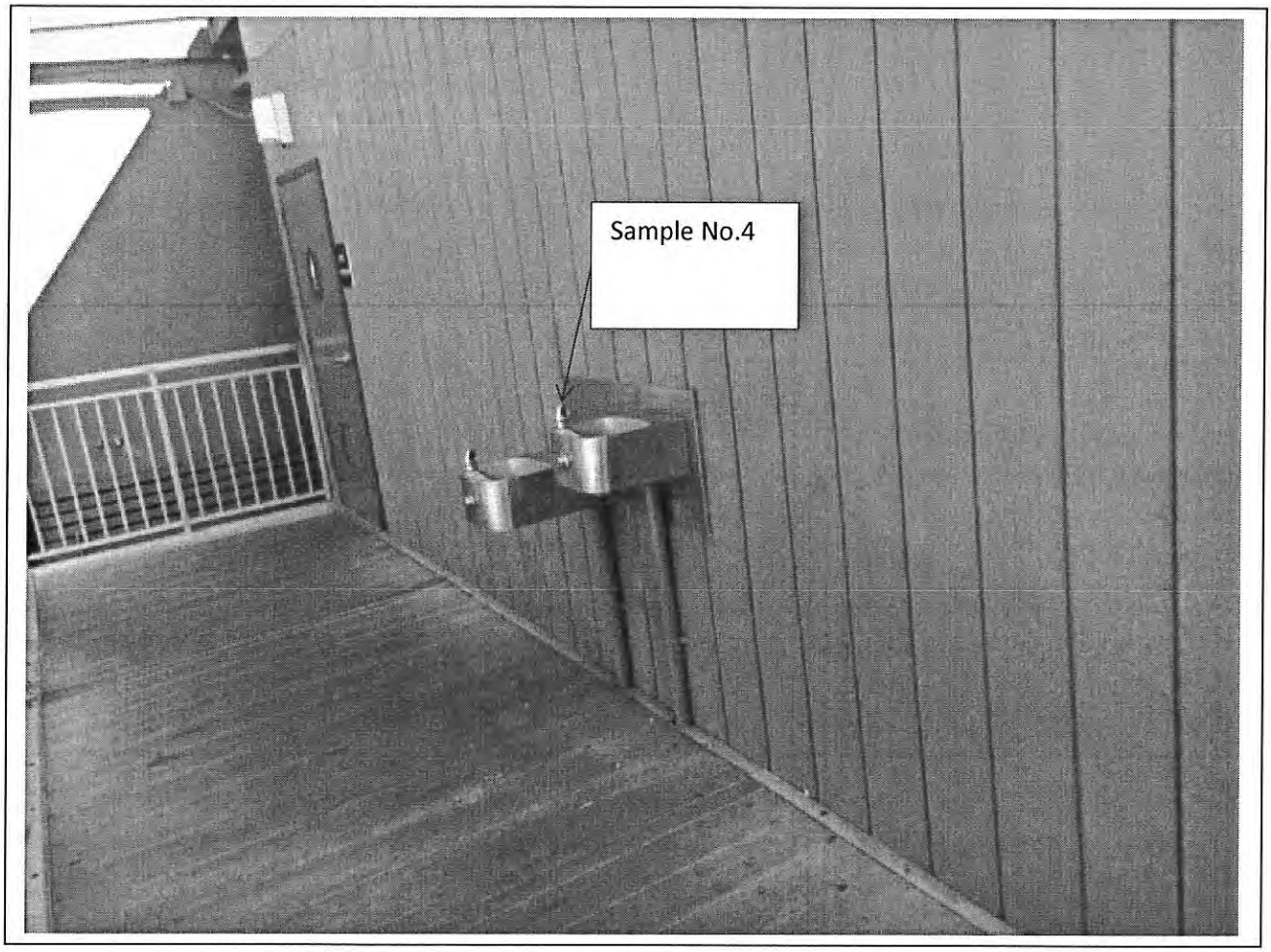

City use only below this line

Sample type Initial ☐ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: _____

State Sample ID: _____

Date & Time Last Used: _____

Date & Time Sample Collected: _____

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector: _____

Sample No. 5

School: King/Chavez Academy- 415 31th Street San Diego, CA 92102

Name of Building: Outside Bathrooms next to Library

Location Description: Outside drinking fountain next to bathrooms

Type of Outlet: Bubbler

Description: Middle Bubbler

Comments/Miscellaneous: (School ID NO.267)

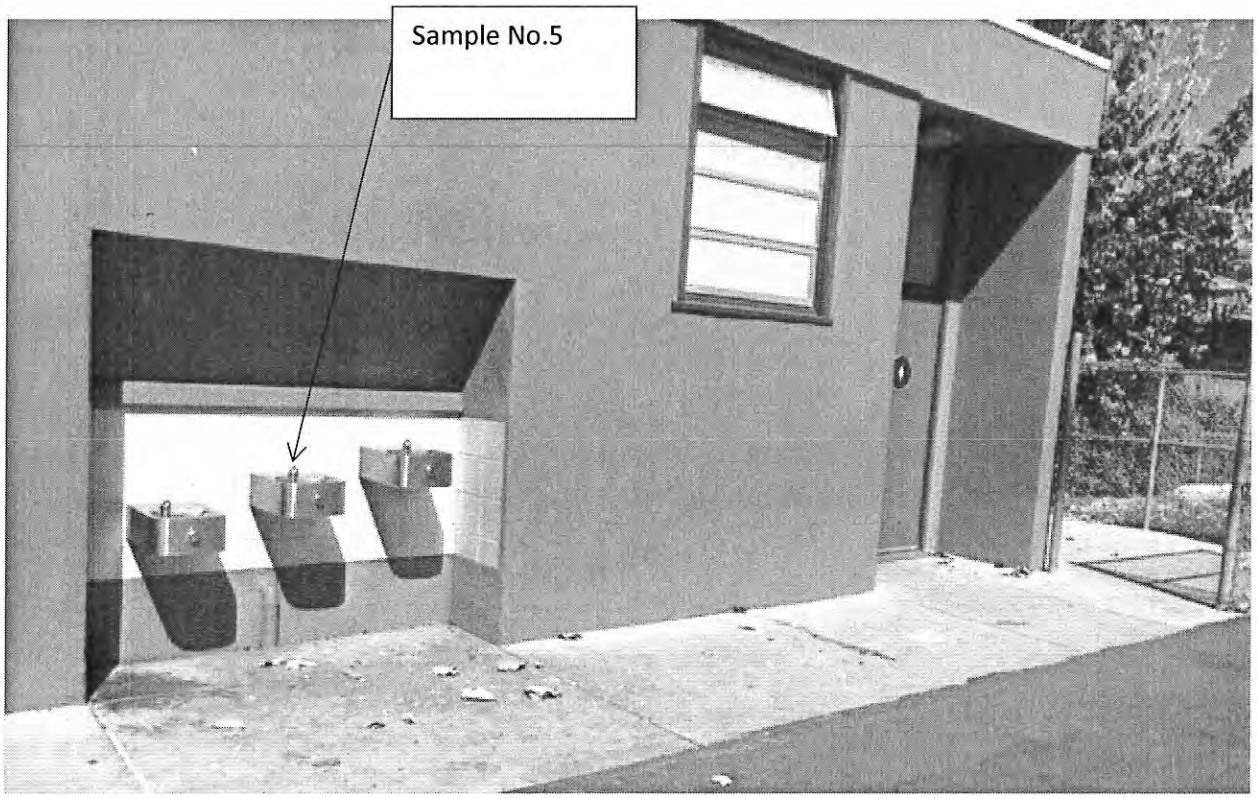

City use only below this line

Sample type Initial ☐ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: _____

State Sample ID: _____

Date & Time Last Used: _____

Date & Time Sample Collected: _____

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector: _____

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: KIPP San Diego, DBA KIPP Adelante Preparatory Academy

Physical Address of School: 1475 Sixth Avenue, 2nd Floor, SD 92101

First Bell: 8:00 am

Meeting Date: 4/17/17

Sampling Plan Completion Date: 4/17/17

Completed **by Print Name**: Robert Tannenbaum

Signature: Robert Tannenbaum Date: 4/17/17

School's Point of Contact for Sampling Assistance

Name: Robert Tannenbaum

Phone: 619-399-6261

Email: rtannenbaum@kippsandiego.org

meet at 6:15 am

4 fixtures only, please.

City of San Diego 3710020

Approved By: Tom B. Burger 5-15-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

See building floor plan attached to end of this plan document

Sample No. 1

School: Kipp San Diego, DBA KIPP Adelante Preparatory Academy

Name of Building: Bayview Center

Location Description: 1st Floor open area - see attached floor plan for location

Type of Outlet:

Description: between girls/boys restrooms

Comments/Miscellaneous:

Paste [illegible] of sampli[illegible] here

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171650

State Sample ID: 3710020-BJB-A

Date & Time Last Used: 0505PM 6-6-17

Date & Time Sample Collected: 0620 6-7-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T Burger

See building floor plan attached to end of this plan document

Sample No. 2

School: KIPP San Diego, DBA KIPP Adelante Preparatory Academy

Name of Building: Bayview Center

Location Description: 2nd Floor, between boys and girls restrooms - see attached floor plan for location

Type of Outlet:

Description:

Comments/Miscellaneous:

Paste [of sampling here

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171651

State Sample ID: 3710020-BJB-B

Date & Time Last Used: 5:00 pm 6-6-17

Date & Time Sample Collected: 0625 6-7-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T Burger

See building floor plan attached to end of this plan document

Sample No. 3

School: KIPP San Diego, DBA KIPP Adelante Preparatory Academy

Name of Building: Bayview Center

Location Description: 3rd Floor, next to Room 308 - see attached floor plan for location

Type of Outlet:

Description: left fixture

Comments/Miscellaneous:

Paste e of sampli here

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171652

State Sample ID: 3710020-BJB-C

Date & Time Last Used: 5:03 pm 6-6-17

Date & Time Sample Collected: 0620 6-7-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: TBurger

See building floor plan attached to end of this plan document

Sample No. 4

School: KIPP San Diego, DBA KIPP Adelante Preparatory Academy

Name of Building: Bayview Center

Location Description: 3rd Floor, next to Room 308 - see attached floor plan for location

Type of Outlet:

Description: right fixture

Comments/Miscellaneous:

Paste image of sample here

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171653

State Sample ID: 3710020-BJB-D

Date & Time Last Used: 503 PM 6-6-17

Date & Time Sample Collected: 0630 6-7-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: TBurger

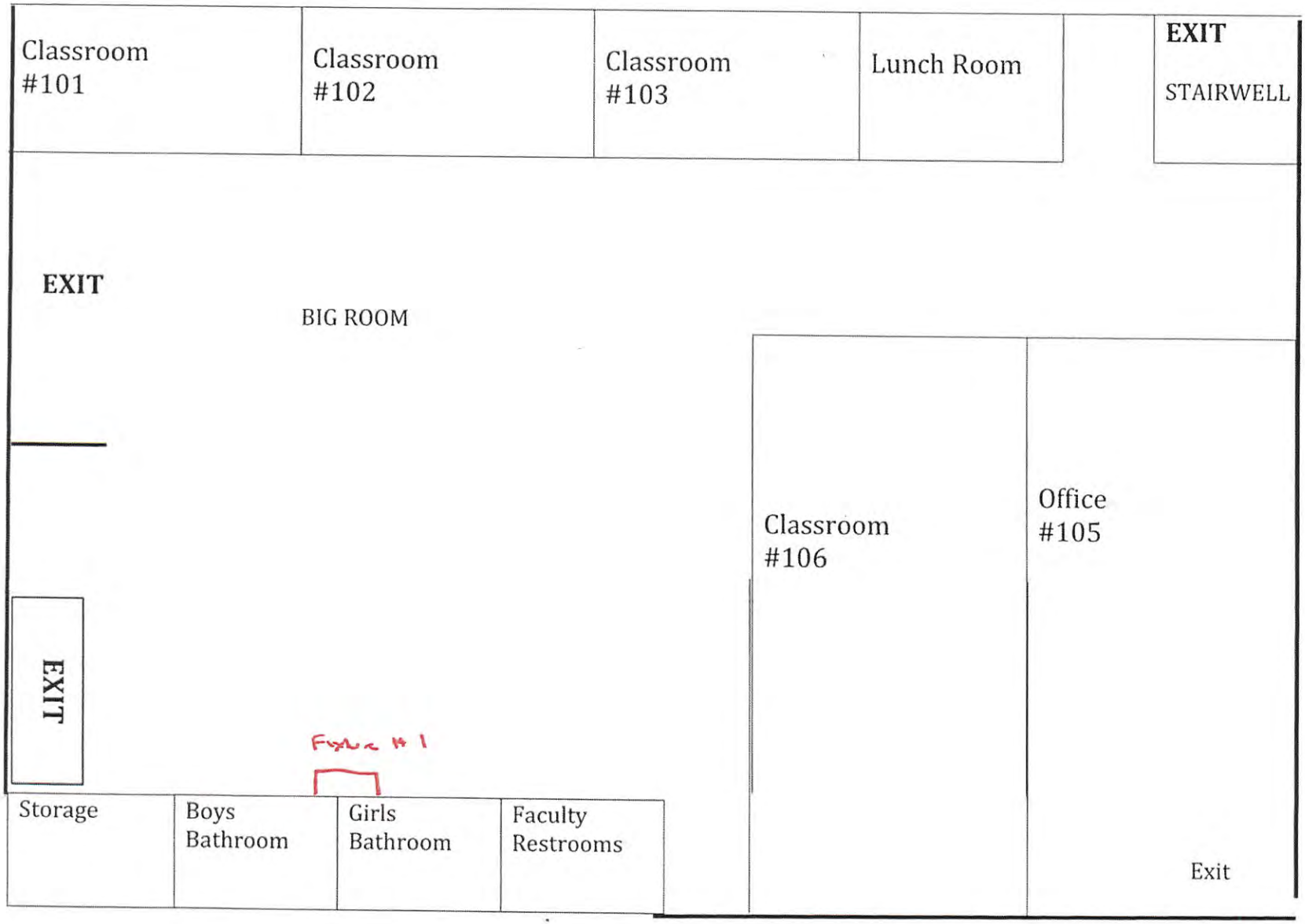
Classroom #101
Classroom #102
Classroom #103
Lunch Room
EXIT
STAIRWELL
EXIT
BIG ROOM
Classroom #106
Office #105
EXIT
Fixture #1
Storage
Boys Bathroom
Girls Bathroom
Faculty Restrooms
Exit

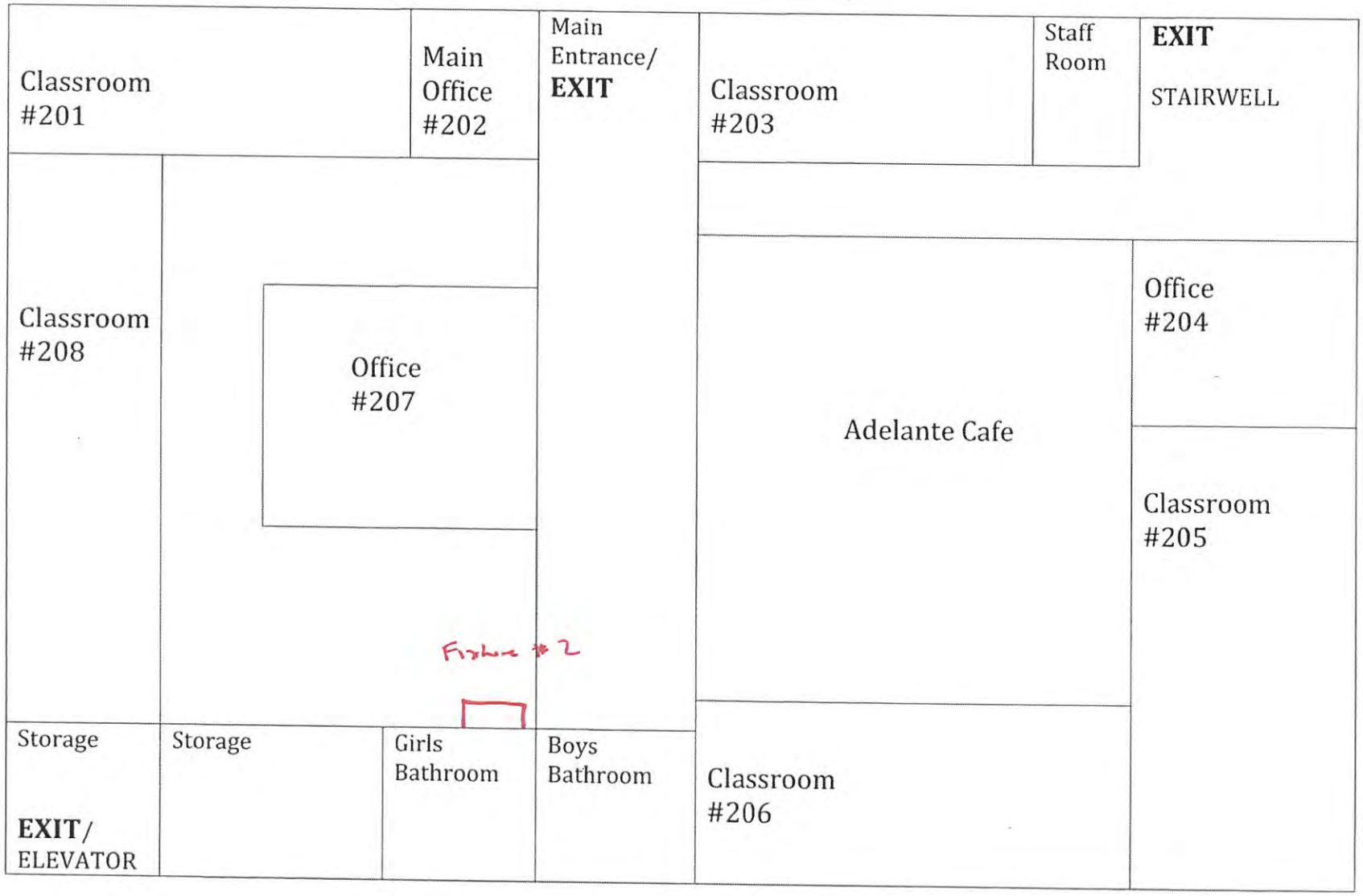
Classroom #201
Main Office #202
Main Entrance/ EXIT
Classroom #203
Staff Room
EXIT
STAIRWELL
Classroom #208
Office #207
Office #204
Adelante Cafe
Classroom #205
Fire hose #2
Storage
EXIT/ ELEVATOR
Storage
Girls Bathroom
Boys Bathroom
Classroom #206

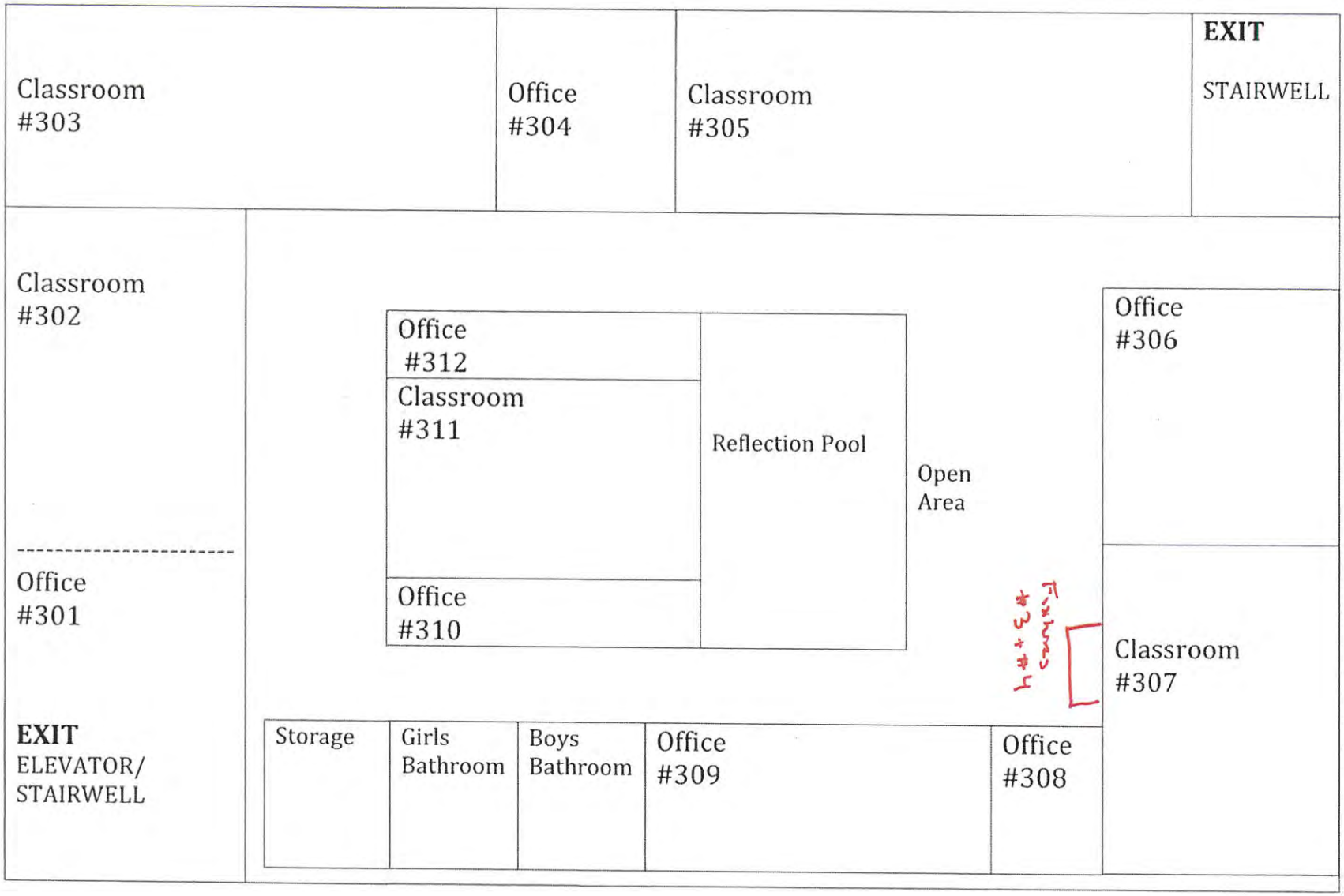
Classroom #303
Office #304
Classroom #305
EXIT
STAIRWELL
Classroom #302
Office #301
EXIT
ELEVATOR/
STAIRWELL
Office #312
Classroom #311
Office #310
Reflection Pool
Open Area
Office #306
Classroom #307
Storage
Girls Bathroom
Boys Bathroom
Office #309
Office #308

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

30-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1171650	KIPP Adelante Preparatory Acad	07-JUN-2017	0620	T. Burger	SAMPLE 1	
2	W1171651	KIPP Adelante Preparatory Acad	07-JUN-2017	0625	↓	SAMPLE 2	
3	W1171652	KIPP Adelante Preparatory Acad	07-JUN-2017	0629	↓	SAMPLE 3	
4	W1171653	KIPP Adelante Preparatory Acad	07-JUN-2017	0630	↓	SAMPLE 4	

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Chain of Custody:

Relinquished by: Name: Tom Burger Sign:	Received by: Name: Keith Ruehrwein Sign:	Date & Time: 6-7-17 1450 Location: ALV. LAB	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: KR
Received Date: 6/7/17
LIMS Received Time: 1450
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Knox #165

Physical Address of School: 1098 S. 49th st. San Diego , CA 92113

First Bell: 8:10

Meeting Date: 3-21-2017

Sampling Plan Completion Date: 3-21-2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 3-23-2017

School's Point of Contact for Sampling Assistance

Name: Elizabeth Lara

Phone: 619-302-7616

Email: elara@sandi.net

City of San Diego 3710020

Approved By: Tom B Burger 4-7-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Knox 1098 S. 49th st. San Diego , CA 92102

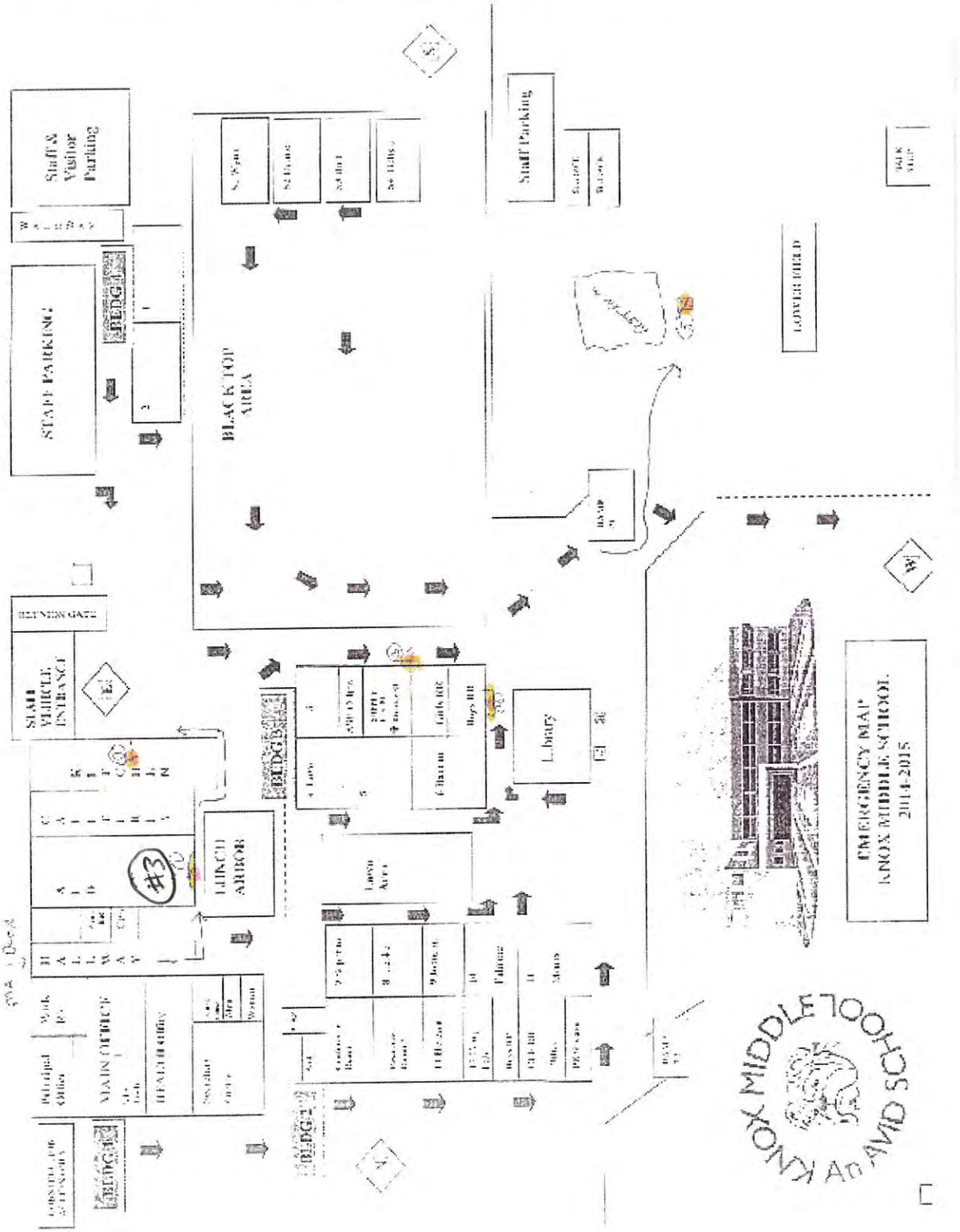

Sample No. 1

School: Knox k-8

Name of Building: Auditorium

Location Description- Outside next to stage right door across from Lunch Arbor

Type of Outlet: ~~Two bubblers~~ upper-right bubbler

Description -Drinking fountains

Comments/Miscellaneous: Site location # 165

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165252

State Sample ID: 3710020-ADA-A

Date & Time Last Used: 4/11/17 1810

Date & Time Sample Collected: 4/12/17 0618

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 2

School: Knox k-8

Name of Building: Kitchen

Location Description: Sink inside kitchen

Type of Outlet: Sink Faucet

Description: is a three compartment sink

Comments/Miscellaneous: Site Location #165

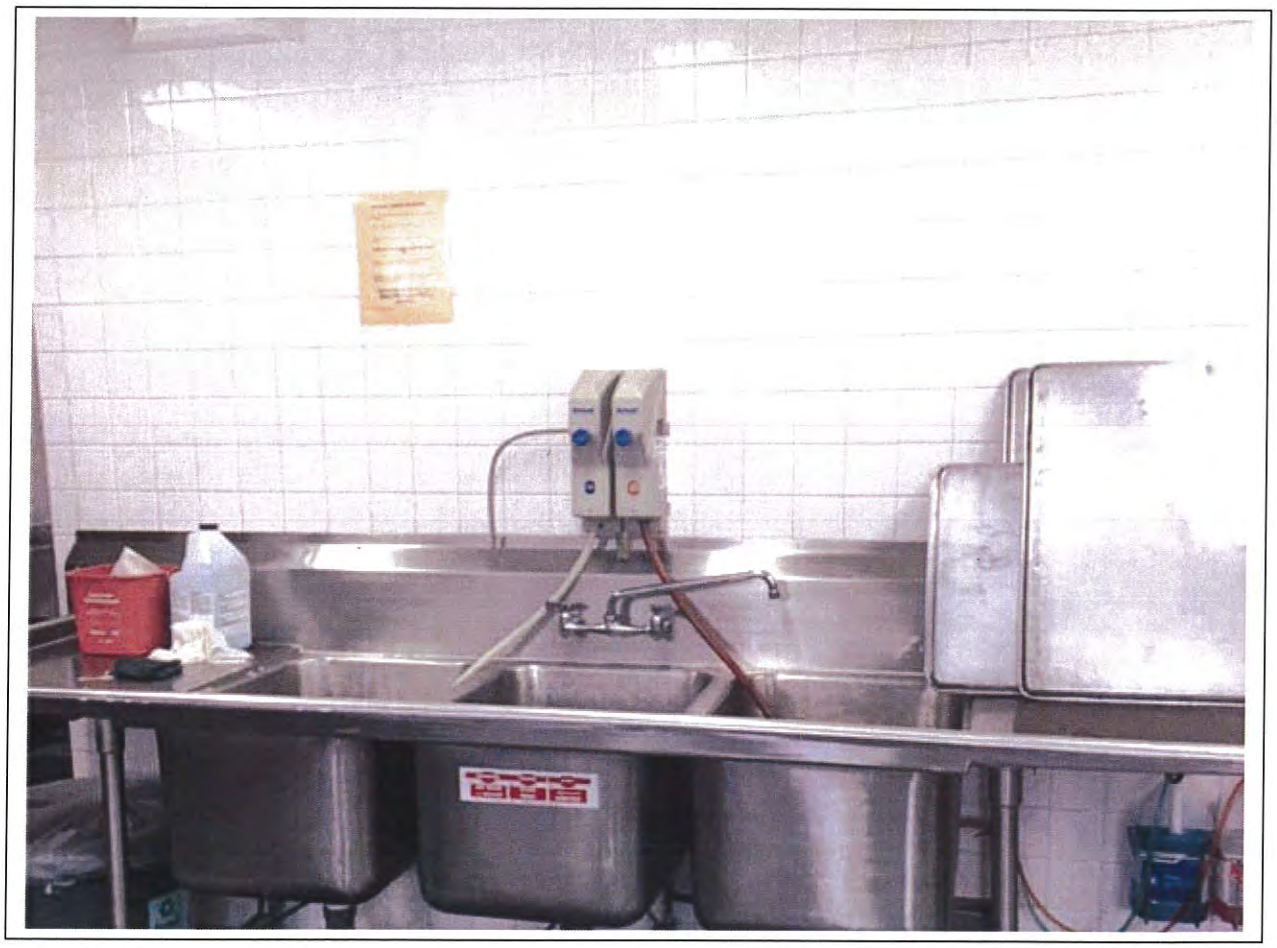

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165253

State Sample ID: 3710020-ADA-B

Date & Time Last Used: 4/11/17 1810

Date & Time Sample Collected: 4/12/17 0615

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 3

School: Knox K-8

Name of Building: #3

Location Description: Next to Supply room and Girls rest room

Type of Outlet: ~~Two~~ Three Bubblers

Description: ~~Drinking Fountain~~ Far right bubbler

Comments/Miscellaneous: site location # 165

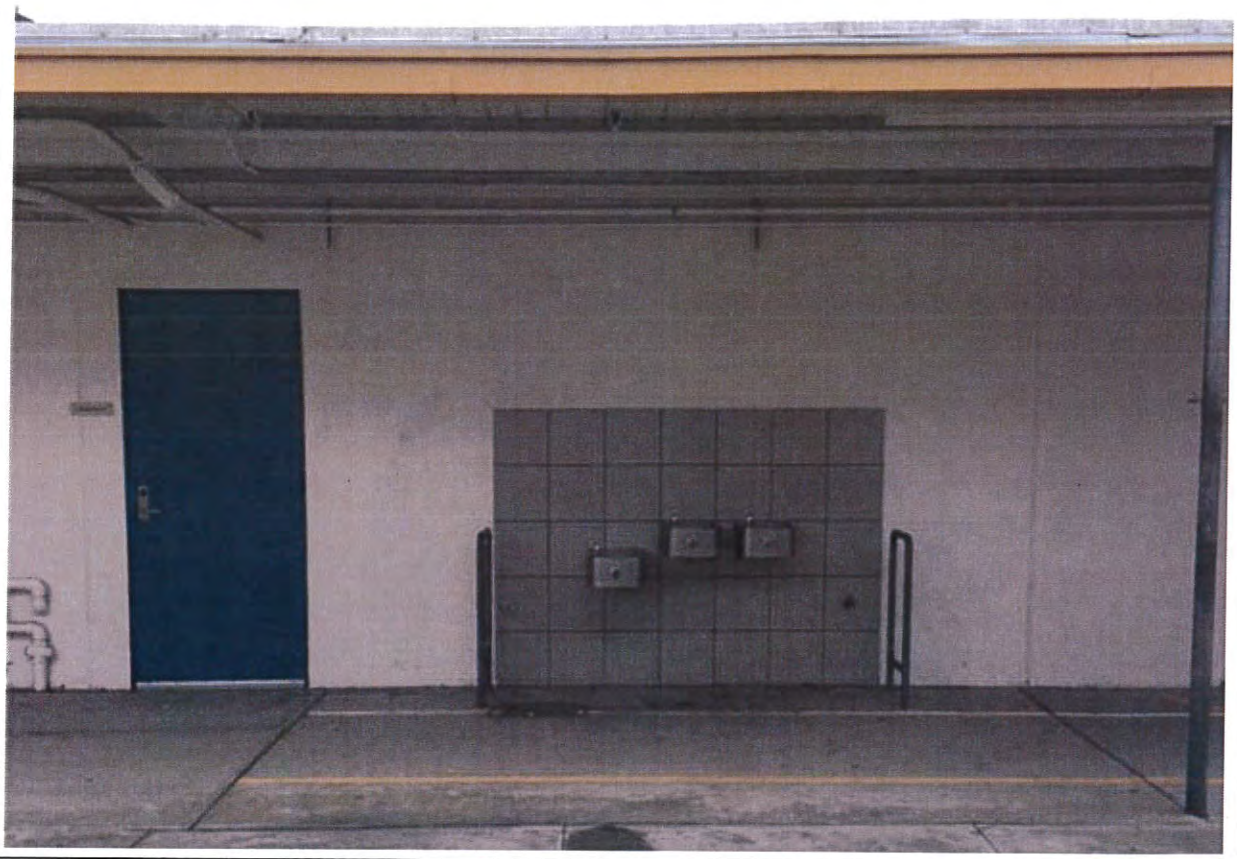

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165254

State Sample ID: 3710020-ADA-C

Date & Time Last Used: 4/11/17 1810

Date & Time Sample Collected: 4/12/17 0610

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: D. Sawersby

Sample No. 4

School: Knox k-8

Name of Building: Bldg.3

Location Description: outside west end of building next to Boys RR near pole

Type of Outlet: ~~Bubblers~~ 3 bubbler Drinking Fountain

Description: ~~3 bubbler Drinking Fountain~~ center bubbler

Comments/Miscellaneous: Site location #165

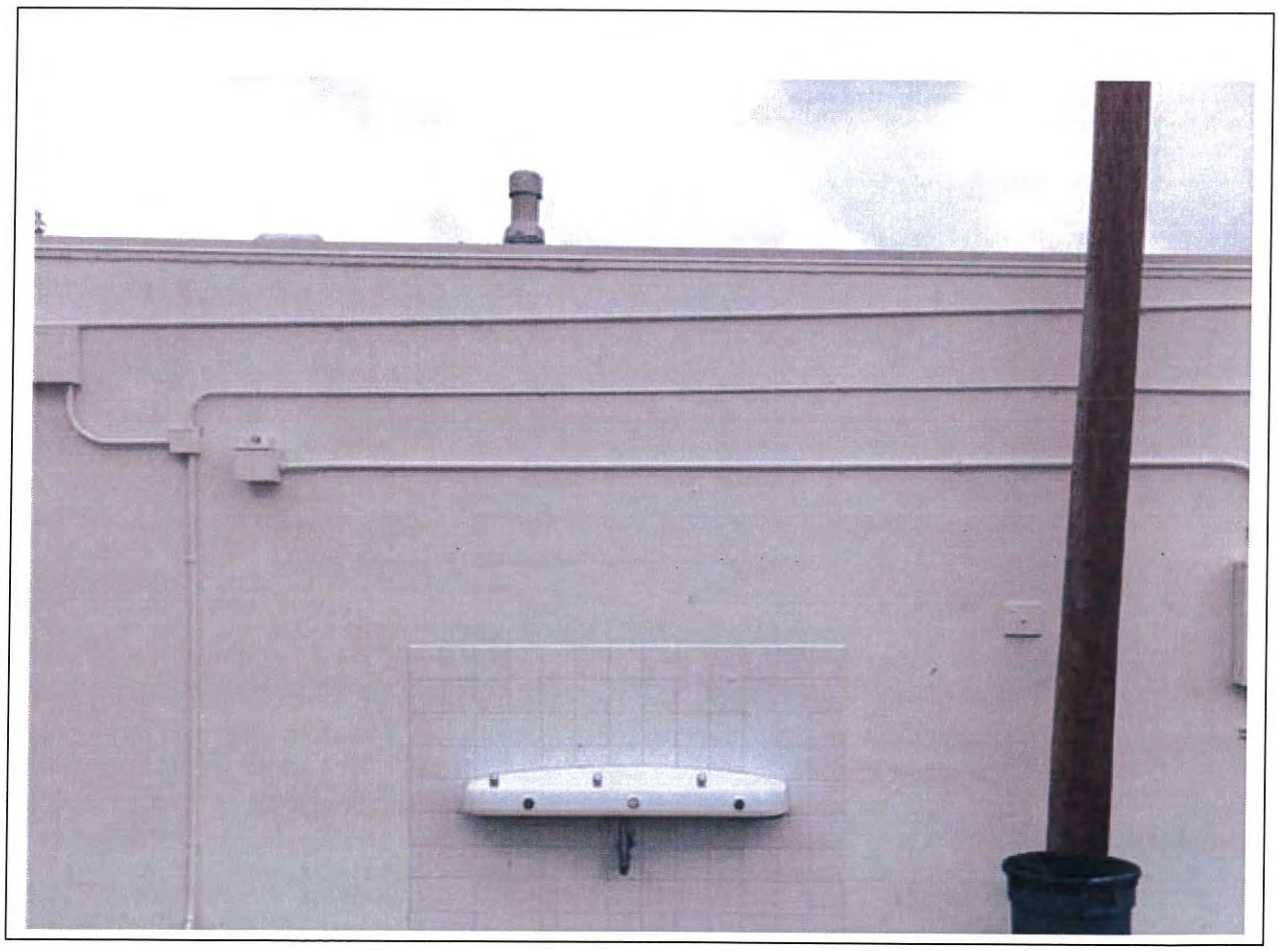

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165255

State Sample ID: 3710020-ADA-D

Date & Time Last Used: 4/11/17 1810

Date & Time Sample Collected: 4/12/17 0622

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 5

School: Knox K-8

Name of Building: Out Side -Lower Field

Location Description: Next to Rest rooms near lower grass field

Type of Outlet: ~~Bubblers~~ freestanding bubbler

Description: Two Bubbler Water Fountains (upper bubbler)

Comments/Miscellaneous: Site location # 165

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165256

State Sample ID: 3710020-ADA-E

Date & Time Last Used: 4/11/17 1810

Date & Time Sample Collected: 4/12/17 0627

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Note: sample taken from upper bubbler on fountain.

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

07-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1165252	Knox Middle	~~08-APR-2017~~ 4/12/17	0618	DS	SAMPLE 1	
2	W1165253	Knox Middle	~~08-APR-2017~~ 4/12/17	0615	↑	SAMPLE 2	
3	W1165254	Knox Middle	~~08-APR-2017~~ 4/12/17	0610		SAMPLE 3	
4	W1165255	Knox Middle	~~08-APR-2017~~ 4/12/17	0622		SAMPLE 4	
5	W1165256	Knox Middle	~~08-APR-2017~~ 4/12/17	0627	↓	SAMPLE 5	

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Chain of Custody:

Relinquished by:	Received by:	Date & Time:	Comments:
Name: D. Sowersby Sign: D. Sowersby	Name: Alejandra Molloy Sign: AMolloy	4/12/17 0700 Location: ALV	Samples originally scheduled for 4/8/17 but were not actually sampled until 4/12/2017
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 4/12/17
LIMS Received Time: 0704
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Kumeyaay Elementary School

Physical Address of School: 6475 Antigua Blvd. San Diego, CA 92124

First Bell: 7:40AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/26/2017

Completed by Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 04/26/2017

School's Point of Contact for Sampling Assistance

Name: Daniel Lopez

Phone: 619-306-3383

Email: dlopez2@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 4/28/17 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Kumeyaay Elementary School, 6475 Antigua Blvd. San Diego, CA 92124

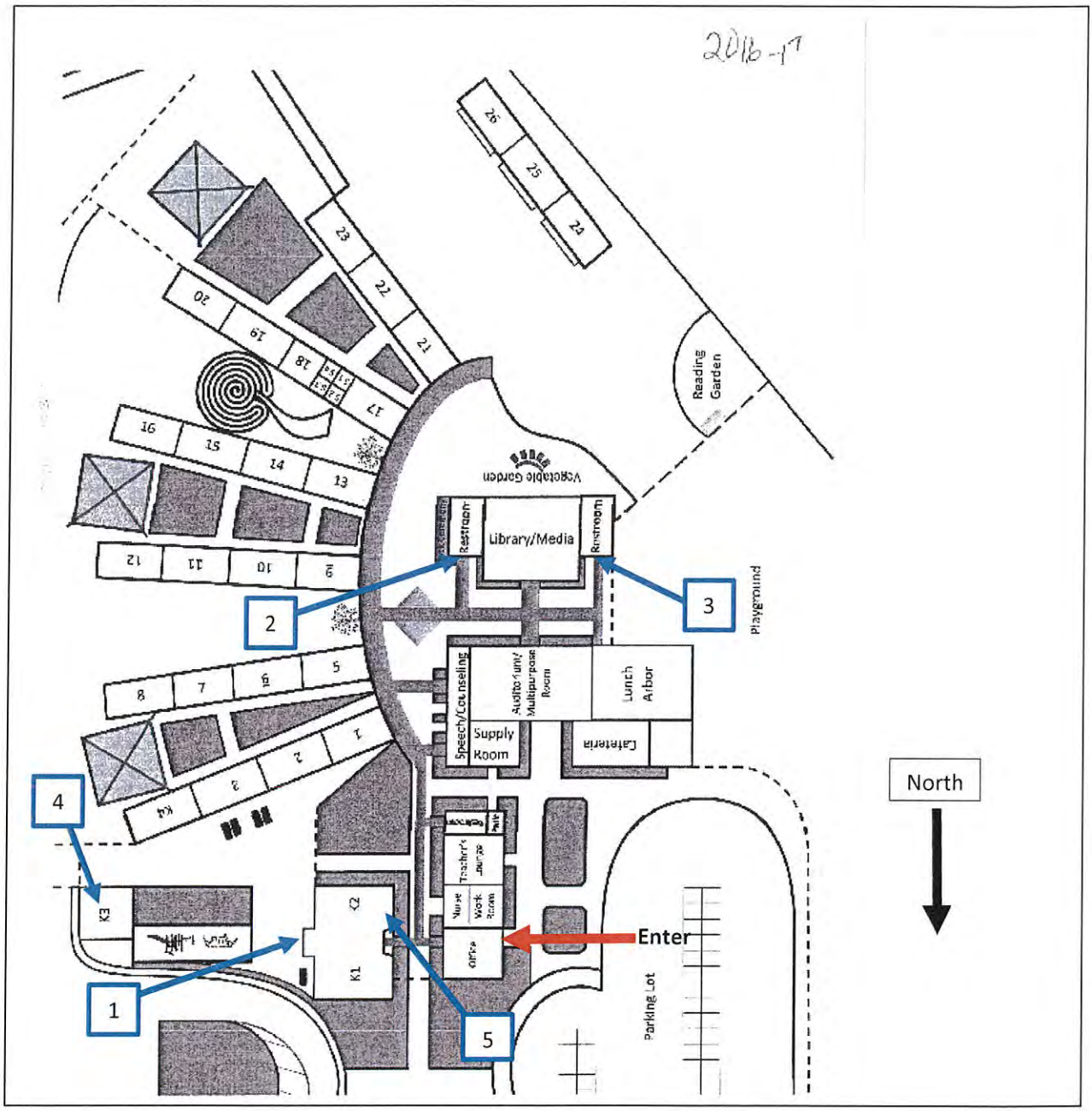

Sample No. 1

School: Kumeyaay Elementary School

Name of Building: Kindergarten Building

Location Description: Outside East facing wall

Type of Outlet: Triple bubbler and a single bubbler

Description: Left bubbler on triple bubbler

Comments/Miscellaneous:

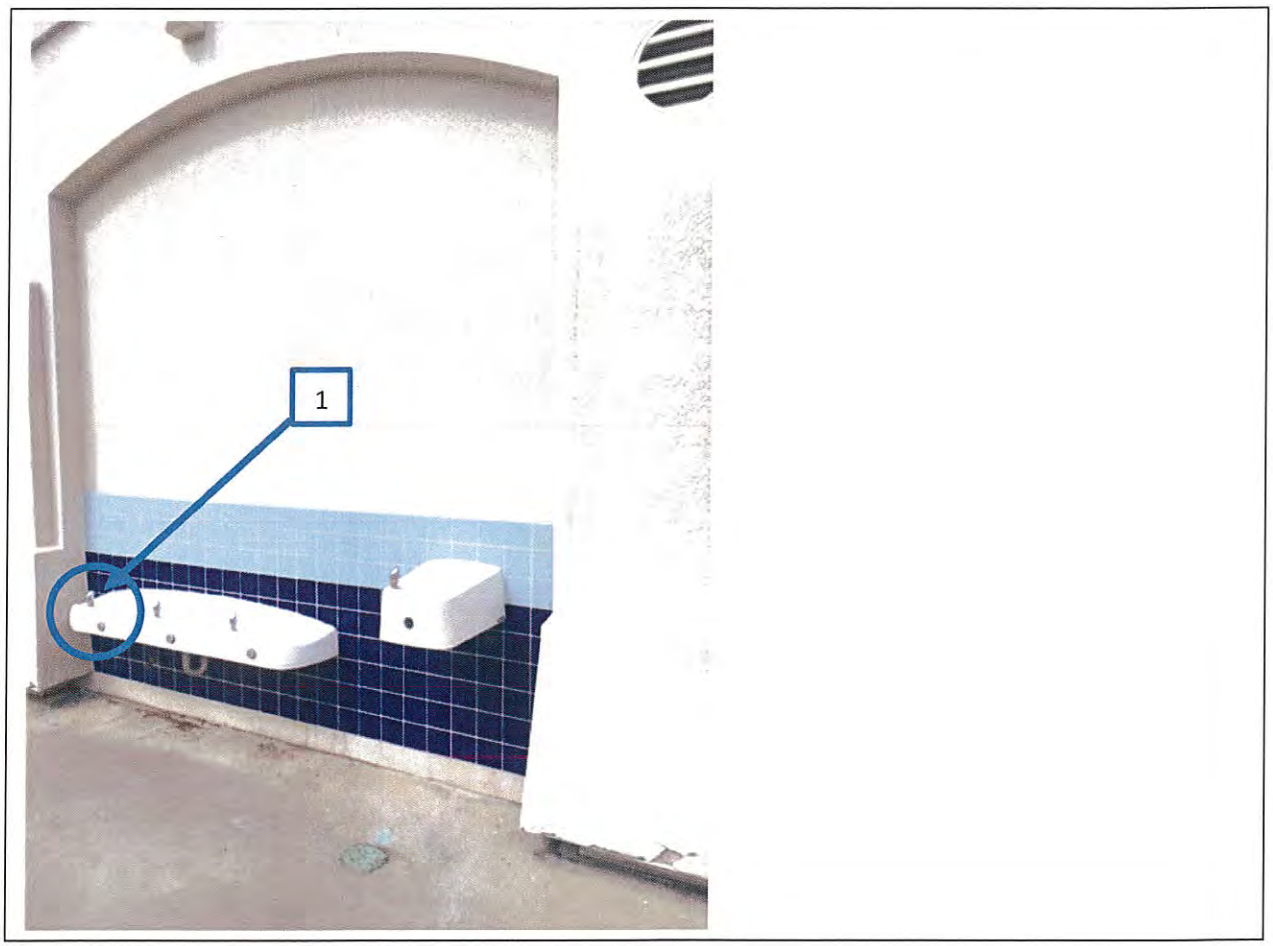

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169360

State Sample ID: 3710020-BDG-A

Date & Time Last Used: 5/05/17 @ 2300

Date & Time Sample Collected: 5/06/17 @ 0551

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: Kumeyaay Elementary School

Name of Building: Library/Media and restroom building

Location Description: Center of campus east side of building between restrooms.

Type of Outlet: Triple bubbler and a single bubbler

Description: Far right on triple bubbler

Comments/Miscellaneous:

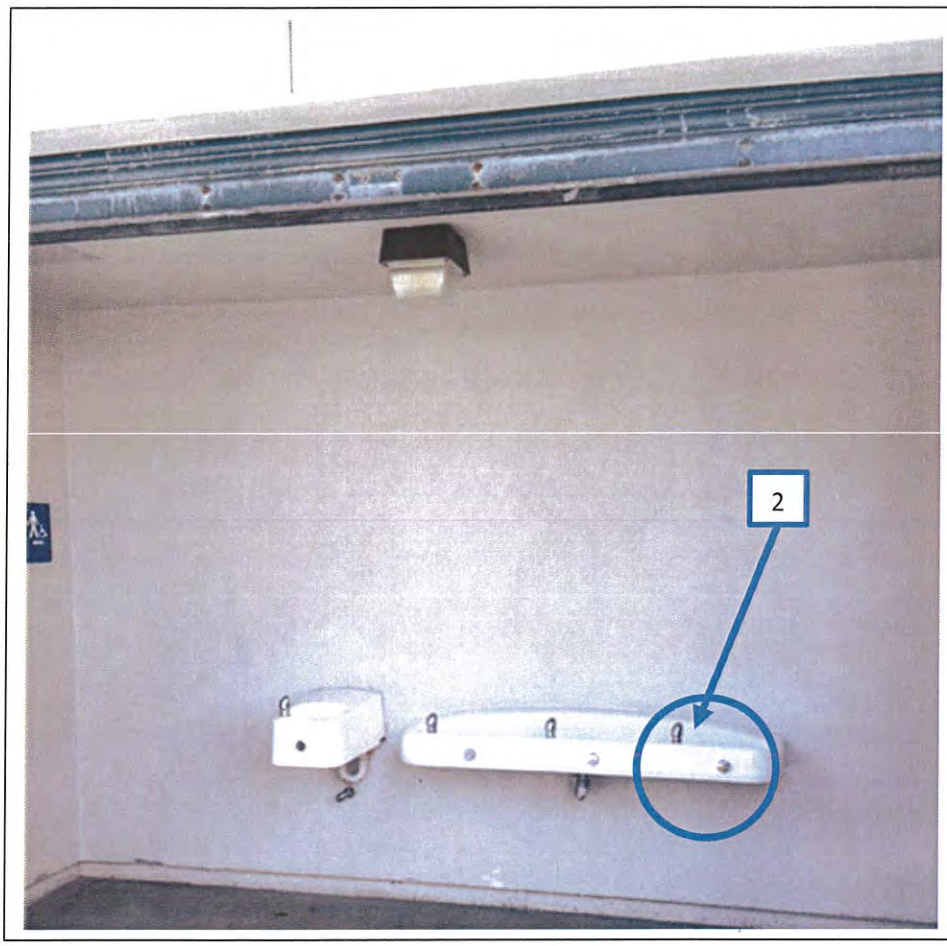

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169361

State Sample ID: 3710020-BDG-B

Date & Time Last Used: 5/05/17 @ 2200

Date & Time Sample Collected: 5/06/17 @0605

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: Kumeyaay Elementary School

Name of Building: Library/Media and restroom building

Location Description: Center of campus on west side of building between restrooms.

Type of Outlet: Triple and single bubblers

Description: Center bubbler on triple bubbler

Comments/Miscellaneous:

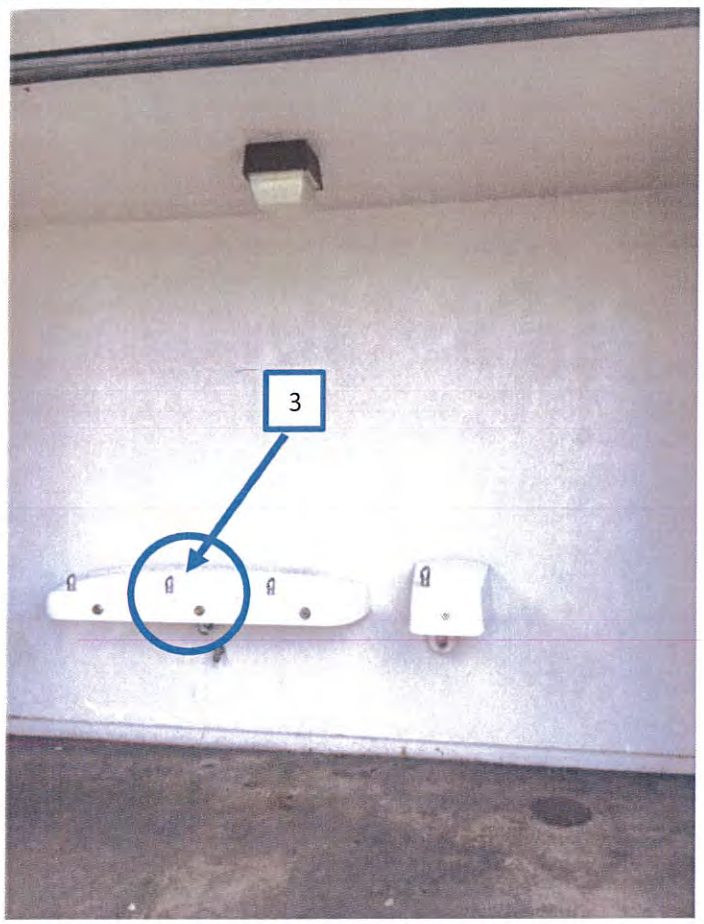

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169362

State Sample ID: 3710020-BDG-C

Date & Time Last Used: 5/05/17 @ 2200

Date & Time Sample Collected: 5/06/17 @ 0601

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: Kumeyaay Elementary School

Name of Building: Bungalow K-5 (marked as K-3 on map)

Location Description: East end of kindergarten area

Type of Outlet: Single bubbler and faucet

Description: Bubbler on right side of sink

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169363

State Sample ID: 3710020-BDG-D

Date & Time Last Used: 5/05/17 @ 2200

Date & Time Sample Collected: 5/06/17 @ 0555

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

* Sign w/ Not for Drinking Use

Sample No. 5

School: Kumeyaay Elementary School

Name of Building: Kindergarten Building Room K-2

Location Description: Room K-2 Inside

Type of Outlet: Faucet and bubbler

Description: Bubbler on right side

Comments/Miscellaneous:

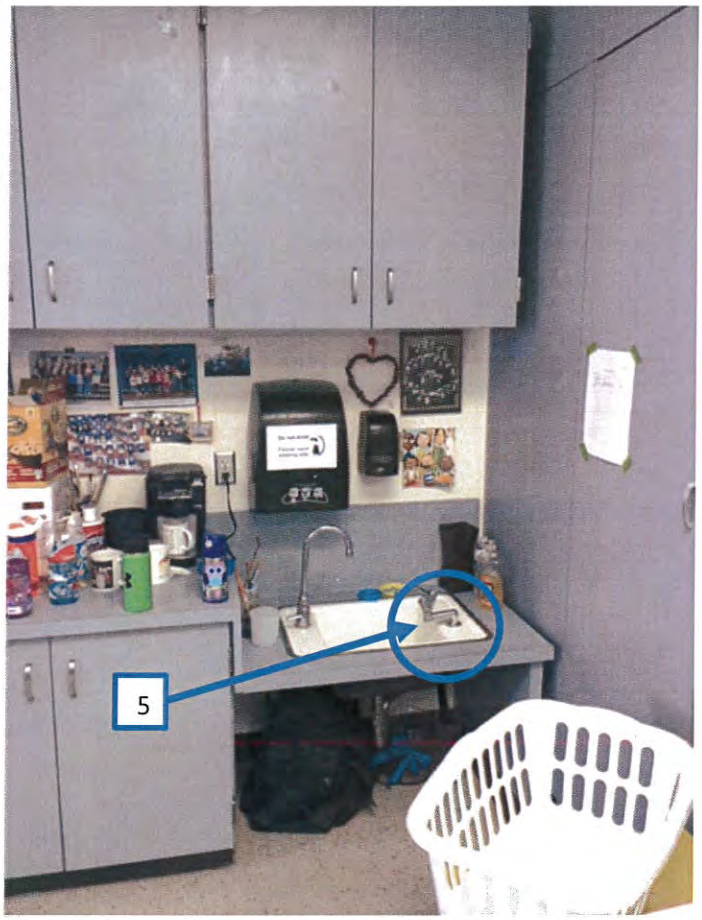

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169364

State Sample ID: 3710020-BDG-E

Date & Time Last Used: 5/05/17 @ 2200

Date & Time Sample Collected: 5/06/17 @ 0549

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

05-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1169360	Kumeyaay Elementary	06-MAY-2017	0551	A. Molloy	SAMPLE 1	
2	W1169361	Kumeyaay Elementary	06-MAY-2017	0605		SAMPLE 2	
3	W1169362	Kumeyaay Elementary	06-MAY-2017	0601		SAMPLE 3	
4	W1169363	Kumeyaay Elementary	06-MAY-2017	0555		SAMPLE 4	
5	W1169364	Kumeyaay Elementary	06-MAY-2017	0549		SAMPLE 5	

1464

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign: AMolloy	Received by: Name: Sign:	Date & Time: 5/06/17 @ ~~0917~~ 0915 Location: WQL AIV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/06/17
LIMS Received Time: 0946
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: 169 La Jolla Elementary School

Physical Address of School: 1111 Marine St San Diego Ca 92037

First Bell: 8:15

Meeting Date: 3/22/2017

Sampling Plan Completion Date: 4/27/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 4/27/2017

School's Point of Contact for Sampling Assistance

Name: ~~Elizabeth Lara~~ Ginette Commins

Phone: ~~619-302-7616~~ 619-302-5285

Email: elara@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/1/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: La Jolla Elementary School 1111 Marine St. San Diego Ca 92037

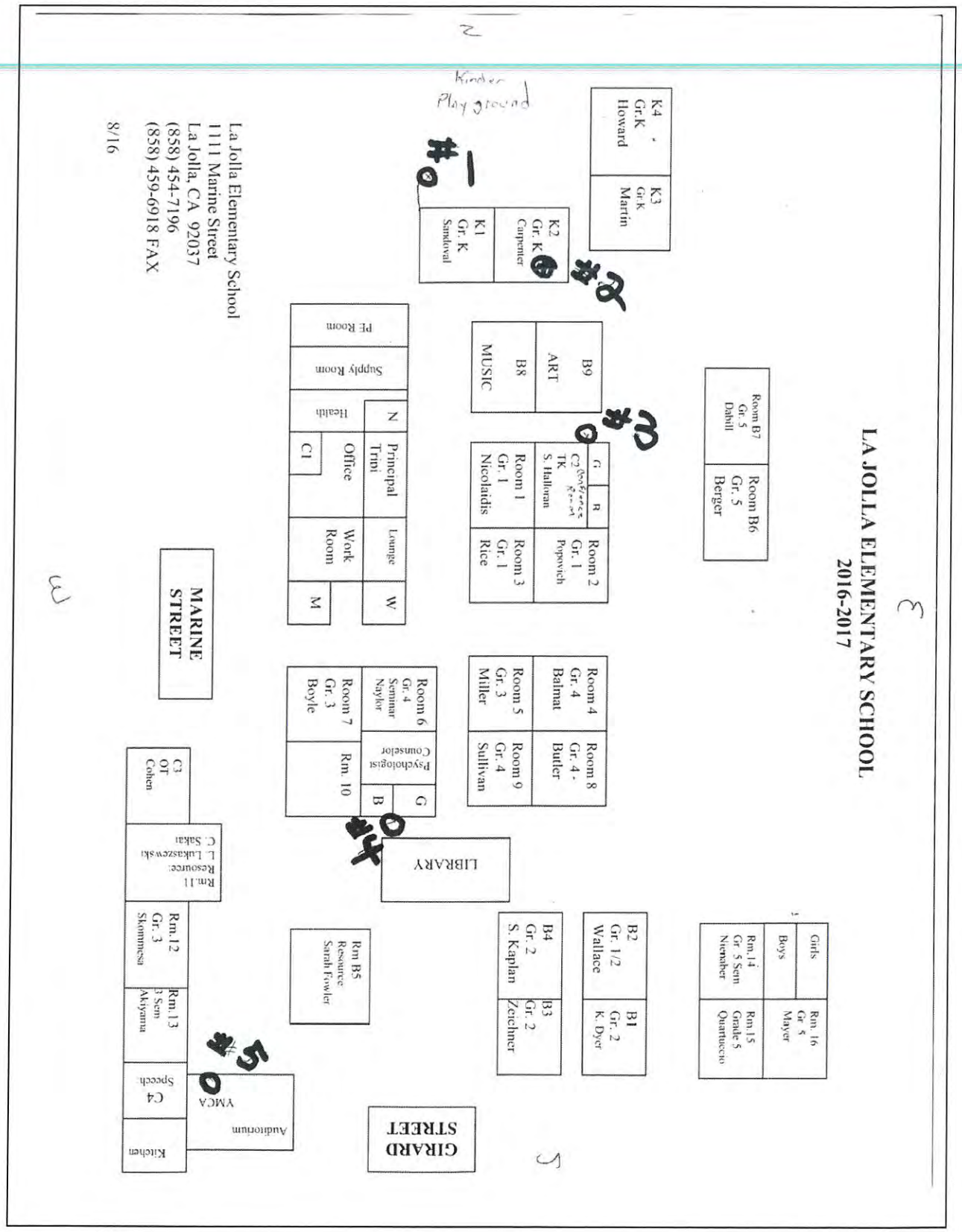

Sample No. 1

School: La Jolla Elementary Schoool

Name of Building: Kindergarten Playground

Location Description: Outside On wall of K-1 classroom near blue table

Type of Outlet: Bubbler drinking fountain

Description: Right bubbler on drinking fountain with two bubblers

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170058

State Sample ID: 3710020-BFC-A

Date & Time Last Used: 05/11/17 2200

Date & Time Sample Collected: 05/12/17 0558

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: Jessica Mathews

Sample No. 2

School: La Jolla Elementary School

Name of Building: K-2

Location Description: Inside K-2 classroom west side Center Island at sink

Type of Outlet: Bubbler drinking fountain

Description: Bubbler drinking fountain at sink

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170059

State Sample ID: 3710020-BFC-B

Date & Time Last Used: 05/11/17 2200

Date & Time Sample Collected: 05/12/17 0601

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Jessica Mathews

Sample No. 3

School: La Jolla Elementary School

Name of Building: 123 Conference

Location Description: Outside East wall next to conference room door

Type of Outlet: Multi bubbler drinking fountain

Description: Left bubbler of three

Comments/Miscellaneous: wood wall near it

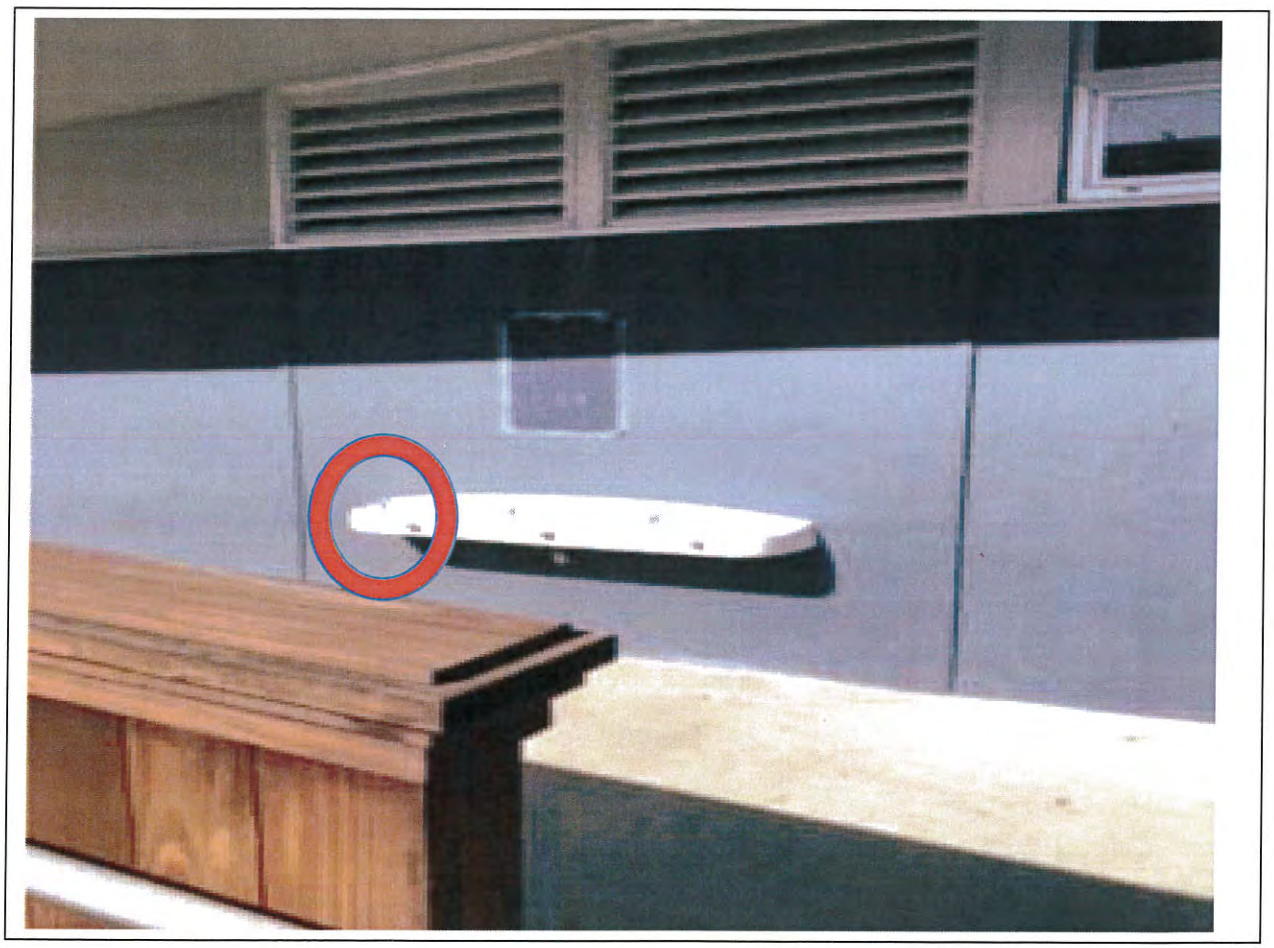

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170060

State Sample ID: 3710020-BFC-C

Date & Time Last Used: 05/11/17 2200

Date & Time Sample Collected: 05/12/17 0605

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: Jessica Mathews

Sample No. 4

School: La Jolla Elementary School

Name of Building: 6, 7,10

Location Description: Outside between boys & girls restrooms has checkered tile wall

Type of Outlet: Multi bubbler drinking fountain

Description: Center bubbler of three

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170061

State Sample ID: 3710020-BFC-D

Date & Time Last Used: 05/11/17 2200

Date & Time Sample Collected: 05/12/17 0608

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: Jessica Mathews

Sample No. 5

School: La Jolla Elementary School

Name of Building: Auditorium

Location Description: Inside near double doors

Type of Outlet: Bubbler drinking fountain

Description: single bubbler drinking fountain at hand washing sink

Comments/Miscellaneous: Water leaking at handle while sampling

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170062

State Sample ID: 3710020-BFC-E

Date & Time Last Used: 05/11/17 2200

Date & Time Sample Collected: 05/12/17 0612

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Jessica Mathews

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

08-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1170058	La Jolla Elementary	12-MAY-2017	0558	Jessica Mathews	SAMPLE 1	
2	W1170059	La Jolla Elementary	12-MAY-2017	0601	Jessica Mathews	SAMPLE 2	
3	W1170060	La Jolla Elementary	12-MAY-2017	0605	Jessica Mathews	SAMPLE 3	
4	W1170061	La Jolla Elementary	12-MAY-2017	0608	Jessica Mathews	SAMPLE 4	
5	W1170062	La Jolla Elementary	12-MAY-2017	0612	Jessica Mathews	SAMPLE 5	

Chain of Custody:

Relinquished by:	Received by:	Date & Time:	Comments:
Name: Jessica Mathews Sign: Jessica A Mathews	Name: Alejandra Molloy Sign: A Molloy	05/12/17 0700 Location: WQL AIV	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: A Molloy
Received Date: 5/12/17
LIMS Received Time: 0716
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: #342 La Jolla High School

Physical Address of School: 750 Nautilus St San Diego CA 92037

First Bell: 7:50

Meeting Date: 3/22/2017

Sampling Plan Completion Date: 5/1/2017

Completed by Print Name: ~~Elizabeth Lara~~ OK TBM

Signature: Elizabeth Lara Date: 5/1/2017

School's Point of Contact for Sampling Assistance

Name: ~~Elizabeth Lara~~

Phone: ~~619-302-7616~~ 619-302-7616

Email: elara@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/1/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: La Jolla High School 750 Nautius St San Diego ,CA 92037

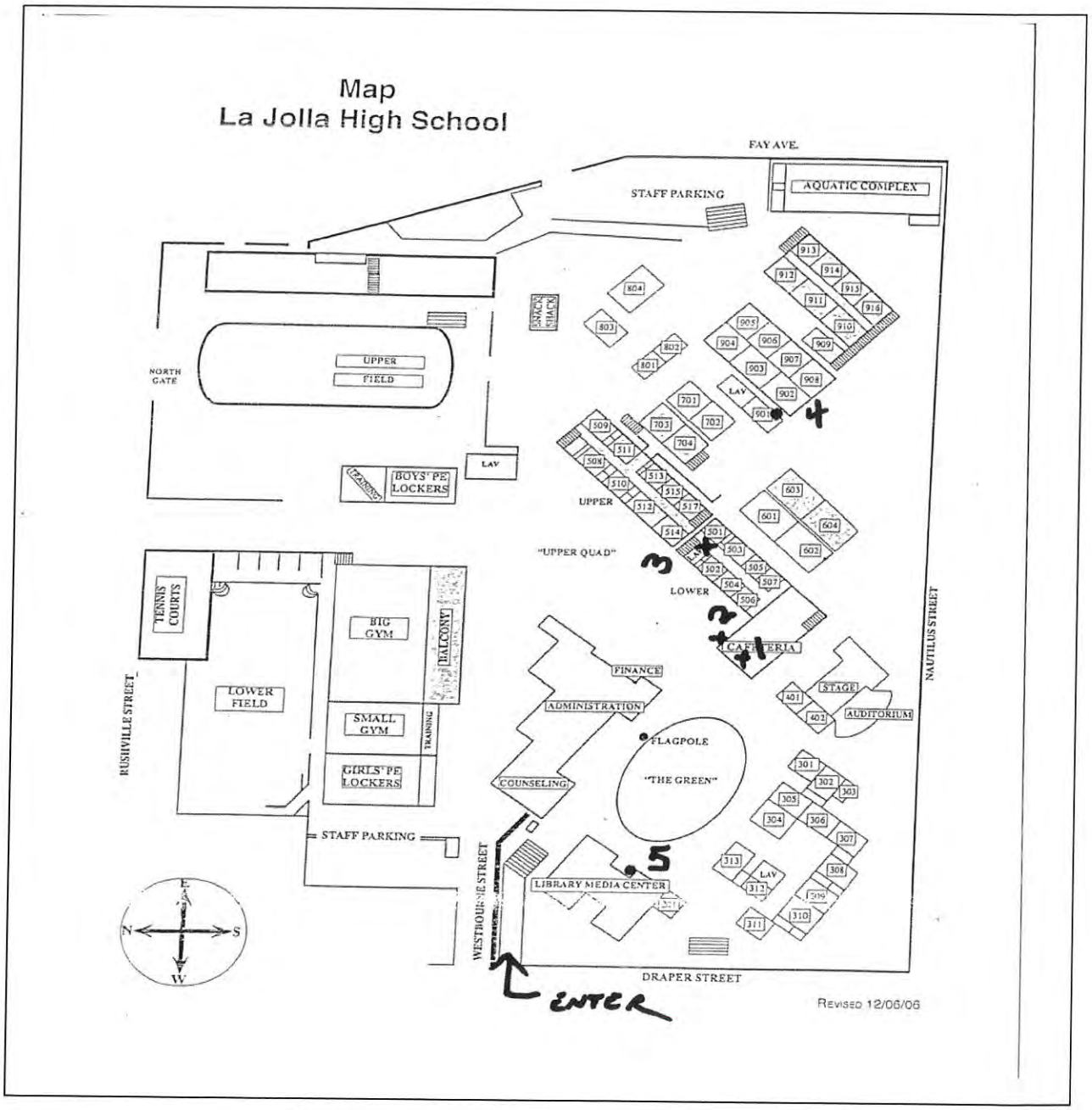

Sample No. 1

School: La Jolla High School

Name of Building: Kitchen

Location Description: Inside Kitchen Left set of sinks north wall near coffee maker

Type of Outlet: single faucet at sink

Description: Single faucet at sink with hot & cold valve

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170063

State Sample ID: 3710020-BFD-A

Date & Time Last Used: 5/11/17 1800-2200

Date & Time Sample Collected: 5/12/17 0615

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez

* hot water running

Sample No. 2

School: La Jolla High School

Name of Building: Cafeteria

Location Description: Outside North around corner from service windows **near door J-5B janitor**

Type of Outlet: Bubbler drinking fountain

Description: Left bubbler drinking fountain of two

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170064

State Sample ID: 3710020-BFD-B

Date & Time Last Used: 5/11/17 1800-2200

Date & Time Sample Collected: 5/12/17 0610

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez G

Sample No. 3

School: La Jolla High School

Name of Building: 900 bldg.

Location Description: Outside hallway next to # 901

Type of Outlet: Bubbler drinking fountain

Description: Left fountain of two

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170065

State Sample ID: 3710020-BFD-C

Date & Time Last Used: 5/11/17 1800-2200

Date & Time Sample Collected: 5/12/17 0620

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez

Sample No. 4

School: La Jolla High School

Name of Building: 300 bldg.

Location Description: Outside between Girls restroom & door BDF 3

Type of Outlet Bubbler drinking fountain

Description: Right drinking fountain of two

Comments/Miscellaneous:

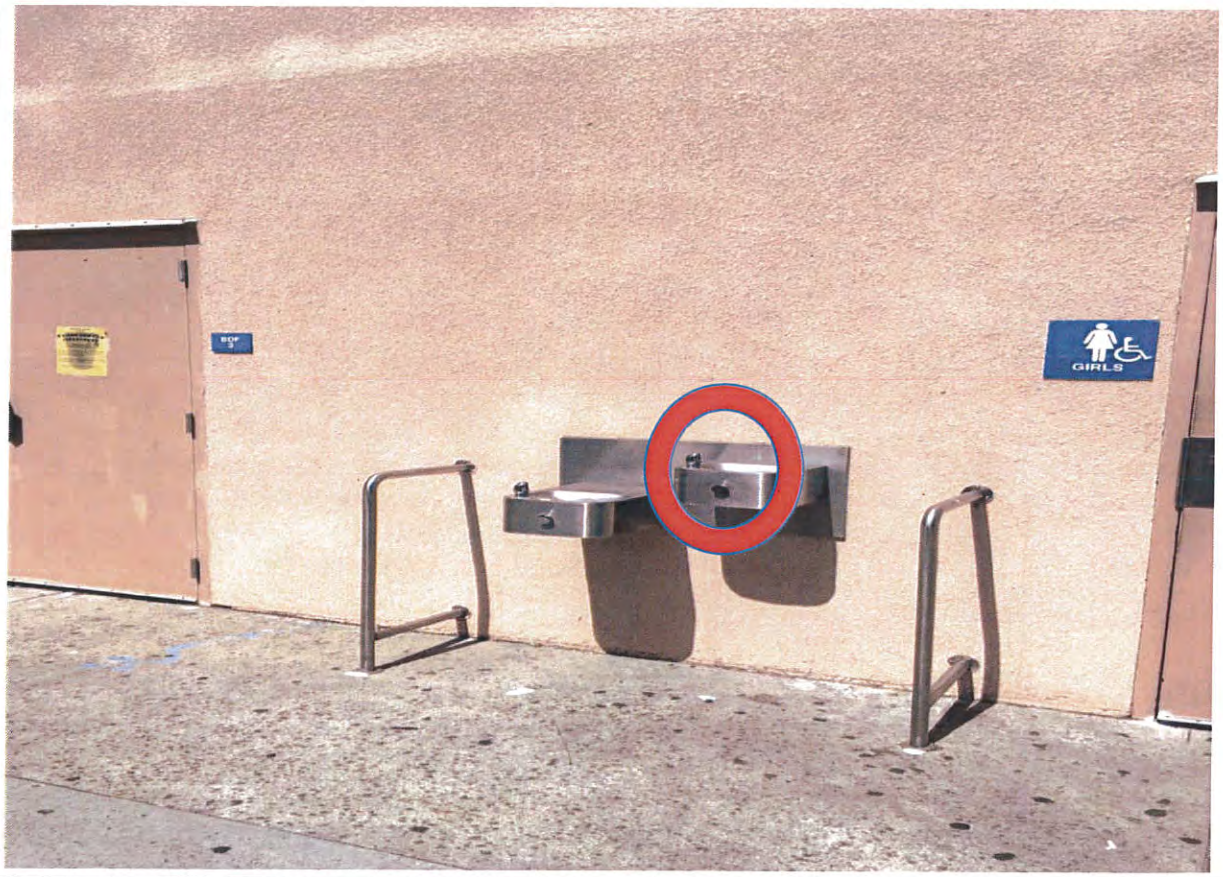

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170066

State Sample ID: 3710020-BFD-D

Date & Time Last Used: 5/11/17 1800 - 2200

Date & Time Sample Collected: 5/12/17 0605

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarenga

Sample No. 5

School: La Jolla High School

Name of Building: Library Media Center

Location Description: Outside at wall near entrance to Library

Type of Outlet: Bubbler drinking fountain

Description: Right drinking fountain of two

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170067

State Sample ID: 3710020-BFD-E

Date & Time Last Used: 5/11/17 1800-2200

Date & Time Sample Collected: 5/12/17 0630

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarenga

Water Quality Chemistry Services
Chain of Custody Form

08-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1170063	La Jolla High	12-MAY-2017	0615	EA	SAMPLE 1	
2	W1170064	La Jolla High	12-MAY-2017	0610	EA	SAMPLE 2	
3	W1170065	La Jolla High	12-MAY-2017	0620	EA	SAMPLE 3	
4	W1170066	La Jolla High	12-MAY-2017	0605	EA	SAMPLE 4	
5	W1170067	La Jolla High	12-MAY-2017	0630	EA	SAMPLE 5	

Chain of Custody:

Relinquished by: Name: E. Alvarez 5/12/17 Sign: 0705	Received by: Name: Sign:	Date & Time: Location:	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-12-17
LIMS Received Time: 0726
Reviewed By:

Exhibit 31

1481

953

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Language Academy (K-8)

Physical Address of School: 496164th St San Diego, CA 92115

First Bell: 7:30AM 4961 64th

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/19/2017

Completed by Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 04/19/2017

School's Point of Contact for Sampling Assistance

Name: ~~Daniel Lopez~~ ~~Tim Brown~~ DAN LOPEZ

Phone: ~~(619) 306-3383~~ ~~619-302-9427~~ 619-306-3383

Email: dlopez2@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 5-4-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Language Academy (K-8) 496164th St San Diego, CA 92115

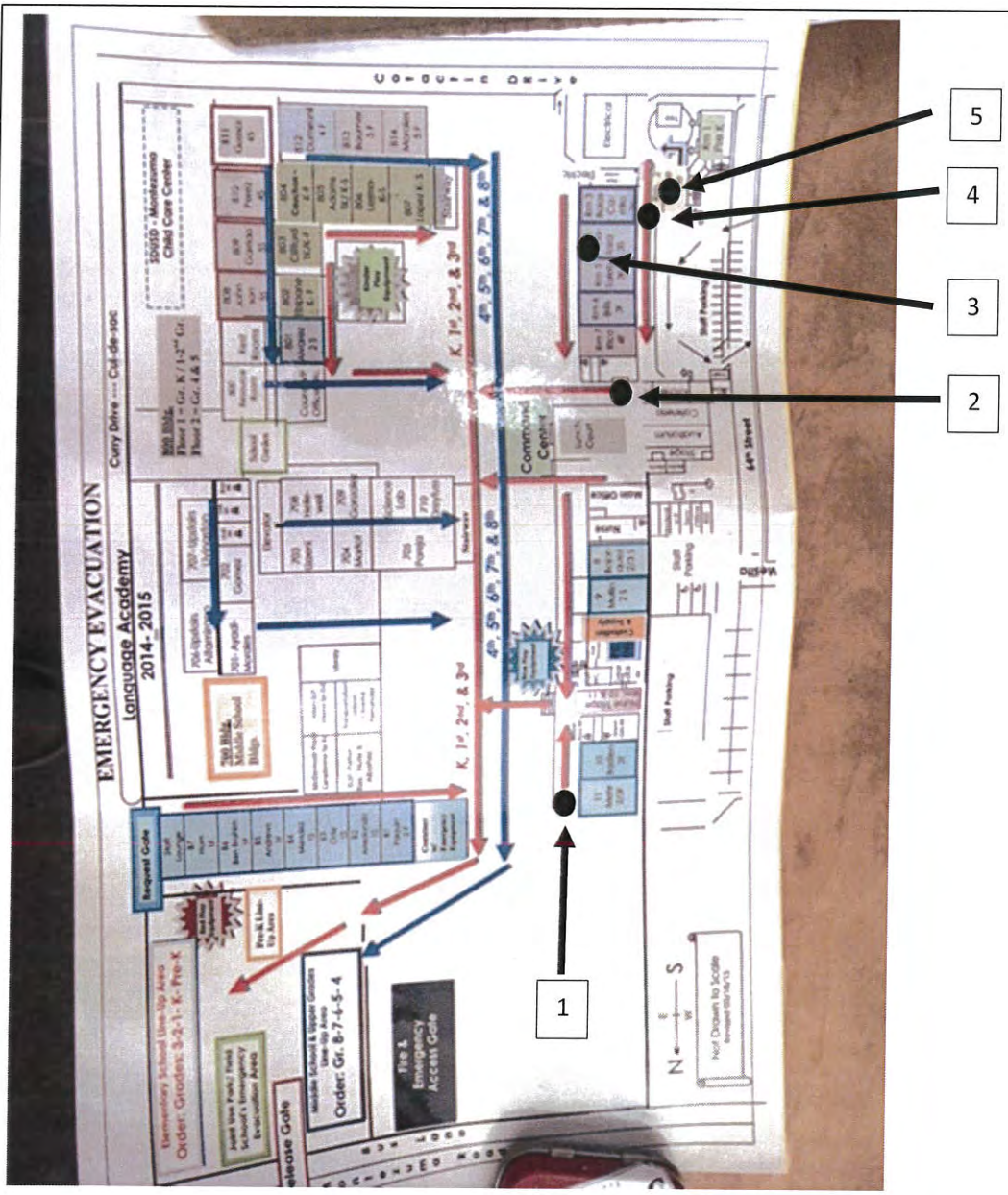

Sample No. 1

School: Language Academy (K-8)

Name of Building: 100 Building

Location Description: Northeast corner of building (outside room 11)

Type of Outlet: Double bubbler

Description: Bubbler on left side.

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171125

State Sample ID: 3710020-AJF-A

Date & Time Last Used: 5/4/17 1800

Date & Time Sample Collected: 5/5/17 0609

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 2

School: Language Academy (K-8)

Name of Building: 400 Building

Location Description: North side of building outside

Type of Outlet: Single bubblers

Description: Middle bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171126

State Sample ID: 3710020-AJF-B

Date & Time Last Used: 5/4/17 1800

Date & Time Sample Collected: 5/5/17 0553

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 3

School: Language Academy

Name of Building: 400 Building

Location Description: Room #4

Type of Outlet: Single bubbler

Description: Bubbler

Comments/Miscellaneous:

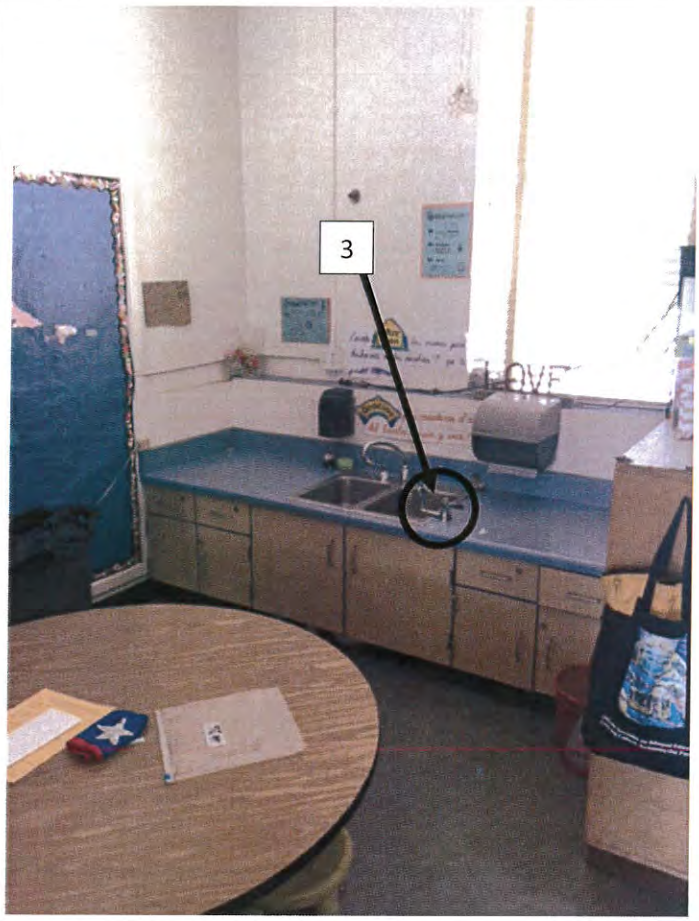

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171127

State Sample ID: 3710020-AJF-C

Date & Time Last Used: 5/4/17 1800

Date & Time Sample Collected: 5/5/17 0604

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mango

Sample No. 4

School: Language Academy (K-8)

Name of Building: 400 Building

Location Description: Southwest corner of building outside of room 3

Type of Outlet: Single Bubblers

Description: Bubbler on left side

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171128

State Sample ID: 3710020-AJF-D

Date & Time Last Used: 5/4/17 1800

Date & Time Sample Collected: 5/5/17 0558

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: David Mayo

Sample No. 5

School: Language Academy (K-8)

Name of Building: Kindergarten building

Location Description: Room 2

Type of Outlet: Bubbler

Description: Bubbler at sink

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171129

State Sample ID: 3710020-AJF-E

Date & Time Last Used: 5/4/17 1800

Date & Time Sample Collected: 5/5/17 0601

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

04-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1171125	Language Academy	05-MAY-2017	0609	David Mayo	SAMPLE 1	
2	W1171126	Language Academy	05-MAY-2017	0553		SAMPLE 2	
3	W1171127	Language Academy	05-MAY-2017	0604		SAMPLE 3	
4	W1171128	Language Academy	05-MAY-2017	0558		SAMPLE 4	
5	W1171129	Language Academy	05-MAY-2017	0601		SAMPLE 5	

1489

Chain of Custody:

Relinquished by: Name: David Mayo Sign: David Mayo	Received by: Name: Tom Burger Sign: TM B. Burger	Date & Time: 5/5/17 6:30 Location: AIV	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TMally
Received Date: 5/05/17
LIMS Received Time: 0659
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Layfayette Elementary

Physical Address of School: 6125 Printwood Way, San Diego, CA 92117

First Bell: 7:40am

Meeting Date: 4/05/2017

Sampling Plan Completion Date: 5/02/17

Completed by Print Name: Lori Sherman

Signature: *Lori Sherman* Date: 5/02/17

School's Point of Contact for Sampling Assistance

Name: ~~Lori Sherman~~ Ginette Commins

Phone: ~~619-301-9086~~ 858 - 627-7201

Email: lsherman1@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/8/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Layfayette Elementary - 6125 Printwood Way, San Diego, CA 92117

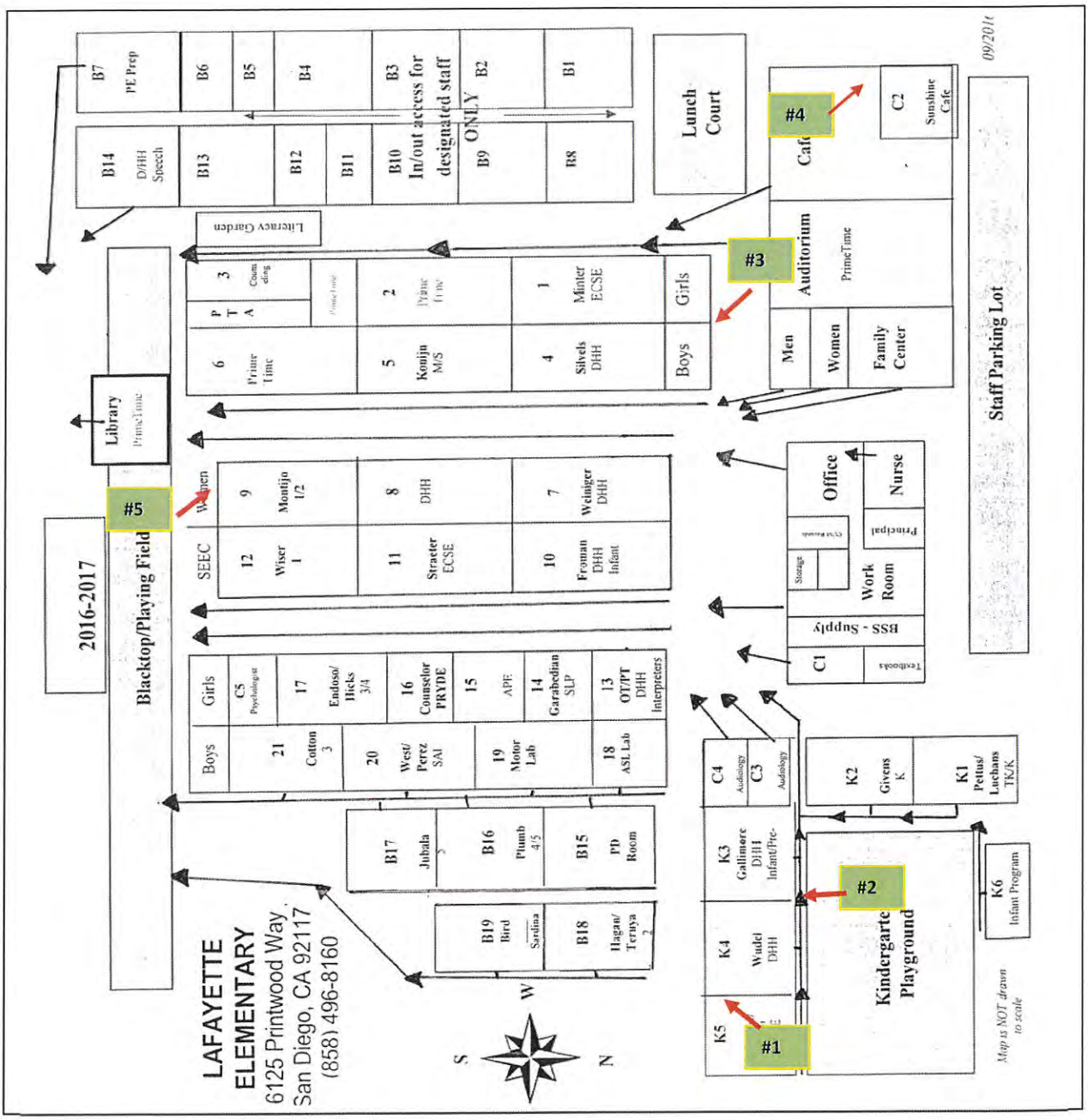

Sample No. 1

School: Layfayette Elementary - 6125 Printwood Way, San Diego, CA 92117

Name of Building: State Preschool

Location Description: ~~Inside K-1~~ (map points to K5) * Inside K-5

Type of Outlet: Bubbler

Description: Sink mount

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171635

State Sample ID: 3710020-BGC-A

Date & Time Last Used: 5/8/17 2200

Date & Time Sample Collected: 5/9/17 0616

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 2

School: Layfayette Elementary - 6125 Printwood Way, San Diego, CA 92117

Name of Building: Kindergarten

Location Description: Kindergarten play area between K-3 & K-4 (exterior north facing wall)

Type of Outlet: Bubbler

Description: Left bubbler

Comments/Miscellaneous: Between boy/girl's restroom

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171636

State Sample ID: 3710020-BGC-B

Date & Time Last Used: 5/8/17 2200

Date & Time Sample Collected: 5/9/17 0609

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 3

School: Layfayette Elementary - 6125 Printwood Way, San Diego, CA 92117

Name of Building: Classrooms 1-6

Location Description: Exterior north wall between boy & girl's restroom

Type of Outlet: Bubbler

Description: Center bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171637

State Sample ID: 3710020-BGC-C

Date & Time Last Used: 5/8/17 2200

Date & Time Sample Collected: 5/9/17 0603

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 4

School: Layfayette Elementary - 6125 Printwood Way, San Diego, CA 92117

Name of Building: Kitchen

Location Description: Interior north wall next to ovens

Type of Outlet: Spray nozzle

Description:

Comments/Miscellaneous:

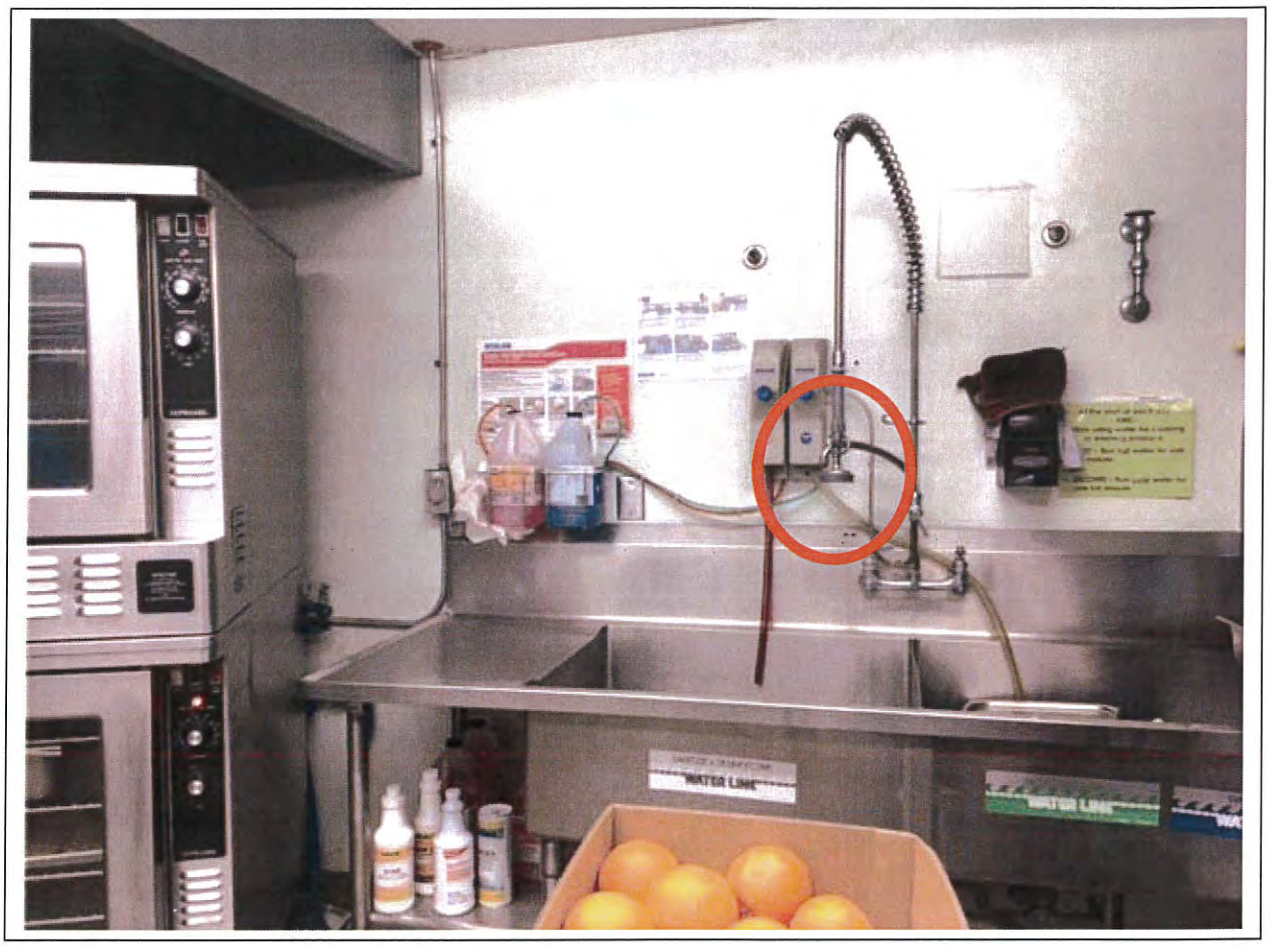

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171638

State Sample ID: 3710020-BGC-D

Date & Time Last Used: 5/8/17 2200

Date & Time Sample Collected: 5/9/17 0559

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 5

School: Layfayette Elementary - 6125 Printwood Way, San Diego, CA 92117

Name of Building: Classrooms 7-12

Location Description: South exterior wall near storage room & custodian room 3

Type of Outlet: Bubbler

Description: Left bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171639

State Sample ID: 3710020-BGC-E

Date & Time Last Used: 5/8/17 2200

Date & Time Sample Collected: 5/9/17 0606

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

08-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1171635	Lafayette Elementary	09-MAY-2017	0616 ✓	DS.	SAMPLE 1	
2	W1171636	Lafayette Elementary	09-MAY-2017	0609 ✓	↓	SAMPLE 2	
3	W1171637	Lafayette Elementary	09-MAY-2017	0603 ✓	↓	SAMPLE 3	
4	W1171638	Lafayette Elementary	09-MAY-2017	0559 ✓	↓	SAMPLE 4	
5	W1171639	Lafayette Elementary	09-MAY-2017	0606 ✓	↓	SAMPLE 5	

Chain of Custody:

Relinquished by: Name: Dan Sowersby Sign: D. Sowersby	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 5/8/17 0645 Location: ALV	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/09/17
LIMS Received Time: 0703
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: LEWIS MIDDLE SCHOOL

Physical Address of School: 5170 Greenbrier ave. San Diego 92120

First Bell: 7:15

Meeting Date: 3/22/2017

Sampling Plan Completion Date: 4/12/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 4/12/2017

School's Point of Contact for Sampling Assistance

Name: ~~Elizabeth Lara~~ Ginette Commins

Phone: ~~619-302-7616~~ 619-302-5285

Email: elara@sandi.net

City of San Diego 3710020

Approved By: Tom B Burger 4-18-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

School and Address: LEWIS Middle School 5170 Greenbrier ave San Diego 92120

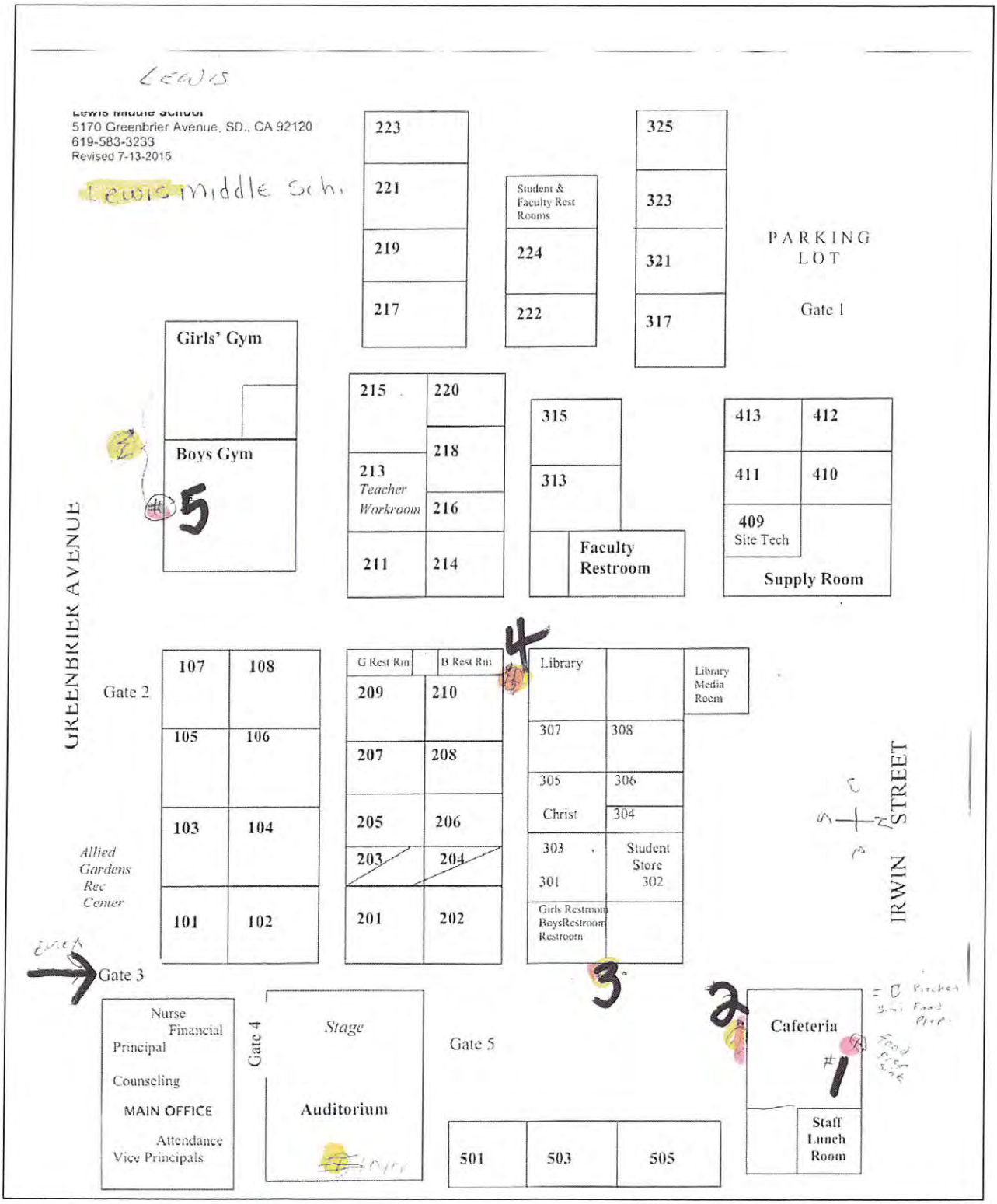

Sample No. 1

School: LEWIS MIDDLE SCHOOL

Name of Building: Cafeteria /Kitchen

Location Description: Inside kitchen north sink near ovens etc.

Type of Outlet: single faucet with hot and cold valves

Description: Single faucet with hot & cold valves at duel sink

Comments/Miscellaneous:

City use only below this line

No Sample taken
Hot Water dripping
↳ faucet was
warm at tach

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: 3710020-AFI-A

State Sample ID: W1167283

Date & Time Last Used:

Date & Time Sample Collected:

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector:

Sample No. 2

School: LEWIS MIDDLE SCHOOL

Name of Building: Cafeteria

Location Description: Outside cafeteria near lunch /student dinning door

Type of Outlet: Bubbler

Description: RIGHT Drinking fountain far LEFT bubbler of three

Comments/Miscellaneous:

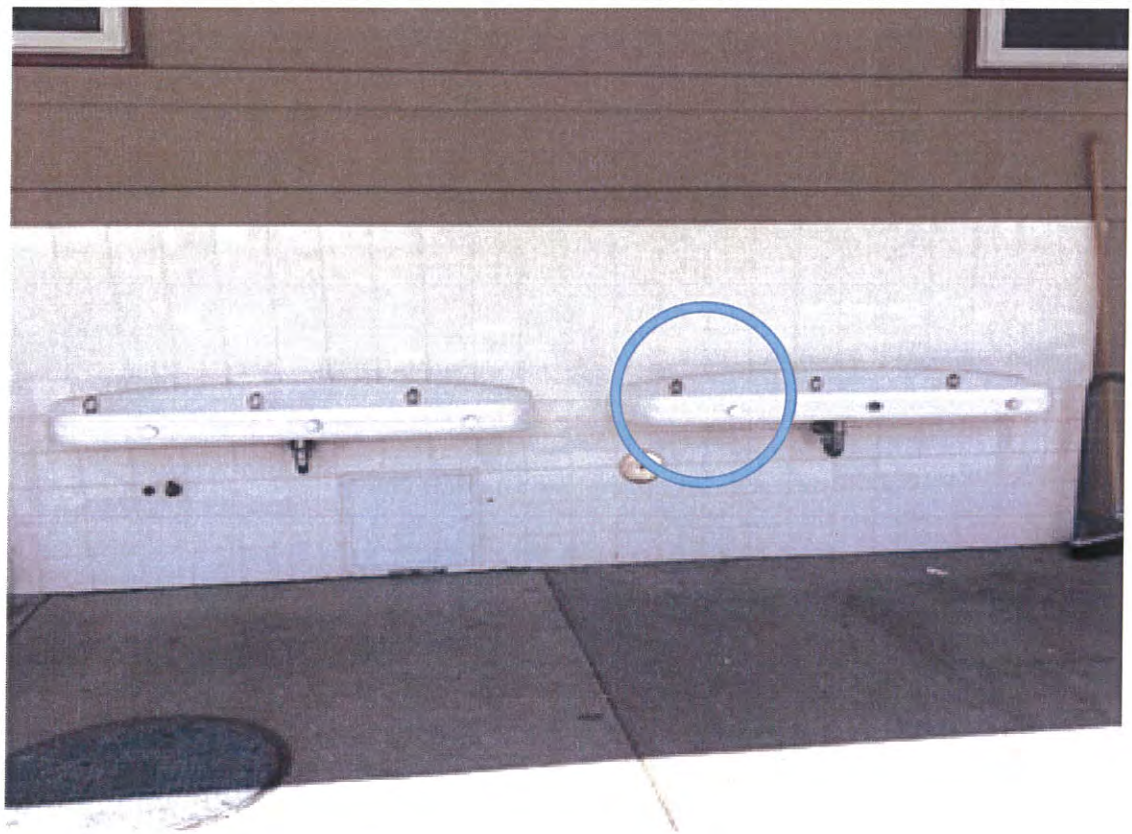

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: 3710020-AFI-B

State Sample ID: W1167284

Date & Time Last Used: 4/18/2017 @ 2200

Date & Time Sample Collected: 4/19/17 @ 0535

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: LEWIS MIDDLE SCHOOL

Name of Building: 300 BLDG

Location Description: Near lunch court between custodial #3 door and boys rr

Type of Outlet: Bubbler

Description: Left bubbler water fountain next to a duel fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: 3710020-AFI-C

State Sample ID: W1167285

Date & Time Last Used: 4/18/17 @ 2200

Date & Time Sample Collected: 4/19/17 @ 0538

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: LEWIS MIDDLE SCHOOL

Name of Building: 200 bldg.

Location Description: Outside near room 210 and boys restroom

Type of Outlet: Bubbler Water fountain

Description: Right Drinking fountain and right bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: 3710020-AFI-D

State Sample ID: W1167286

Date & Time Last Used: 4/18/17 @ 2200

Date & Time Sample Collected: 4/19/17 @ 0541

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 5

School: LEWIS MIDDLE SCHOOL

Name of Building: BOYS GYM

Location Description: Outside near boys locker door and boys restroom

Type of Outlet: Bubbler drinking fountain

Description: Center bubbler of Right drinking fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: 3710020-AFI-E

State Sample ID: W1167287

Date & Time Last Used: 4/13/17 @ 2200

Date & Time Sample Collected: 4/19/17 @ 0544

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

18-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	~~Analysis Requested~~
1	W1167283	Lewis Middle School	19-APR-2017	—		SAMPLE 1	No Sample taken hot water left on, dripped all night.
2	W1167284	Lewis Middle School	19-APR-2017	0535	A. Molloy	SAMPLE 2	
3	W1167285	Lewis Middle School	19-APR-2017	0538		SAMPLE 3	
4	W1167286	Lewis Middle School	19-APR-2017	0541		SAMPLE 4	
5	W1167287	Lewis Middle School	19-APR-2017	0544		SAMPLE 5	

1505

Chain of Custody:

Relinquished by:	Received by:	Date & Time:	Comments:
Name: Alejandra Molloy Sign: AMolloy	Name: Keith Richtrwen Sign:	4/19/17 @625 Location: AIV WQL	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: Keith Richtrwen
Received Date: 4/19/17
LIMS Received Time: 1056
Reviewed By: AMolloy 4/25/17

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: LEWIS MIDDLE SCHOOL

Physical Address of School: 5170 Greenbrier ave. San Diego 92120

First Bell: 7:15

Meeting Date: 3/22/2017

Sampling Plan Completion Date: 4/12/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 4/12/2017

School's Point of Contact for Sampling Assistance

Name: ~~Elizabeth Lara~~ Ginette Commins

Phone: ~~619-302-7616~~ 619-302-5285

Email: elara@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-18-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

School and Address: LEWIS Middle School 5170 Greenbrier ave San Diego 92120

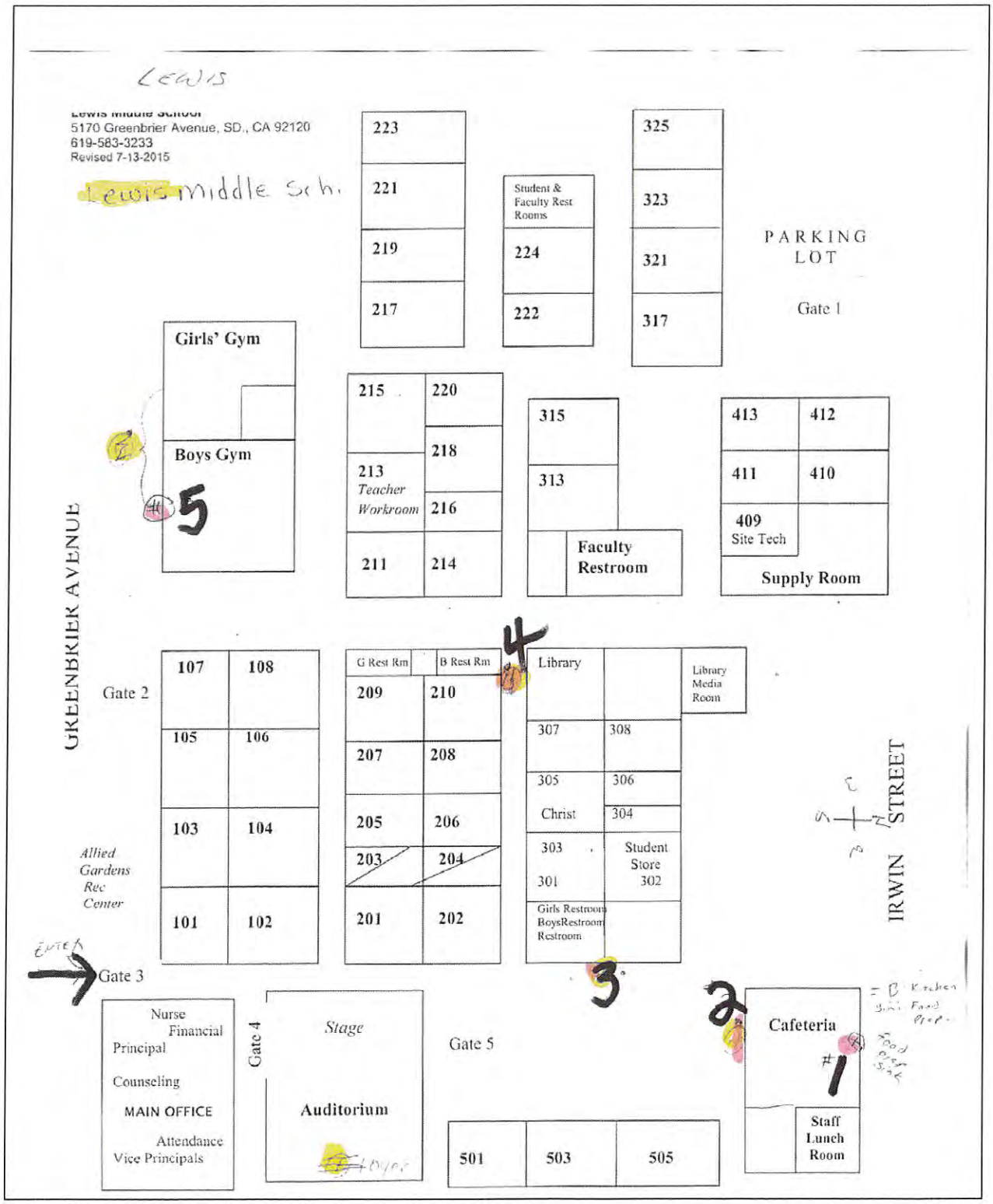

Sample No. 1

School: LEWIS MIDDLE SCHOOL

Name of Building: Cafeteria /Kitchen

Location Description: Inside kitchen north sink near ovens etc.

Type of Outlet: single faucet with hot and cold valves

Description: Single faucet with hot & cold valves at duel sink

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: 3710020-AFI-A

State Sample ID: W1167283

Date & Time Last Used: 4/20/17 @ 2200

Date & Time Sample Collected: 4/21/2017 @ 0533

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

20-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168037	Lewis Middle School	21-APR-2017	0533	A. Molloy		

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign: AMolloy	Received by: Name: Tom Burger Sign: Tom B Burger	Date & Time: 4/21/2017 @ 0547 Location: AIV WQL	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 4/21/17
LIMS Received Time: 0659
Reviewed By: AMolloy 4/26/17

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Iftin Charter School

Physical Address of School: 5465 El Cajon Blvd., San Diego, CA 92115

First Bell: 7:30AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 03/27/2017

Completed by Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 03/27/2017

School's Point of Contact for Sampling Assistance

Name: Daniel Lopez

Phone: (619) 306-3383

Email: dlopez2@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-11-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: **Iftin Charter School, 5465 El Cajon Blvd., San Diego, CA 92115**

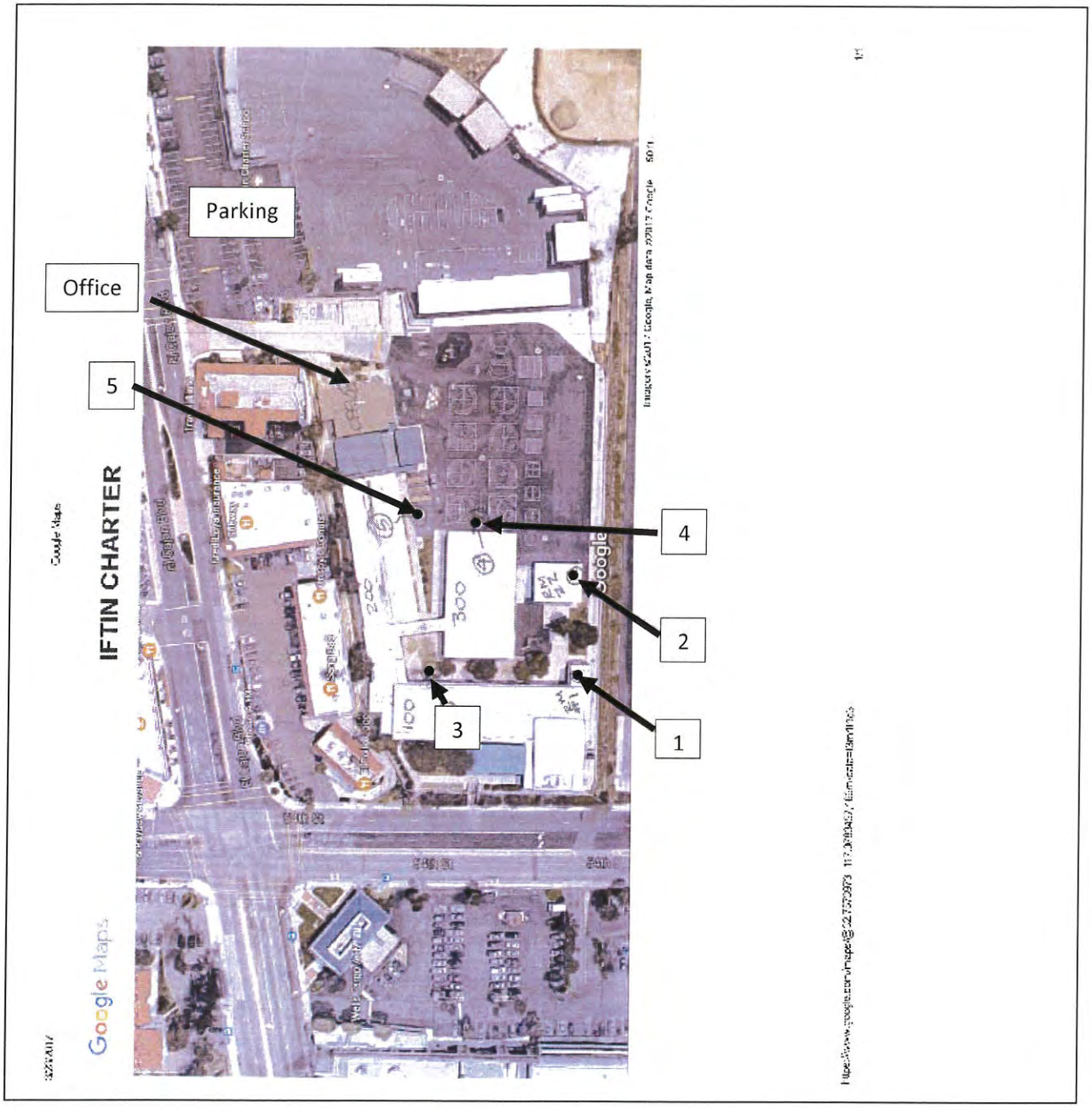

Sample No. 1

School: Iftin Charter School

Name of Building: Building 100

Location Description: Kindergarten Room 1

Type of Outlet: Bubbler

Description: South-East facing sink with bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166072

State Sample ID: 3710020-ADH-A

Date & Time Last Used: 1800 4/11/17

Date & Time Sample Collected: 0557 4/12/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 2

School: Iftin Charter School

Name of Building: Room 22

Location Description: Inside Classroom

Type of Outlet: Bubbler

Description: far side of classroom

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166073

State Sample ID: 3710020-ADH-B

Date & Time Last Used: 1800 4/11/17

Date & Time Sample Collected: 0602

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mugo

Sample No. 3

School: Iftin Charter School

Name of Building: 100 Building

Location Description: Outside of building 100, *exterior facing courtyard*

Type of Outlet: ~~Bubbler~~ *triple fountain*

Description: Far left bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166074

State Sample ID: 3710020-ADH-C

Date & Time Last Used: 1500 4/11/17

Date & Time Sample Collected: ~~0600~~ 4/12/17 0611

Direct Sample ☑ DM Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 4

School: Iftin Charter School

Name of Building: 300 Building

Location Description: Outside of building bubbler, *facing east*

Type of Outlet: ~~Bubbler~~ *triple fountain*

Description: Far right bubbler

Comments/Miscellaneous: Some water leaked out due to low flow

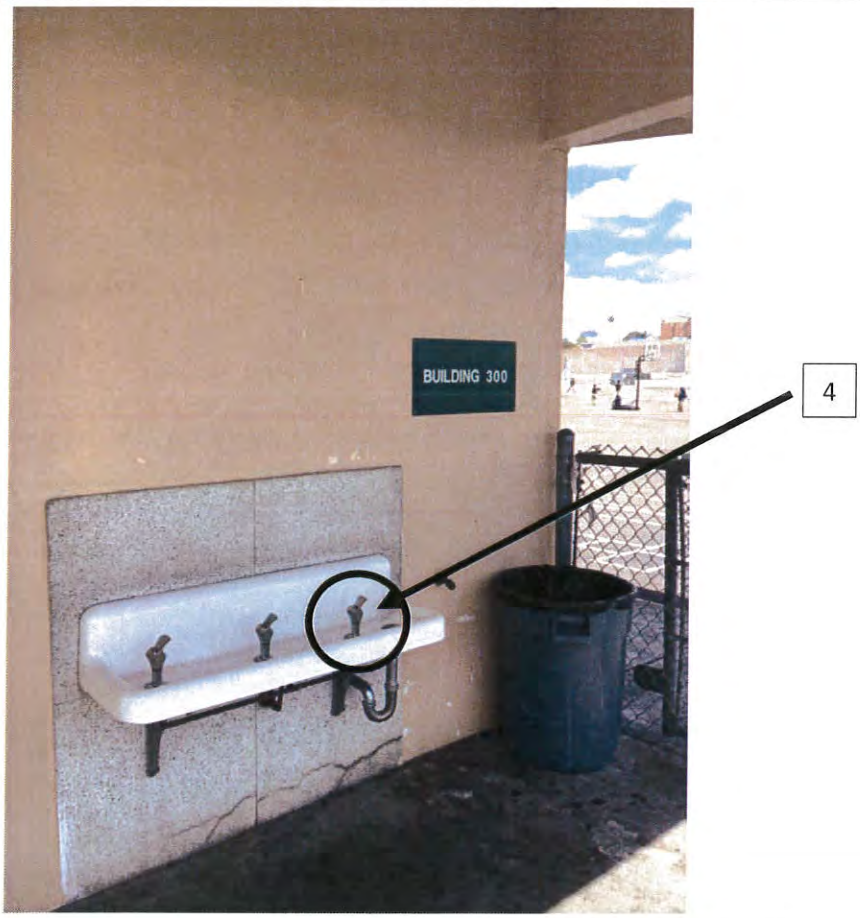

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166075

State Sample ID: 3710020-ADH-D

Date & Time Last Used: 1800 4/11/17

Date & Time Sample Collected: ~~0600~~ 4/12/17 0604

Direct Sample ☐ DM Transfer Sample ☑

Name of Water System Sample Collector: David Mayo

Sample No. 5

School: Iftin Charter School

Name of Building: 200 Building

Location Description: Outside sample point, *facing south*

Type of Outlet: Bubbler

Description: Left bubbler on larger (*two fixture*) fountain

Comments/Miscellaneous:

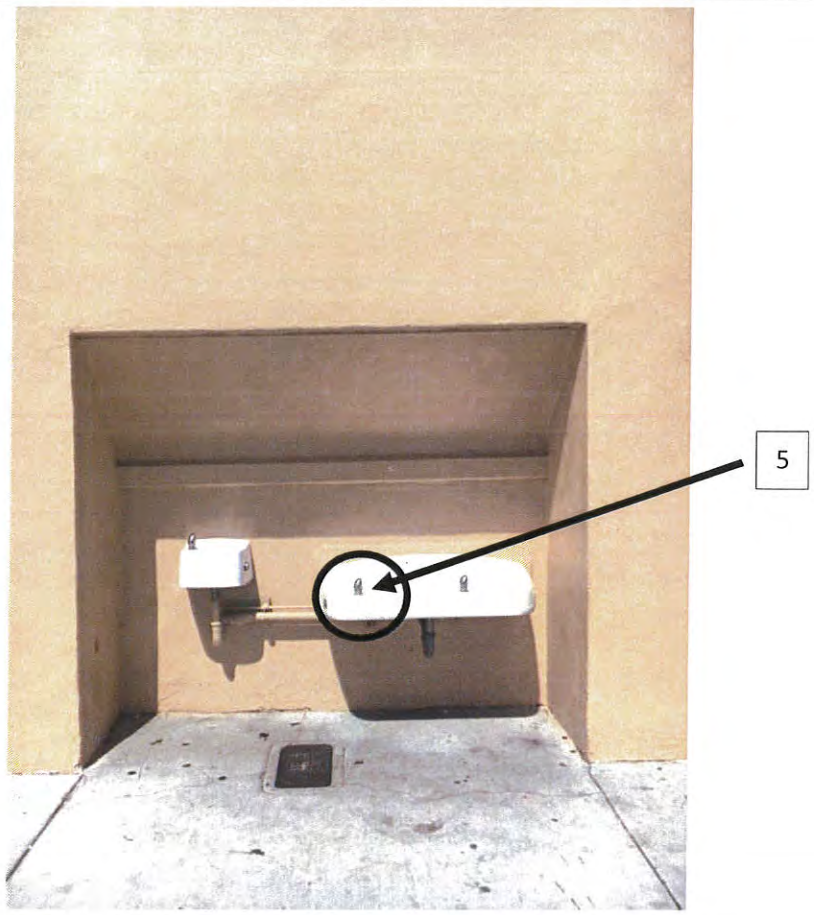

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166076

State Sample ID: 3710020-ADH-E

Date & Time Last Used: 1800 4/11/17

Date & Time Sample Collected: 0614 4/12/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Water Quality Chemistry Services
Chain of Custody Form

11-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1166072	Iftin Charter	12-APR-2017	0557	David Mayo	SAMPLE 1	
2	W1166073	Iftin Charter	12-APR-2017	0602		SAMPLE 2	
3	W1166074	Iftin Charter	12-APR-2017	0611		SAMPLE 3	
4	W1166075	Iftin Charter	12-APR-2017	0604		SAMPLE 4	
5	W1166076	Iftin Charter	12-APR-2017	0614		SAMPLE 5	

Chain of Custody:

Relinquished by: Name: David Mayo Sign: David Mayo	Received by: Name: A Molloy Sign: Alejandra Molloy	Date & Time: 4/12/17 7:00 Location: AIV	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: A Molloy
Received Date: 4/12/17
LIMS Received Time: 0659
Reviewed By:

Exhibit 31

1517

989

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Lincoln High School

Physical Address of School: 4777 Imperial Ave., San Diego CA 92113

First Bell: 7.25 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 4-4-2017

Completed by Print Name: Sergio Salinas

Signature: _____ Date: _____

School's Point of Contact for Sampling Assistance

Name: Sergio Salinas

Phone: (619) 302-0564

Email: ssalinas@sandi.net

City of San Diego 3710020

Approved By: Tom Burger 4-7-17 — Tom Burger

Signature & Date — Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Lincoln HS- 4777 Imperial Ave., San Diego CA 92113

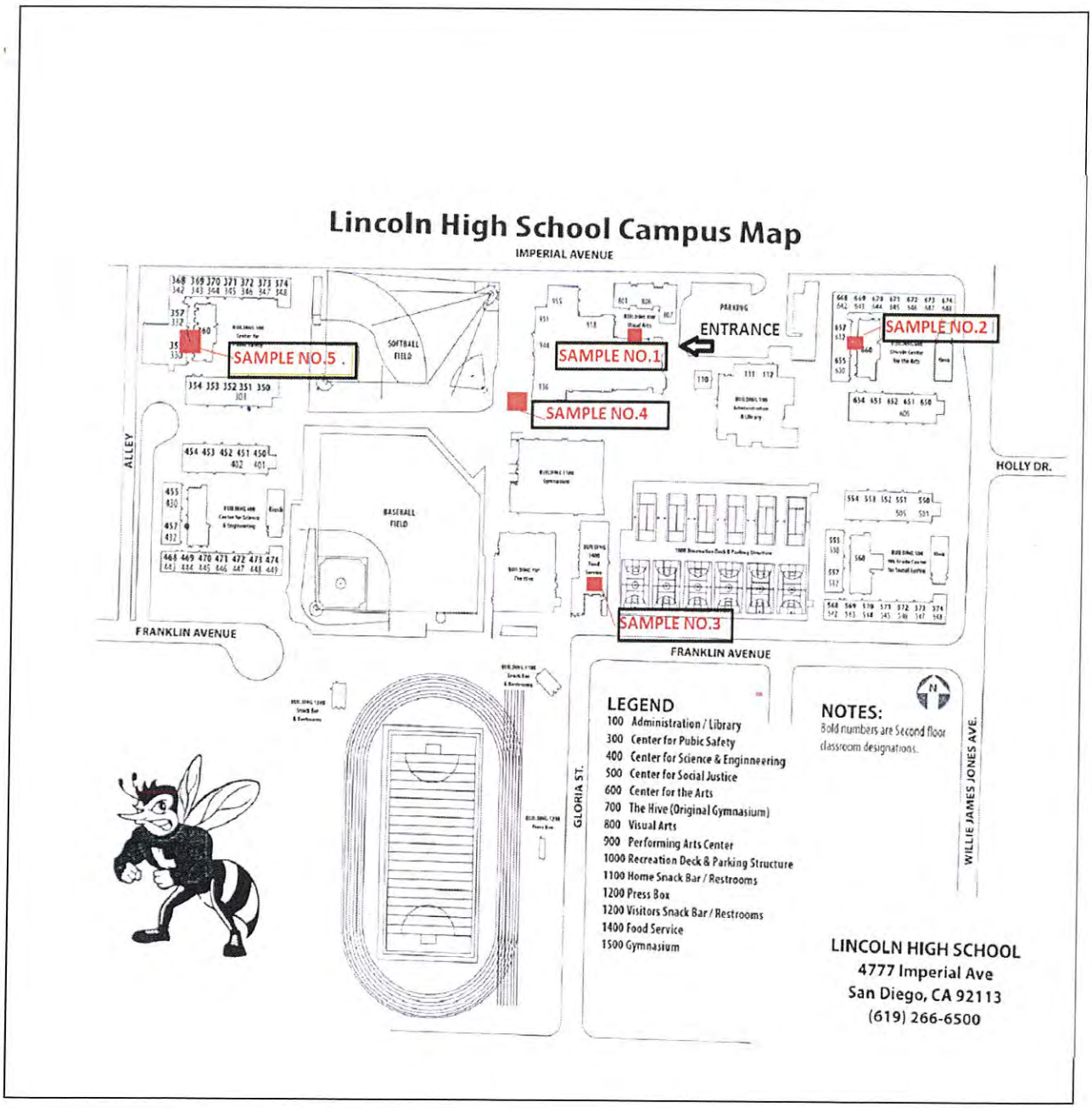

Sample No. 1

School: Lincoln HS- 4777 Imperial Ave., San Diego CA 92113

Name of Building: Building 900

Location Description: Outside drinking fountain behind building 900 in the court yard.

Type of Outlet: Upper Bubbler

Description: Upper Bubbler

Comments/Miscellaneous: (School ID NO.344)

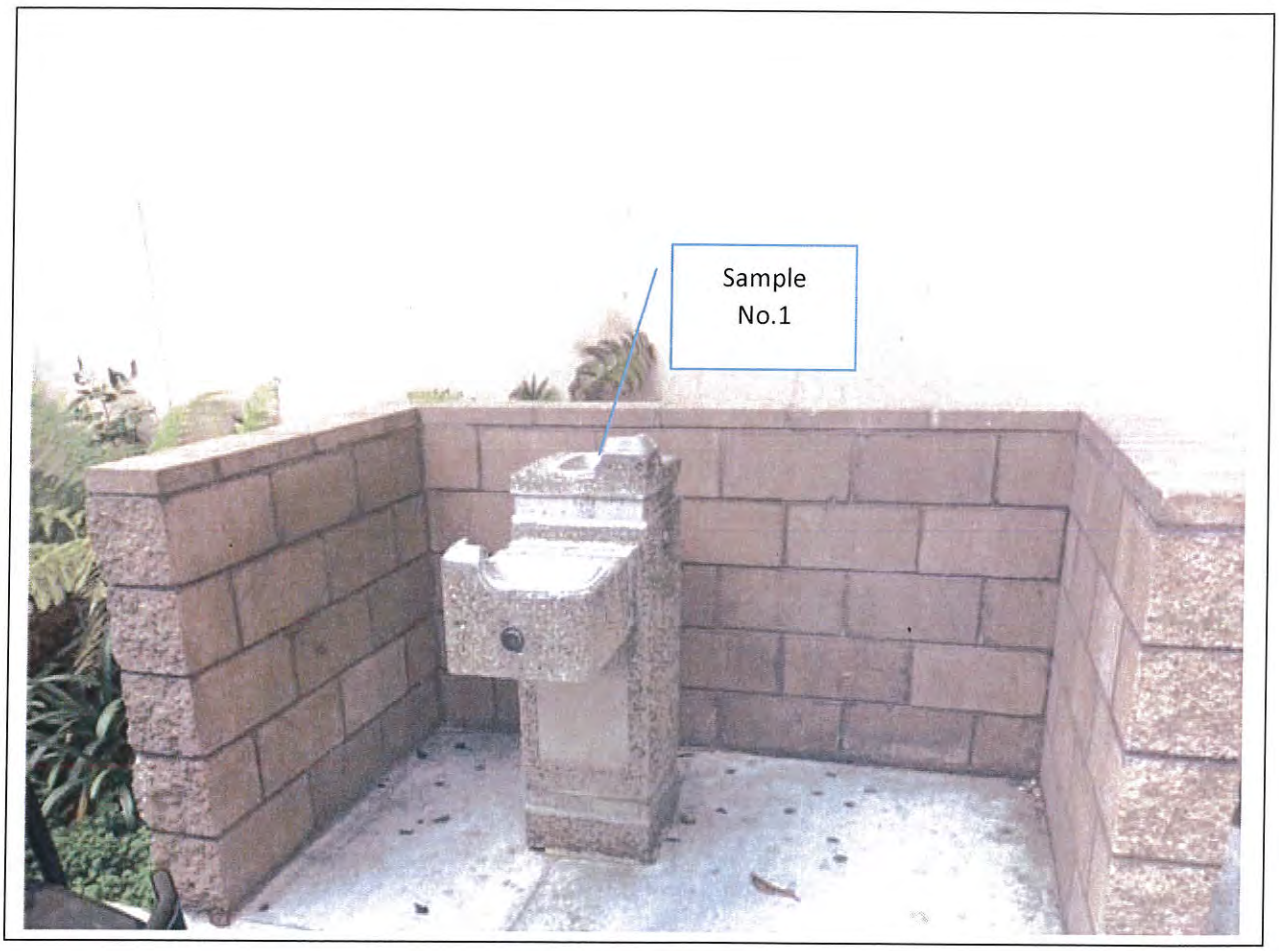

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164177

State Sample ID: 3710020-ABC-A

Date & Time Last Used: 040717 @ 1800

Date & Time Sample Collected: 040817 @ 0705

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: [illegible]

Sample No. 2

School: Lincoln HS- 4777 Imperial Ave., San Diego CA 92113

Name of Building: Building 660

Location Description: Building 660- between 632 and 655-walkway

Type of Outlet: Left Bubbler

Description: Outside drinking fountain- left bubbler

Comments/Miscellaneous: (School ID NO.344)

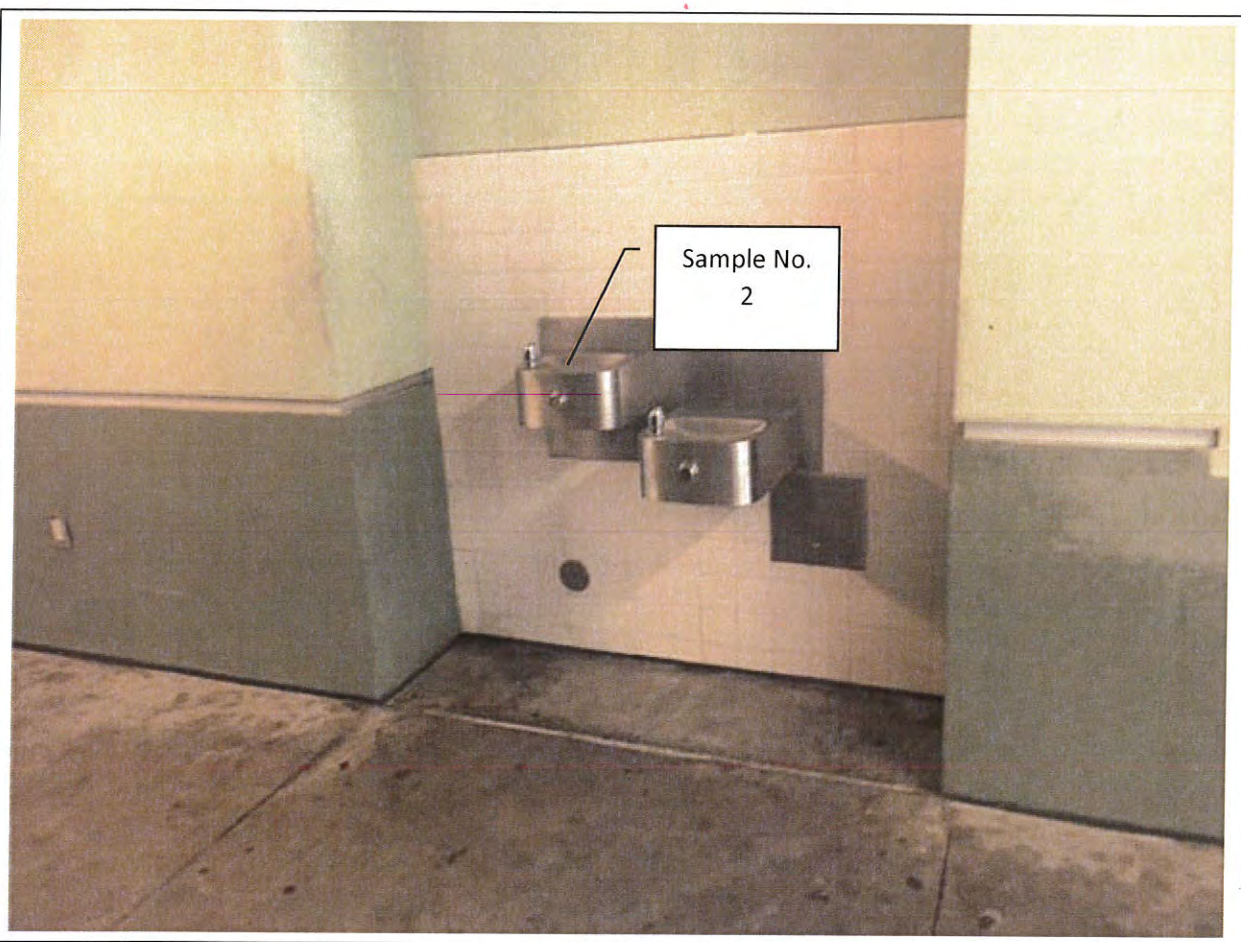

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164178

State Sample ID: 3710020-ABC-B

Date & Time Last Used: 040717 @ 1800

Date & Time Sample Collected: 040817 @ 0731

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: [illegible]

Sample No. 3

School: Lincoln HS- 4777 Imperial Ave., San Diego CA 92113

Name of Building: Building 1400 Food Service

Location Description: Inside Kitchen

Type of Outlet: Water Faucet

Description: Faucet located inside the prep kitchen

Comments/Miscellaneous: (School ID NO.344)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164179

State Sample ID: 3710020-ABC-C

Date & Time Last Used: 040717 @ 1800

Date & Time Sample Collected: 040817 @ 0727

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: [illegible]

Sample No. 4

School: Lincoln HS- 4777 Imperial Ave., San Diego CA 92113

Name of Building :Softball field and baseball field

Location Description: Outside drinking fountain between stairs /east of softball field

Type of Outlet: Lower Bubbler

Description: Lower Bubbler

Comments/Miscellaneous: (School ID NO.344)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164180

State Sample ID: 3710020-ABC-D

Date & Time Last Used: 040717 @ 1800

Date & Time Sample Collected: 040817 @ 0715

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: [illegible]

Sample No. 5

School: Lincoln HS- 4777 Imperial Ave., San Diego CA 92113

Name of Building: 360 building between 355 and 332- walkway

Location Description: Outside drinking fountain behind building 360

Type of Outlet: Left Bubbler

Description: Left Bubbler

Comments/Miscellaneous: (School ID NO.344)

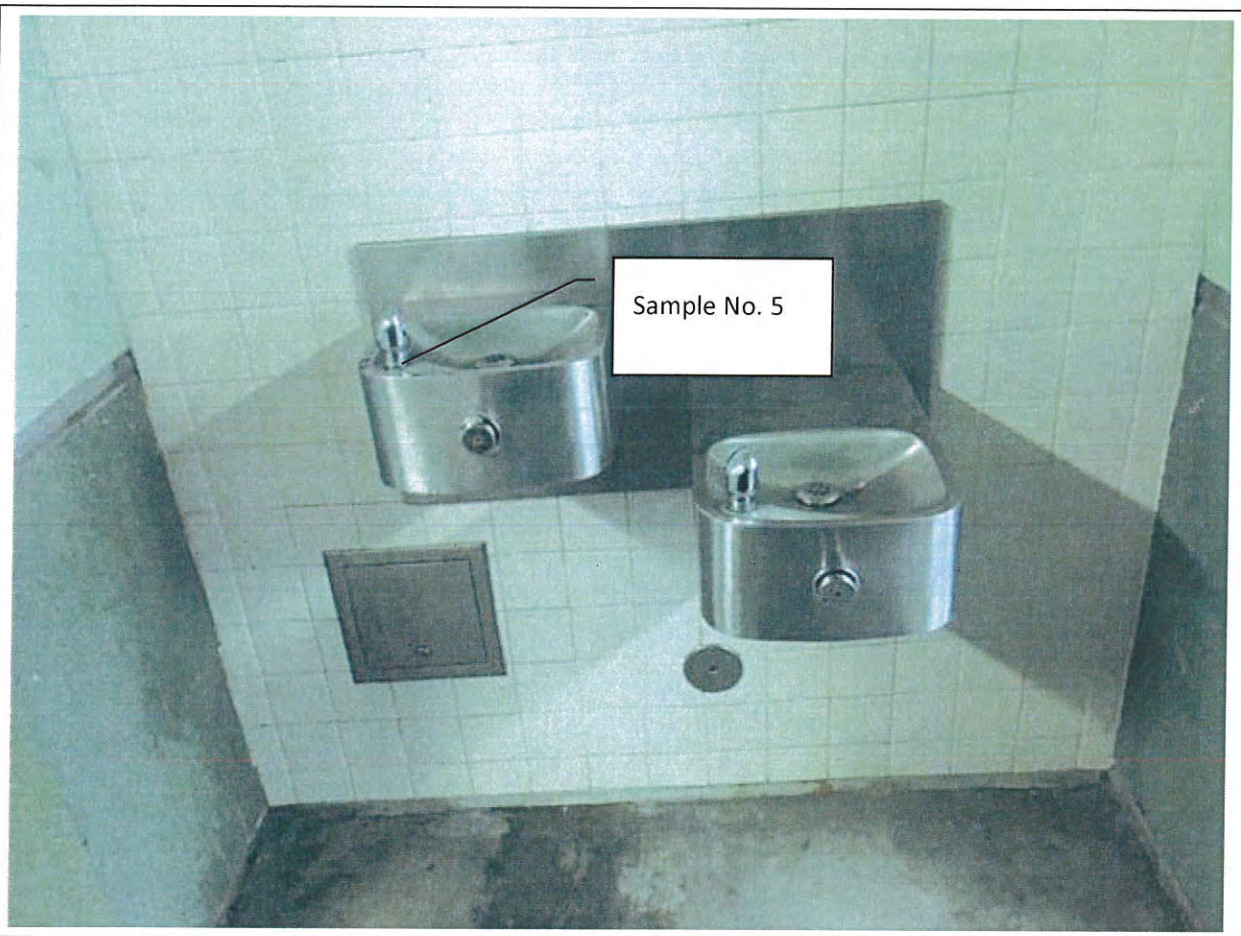

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164181

State Sample ID: 3710020-ABC-E

Date & Time Last Used: 040717 @ 1800

Date & Time Sample Collected: 040817 @ 0720

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector:

Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 4/18/17

San Diego Unified School District
Lincoln High School

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1164177	04/08/17	07:05 AM	SAMPLE 1	3710020-ABC-A	< 5	ug/L
W1164178	04/08/17	07:31 AM	SAMPLE 2	3710020-ABC-B	< 5	ug/L
W1164179	04/08/17	07:27 AM	SAMPLE 3	3710020-ABC-C	< 5	ug/L
W1164180	04/08/17	07:15 AM	SAMPLE 4	3710020-ABC-D	< 5	ug/L
W1164181	04/08/17	07:20 AM	SAMPLE 5	3710020-ABC-E	< 5	ug/L

Source	Source Description
SAMPLE 1	BLDG 900, behind BLDG 900 in courtyard, upper bubbler
SAMPLE 2	BLDG 660, between 632 and 655, left bubbler
SAMPLE 3	BLDG 1400 food service, kitchen, faucet in prep room
SAMPLE 4	Softball and baseball field, east of softball field between stairs, lower bubbler
SAMPLE 5	BLDG 360, between 355 and 332, back of BLDG 360, left bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger

Tom Burger, Associate Chemist

Water Quality Chemistry Services
Chain of Custody Form

07-Apr-2017

998

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1164177	Lincoln HS	~~30-APR-2017~~ 4/8/17	0705	Jweston	SAMPLE 1	
2	W1164178	Lincoln HS	~~30-APR-2017~~ 4/8/17	0731		SAMPLE 2	
3	W1164179	Lincoln HS	~~30-APR-2017~~ 4/8/17	0727		SAMPLE 3	
4	W1164180	Lincoln HS	~~30-APR-2017~~ 4/8/17	0715		SAMPLE 4	
5	W1164181	Lincoln HS	~~30-APR-2017~~ 4/8/17	0720		SAMPLE 5	

1526

Chain of Custody:

Relinquished by: Name: JERRY WESTON Sign: J-W	Received by: Name: Tom Burger Sign: Tom B Burger	Date & Time: 4-8-17 1036 Location: ALV. LAB	**Comments:** Changed sample date to 4/8/2017 the 4/30/17 date is incorrect It has correct sample dates in LIMS
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: ~~1135~~ 4-8-17
LIMS Received Time: 11.35
Reviewed By: [illegible]

Exhibit 31

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Linda VistaElementary

Physical Address of School: 2772 Ulric St., San Diego, CA 92111

First Bell: 9am

Meeting Date: 4/05/2017

Sampling Plan Completion Date: 4/25/17

Completed by Print Name: Lori Sherman

Signature: *Lori Sherman* Date: 4/25/17

School's Point of Contact for Sampling Assistance

Name: ~~Lori Sherman~~ Cesa Jimenez

Phone: ~~619-301-9086~~ 619-261-1588

Email: lsherman1@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-27-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Linda Vista Elementary - 2772 Ulric St., San Diego, CA 92111

Sample No. 1

School: Linda Vista Elementary - 2772 Ulric St., San Diego, CA 92111

Name of Building: Kitchen

Location Description: East interior wall

Type of Outlet: Sink faucet

Description:

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168622

State Sample ID: 3710020-BCI-A

Date & Time Last Used: 4/27/17 between 6-10pm

Date & Time Sample Collected: 4/28/17 @ 0611

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rubio

Sample No. 2

School: Linda Vista Elementary - 2772 Ulric St., San Diego, CA 92111

Name of Building: Classrooms 1-13

Location Description: North exterior wall across from play structure

Type of Outlet: Bubbler

Description: Left bubbler

Comments/Miscellaneous:

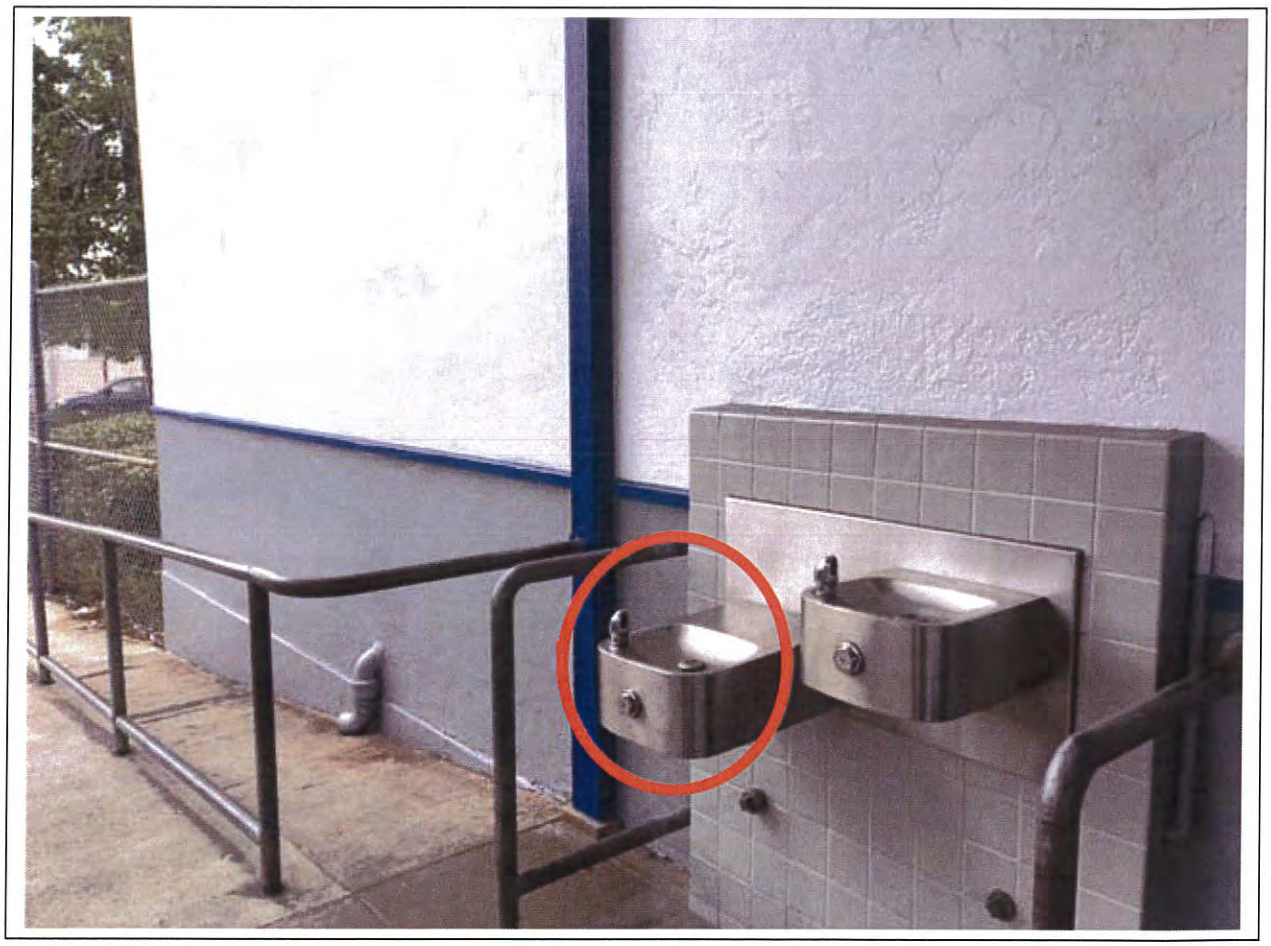

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168623

State Sample ID: 3710020-BCI-B

Date & Time Last Used: 6/27/17 between 6-10pm

Date & Time Sample Collected: 6/28/17 @ 0625 ✓

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rank

Sample No. 3

School: Linda Vista Elementary - 2772 Ulric St., San Diego, CA 92111

Name of Building: State Preschool

Location Description: South exterior of room # 7

Type of Outlet: Bubbler

Description: Left bubbler

Comments/Miscellaneous: Within the playground area

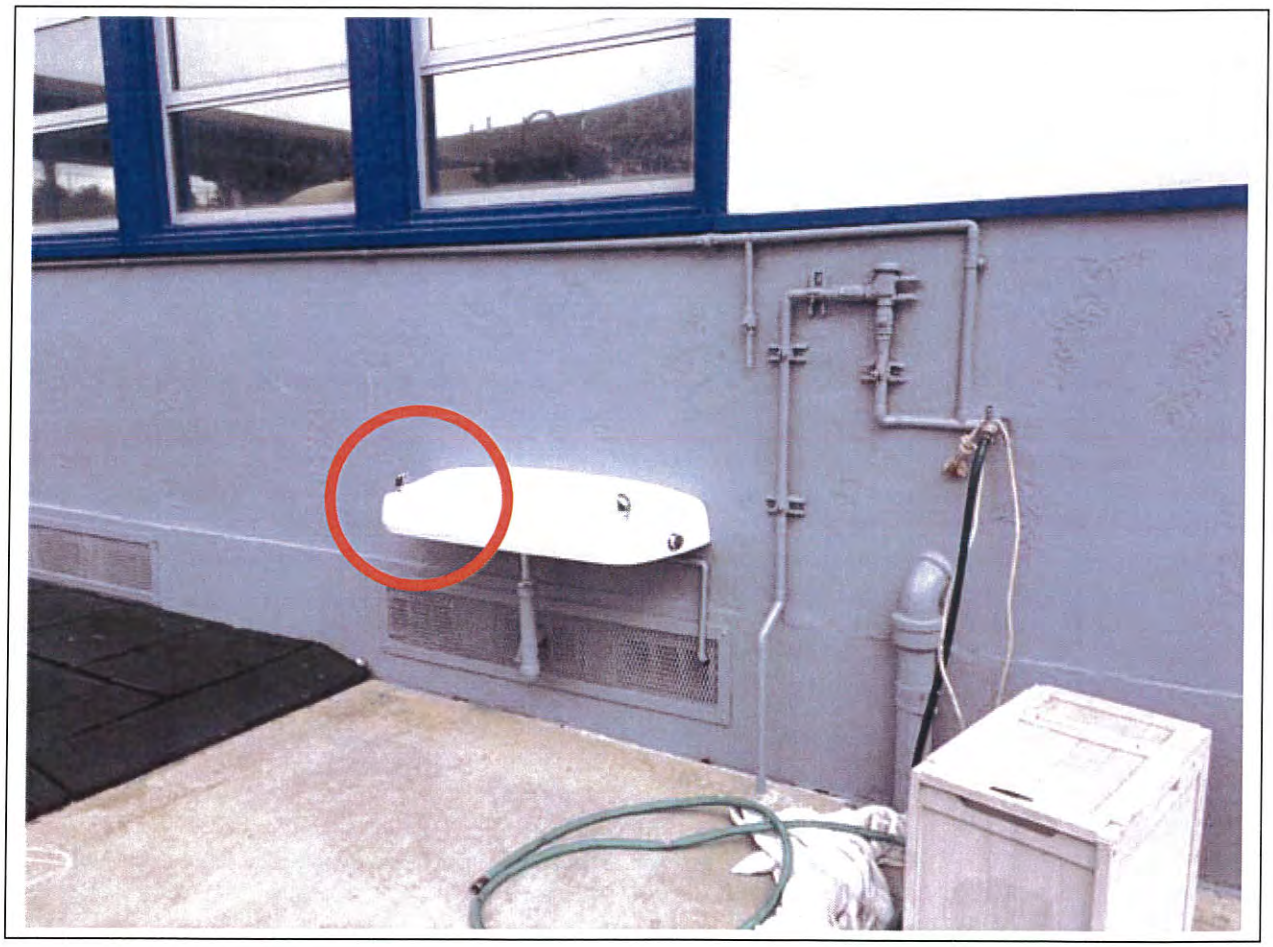

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168624

State Sample ID: 3710020-BCI-C

Date & Time Last Used: 4/27/17 between 6-10pm

Date & Time Sample Collected: 4/28/17 @ 0627 ✓

Direct Sample ☐ Transfer Sample ☒ ✓

Name of Water System Sample Collector: Joshua Ambs

Sample No. 4

School: Linda Vista Elementary - 2772 Ulric St., San Diego, CA 92111

Name of Building: 300 (classrooms 14-22)

Location Description: West exterior wall next to flag pole

Type of Outlet: Bubbler

Description: Left bubbler

Comments/Miscellaneous:

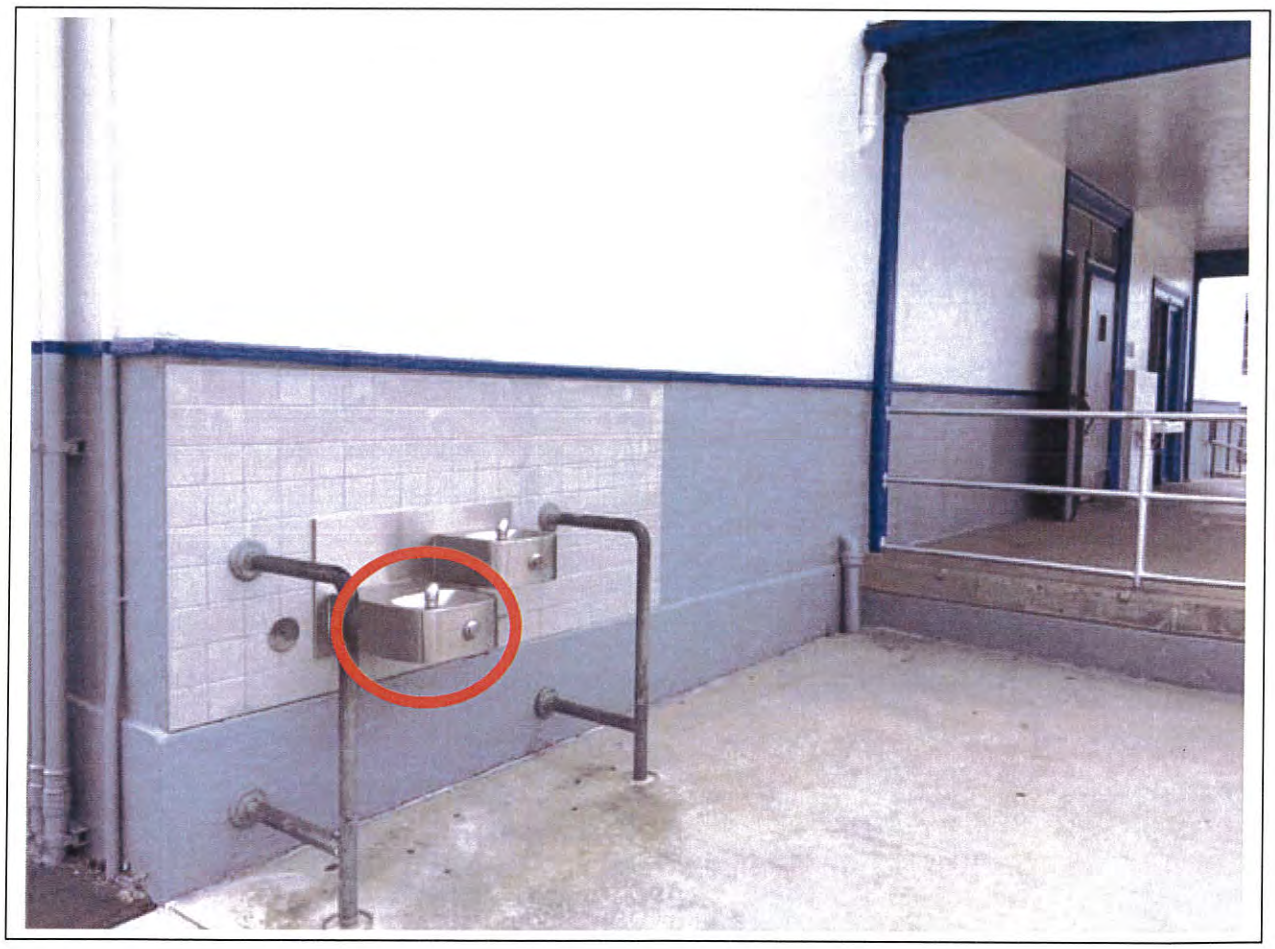

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168625

State Sample ID: 3710020-BCI-D

Date & Time Last Used: 4/27/17 between 6-10pm

Date & Time Sample Collected: 4/28/17 @ 0620

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

Sample No. 5

School: Linda Vista Elementary - 2772 Ulric St., San Diego, CA 92111

Name of Building: Cafeteria

Location Description: South interior wall next to kitchen

Type of Outlet: Bubbler

Description: Left bubbler

Comments/Miscellaneous:

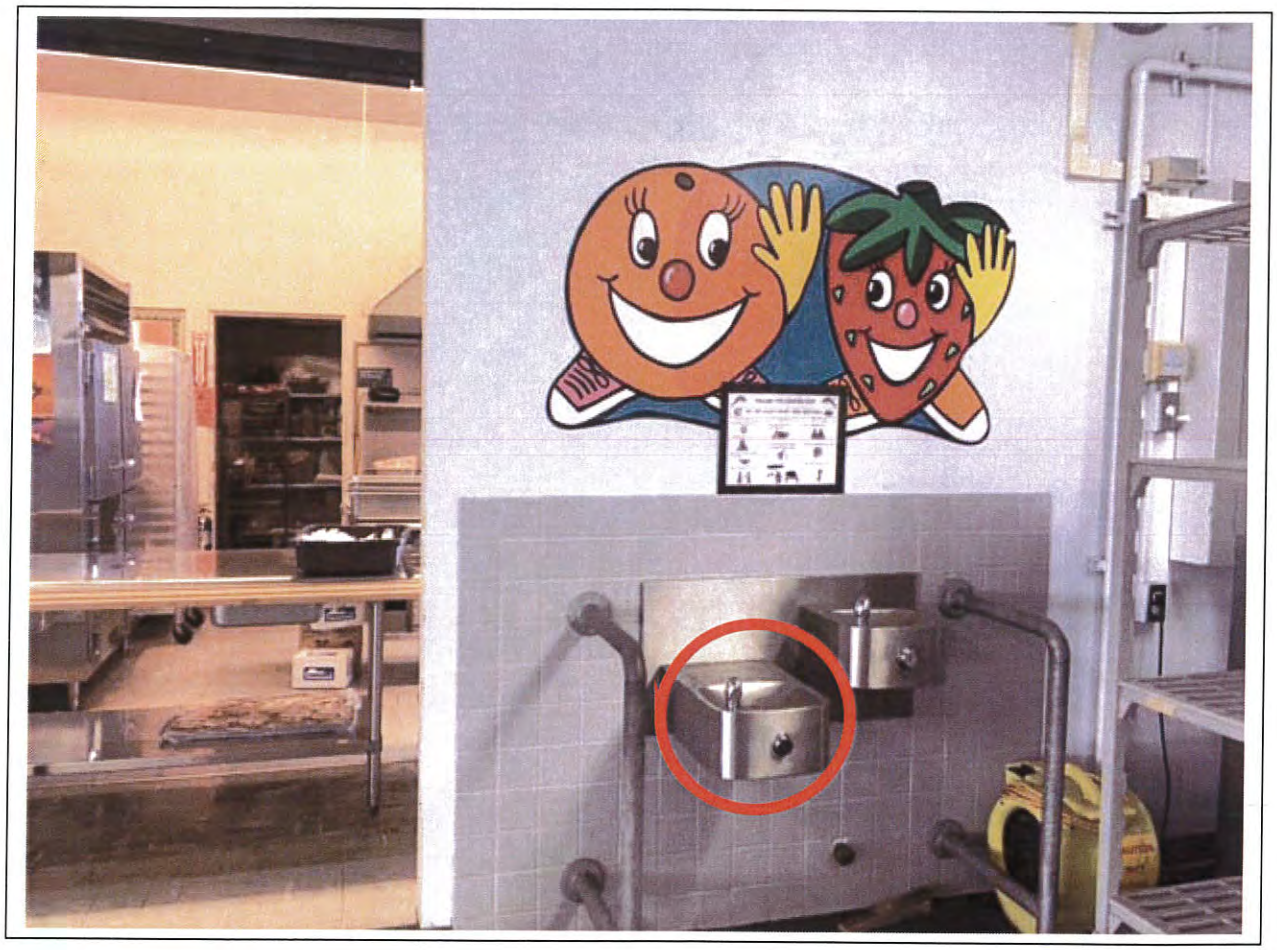

City use only below this line

SSample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168626

State Sample ID: 3710020-BCI-E

Date & Time Last Used: 4/27/17 between 6-10pm

Date & Time Sample Collected: 4/28/17 @ 0615

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rubin

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

27-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168622	Linda Vista Elementary	28-APR-2017	0611	JR	SAMPLE 1	
2	W1168623	Linda Vista Elementary	28-APR-2017	0625	JR	SAMPLE 2	
3	W1168624	Linda Vista Elementary	28-APR-2017	0627	JR	SAMPLE 3	
4	W1168625	Linda Vista Elementary	28-APR-2017	0620	JR	SAMPLE 4	
5	W1168626	Linda Vista Elementary	28-APR-2017	0615	JR	SAMPLE 5	

1534

Chain of Custody:

Relinquished by: Name: Joshua Rambo Sign:	Received by: Name: Alejandra Mollas Sign:	Date & Time: 4/28/17 @ 0705 Location: ALV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By:
Received Date: 4/28/17
LIMS Received Time: 0948
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Lindbergh/Schweitzer Elementary – East Campus

Physical Address of School: 6991 Balboa Avenue, San Diego, CA 92111

First Bell: 8:50am

Meeting Date: 4/05/2017

Sampling Plan Completion Date: 4/26/17

Completed by Print Name: Lori Sherman

Signature: *Lori Sherman* Date: 4/26/17

School's Point of Contact for Sampling Assistance

Name: Lori Sherman

Phone: 619-301-9086

Email: lsherman1@sandi.net

City of San Diego 3710020

Approved By: 5/9/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Lindbergh/Schweitzer Elementary – East Campus - 6991 Balboa Avenue, San Diego, CA 92111

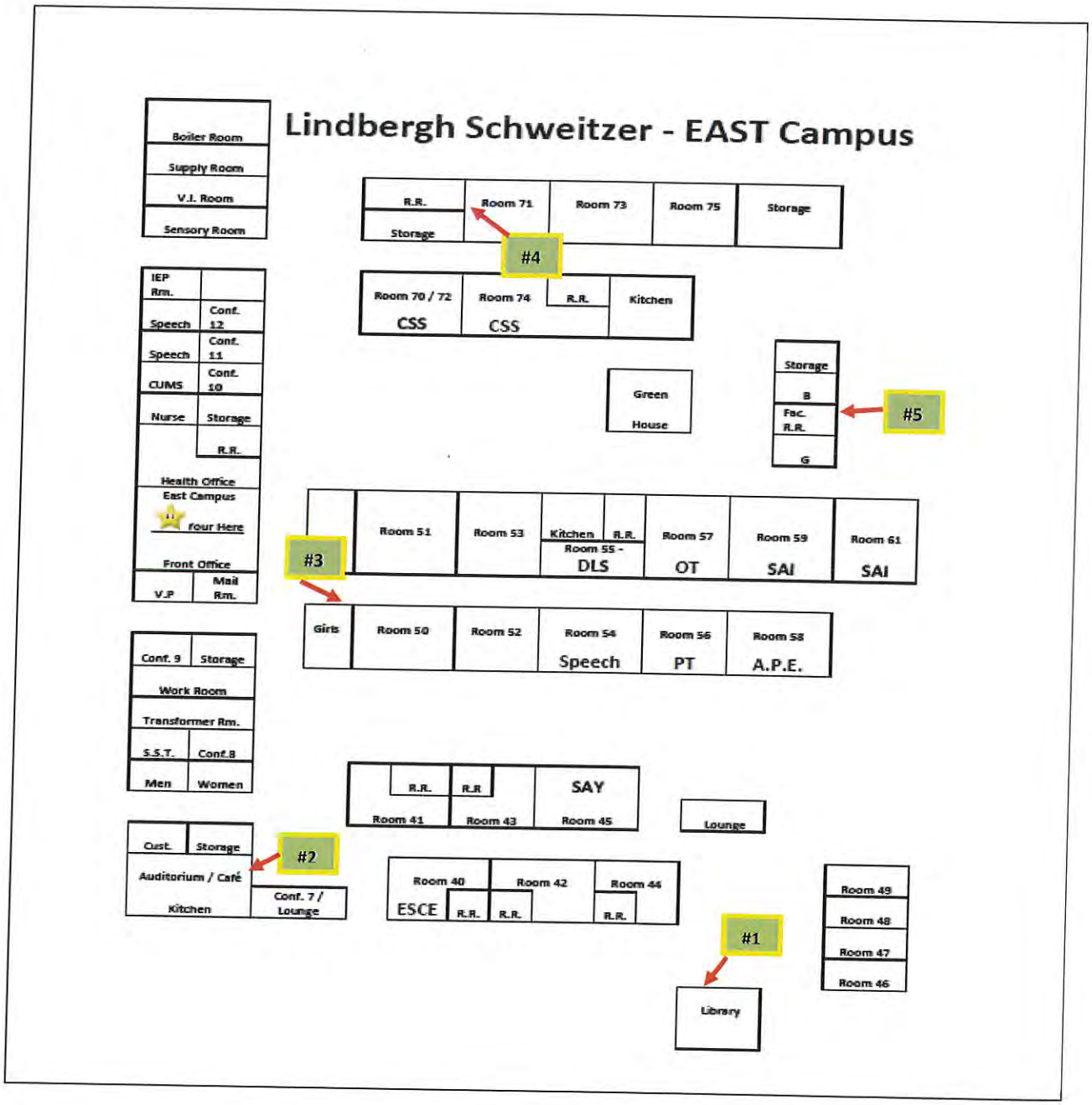

Sample No. 1

School: Lindbergh/Schweitzer Elementary – East Campus - 6991 Balboa Avenue, San Diego, CA 92111

Name of Building: Library

Location Description: East exterior wall of library between male/female restrooms

Type of Outlet: Bubbler

Description: Center bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171840

State Sample ID: 3710020-BHA-A

Date & Time Last Used: 5/12/17 2200

Date & Time Sample Collected: 5/13/17 0646

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: M. Nelson

Sample No. 2

School: Lindbergh/Schweitzer Elementary – East Campus - 6991 Balboa Avenue, San Diego, CA 92111

Name of Building: Auditorium/Cafeteria

Location Description: South exterior wall next to auditorium/cafeteria door

Type of Outlet: Bubbler

Description: Left bubbler

Comments/Miscellaneous:

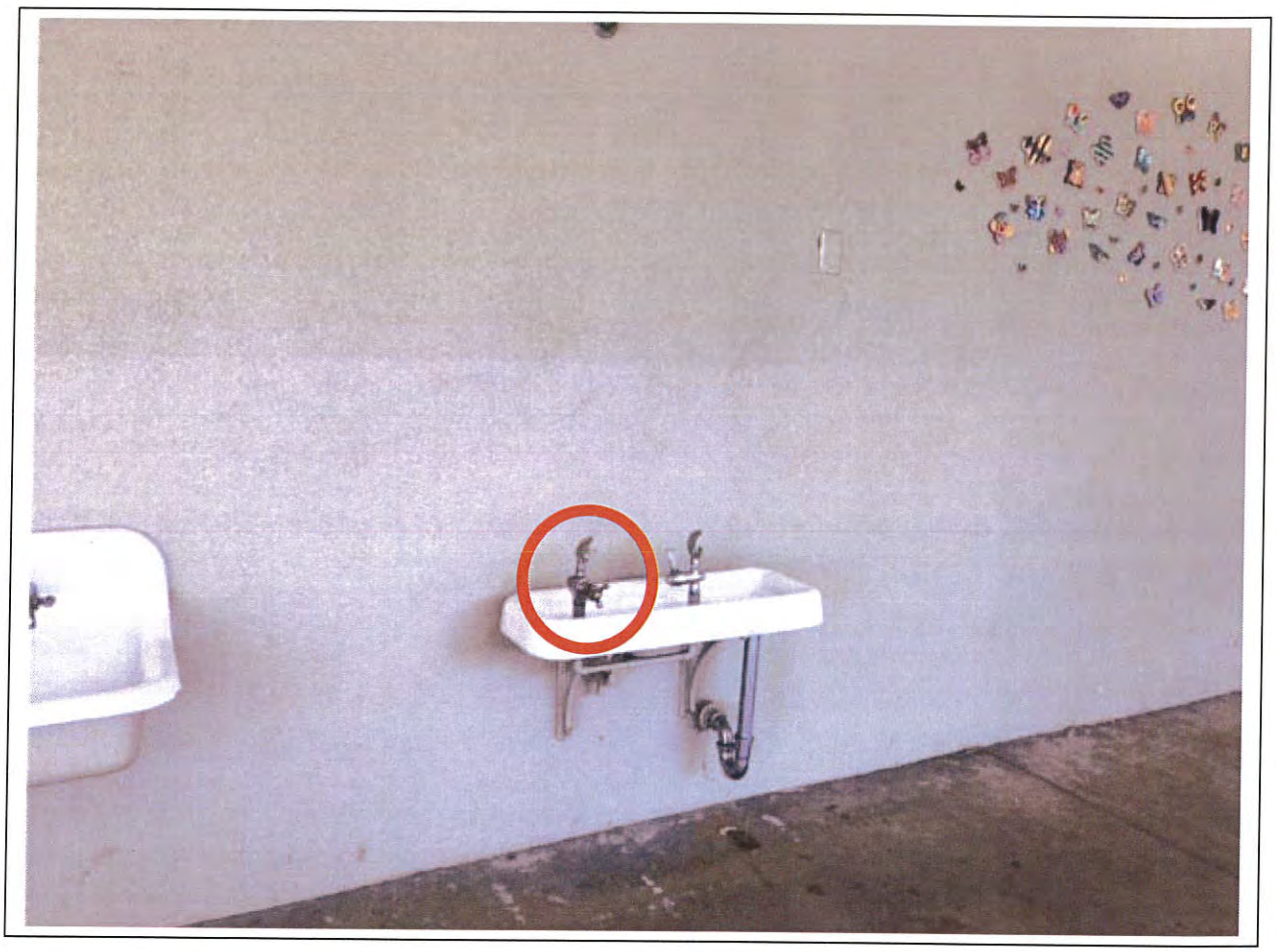

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171841

State Sample ID: 3710020-BHA-B

Date & Time Last Used: 5/12/17 2200

Date & Time Sample Collected: 5/13/17 0632

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 3

School: Lindbergh/Schweitzer Elementary – East Campus - 6991 Balboa Avenue, San Diego, CA 92111

Name of Building: Wing 50-58

Location Description: Interior hallway next to girl's restroom

Type of Outlet: Bubbler

Description: Right bubbler

Comments/Miscellaneous: Close to room 50

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171842

State Sample ID: 3710020-BHA-C

Date & Time Last Used: 5/12/17 2200

Date & Time Sample Collected: 5/13/17 0638

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 4

School: Lindbergh/Schweitzer Elementary – East Campus - 6991 Balboa Avenue, San Diego, CA 92111

Name of Building: State Preschool

Location Description: Inside room 71 north wall

Type of Outlet: Bubbler

Description: Bubbler on right side of sink

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171843

State Sample ID: 3710020-BHA-D

Date & Time Last Used: 5/12/17 2200

Date & Time Sample Collected: 5/13/17 0639

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 5

School: Lindbergh/Schweitzer Elementary – East Campus - 6991 Balboa Avenue, San Diego, CA 92111

Name of Building: Restroom Bungalow

Location Description: South exterior side

Type of Outlet: Bubbler

Description: Right bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171844

State Sample ID: 3710020-BHA-E

Date & Time Last Used: 5/12/17 2200

Date & Time Sample Collected: 5/13/17 0642

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

09-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1171840	Lindbergh/Schweitzer Elementary East	13-MAY-2017	0646	M. Nelson	SAMPLE 1	
2	W1171841	Lindbergh/Schweitzer Elementary East	13-MAY-2017	0632		SAMPLE 2	
3	W1171842	Lindbergh/Schweitzer Elementary East	13-MAY-2017	0635		SAMPLE 3	
4	W1171843	Lindbergh/Schweitzer Elementary East	13-MAY-2017	0639		SAMPLE 4	
5	W1171844	Lindbergh/Schweitzer Elementary East	13-MAY-2017	0642		SAMPLE 5	

1542

Chain of Custody:

Relinquished by: Name: M. Nelson Sign:	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 5/15/17 @0530 Location: AIR WQL	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/15/17
LIMS Received Time: 0641
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Lindbergh/Schweitzer Elementary – West Campus

Physical Address of School: 4133 Mt. Albertine Ave., San Diego, CA 92111

First Bell: 8:50am

Meeting Date: 4/05/2017

Sampling Plan Completion Date: 4/26/17

Completed by Print Name: Lori Sherman

Signature: *Lori Sherman* Date: 4/26/17

School's Point of Contact for Sampling Assistance

Name: Lori Sherman

Phone: 619-301-9086

Email: lsherman1@sandi.net

City of San Diego 3710020

Approved By: 5/9/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Lindbergh/Schweitzer Elementary – West Campus - 4133 Mt. Albertine Ave., San Diego, CA 92111

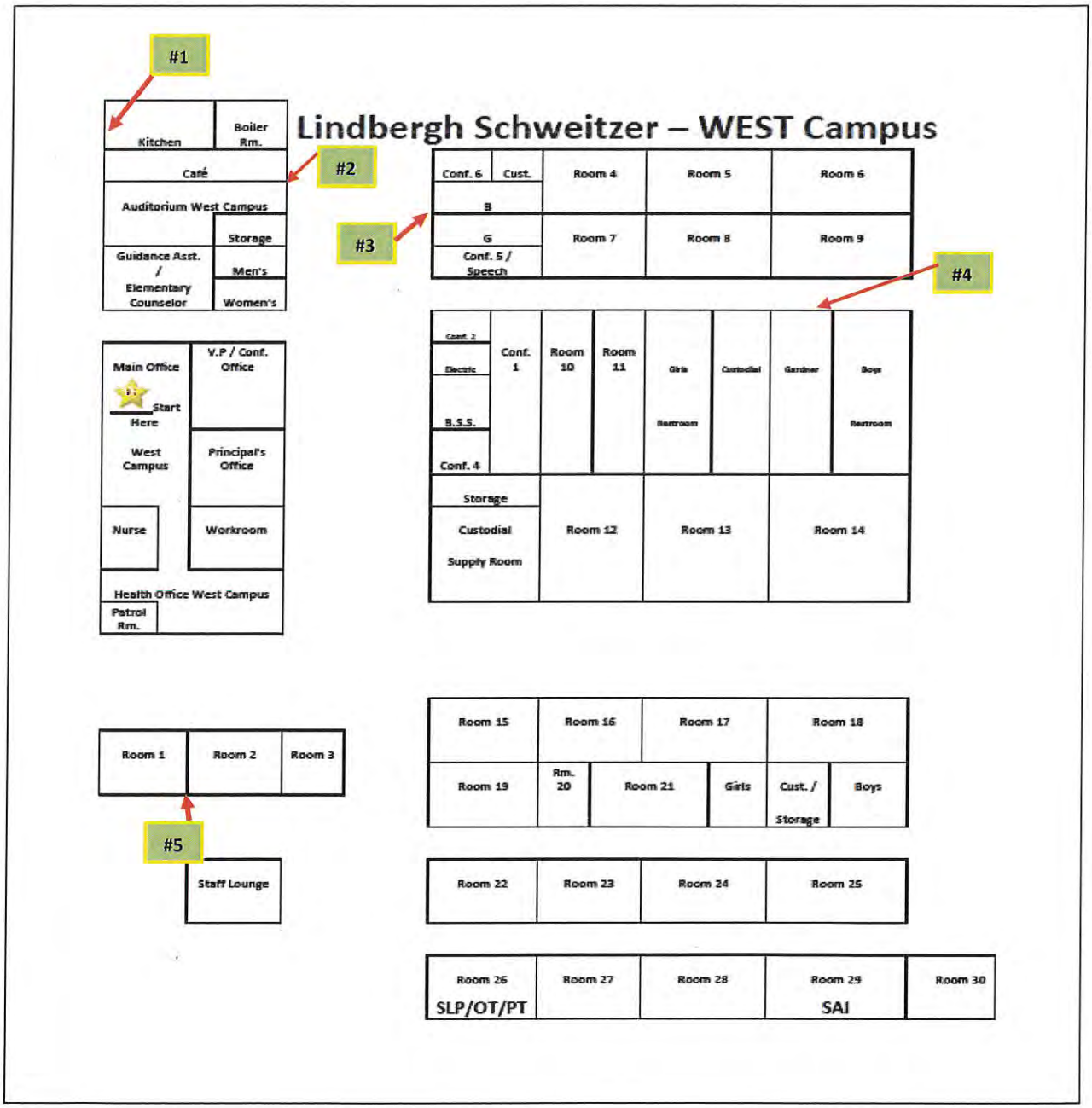

Sample No. 1

School: Lindbergh/Schweitzer Elementary – West Campus - 4133 Mt. Albertine Ave., San Diego, CA 92111

Name of Building: Kitchen

Location Description: West interior wall

Type of Outlet: Spray nozzle

Description:

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171845

State Sample ID: 3710020-BHB-A

Date & Time Last Used: 5/12/17 2200

Date & Time Sample Collected: 5/13/17 0657

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 2

School: Lindbergh/Schweitzer Elementary – West Campus - 4133 Mt. Albertine Ave., San Diego, CA 92111

Name of Building: Cafeteria/Auditorium

Location Description: East exterior wall between cafeteria door & assembly door

Type of Outlet: Bubbler

Description: Right bubbler

Comments/Miscellaneous: next to lunch court

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171846

State Sample ID: 3710020-BHB-B

Date & Time Last Used: 5/12/17 2200

Date & Time Sample Collected: 5/13/17 0701

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 3

School: Lindbergh/Schweitzer Elementary – West Campus - 4133 Mt. Albertine Ave., San Diego, CA 92111

Name of Building: Classrooms 4-9

Location Description: West exterior wall between boys and girls restroom

Type of Outlet: bubbler

Description: Center bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171847

State Sample ID: 3710020-BHB-C

Date & Time Last Used: 5/12/17 2200

Date & Time Sample Collected: 5/13/17 0703

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 4

School: Lindbergh/Schweitzer Elementary – West Campus - 4133 Mt. Albertine Ave., San Diego, CA 92111

Name of Building: Classrooms 10-14

Location Description: North exterior wall between boys & girls restroom

Type of Outlet: Bubbler

Description: Right bubbler

Comments/Miscellaneous: Next to P.E. Room

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171848

State Sample ID: 3710020-BHB-D

Date & Time Last Used: 5/12/17 2200

Date & Time Sample Collected: 5/13/17 0708

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 5

School: Lindbergh/Schweitzer Elementary – West Campus - 4133 Mt. Albertine Ave., San Diego, CA 92111

Name of Building: Kindergarten

Location Description: South exterior wall between K-1 & K-2

Type of Outlet: Bubbler

Description: Right sink bubbler

Comments/Miscellaneous: Next to playground area

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171849

State Sample ID: 3710020-BHB-E

Date & Time Last Used: 5/12/17 2200

Date & Time Sample Collected: 5/13/17 0700

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: [illegible]

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

09-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1171845	Lindbergh/Schweitzer Elementary West	13-MAY-2017	0657	M. Nelson	SAMPLE 1	
2	W1171846	Lindbergh/Schweitzer Elementary West	13-MAY-2017	0701		SAMPLE 2	
3	W1171847	Lindbergh/Schweitzer Elementary West	13-MAY-2017	0703		SAMPLE 3	
4	W1171848	Lindbergh/Schweitzer Elementary West	13-MAY-2017	0706		SAMPLE 4	
5	W1171849	Lindbergh/Schweitzer Elementary West	13-MAY-2017	0710		SAMPLE 5	

1550

Chain of Custody:

Relinquished by: Name: M. Nelson Sign:	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 5/15/17 @ 0530 Location: WQLAlv	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/15/17
LIMS Received Time: 0644
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: **Logan K-8**

Physical Address of School: 2875 Ocean View Blvd., San Diego, CA 92113-1399

First Bell: 7:45 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 4-17-2017

Completed by Print Name: Cesar Jimenez

Signature: C.J. Date: 4-17-2017

School's Point of Contact for Sampling Assistance

Name: Cesar Jimenez

Phone: 619-261-1588

Email: cjimenez2@sandi.net

City of San Diego 3710020

Approved By: 4/28/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: **Logan K-8** - 2875 Ocean View Blvd., San Diego, CA 92113-1399

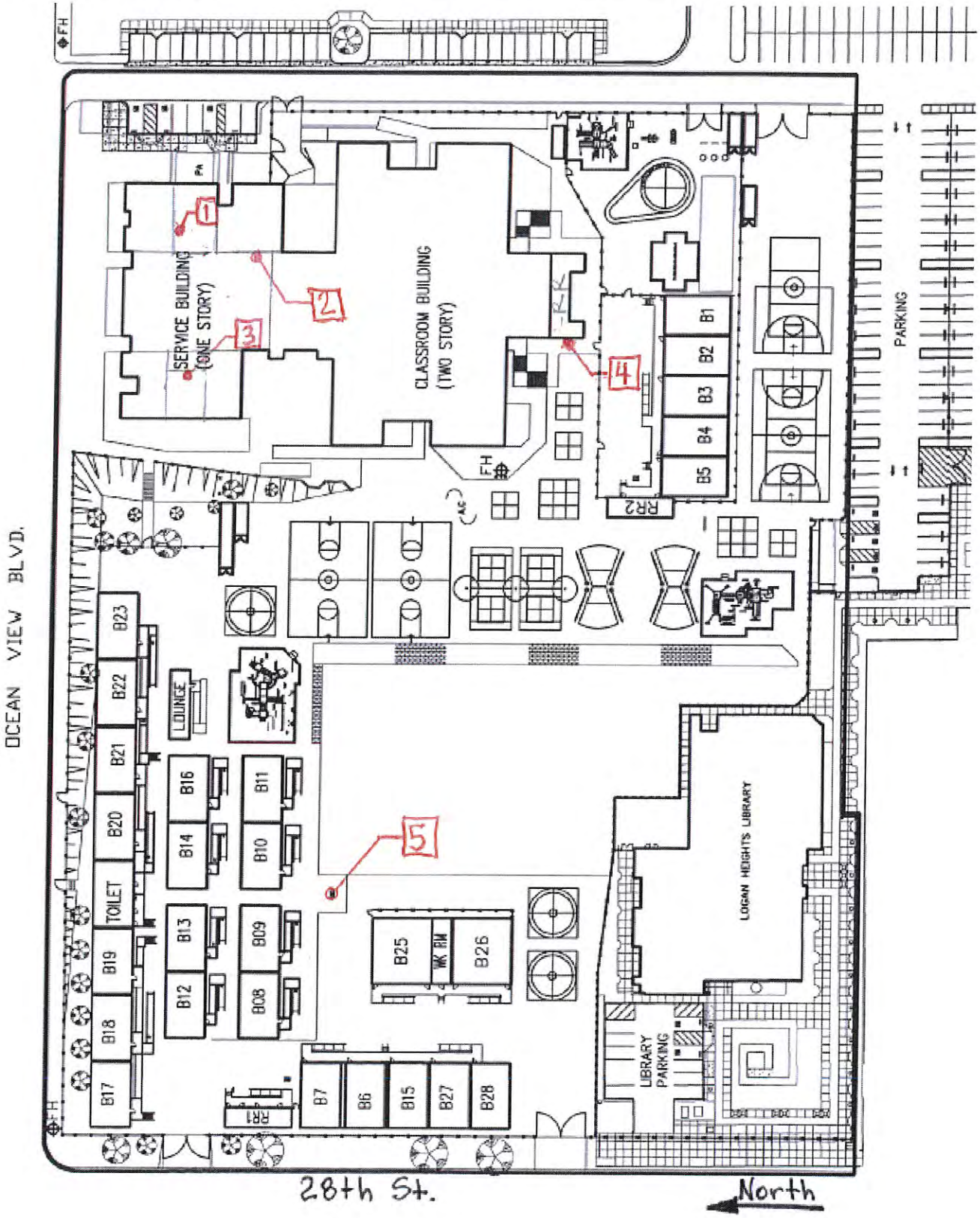

Sample No. 1

School: Logan K-8

Name of Building: Service Bldg.

Location Description: North wall of Kitchen

Type of Outlet: Faucet

Description: Faucet on a single compartment sink

Comments/Miscellaneous: SDUSD ID code #: 177-01

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168363

State Sample ID: 3710020-BBD-A

Date & Time Last Used: 050317 @ 1800 → 2200

Date & Time Sample Collected: 050417 @ 0605

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Jerry

Sample No. 2

School: Logan K-8

Name of Building: Service Bldg.

Location Description: East wall of Multipurpose room.

Type of Outlet: Bubbler

Description: Right Bubbler on a double drinking fountain.

Comments/Miscellaneous: Used also for after school program. SDUSD ID code #: 177-02

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168364

State Sample ID: 3710020-BBD-B

Date & Time Last Used: 050317 @ 1800 → 2200

Date & Time Sample Collected: 050417 @ 0600

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector:

Sample No. 3

School: Logan K-8

Name of Building: Service Bldg.

Location Description: East wall of nurse's office

Type of Outlet: Faucet

Description: Faucet on a single compartment sink

Comments/Miscellaneous: Faucet is used for bottle filling. SDUSD ID code #: 177-03

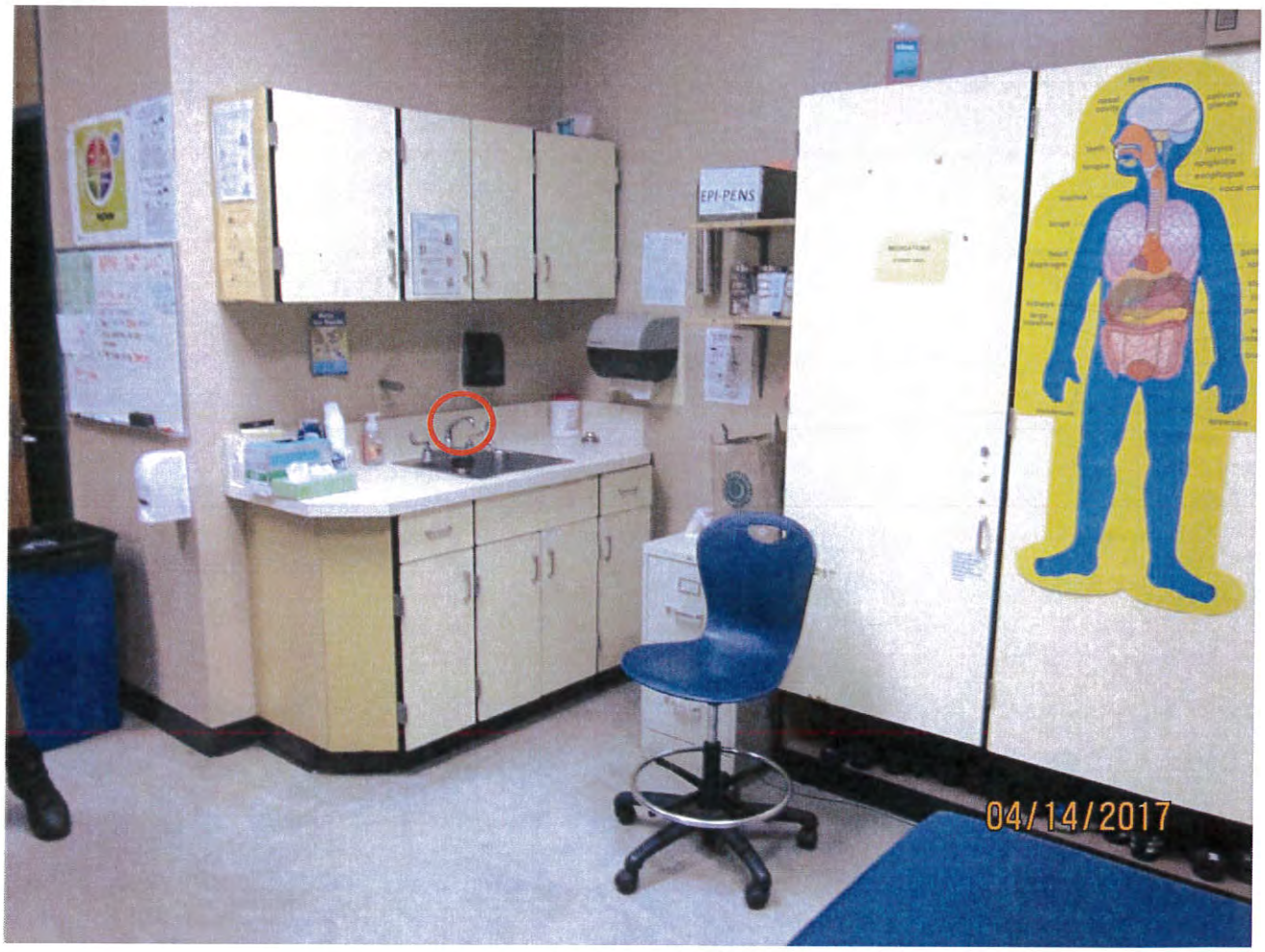

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168365

State Sample ID: 3710020-BBD-C

Date & Time Last Used: 050317 @ 1800 → 2200

Date & Time Sample Collected: 050417 @ 0611

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: [illegible]

Sample No. 4

School: Logan K-8

Name of Building: Classroom Building

Location Description: Exterior west wall of southern restrooms

Type of Outlet: Bubbler

Description: Right Bubbler on a double drinking fountain.

Comments/Miscellaneous: SDUSD ID code #: 177-04

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168366

State Sample ID: 3710020-BBD-D

Date & Time Last Used: 050317 @ 1800 → 2200

Date & Time Sample Collected: 050417 @ 0610

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: [illegible]

Sample No. 5

School: Logan K-8

Name of Building: portable classrooms/ sport field

Location Description: south of room B-10

Type of Outlet: Bubbler

Description: West/lower bubbler on a concrete pedestal double fountain

Comments/Miscellaneous: SDUSD ID code #: 177-05

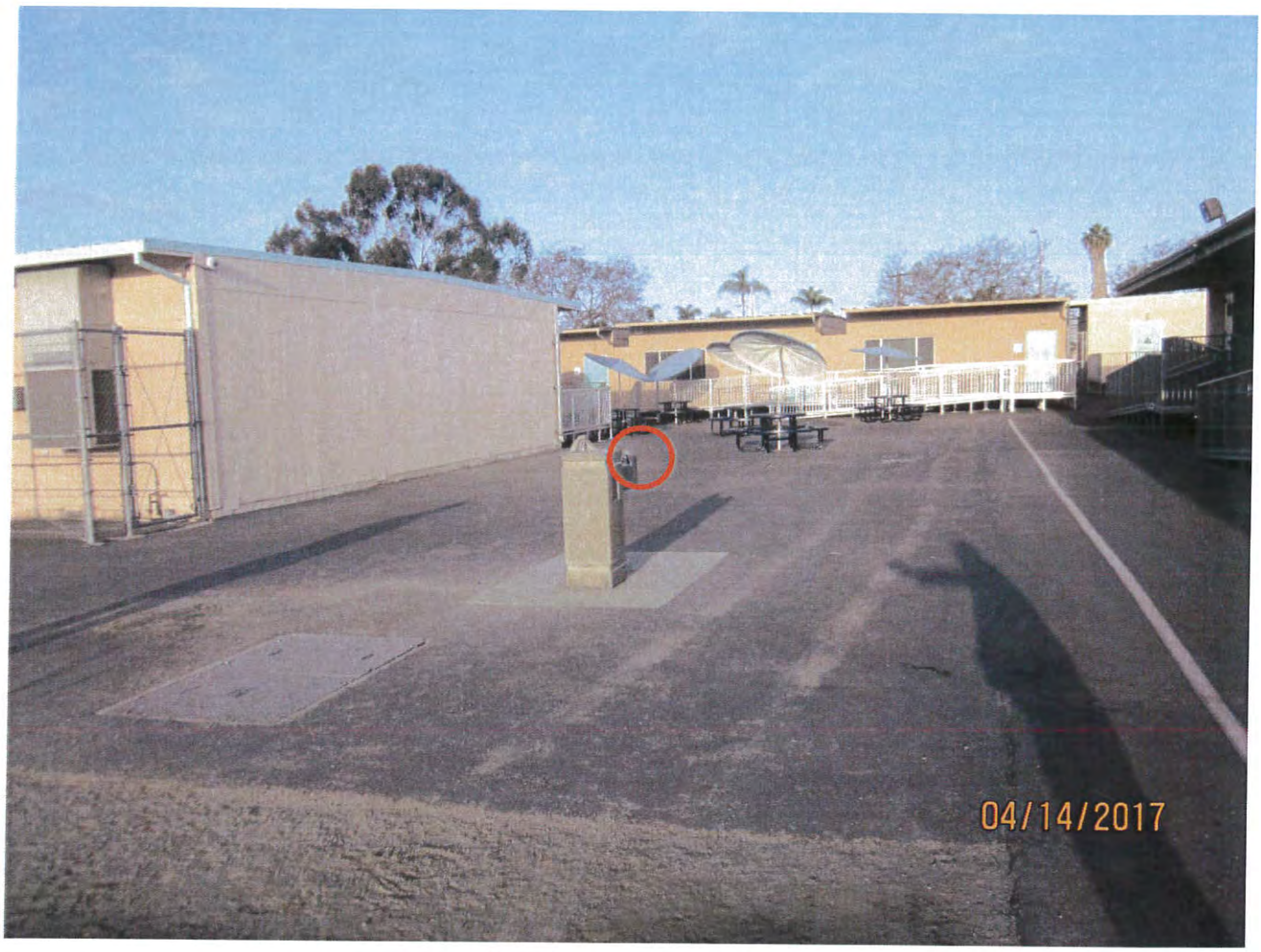

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168367

State Sample ID: 3710020-BBD-E

Date & Time Last Used: 050317 @ 1800 → 2200

Date & Time Sample Collected: 050417 @ 0620

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: [illegible]

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

03-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168363	Logan K-8	04-MAY-2017	0605	JWE	SAMPLE 1	
2	W1168364	Logan K-8	04-MAY-2017	0608	JWE	SAMPLE 2	
3	W1168365	Logan K-8	04-MAY-2017	0611	JWE	SAMPLE 3	
4	W1168366	Logan K-8	04-MAY-2017	0616	JWE	SAMPLE 4	
5	W1168367	Logan K-8	04-MAY-2017	0620	JWE	SAMPLE 5	

1558

Chain of Custody:

Relinquished by: Name: JERRY WESTON Sign: J-W	Received by: Name: Tom Burger Sign: TM B Burger	Date & Time: 5-4-17 0656 Location: WQL Lab	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-4-17
LIMS Received Time: 0720
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Loma Portal Elementary

Physical Address of School: 3341 Browning St., San Diego, CA 92106-1599

First Bell: 8:15 AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 05/08/2017

Completed by Print Name: Ginette Commins

Signature: G Commins Date: 05/09/2017

School's Point of Contact for Sampling Assistance

Name: ~~Ginette Commins~~ Dan Lopez

Phone: ~~(858) 627-7201~~ 619-306-3383

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/16/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Loma Portal Elementary, 3341 Browning St., San Diego, CA 92106-1599

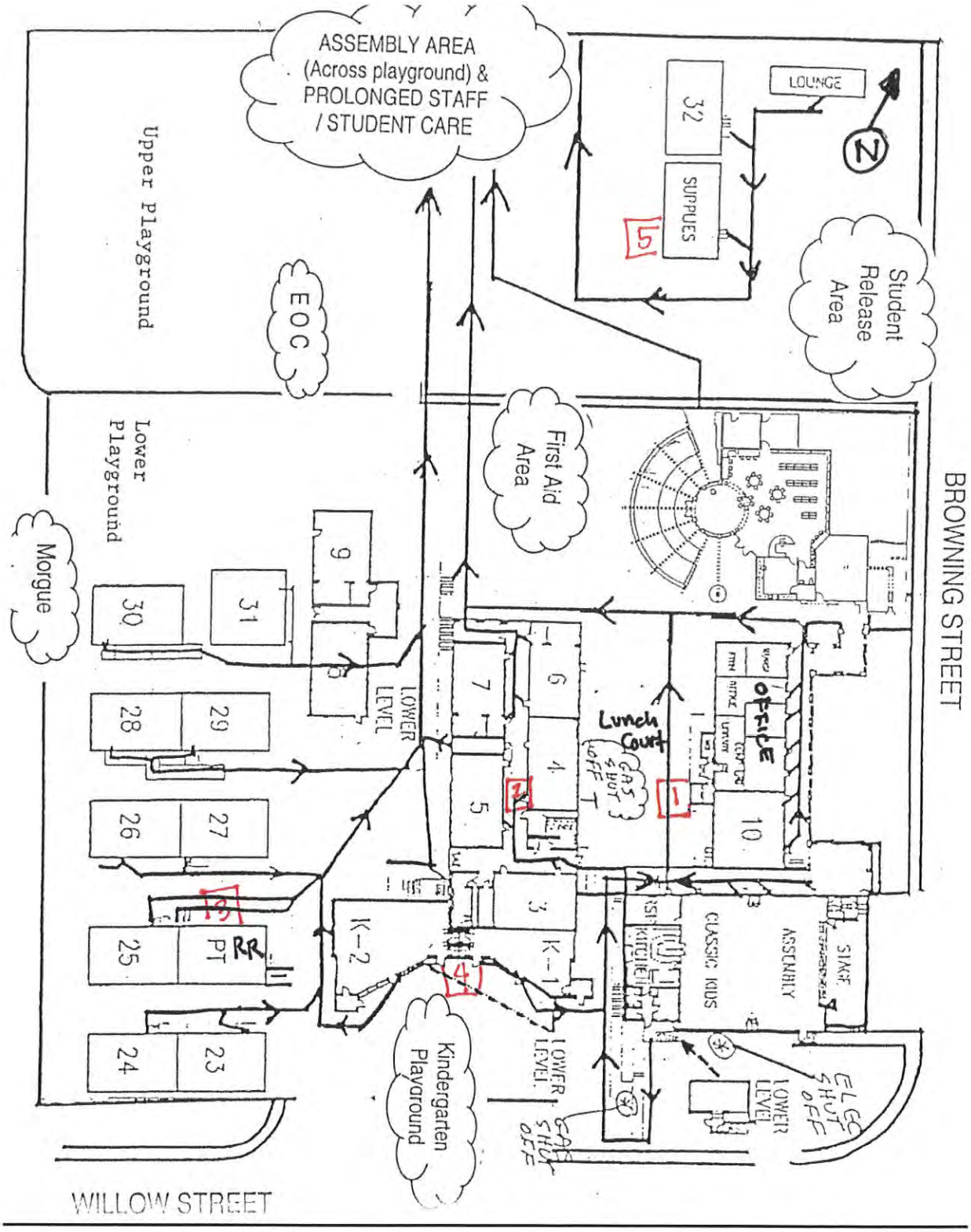
ASSEMBLY AREA
(Across playground) &
PROLONGED STAFF
/ STUDENT CARE
LOUNGE
32
SUPPLIES
5
Student
Release
Area
BROWNING STREET
Upper Playground
EOC
First Aid
Area
Lower
Playground
Morgue
9
31
30
8
LOWER
LEVEL
7
6
4
5
3
Lunch
Court
GAS
SHUT
OFF
OFFICE
1
10
28
29
26
27
2
25
PT
RR
K-2
4
K-1
LOWER
LEVEL
CLASSIC KIDS
ASSEMBLY
STAGE
24
23
Kindergarten
Playground
ELEC
SHUT
OFF
LOWER
LEVEL
GAS
SHUT
OFF
WILLOW STREET

Sample No. 1

School: Loma Portal Elementary

Name of Building: Office

Location Description: Wall mounted exterior (West of Bldg), facing lunch court

Type of Outlet: bubbler

Description: upper/right bubbler on a dual fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #179

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173086

State Sample ID: 3710020-CAC-A

Date & Time Last Used: 052317 1800 → 2200

Date & Time Sample Collected: 052417 @ 0557

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: [illegible]

Sample No. 2

School: Loma Portal Elementary

Name of Building: Rooms 3-7

Location Description: Hallway, next to Boiler Room, facing Classroom 5

Type of Outlet: bubbler

Description: single fountain (HIGH flow)

Comments/Miscellaneous: indoor drinking water source/SDUSD Location Code #179

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173087

State Sample ID: 3710020-CAC-B

Date & Time Last Used: 052317 @ 1800 → 2200

Date & Time Sample Collected: 052417 @ 0600

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: [illegible]

Sample No. 3

School: Loma Portal Elementary

Name of Building: Portable Restrooms & B25

Location Description: Wall mounted exterior (North of Bldg), between Girls/Women & men/Boys Restrooms, facing B27

Type of Outlet: bubbler

Description: dual fountain – right bubbler head on the right fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #179

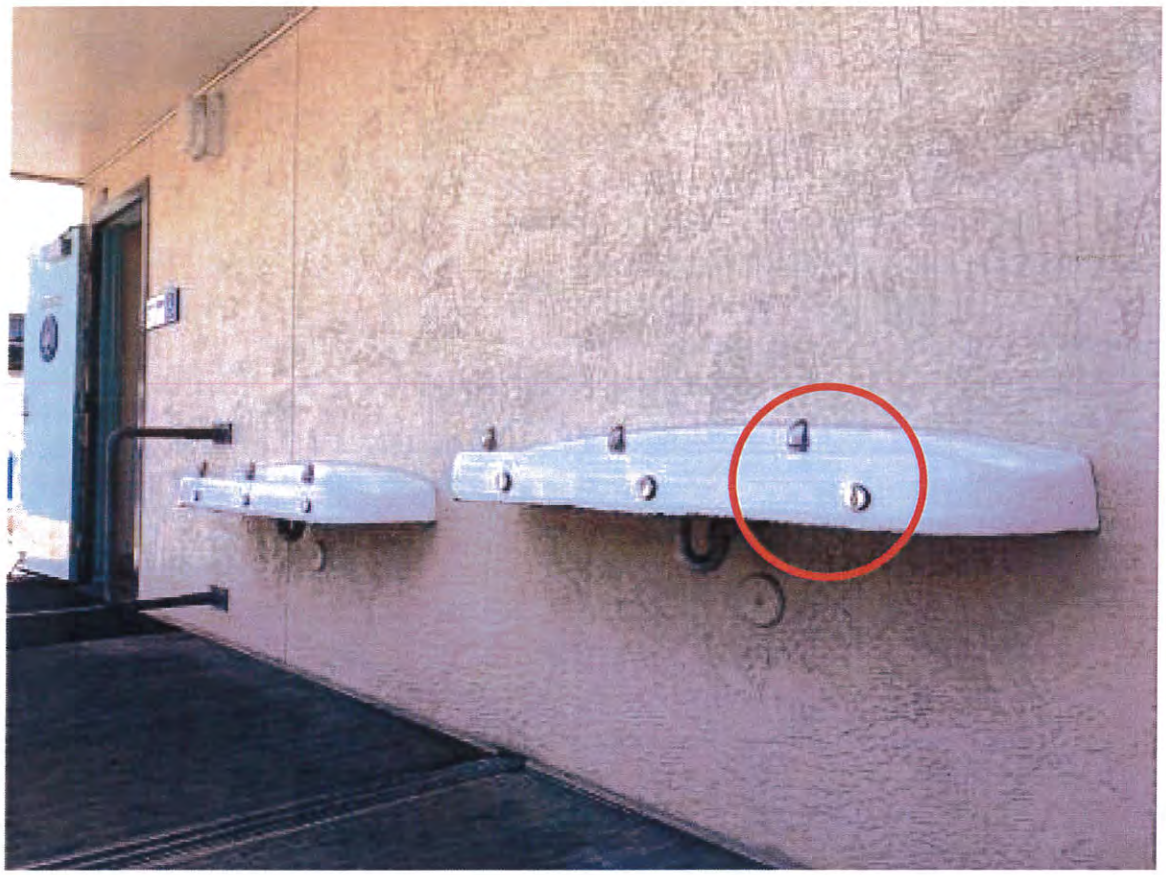

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173088

State Sample ID: 3710020-CAC-C

Date & Time Last Used: 052317 @ 1800 → 2200

Date & Time Sample Collected: 052417 @ 0608

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector:

Sample No. 4

School: Loma Portal Elementary

Name of Building: Kindergarten

Location Description: Wall mounted exterior (South of Bldg), between K2 & K1, facing Kindergarten playground & tables

Type of Outlet: bubbler

Description: middle bubbler on a single fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #179

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173089

State Sample ID: 3710020-CAC-D

Date & Time Last Used: 052317 @ 1800 → 2200

Date & Time Sample Collected: 052417 @ 0603

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector:

Sample No. 5

School: Loma Portal Elementary

Name of Building: Portable 32 & Supplies Room

Location Description: Wall mounted exterior (West of Bldg), facing Playground

Type of Outlet: bubbler

Description: dual fountain – middle bubbler head on the left fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #179

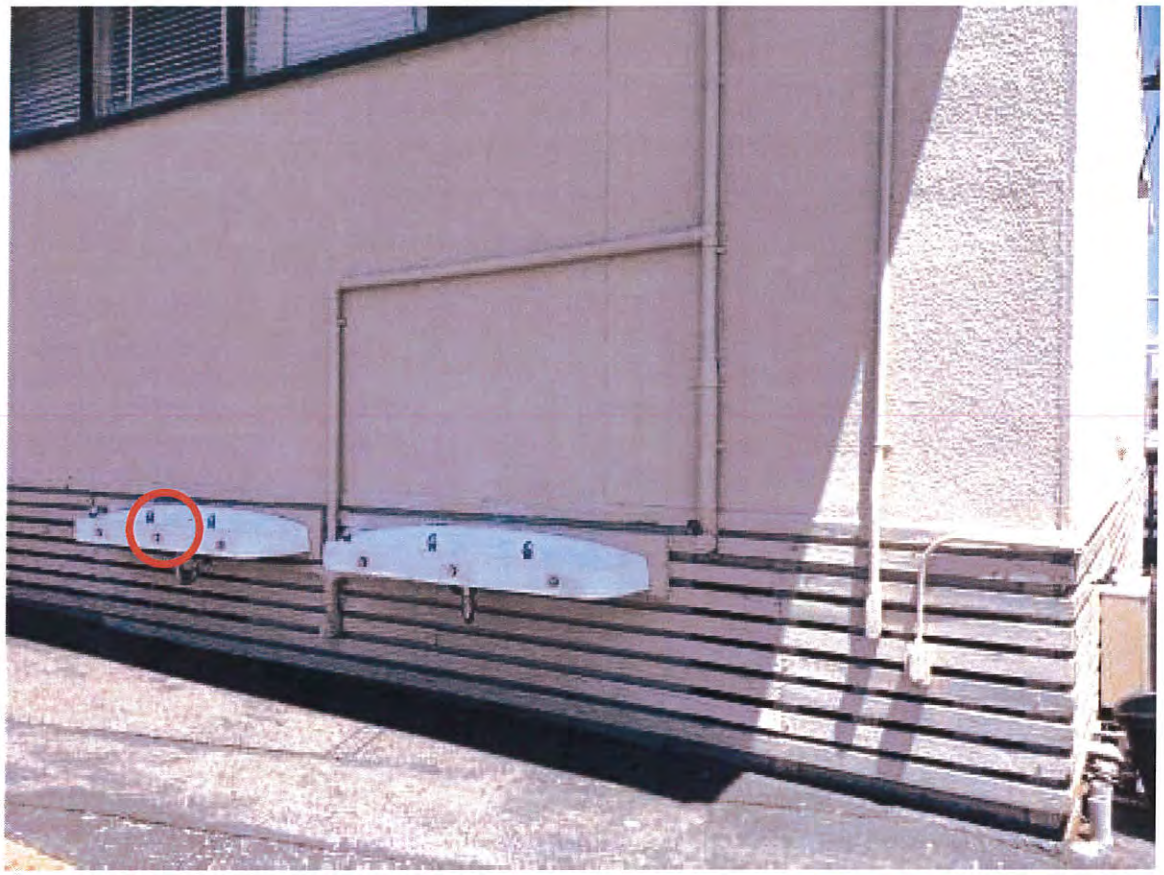

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173090

State Sample ID: 3710020-CAC-E

Date & Time Last Used: 052317 @ 1800 → 2200

Date & Time Sample Collected: 052417 @ 0553

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: [illegible]

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

22-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1173086	Loma Portal Elementary	24-MAY-2017	0557		SAMPLE 1	
2	W1173087	Loma Portal Elementary	24-MAY-2017	0600		SAMPLE 2	
3	W1173088	Loma Portal Elementary	24-MAY-2017	0608		SAMPLE 3	
4	W1173089	Loma Portal Elementary	24-MAY-2017	0603		SAMPLE 4	
5	W1173090	Loma Portal Elementary	24-MAY-2017	0553		SAMPLE 5	

1567

Chain of Custody:

Relinquished by: Name: JERRY WESTON Sign:	Received by: Name: Keith Rohrwer Sign:	Date & Time: 5/24/17 Location: AV @ 1110	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: KR
Received Date: 05/24/17
LIMS Received Time: 1:27
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Longfellow K-8

Physical Address of School: 5055 July St., San Diego, CA 92110

First Bell: 9:00am

Meeting Date: 4/05/2017

Sampling Plan Completion Date: 5/02/17

Completed by Print Name: Lori Sherman

Signature: *Lori Sherman* Date: 5/02/17

School's Point of Contact for Sampling Assistance

Name: Lori Sherman

Phone: 619-301-9086

Email: lsherman1@sandi.net

City of San Diego 3710020

Approved By: 5/9/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Longfellow K8 - 5055 July St., San Diego, CA 92110

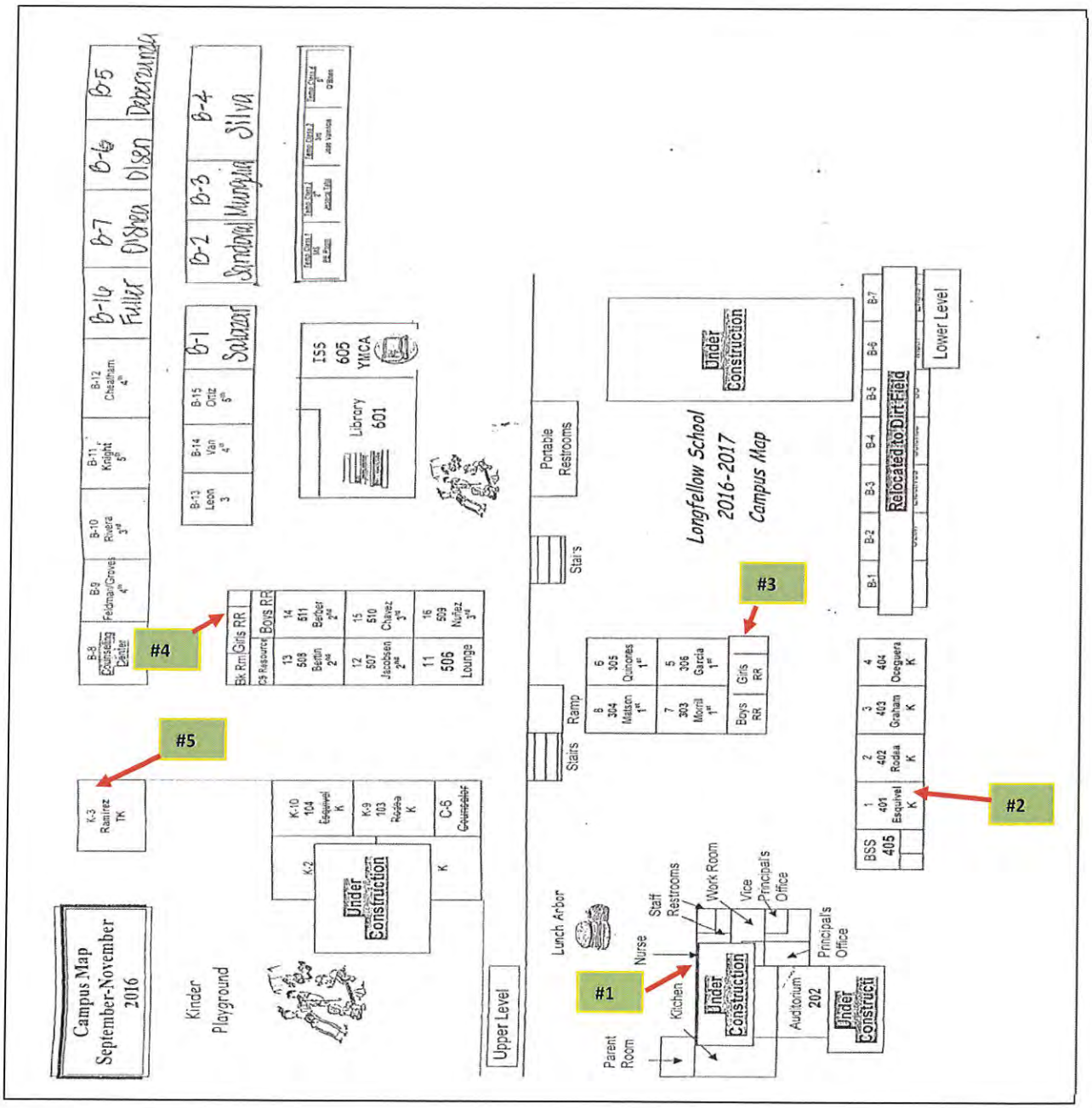

Sample No. 1

School: Longfellow K8 - 5055 July St., San Diego, CA 92110

Name of Building: Lunch Court Area

Location Description: East exterior wall next to lunch court

Type of Outlet: Bubbler

Description: Left bubbler

Comments/Miscellaneous: Near cafeteria door 201

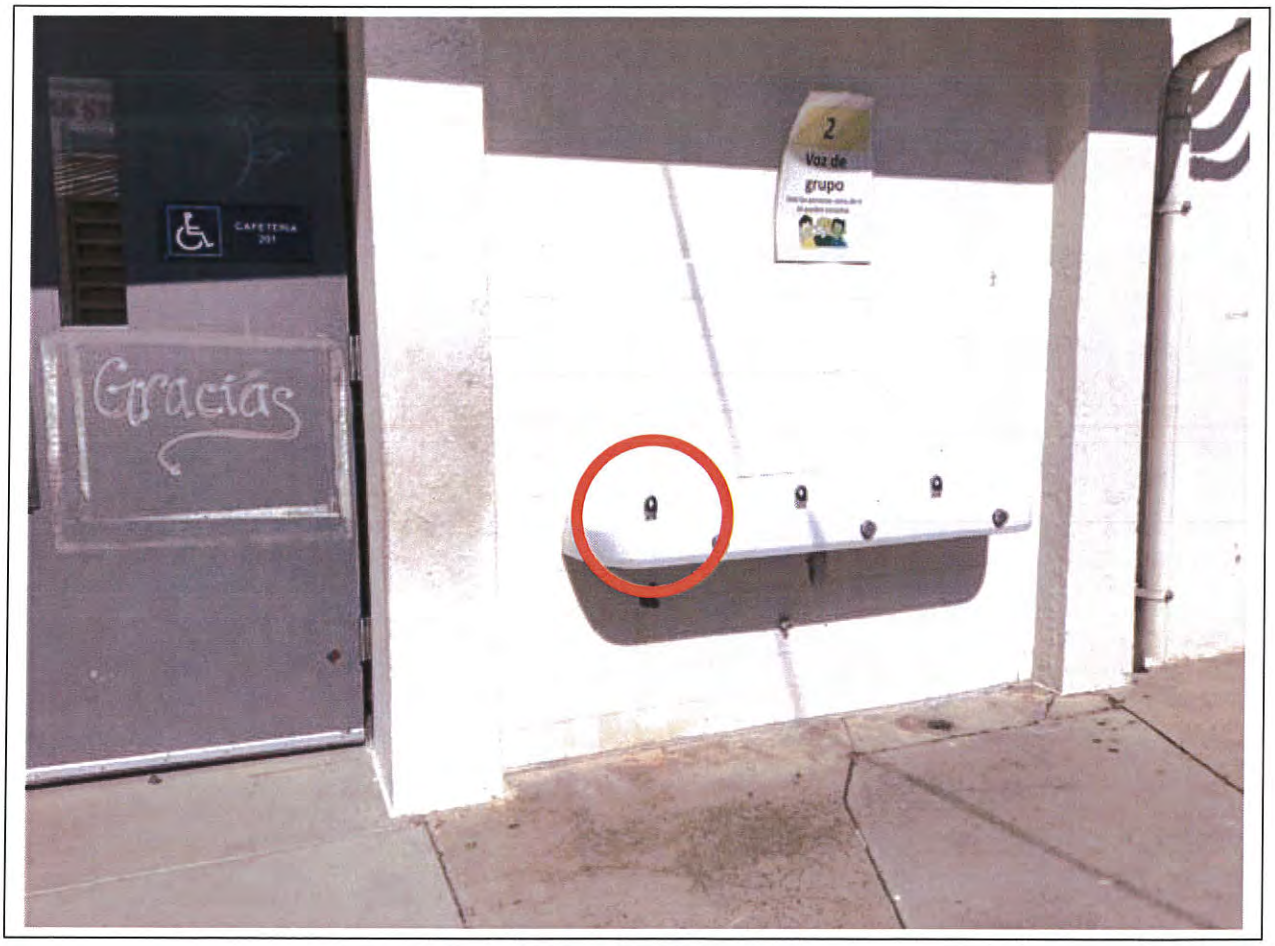

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171835

State Sample ID: 3710020-BGJ-A

Date & Time Last Used: 5/12/17 2200

Date & Time Sample Collected: 5/13/17 0828

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 2

School: Longfellow K8 - 5055 July St., San Diego, CA 92110

Name of Building: Kindergarten

Location Description: Inside room 401 west wall

Type of Outlet: Bubbler

Description: Sink mount bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171836

State Sample ID: 3710020-BGJ-B

Date & Time Last Used: 5/12/17 2200

Date & Time Sample Collected: 5/13/17 0814

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 3

School: Longfellow K8 - 5055 July St., San Diego, CA 92110

Name of Building: Classrooms 5-8

Location Description: South exterior wall close to room 306

Type of Outlet: Bubbler

Description: Single bubbler on right

Comments/Miscellaneous: Backside of girl's restroom

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171837

State Sample ID: 3710020-BGJ-C

Date & Time Last Used: 5/12/17 2200

Date & Time Sample Collected: 5/13/17 0816

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: M. Nelson

Sample No. 4

School: Longfellow K8 - 5055 July St., San Diego, CA 92110

Name of Building: Classrooms 11-16

Location Description: East exterior wall next to girl's restroom

Type of Outlet: Bubbler

Description: Right bubbler

Comments/Miscellaneous:

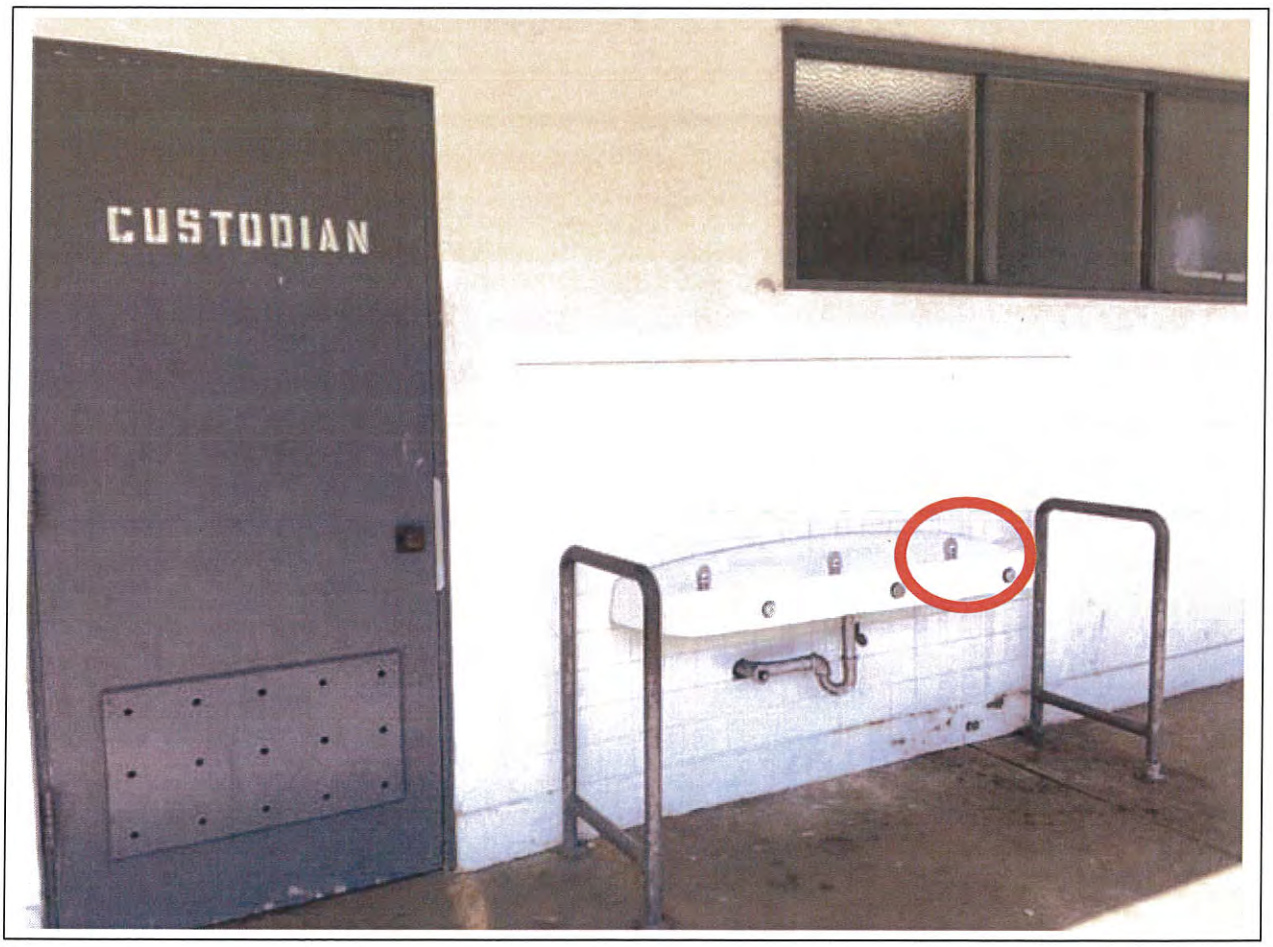

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171838

State Sample ID: 3710020-BGJ-D

Date & Time Last Used: 5/12/17 2200

Date & Time Sample Collected: 5/13/17 0822

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 5

School: Longfellow K8 - 5055 July St., San Diego, CA 92110

Name of Building: State Preschool

Location Description: Inside bungalow K-3 on south wall

Type of Outlet: Bubbler

Description: Sink mount bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171839

State Sample ID: 3710020-BGJ-E

Date & Time Last Used: 5/12/17 2200

Date & Time Sample Collected: 5/13/17 0825

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Ackor

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

09-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1171835	Longfellow K-8	13-MAY-2017	0828	M Nelson	SAMPLE 1	
2	W1171836	Longfellow K-8	13-MAY-2017	0814		SAMPLE 2	
3	W1171837	Longfellow K-8	13-MAY-2017	0816		SAMPLE 3	
4	W1171838	Longfellow K-8	13-MAY-2017	0822		SAMPLE 4	
5	W1171839	Longfellow K-8	13-MAY-2017	0825		SAMPLE 5	

1575

Chain of Custody:

Relinquished by: Name: M. Nelson Sign:	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 5/15/17 @530 Location: WBL AW	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/17/17
LIMS Received Time: 0608
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Los Altos Elementary School

Physical Address of School: 1332 Kenalan Dr. San Diego, CA 92154

First Bell: (0845) First bell // Custodian on site (0630)

Meeting Date: TBD

Sampling Plan Completion Date: April 11, 2017

Completed by Print Name: Joseph Dombrowski

Signature: _____ Date: 5/19/17

School's Point of Contact for Sampling Assistance

Name: Joseph Dombrowski / John Herida 6:15

Phone: Cell 619-733-0802 1-858-228-7935

Email: joseph.dombrowski@cvesd.org

City of San Diego 3710020

Approved By: Tom B. Burger 5/18/17 — Tom Burger

Signature & Date — Print Name

Send completed sampling plan to: I

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Los Altos Elementary: 1332 Kenalan Dr. San Diego, CA 92154

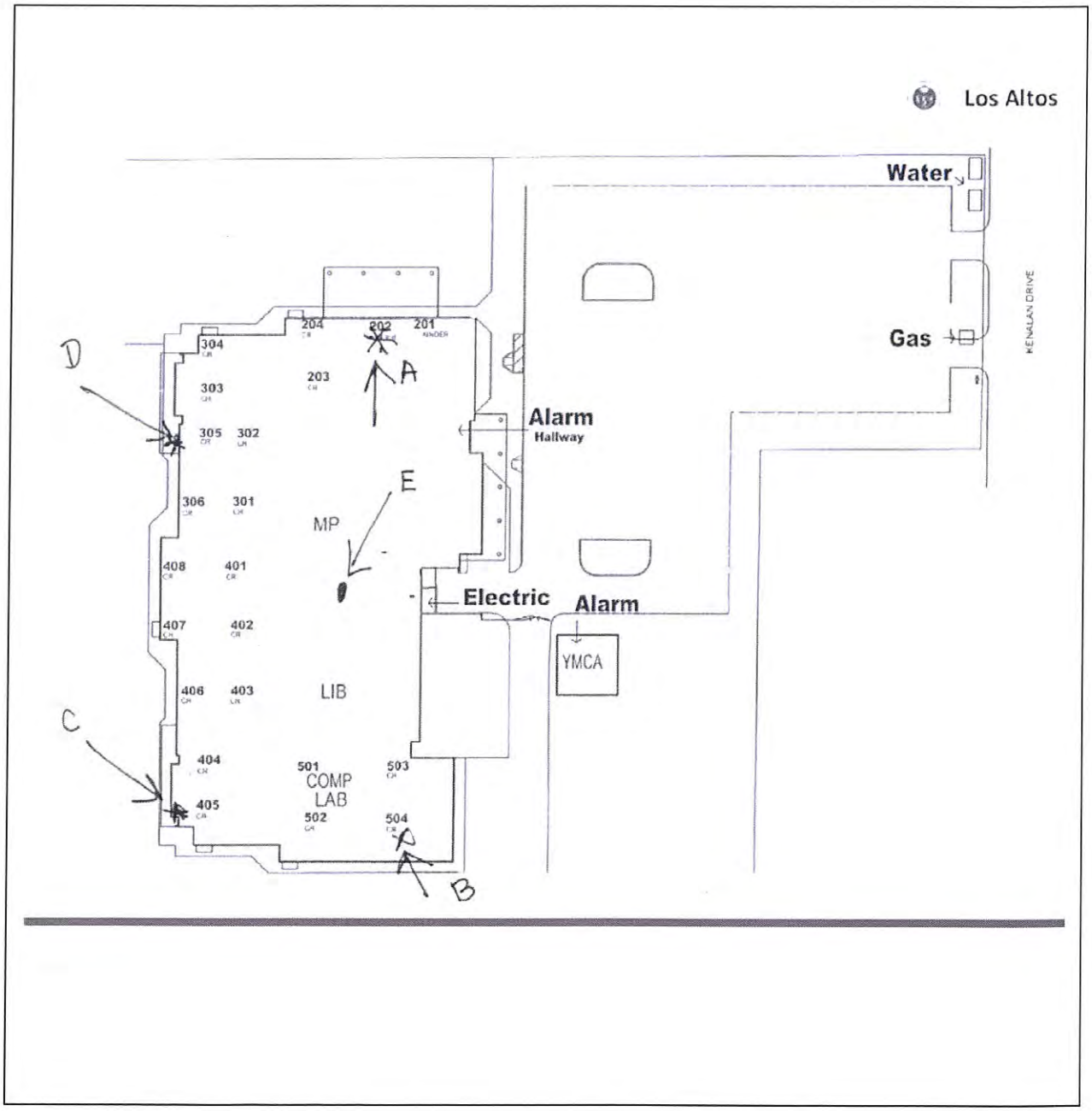

Sample No. 1

School: Los Altos Elementary

Name of Building: Main Building

Location Description: In classroom 202

Type of Outlet: Sink

Description: Bubbler at sink

Comments/Miscellaneous: (A)

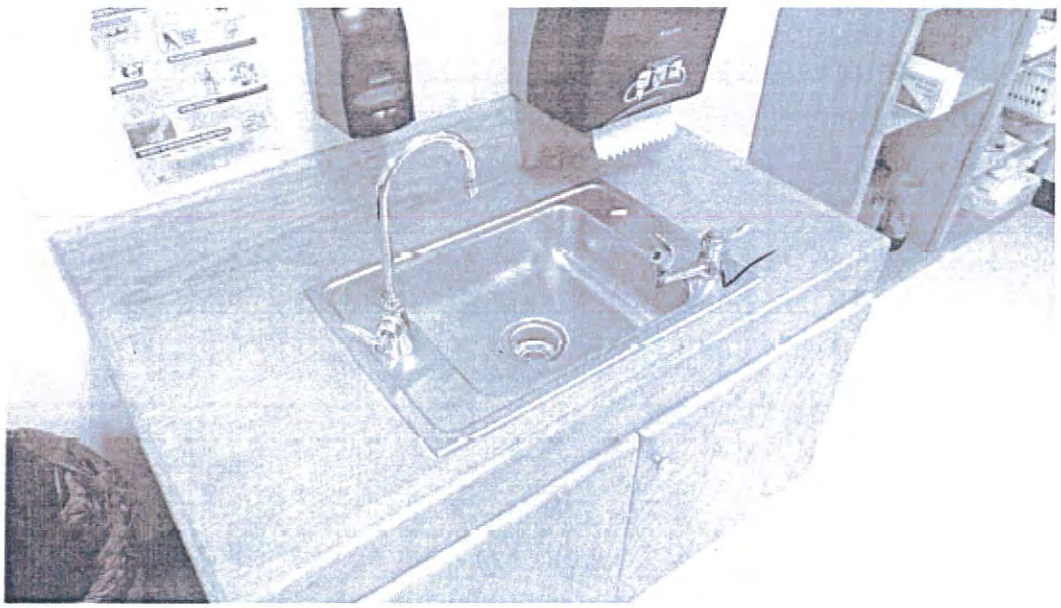

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171130

State Sample ID: 3710020-BHJ-A

Date & Time Last Used: 5/18/17

Date & Time Sample Collected: 5/19/17 6:30 am.

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Irma Polio

Sample No. 2

School: Los Altos Elementary

Name of Building: Main building

Location Description: Inside Classroom 504

Type of Outlet: Sink

Description: Bubbler in kinder room 504

Comments/Miscellaneous: (B)

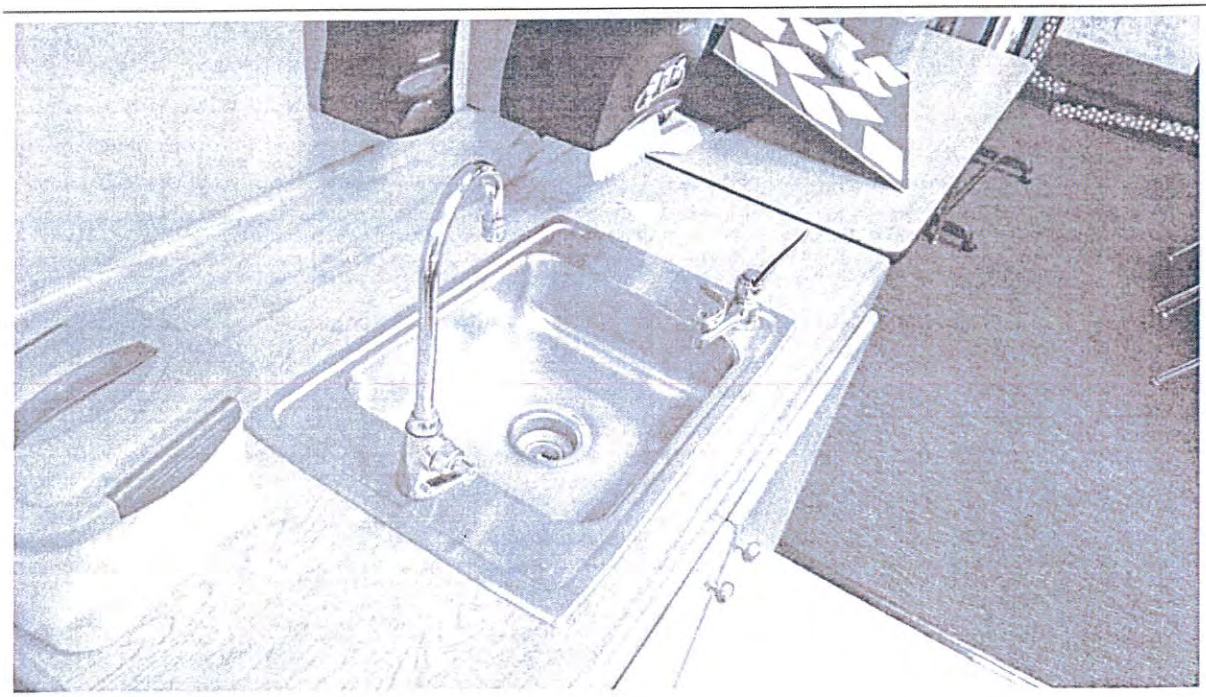

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171131

State Sample ID: 3710020-BHJ-B

Date & Time Last Used: 5/18/17

Date & Time Sample Collected: 6:00am 5/19/2017

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Irma Bolio

Sample No. 3

School: Los Altos Elementary

Name of Building: Main Building

Location Description: SW drinking fountain near classroom 405

Type of Outlet: Fountain upper

Description: Left lower drinking fountain

Comments/Miscellaneous: (C)

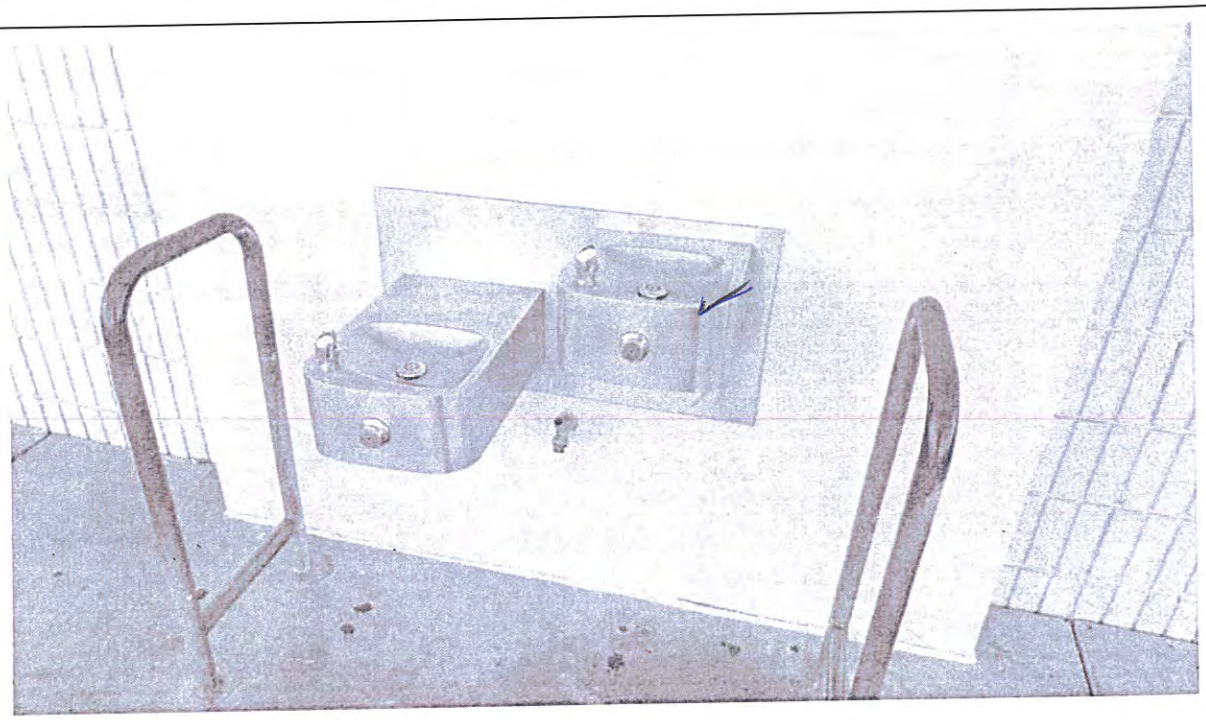

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171132

State Sample ID: 3710020-BHJ-C

Date & Time Last Used: 5/18/17

Date & Time Sample Collected: 5/19/17 6:10 am

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Irma Bolio

Sample No. 4

School: Los Altos Elementary

Name of Building: Main Building

Location Description: NW drinking fountain near classroom 305

Type of Outlet: Fountain upper

Description: Left lower drinking fountain

Comments/Miscellaneous: (D)

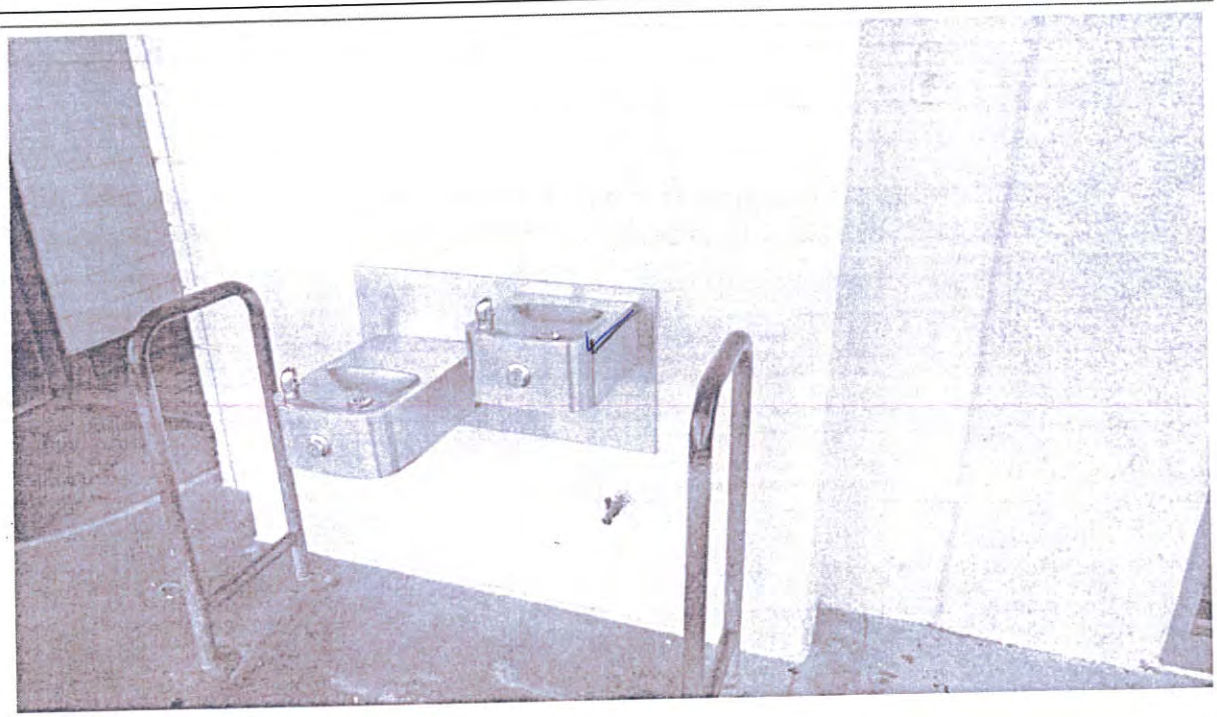

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171133

State Sample ID: 3710020-BHJ-D

Date & Time Last Used: ~~5/19/2017 625am~~ 5/18/17

Date & Time Sample Collected: 5/19/2017 625am

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Irma Bolio

Sample No. 5

School: Los Altos Elementary

Name of Building: Main Building

Location Description: Near MPR boys restroom and library

Type of Outlet: Fountain upper

Description: Left lower fountain between MPR room and library

Comments/Miscellaneous: (E)

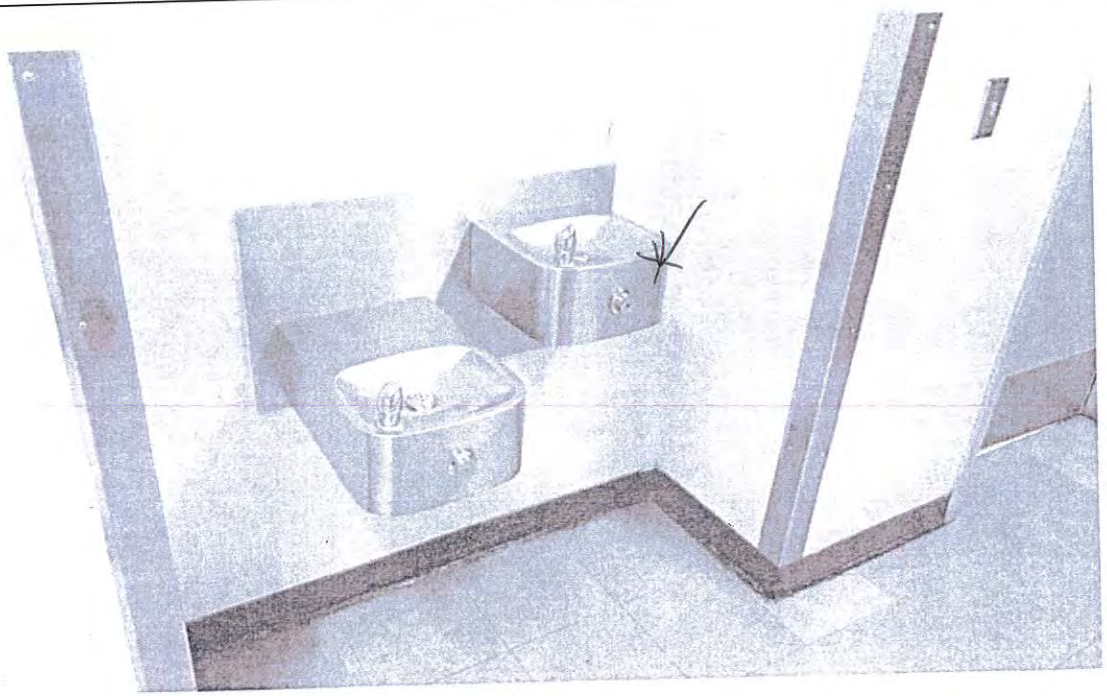

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171134

State Sample ID: 3710020-BHJ-E

Date & Time Last Used: I 5/18/2017 ~~6:10~~

Date & Time Sample Collected: 5/19/2017 6:13 am

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Irma Bolio

Exhibit 3d

Water Quality Chemistry Services
Chain of Custody Form

18-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1171130	Los Altos Elementary School	19-MAY-2017	0620		SAMPLE 1	
2	W1171131	Los Altos Elementary School	19-MAY-2017	0600		SAMPLE 2	
3	W1171132	Los Altos Elementary School	19-MAY-2017	0610		SAMPLE 3	
4	W1171133	Los Altos Elementary School	19-MAY-2017	0625		SAMPLE 4	
5	W1171134	Los Altos Elementary School	19-MAY-2017	0613		SAMPLE 5	

1583

Chain of Custody:

Relinquished by: Name: Irma Bolio Sign: [signature]	Received by: Name: Tom Burger Sign: Tom B Burger	Date & Time: 5-19-17 0811 Location: ALV LAB	**Comments:** all the drinking fountain was taken from the upper one.
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: [signature]
Received Date: 5-19-17
LIMS Received Time: 1033
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Madison High School

Physical Address of School: 4833 Doliva Drive, San Diego Calif, 92117

First Bell: 735

Meeting Date: 5/3/2017

Sampling Plan Completion Date: 5/3/2017

Completed by Print Name: Timothy A Brown

Signature: Timothy A Brown Date: 5/3/2017

School's Point of Contact for Sampling Assistance

Name: Tim Brown

Phone: 1-619-302-9427

Email: tbrown1@sandi.net

City of San Diego 3710020

Approved By: 5/8/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Madison High School-4833 Doliva Drive; San Diego Calif; 92117

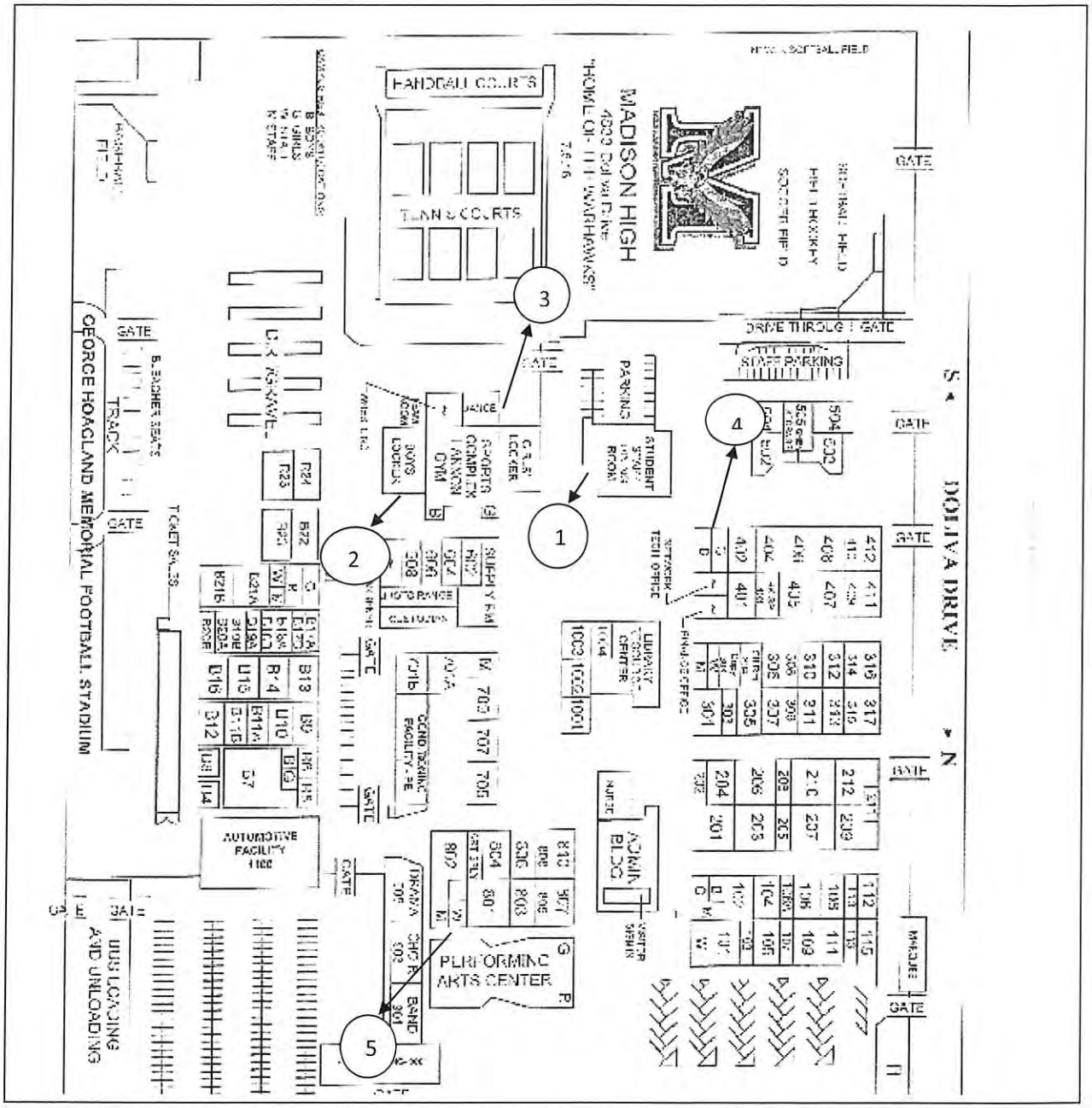

Sample No. 1

School: Madison High School

Name of Building: Cafeteria/ Kitchen

Location Description: East Wing/ East Interior Wall

Type of Outlet: Double Swing Arm Faucet

Description: Fruit/ Vegetable Prep Area/ Sample Right Faucet

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171689

State Sample ID: 3710020-BGH-A

Date & Time Last Used: 5/12/17 2200

Date & Time Sample Collected: 5/13/17 0557

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 2

School: Madison High School

Name of Building: Boys Lockeroom/ Sports Complex-Hannon Gym

Location Description: South Exterior Wall

Type of Outlet: Wall Mounted 3 Bubbler Station

Description: Sample Right Bubbler

Comments/Miscellaneous:

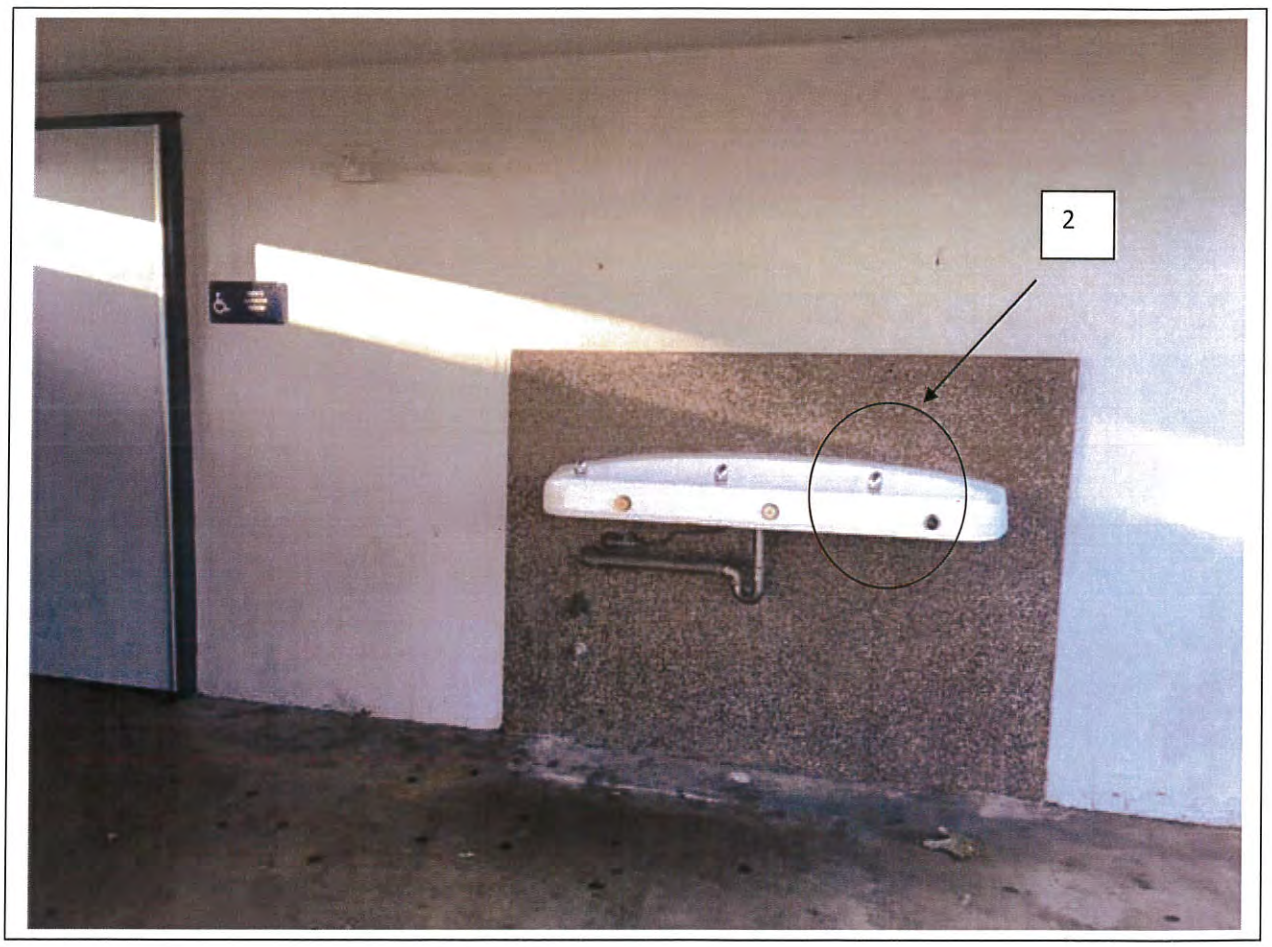

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171690

State Sample ID: 3710020-BGH-B

Date & Time Last Used: 5/12/17 2200

Date & Time Sample Collected: 5/13/17 0605

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Nelson

Sample No. 3

School: Madison High School

Name of Building: Sports Complex/ Hannon Gym

Location Description: North Wall at Dance Room Entrance

Type of Outlet: Exterior Mounted 3 Bubbler Station

Description: Sample Center Bubbler

Comments/Miscellaneous:

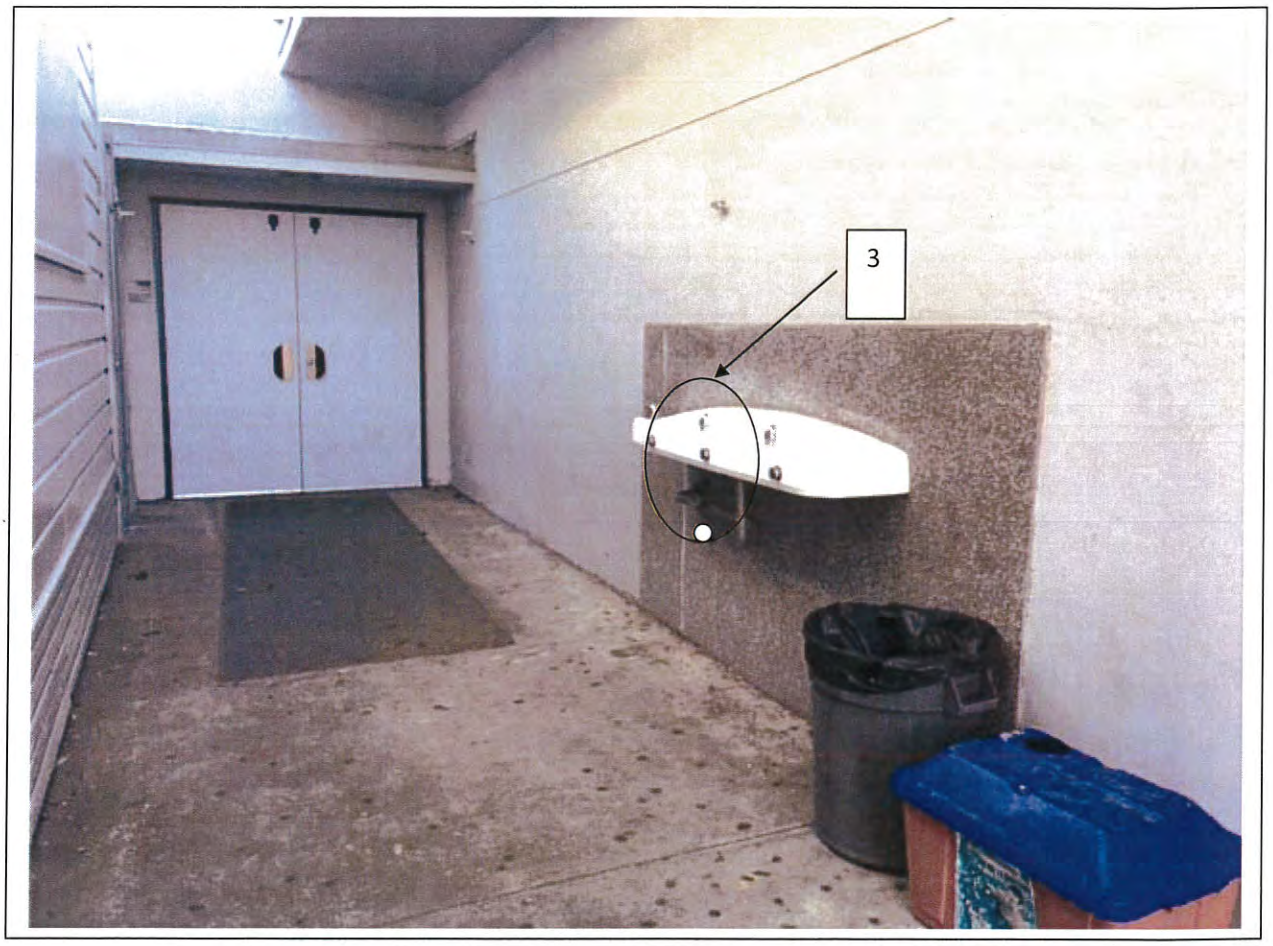

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171691

State Sample ID: 3710020-BGH-C

Date & Time Last Used: 5/12/17 2200

Date & Time Sample Collected: 5/13/17 0608

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 4

School: Madison High School

Name of Building: 400 BLDG

Location Description :South Exterior Wall at Room 402

Type of Outlet: Exterior Wall Mounted 3 Bubbler Station

Description: Sample Left Bubbler

Comments/Miscellaneous:

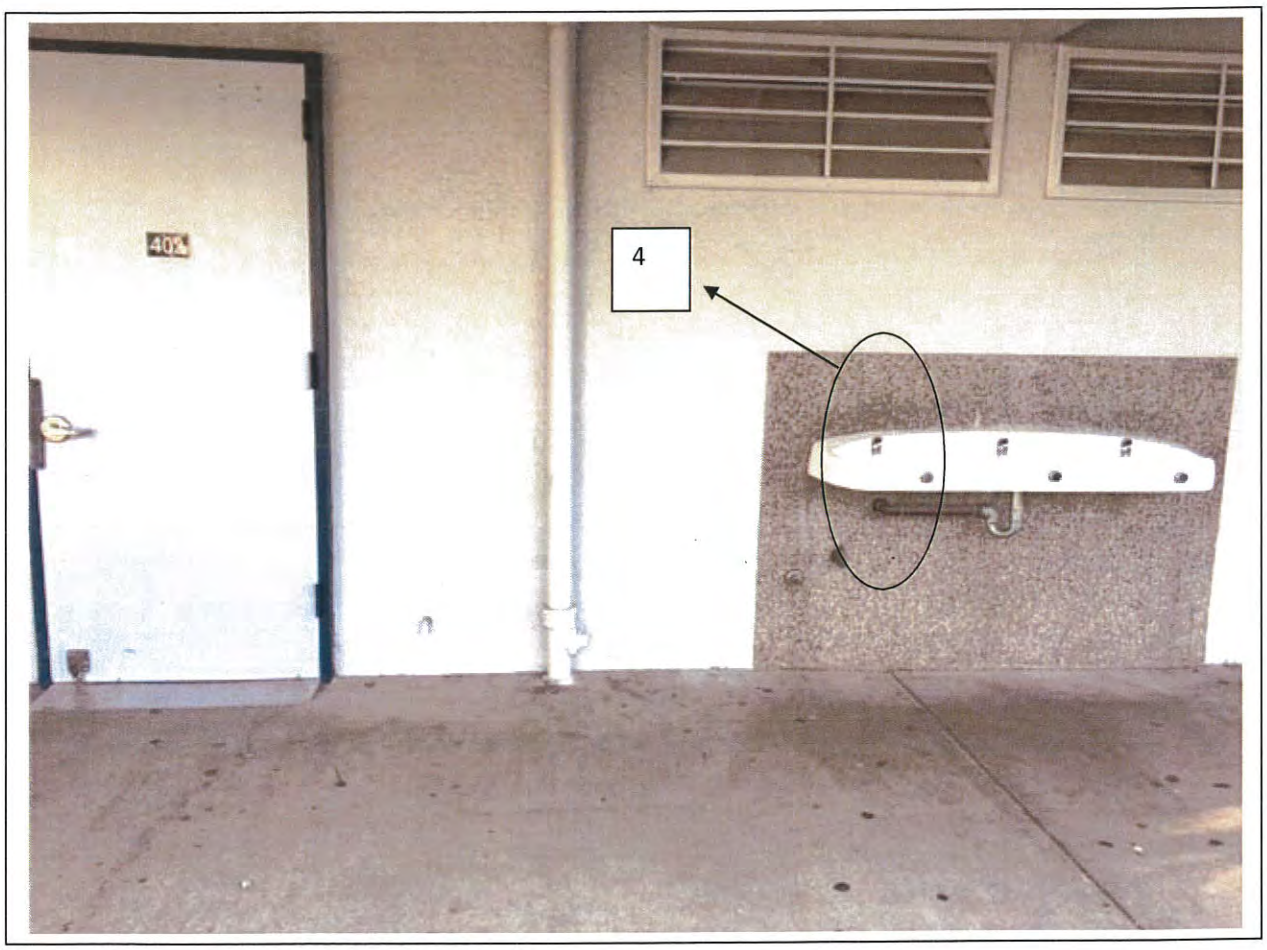

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171692

State Sample ID: 3710020-BGH-D MN

Date & Time Last Used: 5/12/17 ~~0600~~ 2200

Date & Time Sample Collected: 5/13/17 0600

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 5

School: Madison High School

Name of Building: 800 BLDG

Location Description: North Exterior wall at Men's/ Women's Restroom

Type of Outlet: 2 single Exterior Mounted Bubbler Station

Description: Sample Left Bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171693

State Sample ID: 3710020-BGH-E

Date & Time Last Used: 5/12/17 2200

Date & Time Sample Collected: 5/13/17 0614

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

08-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1171689	Madison High	13-MAY-2017	0557	M. Nelson	SAMPLE 1	
2	W1171690	Madison High	13-MAY-2017	0605		SAMPLE 2	
3	W1171691	Madison High	13-MAY-2017	0608		SAMPLE 3	
4	W1171692	Madison High	13-MAY-2017	0600		SAMPLE 4	
5	W1171693	Madison High	13-MAY-2017	0614		SAMPLE 5	

1594

Chain of Custody:

Relinquished by: Name: M. Nelson Sign:	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 5/15/17 @ 0530 Location: WQL A/V	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 05/15/17
LIMS Received Time: 0630
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Mann Middle School

Physical Address of School: 4345 54th St., San Diego, CA 92115

First Bell: 7:30AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 03/24/2017

Completed by Print Name: Daniel Lopez

Signature: _____ Date: _____

School's Point of Contact for Sampling Assistance

Name: Daniel Lopez

Phone: 619-988-0458

Email: dlopez2@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-5-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: 4345 54th St., San Diego, CA 92115

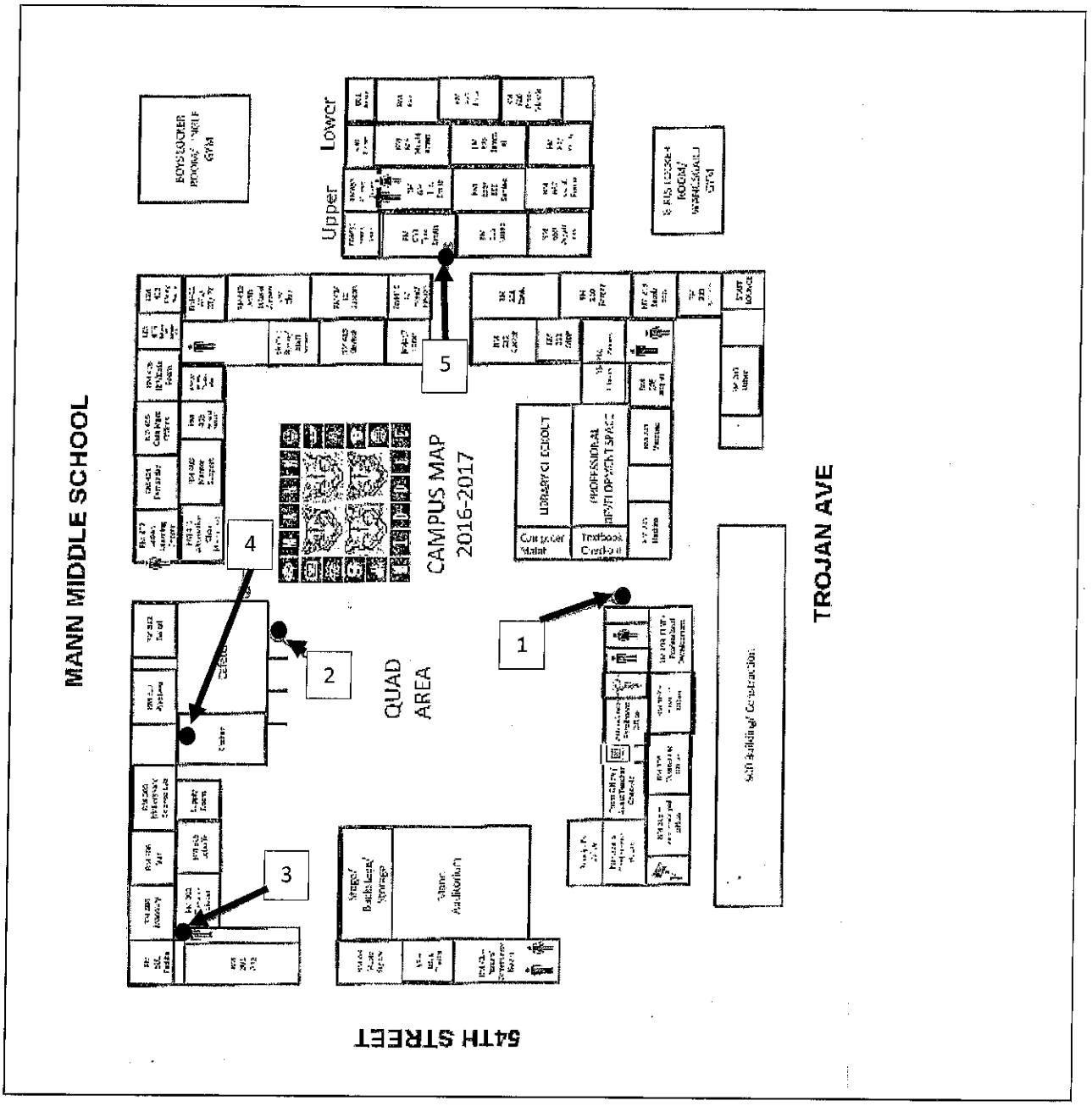

Sample No. 1

School: Mann Middle School

Name of Building: Building 100

Location Description: Main Office Building

Type of Outlet: Bubbler (312-1)

Description: Far left bubbler

Comments/Miscellaneous:

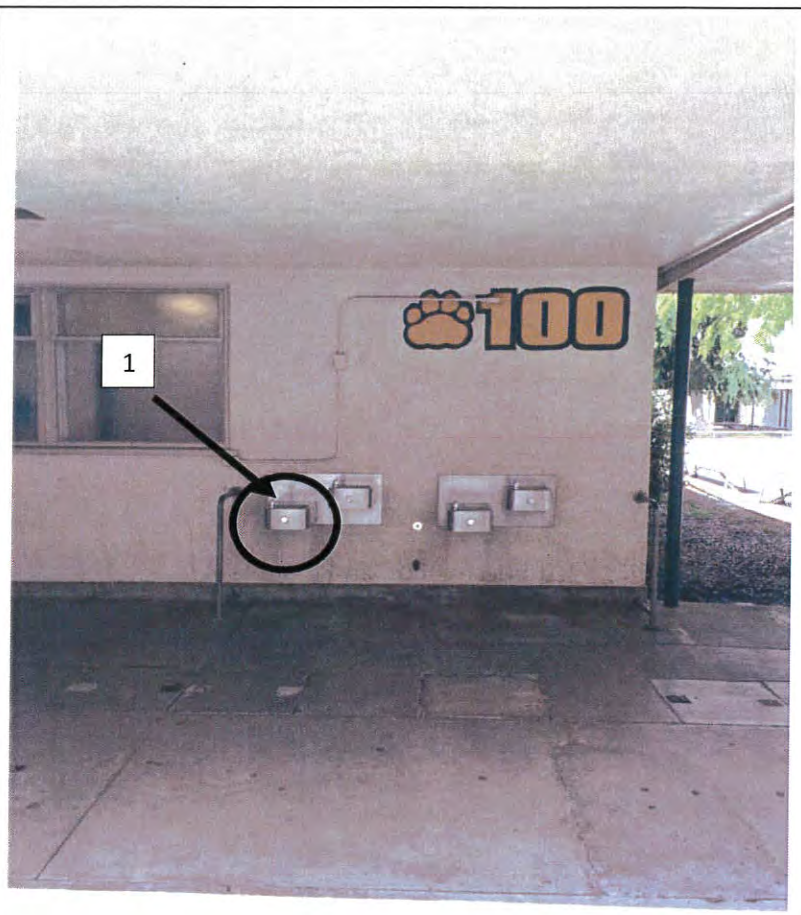

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164430

State Sample ID: 3710020-ABG-A

Date & Time Last Used: 04/05/17 6:40PM

Date & Time Sample Collected: 04/06/17 6:01 AM

Name of Water System Sample Collector: Walt Mulderig

Sample No. 2

School: Mann Middle School

Name of Building: Cafeteria Building

Location Description: Cafeteria Building

Type of Outlet: Bubbler

Description: Middle bubbler

Comments/Miscellaneous:

The sample was taken from the eastern side, middle bubbler.

The eastern-side of the cafeteria

TB

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164431

State Sample ID: 3710020-ABG-B

Date & Time Last Used: 04/05/17 6:10PM

Date & Time Sample Collected: 04/06/17 6:04 AM

Name of Water System Sample Collector: Walt Mulderig

Sample No. 3

School: Mann Middle School

Name of Building: 300 Building

Location Description: Next to custodian

Type of Outlet: single bubbler

Description:

Comments/Miscellaneous:

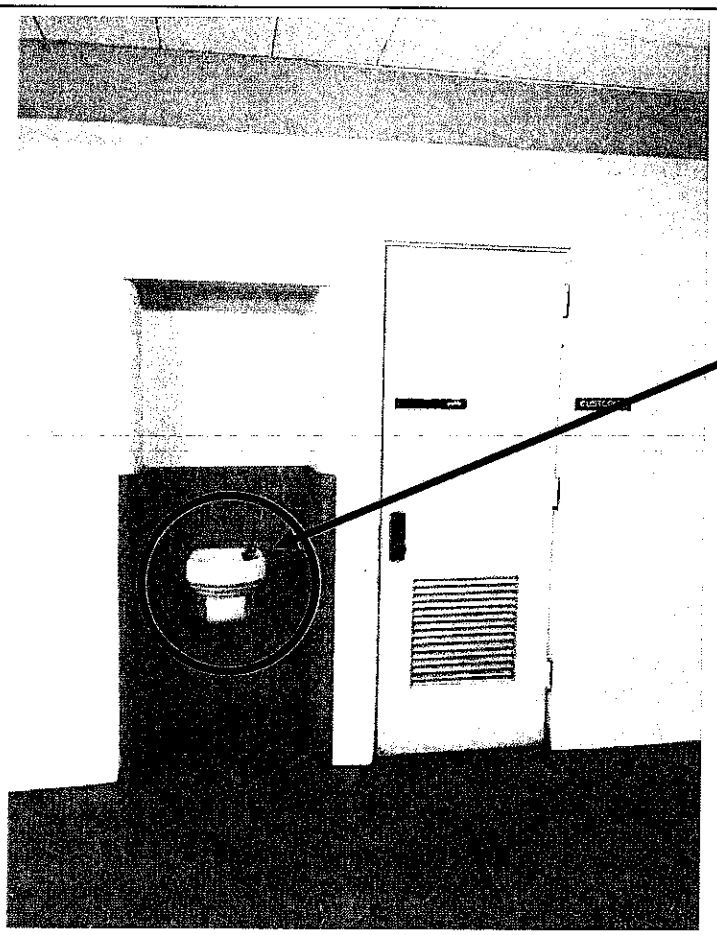

This site required the use of a 500-mL bottle.

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164432

State Sample ID: 3710020-ABG-C

Date & Time Last Used: 04/05/17 2:10 PM

Date & Time Sample Collected: 04/06/17 2:08 AM

Name of Water System Sample Collector: Walt Mulderig

Sample No. 4

School: Mann Middle School

Name of Building: Kitchen Building

Location Description: Inside Kitchen far back wall

Type of Outlet: Kitchen Faucet

Description: Back sink

Comments/Miscellaneous: This faucet is for cooking and prep of vegetables

The hot water line was charged, but at the time of sampling there was no evidence of recent use of the faucet.

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164433

State Sample ID: 3710020-ABG-D

Date & Time Last Used: 04/05/17 6:10 PM

Date & Time Sample Collected: 04/06/17 6:10 AM

Name of Water System Sample Collector: W Mulderig

Sample No. 5

School: Mann Middle School

Name of Building: 600 Building

Location Description: Just underneath building cover outside

Type of Outlet: Bubbler

Description: Middle bubbler

Comments/Miscellaneous:

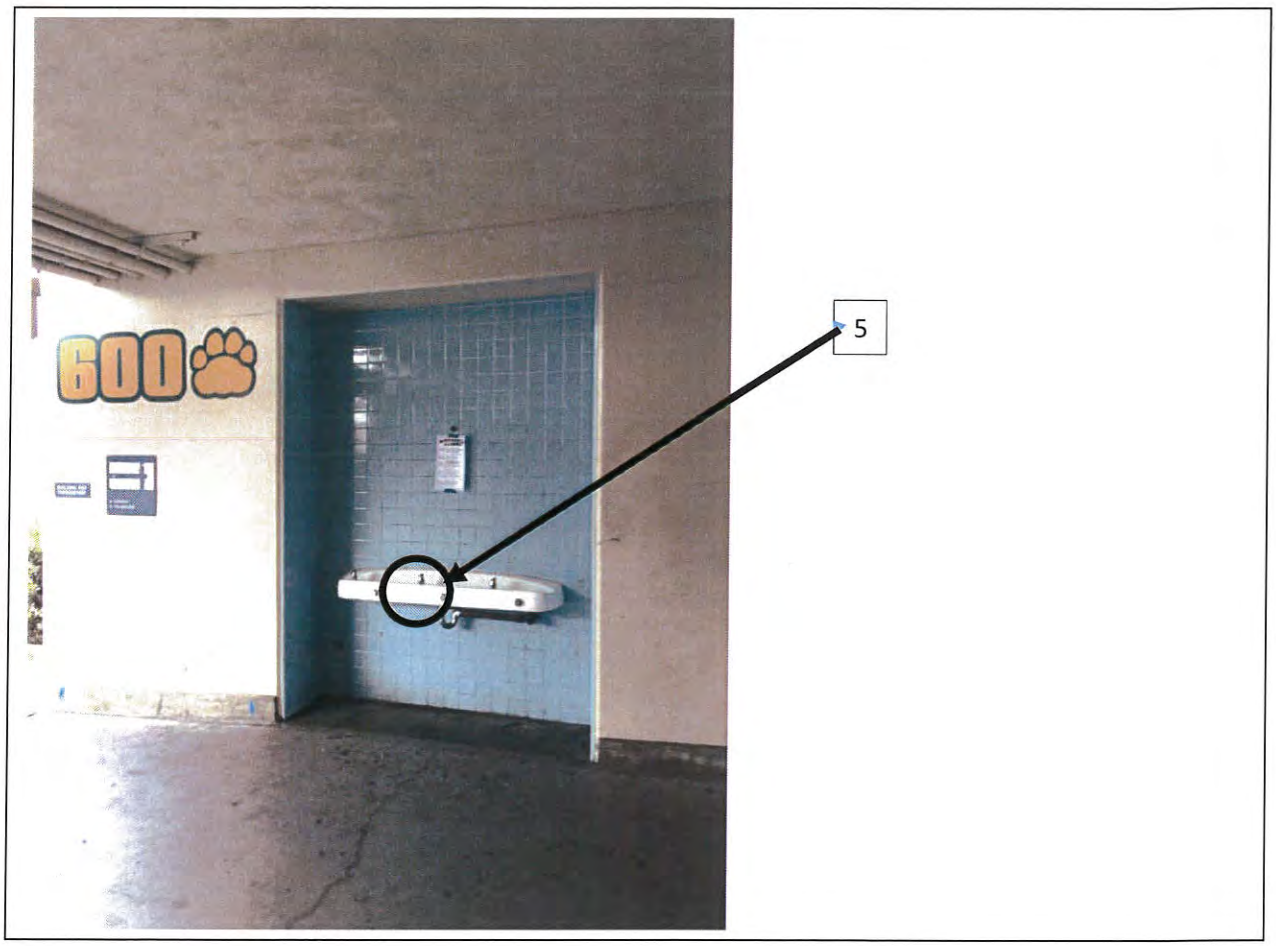

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164434

State Sample ID: 3710020-ABG-E

Date & Time Last Used: 04/05/17 6:10PM

Date & Time Sample Collected: 04/06/17 6:18 AM

Name of Water System Sample Collector: W Muldoney

Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 4/12/17
San Diego Unified School District

Mann Middle School

Sample ID	Sample Date	Sample Time	Description	External ID	Lead	Units
W1164430	04/06/17	06:01 AM	SAMPLE 1	3710020-ABG-A	< 5	ug/L
W1164431	04/06/17	06:06 AM	SAMPLE 2	3710020-ABG-B	6.98	ug/L
W1164432	04/06/17	06:08 AM	SAMPLE 3	3710020-ABG-C	9.31	ug/L
W1164433	04/06/17	06:10 AM	SAMPLE 4	3710020-ABG-D	< 5	ug/L
W1164434	04/06/17	06:18 AM	SAMPLE 5	3710020-ABG-E	< 5	ug/L

SAMPLE 1 BLDG 100, Main Office, far left bubbler (312-1)

SAMPLE 2 Cafeteria BLDG, east side, triple fountain, center bubbler

SAMPLE 3 BLDG 300, next to custodian, single bubbler

SAMPLE 4 Kitchen interior back wall, back sink, faucet

SAMPLE 5 BLDG 600, underneath cover outside, center bubbler

DLR= State Mandated Detection Limit for Reporting (D
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

05-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes: Sample 2 was taken from the eastern side of cafeteria. NOT the southern site pictured.

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1164430	Mann Middle School	06-APR-2017	6:01 am	W Mulderig	SAMPLE 1	Pb
2	W1164431	Mann Middle School	06-APR-2017	6:06 am	"	SAMPLE 2	
3	W1164432	Mann Middle School	06-APR-2017	6:08 am	"	SAMPLE 3	
4	W1164433	Mann Middle School	06-APR-2017	6:10 am	"	SAMPLE 4	
5	W1164434	Mann Middle School	06-APR-2017	6:18 am	"	SAMPLE 5	

1600

Chain of Custody:

Relinquished by:	Received by:	Date & Time:	Comments:
Name: DANIEL LOPEZ Sign: Daniel Lopez	Name: Walt Mulderig Sign: W Mulderig	4/6/17 6:31am. Location: Mann Middle	
Relinquished by: Name: W Mulderig. Sign: W Mulderig	Received by: Name: Sign:	Date & Time: 4/6/17 7:02am Location: ALV	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: [signature]
Received Date: 4/6/17
LIMS Received Time: 0823
Reviewed By:

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

29-Jun-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1180979	Mar Vista High School	30-JUN-2017	0617		SAMPLE 1	
2	W1180980	Mar Vista High School	30-JUN-2017	0624		SAMPLE 2	
3	W1180981	Mar Vista High School	30-JUN-2017	0627		SAMPLE 3	
4	W1180982	Mar Vista High School	30-JUN-2017	0632		SAMPLE 4	
5	W1180983	Mar Vista High School	30-JUN-2017	0637		SAMPLE 5	

1601

Chain of Custody:

Relinquished by: Name: Tom Burger Sign: Tom B Burger	Received by: Name: Alejandra Molloy Sign: tMalloy	Date & Time: 6-30-17 0933 Location: WQL office	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: tMalloy
Received Date: 6/30/17
LIMS Received Time: 0948
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Sweetwater Union High school District/Mar Vista High

Physical Address of School: 505 Elm Ave Imperial Beach, CA 91932

First Bell:

Meeting Date: 5/15/17

Sampling Plan Completion Date:

Completed by Print Name: Ruben Baeza

Signature: Date: 6/5/17

School's Point of Contact for Sampling Assistance

Name: Francisco Berrelleza

Phone: 619-206-2147

Email: Francisco.Berrelleza@sweetwaterschools.org.

City of San Diego 3710020

Approved By: Signature & Date 6-28-17 Tom Burger Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Jean Duerr
JP
619-649-5882

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

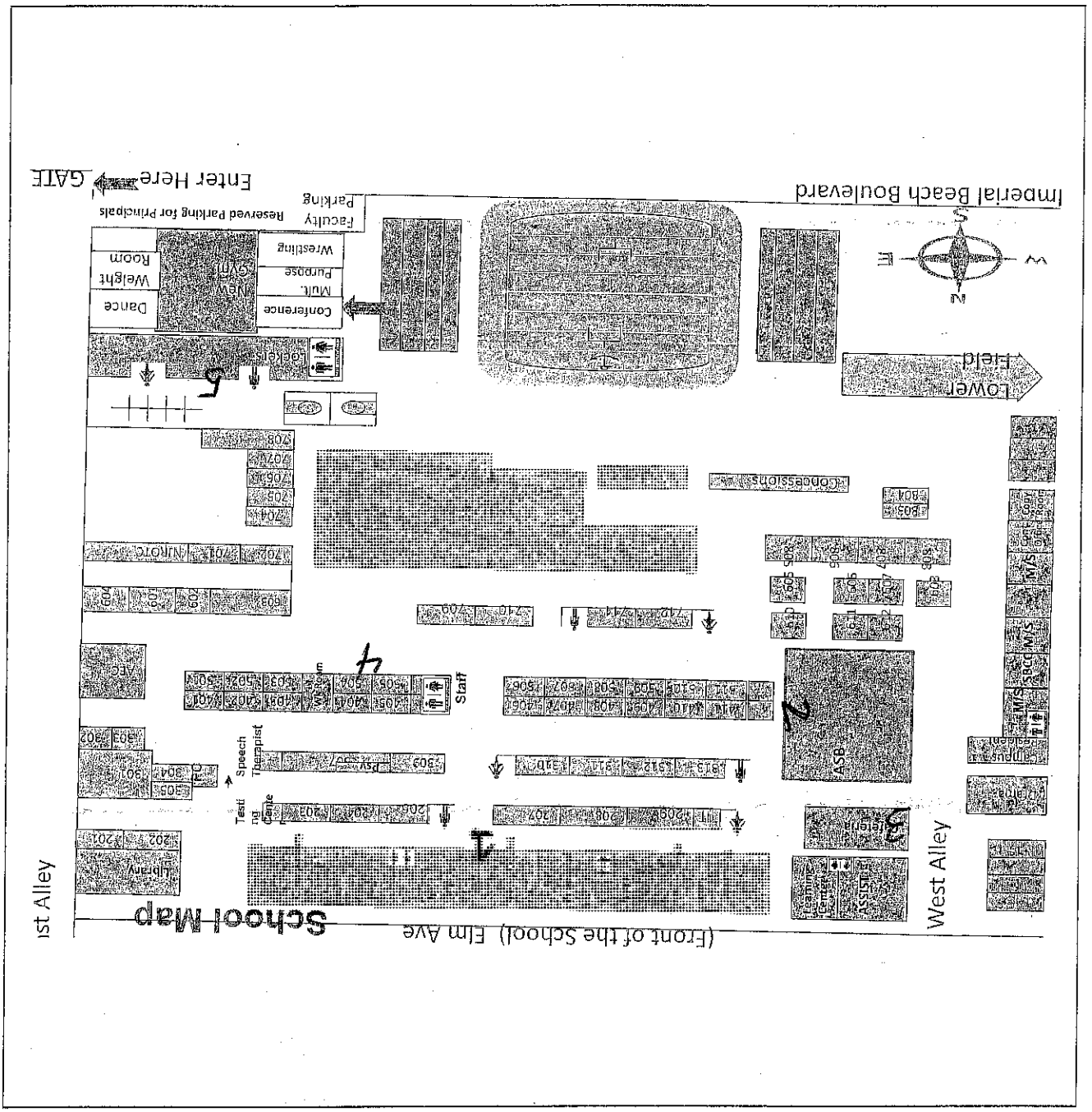

School and Address:

Sample No. 1

School: Mas Vista High school

Name of Building: 100 building

Location Description: 100 building / Admin office next to A. Office

Type of Outlet: Two fountains / Two seperate bubblers.

Description: Two offset water fountains. upper left

Comments/Miscellaneous:

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1180979

State Sample ID: 3710020-CDA-A

Date & Time Last Used: 4:00 PM 6-29-17

Date & Time Sample Collected: 0617 6-30-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: TBurgos

Sample No. 2

School: Mar Vista High school

Name of Building: A & B

Location Description: Outside East wall

Type of Outlet: Two fountains. / Two separate bubblers. upper right

Description: Two separate water fountains.

Comments/Miscellaneous:

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1180980

State Sample ID: 3710020-CDA-B

Date & Time Last Used: 6:00 pm 6-29-17

Date & Time Sample Collected: 0624 6-30-17

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: TBurger

Sample No. 3

School: Mar Vista High School

Name of Building: Cafeteria

Location Description: West wall under windows.

Type of Outlet:

Description: Double sink faucet

Comments/Miscellaneous:

City use only below this line

Sample type Initial ☐ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1180981

State Sample ID: 3710020-CDA-3

Date & Time Last Used: 600pm 6-29-17

Date & Time Sample Collected: 0627 6-30-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T Bu

Sample No. 4

School: Mar Vista High school

Name of Building: 400 building

Location Description: Outside next to room 405

Type of Outlet: Fountain

Description: One water fountain / two bubblers. / right bubbler

Comments/Miscellaneous:

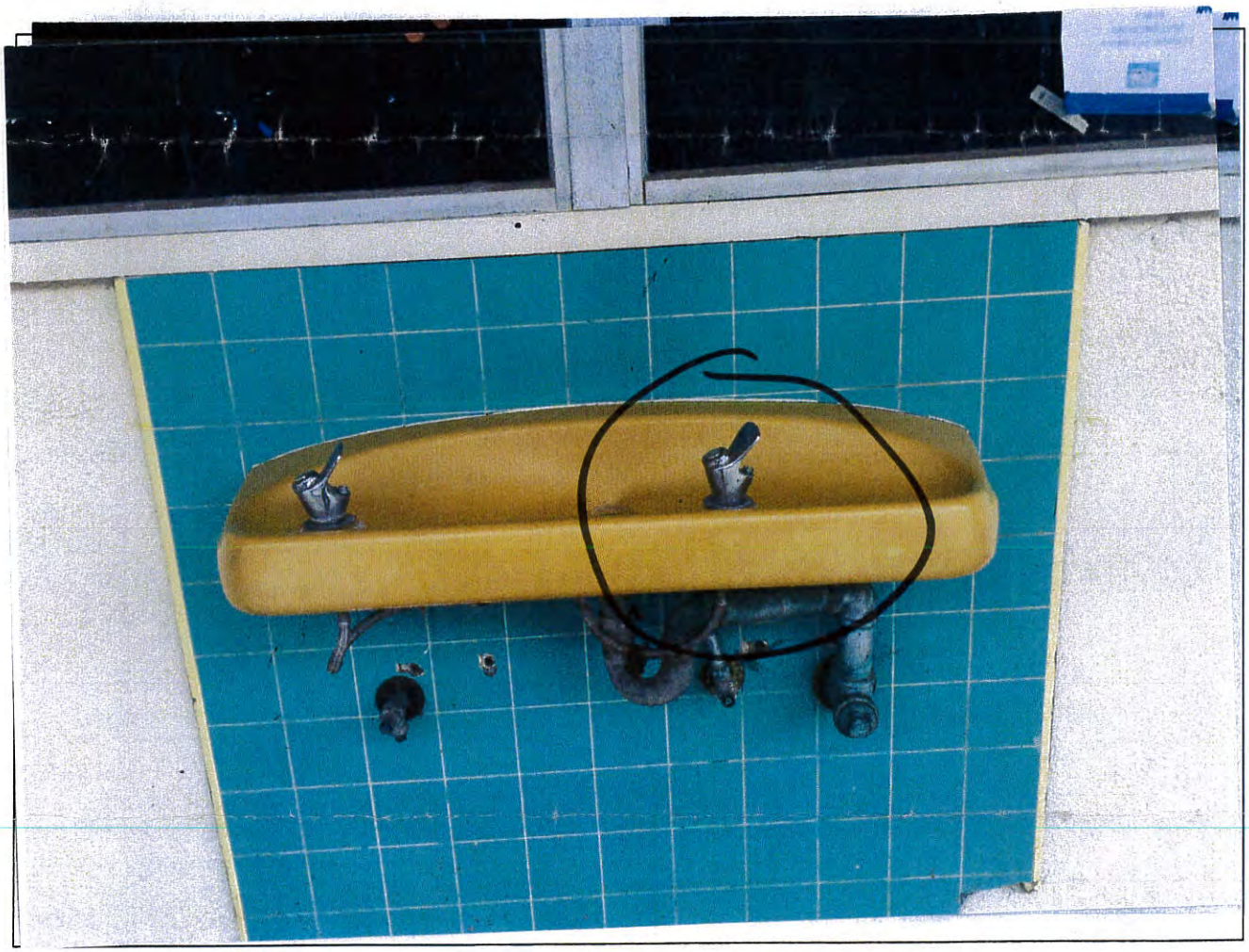

City use only below this line

Sample type Initial ☐ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1180982

State Sample ID: 3710020-CDA-D

Date & Time Last Used: 6:00 AM 6-29-17

Date & Time Sample Collected: 0632 6-30-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T. Burger

Sample No. 5

School: Mar Vista High School

Name of Building: Gym & NEW GYM (Y) N

Location Description: Located south of school Campus

Type of Outlet: Two separate water fountains with bubblers.

Description: Two off-set water fountains. Upper right

Comments/Miscellaneous:

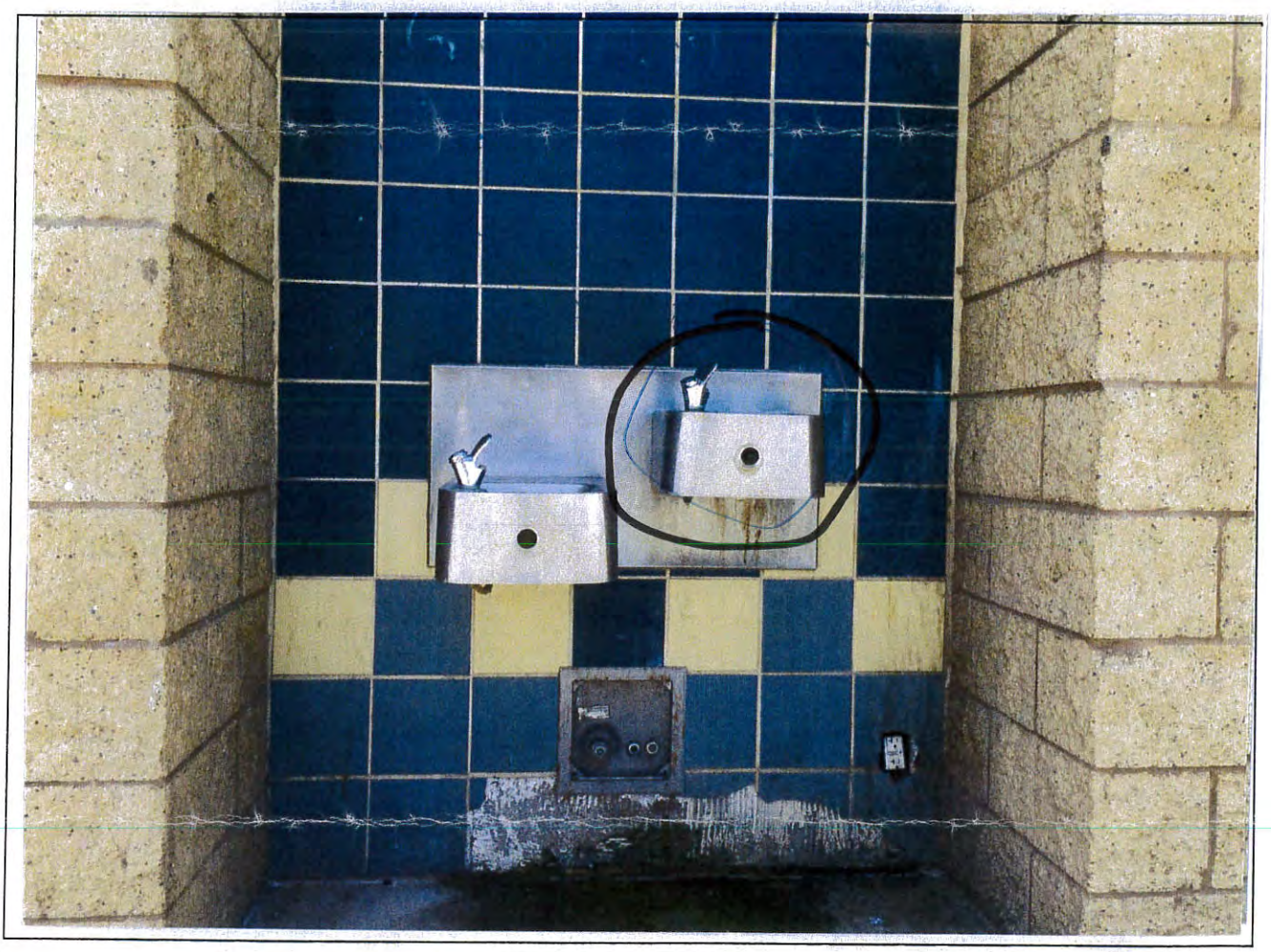

City use only below this line

Sample type Initial ☐ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: 3710020-CDA-E

State Sample ID: W1180983

Date & Time Last Used: 6:00 PM 6-29-17

Date & Time Sample Collected: 0637 6-30-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: TBurgos

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Marcy School

Physical Address of School: 2716 Marcy St. B, SanDiego, CA 92113

First Bell: 7:30 A.M.

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/25/2017

Completed by Print Name: Joe Kinkead

Signature: Joe Kinkead Date: 04/25/2017

School's Point of Contact for Sampling Assistance

Name: ~~Joe Kinkead~~ ~~Cesar Jimenez~~ Tim Brown

Phone: ~~619-559-2294~~ ~~619-261-1588~~ 619-302-9427

Email: jkinkead@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-27-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Marcy School 2716 Marcy St. B San Diego, CA 92113

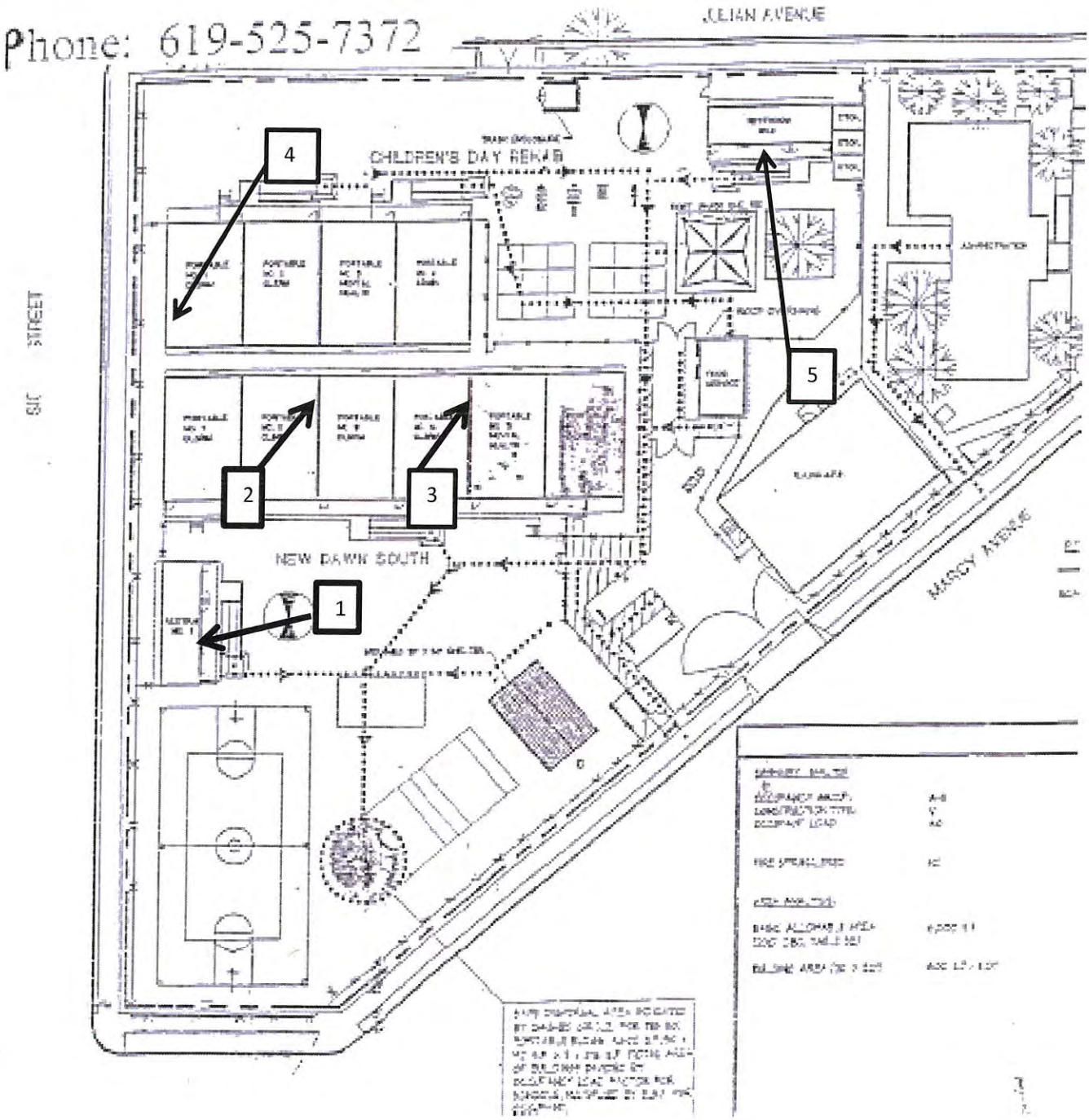

Sample No. 1

School: Marcy School

Name of Building: Restroom Buiding

Location Description: West side of campus adjacent to Sicard St.

Type of Outlet: Double bubbler

Description: Upper left bubbler

Comments/Miscellaneous:

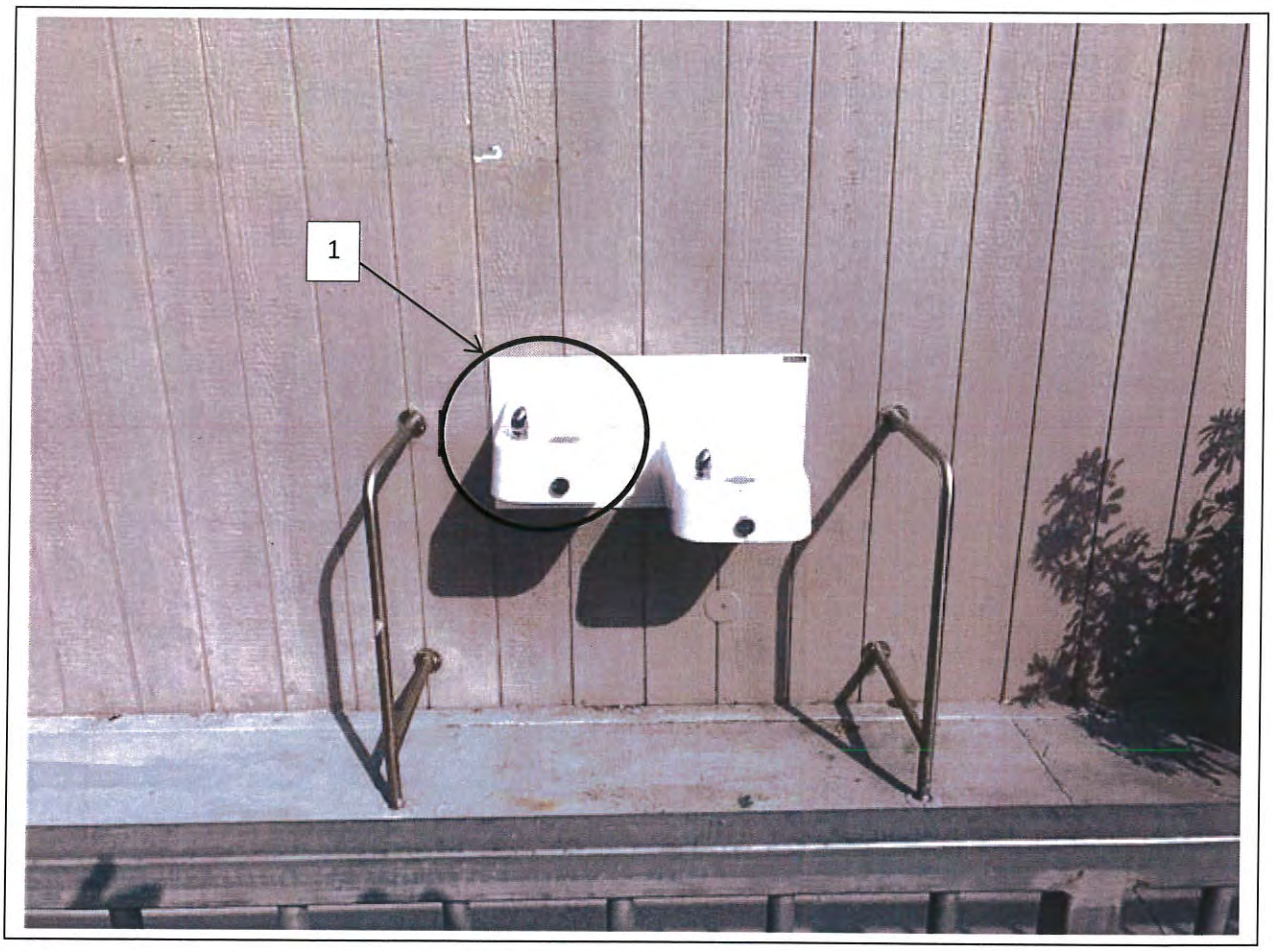

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168786

State Sample ID: 3710020-BDF-A

Date & Time Last Used: 5/22/17 1630

Date & Time Sample Collected: 5/23/17 0608

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: DENNIS BROWN

Sample No. 2

School: Marcy School

Name of Building: Portable classroom 8

Location Description: Northeast corner of room

Type of Outlet: Bubbler

Description: Bubbler at single compartment sink

Comments/Miscellaneous:

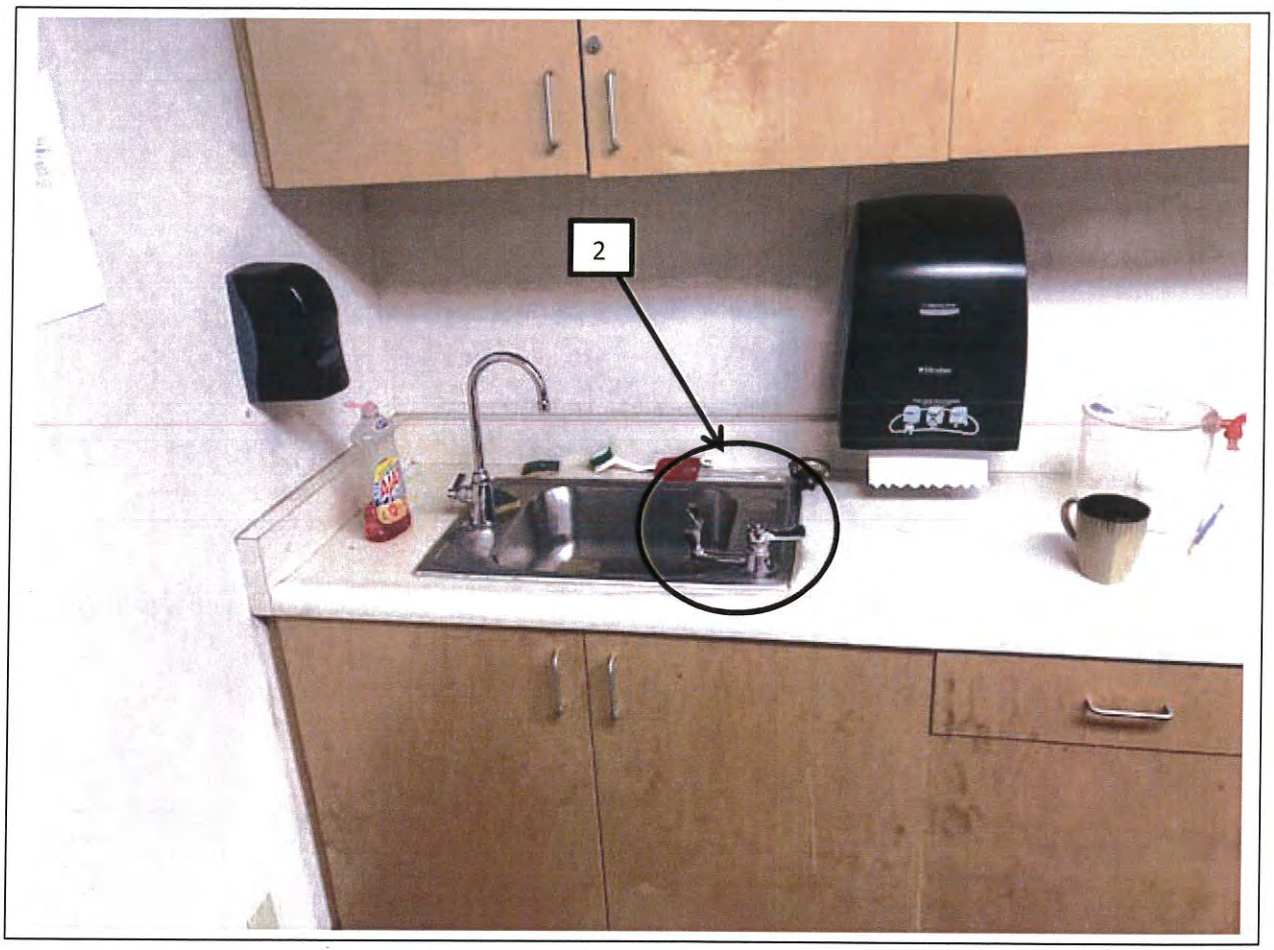

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168787

State Sample ID: 3710020-BDF-B

Date & Time Last Used: 5/22/17 1630

Date & Time Sample Collected: 5/23/17 0657

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D Davis 657 Brown

Sample No. 3

School: Marcy School

Name of Building: Portable classroom 10

Location Description: Northeast corner of room

Type of Outlet: Bubbler

Description: Bubbler at single compartment sink

Comments/Miscellaneous:

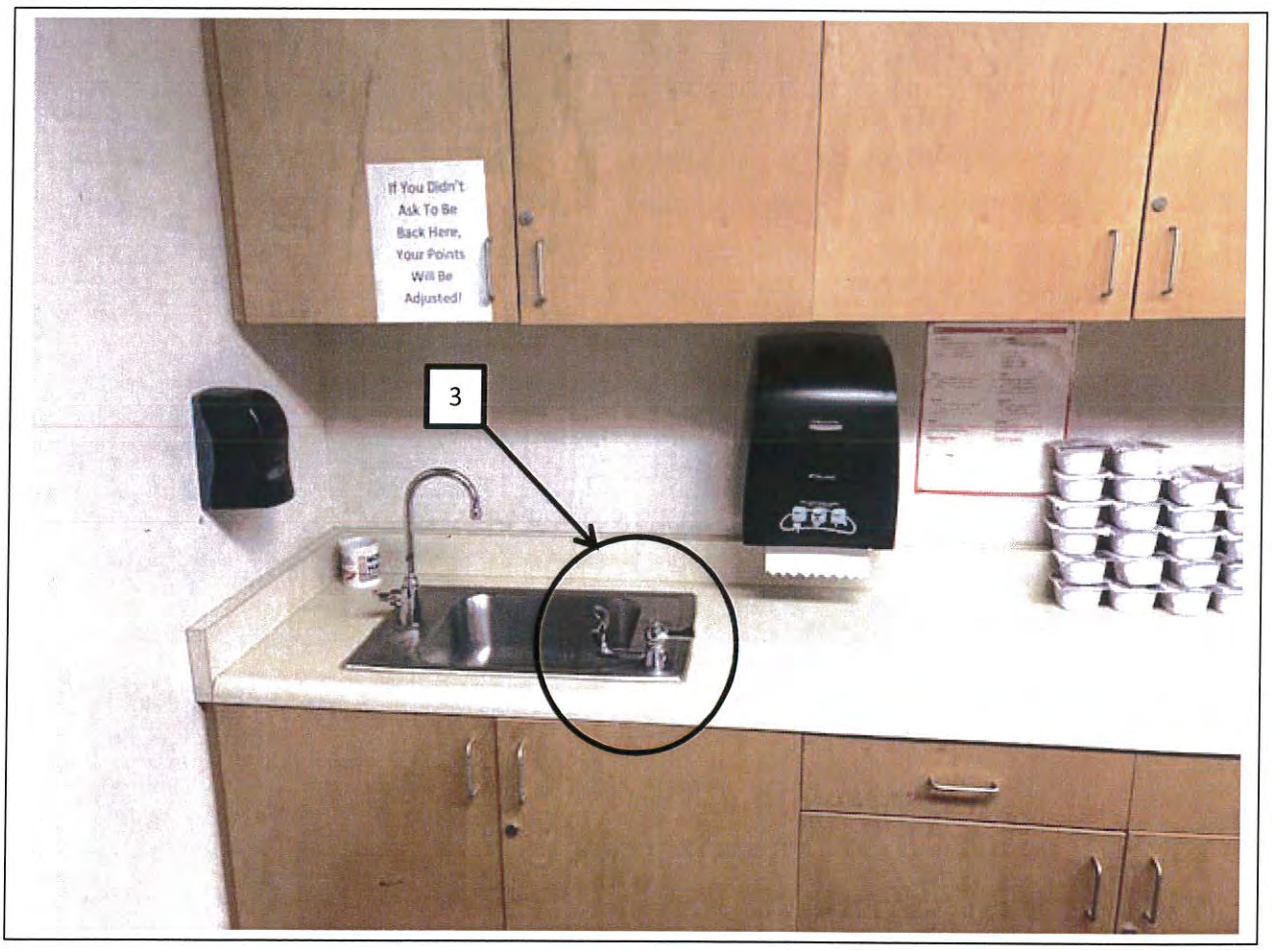

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168788

State Sample ID: 3710020-BDF-C

Date & Time Last Used: 5/22/17 1630

Date & Time Sample Collected: 5/23/17 0655

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector:

Sample No. 4

School: Marcy School

Name of Building: Portable classroom 1

Location Description : Southwest corner of room

Type of Outlet: Bubbler

Description: Bubbler at single compartment sink

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168789

State Sample ID: 3710020-BDF-D

Date & Time Last Used: 5/22/17 1630

Date & Time Sample Collected: 5/23/17 0701

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Dennis Brown

Sample No. 5

School: Marcy School

Name of Building: Restroom building

Location Description: Restroom building north side of campus adjacent to Julian Ave.

Type of Outlet: double bubbler

Description: Lower right bubbler

Comments/Miscellaneous:

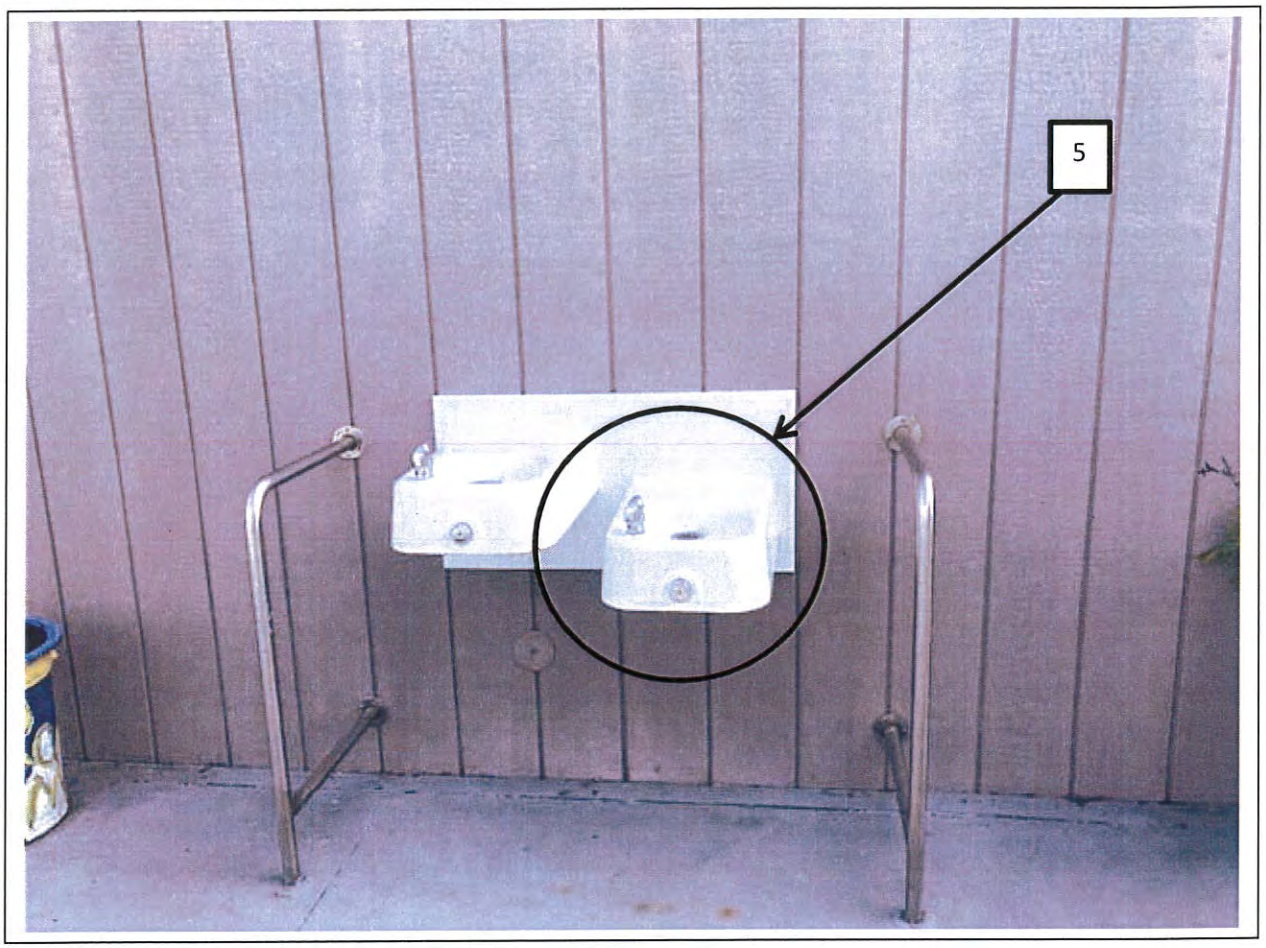

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168790

State Sample ID: 3710020-BDF-E

Date & Time Last Used: 5/22/17 1630

Date & Time Sample Collected: 05/23/17 0614

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: Dennis Brown

Water Quality Chemistry Services
Chain of Custody Form

22-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168786	Marcy School	23-MAY-2017	0608	Dennis Brown	SAMPLE 1	
2	W1168787	Marcy School	23-MAY-2017	0657	Dennis Brown	SAMPLE 2	
3	W1168788	Marcy School	23-MAY-2017	0655	Dennis Brown	SAMPLE 3	
4	W1168789	Marcy School	23-MAY-2017	0701	Dennis Brown	SAMPLE 4	
5	W1168790	Marcy School	23-MAY-2017	0614	Dennis Brown	SAMPLE 5	

Chain of Custody:

Relinquished by: Name: Dennis Brown Sign:	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 5/23/17 @ 0735 Location: Alv WQL	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/23/17
LIMS Received Time: 0740
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Marshall Elementary School

Physical Address of School: 3550 Altadena Ave., San Diego, CA 92105

First Bell: 7:30AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 03/28/2017

Completed by Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 03/28/2017

School's Point of Contact for Sampling Assistance

Name: Daniel Lopez

Phone: 619-306-3383

Email: dlopez2@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/1/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Marshall Elementary School 3550 Altadena Ave., San Diego, CA 92105

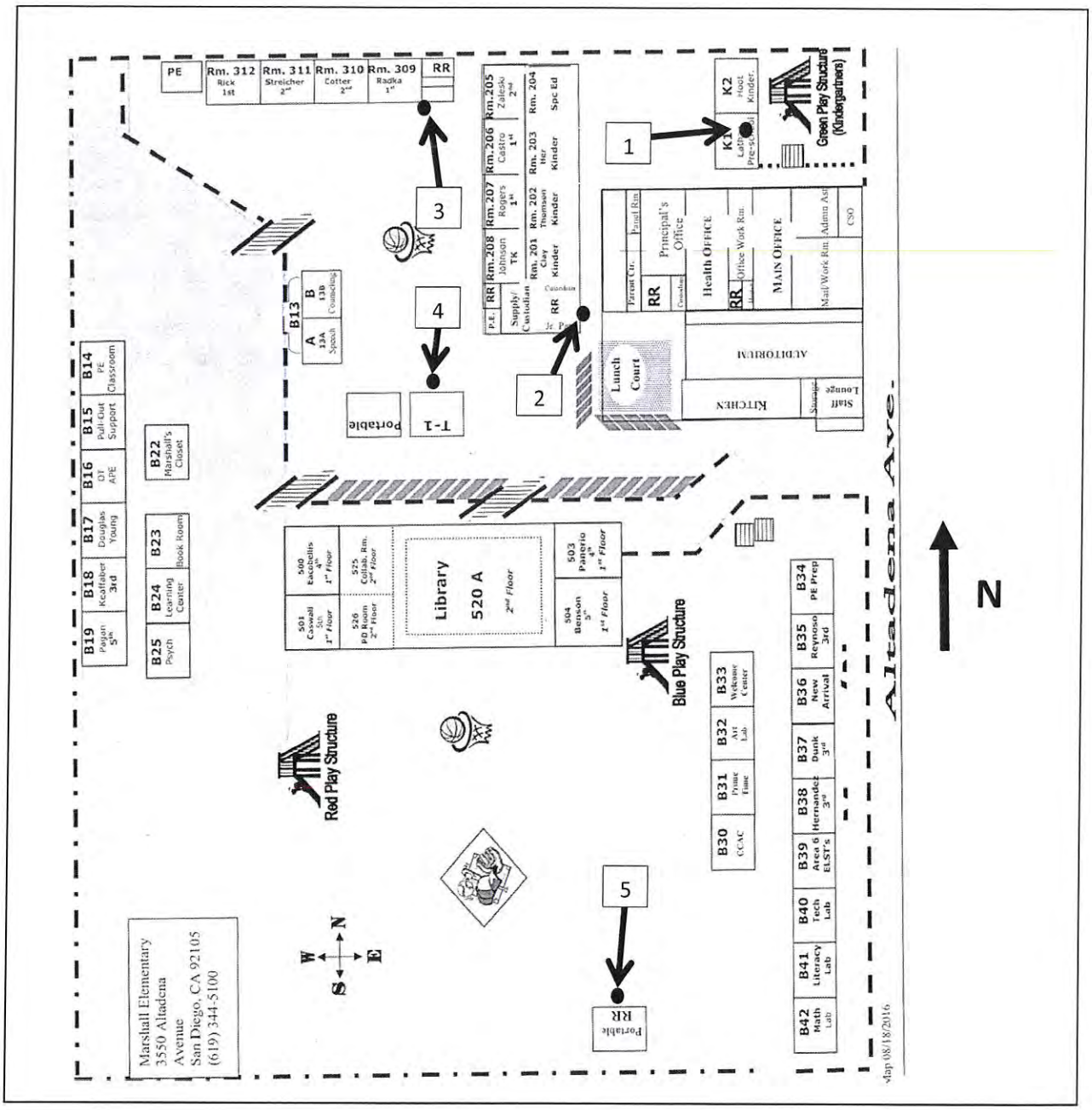

Sample No. 1

School: Marshall Elementary School

Name of Building: Kindergarten Building

Location Description: Room K-1 Interior

Type of Outlet: Bubbler

Description: Bubbler on faucet

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169414

State Sample ID: 3710020-AJC-A

Date & Time Last Used: 5/05/17 @ 2200

Date & Time Sample Collected: 5/06/17 @ 0844

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: Marshall Elementary School

Name of Building: 200 Building

Location Description: Outside of restrooms near room 201

Type of Outlet: Double Bubbler

Description: Bubbler on left

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169415

State Sample ID: 3710020-AJC-B

Date & Time Last Used: 5/05/17 @ 2200

Date & Time Sample Collected: 5/06/17 @ 841

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: Marshall Elementary School

Name of Building: Building 300

Location Description: Outside of restrooms near room 309

Type of Outlet: Double Bubbler

Description: Bubbler on right

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169416

State Sample ID: 3710020-AJC-C

Date & Time Last Used: 5/05/17 @ 2200

Date & Time Sample Collected: 5/06/17 @ 0845

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: Marshall Elementary School

Name of Building: Portable Restrooms near T-1

Location Description: Middle of upper yard area

Type of Outlet: Triple bubbler

Description: Center bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169417

State Sample ID: 3710020-AJC-D

Date & Time Last Used: 5/05/17 @ 0200

Date & Time Sample Collected: 5/06/17 @ 0850

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 5

School: Marshall Elementary School

Name of Building: Bungalow Building

Location Description: South end of lower yard

Type of Outlet: Triple Bubbler

Description: Left bubbler

Comments/Miscellaneous:

City use only below this line

database changed TBurgel 5-8-17

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169418

State Sample ID: 3710020-AJC-E

Date & Time Last Used: 5/05/17 @ 2200

Date & Time Sample Collected: 5/06/17 @ 0854

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

left bubbler no flow, sampled middle

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

05-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1169414	Marshall Elementary	06-MAY-2017	0844	A. Molloy	SAMPLE 1	
2	W1169415	Marshall Elementary	06-MAY-2017	0841		SAMPLE 2	
3	W1169416	Marshall Elementary	06-MAY-2017	0848		SAMPLE 3	
4	W1169417	Marshall Elementary	06-MAY-2017	0850		SAMPLE 4	
5	W1169418	Marshall Elementary	06-MAY-2017	0854		SAMPLE 5	

1626

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign: AMolloy	Received by: Name: Sign:	Date & Time: 5/06/17 @915 Location: WQL ALV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/06/17
LIMS Received Time: 0946
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Marston Middle School

Physical Address of School: 3799 Clairemont Drive; San Diego California; 92117

First Bell: 735am

Meeting Date: 5/4/2017

Sampling Plan Completion Date: 5/4/2017

Completed by Print Name: Timothy A Brown

Signature: Timothy A Brown Date:

School's Point of Contact for Sampling Assistance

Name: ~~Tim Brown~~ Elizabeth Lara

Phone: ~~1-619-302-9427~~ 619-302-7616

Email: tbrown1@sandi.net

City of San Diego 3710020

Approved By: 5/16/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: _____

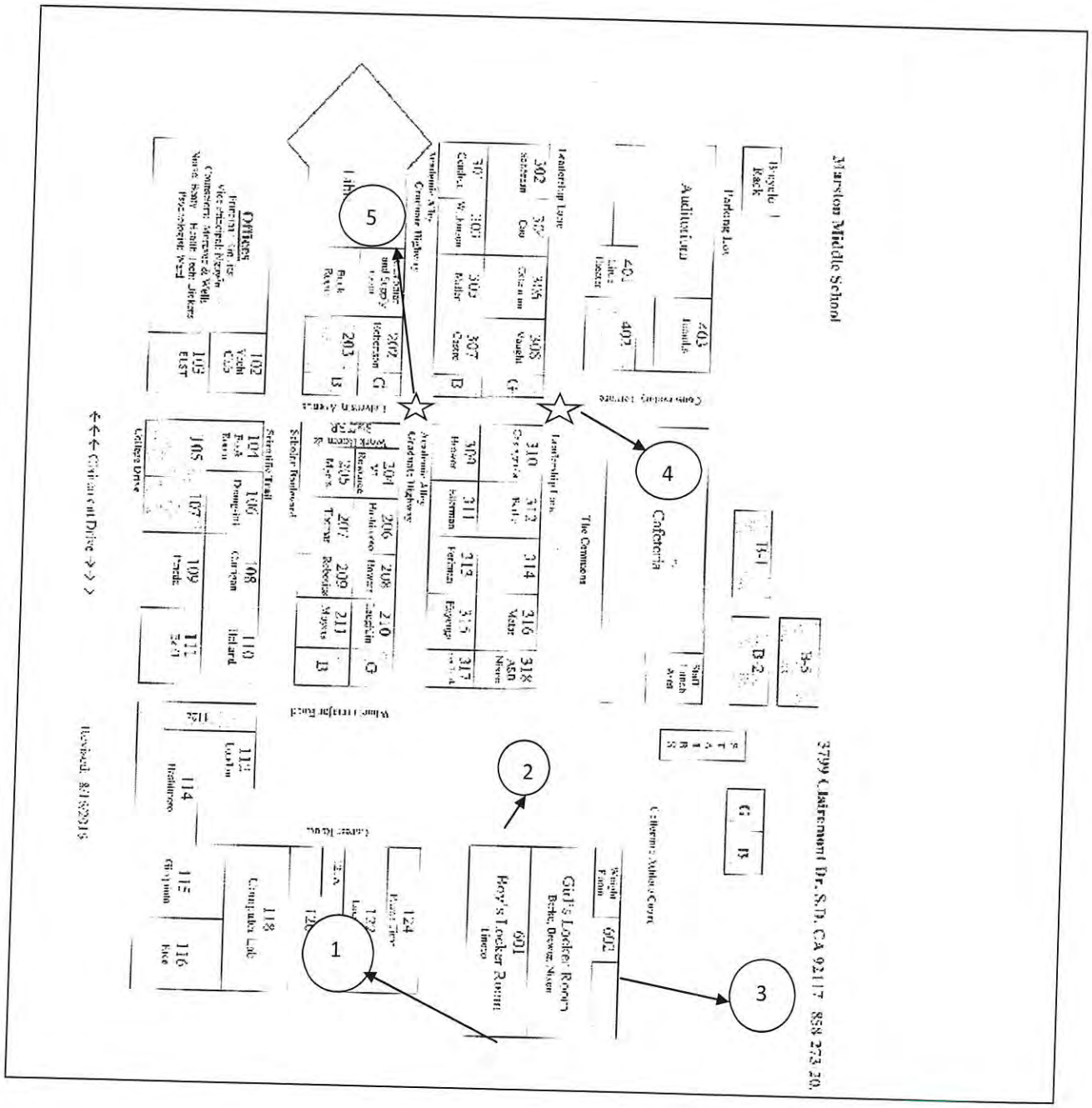

Sample No. 1

School: Marston Middle School

Name of Building: Lockeroom 600 Bldg

Location Description: South Exterior wall

Type of Outlet: Wall Mounted 3 bubbler system

Description: Sample Left Bubbler

Comments/Miscellaneous:

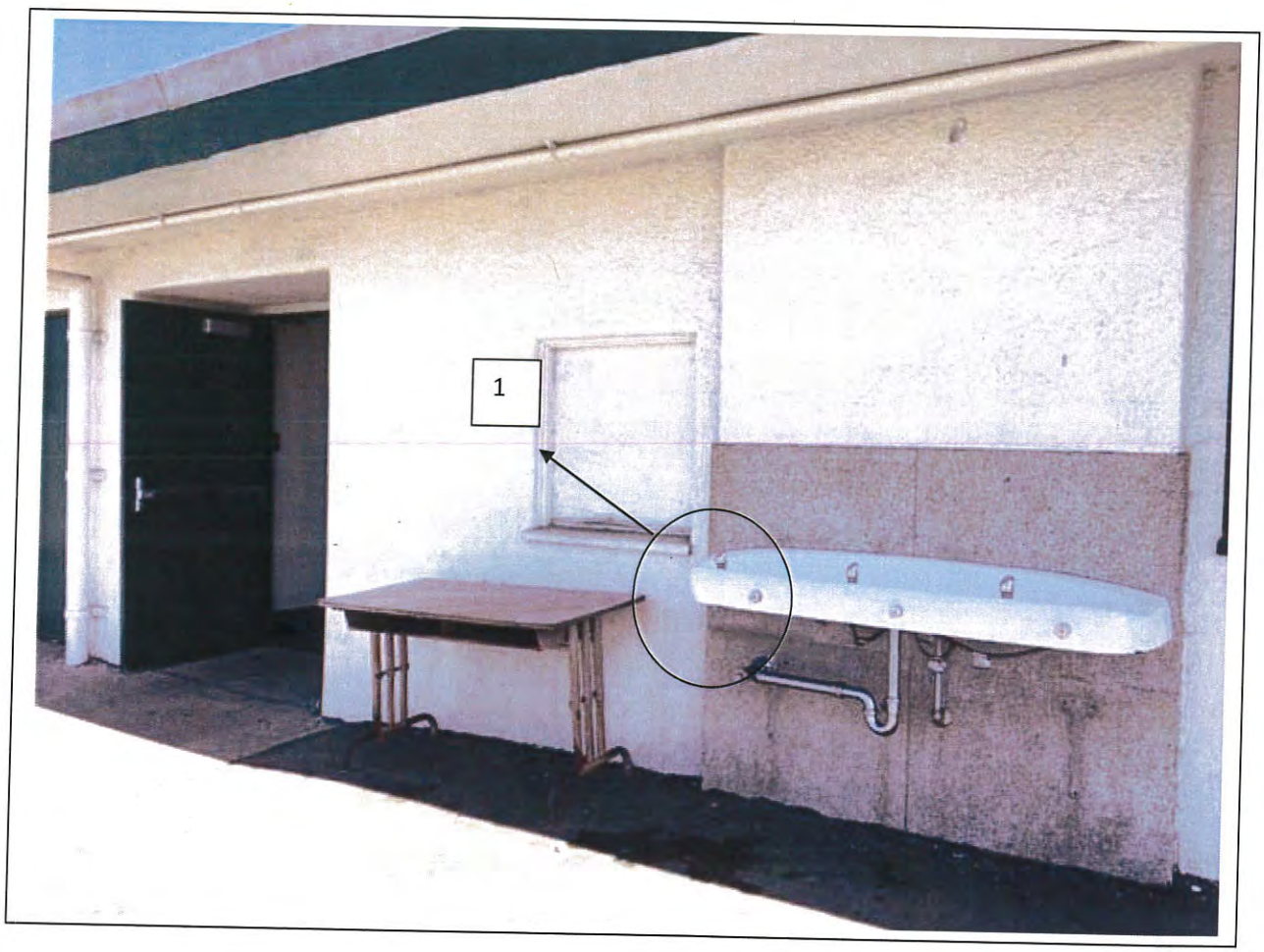

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173091

State Sample ID: 3710020-CAD-A

Date & Time Last Used: 5/22/17 2200

Date & Time Sample Collected: 5/23/17 0619

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Brian Knew

Sample No. 2

School: Marston Middle School

Name of Building: Lockeroom 600 BLDG/ Hallway

Location Description: North Facing fountain; Hallway

Type of Outlet: 2 exterior mounted 3 bubbler systems

Description: Sample L bubbler of left 3 bubbler station

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173092

State Sample ID: 3710020-CAD-B

Date & Time Last Used: 5/22/17 2200

Date & Time Sample Collected: 5/23/17 0615

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: Brian Kuen

Sample No. 3

School: Marston Middle School

Name of Building: Lockeroom 600 BLDG/ Rm 602

Location Description: East Facing Exterior Wall

Type of Outlet: Exterior Wall Mounted 3 Bubbler Station

Description: Sample Center Bubbler

Comments/Miscellaneous:

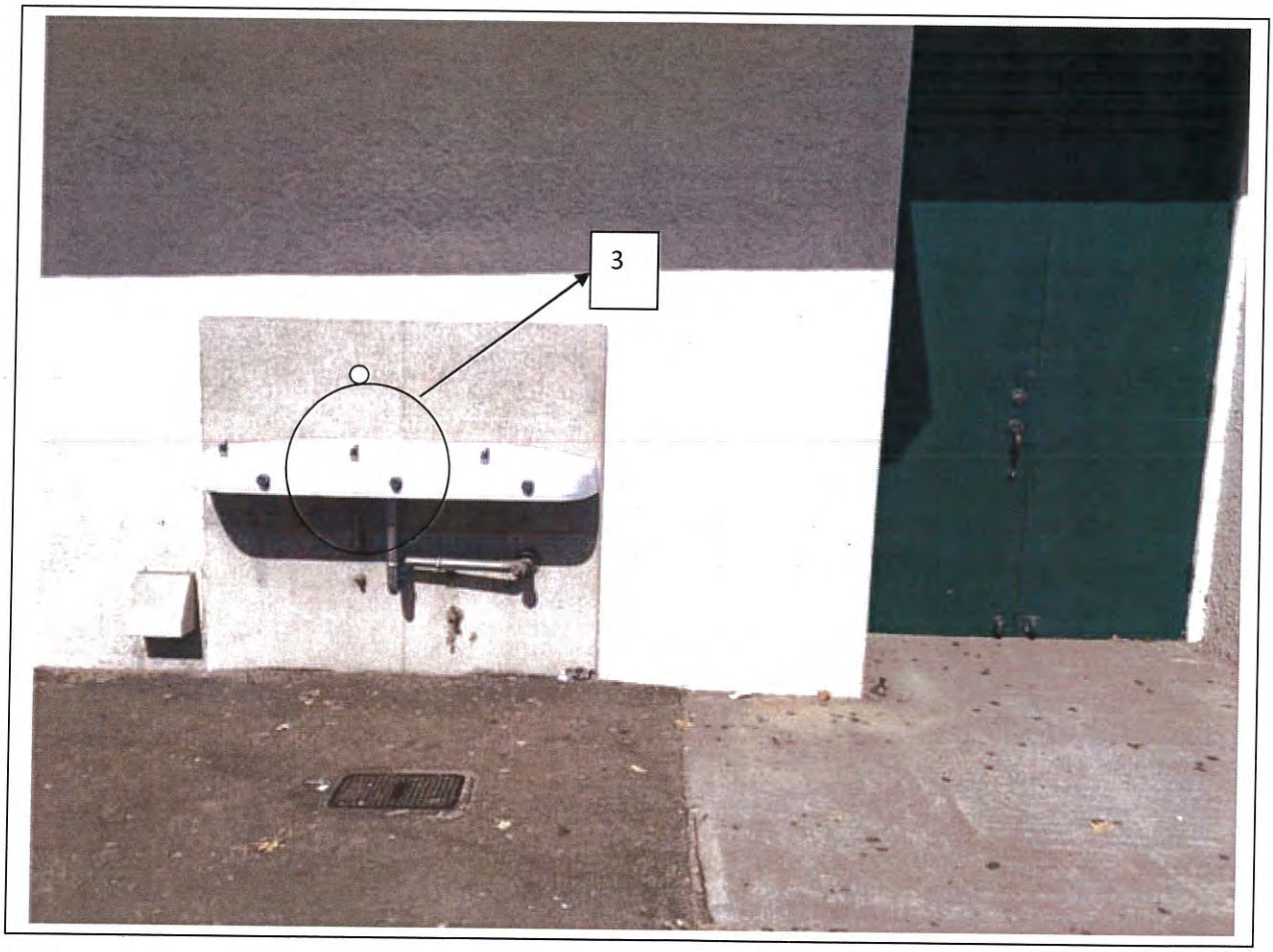

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173093

State Sample ID: 3710020-CAD-C

Date & Time Last Used: 5/22/17 2200

Date & Time Sample Collected: 5/23/17 0611

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Brian Knew

Sample No. 4

School: Marston Middle School

Name of Building: Conservatory Terrace

Location Description: Lunch Court/ East Facing; Exterior Wall Mounted System

Type of Outlet: 2 exterior mounted 3 bubbler stations

Description: Sample far left bubbler of left Side Station

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173094

State Sample ID: 3710020-CAD-D

Date & Time Last Used: 5/22/17 2200

Date & Time Sample Collected: 5/23/17 0608

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Brian Knerr

Sample No. 5

School: Marston Middle School

Name of Building: 200/ 300 Bldg

Location Description: Walkway between 200 and 300 BLDG

Type of Outlet: 2 Exterior Mounted 3 Bubbler Stations

Description: Sample Right Bubbler of Right Staion

Comments/Miscellaneous:

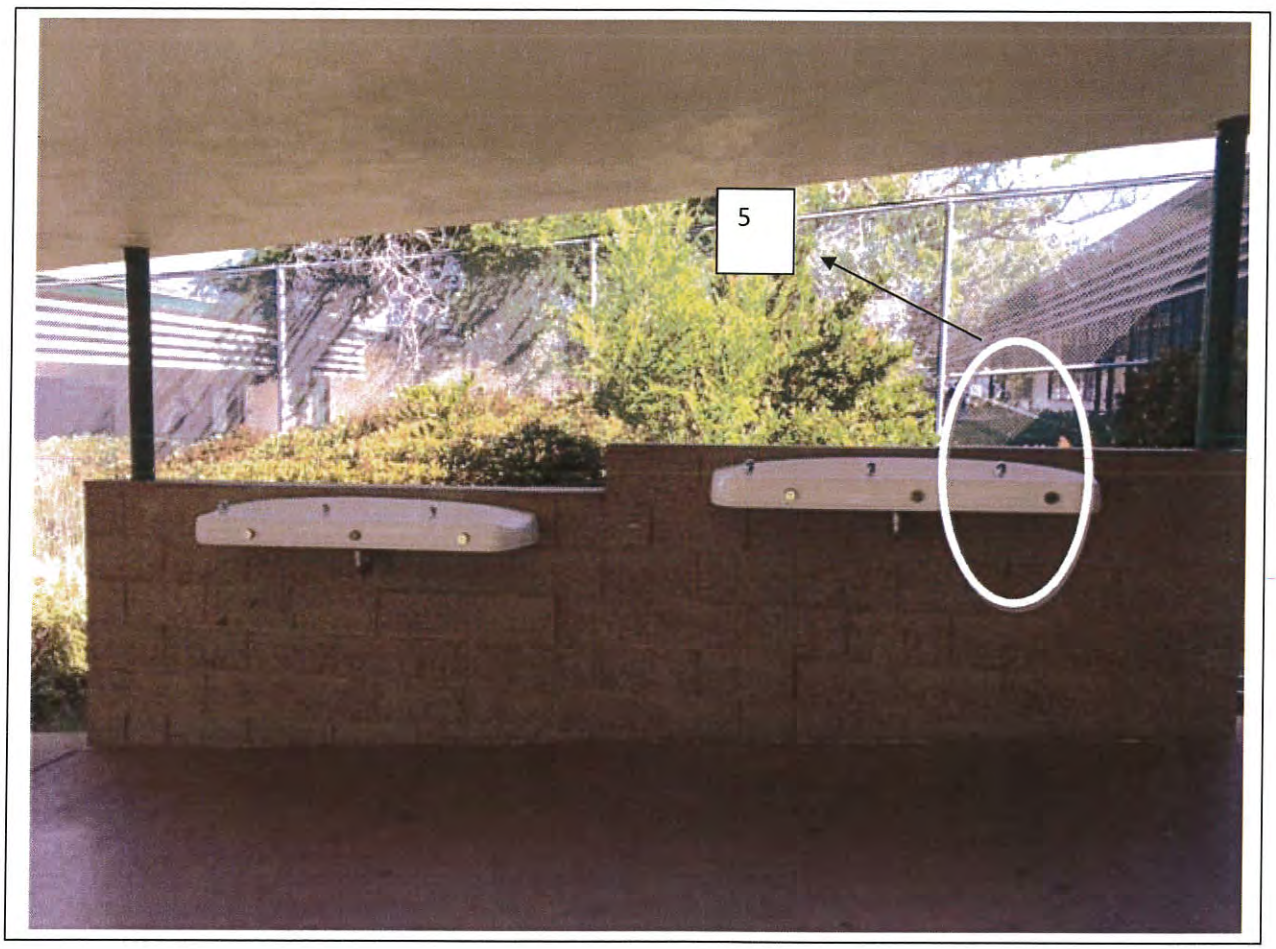

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173095

State Sample ID: 3710020-CAD-E

Date & Time Last Used: 5/22/17 2200

Date & Time Sample Collected: 5/23/17 0605

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Brian Kuerr

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

22-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1173091	Marston Middle	23-MAY-2017	0619	BK	SAMPLE 1	
2	W1173092	Marston Middle	23-MAY-2017	0615		SAMPLE 2	
3	W1173093	Marston Middle	23-MAY-2017	0611		SAMPLE 3	
4	W1173094	Marston Middle	23-MAY-2017	0608		SAMPLE 4	
5	W1173095	Marston Middle	23-MAY-2017	0605		SAMPLE 5	

1634

Chain of Custody:

Relinquished by: Name: Brian Kherr Sign: BK	Received by: Name: Alejandra Molly Sign: AMolly	Date & Time: 5/23/17 0650 Location: Alv	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolly
Received Date: 5/23/17
LIMS Received Time: 0703
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Marvin Elementary School

Physical Address of School: 5720 Brunswick San Diego Ca 92120

First Bell: 7:35

Meeting Date: ...3/22/2017

Sampling Plan Completion Date: 4/11/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 4/11/2017

School's Point of Contact for Sampling Assistance

Name: ~~Elizabeth Lara~~

Phone: ~~619-302-7616~~

Email: elara@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-18-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

School and Address: Marvin Elementary 5720 Brunswick San Diego Ca 92120

Sample No. 1

School: Marvin Elementary

Name of Building: Kitchen / Lunch Court

Location Description: Outside next to lunch court next near kitchen door

Type of Outlet: Bubbler

Description: Left Drinking fountain –Right bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167335

State Sample ID: 3710020-AGA-A

Date & Time Last Used: 4/18/2017 @ 2200

Date & Time Sample Collected: 4/19/2017 @ 0556

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: Marvin Elementary

Name of Building: 3-10

Location Description: West-Outside between Restrooms & Supply Closet

Type of Outlet: Bubbler

Description: Right water fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167336

State Sample ID: 3710020-AGA-B

Date & Time Last Used: 4/18/17 @ 2200

Date & Time Sample Collected: 4/19/17 @ 0610

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: Marvin Elementary

Name of Building: 11-16

Location Description: West Outside between restrooms

Type of Outlet: Bubbler

Description: Drinking fountain on Right sample Left bubbler

Comments/Miscellaneous:

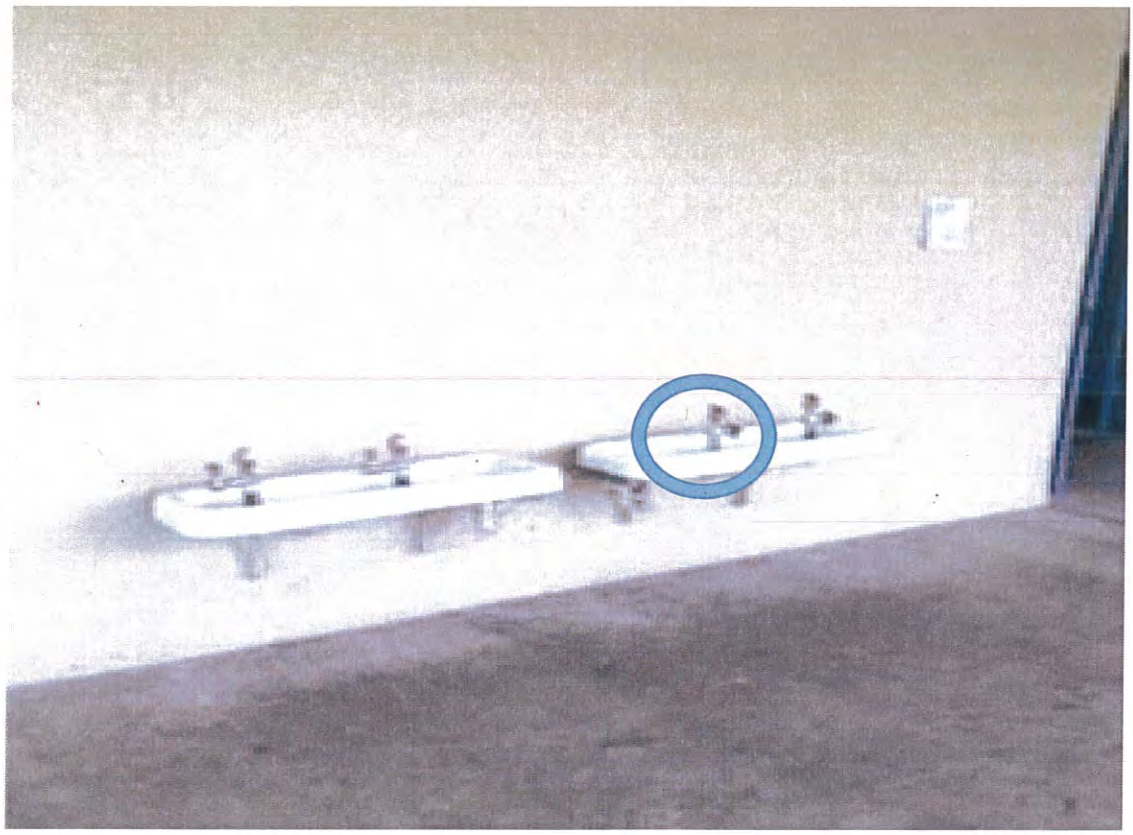

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167337

State Sample ID: 3710020-AGA-C

Date & Time Last Used: 4/18/17 @ 2200

Date & Time Sample Collected: 4/19/17 @ 0607

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: Marvin Elementary School

Name of Building: Bungalow Restrooms next to room 19 b

Location Description: Outside between Restrooms

Type of Outlet: Bubbler

Description: Right bubbler of Right water fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167338

State Sample ID: 3710020-AGA-D

Date & Time Last Used: 4/18/17 @ 2200

Date & Time Sample Collected: 4/19/17 @ 603

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: A. Malloy

Sample No. 5

School: Marvin Elementary School

Name of Building: kinder playground

Location Description: at wall outside of kinder classrooms near playground

Type of Outlet: Bubbler

Description: single drinking fountain with bubbler

Comments/Miscellaneous:

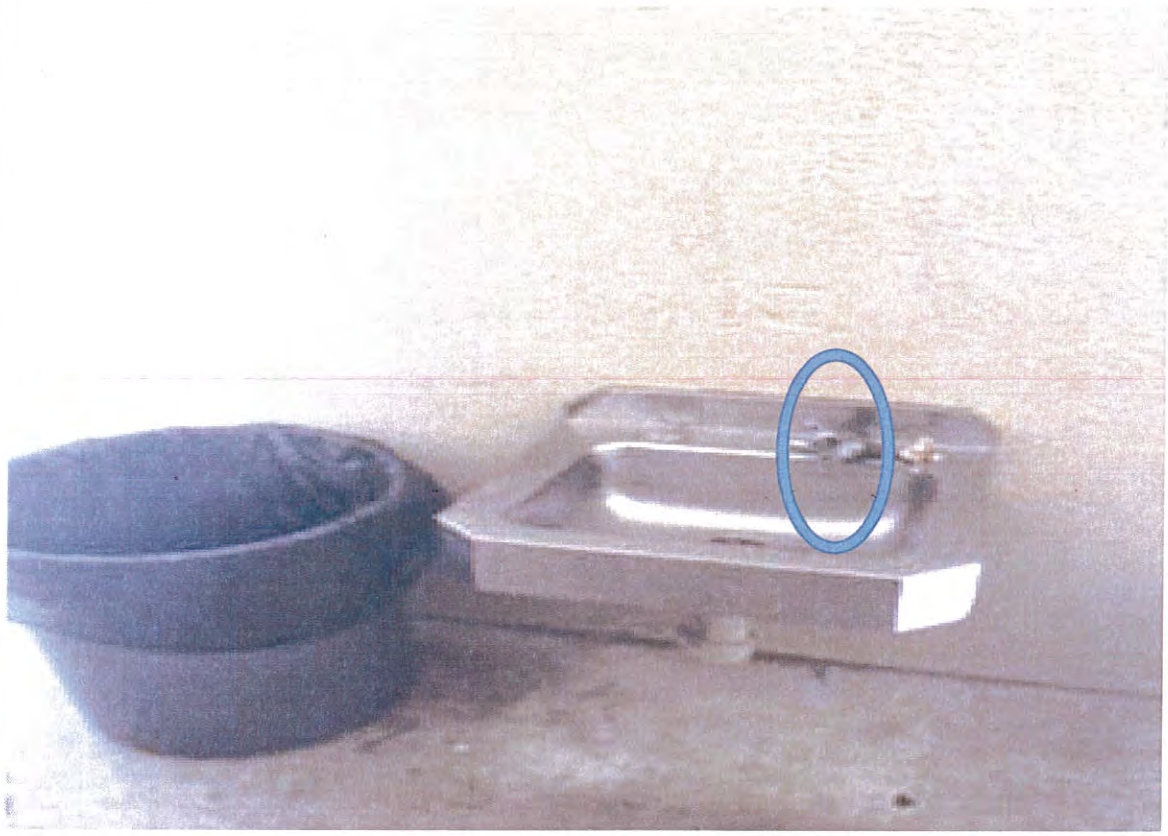

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167339

State Sample ID: 3710020-AGA-E

Date & Time Last Used: 4/18/17 @ 2200

Date & Time Sample Collected: 4/19/17 @ 0559

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

18-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1167335	Marvin Elementary	19-APR-2017	0556 ✓	A. Molloy	SAMPLE 1	
2	W1167336	Marvin Elementary	19-APR-2017	0610 ✓		SAMPLE 2	
3	W1167337	Marvin Elementary	19-APR-2017	0607 ✓		SAMPLE 3	
4	W1167338	Marvin Elementary	19-APR-2017	0603 ✓		SAMPLE 4	
5	W1167339	Marvin Elementary	19-APR-2017	0559 ✓		SAMPLE 5	

1642

Chain of Custody:

Relinquished by:	Received by:	Date & Time:	Comments:
Name: Alejandra Molloy Sign: AMolloy	Name: Keith Rehrwein Sign:	4/19/2017 @625 Location: AIV WQL	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: KR
Received Date: 4/19/2017
LIMS Received Time: 1053
Reviewed By: AMolloy 4/25/17

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Mason Elementary

Physical Address of School: 10340 San Ramon Dr, San Diego 92126-3235

First Bell: 7:40 AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/19/2017

Completed by Print Name: Ginette Commins

Signature: G Commins Date: 04/19/2017

School's Point of Contact for Sampling Assistance

Name: ~~Ginette Commins~~ Cesa Jimenez

Phone: ~~(858) 627-7201~~ 619-261-1588

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-24-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Mason Elementary, 10340 San Ramon Dr, San Diego, CA 92126-3235

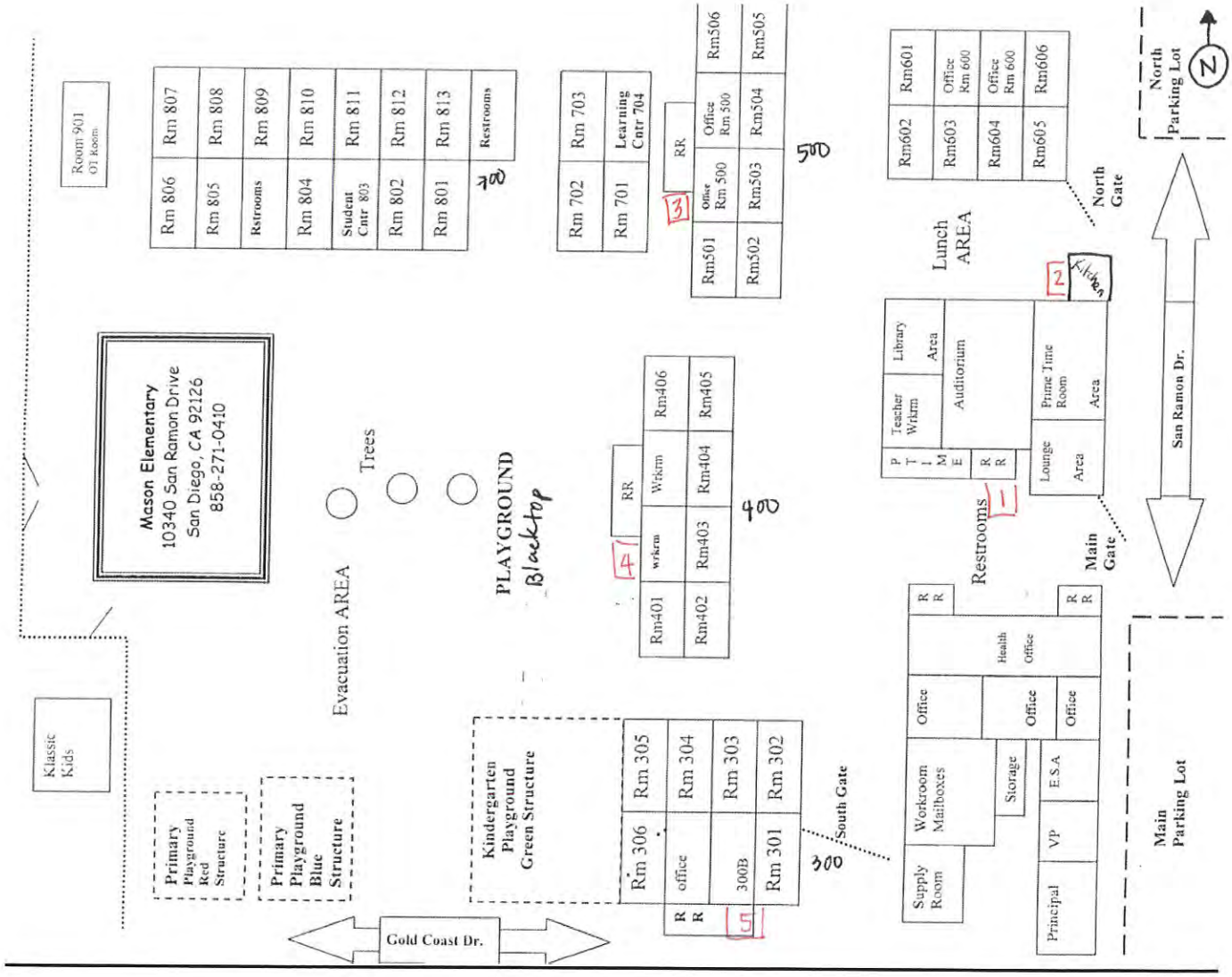

Sample No. 1

School: Mason Elementary

Name of Building: Auditorium

Location Description: Wall mounted exterior (South of Bldg), between Girls Restroom & door to Auditorium, facing Gate-Staff Parking Lot

Type of Outlet: bubbler

Description: upper/right (LOW-MED flow) on a dual fountain

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #199

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168398

State Sample ID: 3710020-BAJ-A

Date & Time Last Used: 4/24/17 1800-2200

Date & Time Sample Collected: 4/25/17 0020

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarenga

Sample No. 2

School: Mason Elementary

Name of Building: Kitchen (Auditorium)

Location Description: Wall mounted exterior (West of Kitchen, North of Auditorium) facing lunch court

Type of Outlet: bubbler

Description: right bubbler head (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #199

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168399

State Sample ID: 3710020-BAJ-B

Date & Time Last Used: 4/24/17 1800-2200 ✓

Date & Time Sample Collected: 4/25/17 0600

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez

Sample No. 3

School: Mason Elementary

Name of Building: 500

Location Description: Wall mounted exterior (West of Bldg), next to Girls Restroom, facing 700 Bldg/Portable Classrooms

Type of Outlet: bubbler

Description: left bubbler head (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #199

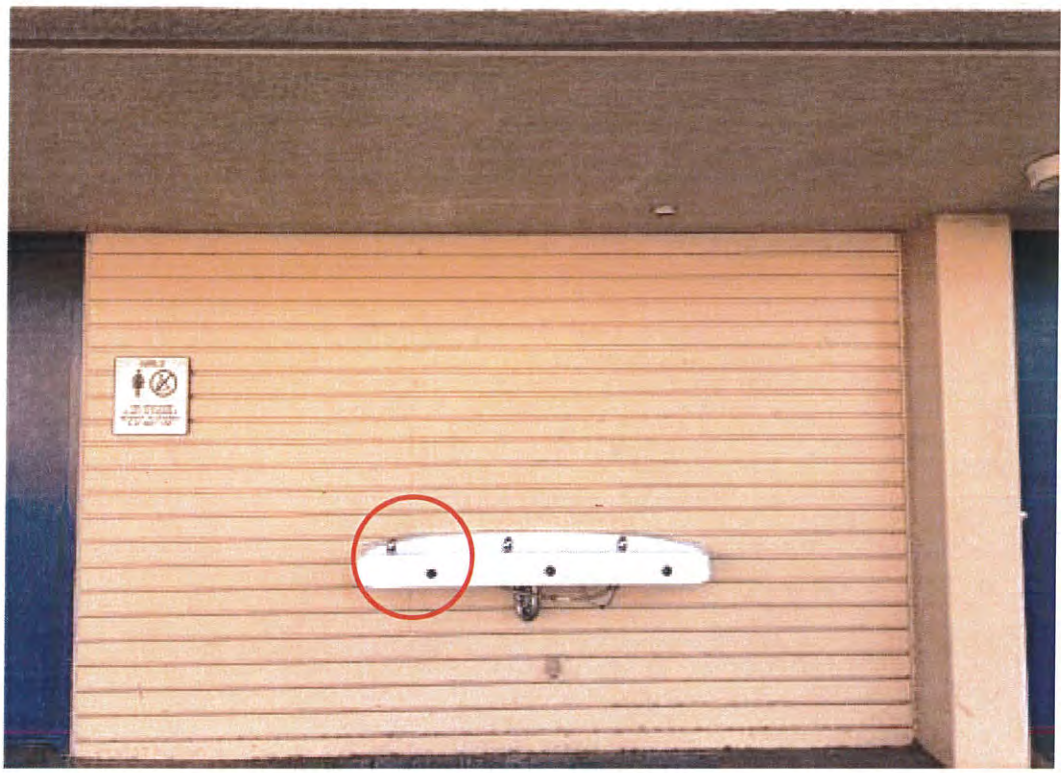

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168400

State Sample ID: 3710020-BAJ-C

Date & Time Last Used: 4/24/17 1800-2200

Date & Time Sample Collected: 4/25/17 0605 ✓

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez

Sample No. 4

School: Mason Elementary

Name of Building: 400

Location Description: Wall mounted exterior (West of Bldg), next to Girls Restroom, facing Blacktop/Playground

Type of Outlet: bubbler

Description: middle bubbler head (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #199

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168401

State Sample ID: 3710020-BAJ-D

Date & Time Last Used: 4/24/17 1800-2200 ✓

Date & Time Sample Collected: 4/25/17 0610

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez

Sample No. 5

School: Mason Elementary

Name of Building: 300

Location Description: Wall mounted exterior (South of Bldg), next to Girls Restroom, facing Goldcoast Dr

Type of Outlet: bubbler

Description: lower/right bubbler on a dual fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #199

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168402

State Sample ID: 3710020-BAJ-E

Date & Time Last Used: 4/24/17 1800-2200

Date & Time Sample Collected: 4/25/17 0615

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarenga

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

24-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168398	Mason Elementary	25-APR-2017	0620	EA	SAMPLE 1	
2	W1168399	Mason Elementary	25-APR-2017	0600	EA	SAMPLE 2	
3	W1168400	Mason Elementary	25-APR-2017	0605	EA	SAMPLE 3	
4	W1168401	Mason Elementary	25-APR-2017	0610	EA	SAMPLE 4	
5	W1168402	Mason Elementary	25-APR-2017	0615	EA	SAMPLE 5	

1650

Chain of Custody:

Relinquished by: Name: E. Alcaraz 4/25/17 0645 Sign:	Received by: Name: Tom Burger Sign: Tom B Burger	Date & Time: 0730 ALV Lab Location: 4-25-17	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TMaly
Received Date: 4/25/17
LIMS Received Time: ~~0824/25~~ 0823
Reviewed By: TMaly 4/26/17

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Mckinley Elementary

Physical Address of School: 3045 Felton Street San Diego, CA 92104

First Bell: 8:30 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 4-13-2017

Completed by Print Name: Sergio Salinas

Signature: _____ Date: _____

School's Point of Contact for Sampling Assistance

Name: ~~Sergio Salinas~~ Elizabeth Lara

Phone: ~~(619) 302-0564~~ 619-302-7616

Email: ssalinas@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-18-17 — Tom Burger

Signature & Date — Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

School and Address: McKinley ES-3045 Felton Street San Diego, CA 92104

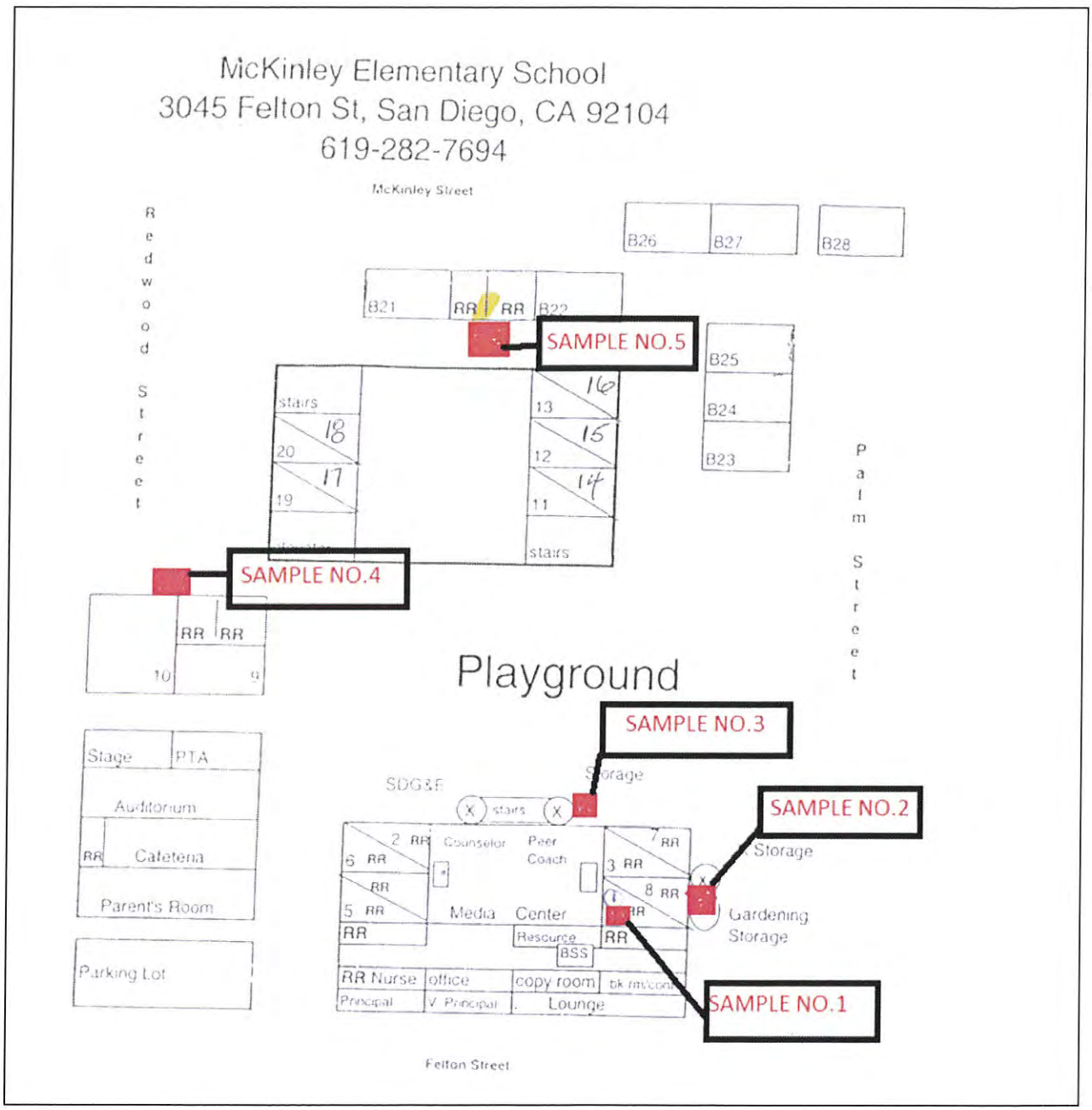

NORTH

Sample No. 1

School: McKinley ES-3045 Felton Street San Diego, CA 92104

Name of Building: Media Center Building (Room # 4)

Location Description: Room # 4

Type of Outlet: Bubbler

Description: Bubbler at sink

Comments/Miscellaneous: (School ID NO.203)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167320

State Sample ID: 3710020-AGC-A

Date & Time Last Used: 4/18/17 1810

Date & Time Sample Collected: 4/19/17 0605

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 2

School: McKinley ES-3045 Felton Street San Diego, CA 92104

Name of Building: Outside of Room #4 (playground)

Location Description: Outside of Room #4 (playground)

Type of Outlet: Right Bubbler

Description: Right Bubbler

Comments/Miscellaneous: (School ID NO.203)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167321

State Sample ID: 3710020-AGC-B

Date & Time Last Used: 4/18/17 1810

Date & Time Sample Collected: 4/19/17 0607

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Soversby

Sample No. 3

School: McKinley ES-3045 Felton Street San Diego, CA 92104

Name of Building Behind Media Center

Location Description: Outside drinking fountain behind the Media Center

Type of Outlet: Bubbler

Description: Next to stairs Bubbler

Comments/Miscellaneous: (School ID NO.203)

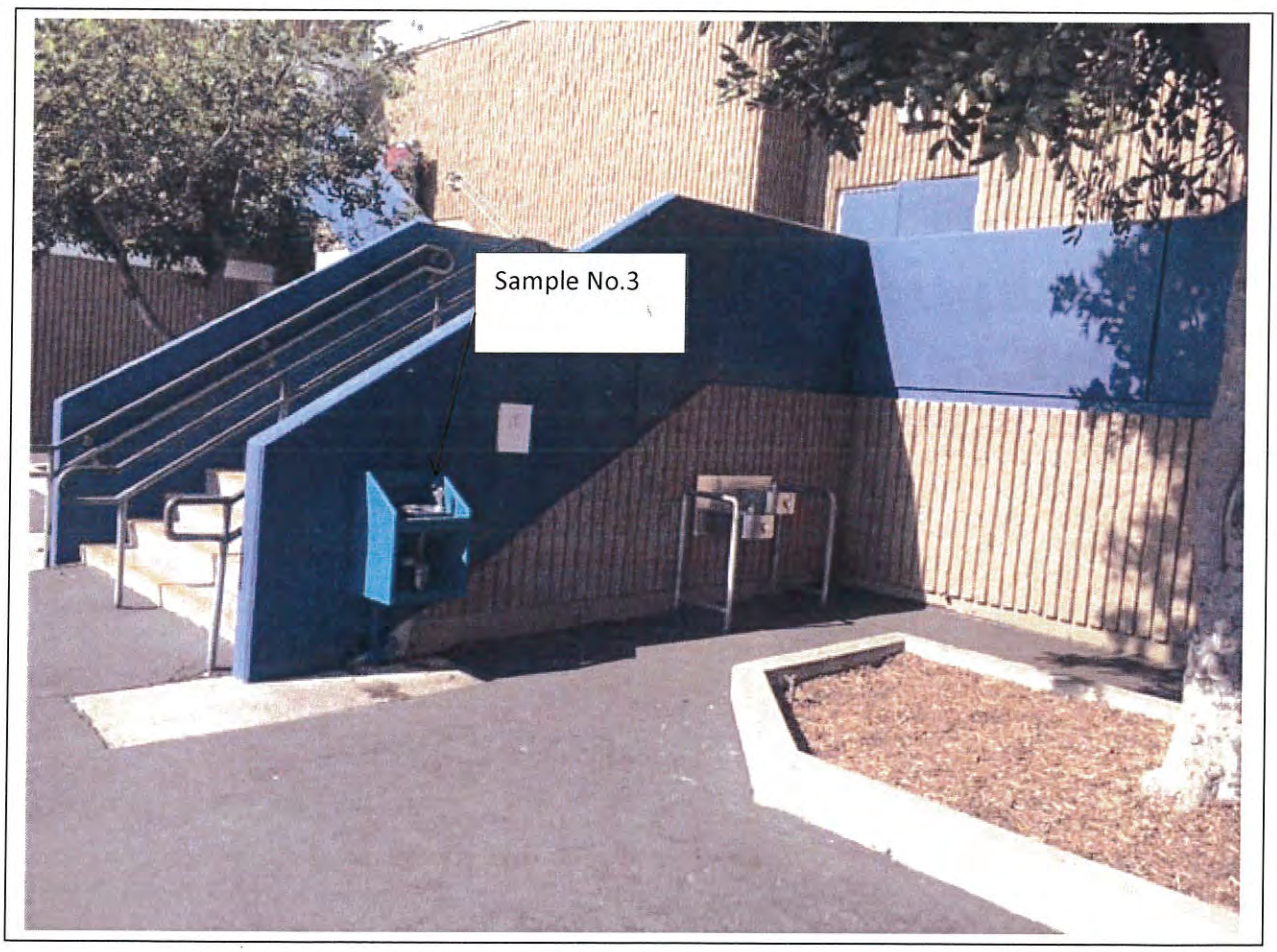

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167322

State Sample ID: 3710020-AGC-C

Date & Time Last Used: 4/18/17 1810

Date & Time Sample Collected: 4/19/17 0611

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 4

School: McKinley ES-3045 Felton Street San Diego, CA 92104

Name of Building: Room (9 and 10)

Location Description: Outside Drinking fountain next to bathrooms

Type of Outlet: Bubbler

Description: Right Bubbler

Comments/Miscellaneous: (School ID NO.203)

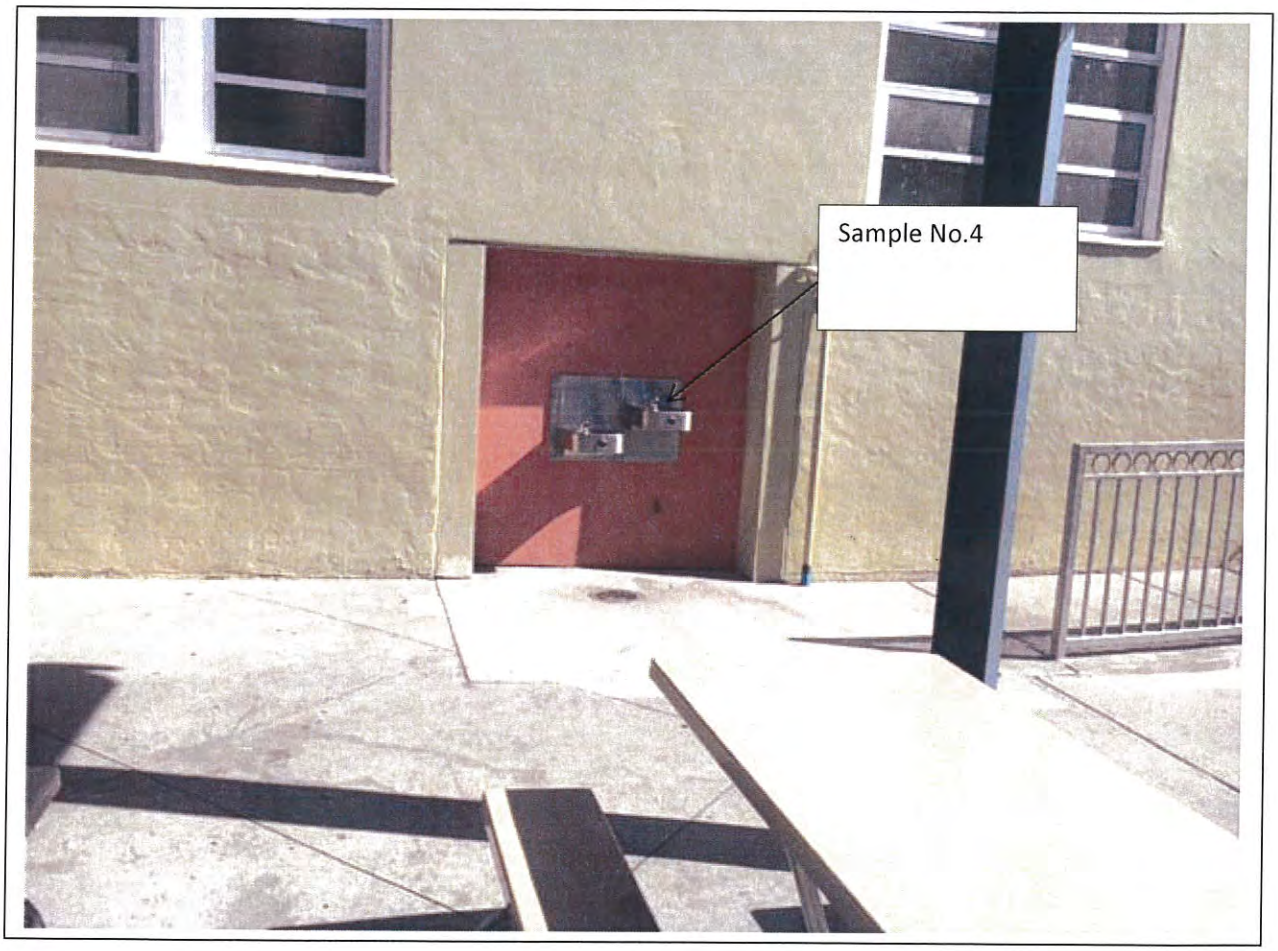

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167323

State Sample ID: 3710020-AGC-D

Date & Time Last Used: 4/18/17 1810

Date & Time Sample Collected: 4/19/17 0620

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 5

School: McKinley ES-3045 Felton Street San Diego, CA 92104

Name of Building: Outside Bathrooms between B21-b22

Location Description: Outside Bathrooms

Type of Outlet: Bubbler

Description: Right Bubbler

Comments/Miscellaneous: (School ID NO.203)

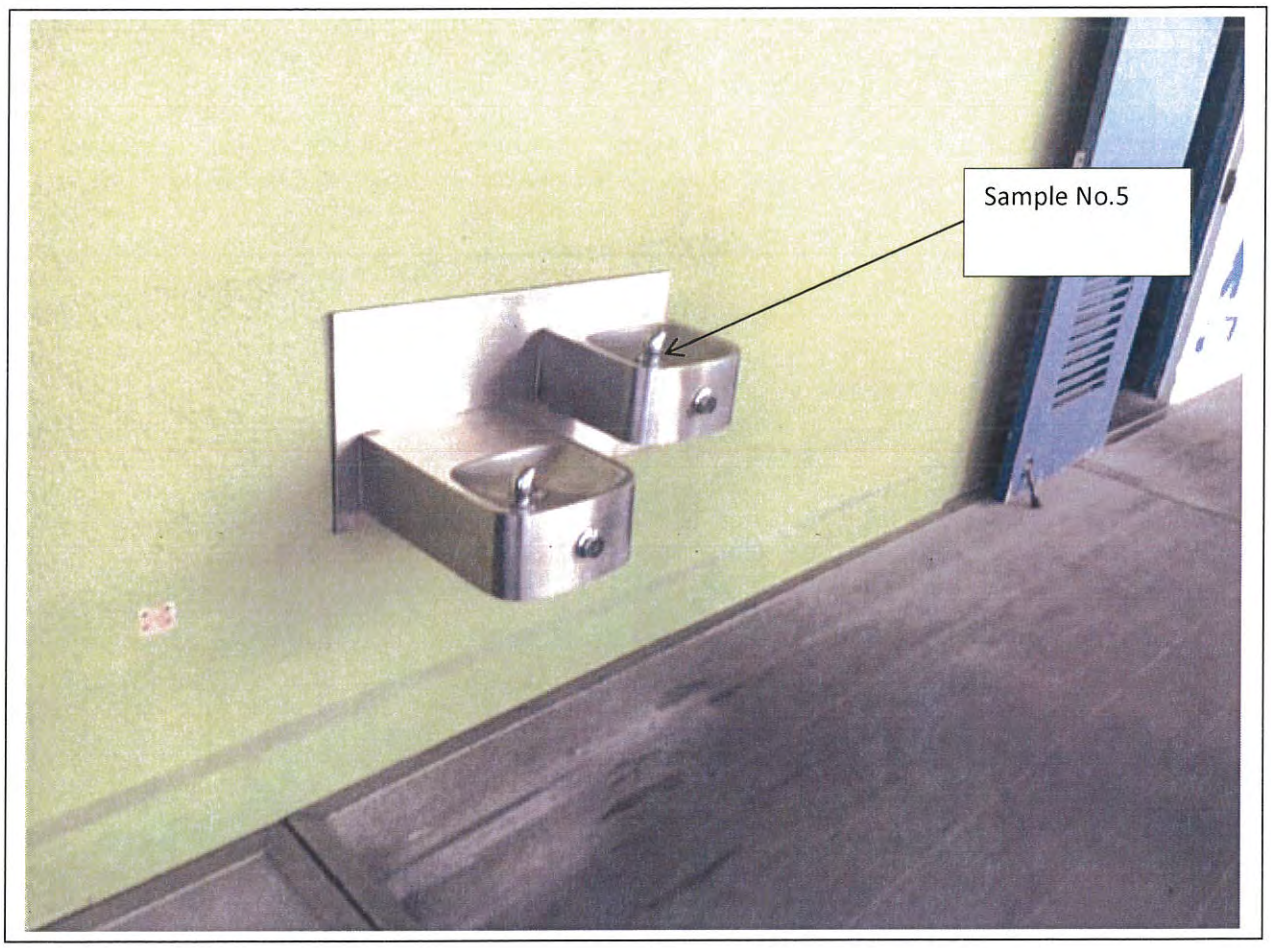

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167324

State Sample ID: 3710020-AGC-E

Date & Time Last Used: 4/18/17 1810

Date & Time Sample Collected: 4/19/17 0615

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

18-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1167320	Mckinley Elementary	19-APR-2017	0605	DS	SAMPLE 1	
2	W1167321	Mckinley Elementary	19-APR-2017	0607		SAMPLE 2	
3	W1167322	Mckinley Elementary	19-APR-2017	0611		SAMPLE 3	
4	W1167323	Mckinley Elementary	19-APR-2017	0620		SAMPLE 4	
5	W1167324	Mckinley Elementary	19-APR-2017	0615		SAMPLE 5	

1658

Chain of Custody:

Relinquished by: Name: Dan Sowersby Sign: D. Sowersby	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 4/18/17 0650 Location: ALV	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 4/19/17
LIMS Received Time: 0703
Reviewed By: AMolloy 4/25/17

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: **Memorial Scholars & Athletes** MS

Physical Address of School: 2850 Logan Ave, San Diego, CA 92113-2412

First Bell: 8:00 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 4-12-2017

Completed by Print Name: Cesar Jimenez

Signature: C.J. Date: 4-12-2017

School's Point of Contact for Sampling Assistance

Name: Cesar Jimenez

Phone: 619-261-1588

Email: cjimenez2@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-13-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Memorial Scholars & Athletes

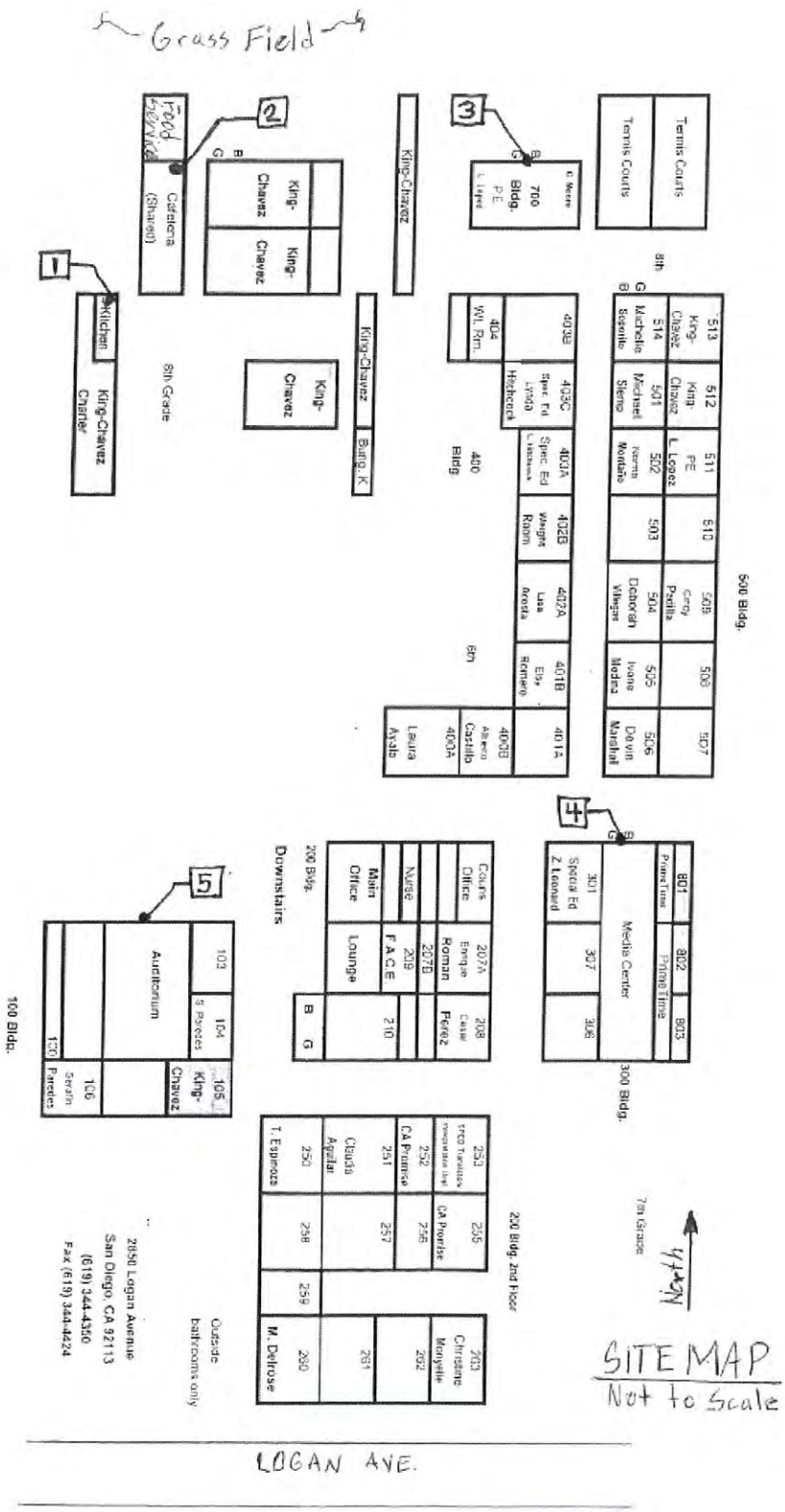

Sample No. 1

School: Memorial Scholars & Athletes

Name of Building: King-Chávez Academy Classrooms Bldg. 600

Location Description: North Wall of Kitchen

Type of Outlet: Faucet

Description: Faucet on a two-compartment sink

Comments/Miscellaneous: SDUSD ID code #: 315-01

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166747

State Sample ID: 3710020-AFB-A

Date & Time Last Used: 4/13/17 between 6-10pm

Date & Time Sample Collected: 4/14/17 @ 0627

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

Sample No. 2

School: Memorial Scholars & Athletes

Name of Building: Food service Bldg.

Location Description: Exterior south wall.

Type of Outlet: Bubbler

Description: Right bubbler on double fountain.

Comments/Miscellaneous: SDUSD ID code #: 315-02

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166748

State Sample ID: 3710020-AFB-B

Date & Time Last Used: 4/13/17 between 6-10pm

Date & Time Sample Collected: 4/14/17 @ 0637

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

- Leaking right bubbler spout is non-operational.

continuous leak according to Josh TB

Sample No. 3

School: Memorial Scholars & Athletes

Name of Building: Physical Education Bldg. 700

Location Description: Exterior north wall.

Type of Outlet: Bubbler

Description: Right bubbler on triple fountain.

Comments/Miscellaneous: SDUSD ID code #: 315-03

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166749

State Sample ID: 3710020-AFB-C

Date & Time Last Used: 4/13/17 between 6-10pm

Date & Time Sample Collected: 4/14/17 @ 0630

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

school secured overnight TB

— Tags removed by after school kids, no water present in basin

Sample No. 4

School: Memorial Scholars & Athletes

Name of Building: Media Center Bldg. 300

Location Description: Exterior north wall.

Type of Outlet: Bubbler

Description: Left/lower bubbler on double fountain.

Comments/Miscellaneous: SDUSD ID code #: 315-04

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166750

State Sample ID: 3710020-AFB-D

Date & Time Last Used: 4/13/17 between 6-10pm

Date & Time Sample Collected: 4/14/17 @ 0642

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rubio

Sample No. 5

School: Memorial Scholars & Athletes

Name of Building: Auditorium Bldg. 100

Location Description: Exterior North wall.

Type of Outlet: Bubbler

Description: Left bubbler on double fountain.

Comments/Miscellaneous: SDUSD ID code #: 315-05

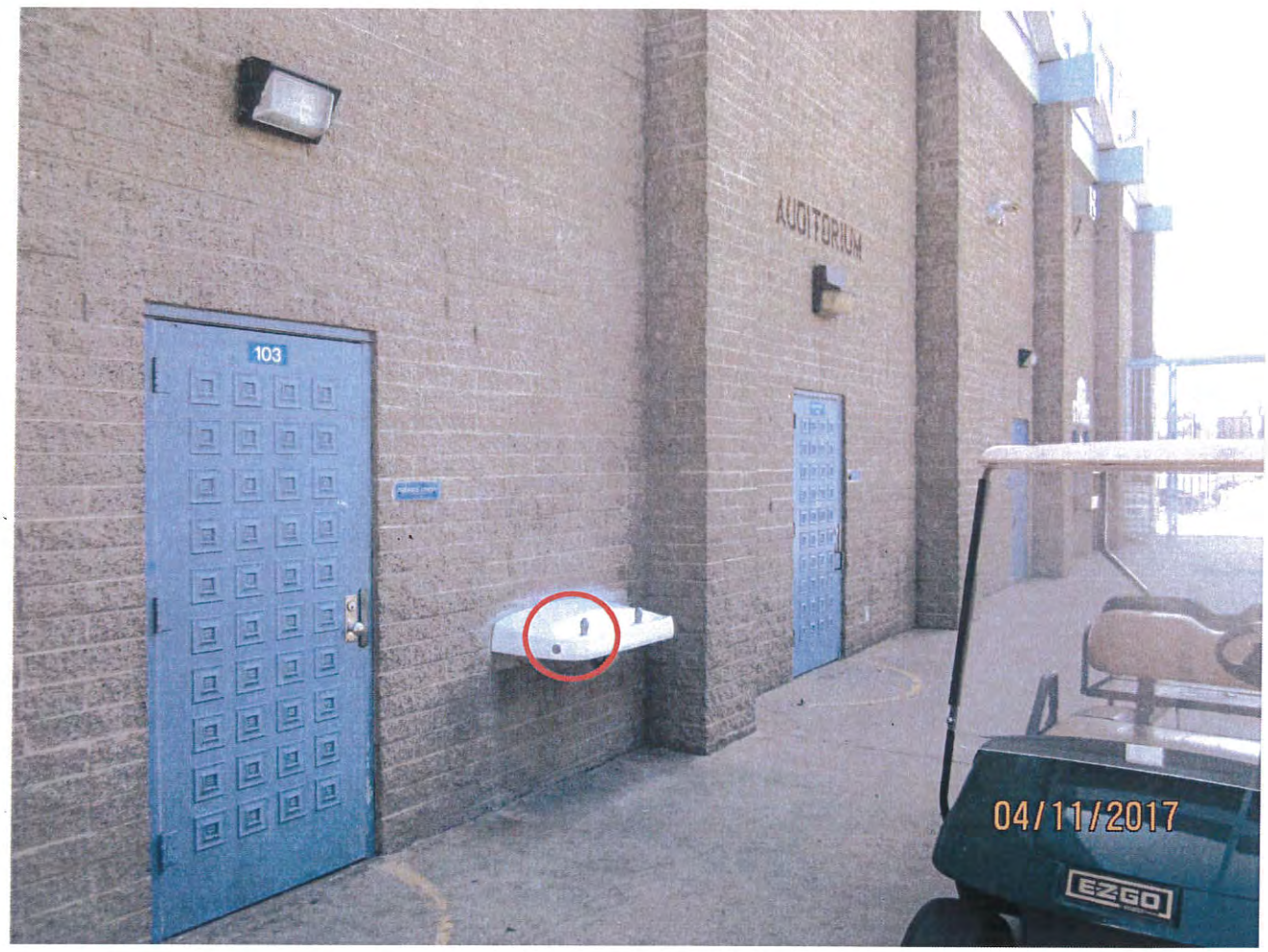

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166751

State Sample ID: 3710020-AFB-E

Date & Time Last Used: 4/13/17 between 6-10pm

Date & Time Sample Collected: 4/14/17 @ 0640

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rubio

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

13-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1166747	Memorial Scholars & Athletes	14-APR-2017	0627	JR	SAMPLE 1	
2	W1166748	Memorial Scholars & Athletes	14-APR-2017	0637 JR ~~0637~~	JR	SAMPLE 2	
3	W1166749	Memorial Scholars & Athletes	14-APR-2017	0630	JR	SAMPLE 3	
4	W1166750	Memorial Scholars & Athletes	14-APR-2017	0642	JR	SAMPLE 4	
5	W1166751	Memorial Scholars & Athletes	14-APR-2017	0640	JR	SAMPLE 5	

1666

Chain of Custody:

Relinquished by: Name: Joshua Rambo Sign:	Received by: Name: Tom Burger Sign: Tom B Burger	Date & Time: 4/14/17 @ 0715 Location: ALV	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 4-14-17
LIMS Received Time: 0734
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Millennial Tech Middle School

Physical Address of School: 1110 Carolina Lane; San Diego, Californoa, 92102

First Bell: 7:40am

Meeting Date: 3/27/2017

Sampling Plan Completion Date: 3/28/2017

Completed by Print Name: Timothy Brown

Signature: _____ Date: 3/28/2017

School's Point of Contact for Sampling Assistance

Name: ~~Timothy Brown~~ Lori Sherman

Phone: ~~619-302-9427~~ 619-301-9086

Email: tbrown1@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-6-17 — Tom Burger

Signature & Date — Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Millennial Tech Middle School; 1110 Carolina Lane, San Diego California; 92102

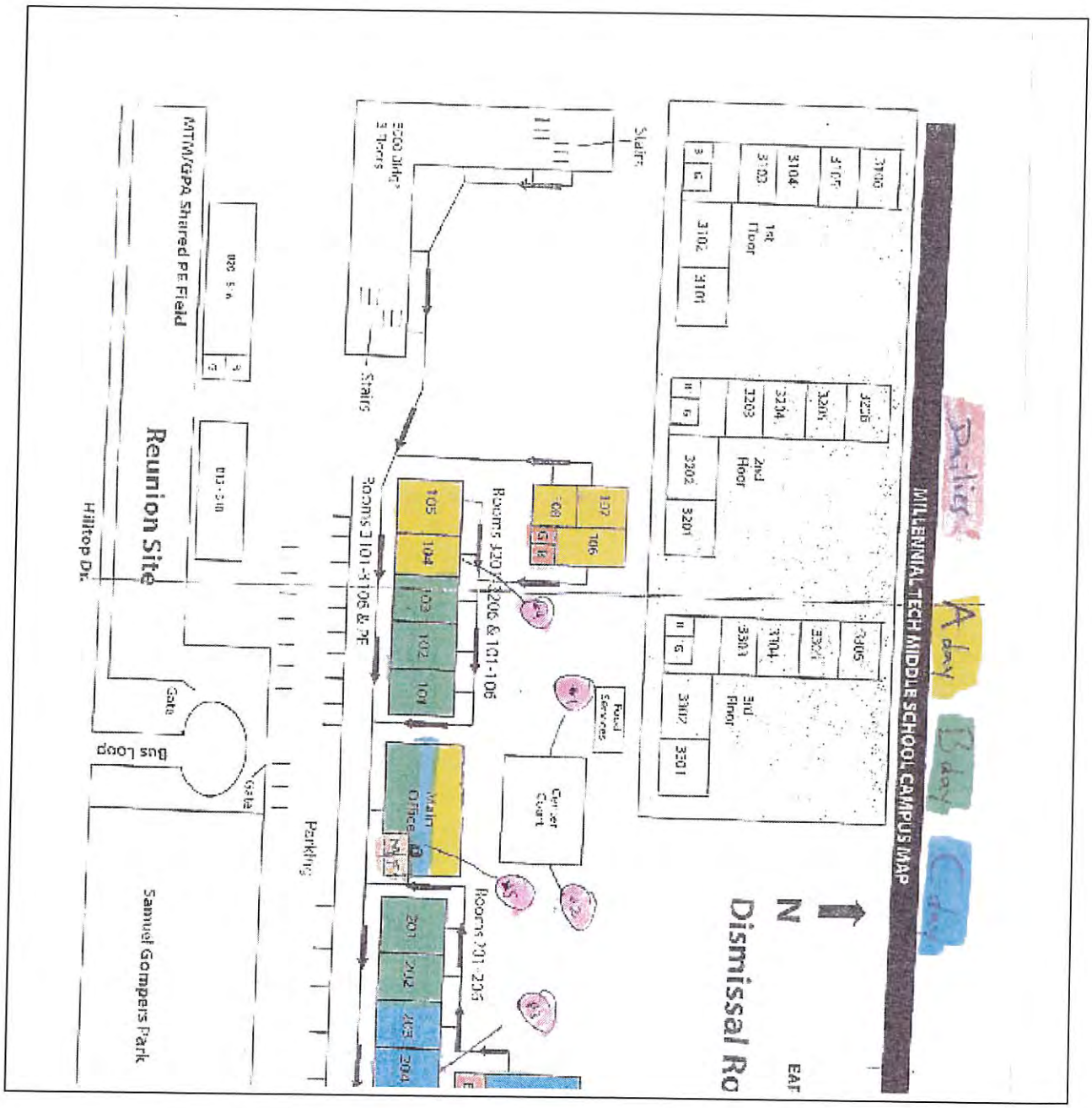

Sample No. 1

School: Millennial Tech Middle School; 1110 Carolina Lane; San Diego California; 92102

Name of Building: Center Court

Location Description: Exterior East Wall-Loc Code 341-01

Type of Outlet: Bubbler

Description: Exterior Wall mounted Drinking Fountain

Comments/Miscellaneous: two Station Fountain, sample Right Bubbler

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165131

State Sample ID: 3710020-ACF-A

Date & Time Last Used: 4/06/17 @ 6pm (1800)

Date & Time Sample Collected: 4/07/17 @ 0541

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Alejandra Molloy

Sample No. 2

School: Millennial Tech Middle School

Name of Building: Center Court

Location Description: West Exterior Wall-Loc Code 341-02

Type of Outlet: Bubbler

Description: Exterior Wall Mounted Drinking Station

Comments/Miscellaneous: Two Bubbler Station-Sample Right Bubbler

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165132

State Sample ID: 3710020-ACF-B

Date & Time Last Used: 4/06/17 @ 1810

Date & Time Sample Collected: 4/07/17 @ 0543

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Alejandra Molloy

Sample No. 3

School: Millennial Tech Middle School

Name of Building: 200 Building

Location Description: Exterior Wall Mounted outside of room 204-Loc Code 341-03

Type of Outlet: Bubbler

Description: Two Station Drinking Fountain; Sample Left Bubbler

Comments/Miscellaneous:

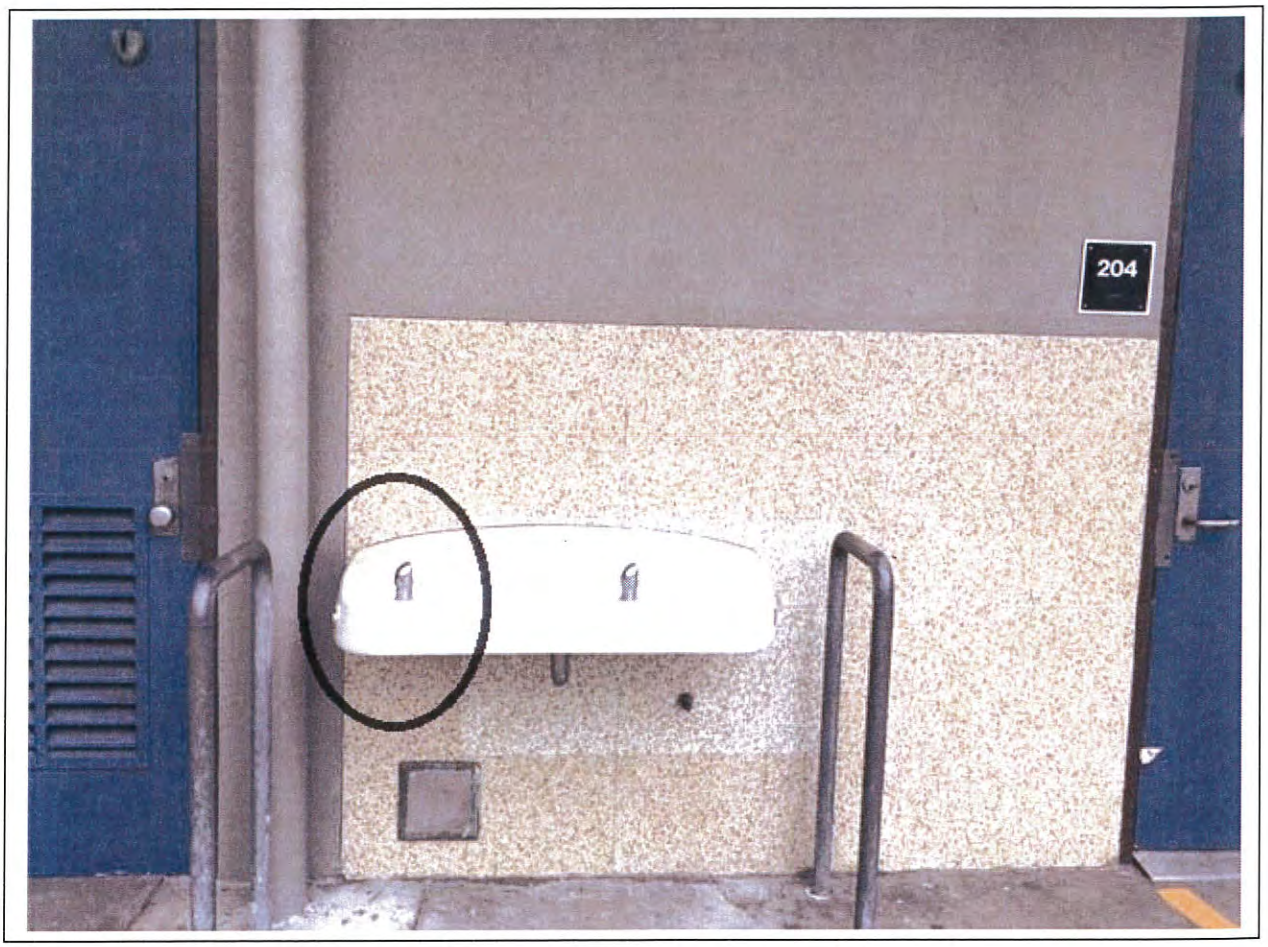

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165133

State Sample ID: 3710020-ACF-C

Date & Time Last Used: 4/06/17 @ ~~1010~~ 1810

Date & Time Sample Collected: 4/07/17 @ 0546

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Alejandra Molloy

Sample No. 4

School: Millennial Tech Middle School; 1110 Carolina Lane; San Diego California; 92102

Name of Building: 100 Building

Location Description: Exterior Wall Mounted, outside Room 104

Type of Outlet: Bubbler

Description: Two bubbler Drinking Station

Comments/Miscellaneous: Sample Right Bubbler

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165134

State Sample ID: 3710020-ACF-D

Date & Time Last Used: 4/06/17 @ 1810

Date & Time Sample Collected: 4/07/17 @ 0549

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Alejandra Molloy

Sample No. 5

School: Millennial Tech Middle School; 1110 Carolina Lane; San Diego California; 92102

Name of Building: Main Office Building

Location Description: Hallway, far East end between Boys/Girls Restroom-Loc Code 341-05

Type of Outlet: Bubbler

Description: Wall Mounted Single Bubbler Drinking Station

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165135

State Sample ID: 3710020-ACF-E

Date & Time Last Used: 04/06/17 @ 1810

Date & Time Sample Collected: 4/07/17 @ 0550

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Alejandra Molloy

SD Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 4/18/17

San Diego Unified School District

Millennial Tech Middle

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1165131	04/07/17	05:41 AM	SAMPLE 1	3710020-ACF-A	< 5	ug/L
W1165132	04/07/17	05:43 AM	SAMPLE 2	3710020-ACF-B	< 5	ug/L
W1165133	04/07/17	05:46 AM	SAMPLE 3	3710020-ACF-C	< 5	ug/L
W1165134	04/07/17	05:49 AM	SAMPLE 4	3710020-ACF-D	< 5	ug/L
W1165135	04/07/17	05:52 AM	SAMPLE 5	3710020-ACF-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Center court, east exterior wall, dual fixture, right bubbler (341-01)
SAMPLE 2	Center court, west exterior wall, dual fixture, right bubbler (341-02)
SAMPLE 3	BLDG 200, exterior, next to Room 204, dual fixture, left bubbler (341-03)
SAMPLE 4	BLDG 100, exterior, next to Room 104, dual fixture, right bubbler (341-04)
SAMPLE 5	Main office BLDG, east end, near men's restroom 3, single bubbler (341-05)

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
Tom Burger, Associate Chemist

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

06-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	~~Analysis Requested~~
1	W1165131	Millennial Tech Middle	07-APR-2017	0541	A. Molloy	SAMPLE 1	Pb
2	W1165132	Millennial Tech Middle	07-APR-2017	0543		SAMPLE 2	
3	W1165133	Millennial Tech Middle	07-APR-2017	0546		SAMPLE 3	
4	W1165134	Millennial Tech Middle	07-APR-2017	0549		SAMPLE 4	
5	W1165135	Millennial Tech Middle	07-APR-2017	0552		SAMPLE 5	

1675

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign: AMolloy	Received by: Name: Gloria Siqueiros Sign: Siqueiros	Date & Time: 4/7/17 0608 Location: Alvarado	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 4/07/17
LIMS Received Time: 0626
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Miller Elementary School

Physical Address of School: 4343 Sheilds St. San Diego, CA 92124

First Bell: 7:50AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/25/2017

Completed by Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 04/25/2017

School's Point of Contact for Sampling Assistance

Name: ~~Daniel Lopez~~ Lori Sherman

Phone: ~~(619) 306-3383~~ 619-301-9086

Email: dlopez2@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-27-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Miller Elementary School 4343 Sheilds St. San Diego, CA 92124

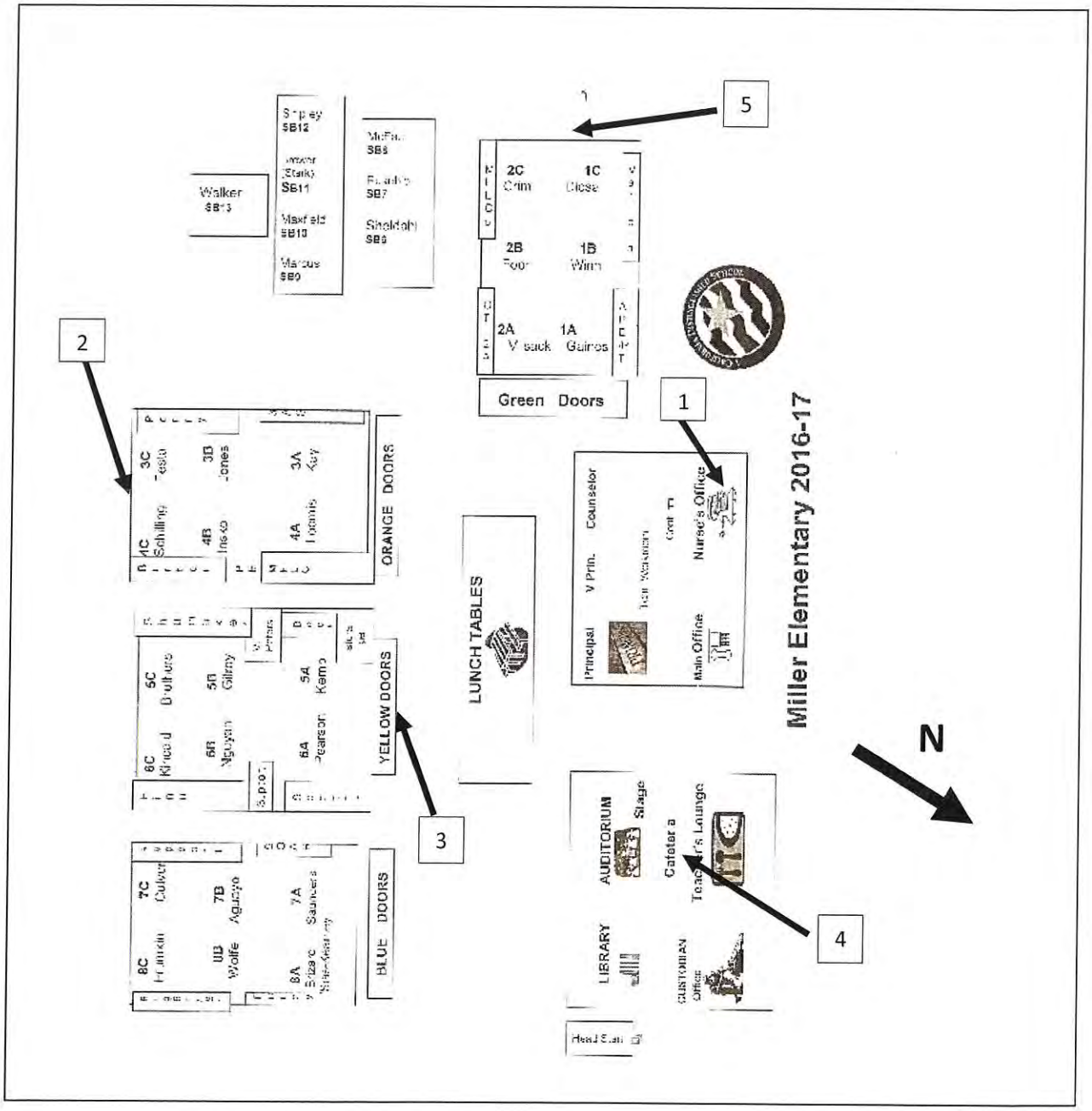

Sample No. 1

School: Miller Elementary School

Name of Building: Main Office

Location Description: Nurse's Area

Type of Outlet: Regular Faucet

Description: Regular Faucet

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168791

State Sample ID: 3710020-BCH-A

Date & Time Last Used: 4/27/17 1800-2200

Date & Time Sample Collected: 4/28/17 0540 ✓

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarenga

Sample No. 2

School: Miller Elementary School

Name of Building: Orange Door Building

Location Description: South end of Orange Door Building

Type of Outlet: Triple Bubbler

Description: Center Bubbler

Comments/Miscellaneous: Left bubbler sampled / low flow middle

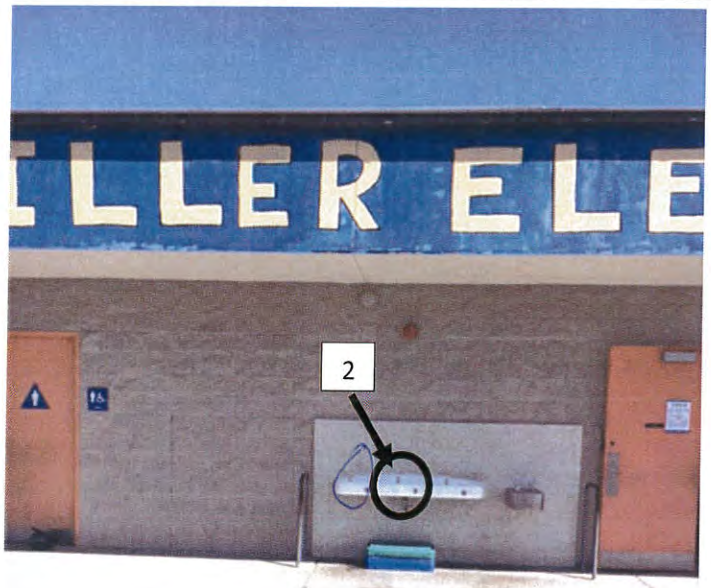

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168792

State Sample ID: 3710020-BCH-B

Date & Time Last Used: 4/27/17 1800-2200

Date & Time Sample Collected: 4/28/17 0545 ✓

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: El Alvarez

Sample No. 3

School: Miller Elementary School

Name of Building: Yellow Door Building

Location Description: North end of Yellow Door Building

Type of Outlet: Triple Bubbler

Description: Bubbler on left

Comments/Miscellaneous:

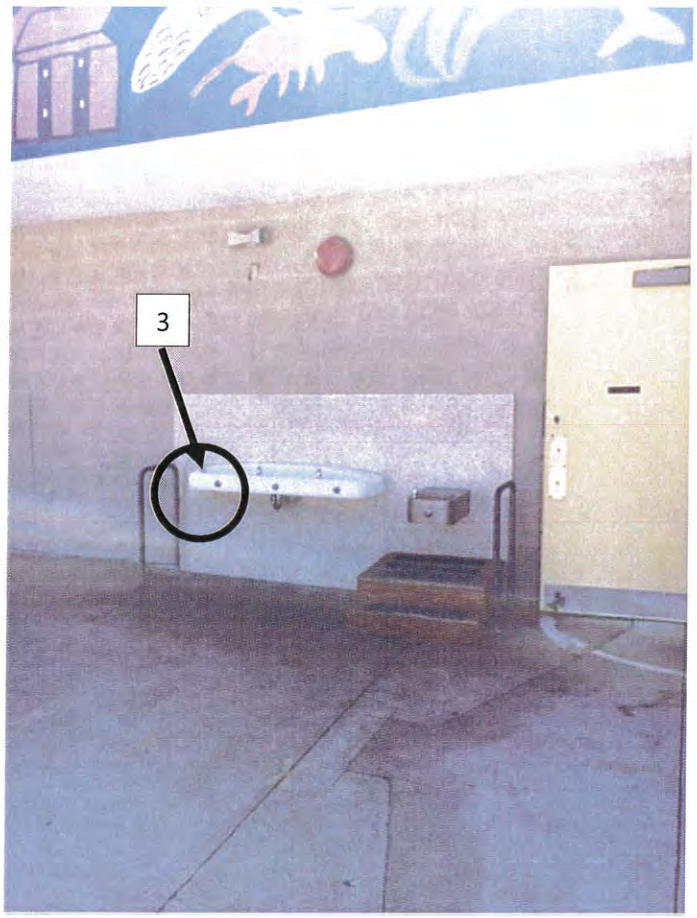

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168793

State Sample ID: 3710020-BCH-C

Date & Time Last Used: 4/27/17 1800-2200

Date & Time Sample Collected: 4/28/17 0550 ✓

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez

Sample No. 4

School: Miller Elementary School

Name of Building: Auditorium/Cafeteria Building

Location Description: North end of school inside kitchen

Type of Outlet: Regular kitchen sink

Description: cold side of kitchen sink

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168794

State Sample ID: 3710020-BCH-D

Date & Time Last Used: 4/27/17 1800-2200

Date & Time Sample Collected: 4/28/17 0555 ✓

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez

Sample No. 5

School: Miller Elementary School

Name of Building: Green Door Building

Location Description: West end of campus in kindergarten area

Type of Outlet: Outside triple bubbler

Description: far right bubbler

Comments/Miscellaneous:

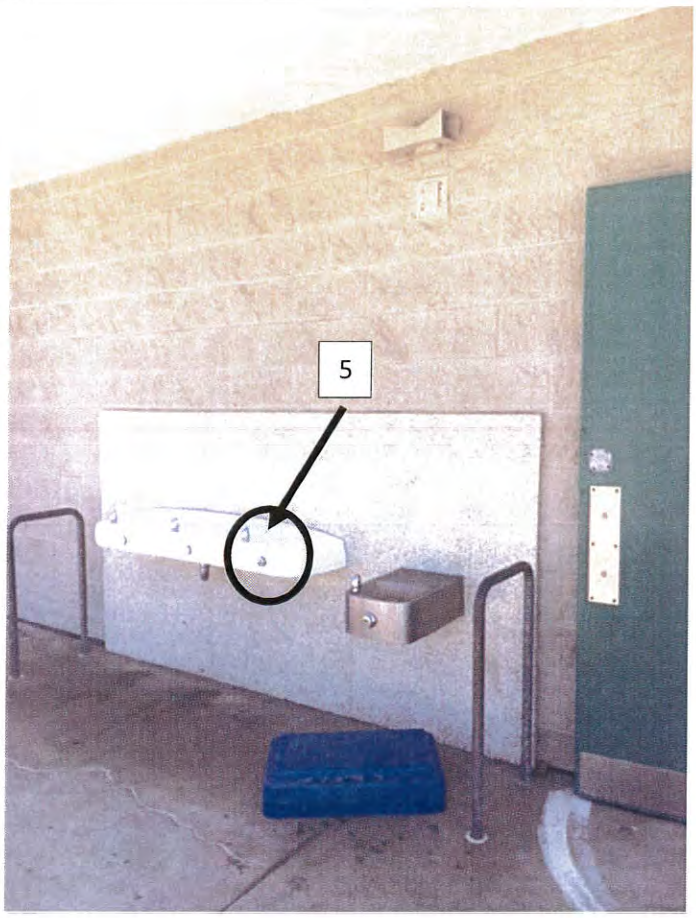

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168795

State Sample ID: 3710020-BCH-E

Date & Time Last Used: 4/27/17 1800-2200

Date & Time Sample Collected: 4/28/17 0540 ✓

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Ahonga

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

27-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168791	Miller Elementary	28-APR-2017	0540	EA	SAMPLE 1	
2	W1168792	Miller Elementary	28-APR-2017	0545	EA	SAMPLE 2	
3	W1168793	Miller Elementary	28-APR-2017	0550	EA	SAMPLE 3	
4	W1168794	Miller Elementary	28-APR-2017	0555	EA	SAMPLE 4	
5	W1168795	Miller Elementary	28-APR-2017	0540	EA	SAMPLE 5	

1683

Chain of Custody:

Relinquished by: Name: E. Alvarez 6/28/17 0645 Sign:	Received by: Name: tMally Sign: Alejandra Molloy	Date & Time: 4/28/17 @ 0705 Location: WQL Alv	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: tMally
Received Date: 4/28/17
LIMS Received Time: 0932
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Mira Mesa High

Physical Address of School: 10510 Reagan Rd, San Diego, CA 92126-3275

First Bell: 7:30 AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 4/28/2017

Completed by Print Name: Ginette Commins

Signature: G Commins Date: 4/28/2017

School's Point of Contact for Sampling Assistance

Name: ~~Ginette Commins~~ Elizabeth Lara

Phone: ~~(858) 627-7201~~ 619-302-7616

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/8/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Mira Mesa High, 10510 Reagan Rd, San Diego, CA 92126-3275

Mira Mesa High's street name address was renamed to Marauder Way. If you are using a Mobile GPS, enter this address:

10510 Marauder Way, San Diego, CA 92126

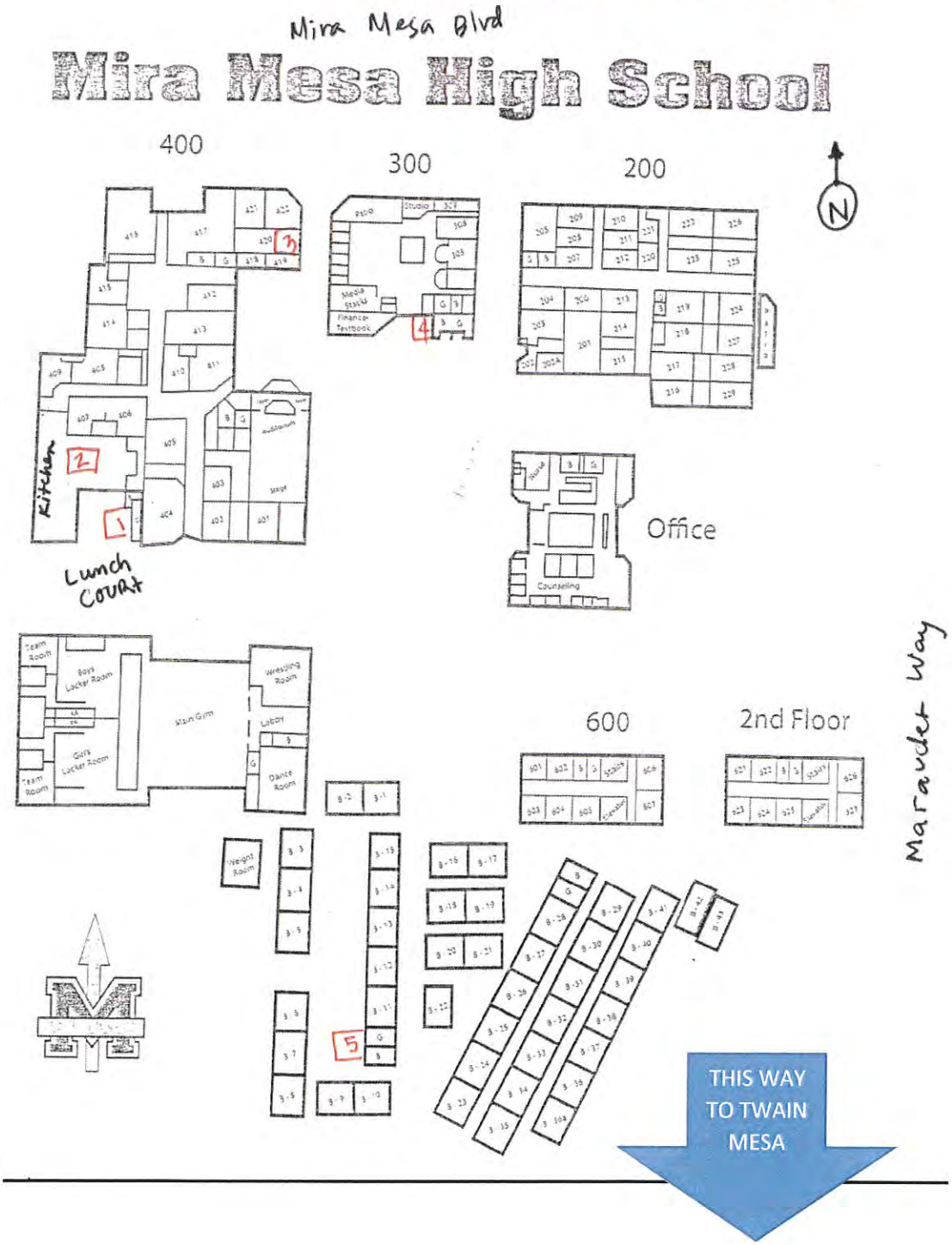

Sample No. 1

School: Mira Mesa High

Name of Building: 400

Location Description: Wall mounted exterior (South of Bldg) and north side of lunch court, between Restrooms

Type of Outlet: bubbler

Description: upper/left bubbler on a dual fountain (HIGH flow)

Comments/Miscellaneous: drinking water source/SDUSD Location Code #349

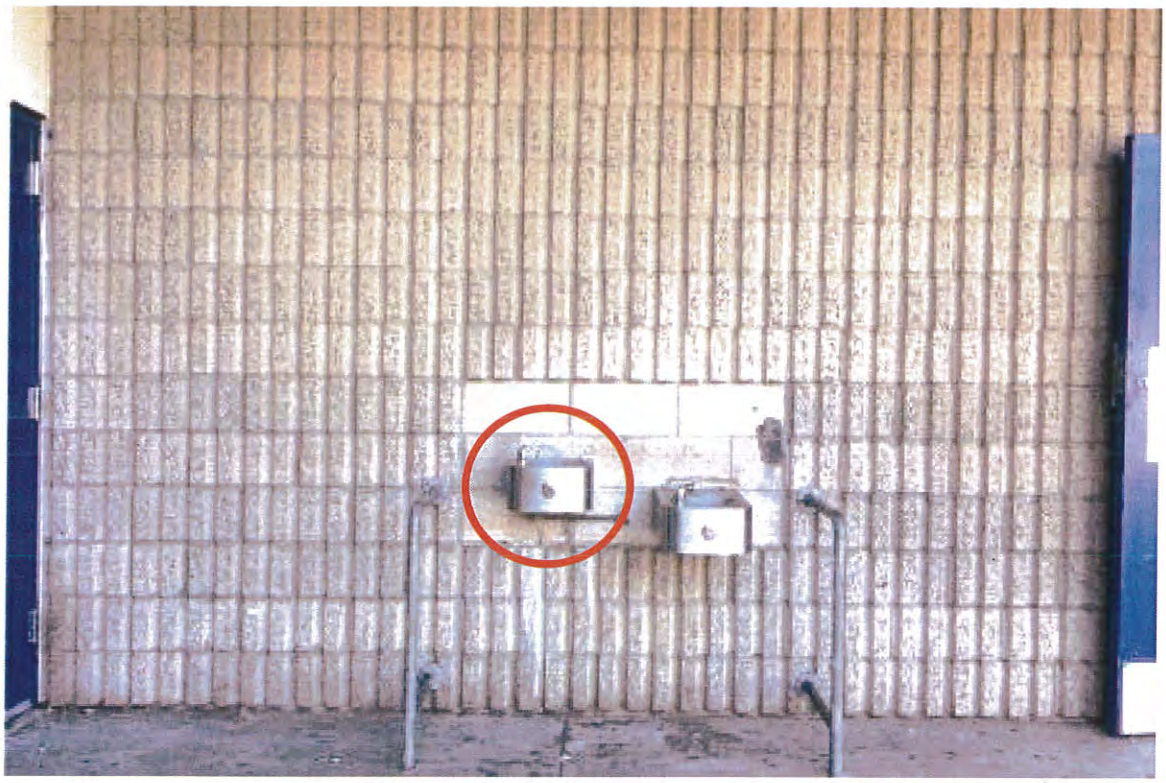

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: ~~W11711974~~ W1171674 JBaugh

State Sample ID: 3710020-BGF-A

Date & Time Last Used: DS ~~6/~~ 5/9/17 2200

Date & Time Sample Collected: 5/10/17 0622

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 2

School: Mira Mesa High

Name of Building: 400-Kitchen

Location Description: Sink in the Prep Kitchen, facing a wash-dedicated sink & walk-in fridge

Type of Outlet: kitchen faucet

Description: cold water faucet as marked ("C")

Comments/Miscellaneous: indoor water source for cooking/SDUSD Location Code #349

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: ~~W11711975~~ W1171675 TBergen

State Sample ID: 3710020-BGF-B

Date & Time Last Used: 5/9/17 2200

Date & Time Sample Collected: 5/10/17 0619

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 3

School: Mira Mesa High

Name of Building: 400

Location Description: Culinary Classroom 420, sink in the prep kitchen (North of the Room, next to an ice machine

Type of Outlet: kitchen faucet

Description: cold water faucet with color blue indicator

Comments/Miscellaneous: indoor water source for cooking/SDUSD Location Code #349

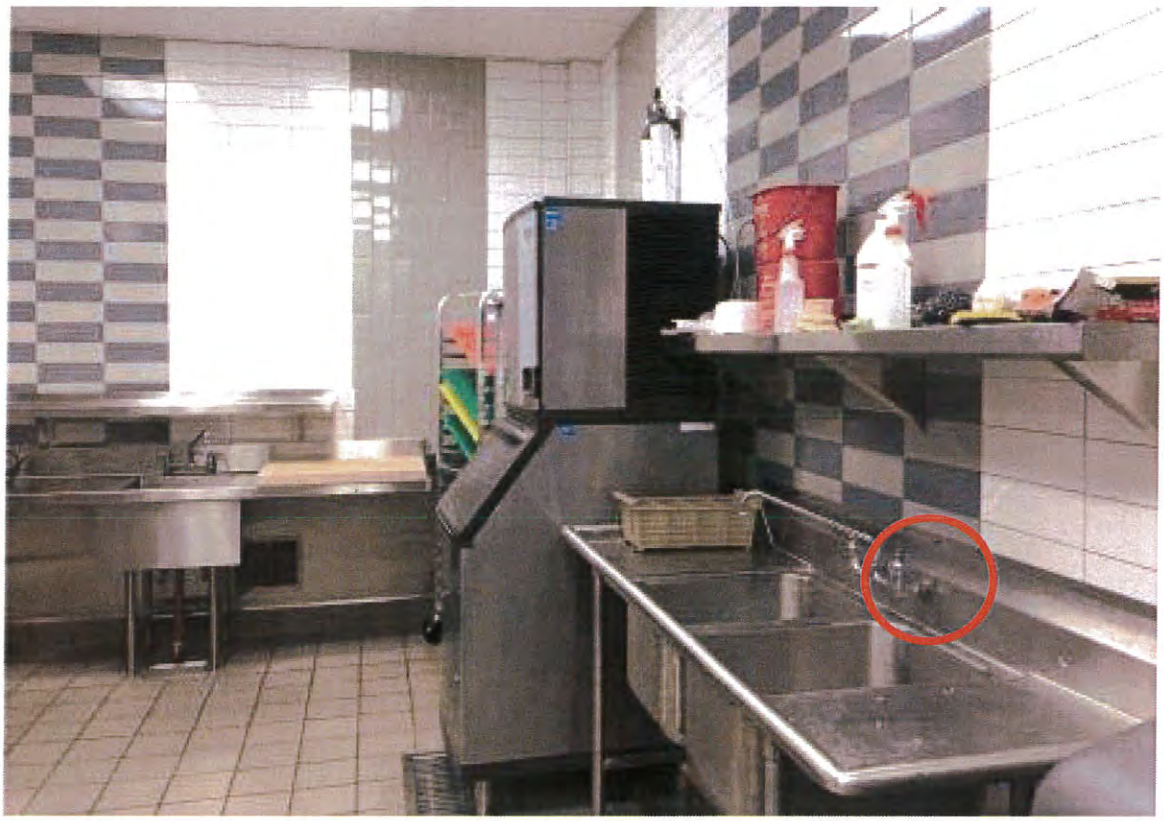

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: ~~W11711976~~ W1171676 JBurgl

State Sample ID: 3710020-BGF-C

Date & Time Last Used: 5/9/17 2200

Date & Time Sample Collected: 5/10/17 0614

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 4

School: Mira Mesa High

Name of Building: 300

Location Description: Wall mounted exterior (South of Bldg), facing Library Media Center & Finance Office

Type of Outlet: bubbler

Description: 2nd to the right/lower bubbler on six fountains (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #349

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: ~~W11711977~~ W1171677 TBugr

State Sample ID: 3710020-BGF-D

Date & Time Last Used: 5/9/17 2200

Date & Time Sample Collected: 5/10/17 0607

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 5

School: Mira Mesa High

Name of Building: Portable Classrooms 15-11

Location Description: Wall mounted exterior (West of Bldg), between Girls/Women's & Boys/Men's Restrooms and Custodian Gear Locker Room, facing a ramp

Type of Outlet: bubbler

Description: lower/left bubbler head (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #349

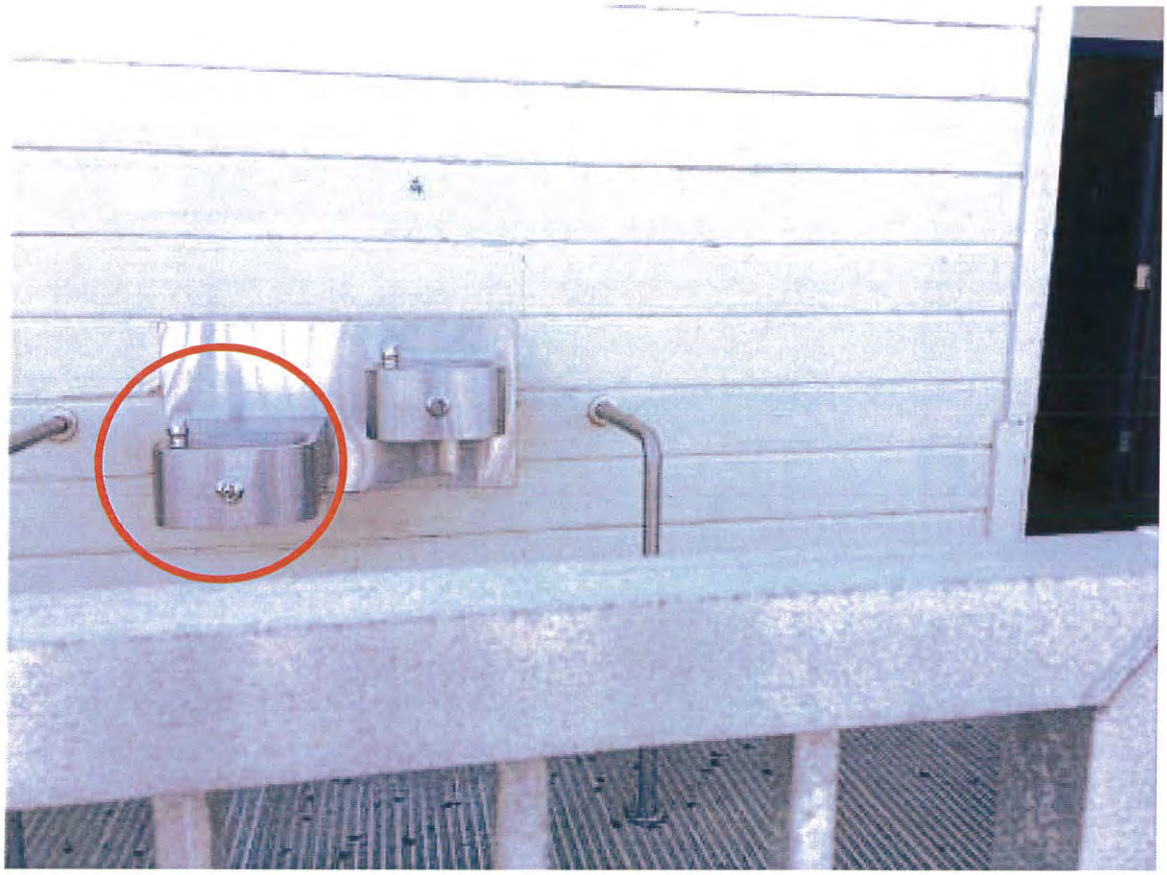

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: ~~W11711978~~ W1171678 TBWM

State Sample ID: 3710020-BGF-E

Date & Time Last Used: 5/9/17 2200

Date & Time Sample Collected: 5/10/17 0628

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sawersby

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

08-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1171674	Mira Mesa High	10-MAY-2017	0622	DS	SAMPLE 1	
2	W1171675	Mira Mesa High	10-MAY-2017	0619	↓	SAMPLE 2	
3	W1171676	Mira Mesa High	10-MAY-2017	0614	↓	SAMPLE 3	
4	W1171677	Mira Mesa High	10-MAY-2017	0607	↓	SAMPLE 4	
5	W1171678	Mira Mesa High	10-MAY-2017	0628	↓	SAMPLE 5	

Chain of Custody:

Relinquished by: Name: Dan Sowersby Sign: D. Sowersby	Received by: Name: Tom Burger Sign: Tom B Burger	Date & Time: 5/10/17 0720 Location: ALV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: Tom Burger
Received Date: 5-10-17
LIMS Received Time: 0735
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Miramar Ranch Elementary

Physical Address of School: 10770 Red Cedar Dr. San Diego Ca 92124

First Bell: 7:14

Meeting Date: ...3/22/2017

Sampling Plan Completion Date: 4/24/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 4/24/2017

School's Point of Contact for Sampling Assistance

Name: ~~Elizabeth Lara~~ Lori Sherman

Phone: ~~619-302-7616~~ 619-301-9086

Email: elara@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-26-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Miramar Ranch Elementary 10770 Red Cedar Dr. San Diego Ca 92131

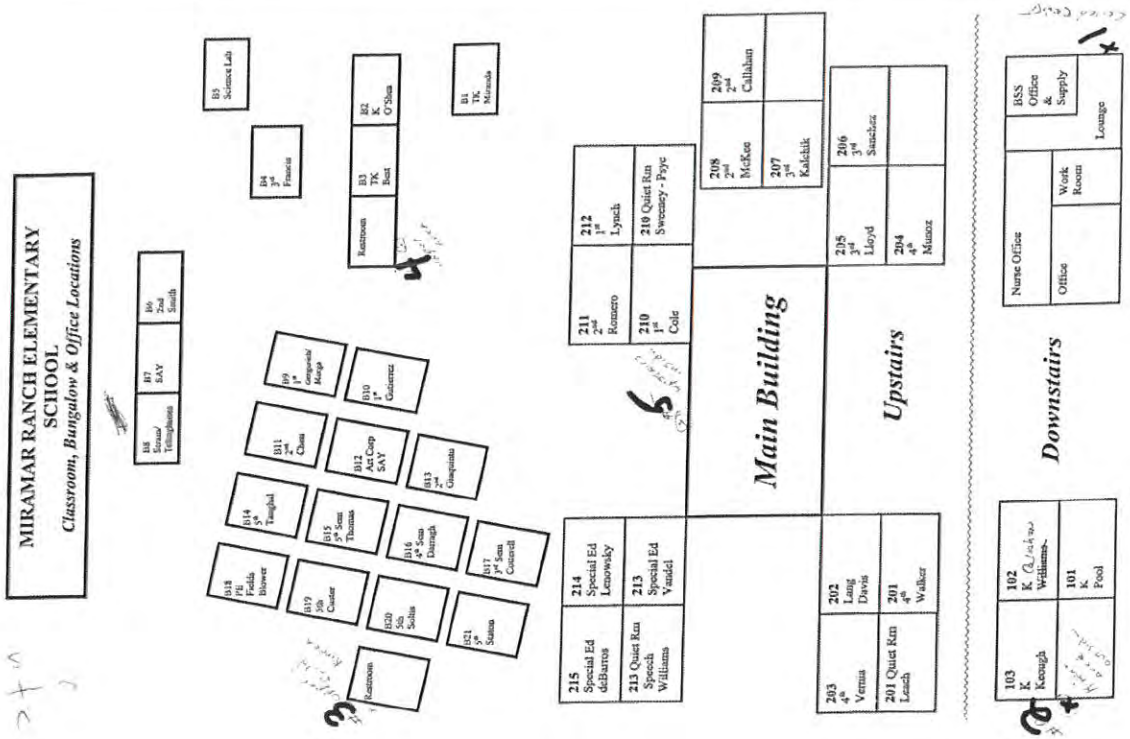

Sample No. 1

School: Miramar Ranch Elementary

Name of Building: Lounge/ Lunch Court

Location Description: Outside ~~At flowered~~ south wall of Lunch court

Type of Outlet: Bubbler drinking fountain

Description: Left bubbler of three on single drinking fountain

Description:

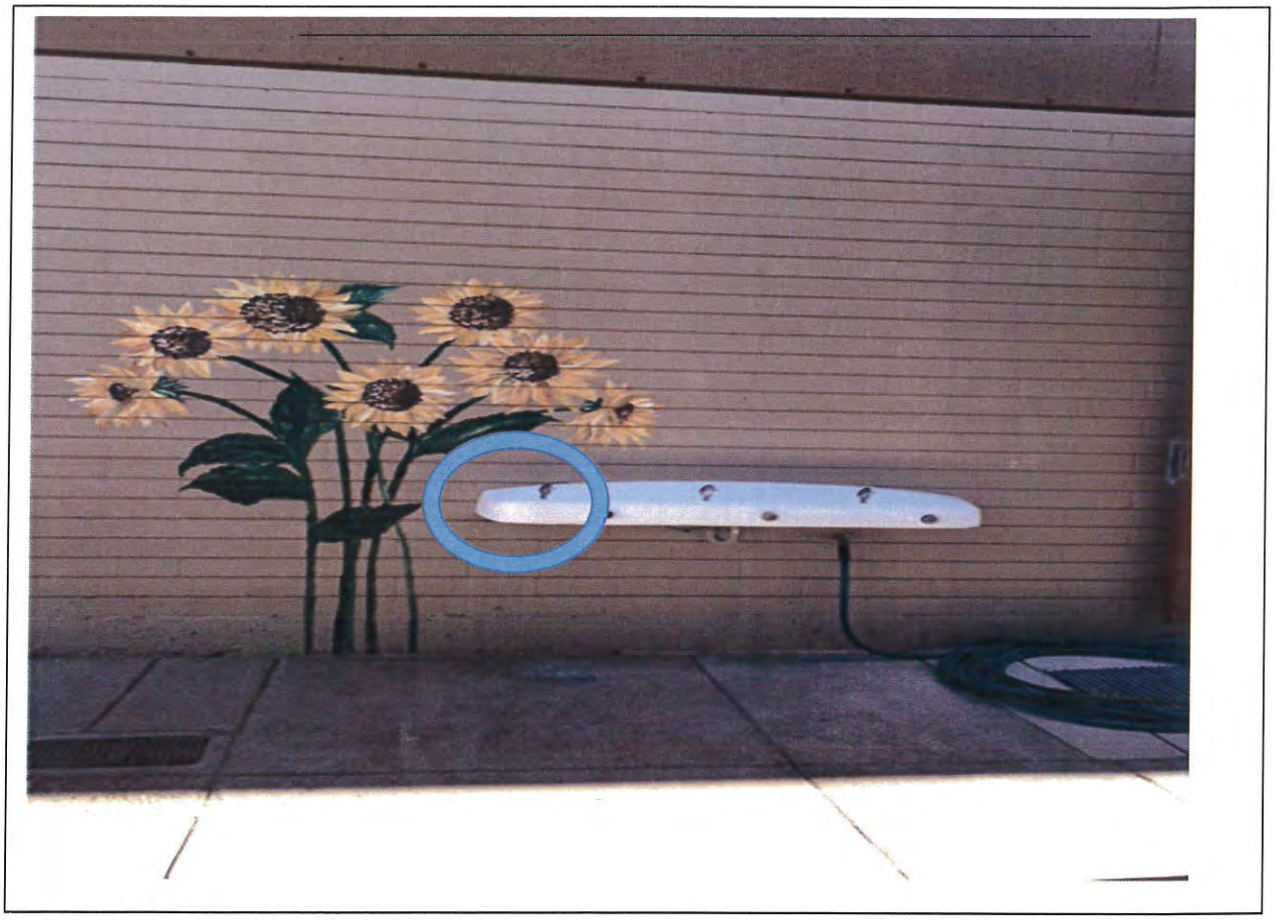

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168617

State Sample ID: 3710020-BCD-A

Date & Time Last Used: 2200h 4/26/17 between 6-10pm pm

Date & Time Sample Collected: 4/27/17, 5:31 am

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Feryal Moshavegh

Sample No. 2

School: Miramar Ranch Elementary School

Name of Building: Kindergarten

Location Description: At wall of kinder playground lower level

Type of Outlet: Bubbler

Description: Center bubbler of three

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168618

State Sample ID: 3710020-BCD-B

Date & Time Last Used: 4/26/17 6pm-10pm

Date & Time Sample Collected: 4/27/17, 5:33am

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Eryal Moshavegh

Sample No. 3

School: Miramar Ranch Elementary School

Name of Building: Upper Field Bungalows

Location Description: Outside between boys & girls restrooms near room B-23

Type of Outlet: Bubbler drinking fountain

Description: Left bubbler of three on left drinking fountain

Comments/Miscellaneous:

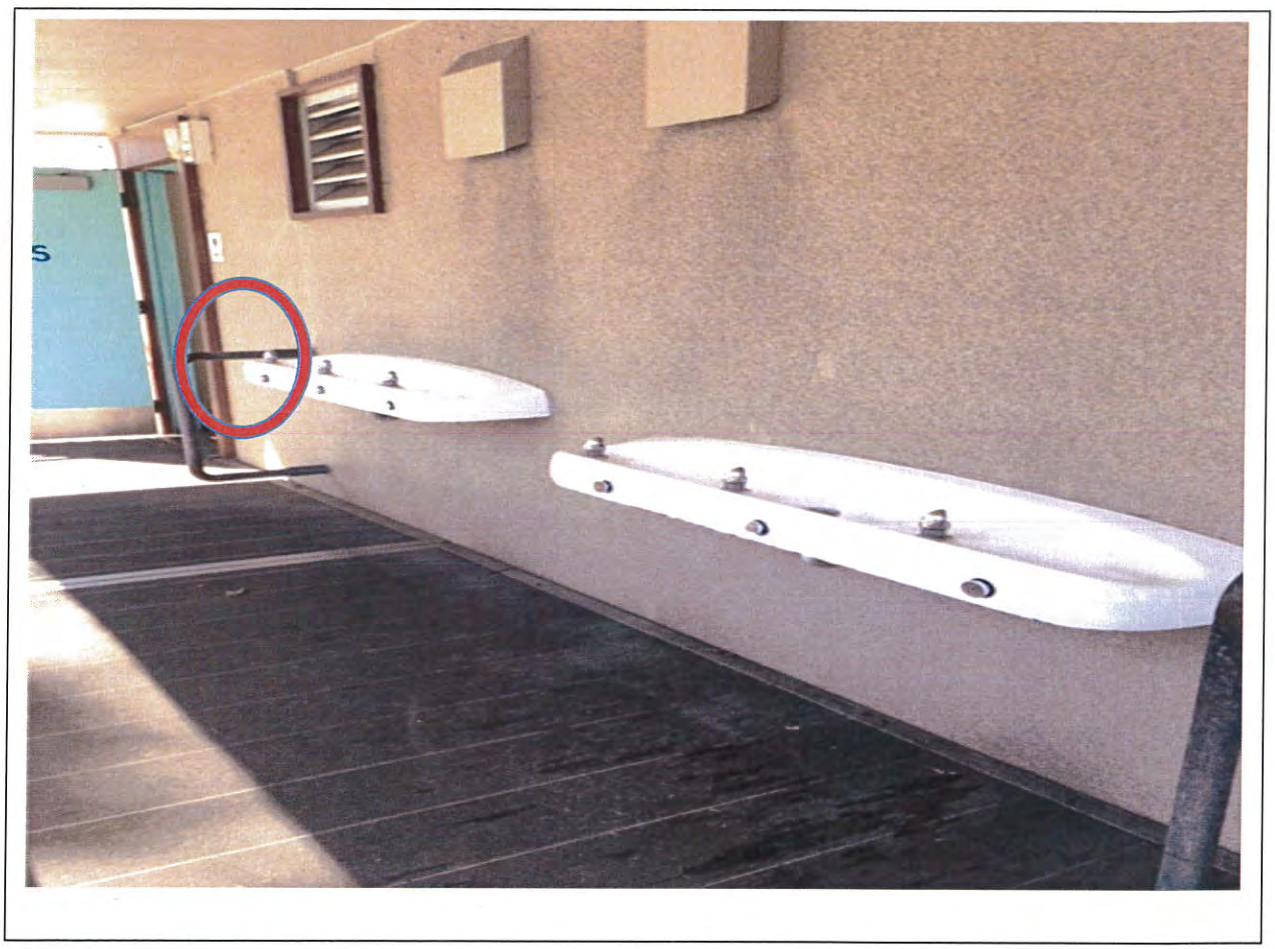

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168619

State Sample ID: 3710020-BCD-C

Date & Time Last Used: 4/26/17 between 6pm-10pm

Date & Time Sample Collected: 4/27/17, 5:35 am

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector:

Sample No. 4

School: Miramar Ranch Elementary School

Name of Building: Upper area kinder near bungalows

Location Description: Restroom drinking fountain near TK B-3

Type of Outlet: Bubbler Drinking Fountain

Description: Left bubbler of two

Comments/Miscellaneous:

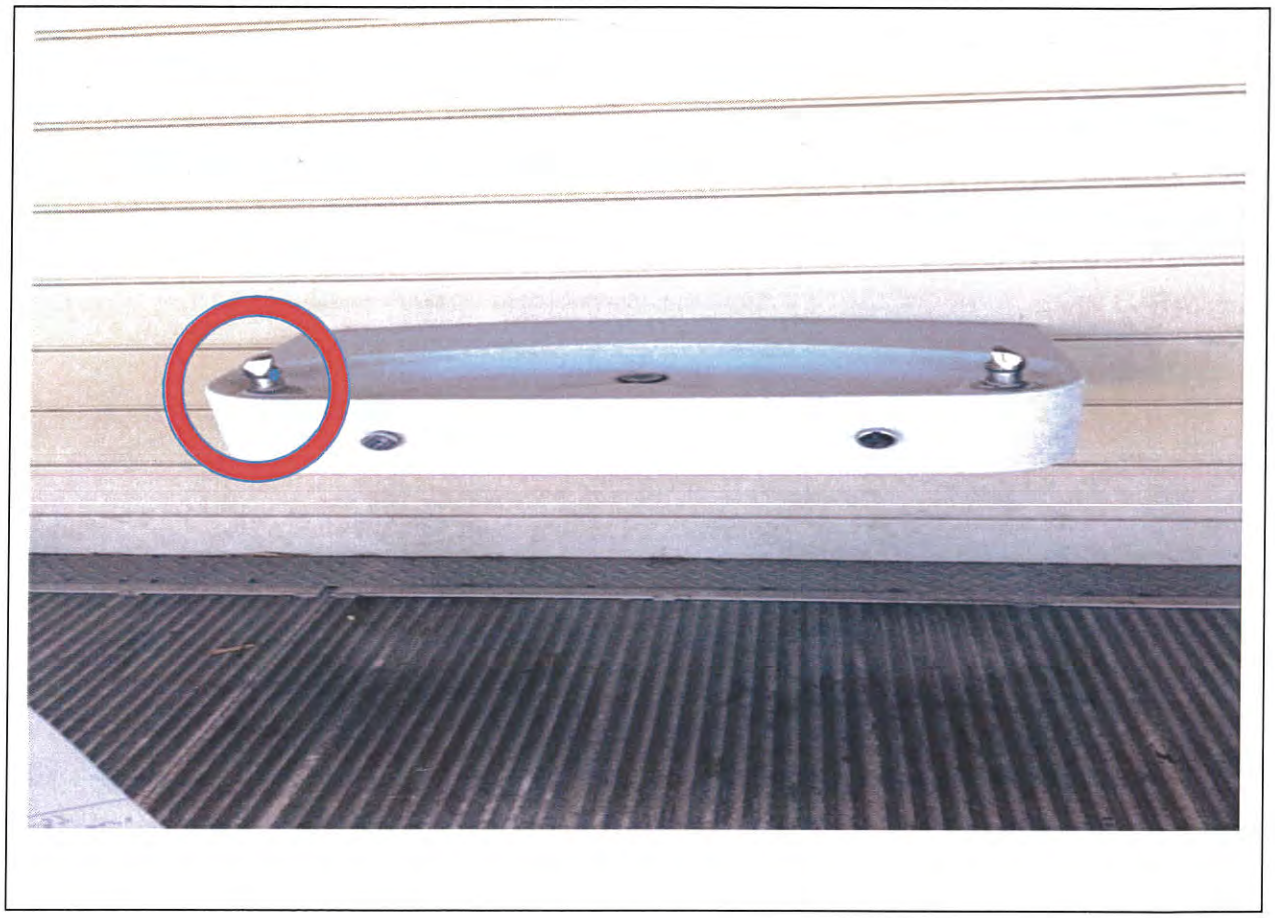

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168620

State Sample ID: 3710020-BCD-D

Date & Time Last Used: 4/26/17 between 6pm-10pm

Date & Time Sample Collected: 4/27/17 5:37am

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Feryal Moshavegh

Sample No. 5

School: Miramar Ranch Elementary

Name of Building: Hallway- Inside second floor east end

Location Description: Near girls restroom and exit to courtyard overlooks media center

Type of Outlet: Bubbler

Description: Left bubbler of two drinking fountains

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168621

State Sample ID: 3710020-BCD-E

Date & Time Last Used: 4/26/17 between 6pm-10pm

Date & Time Sample Collected: 4/27/17 5:40am

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Feryal Mosharegh

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

26-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168617	Miramar Ranch Elementary	27-APR-2017	05:31am	F. Moshavegh	SAMPLE 1	
2	W1168618	Miramar Ranch Elementary	27-APR-2017	05:33am	"	SAMPLE 2	
3	W1168619	Miramar Ranch Elementary	27-APR-2017	05:35am	"	SAMPLE 3	
4	W1168620	Miramar Ranch Elementary	27-APR-2017	05:37am	"	SAMPLE 4	
5	W1168621	Miramar Ranch Elementary	27-APR-2017	05:40am	"	SAMPLE 5	

1699

Chain of Custody:

Relinquished by: Name: Feryal Moshavegh Sign:	Received by: Name: Tom Burger Sign: Tom B Burger	Date & Time: 4-27-17 0714 Location: ALV LAB	Comments:
Relinquished by: Name: Sign: Feryal Moshavegh	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TMall
Received Date: 4/27/17
LIMS Received Time: 1432
Reviewed By: TMall 4/27/17

1171

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Mission Bay Montessori Academy

Physical Address of School: 2640 Soderblom Ave., San Diego, CA 92122-4037

First Bell: 8:00 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 5-16-2017

Completed by Print Name: Cesar Jimenez

Signature: C.J. Date: 5-16-2017

School's Point of Contact for Sampling Assistance

Name: Cesar Jimenez

Phone: 619-261-1588

Email: cjimenez2@sandi.net

City of San Diego 3710020

Approved By: 5/23/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Mission Bay Montessori Academy - 2640 Soderblom Ave., San Diego, CA 92122-4037

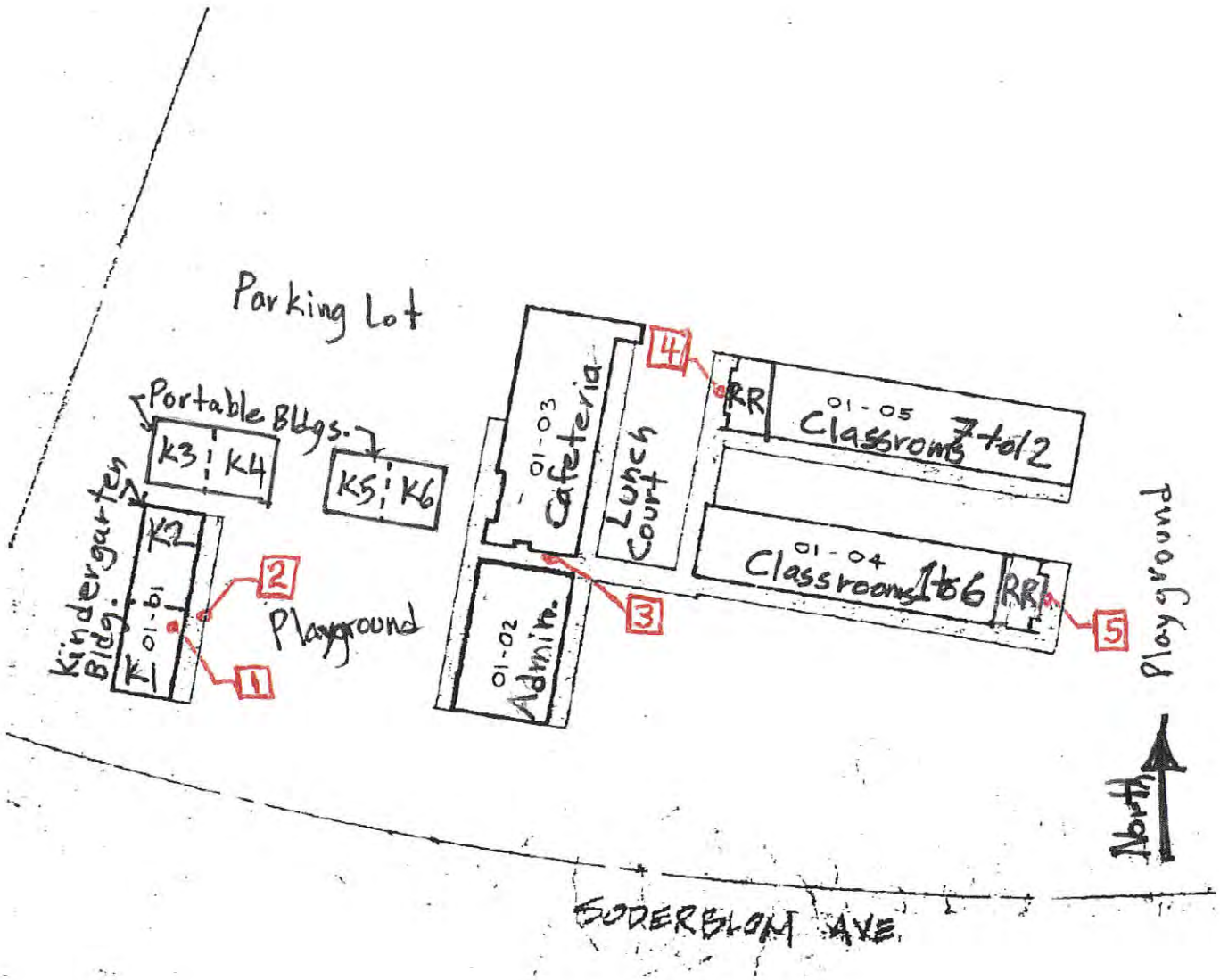

Sample No. 1

School: Mission Bay Montessori Academy

Name of Building: Kindergarten

Location Description: North wall of Room K1

Type of Outlet: Bubbler

Description: Bubbler on the right on a sink with faucet.

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174388

State Sample ID: 3710020-CBA-A

Date & Time Last Used: 5/24/17 1800 - 2200

Date & Time Sample Collected: 5/25/17 0635

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarenga

Sample No. 2

School: Mission Bay Montessori Academy

Name of Building: Kindergarten

Location Description: Exterior east walkway

Type of Outlet: Bubbler

Description: Middle bubbler on a triple fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174389

State Sample ID: 3710020-CBA-B

Date & Time Last Used: 5/24/17 1800 - 2200

Date & Time Sample Collected: 5/25/17 0630

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarenga

Sample No. 3

School: Mission Bay Montessori Academy

Name of Building: Cafeteria

Location Description: Exterior south wall, breezeway between cafeteria and Administration.

Type of Outlet: Bubbler

Description: Bubbler on the right on a sink with 2 faucets.

Comments/Miscellaneous:

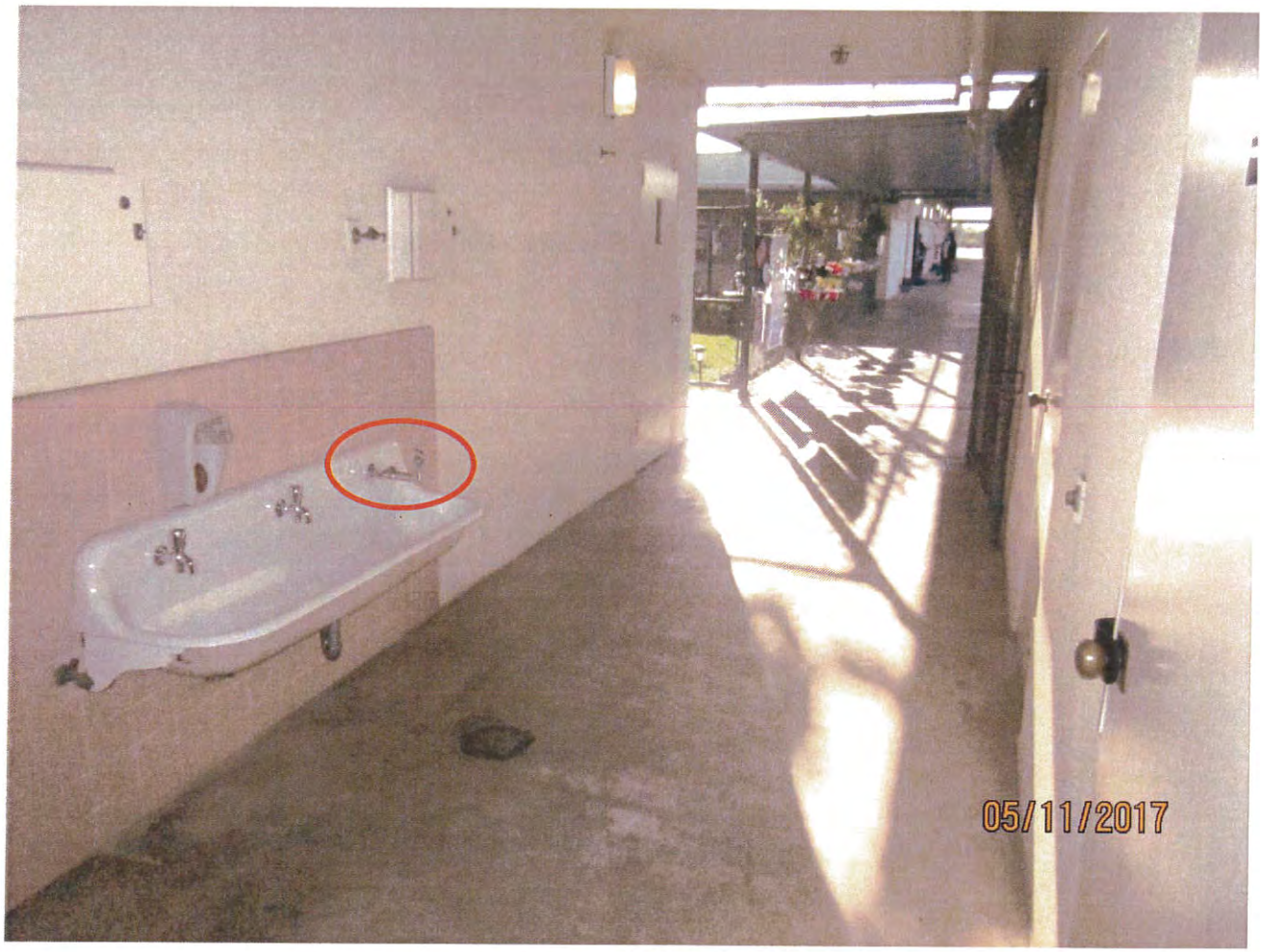

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174390

State Sample ID: 3710020-CBA-C

Date & Time Last Used: 5/24/17 1800-2200

Date & Time Sample Collected: 5/25/17 0630

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarenga

Sample No. 4

School: Mission Bay Montessori Academy

Name of Building: Northeastern classroom bldg. rooms 7 to 12

Location Description: Exterior West wall, adjacent to restrooms

Type of Outlet: Bubbler

Description: Middle bubbler on a triple fountain.

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174391

State Sample ID: 3710020-CBA-D

Date & Time Last Used: 5/24/17 1800-2200

Date & Time Sample Collected: 5/25/17 0646

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarenga

Sample No. 5

School: Mission Bay Montessori Academy

Name of Building: Southeastern classroom bldg. rooms 1 to 6

Location Description: Exterior East wall Adjacent to restrooms

Type of Outlet: Bubbler

Description: Right bubbler on a triple fountain.

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174392

State Sample ID: 3710020-CBA-E

Date & Time Last Used: 5/24/17 1800-2200

Date & Time Sample Collected: 5/25/17 0645

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez

Exhibit 34

Water Quality Chemistry Services
Chain of Custody Form

23-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1174388	Mission Bay Montessori	25-MAY-2017	0635	EA	SAMPLE 1	
2	W1174389	Mission Bay Montessori	25-MAY-2017	0630	EA	SAMPLE 2	
3	W1174390	Mission Bay Montessori	25-MAY-2017	0630	EA	SAMPLE 3	
4	W1174391	Mission Bay Montessori	25-MAY-2017	0640	EA	SAMPLE 4	
5	W1174392	Mission Bay Montessori	25-MAY-2017	0645	EA	SAMPLE 5	

1707

Chain of Custody:

Relinquished by:	Received by:	Date & Time:	Comments:
Name: E. Alvarenga 5/25/17 Sign: 0715	Name: Alejandra Molloy Sign: AMolloy	5/25/17 @ 0700 Location: WQL Alv	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/25/17
LIMS Received Time: 0723
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: #350 Mission Bay High School

Physical Address of School: 2475 Grand Ave. San Diego CA 92109

First Bell: 7:25

Meeting Date: 3/22/2017

Sampling Plan Completion Date: 5/1/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 5/1/2017

School's Point of Contact for Sampling Assistance

Name: ~~Elizabeth Lara~~ Ginette Commons

Phone: ~~619-302-7616~~ 619-302-5285

Email: elara@sandi.net

City of San Diego 3710020

Approved By: 5/2/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Mission Bay High School 2475 Grand Ave San Diego CA 92109

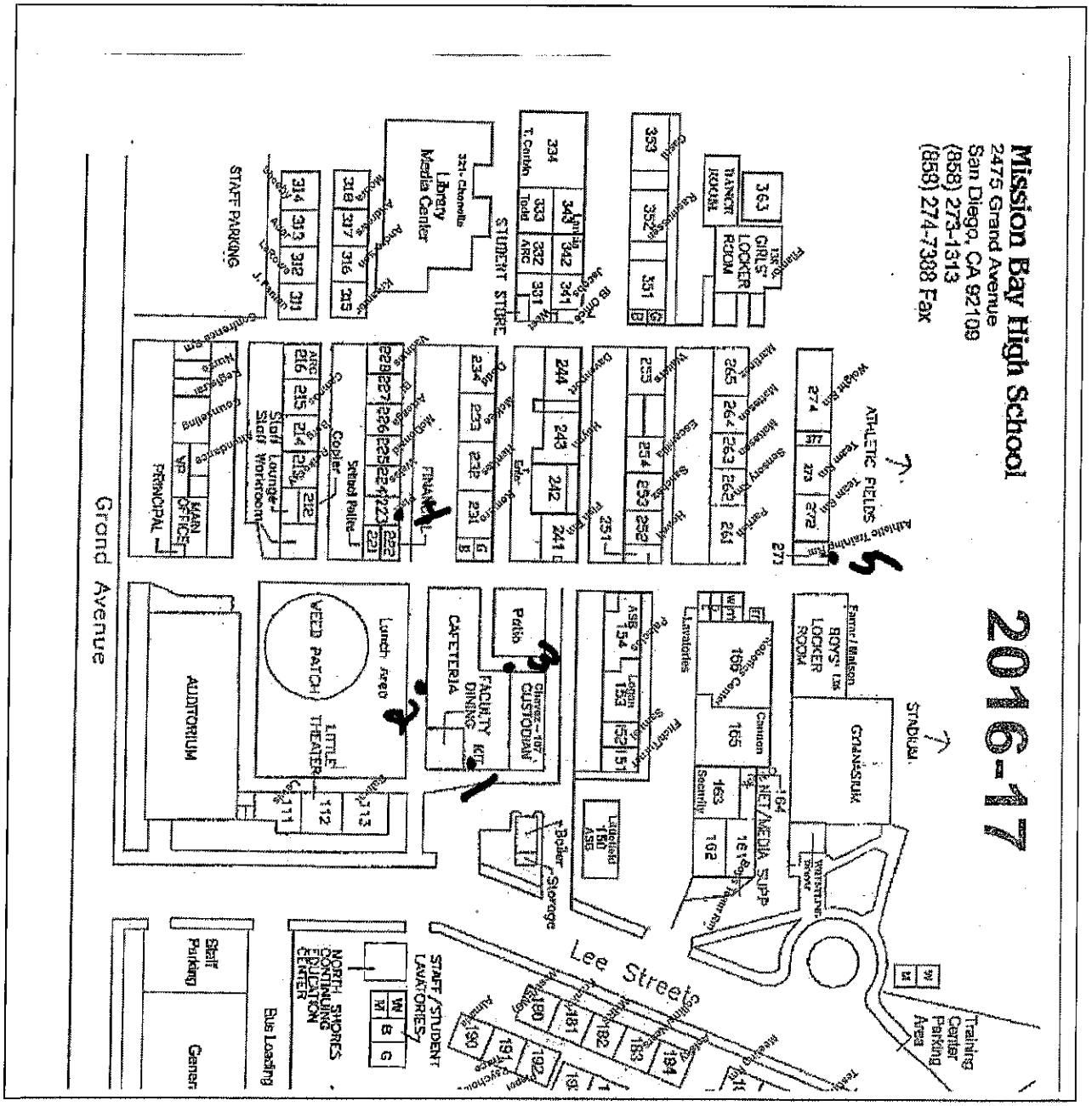

Sample No. 1

School: Mission Bay High School

Name of Building: Kitchen

Location Description: Inside kitchen North West corner of kitchen Right set of sinks

Type of Outlet: single kitchen faucet at dish sink

Description:

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: 3710020-BFE-A

State Sample ID: W1170233

Date & Time Last Used: 5/15/17 between 6-10pm

Date & Time Sample Collected: 5/16/17 @ 0558

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

– Different sink tagged out, but sampled from pictured sink

Sample No. 2

School: Mission Bay High School

Name of Building: Cafeteria

Location Description: Outside of cafeteria north near staff café door

Type of Outlet: Bubbler drinking fountain

Description: Right bubbler of Right drinking fountain of two

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: 3710020-BFE-B

State Sample ID: W1170234

Date & Time Last Used: 5/15/17 between 6-10pm

Date & Time Sample Collected: 5/16/17 @ 0601

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rombo

Sample No. 3

School: Mission Bay High School

Name of Building: Cafeteria

Location Description: East wall next to tan lunch tables yellow door at right

Type of Outlet: Bubbler drinking fountain

Description: Left bubbler of three

Comments/Miscellaneous:

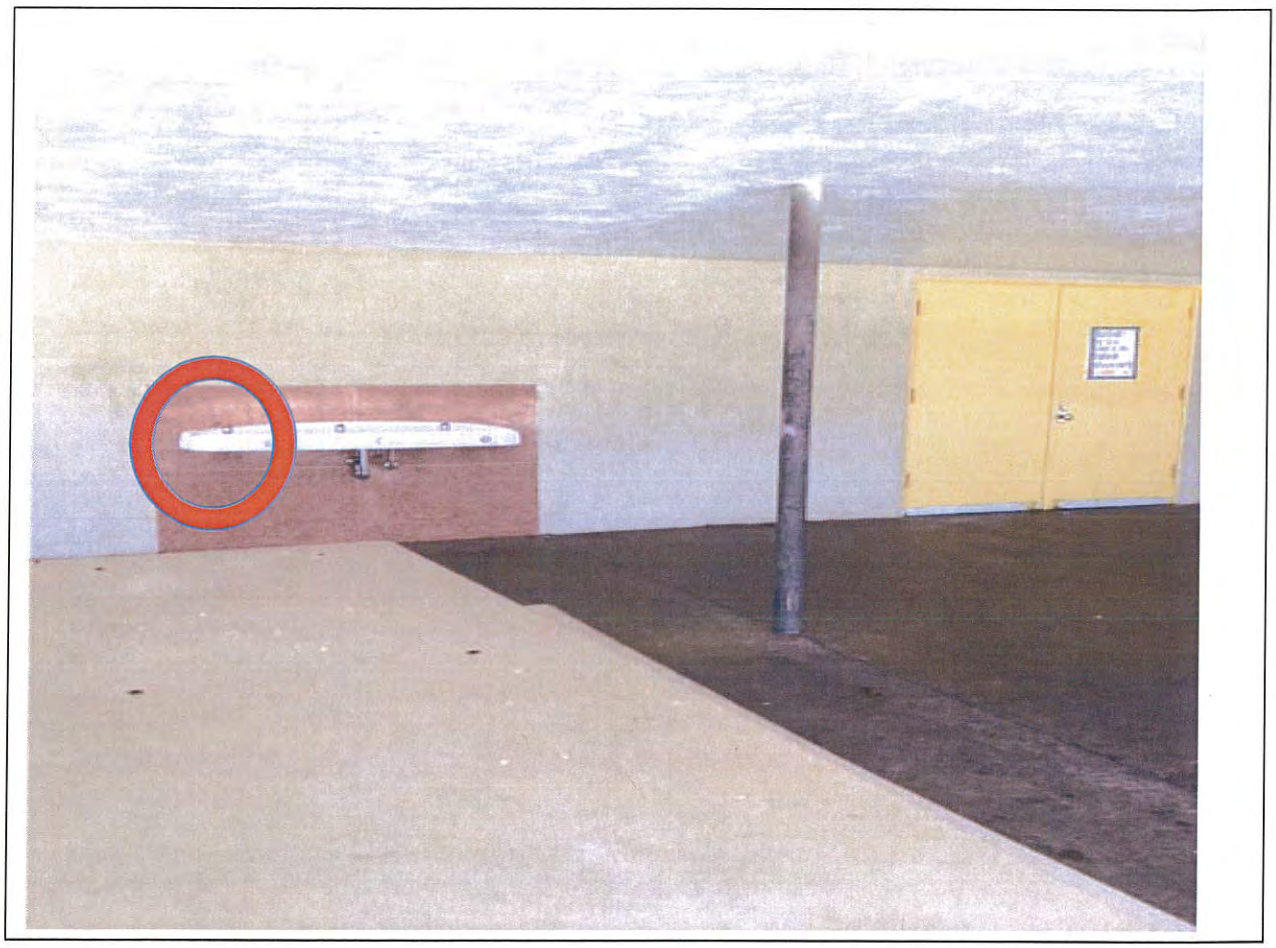

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: 3710020-BFE-C

State Sample ID: W1170235

Date & Time Last Used: 5/15/17 between 6-10pm

Date & Time Sample Collected: 5/16/17 @ 0606

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

Sample No. 4 - All faucets had slow leak at base.

School: Mission Bay High School

Name of Building: 200

Location Description: Outside hallway Next to #223

Type of Outlet: Bubbler drinking fountain

Description: Left bubbler of two

Comments/Miscellaneous:

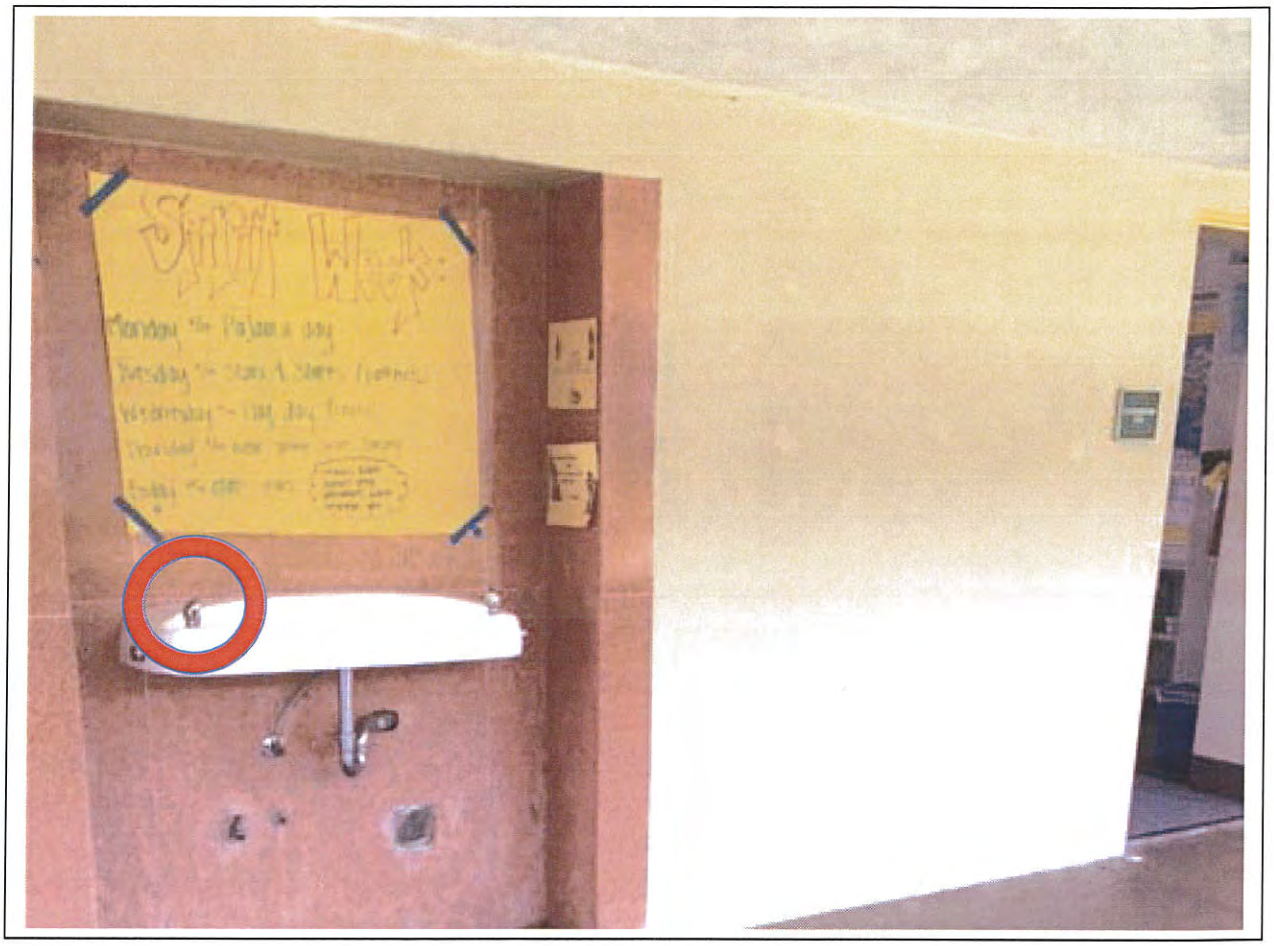

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: 3710020-BFE-D

State Sample ID: W1170236

Date & Time Last Used: 5/15/17 between 6-10pm

Date & Time Sample Collected: 5/16/17 @ 0604

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Johnny Bombo

Sample No. 5

School: Mission Bay High School

Name of Building: 200

Location Description: #271 near athletic fields

Type of Outlet: Bubbler drinking fountain

Description: Left bubbler of two

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: 3710020-BFE-E

State Sample ID: W1170237

Date & Time Last Used: 5/15/17 between 6-10 pm

Date & Time Sample Collected: 5/16/17 @ 0610

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rabe

Water Quality Chemistry Services
Chain of Custody Form

09-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1170233	Mission Bay High	16-MAY-2017	0558	JR	SAMPLE 1	
2	W1170234	Mission Bay High	16-MAY-2017	0601	JR	SAMPLE 2	
3	W1170235	Mission Bay High	16-MAY-2017	0606	JR	SAMPLE 3	
4	W1170236	Mission Bay High	16-MAY-2017	0604	JR	SAMPLE 4	
5	W1170237	Mission Bay High	16-MAY-2017	0610	JR	SAMPLE 5	

Chain of Custody:

Relinquished by: Name: Joshua Rambo Sign:	Received by: Name: Tom Burger Sign: TM B Burger	Date & Time: 5/16/17 @ 0640 Location: ALV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-16-17
LIMS Received Time: 0645
Reviewed By:

1187

1715

Exhibit 31

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Monroe Clark Middle

Physical Address of School: 4388 Thorn St. San Diego, CA 92105

First Bell: 7:35 AM

Meeting Date: 03-22-2017

Sampling Plan Completion Date: 04-05-2017

Completed by Print Name: Joe Kinkead

Signature: _____ Date: 04-05-2017

School's Point of Contact for Sampling Assistance

Name: ~~Joe Kinkead~~ Elizabeth Lara

Phone: ~~619-559-2294~~ 619-302-7616

Email: jkinkead@sandi.net

City of San Diego 3710020

Approved By: _____ 5/1/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Monroe Clark Middle Scholl 4388 Thorn St. San Diego, CA 92105

Sample No. 1

School: Monroe Clark Middle

Name of Building: Kitchen

Location Description: West side of kitchen near service area behind

Type of Outlet: Sink

Description:

Comments/Miscellaneous: Facing west if in front of sink

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168057

State Sample ID: 3710020-AJD-A

Date & Time Last Used: 2200 5/1/17

Date & Time Sample Collected: 0557 5/2/17

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 2

School: Monroe Clark Middle

Name of Building: Main Building

Location Description: Northside of exterior wall adjacent to the lunch arbor, next to room 103

Type of Outlet: Triple bubbler

Description: Center bubbler of furthest west of 2 bubblers

Comments/Miscellaneous: Lunch court arbor is under heavy construction

Blocked by construction. Janitor: "Fountain not used in months"

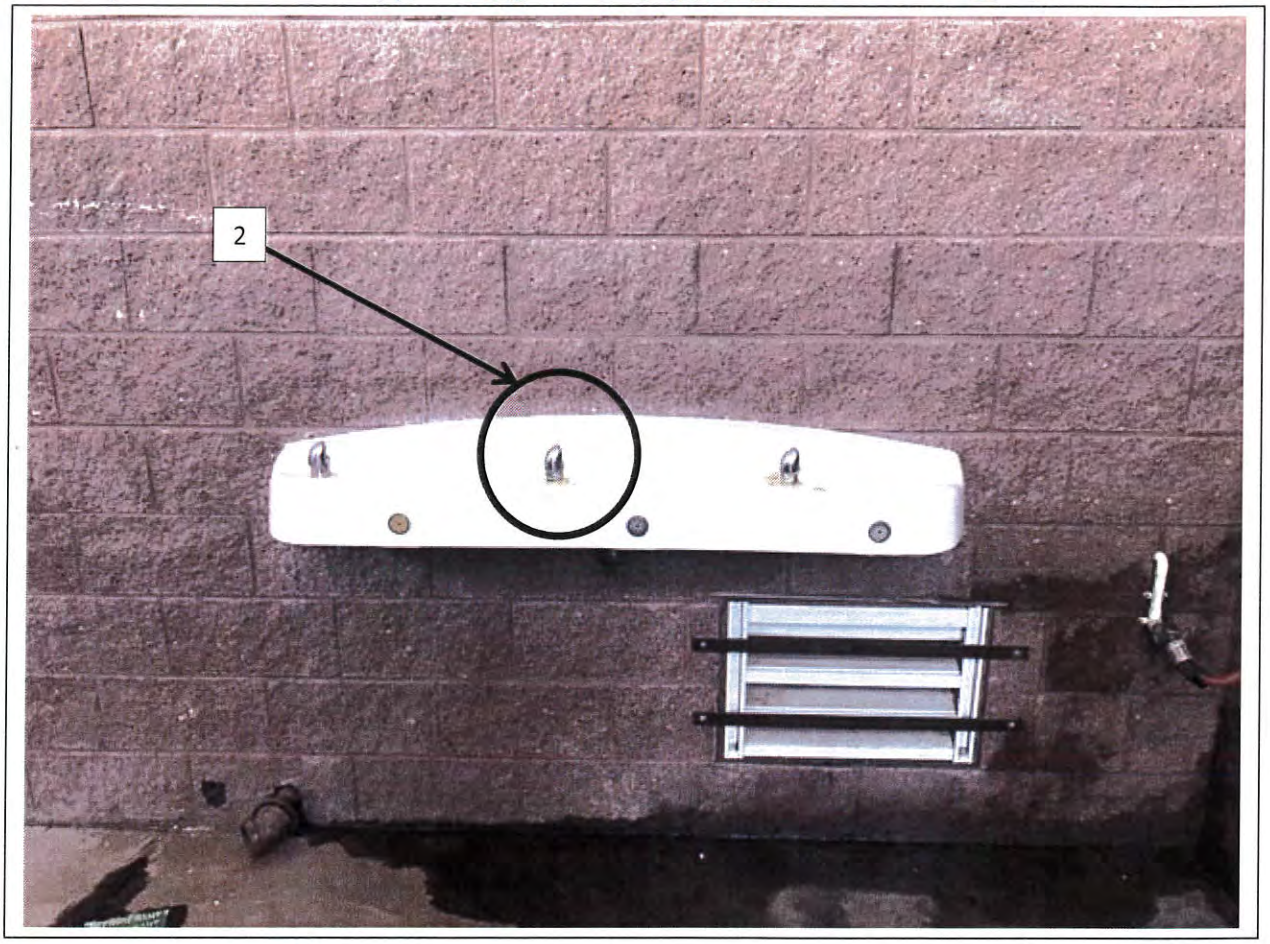

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168058

State Sample ID: 3710020-AJD-B

Date & Time Last Used:

Date & Time Sample Collected: Not Sampled: see note above

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector:

Sample No. 3

School: Monroe Clark Middle

Name of Building: 400 / P.E. Building

Location Description: Exterior drinking fountain on north wall adjacent to racquetball courts

Type of Outlet: bubbler

Description: upper right side bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168059

State Sample ID: 3710020-AJD-C

Date & Time Last Used: 5/1/17 2200

Date & Time Sample Collected: 5/2/17 0617

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: M. Nelson

Sample No. 4

School: Monroe Clark Middle

Name of Building: 400 / PE building

Location Description: Exterior drinking fountain on south side adjacent to racquetball courts

Type of Outlet: bubbler

Description: lower right bubbler

Comments/Miscellaneous:

water turned off to fountain

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168060

State Sample ID: 3710020-AJD-D

Date & Time Last Used:

Date & Time Sample Collected: not sampled - see note above

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector:

Sample No. 5

School: Monroe Clark Middle

Name of Building: 200 Buildiing (room 207)

Location Description: sink in the center of room 207

Type of Outlet: sink

Description:

Comments/Miscellaneous: Oven to right of sink if facing east

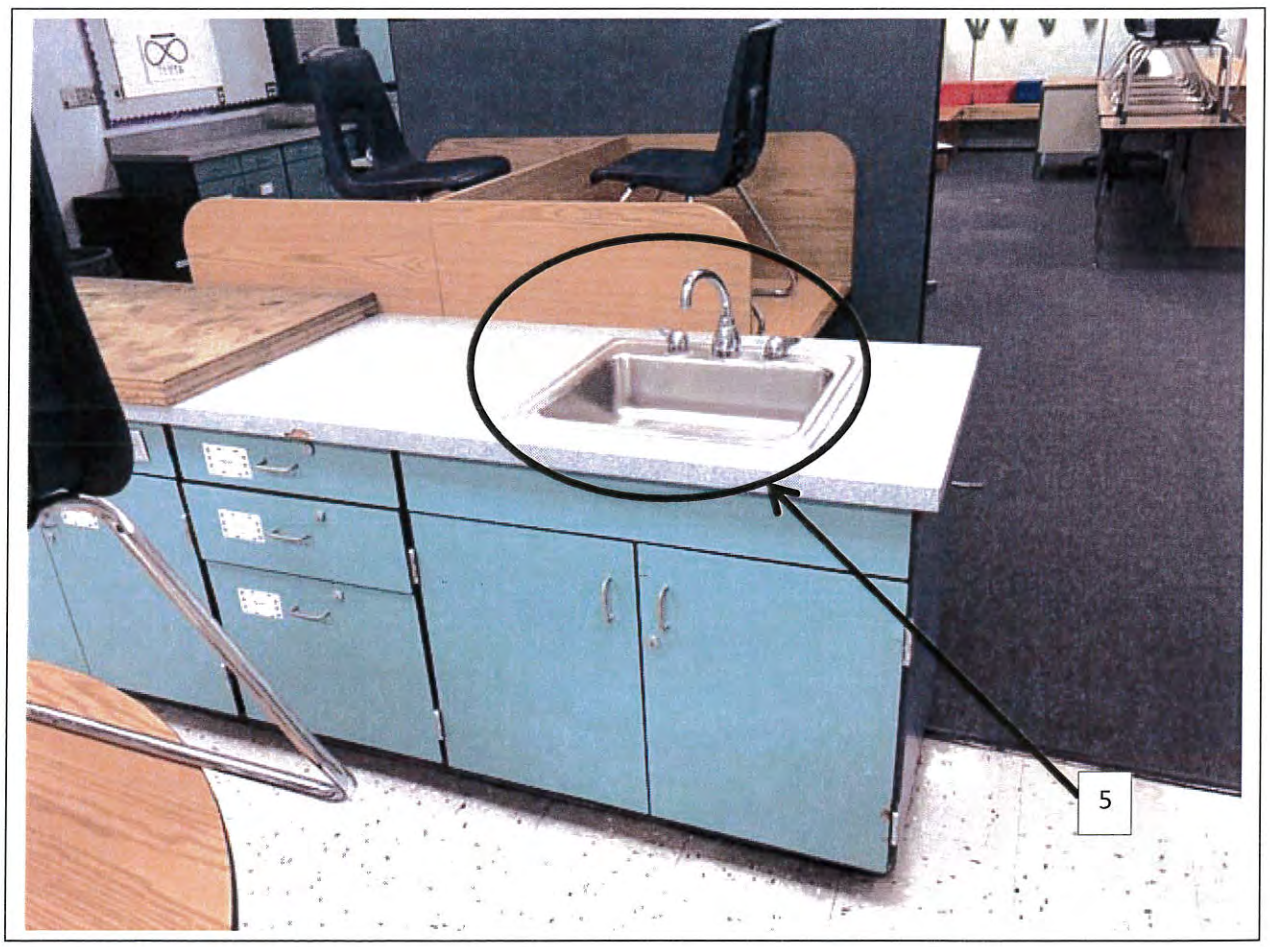

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168061

State Sample ID: 3710020-AJD-E

Date & Time Last Used: 5/1/17 2200

Date & Time Sample Collected: 5/2/17 0613

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

01-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes: Samples 2 and 4 not taken

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168057	Clark Middle	02-MAY-2017	0557	M. Nelson	SAMPLE 1	
2	W1168058	Clark Middle	02-MAY-2017	—		SAMPLE 2	
3	W1168059	Clark Middle	02-MAY-2017	0617	M. Nelson	SAMPLE 3	
4	W1168060	Clark Middle	02-MAY-2017	—		SAMPLE 4	
5	W1168061	Clark Middle	02-MAY-2017	0613	M. Nelson	SAMPLE 5	

1723

Chain of Custody:

Relinquished by: Name: M. Nelson Sign:	Received by: Name: Alejandra Molloy Sign:	Date & Time: 5/2/17 @ 0700 Location: WQL ALV	**Comments:** Sample 2: Blocked by construction. "Fountain not used in months" - Janitor Sample 4: Water supply cut off
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TMalley
Received Date: 5/2/17
LIMS Received Time: 0811
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Monroe Clark Middle

Physical Address of School: 4388 Thorn St. San Diego, CA 92105

First Bell: 7:35 AM

Meeting Date: 03-22-2017

Sampling Plan Completion Date: 04-05-2017

Completed by Print Name: Joe Kinkead

Signature: _____ Date: 04-05-2017

School's Point of Contact for Sampling Assistance

Name: Joe Kinkead

Phone: 619-559-2294

Email: jkinkead@sandi.net

City of San Diego 3710020

Approved By: _____ _____

Signature & Date Print Name

Previously Approved TBurger

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Monroe Clark Middle Scholl 4388 Thorn St. San Diego, CA 92105

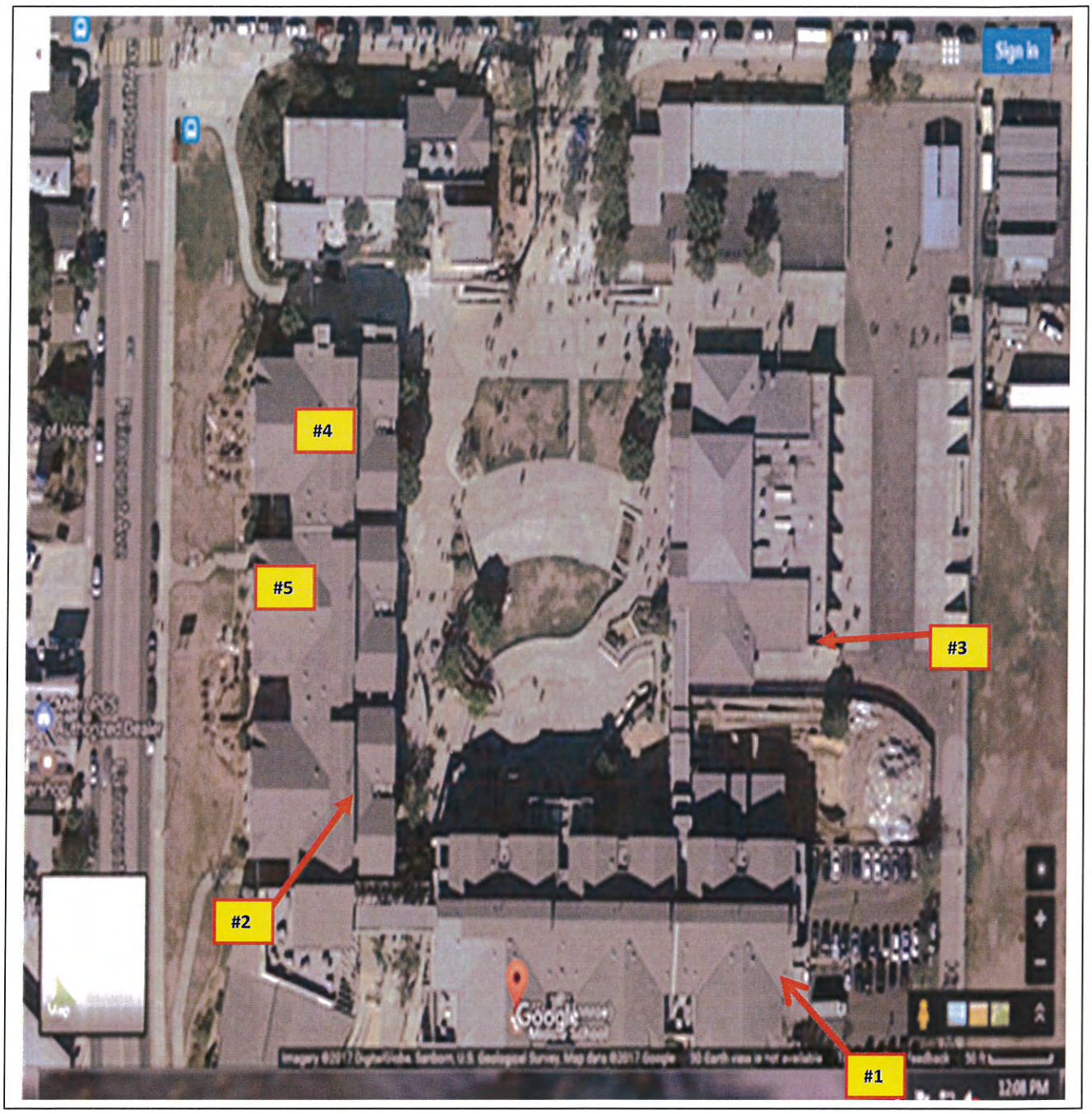

Sample No. 2

School: Monroe Clark Middle

Name of Building: Main Building

Location Description: West side of campus north of Library near parent center

Type of Outlet: 2 Single bubblers

Description: Far right bubber

Comments/Miscellaneous: Under stairs near parent center west side of campus

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171700

State Sample ID: 3710020-AJD-B

Date & Time Last Used: 5/05/17 @ 2200

Date & Time Sample Collected: 5/06/17 @ 0748

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. McH

Sample No. 4

School: Monroe Clark Middle

Name of Building: 200 Building 1st Floor

Location Description: North end of 200 building between Room 208 and 209

Type of Outlet: 2 single bubblers

Description: lower left bubbler

Comments/Miscellaneous: Inside hallway at the end 1st floor

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171699

State Sample ID: 3710020-AJD-D

Date & Time Last Used: 5/05/17 @ 2200

Date & Time Sample Collected: 5/06/17 @ 0751

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Mah

Water Quality Chemistry Services
Chain of Custody Form

08-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1171699	Clark Middle	06-MAY-2017	0748	A. Molloy	SAMPLE 4	
2	W1171700	Clark Middle	06-MAY-2017	0751	↓	SAMPLE 2	

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign: AMolloy	Received by: Name: TOM B Burger Sign: TOM Burger	Date & Time: 5/06/17 @ 0915 Location: WQL AIV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-8-17
LIMS Received Time: 1427
Reviewed By:

Exhibit 31

1728

1200

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Montgomery Middle

Physical Address of School: 2470 Ulric St., San Diego, CA 92111-6099

First Bell: 8:15 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 5-4-2017

Completed by Print Name: Cesar Jimenez

Signature: C.J. Date: 5-4-2017

School's Point of Contact for Sampling Assistance

Name: Cesar Jimenez

Phone: 619-261-1588

Email: cjimenez2@sandi.net

City of San Diego 3710020

Approved By: 5/13/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Montgomery Middle - 2470 Ulric St., San Diego, CA 92111-6099

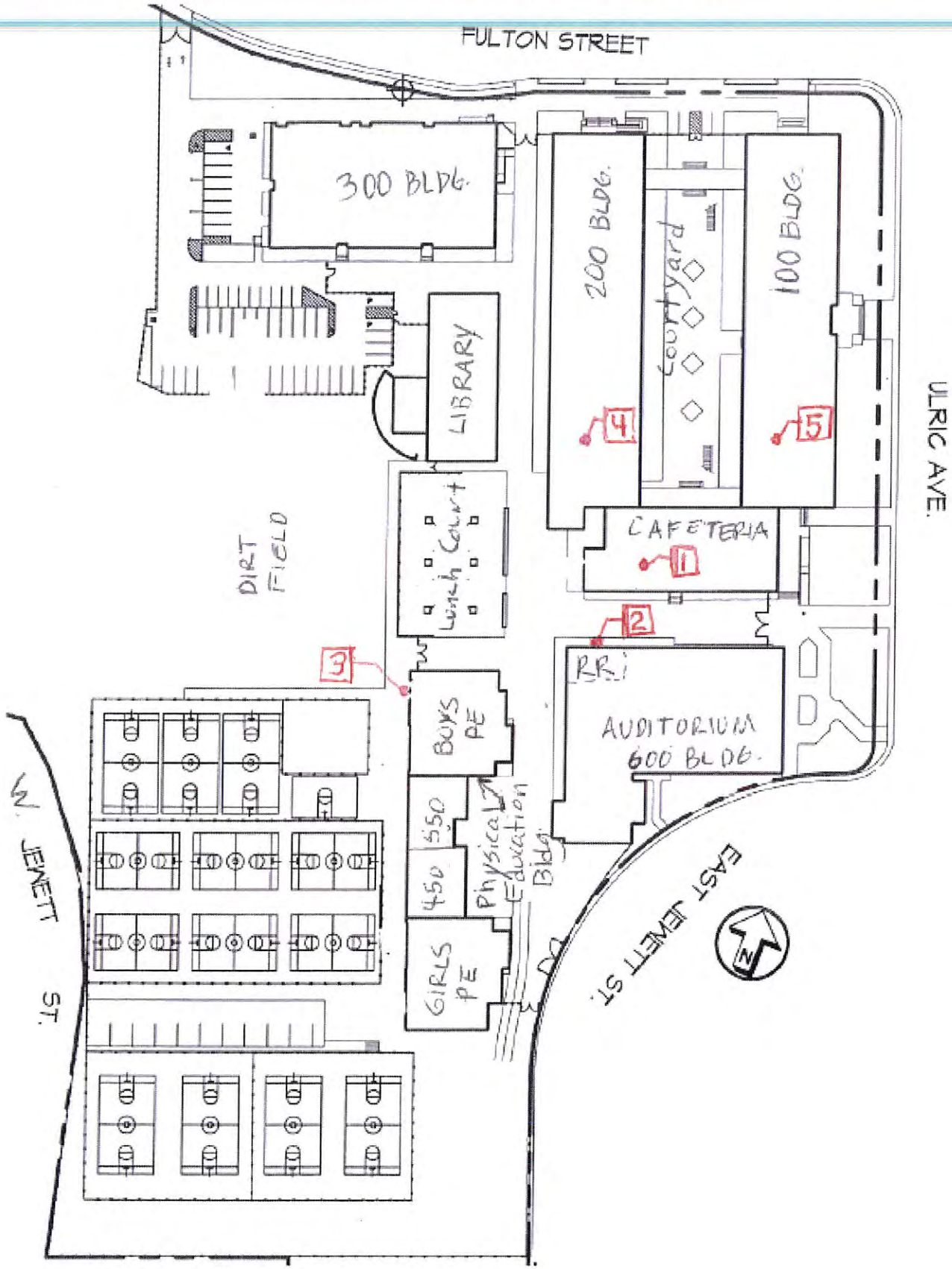

Sample No. 1

School: Montgomery Middle

Name of Building: Cafeteria

Location Description: East face of central room of kitchen

Type of Outlet: Faucet

Description: Faucet on a 2- compartment sink

Comments/Miscellaneous: SDUSD ID code #: 316-01

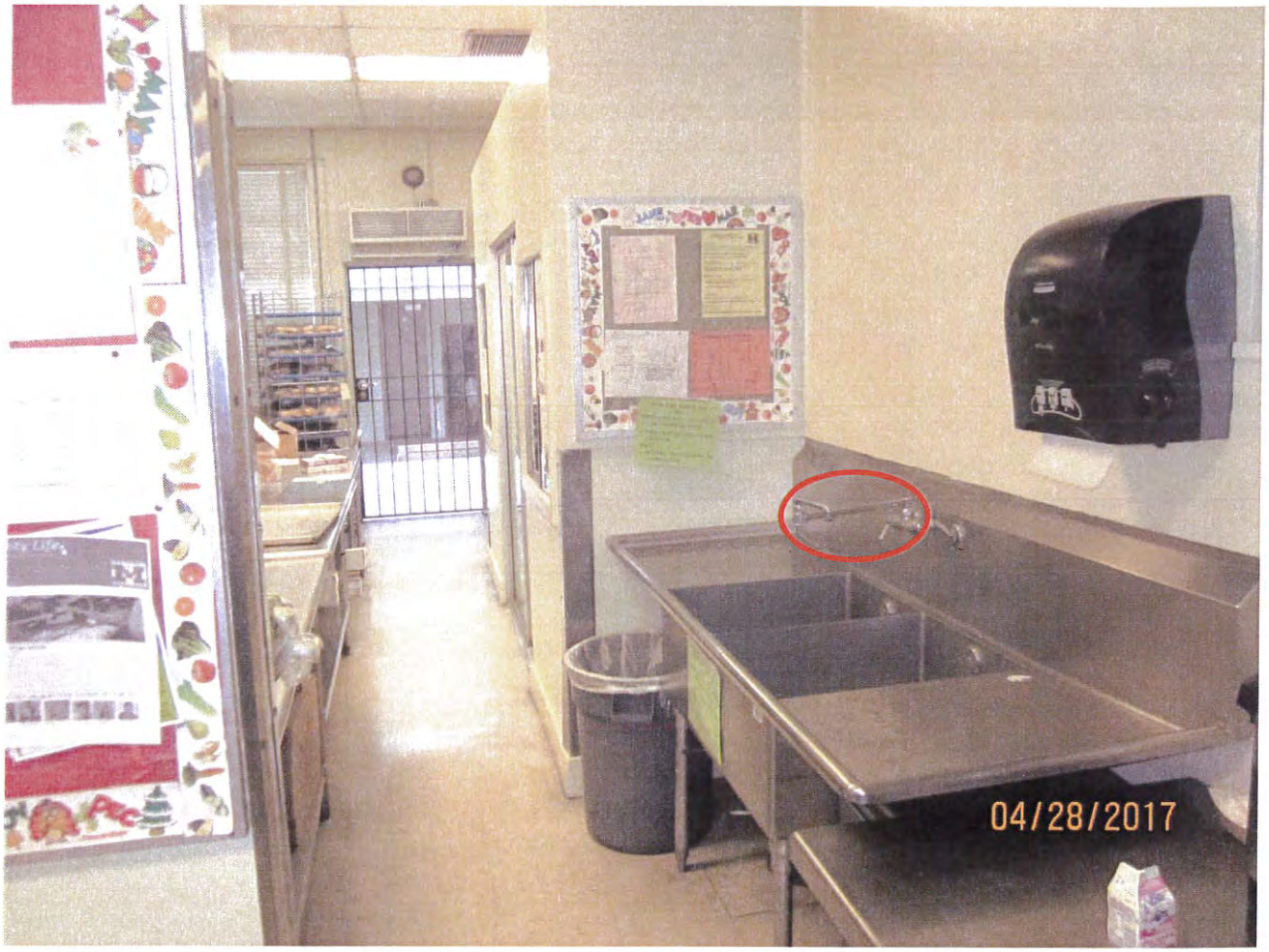

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171727

State Sample ID: 3710020-BGI-A

Date & Time Last Used: 5/12/17 2200

Date & Time Sample Collected: 5/13/17 0737

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 2

School: Montgomery Middle

Name of Building: Auditorium/ 600 Bldg.

Location Description: Exterior north wall, near restrooms

Type of Outlet: Bubbler

Description: Right bubbler on 2- double fountains

Comments/Miscellaneous: SDUSD ID code #: 316-02

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171728

State Sample ID: 3710020-BGI-B

Date & Time Last Used: 5/12/17 2200

Date & Time Sample Collected: 5/13/17 0728

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: M. Nelson

Sample No. 3

School: Montgomery Middle

Name of Building: Physical Education (PE) building

Location Description: Exterior west wall of Boys PE

Type of Outlet: Bubbler

Description: Right/ lower bubbler on double fountain

Comments/Miscellaneous: SDUSD ID code #: 316-03

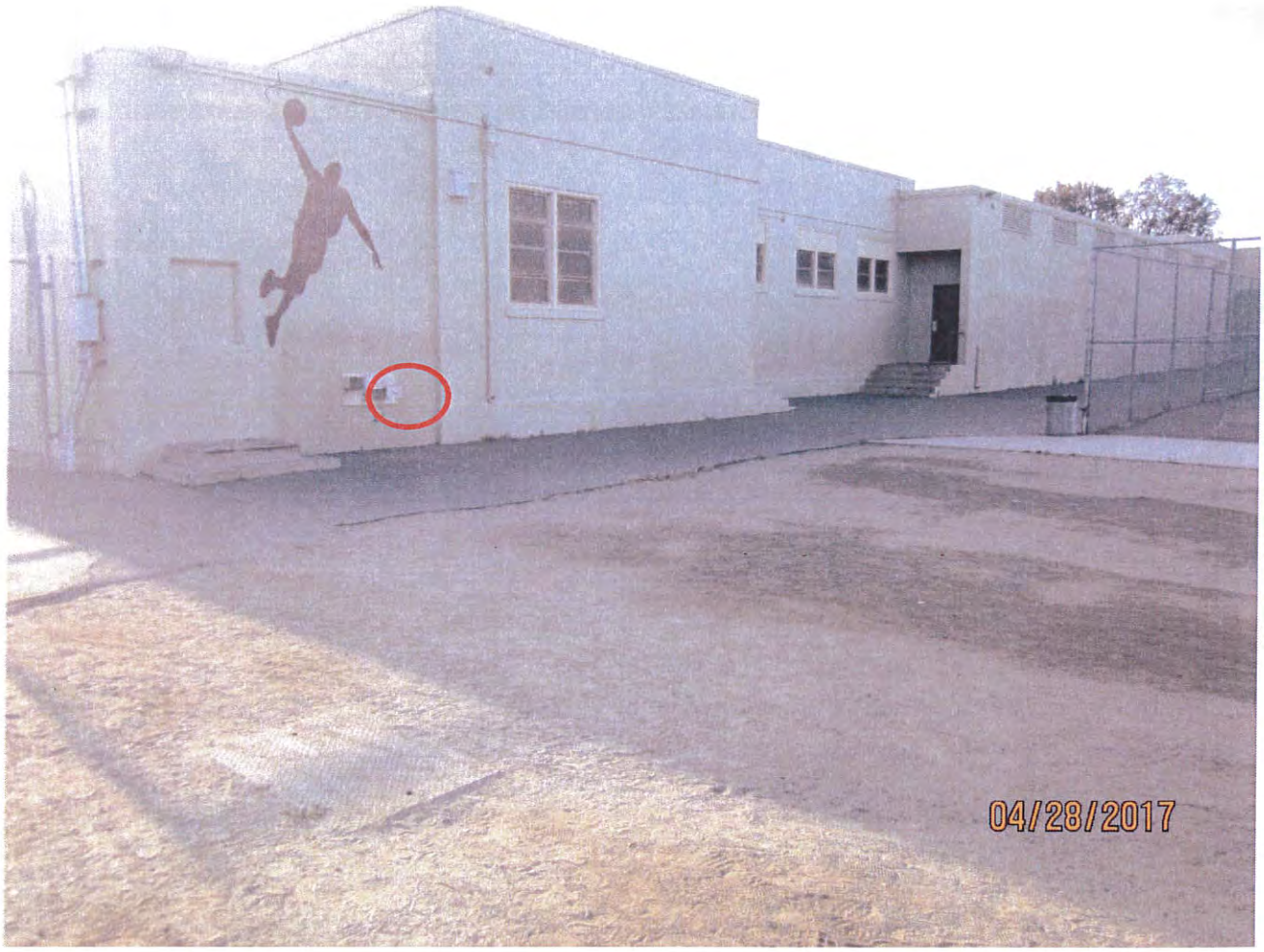

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171729

State Sample ID: 3710020-BGI-C

Date & Time Last Used: 5/12/17 2200

Date & Time Sample Collected: 5/13/17 0732

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 4

School: Montgomery Middle

Name of Building: 200 Bldg.

Location Description: West wall of first floor hallway, near room 214

Type of Outlet: Bubbler

Description: Single fountain

Comments/Miscellaneous: SDUSD ID code #: 316-04

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171730

State Sample ID: 3710020-BGI-D

Date & Time Last Used: 5/12/17 2200

Date & Time Sample Collected: 5/13/17 0740

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 5

School: Montgomery Middle

Name of Building: 100 Bldg.

Location Description: West wall of second floor hallway, near room 160

Type of Outlet: Bubbler

Description: Single fountain

Comments/Miscellaneous: SDUSD ID code #: 316-05

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171731

State Sample ID: 3710020-BGI-E

Date & Time Last Used: 5/12/17 2200

Date & Time Sample Collected: 5/13/17 0748

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

08-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes: Sample #5: Wrong fountain tagged out. New Photo taken. New desciption added to Sample plan, LIMS, and state database

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1171727	Montgomery Middle	13-MAY-2017	0737	M. Nelson	SAMPLE 1	
2	W1171728	Montgomery Middle	13-MAY-2017	0728		SAMPLE 2	
3	W1171729	Montgomery Middle	13-MAY-2017	0732		SAMPLE 3	
4	W1171730	Montgomery Middle	13-MAY-2017	0740		SAMPLE 4	
5	W1171731	Montgomery Middle	13-MAY-2017	0748		SAMPLE 5	

1736

Chain of Custody:

Relinquished by: Name: M. Nelson Sign:	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 5/15/17 @ 0530 Location: WQLAIV	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/15/17
LIMS Received Time: 0629
Reviewed By:

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

15-Jun-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1175869	Montgomery Middle	16-JUN-2017	0610	G Siqueiros	SAMPLE 1	Pb
2	W1175870	Montgomery Middle	16-JUN-2017	0625		SAMPLE 2	
3	W1175871	Montgomery Middle	16-JUN-2017	0620		SAMPLE 3	
4	W1175872	Montgomery Middle	16-JUN-2017	0615		SAMPLE 4	
5	W1175873	Montgomery Middle	16-JUN-2017	0630		SAMPLE 5	

1737

Chain of Custody:

Relinquished by:	Received by:	Date & Time:	Comments:
Name: Gloria Siqueiros Sign:	Name: Tom Burger Sign:	6/16/17 @ 0740 Location: Alvarado	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: T. Burger
Received Date: 6-16-17
LIMS Received Time: 0820
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Montgomery Middle

Physical Address of School: 1051 Picador Blvd. San Diego, CA 92154

First Bell: 7:15 A.M.

Meeting Date: _____

Sampling Plan Completion Date: Aldolpho DelaTorre

Completed by Print Name: _____

Signature: _____ Date: _____

School's Point of Contact for Sampling Assistance

Name: Aldolpho DelaTorre

Phone: (619) 607-0867

Email: Adolfo.delatorre@sweetwaterschools.org

City of San Diego 3710020

Approved By: _____ 5/30/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Montgomery Middle School. 1051 Picador Blvd. San Diego, CA 92154

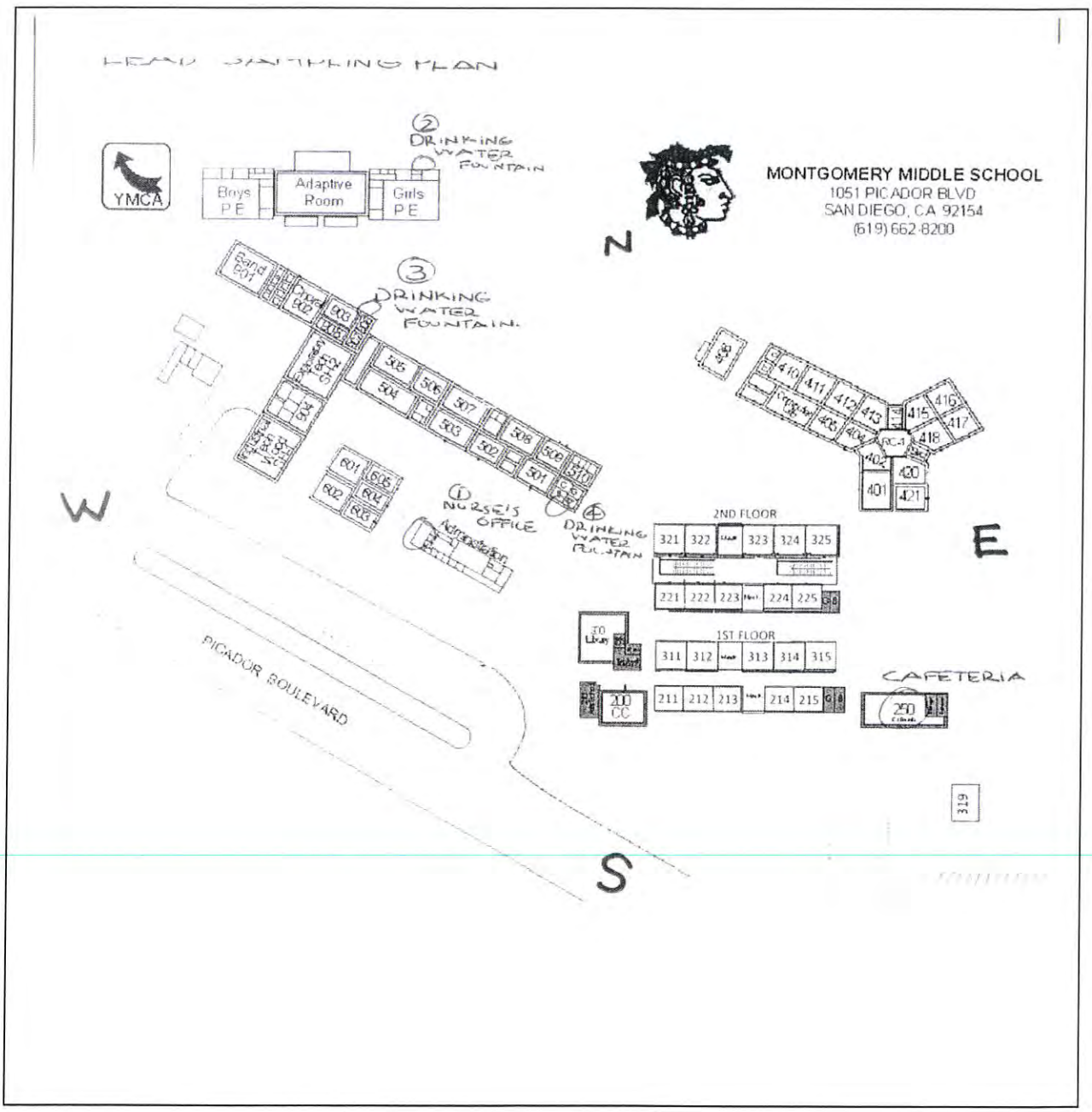

Sample No. 1

School: Montgomery Middle School

Name of Building: Administration Building

Location Description: Nurse's Office

Type of Outlet: Faucet

Description: Faucet at sink

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1175869

State Sample ID: 3710020-BIA-A

Date & Time Last Used: 6/14/17 @ 1400

Date & Time Sample Collected: 6/16/16 @ 0610

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Gloria Siqueiros

Sample No. 2

School: Montgomery Middle School

Name of Building: Girls PE

Location Description: Behind girls PE

Type of Outlet: Bubbler

Description: Right bubbler on dual fountain

Comments/Miscellaneous:

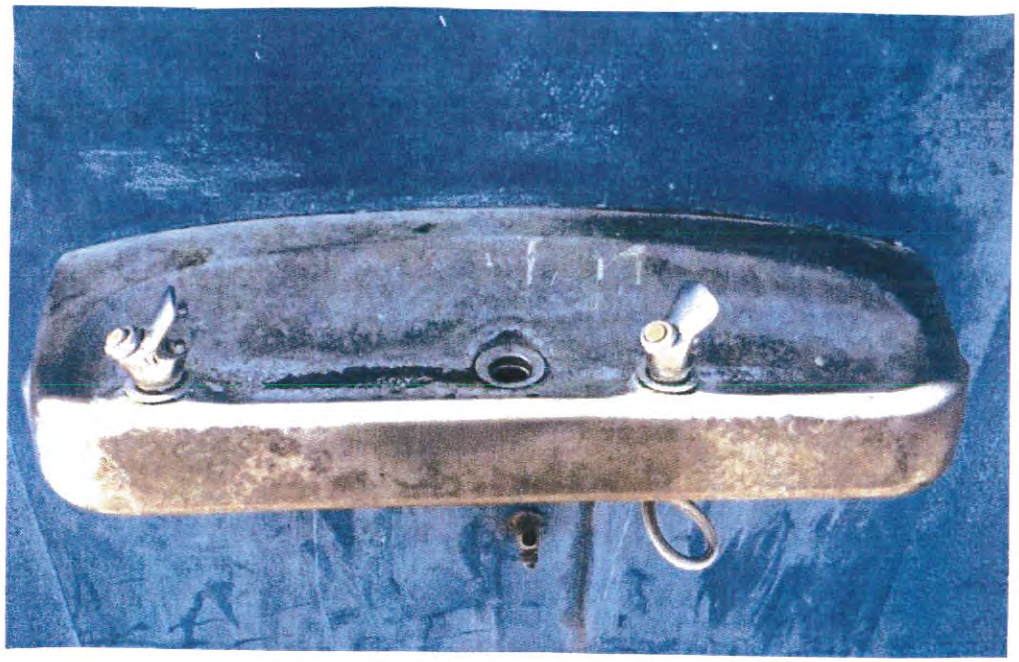

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1175870

State Sample ID: 3710020-BIA-B

Date & Time Last Used: 6/15/17 @ 1300

Date & Time Sample Collected: 6/16/17 @ 0625

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: Gloria Siqueiros

Sample No. 3

School: Montgomery Middle School

Name of Building: 900 Building

Location Description: Between 500 hallway and classroom 903

Type of Outlet: Bubbler

Description: Right bubbler on dual fountain

Comments/Miscellaneous:

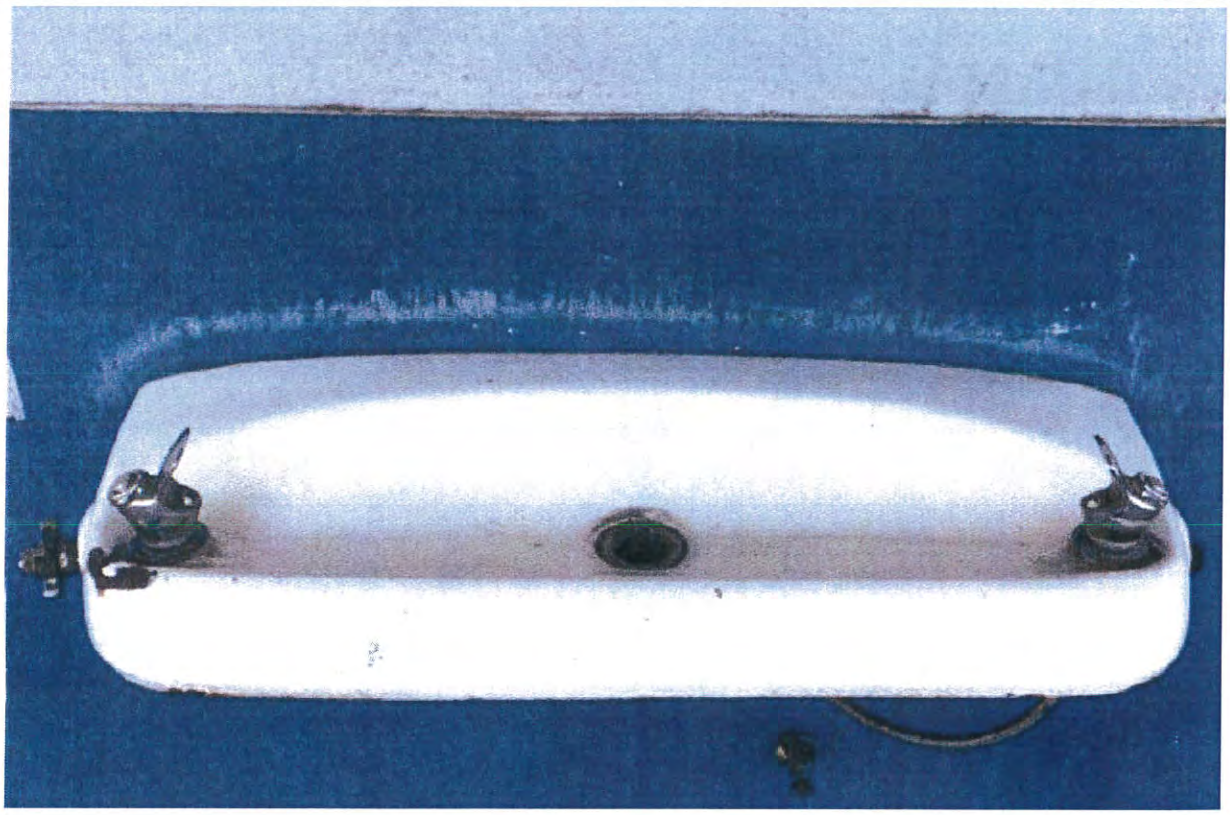

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1175871

State Sample ID: 3710020-BIA-C

Date & Time Last Used: 6/15/17 @ 1500

Date & Time Sample Collected: 6/16/17 @ 0620

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: GLORIA Siqueiros

Sample No. 4

School: Montgomery Middle School

Name of Building: 500 building

Location Description: Between boy's and girl's restrooms

Type of Outlet: Bubbler

Description: Right lower drinking fountain

Comments/Miscellaneous:

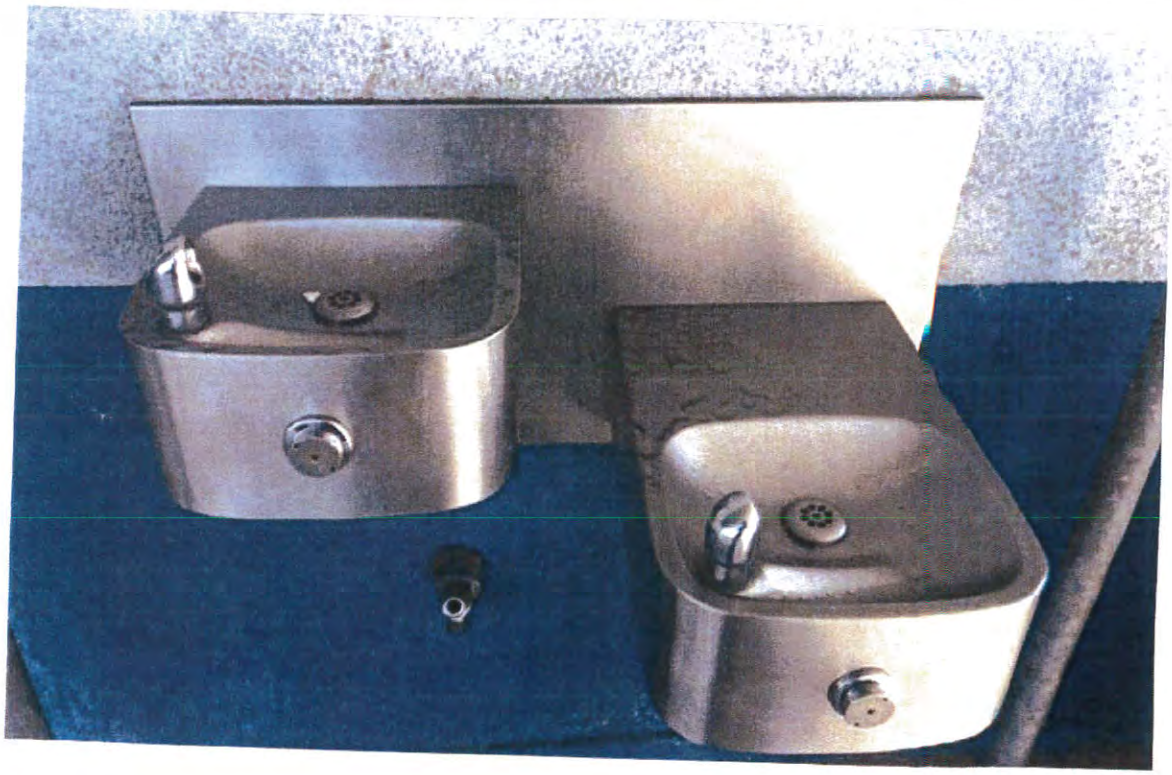

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1175872

State Sample ID: 3710020-BIA-D

Date & Time Last Used: 6/15/17 @ 1500

Date & Time Sample Collected: 6/16/17 @ 0615

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: GLORIA SIQUEIROS

Sample No. 5

School: Montgomery Middle School

Name of Building: Cafeteria

Location Description: By left side of range

Type of Outlet: Faucet

Description: Hot and cold water faucet

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1175873

State Sample ID: 3710020-BIA-E

Date & Time Last Used: 6/15/17 @ 1300

Date & Time Sample Collected: 6/16/15 @ 0630

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: GLORIA SIQUEIROS

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego
Water System Number: 3710020
DOE School Name: Morse High
Physical Address of School: 6905 Skyline Dr, San Diego, CA 92114-5928
First Bell: 7:25 am

Meeting Date: 03/22/2017
Sampling Plan Completion Date: 04/03/2017
Completed by Print Name: Ginette Commins
Signature: GCommins Date: 04/03/2017

School's Point of Contact for Sampling Assistance

Name: ~~Ginette Commins~~ Cesar Jimenez
Phone: ~~(858) 627-7201~~ 619-261-1588
Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-6-17
Signature & Date

Tom Burger
Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Morse High, 6905 Skyline Dr, San Diego, CA 92114-5928

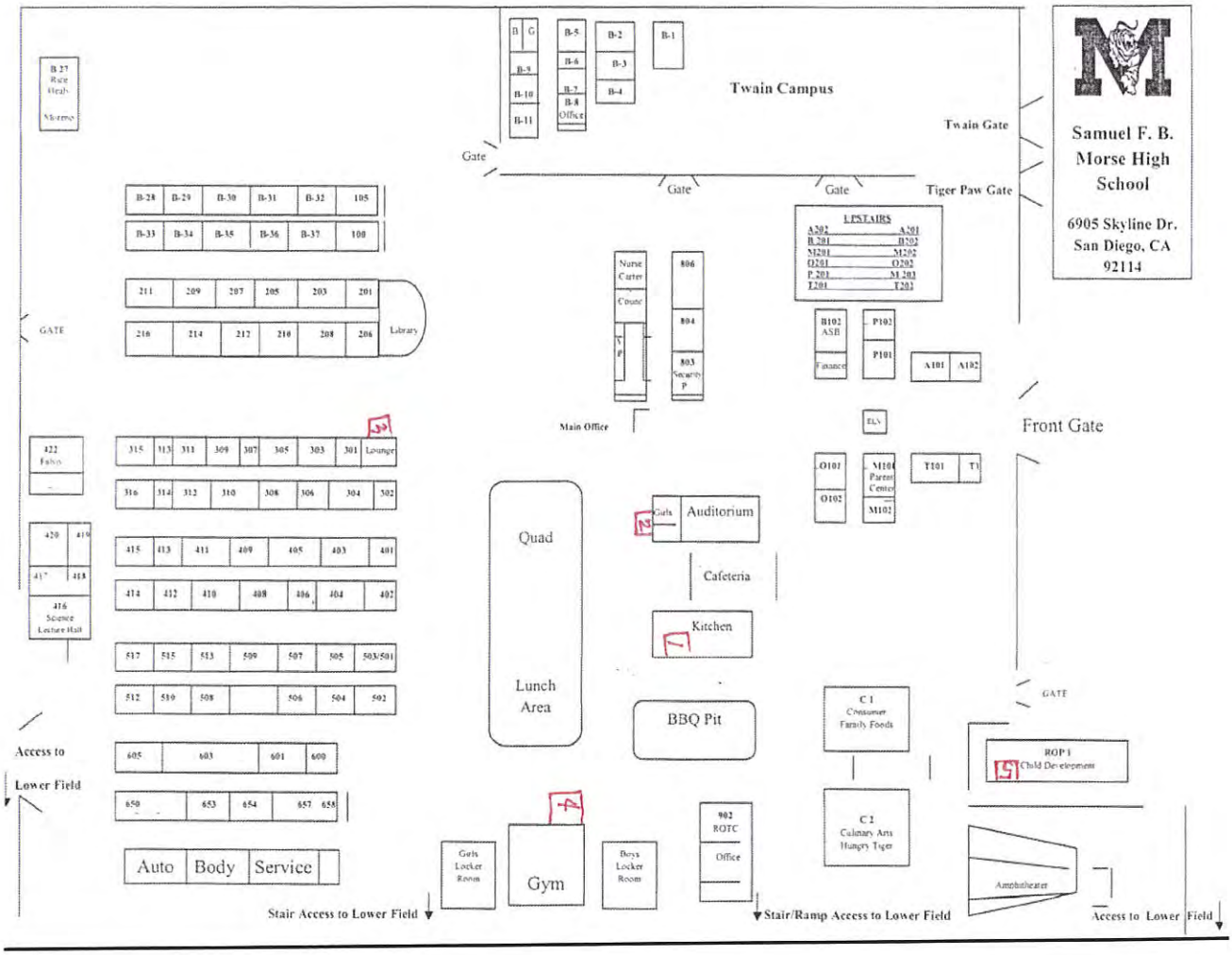

Sample No. 1

School: Morse High

Name of Building: Kitchen

Location Description: Sink in the Prep Kitchen, by the window, next to a food warmer appliance

Type of Outlet: kitchen faucet

Description: cold water faucet as marked

Comments/Miscellaneous: indoor water source for full prep/cooking kitchen serving 9 school sites; SDUSD Location ID# 0352

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165137

State Sample ID: 3710020-ACG-A

Date & Time Last Used: 4/6/17 @ 640pm

Date & Time Sample Collected: 4/7/17 @0611

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Gloria Siqueiros

Sample No. 2

School: Morse High

Name of Building: Auditorium

Location Description: Wall mounted exterior, between Girls & Boys Restrooms, facing Quad/Lunch Area

Type of Outlet: bubbler

Description: triple fountain – left side and left bubbler head

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location ID# 0352

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: W1165138

LIMS Sample ID: 3710020-ACG-B

Date & Time Last Used: 4/6/17 @ 610pm

Date & Time Sample Collected: 4/7/17 @ 0618

Name of Water System Sample Collector: Gloria Siqueiros

direct sample

Sample No. 3

School: Morse High

Name of Building: 300

Location Description: Wall mounted exterior, next to Girls Restroom, facing library/Innovation Center

Type of Outlet: bubbler

Description: left bubbler head

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location ID# 0352

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-ACG-C

LIMS Sample ID: W1165139

Date & Time Last Used: 4/6/17 @ 610pm

Date & Time Sample Collected: 4/7/17 @ 0630

Name of Water System Sample Collector: Gloria Siqueiros

Transfer bottle used

Sample No. 4

School: Morse High

Name of Building: Gymnasium

Location Description: Wall mounted exterior, facing covered walkway and courtyard towards Culinary Arts

Type of Outlet: bubbler

Description: right bubbler head

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location ID# 0352

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165140

State Sample ID: r 3710020-ACG-D

Date & Time Last Used: 4/6/17 @ 610pm

Date & Time Sample Collected: 4/7/17 @ 0624am

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: Gloria Siqueiros

Sample No. 5

School: Morse High

Name of Building: CDC-Child Development Center

Location Description: Room 400 –classroom sink/faucet, next to Room 402 Storage Room

Type of Outlet: bubbler

Description: bubbler at sink with push button cap

Comments/Miscellaneous: indoor drinking water source/SDUSD Location ID# 0352

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-ACG-E

LIMS Sample ID: W1165141

Date & Time Last Used: 4/6/17 @ ~~8~~ 610pm

Date & Time Sample Collected: 4/7/17 @ 0640

Name of Water System Sample Collector: GLORIA SIQUEIROS

Direct Bottle

SD Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 4/18/17

San Diego Unified School District

Morse High School

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1165137	04/07/17	06:11 AM	SAMPLE 1	3710020-ACG-A	< 5	ug/L
W1165138	04/07/17	06:18 AM	SAMPLE 2	3710020-ACG-B	< 5	ug/L
W1165139	04/07/17	06:30 AM	SAMPLE 3	3710020-ACG-C	< 5	ug/L
W1165140	04/07/17	06:24 AM	SAMPLE 4	3710020-ACG-D	< 5	ug/L
W1165141	04/07/17	06:40 AM	SAMPLE 5	3710020-ACG-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Prep kitchen sink, under window, kitchen faucet cold
SAMPLE 2	Auditorium, exterior between boys/girls restroom, facing quad, 3 fountains, left bubbler on dual fixture
SAMPLE 3	BLDG 300, exterior wall, next to girls restroom, facing library/innovation center, left bubbler
SAMPLE 4	Gym, exterior wall, facing covered walkway and courtyard/culinary arts, dual fixture, right bubbler
SAMPLE 5	CDC Room 400, classroom sink, next to Room 402, bubbler at sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
Tom Burger, Associate Chemist

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

06-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1165137	Morse HS	07-APR-2017	0611	G. Siqueiros ~~0611~~	SAMPLE 1	Pb
2	W1165138	Morse HS	07-APR-2017	0618	~~0618~~	SAMPLE 2	↓
3	W1165139	Morse HS	07-APR-2017	0630		SAMPLE 3	↓
4	W1165140	Morse HS	07-APR-2017	0624		SAMPLE 4	↓
5	W1165141	Morse HS	07-APR-2017	0640	↓	SAMPLE 5	↓

1753

Chain of Custody:

Relinquished by: Name: Gloria Siqueiros Sign:	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 4/7/17 @ 0715 Location: Alvarado	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 4/07/17
LIMS Received Time: 0718
Reviewed By:

1225

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Mt. Everest School

Physical Address of School: 4350 Mt. Everest San Diego, CA 92117

First Bell: 7:30 (Students on site Tuesday, Wednesday, Thursday)

Meeting Date: 03-22-2017

Sampling Plan Completion Date: 05-08-2017

Completed by Print Name: Joe Kinkead

Signature: Joe Kinkead Date: 05-08-2017

School's Point of Contact for Sampling Assistance

Name: ~~Joe Kinkead~~ Elizabeth Lara

Phone: ~~619-559-2294~~ 619 302 7616

Email: jkinkead@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/15/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Mt. Everest School 4350 Mt. Everest San Diego, CA 92117

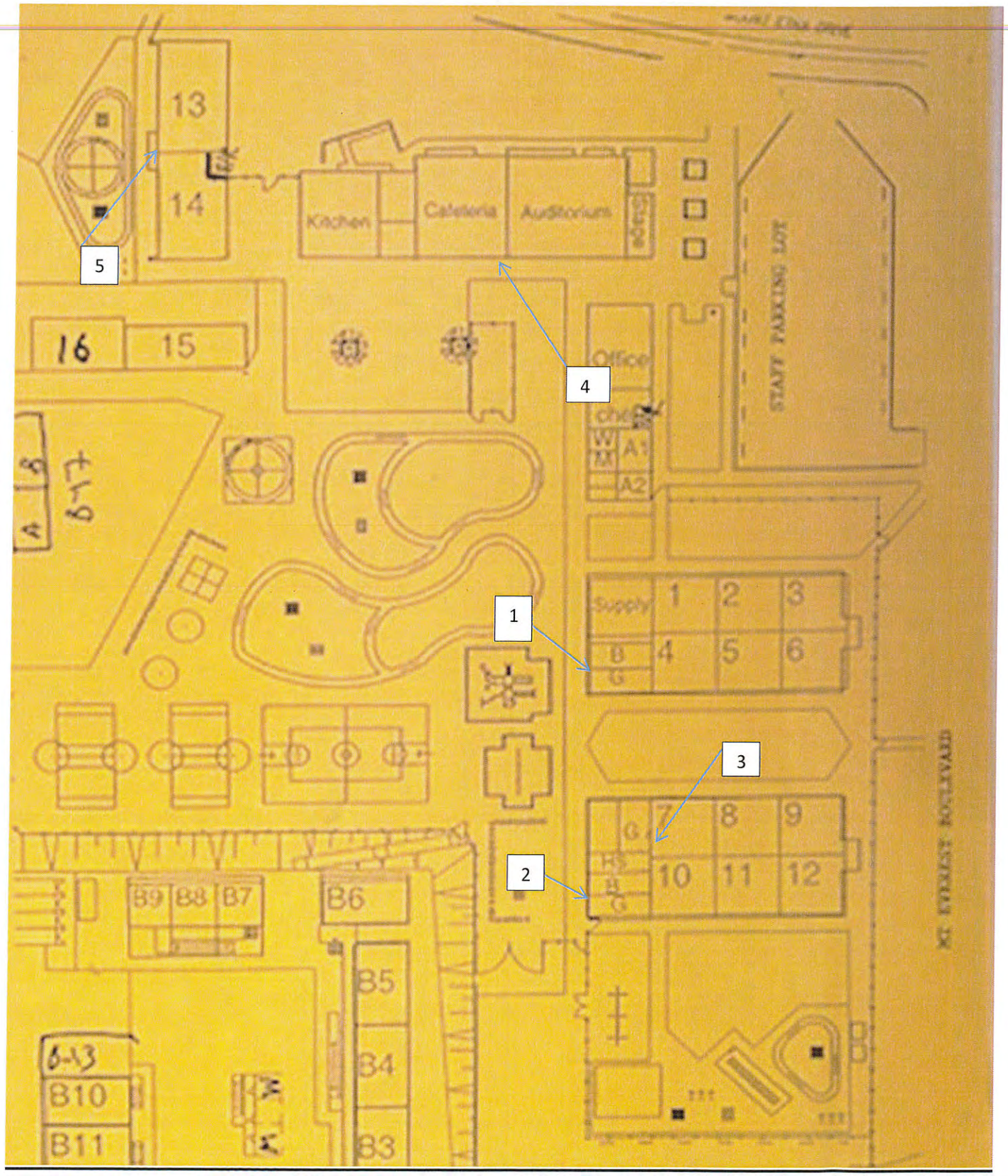

Sample No. 1

School: Mt. Everest School 4350 Mt. Everest San Diego, CA 92117

Name of Building: Classroom building (rooms 1-6)

Location Description: West wall between boys and girls restrooms (next to custodial gear locker)

Type of Outlet: Bubbler

Description: Top left bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172837

State Sample ID: 3710020-BIC-A

Date & Time Last Used: 5/16/17 2200

Date & Time Sample Collected: 5/17/17 0608

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 2

School: Mt. Everest School 4350 Mt. Everest San Diego, CA 92117

Name of Building: Classroom building (rooms 7-12)

Location Description: West wall between unisex restroom and custodial gear locker

Type of Outlet: Bubbler

Description: Lower left bubbler

Comments/Miscellaneous:

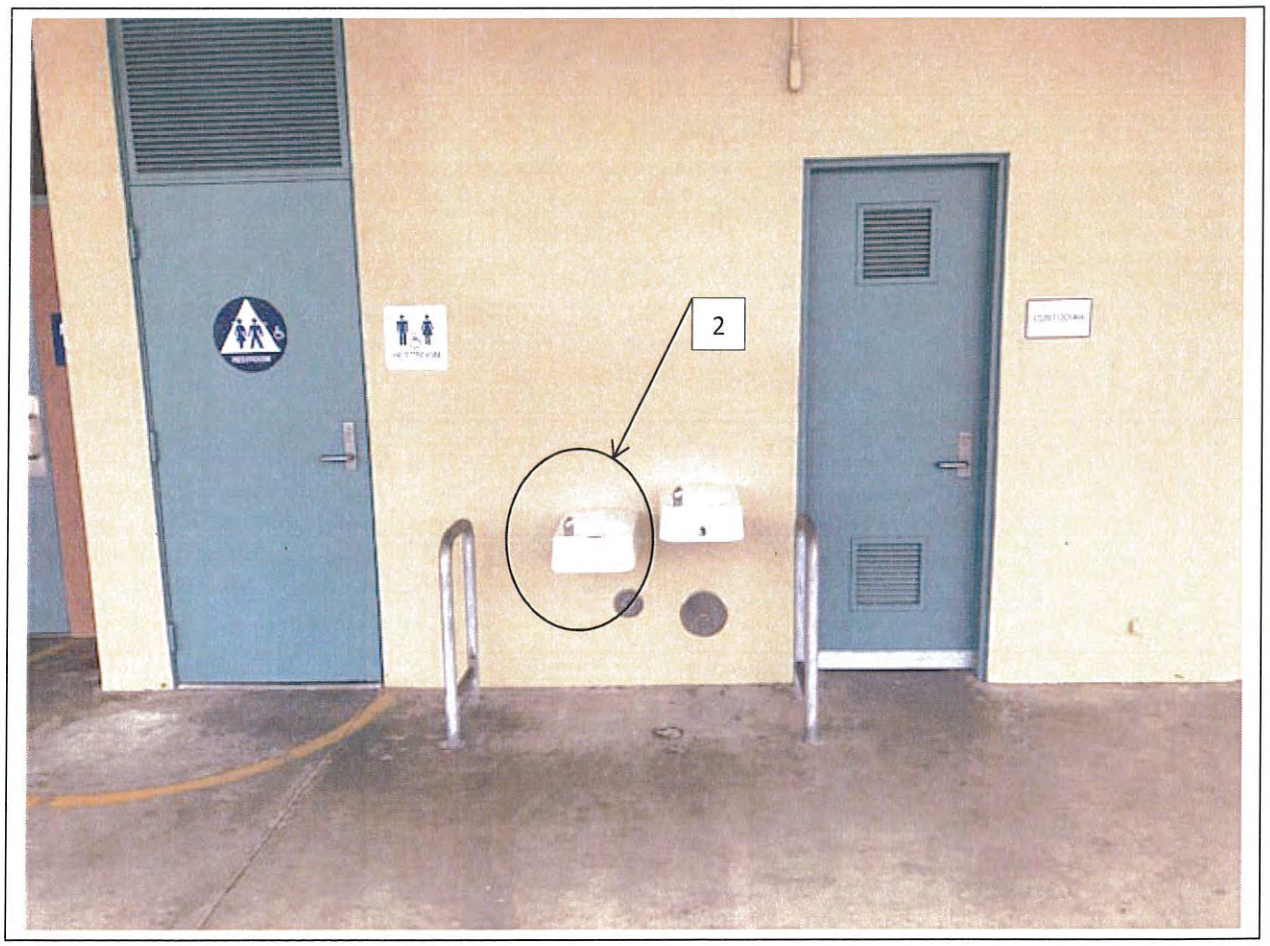

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172838

State Sample ID: 3710020-BIC-B

Date & Time Last Used: 5/16/17 2200

Date & Time Sample Collected: 5/17/17 0611

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 3

School: Mt. Everest School 4350 Mt. Everest San Diego, CA 92117

Name of Building: Classroom building (rooms 7-12)

Location Description: Inside room 7 southwest corner

Type of Outlet: Bubbler

Description: Bubbler at single compartment sink

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172839

State Sample ID: 3710020-BIC-C

Date & Time Last Used: 5/16/17 2200

Date & Time Sample Collected: 5/17/17 0615

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Mejia

Sample No. 4

School: Mt. Everest School 4350 Mt. Everest San Diego, CA 92117

Name of Building: Auditorium, Cafeteria building

Location Description: South wall outside kitchen next to auditorium door

Type of Outlet: Bubbler

Description: Upper left bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172840

State Sample ID: 3710020-BIC-D

Date & Time Last Used: 5/16/17 2200

Date & Time Sample Collected: 5/17/17 0602

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 5

School: Mt. Everest School 4350 Mt. Everest San Diego, CA 92117

Name of Building: Classroom building (rooms 13-14)

Location Description: West wall between offices

Type of Outlet: Bubbler

Description: Upper right bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172841

State Sample ID: 3710020-BIC-E

Date & Time Last Used: 5/16/17 2200

Date & Time Sample Collected: 5/17/17 0605

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

15-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1172837	Mt. Everest Academy	17-MAY-2017	0608	M. Nelson	SAMPLE 1	
2	W1172838	Mt. Everest Academy	17-MAY-2017	0611		SAMPLE 2	
3	W1172839	Mt. Everest Academy	17-MAY-2017	0615		SAMPLE 3	
4	W1172840	Mt. Everest Academy	17-MAY-2017	0602		SAMPLE 4	
5	W1172841	Mt. Everest Academy	17-MAY-2017	0605		SAMPLE 5	

1761

Chain of Custody:

Relinquished by: Name: M. Nelson Sign:	Received by: Name: Tom Burger Sign: Tom B Burger	Date & Time: 5-17-17 0730 Location: ALV LAB	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-17-17
LIMS Received Time: 1000
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: 317 Muirlands Middle School

Physical Address of School: 1056 Nautilus St. San Diego Ca. 92037

First Bell: 7:55

Meeting Date: 3/22/2017

Sampling Plan Completion Date: 4/27/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 4/27/2017

School's Point of Contact for Sampling Assistance

Name: Elizabeth Lara

Phone: 619-302-7616

Email: elara@sandi.net

City of San Diego 3710020

Approved By: 5/2/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Muirlands Middle School 1056 Nautilus St. San Diego Ca 92037

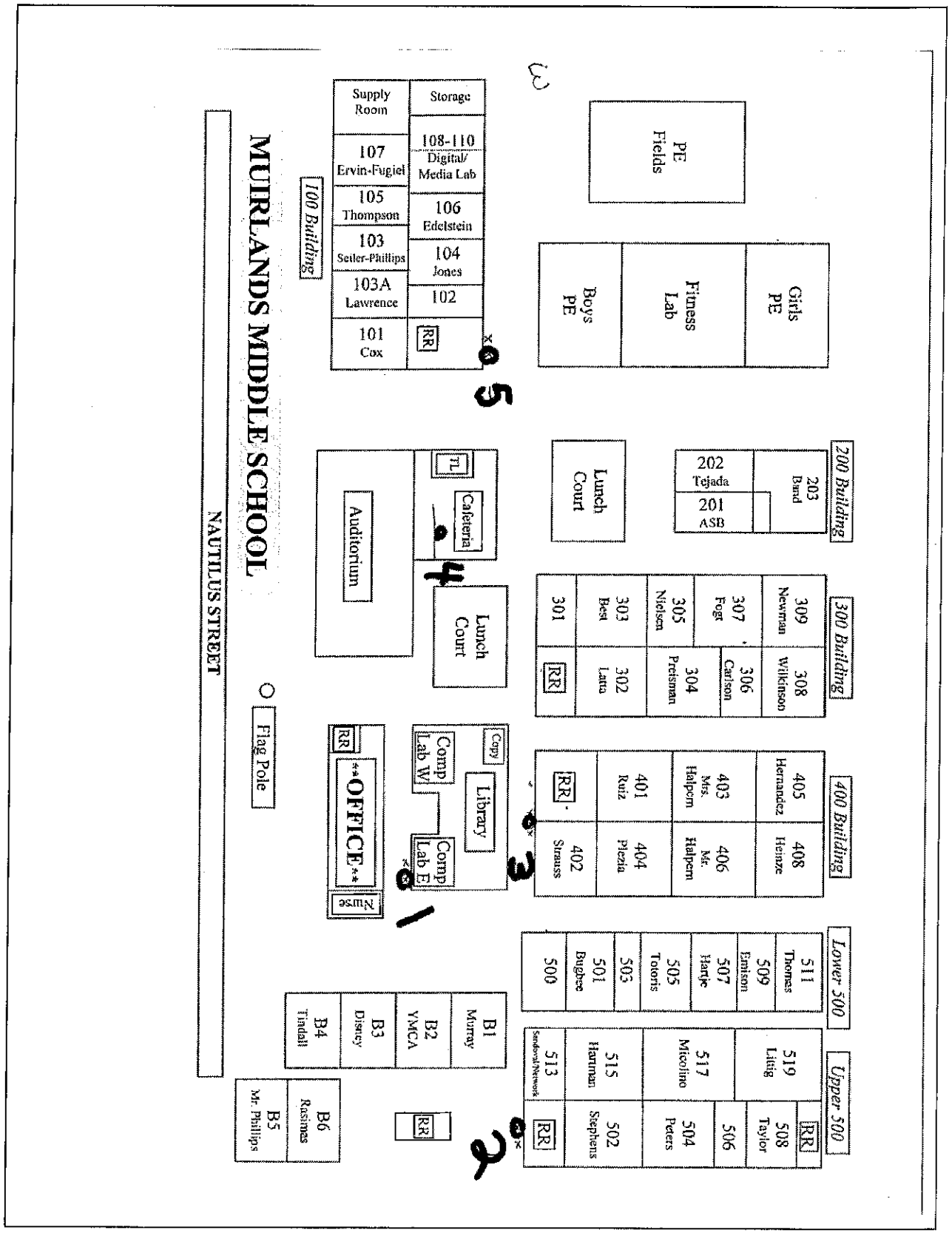

Sample No. 1

School: Muirlands Middle School

Name of Building: Library

Location Description: Outside in front of Comp Lab E across from office

Type of Outlet: Bubbler drinking fountain

Description: Right bubbler of two on muilti bubbler drinking fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170238

State Sample ID: 3710020-BFF-A

Date & Time Last Used: 5/12/17 2200

Date & Time Sample Collected: 5/13/17 0901

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 2

School: Muirlands Middle School

Name of Building: Upper 500

Location Description: In hall between boys /girls restrooms and lockers

Type of Outlet: Bubbler drinking fountain

Description: Left bubbler of Left set drinking fountains

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170239

State Sample ID: 3710020-BFF-B

Date & Time Last Used: 5/12/17 2200

Date & Time Sample Collected: 5/13/17 0859

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 3

School: Muirlands Middle School

Name of Building: 400 building

Location Description: Outside south hall near restroom and 402-green & blue sign above

Type of Outlet: Bubbler drinking fountain

Description: Center bubbler of three

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170240

State Sample ID: 3710020-BFF-C

Date & Time Last Used: 5/12/17 2200

Date & Time Sample Collected: 5/13/17 0857

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 4

School: Muirlands Middle School

Name of Building: Cafeteria

Location Description: Inside kitchen next to refrigerator

Type of Outlet: standard kitchen faucet

Description: Food Prep double sink one faucet with hot and cold valve

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170241

State Sample ID: 3710020-BFF-D

Date & Time Last Used: 5/12/17 2200

Date & Time Sample Collected: 5/13/17 0854

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 5

School: Muirlands Middle School

Name of Building: 100 bldg.

Location Description: Down stairs left to 100 bldg. between restrooms/ room 104 is near

Type of Outlet: Bubbler drinking fountain

Description: Left bubbler of two on duel drinking fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170242

State Sample ID: 3710020-BFF-E

Date & Time Last Used: 5/12/17 2200

Date & Time Sample Collected: 5/13/17 0851

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson.

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

08-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1170238	Muirlands Middle	13-MAY-2017	0901	M. Nelson	SAMPLE 1	
2	W1170239	Muirlands Middle	13-MAY-2017	0859		SAMPLE 2	
3	W1170240	Muirlands Middle	13-MAY-2017	0857		SAMPLE 3	
4	W1170241	Muirlands Middle	13-MAY-2017	0854		SAMPLE 4	
5	W1170242	Muirlands Middle	13-MAY-2017	0851		SAMPLE 5	

1770

Chain of Custody:

Relinquished by: Name: M. Nelson Sign:	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 5/15/17 @0530 Location: WQL AW	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/15/17
LIMS Received Time: 0637
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Noah Webster Elementary School

Physical Address of School: 4801 Elm Street; San Diego; California; 92102

First Bell: 9:00 AM

Meeting Date: _____

Sampling Plan Completion Date: _____

Completed by Print Name: _____

Signature: _____ Date: _____

School's Point of Contact for Sampling Assistance

Name: ~~Tim Brown~~ Lori Sherman

Phone: ~~619-302-9427~~ 619-301-9086

Email: tbrown1@sandi.net

City of San Diego 3710020

Approved By: Tom B Burger 4-5-17 _____ Tom Burger _____

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Webster Elem School;4801 Elm St;San Diego California; 92102

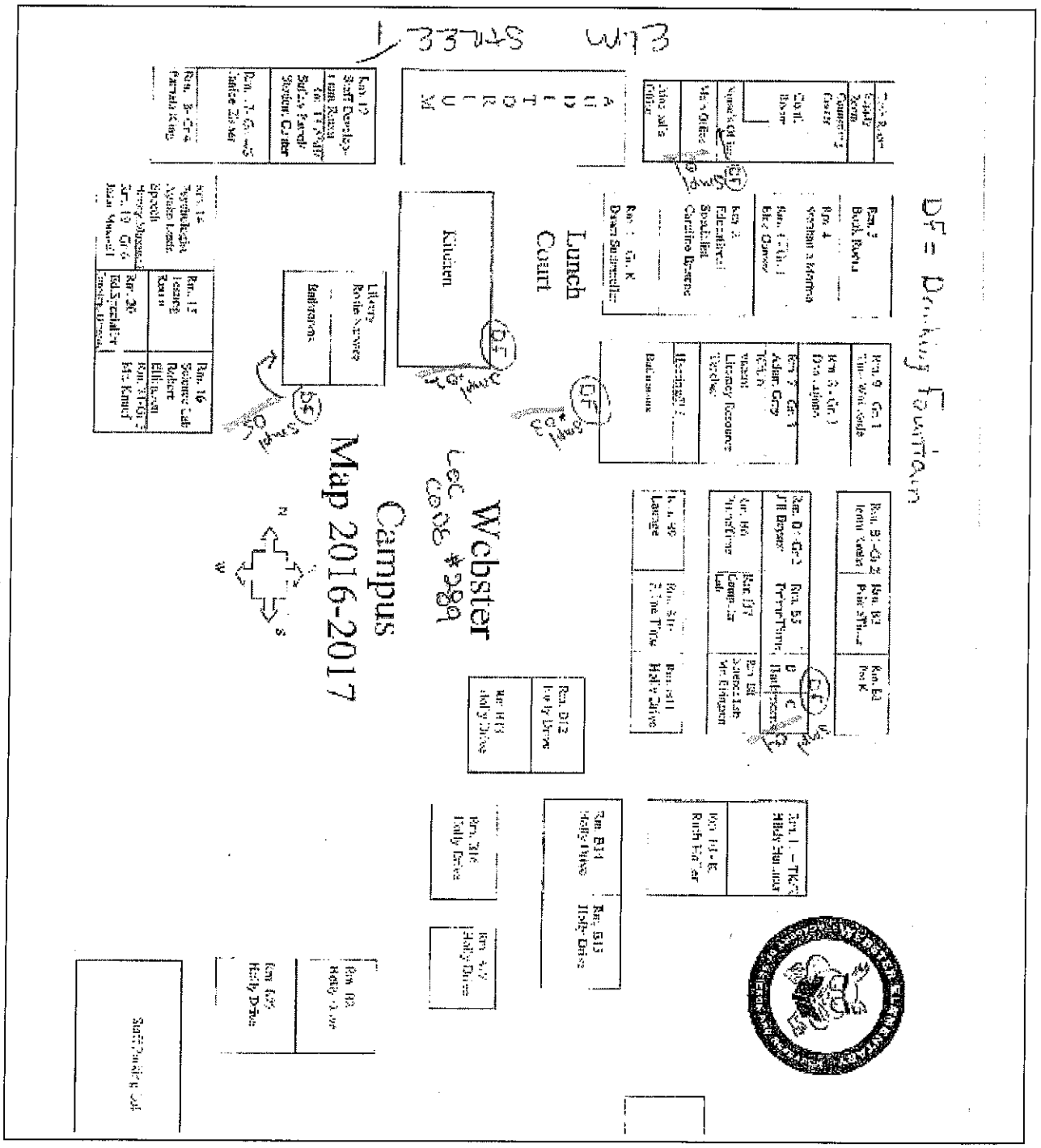

Sample No. 1

School: Webster Elem School

Name of Building Main Office; Administration

Location Description :Loc code #289-01/ Nurses Office

Type of Outlet:

Description: Gooseneck Faucet

Comments/Miscellaneous: used to fill water bottles

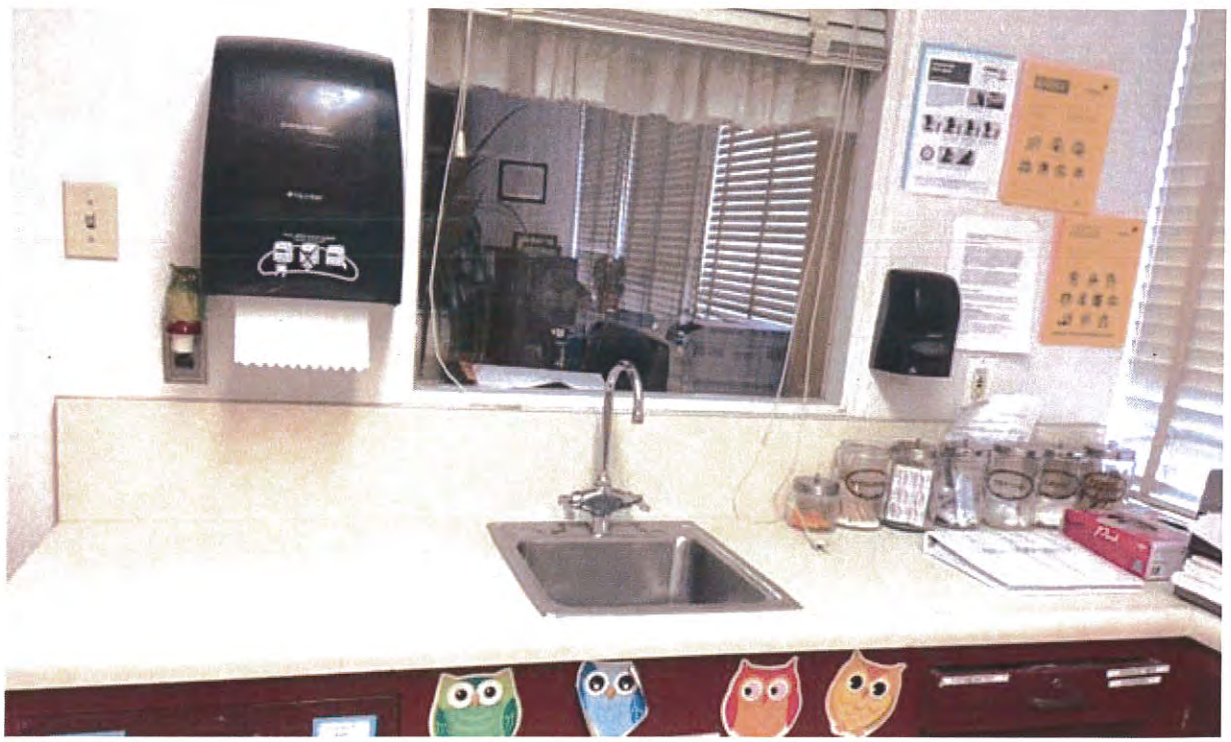

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164507

State Sample ID: 3710020-ABI-A

Date & Time Last Used: 4/5/17 2200

Date & Time Sample Collected: 4/6/17 0615

Name of Water System Sample Collector: D. Sowersby

Sample No. 2

School: Webster Elem School

Name of Building: Cafeteria

Location Description: Loc Code # 289-02

Type of Outlet: Drinking Fountain

Description: Bubbler/ Center Faucet

Comments/Miscellaneous: East facing Exterior Wall in Lunch Court

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164508

State Sample ID: 3710020-ABI-B

Date & Time Last Used: 4/5/17 2200

Date & Time Sample Collected: 4/6/17 0600

Name of Water System Sample Collector: D. Sowersby

Sample No. 3

School: Webster Elem School

Name of Building: Classrooms 6-9

Location Description: Loc Code #289-03

Type of Outlet: Drinking Fountain

Description: Bubbler/ Far Right Faucet

Comments/Miscellaneous: West facing exterior wall between Boys/Girls Bathroom

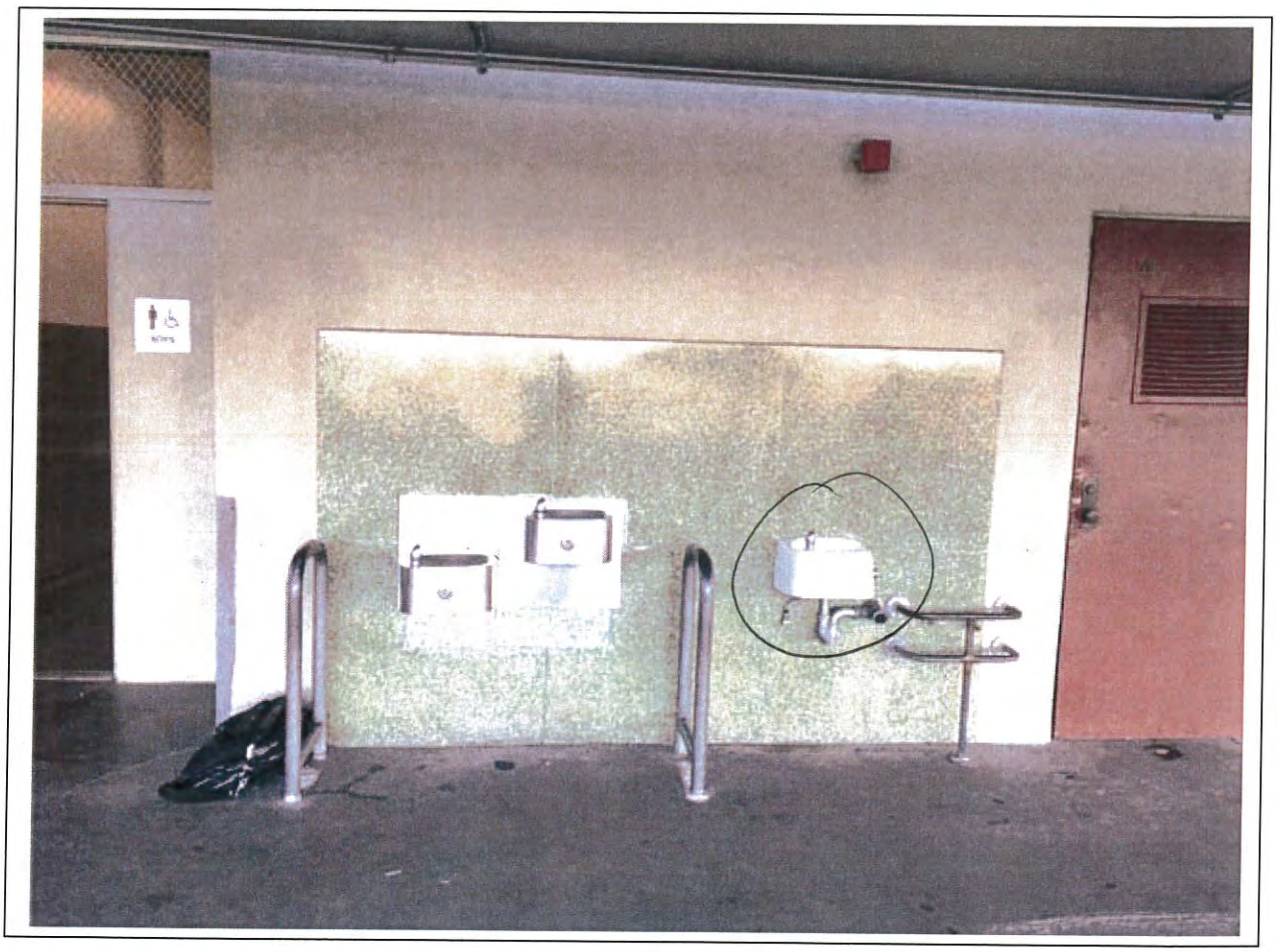

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164509

State Sample ID: 3710020-ABI-C

Date & Time Last Used: ~~DTG~~ 4/5/17 2200

Date & Time Sample Collected: 4/6/17 0602

Name of Water System Sample Collector: D. Sowersby

Sample No. 4

School: Webster Elementary School

Name of Building: Bungalows

Location Description: Loc Code# 289-04

Type of Outlet: Drinking Fountain

Description: Bubbler/ Left Side Station-Far left faucet

Comments/Miscellaneous: East Facing Exterior Wall between Boys/Girls Restroom next to RmB5

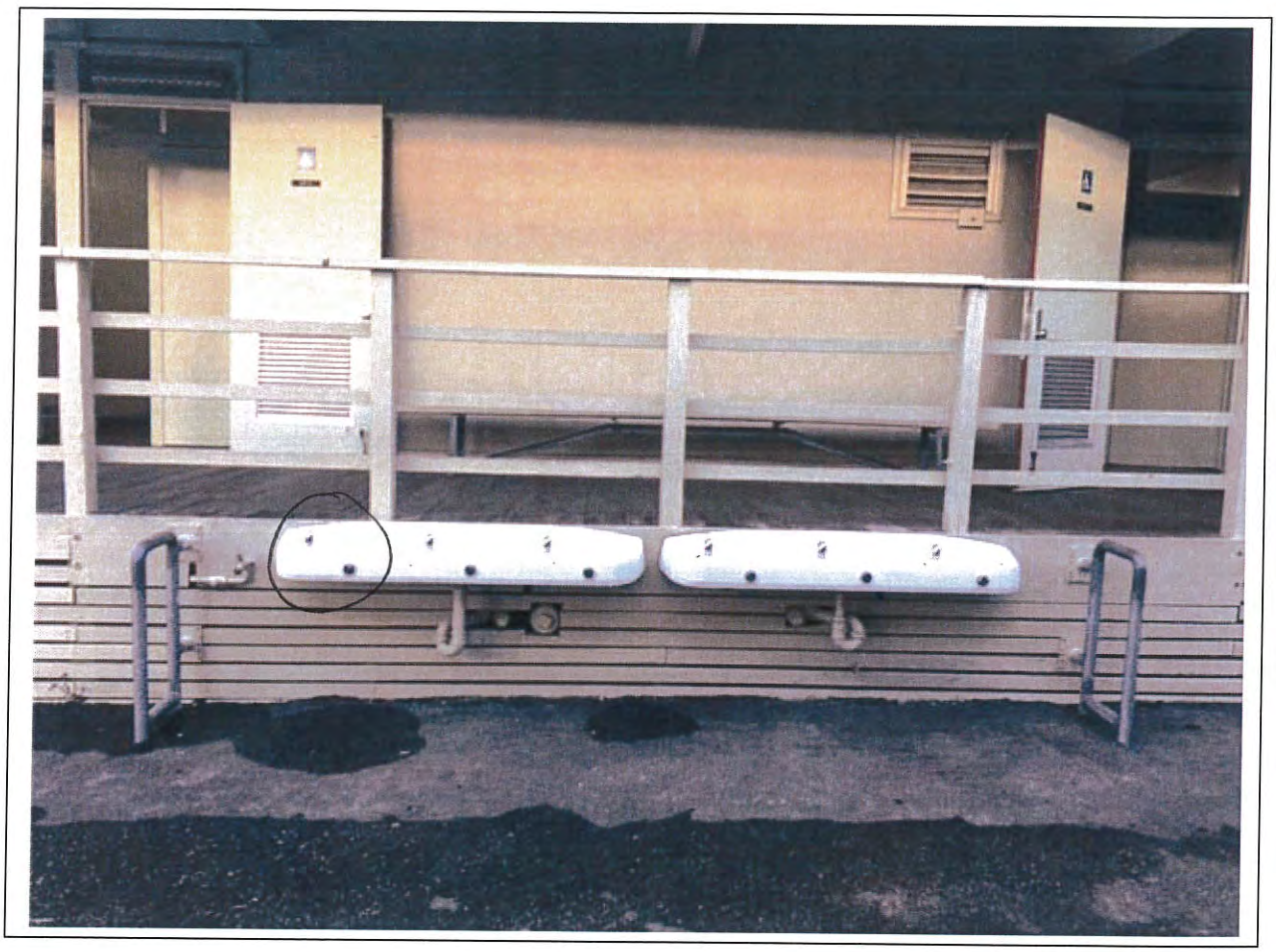

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164510

State Sample ID: 3710020-ABI-D

Date & Time Last Used: 4/5/17 2200

Date & Time Sample Collected: 4/6/17 0605

Name of Water System Sample Collector: D. Sawersby

Sample No. 5

School: Webster Elementary School

Name of Building: Library

Location Description: Loc Code #289-05

Type of Outlet: Drinking Fountain

Description: Bubbler/ Far right Faucet

Comments/Miscellaneous: West facing Exterior Wall across from Rm 16/ 2 Story Building

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164511

State Sample ID: 3710020-ABI-E

Date & Time Last Used: 4/5/17 2200

Date & Time Sample Collected: 4/6/17 0610

Name of Water System Sample Collector: D. Sowersby

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

05-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1164507	Webster Elementary	06-APR-2017	0615	DS	SAMPLE 1	
2	W1164508	Webster Elementary	06-APR-2017	0600	DS.	SAMPLE 2	
3	W1164509	Webster Elementary	06-APR-2017	0602	DS.	SAMPLE 3	
4	W1164510	Webster Elementary	06-APR-2017	0605	DS.	SAMPLE 4	
5	W1164511	Webster Elementary	06-APR-2017	0610	DS.	SAMPLE 5	

1778

Chain of Custody:

Relinquished by: Name: D. Sowersby Sign: D. Sowersby	Received by: Name: Keith Rehlinger Sign:	Date & Time: 4/6/17 0700 Location: ALV	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: KL
Received Date: 4/6/17
LIMS Received Time: 0831
Reviewed By:

Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 4/12/17

San Diego Unified School District

Webster Elementary

Sample ID	Sample Date	Sample Time	Description	External ID	Lead	Units
W1164507	04/06/17	06:15 AM	SAMPLE 1	3710020-ABI-A	< 5	ug/L
W1164508	04/06/17	06:00 AM	SAMPLE 2	3710020-ABI-B	7.14	ug/L
W1164509	04/06/17	06:02 AM	SAMPLE 3	3710020-ABI-C	< 5	ug/L
W1164510	04/06/17	06:05 AM	SAMPLE 4	3710020-ABI-D	5.09	ug/L
W1164511	04/06/17	06:10 AM	SAMPLE 5	3710020-ABI-E	< 5	ug/L

SAMPLE 1 Main office, admin, nurses office,goosneck faucet (289-01)

SAMPLE 2 Cafeteria, east facing wall, center bubbler (289-02)

SAMPLE 3 BLDG rooms 6-9, west wall between boys/girls restroom, far right bubbler (289-03)

SAMPLE 4 Bungalows, east facing, two triple fountains, left triple, far left bubbler (289-04)

SAMPLE 5 Library, west facing, drinking fountains, right bubbler

DLR= State Mandated Detection Limit for Reporting (D
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Normal Heights Elementary

Physical Address of School: 3750 Ward Rd., San Diego, CA 92116-3737

First Bell:

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/13/2017

Completed by Print Name: Ginette Commins

Signature: G Commins Date: 04/13/2017

School's Point of Contact for Sampling Assistance

Name: ~~Ginette Commins~~ Ginette Commins

Phone: ~~(858) 627-7201~~ 619-302-5285

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-28-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Normal Heights Elementary, 3750 Ward Rd, San Diego, CA 92116-3737

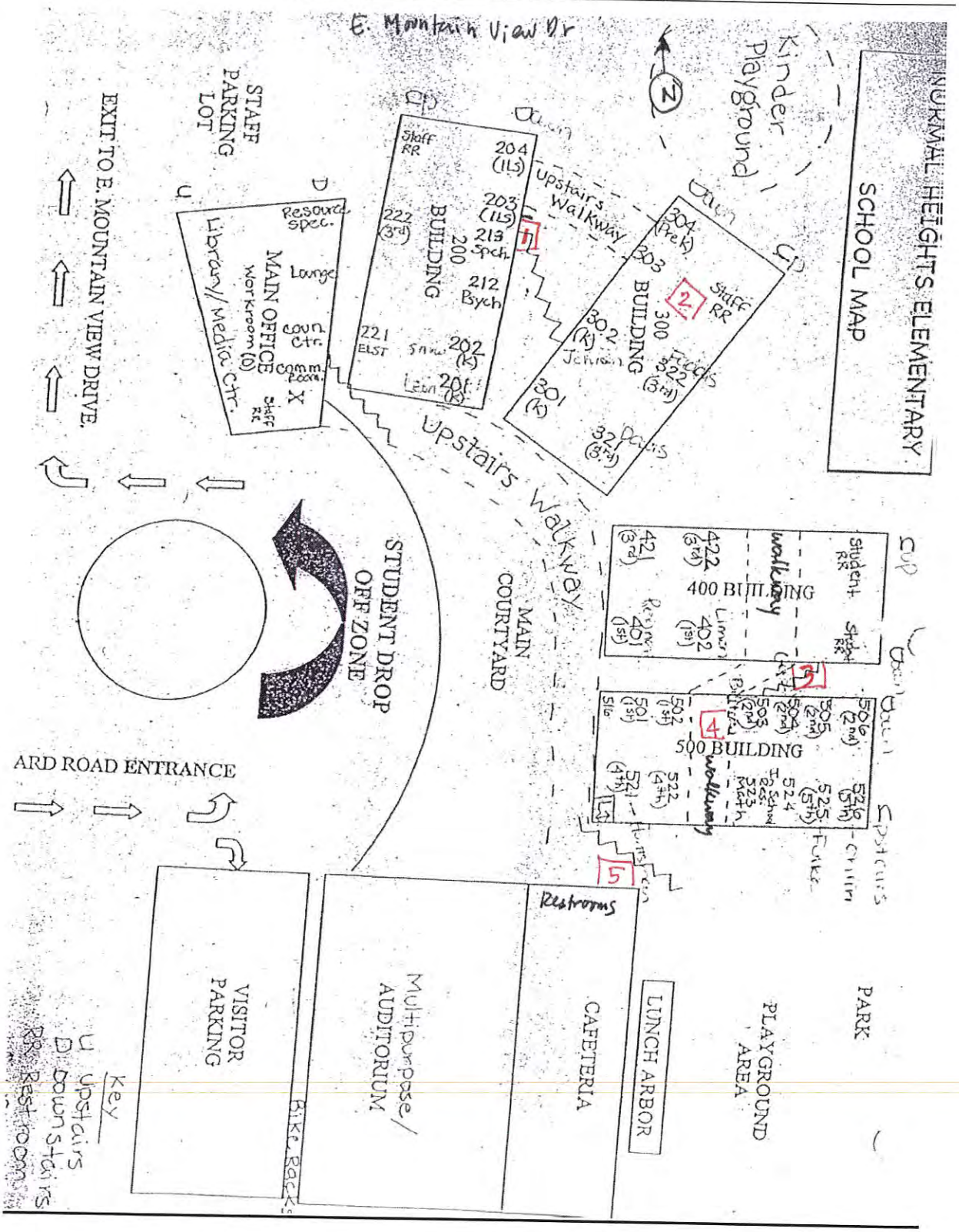

Sample No. 1

School: Normal Heights Elementary

Name of Building: 200

Location Description: Wall mounted exterior (East of Bldg), 1st Floor (Rms 213-203), next to Unisex Restroom facing courtyard

Type of Outlet: bubbler

Description: upper/left bubbler on a dual fountain (MED flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #215

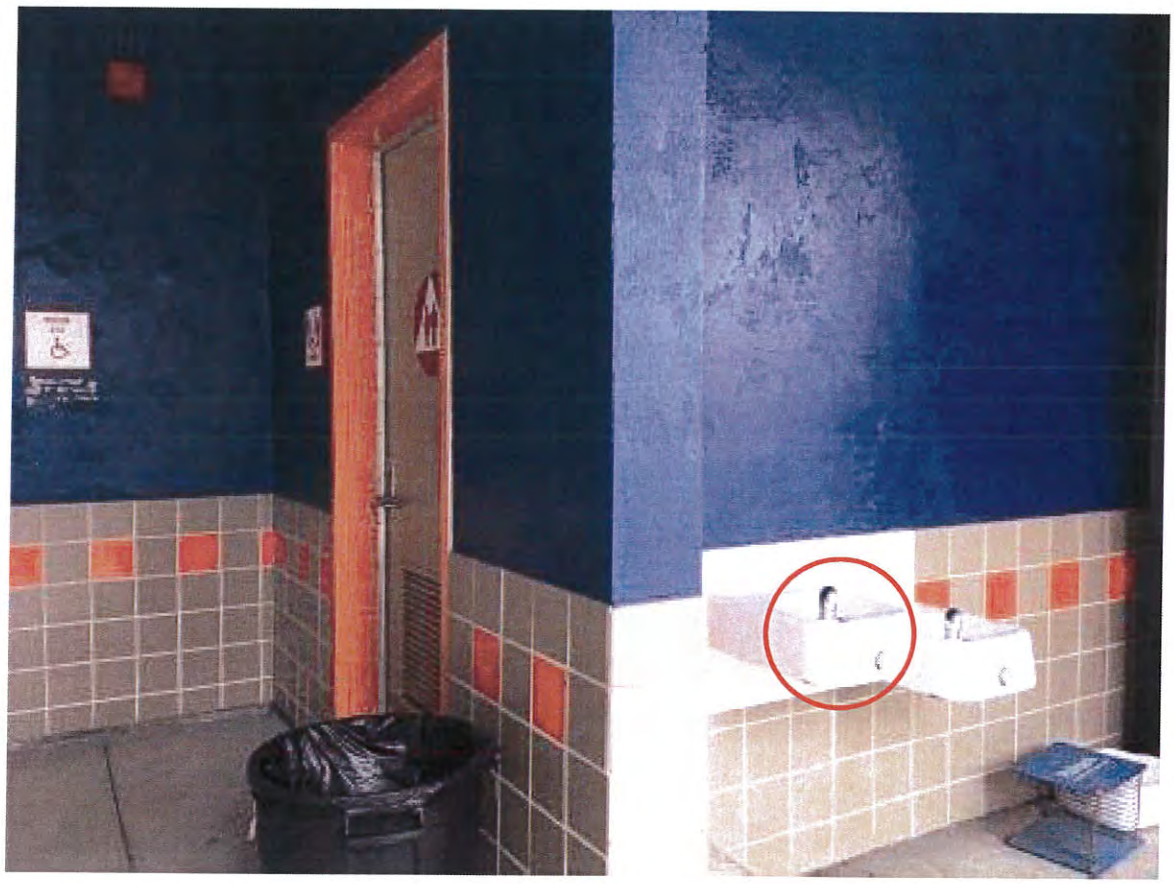

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168368

State Sample ID: 3710020-BBE-A

Date & Time Last Used: 4/28/2017 @ 2200

Date & Time Sample Collected: 4/29/17 @ 0753

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: Normal Heights Elementary

Name of Building: 300

Location Description: Rm 303, classroom sink

Type of Outlet: bubbler

Description: bubbler with lever handle on a sink (MED flow)

Comments/Miscellaneous: indoor drinking water source/SDUSD Location Code #215

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168369

State Sample ID: 3710020-BBE-B

Date & Time Last Used: 4/28/17 @ 2200

Date & Time Sample Collected: 4/29/17 @ 755

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: Normal Heights Elementary

Name of Building: 400

Location Description: Wall mounted exterior (South of Bldg), 1st Floor, next to Boys & Girls Restrooms and walkway, facing stairs

Type of Outlet: bubbler

Description: upper/left bubbler on a dual fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #215

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168370

State Sample ID: 3710020-BBE-C

Date & Time Last Used: 04/28/17 @ 2200

Date & Time Sample Collected: 4/29/17 @ 758

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: Normal Heights Elementary

Name of Building: 500

Location Description: Wall mounted exterior, 1st Floor, next to Women & Unisex Restrooms and walkway

Type of Outlet: bubbler

Description: upper/left bubbler on a dual fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #215

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168371

State Sample ID: 3710020-BBE-D

Date & Time Last Used: 4/28/17 @ 2200

Date & Time Sample Collected: 4/29/17 @ 0800

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 5

School: Normal Heights Elementary

Name of Building: Multipurpose (Auditorium/Cafeteria)

Location Description: Wall mounted exterior (North of Bldg), next to Boys & Girls Restrooms & Lunch Arbor

Type of Outlet: bubbler

Description: lower/right bubbler on a dual fountain (MED flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #215

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168372

State Sample ID: 3710020-BBE-E

Date & Time Last Used: 4/28/17 @ 2200

Date & Time Sample Collected: 4/29/17 @ 0803

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: A. Molloy

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

28-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168368	Normal Heights Elementary	29-APR-2017	0753	A. Molloy	SAMPLE 1	Pb
2	W1168369	Normal Heights Elementary	29-APR-2017	0755		SAMPLE 2	
3	W1168370	Normal Heights Elementary	29-APR-2017	0758		SAMPLE 3	
4	W1168371	Normal Heights Elementary	29-APR-2017	0800		SAMPLE 4	
5	W1168372	Normal Heights Elementary	29-APR-2017	0803		SAMPLE 5	

1787

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign: AMolloy	Received by: Name: Gloria Siqueiros Sign: Siqueiros	Date & Time: 4/29/17 @0820 Location: WQL A/V	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 4/29/17
LIMS Received Time: 0830
Reviewed By: _____

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: **Nye Elementary**

Physical Address of School: 981 Valencia Pkwy., San Diego, CA 92114-6574

First Bell: 7:45 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 4/5/2017

Completed by Print Name: Cesar Jimenez

Signature: C.J. Date: 4/5/2017

School's Point of Contact for Sampling Assistance

Name: Cesar Jimenez Dan Lopez

Phone: 619-261-1588 619-306-3383

Email: cjimenez2@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-8-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Nye Elementary - 981 Valencia Pkwy., San Diego, CA 92114-6574

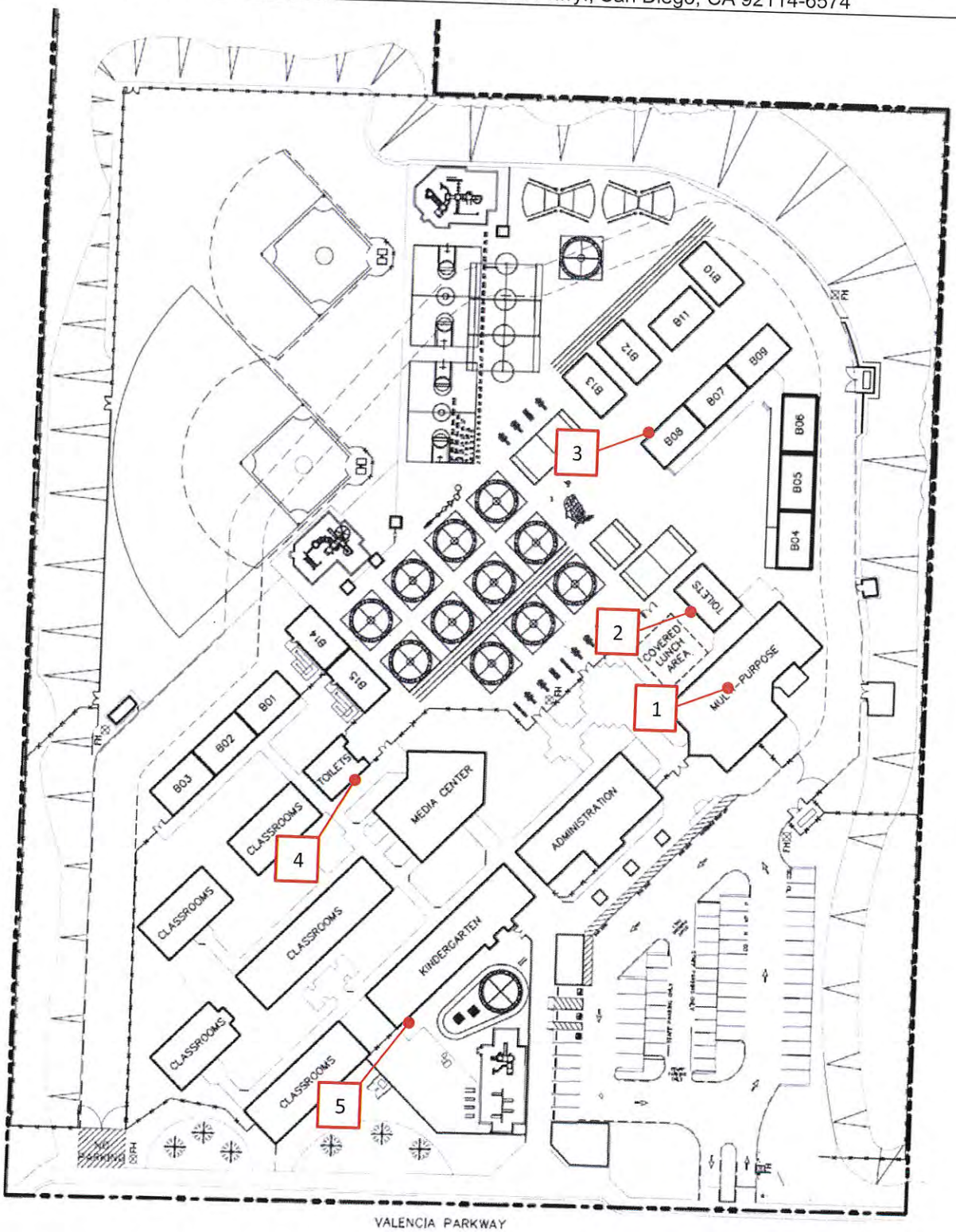

Sample No. 1

School: Nye Elementary

Name of Building: Multi-purpose Bldg. 1

Location Description: Kitchen

Type of Outlet: Faucet

Description: Faucet on 2-compartment sink

Comments/Miscellaneous: Faucet/sink used for food preparation

SDUSD ID code #: 218-01

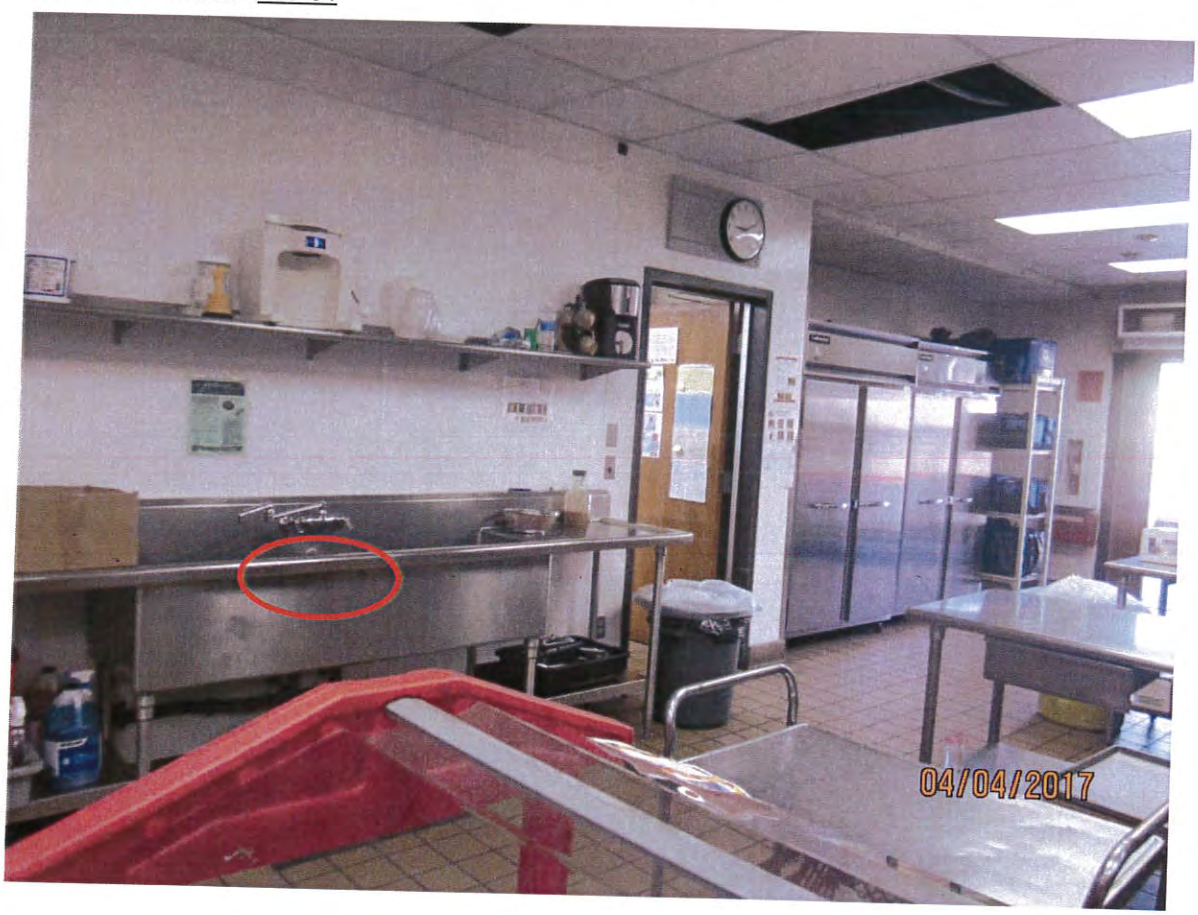

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165289

State Sample ID: 3710020-ADC-A

Date & Time Last Used: 4/10/17 1840

Date & Time Sample Collected: 4/11/17 0605

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sawersby

Sample No. 2

School: Nye Elementary

Name of Building: Restrooms bldg. 8

Location Description: exterior wall near lunch shelter

Type of Outlet: Bubbler

Description: Bubbler in the center of the triple drinking fountain.

Comments/Miscellaneous: Outdoor drinking water source

SDUSD ID code #: 218-02

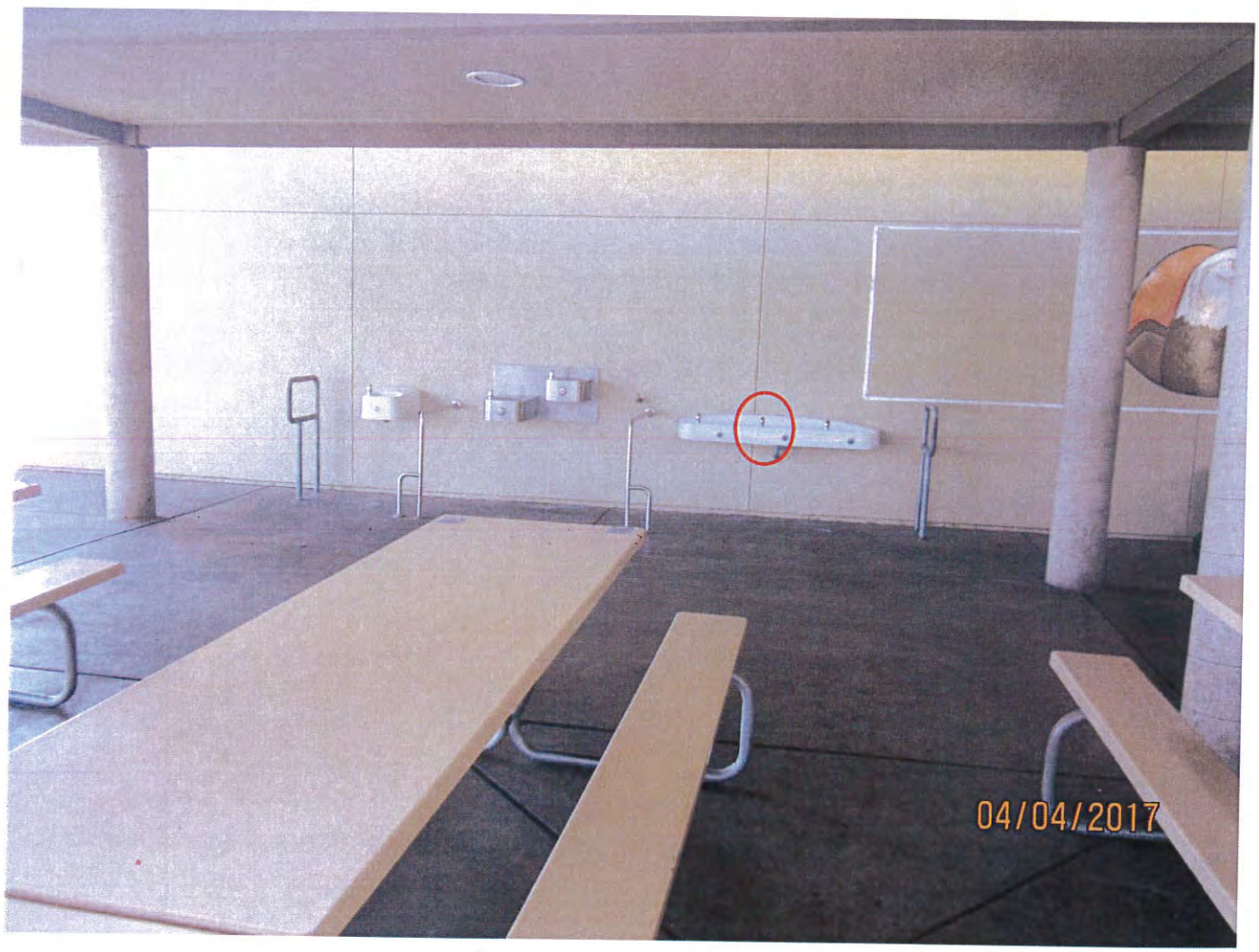

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165290

State Sample ID: 3710020-ADC-B

Date & Time Last Used: 4/10/17 1840

Date & Time Sample Collected: 4/11/17 0607

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 3

School: Nye Elementary

Name of Building: Portable classrooms

Location Description: Exterior wall of room B-08

Type of Outlet: Bubbler

Description: Right bubbler on a triple fountain

Comments/Miscellaneous: Outdoor drinking water source

SDUSD ID code #: 218-03

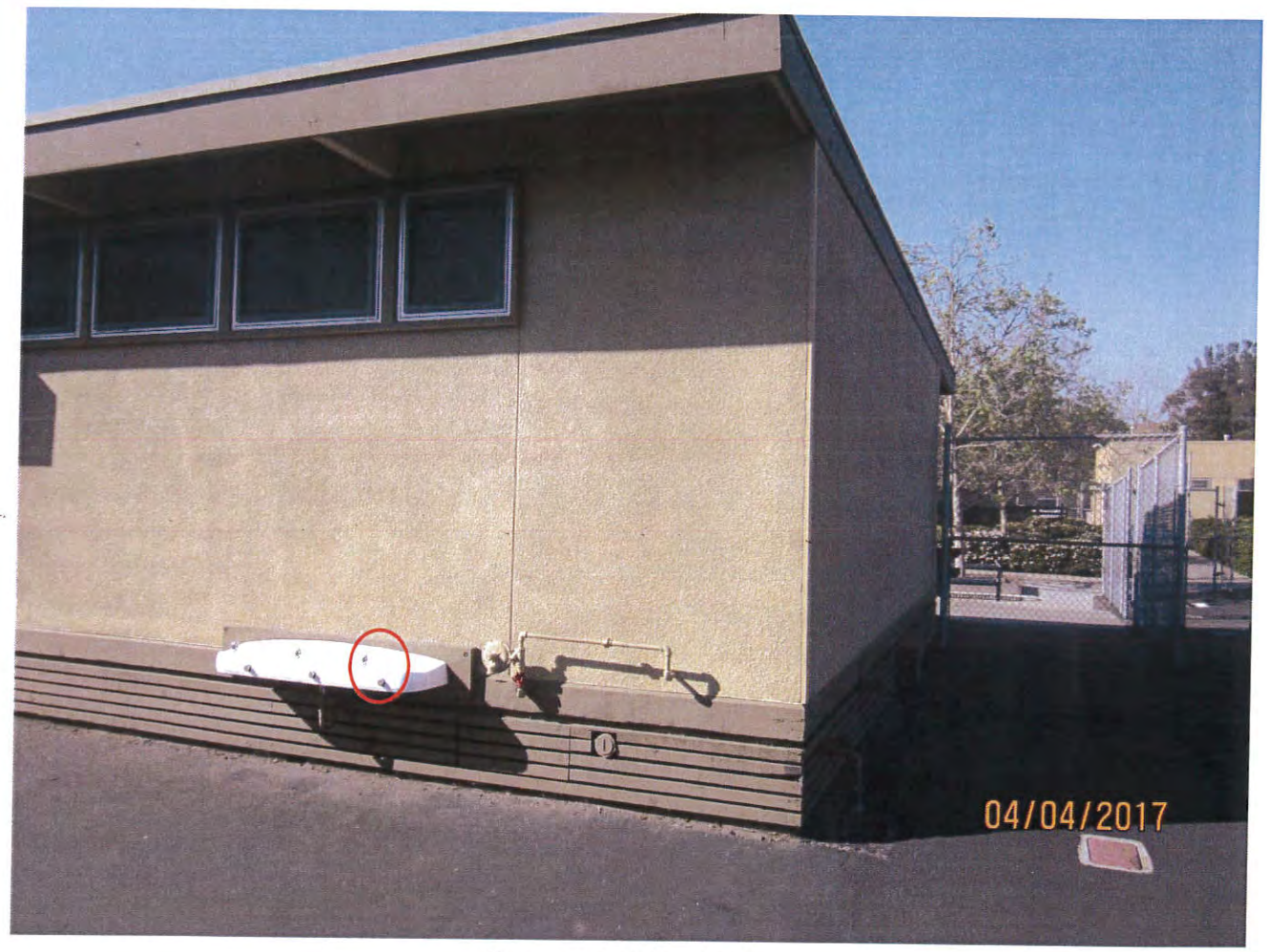

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165291

State Sample ID: 3710020-ADC-C

Date & Time Last Used: 4/10/17 1840

Date & Time Sample Collected: 4/11/17 0612

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 4

School: Nye Elementary

Name of Building: Restrooms Bldg. 9

Location Description: Exterior wall near Library

Type of Outlet: Bubbler

Description: Right bubbler on right triple fountain

Comments/Miscellaneous: Outdoor drinking water source

SDUSD ID code #: 218-04

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165292

State Sample ID: 3710020-ADC-D

Date & Time Last Used: 4/10/17 1840

Date & Time Sample Collected: 4/11/17 0618

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 5

School: Nye Elementary

Name of Building: Kindergarten Bldg. 3

Location Description: Exterior wall near playground

Type of Outlet: Bubbler

Description: Left bubbler on double fountain

Comments/Miscellaneous: Outdoor drinking water source

SDUSD ID code #: 218-05

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165293

State Sample ID: 3710020-ADC-E

Date & Time Last Used: 4/10/17 1816

Date & Time Sample Collected: 4/11/17 0622

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sawersby

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 4/19/17

San Diego Unified School District
Nye Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1165289	04/11/17	06:05 AM	SAMPLE 1	3710020-ADC-A	< 5	ug/L
W1165290	04/11/17	06:07 AM	SAMPLE 2	3710020-ADC-B	< 5	ug/L
W1165291	04/11/17	06:12 AM	SAMPLE 3	3710020-ADC-C	< 5	ug/L
W1165292	04/11/17	06:18 AM	SAMPLE 4	3710020-ADC-D	< 5	ug/L
W1165293	04/11/17	06:22 AM	SAMPLE 5	3710020-ADC-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Multi-purpose BLDG, kitchen, 2 compartment sink, faucet (218-01)
SAMPLE 2	BLDG 8, near lunch shelter, restrooms, triple fixture center bubbler (218-02)
SAMPLE 3	Portable classrooms, Room B-08 exterior wall, triple fountain, right bubbler (218-03)
SAMPLE 4	BLDG 9, near library, right trpile fountain, right bubbler (218-04)
SAMPLE 5	BLDG 3, Exterior near playground, double fountain, left bubbler (218-05)

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom Burger, Associate Chemist

Water Quality Chemistry Services
Chain of Custody Form

08-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1165289	Nye Elementary	11-APR-2017	0605	D.S.	SAMPLE 1	Pb
2	W1165290	Nye Elementary	11-APR-2017	0607	D.S.	SAMPLE 2	↓
3	W1165291	Nye Elementary	11-APR-2017	0612	D.S.	SAMPLE 3	↓
4	W1165292	Nye Elementary	11-APR-2017	0618	D.S.	SAMPLE 4	↓
5	W1165293	Nye Elementary	11-APR-2017	0622	D.S.	SAMPLE 5	↓

Chain of Custody:

Relinquished by: Name: D. Sowersby Sign: D. Sowersby	Received by: Name: Tom Burger Sign: Tom B. Burger	Date & Time: 4-11-17 0703 Location:	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By:
Received Date: 4/11/17
LIMS Received Time: 0836
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Oak Park Elementary School

Physical Address of School: 2606 54th Street, San Diego, CA 92105

First Bell: 9:00AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 03/23/2017

Completed by Print Name: Daniel Lopez

Signature: _____ Date: 03/23/2017

School's Point of Contact for Sampling Assistance

Name: Daniel Lopez

Phone: 619-306-3383

Email: dlopez2@sandi.net

Resample #2

City of San Diego 3710020

Approved By: Tom B. Burger 4-6-17 _____ Tom Burger _____

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Oak Park Elementry School 2606 54th Street, San Diego, CA 92105

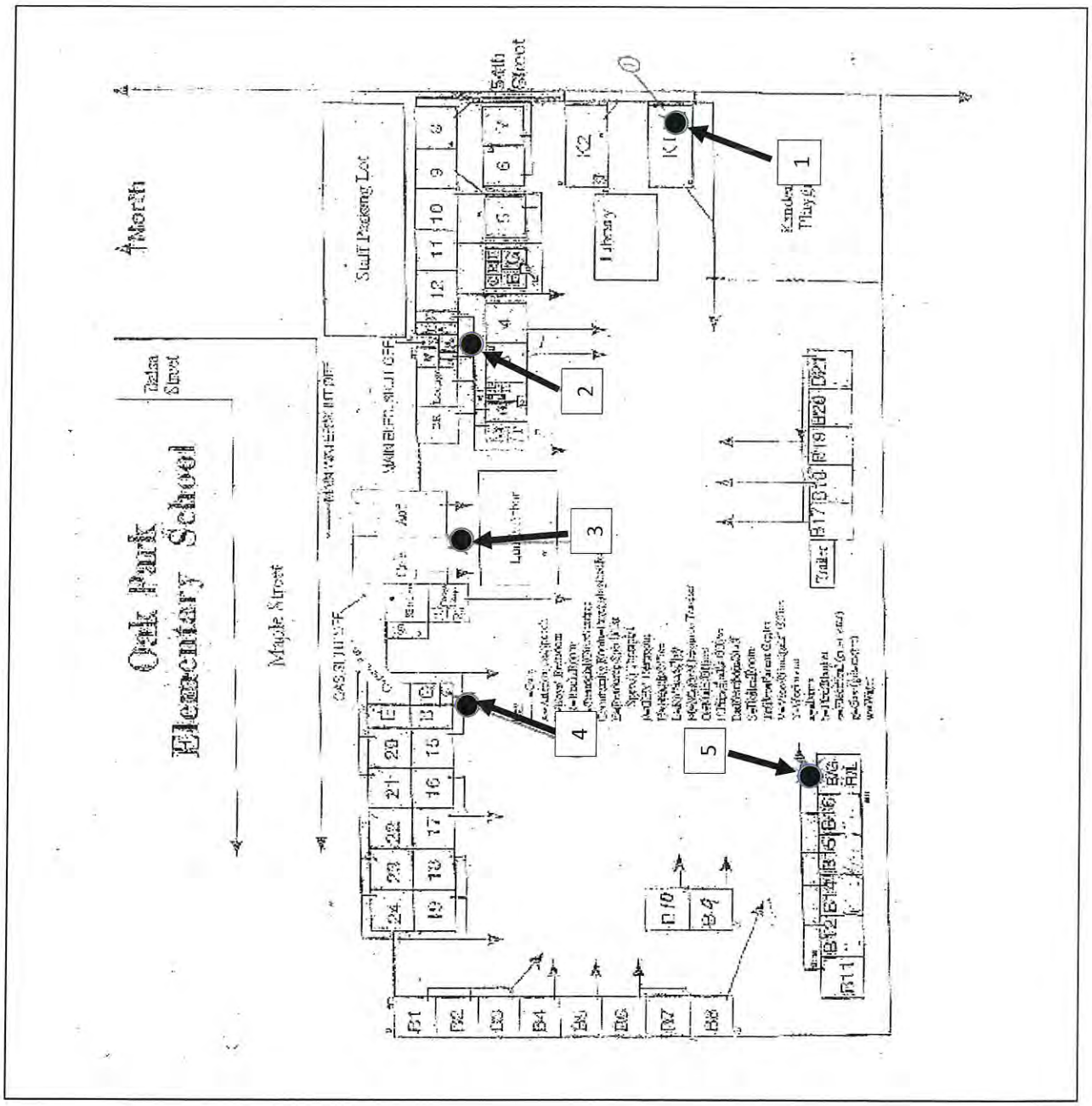

Sample No. 2

School: Oak Park Elementary School

Name of Building: Main Building

Location Description: Inside Main Office Hallway

Type of Outlet: Single bubbler

Description: Interior hallway with sink located outside the Main Office (223-2)

Comments/Miscellaneous:

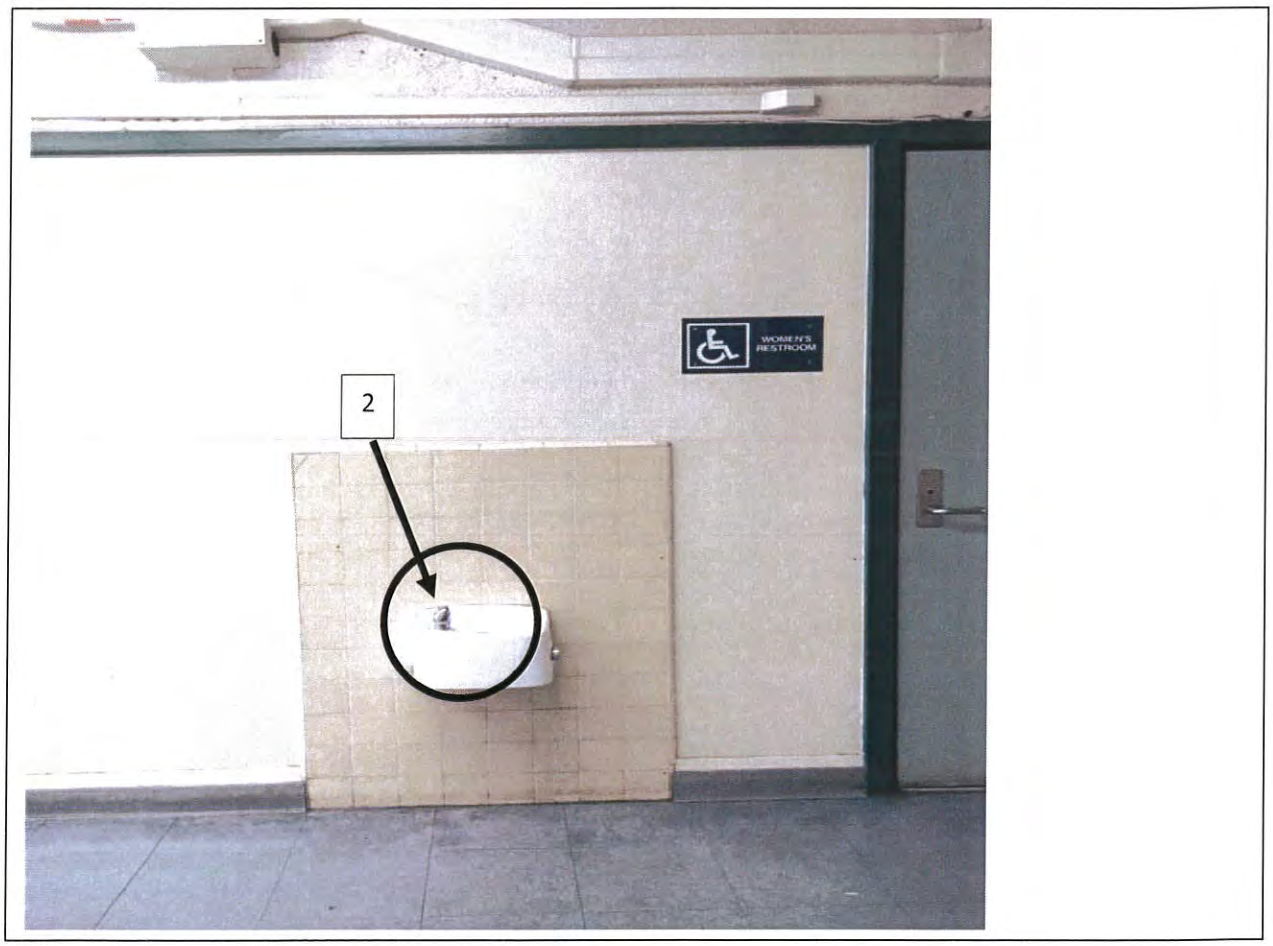

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165276

State Sample ID: 3710020-ACD-B

Date & Time Last Used: 040717 @ 1800

Date & Time Sample Collected: 040817 @ 0917

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: J-W E

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

07-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1165276	Oak Park Elementary	08-APR-2017	0917	JWeston	SAMPLE 2	

Chain of Custody:

Relinquished by: Name: JERRY WESTON Sign: J-W	Received by: Name: Tom Burger Sign: TM B Burger	Date & Time: 4-8-17 1030 Location: WQL LAB	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: Tom Burger
Received Date: 4-8-17
LIMS Received Time: 1135
Reviewed By: [illegible]

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Ocean Air Elementary

Physical Address of School: 11444 Canter Heights Drive

First Bell: 8:10am

Meeting Date: 5-8 -2017

Sampling Plan Completion Date: 5/16/17

Completed by Print Name: Mike Gals

Signature: M Gals Date: 5/16/17

School's Point of Contact for Sampling Assistance

Name: Patrick Lum

Phone: (858) 864-3474

Email: plum@dmusd.org

City of San Diego 3710020

Approved By: Matt Nelson 5/25/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tourger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1183

Sample Locations acknowledgement

School and Address: Ocean Air Elementary 11444 Canter Heights Drive

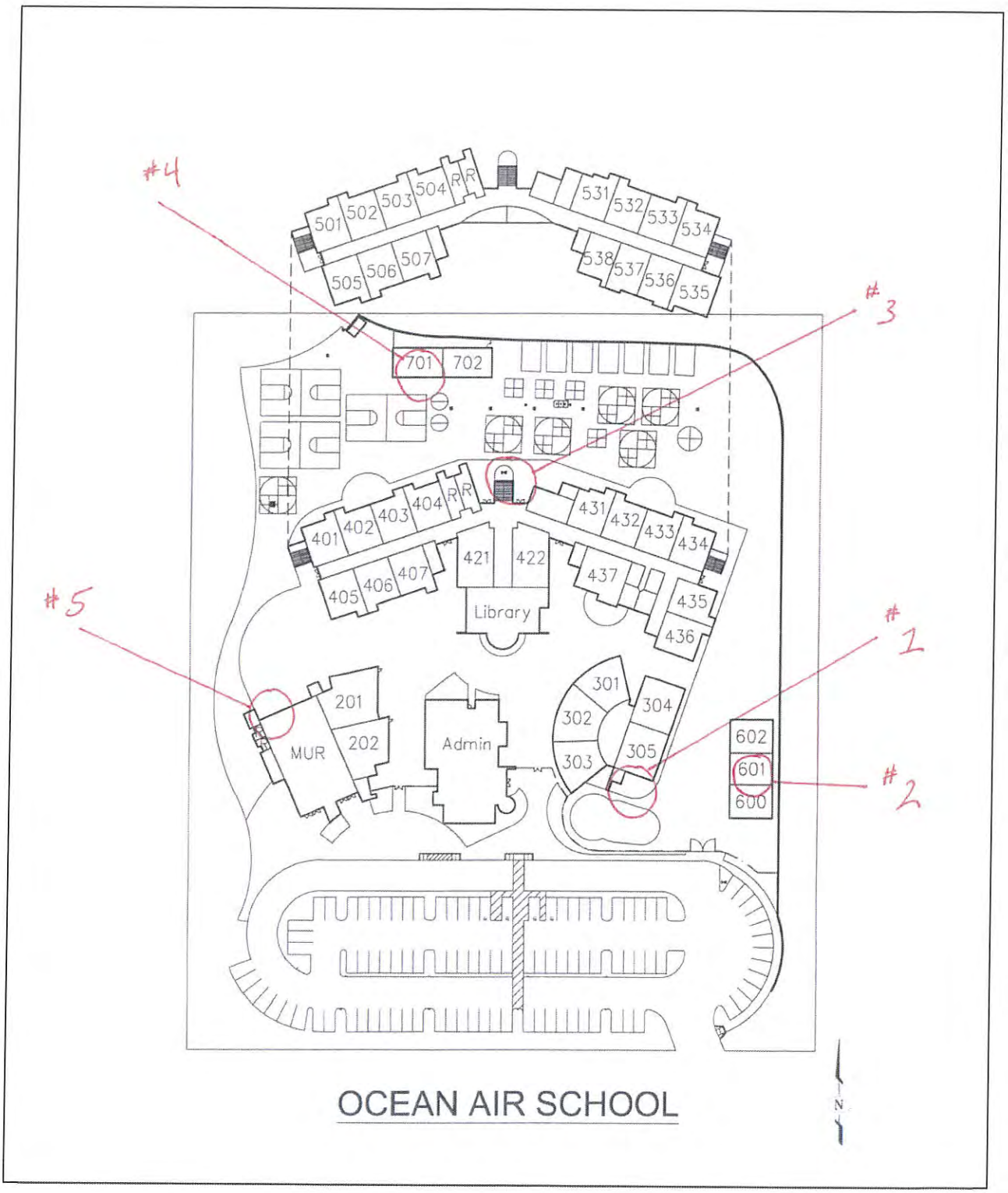
#4
#3
#5
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535
701
702
401
402
403
404
R
R
405
406
407
421
422
Library
431
432
433
434
437
435
436
201
202
MUR
Admin
301
302
303
304
305
602
601
600
OCEAN AIR SCHOOL
N

Sample No. 1

School: Ocean Air Elementary

Name of Building: 300 wing

Location Description: South end of 300 wing

Type of Outlet: Drinking fountain

Description: Drinking fountain right side bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1175399

State Sample ID: 3710020-CCA-A

Date & Time Last Used: 2200 6-5-17

Date & Time Sample Collected: 0632 6-6-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: TBuyN

Sample No. 2

School: Ocean Air Elementary

Name of Building: 600 wing

Location Description: Classroom 601

Type of Outlet: Sink in classroom 601

Description: sink with bubbler attached

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1175400

State Sample ID: 3710020-CCA-B

Date & Time Last Used: 2200 6-5-17

Date & Time Sample Collected: 0634 6-6-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: TBurgm

Sample No. 3

School: Ocean Air Elementary

Name of Building: 400 wing

Location Description: Behind 400 wing in between boys / girls restrooms

Type of Outlet: Drinking fountain

Description: Drinking fountain bubbler left side

Comments/Miscellaneous:

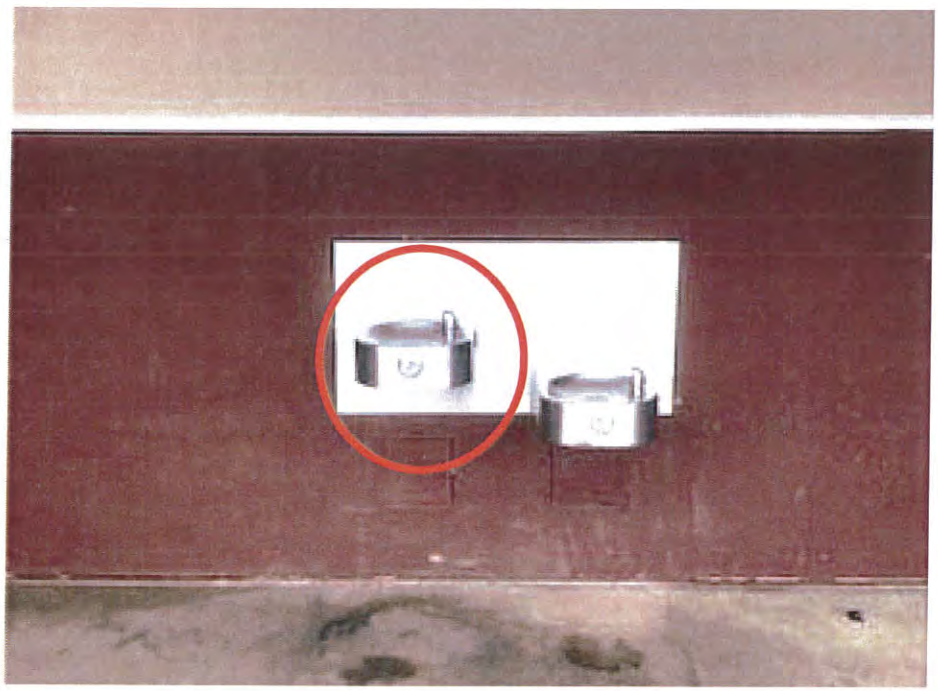

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1175401

State Sample ID: 3710020-CCA-C

Date & Time Last Used: 2200 6-5-17

Date & Time Sample Collected: 0638 6-6-17

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: TBurn

Sample No. 4

School: Ocean Air Elementary

Name of Building: 701

Location Description: Classroom 701

Type of Outlet: Bubbler

Description: Sink with bubbler attached

Comments/Miscellaneous:

Paste picture of

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1175402

State Sample ID: 3710020-CCA-D

Date & Time Last Used: 2200 6-5-17

Date & Time Sample Collected: 0640 6-6-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: TBurgen

Sample No. 5

School: Ocean Air Elementary

Name of Building: MUR

Location Description: Behind MUR right side

Type of Outlet: Drinking fountain

Description: Drinking fountain bubbler left side

Comments/Miscellaneous:

Paste picture of

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1175403

State Sample ID: 3710020-CCA-E

Date & Time Last Used: 2200 6-5-17

Date & Time Sample Collected: 0643 6-6-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: TBeh

Exhibit 21

Water Quality Chemistry Services
Chain of Custody Form

05-Jun-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1175399	Ocean Air	06-JUN-2017	0632	TBurger	SAMPLE 1	
2	W1175400	Ocean Air	06-JUN-2017	0634		SAMPLE 2	
3	W1175401	Ocean Air	06-JUN-2017	0638		SAMPLE 3	
4	W1175402	Ocean Air	06-JUN-2017	0640		SAMPLE 4	
5	W1175403	Ocean Air	06-JUN-2017	0643		SAMPLE 5	

1808

Chain of Custody:

Relinquished by: Name: Tom B. Burger Sign: Tom Burger	Received by: Name: Gloria Siqueiros Sign:	Date & Time: 6-6-17 1538 Location: AIV LAB	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: _____

Received Date: _____

LIMS Received Time: _____

Reviewed By: _____

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Ocean Beach Elementary

Physical Address of School: 4741 Santa Monica Ave., San Diego, CA 92107-2297

First Bell: 7:50 AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/29/2017

Completed by Print Name: Ginette Commins

Signature: G Commins Date: 05/04/2017

School's Point of Contact for Sampling Assistance

Name: ~~Ginette Commins~~ Daniel Lopez

Phone: ~~(858) 627-7201~~ 619-306-3383

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/9/17 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Ocean Beach Elementary, 4741 Santa Monica Ave., San Diego, CA 92107-2297

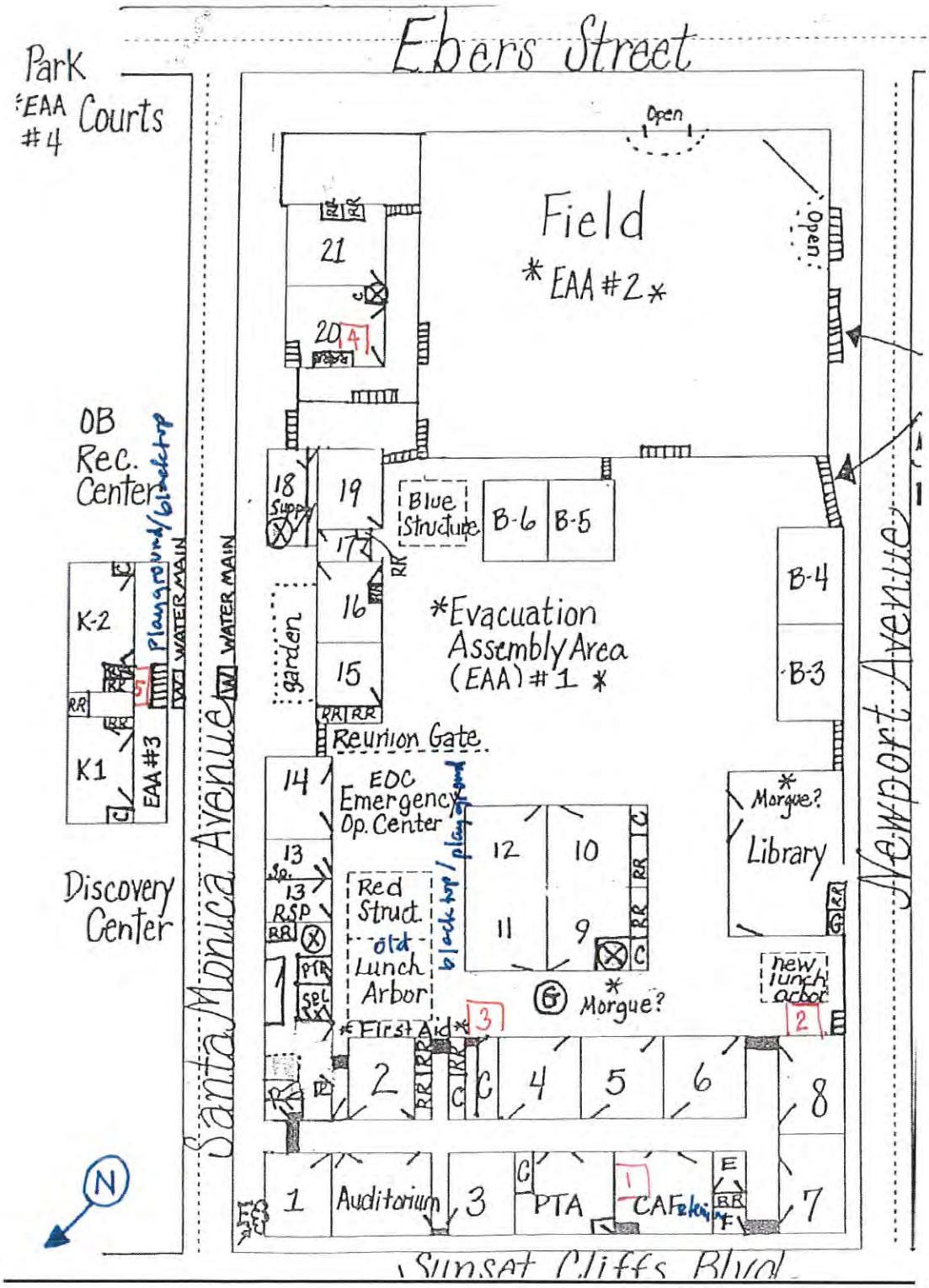

Sample No. 1

School: Ocean Beach Elementary

Name of Building: Rms 1-3

Location Description: Cafeteria, Sink in the Prep Kitchen, next to Office, facing island prep

Type of Outlet: kitchen faucet

Description: cold water faucet on the right

Comments/Miscellaneous: indoor water source for cooking/SDUSD Location Code #225

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172393

State Sample ID: 3710020-BHF-A

Date & Time Last Used: 051617 @ 1800 → 2200

Date & Time Sample Collected: 051717 @ 0600

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: J-W

Sample No. 2

School: Ocean Beach Elementary

Name of Building: Rms 7-8

Location Description: Wall mounted exterior (South of Bldg), facing new lunch arbor

Type of Outlet: bubbler

Description: lower/left bubbler on a dual fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #225

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172394

State Sample ID: 3710020-BHF-B

Date & Time Last Used: 051617 @ 1900 → 2200

Date & Time Sample Collected: 051717 @ 0611

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: [illegible]

Sample No. 3

School: Ocean Beach Elementary

Name of Building: Rms 2-6

Location Description: Wall mounted exterior (South of Bldg), facing tree & blacktop before the old lunch arbor

Type of Outlet: bubbler

Description: lower/left bubbler on a dual fountain (MEDIUM flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #225

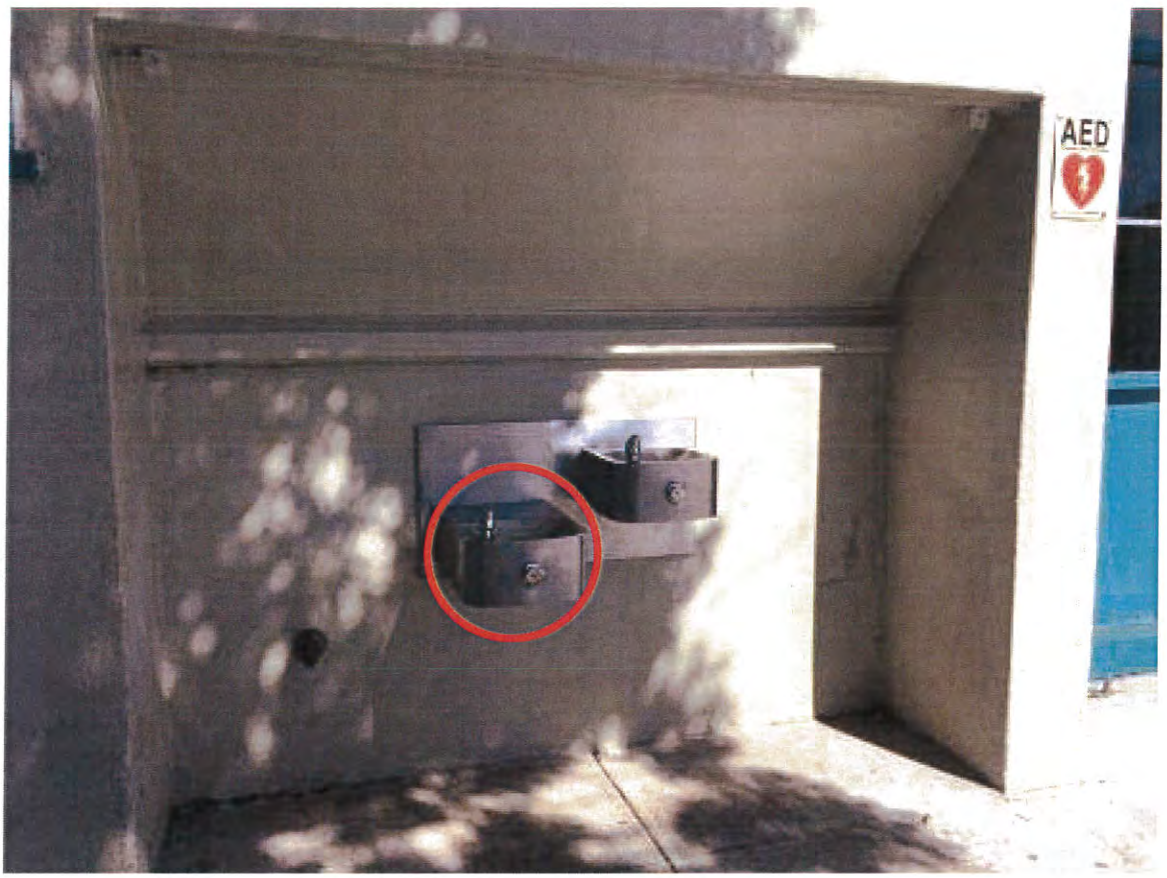

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172395

State Sample ID: 3710020-BHF-C

Date & Time Last Used: 051617 @ 1800 → 2200

Date & Time Sample Collected: 051717 @ 0615

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: [illegible]

Sample No. 4

School: Ocean Beach Elementary

Name of Building: Rms 20-21

Location Description: Preschool 20, classroom sink, between Girls & Boys Restrooms

Type of Outlet: bubbler

Description: dual sinks – right side and bubbler with lever handle (HIGH flow)

Comments/Miscellaneous: indoor drinking water source/SDUSD Location Code #225

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172396

State Sample ID: 3710020-BHF-D

Date & Time Last Used: 051617 @ 1900 → 2200

Date & Time Sample Collected: 051717 @ 0619

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: g-w

Sample No. 5

School: Ocean Beach Elementary

Name of Building: Kindergarten

Location Description: Wall mounted Exterior (West of Bldg), between K1 & K2, facing blacktop/playground

Type of Outlet: bubbler

Description: lower/left bubbler on a dual fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #225

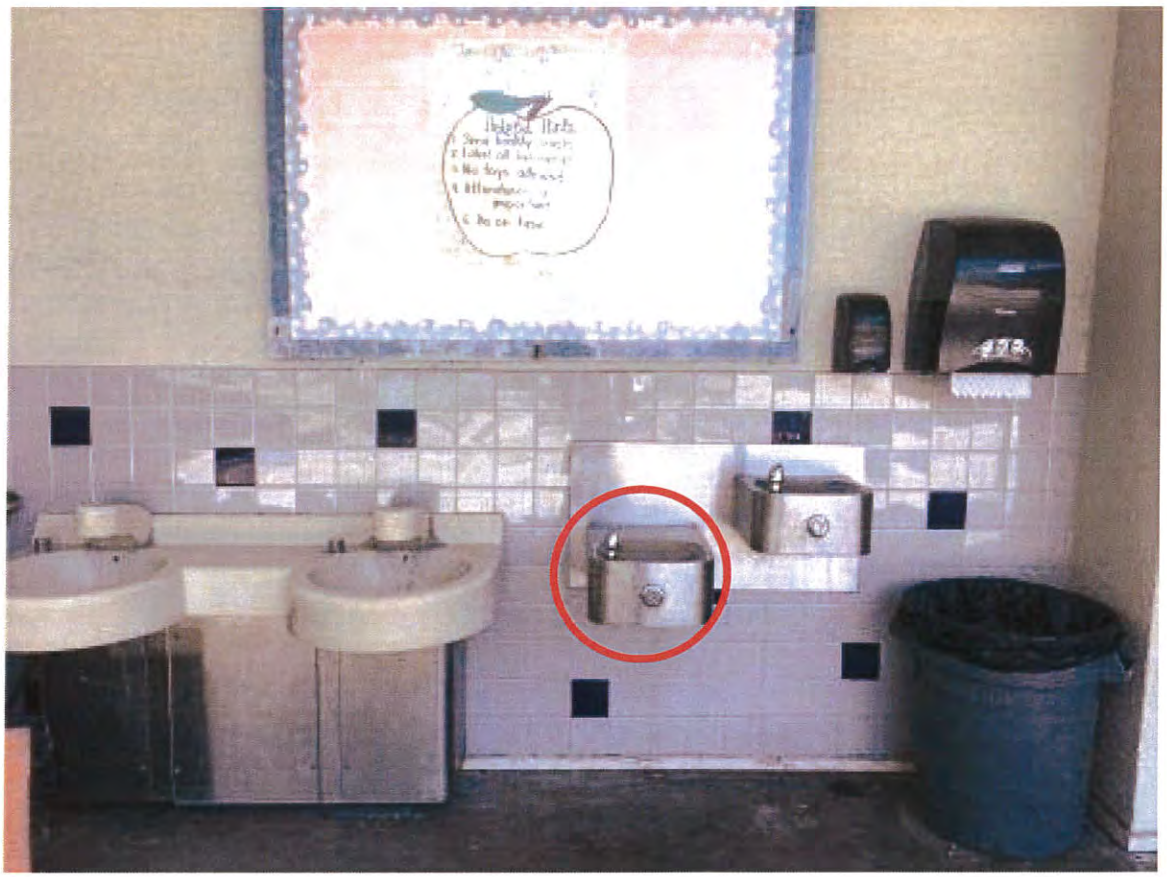

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172397

State Sample ID: 3710020-BHF-E

Date & Time Last Used: 051617 @ 1900 → 2200

Date & Time Sample Collected: 051717 @ 0001

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector:

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

09-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1172393	Ocean Beach Elementary	17-MAY-2017	0608	J-W	SAMPLE 1	
2	W1172394	Ocean Beach Elementary	17-MAY-2017	0611	J-W	SAMPLE 2	
3	W1172395	Ocean Beach Elementary	17-MAY-2017	0615	J-W	SAMPLE 3	
4	W1172396	Ocean Beach Elementary	17-MAY-2017	0619	J-W	SAMPLE 4	
5	W1172397	Ocean Beach Elementary	17-MAY-2017	0601	J-W	SAMPLE 5	

1816

Chain of Custody:

Relinquished by: Name: JERRY WESTON Sign: J-W	Received by: Name: TOM Burger Sign: Tom B Burger	Date & Time: 5-17-17 1023 Location: ALV LAB	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: Burger
Received Date: 5-17-17
LIMS Received Time: 1025
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: O'Farrell Charter School

Physical Address of School: 6130 Skyline Drive San Diego CA 92114

First Bell: 8:30 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 4-13-2017

Completed by Print Name: Sergio Salinas

Signature: signature on file Date:

School's Point of Contact for Sampling Assistance

Name: Sergio Salinas

Phone: (619) 302-0564

Email: ssalinas@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-14-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: O'Farrell Charter School -6130 Skyline Drive San Diego CA 92114

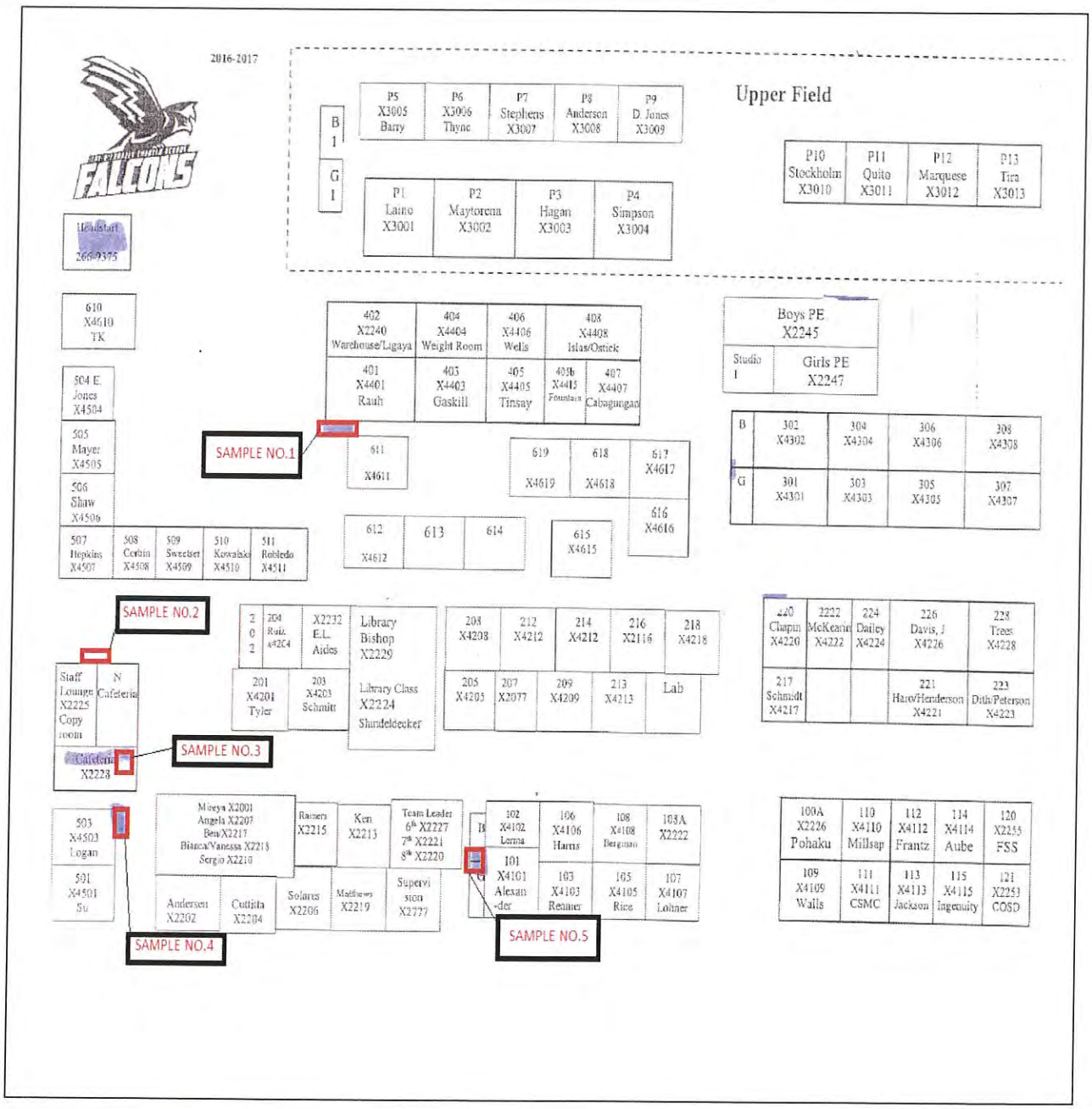

Sample No. 1

School: O'Farrell Charter School -6130 Skyline Drive San Diego CA 92114

Name of Building: Building 400

Location Description: Outside Bathrooms (400 building)

Type of Outlet: Bubbler

Description: Right Bubbler

Comments/Miscellaneous: (School ID NO.319)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166841

State Sample ID: 3710020-AFE-A

Date & Time Last Used: 1800 4/14/17

Date & Time Sample Collected: 0615 4/15/17

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: David Mayo

Sample No. 2

School: O'Farrell Charter School -6130 Skyline Drive San Diego CA 92114

Name of Building: Outside of Cafeteria /Staff Lounge

Location Description: Outside of Cafeteria /Staff Lounge

Type of Outlet: Bubbler

Description: Middle Bubbler

Comments/Miscellaneous: (School ID NO.319)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166842

State Sample ID: 3710020-AFE-B

Date & Time Last Used: 1800 4/14/17

Date & Time Sample Collected: 0605 4/15/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 3

School: O'Farrell Charter School -6130 Skyline Drive San Diego CA 92114

Name of Building Kitchen

Location Description: Inside Kitchen

Type of Outlet: Faucet Inside kitchen

Description: Faucet

Comments/Miscellaneous: (School ID NO.319)

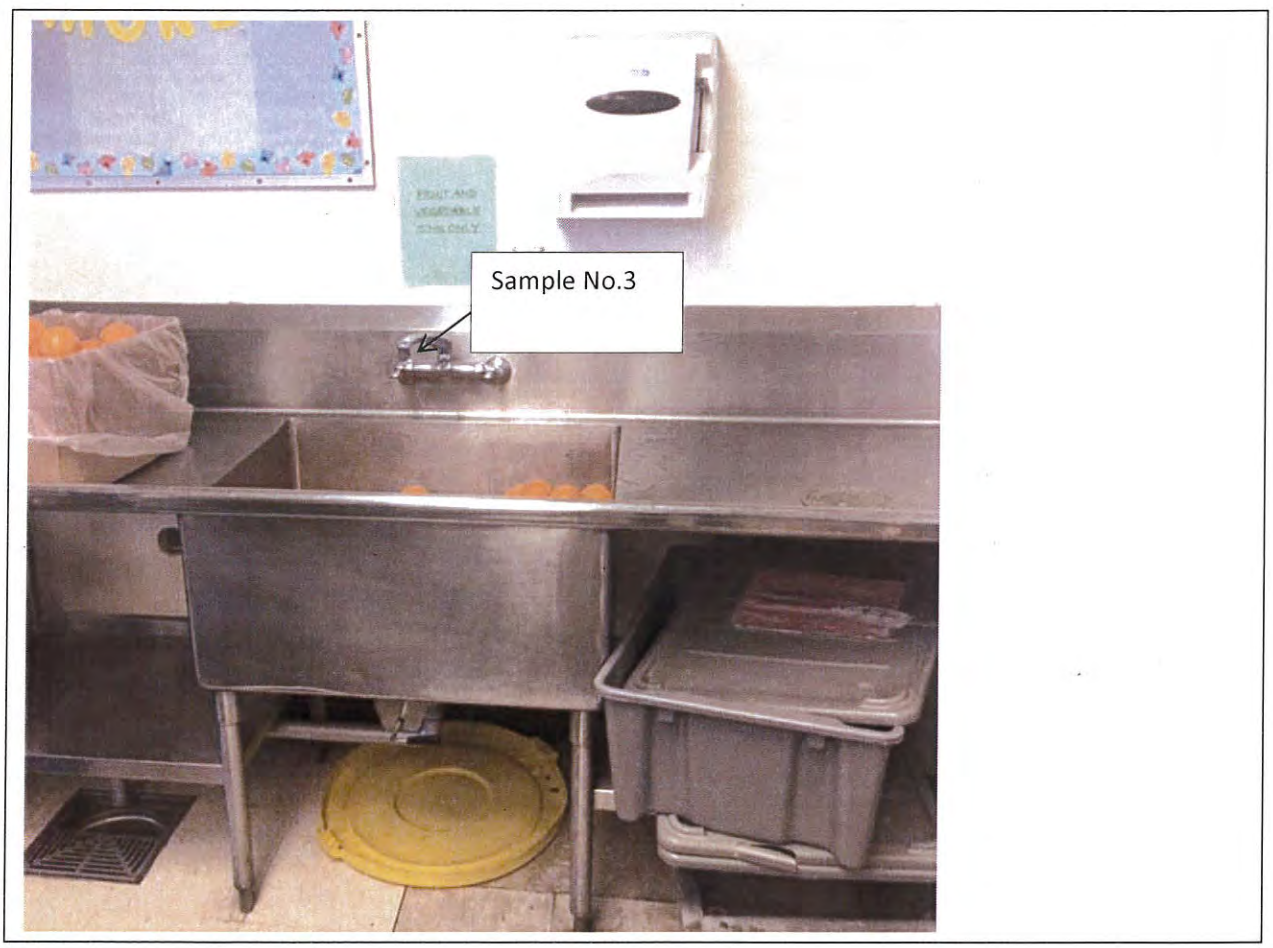

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166843

State Sample ID: 3710020-AFE-C

Date & Time Last Used: 1800 4/14/17

Date & Time Sample Collected: 0602 4/15/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Moya

Sample No. 4

School: O'Farrell Charter School -6130 Skyline Drive San Diego CA 92114

Name of Building: Building 503

Location Description: Outside Drinking fountain in front of Building 503

Type of Outlet: Bubbler

Description: Midddle Bubbler

Comments/Miscellaneous: (School ID NO.319)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166844

State Sample ID: 3710020-AFE-D

Date & Time Last Used: 16 00 4/14/17

Date & Time Sample Collected: 0557 4/15/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 5

School: O'Farrell Charter School -6130 Skyline Drive San Diego CA 92114

Name of Building: Outside Bathrooms behind room 102-101

Location Description: Outside Bathrooms

Type of Outlet: Bubbler

Description: Right Bubbler

Comments/Miscellaneous: (School ID NO.319) Was actually 6ld 300 ~~(picture is correct)~~

was tagged out

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166845

State Sample ID: 3710020-AFE-E

Date & Time Last Used: 1800 4/14/17

Date & Time Sample Collected: 0611 4/15/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

14-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1166841	O'Farrell Charter	15-APR-2017	0615	David Mayo	SAMPLE 1	
2	W1166842	O'Farrell Charter	15-APR-2017	0605		SAMPLE 2	
3	W1166843	O'Farrell Charter	15-APR-2017	0602		SAMPLE 3	
4	W1166844	O'Farrell Charter	15-APR-2017	0557		SAMPLE 4	
5	W1166845	O'Farrell Charter	15-APR-2017	0611		SAMPLE 5	

Chain of Custody:

Relinquished by: Name: David Mayo Sign: David Mayo	Received by: Name: Alejandra Molloy Sign: A Molloy	Date & Time: 4/15/17 9:30 Location: AIV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: A Molloy
Received Date: 4/17/17
LIMS Received Time: 0804
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Pacific Beach Middle School

Physical Address of School: 4676 Ingraham St. San Diego CA 92109

First Bell: 7:20

Meeting Date: 3/22/2017

Sampling Plan Completion Date: 4/27/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 4/27/2017

School's Point of Contact for Sampling Assistance

Name: ~~Elizabeth Lara~~ Ginnette Cummins

Phone: ~~619-302-7616~~ 619 302 5285

Email: elara@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/2/~~2014~~ 2017 TBurger Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Pacific Beach Middle School 4676 Ingraham St San Diego , CA 92109

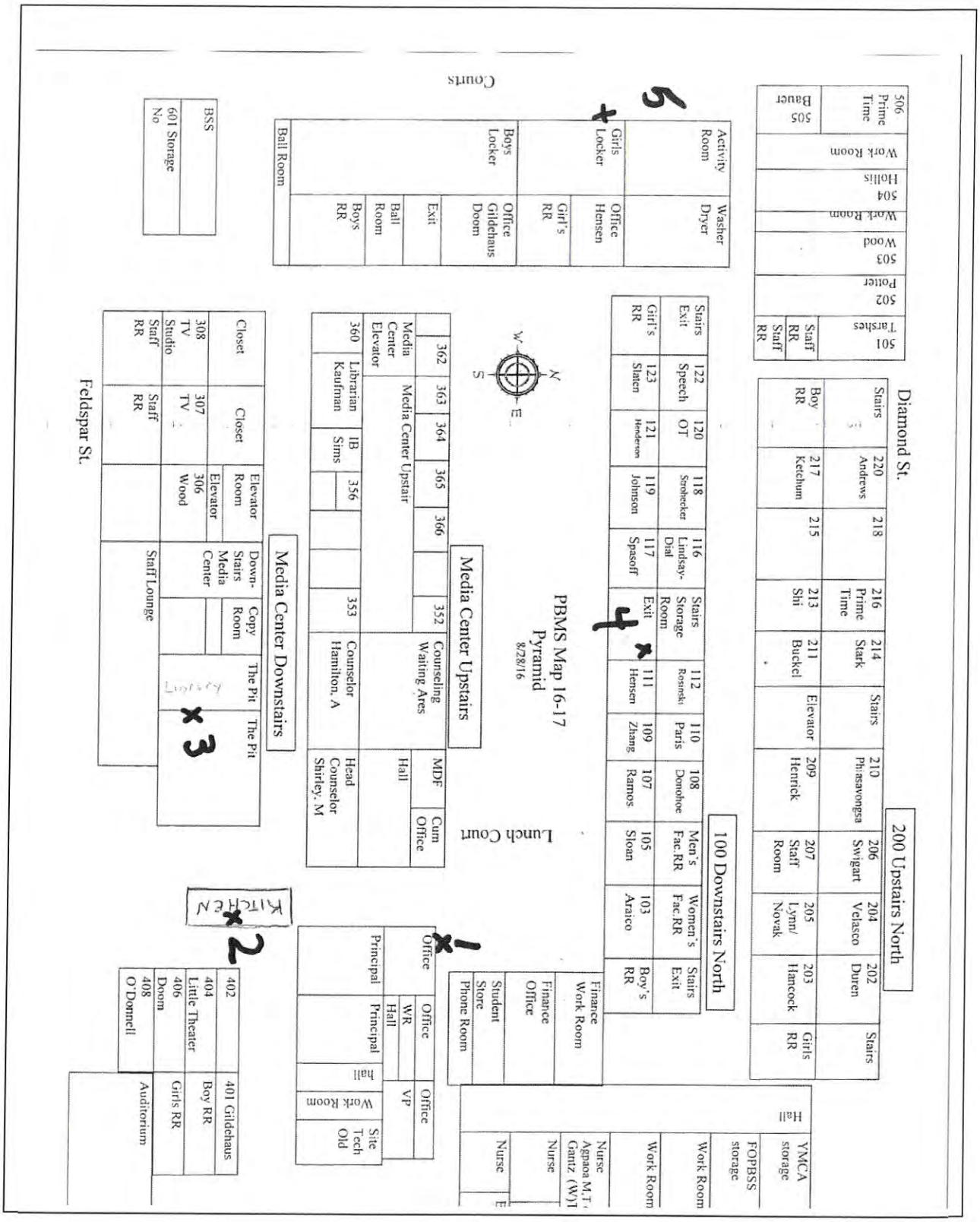
PBMS Map 16-17
Pyramid
8/28/16
Diamond St.
200 Upstairs North
100 Downstairs North
Media Center Upstairs
Media Center Downstairs
Courts
Lunch Court
Feldspar St.
Kitchen
Hall
Work Room
Office
Principal
Nurse
Auditorium
Girls RR
Boy RR
Stairs
Elevator
Staff Lounge
The Pit
Copy Room
Closet
Counseling Waiting Area
Counselor Hamilton, A
Head Counselor Shirley, M
Librarian Kaufman
Media Center Elevator
Ball Room
Girls Locker
Boys Locker
Activity Room
Washer Dryer
Office Hensen
Girl's RR
Office Gildehaus Doom
Exit
Ball Room
Boys RR
BSS
601 Storage No
Bauer
Hollis
Wood
Potter
Tarshes
Staff RR
Prime Time
Andrews
Ketchum
Stark
Buckel
Shi
Henrick
Swigart
Velasco
Duren
Hancock
Lynn/ Novak
Staff Room
Finance Work Room
Finance Office
Student Store
Phone Room
Men's Fac RR
Women's Fac RR
Boy's RR
Cum Office
MDF
Hall
YMCA storage
FOPBSS storage
Work Room
Nurse
Nurse Agnaoa M.T.
Nurse Gantz (W)T
Site Tech
Old
Boy RR
Girls RR
401 Gildehaus
402
404 Little Theater
406 Doom
408 O'Donnell
Speech
OT
Johnson
Spasoff
Lindsay-Dial
Storage Room
Exit
Hensen
Paris
Donohoe
Ramos
Sloan
Araico
Elevator Room
Elevator
306 Wood
307 TV
308 TV Studio
Staff RR
Media Center Upstair
Media Center
Staff RR
Kaufman
Sims
Hamilton, A
Shirley, M
Waiting Area
Office
Hall
Principal
Work Room
Tech
Old
Office
VP
Office
WR
Hall
Principal
Hall
Staff Lounge
The Pit
Copy Room
Closet
Elevator Room
Elevator
306 Wood
Staff RR
Girls Locker
Office Hensen
Girl's RR
Office Gildehaus Doom
Exit
Ball Room
Boys RR
Girls RR
Hancock
Lynn/ Novak
Staff Room
Duren
Stairs
Boy's RR
Exit
Stairs
Boy RR
Stairs
Elevator
Stark
Prime Time
Andrews
Ketchum
Shi
Buckel
Henrick
Swigart
Velasco
Phimsavongsa
Stairs
Staff RR
Staff RR
Potter
Wood
Work Room
Hollis
Work Room
Bauer
Prime Time
Tarshes
Stairs
Exit
Speech
Girl's RR
Shaten
Stairs
Storage Room
Exit
Lindsay-Dial
Spasoff
Johnson
Ketchum
Henderson
Stoneheckr
Hensen
Rosinski
Zhang
Paris
Donohoe
Ramos
Sloan
Araico
Men's Fac RR
Women's Fac RR
Boy's RR
Cum Office
MDF
Hall
Counseling Waiting Area
Counselor Hamilton, A
Head Counselor Shirley, M
Librarian Kaufman
IB Sims
Media Center Upstair
Media Center Elevator
Media Center
Staff RR
Staff RR

Sample No. 1

School: Pacific Beach Middle School

Name of Building: Office

Location Description: Outside right side of entrance to main office door

Type of Outlet: Bubbler

Description: Single bubbler drinking fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170253

State Sample ID: 3710020-BFH-A

Date & Time Last Used: 2200 5-16-17

Date & Time Sample Collected: 0609 5-17-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T. Burger

Sample No. 2

School: Pacific Beach Middle School

Name of Building: Kitchen

Location Description: Inside kitchen

Type of Outlet: standard kitchen faucet

Description: food prep sink with single faucet with hot and cold valves

Comments/Miscellaneous: towels hanging over valves

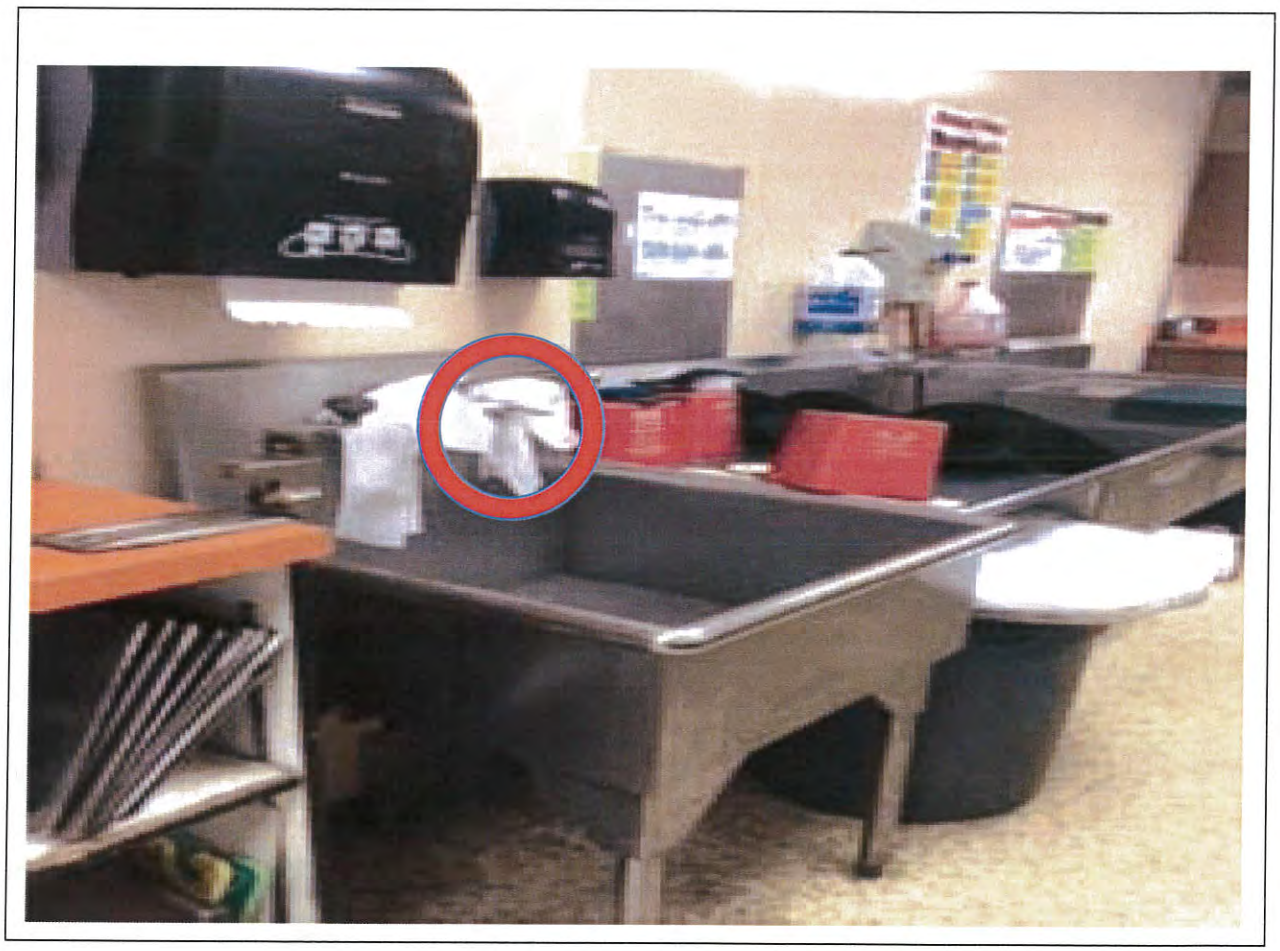

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170254

State Sample ID: 3710020-BFH-B

Date & Time Last Used: 2200 5-16-17

Date & Time Sample Collected: 0602 5-17-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T Burge

Sample No. 3

School: Pacific Beach Middle School

Name of Building: Pit /Library

Location Description: Outside at wall across from Kitchen in Lunch patio area near green door

Type of Outlet: Bubbler

Description: Single bubbler drinking fountain

Comments/Miscellaneous:

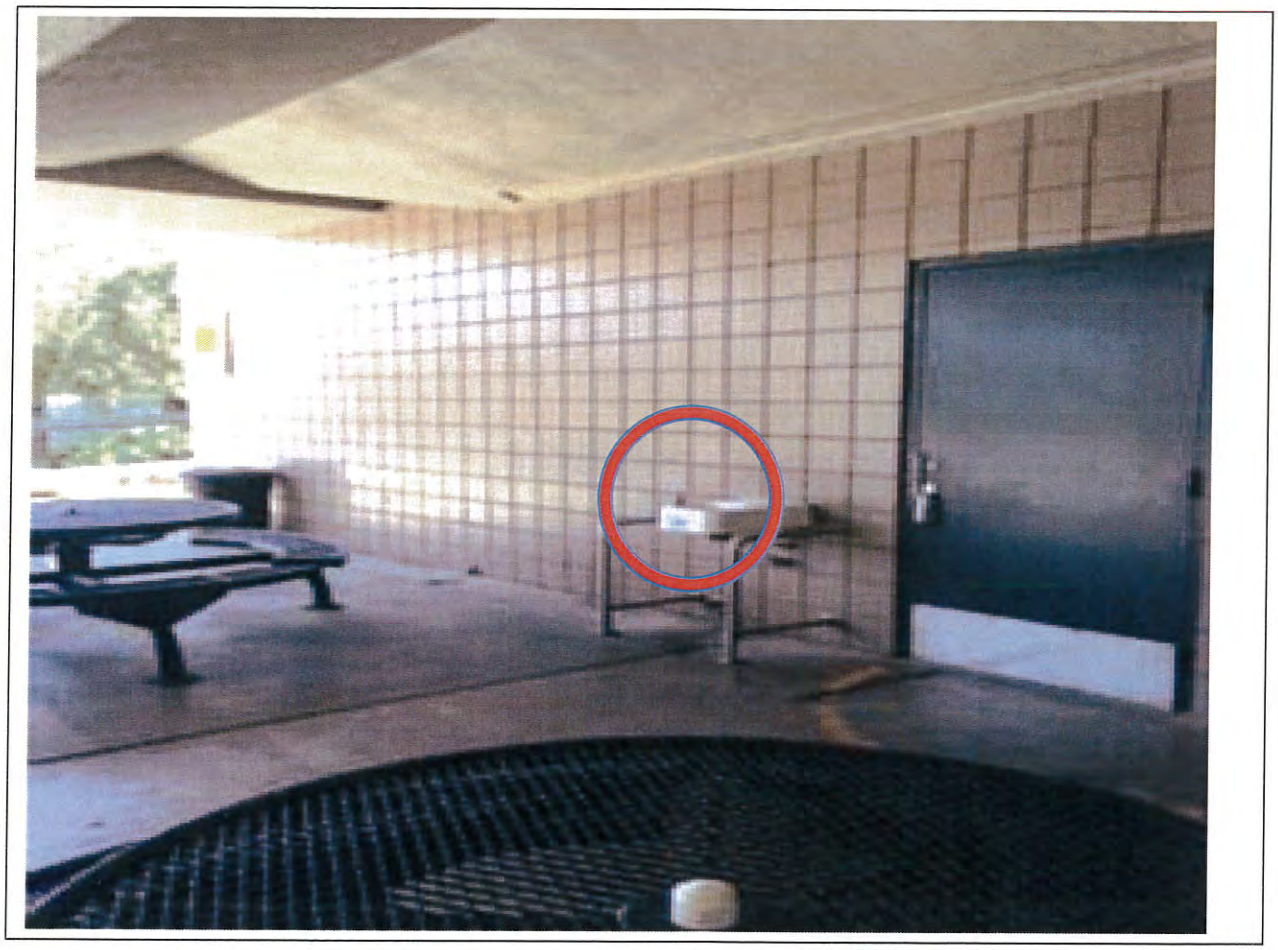

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170255

State Sample ID: 3710020-BFH-C

Date & Time Last Used: 2200 ~~5-17-17~~ 5-16-17

Date & Time Sample Collected: 0605 5-17-17

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: Tom Burger

Sample No. 4

School: Pacific Beach Middle School

Name of Building: 100 Bldg. Down Stairs

Location Description: south side inside building hallway on the right near double door exit

Type of Outlet: Bubbler

Description: Single bubbler drinking fountain next to a dual drinking fountain

Comments/Miscellaneous: horse mural above it

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170256

State Sample ID: 3710020-BFH-D

Date & Time Last Used: 2200 5-16-17

Date & Time Sample Collected: 0613 5-17-17

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: T Burger

Sample No. 5

School: Pacific Beach Middle School

Name of Building: Gym- Girls Locker

Location Description: Outside west end of girls' gym near basketball court

Type of Outlet: Bubbler

Description: Left bubbler of three bubbler drinking fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170257

State Sample ID: 3710020-BFH-E

Date & Time Last Used: 2200 5-16-17

Date & Time Sample Collected: 0617 5-17-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: TBurger

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

09-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1170253	Pacific Beach Middle	17-MAY-2017	0609 ✓	TBurger	SAMPLE 1	
2	W1170254	Pacific Beach Middle	17-MAY-2017	0602 ✓		SAMPLE 2	
3	W1170255	Pacific Beach Middle	17-MAY-2017	0605 ✓		SAMPLE 3	
4	W1170256	Pacific Beach Middle	17-MAY-2017	0613 ✓		SAMPLE 4	
5	W1170257	Pacific Beach Middle	17-MAY-2017	0617 ✓		SAMPLE 5	

1832

Chain of Custody:

Relinquished by: Name: Tom Burger Sign: Tom B Burger	Received by: Name: Alejandra Mollox Sign: SMally	Date & Time: 5-17-17 1015 Location: ALV LAB	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: SMally
Received Date: 5/17/17
LIMS Received Time: 1027
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Pacific View Leadership Elementary

Physical Address of School: 6196 Childs Ave. San Diego, CA 92139-3612

First Bell: 9:05 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 4-7-2017

Completed by Print Name: Cesar Jimenez

Signature: C.J. Date: 4-7-2017

School's Point of Contact for Sampling Assistance

Name: Cesar Jimenez

Phone: 619-261-1588

Email: cjimenez2@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-10-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Pacific View Leadership Elementary - 6196 Childs Ave. San Diego, CA 92139-3612

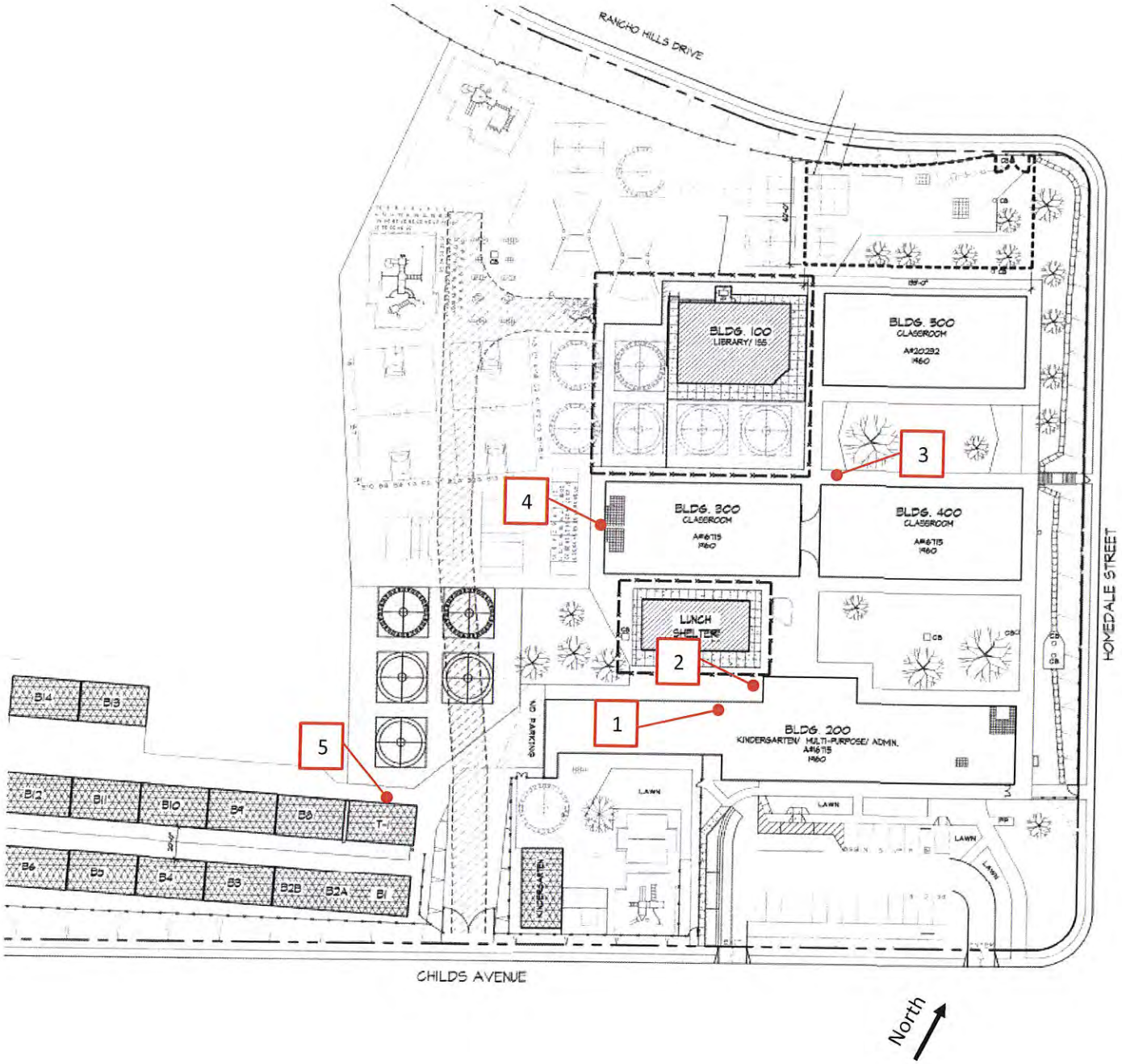

Sample No. 1

School: Pacific View Leadership Elementary

Name of Building: Kindergarten/ Multipurpose/ Administration Bldg. 200

Location Description: Inside Kitchen, at west wall of Kitchen.

Type of Outlet: Faucet

Description: Faucet on a 2- compartment sink

Comments/Miscellaneous: SDUSD ID code #: 171-01

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: 3710020-ADD-A

State Sample ID: W1165314

Date & Time Last Used: 1800 4/10/17

Date & Time Sample Collected: 0607 4/11/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 2

School: Pacific View Leadership Elementary

Name of Building: Kindergarten/ Multipurpose/ Administration Bldg. 200

Location Description: Exterior west wall of multipurpose room near lunch shelter

Type of Outlet: Bubbler

Description: Left/lower Bubbler on a triple fountain.

Comments/Miscellaneous: SDUSD ID code #: 171-02

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: 3710020-ADD-B

State Sample ID: W1165315

Date & Time Last Used: 1800 4/10/17

Date & Time Sample Collected: 0610 4/11/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 3

School: Pacific View Leadership Elementary

Name of Building: Classroom Bldg. 400

Location Description: Exterior North wall.

Type of Outlet: Bubbler

Description: Right Bubbler on a quadruple fountain.

Comments/Miscellaneous: SDUSD ID code #: 171-03

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: 3710020-ADD-C

State Sample ID: W1165316

Date & Time Last Used: 1800 4/10/17

Date & Time Sample Collected: 0613 4/11/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 4

School: Pacific View Leadership Elementary

Name of Building: Classroom Bldg. 300

Location Description: Exterior west wall adjacent to restrooms, facing playgrounds

Type of Outlet: Bubbler

Description: Right Bubbler on a triple fountain.

Comments/Miscellaneous: SDUSD ID code #: 171-04

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: 3710020-ADD-D

State Sample ID: W1165317

Date & Time Last Used: 1800 4/10/17

Date & Time Sample Collected: 0616 4/11/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 5

School: Pacific View Leadership Elementary

Name of Building: Restrooms T-1

Location Description: Exterior North wall.

Type of Outlet: Bubbler

Description: Right Bubbler on a triple fountain.

Comments/Miscellaneous: SDUSD ID code #: 171-05

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: 3710020-ADD-E

State Sample ID: W1165318

Date & Time Last Used: 1800 4/10/17

Date & Time Sample Collected: 0619 4/11/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

SD Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 4/19/17

San Diego Unified School District
Pacific View Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1165314	04/11/17	06:07 AM	SAMPLE 1	3710020-ADD-A	< 5	ug/L
W1165315	04/11/17	06:10 AM	SAMPLE 2	3710020-ADD-B	< 5	ug/L
W1165316	04/11/17	06:13 AM	SAMPLE 3	3710020-ADD-C	< 5	ug/L
W1165317	04/11/17	06:16 AM	SAMPLE 4	3710020-ADD-D	< 5	ug/L
W1165318	04/11/17	06:19 AM	SAMPLE 5	3710020-ADD-E	< 5	ug/L

Source	Source Description
SAMPLE 1	BLDG 200, kitchen, faucet at 2 compartment sink (171-01)
SAMPLE 2	BLDG 200, exterior west wall, near lunch shelter, 3 fountains, lower left bubbler (171-02)
SAMPLE 3	BLDG 400, extterior north wall, quadruple fountain, right bubbler (171-03)
SAMPLE 4	BLDG 300, exterior west wall, adjacent to restrooms facing playground, triple fountain, right bubbler (171-04)
SAMPLE 5	Restroom T-1, exterior north wall, triple fountain, right bubbler (171-05)

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B Burger

Tom Burger, Associate Chemist

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

10-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1165314	Pacific View Elementary	11-APR-2017	0607		SAMPLE 1	
2	W1165315	Pacific View Elementary	11-APR-2017	0610		SAMPLE 2	
3	W1165316	Pacific View Elementary	11-APR-2017	0613		SAMPLE 3	
4	W1165317	Pacific View Elementary	11-APR-2017	0616		SAMPLE 4	
5	W1165318	Pacific View Elementary	11-APR-2017	0619		SAMPLE 5	

1841

Chain of Custody:

Relinquished by: Name: David Mayo Sign: David Mayo	Received by: Name: Tom Burger Sign: Tom B Burger	Date & Time: 4/11/17 07:00 Location: AIV lab	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 4-11-17
LIMS Received Time: 0843
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: **Paradise Hills Elementary**

Physical Address of School: 5816 Alleghany St. San Diego CA 92139-1799

First Bell: 9:10 AM

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 4-6-2017

Completed by Print Name: Cesar Jimenez

Signature: C.J. Date: 4-6-2017

School's Point of Contact for Sampling Assistance

Name: Cesar Jimenez

Phone: 619-261-1588

Email: cjimenez2@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-11-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: **Paradise Hills Elementary** - 5816 Alleghany St. San Diego CA 92139-1799

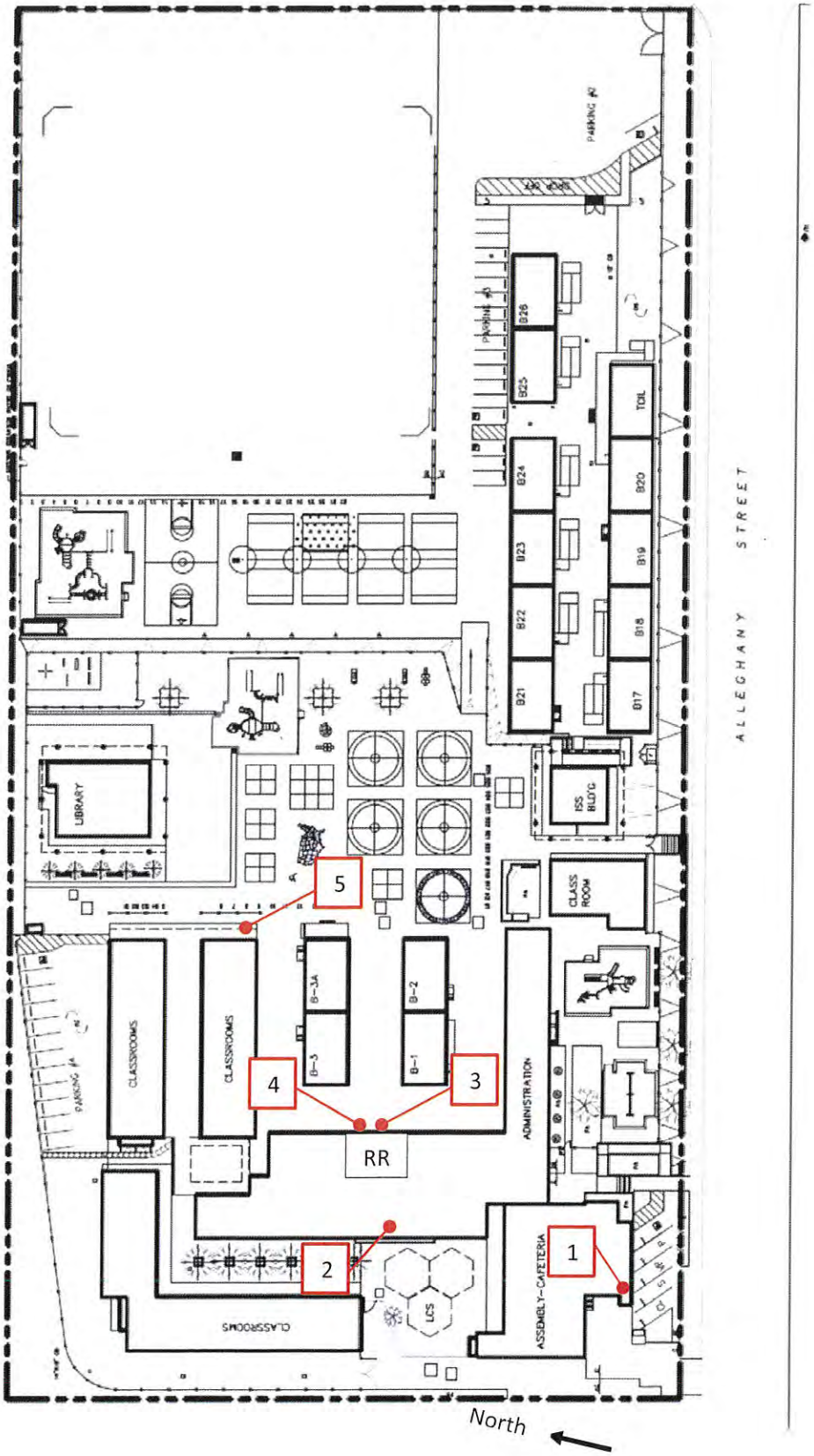

Sample No. 1

School: Paradise Hills Elementary

Name of Building: Assembly- Cafeteria

Location Description: Inside the Kitchen, wall adjacent to parking lot.

Type of Outlet: Faucet

Description: Faucet on a 2-compartment sink

Comments/Miscellaneous: Faucet/sink used for food preparation

SDUSD ID code #: 229-01

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166147 dripping

State Sample ID: 3710020-AEA-A

Date & Time Last Used: 6/12/17 1800-2200

Date & Time Sample Collected: 6/13/17 0605

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarenga

Sample No. 2

School: Paradise Hills Elementary

Name of Building: Administration Bldg.

Location Description: Inside Room 2

Type of Outlet: Bubbler

Description: Bubbler with lever handle on a single compartment sink

Comments/Miscellaneous: Indoor drinking water source for Pre-Kinder students

SDUSD ID code #: 229-02

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166148

State Sample ID: 3710020-AEA-B

Date & Time Last Used: 6/12/17 1800-2200

Date & Time Sample Collected: 6/13/17 0610

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarenga

Sample No. 3

School: Paradise Hills Elementary

Name of Building: Administration Bldg.

Location Description: Exterior wall of boy's restrooms, near supply room

Type of Outlet: Bubbler

Description: Left Bubbler on a double drinking fountain

Comments/Miscellaneous: Outdoor drinking water source

SDUSD ID code #: 229-03

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166149

State Sample ID: 3710020-AEA-C

Date & Time Last Used: 6/12/17 1800-2200

Date & Time Sample Collected: 6/13/17 0615

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: E. Alvarenga

Sample No. 4

School: Paradise Hills Elementary

Name of Building: Administration Bldg.

Location Description: Exterior wall of girl's restrooms, near room 11

Type of Outlet: Bubbler

Description: Right Bubbler on a triple drinking fountain

Comments/Miscellaneous: Outdoor drinking water source

SDUSD ID code #: 229-04

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166150

State Sample ID: 3710020-AEA-D

Date & Time Last Used: 6/12/17 1800-2200

Date & Time Sample Collected: 6/13/17 0615

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez

Sample No. 5

School: Paradise Hills Elementary

Name of Building: classrooms bldg. 900

Location Description: Exterior wall of Room 8, facing playgrounds

Type of Outlet: Bubbler

Description: Left lower bubbler on a dual fountain

Comments/Miscellaneous: Outdoor drinking water source

SDUSD ID code #: 229-05

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166151

State Sample ID: 3710020-AEA-E

Date & Time Last Used: 6/12/17 1800-2200

Date & Time Sample Collected: 6/13/17 0620

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

11-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1166147	Paradise Hills Elementary	13-APR-2017	0605	EA	SAMPLE 1	
2	W1166148	Paradise Hills Elementary	13-APR-2017	0610	EA	SAMPLE 2	
3	W1166149	Paradise Hills Elementary	13-APR-2017	0615	EA	SAMPLE 3	
4	W1166150	Paradise Hills Elementary	13-APR-2017	0615	EA	SAMPLE 4	
5	W1166151	Paradise Hills Elementary	13-APR-2017	0620	EA	SAMPLE 5	

1850

Chain of Custody:

Relinquished by: Name: E. Alvarez Sign:	Received by: Name: Tom Burger Sign:	Date & Time: 4-13-17 Location: ALV. LAB	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: SMaul
Received Date: 4/13/17
LIMS Received Time: 0722
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Patrick Henry High School

Physical Address of School: 6702 Wandermere Dr. San Diego , CA 92115

First Bell: 7 :30

Meeting Date: 3/22/2017

Sampling Plan Completion Date: 4/12/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 4/12/2017

School's Point of Contact for Sampling Assistance

Name: Elizabeth Lara

Phone: 619-302-7616

Email: elara@sandi.net

City of San Diego 3710020

Approved By: Tom B Burger 4-17-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: 6702 Wandermere dr. San Diego Ca 92120

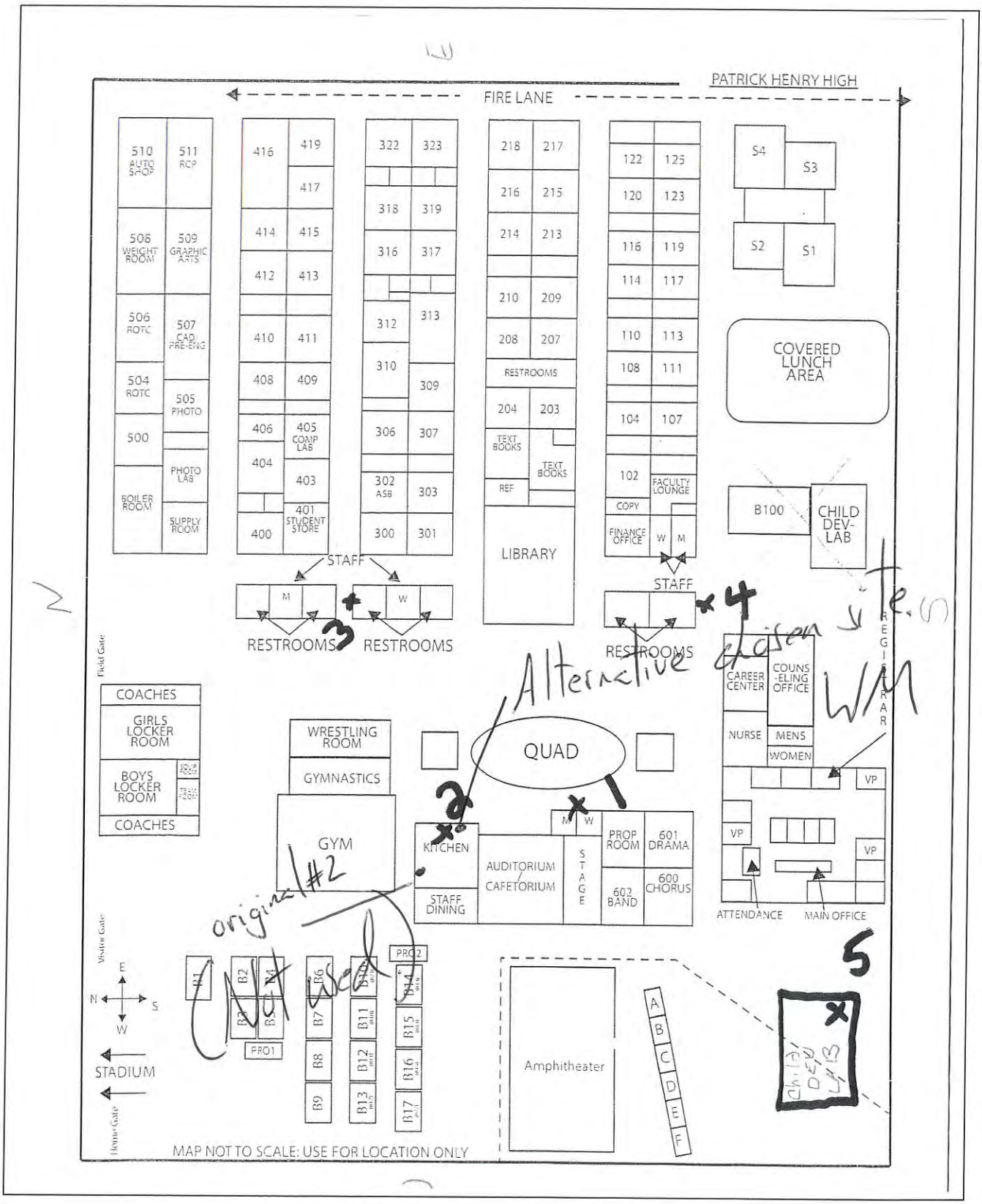

Sample No. 1

School: HENRY HIGH SCHOOL

Name of Building: Auditorium/stage/Prop room

Location Description: East-Outside between custodian 6 door and men's Restrooms near QUAD

Type of Outlet: Bubbler

Description: LEFT-Bubbler drinking fountain

Comments/Miscellaneous: Entire site has irregular water pressure due to construction/repairs needed

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167211

State Sample ID: 3710020-AFG-A

Date & Time Last Used: 04-17-17 6:00 pm

Date & Time Sample Collected: 04-18-17, 06:06 am

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: Walt Maldeig

Sample No. 2 Changed to the eastern food prep 2-compart. sink

School: HENRY HIGH SCHOOL

Name of Building: KITCHEN

Location Description: Inside at North wall at double sink

Type of Outlet: kitchen faucet Hot/cold

Description: kitchen faucet with hot and cold valves

Comments/Miscellaneous: Site has irregular water flow due to construction and repairs needed

Northern faucet had been used by onsite staff prior to my ~~avail~~ arrival. Staff noted that this site is not used for food prep. They indicated that the sink noted above is used for food prep. and that it had not been used this morning. I sampled the cold water. W Milder

Note: This site had not been C.J. 4-18-17

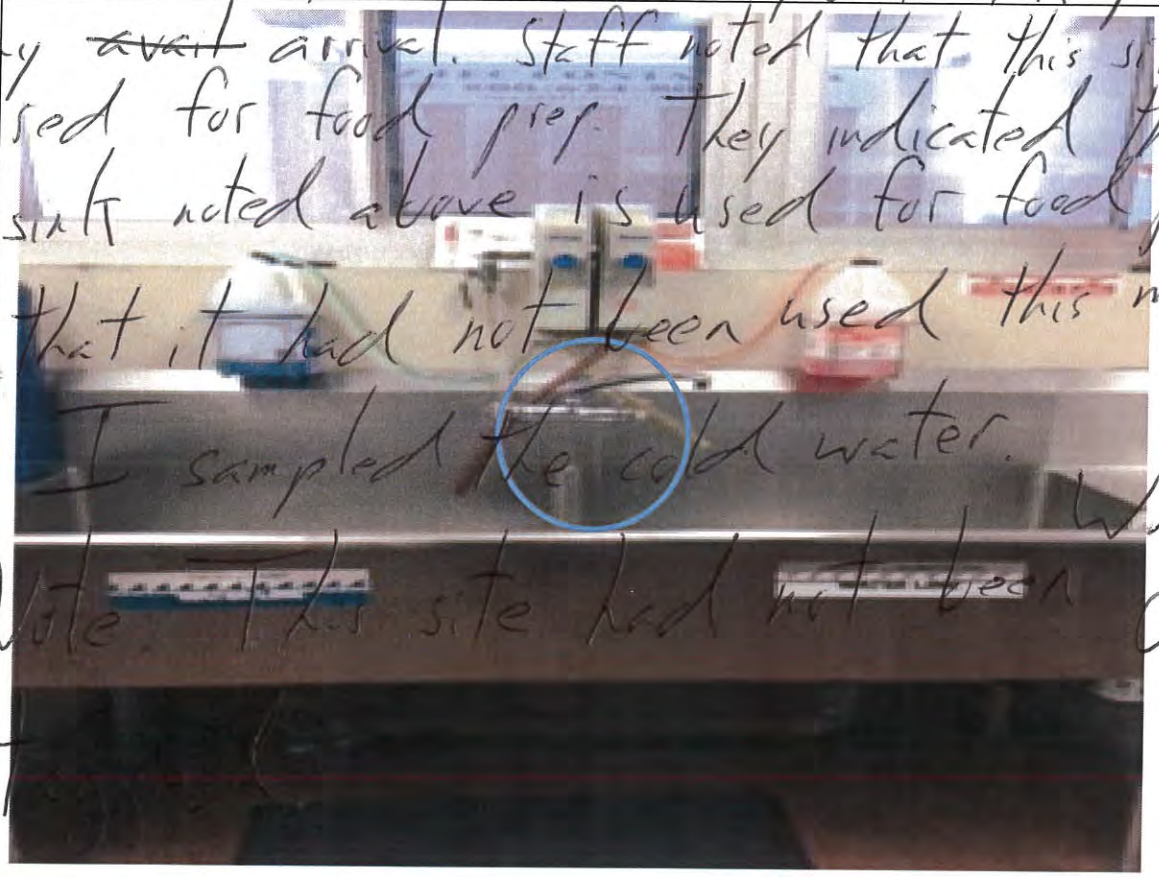

SEE Next page for correct photo

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167212

State Sample ID: 3710020-AFG-B

Date & Time Last Used:

Date & Time Sample Collected: 4/18/17 6:18

Direct Sample ■ Transfer Sample ☐

Name of Water System Sample Collector: W Mulderig

Sample No. 2

School: HENRY HIGH SCHOOL

Name of Building: KITCHEN

Location Description: Inside at East wall at double sink

Type of Outlet: kitchen faucet

Description: kitchen faucet with hot and cold valves

Comments/Miscellaneous: ~~Site has irregular water flow due to construction and repairs needed~~

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167212

State Sample ID: 3710020-AFG-B

Date & Time Last Used: ~~4-17-17 4-18-17~~ 2200

Date & Time Sample Collected: 4-18-17 0618

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector:

Sample No. 3

School: HENRY HIGH SCHOOL

Name of Building: 300 bldg. RESTROOMS

Location Description: ~~north~~ TB end of 300 bldg. restrooms next to boys rr. per map this is west end

Type of Outlet: Bubbler

Description: Right-Bubbler drinking fountain of two

Comments/Miscellaneous: site has irregular water flow due to construction and repairs needed

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167213

State Sample ID: 3710020-AFG-C

Date & Time Last Used: 4-18-17

Date & Time Sample Collected: 4-18-17, 6:21 am

Direct Sample ■ Transfer Sample ☐

Name of Water System Sample Collector: W Mulderis

Sample No. 4

School: HENERY HIGH SCHOOL

Name of Building: 100 BLDG

Location Description: South- next to girls restroom

Type of Outlet: Bubbler

Description: LEFT-Bubbler water fountain of two

Comments/Miscellaneous: The entire site has a week pressure due to construction in progress/ repairs needed

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167214

State Sample ID: 3710020-AFG-D

Date & Time Last Used: 4-17-17 6:00pm

Date & Time Sample Collected: 4-18-17 6:26am

Direct Sample ■ Transfer Sample ☐

Name of Water System Sample Collector: W Mulder

Sample No. 5

School: HENRY HIGH SCHOOL

Name of Building: PRE –K -BUNGALOW –B-101

Location Description: Inside B-101 In West parking lot next to bungalow A-F

Type of Outlet: Bubbler

Description: Bubbler water fountain at sink inside classroom

Comments/Miscellaneous: Entire site may have a week water flow due to repairs needed/construction

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167215

State Sample ID: 3710020-AFG-E

Date & Time Last Used: 4/17/17 6:00 pm

Date & Time Sample Collected: 4/18/17 6:37

Direct Sample ■ Transfer Sample ☐

Name of Water System Sample Collector: W Mulderry

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

18-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1167211	Henry High	18-APR-2017	0606	W. Mulderig	SAMPLE 1	
2	W1167212	Henry High	18-APR-2017	0618		SAMPLE 2	
3	W1167213	Henry High	18-APR-2017	0621		SAMPLE 3	
4	W1167214	Henry High	18-APR-2017	0626		SAMPLE 4	
5	W1167215	Henry High	18-APR-2017	0637		SAMPLE 5	

1859

Chain of Custody:

Relinquished by: Name: Walt Mulderig Sign: W Mulderig	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 4/18/17 @ 0650 Location: WQL	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 4/18/17
LIMS Received Time: 0801
Reviewed By: W

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: **Penn Elementary**

Physical Address of School: 2797 Utica Dr. San Diego CA 92139-3843

First Bell: 8:15 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 4-6-2017

Completed by Print Name: Cesar Jimenez

Signature: C.J. Date: 4-6-2017

School's Point of Contact for Sampling Assistance

Name: Cesar Jimenez

Phone: 619-261-1588

Email: cjimenez2@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-11-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Penn Elementary - 2797 Utica Dr. San Diego CA 92139-3843

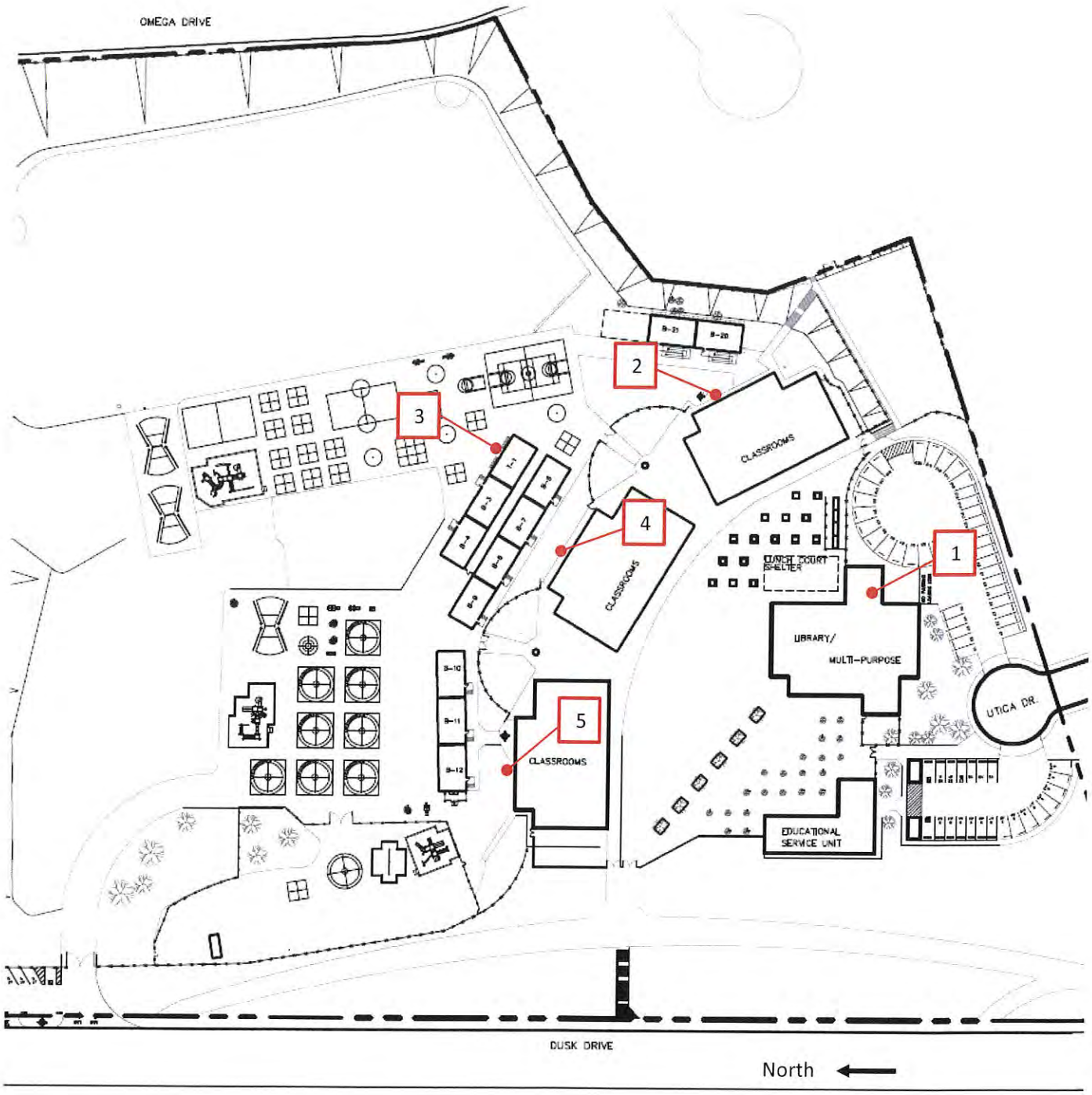

Sample No. 1

School: Penn Elementary

Name of Building: Library/ Multi-purpose Bldg. 200

Location Description: Inside Kitchen near parking lot

Type of Outlet: Faucet

Description: Faucet on a single compartment sink

Comments/Miscellaneous: Faucet/sink used for food preparation

SDUSD ID code #: 235-01

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166093

State Sample ID: 3710020-ADJ-A

Date & Time Last Used: 2200 4-11-17

Date & Time Sample Collected: 0609 4-12-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector:

Sample No. 2

School: Penn Elementary

Name of Building: Classrooms Bldg. 02-06

Location Description: Exterior wall of Girls restrooms, facing portable classroom B-21

Type of Outlet: Bubbler

Description: Left Bubbler on a triple fountain.

Comments/Miscellaneous: Outdoor drinking water source

SDUSD ID code #: 235-02

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166094

State Sample ID: 3710020-ADJ-B

Date & Time Last Used: 4-11-17 2200

Date & Time Sample Collected: 4-12-17 0615

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector:

Sample No. 3

School: Penn Elementary

Name of Building: Portable classrooms

Location Description: Exterior wall of restrooms adjacent to portable classroom B-3

Type of Outlet: Bubbler

Description: Left Bubbler on the right triple fountain.

Comments/Miscellaneous: Outdoor drinking water source

SDUSD ID code #: 235-03

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166095

State Sample ID: 3710020-ADJ-C

Date & Time Last Used: 2200 4-11-17

Date & Time Sample Collected: 0622 4-12-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector:

Sample No. 4

School: Penn Elementary

Name of Building: Classrooms Bldg. 02-05

Location Description: Exterior wall of Girls restrooms, facing portable classroom B-7

Type of Outlet: Bubbler

Description: Right Bubbler on a triple fountain.

Comments/Miscellaneous: Outdoor drinking water source

SDUSD ID code #: 235-04

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166096

State Sample ID: 3710020-ADJ-D

Date & Time Last Used: 2200 4-11-17

Date & Time Sample Collected: 0618 4-12-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector:

Sample No. 5

School: Penn Elementary

Name of Building: Classrooms Bldg. 02-04

Location Description: Exterior wall of Girls restrooms, facing portable classroom B-12

Type of Outlet: Bubbler

Description: Left Bubbler on a triple fountain.

Comments/Miscellaneous: Outdoor drinking water source

SDUSD ID code #: 235-05

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166097

State Sample ID: 3710020-ADJ-E

Date & Time Last Used: 2200 4-11-17

Date & Time Sample Collected: 0626 4-12-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector:

not tagged out, but school was secured ~~ba~~ and sink basin was dry

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

11-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1166093	Penn Elementary	12-APR-2017	0609		SAMPLE 1	
2	W1166094	Penn Elementary	12-APR-2017	0615		SAMPLE 2	
3	W1166095	Penn Elementary	12-APR-2017	0622		SAMPLE 3	
4	W1166096	Penn Elementary	12-APR-2017	0618		SAMPLE 4	
5	W1166097	Penn Elementary	12-APR-2017	0626		SAMPLE 5	See sample plan comments

1867

Chain of Custody:

Relinquished by: Name: Tom Burger Sign: Tom B Burger	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 4-12-17 0715 Location: ALV LAB	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 4/12/17
LIMS Received Time: 717
Reviewed By: IV

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Perkins K-8

Physical Address of School: 1770 Main St., San Diego, CA 92113-2104

First Bell: 8:55 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 4-28-2017

Completed by Print Name: Cesar Jimenez

Signature: C.J. Date: 4-28-2017

School's Point of Contact for Sampling Assistance

Name: ~~Cesar Jimenez~~ Tim Brown

Phone: ~~619-261-1588~~ 619 - 302 - 9427

Email: cjimenez2@sandi.net

City of San Diego 3710020

Approved By: 5/9/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Perkins K-8 - 1770 Main St., San Diego, CA 92113-2104

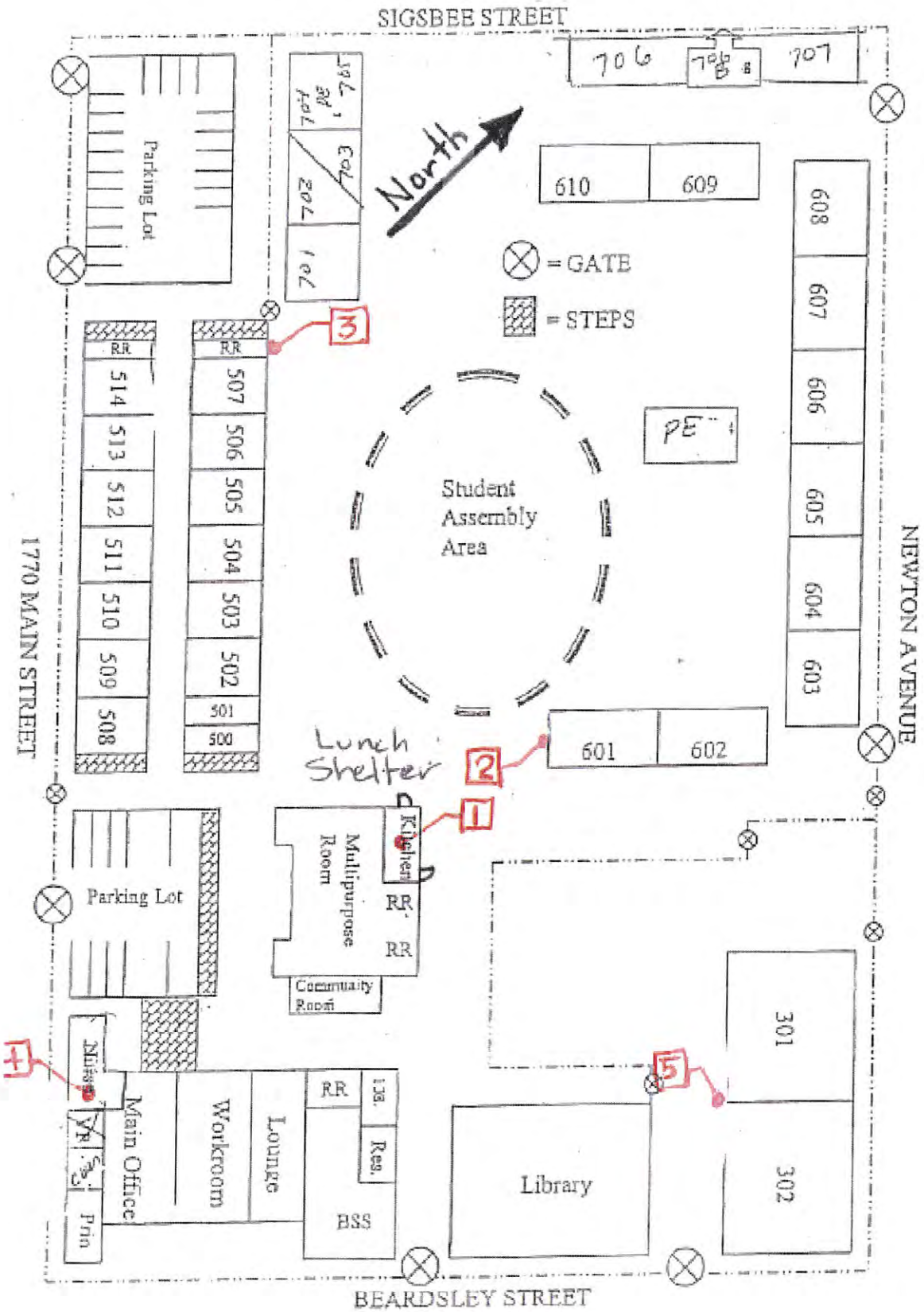

Sample No. 1

School: Perkins K-8

Name of Building: Multipurpose Bldg.

Location Description: North wall of kitchen

Type of Outlet: Faucet

Description: Faucet on a 2-compartment sink

Comments/Miscellaneous: SDUSD ID code #: 185-01

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172381

State Sample ID: 3710020-BHD-A

Date & Time Last Used: ~~0510~~ 051517 @ 1800 → 2200

Date & Time Sample Collected: 051617 @ 0602

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Jerry

Sample No. 2

School: Perkins K-8

Name of Building: 600 Bldg.

Location Description: Exterior south wall of Room 601

Type of Outlet: Bubbler

Description: Left bubbler on a triple fountain

Comments/Miscellaneous: SDUSD ID code #: 185-02

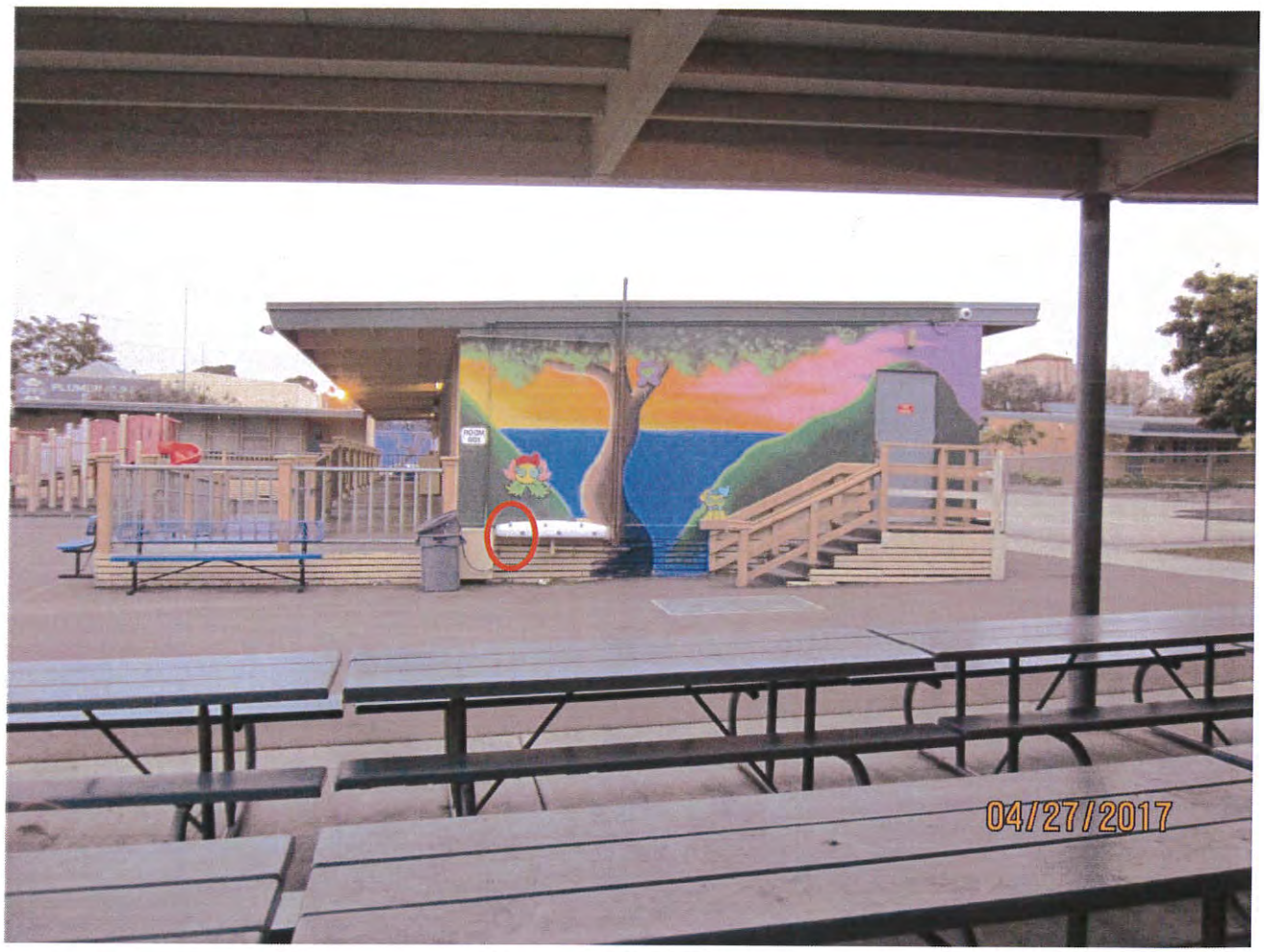

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172382

State Sample ID: 3710020-BHD-B

Date & Time Last Used: 051517 @ 1800 → 2200

Date & Time Sample Collected: 051617 @ 0600

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector:

Sample No. 3

School: Perkins K-8

Name of Building: 500 Bldg.

Location Description: Exterior north wall of 1st floor restrooms

Type of Outlet: Bubbler

Description: Left/lower bubbler on a double fountain

Comments/Miscellaneous: SDUSD ID code #: 185-03

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172383

State Sample ID: 3710020-BHD-C

Date & Time Last Used: ~~051517 @ 1800 → 2200~~ NOT TAGGED OUT BUT DRY

Date & Time Sample Collected: 051617 @ 0608

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: Jerry W

Sample No. 4

School: Perkins K-8

Name of Building: Administration Bldg.

Location Description: South wall of nurse's room

Type of Outlet: Faucet

Description: Faucet on a single compartment sink.

Comments/Miscellaneous: SDUSD ID code #: 185-04

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172384

State Sample ID: 3710020-BHD-D

Date & Time Last Used: 051517 @ 1800 → 2200

Date & Time Sample Collected: 051617 @ 0616

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Jerry W

Sample No. 5

School: Perkins K-8

Name of Building: 300 Bldg.

Location Description: Exterior south wall

Type of Outlet: Bubbler

Description: Middle bubbler on a triple fountain.

Comments/Miscellaneous: SDUSD ID code #: 185-05

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172385

State Sample ID: 3710020-BHD-E

Date & Time Last Used: 051517 @ 1800 → 2200

Date & Time Sample Collected: 051617 @ 0612

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: Jerry W

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

09-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1172381	Perkins K-8	16-MAY-2017	0602	Jerry W	SAMPLE 1	1
2	W1172382	Perkins K-8	16-MAY-2017	0604	J-W	SAMPLE 2	
3	W1172383	Perkins K-8	16-MAY-2017	0608	J-W	SAMPLE 3	
4	W1172384	Perkins K-8	16-MAY-2017	0616	J-W	SAMPLE 4	
5	W1172385	Perkins K-8	16-MAY-2017	0612	J-W	SAMPLE 5	

1875

Chain of Custody:

Relinquished by: Name: JERRY WESTON Sign: Jerry W	Received by: Name: TOM Burger Sign: TM B. Burger	Date & Time: 5-16-17 0658 Location: WQL LAB	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-16-17
LIMS Received Time: 0731
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: **Perry Elementary**

Physical Address of School: 6290 Oriskany Rd. San Diego, CA 92139-1142

First Bell: 9:10 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 3-30-2017

Completed by Print Name: Cesar Jimenez

Signature: C.J. Date: 3-30-2017

School's Point of Contact for Sampling Assistance

Name: Cesar Jimenez

Phone: 619-261-1588

Email: cjimenez2@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-3-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

TAG OUT ALL FIXTURES IN PICTURES

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: 6290 Oriskany Rd. San Diego, CA 92139-1142

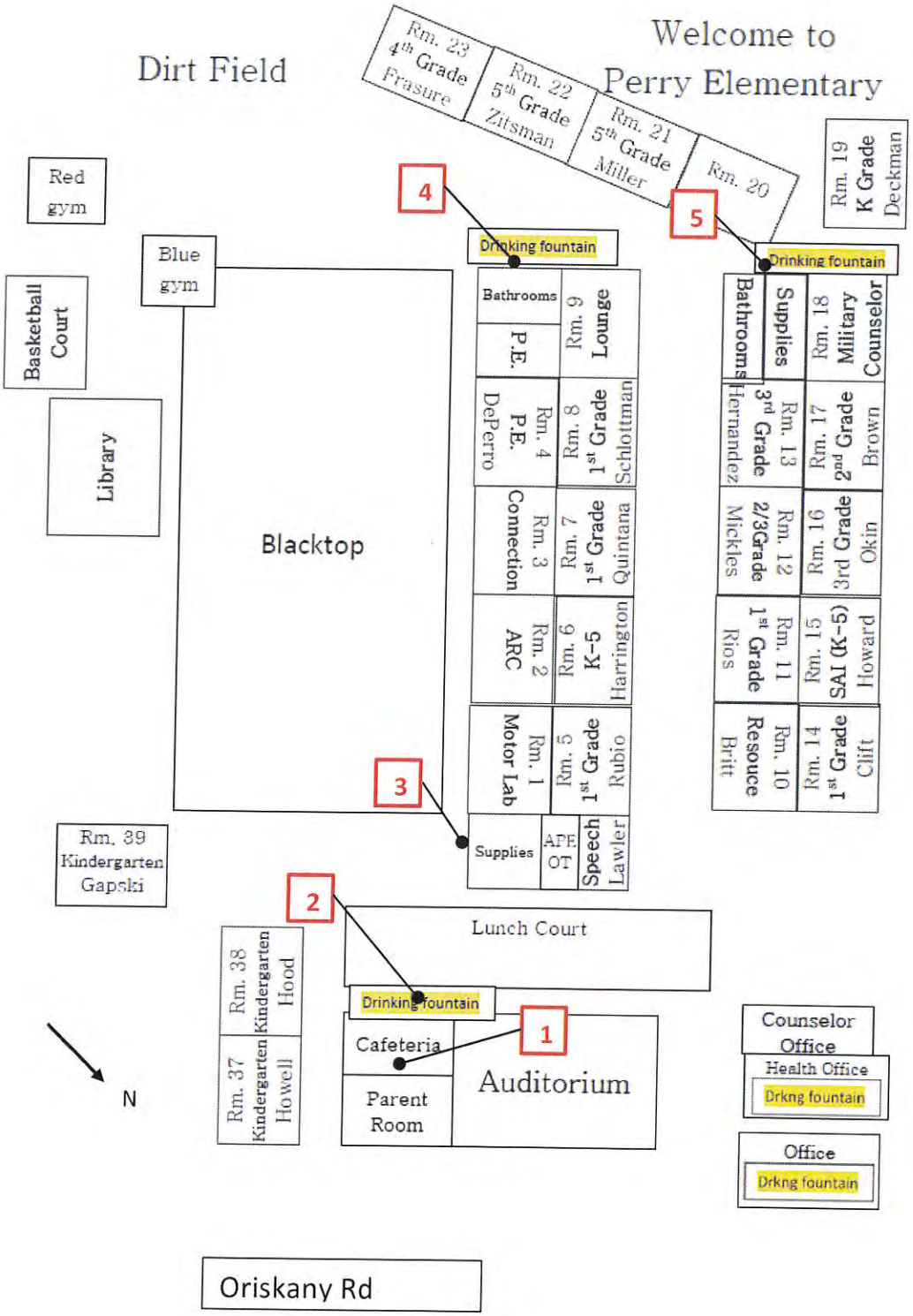

Sample No. 1

School: Perry Elementary

Name of Building: Cafeteria/Auditorium Bldg.

Location Description: Kitchen

Type of Outlet: Faucet

Description: Faucet on 2-compartment sink

Comments/Miscellaneous: Faucet/sink used for food preparation

SDUSD ID code #: 237-01

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-AAH-A

LIMS Sample ID: W1164078

Date & Time Last Used: 4/03/2017 @ 2pm

Date & Time Sample Collected: 4/04/17 @ 0609

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: Perry Elementary

Name of Building: Cafeteria/Auditorium Bldg.

Location Description: Mounted on exterior wall near Lunch Court

Type of Outlet: Bubbler

Description: Lower/ left bubbler on a dual fountain

Comments/Miscellaneous: Outdoor drinking water source

SDUSD ID code #: 237-02

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020 - AAH-B

LIMS Sample ID: W1164079

Date & Time Last Used: 4/3/17 @ 2pm

Date & Time Sample Collected: 4/4/17 @ 0611

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: Perry Elementary

Name of Building: Bldg. 3

Location Description: Mounted on exterior wall near Supplies room

Type of Outlet: Bubbler

Description: Lower/ left bubbler on a dual fountain

Comments/Miscellaneous: Outdoor drinking water source

SDUSD ID code #: 237-03

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020- AAH-C

LIMS Sample ID: W1164080

Date & Time Last Used: 4/03/17 @ 2pm

Date & Time Sample Collected: 4/04/17 @ 06:14

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: Perry Elementary

Name of Building: Bldg. 3

Location Description: Mounted on exterior wall near girls bathrooms

Type of Outlet: Bubbler

Description: Right bubbler on right triple fountain

Comments/Miscellaneous: Outdoor drinking water source

SDUSD ID code #: 237-04

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-AAH-D

LIMS Sample ID: W1164081

Date & Time Last Used: 4/03/17 @ 2pm

Date & Time Sample Collected: @6:15

Name of Water System Sample Collector: A. Molloy

Bubbler had Samp low flow compared to rest of bubblers

Sample No. 5

School: Perry Elementary

Name of Building: Bldg. 4

Location Description: Mounted on exterior wall near girls bathrooms

Type of Outlet: Bubbler

Description: Right bubbler on triple fountain

Comments/Miscellaneous: Outdoor drinking water source

SDUSD ID code #: 237-05

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020- AAH - E

LIMS Sample ID: W1164082

Date & Time Last Used: 4/03/17 @ 2pm

Date & Time Sample Collected: 4/04/17 @ 0626

Name of Water System Sample Collector: A. Molloy

San Diego Water Quality Laboratory

LEAD_SCHOOL For 04-APR-2017 Perry

No.	Sample ID	#	Description	Source	Sample Time	Sampler	Comments
1	W1164078	1	SAMPLE 1	PB_SCHOOL	0609	A. Molloy	
2	W1164079	1	SAMPLE 2	PB_SCHOOL	0611		
3	W1164080	1	SAMPLE 3	PB_SCHOOL	0614		
4	W1164081	1	SAMPLE 4	PB_SCHOOL	0618		Low flow.
5	W1164082	1	SAMPLE 5	PB_SCHOOL	0626		

Relinquished By: Alejandra Molloy Date: 4/4/17 Time: 0705 Received By: Tim Burger Date: 4-4-17 Time: 0710

Relinquished By: Date: Time: Received By: Date: Time:

Relinquished By: Date: Time: Received By: Date: Time:

Received By: A Molloy

Received Date: 4/4/17

LIMS Received Time: 0705

Reviewed By:

Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 4/12/17
San Diego Unified School District

Perry Elementary

Sample ID	Sample Date	Sample Time	Description	External ID	Lead	Units
W1164078	04/04/17	06:09 AM	SAMPLE 1	3710020-AAH-A	< 5	ug/L
W1164079	04/04/17	06:11 AM	SAMPLE 2	3710020-AAH-B	< 5	ug/L
W1164080	04/04/17	06:14 AM	SAMPLE 3	3710020-AAH-C	< 5	ug/L
W1164081	04/04/17	06:18 AM	SAMPLE 4	3710020-AAH-D	< 5	ug/L
W1164082	04/04/17	06:26 AM	SAMPLE 5	3710020-AAH-E	5.14	ug/L

SAMPLE 1 Cafeteria/auditorium bldg, kitchen, 2 compartment sink faucet (237-01)

SAMPLE 2 Cafeteria/auditorium bldg, ext wall near lunch court, lower left bubbler (237-02)

SAMPLE 3 BLDG 3, ext wall near supply room, lower left bubbler (237-03)

SAMPLE 4 BLDG 3, ext wall near girl restroom, right bubbler on right triple fountain (237-04)

SAMPLE 5 BLDG 4, ext wall near girls restroom, right bubbler on triple fountain. (237-05)

DLR= State Mandated Detection Limit for Reporting (DI
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: PERSHING MIDDLE SCHOOL

Physical Address of School: 8204 San Carlos Drive San Diego Ca. 92119

First Bell: 7:25

Meeting Date: ...3/22/2017

Sampling Plan Completion Date: 4/12/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 4/12/2017

School's Point of Contact for Sampling Assistance

Name: ~~Elizabeth Lara~~ Cesar Jimenez

Phone: ~~619-302-7616~~ 619-261-1588

Email: elara@sandi.net

City of San Diego 3710020

Approved By: Tom B Burger 4-18-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Pershing Middle School 8204 San Carlos Drive San Diego 92119

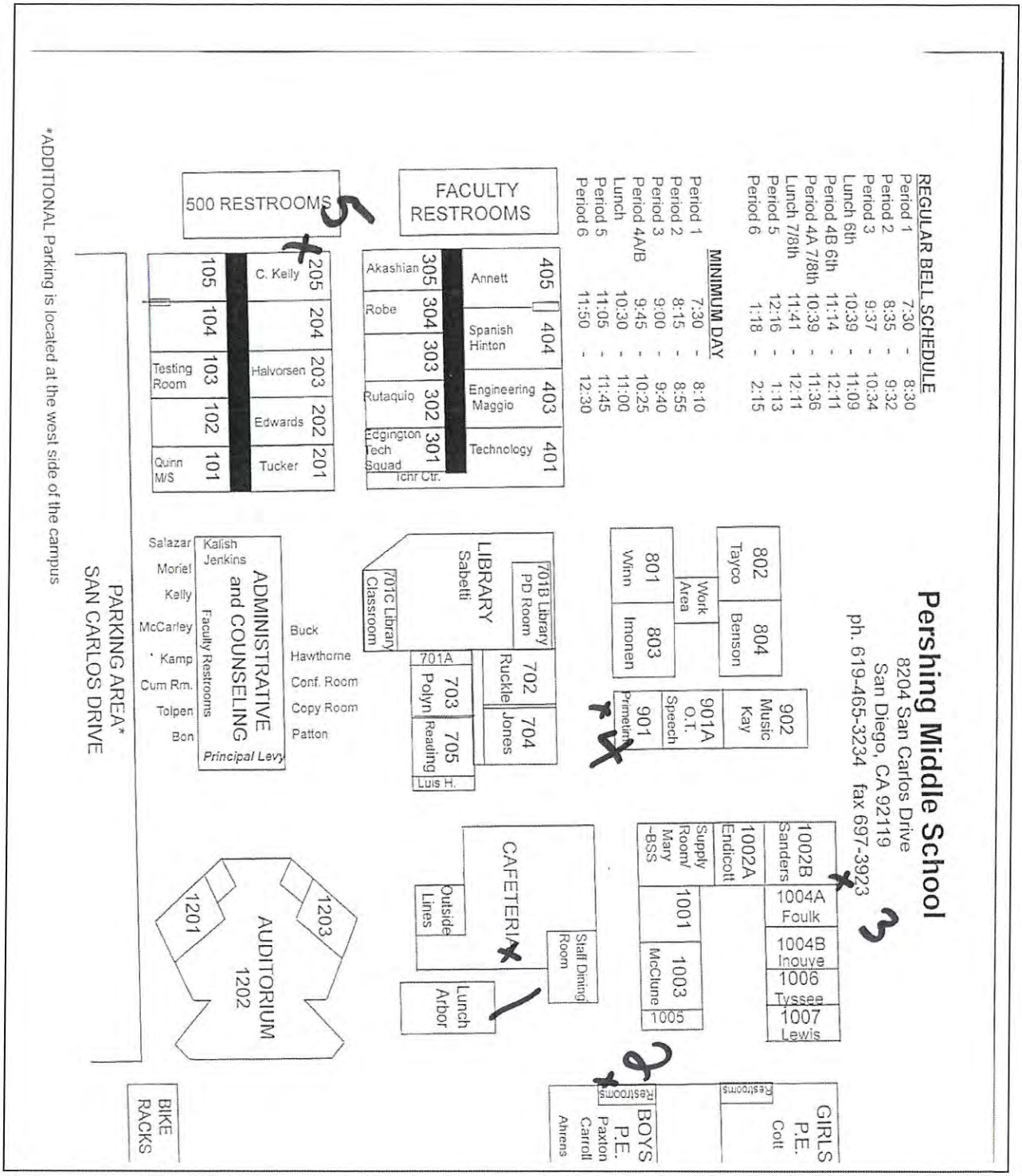

Sample No. 1

School: Pershing Middle School

Name of Building: Kitchen

Location Description: Inside kitchen west wall across from kettles

Type of Outlet: kitchen faucet

Description: LEFT kitchen faucet of two at a three sink unit

Comments/Miscellaneous: try to sample early morning 5:30 if possible

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167330

State Sample ID: 3710020-AGD-A

Date & Time Last Used: 4/18/17 between 6-10pm

Date & Time Sample Collected: 4/19/17 @ 0530

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rumbo

Sample No. 2

School: PERSHING MIDDLE SCHOOL

Name of Building: Boys P.E.

Location Description: outside boys' gym across from lunch court near restroom

Type of Outlet: Bubbler drinking fountain

Description: LEFT drinking fountain of two

Comments/Miscellaneous:

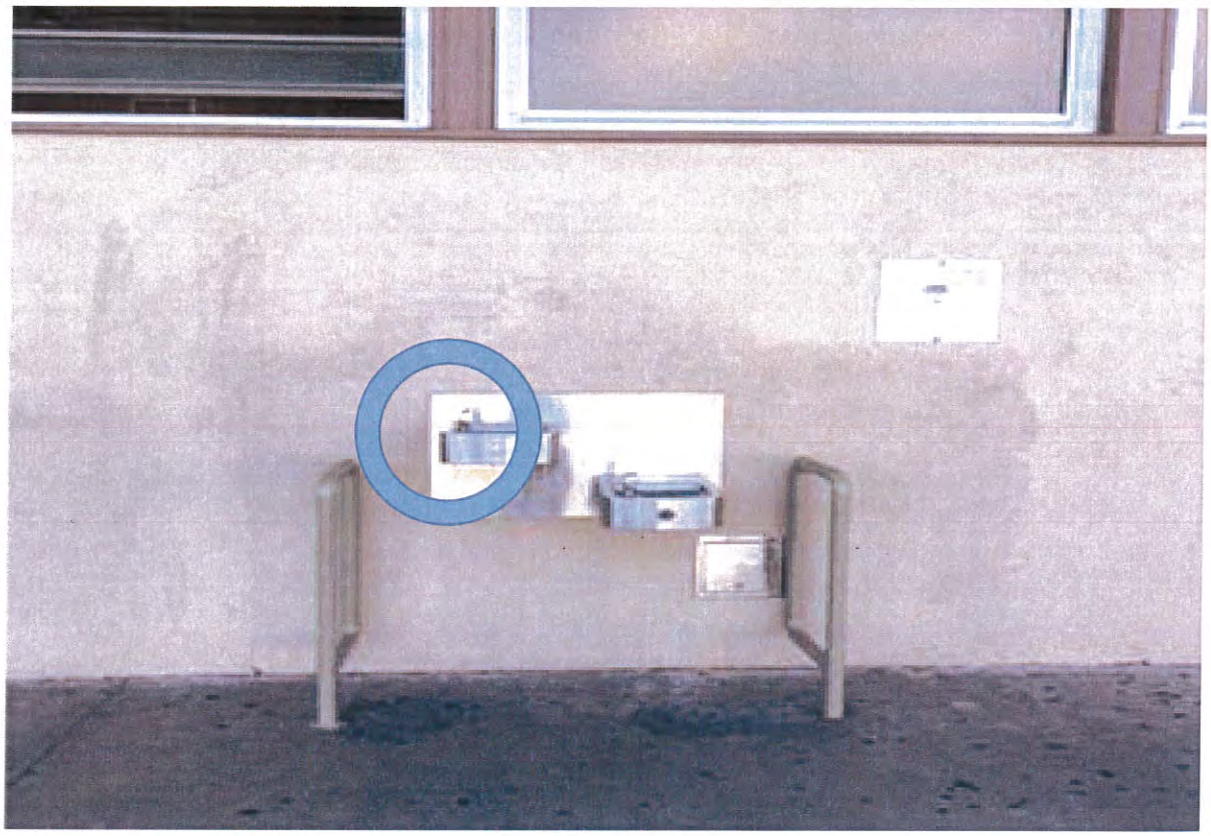

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167331

State Sample ID: 3710020-AGD-B

Date & Time Last Used: 4/18/17 between 6-10pm

Date & Time Sample Collected: 4/19/17 @ 0535

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

Sample No. 3

School: PERSHING MIDDLE SCHOOL

Name of Building: 1000

Location Description: Outside North between 1004A -1002B classrooms

Type of Outlet: Bubbler drinking fountain

Description: LEFT bubbler of two

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167332

State Sample ID: 3710020-AGD-C

Date & Time Last Used: All other sites tagged between 6-10 pm on 4/18/17

Date & Time Sample Collected: 4/19/17 @ 0537

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

- No labels present on bubblers

School was secured Rel sampler.

Sample No. 4

School: PERSHING MIDDLE SCHOOL

Name of Building: 900 bldg

Location Description: south end outside near 901

Type of Outlet: Bubbler drinking fountain

Description: LEFT water fountain of two

Comments/Miscellaneous:

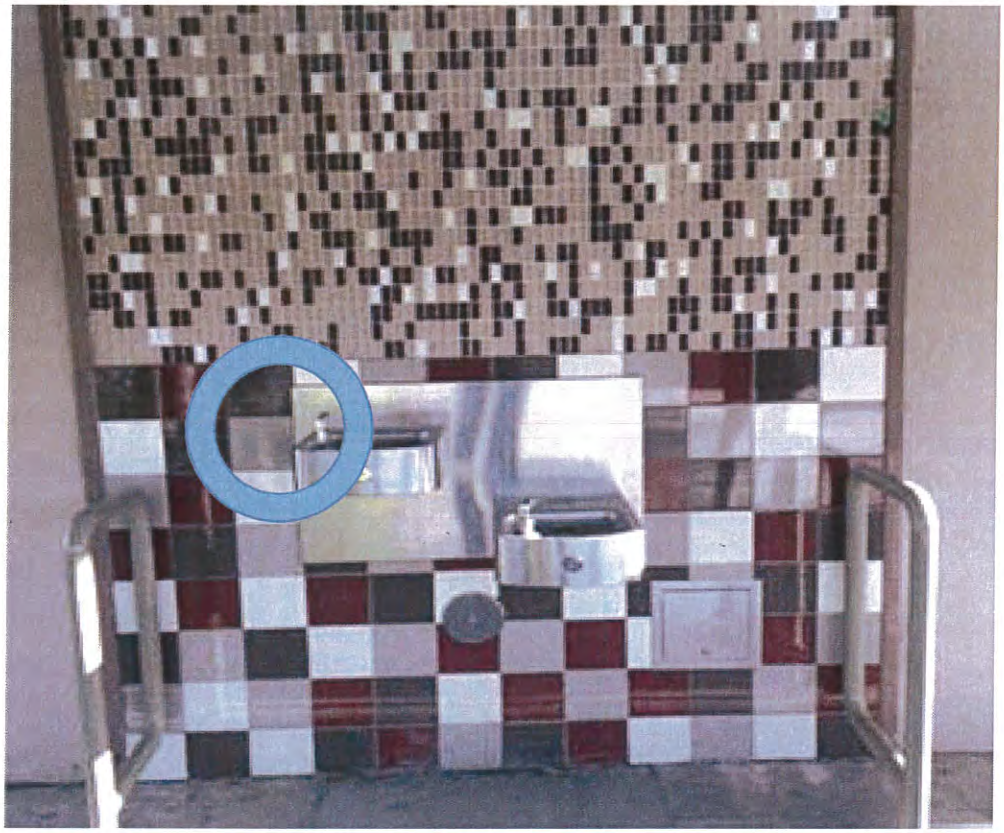

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167333

State Sample ID: 3710020-AGD-D

Date & Time Last Used: 4/18/17 between 6-10pm

Date & Time Sample Collected: 4/19/17 @ 0542

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rubio

Sample No. 5

School: PERSHING MIDDLE SCHOOL

Name of Building: 200 BLDG

Location Description: West end near room 205

Type of Outlet: single bubbler water fountain of two

Description: LEFT water fountain

Comments/Miscellaneous:

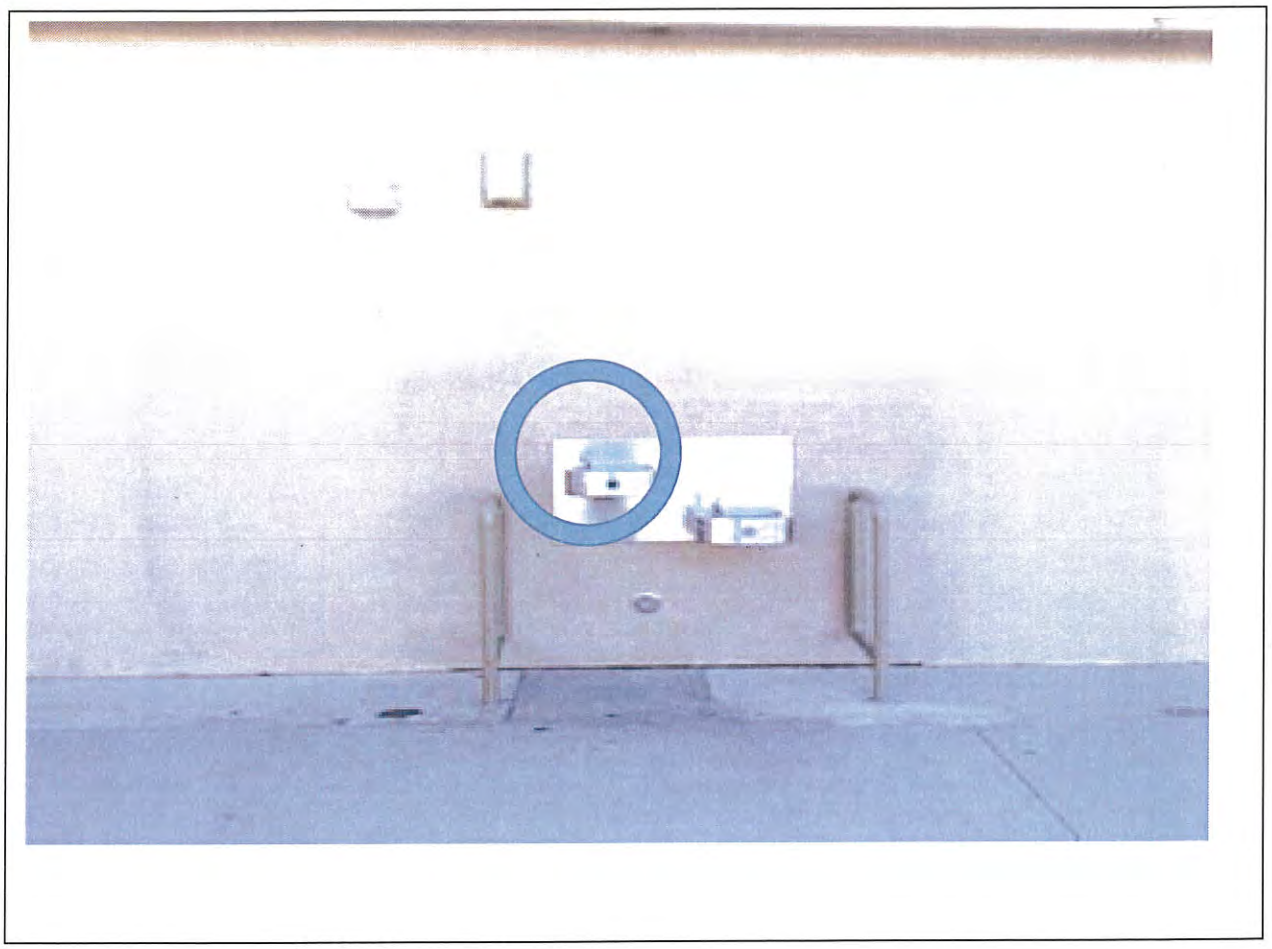

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167334

State Sample ID: 3710020-AGD-E

Date & Time Last Used: 4/18/17 between 6-10pm

Date & Time Sample Collected: 4/19/17 @ 0546

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rumba

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

18-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1167330	Pershing Middle	19-APR-2017	0530 ✓	JR ✓	SAMPLE 1	
2	W1167331	Pershing Middle	19-APR-2017	0535 ✓	JR	SAMPLE 2	
3	W1167332	Pershing Middle	19-APR-2017	0537 ✓	JR	SAMPLE 3	
4	W1167333	Pershing Middle	19-APR-2017	0542 ✓	JR	SAMPLE 4	
5	W1167334	Pershing Middle	19-APR-2017	0546 ✓	JR	SAMPLE 5	

1892

Chain of Custody:

Relinquished by: Name: Joshua Rambo Sign:	Received by: Name: Tom Burger Sign: Tom B. Burger	Date & Time: 4/19/17 @0610 Location: ALV	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 4-19-17 ✓
LIMS Received Time: 0630
Reviewed By: KMall 4/25/17

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: High TechElementary Explorer

Physical Address of School: 2230 Truxtun Road, San Diego, CA 92106 – 1st Floor

First Bell: 9:05am

Meeting Date: 4/10/17

Sampling Plan Completion Date: 4/10/17

Completed by Print Name: Paul W. Dooley

Signature: Paul W. Dooley Date: 4/10/17

School's Point of Contact for Sampling Assistance

Name: Paul W. Dooley

Phone: 760-759-2735 or 760-846-2154 (cell)

Email: pdooley@hightechhigh.org

City of San Diego 3710020

Approved By: Tom B. Burger 4-28-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Exhibit 31

High Tech High Point Loma Campus
Vicinity Map

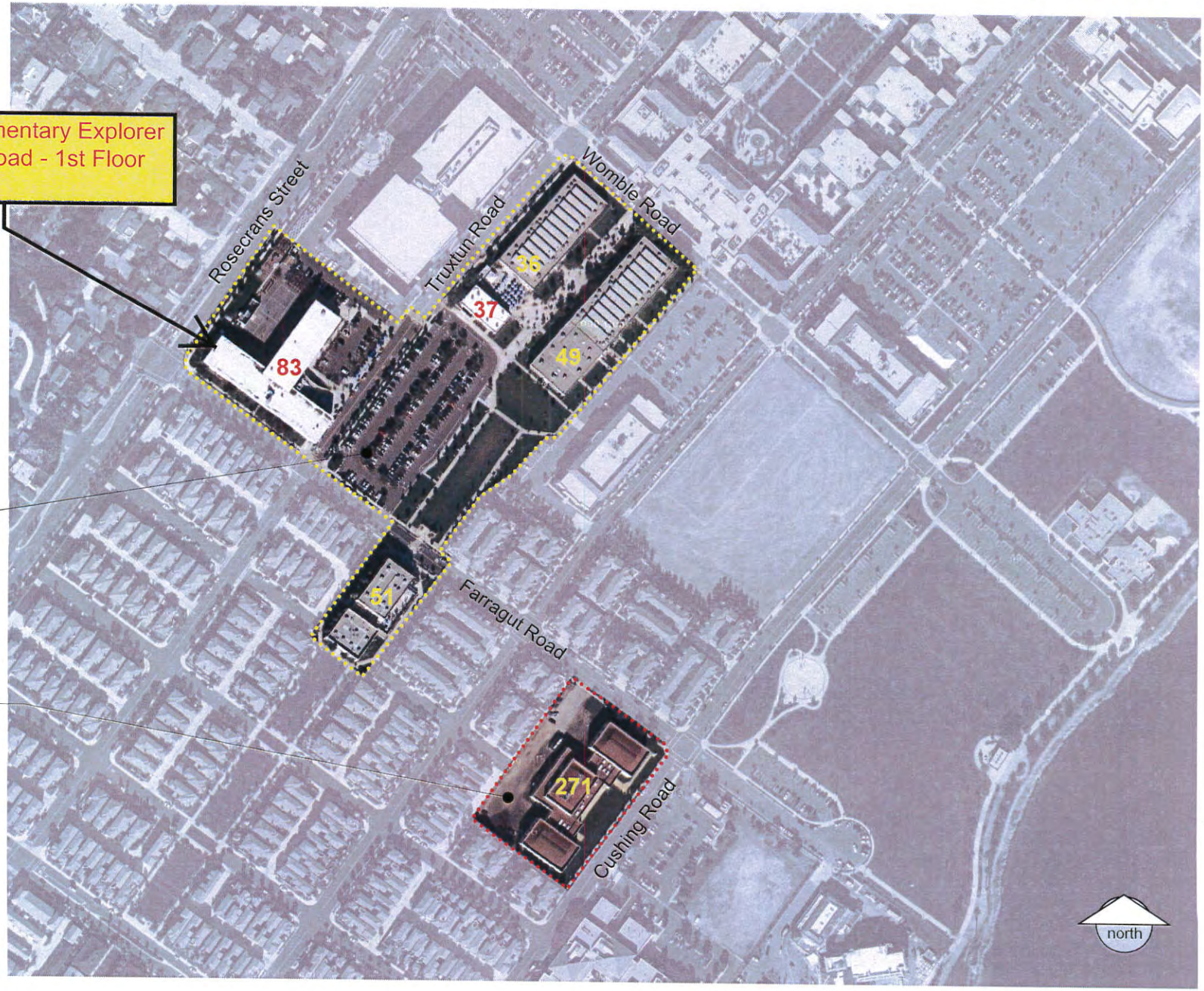

83 HIGH TECH ELEMENTARY EXPLORER
2230 Truxtun Road, Level One

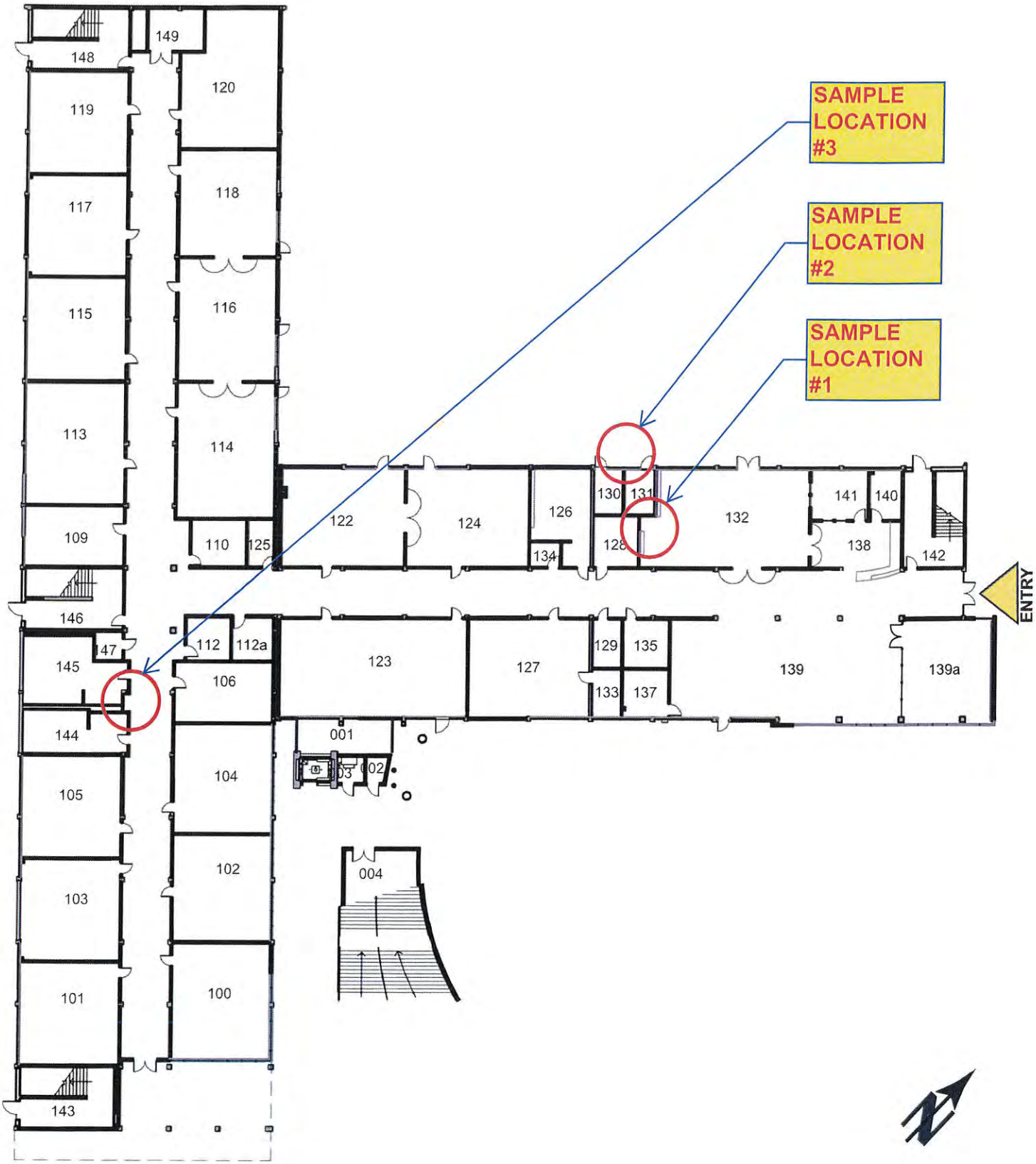

Sample No. 1

School: High TechElementary Explorer

Name of Building: 2230 Truxtun Road, San Diego, CA 92106 – 1st Floor

Location Description: Inside Room 132

Type of Outlet: Hi-Lo Drinking Fountain

Description: Test to be taken from the upper fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169419

State Sample ID: 3710020-AIC-A

Date & Time Last Used: No tag – looks dry, Building secure

Date & Time Sample Collected: 5/4/17 839

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 2

School: High TechElementary Explorer

Name of Building: : 2230 Truxtun Road, San Diego, CA 92106 – 1st Floor

Location Description: Play yard drinking fountain between exterior restrooms

Type of Outlet: Single drinking fountain

Description:

Comments/Miscellaneous:

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169420

State Sample ID: 3710020-AIC-B

Date & Time Last Used: No tag – appears dry, building secure

Date & Time Sample Collected: 5/4/17 641

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 3

School: High TechElementary Explorer

Name of Building: : 2230 Truxtun Road, San Diego, CA 92106 – 1st Floor

Location Description: Corridor drinking fountain between Boys and Girls Restrooms

Type of Outlet: Hi-Lo drinking fountain

Description: Test to be taken from the upper fountain

Comments/Miscellaneous:

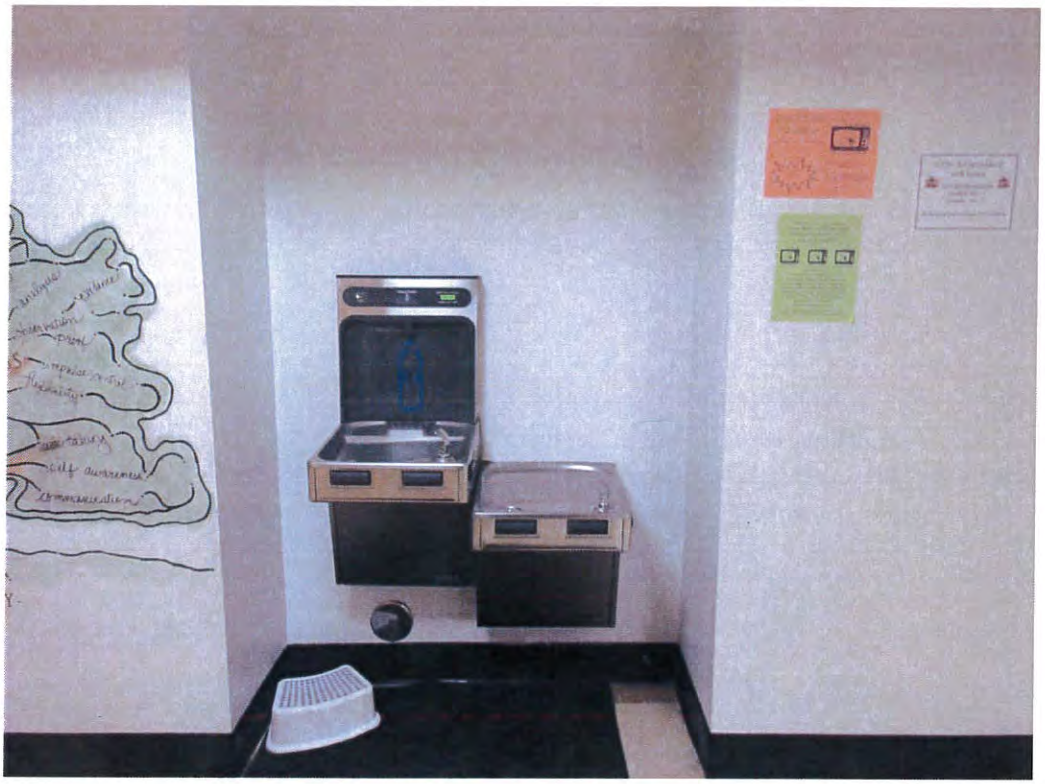

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169421

State Sample ID: 3710020-AIC-C

Date & Time Last Used: no tag - looks dry, Building Secure

Date & Time Sample Collected: 5/4/17 6:37

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Exhibit 21

Water Quality Chemistry Services
Chain of Custody Form

02-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes: fountains not tagged but building was secure

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1169419	High Tech Elementary Explorer	04-MAY-2017	639	M. Nelson	SAMPLE 1	
2	W1169420	High Tech Elementary Explorer	04-MAY-2017	641		SAMPLE 2	
3	W1169421	High Tech Elementary Explorer	04-MAY-2017	637		SAMPLE 3	

1899

Chain of Custody:

Relinquished by: Name: M. Nelson Sign:	Received by: Name: Tom Burger Sign: Tom B Burger	Date & Time: 5-4-17 1348 Location: WQL LAB	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-4-17
LIMS Received Time: 1513; 1512, 1514
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: High Tech High International

Physical Address of School: 2855 Farragut Road, San Diego, CA 92106

First Bell: 8:40am

Meeting Date: 4/10/17

Sampling Plan Completion Date: 4/10/17

Completed by Print Name: Paul W. Dooley

Signature: Paul W Dooley Date: 4/10/17

School's Point of Contact for Sampling Assistance

Name: Paul W. Dooley

Phone: 760-759-2735 or 760-846-2154 (cell)

Email: pdooley@hightechhigh.org

City of San Diego 3710020

Approved By: Tom B. Burger 4-28-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Exhibit 31

High Tech High Point Loma Campus
Vicinity Map

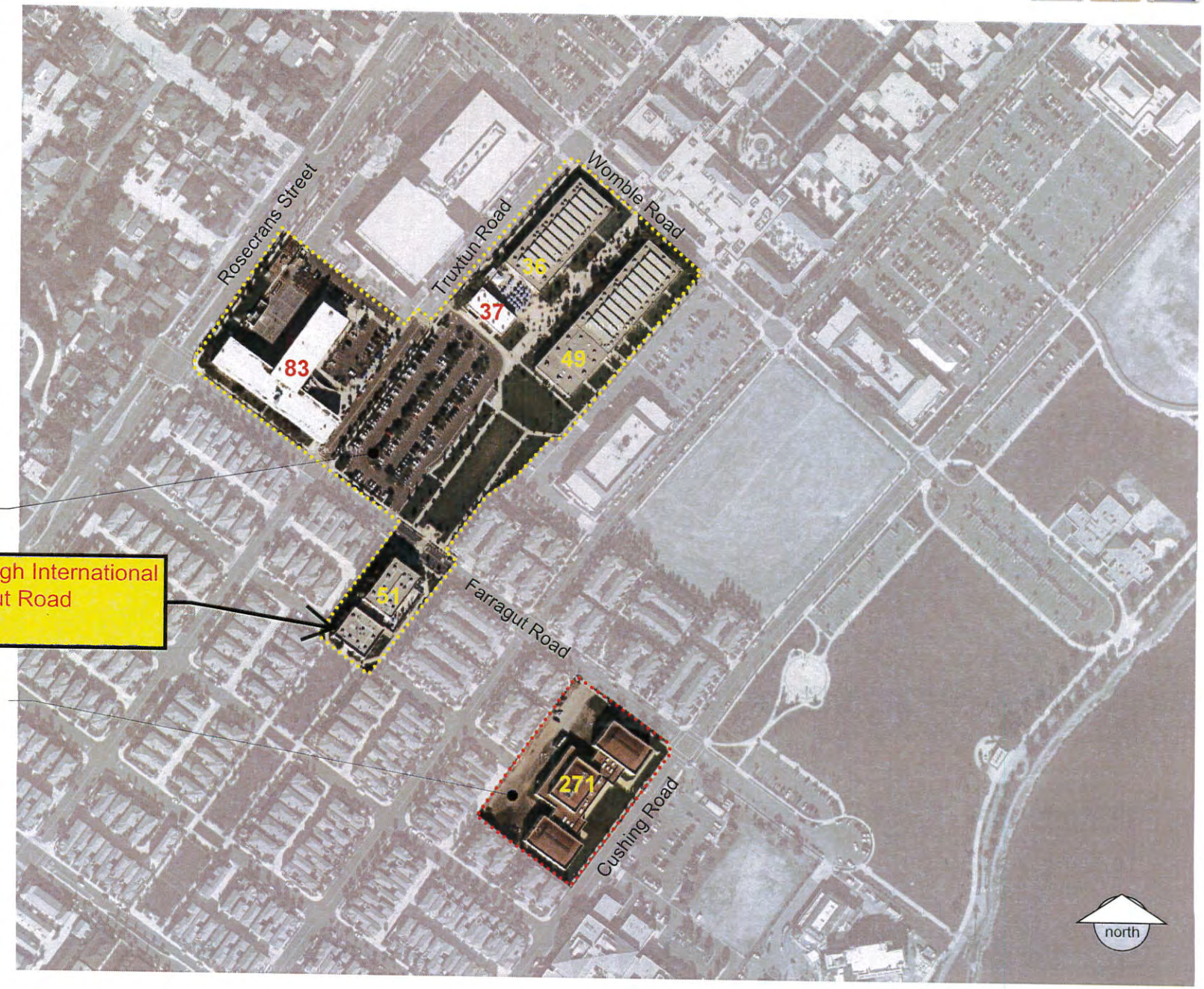

High Tech High
Point Loma Village

High Tech High International
2855 Farragut Road
BLDG 51

51 HIGH TECH HIGH INTERNATIONAL

2855 Farragut Road, Level One

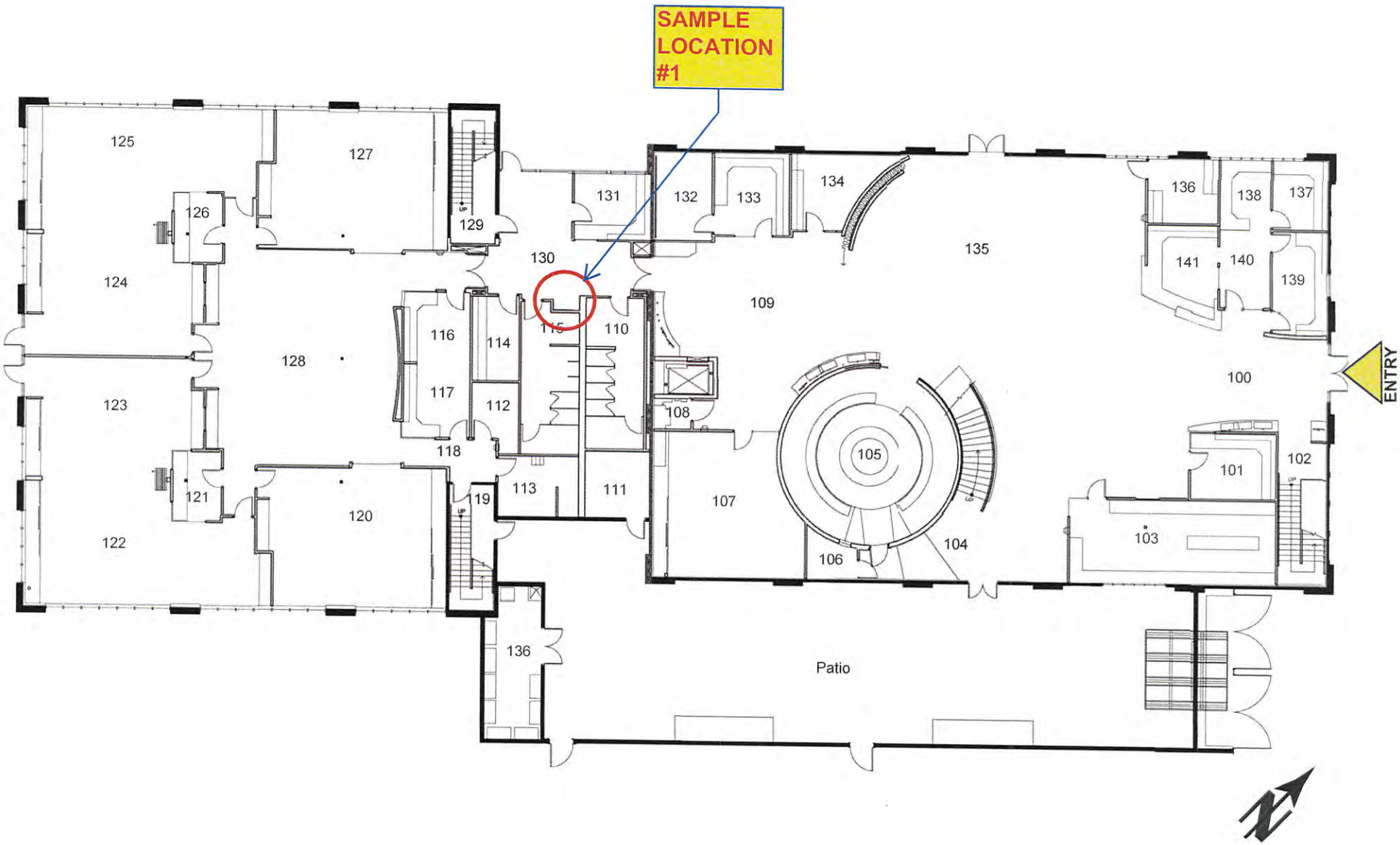

51 HIGH TECH HIGH INTERNATIONAL
2855 Farragut Road, Level Two

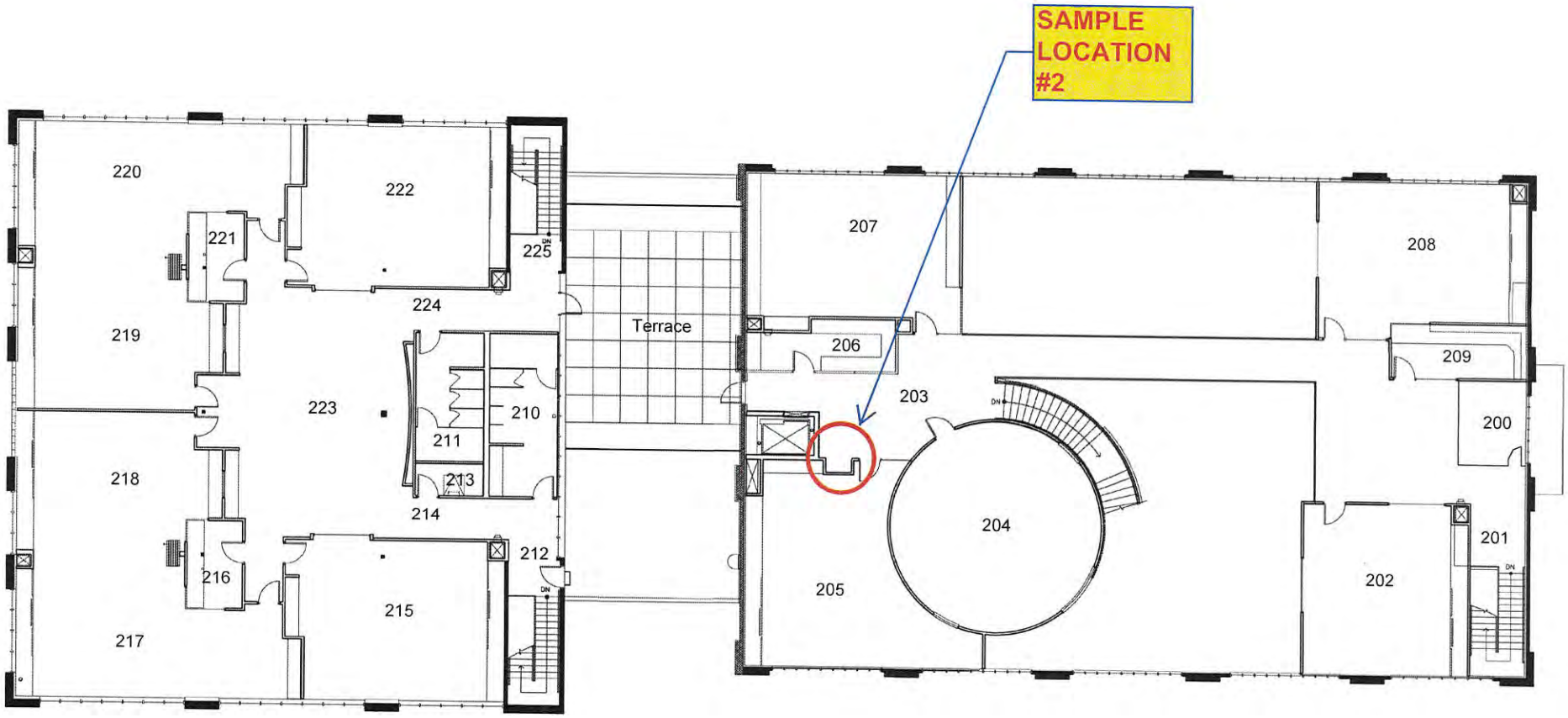

Sample No. 1

School: High Tech High International

Name of Building: 2855 Farragut Road, San Diego, CA 92106

Location Description: 1st Floor corridor drinking fountain between Boys and Girls Restrooms

Type of Outlet: Hi-Lo Drinking Fountain with bottle filler

Description: Test to be taken from the upper fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169400

State Sample ID: 3710020-AIH-B

Date & Time Last Used: no tag appears dry, building secure

Date & Time Sample Collected: 5/4/17 707

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 2

School: High Tech High International

Name of Building: 2855 Farragut Road, San Diego, CA 92106

Location Description: 2nd Floor Corridor drinking fountain adjacent to Classroom 205

Type of Outlet: Hi-Lo Drinking Fountain with bottle filler

Description: Test to be taken from the upper fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169401

State Sample ID: 3710020-AIH-B

Date & Time Last Used: No Tag - appears dry, building secure

Date & Time Sample Collected: 5/4/17 7:10

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

02-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes: fountains not tagged building secured

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1169400	High Tech High International	04-MAY-2017	707	M. Nelson	SAMPLE 1	
2	W1169401	High Tech High International	04-MAY-2017	710		SAMPLE 2	

1906

Chain of Custody:

Relinquished by: Name: M. Nelson Sign:	Received by: Name: Tom Burger Sign: Tom B Burger	Date & Time: 5-4-17 1355 Location: WQL LAB	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-4-17
LIMS Received Time: 1512
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: High Tech High Media Arts #1 of 2

Physical Address of School: 2230 Truxtun Road, San Diego, CA 92106 – 3rd Floor

First Bell: 8:40am

Meeting Date: 4/10/17

Sampling Plan Completion Date: 4/10/17

Completed by Print Name: Paul W. Dooley

Signature: Paul W Dooley Date: 4/10/17

School's Point of Contact for Sampling Assistance

Name: Paul W. Dooley

Phone: 760-759-2735 or 760-846-2154 (cell)

Email: pdooley@hightechhigh.org

City of San Diego 3710020

Approved By: Tom B. Burger 4-28-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Exhibit 31

High Tech High Point Loma Campus
Vicinity Map

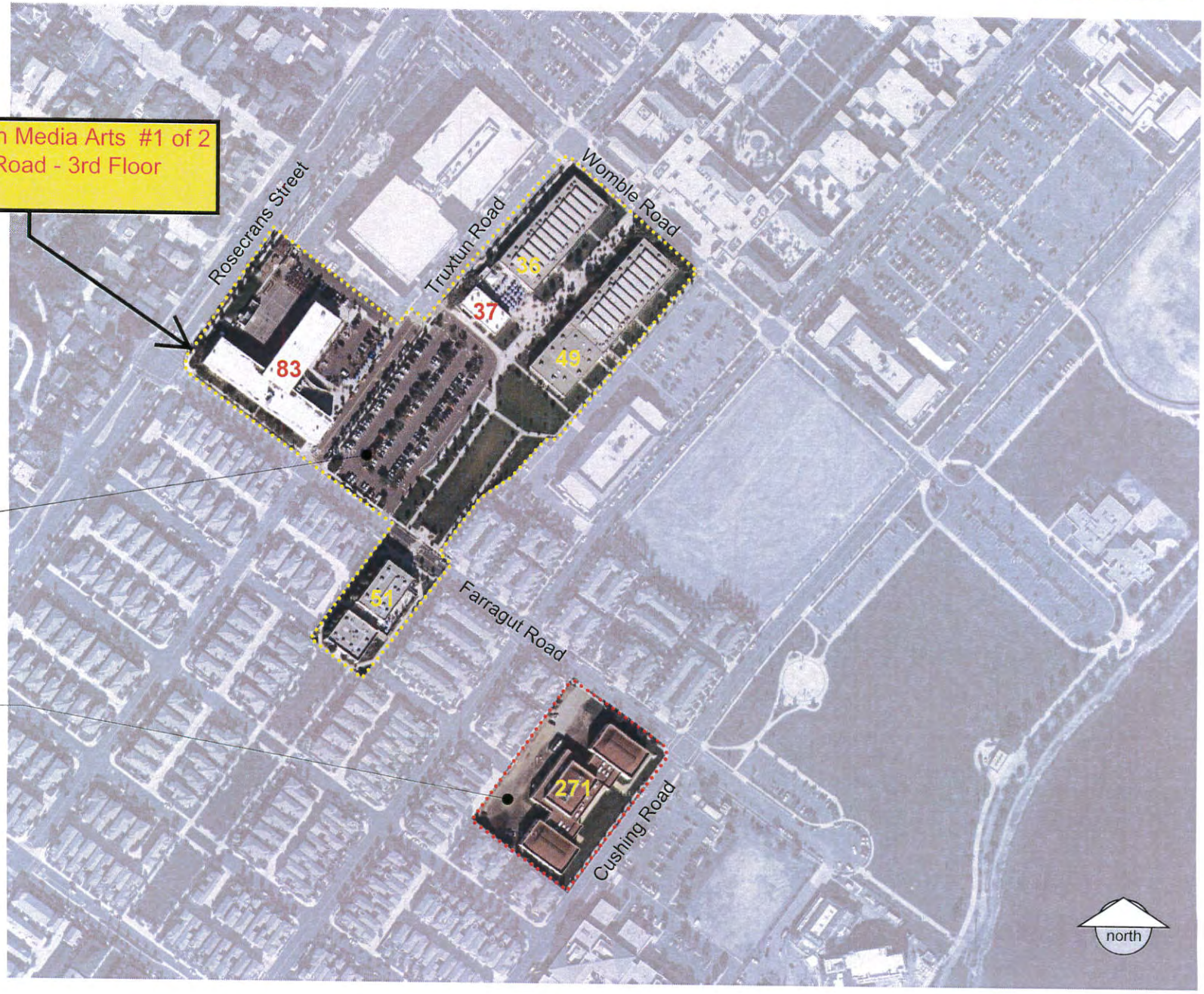

83 HIGH TECH HIGH MEDIA ARTS
2230 Truxtun Road, Level Three

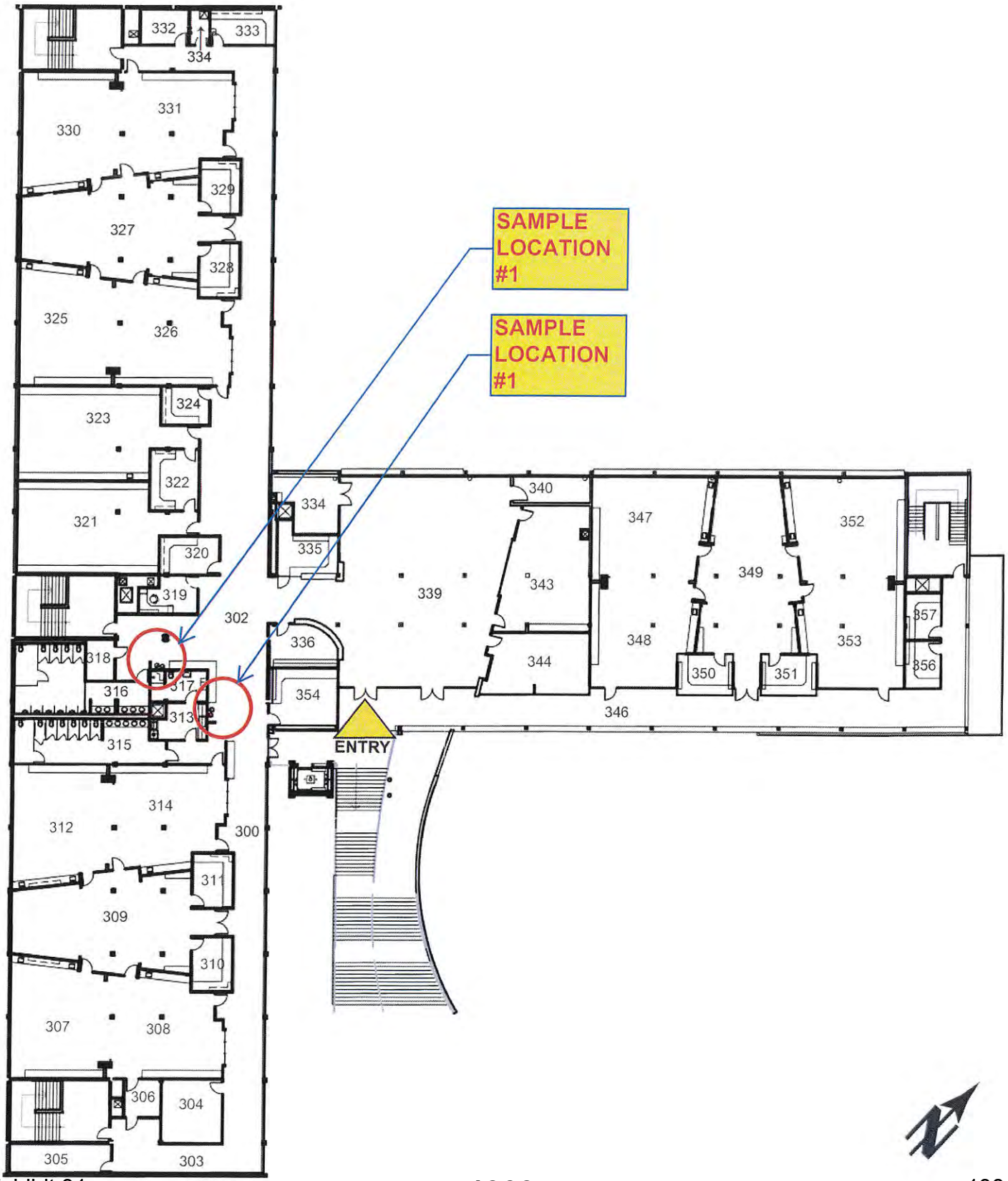

Sample No. 1

School: High Tech High Media Arts

Name of Building: 2230 Truxtun Road, San Diego, CA 92106 – 3rd Floor

Location Description: Corridor drinking fountain adjacent to Girls Restroom

Type of Outlet: Hi-Lo Drinking Fountain

Description: Test to be taken from the upper fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169402

State Sample ID: 3710020-AID-A

Date & Time Last Used: No Tag - Looks dry, Building secure

Date & Time Sample Collected: 5/4/17 650

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 2

School: High Tech High Media Arts

Name of Building: 2230 Truxtun Road, San Diego, CA 92106 – 3rd Floor

Location Description: Corridor drinking fountain adjacent to Boys Restroom

Type of Outlet: Drinking Fountain with bottle filler

Description: Test to be taken from the fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169403

State Sample ID: 3710020-AID-B

Date & Time Last Used: No Tag - looks dry, Building Secure

Date & Time Sample Collected: 5/4/17 652

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

03-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes: Fountains not tagged but building was secure

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1169402	High Tech High Media Arts	04-MAY-2017	650	M. Nelson	SAMPLE 1	
2	W1169403	High Tech High Media Arts	04-MAY-2017	652		SAMPLE 2	

1912

Chain of Custody:

Relinquished by: Name: M. Nelson Sign:	Received by: Name: Tom Burger Sign: Tom B. Burger	Date & Time: 5-4-17 1350 Location: WQL LAB	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-4-17
LIMS Received Time: 1512
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: High Tech High Media Arts #2 of 2 (Satellite)

Physical Address of School: 2291 Truxtun Road, San Diego, CA 92106

First Bell: 8:40am

Meeting Date: 4/10/17

Sampling Plan Completion Date: 4/10/17

Completed by Print Name: Paul W. Dooley

Signature: Paul W Dooley Date: 4/10/17

School's Point of Contact for Sampling Assistance

Name: Paul W. Dooley

Phone: 760-759-2735 or 760-846-2154 (cell)

Email: pdooley@hightechhigh.org

City of San Diego 3710020

Approved By: Tom B. Burger 5-2-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Exhibit 31

High Tech High Point Loma Campus Vicinity Map

High Tech High Point Loma Village

37 HIGH TECH HIGH MEDIA ARTS SATELLITE

2291 Truxtun Road

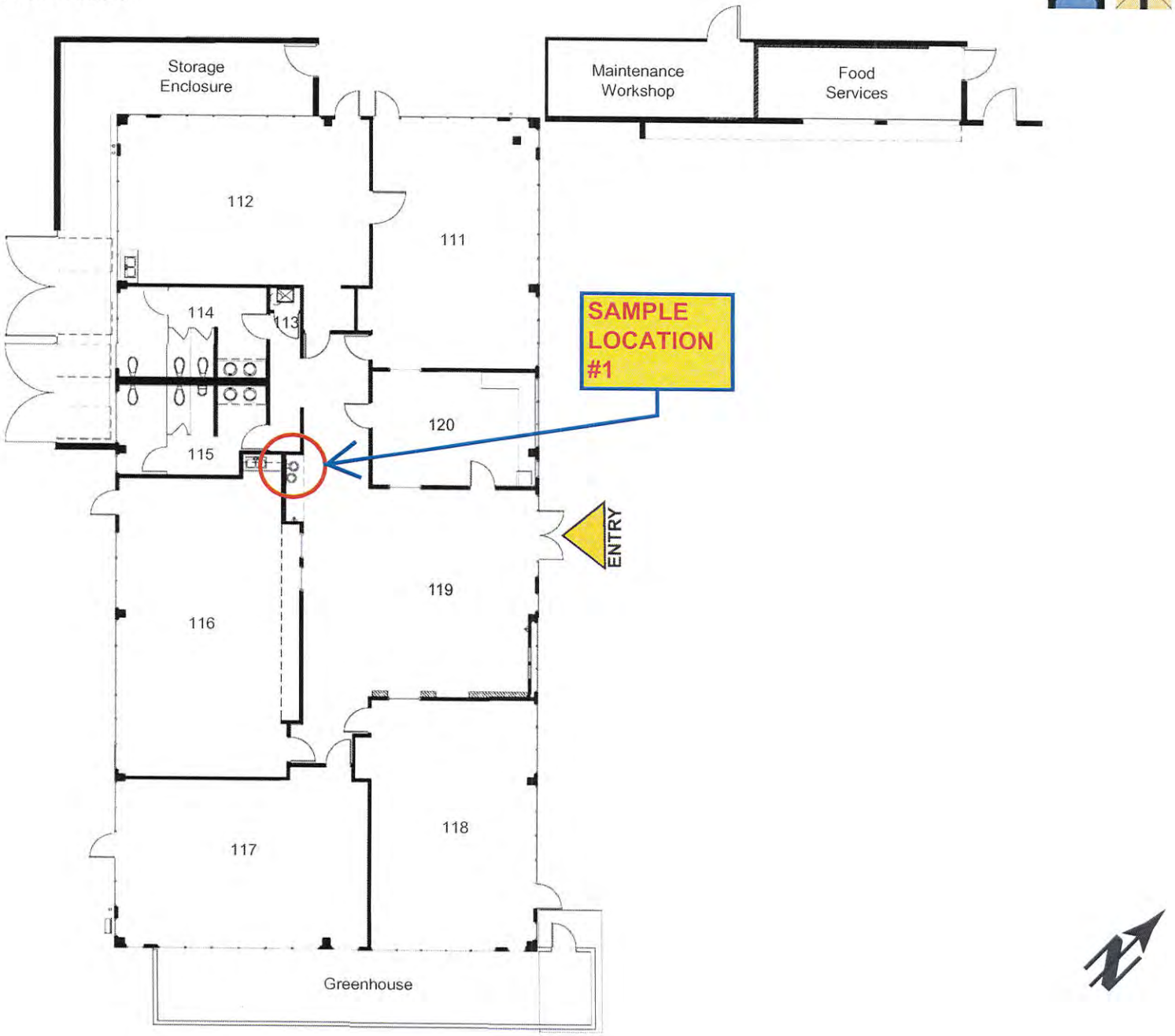

Sample No. 1

School: High Tech High Media Arts

Name of Building: 2291 Truxtun Road, San Diego, CA 92106

Location Description: Corridor drinking fountain adjacent to Restrooms

Type of Outlet: Hi-Lo Drinking Fountain

Description: Test to be taken from the upper fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170164

State Sample ID: 3710020-AHJ-A

Date & Time Last Used: No tag - appears dry, building was secure

Date & Time Sample Collected: 5/4/17 810

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

03-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes: fountain not tagged building was secure

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1170164	High Tech High Media Arts 2	04-MAY-2017	810	M. Nelson	SAMPLE 1	

Chain of Custody:

Relinquished by: Name: M. Nelson Sign:	Received by: Name: Tom Burger Sign: TM B. Burger	Date & Time: 5-4-17 1353 Location: WQL LAB	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-4-17
LIMS Received Time: 1512
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: High Tech Middle Media Arts

Physical Address of School: 2230 Truxtun Road, San Diego, CA 92106 – 2nd Floor

First Bell: 9:05am

Meeting Date: 4/10/17

Sampling Plan Completion Date: 4/10/17

Completed by Print Name: Paul W. Dooley

Signature: Paul W Dooley Date: 4/10/17

School's Point of Contact for Sampling Assistance

Name: Paul W. Dooley

Phone: 760-759-2735 or 760-846-2154 (cell)

Email: pdooley@hightechhigh.org

City of San Diego 3710020

Approved By: Tom Burger 5-2-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Exhibit 31

High Tech High Point Loma Campus
Vicinity Map

83 HIGH TECH MIDDLE MEDIA ARTS
2230 Truxtun Road, Level Two

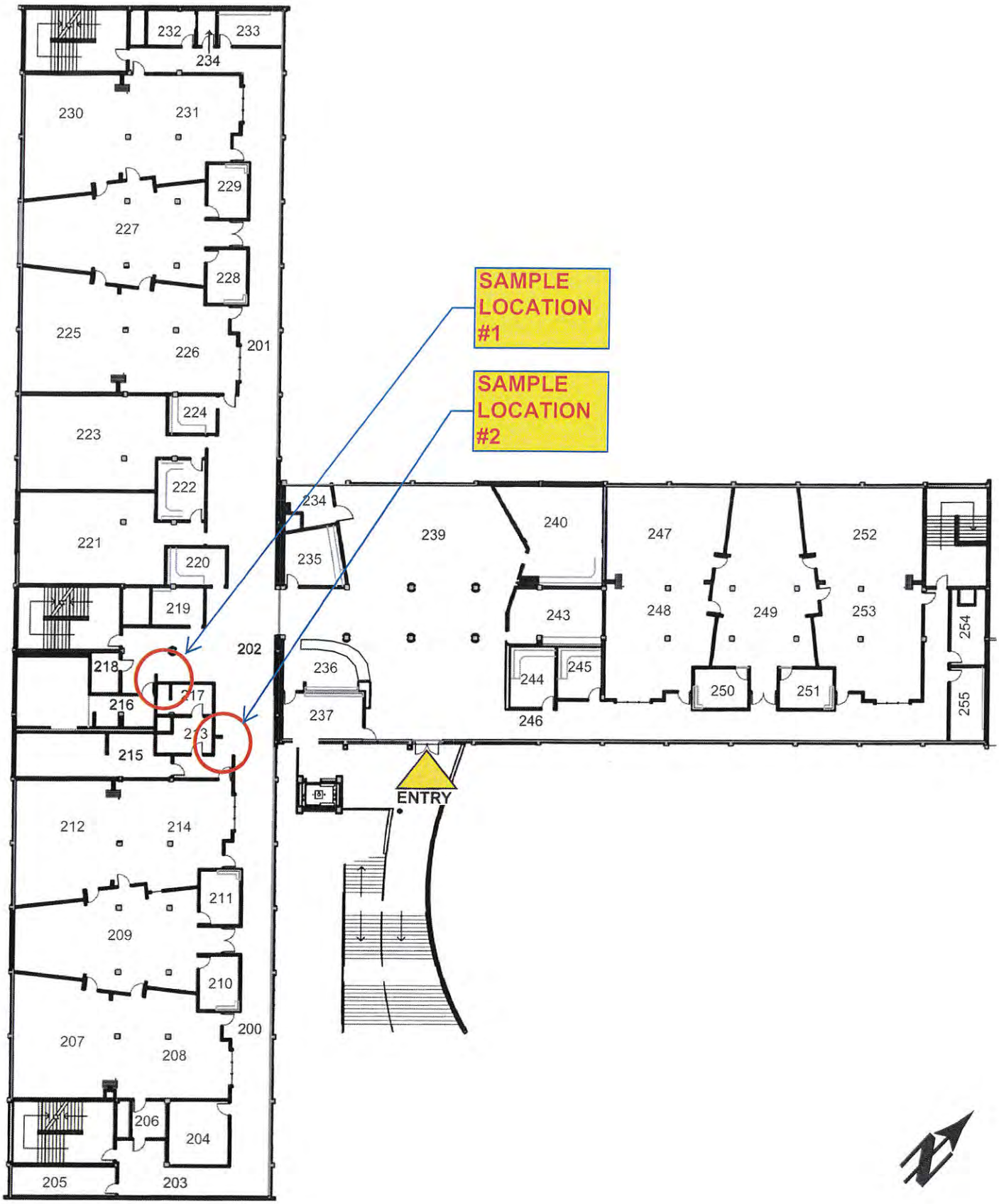

Sample No. 1

School: High Tech Middle Media Arts

Name of Building: 2230 Truxtun Road, San Diego, CA 92106 – 2nd Floor

Location Description: Corridor drinking fountain adjacent to Girls Restroom

Type of Outlet: Hi-Lo Drinking Fountain

Description: Test to be taken from the upper fountain

Comments/Miscellaneous:

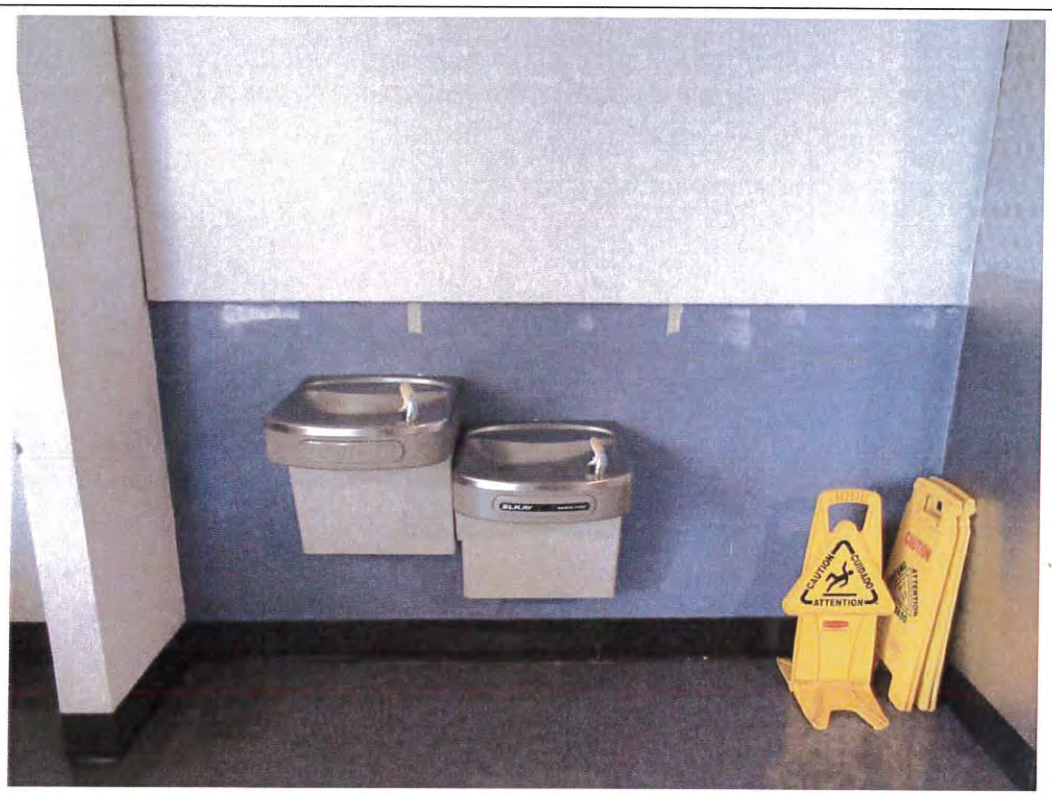

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170168

State Sample ID: 3710020-AID-A

Date & Time Last Used: no tag but blocked off - appears dry, building not secure

Date & Time Sample Collected: 656 5/4/17

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 2

School: High Tech Middle Media Arts

Name of Building: : 2230 Truxtun Road, San Diego, CA 92106 – 2ndFloor

Location Description: Corridor drinking fountain adjacent to Boys Restroom

Type of Outlet: Hi-Lo Drinking Fountain with bottle filler

Description: Test to be taken from the upper fountain bubbler

Comments/Miscellaneous:

Not sampled, used by students this morning, building not Secure

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170169

State Sample ID: 3710020-AID-B

Date & Time Last Used:

Date & Time Sample Collected:

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector:

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

04-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1170168	High Tech High Middle Media Ar	04-MAY-2017	0656	M. Nelson	SAMPLE 1	
2	W1170169	High Tech High Middle Media Ar	04-MAY-2017	NS		SAMPLE 2	NS

Chain of Custody:

Relinquished by: Name: Matt Nelson Sign:	Received by: Name: Tom Burger Sign: TM B-Burger	Date & Time: 5-4-17 1349 Location: WQL office	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-4-17
LIMS Received Time: 1514
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: High Tech High

Physical Address of School: 2861 Womble Road, San Diego, CA 92106

First Bell: 8:40am

Meeting Date: 4/10/17

Sampling Plan Completion Date: 4/10/17

Completed by Print Name: Paul W. Dooley

Signature: Paul W. Dooley Date: 4/10/17

School's Point of Contact for Sampling Assistance

Name: Paul W. Dooley

Phone: 760-759-2735 or 760-846-2154 (cell)

Email: pdooley@hightechhigh.org

City of San Diego 3710020

Approved By: Tom B. Burger 4-28-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Exhibit 31

High Tech High Point Loma Campus Vicinity Map

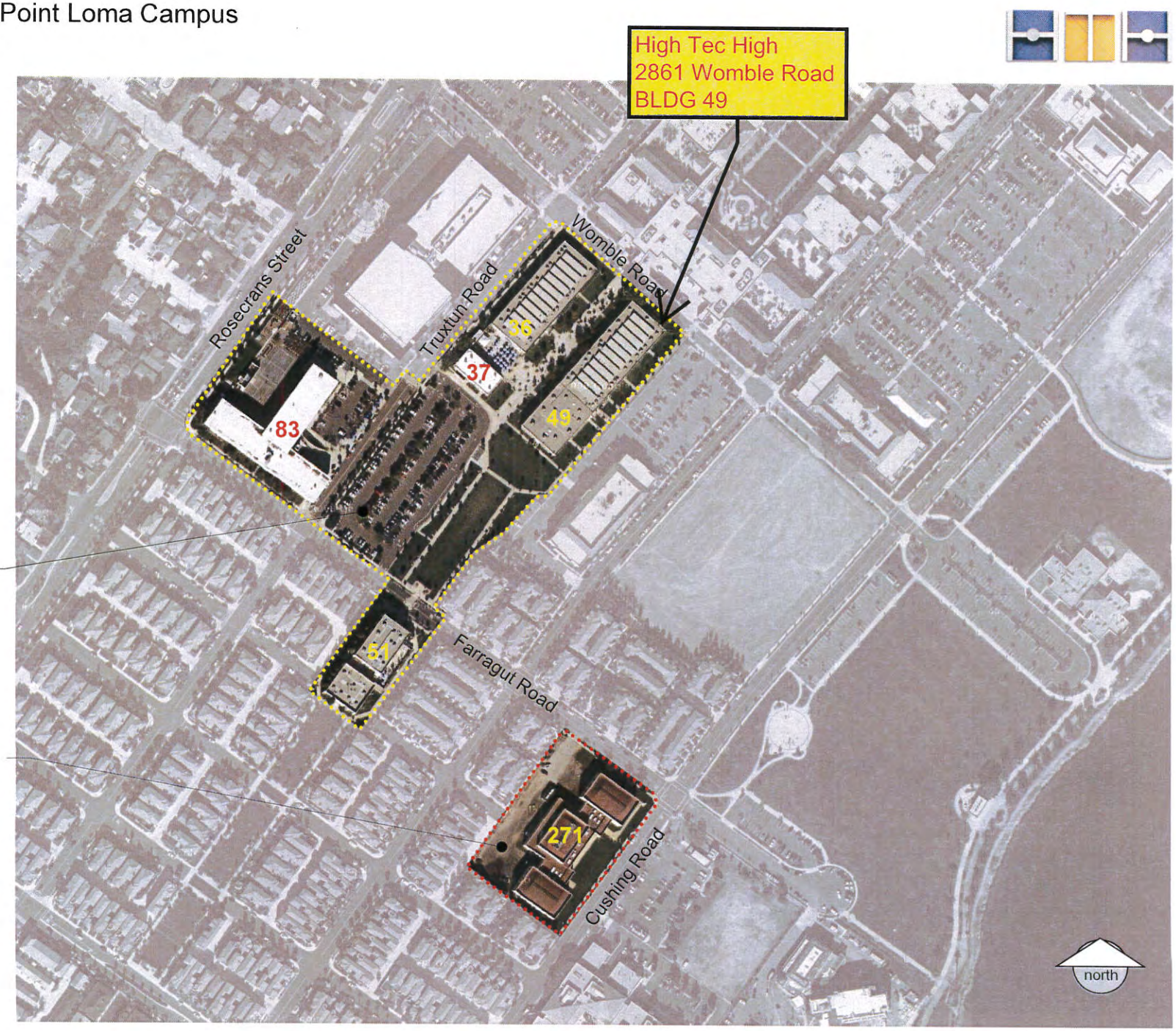

49 HIGH TECH HIGH
2861 Womble Road

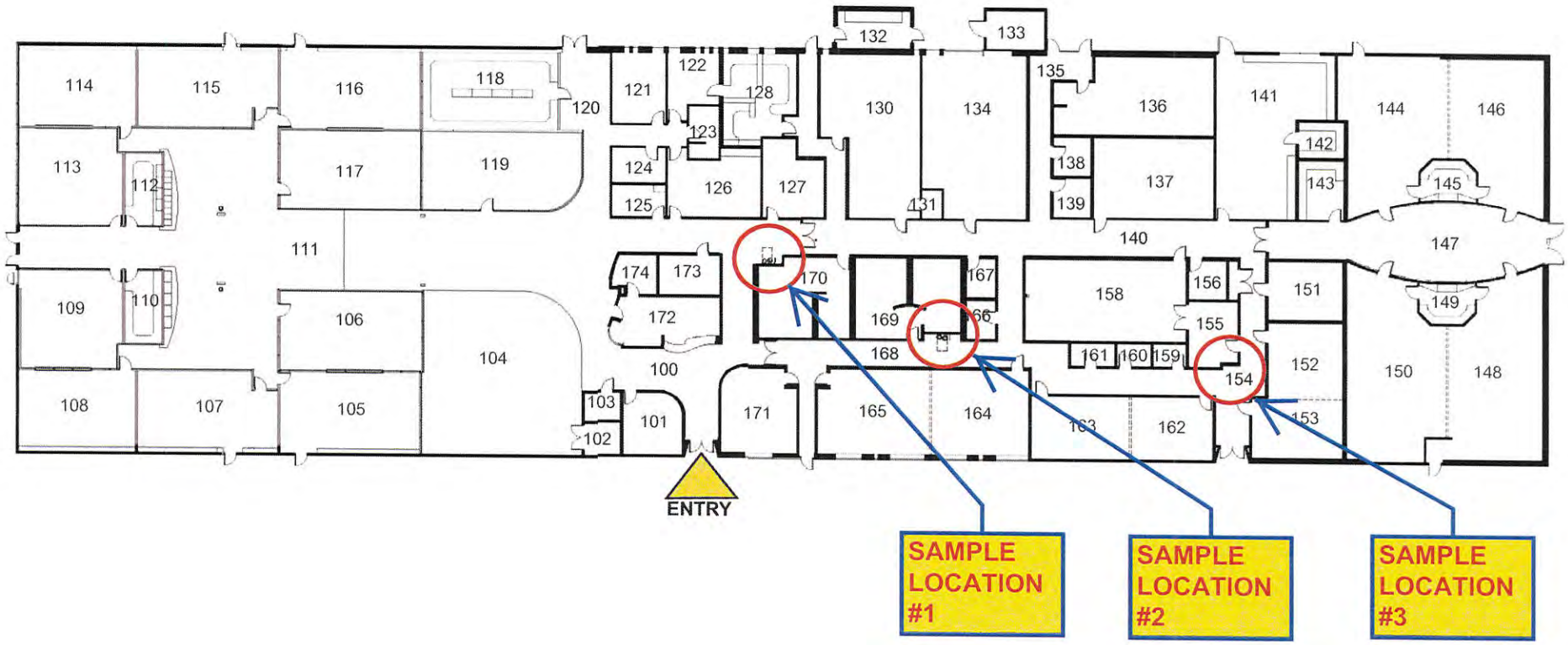

Sample No. 1

School: High Tech High

Name of Building: 2861 Womble Road, San Diego, CA 92106

Location Description: Corridor drinking fountain across from Computer Server Room 127

Type of Outlet: Hi-Lo Drinking Fountain with bottle filler

Description: Test to be taken from the upper ~~fountain~~ Bubbler

Comments/Miscellaneous:

not sampled - used by students this morning

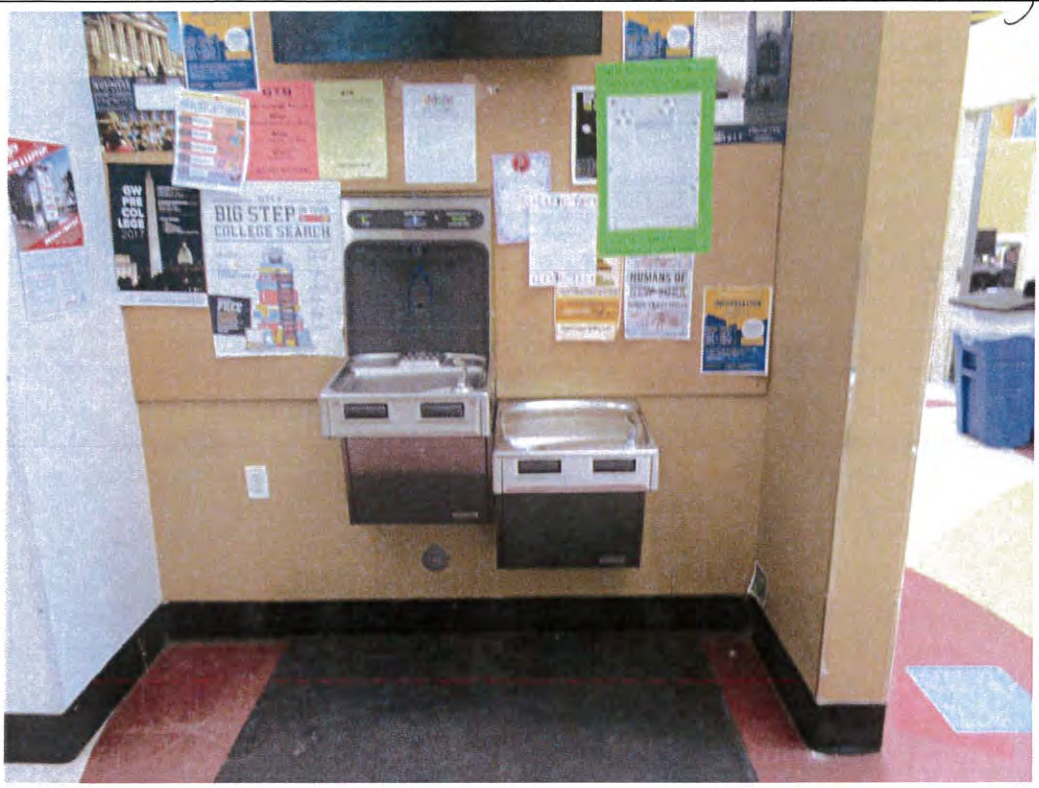

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169422

State Sample ID: 3710020-AIE-A

Date & Time Last Used:

Date & Time Sample Collected:

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector:

Sample No. 2

School: High Tech High

Name of Building: 2861 Womble Road, San Diego, CA 92106

Location Description: Corridor drinking fountain adjacent to Girls Restrooms 169

Type of Outlet: Hi-Lo Drinking Fountain

Description: Test to be taken from ~~the fountain~~ upper left bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169423

State Sample ID: 3710020-AIE-B

Date & Time Last Used: ~~5/4/17~~ no tag appears dry, building not secured

Date & Time Sample Collected: 5/4/17 721

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 3

School: High Tech High

Name of Building: : 2861 Womble Road, San Diego, CA 92106

Location Description: Single Drinking Fountain adjacent to Classroom 153

Type of Outlet: Single drinking fountain

Description:

Comments/Miscellaneous:

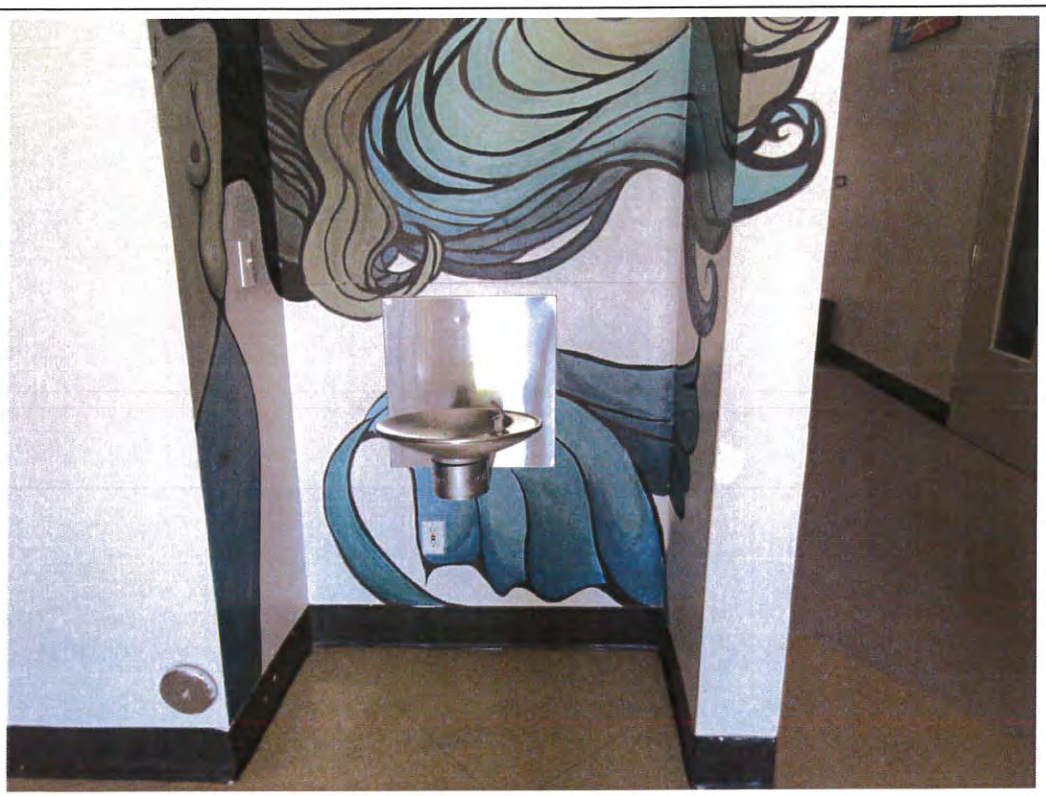

City use only below this line

Sample type ☒ Initial 1st Follow-up 2nd Follow-up Post-corrective action

LIMS Sample ID: W1169399

State Sample ID: 3710020-AIE-C

Date & Time Last Used: no tag looks dry, building not secured

Date & Time Sample Collected: 5/4/17 7:26

Direct Sample Transfer Sample

Name of Water System Sample Collector: M. Nelson

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

02-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes: fountains not tagged building not secure

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1169399	High Tech High	04-MAY-2017			SAMPLE 3	
2	W1169422	High Tech High	04-MAY-2017	721	M. Nelson	SAMPLE 1	
3	W1169423	High Tech High	04-MAY-2017	726		SAMPLE 2	

1930

Chain of Custody:

Relinquished by: Name: M. Nelson Sign:	Received by: Name: Tom Burger Sign: Tom B. Burger	Date & Time: 5-4-17 1357 Location: ALVARAL LAB	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-4-17
LIMS Received Time: 1512
Reviewed By:

1402

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Point Loma High

Physical Address of School: 2335 Chatsworth Blvd, San Diego, CA 92106-1646

First Bell: 7:30 AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 05/13/2017

Completed by Print Name: Ginette Commins

Signature: GCommins Date: 05/15/2017

School's Point of Contact for Sampling Assistance

Name: ~~Ginette Commins~~ Dan Lopez

Phone: ~~(858) 627-7201~~ 619 306 3383

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/22/2017 — Matthew Nelson

Signature & Date — Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Point Loma High, 2335 Chatsworth Blvd, San Diego, CA 92106-1646

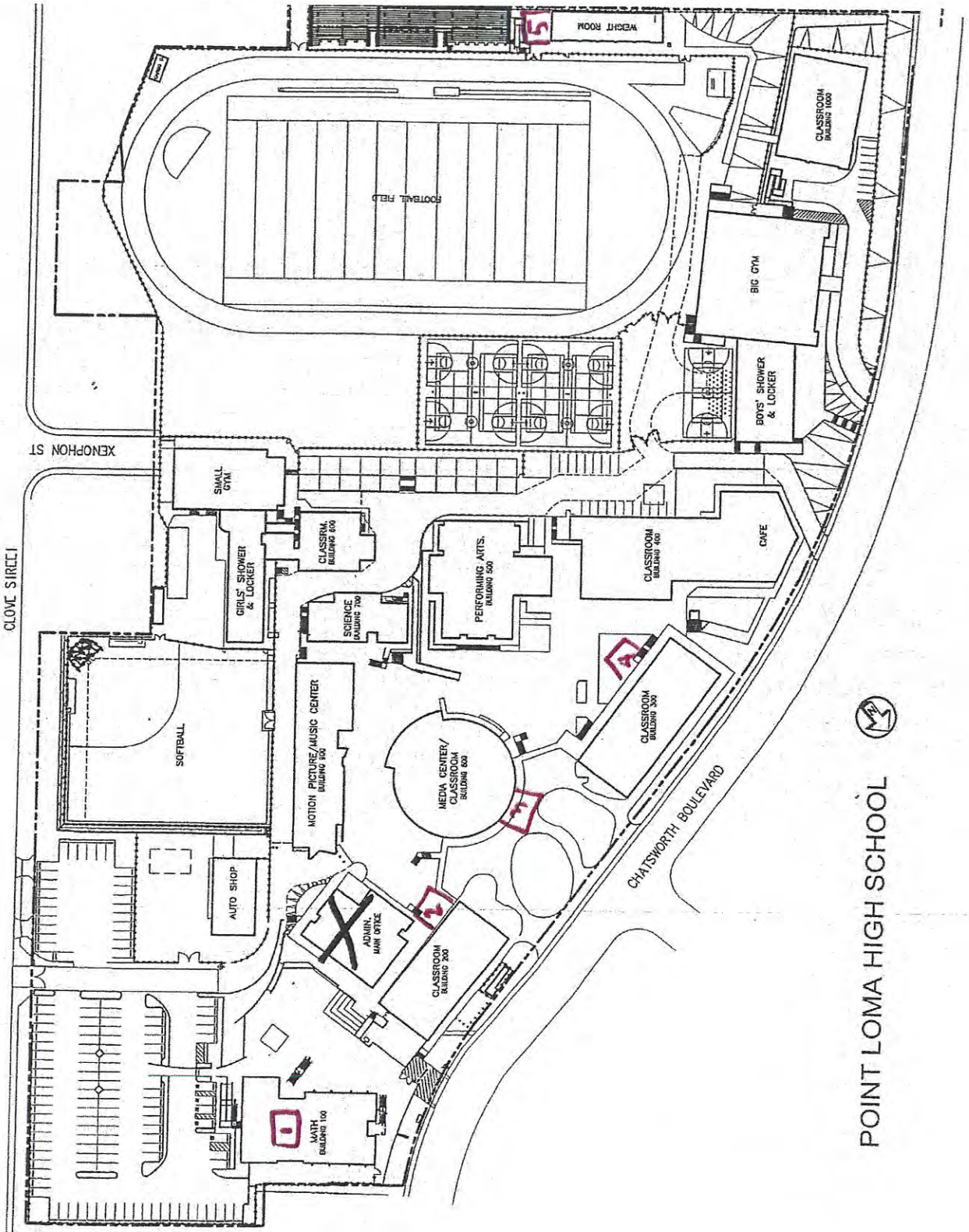

Sample No. 1

School: Point Loma High

Name of Building: Math Bldg – 100, 1st Floor

Location Description: Wall mounted interior (North of Bldg), Hallway, between Men's & Women's Restrooms, as you enter the double door, it's on your right

Type of Outlet: bubbler

Description: upper/right bubbler on a dual fountain (HIGH flow)

Comments/Miscellaneous: indoor drinking water source/SDUSD Location Code #354

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174236

State Sample ID: 3710020-CAH-A

Date & Time Last Used: 5/24/17 between 6-10pm

Date & Time Sample Collected: 5/25/17 @ 0610

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rubo

Sample No. 2

School: Point Loma High

Name of Building: Classroom Bldg – 200, 1st floor

Location Description: Wall mounted exterior (South of Bldg), between Men's & Women's Restrooms, facing stairs & Admin Main Office Bldg

Type of Outlet: bubbler

Description: upper/right bubbler on a dual fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #354

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174237

State Sample ID: 3710020-CAH-B

Date & Time Last Used: 5/24/17 between 6-10pm

Date & Time Sample Collected: 5/25/17 @ 0612

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

Sample No. 3

School: Point Loma High

Name of Building: 800 Media Center

Location Description: Wall mounted exterior (North of Bldg), facing Chatsworth Blvd.

Type of Outlet: bubbler

Description: upper/left bubbler on a dual fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #354

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174238

State Sample ID: 3710020-CAH-C

Date & Time Last Used: 5/24/17 between 6-10pm

Date & Time Sample Collected: 5/25/17 @ 0615

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

Sample No. 4

School: Point Loma High

Name of Building: Classroom Bldg – 300, 1st floor

Location Description: Wall mounted exterior (South of Bldg), next to Boys Restroom

Type of Outlet: bubbler

Description: lower/left bubbler on a dual fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #354

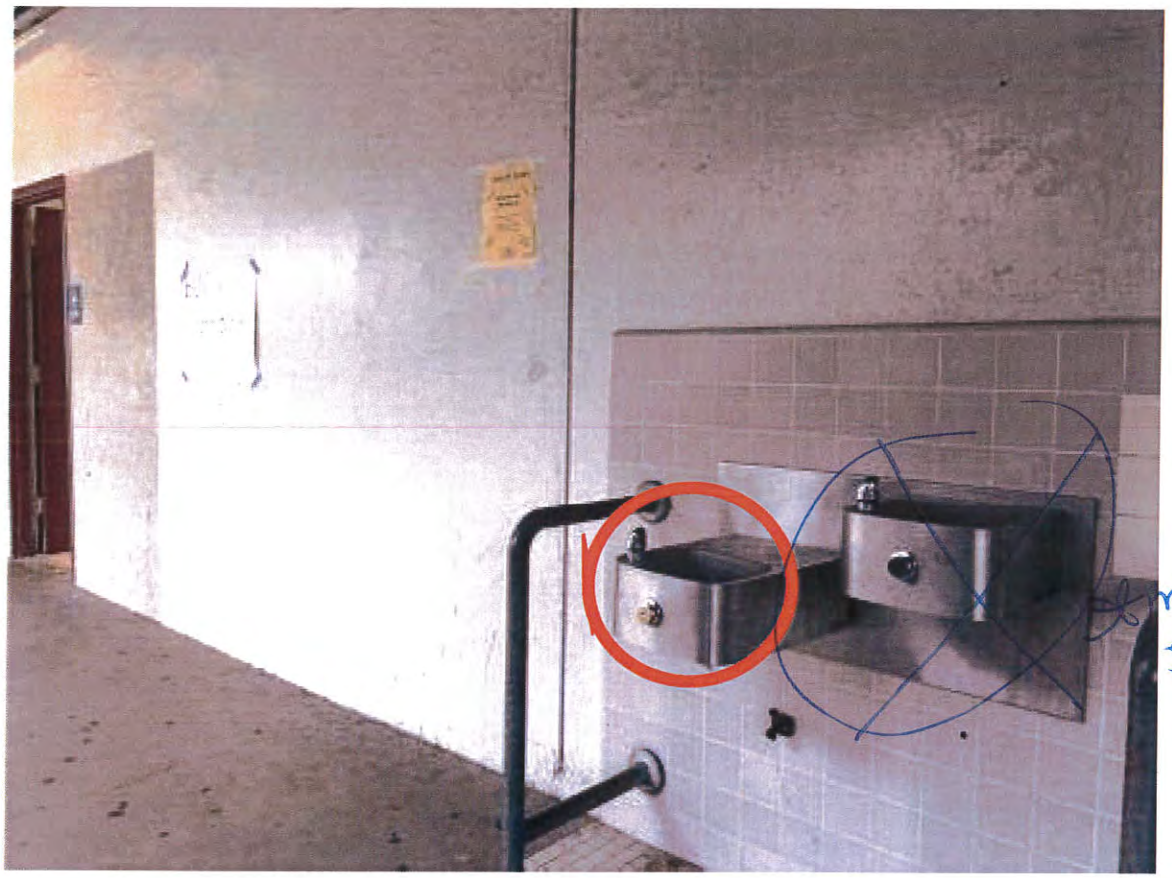

5/25/17

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174239

State Sample ID: 3710020-CAH-D

Date & Time Last Used: 5/24/17 between 6-10pm

Date & Time Sample Collected: 5/25/17 @ 0618

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Stab.

Sample No. 5

School: Point Loma High

Name of Building: 1100, Weight Room

Location Description: Wall mounted exterior (East of Bldg), Southwest of Football Field, next to Rollup Door, facing bleachers

Type of Outlet: bubbler

Description: lower/right bubbler on a dual fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #354

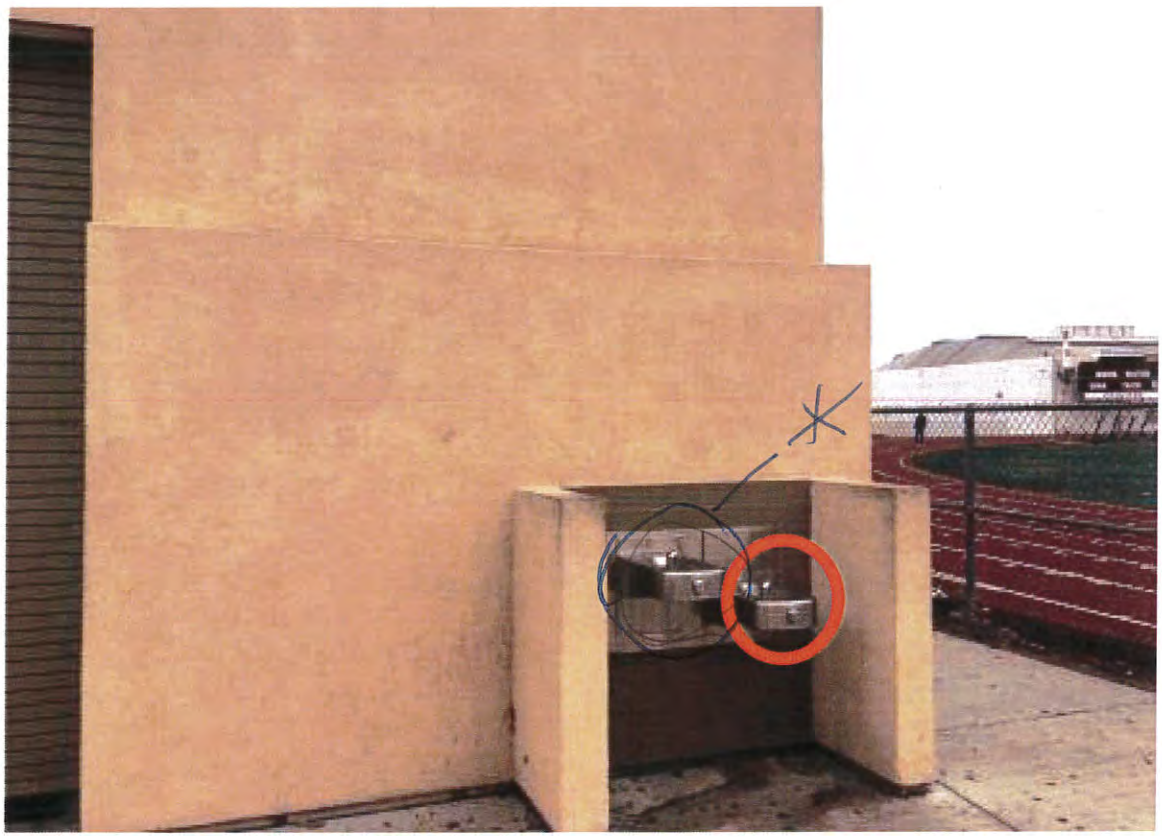

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174240

State Sample ID: 3710020-CAH-E

Date & Time Last Used: 5/24/17 between 6-10pm

Date & Time Sample Collected: 5/25/17 @ 0619

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Banks

– Sample taken from upper left bubbler, bottom right had large leak.

Exhibit 3

Water Quality Chemistry Services
Chain of Custody Form

22-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1174236	Point Loma High	25-MAY-2017	0610	JR	SAMPLE 1	
2	W1174237	Point Loma High	25-MAY-2017	0612	JR	SAMPLE 2	
3	W1174238	Point Loma High	25-MAY-2017	0615	JR	SAMPLE 3	
4	W1174239	Point Loma High	25-MAY-2017	0618	JR	SAMPLE 4	
5	W1174240	Point Loma High	25-MAY-2017	0619	JR	SAMPLE 5	

1938

Chain of Custody:

Relinquished by: Name: Joshua Rambo Sign:	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 5/25/17 @ 0700 Location: ALV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

1410

Received By: AMolloy
Received Date: 5/25/17
LIMS Received Time: 0738
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Porter-North Elementary School

Physical Address of School: 445 South 47th Street, San Diego

First Bell: 8:50

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 3-5-2017

Completed by Print Name: Sergio Salinas

Signature: _____ Date: _____

School's Point of Contact for Sampling Assistance

Name: Sergio Salinas

Phone: (619) 302-0564

Email: ssalinas@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-10-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: (Porter-North Elementary) 445 South 47th Street, San Diego

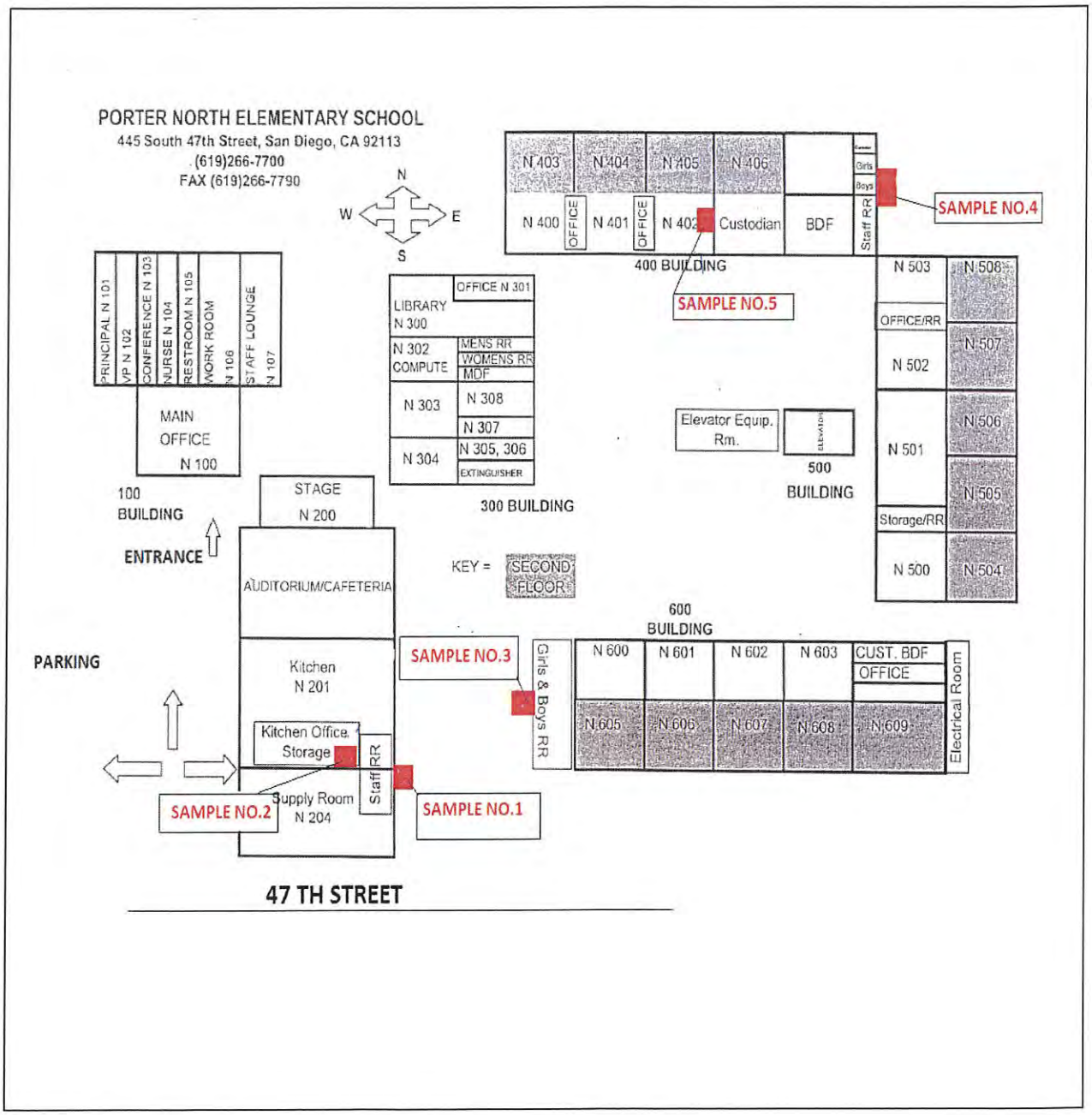

Sample No. 1

School: (Porter-North Elementary) 445 South 47th Street, San Diego

Name of Building: Staff Bathroom, behind the supply room (N204)

Location Description: Outside drinking fountain Between staff restrooms

Type of Outlet: Bubbler

Description: Left Bubbler

Comments/Miscellaneous: (School ID NO.236 N)

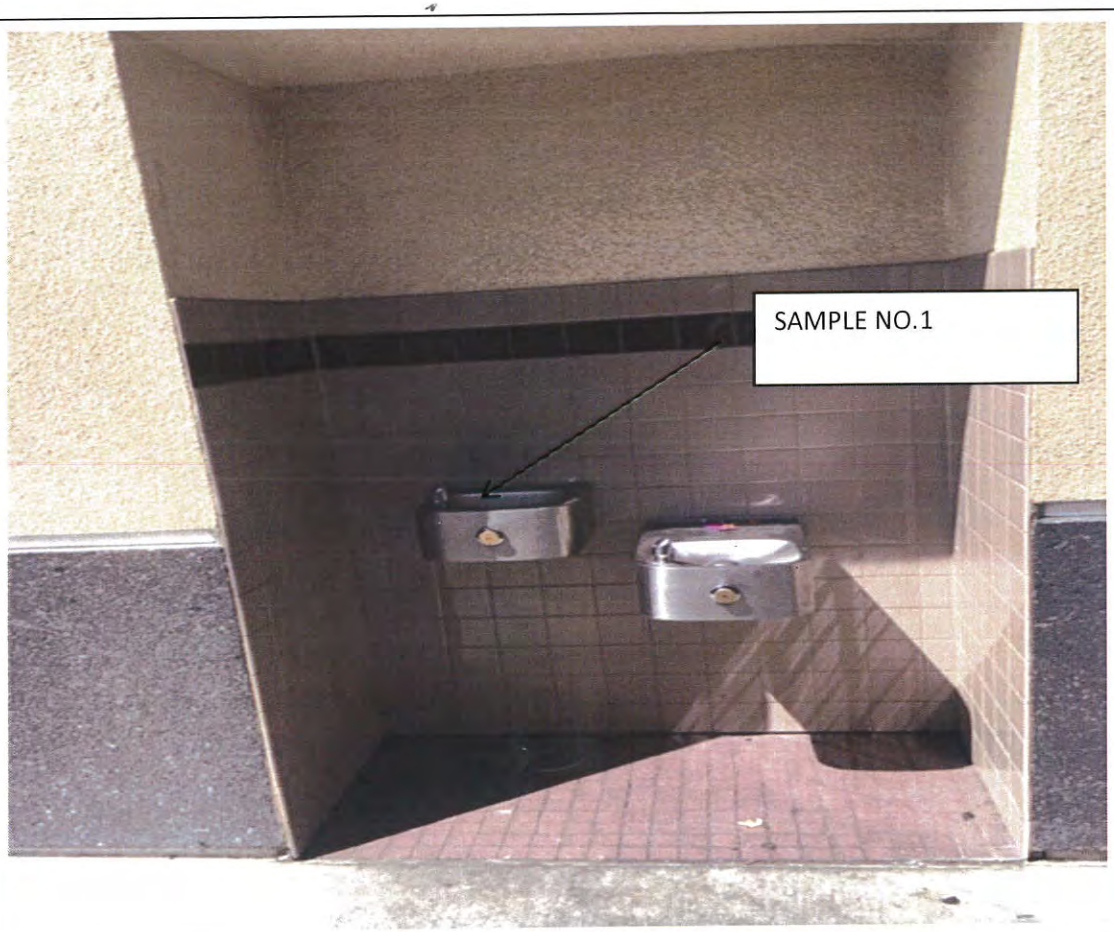

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165766

State Sample ID: 3710020-ADF-A

Date & Time Last Used: 4/10/17 between 6-10pm

Date & Time Sample Collected: 4/11/17 @ 0600

Direct Sample ☒ Transfer Sample ☒ JR

Name of Water System Sample Collector: Joshua Rambo

Sample No. 2

School: (Porter-North Elementary) 445 South 47th Street, San Diego

Name of Building: Kitchen Auditorium/Cafeteria

Location Description: Prep Kitchen sink, inside the kitchen

Type of Outlet: single compartment sink, Water faucet

Description: Faucet located inside the prep kitchen

Comments/Miscellaneous: (School ID NO.236 N)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165767

State Sample ID: 3710020-ADF-B

Date & Time Last Used: 4/10/17 between 6-10pm

Date & Time Sample Collected: 4/11/17 @ 0602

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

- Hot water not turned off OK cold was sampled JRam

Sample No. 3

School: (Porter-North Elementary) 445 South 47th Street, San Diego

Name of Building: Building 600 behind Girls and Boys Restrooms

Location Description: Outside drinking fountain behind restrooms

Type of Outlet: Bubbler

Description: Left bubbler

Comments/Miscellaneous: (School ID NO.236 N)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165768

State Sample ID: 3710020-ADF-C

Date & Time Last Used: 4/10/17 between 6-10pm

Date & Time Sample Collected: 4/11/17 @ 0605

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: Joshua Rambo

Sample No. 4

School: (Porter-North Elementary) 445 South 47th Street, San Diego

Name of Building :Building 400 behind the restrooms

Location Description: Outside drinking fountain behind the 400 building

Type of Outlet: Bubbler

Description: ~~Left~~ bubbler Right

Comments/Miscellaneous: (School ID NO.236 N)

changed in LIMS & DRINC TBugh

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165769

State Sample ID: 3710020-ADF-D

Date & Time Last Used: 4/10/17 between 6-10pm

Date & Time Sample Collected: 4/11/17 @ 0610

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: Joshua Rambo

– Alternate ~~fountain~~ bubbler used as upper fountain broken

Sample No. 5

School: (Porter-North Elementary) 445 South 47th Street, San Diego

Name of Building: 400 building – inside of class N 402

Location Description: Inside class room N402

Type of Outlet: Bubbler

Description: Left Bubbler

Comments/Miscellaneous: (School ID NO.236 N)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165770

State Sample ID: 3710020-ADF-E

Date & Time Last Used: 4/10/17 between 6-10pm

Date & Time Sample Collected: 4/11/17 @ 0615

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 4/19/17

San Diego Unified School District

Porter Elementary North

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1165766	04/11/17	06:00 AM	SAMPLE 1	3710020-ADF-A	< 5	ug/L
W1165767	04/11/17	06:00 AM	SAMPLE 2	3710020-ADF-B	< 5	ug/L
W1165768	04/11/17	06:00 AM	SAMPLE 3	3710020-ADF-C	< 5	ug/L
W1165769	04/11/17	06:00 AM	SAMPLE 4	3710020-ADF-D	< 5	ug/L
W1165770	04/11/17	06:00 AM	SAMPLE 5	3710020-ADF-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Near staff restroom, behind Room N204, exterior fountain between staff restrooms, 2 fountains, left bubbler
SAMPLE 2	Kitchen/cafeteria, prep kitchen single compartment sink, sink faucet
SAMPLE 3	BLDG 600, behind girls/boys restrooms, two fountains, upper left bubbler
SAMPLE 4	BLDG 400, behind restrooms, two fountains, lower right bubbler
SAMPLE 5	BLDG 400, in Room N402, bubbler at sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B Burger

Tom Burger, Associate Chemist

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

10-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1165766	Porter Elementary North	11-APR-2017	0600	J. Rambo	SAMPLE 1	
2	W1165767	Porter Elementary North	11-APR-2017	0602		SAMPLE 2	
3	W1165768	Porter Elementary North	11-APR-2017	0605		SAMPLE 3	
4	W1165769	Porter Elementary North	11-APR-2017	0610		SAMPLE 4	
5	W1165770	Porter Elementary North	11-APR-2017	0615		SAMPLE 5	

1947

Chain of Custody:

Relinquished by: Name: Joshua Rambo Sign:	Received by: Name: Tom Burger Sign: Tom B. Burger	Date & Time: 4-11-17 0722 Location: ALV LAB	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 4-11-17
LIMS Received Time: 0839
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Porter South Elementary School

Physical Address of School: 4800 T Street, San Diego CA 92113

First Bell: 8:50 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 4-5-2017

Completed by Print Name: Sergio Salinas

Signature: Signature page on file Date:

School's Point of Contact for Sampling Assistance

Name: ~~Sergio Salinas~~ Lori Sherman

Phone: ~~(619) 302-0564~~ 619-301-9086

Email: ssalinas@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-8-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Porter South Elementary School-4800 T Street, San Diego CA 92113

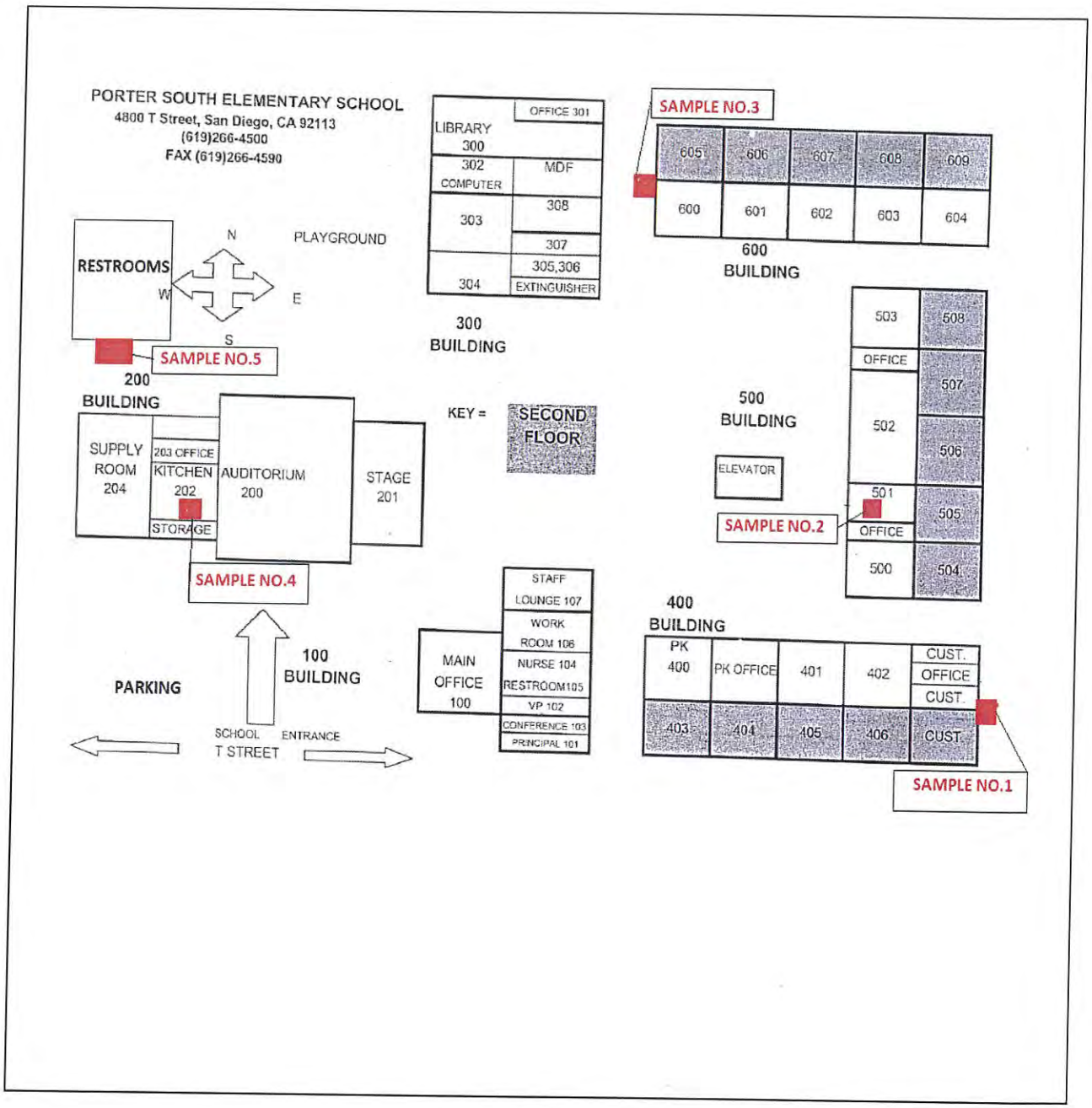

Sample No. 1

School: Porter South Elementary School-4800 T Street, San Diego CA 92113

Name of Building: Building 400

Location Description: Outside drinking fountain behind building 400 ~~in the play yard.~~ East end

Type of Outlet: ~~Left~~ Bubbler Right bubbler

Description: Upper Left Bubbler

Comments/Miscellaneous: (School ID NO.236)

corrected in LIMS & DRINC TBurgs

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165294

State Sample ID: not available at time of approval 3710020-AIDE-A

Date & Time Last Used: 4/10/17 between 6-10pm

Date & Time Sample Collected: 4/11/17 @ 0640

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: Joshua [illegible]

- Alternate bubbler used due to leaking sample point

Sample No. 2

School: Porter South Elementary School-4800 T Street, San Diego CA 92113

Name of Building: Building 500

Location Description: Building 501- inside class room

Type of Outlet: Right Bubbler

Description: Inside drinking fountain- right bubbler

Comments/Miscellaneous: (School ID NO.236)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165295

State Sample ID: not available at time of approval 3710020 - ADE-B

Date & Time Last Used: 4/10/17 between 6-10pm

Date & Time Sample Collected: 4/11/17 @ 0645

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rabe

Sample No. 3

School: Porter South Elementary School-4800 T Street, San Diego CA 92113

Name of Building: Building 600

Location Description: Outside fountain between 605 and 600

Type of Outlet: Bubbler

Description: Left Bubbler

Comments/Miscellaneous: (School ID NO.236)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165296

State Sample ID: not available at time of approval 3710020-ADE-~~B~~ TB-C

Date & Time Last Used: 4/10/17 @ between 6-10pm

Date & Time Sample Collected: 4/11/17 @ 0647

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: Joshua Rabe

Sample No. 4

School: Porter South Elementary School- 4800 T Street, San Diego CA 92113

Name of Building :Building 202-kitchen

Location Description: Inside Kitchen –prep sink

Type of Outlet: Water Faucet

Description: Faucet located inside the prep kitchen

Comments/Miscellaneous: (School ID NO.236)

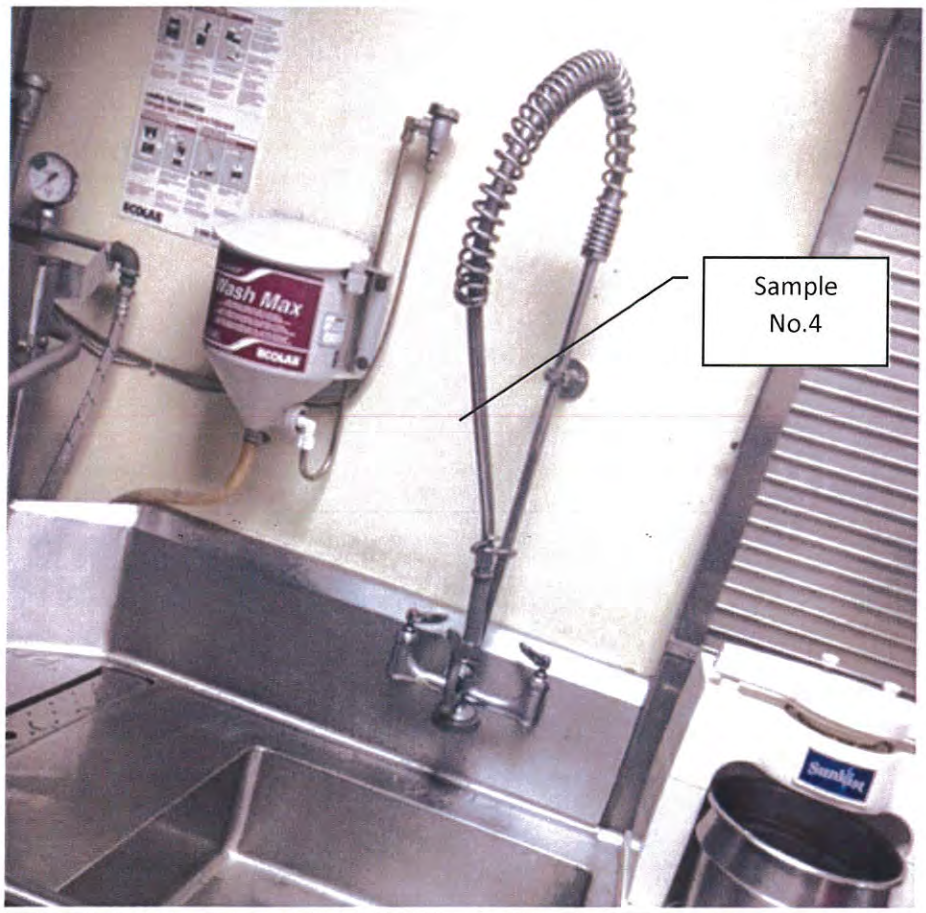

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165297

State Sample ID: not available at time of approval 3710020 - ADE-D

Date & Time Last Used: 4/10/17 between 6-10pm

Date & Time Sample Collected: 4/11/17 @ 0630

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

- Sample taken from S[illegible] as no faucet present

Sample No. 5

School: Porter South Elementary School-4800 T Street, San Diego CA 92113

Name of Building: Bathroom next (north) to 200 building

Location Description: Outside drinking fountain behind restrooms

Type of Outlet: Left Bubbler

Description: Left Bubbler

Comments/Miscellaneous: (School ID NO.236)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165298

State Sample ID: not available at time of approval 3710020-ADE-E

Date & Time Last Used: 4/10/17 between 6-10pm

Date & Time Sample Collected: 4/11/17 @ 0625

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: Joshua Rambo

SD Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 4/19/17

San Diego Unified School District
Porter Elementary South

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1165294	04/11/17	06:40 AM	SAMPLE 1	3710020-ADE-A	< 5	ug/L
W1165295	04/11/17	06:45 AM	SAMPLE 2	3710020-ADE-B	< 5	ug/L
W1165296	04/11/17	06:47 AM	SAMPLE 3	3710020-ADE-C	< 5	ug/L
W1165297	04/11/17	06:30 AM	SAMPLE 4	3710020-ADE-D	< 5	ug/L
W1165298	04/11/17	06:25 AM	SAMPLE 5	3710020-ADE-E	< 5	ug/L

Source	Source Description
SAMPLE 1	BLDG 400, east end, right lower bubbler
SAMPLE 2	BLDG 500, Room 501, bubbler at sink
SAMPLE 3	BLDG 600 exterior, between 600 and 605, left upper bubbler
SAMPLE 4	BLDG 202, kithchen prep sink, pull down washer
SAMPLE 5	Restroom adjacent (north) of BLDG 200, exterior back, left upper bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B Burger
Tom Burger, Associate Chemist

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

08-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1165294	Porter Elementary South	11-APR-2017	0640	J. Rambo	SAMPLE 1	See Plan
2	W1165295	Porter Elementary South	11-APR-2017	0645		SAMPLE 2	
3	W1165296	Porter Elementary South	11-APR-2017	0647		SAMPLE 3	
4	W1165297	Porter Elementary South	11-APR-2017	0630		SAMPLE 4	
5	W1165298	Porter Elementary South	11-APR-2017	0625		SAMPLE 5	

1956

Chain of Custody:

Relinquished by: Name: Joshua Rambo Sign:	Received by: Name: Tom Burger Sign: Tom B Burger	Date & Time: 4-11-17 0725 Location: ALV LAB	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By:
Received Date: 4/11/17
LIMS Received Time: 0843
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Riley/ New Dawn

Physical Address of School: 5650 Mt. Ackerly Dr. San Diego, CA 92111

First Bell: 7:30 A.M.

Meeting Date: 03/22/02017

Sampling Plan Completion Date: 04/26/2017

Completed by Print Name: Joe Kinkead

Signature: Joe Kinkead Date: 04/26/2017

School's Point of Contact for Sampling Assistance

Name: ~~Joe Kinkead~~ Cesar Jimenez

Phone: ~~619-559-2294~~ 619 261 1588

Email: jkinkead@sandi.net

City of San Diego 3710020

Approved By: 4/28/17 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Riley/New Dawn 5650 Mt. Ackerly Dr. San Diego, CA 92111

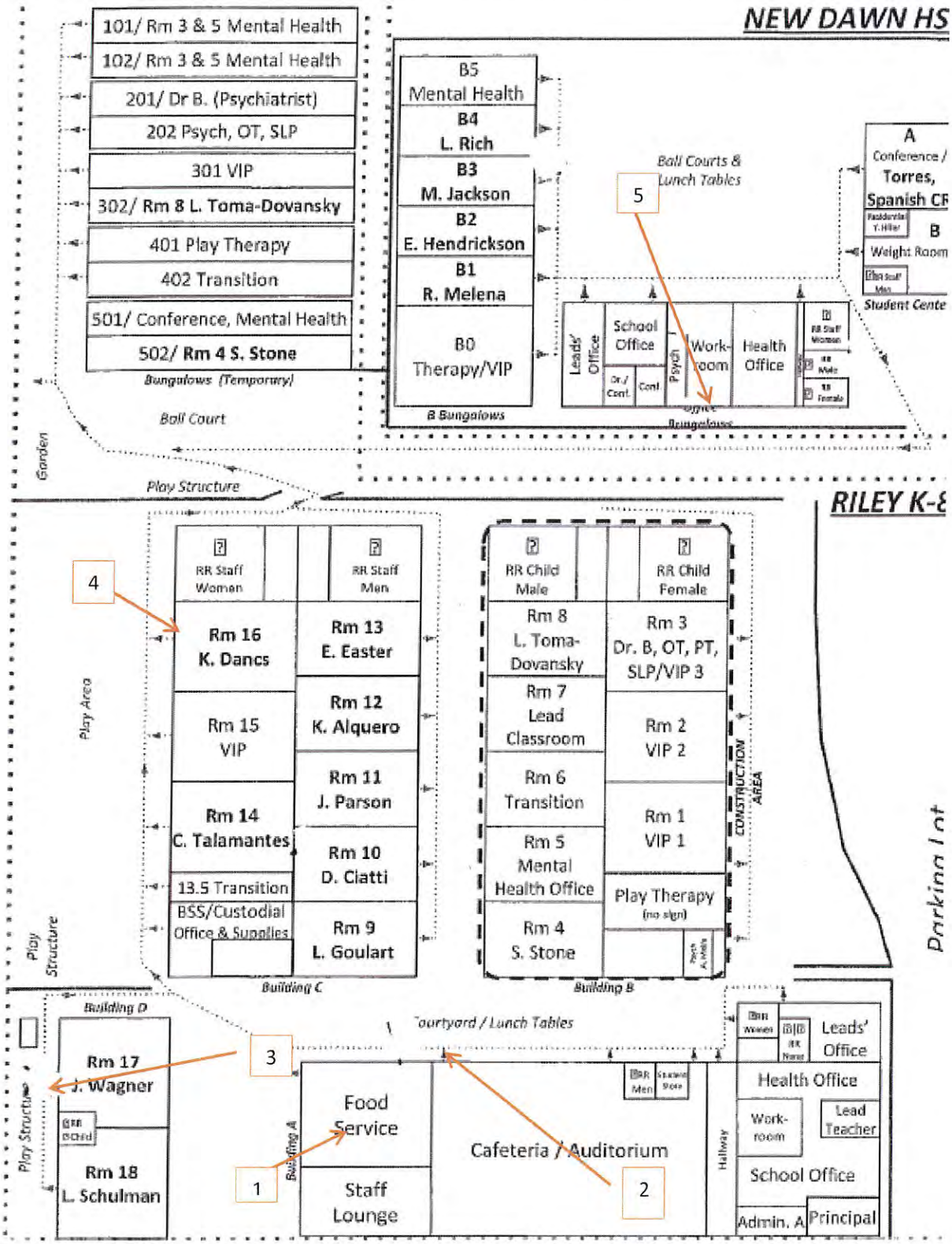

Sample No. 1

School: Riley/New Dawn

Name of Building: Administration building

Location Description: Kitchen (south side of kitchen near storage room)

Type of Outlet: sink

Description: two sided stainless steel deep sink

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169370

State Sample ID: 3710020-BDH-A

Date & Time Last Used: 5/16/17 between 6-10pm

Date & Time Sample Collected: 5/17/17 @ 0614

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rude

- Note water was luke warm from cold tap, no leaks present.

Sample No. 2

School: Riley New Dawn 5650 Mt. Ackerly Dr. San Diego, CA 92111

Name of Building: Administration building

Location Description: Outside of auditorium facing lunch court (north)

Type of Outlet: Double bubbler

Description: Upper right bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169371

State Sample ID: 3710020-BDH-B

Date & Time Last Used: 5/16/17 between 6-10pm

Date & Time Sample Collected: 5/17/17 @ 0610

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

Sample No. 3

School: Riley/ New Dawn 5650 Mt. Ackerly Dr. San Diego, CA 92111

Name of Building: Kinder building

Location Description: Exterior west wall outside room 17

Type of Outlet: Triple bubbler

Description: middle bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169372

State Sample ID: 3710020-BDH-C

Date & Time Last Used: 5/16/17 between 6-10pm

Date & Time Sample Collected: 5/17/17 @ 0618

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rubio

Sample No. 4

School: Riley/New Dawn 5650 Mt. Ackerly Dr. San Diego, CA 92111

Name of Building: Classroom building "C"

Location Description: Exterior wall northwest side of building outside room 16

Type of Outlet: Triple bubbler

Description: Far left bubbler

Comments/Miscellaneous:

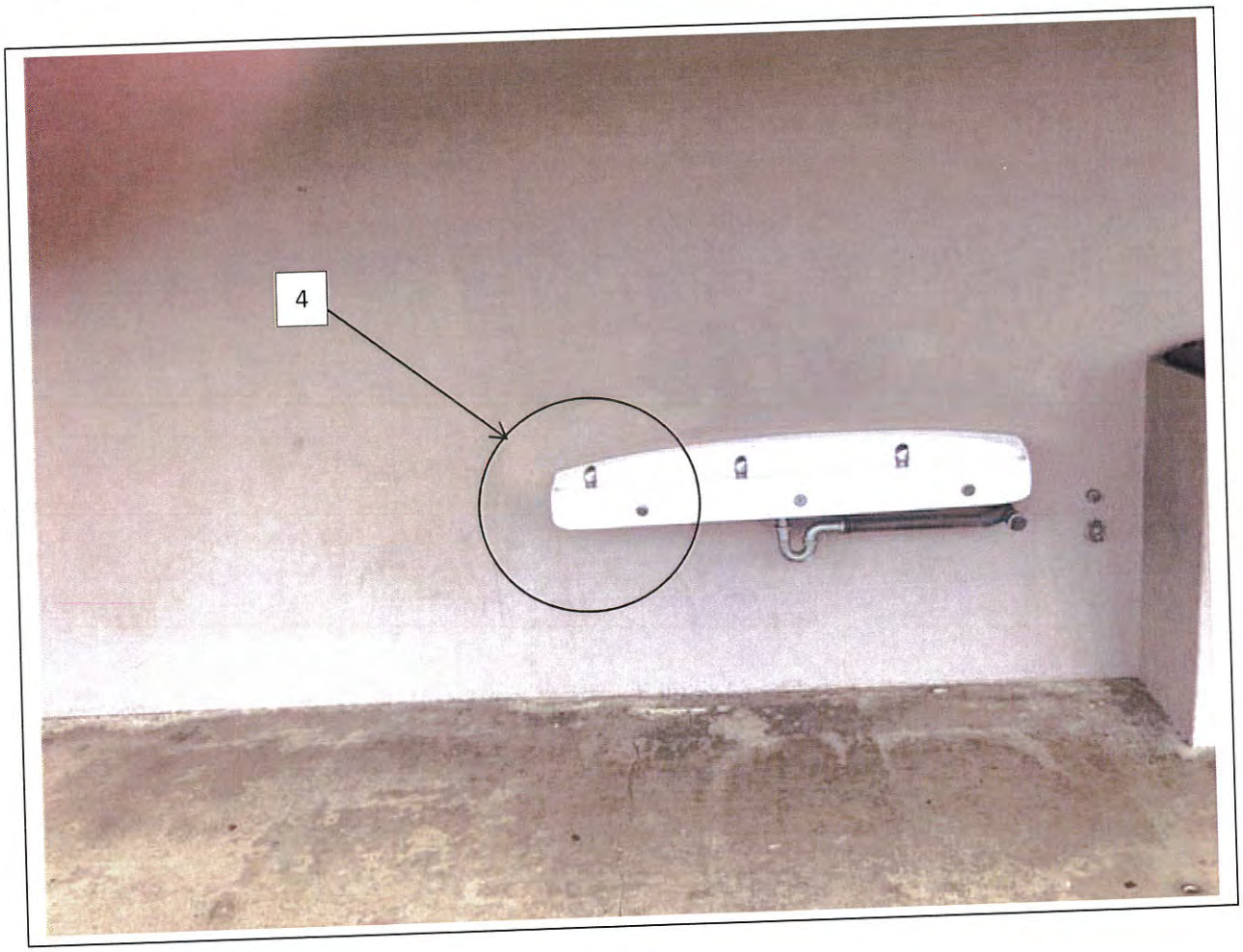

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169373

State Sample ID: 3710020-BDH-D

Date & Time Last Used: 5/16/17 between 6-10pm

Date & Time Sample Collected: 5/17/17 @ 0622

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rumbo

Sample No. 5

School: Riley/New Dawn 5650 Mt. Ackerly Dr. San Diego, CA 92111

Name of Building: New Dawn main office

Location Description: Interior south wall of teacher workroom in admin portable

Type of Outlet: Faucet

Description: Faucet at single compartment sink

Comments/Miscellaneous:

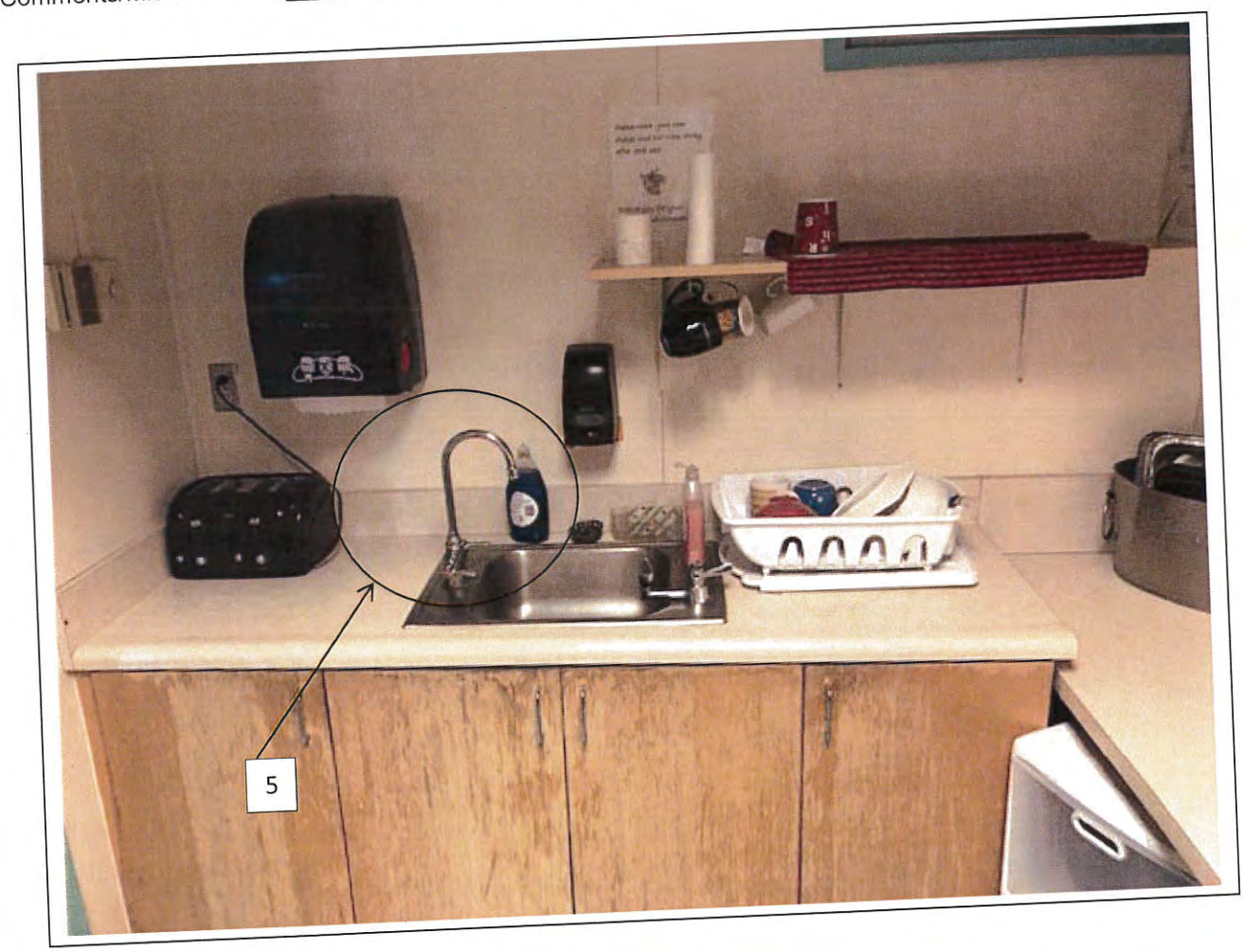

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169374

State Sample ID: 3710020-BDH-E

Date & Time Last Used: 5/16/17 between 6-10pm

Date & Time Sample Collected: 5/17/17 @ 0628

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

Water Quality Chemistry Services
Chain of Custody Form

09-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1169370	Riley/New Dawn	17-MAY-2017	0614	JR	SAMPLE 1	
2	W1169371	Riley/New Dawn	17-MAY-2017	0610	JR	SAMPLE 2	
3	W1169372	Riley/New Dawn	17-MAY-2017	0618	JR	SAMPLE 3	
4	W1169373	Riley/New Dawn	17-MAY-2017	0622	JR	SAMPLE 4	
5	W1169374	Riley/New Dawn	17-MAY-2017	0628	JR	SAMPLE 5	

Chain of Custody:

Relinquished by: Name: Joshua Rambo Sign:	Received by: Name: Tom Burger Sign: Tom B Burger	Date & Time: 5/17/17 @ 0700 Location: ALV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-17-17
LIMS Received Time: 1021
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Rodriguez Elementary

Physical Address of School: 825 South 31st St. San Diego, CA 92113-2525

First Bell: 8:30 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 4-10-2017

Completed by Print Name: Cesar Jimenez

Signature: C.J. Date: 4-10-2017

School's Point of Contact for Sampling Assistance

Name: ~~Cesar Jimenez~~ Ginette Commins

Phone: ~~619-261-1588~~ 619-302-5285

Email: cjimenez2@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-13-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Rodriguez Elementary - 825 South 31st St. San Diego, CA 92113-2525

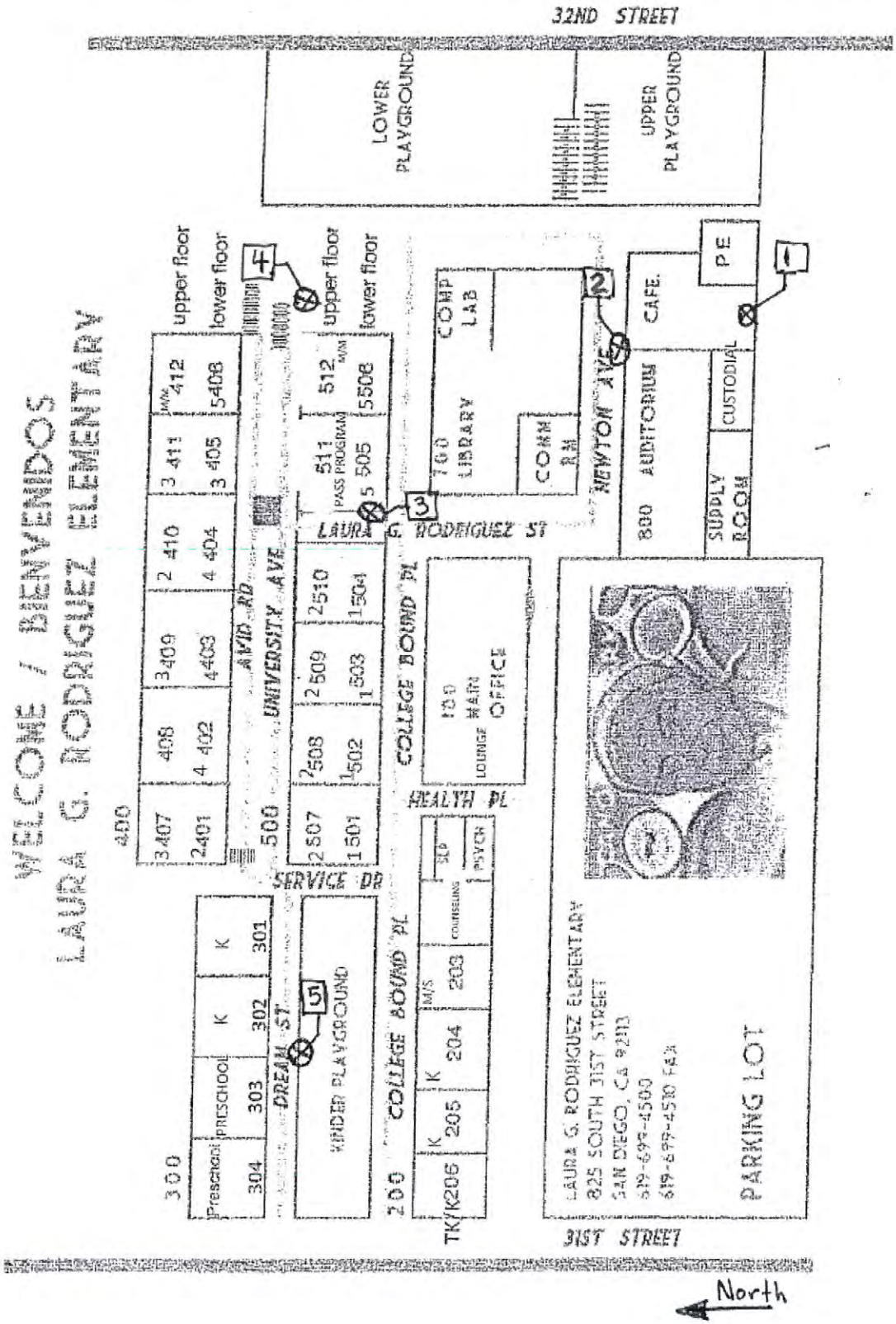

Sample No. 1

School: Rodriguez Elementary

Name of Building: Auditorium/ Cafeteria Bldg. 800

Location Description: South Wall of Kitchen

Type of Outlet: Faucet

Description: Faucet on a single compartment sink

Comments/Miscellaneous: SDUSD ID code #: 137-01

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: 3710020-AEH-A

State Sample ID: W1166700

Date & Time Last Used: 4/13/17 between 2-10pm

Date & Time Sample Collected: 4/14/17 @ 0605

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

- sink was leaking [illegible] of sample.

Sample No. 2

School: Rodriguez Elementary

Name of Building: Auditorium/ Cafeteria Bldg. 800

Location Description: Exterior north wall.

Type of Outlet: Bubbler

Description: Left/ lower Bubbler on a triple fountain.

Comments/Miscellaneous: SDUSD ID code #: 137-02

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: 3710020-AEH-B

State Sample ID: W1166701

Date & Time Last Used: 4/13/17 between 2-10pm

Date & Time Sample Collected: 4/14/17 @ 0600

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rosa

← Tags removed by school program children.

School secured @ 6:00pm

Sample No. 3

School: Rodriguez Elementary

Name of Building: Bldg. 500

Location Description: Exterior West wall of 1st floor girls restrooms

Type of Outlet: Bubbler

Description: Left/ lower Bubbler on a triple fountain.

Comments/Miscellaneous: SDUSD ID code #: 137-03

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: 3710020-AEH-C

State Sample ID: W1166702

Date & Time Last Used: 4/13/17 between 2-10pm

Date & Time Sample Collected: 4/14/17 @612

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

Sample No. 4

School: Rodriguez Elementary

Name of Building: Lower Playground

Location Description: northeast of room 506

Type of Outlet: Bubbler

Description: East/Lower Bubbler on a concrete pedestal double fountain.

Comments/Miscellaneous: SDUSD ID code #: 137-04

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: 3710020-AEH-D

State Sample ID: W1166703

Date & Time Last Used: 4/13/17 between 2 and 10pm

Date & Time Sample Collected: 4/14/17 @ 0610

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

Sample No. 5

School: Rodriguez Elementary

Name of Building: Playground

Location Description: South of room 302

Type of Outlet: Bubbler

Description: West/Lower Bubbler on a metallic pedestal triple fountain.

Comments/Miscellaneous: SDUSD ID code #: 137-05

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: 3710020-AEH-E

State Sample ID: W1166704

Date & Time Last Used: 4/13/17 between 2-10pm

Date & Time Sample Collected: 4/14/17 @ 0617

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rumbo

Water Quality Chemistry Services
Chain of Custody Form

13-Apr-2017

1444

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1166700	Rodriguez Elementary	14-APR-2017	0605	JR	SAMPLE 1	
2	W1166701	Rodriguez Elementary	14-APR-2017	0600	JR	SAMPLE 2	
3	W1166702	Rodriguez Elementary	14-APR-2017	0612	JR	SAMPLE 3	
4	W1166703	Rodriguez Elementary	14-APR-2017	0610	JR	SAMPLE 4	
5	W1166704	Rodriguez Elementary	14-APR-2017	0617	JR	SAMPLE 5	

1972

Chain of Custody:

Relinquished by: Name: Joshua Rarb Sign:	Received by: Name: Tom Burger Sign: TM B Burger	Date & Time: 4/14/17 @ 0715 Location: ALV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurm
Received Date: 4-14-17
LIMS Received Time: 0739
Reviewed By: KMalloy 4/25/17

Exhibit 31

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Rolando Park Elementary School

Physical Address of School: 6620 Marlowe Dr. San Diego, CA 92115

First Bell: 7:30AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 03/28/2017

Completed by Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 03/28/2017

School's Point of Contact for Sampling Assistance

Name: Daniel Lopez

Phone: 619-306-3383

Email: dlopez2@sandi.net

City of San Diego 3710020

Approved By: Tom B Burger 4-4-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Rolando Park Elementary School 6620 Marlowe Dr. San Diego, CA 92115

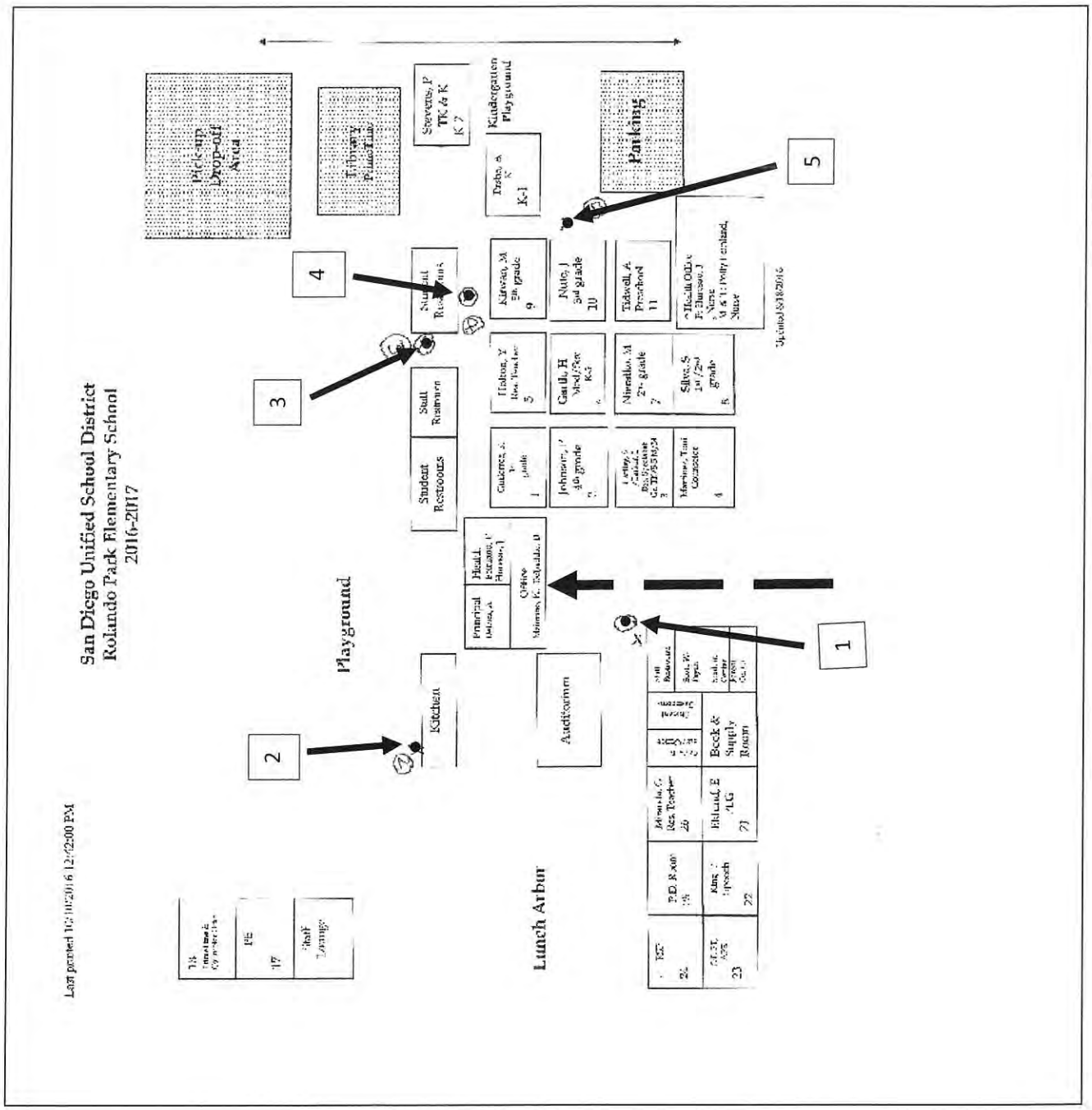

Sample No. 1

School: Rolando Park Elementary School

Name of Building: Building with Room # 21 to 26

Location Description: Outside of staff restrooms

Type of Outlet: Bubbler

Description: Far left bubbler

Comments/Miscellaneous:

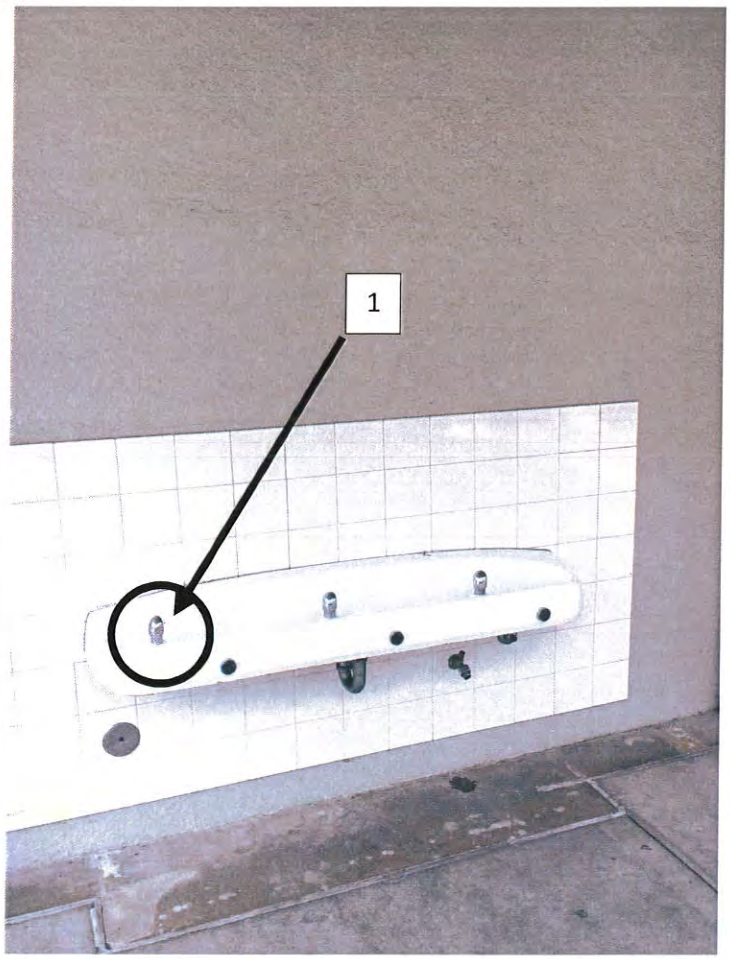

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164183

State Sample ID: 3710020-ABD-A

Date & Time Last Used: 4/4/17 @ btwn 3-10 pm (1500-2200)

Date & Time Sample Collected: 4/5/17 @ 0533

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: Rolando Park Elementary School

Name of Building: Cafeteria

Location Description: Outside of cafeteria and patio facing playgrounds

Type of Outlet: Bubbler

Description: Far right bubbler

Comments/Miscellaneous:

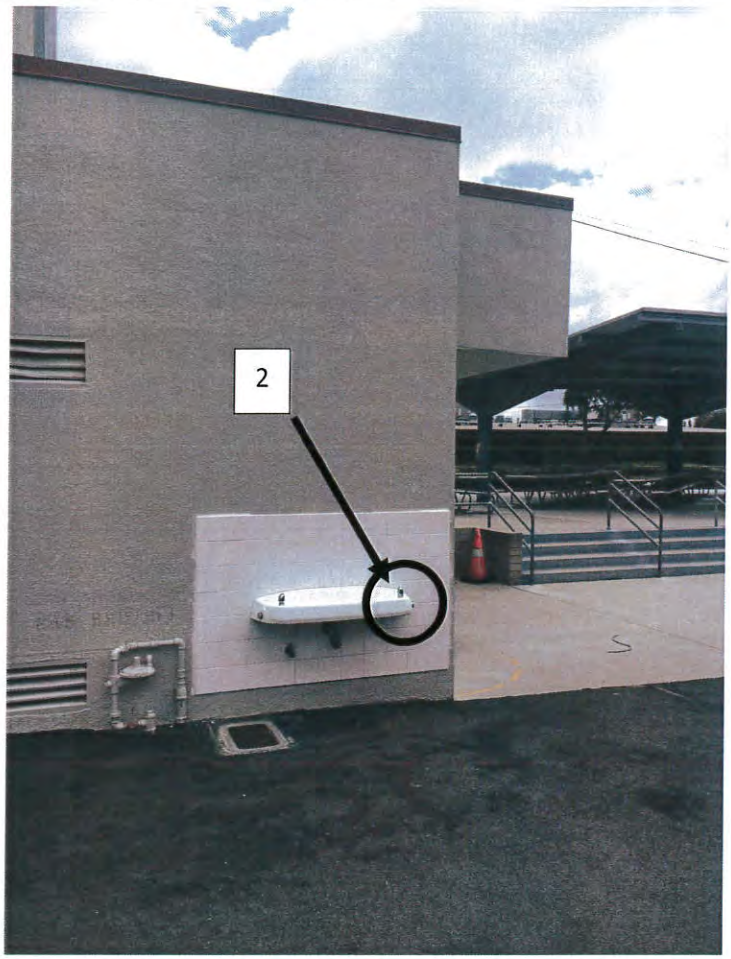

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164184

State Sample ID: 3710020-ABD-B

Date & Time Last Used: 4/05/17 @ btwn 3-10pm (1500-2200)

Date & Time Sample Collected: 4/05/17 @ 0537

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: Rolando Park Elementary School

Name of Building: Student and Staff Restroom Building

Location Description: Middle of school outside end between student and staff restroom.

Type of Outlet: Bubbler

Description: Far right bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164185

State Sample ID: 3710020-ABD-C

Date & Time Last Used: 4/4/17 bwtn 1500 - 2200

Date & Time Sample Collected: 4/5/17 @0540

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: Rolando Park Elementary School

Name of Building: Student and Staff Restroom Building

Location Description: Under cover walkway

Type of Outlet: Bubbler

Description: Far right bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164186

State Sample ID: 3710020-ABD-D

Date & Time Last Used: 4/4/17 btwn 1500 - 2200

Date & Time Sample Collected: 4/5/17 @ 0543

Name of Water System Sample Collector: A. Molloy

Transfer bottle used

Sample No. 5

School: Rolando Park Elementary School

Name of Building: Kindergarten Area

Location Description: Outside K-1 and K-2

Type of Outlet: Bubbler

Description: Single bubbler unit

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164187

State Sample ID: 3710020-ABD-E

Date & Time Last Used: 4/4/17 btwn 1500-2200

Date & Time Sample Collected: 4/5/17 @ 0548

Name of Water System Sample Collector: A. Molloy

Transfer bottle used.

Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 4/12/17

San Diego Unified School District

Rolando Park Elementary

Sample ID	Sample Date	Sample Time	Description	External ID	Lead	Units
W1164183	04/05/17	05:33 AM	SAMPLE 1	3710020-ABD-A	< 5	ug/L
W1164184	04/05/17	05:37 AM	SAMPLE 2	3710020-ABD-B	< 5	ug/L
W1164185	04/05/17	05:40 AM	SAMPLE 3	3710020-ABD-C	< 5	ug/L
W1164186	04/05/17	05:43 AM	SAMPLE 4	3710020-ABD-D	< 5	ug/L
W1164187	04/05/17	05:48 AM	SAMPLE 5	3710020-ABD-E	< 5	ug/L

SAMPLE 1 BLDG w/rooms 21-26, outside staff restroom, left bubbler

SAMPLE 2 Outside cafeteria, facing playground, right bubbler

SAMPLE 3 between student/staff restroom bldg, right bubbler

SAMPLE 4 student/staff restroom bldg, under cover walkway, right bubbler

SAMPLE 5 Kindergarten area, outside K-1 and K-2, single bubbler

DLR= State Mandated Detection Limit for Reporting (DL
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Water Quality Chemistry Services
Chain of Custody Form

04-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	~~Analysis Requested~~ Comments
1	W1164183	Rolando Park Elementary	05-APR-2017	0533	A. Molloy	SAMPLE 1	
2	W1164184	Rolando Park Elementary	05-APR-2017	0537		SAMPLE 2	
3	W1164185	Rolando Park Elementary	05-APR-2017	0540		SAMPLE 3	
4	W1164186	Rolando Park Elementary	05-APR-2017	0543		SAMPLE 4	Transfer bottle used
5	W1164187	Rolando Park Elementary	05-APR-2017	0548		SAMPLE 5	Transfer bottle used

Chain of Custody:

Relinquished by:	Received by:	Date & Time:	Comments:
Name: Alejandra Molloy Sign: AMolloy	Name: Keith Rietveld Sign:	4/5/17 @ 0841 Location: ALV	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 4/05/17
LIMS Received Time: 0613
Reviewed By: _____

1453

1981

Exhibit 31

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Roosevelt Middle School

Physical Address of School: 3366 Park Blvd, San Diego, California 92103

First Bell: 7:30am

Meeting Date: 4/05/2017

Sampling Plan Completion Date: 4/11/2017

Completed by Print Name: Lori Sherman

Signature: *Lori Sherman* Date: 4/11/2017

School's Point of Contact for Sampling Assistance

Name: ~~Lori Sherman~~ Elizabeth Lara

Phone: ~~619-301-9086~~ 619-302-7616

Email: lsherman1@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-19-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Roosevelt Middle School - 3366 Park Blvd, San Diego, California 92103

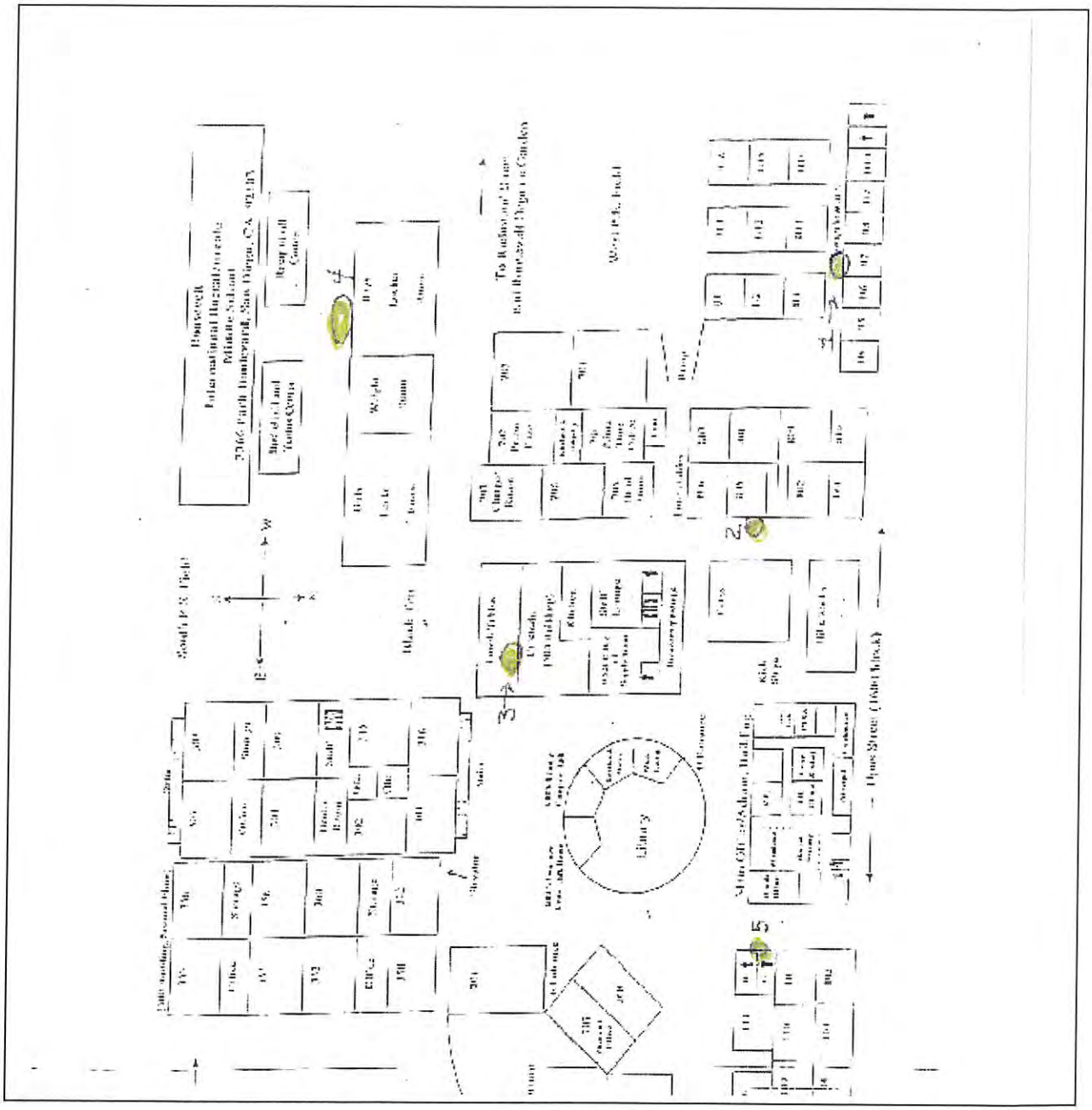

Sample No. 1

School: Roosevelt Middle School - 3366 Park Blvd, San Diego, California 92103

Name of Building: Bungalow (B 7)

Location Description: South side exterior next to B7

Type of Outlet: Bubbler

Description: Right bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167414

State Sample ID: 3710020-AGH-A

Date & Time Last Used:

Date & Time Sample Collected: 4/20/17 0610

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 2

School: Roosevelt Middle School - 3366 Park Blvd, San Diego, California 92103

Name of Building: 800 Building

Location Description: East side exterior between bulletin board and door

Type of Outlet: Bubbler

Description: Center Bubbler

Comments/Miscellaneous:

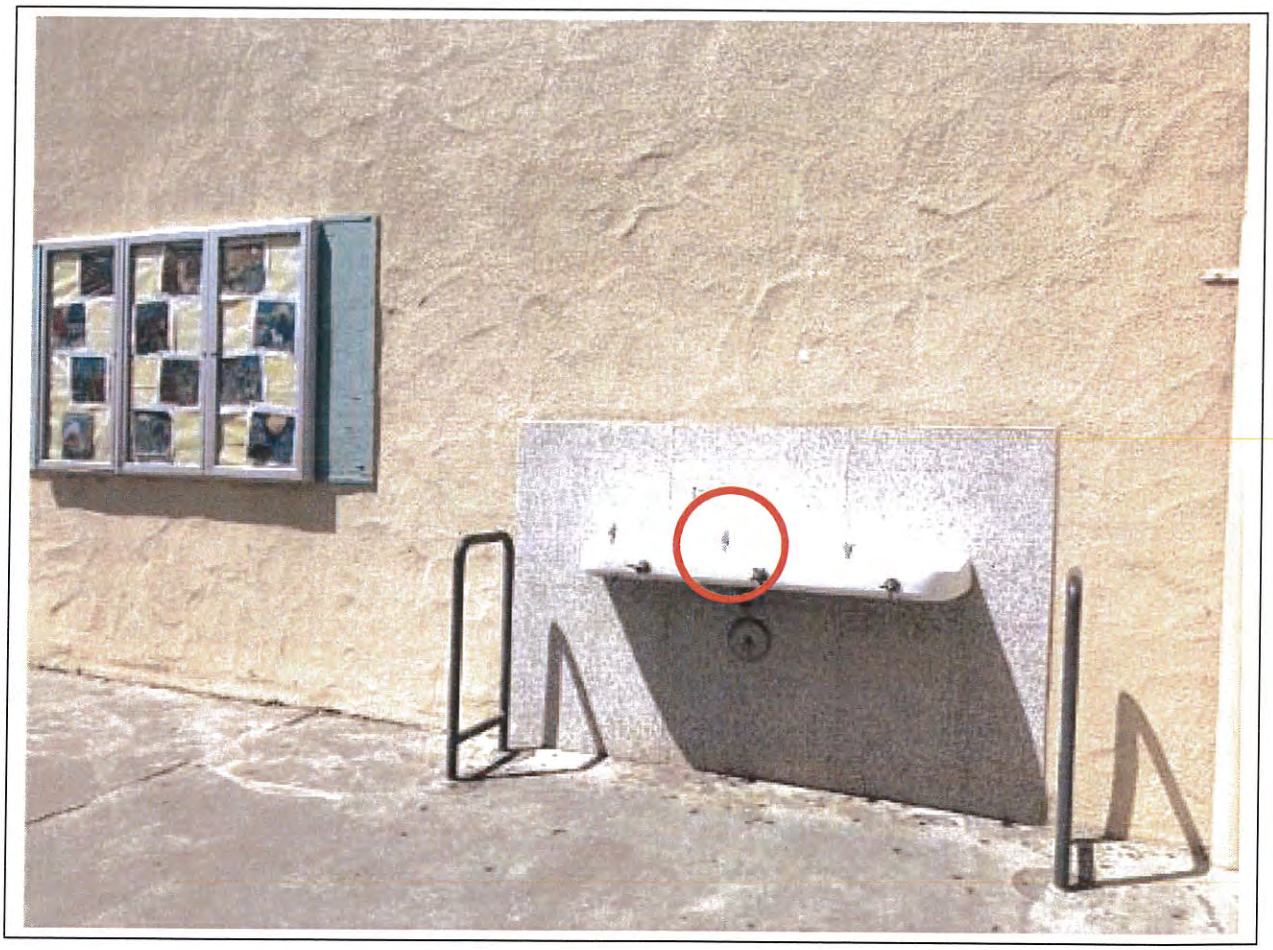

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167415

State Sample ID: 3710020-AGH-B

Date & Time Last Used:

Date & Time Sample Collected: 4/20/17 0615

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 3

School: Roosevelt Middle School - 3366 Park Blvd, San Diego, California 92103

Name of Building: Lunch Court

Location Description: South wall next to lunch court

Type of Outlet: Bubbler

Description: Right Bubbler

Comments/Miscellaneous: Drinking fountain to the right of bulletin board

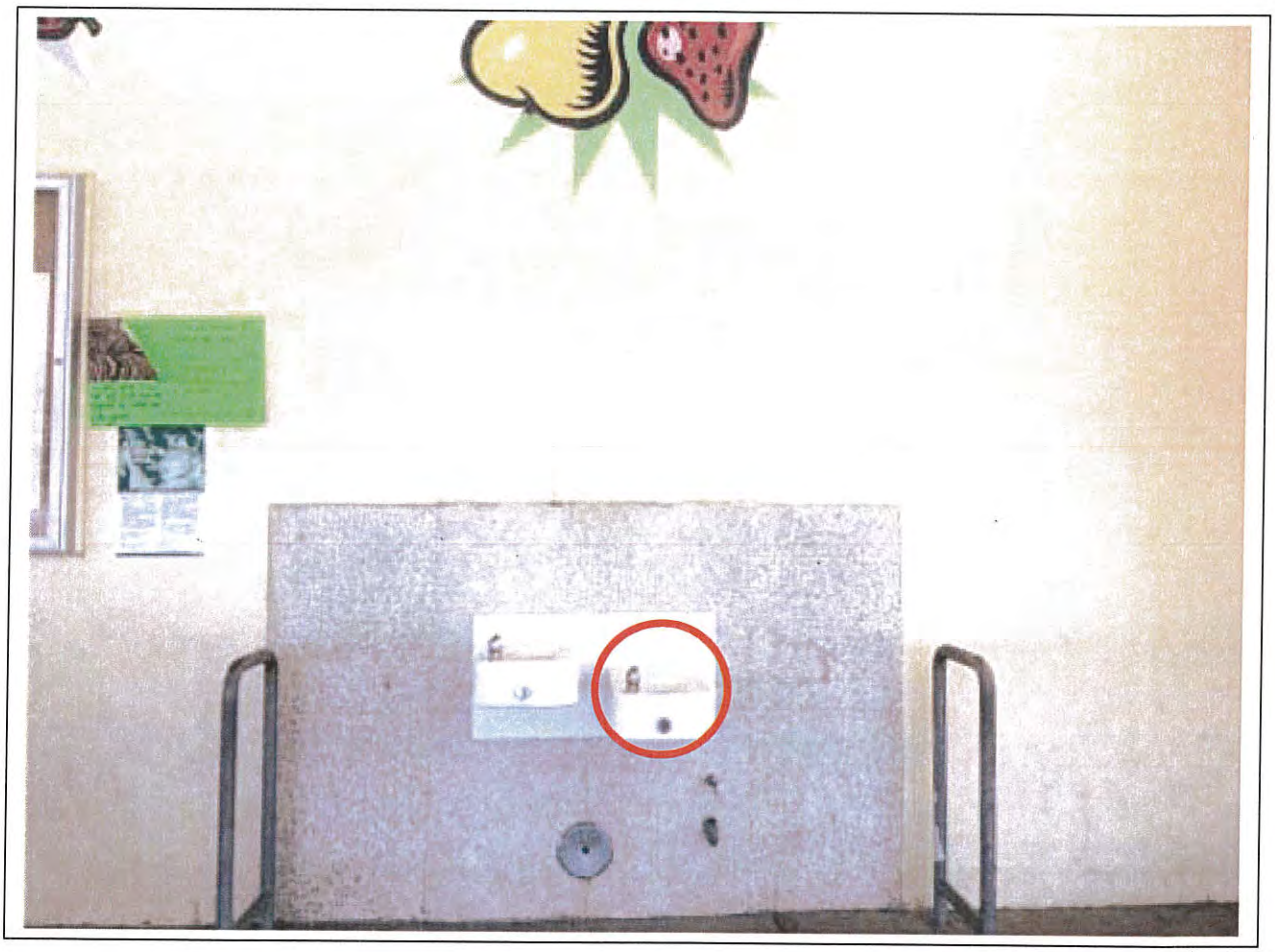

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167416

State Sample ID: 3710020-AGH-C

Date & Time Last Used:

Date & Time Sample Collected: 4/20/17 0617

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 4

School: Roosevelt Middle School - 3366 Park Blvd, San Diego, California 92103

Name of Building: Physical Education Building (400 building)

Location Description: South exterior wall next to boy's locker room

Type of Outlet: Bubbler

Description: Far left bubbler

Comments/Miscellaneous:

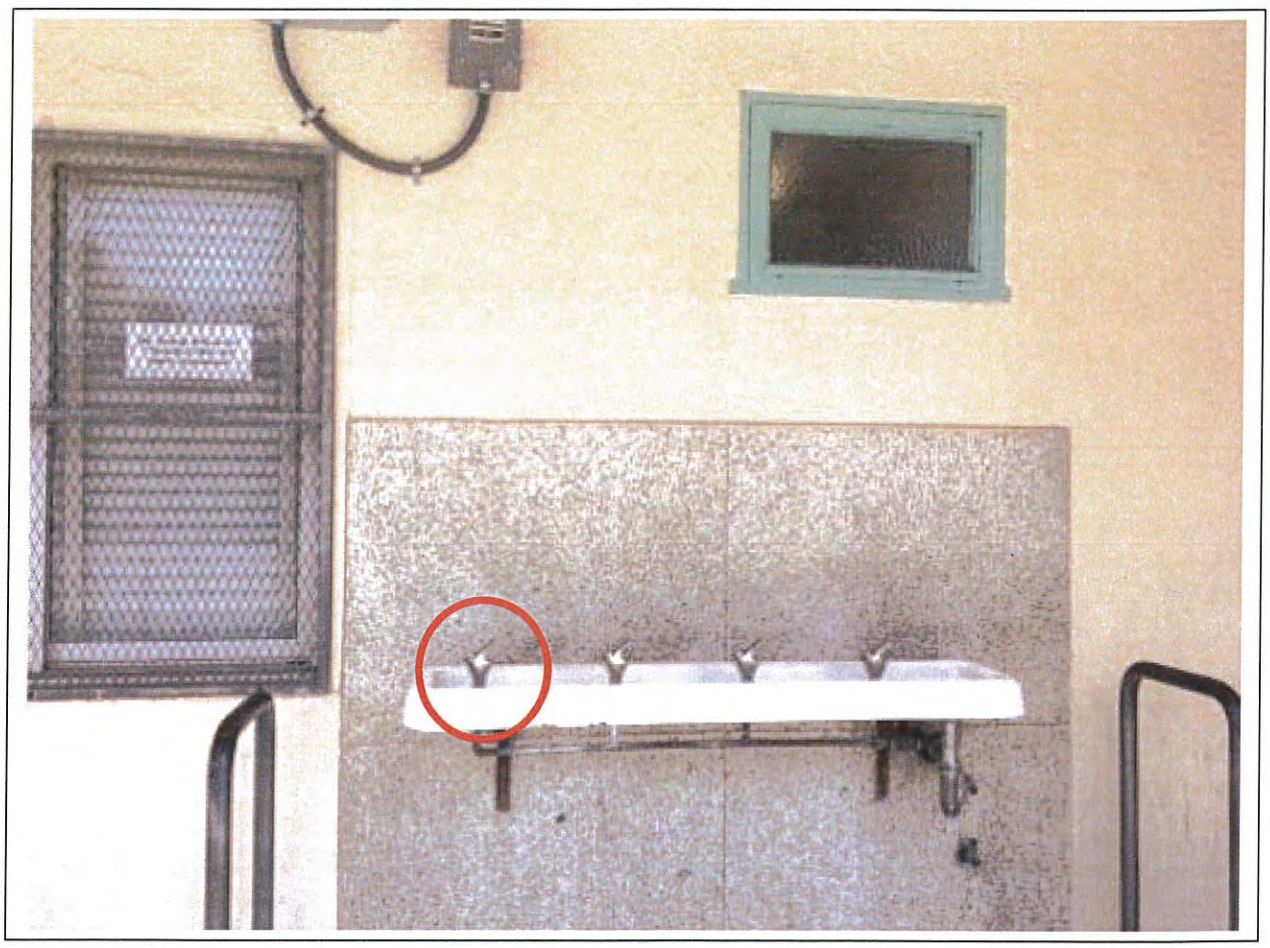

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: ~~DS W116741&~~ W1167417

State Sample ID: 3710020-AGH-D

Date & Time Last Used:

Date & Time Sample Collected: 4/20/17 0622

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 5

School: Roosevelt Middle School - 3366 Park Blvd, San Diego, California 92103

Name of Building: 100 Building

Location Description: West exterior wall between boys' and girls' restroom

Type of Outlet: Bubbler

Description: Left Bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167418

State Sample ID: 3710020-AGH-E

Date & Time Last Used:

Date & Time Sample Collected: 4/20/17 0629

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

19-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1167414	Roosevelt International	20-APR-2017	0610	DS	SAMPLE 1	
2	W1167415	Roosevelt International	20-APR-2017	0615		SAMPLE 2	
3	W1167416	Roosevelt International	20-APR-2017	0617		SAMPLE 3	
4	W1167417	Roosevelt International	20-APR-2017	0622		SAMPLE 4	
5	W1167418	Roosevelt International	20-APR-2017	0629		SAMPLE 5	

Chain of Custody:

Relinquished by: Name: Dan Sawersby Sign: D. Sawersby	Received by: Name: Alejandra Molloy Sign: AMolly	Date & Time: 4/20/17 0705 Location: ALV	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolly
Received Date: 4/20/17
LIMS Received Time: 0705
Reviewed By: AMolly 4/25/17

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Rosa Parks Elementary School

Physical Address of School: 4510 Landis Street; San Diego; California; 92105

First Bell:

Meeting Date: 3/24/2017

Sampling Plan Completion Date: 3/27/2017

Completed by Print Name: Timothy Brown

Signature: Timothy A. Brown Date: 3/27/2017

School's Point of Contact for Sampling Assistance

Name: ~~Timothy Brown~~ Ginette

Phone: ~~619-302-9427~~

Email: tbrown1@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 3/20/17 — Tom Burger

Signature & Date — Print Name

Send completed sampling plan to:

Sample Sites 1,2,3,4 Please make sure both fixtures are tagged out.
Sample Site 5, please make sure hot & cold water are correctly labeled on faucet.
Make sure school contact is aware of first bell.

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Rosa Parks Elementary School; 4510 Landis Street; San Diego; Calif; 92105

Sample Locations acknowledgement

School and Address: Rosa Parks Elementary School; 4510 Landis Street; San Diego; Calif; 92105

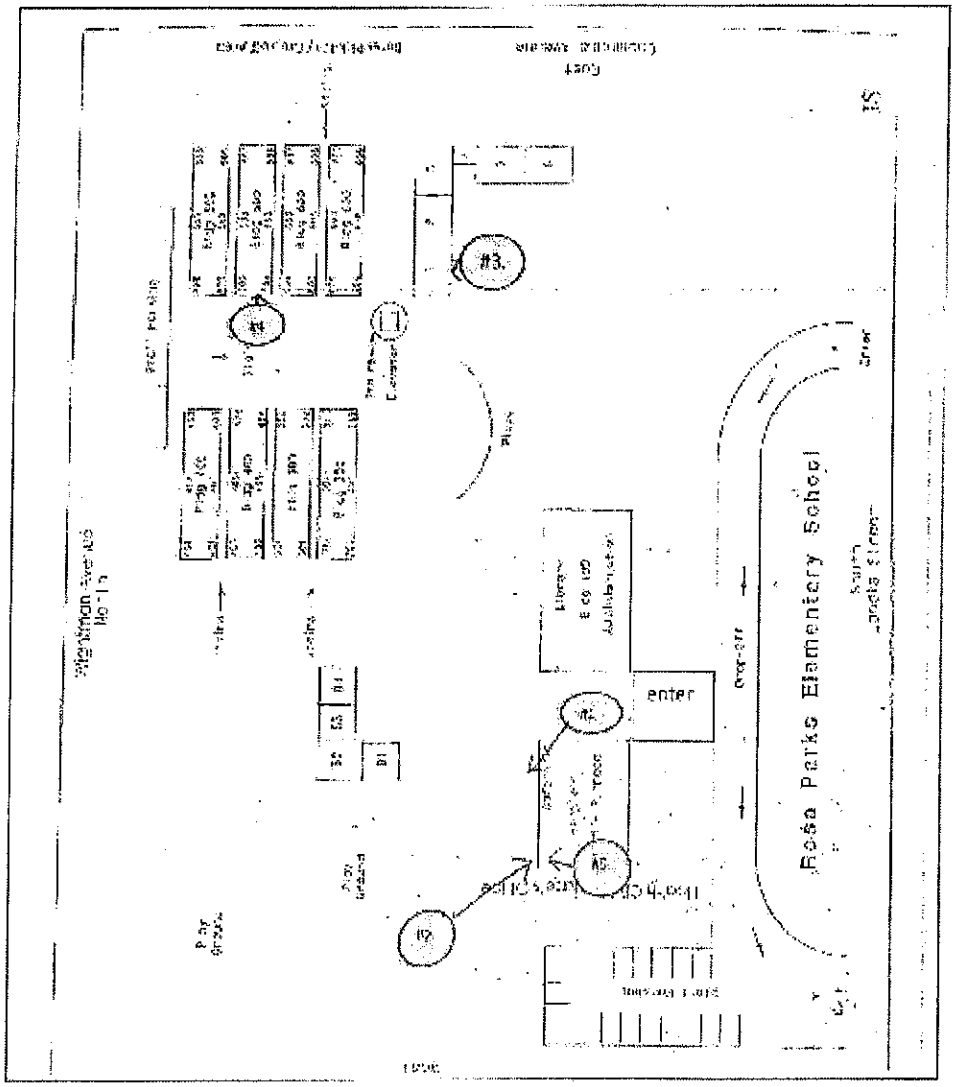

Sample No. 1

School: Rosa Parks Elementary School

Name of Building: Cafeteria

Location Description: Wall Mounted exterior/ Lunch court @ Boys Restroom-East Wall-Loc#230-01

Type of Outlet: Bubbler

Description: Drinking Fountain

Comments/Miscellaneous: Outdoor Drinking source/ Left Bubbler

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-AAF-A

LIMS Sample ID: W1163947

Date & Time Last Used: 5/04/17 @ 2200

Date & Time Sample Collected: 5/05/17 @ 0542

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: Rosa Parks Elementary; San Diego, California; 92105;

Name of Building: Cafeteria

Location Description: Loc code#230-02/Lunch Court @ Storage Area#3

Type of Outlet: Exterior Drinking Fountain

Description: Bubbler

Comments/Miscellaneous: West Wall / Right Bubbler

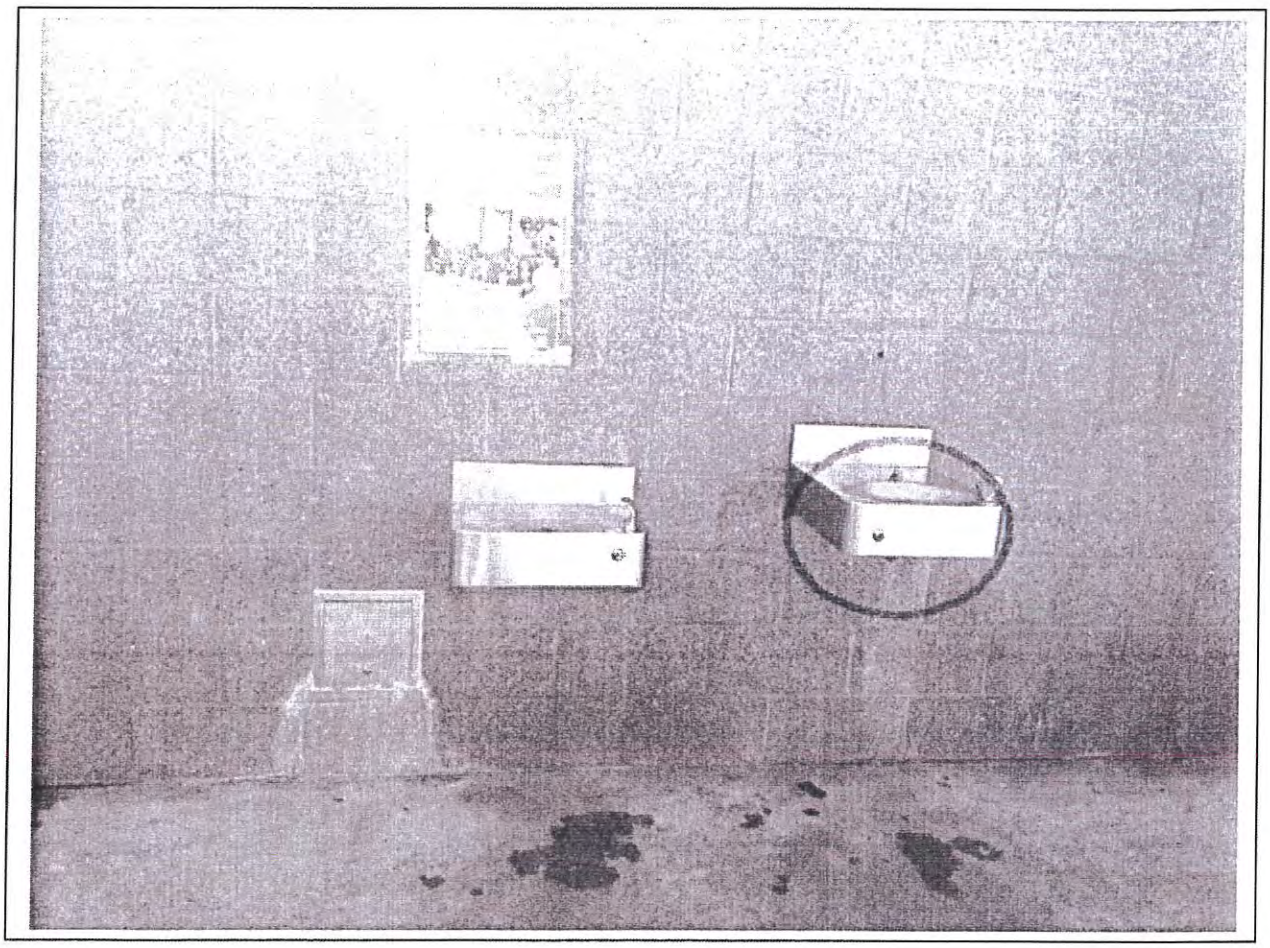

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-AAF-B

LIMS Sample ID: W1163948

Date & Time Last Used: 5/04/17 @ 2200

Date & Time Sample Collected: 5/05/17 @ 0540

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: Rosa Parks Elementary; 4510 Landis Street; San Diego; California; 92105

Name of Building: Kindergarten

Location Description: Loc Code#230-03- Kindergarten Area @ room 1

Type of Outlet: Exterior Drinking Fountain

Description: Bubbler

Comments/Miscellaneous: Wall mounted dual fixture/ Right Bubbler

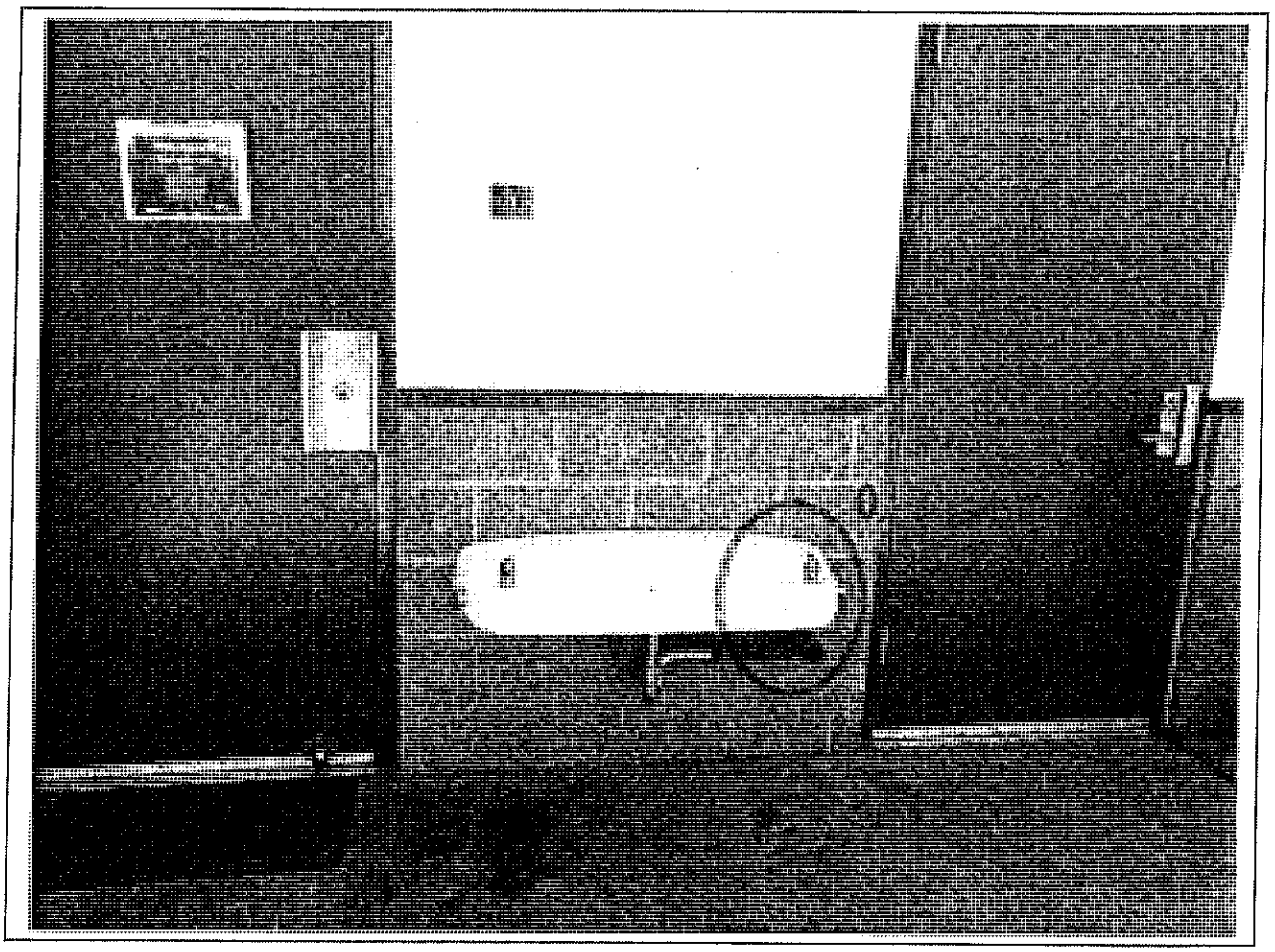

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-AAF-C

LIMS Sample ID: W1163949

Date & Time Last Used: 5/04/17 @ 2200

Date & Time Sample Collected: 5/05/17 @ 0548

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: Rosa Parks Elementary; San Diego; California; 92105

Name of Building: 500 Bldg

Location Description: Loc Code 230-04/ East Wall under 506-509 signage

Type of Outlet: two single mounted exterior Drinking Fountains

Description: Bubbler

Comments/Miscellaneous: sample right bubbler

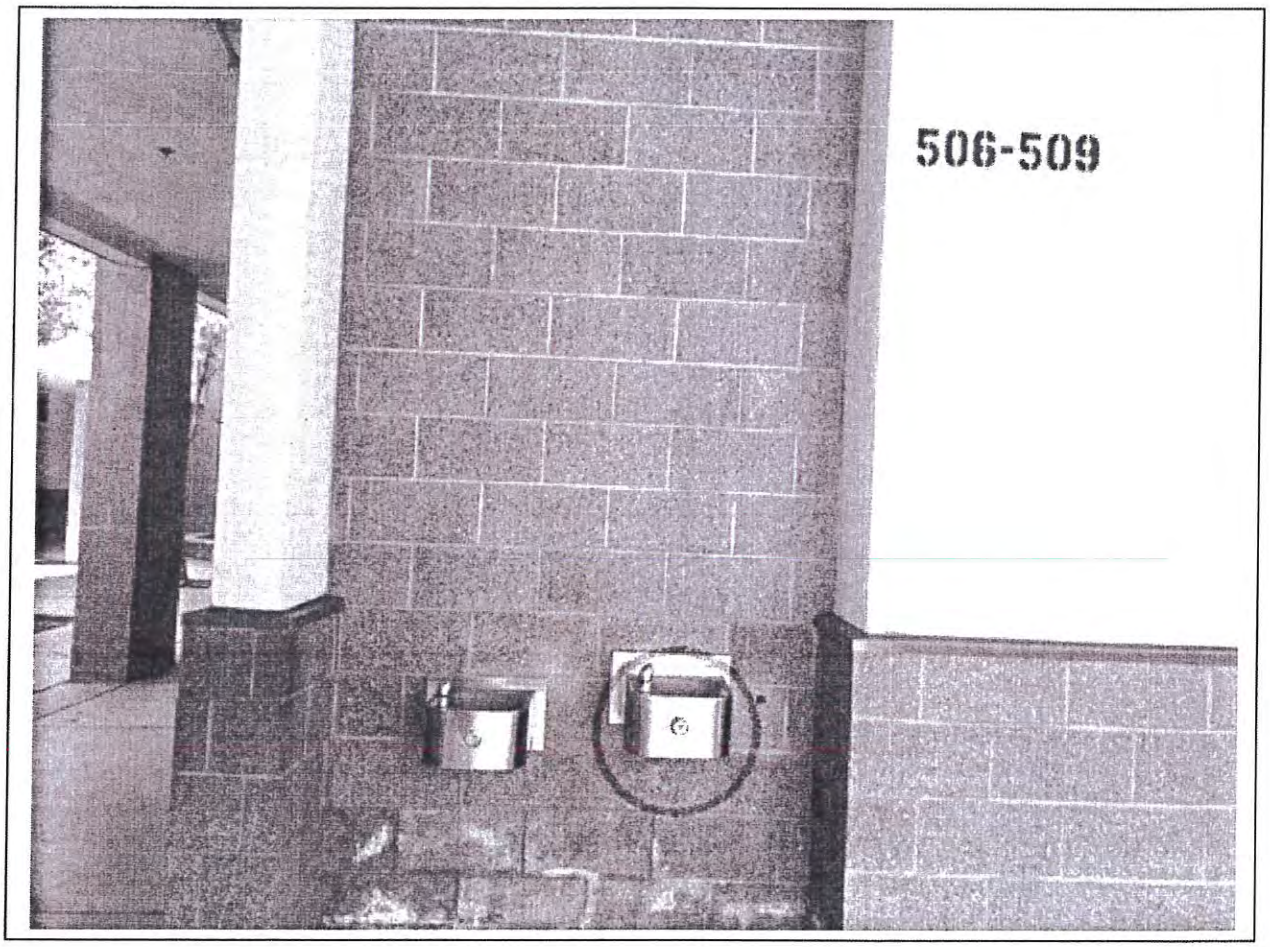

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-AAF-D

LIMS Sample ID: W1163950

Date & Time Last Used: 5/04/17 @ 2200

Date & Time Sample Collected: 5/05/17 @0545

Name of Water System Sample Collector: A. Molloy

Sample No. 5

School: Rosa Parks Elementary; 4510 Landis Street; San Diego; California; 92105

Name of Building: Cafeteria

Location Description: Loc Code#230-05- Food Prep Area

Type of Outlet: Sink Mounted "Swing Arm" Faucet/ Hot and Cold Water

Description: Faucet

Comments/Miscellaneous: Kitchen Food Prep Area; used for rinsing fruits and vegetables

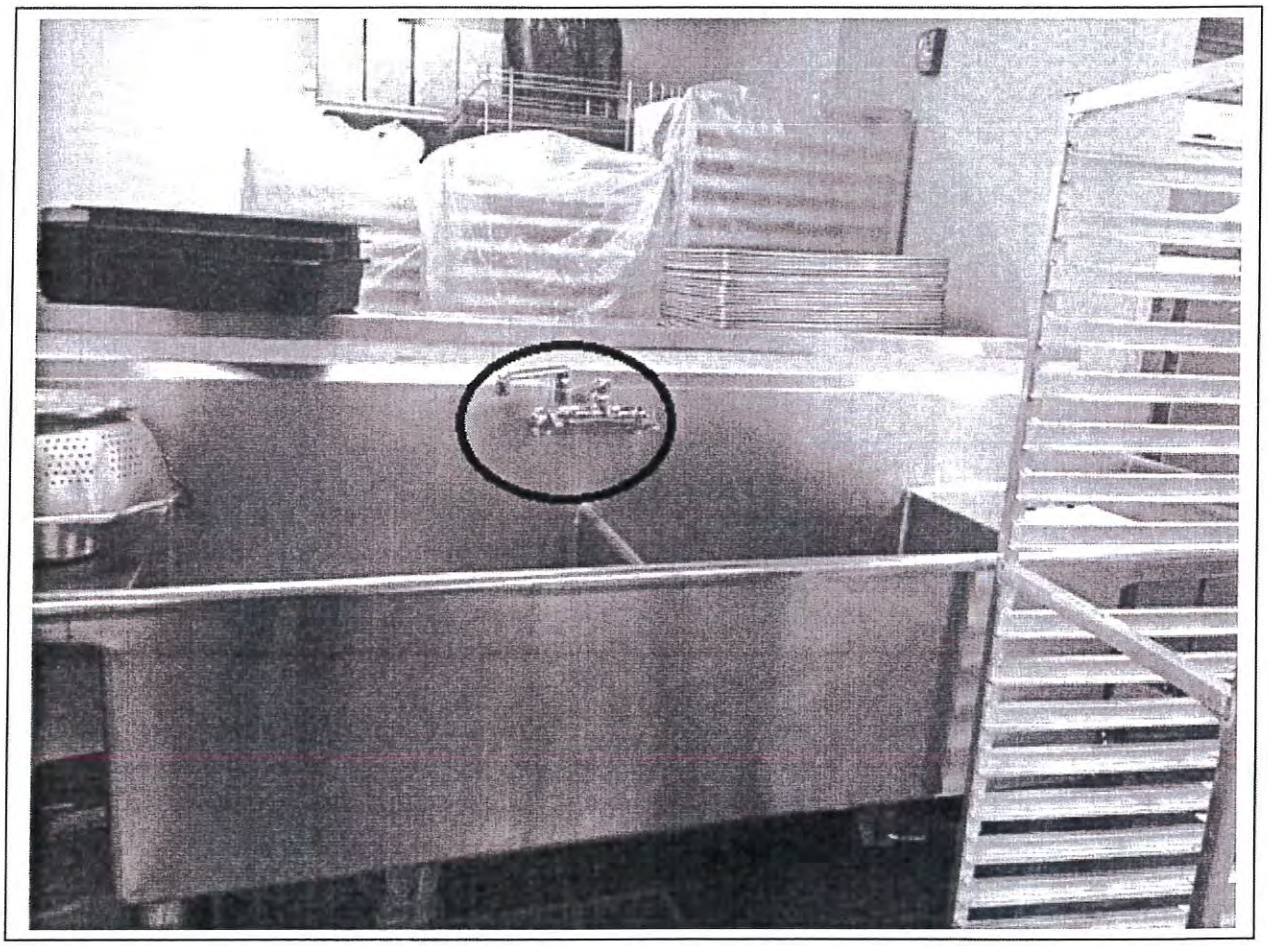

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-AAF-E

LIMS Sample ID: W1163951

Date & Time Last Used: 5/04/17 @ 2200

Date & Time Sample Collected: 5/05/17 @ —— Not Sampled

Name of Water System Sample Collector:

Hot Water was on and dripping

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

05-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1163947	Rosa Parks Elementary School	05-MAY-2017	0542	A. Molloy	SAMPLE 1	
2	W1163948	Rosa Parks Elementary School	05-MAY-2017	0540		SAMPLE 2	
3	W1163949	Rosa Parks Elementary School	05-MAY-2017	0548		SAMPLE 3	
4	W1163950	Rosa Parks Elementary School	05-MAY-2017	0545		SAMPLE 4	
5	W1163951	Rosa Parks Elementary School	05-MAY-2017	—		SAMPLE 5	Hot Water was left running.

1997

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign: A Molloy	Received by: Name: Sign:	Date & Time: 5/05/17 @ 0635 Location: WQL Alv	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-5-17
LIMS Received Time: 0704
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Rosa Parks Elementary School

Physical Address of School: 4510 Landis Street; San Diego; California; 92105

First Bell:

Meeting Date: 3/24/2017

Sampling Plan Completion Date: 3/27/2017

Completed by Print Name: Timothy Brown

Signature: Timothy A. Brown Date: 3/27/2017

School's Point of Contact for Sampling Assistance

Name: Timothy Brown

Phone: 619-302-9427

Email: tbrown1@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 3/20/17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Sample Sites 1,2,3,4 Please make sure both fixtures are tagged out.
Sample Site 5, please make sure hot & cold water are correctly labeled on faucet.
Make sure school contact is aware of first bell.

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Rosa Parks Elementary School; 4510 Landis Street; San Diego; Calif; 92105

Sample Locations acknowledgement

School and Address: Rosa Parks Elementary School; 4510 Landis Street; San Diego; Calif; 92105

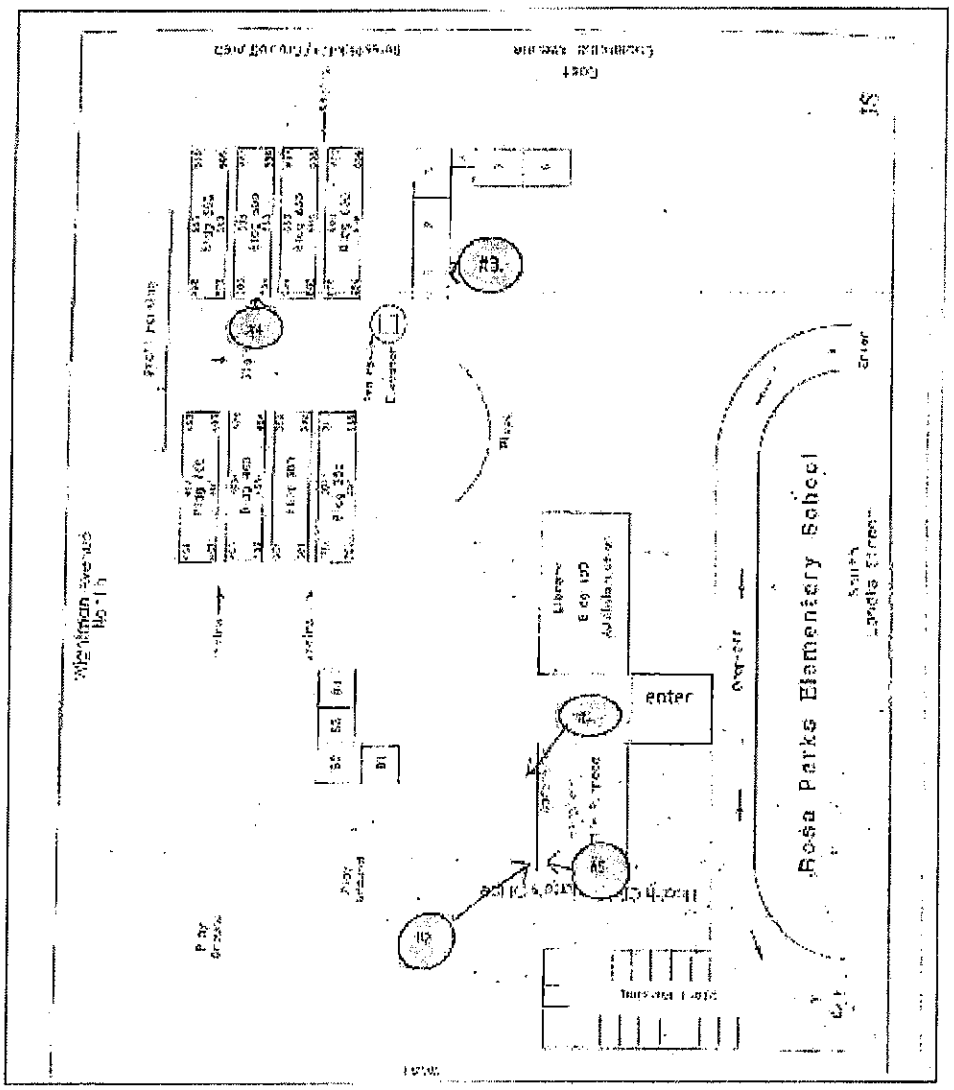

Sample No. 5

School: Rosa Parks Elementary; 4510 Landis Street; San Diego; California; 92105

Name of Building: Cafeteria

Location Description: Loc Code#230-05- Food Prep Area

Type of Outlet: Sink Mounted "Swing Arm" Faucet/ Hot and Cold Water

Description: Faucet

Comments/Miscellaneous: Kitchen Food Prep Area; used for rinsing fruits and vegetables

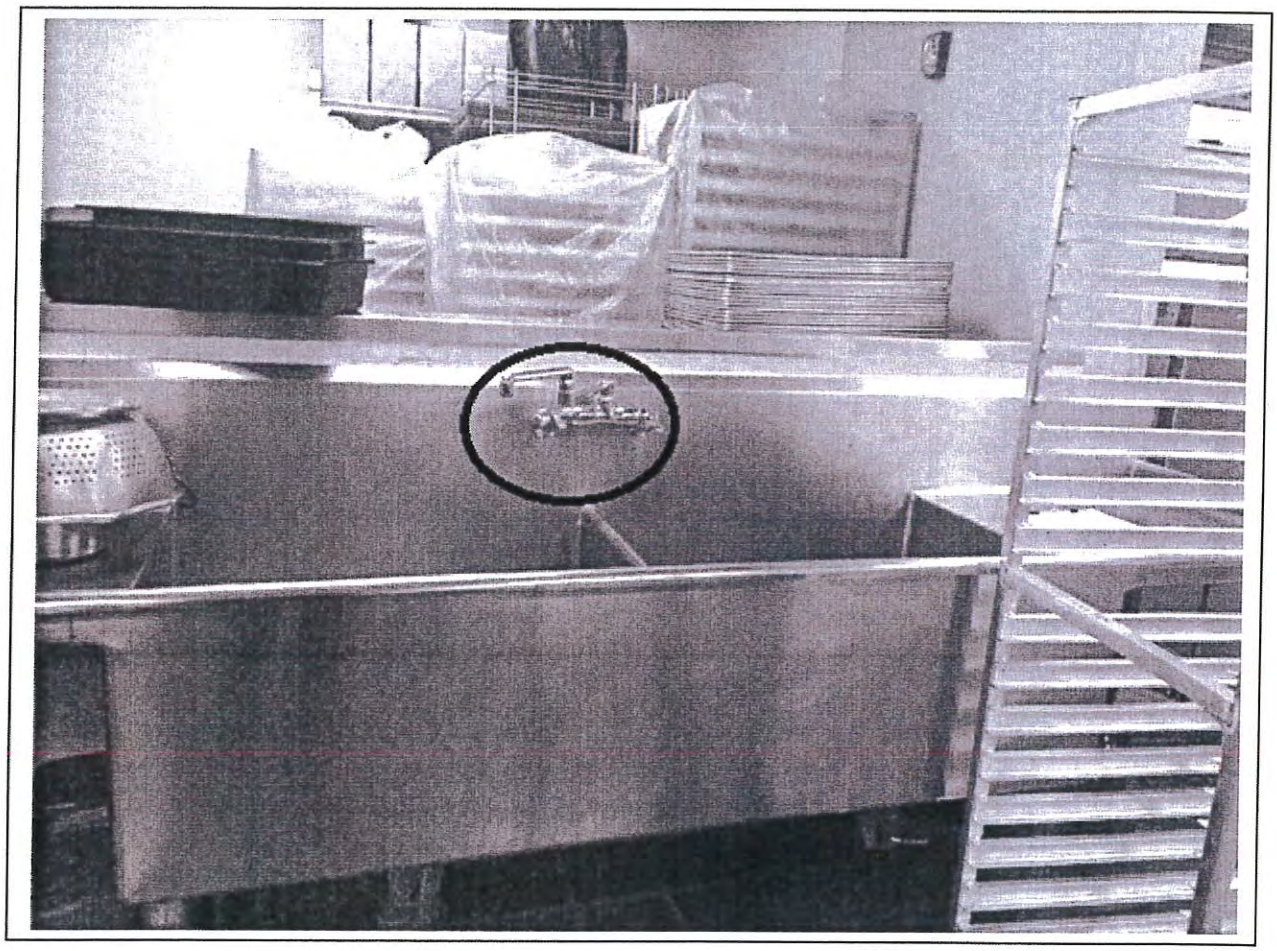

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample ID: 3710020-AAF-E

LIMS Sample ID: W1163951

Date & Time Last Used: 5/05/17 @ ~~07~~ 2200

Date & Time Sample Collected: 5/06/17 0736

Name of Water System Sample Collector: A. Molloy

Exhibit 3-1

Water Quality Chemistry Services
Chain of Custody Form

06-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1171378	Rosa Parks Elementary School	06-MAY-2017	0736	A. Malloy		

2001

Chain of Custody:

Relinquished by:	Received by:	Date & Time:	Comments:
Name: Alejandra Malloy Sign: AMalloy	Name: Sign:	5/06/17 @ 0915 Location: WQL AIV	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMalloy
Received Date: 5/06/17
LIMS Received Time: 0946
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: **Ross Elementary**

Physical Address of School: 7470 Bagdad St. San Diego, CA 92111-4317

First Bell: 7:40 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 4-25-2017

Completed by Print Name: Cesar Jimenez

Signature: C.J. Date: 4-25-2017

School's Point of Contact for Sampling Assistance

Name: ~~Cesar Jimenez~~ Daniel Lopez

Phone: ~~619-261-1588~~ (619) 306-3383

Email: cjimenez2@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-26-17 — Tom Burger

Signature & Date — Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Ross Elementary - 7470 Bagdad St. San Diego, CA 92111-4317

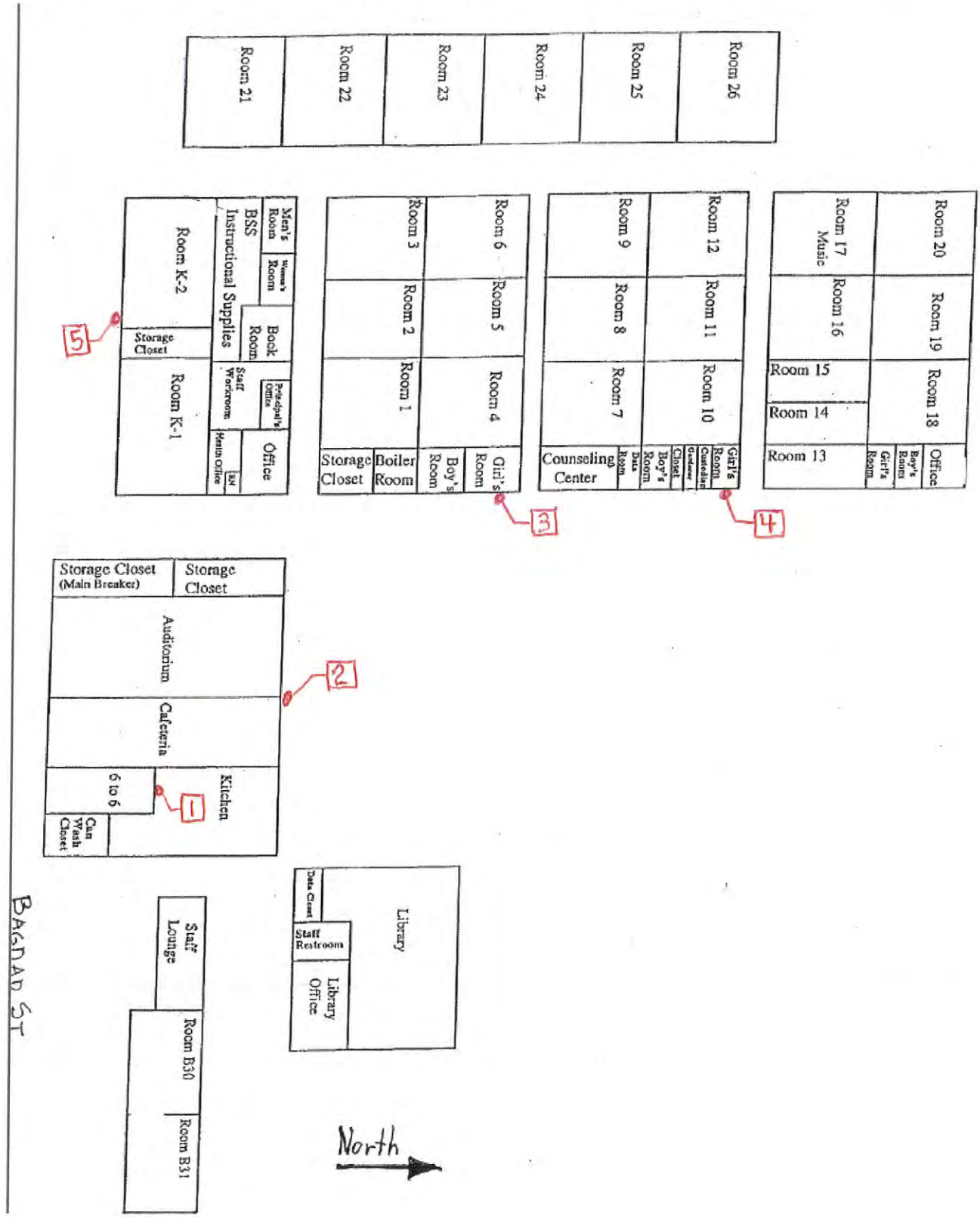

Sample No. 1

School: Ross Elementary

Name of Building: Auditorium/Cafeteria Bldg.

Location Description: South Wall of Kitchen

Type of Outlet: Spray Faucet

Description: Faucet on a single compartment sink

Comments/Miscellaneous: SDUSD ID code #: 247-01

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168766

State Sample ID: 3710020-BCE-A

Date & Time Last Used: 4/26/17 2200

Date & Time Sample Collected: 4/27/17 0555

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Wide sprayer ~50% in bottle
50% Not

Sample No. 2

School: Ross Elementary

Name of Building: Auditorium/Cafeteria Bldg.

Location Description: Exterior north wall

Type of Outlet: Bubbler

Description: Right Bubbler on a triple fountain

Comments/Miscellaneous: SDUSD ID code #: 247-02

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168767

State Sample ID: 3710020-BCE-B

Date & Time Last Used: 4/26/17 2200

Date & Time Sample Collected: 4/27/17 0559

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 3

School: Ross Elementary

Name of Building: Classroom Bldg. rooms 1 to 6

Location Description: Exterior East Wall

Type of Outlet: Bubbler

Description: Left Bubbler on a triple fountain

Comments/Miscellaneous: SDUSD ID code #: 247-03

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168768

State Sample ID: 3710020-BCE-C

Date & Time Last Used: 4/26/17 2200

Date & Time Sample Collected: 4/27/17 0601

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sawersby

Sample No. 4

School: Ross Elementary

Name of Building: Classroom Bldg. rooms 7 to 12

Location Description: Exterior East Wall

Type of Outlet: Bubbler

Description: Left Bubbler on a triple fountain

Comments/Miscellaneous: SDUSD ID code #: 247-04

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168769

State Sample ID: 3710020-BCE-D

Date & Time Last Used: 4/26/17 2200

Date & Time Sample Collected: 4/27/17 0604

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 5

School: Ross Elementary

Name of Building: Administration/Kindergarten Bldg.

Location Description: Exterior South Wall

Type of Outlet: Bubbler

Description: Left Bubbler on a double fountain

Comments/Miscellaneous: SDUSD ID code #: 247-05

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168770

State Sample ID: 3710020-BCE-E

Date & Time Last Used: 4/26/17 2200

Date & Time Sample Collected: 4/27/17 ~~0620~~ 0610

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Water Quality Chemistry Services
Chain of Custody Form

26-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168766	Ross Elementary	27-APR-2017	0555	DS	SAMPLE 1	
2	W1168767	Ross Elementary	27-APR-2017	0559		SAMPLE 2	
3	W1168768	Ross Elementary	27-APR-2017	0601		SAMPLE 3	
4	W1168769	Ross Elementary	27-APR-2017	0604		SAMPLE 4	
5	W1168770	Ross Elementary	27-APR-2017	0610		SAMPLE 5	

Chain of Custody:

Relinquished by: Name: Dan Sowersby Sign: D. Sowersby	Received by: Name: Tom Burger Sign: Tom B Burger	Date & Time: 4/~~26~~ DS 27/17 0645 Location: ALV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 4-27-17
LIMS Received Time: 0649
Reviewed By: SMalley 4/27/17

Exhibit 31

2009

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: # 249 Rowan Elementary School

Physical Address of School: 1755 Rowan St. San Diego , Ca

First Bell: 8:55 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 3/24/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 3/24/2017

School's Point of Contact for Sampling Assistance

Name: Elizabeth Lara

Phone: 619-302-7616

Email: elara@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-6-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Rowan Elementary 1755 Rowan st. San Diego Ca. 92105

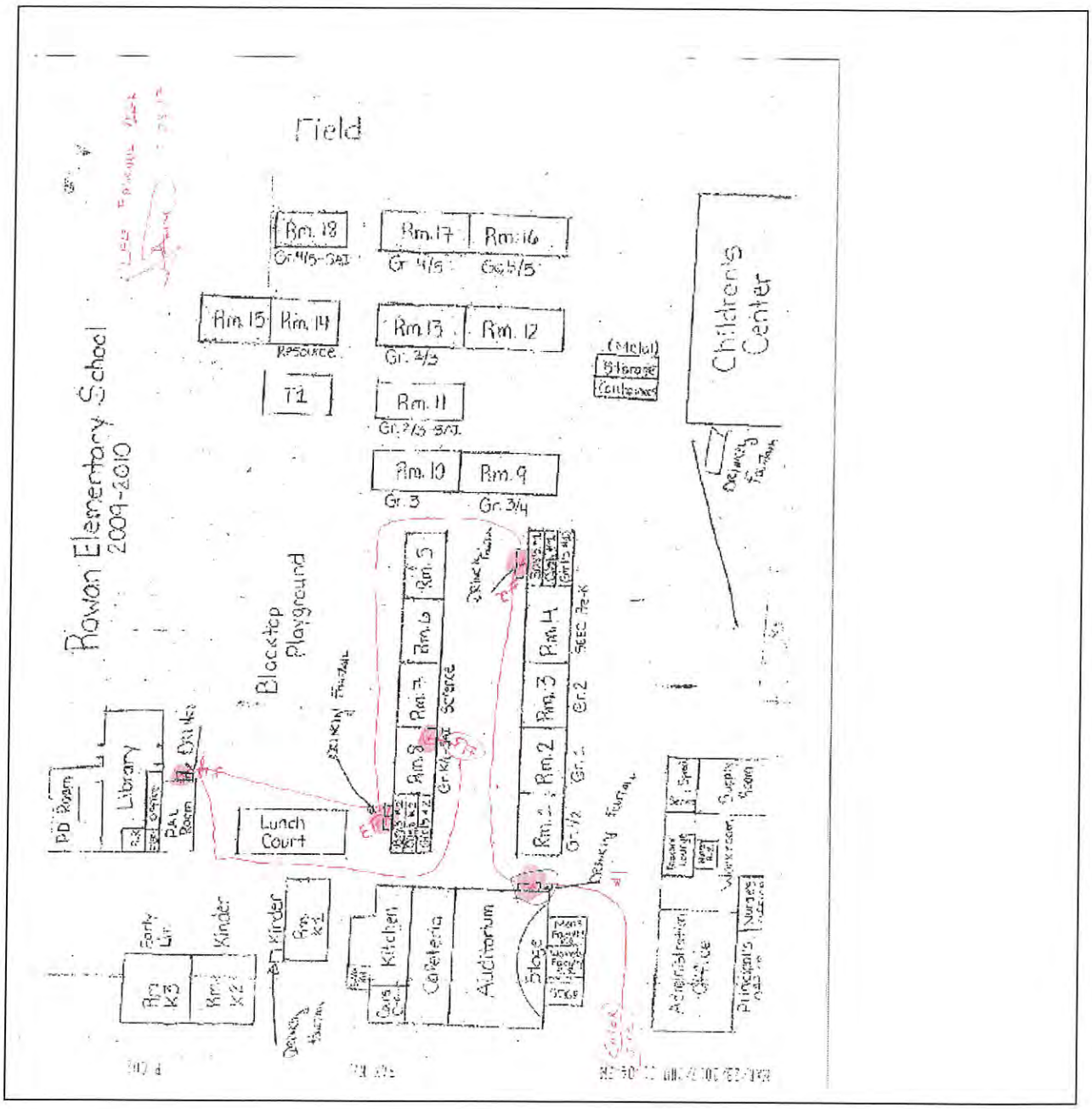

Sample No. 1

School: # 249 Rowan Elementary

Name of Building: Auditorium

Location Description: outside left fountain near of door to Auditorium

Type of Outlet: Bubbler

Description: left drinking fountain with bubbler

Comments/Miscellaneous:

Figure 1 Left drinking fountain

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165055

State Sample ID: 3710020-ACE-A

Date & Time Last Used: ~~4-6-10~~ TB 2200 4-7-17

Date & Time Sample Collected: 4-7-17 0602

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: TBurn

Sample No. 2

School: # 249 Rowan Elementary

Name of Building: building #1

Location Description: Outside next to room #4

Type of Outlet: Bubbler

Description: Left bubbler of three on fountain

Comments/Miscellaneous:

Figure 2 left bubbler

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165056

State Sample ID: 3710020-ACE-B

Date & Time Last Used: 4-6-17 2200

Date & Time Sample Collected: 4-7-17 0614

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: TBurgan

Sample No. 3

School: # 249 Rowan Elementary

Name of Building: #2

Location Description: Next to Lunch Court –Next to room #8

Type of Outlet: Bubbler

Description: Left Bubbler drinking fountain of three on fixture

Comments/Miscellaneous:

Figure 3 Left bubbler

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165057

State Sample ID: 3710020-ACE-C

Date & Time Last Used: 4-6-17 2200

Date & Time Sample Collected: 4-6-17 0608

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: T Burgan

Sample No. 4

School: # 249 Rowan Elementary

Name of Building: PAL/Library

Location Description: Outside left of door labeled parent teacher

Type of Outlet: Bubbler

Description: Right Taller bubbler of single bubbler fixture

Comments/Miscellaneous:

Figure 4 right taller fountain

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165058

State Sample ID: 3710020-ACE-D

Date & Time Last Used: 4-6-17 2200

Date & Time Sample Collected: 4-7-17 0620

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: JBurgy

Sample No. 5

School: #249 Rowan Elementary

Name of Building: #2

Location Description: Inside room #8

Type of Outlet: Bubbler

Description: Drinking fountain at sink

Comments/Miscellaneous:

Figure 5 right water fountain

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165059

State Sample ID: 3710020-ACE-E

Date & Time Last Used: 4-6-17 2200

Date & Time Sample Collected: 4-7-17 0625

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: TBurgh

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

06-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1165055	Rowan Elementary	07-APR-2017	0602	TMB	SAMPLE 1	
2	W1165056	Rowan Elementary	07-APR-2017	0614		SAMPLE 2	
3	W1165057	Rowan Elementary	07-APR-2017	0608		SAMPLE 3	
4	W1165058	Rowan Elementary	07-APR-2017	0620		SAMPLE 4	
5	W1165059	Rowan Elementary	07-APR-2017	0625		SAMPLE 5	

2017

Chain of Custody:

Relinquished by: Name: Tom Burger Sign: Tom B Burger	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 4-7-17 @0827 Location: WQL LAB	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 4/07/17
LIMS Received Time: 0828
Reviewed By:

SD Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 4/18/17

San Diego Unified School District

Rowan Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1165055	04/07/17	06:02 AM	SAMPLE 1	3710020-ACE-A	< 5	ug/L
W1165056	04/07/17	06:14 AM	SAMPLE 2	3710020-ACE-B	< 5	ug/L
W1165057	04/07/17	06:08 AM	SAMPLE 3	3710020-ACE-C	< 5	ug/L
W1165058	04/07/17	06:20 AM	SAMPLE 4	3710020-ACE-D	< 5	ug/L
W1165059	04/07/17	06:25 AM	SAMPLE 5	3710020-ACE-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Auditorium exterior, fountain near door, lower left bubbler.
SAMPLE 2	BLDG 1, exterior next to Room 4, triple fountain, left bubbler
SAMPLE 3	BLDG 2, exterior next to Room 8, triple fountain, left bubbler
SAMPLE 4	PAL/Library, exterior, left of parent/teacher door, right fountain, single bubbler
SAMPLE 5	BLDG 2, in Room 8, bubbler at sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B Burger

Tom Burger, Associate Chemist

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Sage Canyon Elementary

Physical Address of School: 5290 Harvest Run Drive

First Bell: 8:10am

Meeting Date: 5-8-2017

Sampling Plan Completion Date: 5/16/17

Completed by Print Name: Mike Gals

Signature: _____ Date: 5/16/17

School's Point of Contact for Sampling Assistance

Name: Patrick Lum

Phone: (858) 864-3473

Email: plum@dmusd.org

City of San Diego 3710020

Approved By: _____ 5/25/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-658-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Sage Canyon Elementary

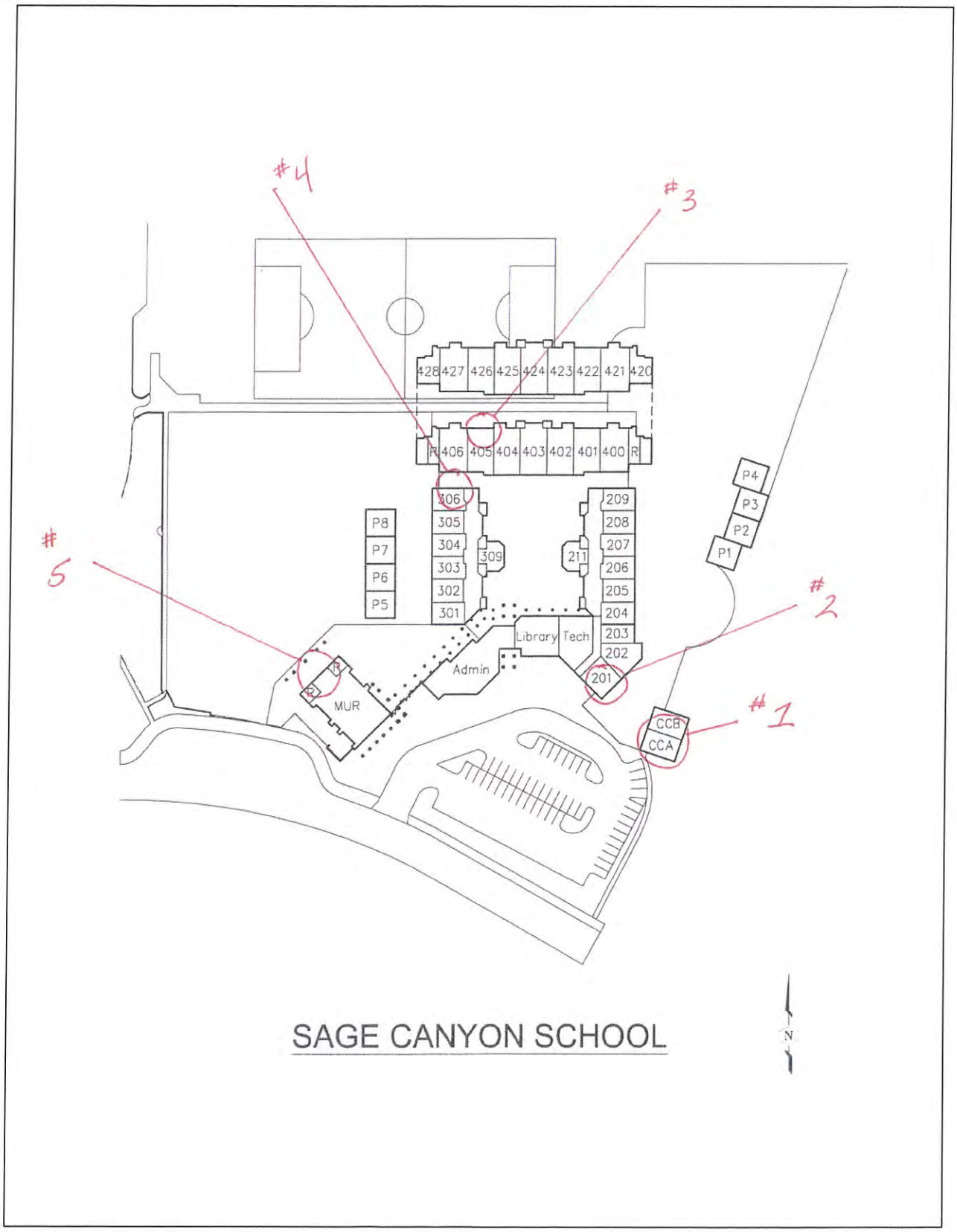

Sample No. 1

School: Sage Canyon Elementary

Name of Building: Childcare

Location Description: Sink in childcare room A / B

Type of Outlet: Bubbler

Description: Bubbler attached to sink

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1175404

State Sample ID: 3710020-CCB-A

Date & Time Last Used: 2200 6-15-17

Date & Time Sample Collected: 0606 6-6-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: J Burger

Sample No. 2

School: Sage Canyon Elementary

Name of Building: 200 wing

Location Description: classroom 201 (kindergarten)

Type of Outlet: Bubbler

Description: Sink in classroom with bubbler attached

Comments/Miscellaneous:

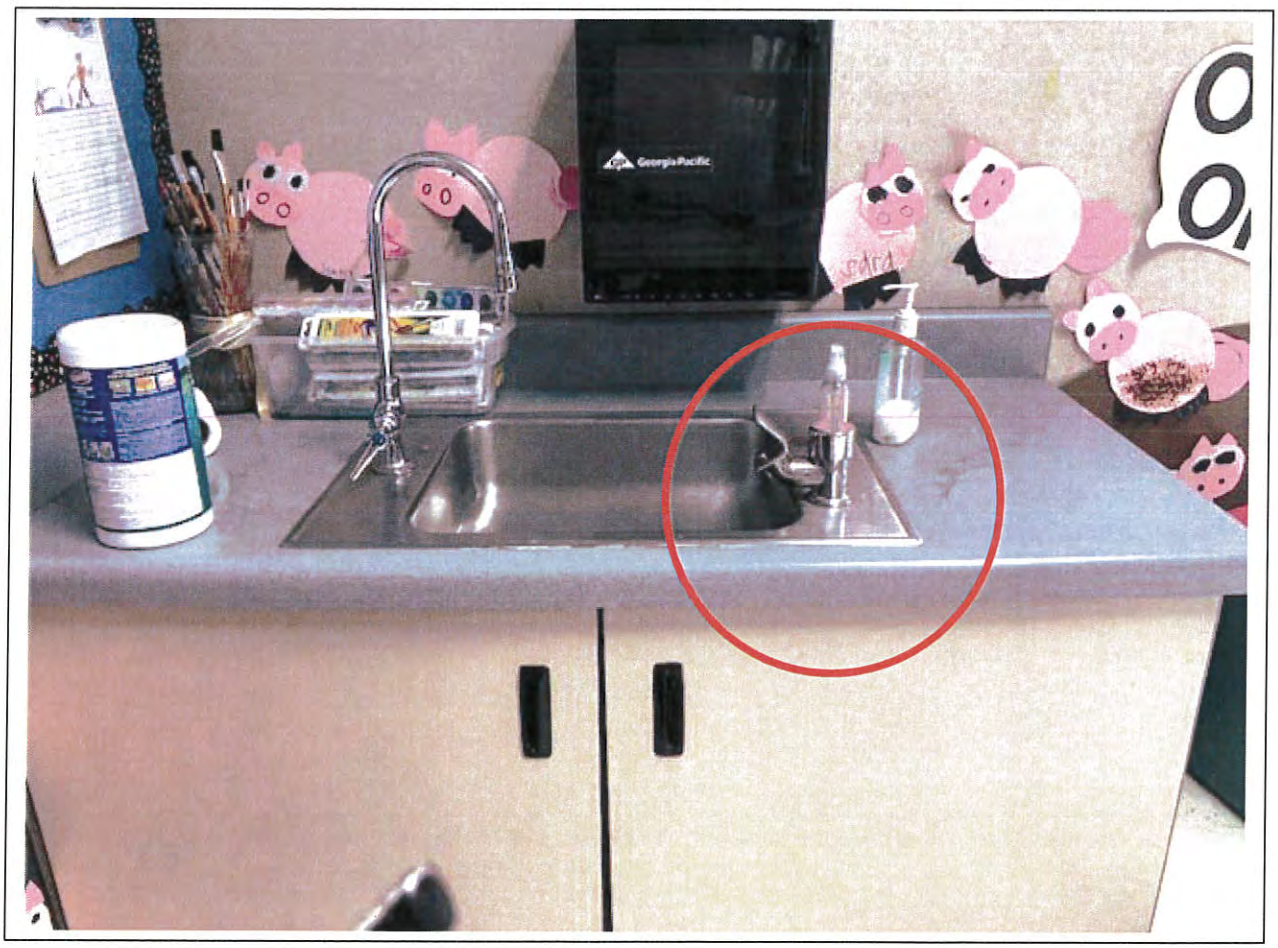

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1175405

State Sample ID: 3710020-CCB-B

Date & Time Last Used: 2200 6-5-17

Date & Time Sample Collected: 0609 6-6-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: TBurger

Sample No. 3

School: Sage Canyon Elementary

Name of Building: 400 wing

Location Description: Sink in hallway across from classroom 405

Type of Outlet: Bubbler

Description: sink with bubbler attached

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1175406

State Sample ID: 3710020-CCB-C

Date & Time Last Used: 2200

Date & Time Sample Collected: 0613 6-6-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: TBurger

Sample No. 4

School: Sage Canyon Elementary

Name of Building: 300 wing

Location Description: Drinking fountain north end of 300 wing

Type of Outlet: Bubbler

Description: Drinking fountain left side bubbler

Comments/Miscellaneous:

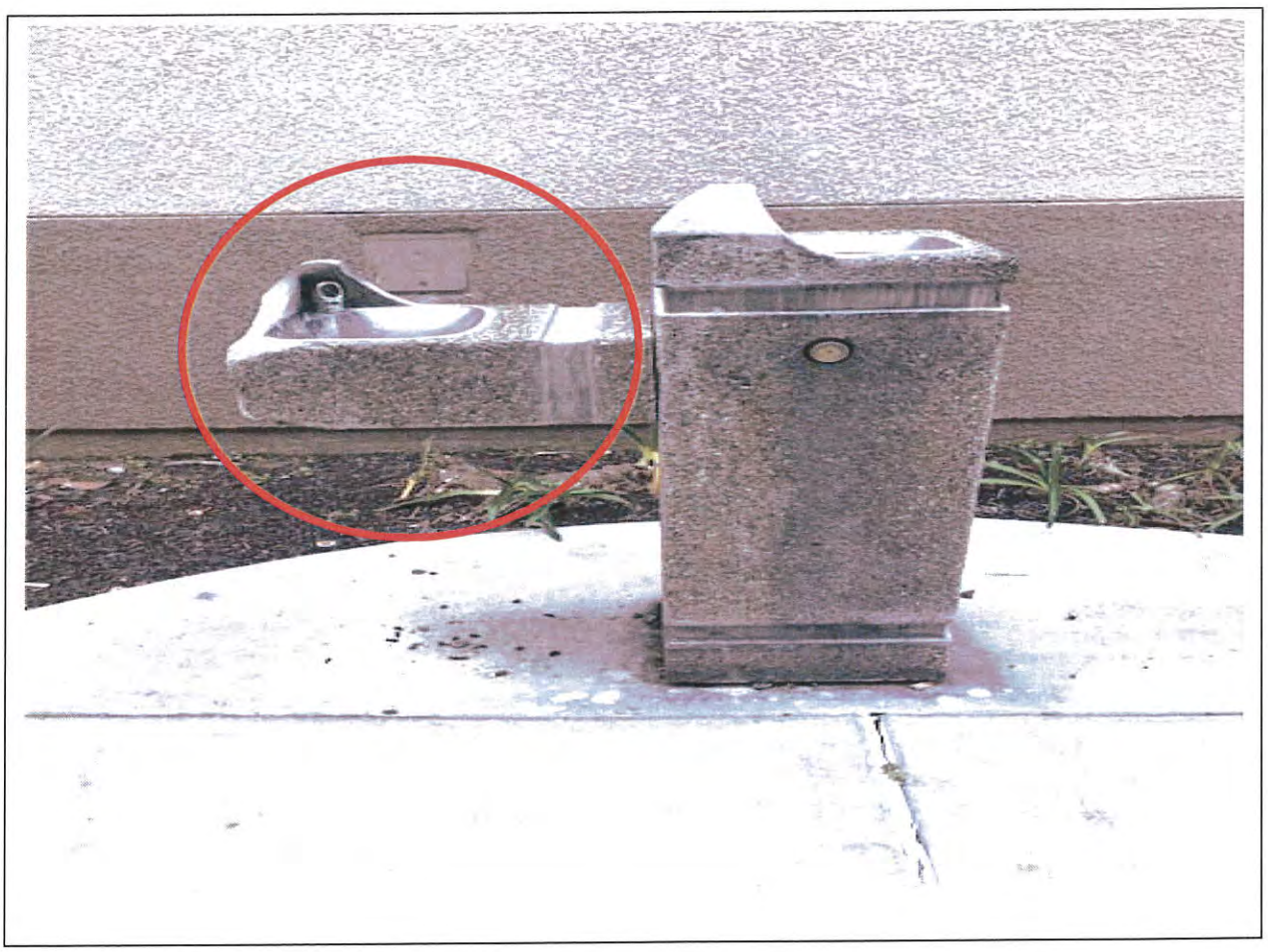

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1175407

State Sample ID: 3710020-CCB-D

Date & Time Last Used: 2200 6-5-17

Date & Time Sample Collected: 0616 6-6-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: TBurger

Sample No. 5

School: Sage Canyon Elementary

Name of Building: MUR

Location Description: Drinking fountain behind MUR by boys restroom

Type of Outlet: Bubbler

Description: Drinking fountain bubbler right side

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1175408

State Sample ID: 3710020-CCB-E

Date & Time Last Used: 2200 6-5-17

Date & Time Sample Collected: 0618 6-6-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T Burger

Exhibit 21

Water Quality Chemistry Services
Chain of Custody Form

05-Jun-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1175404	Sage Canyon	06-JUN-2017	0606	T. Burger	SAMPLE 1	
2	W1175405	Sage Canyon	06-JUN-2017	0609		SAMPLE 2	
3	W1175406	Sage Canyon	06-JUN-2017	0613		SAMPLE 3	
4	W1175407	Sage Canyon	06-JUN-2017	0616		SAMPLE 4	
5	W1175408	Sage Canyon	06-JUN-2017	0618		SAMPLE 5	

2026

Chain of Custody:

Relinquished by: Name: Tom Burger Sign: TM B Burger	Received by: Name: Gloria Siqueiros Sign:	Date & Time: AIV. LAB Location: 6-6-17 1538	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: _____

Received Date: _____

LIMS Received Time: _____

Reviewed By: _____

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Sandburg Elementary

Physical Address of School: 11230 Avenida del Gato, San Diego 92126-1235

First Bell: 7:40 AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/19/2017

Completed by Print Name: Ginette Commins

Signature: GCommins Date: 04/19/2017

School's Point of Contact for Sampling Assistance

Name: Ginette Commins

Phone: (858) 627-7201

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-24-17

Signature & Date

Tom Burger

Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Sandburg Elementary, 11230 Avenida del Gato, San Diego, CA 92126-1235

Sample No. 1

School: Sandburg Elementary

Name of Building: Multipurpose Room

Location Description: Wall mounted exterior (South of Bldg), between Auditorium Door & Girls' Restroom, facing Office

Type of Outlet: bubbler

Description: upper/right bubbler on a dual fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #219

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168393

State Sample ID: 3710020-BAI-A

Date & Time Last Used: 4/24/17 2200

Date & Time Sample Collected: 4/25/17 0605

Direct Sample ☒ plus Transfer Sample ☒

Name of Water System Sample Collector: D. Sowersby

Sample No. 2

School: Sandburg Elementary

Name of Building: Cafeteria & Kitchen

Location Description: Wall mounted exterior (West of Kitchen, North of Cafeteria), facing lunch court

Type of Outlet: bubbler

Description: right bubbler head (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #219

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168394

State Sample ID: 3710020-BAI-B

Date & Time Last Used: 4/24/17 2200

Date & Time Sample Collected: 4/25/17 0610

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 3

School: Sandburg Elementary

Name of Building: 400

Location Description: Wall mounted exterior (West of Bldg), facing fence & field, next to Girls Restroom

Type of Outlet: bubbler

Description: middle bubbler head with turn handle (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #219

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168395

State Sample ID: 3710020-BAI-C

Date & Time Last Used: 4/24/17 2200

Date & Time Sample Collected: 4/25/17 0615

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 4

School: Sandburg Elementary

Name of Building: Portable Classrooms

Location Description: Wall mounted exterior (West of Bldg), between Girls & Boys Restrooms, facing Blacktop

Type of Outlet: bubbler

Description: dual fountain - right bubbler on the left fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #219

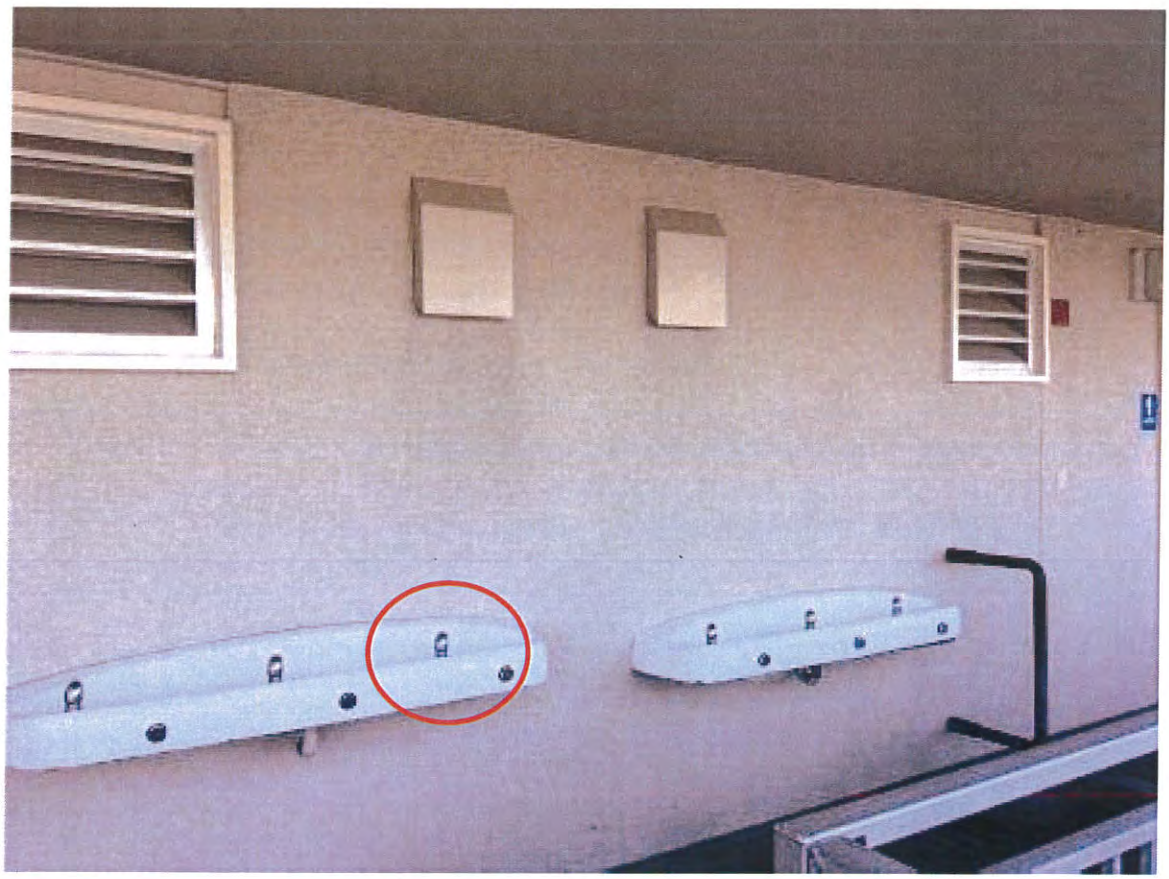

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168396

State Sample ID: 3710020-BAI-D

Date & Time Last Used: 4/24/17 2200

Date & Time Sample Collected: 4/25/17 0618

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sawersby

Sample No. 5

School: Sandburg Elementary

Name of Building: 300

Location Description: Wall mounted exterior (South of Bldg), next to Girls restroom, facing Kindergarten Playground

Type of Outlet: bubbler

Description: left bubbler head with lever handle (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #219

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168397

State Sample ID: 3710020-BAI-E

Date & Time Last Used: 4/24/17 2200

Date & Time Sample Collected: 4/25/17 0620

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

24-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168393	Sandburg Elementary	25-APR-2017	0605	DS	SAMPLE 1	
2	W1168394	Sandburg Elementary	25-APR-2017	0610	↓	SAMPLE 2	
3	W1168395	Sandburg Elementary	25-APR-2017	0615	↓	SAMPLE 3	
4	W1168396	Sandburg Elementary	25-APR-2017	0618	↓	SAMPLE 4	
5	W1168397	Sandburg Elementary	25-APR-2017	0620	↓	SAMPLE 5	

2034

Chain of Custody:

Relinquished by: Name: Dan Sowersby Sign: D. Sowersby	Received by: Name: Tom Burger Sign: Tom B Burger	Date & Time: DS 4/25/17 0745 Location: ALV	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: tMally
Received Date: 4/25/17
LIMS Received Time: 0839
Reviewed By: tMally 4/26/17

1506

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Scripps Ranch High School

Physical Address of School: 10410 Falcon way San Diego Ca 92131

First Bell: 7:25

Meeting Date: ...3/22/2017

Sampling Plan Completion Date: 4/20/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 4/20/2017

School's Point of Contact for Sampling Assistance

Name: Elizabeth Lara

Phone: 619-302-7616

Email: elara@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-25-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: 10410 Falcon way San Diego , Ca 92131

see next page for map

Scripps Ranch High School

-10410 ~~Treena St.~~ San Diego, CA, 92131 (858) 621-9020
FAX (858) 621-0646 www.srhsfalcons.org
FALCON WAY

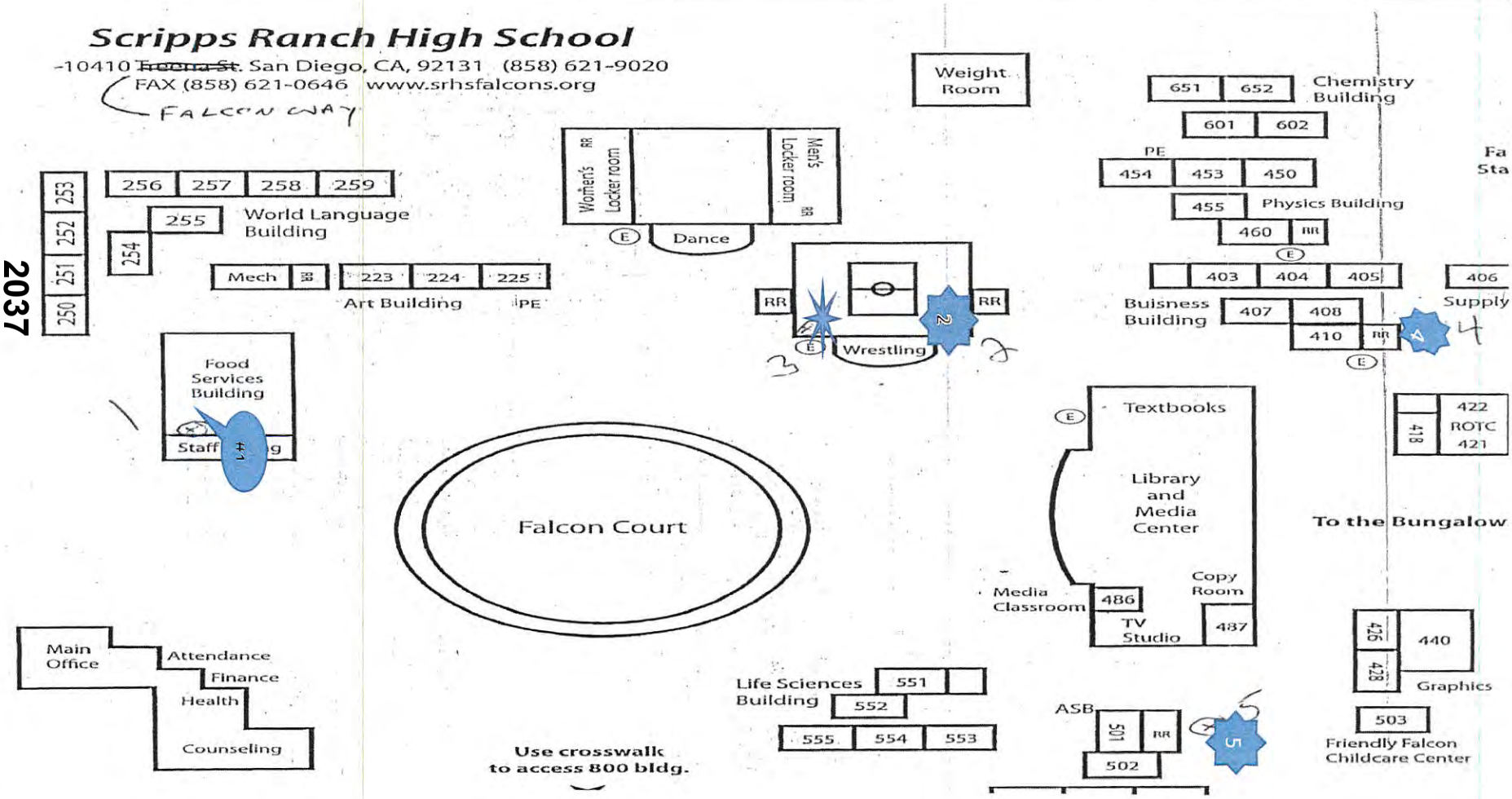

Sample No. 1

School: Scripps Ranch High School

Name of Building: Food Services Building

Location Description: Inside west wall next to reverse osmosis water cylinder

Type of Outlet: single water kitchen faucet at single sink for food prep

Description: single faucet with hot and cold valves

Comments/Miscellaneous:

Slow drip from faucet at base of neck

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168556

State Sample ID: 3710020-BBG-A

Date & Time Last Used: 2200 4-25-17

Date & Time Sample Collected: 552 4-26-17

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 2

School: Scripps Ranch High School

Name of Building: Gym

Location Description: Inside lower floor Right side near staircase and men's restroom

Type of Outlet: bubbler drinking fountain

Description: Center fountain of three single drinking fountains

Comments/Miscellaneous:

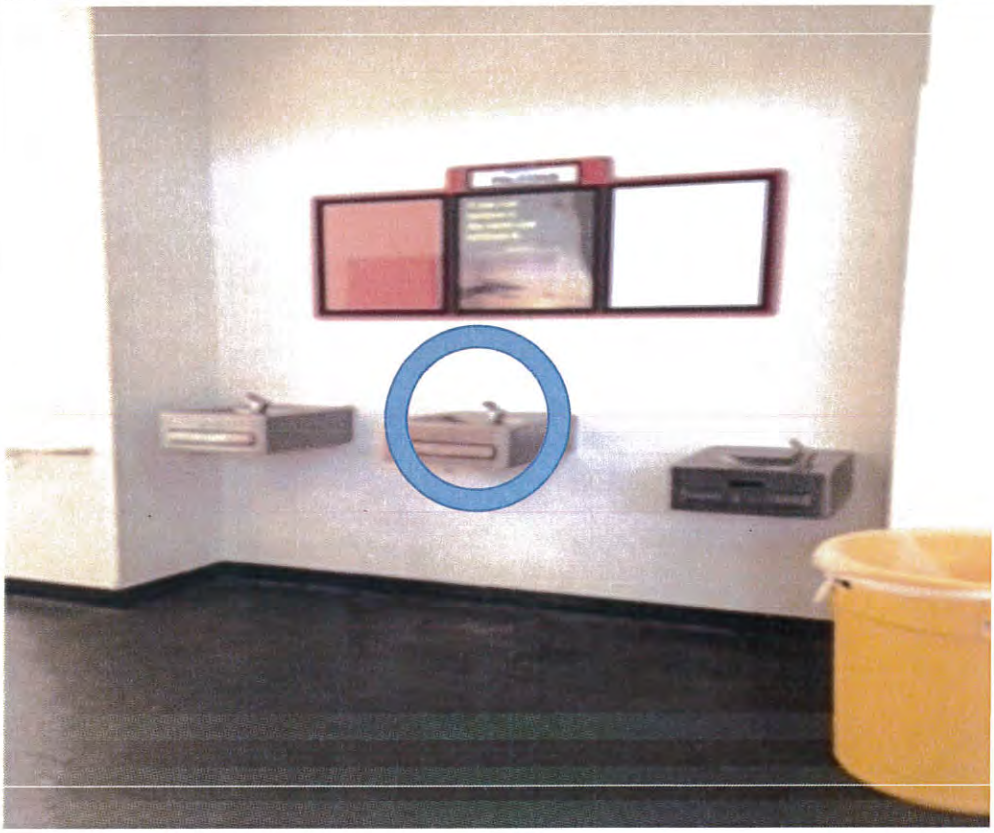

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168557

State Sample ID: 3710020-BBG-AB

Date & Time Last Used: 2200 4-25-17

Date & Time Sample Collected: 557 4-26-17

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: M. NCl[illegible]

Sample No. 3

School: Scripps Ranch High School

Name of Building: Gym

Location Description: Inside Gym lower floor left side near women's restroom and stairs

Type of Outlet: Bubbler

Description: Left bubbler drinking fountain of three

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168558

State Sample ID: 3710020-BBG-C

Date & Time Last Used: 2200 4-25-17

Date & Time Sample Collected: 0601 4-26-17

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: M. Nelson

Sample No. 4

School: Scripps Ranch High School

Name of Building: 400

Location Description: Lower floor hallway next to men's restroom and near rm# 413

Type of Outlet: Bubbler

Description: Single bubbler drinking fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168559

State Sample ID: 3710020-BBG-D

Date & Time Last Used: 2200 4-25-17

Date & Time Sample Collected: 0607 4-26 17

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: M. Nelson

Sample No. 5

School: Scripps Ranch High School

Name of Building: 500 bldg.

Location Description: Lower Floor hallway between women's & men's restrooms, same hall as no.4

Type of Outlet: Bubbler drinking fountain

Description: Single bubbler drinking fountain push button on

Comments/Miscellaneous: map does not reflect location well; refer to building number /location

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168560

State Sample ID: 3710020-BBG-E

Date & Time Last Used: 2200 4-25-17

Date & Time Sample Collected: 0611 4-26-17

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: M. Nelson

Exhibit 21

Water Quality Chemistry Services
Chain of Custody Form

25-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168556	Scripps Ranch High	26-APR-2017	0552	M. Nelson	SAMPLE 1	
2	W1168557	Scripps Ranch High	26-APR-2017	0557		SAMPLE 2	
3	W1168558	Scripps Ranch High	26-APR-2017	0601		SAMPLE 3	
4	W1168559	Scripps Ranch High	26-APR-2017	0607		SAMPLE 4	
5	W1168560	Scripps Ranch High	26-APR-2017	0611		SAMPLE 5	

2043

Chain of Custody:

Relinquished by: Name: M. Nelson Sign:	Received by: Name: Tom Burger Sign: Tom Burger	Date & Time: 4/26/17 0700 Location: ALV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TMaley
Received Date: 4/26/17
LIMS Received Time: 0729
Reviewed By: SM 4/26

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: San Diego Cooperative Charter School 2

Physical Address: 3510 newton Ave

First Bell:

Meeting Date: 2-21-17

Tom B Burger
Signature & Date Water System

J D Baker 2/21/2017
Signature & Date School Representative

Tom B. Burger
Print Name

John D. Baker
Print Name

Sampling Plan Completion Date: 3/2/17

Completed by: DANIEL LOPEZ

Signature: Daniel Lopez

School Sampling Contact:

Name: Dan Lopez

Phone: 619-306-3383

Email: DLOPEZ@Sandi.net

Send completed sampling plan to:
A MS word document is preferred in addition to a scanned signed page.

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

Sample Locations acknowledgement

Emerson/Bandini (K-6) - 3510 Newton Ave. (92113)

SDCOOP # 2

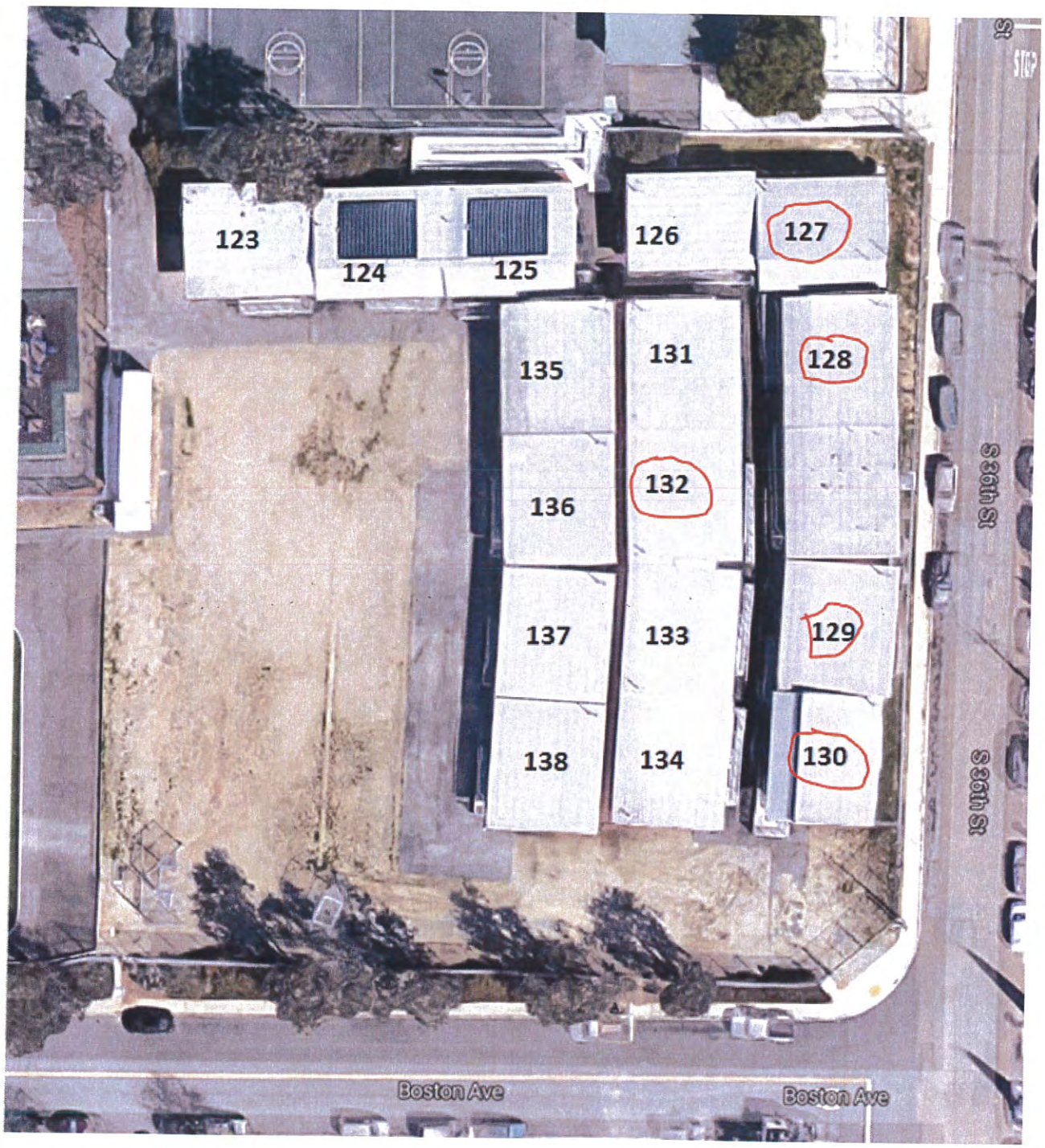

Sample No. 1

School: San Diego Coop 2

Name of Building: 127

Location Description: Room 127

Type of Outlet bubbler in sink

Description only sink in Room

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample I.D.: 3710020-003-1

LIMS Sample ID: W1158855

Date & Time Last Used: 3-6-17 1400

Date Sample Collected: ~~B~~ TB 3-7-17

Time Sample Collected: 0636

Name of Water System Sample Collector Tom Burger TMB

Sample No. 2

School: San Diego Coop 2

Name of Building: 128

Location Description: Room 128

Type of Outlet bubbler

Description bubbler at sink only sink in room

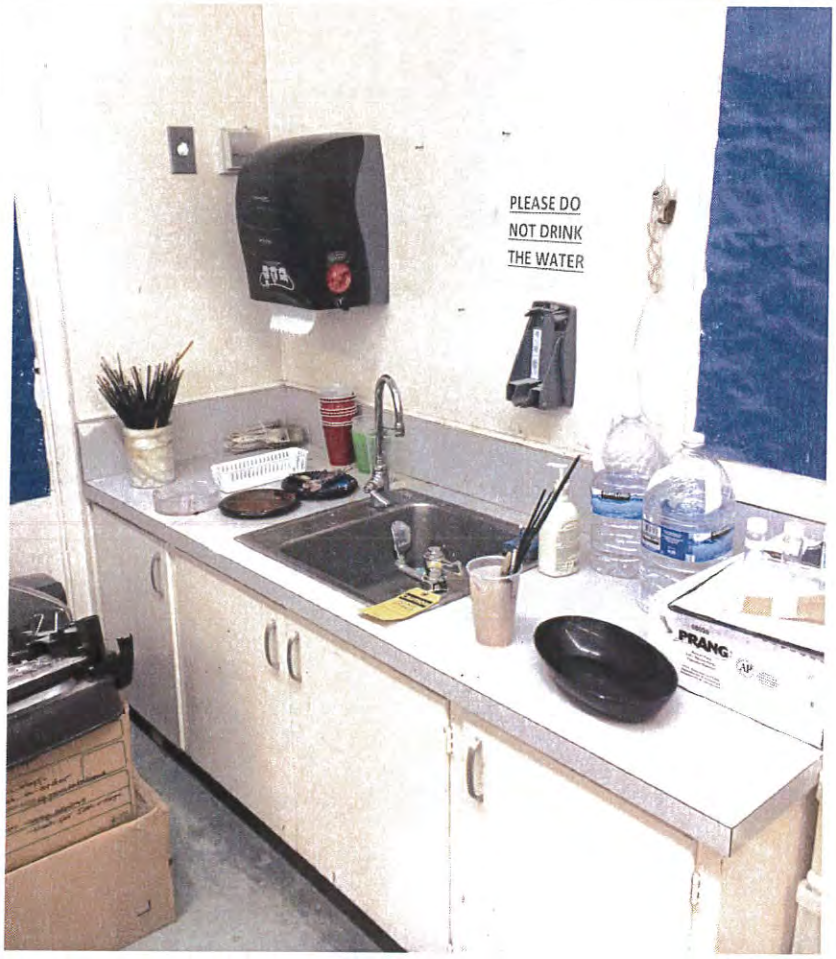

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample I.D.: 3710020-003-2

LIMS Sample ID: W1158856

Date & Time Last Used: 3-6-17 1400

Date Sample Collected: 3-7-17

Time Sample Collected: 0641

Name of Water System Sample Collector Tom Burger

Sample No. ~~4~~ 3 TBurger

School: San Diego Coop 2

Name of Building: Room 132

Location Description: Room 132

Type of Outlet bubbler

Description bubbler at sink only sink in room

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample I.D.: 3710020-003-3

LIMS Sample ID: W1158857

Date & Time Last Used: 3-6-17 1400-1600

Date Sample Collected: 3-7-17

Time Sample Collected: 0630

Name of Water System Sample Collector Tom Burger

Sample No. ~~3~~ 4 TBurger

School: San Diego Coop 2

Name of Building: Room 129

Location Description: Room 129

Type of Outlet bubbler

Description bubbler at sink only sink in room

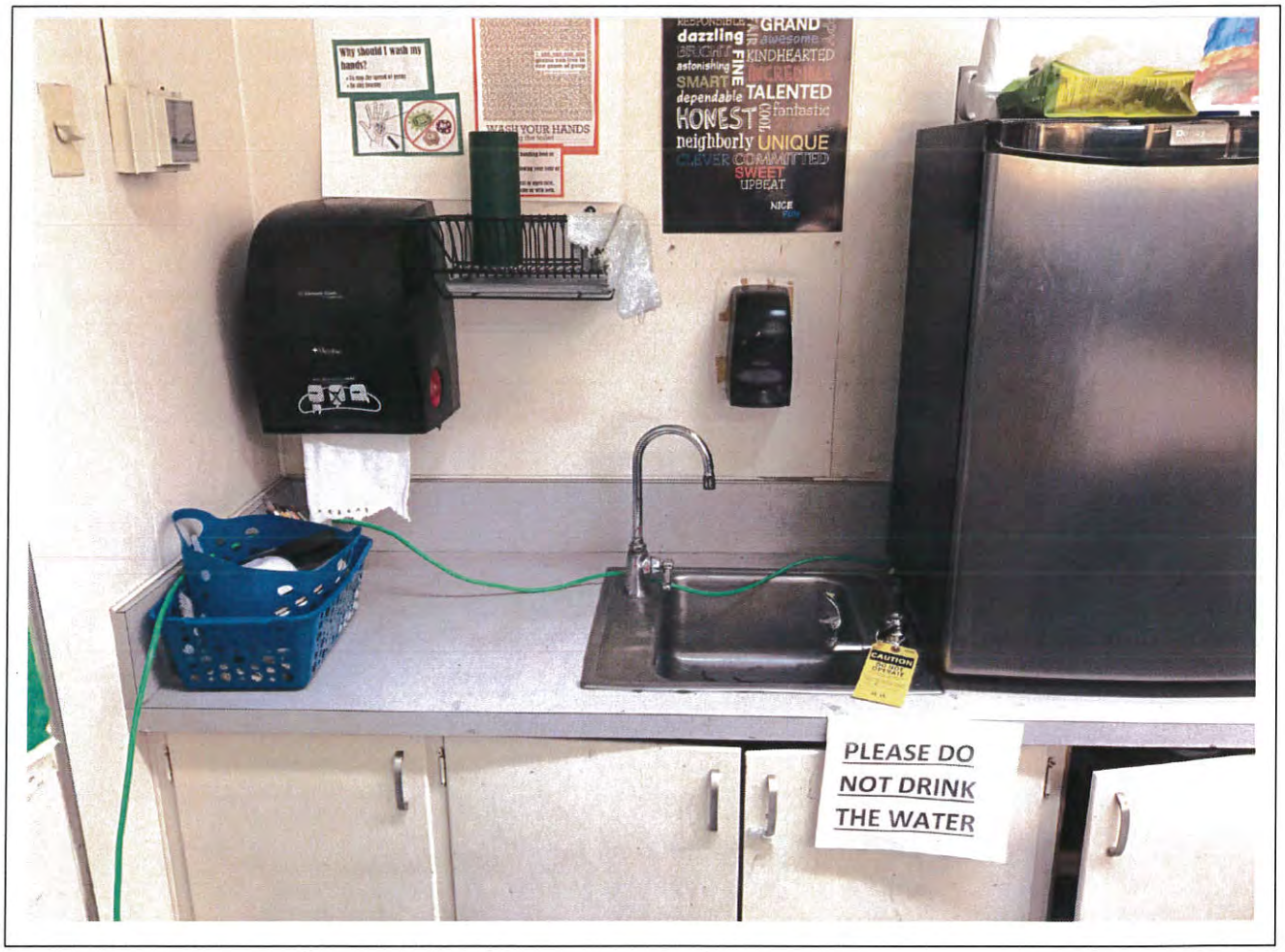

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample I.D.: 3710020-003-4

LIMS Sample ID: W1158858

Date & Time Last Used: 3-6-17 1400 - 1600

Date Sample Collected: 3-7-17

Time Sample Collected: 0625

Name of Water System Sample Collector Tom Burger TMB

Sample No. 5

School: San Diego Coop 2

Name of Building: Room 130

Location Description: Room 130

Type of Outlet bubbler

Description bubbler at sink only sink in room

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample I.D.: 3710020-003-5

LIMS Sample ID: W1158859

Date & Time Last Used: 3-6-17 1400-1600

Date Sample Collected: 3-7-17

Time Sample Collected: 0619

Name of Water System Sample Collector Tom Burger TMB

San Diego Water Quality Laboratory

LEAD_SCHOOL For 07-MAR-2017

No.	Sample ID	#	Description	Source	Sample Time	Sampler	Comments
1	W1158855	1	ICPMS-LEAD	PB_SCHOOL	0636	TMB	RM 127
2	W1158856	1	ICPMS-LEAD	PB_SCHOOL	0641	TMB	Rm 128
3	W1158857	1	ICPMS-LEAD	PB_SCHOOL	0630	TMB	Rm 132
4	W1158858	1	ICPMS-LEAD	PB_SCHOOL	0625	TMB	Rm 129
5	W1158859	1	ICPMS-LEAD	PB_SCHOOL	0619	TMB	Rm 130
6	W1159031		LEAD	PB_SCHOOL	0602	TMB	Cafeteria

Order of Pics

130
129

Relinquished by: Tom B. Burger
Signiture: Tom Burger
Date/Time 3-7-17 0810

Received by: Alejandra Molloy
Signiture: A Molloy
Date/TIME: 3/7/17 @ 0812

NOTES:

Received By:
Received Date:
Received Time:
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: San Diego Cooperative Charter School 2

Physical Address: 3510 newton Ave

First Bell: _____

Meeting Date: 2-21-17

_____ _____

Signature & Date Water System Signature & Date School Representative

_____ _____

Print Name Print Name

Sampling Plan Completion Date: _____

Completed by: _____

Signature: _____

School Sampling Contact:

Name: _____

Phone: _____

Email: _____

Resample
Tim Burger

Send completed sampling plan to:
A MS word document is preferred in addition to a scanned signed page.

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

Sample Locations acknowledgement

Emerson/Bandini (K-6) - 3510 Newton Ave. (92113)

SDCOOP # 2

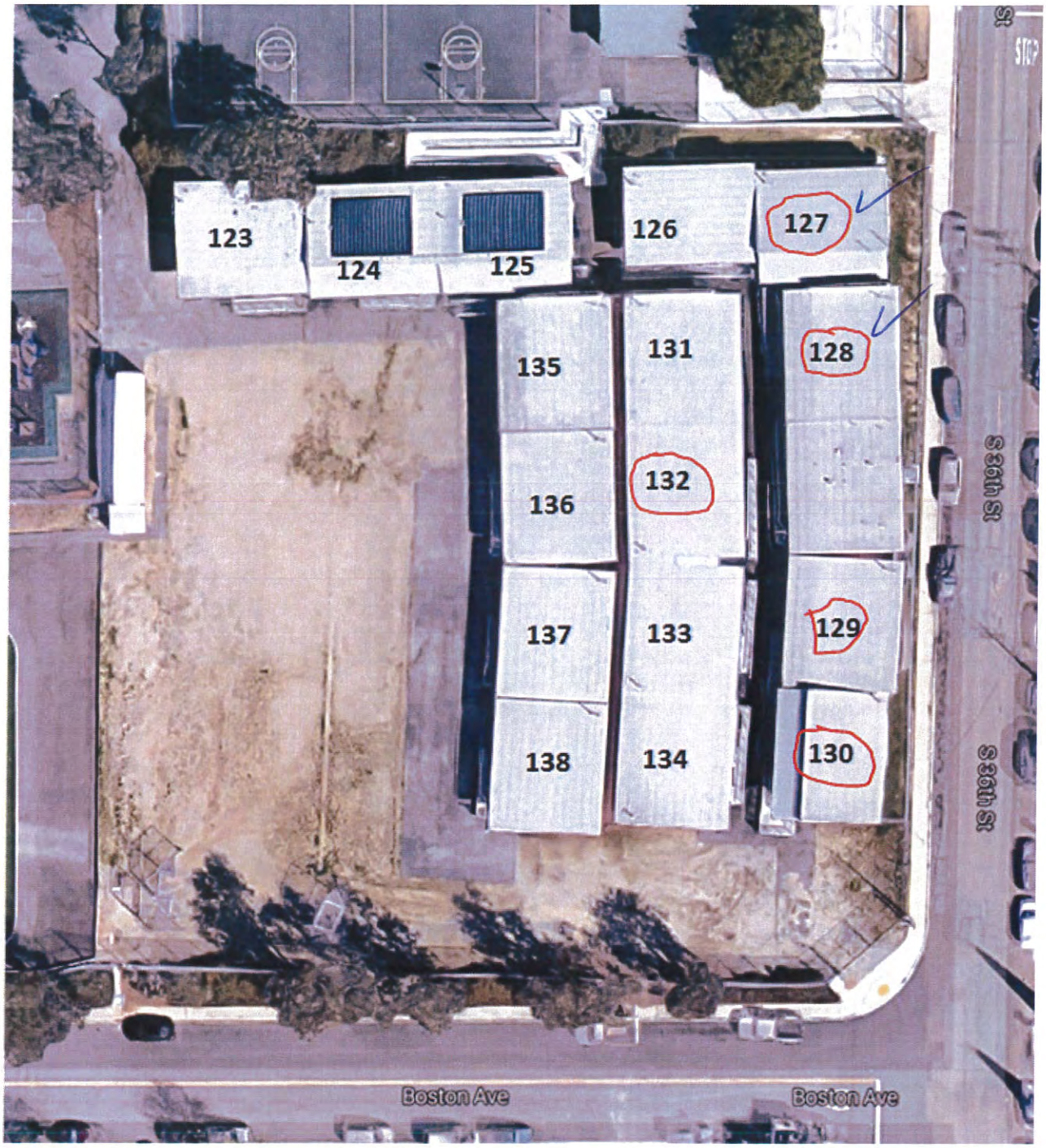

Sample No. 1

School: San Diego Coop 2

Name of Building:

Location Description: Room 127

Type of Outlet bubbler in sink

Description

City use only below this line

Sample type Initial ☐ 1st Follow-up ☑ 2nd Follow-up ☐ Post-corrective action ☑

State Sample I.D.: W1164296

LIMS Sample ID: 3710020-AAC-A

Date & Time Last Used: 4-4-17 1800-2200

Date Sample Collected: 4-5-17 CC-31

Time Sample Collected:

Name of Water System Sample Collector Tom Bergen

Sample No. 2

School: San Diego Coop 2

Name of Building:

Location Description: Room 128

Type of Outlet

Description bubbler at sink

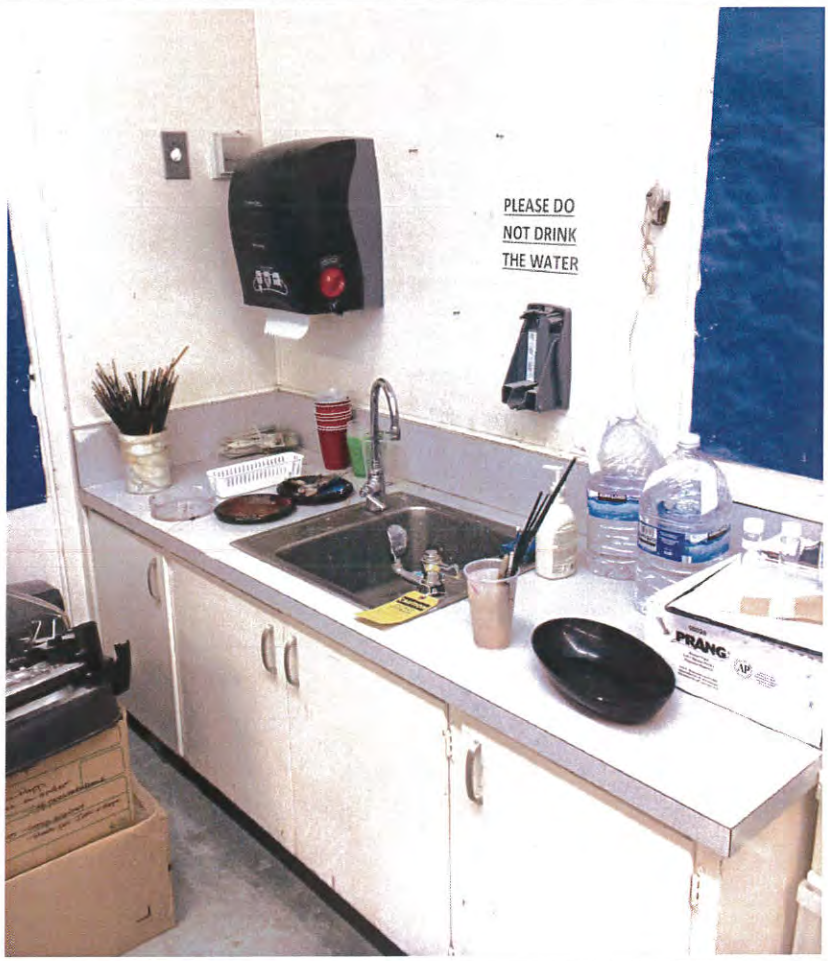

City use only below this line

Sample type Initial ☐ 1st Follow-up ☑ 2nd Follow-up ☐ Post-corrective action ☑

State Sample I.D.: 3710020-AAD-B

LIMS Sample ID: W1164295

Date & Time Last Used: 4-4-17 1800-2200 TB

Date Sample Collected: 4-5-17 0634

Time Sample Collected:

Name of Water System Sample Collector TBurger

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

04-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1164295	SDUSD SD COOP CHARTER #2 #128	05-APR-2017	0634	TMB		
2	W1164296	SDUSD SD COOP CHARTER #2 #127	05-APR-2017	0631	TMB		

2056

Chain of Custody:

Relinquished by: Name: Tom Burger Sign: Tom B Burger	Received by: Name: Keith Buehrwein Sign:	Date & Time: 4-5-17 0820 Location: WQL office	**Comments:** 1st follow up sample
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: KR
Received Date: 4/5/17
LIMS Received Time: 0826
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: San Diego Cooperative North Charter School Mountain View (North)

Physical Address of School: 3550 Logan Ave. San Diego CA 92113

First Bell: 8:30 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 4-7-2017

Completed by Print Name: Sergio Salinas

Signature: _____ Date: _____

School's Point of Contact for Sampling Assistance

Name: Sergio Salinas

Phone: (619) 302-0564

Email: ssalinas@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-7-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: SDCCS-Mountain View North -Elementary -3550 Logan Ave. San Diego CA 92113

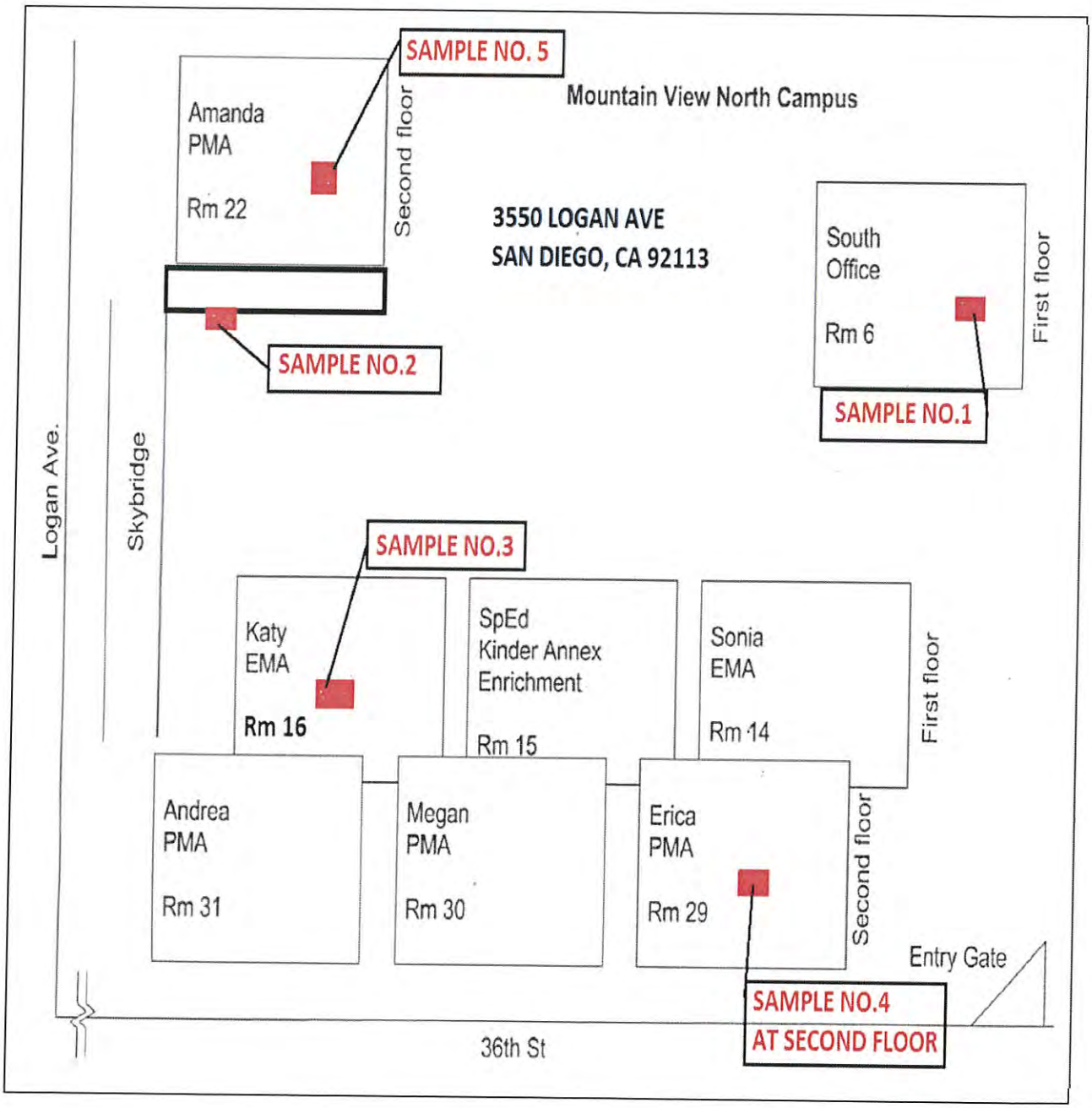

Sample No. 1

School: SDCCS-2Mountain View North -Elementary -3550 Logan Ave. San Diego CA 92113

Name of Building: South Side Office

Location Description: Inside South side Office

Type of Outlet: Bubbler

Description: Bubbler at sink

Comments/Miscellaneous: (School ID NO.15)

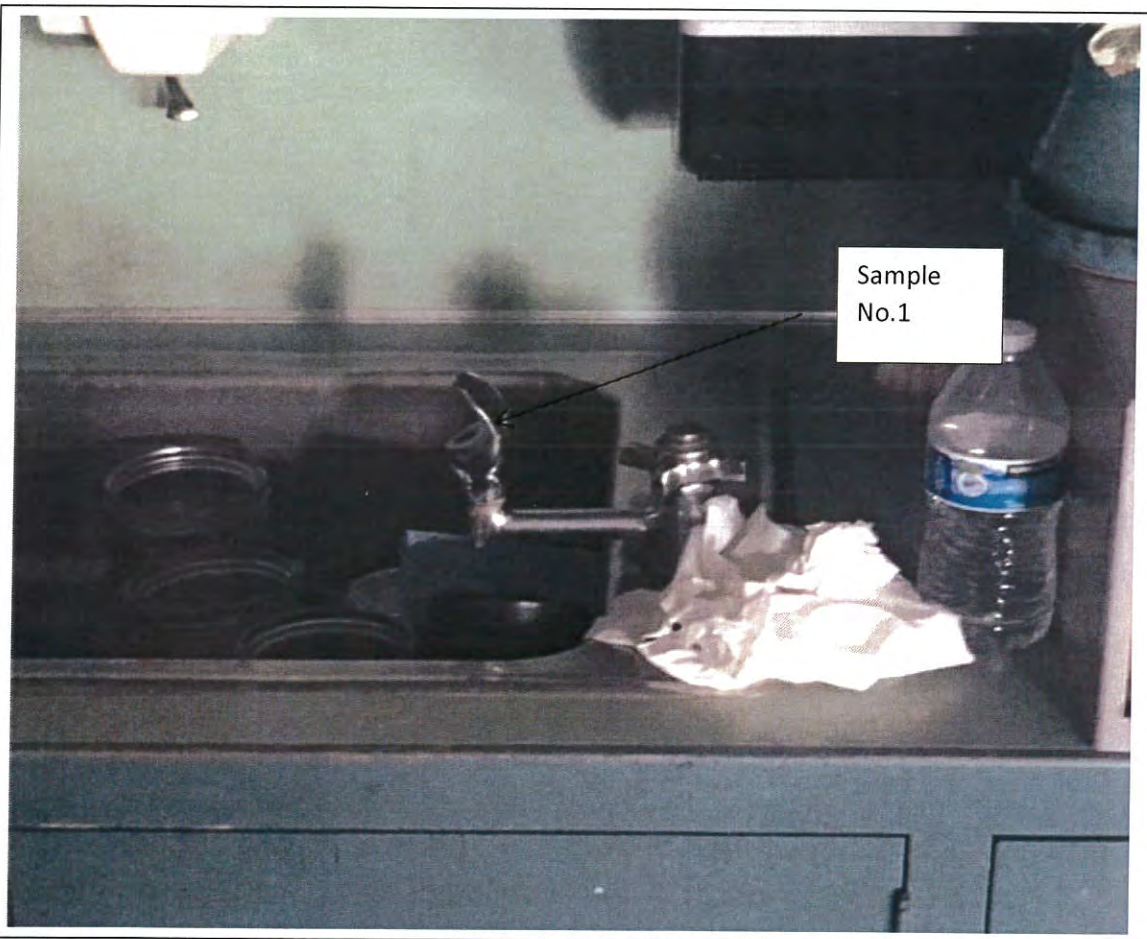

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165270

State Sample ID: not available at time of sampling

Date & Time Last Used: 040717 @ 1800

Date & Time Sample Collected: 040817 @ 0615 / LOW FLOW

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: J-W

Sample No. 2

School: SDCCS-2Mountain View North -Elementary -3550 Logan Ave. San Diego CA 92113

Name of Building: Behind building 22- underneath the stairs

Location Description: Behind building 22- underneath the stairs

Type of Outlet: Right Bubbler

Description: Right Bubbler

Comments/Miscellaneous: (School ID NO.15)

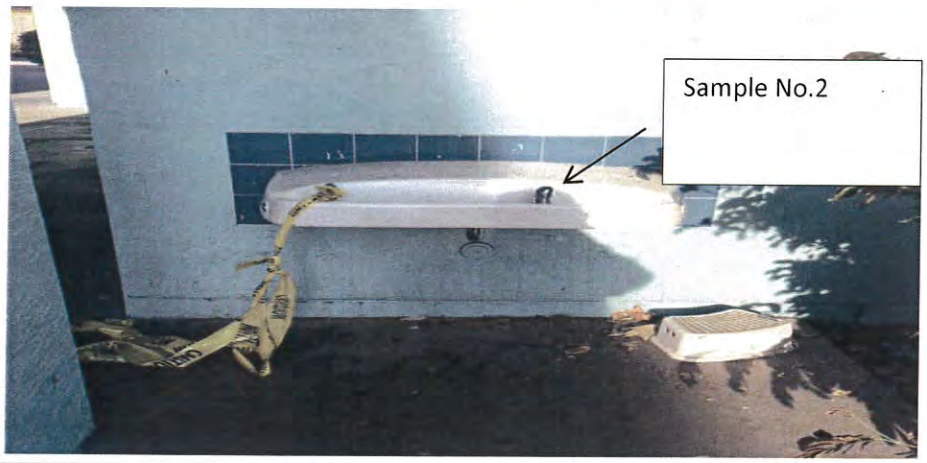

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165271

State Sample ID: not available at time of sampling

Date & Time Last Used: 040717 @ 1800

Date & Time Sample Collected: 040817 @ 0640

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector:

Sample No. 3

School: SDCCS-2Mountain View North -Elementary -3550 Logan Ave. San Diego CA 92113

Name of Building Room 16

Location Description: Inside Room 16

Type of Outlet: Bubbler

Description: Bubbler at sink

Comments/Miscellaneous: (School ID NO.15)

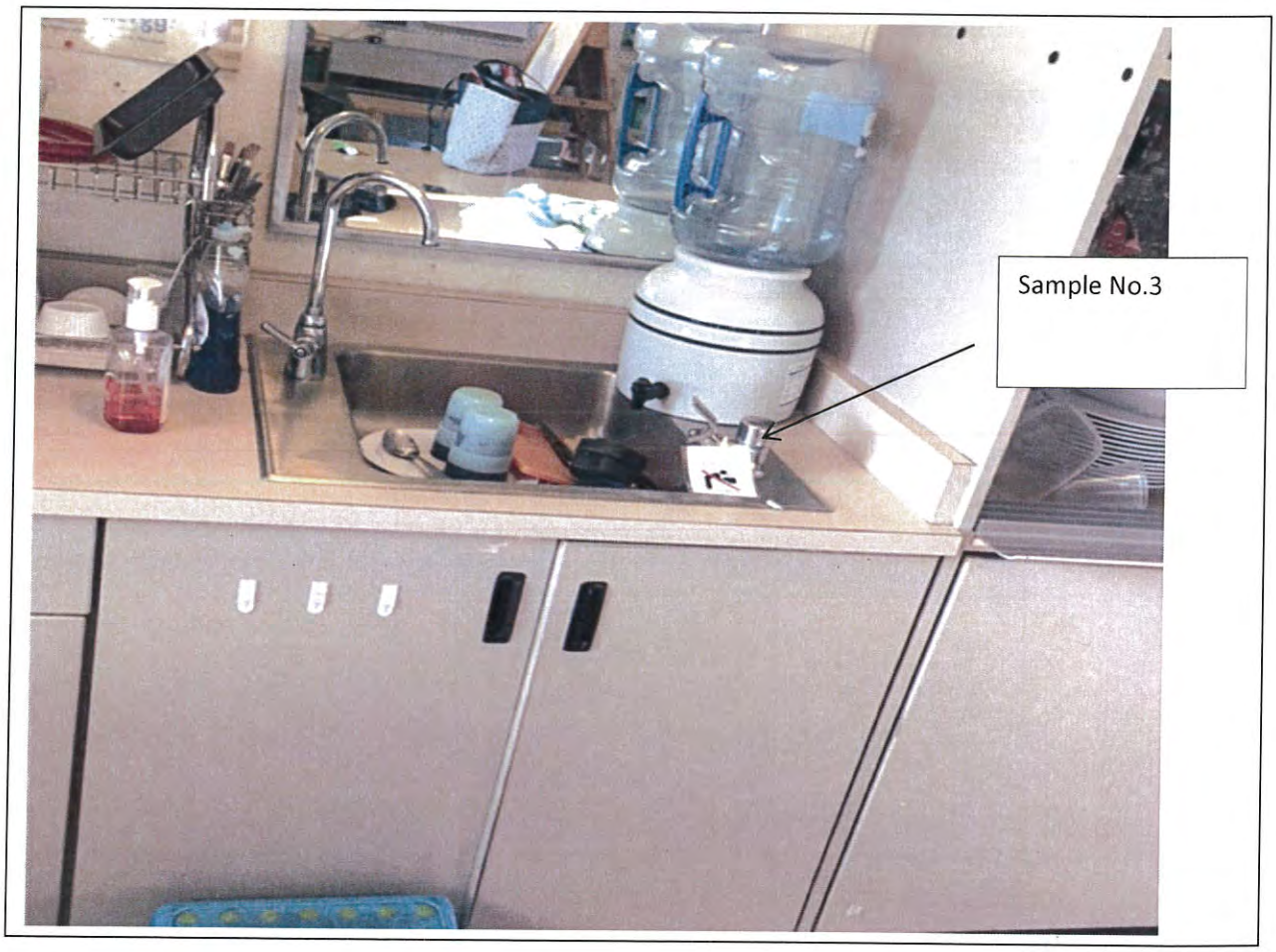

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165272

State Sample ID: not available at time of sampling

Date & Time Last Used: 040717 @ 1800

Date & Time Sample Collected: 040817 @ 0625

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector:

Sample No. 4

School: SDCCS-2Mountain View North -Elementary -3550 Logan Ave. San Diego CA 92113

Name of Building: Room # 29

Location Description: Inside room # 29 (second floor)

Type of Outlet: Bubbler

Description: Bubbler at sink

Comments/Miscellaneous: (School ID NO.15)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165273

State Sample ID: not available at time of sampling

Date & Time Last Used: 040717 @ 1800

Date & Time Sample Collected: 040817 @ 0630

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector:

Sample No. 5

School: SDCCS-2Mountain View North -Elementary -3550 Logan Ave. San Diego CA 92113

Name of Building: Room # 22

Location Description: Inside room # 22 (second floor)

Type of Outlet: Bubbler

Description: Bubbler at sink

Comments/Miscellaneous: (School ID NO.15)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165274

State Sample ID: not available at time of sampling

Date & Time Last Used: 040717 @ 1800

Date & Time Sample Collected: 040817 @ 0635

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector:

Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 4/18/17

San Diego Unified School District

San Diego CO-OP#2 North

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1165270	04/08/17	06:15 AM	SAMPLE 1	3710020-AHA-A	< 5	ug/L
W1165271	04/08/17	06:40 AM	SAMPLE 2	3710020-AHA-B	< 5	ug/L
W1165272	04/08/17	06:25 AM	SAMPLE 3	3710020-AHA-C	< 5	ug/L
W1165273	04/08/17	06:30 AM	SAMPLE 4	3710020-AHA-D	< 5	ug/L
W1165274	04/08/17	06:35 AM	SAMPLE 5	3710020-AHA-E	< 5	ug/L

Source	Source Description
SAMPLE 1	South side office, in office, bubbler at sink
SAMPLE 2	Back of Bldg 22, under stairs, right bubbler
SAMPLE 3	Room 16, inside, bubbler at sink
SAMPLE 4	Room 29, inside, bubbler at sink
SAMPLE 5	Room 22, inside, bubbler at sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger

Tom Burger, Associate Chemist

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

07-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	~~Analysis Requested~~
1	W1165270	SD COOP North	08-APR-2017	0615	J Weston	SAMPLE 1	low flow
2	W1165271	SD COOP North	08-APR-2017	0640		SAMPLE 2	
3	W1165272	SD COOP North	08-APR-2017	0625		SAMPLE 3	
4	W1165273	SD COOP North	08-APR-2017	0630		SAMPLE 4	
5	W1165274	SD COOP North	08-APR-2017	0635		SAMPLE 5	

2065

Chain of Custody:

Relinquished by:	Received by:	Date & Time:	Comments:
Name: JERRY WESTON Sign: J-W	Name: Tom Burger Sign: Tom B. Burger	4-8-17 1033 Location: ALV LAB	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 4-8-17
LIMS Received Time: 1135
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: San Diego Cooperative Charter

Physical Address of School: 7260 Linda Vista Rd., San Diego, CA 92111-6128

First Bell: 8:00 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 4-28-2017

Completed by Print Name: Cesar Jimenez

Signature: C.J. Date: 4-28-2017

School's Point of Contact for Sampling Assistance

Name: Cesar Jimenez

Phone: 619-261-1588

Email: cjimenez2@sandi.net

City of San Diego 3710020

Approved By: 5/8/17 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: San Diego Cooperative Charter - 7260 Linda Vista Rd., San Diego, CA 92111-6128

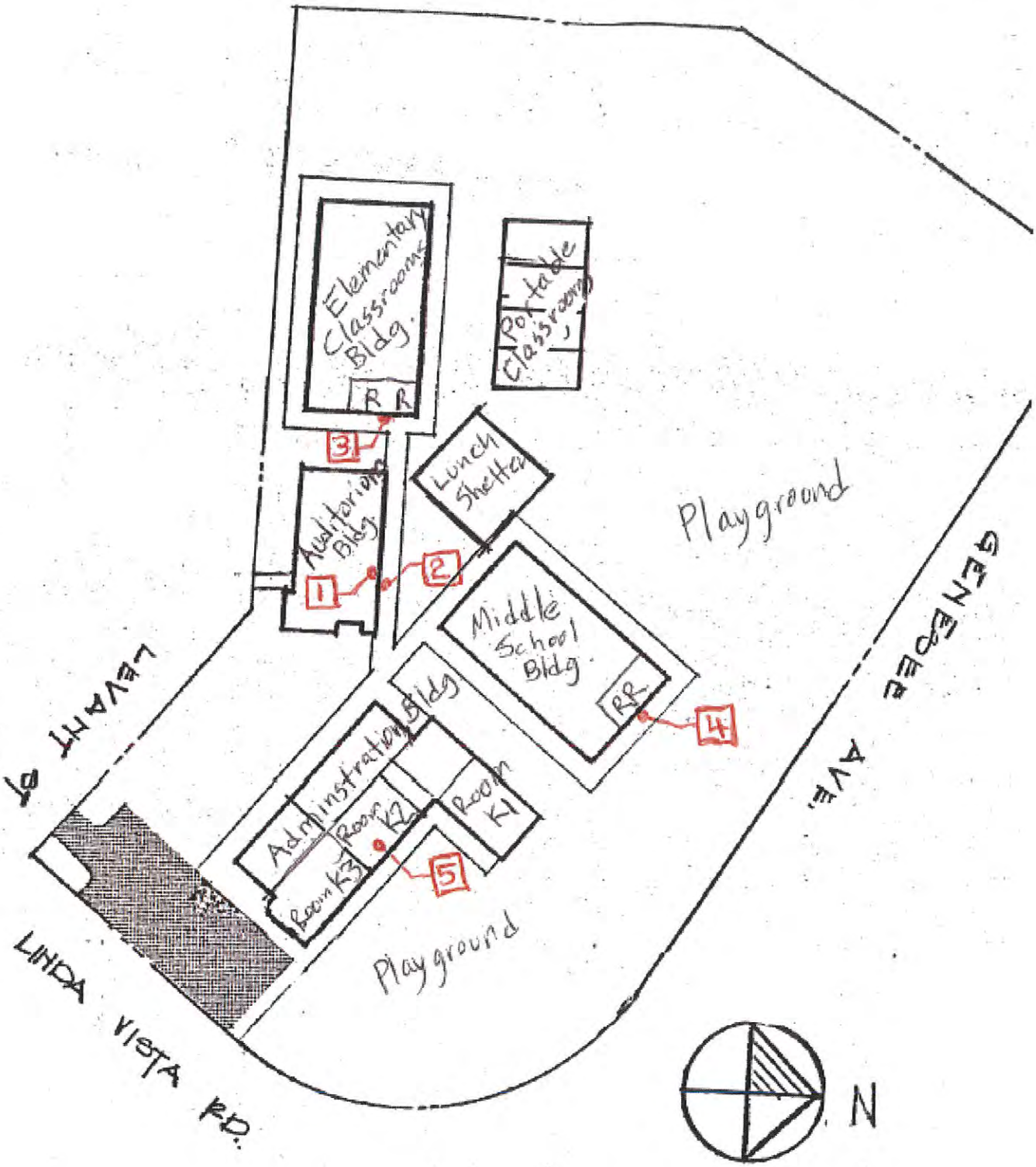

Sample No. 1

School: San Diego Cooperative Charter

Name of Building: Auditorium Bldg.

Location Description: Interior North wall

Type of Outlet: Bubbler

Description: Right/ upper bubbler on a double fountain

Comments/Miscellaneous: SDUSD ID code #: 019-01

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171645

State Sample ID: 3710020-BGE-A

Date & Time Last Used: 2200 5-8-17

Date & Time Sample Collected: 0607 ~~2200~~ 5-9-17

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: Tom Burger

Sample No. 2

School: San Diego Cooperative Charter

Name of Building: Auditorium Bldg.

Location Description: Exterior North wall

Type of Outlet: Bubbler

Description: Bubbler on a single fountain

Comments/Miscellaneous: SDUSD ID code #: 019-02

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171646

State Sample ID: 3710020-BGE-B

Date & Time Last Used: 2200 5-8-17

Date & Time Sample Collected: 0610 5-9-17

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: Tom Burger

Sample No. 3

School: San Diego Cooperative Charter

Name of Building: Elementary Classrooms Bldg.

Location Description: Exterior East wall, adjacent to restrooms

Type of Outlet: Bubbler

Description: Left Bubbler on a double fountain

Comments/Miscellaneous: SDUSD ID code #: 019-03

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171647

State Sample ID: 3710020-BGE-C

Date & Time Last Used: 2200 5-8-17

Date & Time Sample Collected: 0613 5-9-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T. Burger

Sample No. 4

School: San Diego Cooperative Charter

Name of Building: Middle School Bldg.

Location Description: Exterior North wall, adjacent to restrooms, facing Genesee Ave.

Type of Outlet: Bubbler

Description: Left bubbler on the double fountain.

Comments/Miscellaneous: SDUSD ID code #: 019-04

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171648

State Sample ID: 3710020-BGE-D

Date & Time Last Used:

Date & Time Sample Collected: 06/7 5-9-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T. Burger ~~06~~

~~TA~~ taken off. on ground

Sample No. 5

School: San Diego Cooperative Charter

Name of Building: Administration Bldg.

Location Description: East wall inside room K-2

Type of Outlet: Bubbler

Description: Bubbler on a single sink with faucet

Comments/Miscellaneous: SDUSD ID code #: 019-05

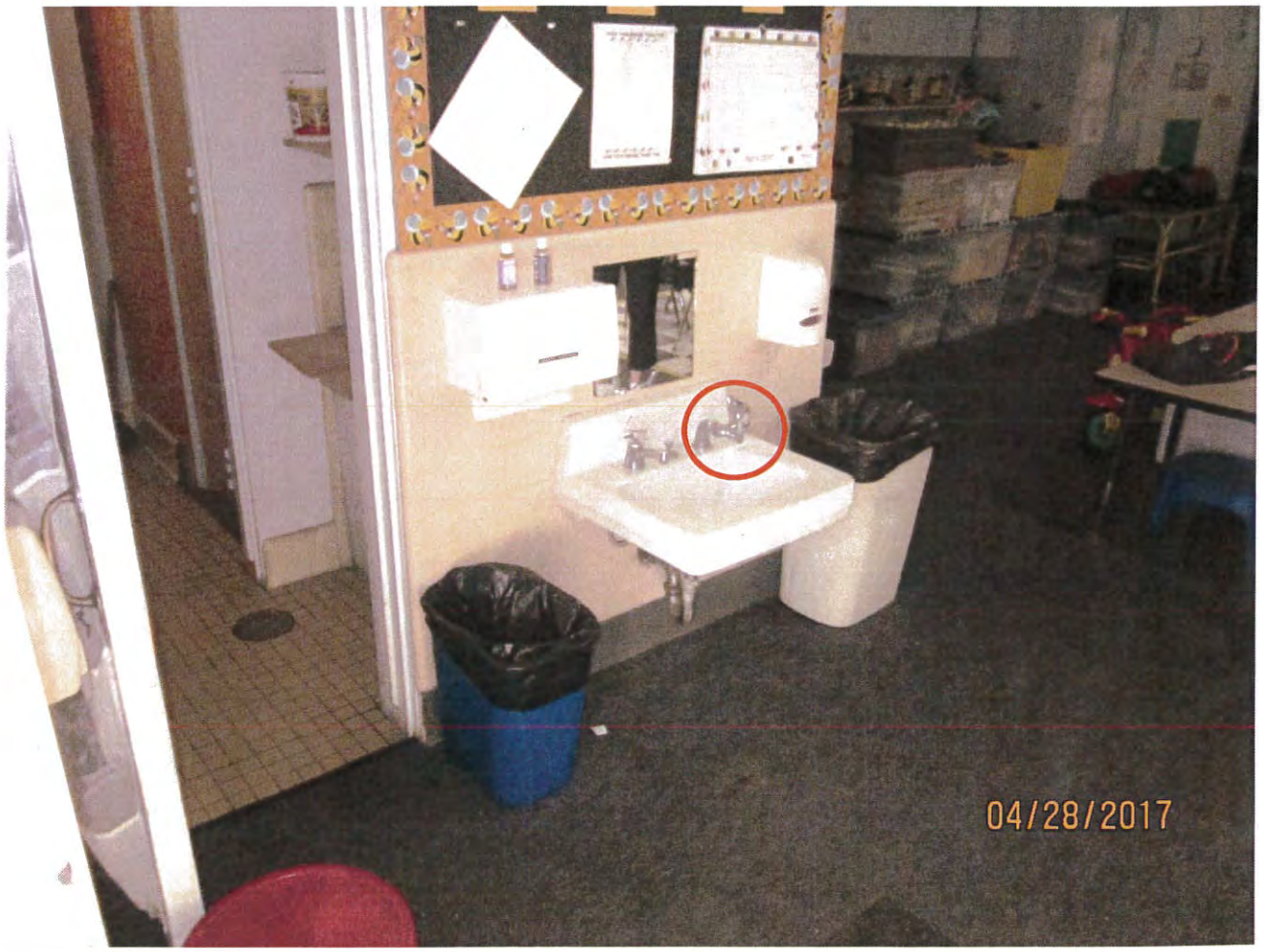

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171649

State Sample ID: 3710020-BGE-E

Date & Time Last Used: 2200 5-8-17

Date & Time Sample Collected: 0622 5-9-17

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: T Barger

Low pressure Sample running down fixture

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

08-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1171645	San Diego Cooperative Charter	09-MAY-2017	0607 ✓		SAMPLE 1	
2	W1171646	San Diego Cooperative Charter	09-MAY-2017	0610 ✓		SAMPLE 2	
3	W1171647	San Diego Cooperative Charter	09-MAY-2017	0613 ✓		SAMPLE 3	
4	W1171648	San Diego Cooperative Charter	09-MAY-2017	0617		SAMPLE 4	
5	W1171649	San Diego Cooperative Charter	09-MAY-2017	0622		SAMPLE 5	

2073

Chain of Custody:

Relinquished by: Name: Tom Burger Sign:	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 5-9-17 0720 Location: ALV LAB	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/09/17
LIMS Received Time: 0725
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: **San Diego French–American School**

Physical Address of School: 6550 Soledad Mountain Rd, La Jolla, CA 92037

First Bell: 8:00 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 5-19-2017

Completed by Print Name: Cesar Jimenez

Signature: C.J. Date: 5-19-2017

School's Point of Contact for Sampling Assistance

Name: Cesar Jimenez

Phone: 619-261-1588

Email: cjimenez2@sandi.net

City of San Diego 3710020

Approved By: 5/23/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: San Diego French–American School, 6550 Soledad Mountain Rd, La Jolla, CA 92037

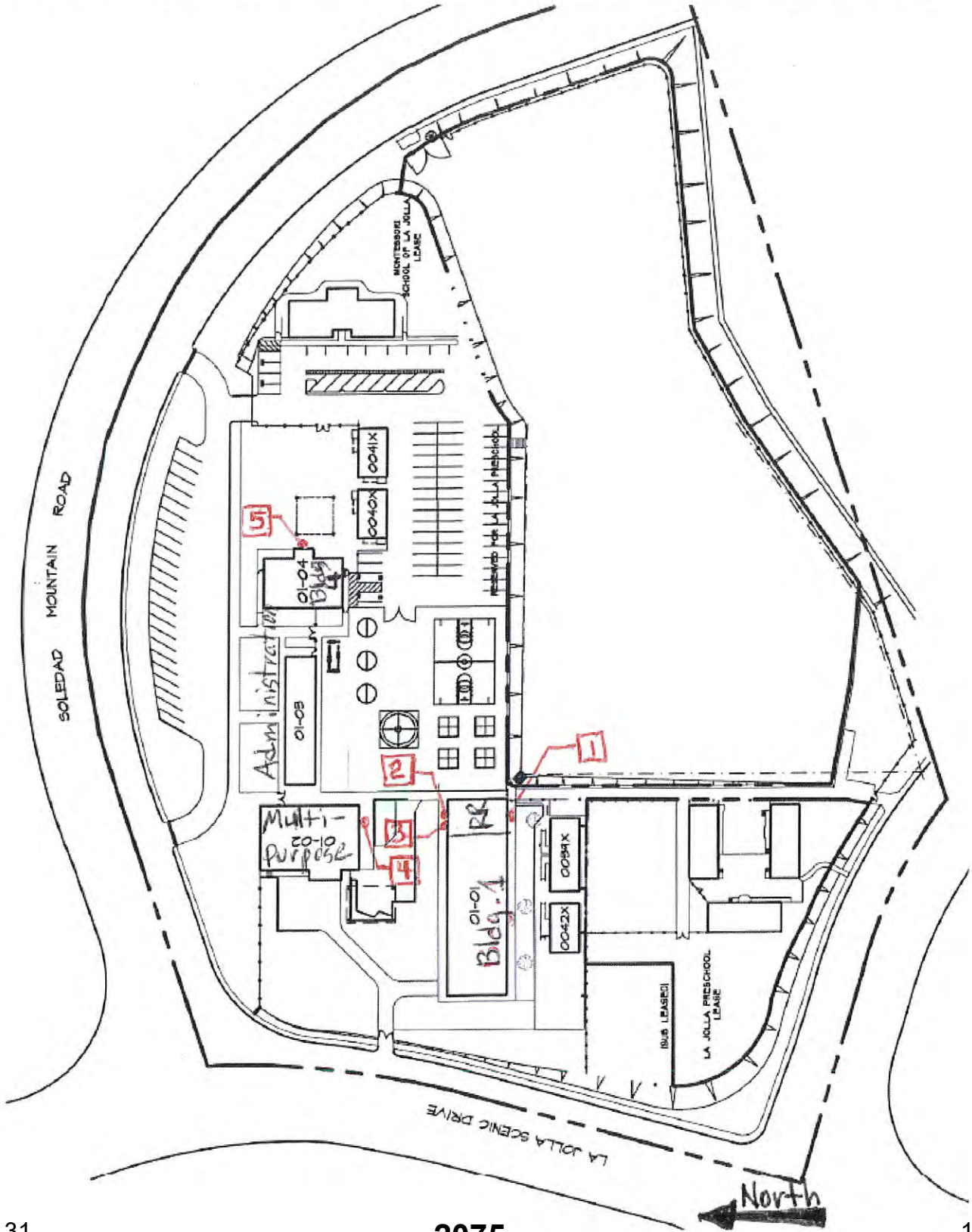

Sample No. 1

School: San Diego French–American School

Name of Building: Bldg. 1

Location Description: Exterior South wall, adjacent to restrooms.

Type of Outlet: Bubbler

Description: Right /Lower Bubbler on a double fountain filtered and refrigerated.

Comments/Miscellaneous:

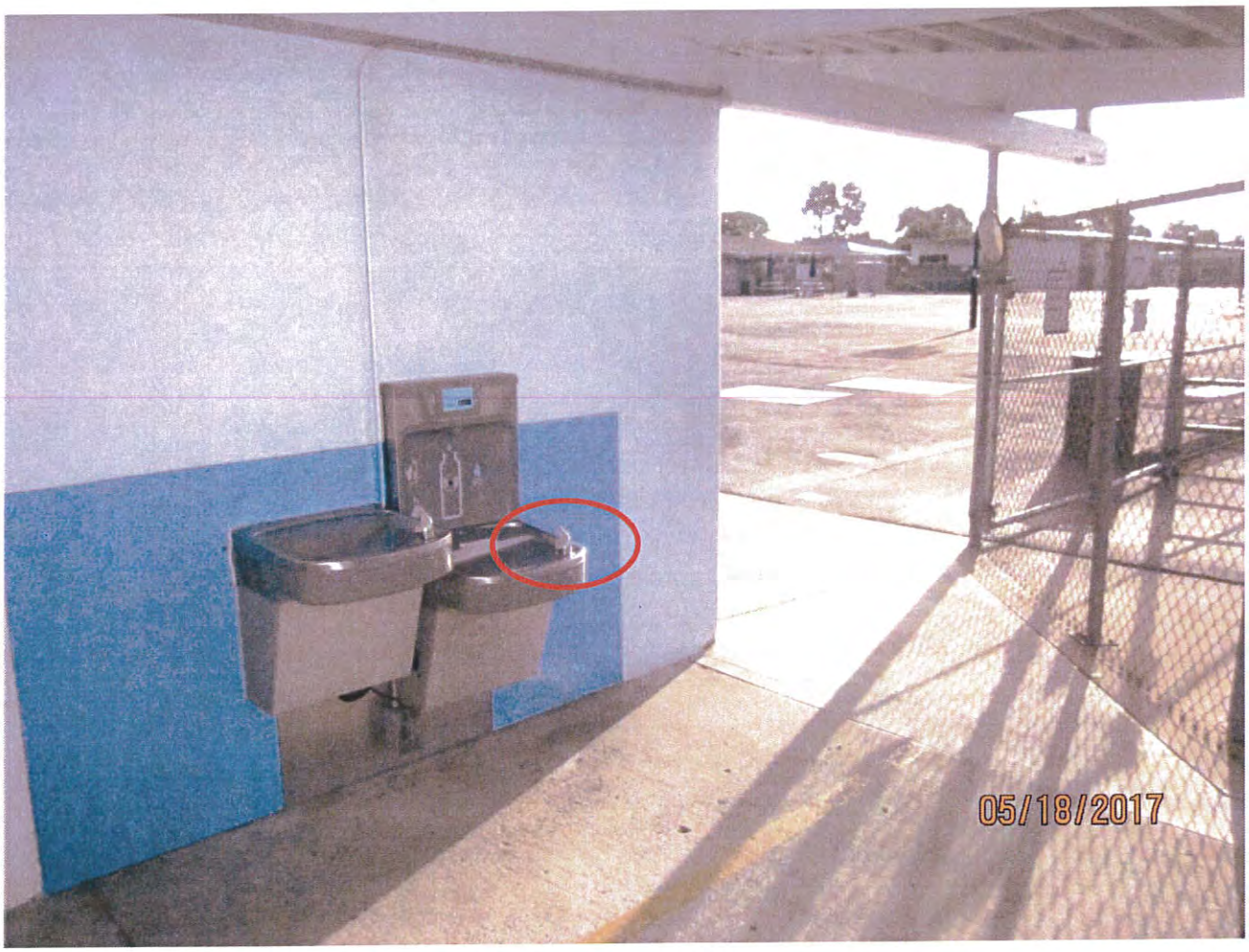

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174503

State Sample ID: 3710020-CBD-A

Date & Time Last Used: 5/25/17 between 6-10pm

Date & Time Sample Collected: 5/26/17 @ 0615

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

Sample No. 2

School: San Diego French–American School

Name of Building: Bldg. 1

Location Description: Exterior North wall, adjacent to restrooms.

Type of Outlet: Bubbler

Description: Left /Higher Bubbler on a double fountain filtered and refrigerated

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174504

State Sample ID: 3710020-CBD-B

Date & Time Last Used: 5/25/17 between 6-10pm

Date & Time Sample Collected: 5/26/17 @ 0617

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rauhe

Sample No. 3

School: San Diego French–American School

Name of Building: Bldg. 1

Location Description: Exterior North wall, adjacent to restrooms.

Type of Outlet: Bubbler

Description: Right /Lower Bubbler on a double fountain filtered and refrigerated.

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174505

State Sample ID: 3710020-CBD-C

Date & Time Last Used: 5/25/17 between 6-10pm

Date & Time Sample Collected: 5/26/17 @ 0619

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

Sample No. 4

School: San Diego French–American School

Name of Building: Multi-purpose

Location Description: Exterior South wall

Type of Outlet: Bubbler

Description: Right /Lower Bubbler on a double fountain filtered and refrigerated.

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174506

State Sample ID: 3710020-CBD-D

Date & Time Last Used: 5/25/17 between 6-10pm

Date & Time Sample Collected: 5/26/17 @ 0621

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rule

Sample No. 5

School: San Diego French–American School

Name of Building: Bldg. 4

Location Description: Exterior East wall

Type of Outlet: Bubbler

Description: Right /Lower Bubbler on a double fountain filtered and refrigerated.

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174507

State Sample ID: 3710020-CBD-E

Date & Time Last Used: 5/25/17 between 6-10pm

Date & Time Sample Collected: 5/26/17 @ 0625

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rabo

Exhibit 3A

Water Quality Chemistry Services
Chain of Custody Form

23-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1174503	San Diego French-American Scho	26-MAY-2017	0615	JR	SAMPLE 1	
2	W1174504	San Diego French-American Scho	26-MAY-2017	0617	JR	SAMPLE 2	
3	W1174505	San Diego French-American Scho	26-MAY-2017	0619	JR	SAMPLE 3	
4	W1174506	San Diego French-American Scho	26-MAY-2017	0621	JR	SAMPLE 4	
5	W1174507	San Diego French-American Scho	26-MAY-2017	0625	JR	SAMPLE 5	

2081

Chain of Custody:

Relinquished by: Name: Joshua Rambo Sign:	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 5/26/17 @ 0700 Location: ALV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/26/17
LIMS Received Time: 0707
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: SD Global Vision Academy

Physical Address of School: 3430 School St., San Diego, CA 92116-3423

First Bell: 8:00 AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/07/2017

Completed by Print Name: Ginette Commins

Signature: G Commins Date: 04/072017

School's Point of Contact for Sampling Assistance

Name: ~~Ginette Commins~~ Cesa Jimenez

Phone: ~~(858) 627-7201~~ 619-261-1588

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-19-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: SD Global Vision Academy, 3430 School St., San Diego, CA 92116-3423

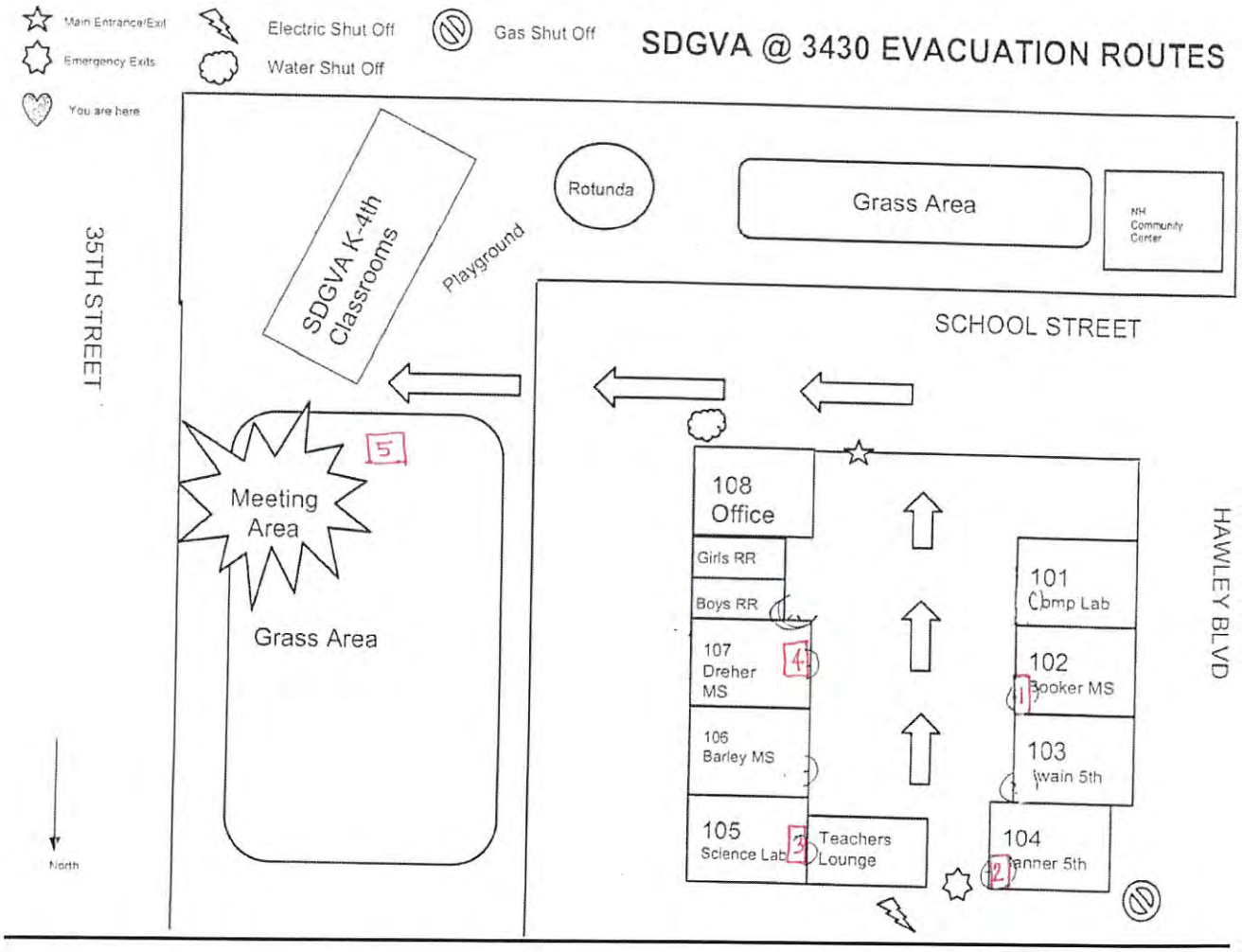

Sample No. 1

School: SD Global Vision

Name of Building:

Location Description: Room 102, classroom sink/faucet

Type of Outlet: bubbler

Description: bubbler with push button cap on a sink

Comments/Miscellaneous: indoor drinking water source/SDUSD Location Code #0318

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167446

State Sample ID: 3710020-AHF-A

Date & Time Last Used: 4/19/2017 @ 1700

Date & Time Sample Collected: 4/20/2017 @ 0559

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: SD Global Vision

Name of Building:

Location Description: Room 104, classroom sink/faucet

Type of Outlet: bubbler

Description: bubbler with push button cap on a sink

Comments/Miscellaneous: indoor drinking water source/SDUSD Location Code #0318

City use only below this line

Sample type Initial ☐ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167447

State Sample ID: 3710020-AHF-B

Date & Time Last Used: 4/19/2017 @ 1700

Date & Time Sample Collected: 4/20/17 @ 601

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: SD Global Vision

Name of Building:

Location Description: Room 105, classroom sink/faucet

Type of Outlet: bubbler

Description: bubbler with push button cap on a sink

Comments/Miscellaneous: indoor drinking water source/SDUSD Location Code #0318

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167448

State Sample ID: 3710020-AHF-C

Date & Time Last Used: 4/19/2017 @1700

Date & Time Sample Collected: 4/20/17 @0603

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: SD Global Vision

Name of Building:

Location Description: Room 107, classroom sink/faucet

Type of Outlet: bubbler

Description: bubbler with push button cap on a sink

Comments/Miscellaneous: indoor drinking water source/SDUSD Location Code #0318

City use only below this line

Sample type Initial ☐ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167449

State Sample ID: 3710020-AHF-D

Date & Time Last Used: 4/19/2017 @ 1700

Date & Time Sample Collected: 4/20/17 @ 0605

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 5

School: SD Global Vision

Name of Building:

Location Description: Grass area by 35th Street, floor mounted exterior

Type of Outlet: bubbler

Description: upper bubbler on a two-station fountain

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #0318

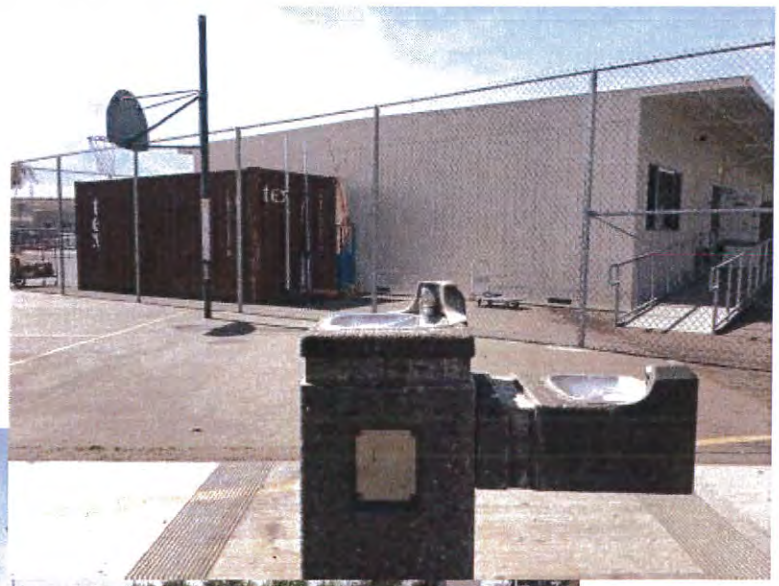

* It's public park
No secure way, no tags

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167450

State Sample ID: 3710020-AHF-E

Date & Time Last Used: Tags were taken off.

Date & Time Sample Collected: 4/20/2017 @ 0553

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: A. Molloy

Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel (619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 28-Apr-2017

San Diego Unified School District
San Diego Global Vision Academy

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1167446	4/20/2017	5:59 AM	SAMPLE 1	3710020-AHF-A	< 5	µg/L
W1167447	4/20/2017	6:01 AM	SAMPLE 2	3710020-AHF-B	< 5	µg/L
W1167448	4/20/2017	6:03 AM	SAMPLE 3	3710020-AHF-C	< 5	µg/L
W1167449	4/20/2017	6:05 AM	SAMPLE 4	3710020-AHF-D	< 5	µg/L
W1167450	4/20/2017	5:53 AM	SAMPLE 5	3710020-AHF-E	< 5	µg/L

Source	Source Description
SAMPLE 1	Room 102, bubbler at classroom sink/faucet with push button cap
SAMPLE 2	Room 104, bubbler at classroom sink/faucet with push button cap
SAMPLE 3	Room 105, bubbler at classroom sink/faucet with push button cap
SAMPLE 4	Room 107, bubbler at classroom sink/faucet with push button cap
SAMPLE 5	Exterior, near grass area by 35th Street, floor mounted cement stand with two single bubbler fountains, upper fountain

DRL=State Mandated Detection Limit for Reporting (DLR)= 5 µg/L
Action Level (AL) = 15 µg/L

Doug Campbell, Senior Chemist

Exhibit 21

Water Quality Chemistry Services
Chain of Custody Form

19-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1167446	San Diego Global	20-APR-2017	0559	A. Molloy	SAMPLE 1	
2	W1167447	San Diego Global	20-APR-2017	0601		SAMPLE 2	
3	W1167448	San Diego Global	20-APR-2017	0603		SAMPLE 3	
4	W1167449	San Diego Global	20-APR-2017	0605		SAMPLE 4	
5	W1167450	San Diego Global	20-APR-2017	0553		SAMPLE 5	Location was a public park. Tags taken off.

2090

Chain of Custody:

Relinquished by:	Received by:	Date & Time:	Comments:
Name: Alejandra Molloy Sign: A Molloy	Name: Tom Burger Sign: Tom B Burger	4/20/17 @ 0623 Location: WQL A/V	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 4-20-17
LIMS Received Time: 0801
Reviewed By: A Molloy 4/25/17

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: San Diego High School

Physical Address of School: 1405 Park Blvd, San Diego, CA 92101

First Bell: 7:30am

Meeting Date: 4/05/2017

Sampling Plan Completion Date: 4/13/2017

Completed by Print Name: Lori Sherman

Signature: *Lori Sherman* Date: 4/13/2017

School's Point of Contact for Sampling Assistance

Name: ~~Lori Sherman~~ Dan Lopez

Phone: ~~619-301-9086~~ 619-303-3383

Email: lsherman1@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-19-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: San Diego High School - 1405 Park Blvd, San Diego, CA 92101

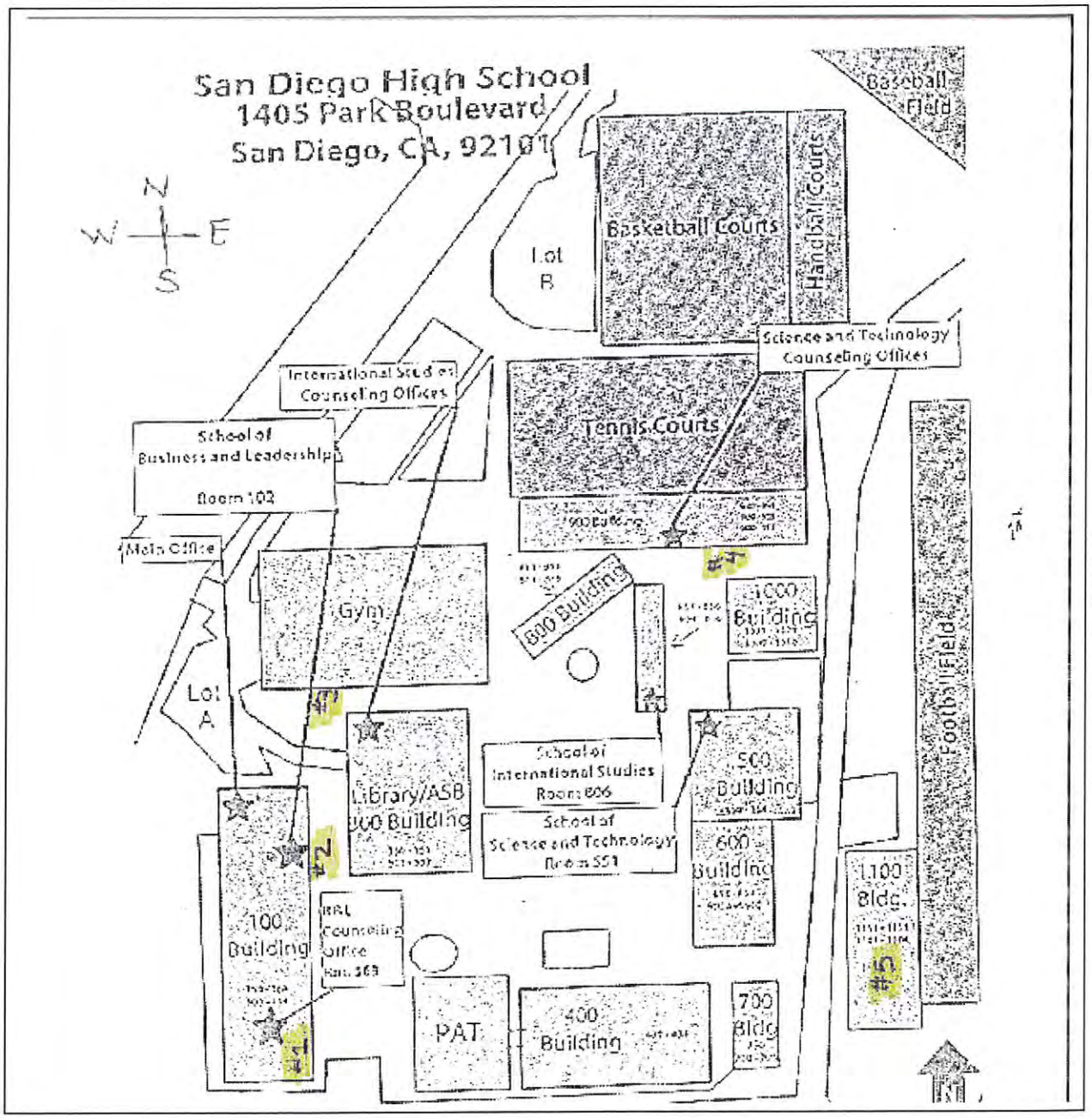

Sample No. 1

School: San Diego High School - 1405 Park Blvd, San Diego, CA 92101

Name of Building: 100 Building

Location Description: Inside Culinary Arts Classroom 114 across from range

Type of Outlet: Sink Faucet

Description: Center Sink Faucet

Comments/Miscellaneous:

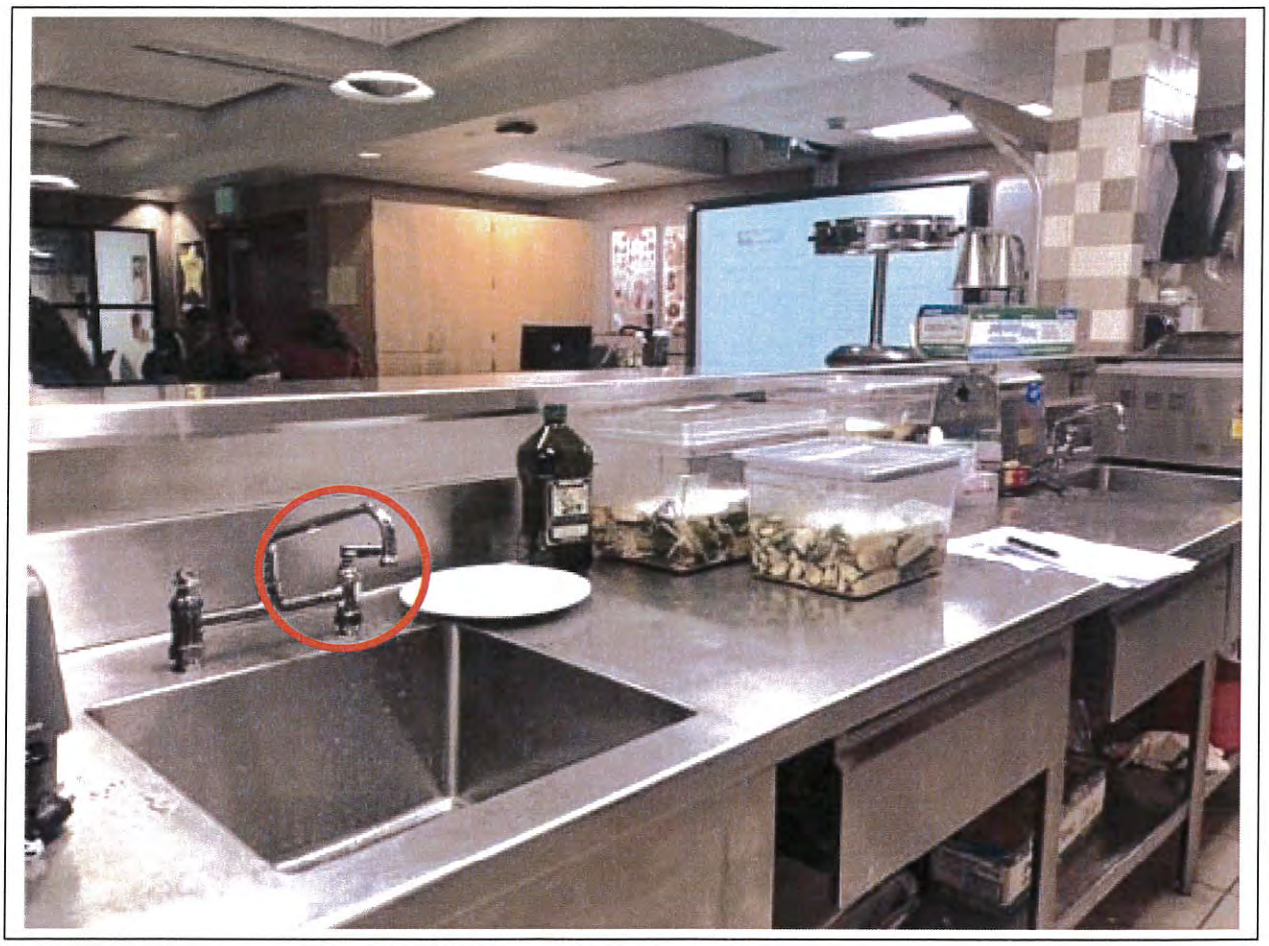

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W116736

State Sample ID: 3710020-AHE-A

Date & Time Last Used: 1800 4/19/17

Date & Time Sample Collected: 0624 4/20/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 2

School: San Diego High School - 1405 Park Blvd, San Diego, CA 92101

Name of Building: 100 Building

Location Description: East exterior wall next to Business Center door

Type of Outlet: Bubbler

Description: Right bubbler

Comments/Miscellaneous:

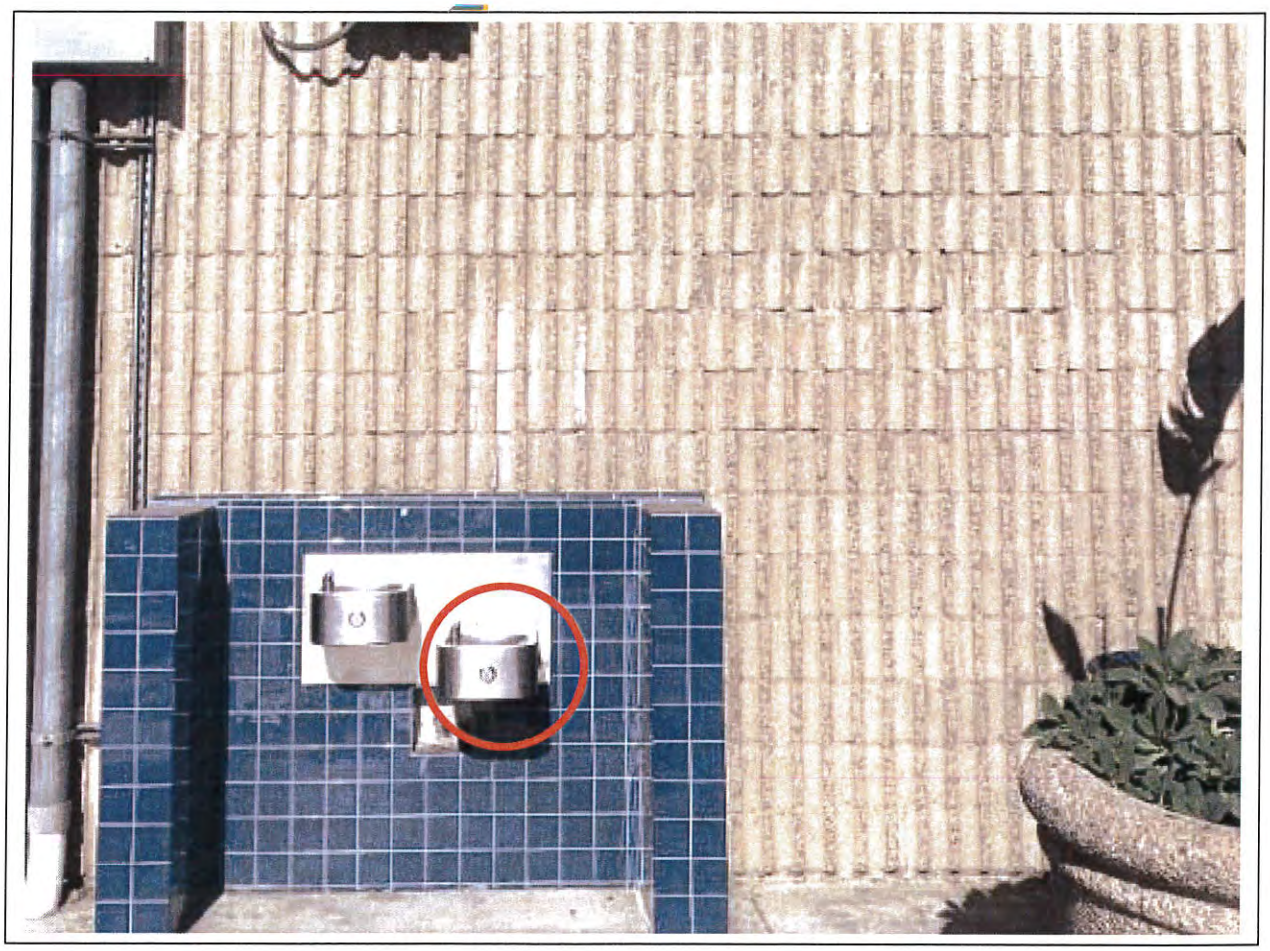

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W116737

State Sample ID: 3710020-AHE-B

Date & Time Last Used: 1800 4/19/17

Date & Time Sample Collected: 0626 4/20/17

Direct Sample ☐ Transfer Sample ☑ (transfer sample)

Name of Water System Sample Collector: David Mayo

Sample No. 3

School: San Diego High School - 1405 Park Blvd, San Diego, CA 92101

Name of Building: 200 Building

Location Description: South exterior wall between boy's locker room and gymnasium doors

Type of Outlet: Bubbler

Description: Left bubbler

Comments/Miscellaneous:

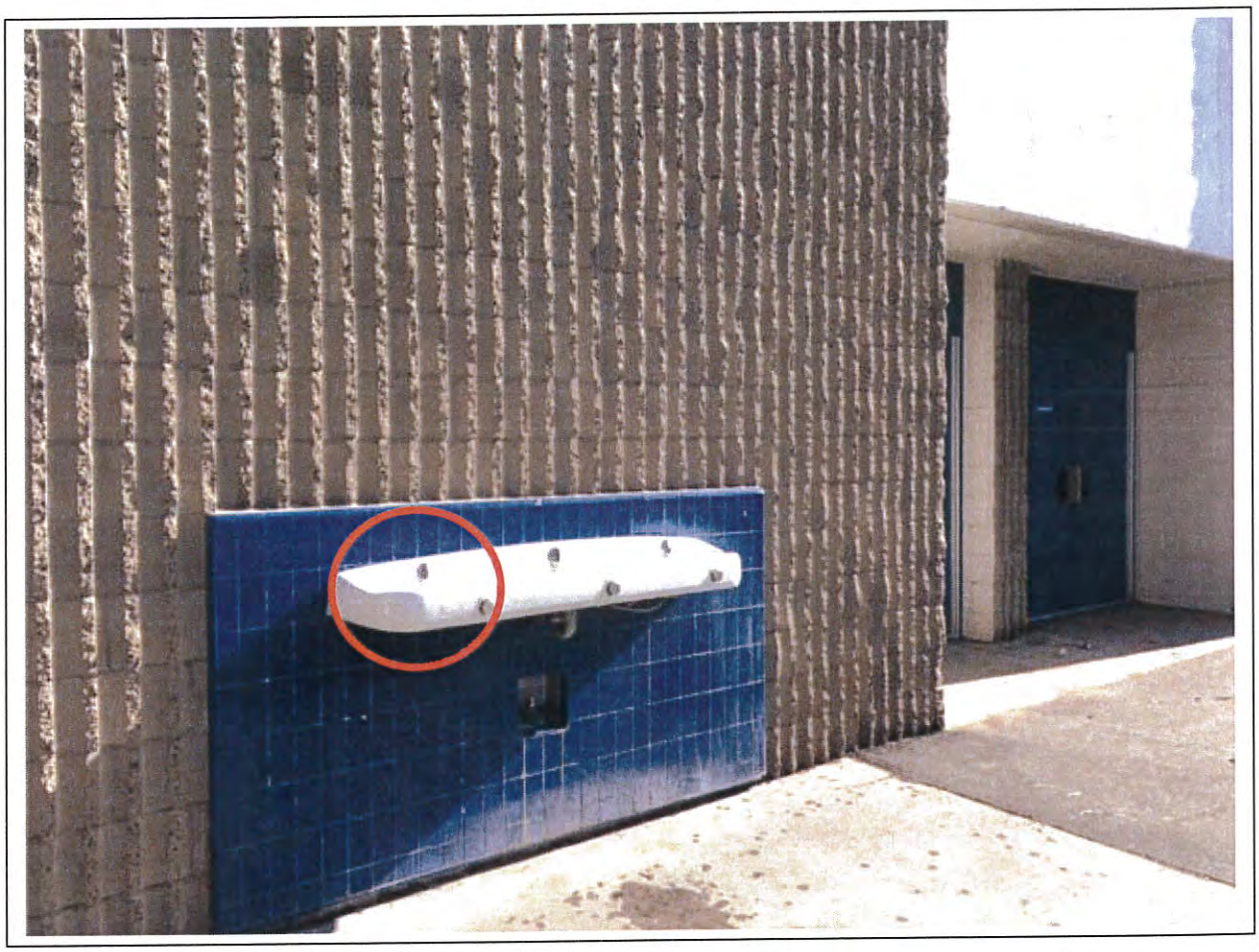

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W116738

State Sample ID: 3710020-AHE-C

Date & Time Last Used: 1800 4/19/17

Date & Time Sample Collected: 0606 / 4/20/17

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: David Mayo

Sample No. 4

School: San Diego High School - 1405 Park Blvd, San Diego, CA 92101

Name of Building: 1100 Building

Location Description: Inside corridor west wall next to room 1105

Type of Outlet: Bubbler

Description: Right Bubbler

Comments/Miscellaneous: First floor

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W116739

State Sample ID: 3710020-AHE-D

Date & Time Last Used: 1800 4/19/17

Date & Time Sample Collected: 0618 4/20/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 5

School: San Diego High School - 1405 Park Blvd, San Diego, CA 92101

Name of Building: 900 Building

Location Description: South exterior wall next to room 901

Type of Outlet: Bubbler

Description: Left bubbler

Comments/Miscellaneous:

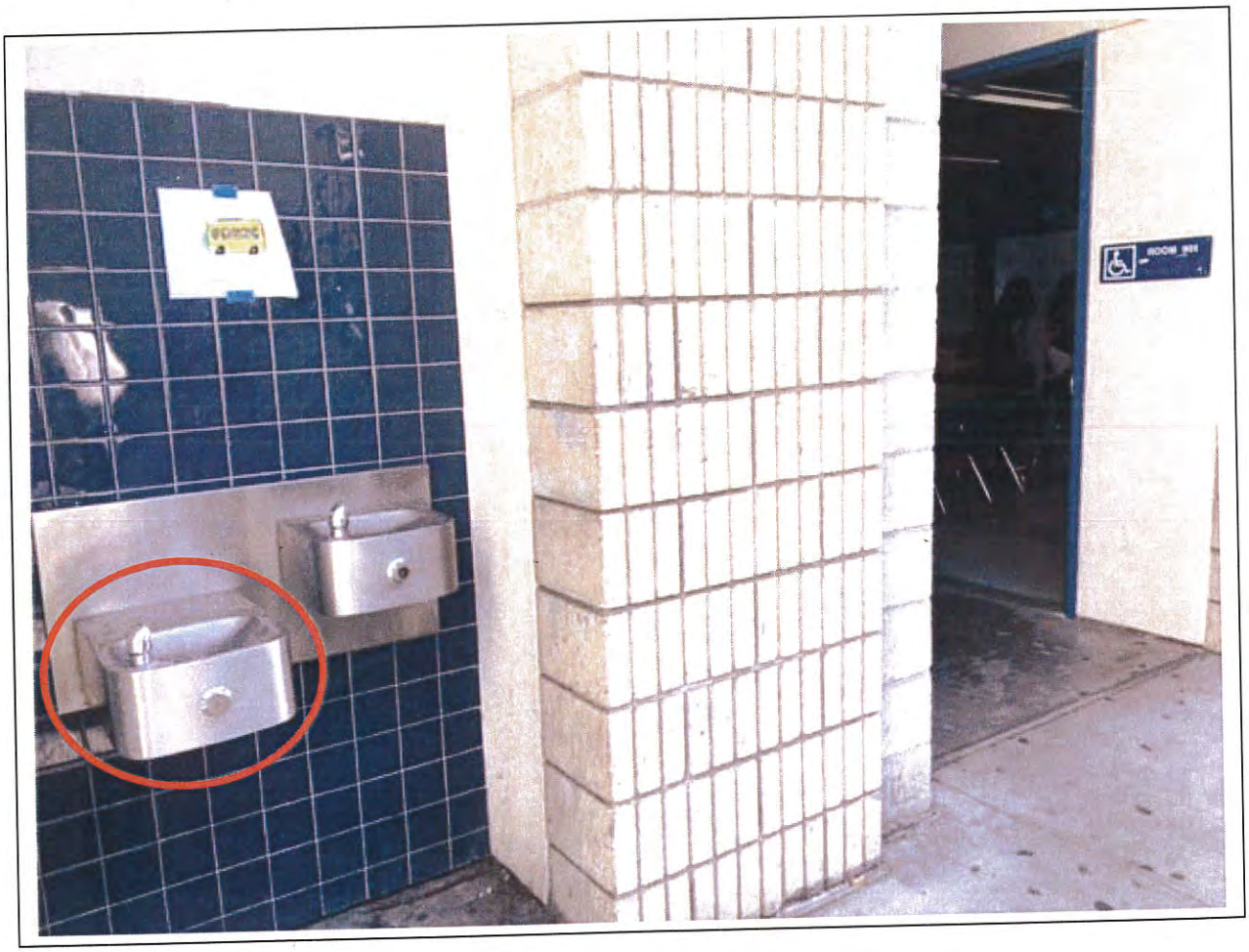

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W116740

State Sample ID: 3710020-AHE-E

Date & Time Last Used: 1800 4/19/17

Date & Time Sample Collected: 0610 4/20/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

19-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1167436	San Diego High	20-APR-2017	0624 ✓	David Mayo	SAMPLE 1	
2	W1167437	San Diego High	20-APR-2017	0626 ✓		SAMPLE 2	
3	W1167438	San Diego High	20-APR-2017	0606 ✓		SAMPLE 3	
4	W1167439	San Diego High	20-APR-2017	0618 ✓		SAMPLE 4	
5	W1167440	San Diego High	20-APR-2017	0610 ✓		SAMPLE 5	

2098

Chain of Custody:

Relinquished by: Name: David Mayo Sign: David Mayo	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 4/20/17 7:00 Location: AIV	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 4/20/17 ✓
LIMS Received Time: 0659
Reviewed By: AMolloy 4/25/17

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: **San Diego SCPA**

Physical Address of School: 2425 Dusk Dr. San Diego, CA 92139-2412

First Bell: 7:15 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 4-10-2017

Completed by Print Name: Cesar Jimenez

Signature: C.J. Date: 4-10-2017

School's Point of Contact for Sampling Assistance

Name: ~~Cesar Jimenez~~ Dan Lopez

Phone: ~~619-261-1588~~ 619-306-3383

Email: cjimenez2@sandi.net

City of San Diego 3710020

Approved By: Tom B Burger 4-11-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: San Diego SCPA - 2425 Dusk Dr. San Diego, CA 92139-2412

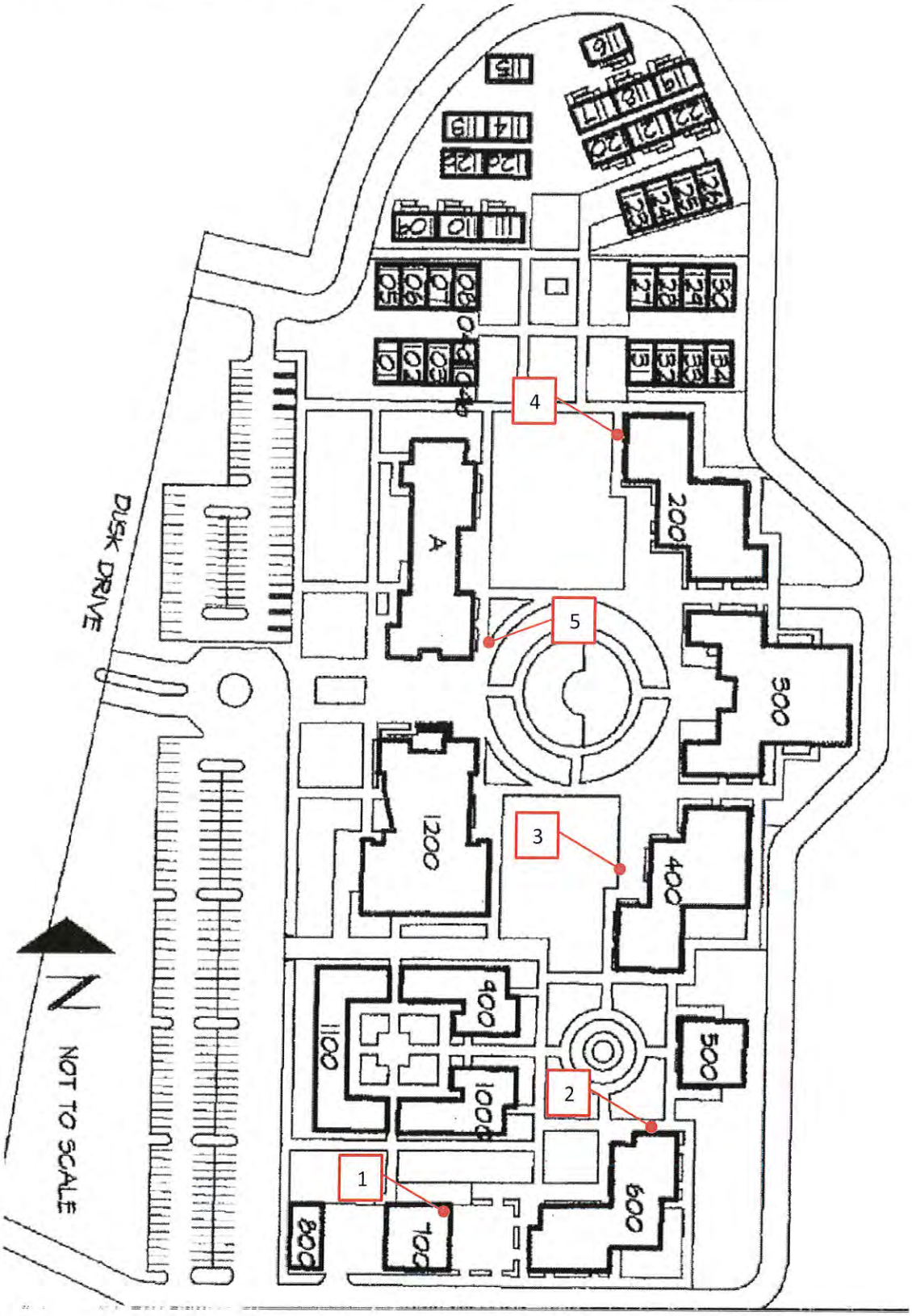

Sample No. 1

School: San Diego SCPA

Name of Building: Cafeteria Bldg. 700

Location Description: Interior North wall of kitchen.

Type of Outlet: Faucet

Description: Faucet on single compartment sink

Comments/Miscellaneous: SDUSD ID code #: 368-01

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166155

State Sample ID: 3710020-AEB-A

Date & Time Last Used: 4/12/17 1810

Date & Time Sample Collected: 4/13/17 0600

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sawersby

Note: faucet has a slight drip/leak!

Sample No. 2

School: San Diego SCPA

Name of Building: Physical Education Bldg. 600

Location Description: Exterior north wall.

Type of Outlet: Bubbler

Description: Right Bubbler on a triple fountain.

Comments/Miscellaneous: SDUSD ID code #: 368-02

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166156

State Sample ID: 3710020-AEB-B

Date & Time Last Used: 4/12/17 1810

Date & Time Sample Collected: 4/13/17 0604

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 3

School: San Diego SCPA

Name of Building: Bldg. 400

Location Description: North of room 401

Type of Outlet: Bubbler

Description: Single Bubbler on concrete pedestal

Comments/Miscellaneous: SDUSD ID code #: 368-03

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166157

State Sample ID: 3710020-AEB-C

Date & Time Last Used: 4/12/17 1810

Date & Time Sample Collected: 4/13/17 0608

Direct Sample* ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 4

School: San Diego SCPA

Name of Building: Bldg. 200

Location Description: Northwestern wall

Type of Outlet: Bubbler

Description: Right/Lower Bubbler on a triple fountain.

Comments/Miscellaneous: SDUSD ID code #: 368-04

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166158

State Sample ID: 3710020-AEB-D

Date & Time Last Used: 4/12/17 1810

Date & Time Sample Collected: 4/13/17 0612

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sawersby

Sample No. 5

School: San Diego SCPA

Name of Building: Administration Bldg. A

Location Description: East of Finance office

Type of Outlet: Bubbler

Description: Single Bubbler on concrete pedestal

Comments/Miscellaneous: SDUSD ID code #: 368-05

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1166159

State Sample ID: 3710020-AEB-E

Date & Time Last Used: 4/12/17 1810

Date & Time Sample Collected: 4/13/17 0615

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

11-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1166155	San Diego SCPA	13-APR-2017	0600	DS	SAMPLE 1	
2	W1166156	San Diego SCPA	13-APR-2017	0604		SAMPLE 2	
3	W1166157	San Diego SCPA	13-APR-2017	0608		SAMPLE 3	
4	W1166158	San Diego SCPA	13-APR-2017	0612		SAMPLE 4	
5	W1166159	San Diego SCPA	13-APR-2017	0615		SAMPLE 5	

2107

Chain of Custody:

Relinquished by:	Received by:	Date & Time:	Comments:
Name: D. Sowersby Sign: D. Sowersby	Name: Tom Burger Sign: Tom B Burger	4/13/17 0650 Location: ALV	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

DSOWERBY

Received By:
Received Date: 4/13/17
LIMS Received Time: 0802
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: San Diego Cooperative Charter School 2

Physical Address: 3510 newton Ave

First Bell:

Meeting Date: 2-21-17

Tom B Burger — Signature & Date Water System

Tom B. Burger — Print Name

J D Baker 2/21/2017 — Signature & Date School Representative

John D. Baker — Print Name

Sampling Plan Completion Date: 3/2/17

Completed by: DANIEL LOPEZ

Signature: Daniel Lopez

School Sampling Contact:

Name: Dan Lopez

Phone: 619-306-3383

Email: DLOPEZ@Sandi.net

Send completed sampling plan to:
A MS word document is preferred in addition to a scanned signed page.

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

Sample Locations acknowledgement

Emerson/Bandini (K-6) - 3510 Newton Ave. (92113)

SDCOOP # 2

Sample No. 1

School: San Diego Coop 2

Name of Building: 127

Location Description: Room 127

Type of Outlet bubbler in sink

Description only sink in Room

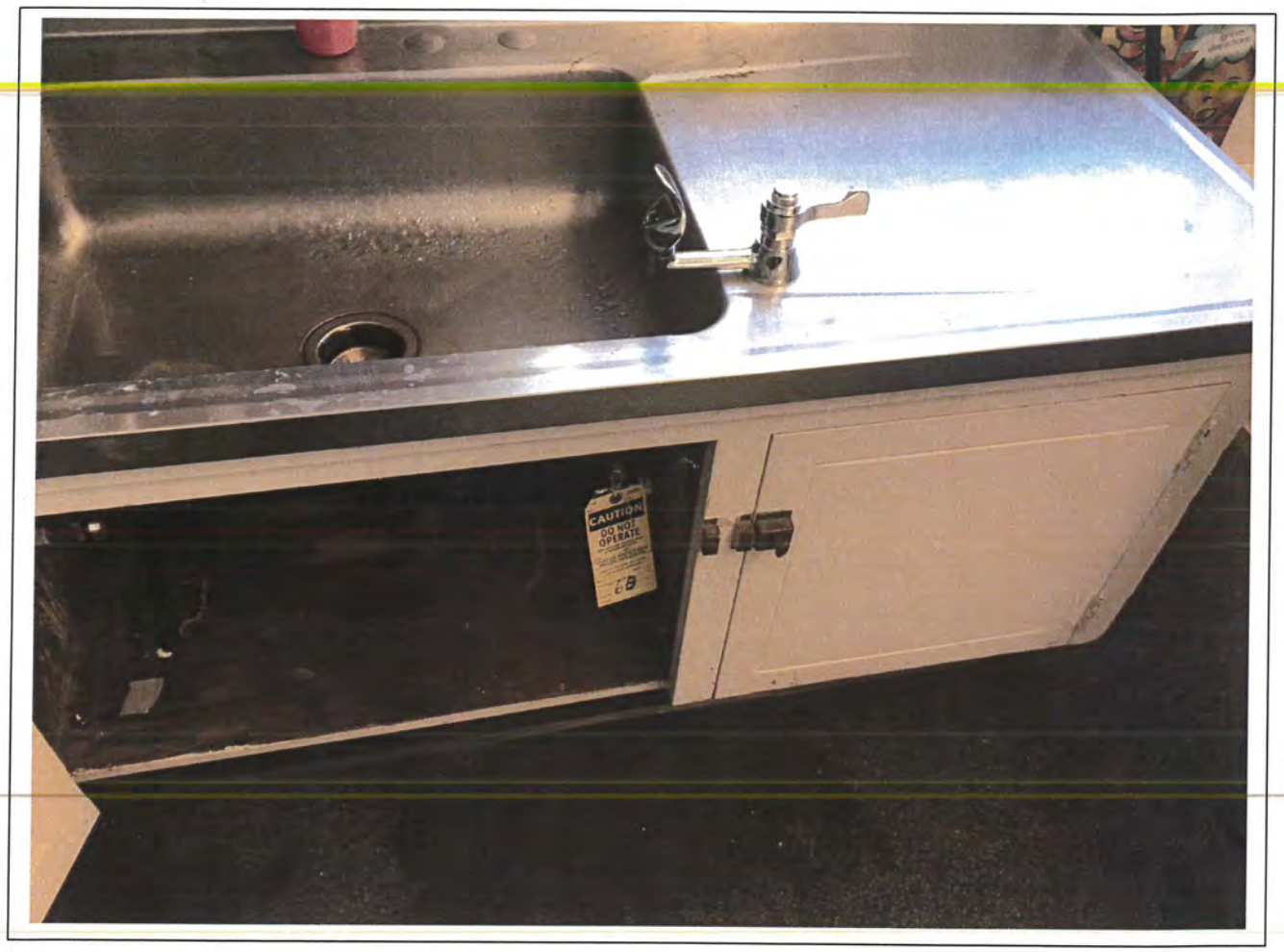

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample I.D.: 3710020-003-1

LIMS Sample ID: W1158855

Date & Time Last Used: 3-6-17 1400

Date Sample Collected: ~~3~~ TB 3-7-17

Time Sample Collected: 0636

Name of Water System Sample Collector Tom Burger TMB

Sample No. 2

School: San Diego Coop 2

Name of Building: 128

Location Description: Room 128

Type of Outlet bubbler

Description bubbler at sink only sink in room

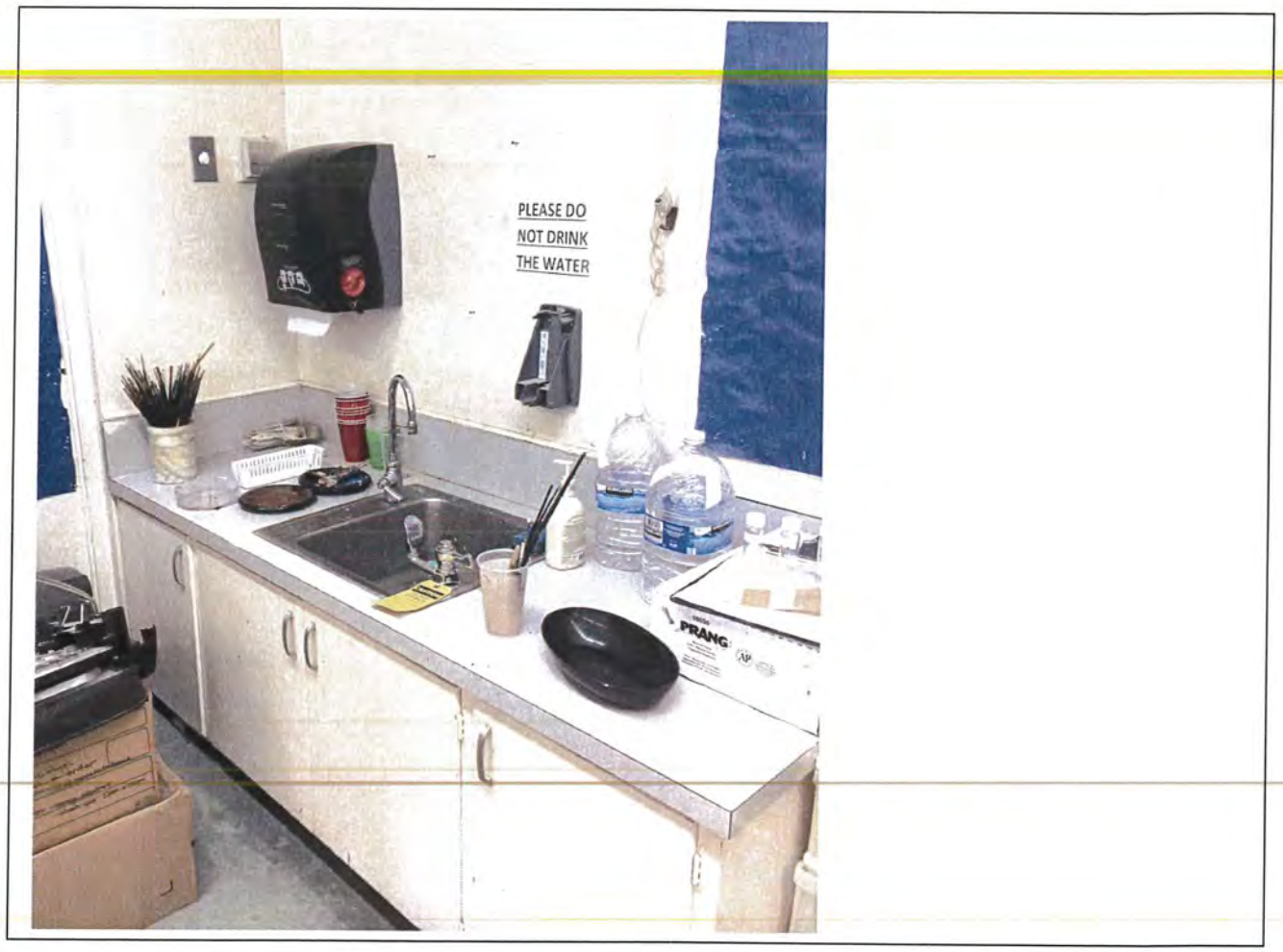

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample I.D.: 3710020-003-2

LIMS Sample ID: W1158856

Date & Time Last Used: 3-6-17 1400

Date Sample Collected: 3-7-17

Time Sample Collected: 0641

Name of Water System Sample Collector Tom Burger

Sample No. ~~4~~ 3 TBurger

School: San Diego Coop 2

Name of Building: Room 132

Location Description: Room 132

Type of Outlet bubbler

Description bubbler at sink only sink in room

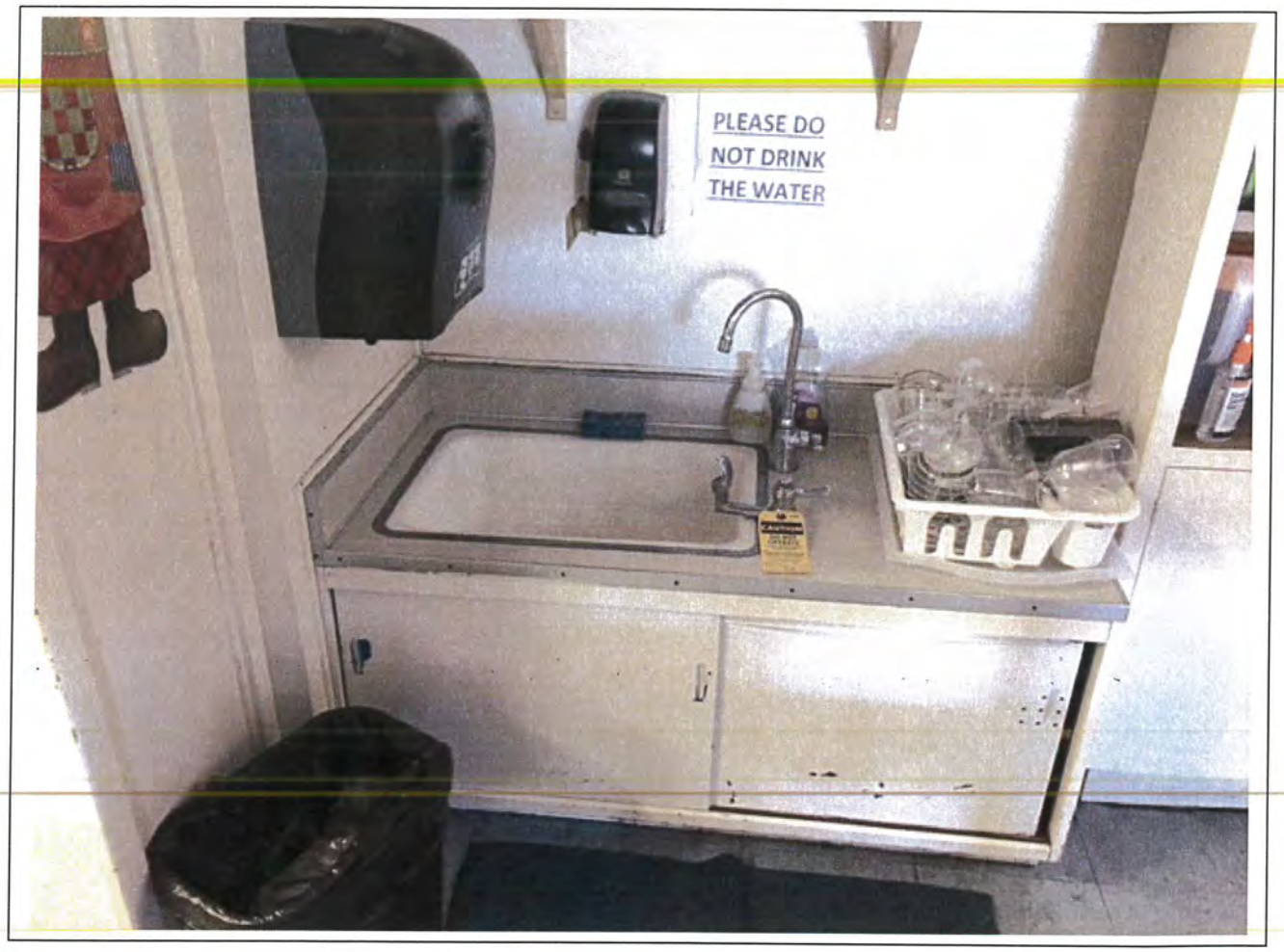

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample I.D.: 3710020-003-3

LIMS Sample ID: W1158857

Date & Time Last Used: 3-6-17 1400-1600

Date Sample Collected: 3-7-17

Time Sample Collected: 0630

Name of Water System Sample Collector Tom Burger

Sample No. ~~3~~ 4 TBurger

School: San Diego Coop 2

Name of Building: Room 129

Location Description: Room 129

Type of Outlet bubbler

Description bubbler at sink only sink in room

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample I.D.: 3710020-003-4

LIMS Sample ID: W1158858

Date & Time Last Used: 3-6-17 1400-1600

Date Sample Collected: 3-7-17

Time Sample Collected: 0625

Name of Water System Sample Collector Tom Burger TMB

Sample No. 5

School: San Diego Coop 2

Name of Building: Room 130

Location Description: Room 130

Type of Outlet bubbler

Description bubbler at sink only sink in room

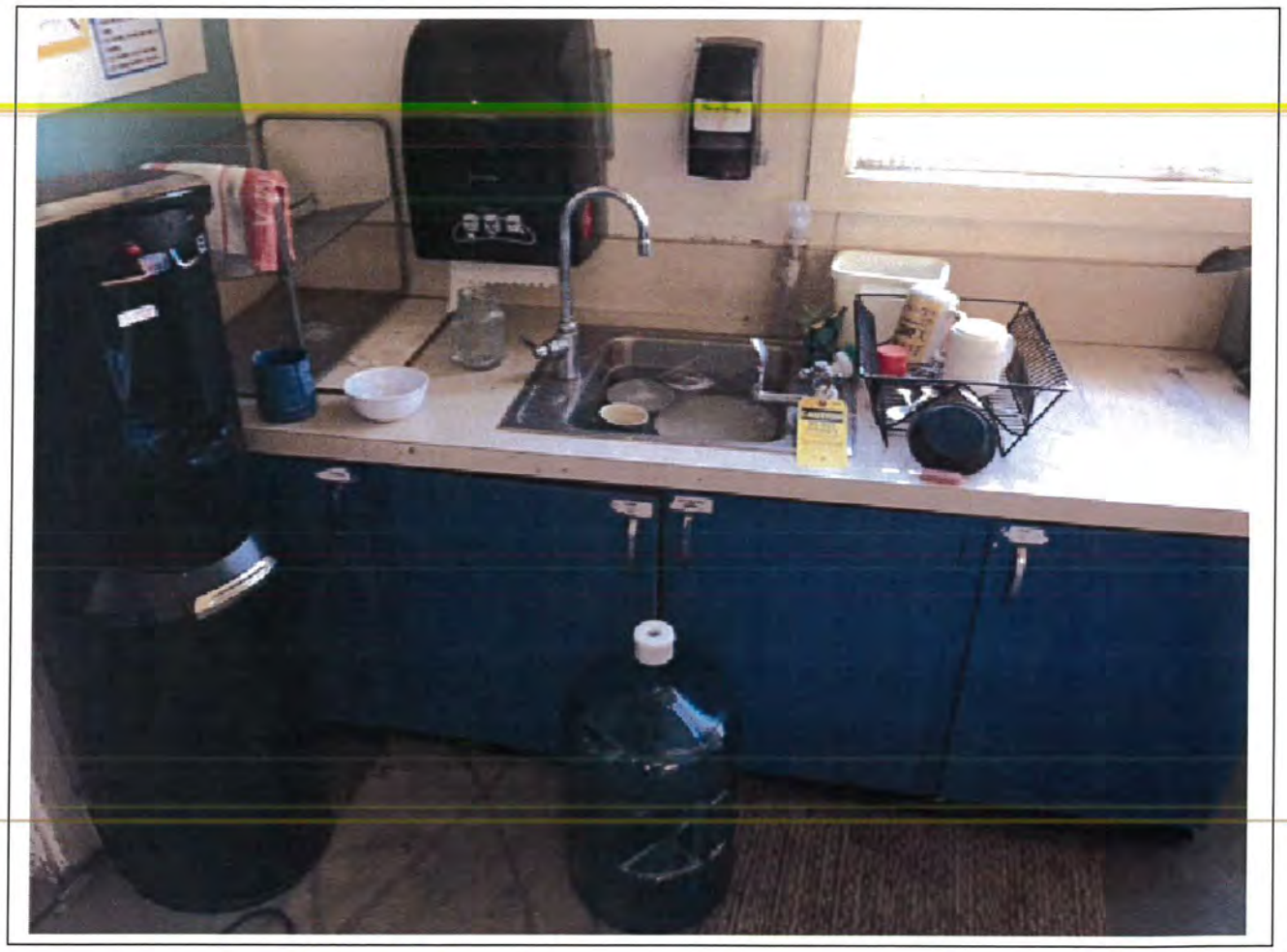

City use only below this line

Sample type Initial ☑ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

State Sample I.D.: 3710020-003-5

LIMS Sample ID: W1158859

Date & Time Last Used: 3-6-17 1400 - 1600

Date Sample Collected: 3-7-17

Time Sample Collected: 0619

Name of Water System Sample Collector Tom Burger TMB

San Diego Water Quality Laboratory

LEAD_SCHOOL For 07-MAR-2017

No.	Sample ID	#	Description	Source	Sample Time	Sampler	Comments
1	W1158855	1	ICPMS-LEAD	PB_SCHOOL	0636	TMB	RM 127
2	W1158856	1	ICPMS-LEAD	PB_SCHOOL	0641	TMB	Rm 128
3	W1158857	1	ICPMS-LEAD	PB_SCHOOL	0630	TMB	Rm 132
4	W1158858	1	ICPMS-LEAD	PB_SCHOOL	0625	TMB	Rm 129
5	W1158859	1	ICPMS-LEAD	PB_SCHOOL	0619	TMB	Rm 130
6	W1159031		LEAD	PB_SCHOOL	0602	TMB	Cafeteria

order of Pics

130
129

Relinquished by: Tom B. Burger
Signiture: Tom Burger
Date/Time 3-7-17 0810

Received by: Alejandra Molloy
Signiture: A Molloy
Date/Time: 3/7/17 @ 0812

NOTES:

Received By:
Received Date:
Received Time:
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Sequoia Elementary

Physical Address of School: 4690 Limerick Ave, San Diego, CA 92117

First Bell: 7:40am

Meeting Date: 4/05/2017

Sampling Plan Completion Date: 5/05/17

Completed by Print Name: Lori Sherman

Signature: *Lori Sherman* Date: 5/04/17

School's Point of Contact for Sampling Assistance

Name: Lori Sherman

Phone: 619-301-9086

Email: lsherman1@sandi.net

City of San Diego 3710020

Approved By: 5/15/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Sequoia Elementary - 4690 Limerick Ave, San Diego, CA 92117

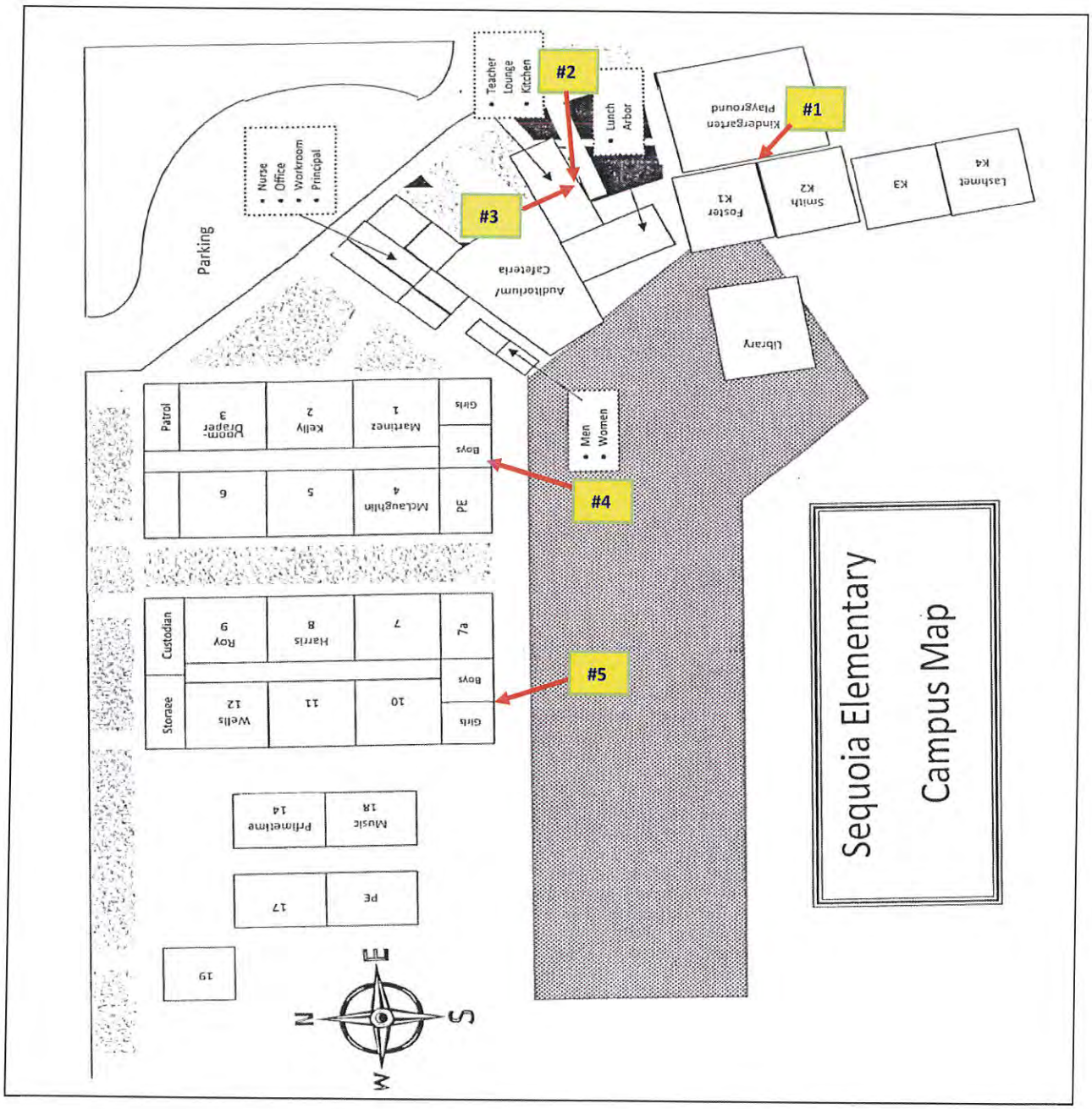

Sample No. 1

School: Sequoia Elementary - 4690 Limerick Ave, San Diego, CA 92117

Name of Building: Kindergarten

Location Description: East exterior wall between K-1 & K-2

Type of Outlet: Bubbler

Description:

Comments/Miscellaneous: Next to boy's restroom

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172862

State Sample ID: 3710020-BIE-A

Date & Time Last Used: 5/17/17 2200

Date & Time Sample Collected: 5/18/17 0558

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 2

School: Sequoia Elementary - 4690 Limerick Ave, San Diego, CA 92117

Name of Building: Lunch Court

Location Description: South exterior wall next to lunch court

Type of Outlet: Bubbler

Description: Center bubbler

Comments/Miscellaneous: Close to cafeteria door

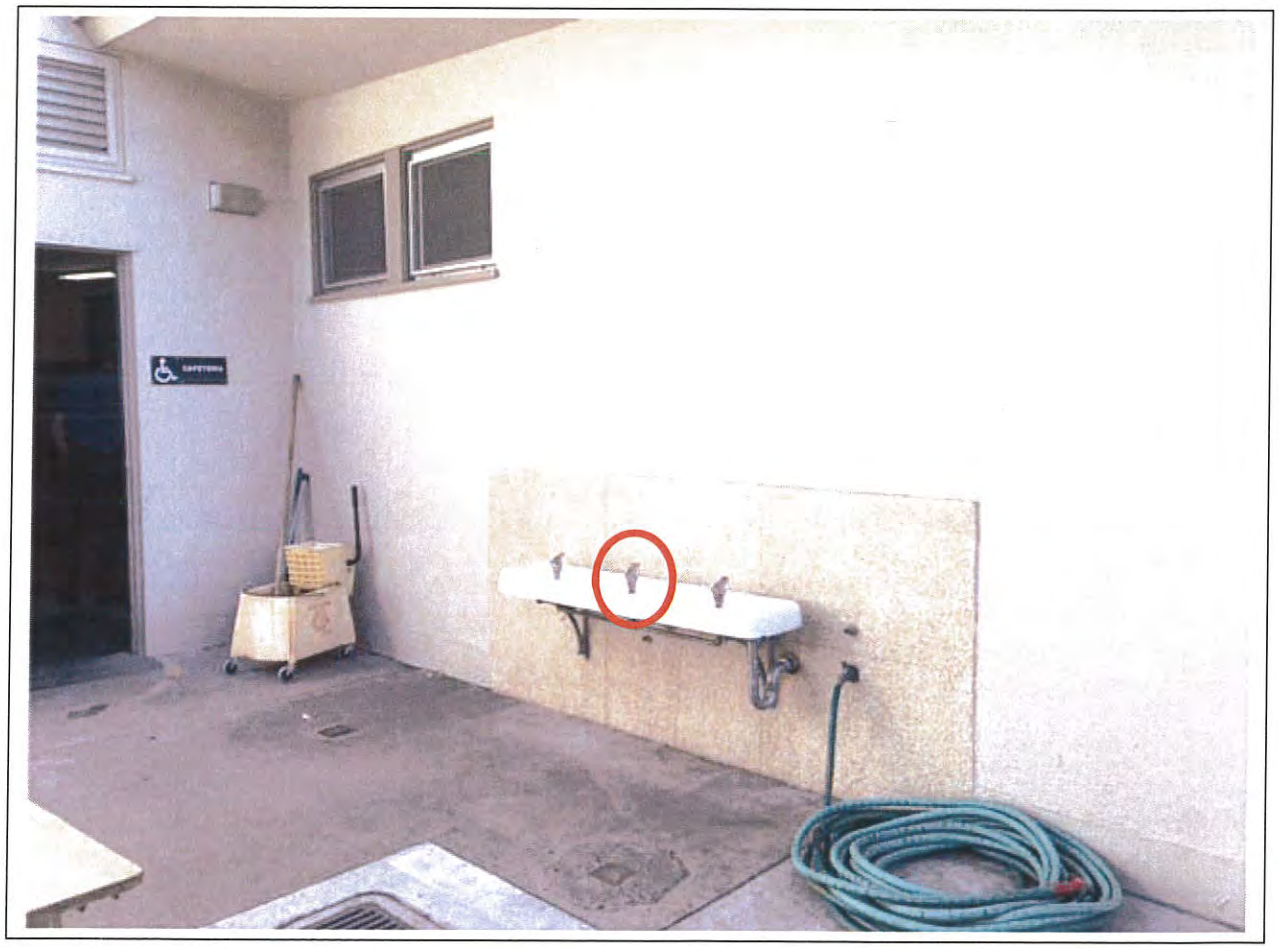

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172863

State Sample ID: 3710020-BIE-B

Date & Time Last Used: 5/17/17 2200

Date & Time Sample Collected: 5/18/17 0603

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 3

School: Sequoia Elementary - 4690 Limerick Ave, San Diego, CA 92117

Name of Building: Kitchen

Location Description: South interior wall

Type of Outlet: Spray nozzle

Description:

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172864

State Sample ID: 3710020-BIE-C

Date & Time Last Used: 5/17/17 2200

Date & Time Sample Collected: 5/18/17 0605

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 4

School: Sequoia Elementary - 4690 Limerick Ave, San Diego, CA 92117

Name of Building: Classrooms 1-6

Location Description: South exterior wall near restroom

Type of Outlet: Bubbler

Description: Left bubbler

Comments/Miscellaneous: not tagged, appears unused

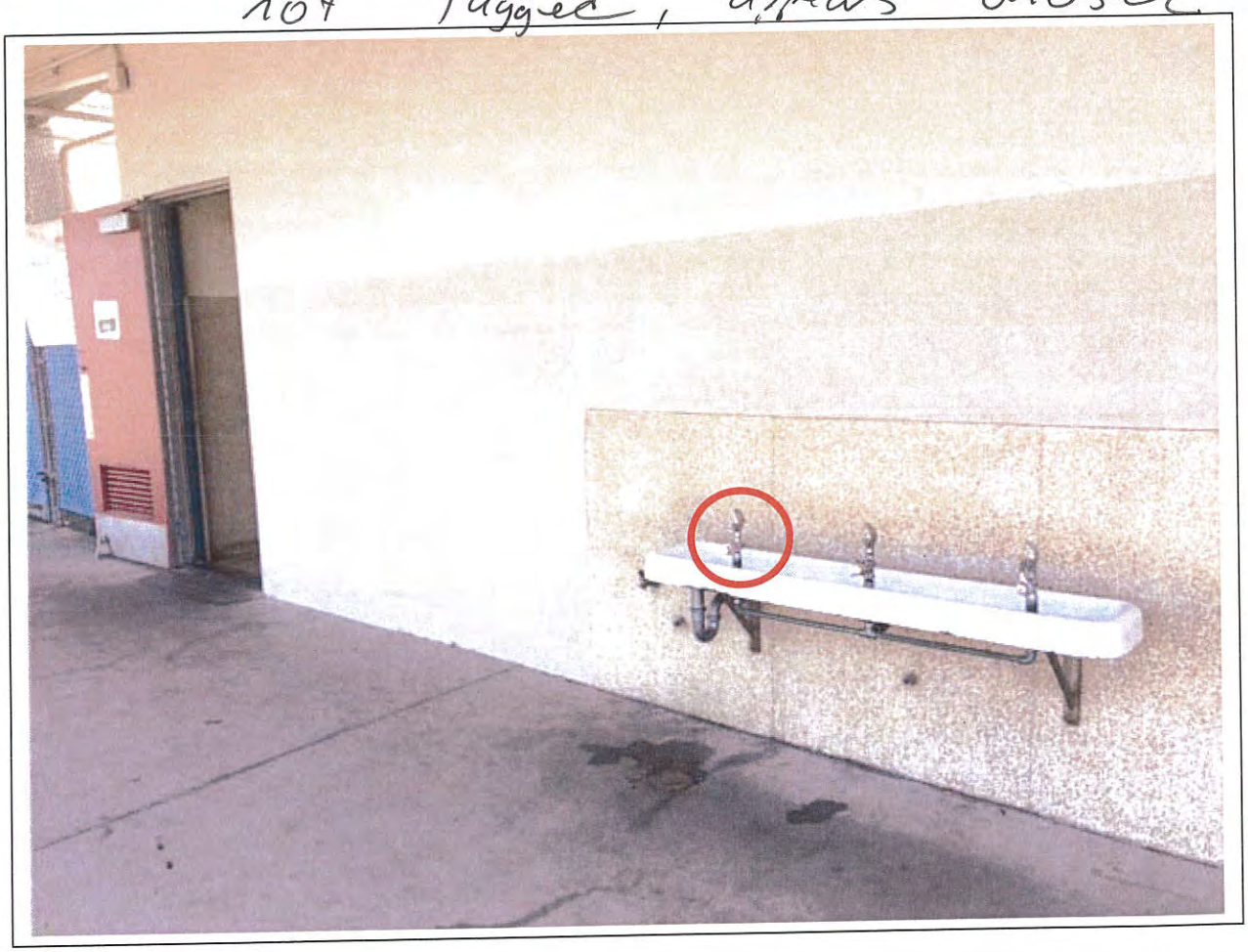

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172865

State Sample ID: 3710020-BIE-D

Date & Time Last Used: not tagged, appears unused

Date & Time Sample Collected: 5/18/17 0810

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 5

School: Sequoia Elementary - 4690 Limerick Ave, San Diego, CA 92117

Name of Building: Classrooms 7-12

Location Description: South exterior wall next to boy's restroom

Type of Outlet: Bubbler

Description: Left bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172866

State Sample ID: 3710020-BIE-E

Date & Time Last Used: 5/17/17 2200

Date & Time Sample Collected: 5/18/17 0612

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Water Quality Chemistry Services
Chain of Custody Form

15-May-2017

Client Name: Water Quality Chemistry Services
Address: 5530 Kiowa Dr
La Mesa, CA 91942

Contact Name: Tom Burger
Phone #: (619) 668-3234

Special Notes: Sample #4: Fountain not tagged out, appeared dry and unused

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1172862	Sequoia Elementary	18-MAY-2017	0558	M. Nelson	SAMPLE 1	
2	W1172863	Sequoia Elementary	18-MAY-2017	0603		SAMPLE 2	
3	W1172864	Sequoia Elementary	18-MAY-2017	0605		SAMPLE 3	
4	W1172865	Sequoia Elementary	18-MAY-2017	0610		SAMPLE 4	
5	W1172866	Sequoia Elementary	18-MAY-2017	0612		SAMPLE 5	

Chain of Custody:

Relinquished by:	Received by:	Date & Time:
Name: M. Nelson Sign: [signature]	Name: Tom Burger Sign: Tom B Burger	5-18-17 0746 Location: ALV. LAB
Name: Sign:	Name: Sign:	Location:
Name: Sign:	Name: Sign:	Location:

Comments:

Received By: T Burger
Received Date: 5-18-17
LIMS Received Time: 0738
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Serra High School

Physical Address of School: 5156 Santo Rd. San Diego, CA 92124

First Bell: 7:15AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/25/2017

Completed by Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 04/25/2017

School's Point of Contact for Sampling Assistance

Name: ~~Daniel Lopez~~ Ginette Commins

Phone: ~~(619) 306-3383~~ 619-302-5285

Email: dlopez2@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-28-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Serra High School, 5156 Santo Rd. San Diego, CA 92124

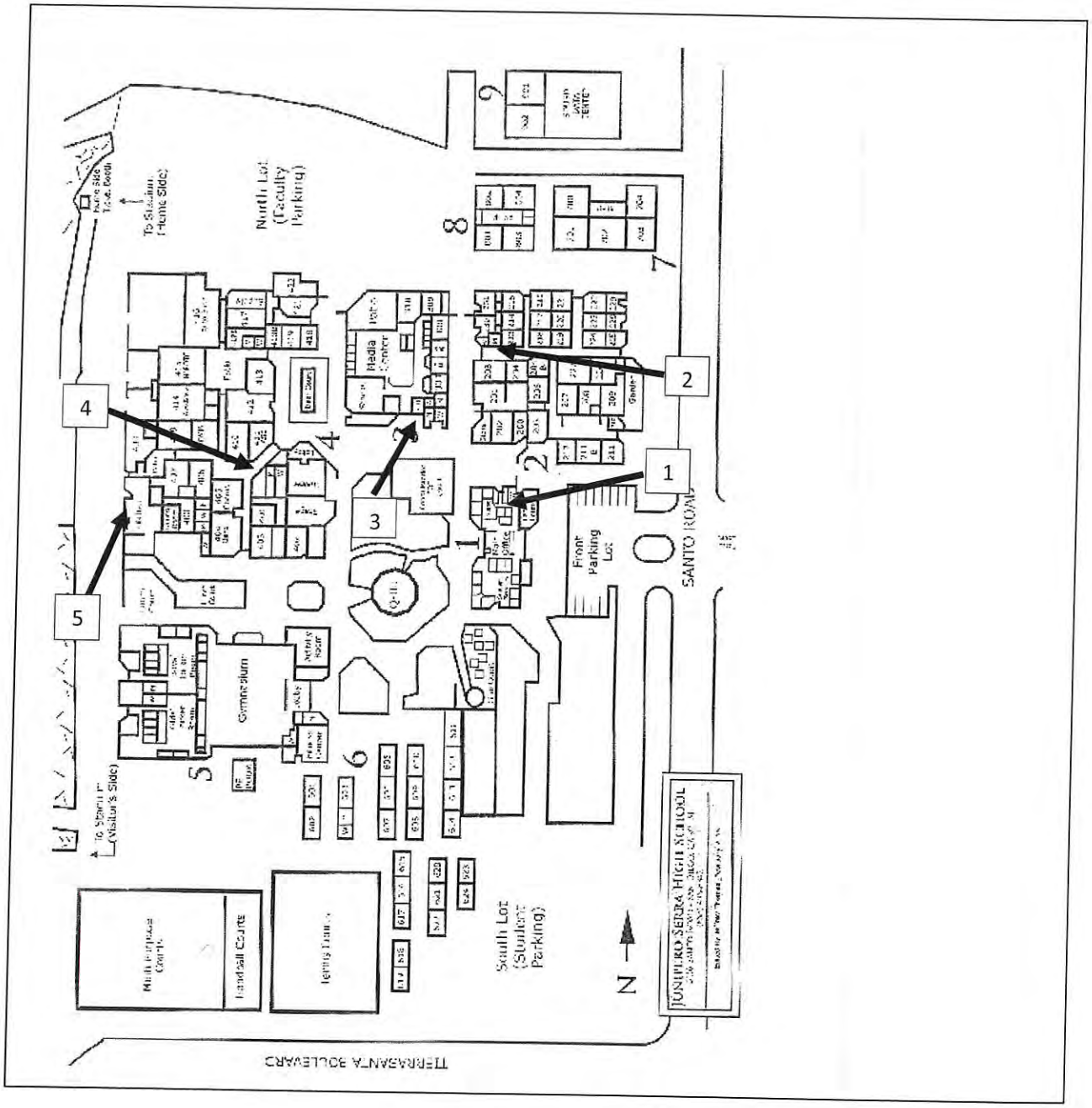

Sample No. 1

School: Serra High School

Name of Building: Main Office/ Building 1

Location Description: South end of office hallway between restrooms

Type of Outlet: Single bubbler

Description: Single Bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169348

State Sample ID: 3710020-BDC-A

Date & Time Last Used: ~~A. Molloy~~ AM 4/28/17 @2200

Date & Time Sample Collected: 4/29/17 @613

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: Serra High School

Name of Building: Building 2

Location Description: Near rooms 213 and Restrooms

Type of Outlet:

Description:

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169349

State Sample ID: 3710020-BDC-B

Date & Time Last Used: 4/28/17 @ 2200

Date & Time Sample Collected: 4/29/17 @ 0617

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: Serra High School

Name of Building: Building 3 or 300 building

Location Description: Outside North end of building near room 301

Type of Outlet: Triple bubbler

Description: far right triple bubbler center bubbler

Comments/Miscellaneous:

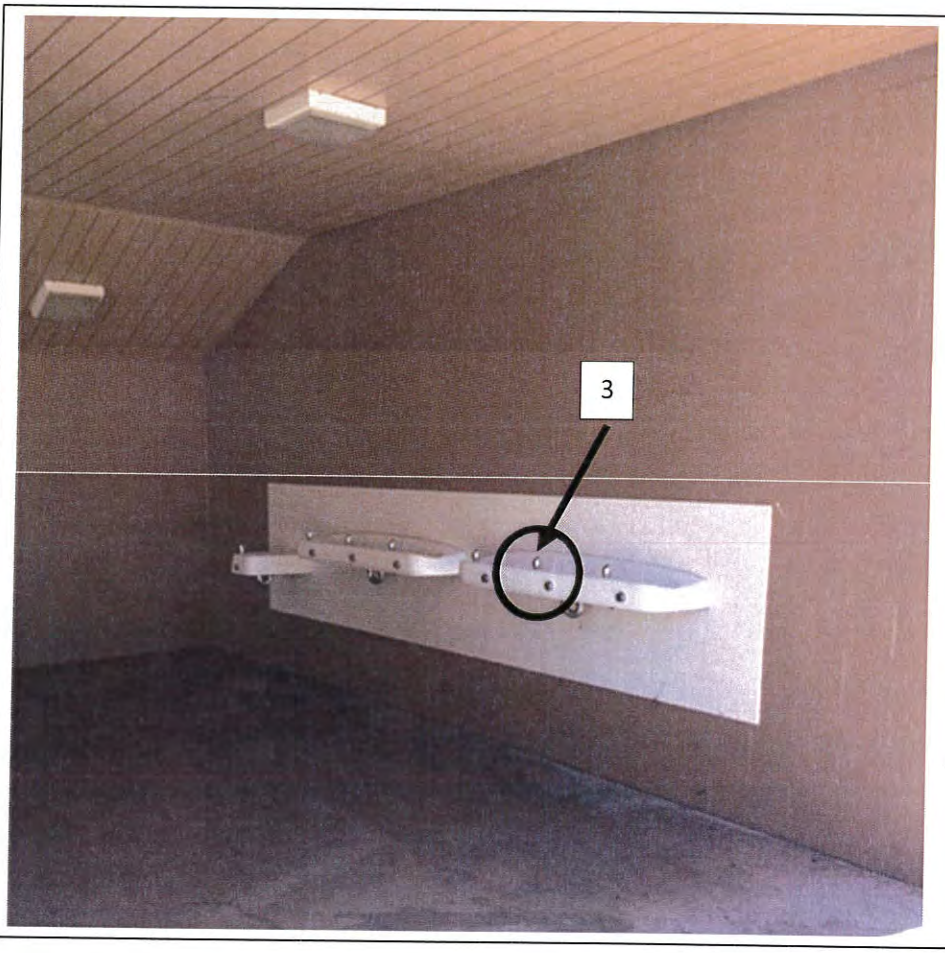

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169350

State Sample ID: 3710020-BDC-C

Date & Time Last Used: 4/28/17 @ 2200

Date & Time Sample Collected: 4/29/17 @ 0619

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: Serra High School

Name of Building: Building 4 or 400 building

Location Description: Inside hallway near room 411 next to restrooms

Type of Outlet: Single Bubblers

Description: Bubbler on left

Comments/Miscellaneous:

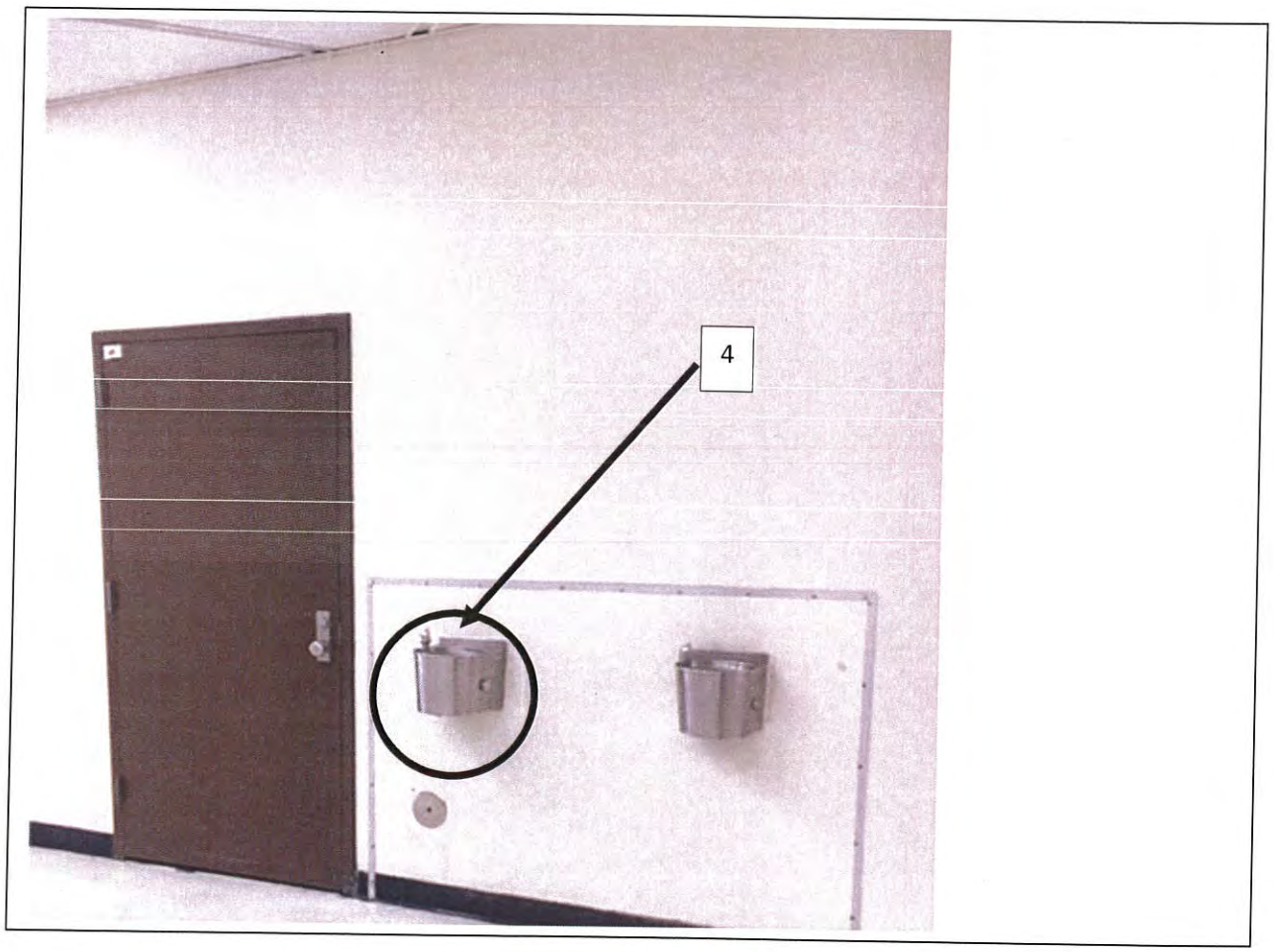

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169351

State Sample ID: 3710020-BDC-D

Date & Time Last Used: 4/28/17

Date & Time Sample Collected: 4/29/17 @ 0624

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: A. Molloy

Sample No. 5

School: Serra High School

Name of Building: Kitchen near lunch court

Location Description: faucet inside kitchen

Type of Outlet: Fill sink

Description: Located on kitchen island

Comments/Miscellaneous:

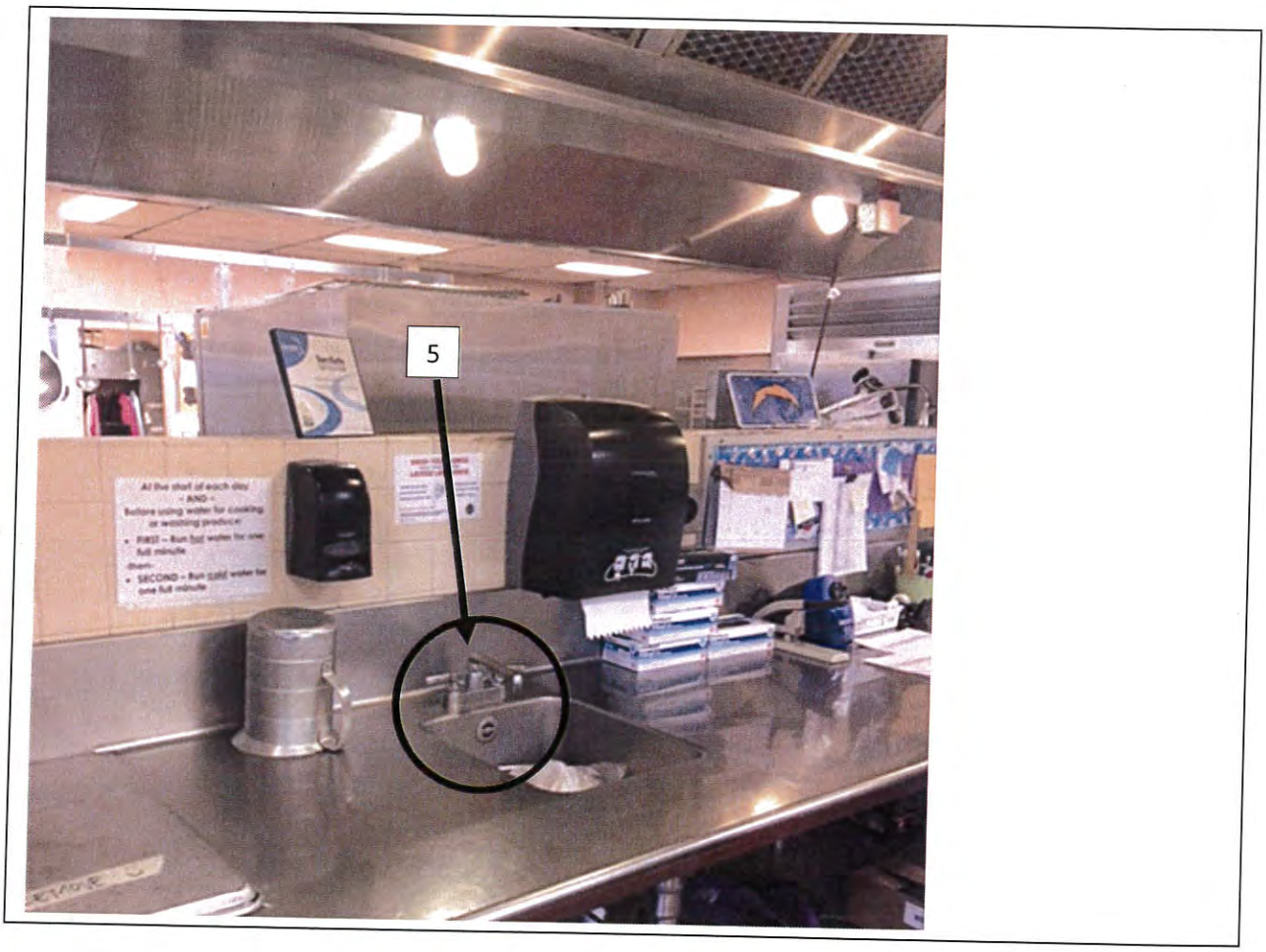

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169352

State Sample ID: 3710020-BDC-E

Date & Time Last Used: 4/28/17 @ 2200

Date & Time Sample Collected: 4/29/17 @ 0628

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

28-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1169348	Serra High	29-APR-2017	0613	A. Molloy	SAMPLE 1	Pb
2	W1169349	Serra High	29-APR-2017	0617		SAMPLE 2	
3	W1169350	Serra High	29-APR-2017	0619		SAMPLE 3	
4	W1169351	Serra High	29-APR-2017	0624		SAMPLE 4	
5	W1169352	Serra High	29-APR-2017	0628		SAMPLE 5	

2131

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign: AMolloy	Received by: Name: Gloria Siqueiros Sign: [signature]	Date & Time: 4/29/17 @ 0820 Location: WQL A/V	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 4/29/17
LIMS Received Time: 0830
Reviewed By: _____

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: #225 Sessions Elementary

Physical Address of School: 2150 Beryl St. San Diego CA 92109

First Bell: 7:45

Meeting Date: 3/22/2017

Sampling Plan Completion Date: 5/2/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 5/2/2017

School's Point of Contact for Sampling Assistance

Name: ~~Elizabeth Lara~~ Ginette

Phone: ~~619-302-7616~~

Email: elara@sandi.net

City of San Diego 3710020

Approved By: 5/15/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Sessions Elementary 2150 Beryl St. San Diego , CA

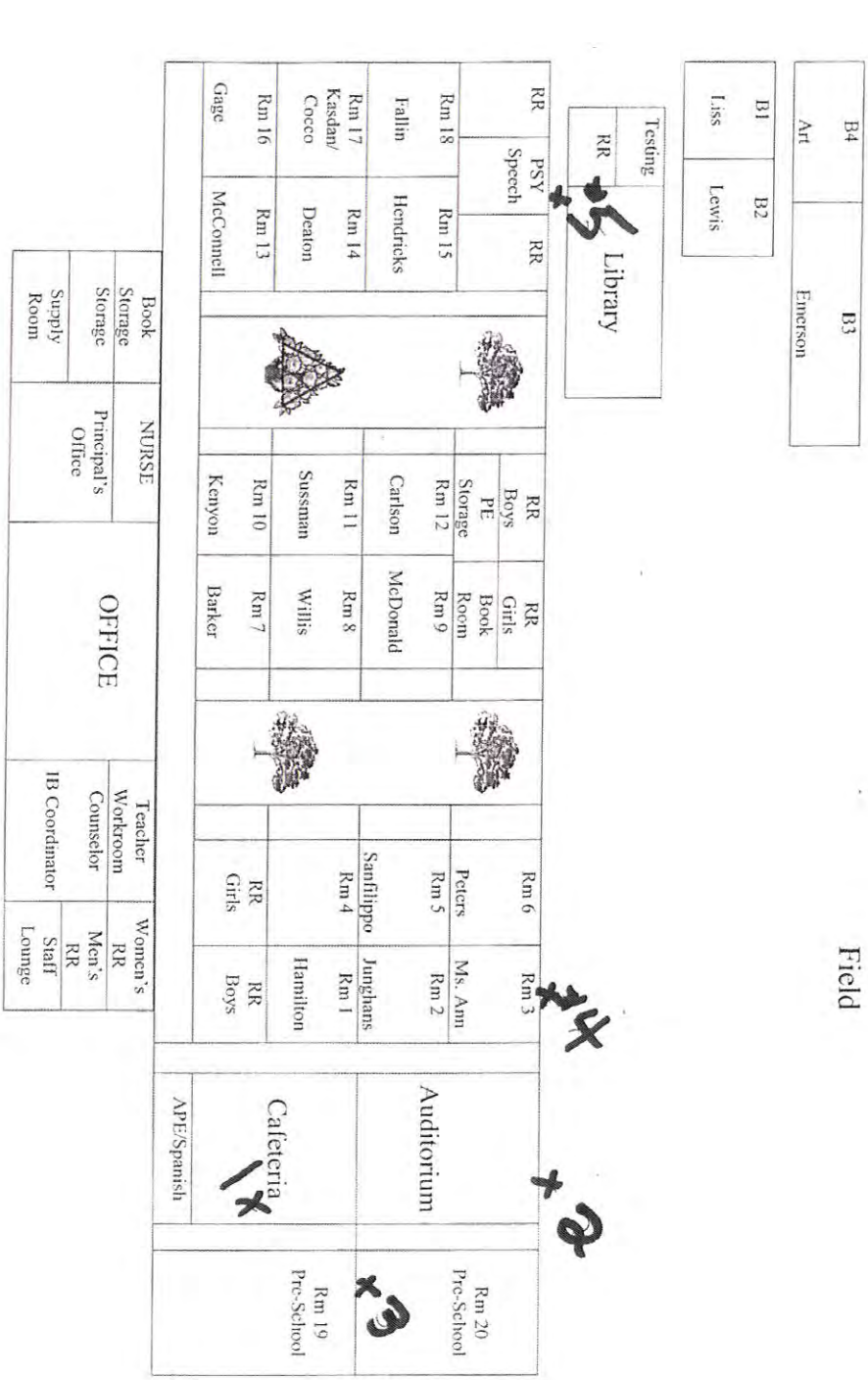

Sample No. 1

School: Sessions Elementary School

Name of Building: Cafeteria

Location Description: Inside Kitchen under window has red counter

Type of Outlet: Standard Kitchen faucet

Description: single kitchen faucet with hot & cold valves

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172867

State Sample ID: 3710020-BIF-A

Date & Time Last Used: 5/17/17 1800-2200

Date & Time Sample Collected: 5/18/17 0555

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alwargi

Sample No. 2

School: Sessions Elementary School

Name of Building: Auditorium

Location Description: Outside near Auditorium door at wall near lunch court

Type of Outlet: Bubbler drinking fountain

Description: Left bubbler of three

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172868

State Sample ID: 3710020-BIF-B

Date & Time Last Used: 5/17/17 1800-2200

Date & Time Sample Collected: 5/18/17 0000

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez

Sample No. 3

School: Sessions Elementary School

Name of Building: Pre-School-Kindergarten

Location Description: Inside # 20 at handwashing sink near restroom

Type of Outlet: Bubbler Drinking Fountain

Description: Left Bubbler drinking fountain at hand washing sink

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172869

State Sample ID: 3710020-BIF-C

Date & Time Last Used: 5/17/17 1800-2200

Date & Time Sample Collected: 5/18/17 0600

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alvarez

Sample No. 4

School: Sessions Elementary School

Name of Building: 1-6

Location Description: Outside North end near playground has ocean painting on wall

Type of Outlet: Bubbler drinking fountain

Description: Center bubbler of three

Comments/Miscellaneous:

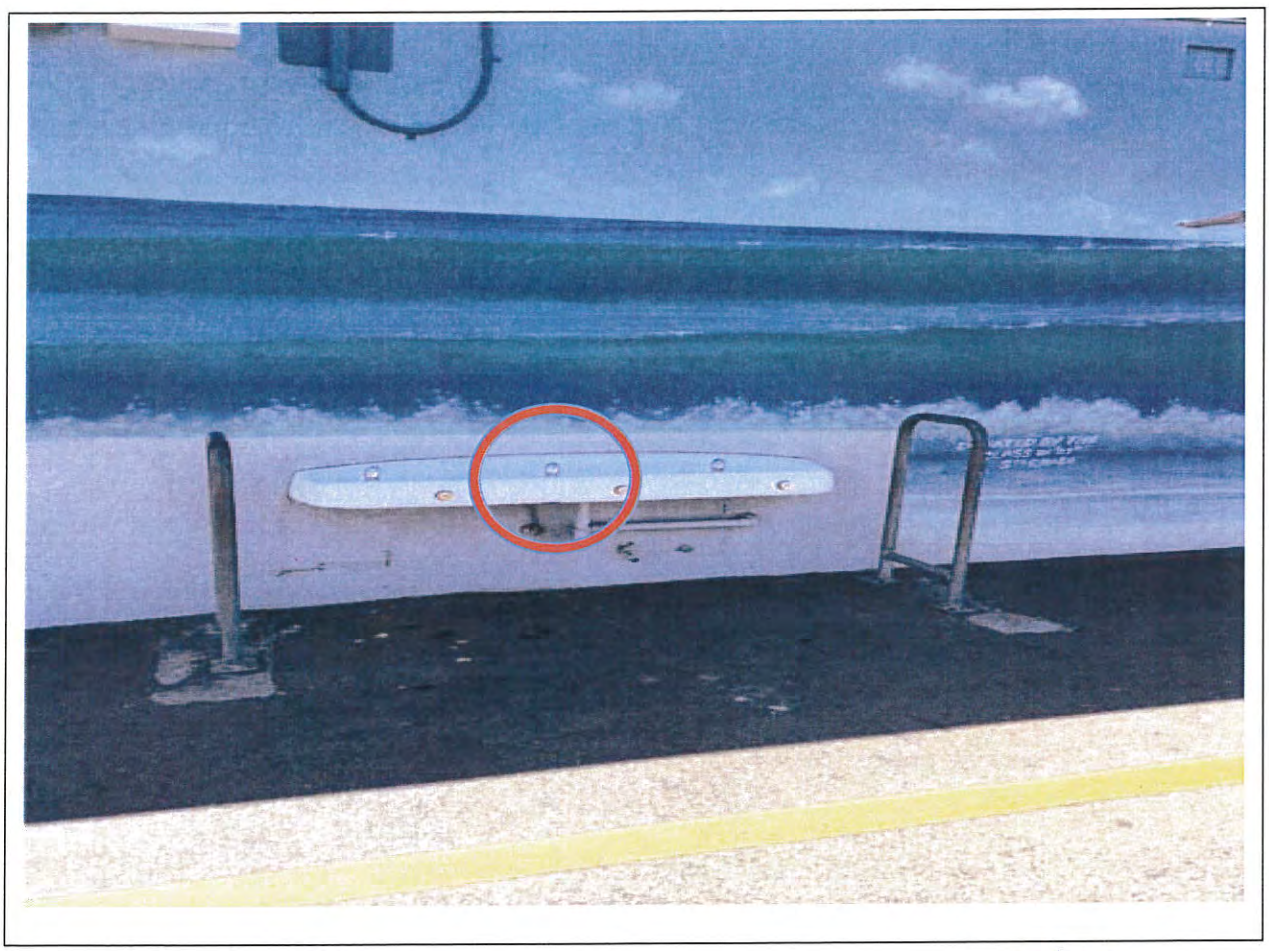

* leaking

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172870

State Sample ID: 3710020-BIF-D

Date & Time Last Used: 5/17/17 1800-2200

Date & Time Sample Collected: 5/18/17 0605

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alanga

Sample No. 5

School: Sessions Elementary School

Name of Building: 15-18-PSY Speech

Location Description: North end close to room Related Specialized Services & RR"s

Type of Outlet: Bubbler drinking fountain

Description: Right bubbler of three

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172871

State Sample ID: 3710020-BIF-E

Date & Time Last Used: 5/17/17 1800-2200

Date & Time Sample Collected: 5/18/17 0605

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: E. Alcorn

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

15-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1172867	Sessions Elementary	18-MAY-2017	0555	EA	SAMPLE 1	
2	W1172868	Sessions Elementary	18-MAY-2017	0600	EA	SAMPLE 2	
3	W1172869	Sessions Elementary	18-MAY-2017	0600	EA	SAMPLE 3	
4	W1172870	Sessions Elementary	18-MAY-2017	0605	EA	SAMPLE 4	
5	W1172871	Sessions Elementary	18-MAY-2017	0605	EA	SAMPLE 5	

2139

Chain of Custody:

Relinquished by: Name: E. Alvarenga 5/18/17 0640 Sign:	Received by: Name: Tom Burger Sign: Tom B Burger	Date & Time: 5-18-17 0713 Location: ALV. LAB	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-18-17
LIMS Received Time: 0733
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Sherman ES

Physical Address of School: 301 22nd Street San Diego CA 92102

First Bell: 8:30 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 4-10-2017

Completed by Print Name: Sergio Salinas

Signature: _____ Date: _____

School's Point of Contact for Sampling Assistance

Name: ~~Sergio Salinas~~ John Baker

Phone: ~~(619) 302-0564~~ 619-302-5281

Email: ssalinas@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-19-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Sherman ES – 301 22nd Street San Diego CA 92102

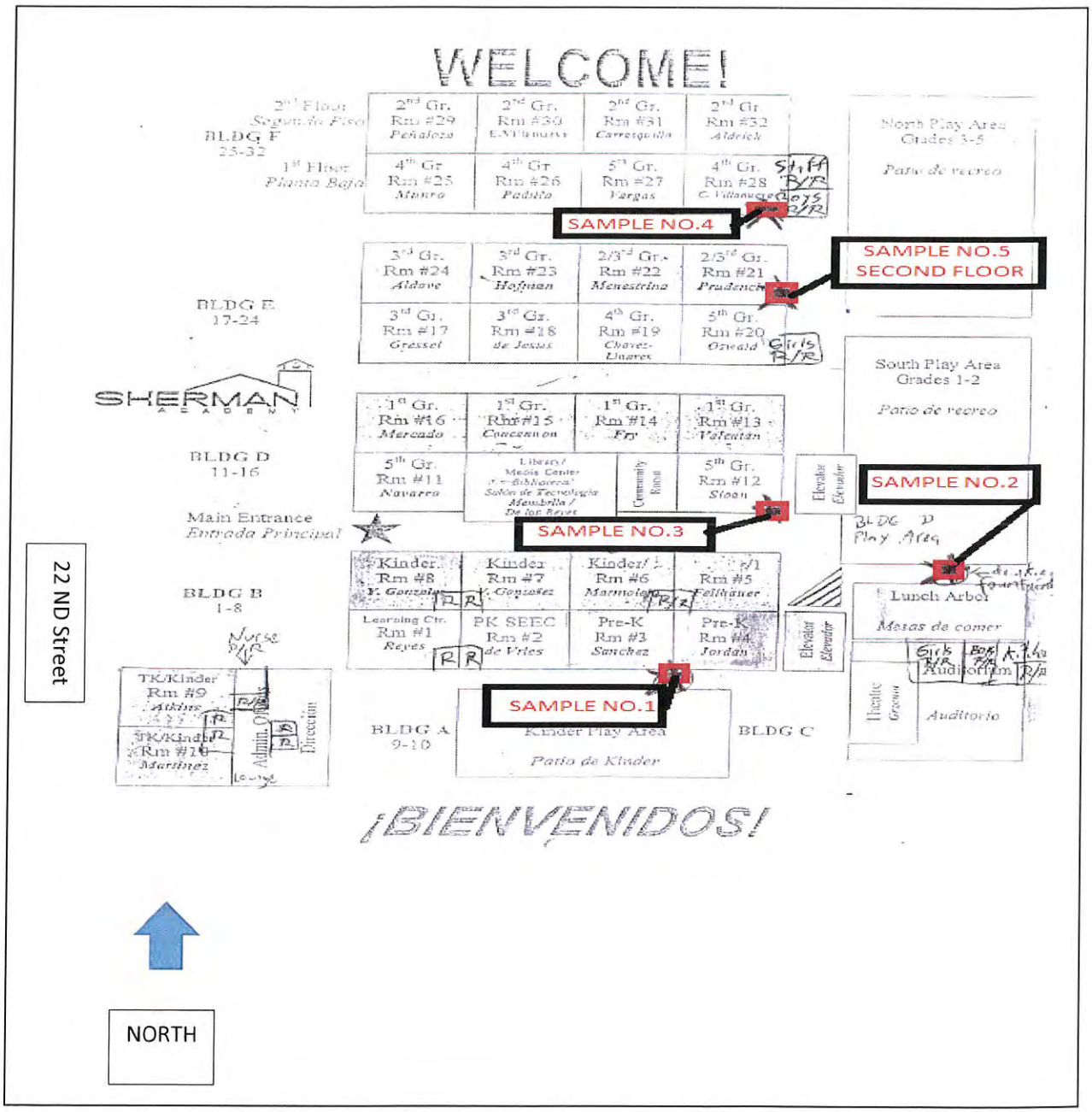

Sample No. 1

School: Sherman ES – 301 22nd Street San Diego CA 92102

Name of Building: Kinder play area – outside of room #3

Location Description: Outside of room #3

Type of Outlet: Bubbler

Description: Middle Bubbler

Comments/Miscellaneous: (School ID NO.259)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167419

State Sample ID: 3710020-AGI-A

Date & Time Last Used: 2200 4-19-17

Date & Time Sample Collected: 0602 4-20-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Tom Burger

Sample No. 2

School: Sherman ES – 301 22nd Street San Diego CA 92102

Name of Building: Lunch Area- auditorium

Location Description: outside drinking fountain in the lunch area

Type of Outlet: Right Bubbler

Description: Right Bubbler

Comments/Miscellaneous: (School ID NO.259)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167420

State Sample ID: 3710020-AGI-B

Date & Time Last Used: 2200 4-19-17

Date & Time Sample Collected: 0607 4-20-17

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: Tom Burger

Sample No. 3

School: Sherman ES – 301 22nd Street San Diego CA 92102

Name of Building Room #12

Location Description: Outside of room #12 and bathroom

Type of Outlet: Right Bubbler

Description: Right Bubbler

Comments/Miscellaneous: (School ID NO.259)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167421

State Sample ID: 3710020-AGI-C

Date & Time Last Used: 2200 4-19-17

Date & Time Sample Collected: 0613 4-20-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Tom Burger

Sample No. 4

School: Sherman ES – 301 22nd Street San Diego CA 92102

Name of Building: Outside of Room # 28

Location Description: Outside of Room#28 and Bathroom

Type of Outlet: Middle Bubbler

Description: Middle Bubbler

Comments/Miscellaneous: (School ID NO.259)

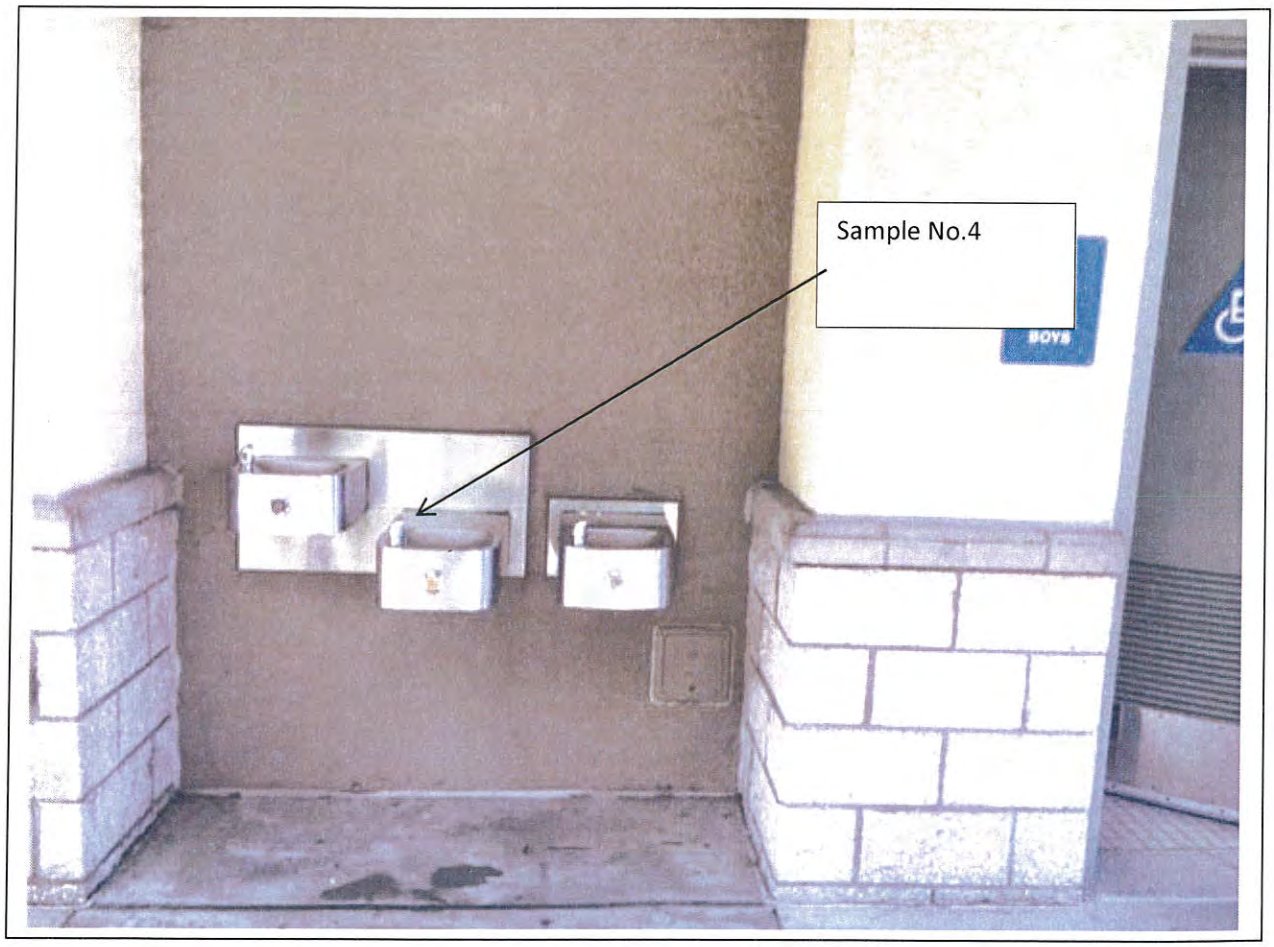

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167422

State Sample ID: 3710020-AGI-D

Date & Time Last Used: 4-19-17 2200

Date & Time Sample Collected: 4-20-17 0610

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T. Burger

Sample No. 5

School: Sherman ES – 301 22nd Street San Diego CA 92102

Name of Building: Room # 21 (second floor)

Location Description: Outside of room # 21 (second floor)

Type of Outlet: Middle Bubbler

Description: Middle Bubbler

Comments/Miscellaneous: (School ID NO.259)

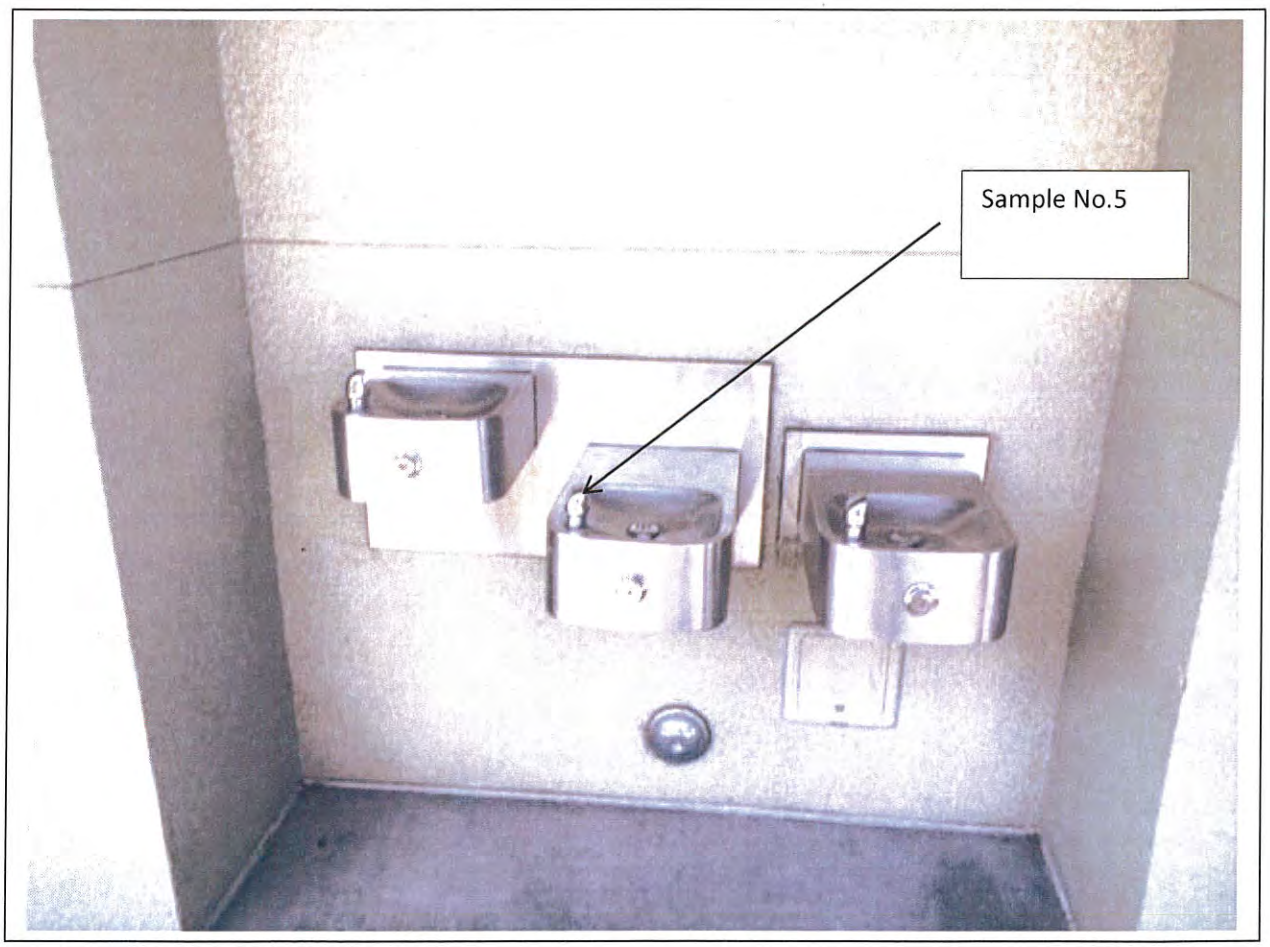

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1167423

State Sample ID: 3710020-AGI-E

Date & Time Last Used: 2200 4-19-17

Date & Time Sample Collected: 0621 4-20-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: TBurger

Exhibit 1

Water Quality Chemistry Services
Chain of Custody Form

19-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1167419	Sherman Elementary	20-APR-2017	0602	T Burger	SAMPLE 1	
2	W1167420	Sherman Elementary	20-APR-2017	0607		SAMPLE 2	
3	W1167421	Sherman Elementary	20-APR-2017	0613		SAMPLE 3	
4	W1167422	Sherman Elementary	20-APR-2017	0616		SAMPLE 4	
5	W1167423	Sherman Elementary	20-APR-2017	0621		SAMPLE 5	

2141

Chain of Custody:

Relinquished by: Name: Tom Burger Sign: Tom B Burger	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 4-20-17 0806 Location: ALV	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 4/20/17
LIMS Received Time: 0839
Reviewed By: AMolloy 4/25/17

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Silver Gate Elementary

Physical Address of School: 1499 Venice St., San Diego, CA 92107-3699

First Bell: 7:45 AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 05/01/2017

Completed by Print Name: Ginette Commins

Signature: G Commins Date: 05/04/2017

School's Point of Contact for Sampling Assistance

Name: ~~Ginette Commins~~ Tim Brown

Phone: (858) 627-7201 619-302-9427

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/15/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Silver Gate Elementary, 1499 Venice St., San Diego, CA 92107-3699

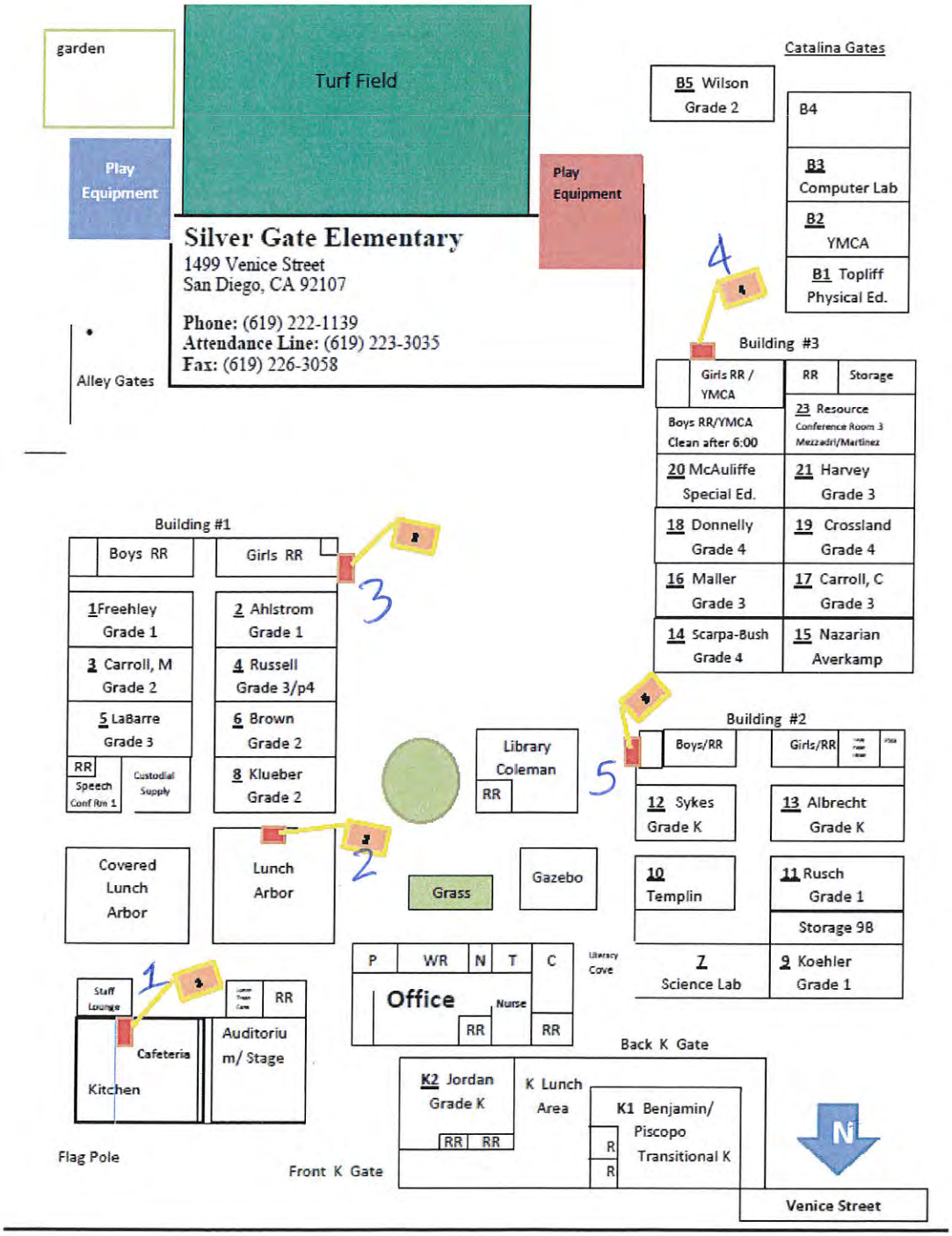

Sample No. 1

School: Silver Gate Elementary

Name of Building: Cafeteria

Location Description: Wall mounted interior (East of the Room) Sink/faucet facing Dining Area, between Kitchen & conference CC2

Type of Outlet: bubbler

Description: bubbler with a lever handle on a sink (HIGH flow)

Comments/Miscellaneous: indoor drinking water source/SDUSD Location Code #261

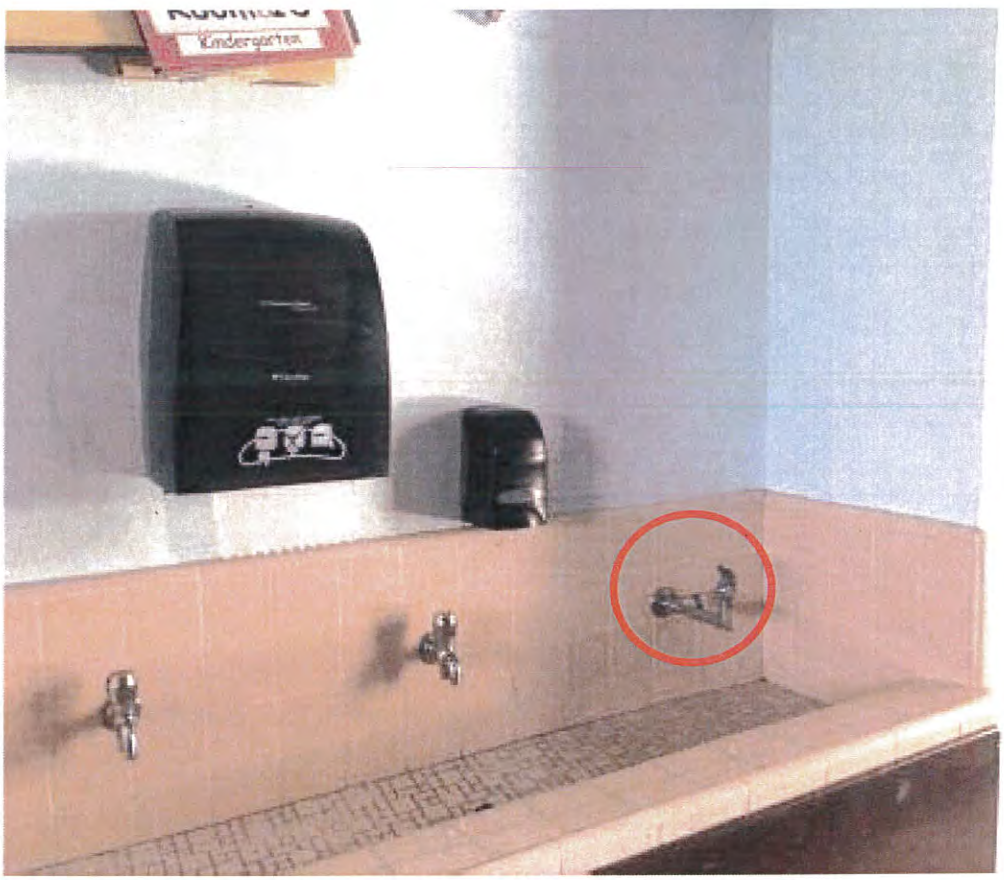

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172872

State Sample ID: 3710020-BIG-A

Date & Time Last Used: 5/17/17 2200

Date & Time Sample Collected: 5/18/17 0608

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Brian Knerr

Sample No. 2

School: Silver Gate Elementary

Name of Building: #1

Location Description: Wall mounted exterior (North of Bldg), facing Lunch Arbor

Type of Outlet: bubbler

Description: upper/right bubbler on a dual fountain

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #261

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172873

State Sample ID: 3710020-BIG-B

Date & Time Last Used: 5/17/17 2200

Date & Time Sample Collected: 5/18/17 0606

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Brian Knerr

Sample No. 3

School: Silver Gate Elementary

Name of Building: #1

Location Description: Wall mounted exterior (West of Bldg), between Storage Rm & Corridor, facing blacktop

Type of Outlet: bubbler

Description: left bubbler head (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #261

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172874

State Sample ID: 3710020-BIG-C

Date & Time Last Used: 5/17/17 2200

Date & Time Sample Collected: 5/18/17 0603

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Brian Knerr

Sample No. 4

School: Silver Gate Elementary

Name of Building: #3

Location Description: Wall mounted exterior (South of Bldg), between Custodian Gear Locker Rm & Girls' Restroom, facing blacktop/playground

Type of Outlet: bubbler

Description: left bubbler head (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #261

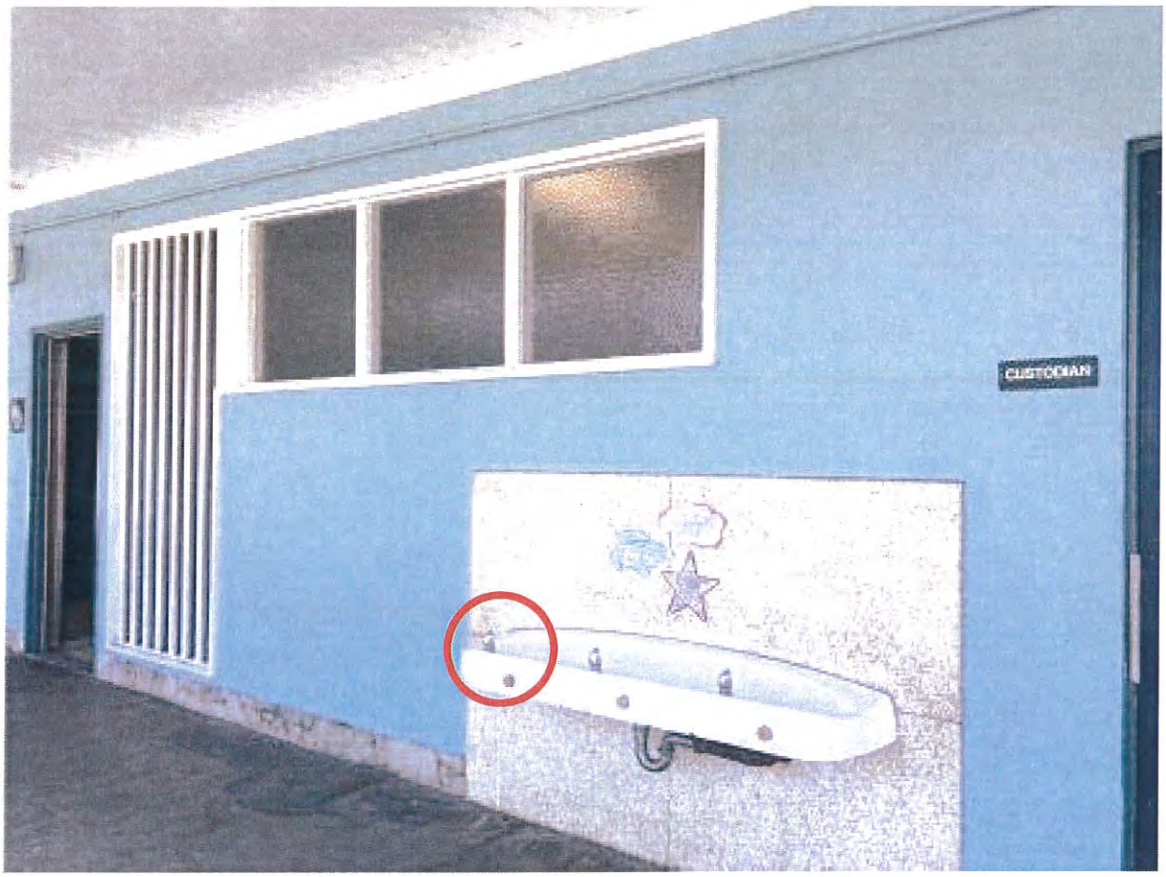

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172875

State Sample ID: 3710020-BIG-D

Date & Time Last Used:

Date & Time Sample Collected: 5/18/17 0615

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Brian Knerr

Bubbler's were not tagged out. Sink appeared dry so sample was still taken.

Sample No. 5

School: Silver Gate Elementary

Name of Building: #2

Location Description: Wall mounted exterior (East of Bldg), between Storage Rm & Corridor, facing Library Bldg

Type of Outlet: bubbler

Description: right bubbler head (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #261

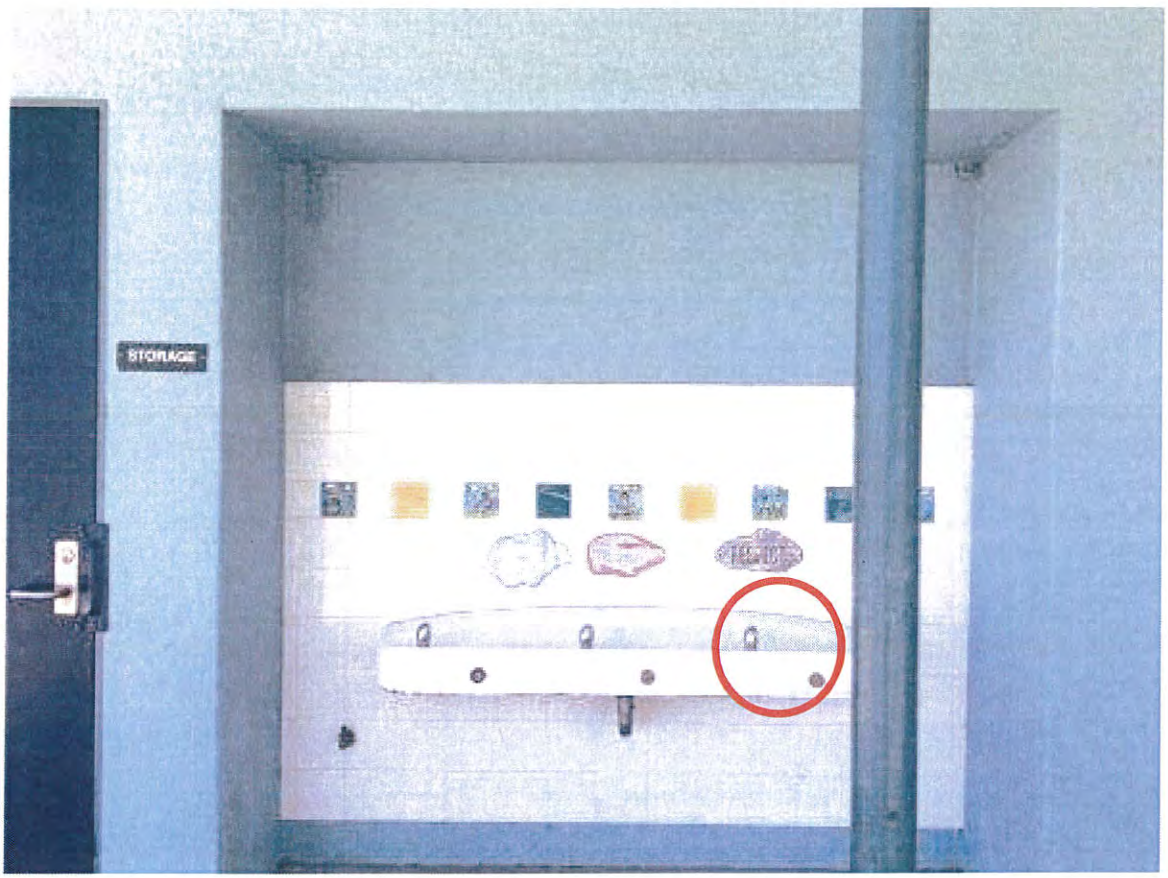

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172876

State Sample ID: 3710020-BIG-E

Date & Time Last Used: 5/17/17 2200

Date & Time Sample Collected: 5/18/17 0612

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Brian Knerr

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

15-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1172872	Silver Gate Elementary	18-MAY-2017	0608	Brian Knerr	SAMPLE 1	
2	W1172873	Silver Gate Elementary	18-MAY-2017	0606	↓	SAMPLE 2	
3	W1172874	Silver Gate Elementary	18-MAY-2017	0603	↓	SAMPLE 3	
4	W1172875	Silver Gate Elementary	18-MAY-2017	0615	↓	SAMPLE 4	
5	W1172876	Silver Gate Elementary	18-MAY-2017	0612	↓	SAMPLE 5	

2155

Chain of Custody:

Relinquished by: Name: Brian Knerr Sign: BK	Received by: Name: Tom Burger Sign: Tom B. Burger	Date & Time: 5/18/17 0642 Location: Alv.	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: T. Burger
Received Date: 5-18-17
LIMS Received Time: 0744
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: SOUTHWEST HIGH SCHOOL

Physical Address of School: 1685 Hollister street san diego ca 92154

First Bell:

Meeting Date: 5/15/17

Sampling Plan Completion Date:

Completed by Print Name: Jean–Pierre Garcia

Signature: Jean Pierre Garcia Date: 5/24/17

School's Point of Contact for Sampling Assistance

Name: JEAN-PIERRE GARCIA

Phone: 619-6495882

Email: JEAN-PIERRE.GARCIA@SWEETWATERSCHOOLS.ORG

City of San Diego 3710020

Approved By: 5/30/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address:_____

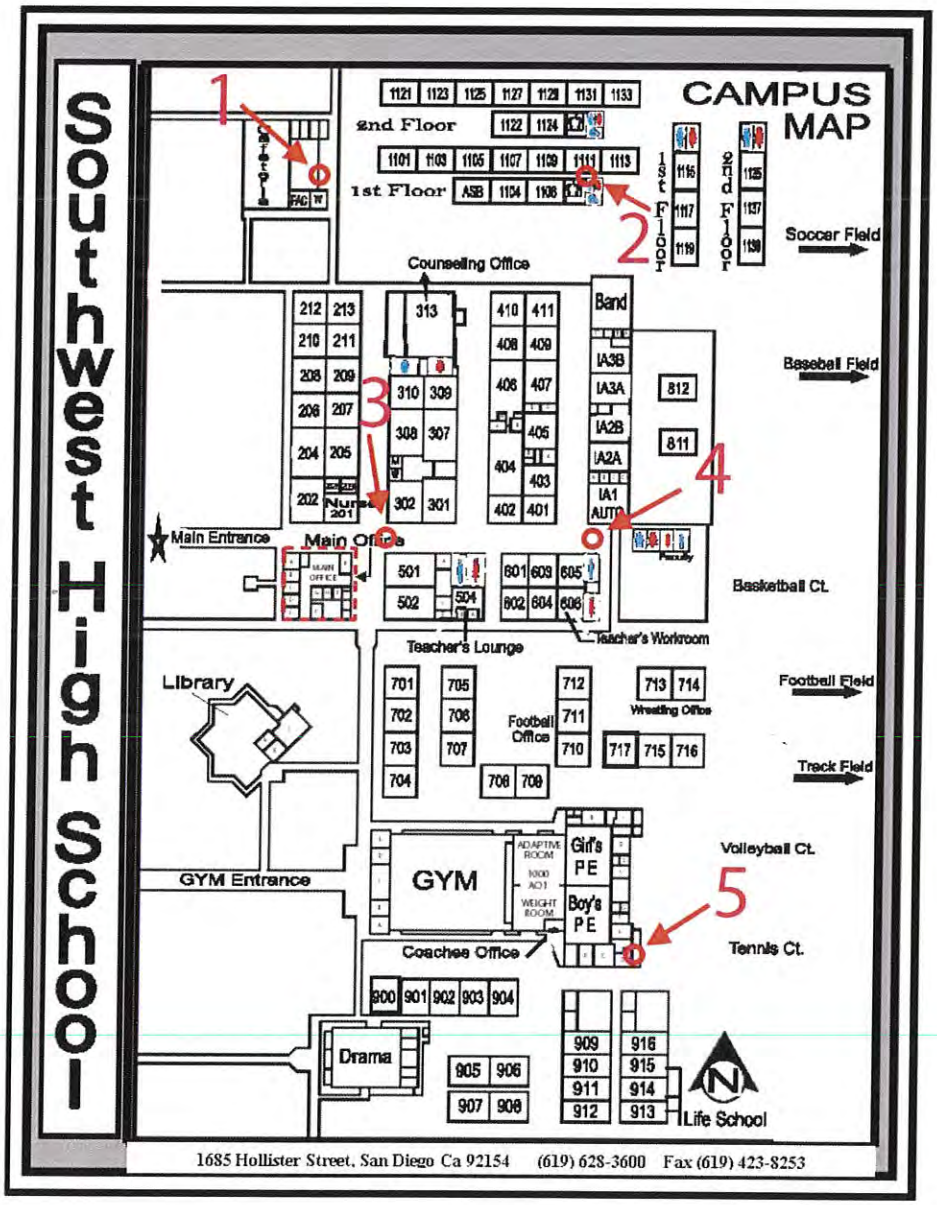

Sample No. 1

School: SOUTHWEST HIGH SCHOOL

Name of Building: CAFETERIA KITCHEN

Location Description:

Type of Outlet: DOUBLE SINK below window

Description: Faucet at double sink

Comments/Miscellaneous:

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1175864

State Sample ID: 3710020-CCE-A

Date & Time Last Used: 4:00 pm 6-29-17

Date & Time Sample Collected: 0535 6-30-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T. Burger

Sample No. 2

School: SOUTHWEST H SCHOOL

Name of Building: 11OO BLDG

Location Description: NEXT TO ELEVATOR

Type of Outlet: two single bubbler fountains

Description: upper right fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1175865

State Sample ID: 3710020-CCE-B

Date & Time Last Used: 4:00 pm 6-29-17

Date & Time Sample Collected: 0542 6-30-17

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: T. Burger

Sample No. 3

School: ACROSS MAIN OFFICE

Name of Building: NONE

Location Description: BETWEEN 300& 500 BLDG

Type of Outlet: two single bubbler fountains

Description: upper left fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1175866

State Sample ID: 3710020-CCE-C

Date & Time Last Used: 4:00 6-29-17

Date & Time Sample Collected: 0545 6-30-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T. Burger

Sample No. 4

School: SOUTHWEST H SCHOOL

Name of Building: NONE

Location Description: NEXT TO 605

Type of Outlet: two single bubbler fountains

Description: upper left fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1175867

State Sample ID: 3710020-CCE-D

Date & Time Last Used: 4:00pm 6-29-17

Date & Time Sample Collected: 0548 6-30-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T. Burger

Sample No. 5

School: SOUTHWEST HIGH SCHOOL

Name of Building: BOYS PE

Location Description: OUTSIDE BOYS PE

Type of Outlet: Dual bubbler fountain

Description: right bubbler

Comments/Miscellaneous:

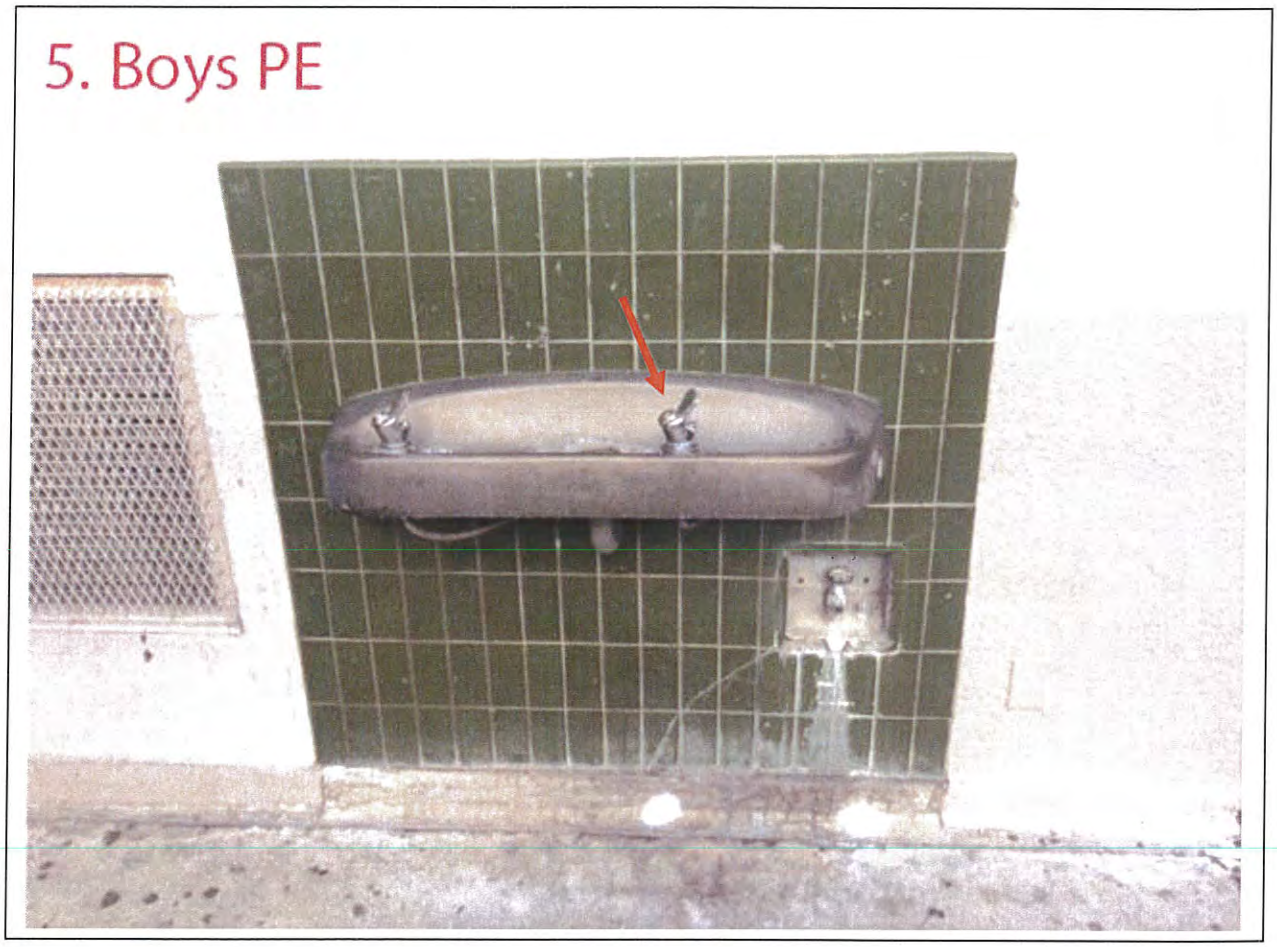

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1175868

State Sample ID: 3710020-CCE-E

Date & Time Last Used:

Date & Time Sample Collected:

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector:

Water off
No Sample

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

29-Jun-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1175864	Southwest Senior High	30-JUN-2017	0535	T. Burger	SAMPLE 1	
2	W1175865	Southwest Senior High	30-JUN-2017	0542		SAMPLE 2	
3	W1175866	Southwest Senior High	30-JUN-2017	0545		SAMPLE 3	
4	W1175867	Southwest Senior High	30-JUN-2017	0548		SAMPLE 4	
5	W1175868	Southwest Senior High	30-JUN-2017	NS		SAMPLE 5	

2163

Chain of Custody:

Relinquished by: Name: Tom Burger Sign: Tom B. Burger	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 6-30-17 0933 Location: DUQL Office	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 6/30/17
LIMS Received Time: 0949
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego
Water System Number: 3710020
DOE School Name: Southwest Middle School
Physical Address of School: 2710 Iris Avenue San Diego CA 92154
First Bell: 7:55am

Meeting Date: 05/15/2017
Sampling Plan Completion Date:
Completed by Print Name: Mario A. Campos
Signature: [signature] Date: 05/24/17

School's Point of Contact for Sampling Assistance

Name: Mario Campos
Phone: 619-628-4070
Email: mario.campos@sweetwaterschools.org

City of San Diego 3710020

Approved By: [signature] 5/25/2017 Matthew Nelson
Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Southwest Middle School – 2710 Iris Avenue San Diego, CA 92154

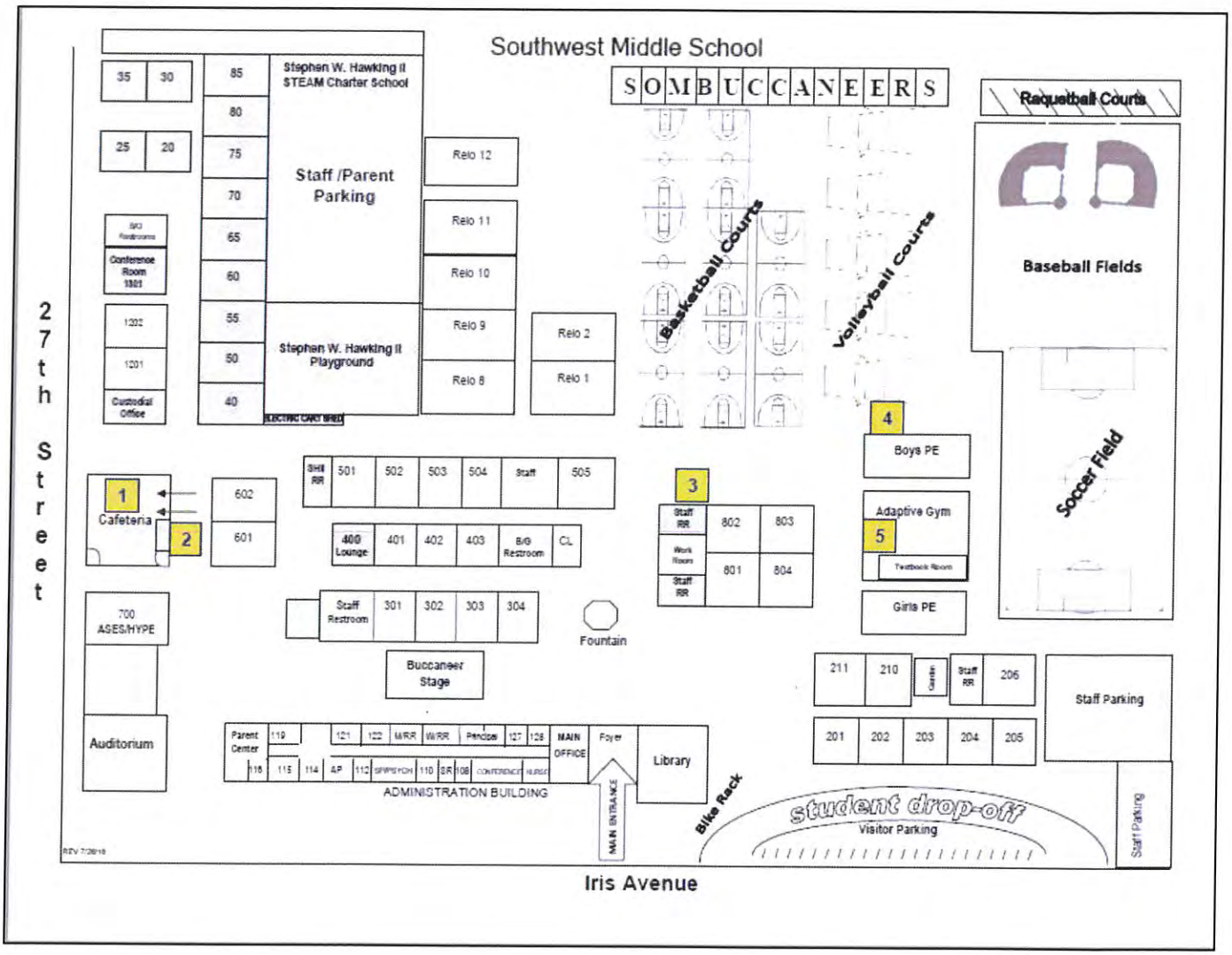

Sample No. 1

School: Southwest Middle School

Name of Building: Cafeteria

Location Description: Kitchen Food Prep Sink

Type of Outlet: Double Sink

Description:

Comments/Miscellaneous:

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174604

State Sample ID: 3710020-CBF-A

Date & Time Last Used: 6/1/17 @ ~~20~~ ~~2000~~ 8pm

Date & Time Sample Collected: 6/2/17 @ 0620

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

Sample No. 2

School: Southwest Middle School

Name of Building: Cafeteria

Location Description: Exterior Building East Side Drinking Fountain

Type of Outlet: Right Bubbler

Description:

Comments/Miscellaneous:

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174605

State Sample ID: 3710020-CBF-B

Date & Time Last Used: 6/1/17 @ 8pm

Date & Time Sample Collected: 6/2/17 @ 0622

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rubb

Sample No. 3

School: Southwest Middle School

Name of Building: 800 Building

Location Description: Exterior North Side Drinking Fountain

Type of Outlet: Right Bubbler

Description:

Comments/Miscellaneous:

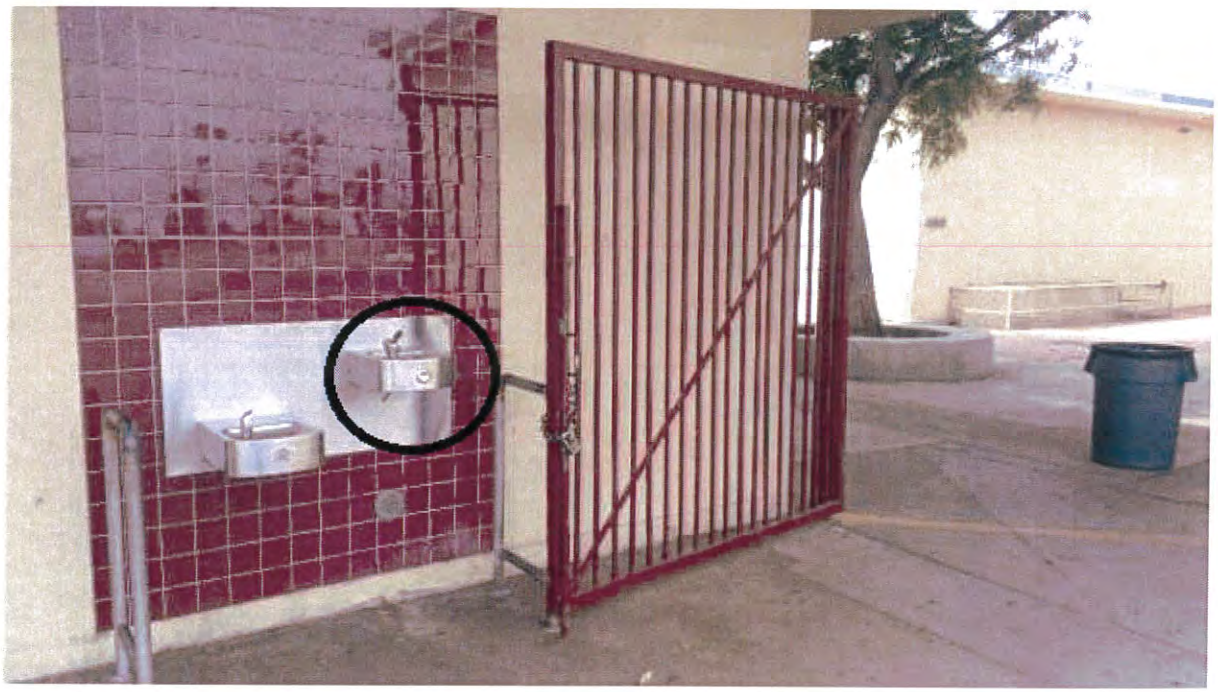

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174606

State Sample ID: 3710020-CBF-C

Date & Time Last Used: 6/1/17 @ 8pm

Date & Time Sample Collected: 6/2/17 @ 0625

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

Sample No. 4

School: Southwest Middle School

Name of Building: Boys PE

Location Description: Exterior North Side Building Drinking Fountain

Type of Outlet: Right Bubbler

Description:

Comments/Miscellaneous:

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174607

State Sample ID: 3710020-CBF-D

Date & Time Last Used: 6/1/17 @ 8pm

Date & Time Sample Collected: 6/2/17 @ 0626

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: Joshua Rank

Sample No. 5

School: Southwest Middle School

Name of Building: Adaptive Weight Room

Location Description: Inside Building West side Wall – Drinking Fountain

Type of Outlet: Right Bubbler

Description:

Comments/Miscellaneous:

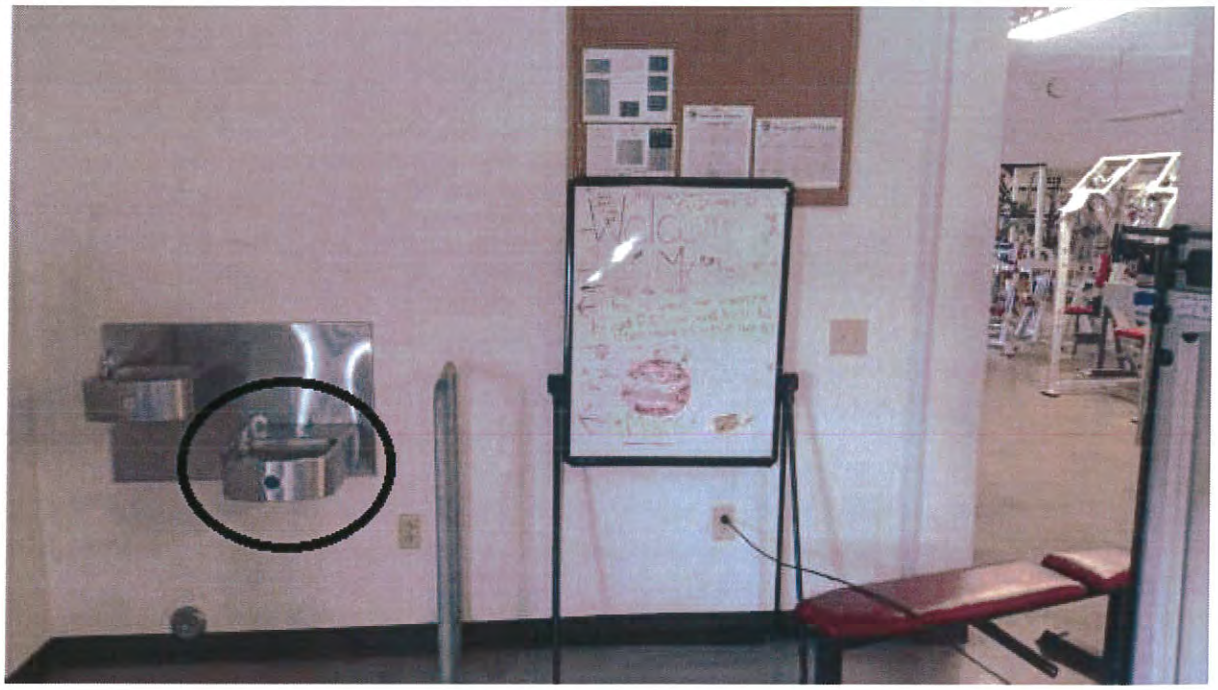

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174608

State Sample ID: 3710020-CBF-E

Date & Time Last Used: 6/1/17 @ 8pm

Date & Time Sample Collected: 6/2/17 @ 0630

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

Water Quality Chemistry Services
Chain of Custody Form

01-Jun-2017

1643

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1174604	Southwest Middle School	02-JUN-2017	0620	JR	SAMPLE 1	
2	W1174605	Southwest Middle School	02-JUN-2017	0622	JR	SAMPLE 2	
3	W1174606	Southwest Middle School	02-JUN-2017	0625	JR	SAMPLE 3	
4	W1174607	Southwest Middle School	02-JUN-2017	0626	JR	SAMPLE 4	
5	W1174608	Southwest Middle School	02-JUN-2017	0630	JR	SAMPLE 5	

2171

Chain of Custody:

Relinquished by: Name: Joshua Rambo Sign:	Received by: Name: AMally Sign: Alejandra Molloy	Date & Time: 6/2/17 @ 1000 Location: ALV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMally
Received Date: 6/02/17
LIMS Received Time: 1048
Reviewed By:

Exhibit 31

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Spreckels Elementary School

Physical Address of School: 6033 Stadium St. San Diego, CA 92122

First Bell: 7:30AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 05/01/2017

Completed by Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 05/01/2017

School's Point of Contact for Sampling Assistance

Name: Daniel Lopez

Phone: 619-306-3383

Email: dlopez@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/2/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Spreckels Elementary School 6033 Stadium St. San Diego, CA 92122

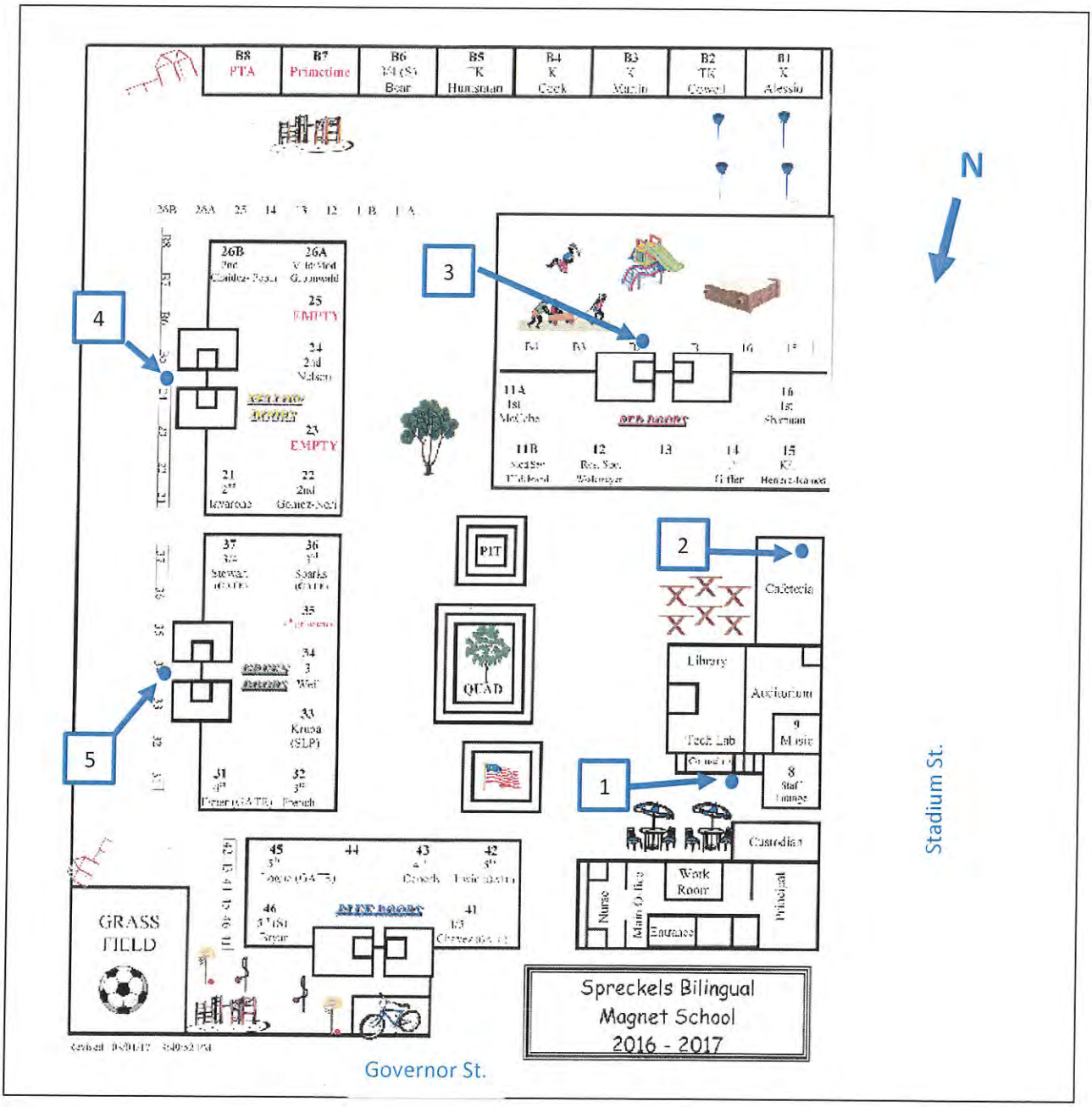

Sample No. 1

School: Spreckels Elementary School

Name of Building: Auditorium/Library Building

Location Description: South facing wall outside of building near Restrooms

Type of Outlet: 2 single bubblers

Description: Bubbler on right side

Comments/Miscellaneous:

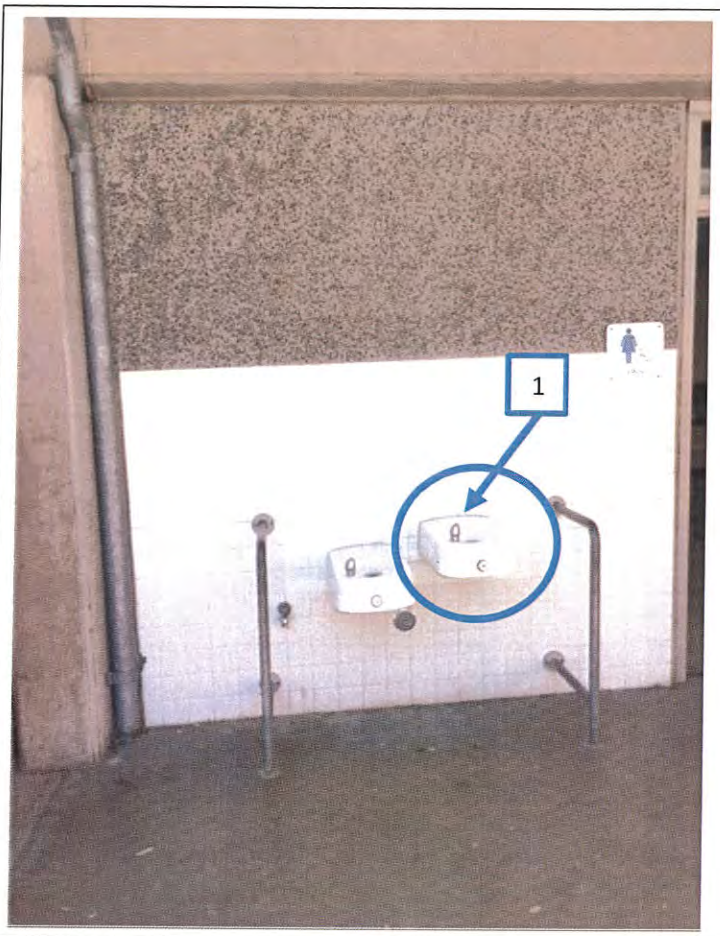

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170184

State Sample ID: 3710020-BFI-A

Date & Time Last Used: 5/17/17 2200

Date & Time Sample Collected: 5/18/17 0557

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 2

School: Spreckels Elementary School

Name of Building: Cafeteria/Kitchen Building

Location Description: Inside kitchen on North side of building

Type of Outlet: Kitchen sink

Description: Cold side of faucet

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170185

State Sample ID: 3710020-BFI-B

Date & Time Last Used: 5/17/17 2200

Date & Time Sample Collected: 5/18/17 0602

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 3

School: Spreckels Elementary School

Name of Building: Red Door Building

Location Description: North side of building outside location

Type of Outlet: 2 Single Bubblers

Description: Bubbler on left

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170186

State Sample ID: 3710020-BFI-C

Date & Time Last Used: 5/17/17 2200

Date & Time Sample Collected: 5/18/17 0608

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 4

School: Spreckels Elementary School

Name of Building: Yellow Door Building

Location Description: West side of building outside

Type of Outlet: 2 Single Bubblers

Description: Bubbler on left side

Comments/Miscellaneous:

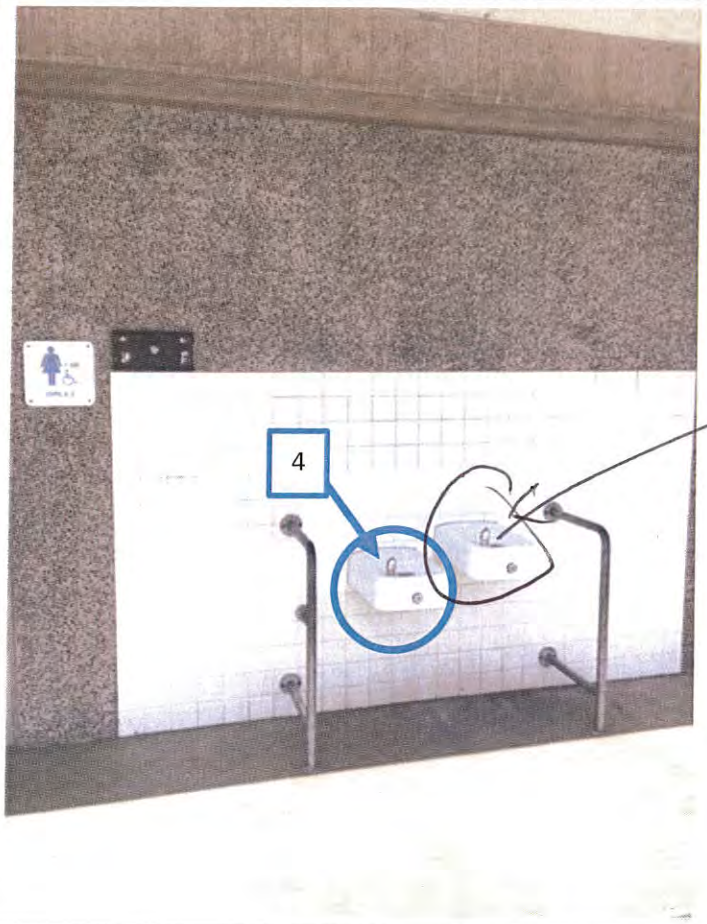

Corrected in LIMS/Drake TBell 5-18-17

sample taken from right bubbler

left bubbler was shut off.

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170187

State Sample ID: 3710020-BFI-D

Date & Time Last Used: 5/17/17 2200

Date & Time Sample Collected: 5/18/17 0612

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 5

School: Spreckels Elementary School

Name of Building: Green Door Building

Location Description: West side of building outside

Type of Outlet:

Description:

Comments/Miscellaneous:

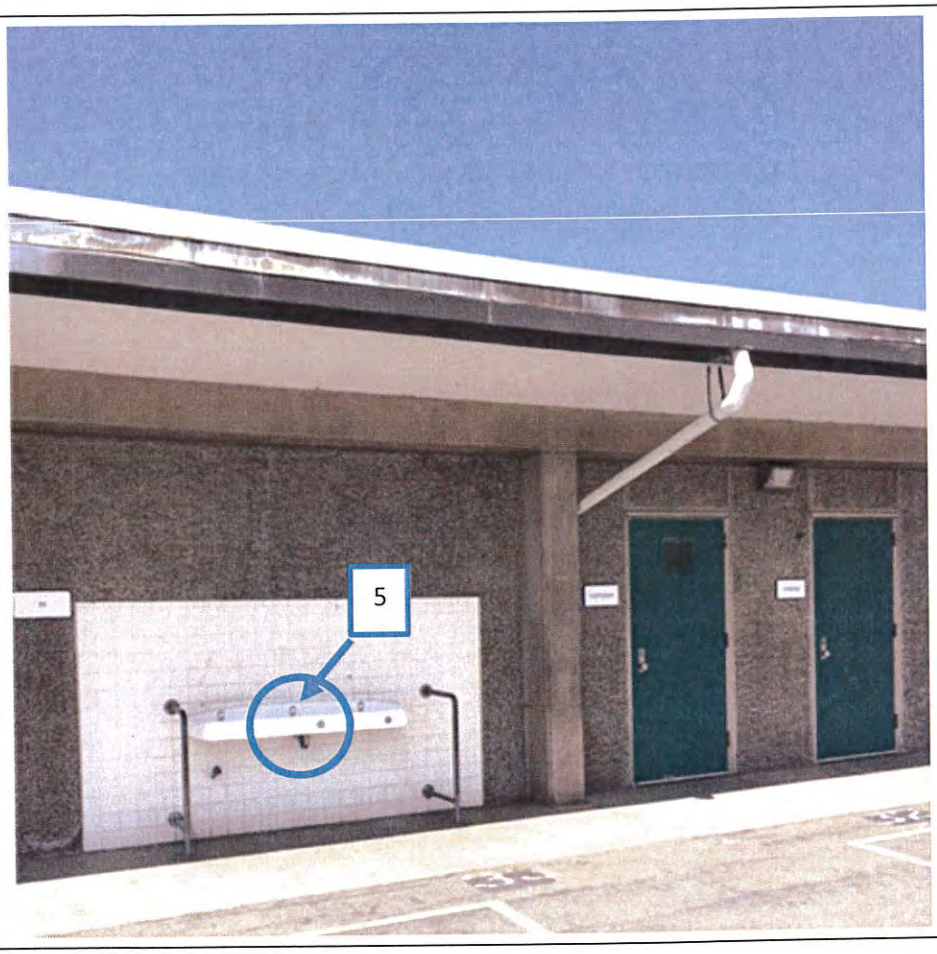

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170188

State Sample ID: 3710020-BFI-E

Date & Time Last Used: 5/17/17 2200

Date & Time Sample Collected: 5/18/17 0616

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

middle bubbler sampled

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

15-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1170184	Spreckels Elementary	18-MAY-2017	0557	D. Sowersby	SAMPLE 1	
2	W1170185	Spreckels Elementary	18-MAY-2017	0602		SAMPLE 2	
3	W1170186	Spreckels Elementary	18-MAY-2017	0608		SAMPLE 3	
4	W1170187	Spreckels Elementary	18-MAY-2017	0612		SAMPLE 4	
5	W1170188	Spreckels Elementary	18-MAY-2017	0616		SAMPLE 5	

2179

Chain of Custody:

Relinquished by: Name: DAN Sowersby Sign: D. Sowersby	Received by: Name: Tom Burger Sign: TMB Burger	Date & Time: 5-18-17 0655 Location: ALV. LAB	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-18-17
LIMS Received Time: 1026
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: SESI-Specialized Education (Springall Academy)

Physical Address of School: 6460 Boulder Lake Ave, San Diego CA 92119

First Bell: 8:30 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 4-24-2017

Completed by Print Name: Sergio Salinas

Signature: _____ Date: _____

School's Point of Contact for Sampling Assistance

Name: ~~Sergio Salinas~~ Lori Sherman

Phone: ~~(619) 302-0564~~ 619 301 9086

Email: ssalinas@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/25/2017 — Matthew Nelson

Signature & Date — Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: SESI-Specialized Education -6460 Boulder Lake Ave, San Diego CA 92119

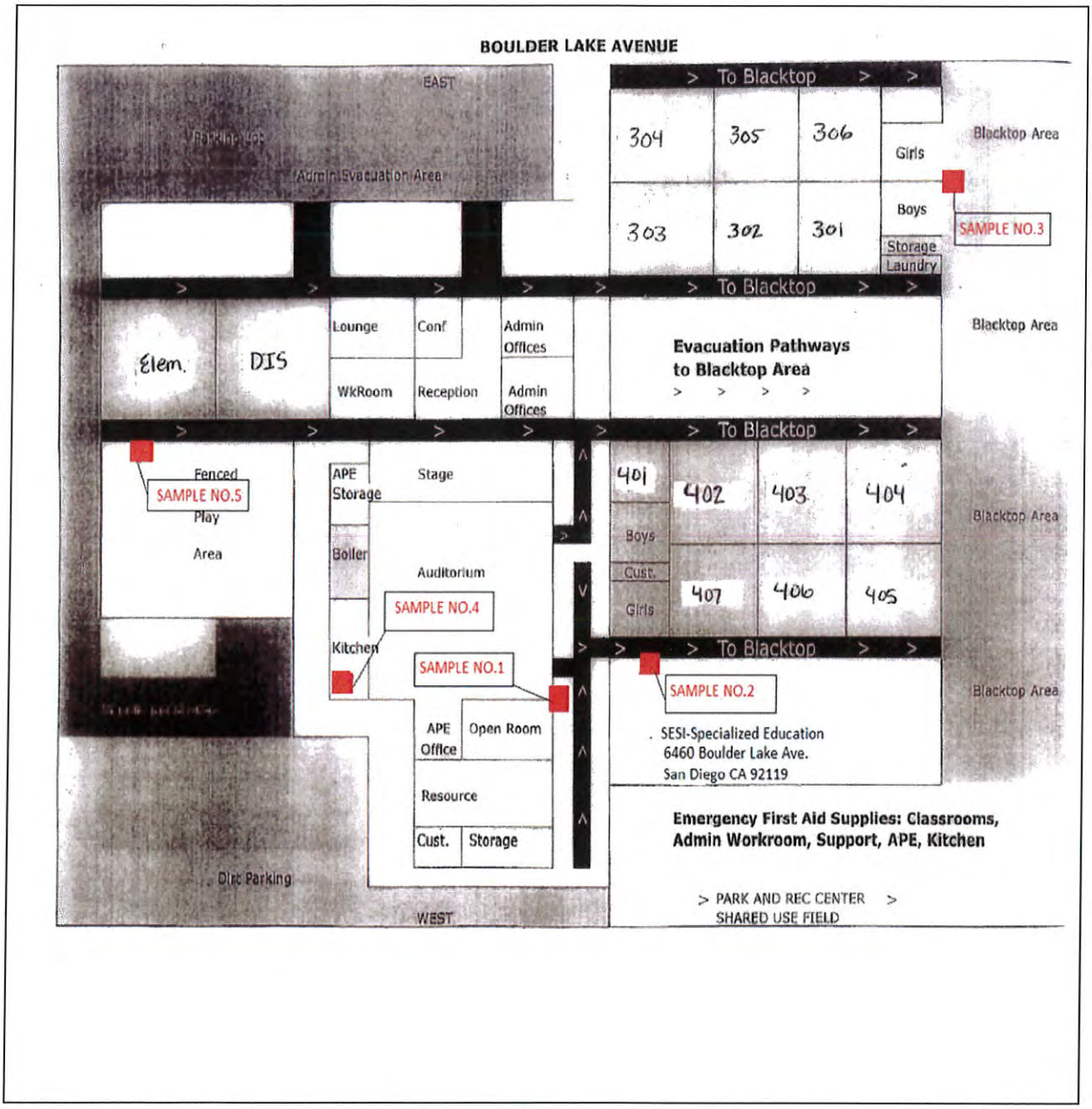

Sample No. 1

School: SESI-Specialized Education -6460 Boulder Lake Ave, San Diego CA 92119

Name of Building: Outside the Auditorium

Location Description: Outside the Auditorium and the open room

Type of Outlet: Bubbler

Description: Right Bubbler

Comments/Miscellaneous: (School ID NO.109)

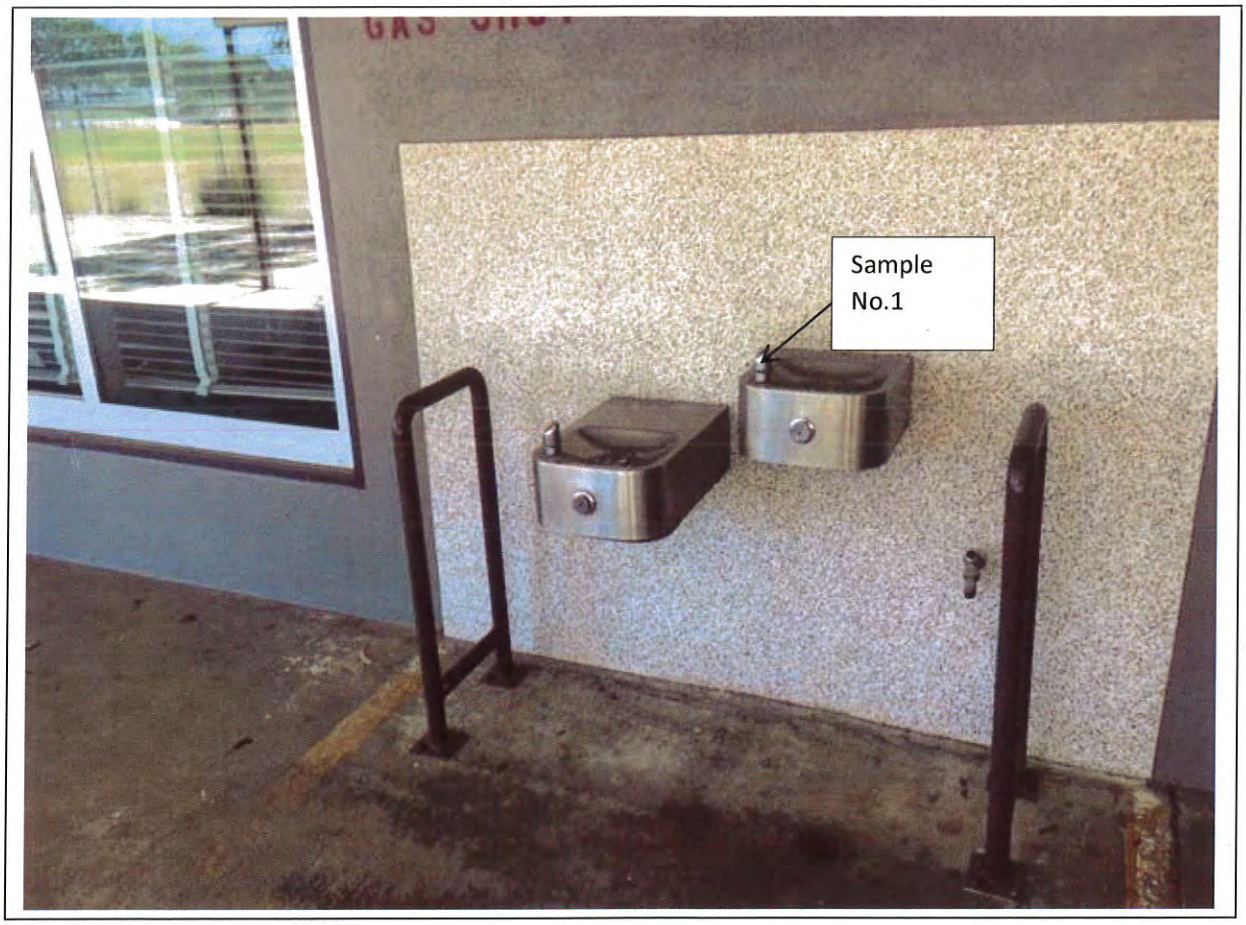

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174431

State Sample ID: 3710020-CBB-A

Date & Time Last Used: 5/24/17 2200

Date & Time Sample Collected: 5/25/17 0540

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: M. Nelson

Sample No. 2

School: SESI-Specialized Education -6460 Boulder Lake Ave, San Diego CA 92119

Name of Building: Building 400

Location Description: Building 400 outside drinking fountain next to bathroom and room 407

Type of Outlet: Bubbler

Description: Right Bubbler

Comments/Miscellaneous: (School ID NO.109)

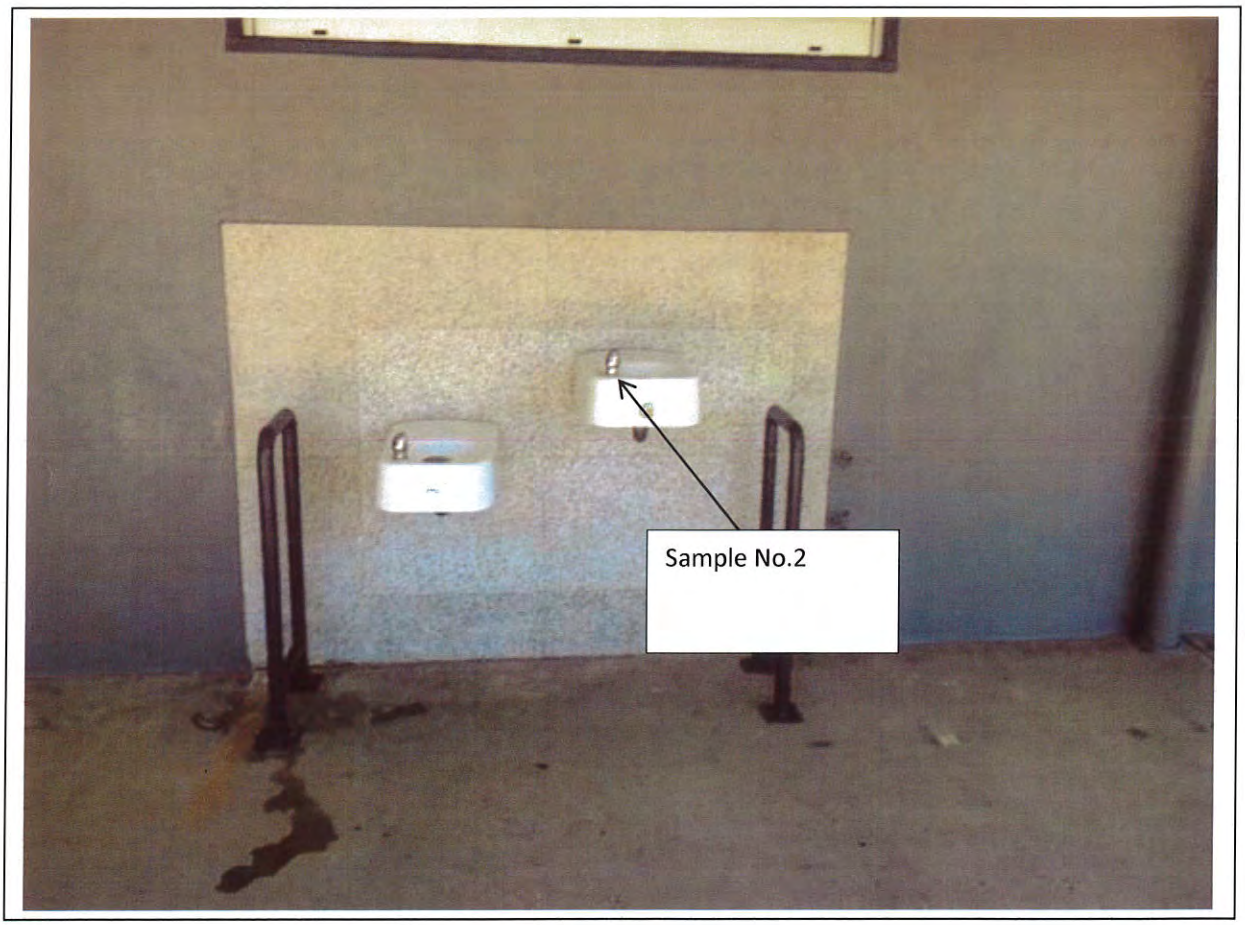

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174432

State Sample ID: 3710020-CBB-B

Date & Time Last Used: 5/24/17 2200

Date & Time Sample Collected: 5/25/17 0542

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 3

School: SESI-Specialized Education -6460 Boulder Lake Ave, San Diego CA 92119

Name of Building Building 300

Location Description: Building 300- in front of the bathrooms

Type of Outlet: Bubbler

Description: second bubbler from the right

Comments/Miscellaneous: (School ID NO.109)

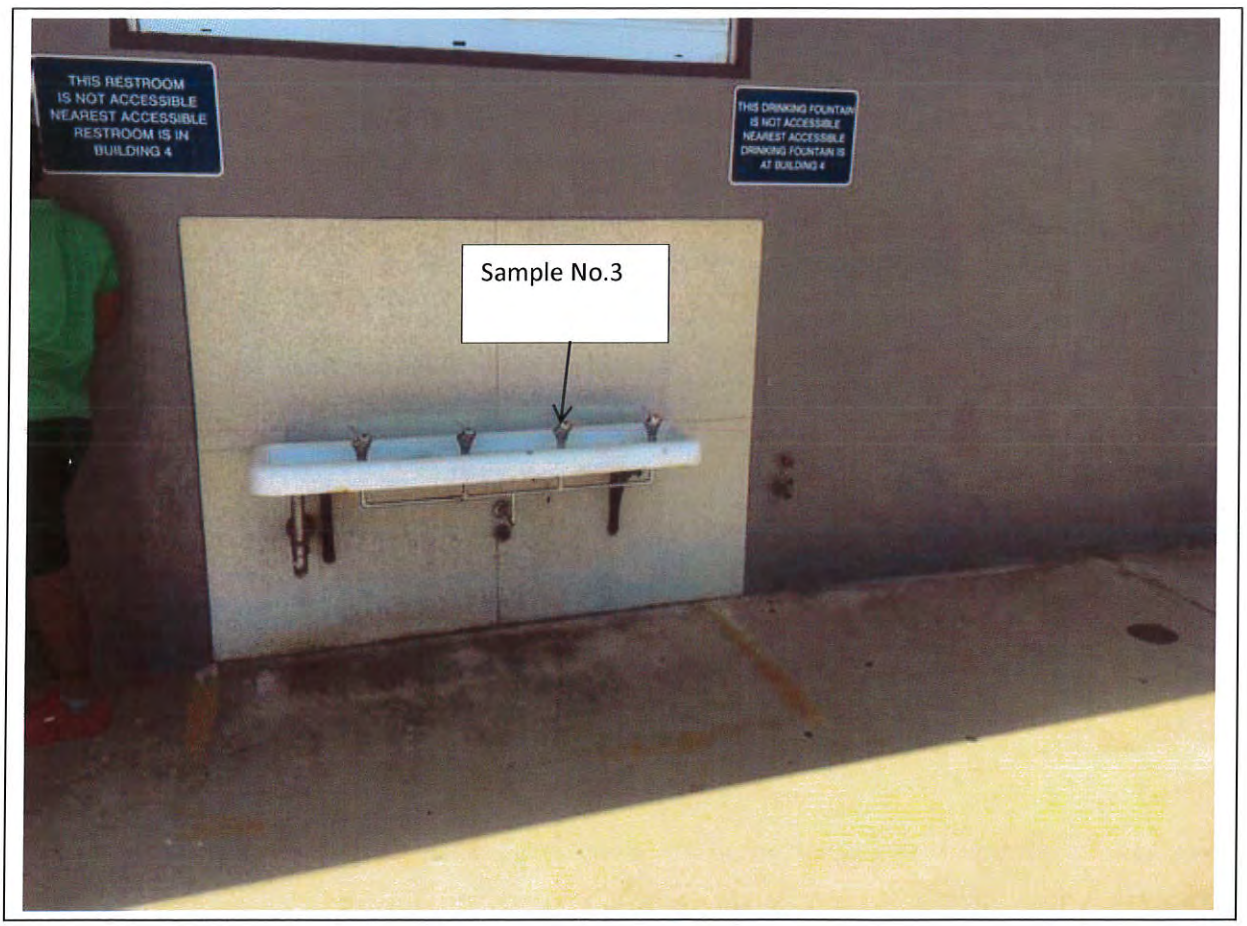

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174433

State Sample ID: 3710020-CBB-C

Date & Time Last Used: 5/24/17 2200

Date & Time Sample Collected: 5/25/17 0546

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 4

School: SESI-Specialized Education -6460 Boulder Lake Ave, San Diego CA 92119

Name of Building: Kitchen

Location Description: Inside Kitchen

Type of Outlet: Faucet

Description: Faucet in kitchen

Comments/Miscellaneous: (School ID NO.109)

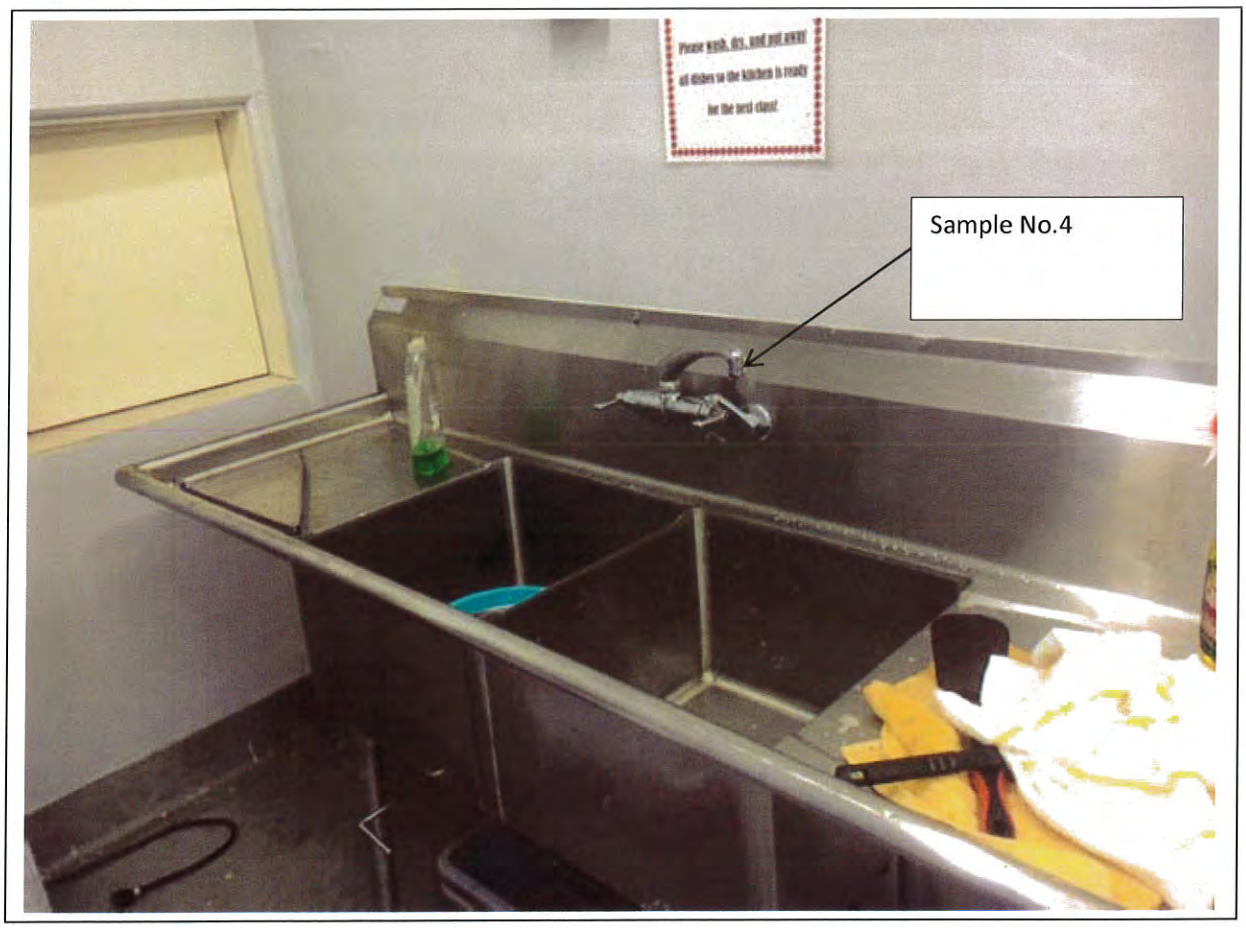

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174434

State Sample ID: 3710020-CBB-D

Date & Time Last Used: 5/24/17 2200

Date & Time Sample Collected: 5/25/17 0536

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 5

School: SESI-Specialized Education -6460 Boulder Lake Ave, San Diego CA 92119

Name of Building: Outside elementary classroom

Location Description: Outside drinking fountain in the play area

Type of Outlet: Bubbler

Description: Right Bubbler

Comments/Miscellaneous: (School ID NO.109)

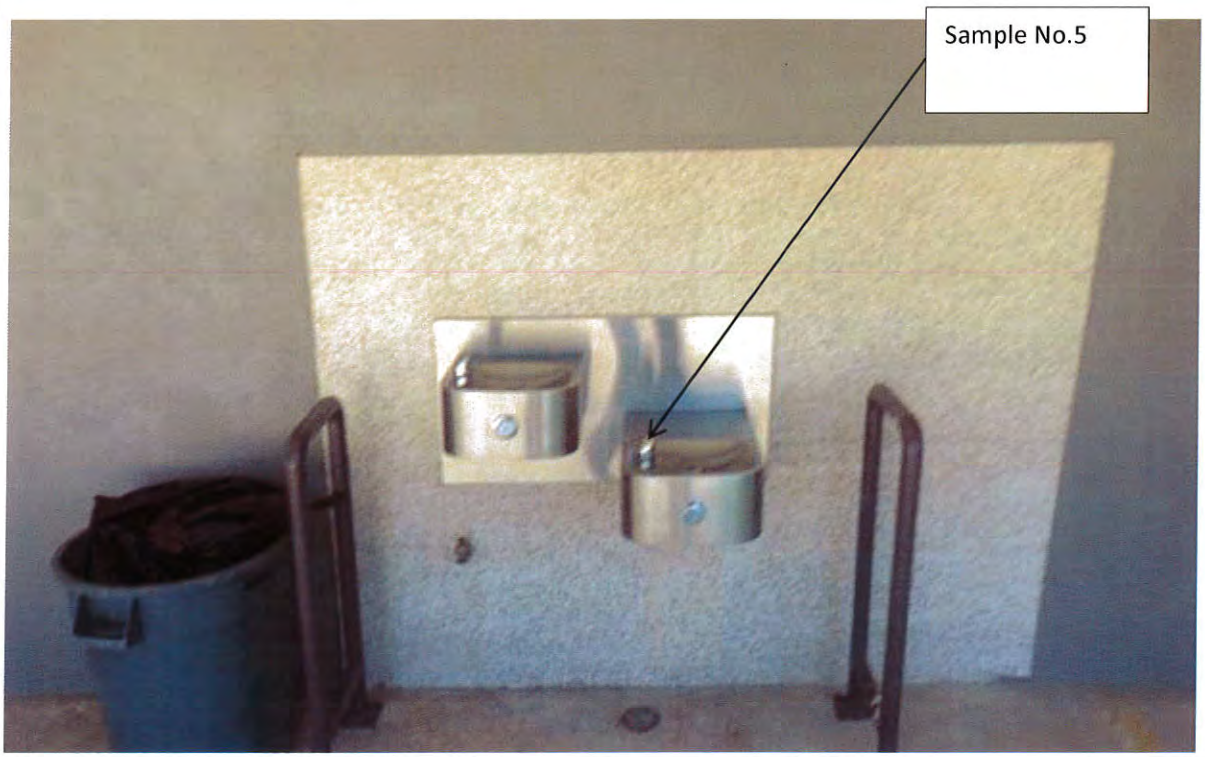

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174435

State Sample ID: 3710020-CBB-E

Date & Time Last Used: 5/24/17 2200

Date & Time Sample Collected: 5/25/17 0528

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M Nelson

Exhibit 1

Water Quality Chemistry Services
Chain of Custody Form

23-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1174431	Springall Academy	25-MAY-2017	0540	M. Nelson	SAMPLE 1	
2	W1174432	Springall Academy	25-MAY-2017	0542		SAMPLE 2	
3	W1174433	Springall Academy	25-MAY-2017	0546		SAMPLE 3	
4	W1174434	Springall Academy	25-MAY-2017	0536		SAMPLE 4	
5	W1174435	Springall Academy	25-MAY-2017	0528		SAMPLE 5	

2181

Chain of Custody:

Relinquished by: Name: M. Nelson Sign:	Received by: Name: Alejandra Molloy Sign:	Date & Time: 5/25/17 @ 0630 Location: WQL Aiv	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/25/17
LIMS Received Time: 0737
Reviewed By:

1659

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Standley Middle School

Physical Address of School: 6298 Radcliffe Dr. San Diego, CA 92122

First Bell: 7:30AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 05/02/2017

Completed by Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 05/02/2017

School's Point of Contact for Sampling Assistance

Name: Daniel Lopez Cesar Jimenez

Phone: 619-306-3383 619-261-1588

Email: dlopez2@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/15/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Standley Middle School 6298 Radcliffe Dr. San Diego, CA 92122

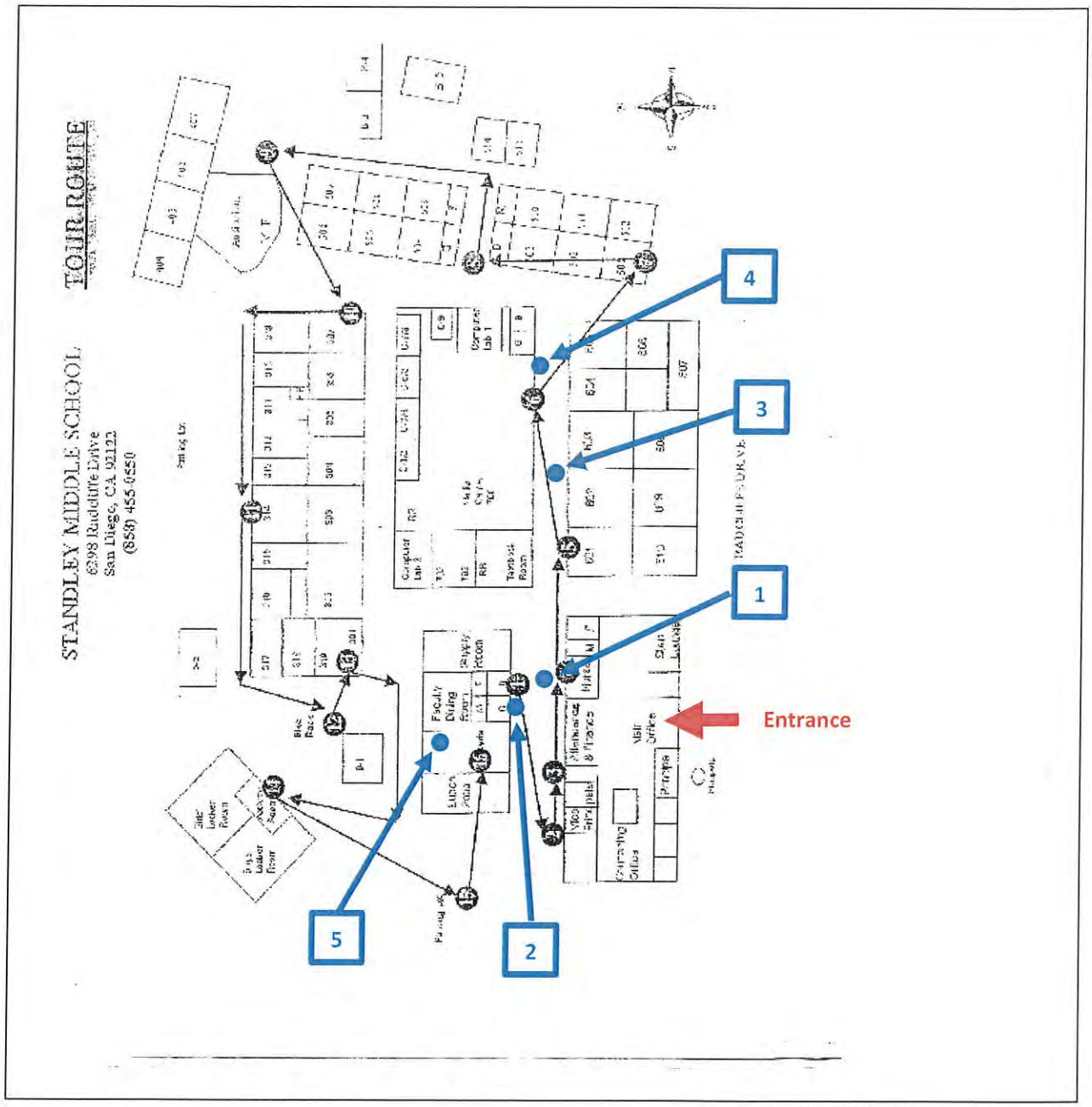

Sample No. 1

School: Standley Middle School

Name of Building: Admin Building

Location Description: West facing wall near lunch patio area on outside of Admin Building

Type of Outlet: Triple bubbler

Description: Center bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172877

State Sample ID: 3710020-BIH-A

Date & Time Last Used: 5/17/17 between 6-10pm

Date & Time Sample Collected: 5/18/17 @ 06 18

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

Sample No. 2

School: Standley Middle School

Name of Building: Kitchen building/Supply Room Building

Location Description: East facing wall near lunch patio. Near Restrooms.

Type of Outlet: 2 single bubblers

Description: Bubbler on right side

Comments/Miscellaneous:

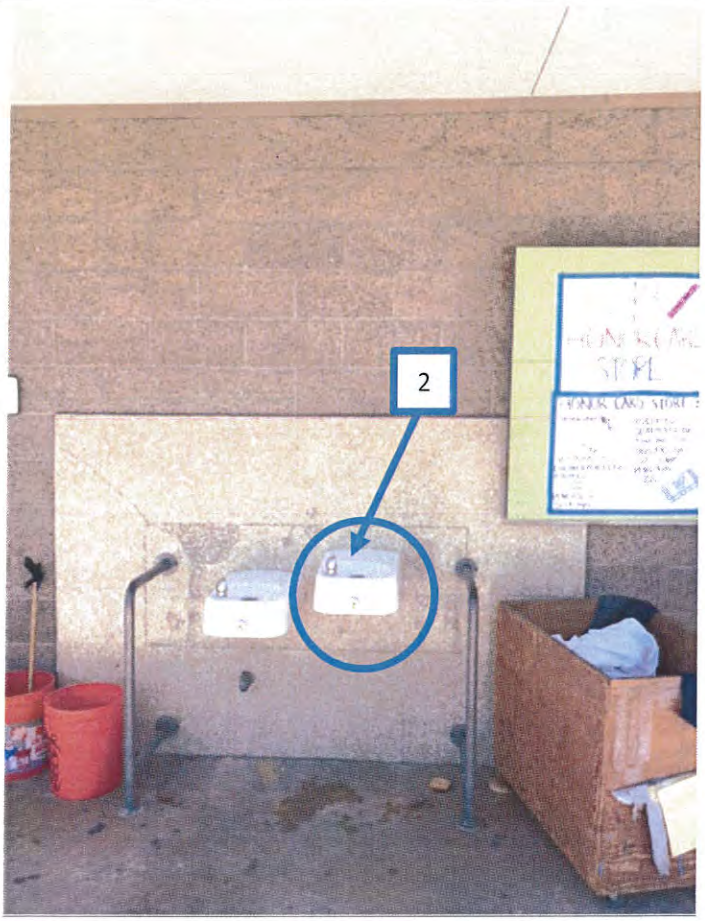

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172878

State Sample ID: 3710020-BIH-B

Date & Time Last Used: 5/17/17 between 6-10pm

Date & Time Sample Collected: 5/18/17 @ 0615 ✓

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

Sample No. 3

School: Standley Middle School

Name of Building: 600 Building

Location Description: West Facing Wall near rooms 602 and 603

Type of Outlet: Double bubbler

Description: Bubble on right side

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172879

State Sample ID: 3710020-BIH-C

Date & Time Last Used: 5/17/17 between 6-10pm

Date & Time Sample Collected: 5/18/17 @ 0621 ✓

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rub

Sample No. 4

School: Standley Middle School

Name of Building: Media Center Building

Location Description: East facing wall next to restrooms.

Type of Outlet: 2 single bubblers

Description: Bubbler on right side

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172880

State Sample ID: 3710020-BIH-D

Date & Time Last Used: 5/17/17 between 6-10pm

Date & Time Sample Collected: 5/18/17 @ 0624 ✓

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

Sample No. 5

School: Standley Middle School

Name of Building: Kitchen/Cafeteria Building

Location Description: Inside faucet

Type of Outlet: Regular Faucet

Description: Regular Faucet

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172881

State Sample ID: 3710020-BIH-E

Date & Time Last Used: 5/17/17 between 6-10pm

Date & Time Sample Collected: 5/18/17 @ 0610 ✓

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rubo

-Ecolab sanitizer plumbed into for sink.

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

15-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1172877	Standley Middle	18-MAY-2017	0618	JR	SAMPLE 1	
2	W1172878	Standley Middle	18-MAY-2017	0615	JR	SAMPLE 2	
3	W1172879	Standley Middle	18-MAY-2017	0621	JR	SAMPLE 3	
4	W1172880	Standley Middle	18-MAY-2017	0624	JR	SAMPLE 4	
5	W1172881	Standley Middle	18-MAY-2017	0610	JR	SAMPLE 5	

2195

Chain of Custody:

Relinquished by: Name: Joshua Rubio Sign:	Received by: Name: Tom B Burger Sign: Tom Burger	Date & Time: 5/18/17 @ 0655 Location: ALV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: Mace
Received Date: 5/18/17
LIMS Received Time: 0757
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Stella Maris Academy

Physical Address of School: 7654 Herschel Ave, La Jolla CA 92037

First Bell: 08:10am

Meeting Date: May 8, 2017

Sampling Plan Completion Date: May 11, 2017

Completed by Print Name: Julie Hollis

Signature: _____ Date: May 11, 2017

School's Point of Contact for Sampling Assistance

Name: Julie Hollis

Phone: (858) 454-2461 ext 110

Email: jhollis@stellamarisacademy.org

Meet at 6:30
Main Office at 7654 Herschel Ave

City of San Diego 3710020

Approved By: _____ 5/22/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Stella Maris Academy 7654, 7704, 7645 Herschel Ave, La Jolla CA 92037

Sample No. 1

School: Stella Maris Academy

Name of Building: 7645 C (7645 Herschel Ave) Sr. Yard

Location Description: On column between 6th and 7th grade classrooms

Type of Outlet: Bubbler

Description: Bubbler between 6th and 7th grade classrooms

Comments/Miscellaneous:

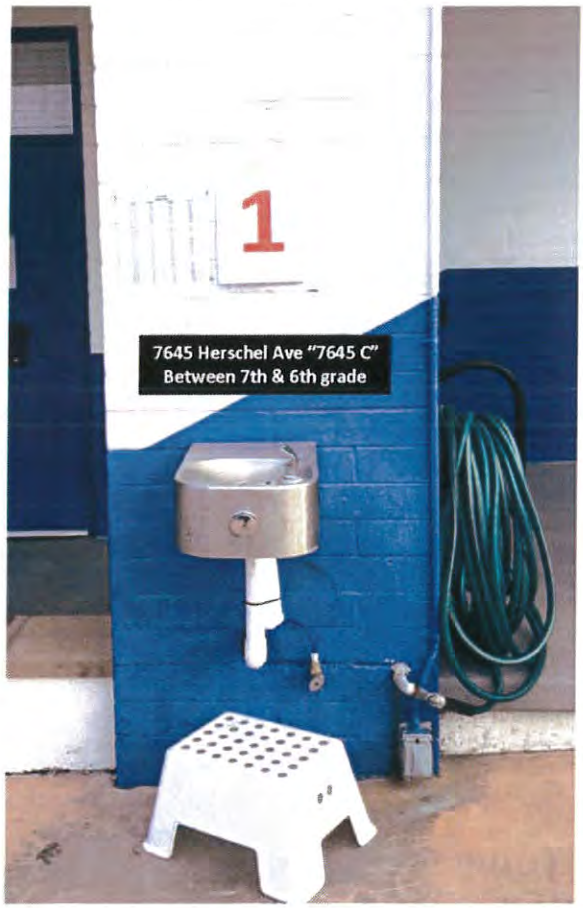

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172882

State Sample ID: 3710020-BIB-A

Date & Time Last Used: 5/26/17 1630

Date & Time Sample Collected: 5/26/17 0644

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: [illegible]

Sample No. 2

School: Stella Maris Academy

Name of Building: 7645 C (7645 Herschel Ave) Sr. Yard

Location Description: On column between 4th and 6th grade classrooms

Type of Outlet: Bubbler

Description: Bubbler between 4th and 6th grade classrooms

Comments/Miscellaneous:

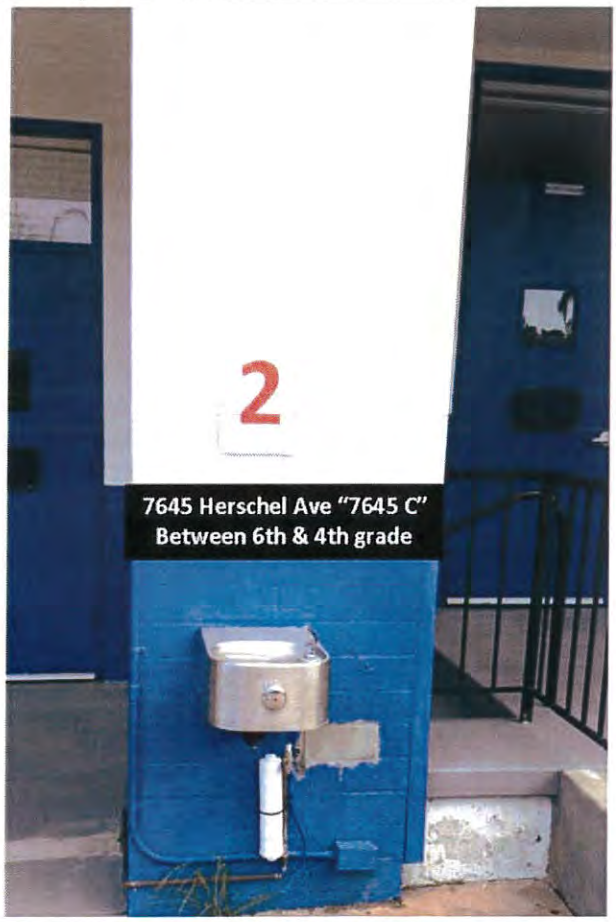

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172883

State Sample ID: 3710020-BIB-B

Date & Time Last Used: 5/24/17 1630

Date & Time Sample Collected: 5/26/17 0657

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 3

School: Stella Maris Academy

Name of Building: 7704 B (7704 Herschel Ave) Jr. Yard

Location Description: Outside kitchen

Type of Outlet: Bubbler

Description: Bubbler outside kitchen

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172884

State Sample ID: 3710020-BIB-C

Date & Time Last Used: 5/25/17 16 30

Date & Time Sample Collected: 5/26/17 0645

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 4

School: Stella Maris Academy

Name of Building: 7704 B (7704 Herschel Ave) Jr. Yard

Location Description: Outside storage closet between bathrooms

Type of Outlet: Filtered water unit

Description: Filtered water unit outside storage closet between bathrooms

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172885

State Sample ID: 3710020-BIB-D

Date & Time Last Used: 5/25/17 1630

Date & Time Sample Collected: 5/26/17 651

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 5

School: Stella Maris Academy

Name of Building: 7654 A (7654 Herschel Ave) Administration Building

Location Description: Transitional Kindergarten Classroom

Type of Outlet: Sink Faucet

Description: Sink Faucet

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172886

State Sample ID: 3710020-BIB-E

Date & Time Last Used: 5/25/17 1630

Date & Time Sample Collected: 5/26/17 6:43

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Exhibit 3A

Water Quality Chemistry Services
Chain of Custody Form

22-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1172882	Stella Maris Academy	26-MAY-2017	0655	David Mayo	SAMPLE 1	
2	W1172883	Stella Maris Academy	26-MAY-2017	0657		SAMPLE 2	
3	W1172884	Stella Maris Academy	26-MAY-2017	0648		SAMPLE 3	
4	W1172885	Stella Maris Academy	26-MAY-2017	0651		SAMPLE 4	
5	W1172886	Stella Maris Academy	26-MAY-2017	0643		SAMPLE 5	

2203

Chain of Custody:

Relinquished by: Name: David Mayo Sign: David Mayo	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 5/26/17 7:30 Location: AIV labs	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/26/17
LIMS Received Time: 0753
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Sunset View Elementary

Physical Address of School: 4365 Hill St., San Diego, CA 92107-4199

First Bell: 9:00 AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 05/12/2017

Completed by Print Name: Ginette Commins

Signature: G Commins Date: 05/13/2017

School's Point of Contact for Sampling Assistance

Name: ~~Ginette Commins~~ Cesar Jimenez

Phone: ~~(858) 627-7201~~ 619-261-1588

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/16/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Sunset View Elementary, 4365 Hill St., San Diego, CA 92107-4199

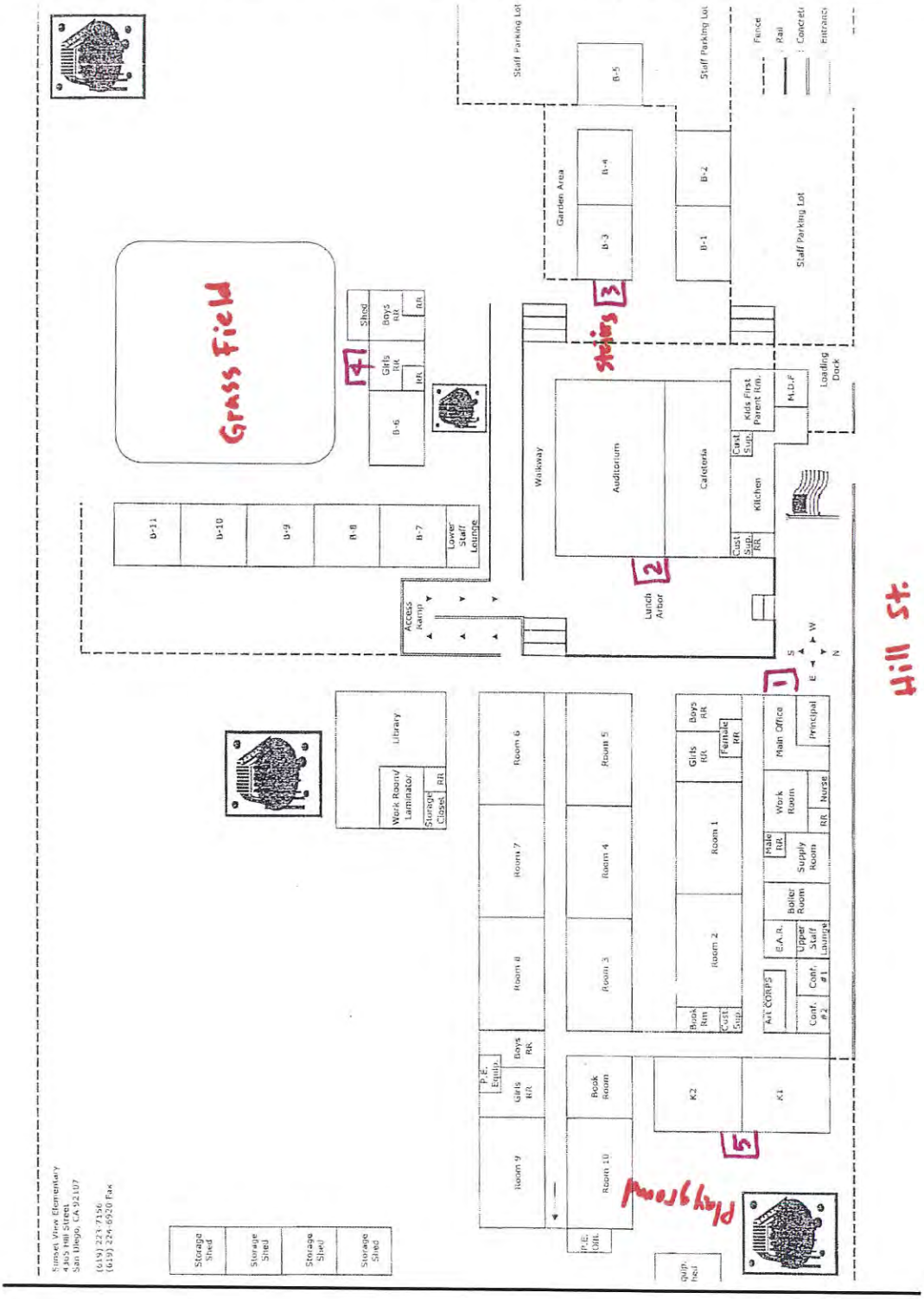

Sample No. 1

School: Sunset View Elementary

Name of Building: Main Office

Location Description: Wall mounted exterior (West of Bldg), next to Gate

Type of Outlet: bubbler

Description: middle bubbler head on a single fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #269

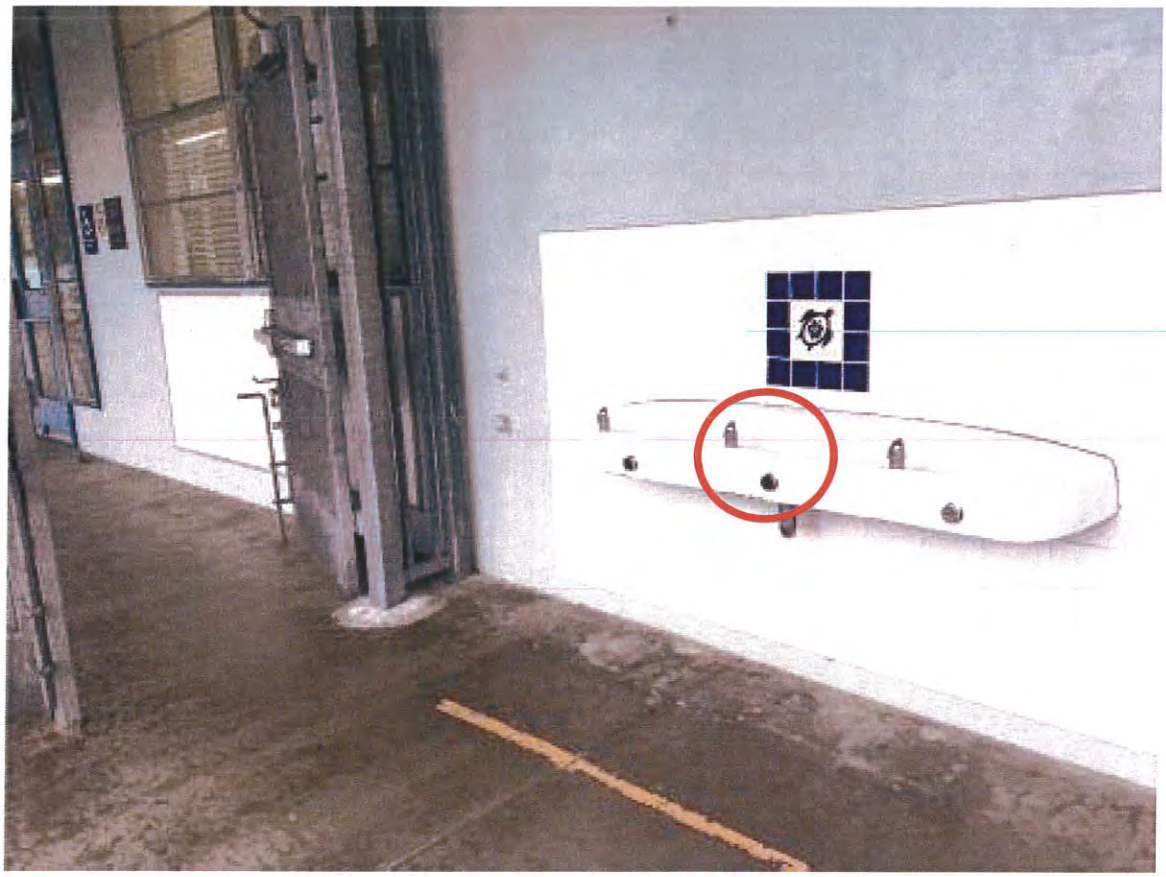

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173096

State Sample ID: 3710020-CAE-A

Date & Time Last Used: 5/23/17 2200

Date & Time Sample Collected: 5/24/17 0619

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Brian Kuen

Sample No. 2

School: Sunset View Elementary

Name of Building: Auditorium/Cafeteria

Location Description: Wall mounted exterior (East of Bldg), facing lunch arbor

Type of Outlet: bubbler

Description: upper/left bubbler on a dual fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #269

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173097

State Sample ID: 3710020-CAE-B

Date & Time Last Used: 5/23/17 2200

Date & Time Sample Collected: 5/24/17 0617

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Brian Knerr

Sample No. 3

School: Sunset View Elementary

Name of Building: Portable Classrooms

Location Description: Wall mounted exterior of (East of B3), facing stairs

Type of Outlet: bubbler

Description: middle bubbler head on a single fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #269

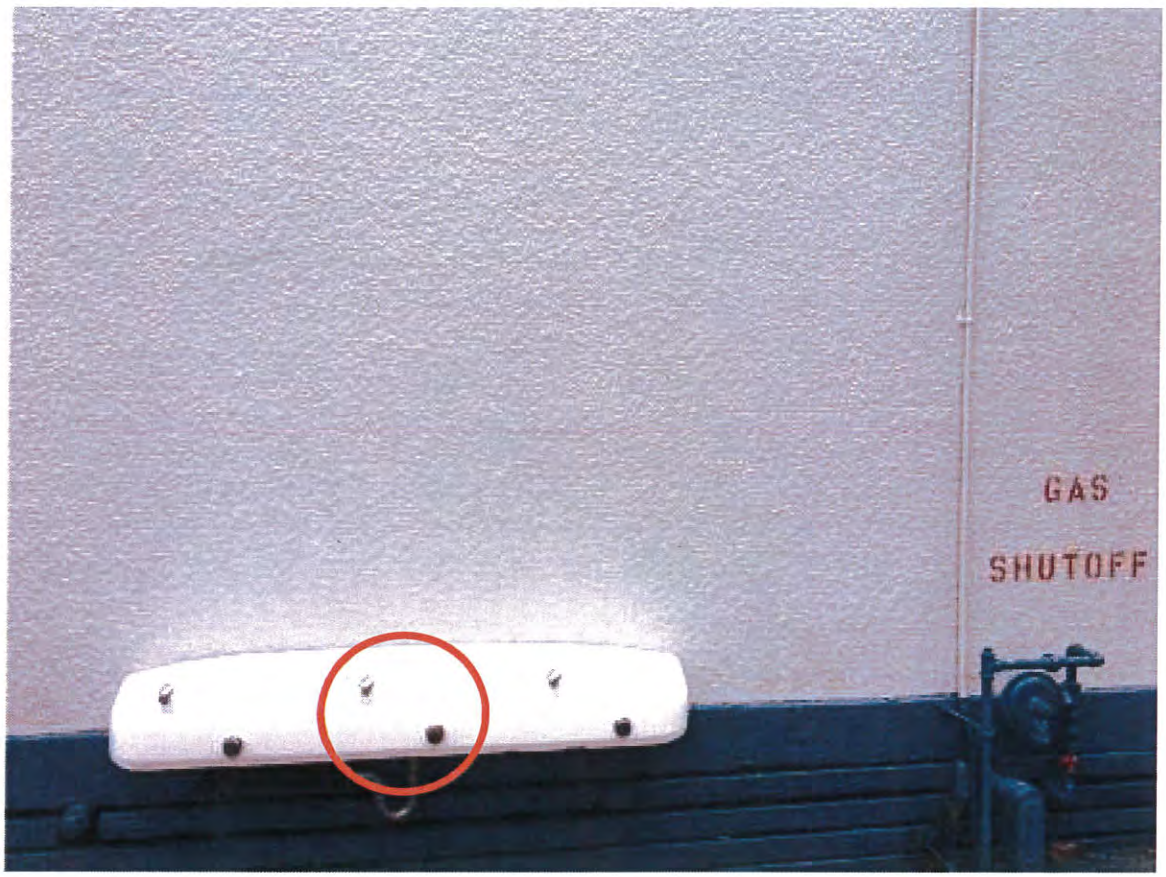

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173098

State Sample ID: 3710020-CAE-C

Date & Time Last Used: 5/23/17 2200

Date & Time Sample Collected: 5/24/17 0631

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Brian Kherr

Sample No. 4

School: Sunset View Elementary

Name of Building: Portable Classroom/Restroom

Location Description: Wall mounted exterior (South of Restroom/B6), next to shed, facing grass field

Type of Outlet: bubbler

Description: left bubbler head on a single fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #269

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173099

State Sample ID: 3710020-CAE-D

Date & Time Last Used: 5/23/17 2200

Date & Time Sample Collected: 5/24/17 0629

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Brian Kuer

Sample No. 5

School: Sunset View Elementary

Name of Building: Kindergarten

Location Description: Wall mounted exterior (East of Bldg), between Storage & Kindergarten 1, facing tables & playground

Type of Outlet: bubbler

Description: right bubbler head on a single fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code #269

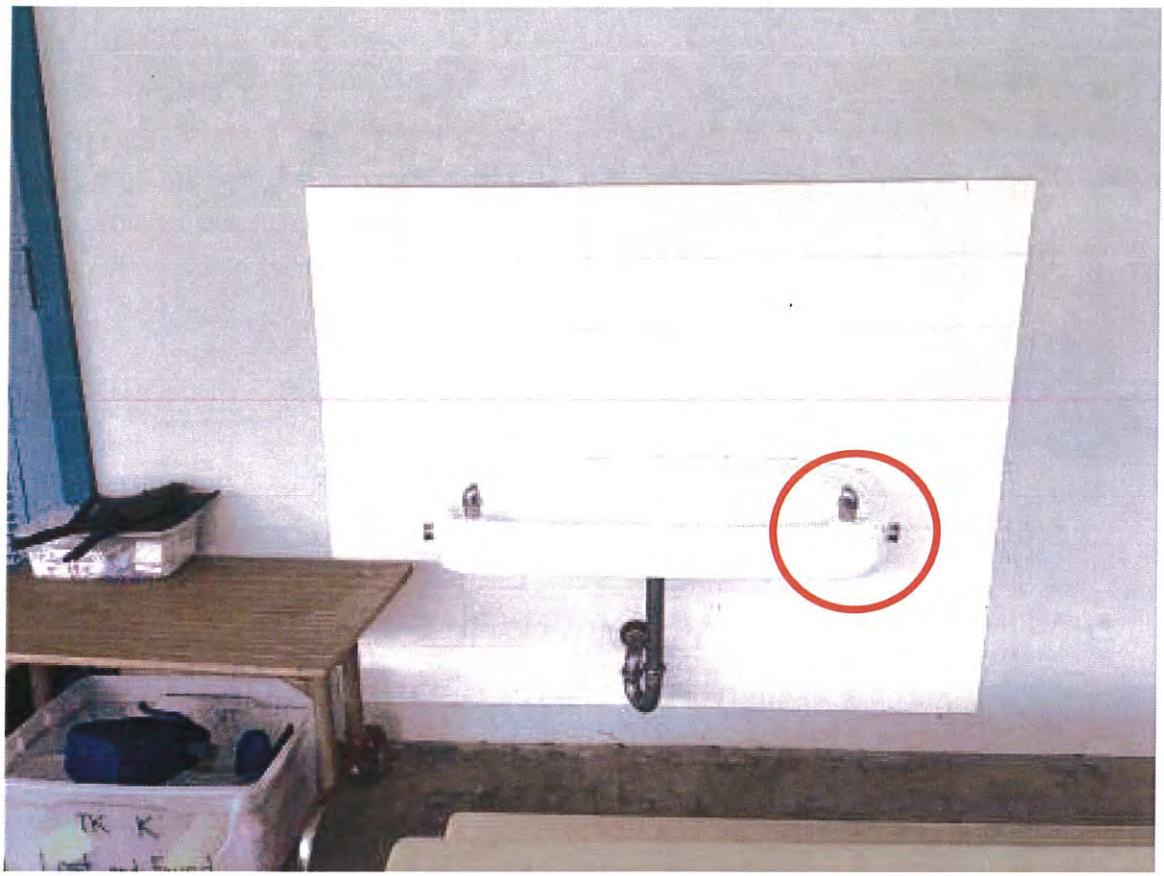

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173100

State Sample ID: 3710020-CAE-E

Date & Time Last Used: 5/23/17 2200

Date & Time Sample Collected: 5/24/17 0624

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Brian Knew

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

22-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1173096	Sunset View Elementary	24-MAY-2017	0619	BK	SAMPLE 1	
2	W1173097	Sunset View Elementary	24-MAY-2017	0617	↓	SAMPLE 2	
3	W1173098	Sunset View Elementary	24-MAY-2017	0631	↓	SAMPLE 3	
4	W1173099	Sunset View Elementary	24-MAY-2017	0629	↓	SAMPLE 4	
5	W1173100	Sunset View Elementary	24-MAY-2017	0624	↓	SAMPLE 5	

221

Chain of Custody:

Relinquished by: Name: Brian Knerr Sign: BK	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 5/24/17 Location: Alv.	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/24/17
LIMS Received Time: 0704
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Sycamore Ridge Elementary

Physical Address of School: 5333 Old Carmel Valley Road

First Bell: 8:10am

Meeting Date: 5-8-2017

Sampling Plan Completion Date: 5/16/17

Completed by Print Name: Mike Gals

Signature: [illegible] Date: 5/16/17

School's Point of Contact for Sampling Assistance

Name: Patrick Lum

Phone: 858-864-3473

Email: PLum@DMUSD.org

City of San Diego 3710020

Approved By: [illegible] 5/25/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Sycamore Ridge Elementary 5333 Old Carmel Valley Road

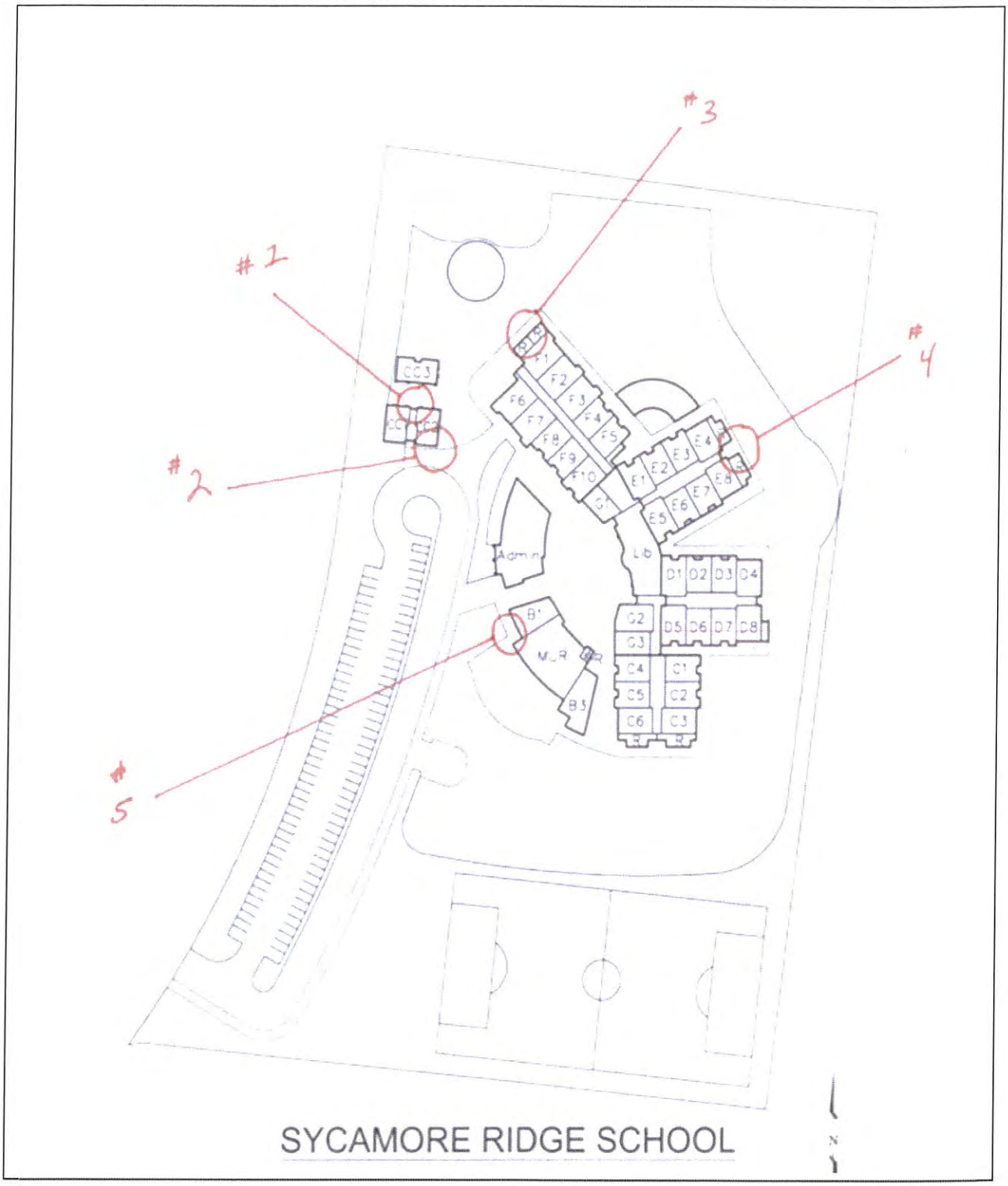

Sample No. 1

School: Sycamore Ridge Elementary

Name of Building: ASP building

Location Description Drinking fountain in between ASP 1- ASP 2

Type of Outlet: Drinking fountain

Description: Bubbler on drinking fountain right side

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1175389

State Sample ID: 3710020-CCC-A

Date & Time Last Used: 6/01/17 @ 1900

Date & Time Sample Collected: 6/02/17 @0002

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: Sycamore Ridge Elementary

Name of Building: Classroom ASP 1

Location Description: ASP 1 Classroom

Type of Outlet: Bubbler

Description: Bubbler attached to sink in ASP 1 classroom

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1175390

State Sample ID: 3710020-CCC-B

Date & Time Last Used: 6/01/17 @ 1900

Date & Time Sample Collected: 6/02/17 @ 0614

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Malloy

Sample No. 3

School: Sycamore Ridge Elementary

Name of Building: F-wing

Location Description: Eastside of F wing

Type of Outlet: Exterior drinking fountain

Description: bubbler on left side of drinking fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1175391

State Sample ID: 3710020-CCC-C

Date & Time Last Used: 6/01/17 @ 1900

Date & Time Sample Collected: 6/02/17 @ 0016

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Malloy

Sample No. 4

School: Sycamore Ridge Elementary

Name of Building: E-wing

Location Description: South side of E-wing in between boys and girls restrooms

Type of Outlet: Exterior drinking fountain

Description: right side drinking fountain bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1175392

State Sample ID: 3710020-CCC-D

Date & Time Last Used: 6/01/17 @ 1900

Date & Time Sample Collected: 6/02/17 @ 0018

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 5

School: Sycamore Ridge Elementary

Name of Building: Building B

Location Description: Westside of building B left side of custodian room

Type of Outlet: Exterior drinking fountain bubbler

Description: Left side drinking fountain bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1175393

State Sample ID: 3710020-CCC-E

Date & Time Last Used: 6/01/17 @ 1900

Date & Time Sample Collected: 6/02/17 @ 0622

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

01-Jun-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1175389	Sycamore Ridge	02-JUN-2017	0612	A. Molloy	SAMPLE 1	
2	W1175390	Sycamore Ridge	02-JUN-2017	0614		SAMPLE 2	
3	W1175391	Sycamore Ridge	02-JUN-2017	0616		SAMPLE 3	
4	W1175392	Sycamore Ridge	02-JUN-2017	0618		SAMPLE 4	
5	W1175393	Sycamore Ridge	02-JUN-2017	0622		SAMPLE 5	

2219

Chain of Custody:

Relinquished by:	Received by:	Date & Time:	Comments:
Name: Alejandra Molloy Sign: A Molloy	Name: Keith Rehrwel Sign:	6/02/17 @0740 Location: WQL A/V	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: JM
Received Date: 6/2/17
LIMS Received Time: 0910
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: **Taft Middle**

Physical Address of School: 9191 Gramercy Dr., San Diego, CA 92123-4015

First Bell: 8:55 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 4-21-2017

Completed by Print Name: Cesar Jimenez

Signature: C.J. Date: 4-21-2017

School's Point of Contact for Sampling Assistance

Name: ~~Cesar Jimenez~~ Elizabeth Lara

Phone: ~~619-261-1588~~ 619-302-7616

Email: cjimenez2@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-24-2017 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Taft Middle - 9191 Gramercy Dr., San Diego, CA 92123-4015

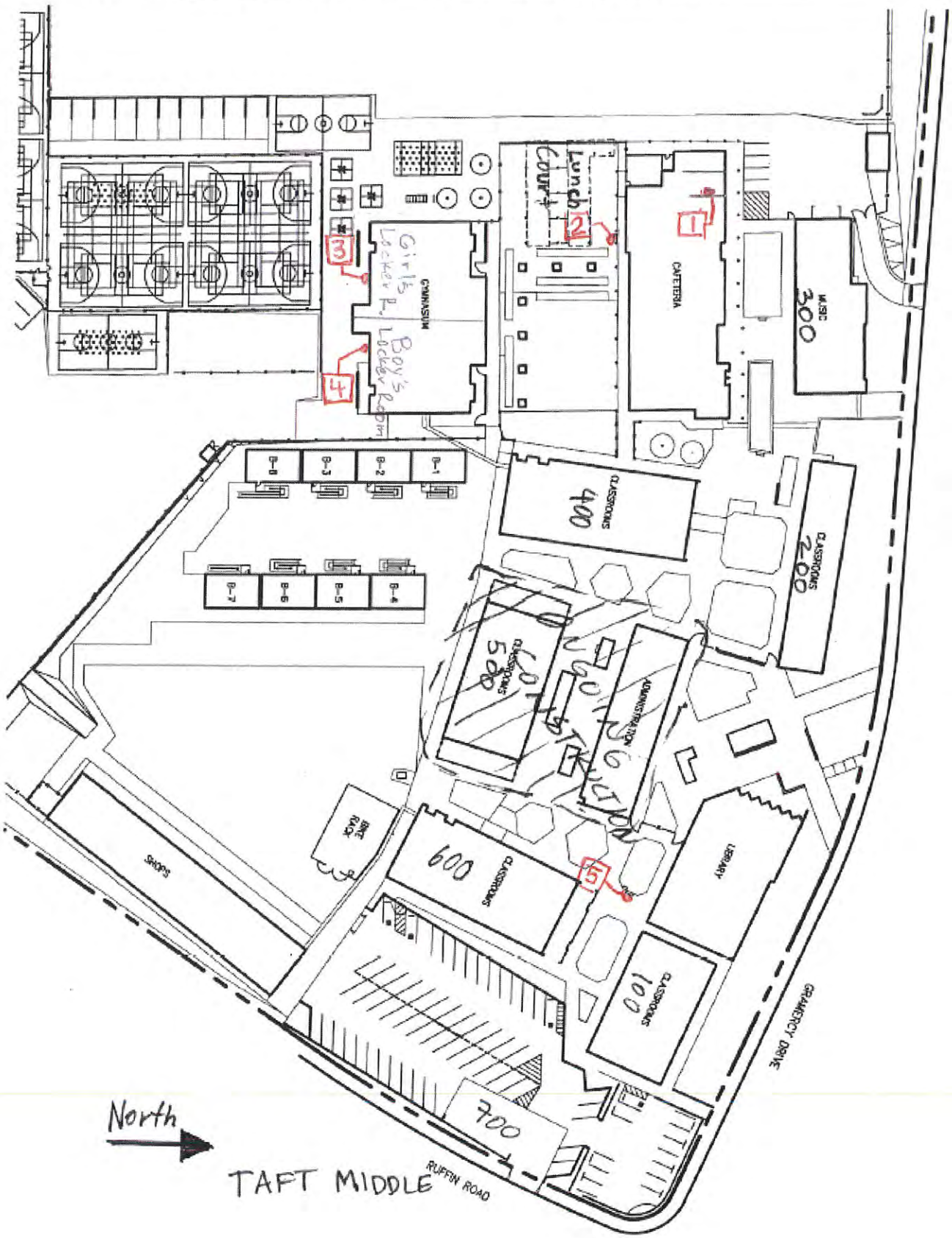

Sample No. 1

School: Taft Middle

Name of Building: Cafeteria Bldg.

Location Description: East wall of kitchen

Type of Outlet: Faucet

Description: Faucet on a 2-compartment sink

Comments/Miscellaneous: SDUSD ID code #: 326-01

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168403

State Sample ID: 3710020-BBA-A

Date & Time Last Used: 4/24/17 2200

Date & Time Sample Collected: 4/25/17 0609

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: T Burger

Sample No. 2

School: Taft Middle

Name of Building: Cafeteria

Location Description: South walkway

Type of Outlet: Bubbler

Description: Right Bubbler on a brick pedestal quadruple fountain

Comments/Miscellaneous: SDUSD ID code #: 326-02

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168404

State Sample ID: 3710020-BBA-B

Date & Time Last Used: 2200 4-24-17

Date & Time Sample Collected: 0600 4-25-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T. Burger

Sample No. 3

School: Taft Middle

Name of Building: Gymnasium

Location Description: Exterior South wall of Girl's Locker room

Type of Outlet: Bubbler

Description: Right Bubbler on a triple fountain

Comments/Miscellaneous: SDUSD ID code #: 326-03

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168405

State Sample ID: 3710020-BBA-C

Date & Time Last Used: 2200 4-24-17

Date & Time Sample Collected: 0605 4-25-17

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: T Burger

Sample No. 4

School: Taft Middle

Name of Building: Gymnasium

Location Description: Exterior South wall of Boy's Locker room

Type of Outlet: Bubbler

Description: Right Bubbler on a triple fountain

Comments/Miscellaneous: SDUSD ID code #: 326-04

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168406

State Sample ID: 3710020-BBA-D

Date & Time Last Used: 4-24-17 2200

Date & Time Sample Collected: 4-25-17 0612

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: T. Burger

Sample No. 5

School: Taft Middle

Name of Building: Library

Location Description: South walkway

Type of Outlet: Bubbler

Description: Right Bubbler on a brick pedestal quadruple fountain

Comments/Miscellaneous: SDUSD ID code #: 326-05

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168407

State Sample ID: 3710020-BBA-E

Date & Time Last Used: 4-24-17 2200

Date & Time Sample Collected: 4-25-17 0616

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: T Burger

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

24-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168403	Taft Middle	25-APR-2017	0609	T Burger	SAMPLE 1	
2	W1168404	Taft Middle	25-APR-2017	0600		SAMPLE 2	
3	W1168405	Taft Middle	25-APR-2017	0605		SAMPLE 3	
4	W1168406	Taft Middle	25-APR-2017	0612		SAMPLE 4	
5	W1168407	Taft Middle	25-APR-2017	0616		SAMPLE 5	

2227

Chain of Custody:

Relinquished by:	Received by:	Date & Time:	Comments:
Name: Tom Burger Sign: Tom B Burger	Name: Alexandra Molloy Sign: A Molloy	4-25-17 0858 Location: ALV LAB	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: A Molloy
Received Date: ~~4/28~~ 4/25/17
LIMS Received Time: 0851
Reviewed By: A Molloy 4/26/17

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: The Cambridge School

Physical Address of School: 12855 Black Mountain Rd. San Diego, CA 92129

First Bell: 8:00a.m.

Meeting Date:

Sampling Plan Completion Date:

Completed by Print Name:

Signature: Date:

School's Point of Contact for Sampling Assistance

Name: Richard Ambuehl

Phone: 949-981-4002

Email: rambuehl@cambridgeclassical.org

meet at 8:00am
call on arrival

City of San Diego 3710020

Approved By: 5/24/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: 12855 Black Mountain Rd. Sa Diego, CA 92129

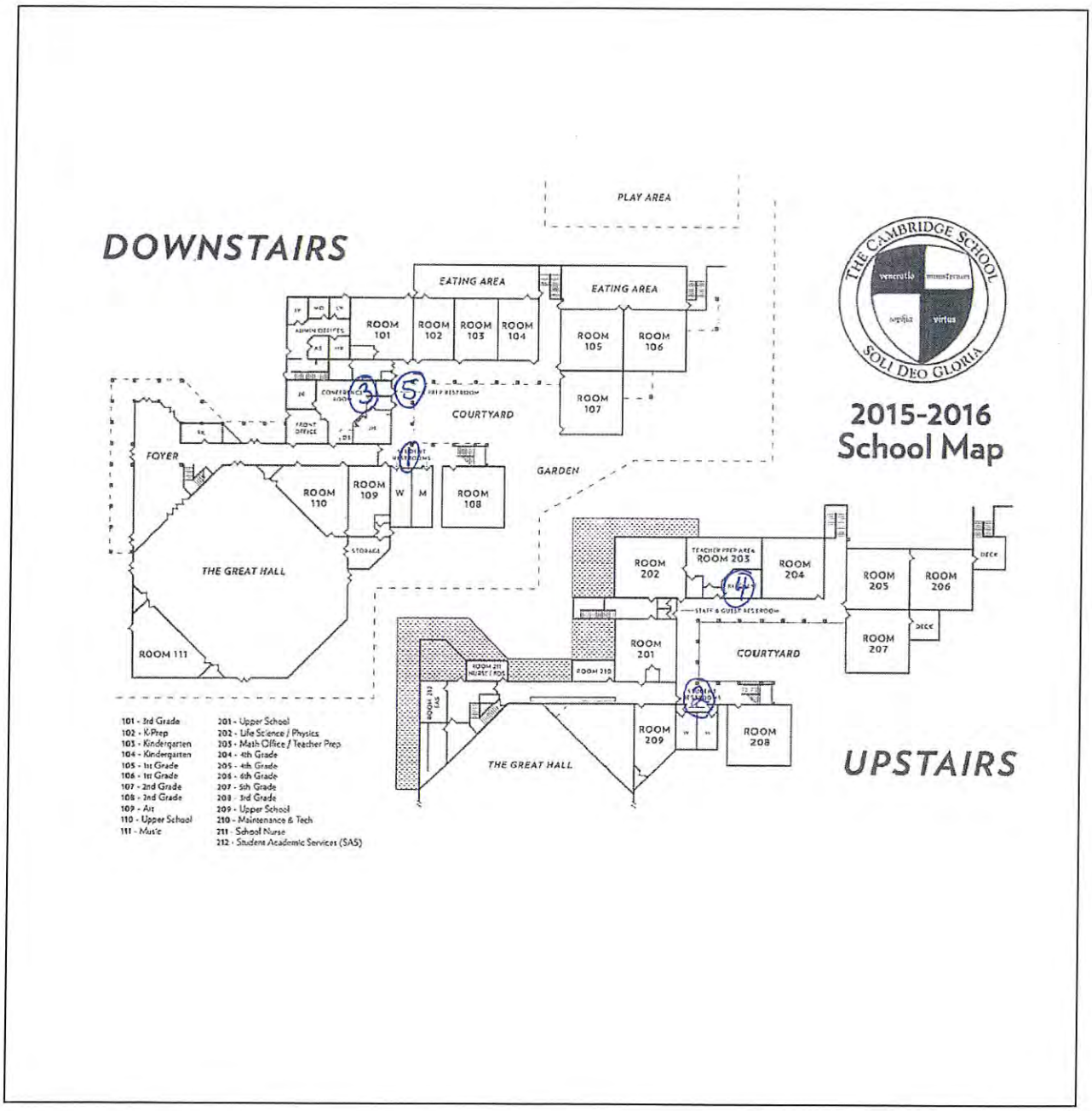

Sample No. 1

School: The Cambridge School

Name of Building: Primary Building

Location Description: Downstairs courtyard between bathrooms

Type of Outlet: drinking fountain right

Description: Sample right side drinking fountain bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174563

State Sample ID: 3710020-CBE-A

Date & Time Last Used: 5/26/17 @ 1900

Date & Time Sample Collected: 5/25/17 @ 0556

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: The Cambridge School

Name of Building: Primary Building

Location Description: Up courtyard stairs between bathrooms

Type of Outlet: Drinking fountain (left)

Description: Drinking fountain bubbler (left)

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174564

State Sample ID: 3710020-CBE-B

Date & Time Last Used: 5/25/17 @ ~~07~~ xm 1900

Date & Time Sample Collected: 5/26/17 @ 0600

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: The Cambridge School

Name of Building: Primary Building

Location Description: Staff Kitchen

Type of Outlet: kitchen facet

Description: main kitchen sink facet

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174565

State Sample ID: 3710020-CBE-C

Date & Time Last Used: 5/25/17 @ 1900

Date & Time Sample Collected: 5/26/17 @ 0552

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: The Cambridge School

Name of Building: Primary Building

Location Description: Upstairs nurse's office

Type of Outlet: Quench water filtration unit

Description: water filtration dispenser

Comments/Miscellaneous:

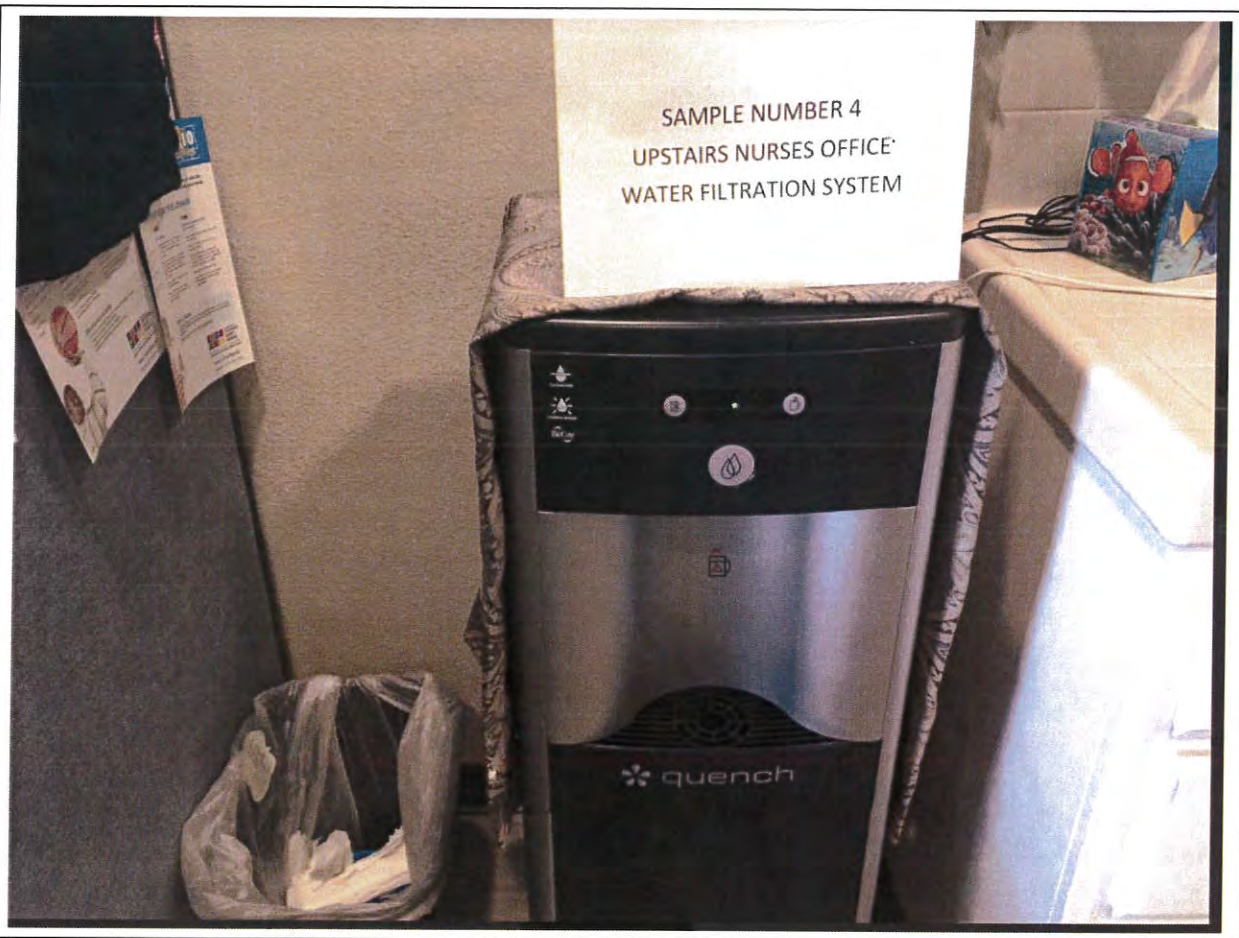

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174566

State Sample ID: 3710020-CBE-D

Date & Time Last Used: 5/25/17 @ 1900

Date & Time Sample Collected: 5/26/17 @ 0608

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 5

School: The Cambridge School

Name of Building: Primary Building

Location Description: Courtyard next to Pre K bathroom

Type of Outlet: Pre K sink faucet

Description: Pre K sink faucet

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174567

State Sample ID: 3710020-CBE-E

Date & Time Last Used: ~~5/26~~ 5/25/17 @ 1900

Date & Time Sample Collected: 5/26/17 @ 0557

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

24-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1174563	The Cambridge School	26-MAY-2017	0556	A. Molloy	SAMPLE 1	
2	W1174564	The Cambridge School	26-MAY-2017	0600		SAMPLE 2	
3	W1174565	The Cambridge School	26-MAY-2017	0552		SAMPLE 3	
4	W1174566	The Cambridge School	26-MAY-2017	0603		SAMPLE 4	
5	W1174567	The Cambridge School	26-MAY-2017	0557		SAMPLE 5	

2235

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign: AMolloy	Received by: Name: Sign:	Date & Time: 5/26/17 @ 0630 Location: WQL ALV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/26/17
LIMS Received Time: 0714
Reviewed By:

1707

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Thirve Charter School

Physical Address of School: ~~4260 54th St., San Diego, CA~~ 3251 Juanita St San Diego, CA 92105 incorrect address

First Bell: 8:30AM

Meeting Date:

Sampling Plan Completion Date: 03/23/2017

Completed by Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 03/23/2017

School's Point of Contact for Sampling Assistance

Name: ~~Daniel Lopez~~ Ginette

Phone: ~~858-306-3383~~

Email: dlopez2@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-6-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: ~~4260 54th St., San Diego, CA~~ 3251 Juanita St, San Diego, CA

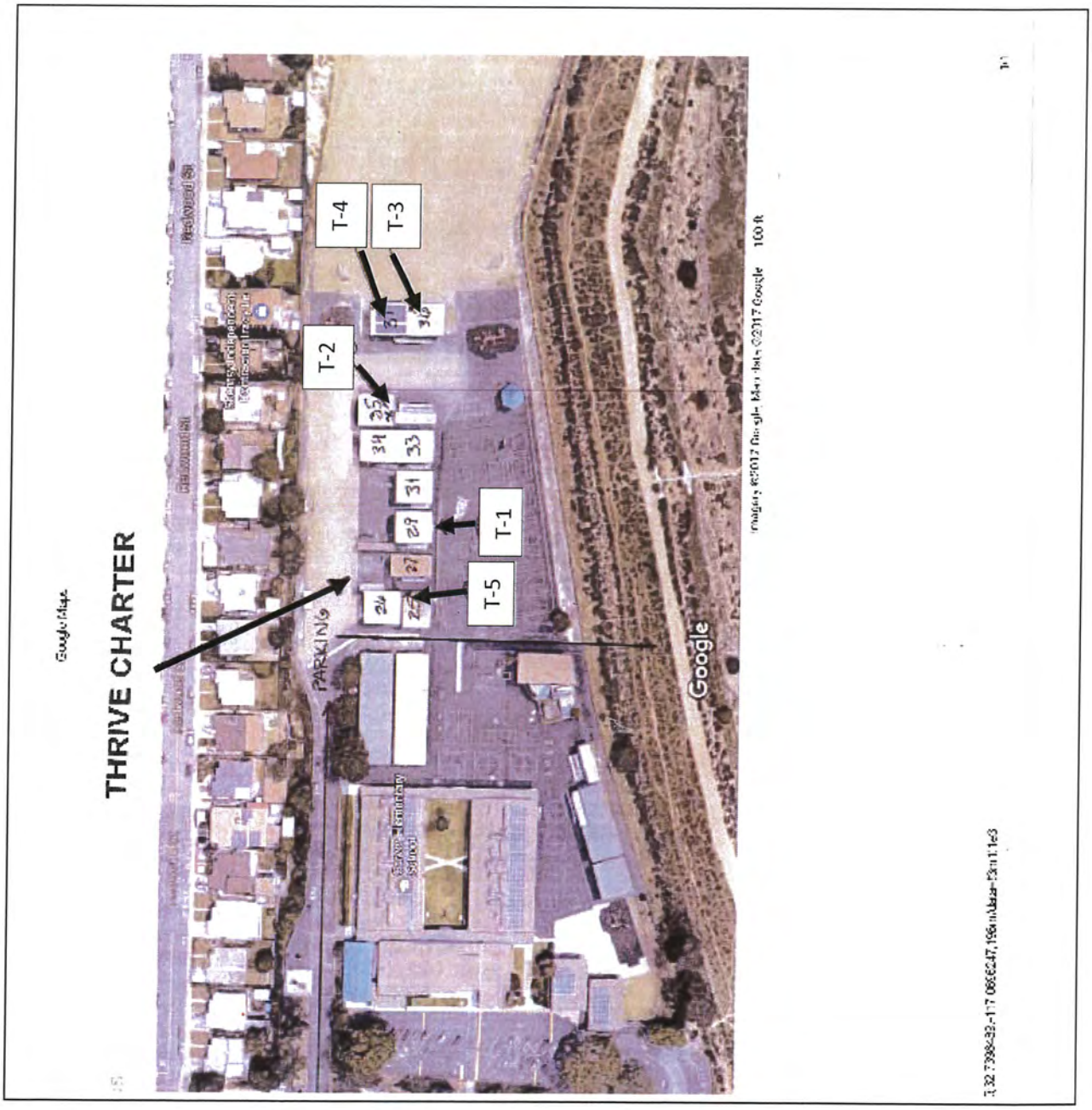

Sample No. 1

School: Thrive Charter School

Name of Building: Building 29

Location Description: Fountain outside on wall of Room #29

Type of Outlet: Fountain

Description: Middle bubbler on right fountain (T-1)

Comments/Miscellaneous:

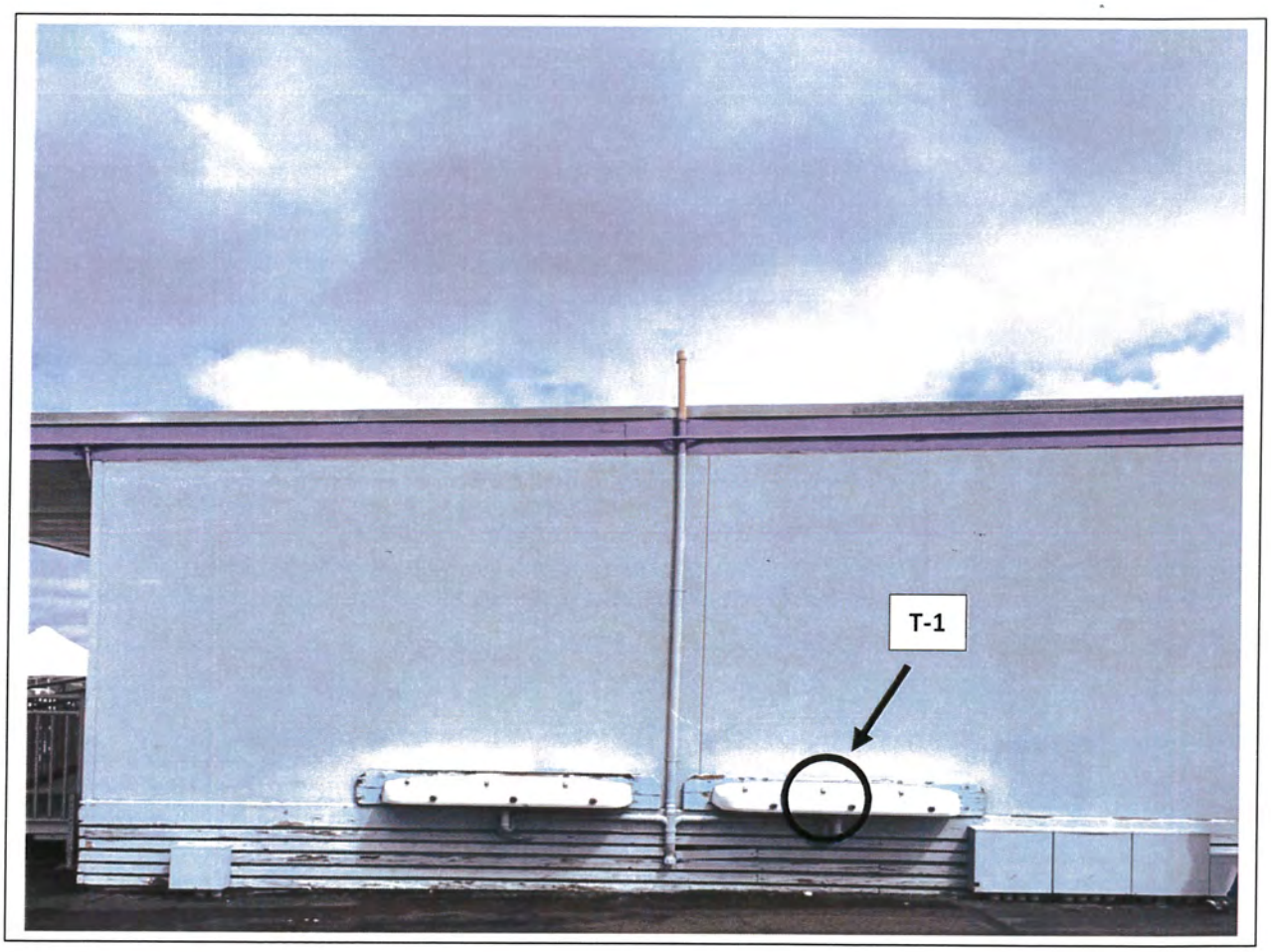

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164824

State Sample ID: 3710020-ACC-A

Date & Time Last Used: 18:00 4/6/17

Date & Time Sample Collected: 06 24 4/7/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 2

School: Thrive Charter School

Name of Building: Room 35

Location Description: Classroom sink with bubbler

Type of Outlet: Bubbler

Description: Bubbler (T-2)

Comments/Miscellaneous:

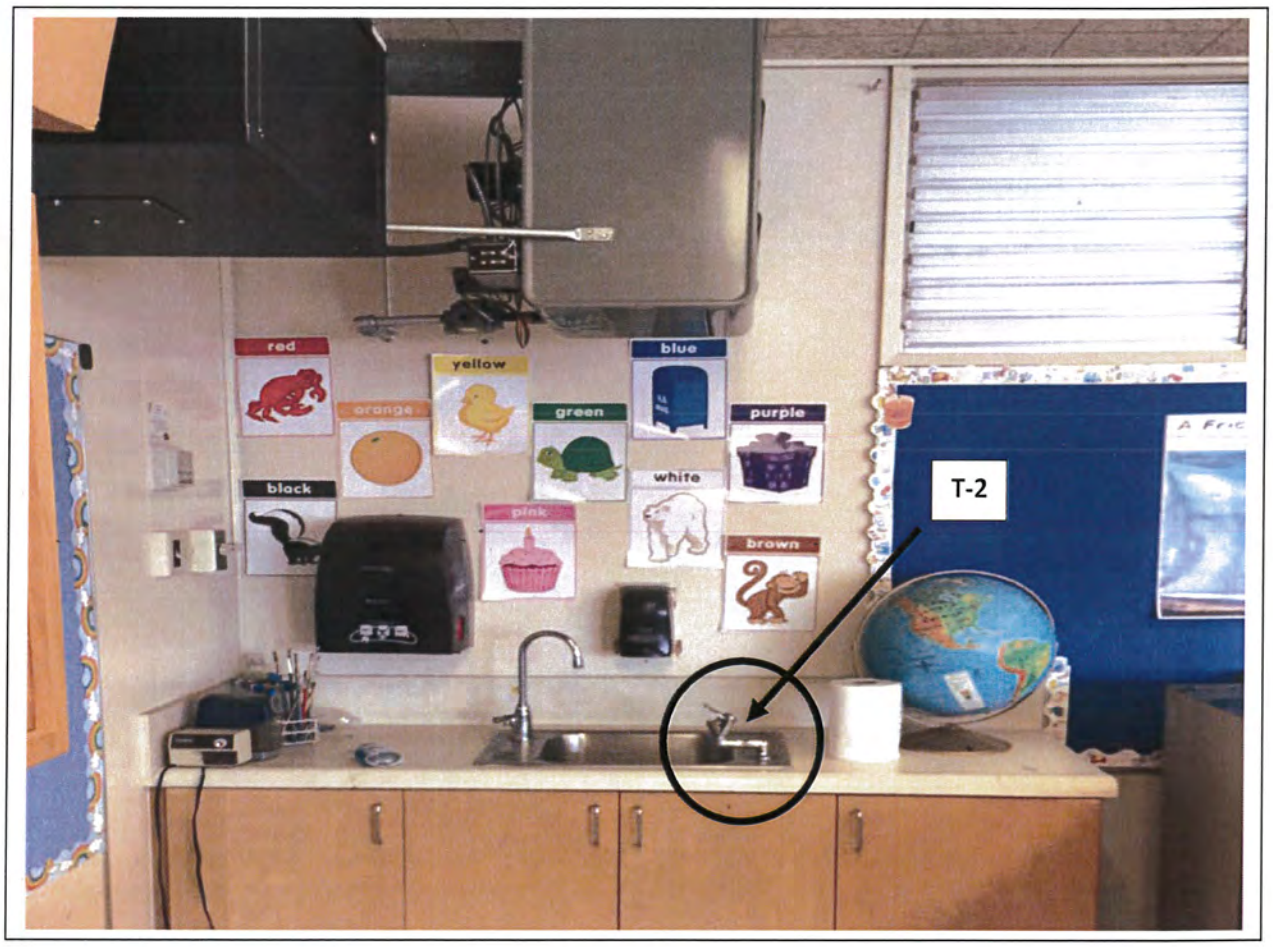

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164825

State Sample ID: 3710020-ACC-B

Date & Time Last Used: 1800 4/6/17

Date & Time Sample Collected: 0628 4/7/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 3

School: Thrive Charter School

Name of Building: Room 36

Location Description: Classroom sink with bubbler

Type of Outlet: Bubbler

Description: Bubbler (T-3)

Comments/Miscellaneous:

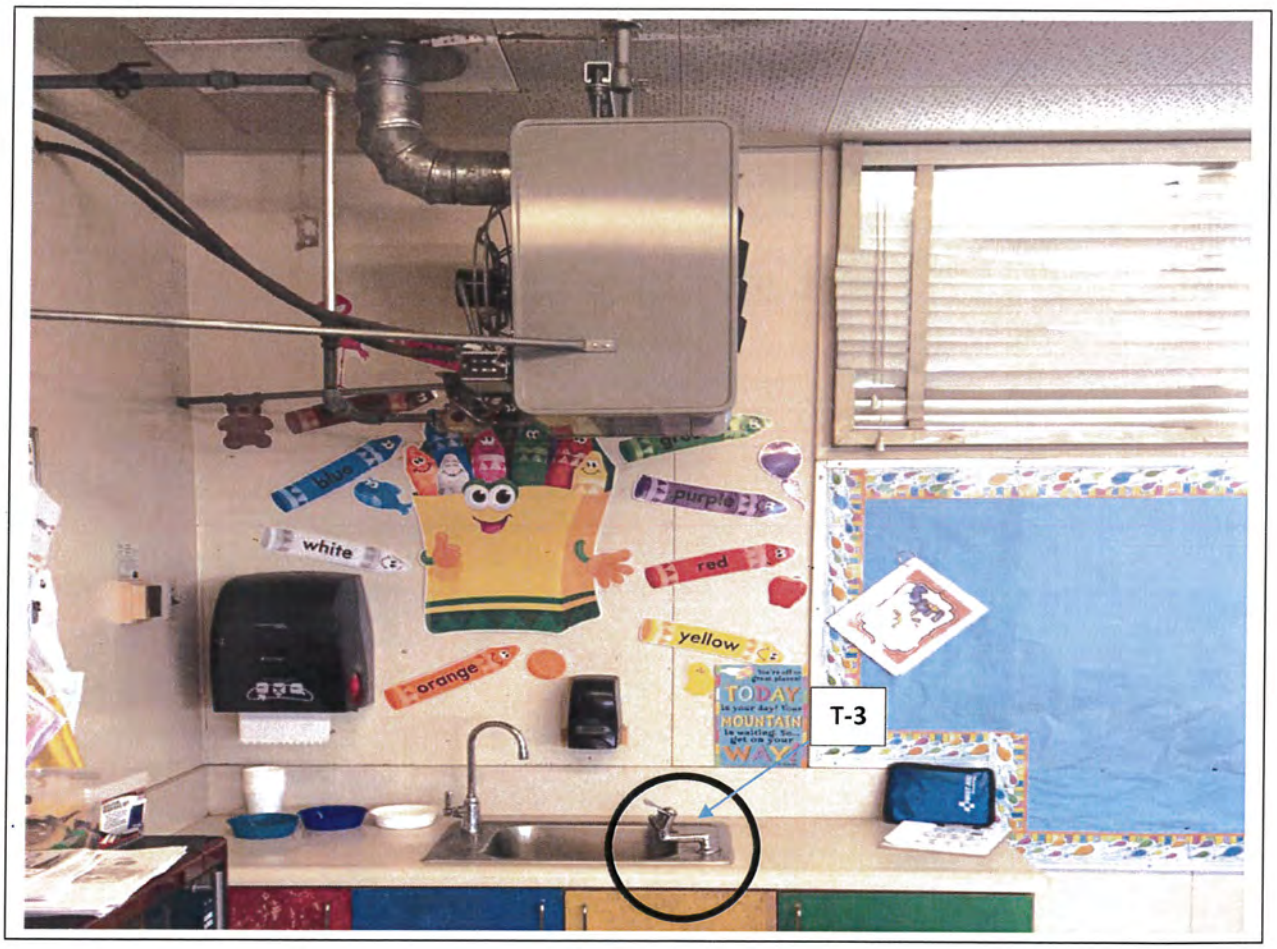

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164826

State Sample ID: 3710020-ACC-C

Date & Time Last Used: 1800 4/6/17

Date & Time Sample Collected: 0631 4/7/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 4

School: Thrive Charter School

Name of Building: Room 37

Location Description: Classroom sink with bubbler

Type of Outlet: Bubbler

Description: Bubbler (T-4)

Comments/Miscellaneous:

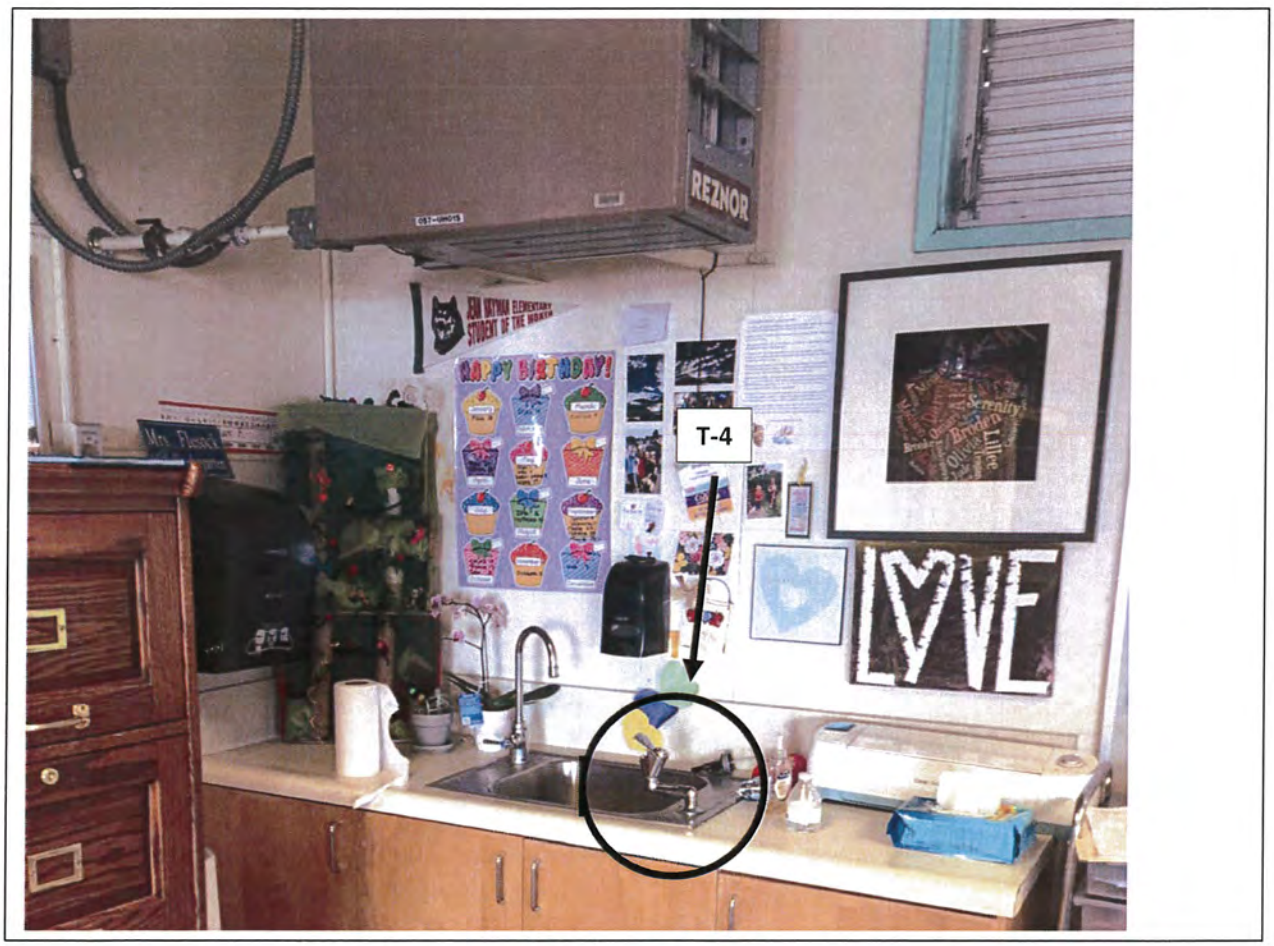

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164827

State Sample ID: 3710020-ACC-D

Date & Time Last Used: 1800 4/6/17

Date & Time Sample Collected: 0634 4/7/17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: David Mayo

Sample No. 5

School: Thrive Charter School

Name of Building: Room 25

Location Description: Teacher Lounge

Type of Outlet: Sink with bubbler

Description: Bubbler (T-5)

Comments/Miscellaneous: Staff mistakenly shut value under sink (could not sample site)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1164828

State Sample ID: 3710020-ACC-E

Date & Time Last Used:

Date & Time Sample Collected:

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector:

Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 4/18/17

San Diego Unified School District

Thrive Charter

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1164824	04/07/17	06:24 AM	SAMPLE 1	3710020-ACC-A	< 5	ug/L
W1164825	04/07/17	06:28 AM	SAMPLE 2	3710020-ACC-B	< 5	ug/L
W1164826	04/07/17	06:31 AM	SAMPLE 3	3710020-ACC-C	< 5	ug/L
W1164827	04/07/17	06:34 AM	SAMPLE 4	3710020-ACC-D	< 5	ug/L
W1165275	04/08/17	09:36 AM	SAMPLE 5	3710020-ACC-E	< 5	ug/L

Source	Source Description
SAMPLE 1	BLDG 29, outside wall of Room 29, middle bubbler on right fountain
SAMPLE 2	Room 35, bubbler in sink
SAMPLE 3	Room 36, bubbler in sink
SAMPLE 4	Room 37, bubbler in sink
SAMPLE 5	Room 25, bubbler in sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B Burger

Tom Burger, Associate Chemist

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

06-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1164824	Thrive Charter	07-APR-2017	0624	David Mayo	SAMPLE 1	
2	W1164825	Thrive Charter	07-APR-2017	0628		SAMPLE 2	
3	W1164826	Thrive Charter	07-APR-2017	0631		SAMPLE 3	
4	W1164827	Thrive Charter	07-APR-2017	0634		SAMPLE 4	
5	W1164828	Thrive Charter	07-APR-2017			SAMPLE 5	

2244

Chain of Custody:

Relinquished by: Name: David Mayo Sign: David Mayo	Received by: Name: Alejandra Molloy Sign: A Molloy	Date & Time: 4/7/17 7:30 Location: Alv labs	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: A Molloy
Received Date: ~~3~~ 4/07/17
LIMS Received Time: 0739
Reviewed By:

1716

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Thirve Charter School

Physical Address of School: 4260 54th St., San Diego, CA

First Bell: 8:30AM

Meeting Date:

Sampling Plan Completion Date: 03/23/2017

Completed by Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 03/23/2017

School's Point of Contact for Sampling Assistance

Name: Daniel Lopez

Phone: 858-306-3383

Email: dlopez2@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-6-17 Tom Burger

Signature & Date Print Name

Resample #5

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: 4260 54th St., San Diego, CA

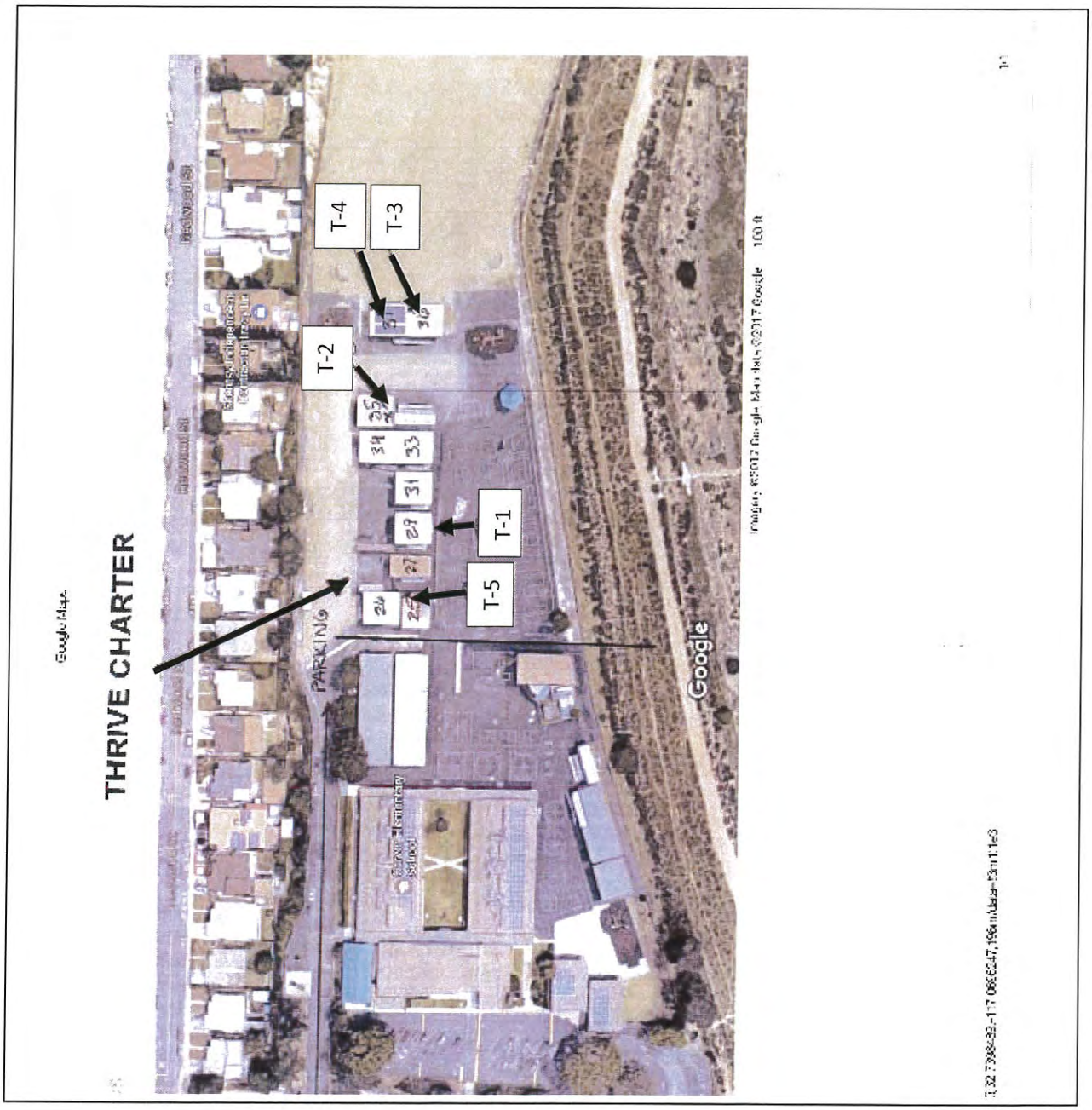

Sample No. 5

School: Thrive Charter School

Name of Building: Room 25

Location Description: Teacher Lounge

Type of Outlet: Sink with bubbler

Description: Bubbler (T-5)

Comments/Miscellaneous:

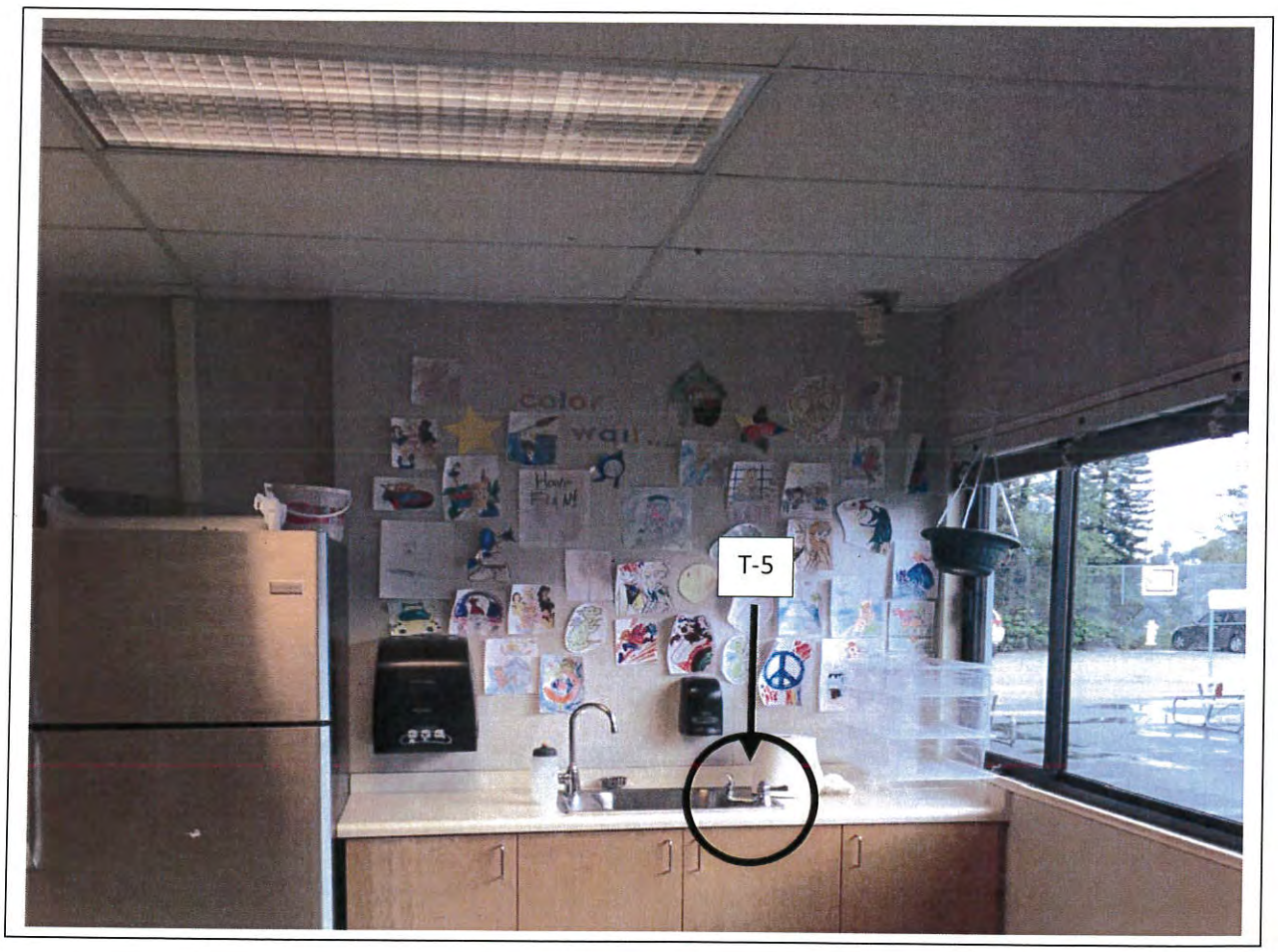

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165275

State Sample ID: 3710020-ACC-E

Date & Time Last Used: 040716 @ 1800

Date & Time Sample Collected: 040817 @ 0936

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector:

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

07-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1165275	Thrive Charter	08-APR-2017	0936	JWeston	SAMPLE 5	

Chain of Custody:

Relinquished by: Name: JEFFREY WESTON Sign:	Received by: Name: Tom Burger Sign: Tom B Burger	Date & Time: 4-8-17 1031 Location: WQL LAB	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 4-8-17
LIMS Received Time: 1135
Reviewed By: KM

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Thurgood Marshall Middle School

Physical Address of School: 9700 Avenue of Nations San Diego 92131

First Bell: 7:35

Meeting Date: ...3/22/2017

Sampling Plan Completion Date: 4/25/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 4/25/2017

School's Point of Contact for Sampling Assistance

Name: ~~Elizabeth Lara~~ Ginette Commins

Phone: ~~619-302-7616~~ 619-302-5285

Email: elara@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-28-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Thurgood Marshall Middle School 9700 Avenue of Nations San Diego Ca 9 2131

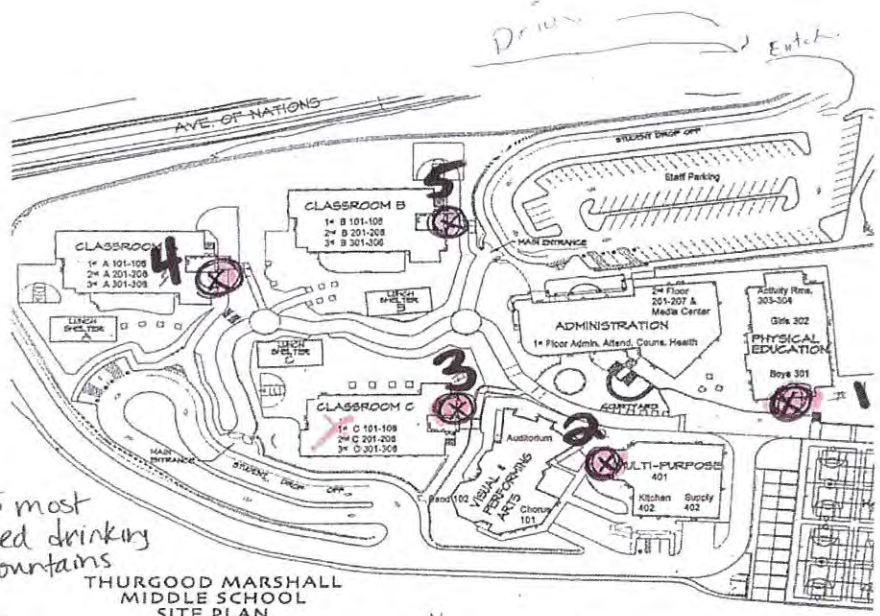

(X) = 5 most used drinking fountains

THURGOOD MARSHALL
MIDDLE SCHOOL
SITE PLAN

All outdoor drinking fountains

N

Michelle Irwin
Principal
4/19/17

pics were wrong

SEE Attachment

Sample No. 1

School: Thurgood Marshall Middle School

Name of Building: Physical Education

Location Description: Boys end, between boys & girls restroom

Type of Outlet: Bubbler drinking fountain

Description: Right bubbler drinking fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169333

State Sample ID: 3710020-BCJ-A

Date & Time Last Used: 4/28/17 @ 2200

Date & Time Sample Collected: 4/29/17 @ 0542

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: Thurgood Marshall Middle School

Name of Building: Multi-Purpose Room

Location Description: Outside MPR between boys & girls restrooms

Type of Outlet: Bubbler drinking fountain

Description: Right drinking fountain of two

Comments/Miscellaneous:

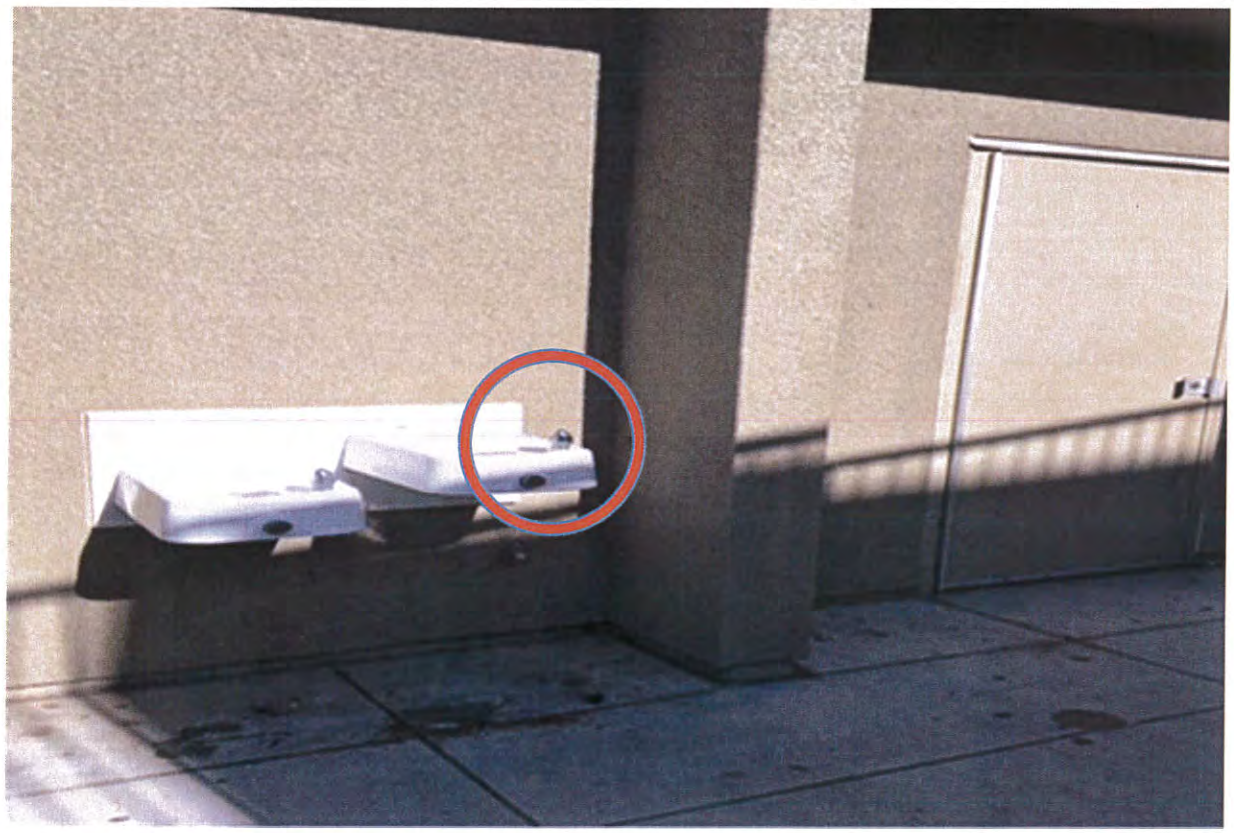

SEE Attachment pics wrong

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169334

State Sample ID: 3710020-BCJ-B

Date & Time Last Used: 4/28/17 @ 2200

Date & Time Sample Collected: 4/29/17 @ 537

Direct Sample ☐ Transfer Sample ☒

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: Thurgood Marshall Middle School

Name of Building: Building C

Location Description: Outside lower floor east wall

Type of Outlet: Bubbler drinking fountain

Description: Left drinking fountain of two

Comments/Miscellaneous:

SEE ATTACHMENT WRONG PIC

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169335

State Sample ID: 3710020-BCJ-C

Date & Time Last Used: 4/28/17 @ 2200

Date & Time Sample Collected: 4/29/17 @ 0547

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: Thurgood Marshall Middle School

Name of Building: A

Location Description: Outside east wall lowest level

Type of Outlet: Bubbler drinking fountain

Description: Left drinking fountain of two

Comments/Miscellaneous:

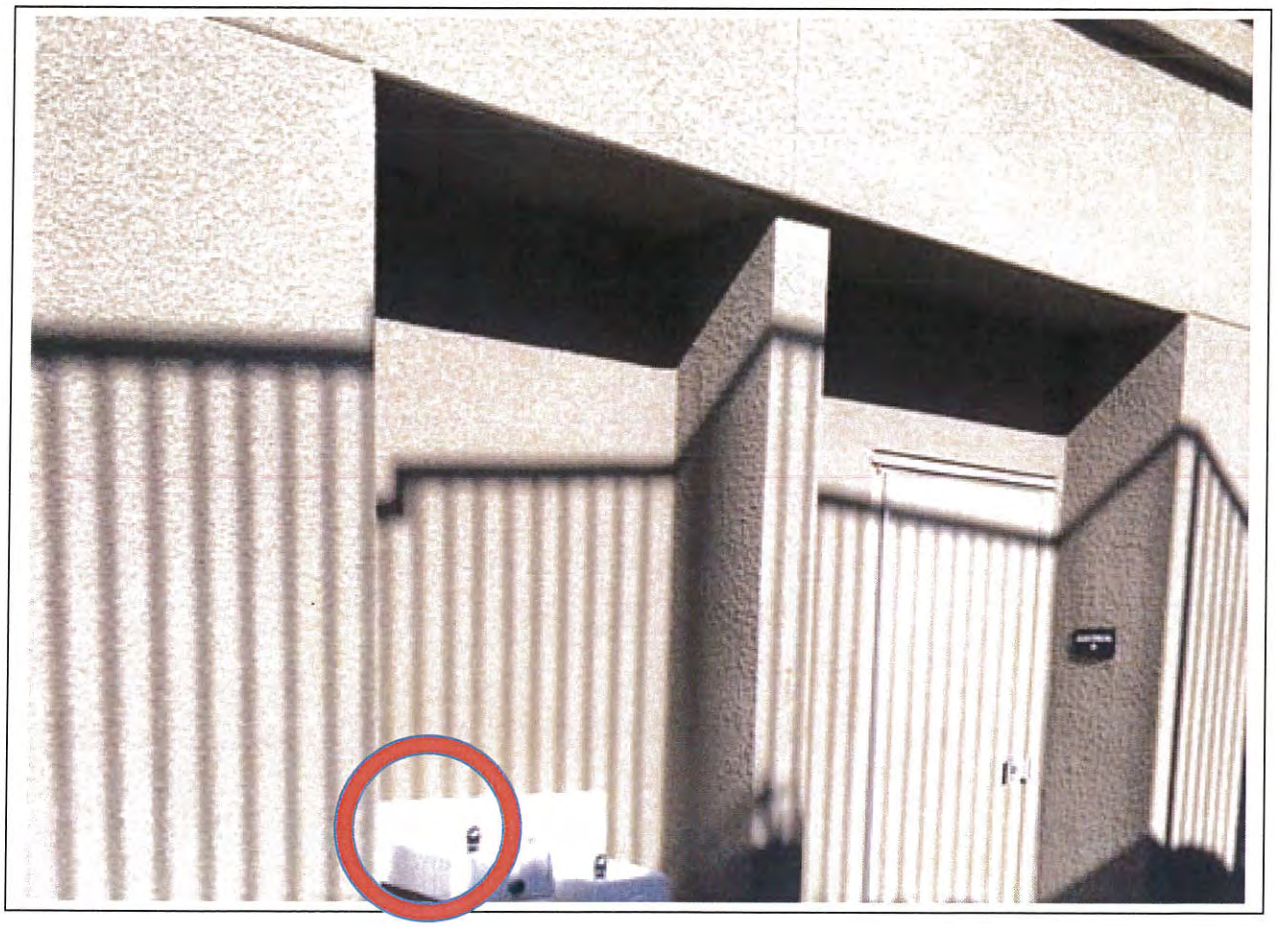

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169336

State Sample ID: 3710020-BCJ-D

Date & Time Last Used: 4/28/17 @ 2200

Date & Time Sample Collected: 4/29/17 @ 550

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample #5

School: Thurgood Marshall Middle School

Name of Building: B

Location Description: Lowest level east wall

Type of Outlet: Bubbler drinking fountain

Description: Left bubbler of two fountains

Comments/Miscellaneous:

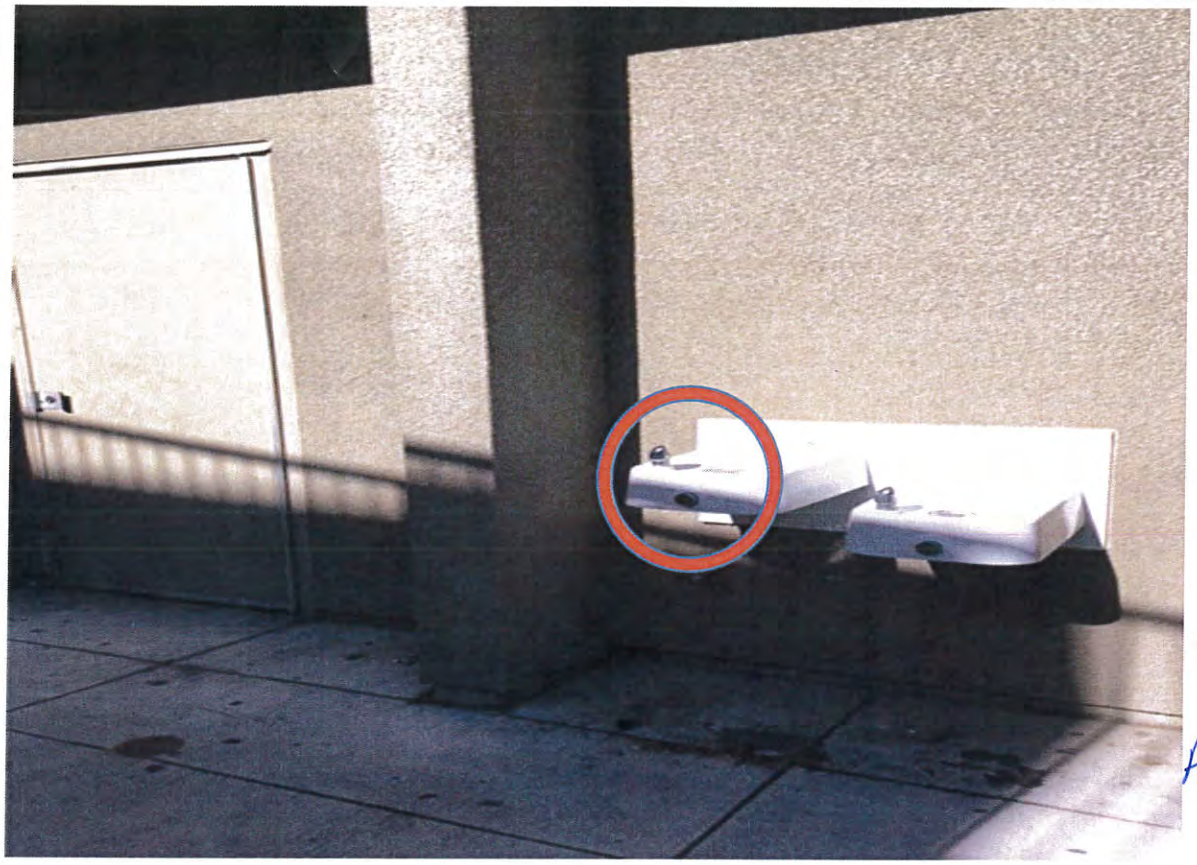

pic wrong SEE ATTachment

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169337

State Sample ID: 3710020-BCJ-E

Date & Time Last Used: 4/28/17 @ 2200

Date & Time Sample Collected: 4/29/17 @ 0553

Direct Sample ☒ + Transfer Sample ☒ ~200 mls

Name of Water System Sample Collector: A. Molloy

Sample day pictures. The sample plan had incorrect pictures except for source #4

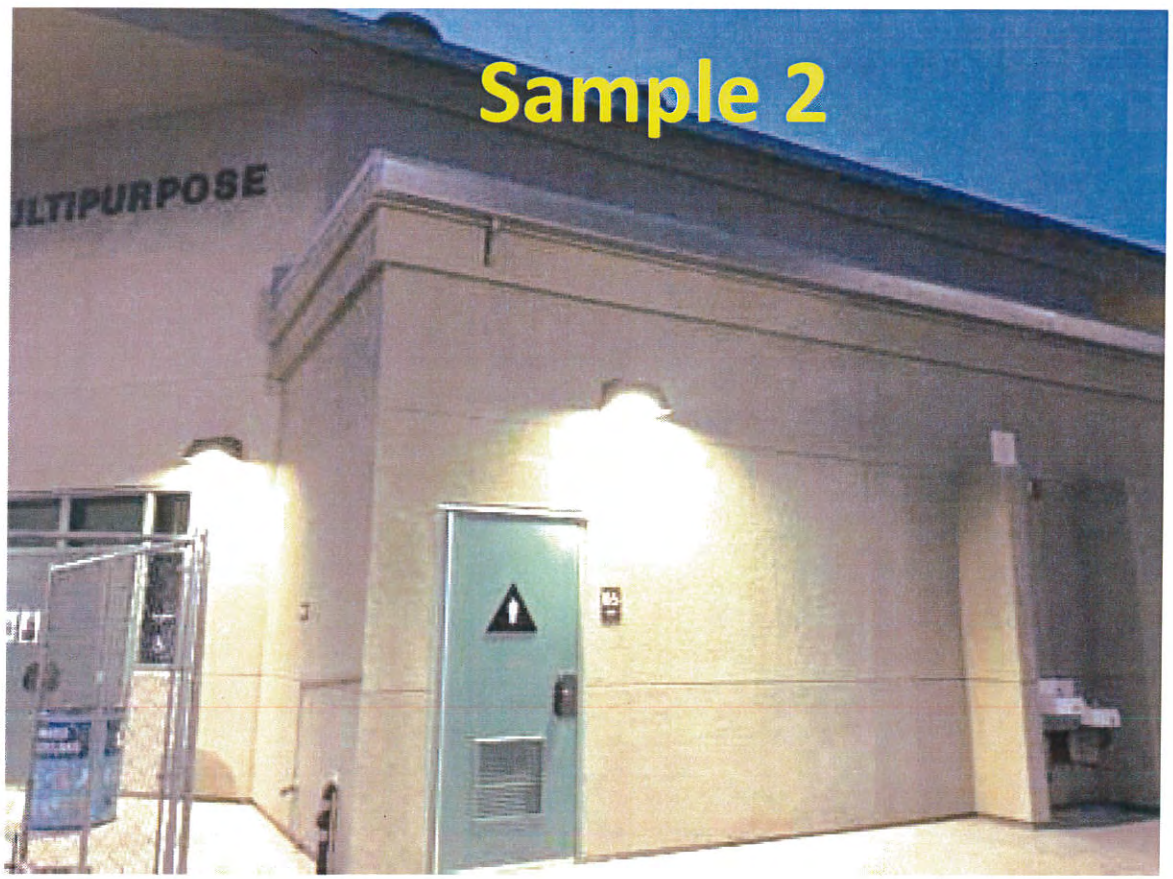

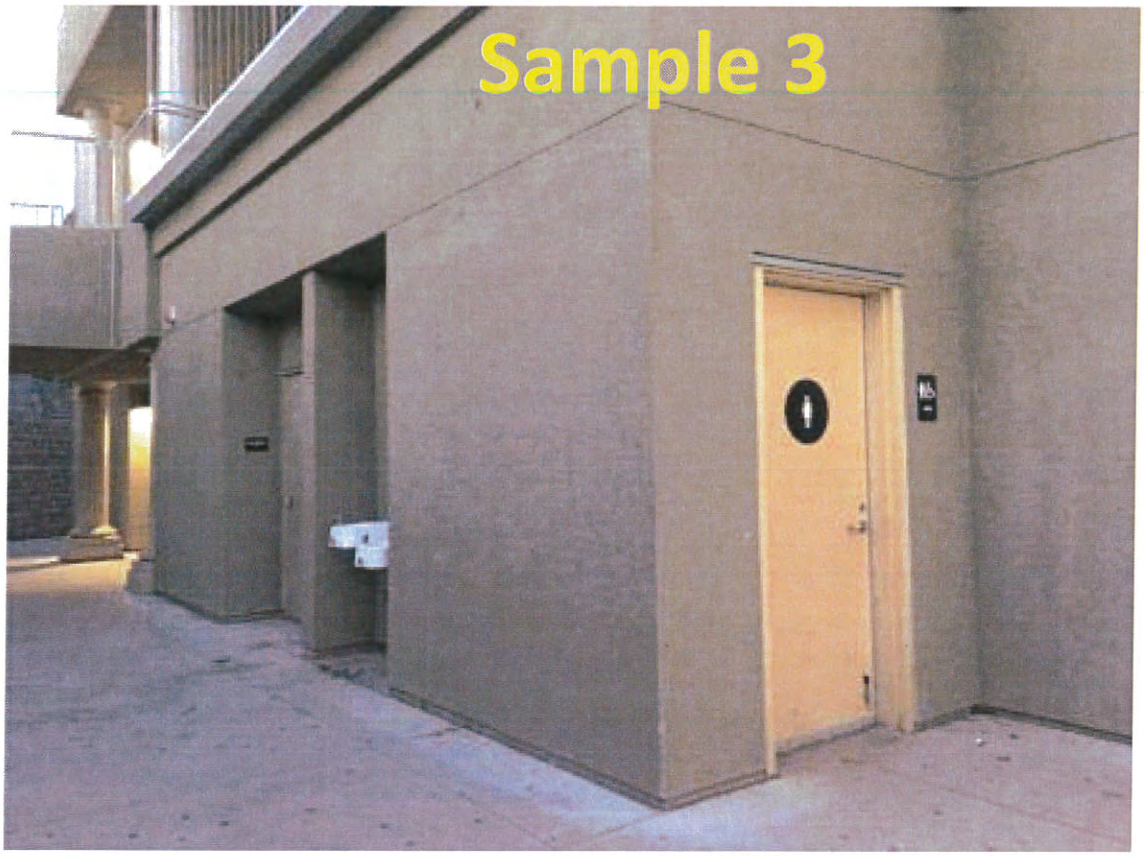
Sample 3

Sample 5

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

28-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1169333	Marshall Middle	29-APR-2017	0542	A. Molloy	SAMPLE 1	
2	W1169334	Marshall Middle	29-APR-2017	0537		SAMPLE 2	
3	W1169335	Marshall Middle	29-APR-2017	0547		SAMPLE 3	
4	W1169336	Marshall Middle	29-APR-2017	0550		SAMPLE 4	
5	W1169337	Marshall Middle	29-APR-2017	0553		SAMPLE 5	

2258

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign: A Molloy	Received by: Name: Gloria Siqueiros Sign:	Date & Time: 4/29/17 @ 0820 Location: WQL AIV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: A Molloy
Received Date: 4/29/17
LIMS Received Time: 0830
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Tierrasanta Elementary School

Physical Address of School: 5450 La Cuenta Dr. San Diego, CA 92124

First Bell: 7:30AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/26/2017

Completed by Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 04/26/2017

School's Point of Contact for Sampling Assistance

Name: ~~Daniel Lopez~~ CESAR JIMENEZ

Phone: ~~619-306-3383~~ 619-261-1588

Email: dlopez2@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 4/28/17 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Tierrasanta Elemetary School 5450 La Cuenta Dr. San Diego, CA 92124

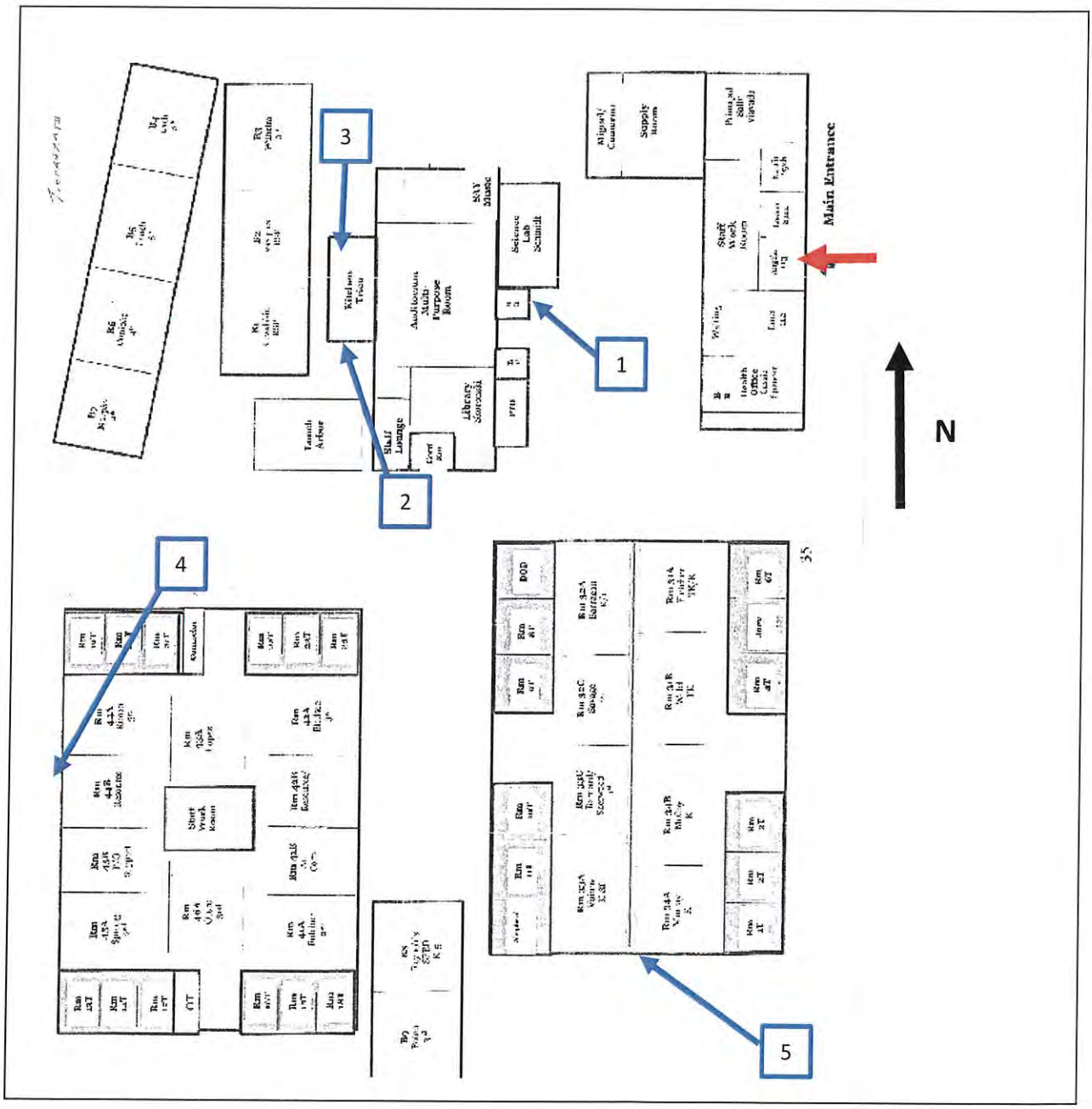

Sample No. 1

School: Tierrasanta Elementary School

Name of Building: Boys Restroom

Location Description: East facing wall next to Multipurpose Room

Type of Outlet: 2 single bubblers

Description: Bubbler on left side

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169375

State Sample ID: 3710020-BDI-A

Date & Time Last Used: 5/09/17 @ 2200

Date & Time Sample Collected: 5/10/17 @ 623

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: Tierrasanta Elementary School

Name of Building: Lunch Arbor and Kitchen Area

Location Description: On South facing wall of kitchen

Type of Outlet: Triple bubbler

Description: Center bubbler

Comments/Miscellaneous:

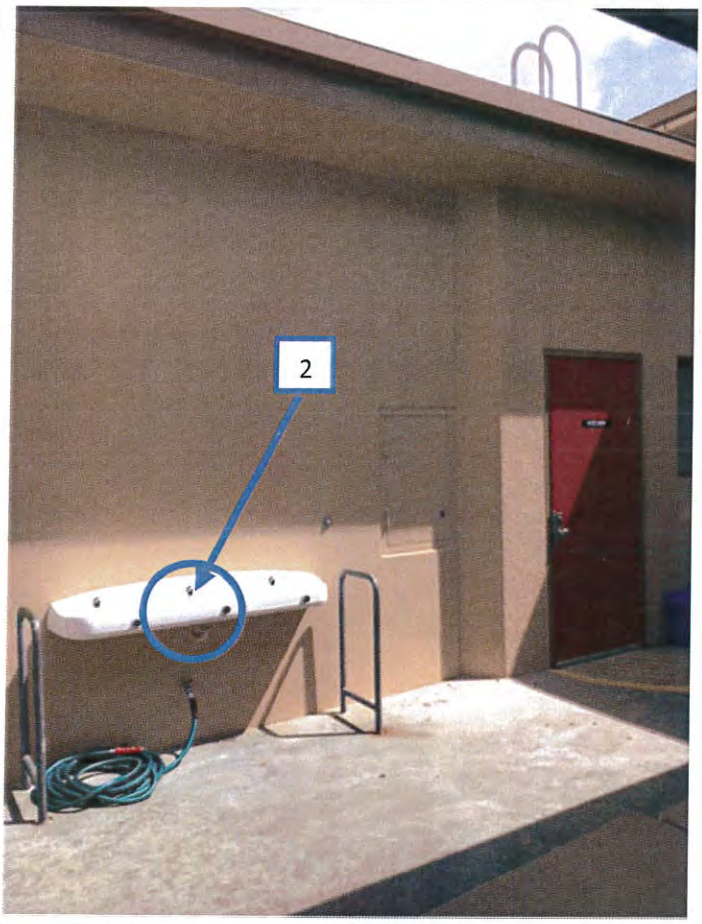

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169376

State Sample ID: 3710020-BDI-B

Date & Time Last Used: 5/09/17 @ 2200

Date & Time Sample Collected: 5/10/17 @ 0600

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Malloy

Sample No. 3

School: Tierrasanta Elementary School

Name of Building: Kitchen

Location Description: Large prep sink

Type of Outlet: Regular faucet

Description: Regular faucet

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169377

State Sample ID: 3710020-BDI-C

Date & Time Last Used: 5/09/17 @ 2200

Date & Time Sample Collected: 5/10/17 @ 0611

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

wide sprayer
85% in
15% out

Sample No. 4

School: Tierrasanta Elementary School

Name of Building: Southwest class building

Location Description: Southwest corner of campus

Type of Outlet: Triple bubbler

Description: Far left bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169378

State Sample ID: 3710020-BDI-D

Date & Time Last Used: 5/09/17 @ 2200

Date & Time Sample Collected: 5/10/17 @ 0618

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 5

School: Tierrasanta Elementary School

Name of Building: Southeast class room building

Location Description: South facing wall of building (outside)

Type of Outlet: Double bubbler and single bubbler

Description: Bubbler on right or double bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169379

State Sample ID: 3710020-BDI-E

Date & Time Last Used: 5/09/17 @ 2200

Date & Time Sample Collected: 5/10/17 @ 0620

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

08-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1169375	Tierrasanta Elementary	10-MAY-2017	0623	A. Molloy	SAMPLE 1	
2	W1169376	Tierrasanta Elementary	10-MAY-2017	0613		SAMPLE 2	
3	W1169377	Tierrasanta Elementary	10-MAY-2017	0611		SAMPLE 3	
4	W1169378	Tierrasanta Elementary	10-MAY-2017	0618		SAMPLE 4	
5	W1169379	Tierrasanta Elementary	10-MAY-2017	0620		SAMPLE 5	

2266

Chain of Custody:

Relinquished by:	Received by:	Date & Time:	Comments:
Name: Alejandra Molloy Sign: AMolloy	Name: Sign:	5/10/17 @ 0645 Location: WQL Alv	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy TBurger
Received Date: 5/10/17
LIMS Received Time: 0742
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Toler Elementary

Physical Address of School: 3350 Baker St., San Diego, CA 92117

First Bell: 9:05am

Meeting Date: 4/05/2017

Sampling Plan Completion Date: 5/04/17

Completed by Print Name: Lori Sherman

Signature: *Lori Sherman* Date: 5/04/17

School's Point of Contact for Sampling Assistance

Name: ~~Lori Sherman~~ Tim Brown 619-302-9427

Phone: ~~619-301-9086~~

Email: lsherman1@sandi.net

City of San Diego 3710020

Approved By: 5/15/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Toler Elementary - 3350 Baker St., San Diego, CA 92117

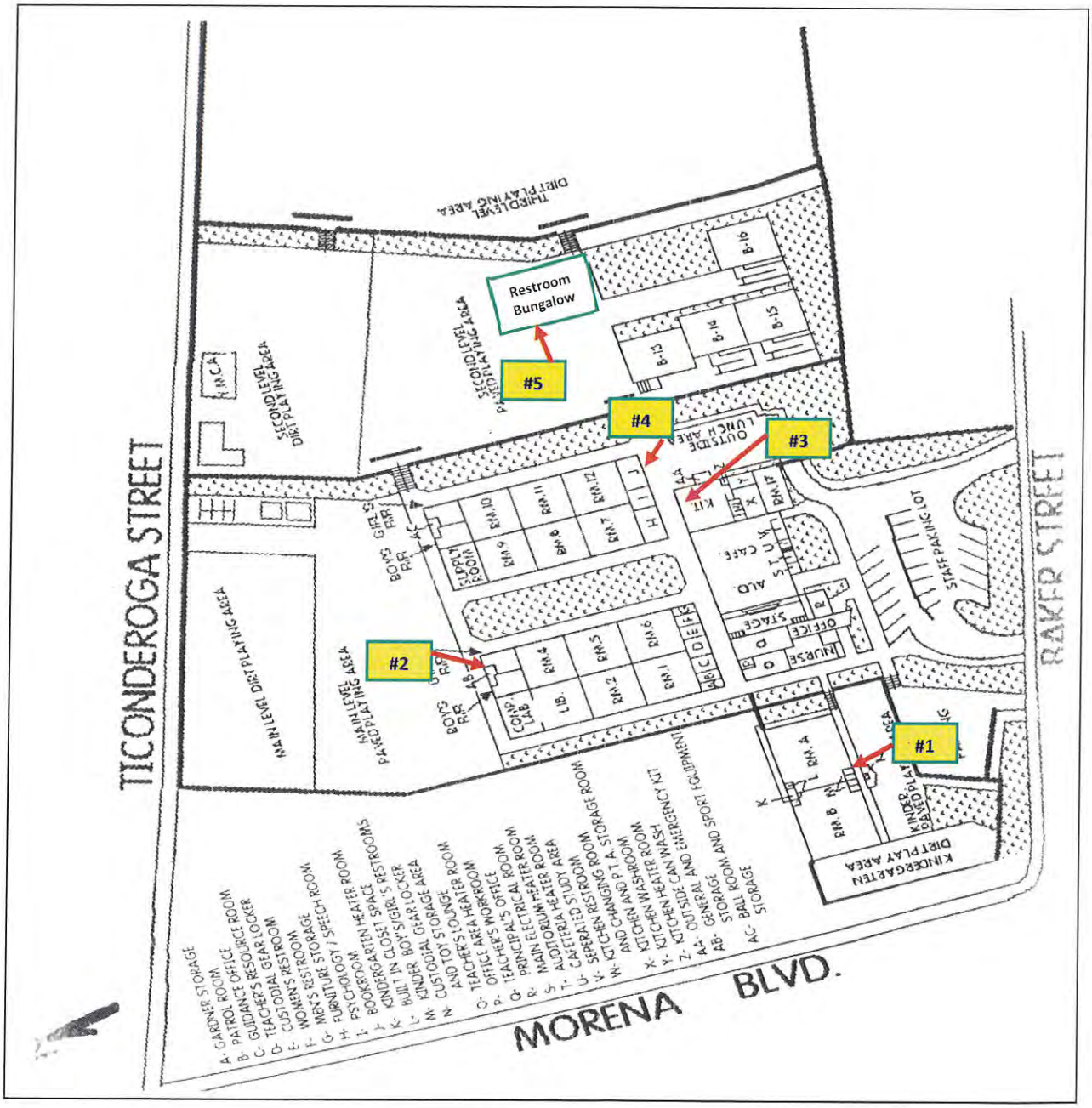

Sample No. 1

School: Toler Elementary - 3350 Baker St., San Diego, CA 92117

Name of Building: Kindergarten

Location Description: South exterior wall between classrooms A & B

Type of Outlet: Bubbler

Description: Left bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172909

State Sample ID: 3710020-BIJ-A

Date & Time Last Used: 5/18/17 between 6-10pm

Date & Time Sample Collected: 5/19/17 @ 0605

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

Sample No. 2

School: Toler Elementary - 3350 Baker St., San Diego, CA 92117

Name of Building: Classrooms 1-6 (bldg. 1)

Location Description: North exterior wall next to boy's restroom

Type of Outlet: Bubbler

Description: Center bubbler

Comments/Miscellaneous: Close to room 4

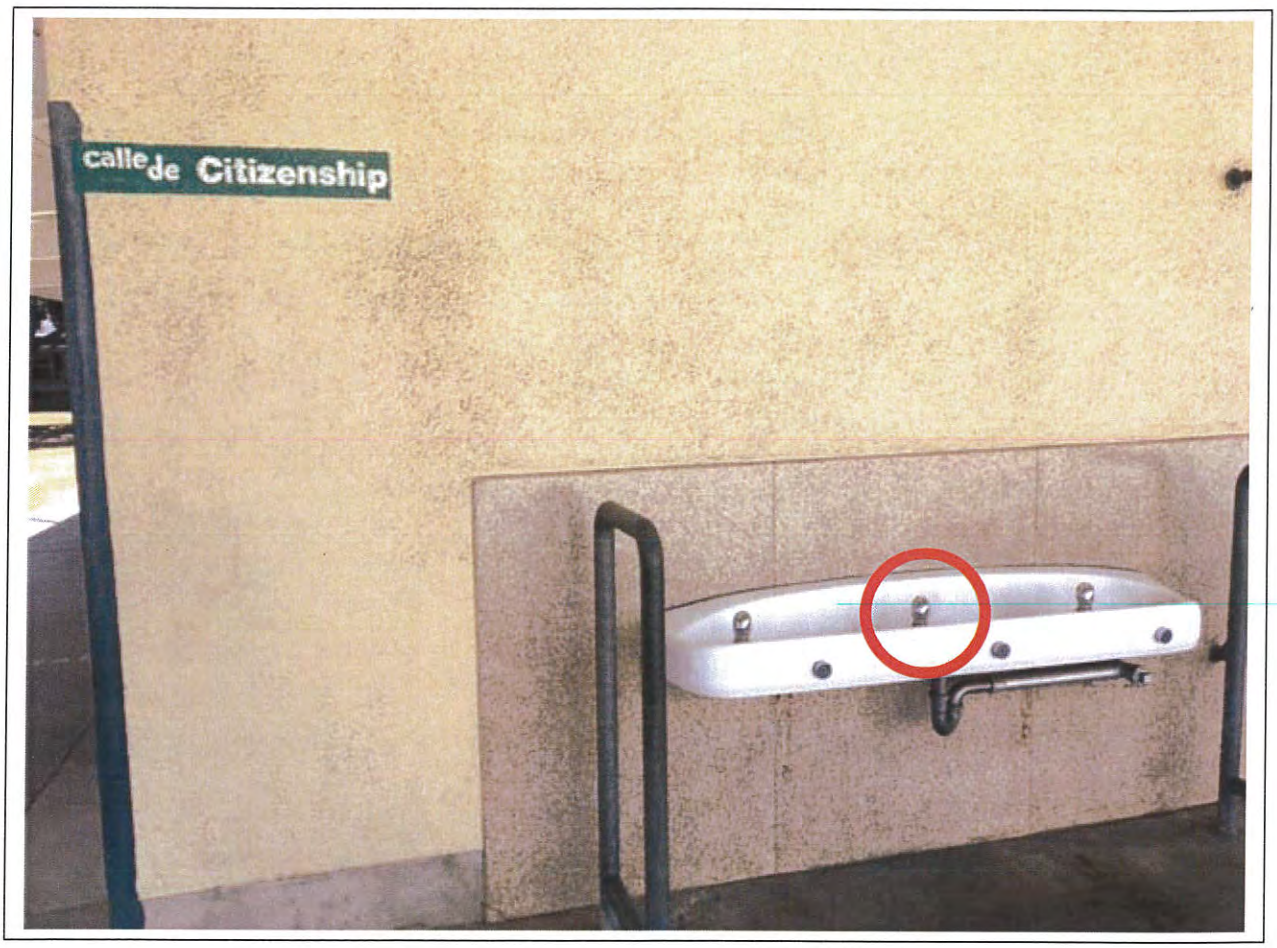

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172910

State Sample ID: 3710020-BIJ-B

Date & Time Last Used: 5/18/17 between 6-10pm

Date & Time Sample Collected: 5/19/17 @ 0609

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rumbo

Sample No. 3

School: Toler Elementary - 3350 Baker St., San Diego, CA 92117

Name of Building: Kitchen

Location Description: North interior wall

Type of Outlet: Faucet

Description: Sink mounted faucet

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172911

State Sample ID: 3710020-BIJ-C

Date & Time Last Used: 5/18/17 between 6-10pm

Date & Time Sample Collected: 5/19/17 @ 0612

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rambo

Sample No. 4

School: Toler Elementary - 3350 Baker St., San Diego, CA 92117

Name of Building: Classrooms 7-12 (bldg. 2)

Location Description: South exterior wall next to lunch court

Type of Outlet: Bubbler

Description: Right bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172912

State Sample ID: 3710020-BIJ-D

Date & Time Last Used: 5/18/17 between 6-10pm

Date & Time Sample Collected: 5/19/17 @ 0615

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rubio

Sample No. 5

School: Toler Elementary - 3350 Baker St., San Diego, CA 92117

Name of Building: Restroom Bungalow

Location Description: Exterior wall between boy & girl's restroom

Type of Outlet: Bubbler

Description: Left bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172913

State Sample ID: 3710020-BIJ-E

Date & Time Last Used: 5/18/17 between 6-10pm

Date & Time Sample Collected: 5/19/17 @ 0618

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Joshua Rabo

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

15-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1172909	Toler Elementary	19-MAY-2017	0605	JR	SAMPLE 1	
2	W1172910	Toler Elementary	19-MAY-2017	0609	JR	SAMPLE 2	
3	W1172911	Toler Elementary	19-MAY-2017	0612	JR	SAMPLE 3	
4	W1172912	Toler Elementary	19-MAY-2017	0615	JR	SAMPLE 4	
5	W1172913	Toler Elementary	19-MAY-2017	0618	JR	SAMPLE 5	

2274

Chain of Custody:

Relinquished by: Name: Joshua Rambo Sign:	Received by: Name: Tom Burger Sign: Tom B. Burger	Date & Time: 5/19/17 @ 0650 Location: ALV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-19-17
LIMS Received Time: 1033
Reviewed By:

1746

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Torrey Hills Elementary

Physical Address of School: 10830 Calle Mar De Mariposa

First Bell: 8:10am

Meeting Date: 5-8-2017

Sampling Plan Completion Date: 5/16/17

Completed by Print Name: Mike Lau

Signature: [illegible] Date: 5/16/17

School's Point of Contact for Sampling Assistance

Name: Patrick Lum

Phone: (858) 864-3473

Email: plum@dmusd.org

City of San Diego 3710020

Approved By: [illegible] 5/25/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Torrey Hills Elementary 10830 Calle Mar De Mariposa

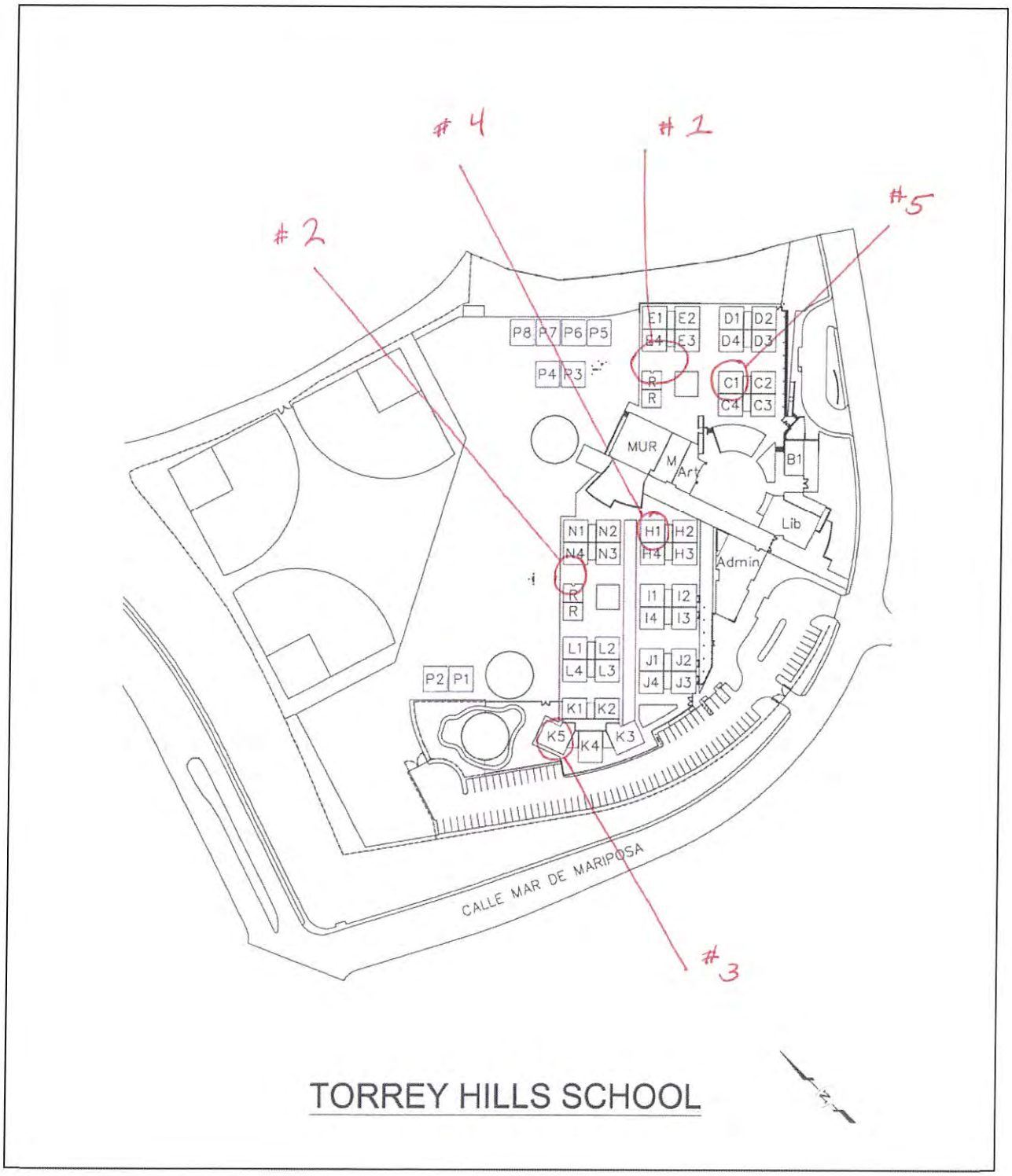
#4
#1
#5
#2
#3
P8 P7 P6 P5
P4 P3
E1 E2
E4 E3
D1 D2
D4 D3
R
R
C1 C2
C4 C3
MUR
M
Art
B1
Lib
Admin
N1 N2
N4 N3
H1 H2
H4 H3
R
R
I1 I2
I4 I3
L1 L2
L4 L3
J1 J2
J4 J3
P2 P1
K1 K2
K5 K4 K3
CALLE MAR DE MARIPOSA
TORREY HILLS SCHOOL

Sample No. 1

School: Torrey Hills Elementary

Name of Building: Restrooms

Location Description: Boys / girls upper grade restrooms (next to custodial room)

Type of Outlet: Drinking fountains

Description: Bubbler on right side drinking fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1175394

State Sample ID: 3710020-CCD-A

Date & Time Last Used: 2200 6-5-17

Date & Time Sample Collected: 0708 6-6-17

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: T. Burger

Sample No. 2

School: Torrey Hills Elementary

Name of Building: Restrooms

Location Description: Boys / girls lower grade restrooms (next to custodial room)

Type of Outlet: Drinking fountains

Description: Bubbler on left side drinking fountain

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1175395

State Sample ID: 3710020-CCD-B

Date & Time Last Used: 2200 6-5-17

Date & Time Sample Collected: 0658 6-6-17

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: T. Burger

Sample No. 3

School: Torrey Hills Elementary

Name of Building: K building

Location Description: Classroom K-5

Type of Outlet: Bubbler

Description: Bubbler attached to sink in Room K-5

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1175396

State Sample ID: 3710020-CCD-C

Date & Time Last Used: 2200 6-5-17

Date & Time Sample Collected: 0655 6-6-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T. Burger

Sample No. 4

School: Torrey Hills Elementary

Name of Building: H-1

Location Description: Classroom H-1

Type of Outlet: Bubbler

Description: Bubbler attached to sink in room H-1

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1175397

State Sample ID: 3710020-CCD-D

Date & Time Last Used: 2200 6-5-17

Date & Time Sample Collected: 0702 6-6-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T. Buggol

Sample No. 5

School: Torrey Hills Elementary

Name of Building: C4 C4

Location Description: Classroom ~~C-1~~ C4

Type of Outlet: Bubbler

Description: Bubbler attached to sink in classroom C-1

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1175398

State Sample ID: 3710020-CCD-E

Date & Time Last Used: 2200 5-6-17

Date & Time Sample Collected: 0706 6-6-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: TBurger

Exhibit 21

Water Quality Chemistry Services
Chain of Custody Form

05-Jun-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1175394	Torrey Hills	06-JUN-2017	0708	T-Burger	SAMPLE 1	
2	W1175395	Torrey Hills	06-JUN-2017	0658		SAMPLE 2	
3	W1175396	Torrey Hills	06-JUN-2017	0655		SAMPLE 3	
4	W1175397	Torrey Hills	06-JUN-2017	0702		SAMPLE 4	
5	W1175398	Torrey Hills	06-JUN-2017	0706		SAMPLE 5	

2282

Chain of Custody:

Relinquished by: Name: Tom Burger Sign: Tom B Burger	Received by: Name: Gloria Siqueiros Sign:	Date & Time: 6-6-17 1538 Location: ALV. LAB	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: _____

Received Date: _____

LIMS Received Time: _____

Reviewed By: _____

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

12-Jun-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1178638	Torrey Pines HS	13-JUN-2017	0603	T. Burger	SAMPLE 1	
2	W1178639	Torrey Pines HS	13-JUN-2017	0609		SAMPLE 2	
3	W1178640	Torrey Pines HS	13-JUN-2017	0624		SAMPLE 3	
4	W1178641	Torrey Pines HS	13-JUN-2017	0615		SAMPLE 4	
5	W1178642	Torrey Pines HS	13-JUN-2017	0621		SAMPLE 5	

2283

Chain of Custody:

Relinquished by: Name: Tom Burger Sign:	Received by: Name: Keith Ruehrwein Sign:	Date & Time: 6-13-17 0955 Location: WQL LAB	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: KR
Received Date: 6/13/17
LIMS Received Time: 0955
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: TORREY PINES HIGH SCHOOL

Physical Address of School: 3710 DEL MAR HEIGHTS RD

First Bell:

Meeting Date: 6-5-17

Sampling Plan Completion Date: 6-7-17

Completed by Print Name: Jim Mitroff

Signature: Date: 6-7-17

School's Point of Contact for Sampling Assistance

Name: JAMES MITROFF

Phone: 760-802-3586

Email: JIM.MITROFF@SDUHSD.NET

City of San Diego 3710020

Approved By: Tom B Burger 6-12-17 — Tom Burger

Signature & Date — Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

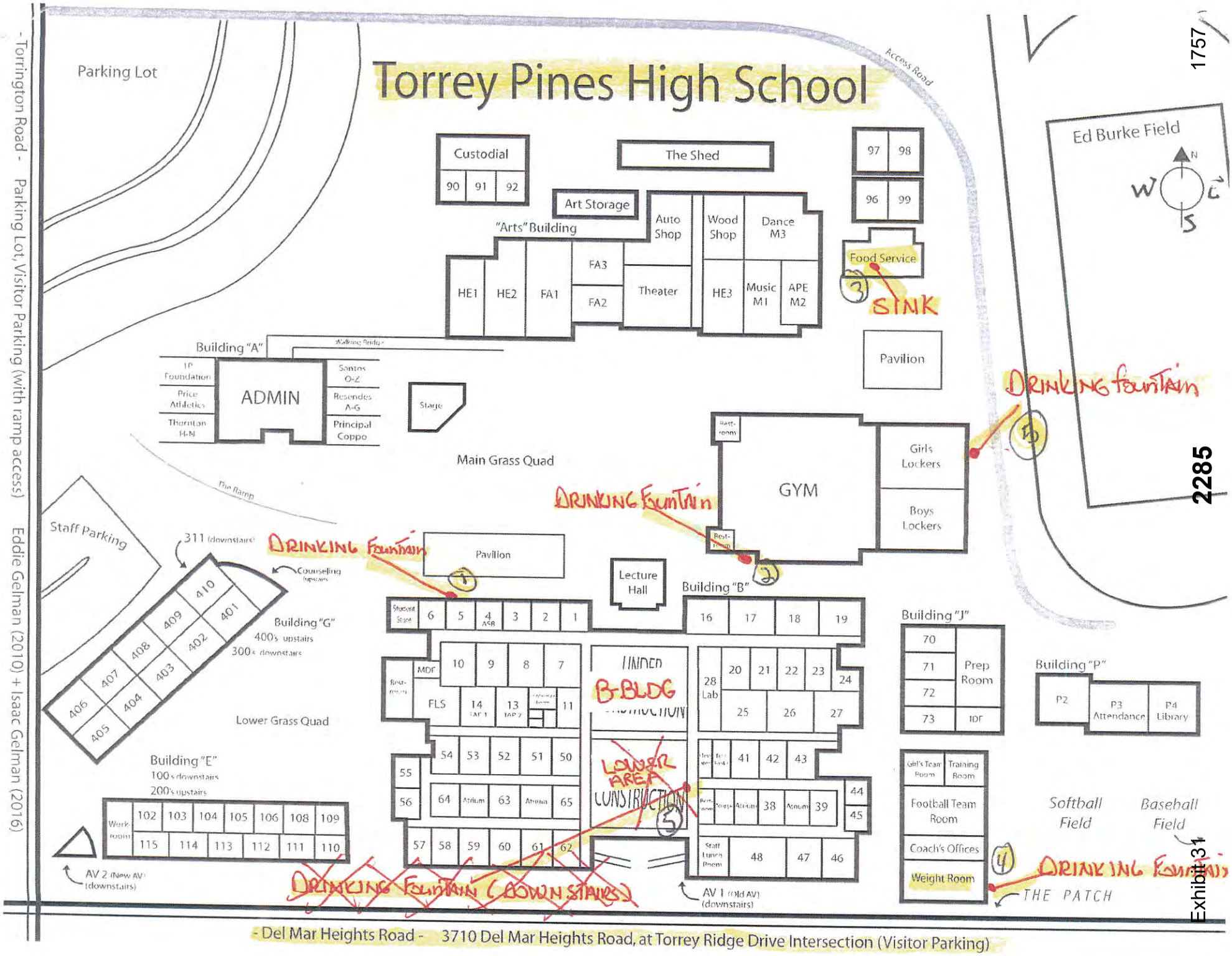
Torrey Pines High School
Parking Lot
Access Road
Custodial
90 91 92
The Shed
Art Storage
"Arts" Building
HE1 HE2 FA1 FA3 FA2
Auto Shop
Wood Shop
Dance M3
Theater
HE3
Music M1
APE M2
97 98
96 99
Food Service
SINK
Pavilion
Ed Burke Field
N
W
E
S
Building "A"
Walking Bridge
IP Foundation
Price Athletics
Thornton H-N
ADMIN
Santos O-Z
Resendes A-G
Principal Coppo
Stage
Main Grass Quad
The Ramp
DRINKING FOUNTAIN
Girls Lockers
Boys Lockers
GYM
Rest-room
DRINKING FOUNTAIN
Staff Parking
311 (downstairs)
Counseling (upstairs)
DRINKING FOUNTAIN
Pavilion
Lecture Hall
Building "B"
Building "G"
400's upstairs
300's downstairs
406 407 408 409 410
405 404 403 402 401
Student Store
6 5 4 ASB 3 2 1
16 17 18 19
Building "J"
70
71
72
73
Prep Room
IDF
Building "P"
P2
P3 Attendance
P4 Library
MDF
10 9 8 7
FLS
14 13 11
UNDER B-BLDG CONSTRUCTION
28 Lab
20 21 22 23 24
25 26 27
Lower Grass Quad
Building "E"
100's downstairs
200's upstairs
Work-room
102 103 104 105 106 108 109
115 114 113 112 111 110
55
56
54 53 52 51 50
64 Atrium 63 Atrium 65
57 58 59 60 61 62
LOWER AREA CONSTRUCTION
41 42 43
44
45
38 Atrium 39
Staff Lunch Room
48 47 46
Girl's Team Room
Training Room
Football Team Room
Coach's Offices
Weight Room
Softball Field
Baseball Field
DRINKING FOUNTAIN
THE PATCH
DRINKING FOUNTAIN (DOWNSTAIRS)
AV 2 (New AV) (downstairs)
AV 1 (old AV) (downstairs)
- Torrington Road - Parking Lot, Visitor Parking (with ramp access) Eddie Gelman (2010) + Isaac Gelman (2016)
- Del Mar Heights Road - 3710 Del Mar Heights Road, at Torrey Ridge Drive Intersection (Visitor Parking)

Sample No. 1

School: Torrey Pines H.S.

Name of Building:

Location Description: Between Bldg B & Lunch Shelter (Outside)

Type of Outlet: Drinking Fountain

Description: two v fountain ~~upper bubbler~~ T.Burger

Comments/Miscellaneous: fixture lower bubbler

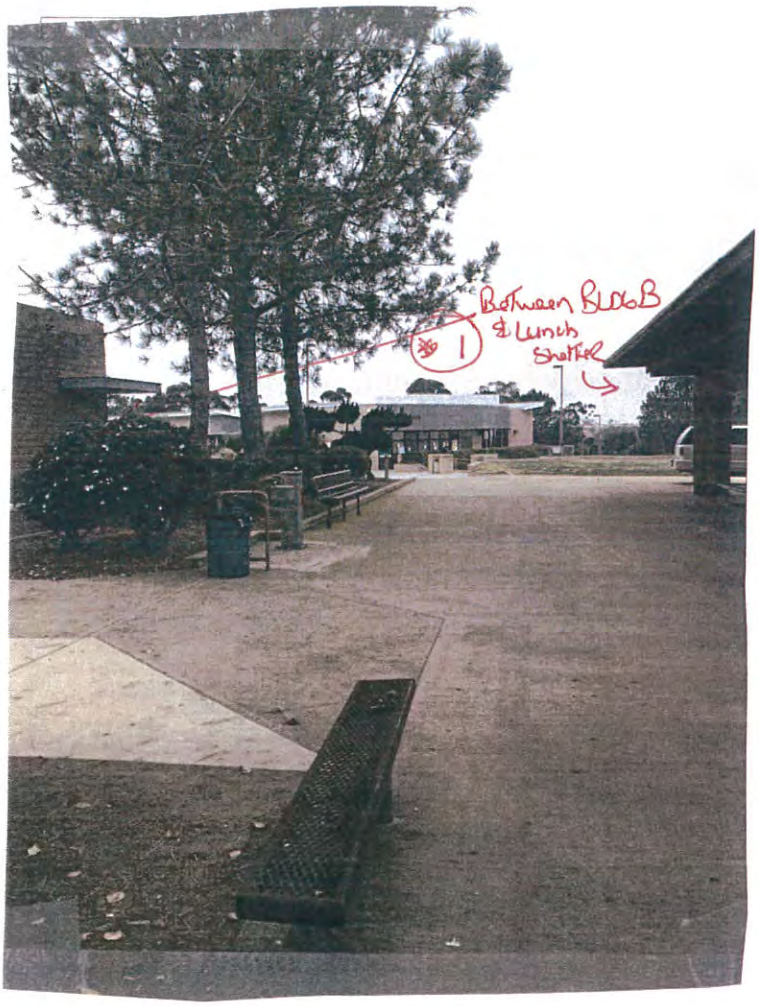

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: **W1178638**

State Sample ID: **3710020-CCI-A**

Date & Time Last Used: 1430 6-12-17

Date & Time Sample Collected: 0603 6-13-17

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: TBurger

Sample No. 2

School: TORREY PINES H.S.

Name of Building:

Location Description: SOUTHWEST CORNER of GYM (OUTSIDE)

Type of Outlet: DRINKING FOUNTAIN

Description: 3 Dual fountains, left most upper bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1178639

State Sample ID: 3710020-CCI-B

Date & Time Last Used: ~~1430~~ 1435 6-12-17

Date & Time Sample Collected: 0609 6-13-17

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: T Berger

Sample No. 3

School: Torrey Pines H.S.

Name of Building: FOOD SERVICE South wall

Location Description:

Type of Outlet: SINK 3 Sinks Center Sink

Description:

Comments/Miscellaneous:

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1178640

State Sample ID: **3710020-CCI-C**

Date & Time Last Used: 1455 6-12-17

Date & Time Sample Collected: 0624 6-13-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: T. Burger

Sample No. 4

School: TORREY PINES H.S

Name of Building: WEIGHT ROOM

Location Description: EAST SIDE of BLDG.

Type of Outlet: DRINKING FOUNTAIN

Description: triple fountain Center bubbler

Comments/Miscellaneous:

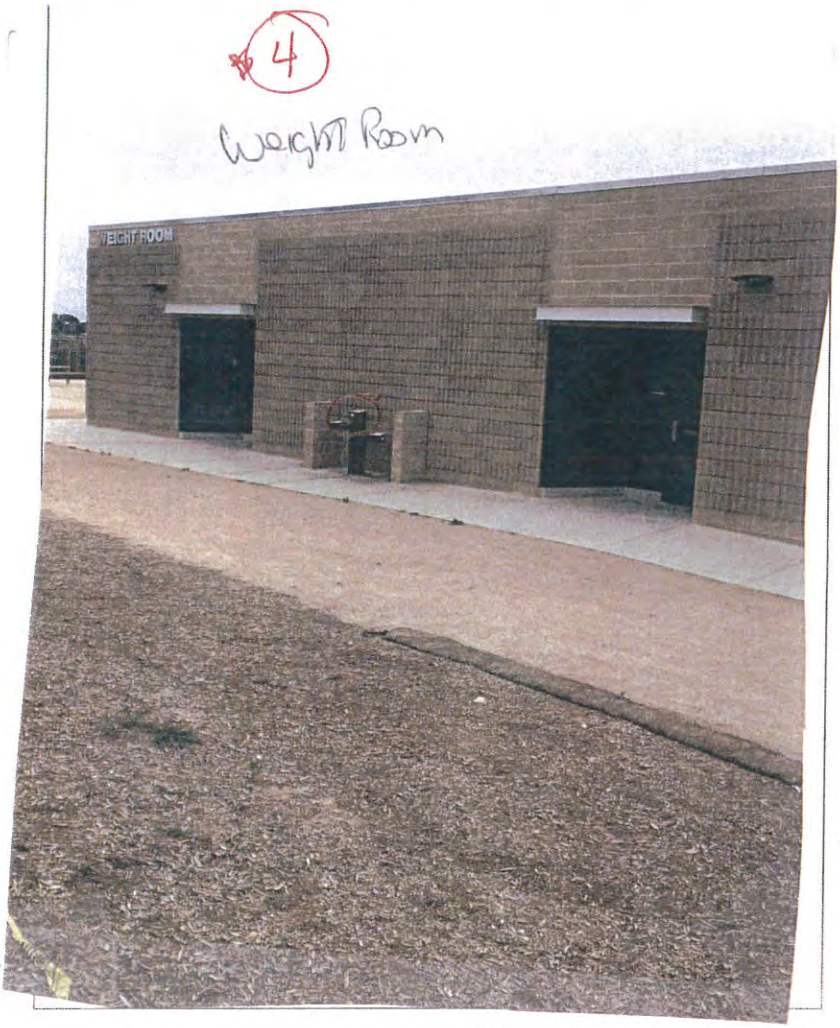

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1178641

State Sample ID: **3710020-CCI-D**

Date & Time Last Used: 1444 6-12-17

Date & Time Sample Collected: 0615 6-13-17

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: T. Burger

Sample No. 5

School: TORREY PINES H.S.

Name of Building: BLDG. GYM/LOCKER ROOM

Location Description: GYM — EAST SIDE

Type of Outlet: DRINKING FOUNTAIN

Description: east side exterior of gym, near women s, two freestanding triple fountains, right triple, center bubbler

Comments/Miscellaneous: 2 Freest FB

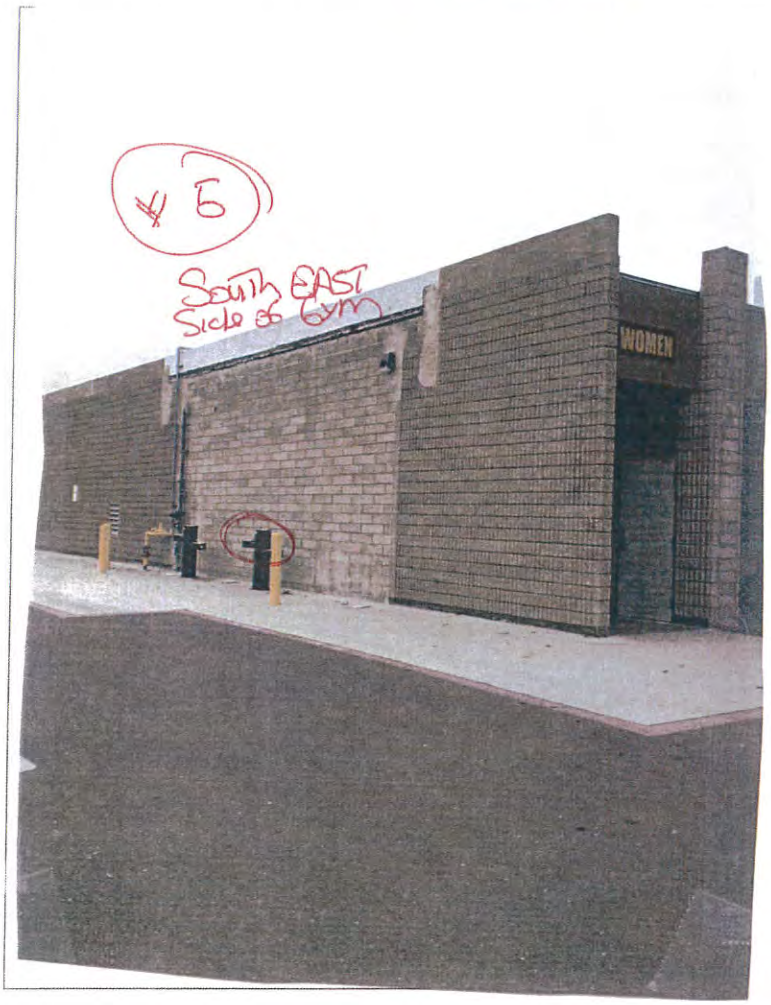

City use only below this line

Sample type Initial ☒ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W 1178642

State Sample ID: **3710020-CCI-E**

Date & Time Last Used: 1447 6-12-17

Date & Time Sample Collected: 0621 6-13-17

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: T.Burger

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: #297 Torrey Pines Elementary School

Physical Address of School: 8350 Cliffridge Ave. San Diego CA 92037

First Bell: 8:25

Meeting Date: 3/22/2017

Sampling Plan Completion Date: 5/01/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 5/1/2017

School's Point of Contact for Sampling Assistance

Name: ~~Elizabeth Lara~~ Ginette 619-302-5285

Phone: 619-302-7616

Email: e-lara@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/2/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Torrey Pines Elementary 8350 Cliffridge Ave San Diego CA 92037

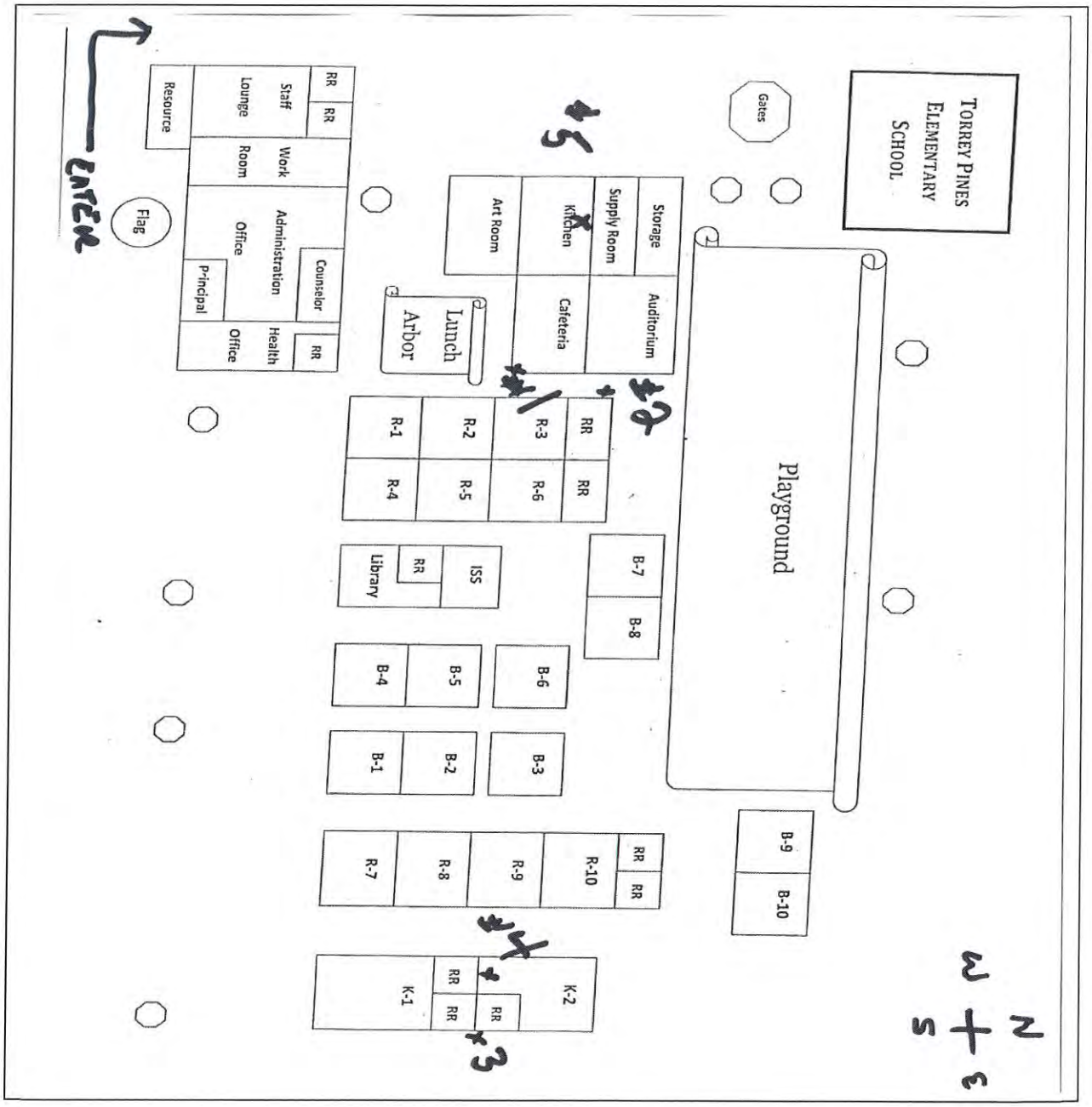

Sample No. 1

School: Torrey Pines Elementary

Name of Building: Cafeteria

Location Description: Outside east wall next to double doors to cafeteria/ymca

Type of Outlet: bubbler drinking fountain

Description: Left bubbler of two

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170296

State Sample ID: 3710020-BFJ-A

Date & Time Last Used: 5/18/17 2200

Date & Time Sample Collected: 5/19/17 0606

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Brian Kuenr

Sample No. 2

School: Torrey Pines Elementary

Name of Building: 1-6 building

Location Description: Next to #3 and restrooms around corner

Type of Outlet: Bubbler drinking fountain

Description: Left bubbler of three

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170297

State Sample ID: 3710020-BFJ-B

Date & Time Last Used: 5/18/17 2200

Date & Time Sample Collected: 5/19/17 0610

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Brian Knerr

Sample No. 3

School: Torrey Pines Elementary School

Name of Building: Kinder Playground

Location Description: Outside at wall next to restrooms

Type of Outlet: Bubbler drinking fountain

Description: Left Drinking fountain of two

Comments/Miscellaneous:

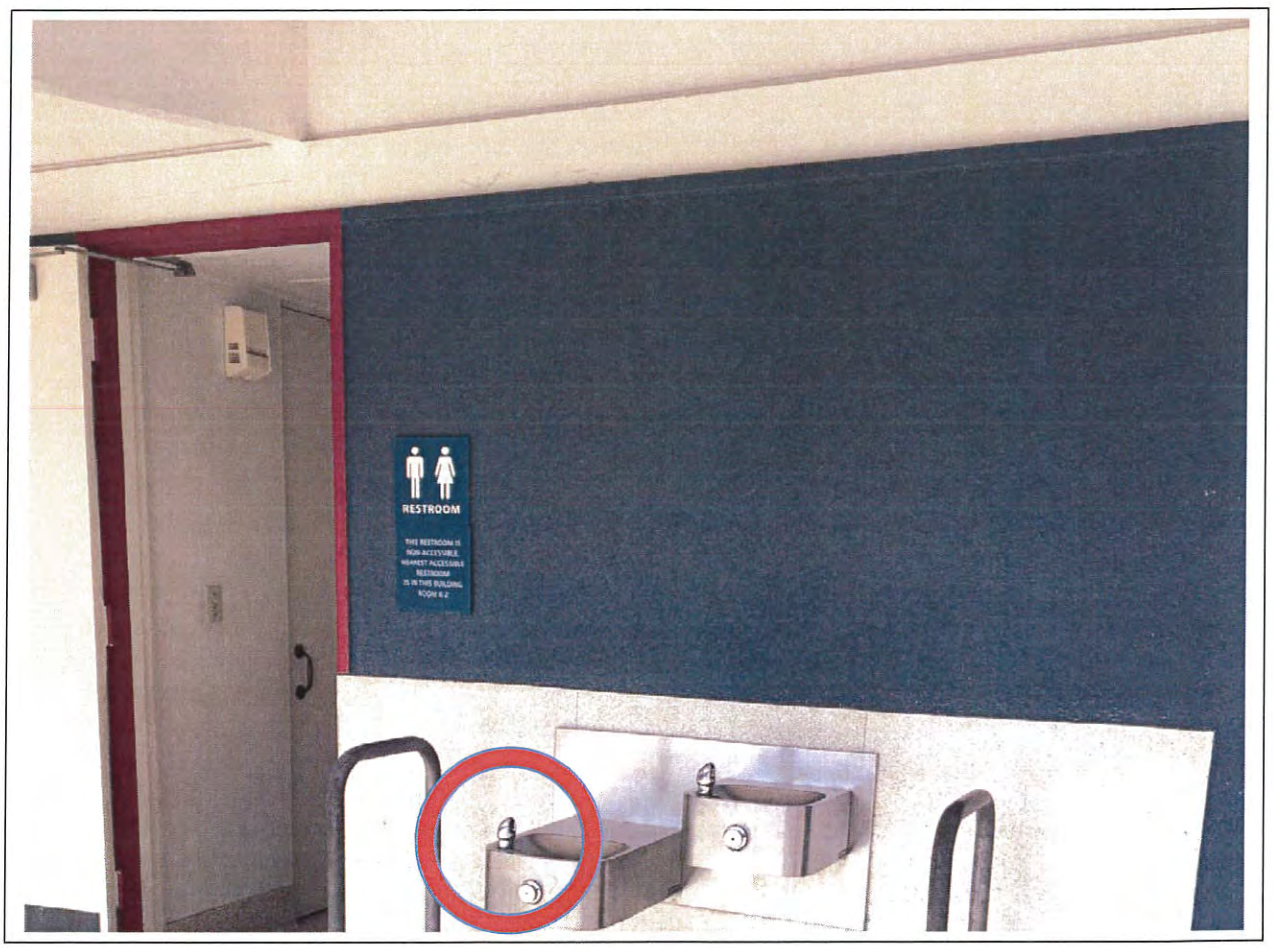

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170298

State Sample ID: 3710020-BFJ-C

Date & Time Last Used: 5/18/17 2200

Date & Time Sample Collected: 5/19/17 0613

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Brian Knerr

Sample No. 4

School: Torrey Pines Elementary School

Name of Building: Kindergarten

Location Description: K-2 inside classroom

Type of Outlet: Bubbler drinking fountain

Description: Bubbler drinking fountains at handwashing sink on right

Comments/Miscellaneous:

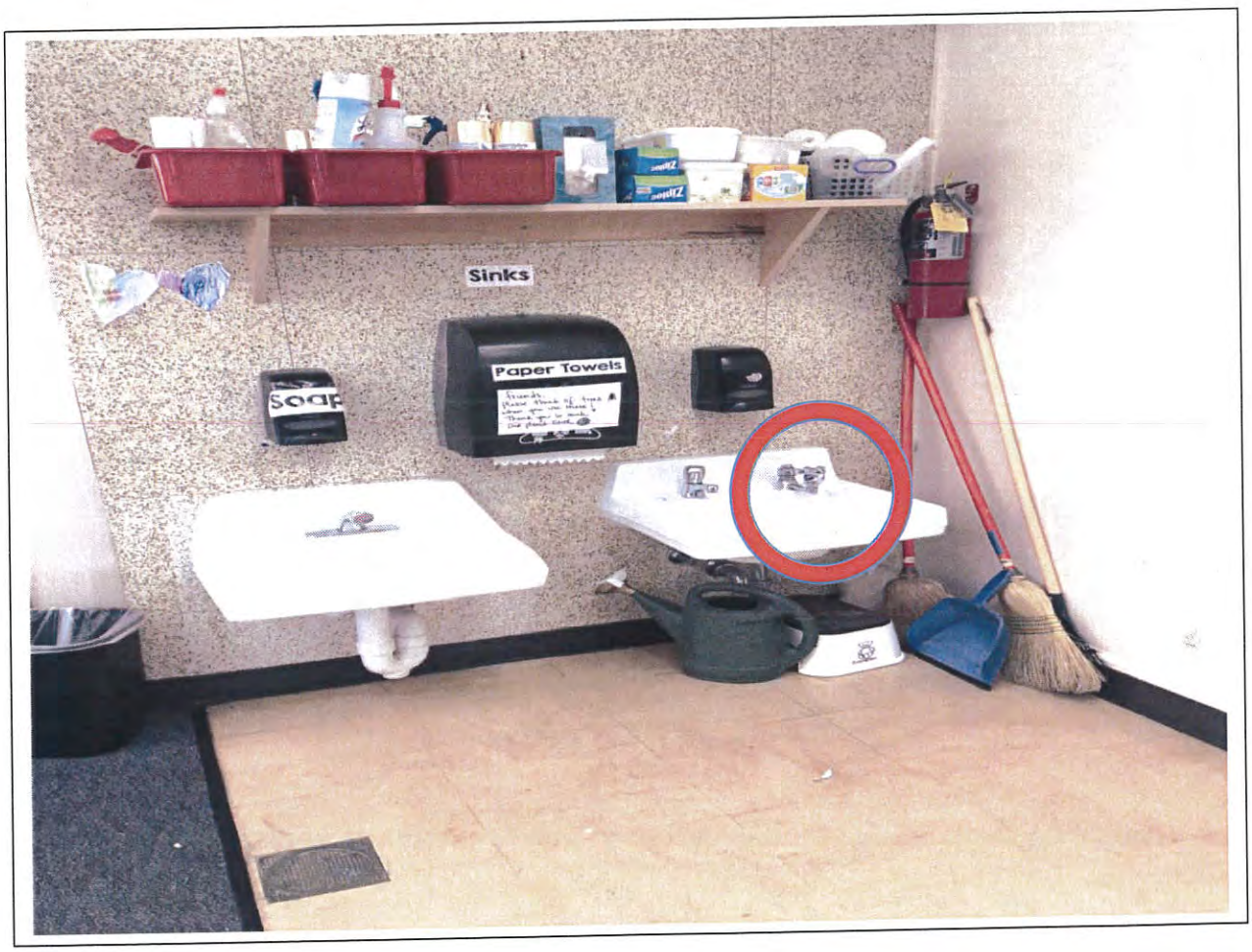

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170299

State Sample ID: 3710020-BFJ-D

Date & Time Last Used: 5/18/17 2200

Date & Time Sample Collected: 5/19/17 0616

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Brian Kinerr

Sample No. 5

School: Torrey Pines Elementary School

Name of Building: Kitchen

Location Description: Inside kitchen at duel sink

Type of Outlet: Single Sink faucet

Description: Single sink faucet with hot & cold valves

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1170300

State Sample ID: 3710020-BFJ-E

Date & Time Last Used: 5/18/17 2200

Date & Time Sample Collected: 5/19/17 0603

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Brian Knerr

Exhibit 3A

Water Quality Chemistry Services
Chain of Custody Form

15-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1170296	Torrey Pines Elementary	19-MAY-2017	0606	Brian Knerr	SAMPLE 1	
2	W1170297	Torrey Pines Elementary	19-MAY-2017	0610		SAMPLE 2	
3	W1170298	Torrey Pines Elementary	19-MAY-2017	0613		SAMPLE 3	
4	W1170299	Torrey Pines Elementary	19-MAY-2017	0616		SAMPLE 4	
5	W1170300	Torrey Pines Elementary	19-MAY-2017	0603		SAMPLE 5	

2298

Chain of Custody:

Relinquished by: Name: Brian Knerr Sign: BK	Received by: Name: Tom Burger Sign: Tom B. Burger	Date & Time: 5/19/17 0645 Location: Alv	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-19-17
LIMS Received Time: 1033
Reviewed By:

1770

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Twain Morse Satellite High School

Physical Address of School: 6905 Skyline Dr. San Diego, CA 92114

First Bell: 7:30AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 05/01/2017

Completed by Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 05/01/2017

School's Point of Contact for Sampling Assistance

Name: Daniel Lopez

Phone: 619-306-3383

Email: dlopez2@sandi.net

City of San Diego 3710020

Approved By: 5/12/17 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Twain Morse Satellite High School 6905 Skyline Dr. San Diego, CA 92114

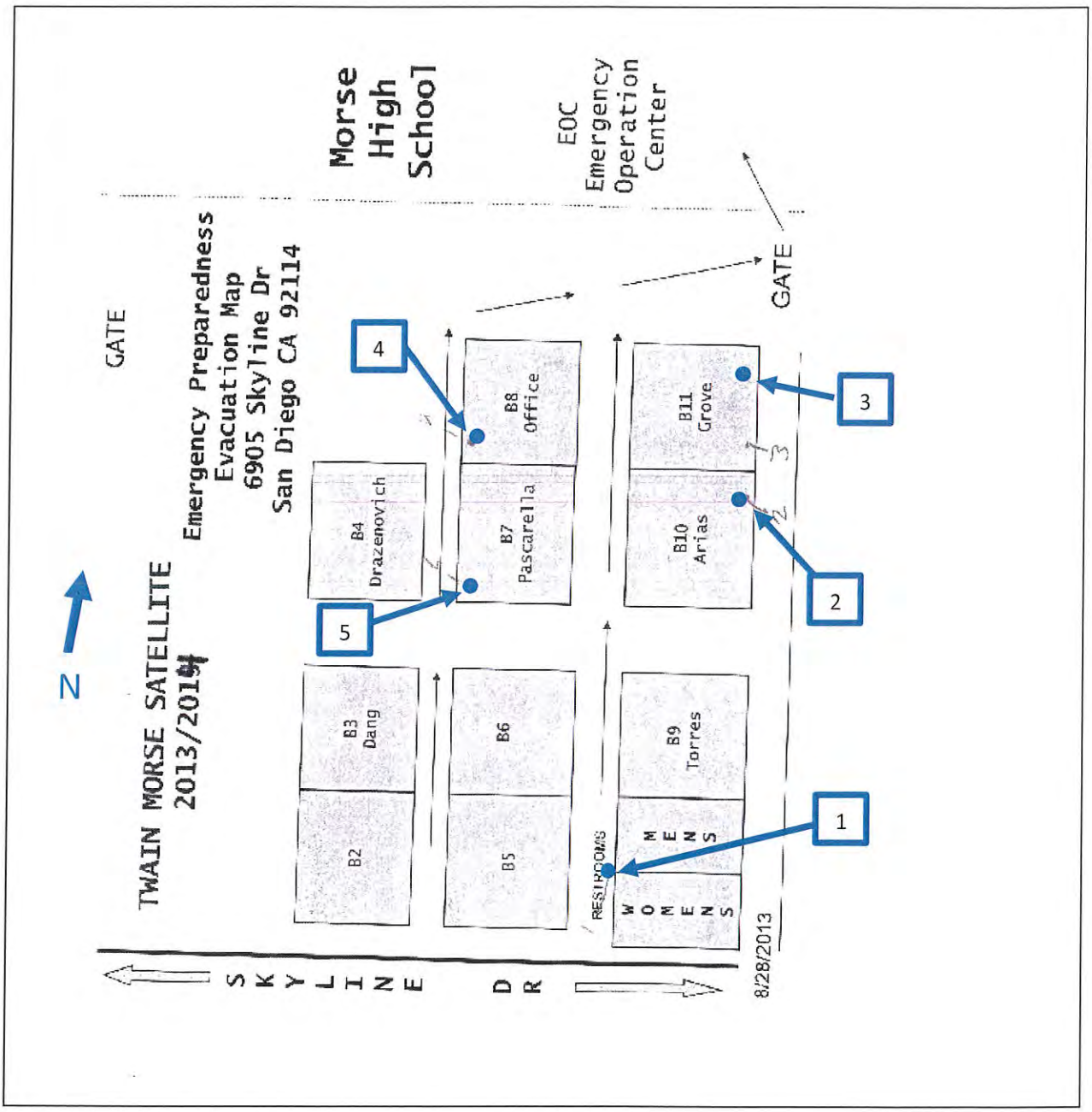

Sample No. 1

School: Twain Morse Satellite High School

Name of Building: Restroom Bungalow (south end of campus)

Location Description: 2 Triple Bubblers in front of restrooms

Type of Outlet: 2 triple bubblers

Description: Center bubbler on south fountain unit (boy's restroom in picture)

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172914

State Sample ID: 3710020-BII-A

Date & Time Last Used: 5/18/17 2200

Date & Time Sample Collected: 5/19/17 0555

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 2

School: Twain Morse Satellite High School

Name of Building: Bungalow B10

Location Description: Inside classroom B10

Type of Outlet: Sink with bubbler

Description: Bubbler on right side of sink

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172915

State Sample ID: 3710020-BII-B

Date & Time Last Used: 5/18/17 2200

Date & Time Sample Collected: 5/19/17 0559

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 3

School: Twain Morse Satellite High School

Name of Building: Bungalow B11

Location Description: Inside classroom B11

Type of Outlet: Sink with bubbler

Description: Bubbler on right side of sink

Comments/Miscellaneous:

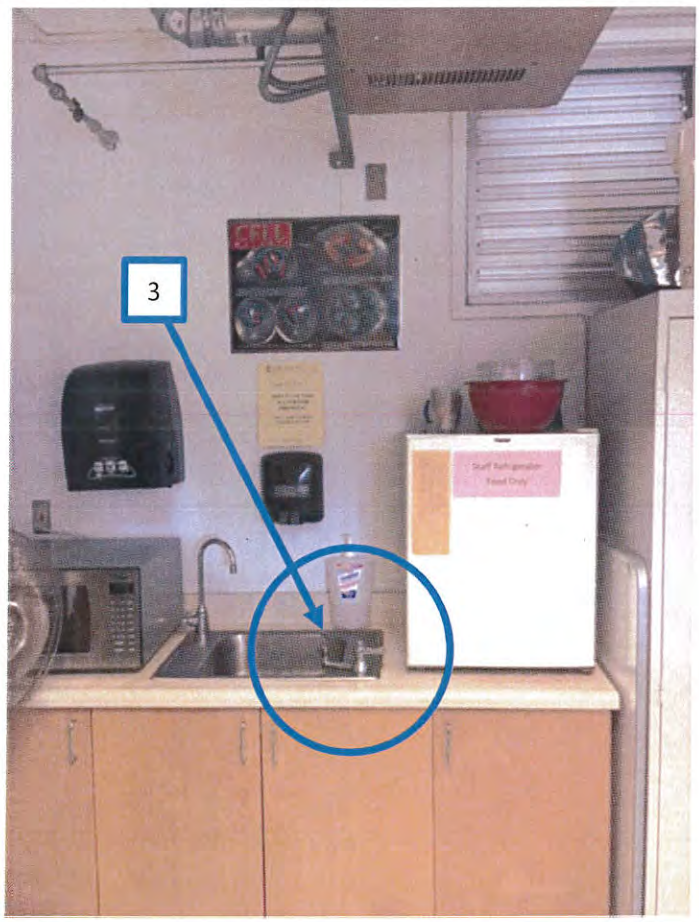

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172916

State Sample ID: 3710020-BII-C

Date & Time Last Used: 5/18/17 ~~5/19/17~~ MN 2200

Date & Time Sample Collected: 5/19/17 0559

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 4

School: Twain Morse Satellite High School

Name of Building: Bungalow B8/Office

Location Description: Inside B8/Office

Type of Outlet: Sink with bubbler

Description: Bubbler on right side of sink

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172917

State Sample ID: 3710020-BII-D

Date & Time Last Used: 5/18/17 2200

Date & Time Sample Collected: 5/19/17 0608

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: R. Nelson

Sample No. 5

School: Twain Morse Satellite High School

Name of Building: Bungalow B7

Location Description: Inside classroom B7

Type of Outlet: Sink with bubbler

Description: Bubbler on right side of sink

Comments/Miscellaneous:

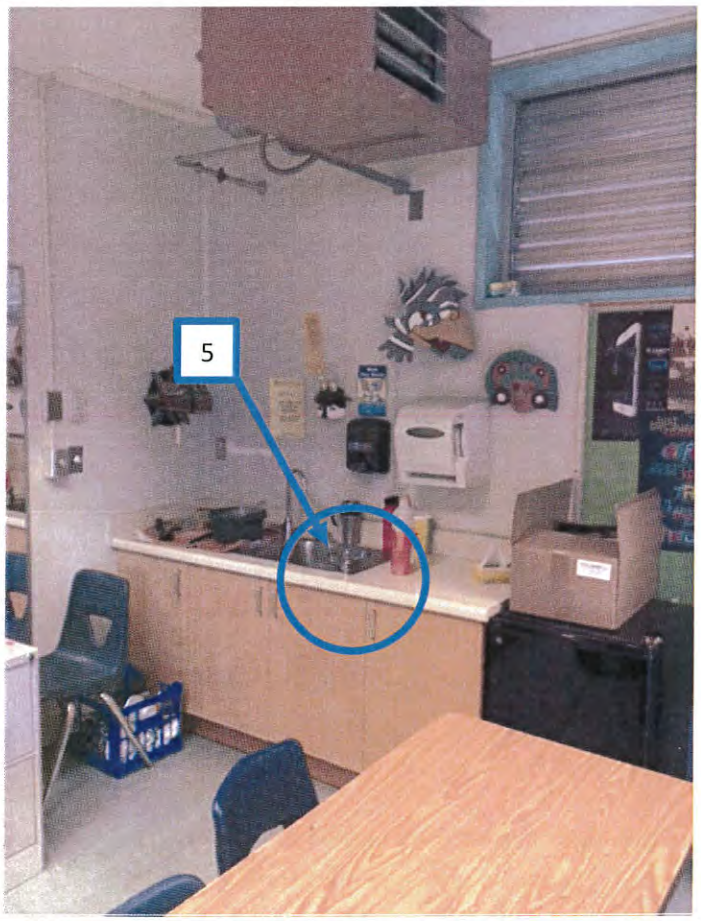

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172918

State Sample ID: 3710020-BII-E

Date & Time Last Used: 5/18/17 2200

Date & Time Sample Collected: 5/19/17 0611

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Exhibit 3A

Water Quality Chemistry Services
Chain of Custody Form

15-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1172914	Twain Morse	19-MAY-2017	0555	M. Nelson	SAMPLE 1	
2	W1172915	Twain Morse	19-MAY-2017	0559		SAMPLE 2	
3	W1172916	Twain Morse	19-MAY-2017	0559		SAMPLE 3	
4	W1172917	Twain Morse	19-MAY-2017	0608		SAMPLE 4	
5	W1172918	Twain Morse	19-MAY-2017	0611		SAMPLE 5	

2306

Chain of Custody:

Relinquished by: Name: M. Nelson Sign:	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 5/19/17 @ 1200 Location: WQL AIV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/19/17
LIMS Received Time: 1215
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Twain Senior High School

Physical Address of School: 6402 Linda Vista Rd. San Diego , CA 92111

First Bell: 7:27

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 4-20-2017

Completed by Print Name: Sergio Salinas

Signature: _____ Date: _____

School's Point of Contact for Sampling Assistance

Name: ~~Sergio Salinas~~ Daniel Lopez

Phone: ~~619-302-0564~~ (619) 306-3383

Email: ssalinas@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-25-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Twain Senior High School 6402 Linda Vista Rd. 92111

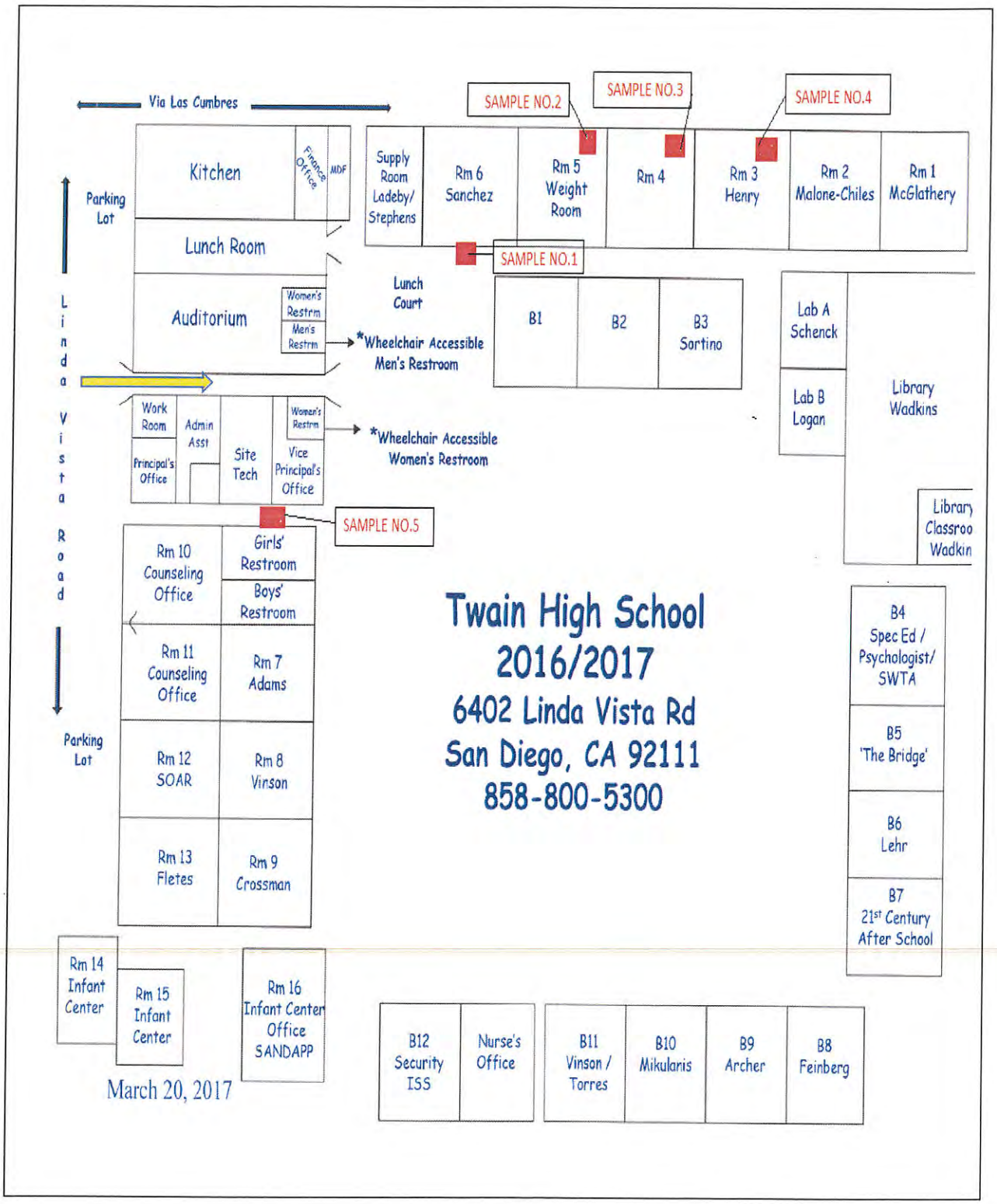

Sample No. 1

School: Twain Senior High School 6402 Linda Vista Rd. San Diego , CA 92111

Name of Building: Building 6

Location Description: Outside wall near room 6

Type of Outlet: Bubbler

Description: Left Bubbler

Comments/Miscellaneous: (School ID No.362)

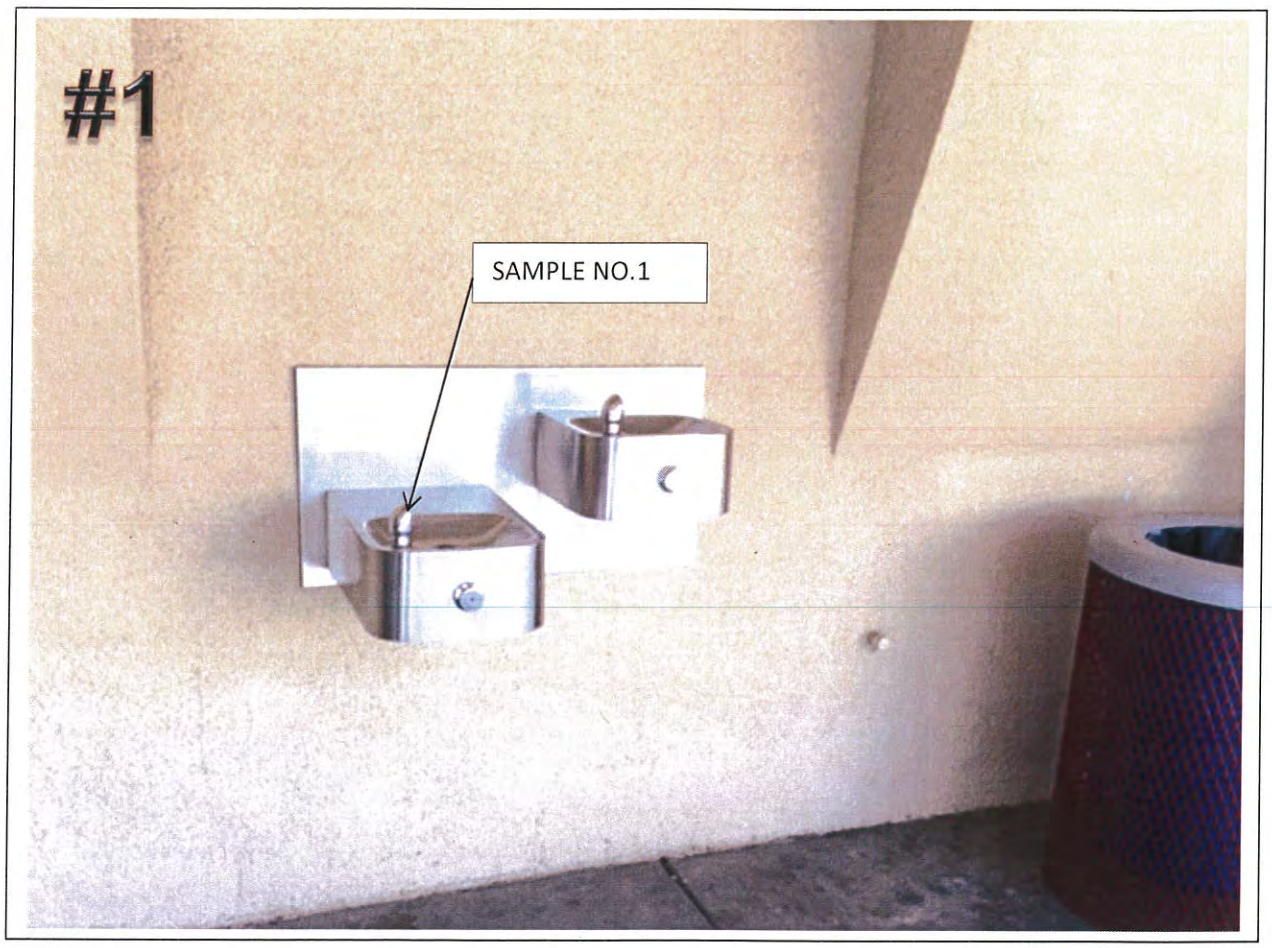

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168562

State Sample ID: 3710020-BBF-A

Date & Time Last Used: 042517 @ 1800 → 2200

Date & Time Sample Collected: 042617 @ 0605

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: [illegible]

Sample No. 2

School: Twain Senior High School

Name of Building: Room no.5

Location Description: Inside room #5 at sink

Type of Outlet: Bubbler

Description: Bubbler at sink

Comments/Miscellaneous: (School ID No.362)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168563

State Sample ID: 3710020-BBF-AB

Date & Time Last Used: 042517 @ 1800 → 2200

Date & Time Sample Collected: 042617 @ 0610

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: 9 N=

Sample No. 3

School: Twain Senior High School

Name of Building: Room no. 4

Location Description: Inside room #4 at sink

Type of Outlet: Bubbler

Description: Bubbler at sink

Comments/Miscellaneous: (School ID No.362)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168564

State Sample ID: 3710020-BBF-AC

Date & Time Last Used: 042517 @ 1800 - 0 2200

Date & Time Sample Collected: 042617 @ 0613

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: J-VE

Sample No. 4

School: Twain Senior High School

Name of Building: Room No. 3

Location Description: Inside room # 3 at sink

Type of Outlet: Bubbler

Description: Bubbler at sink

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168565

State Sample ID: 3710020-BBF-AD

Date & Time Last Used: 042517 @ 1800 → 2200

Date & Time Sample Collected: 042617 @ 0610

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector:

Sample No. 5

School: Twain Senior High School

Name of Building: 7-13 bldg.

Location Description: Outside west wall

Type of Outlet: Bubbler

Description: Left Bubbler

Comments/Miscellaneous: (School ID No.362)

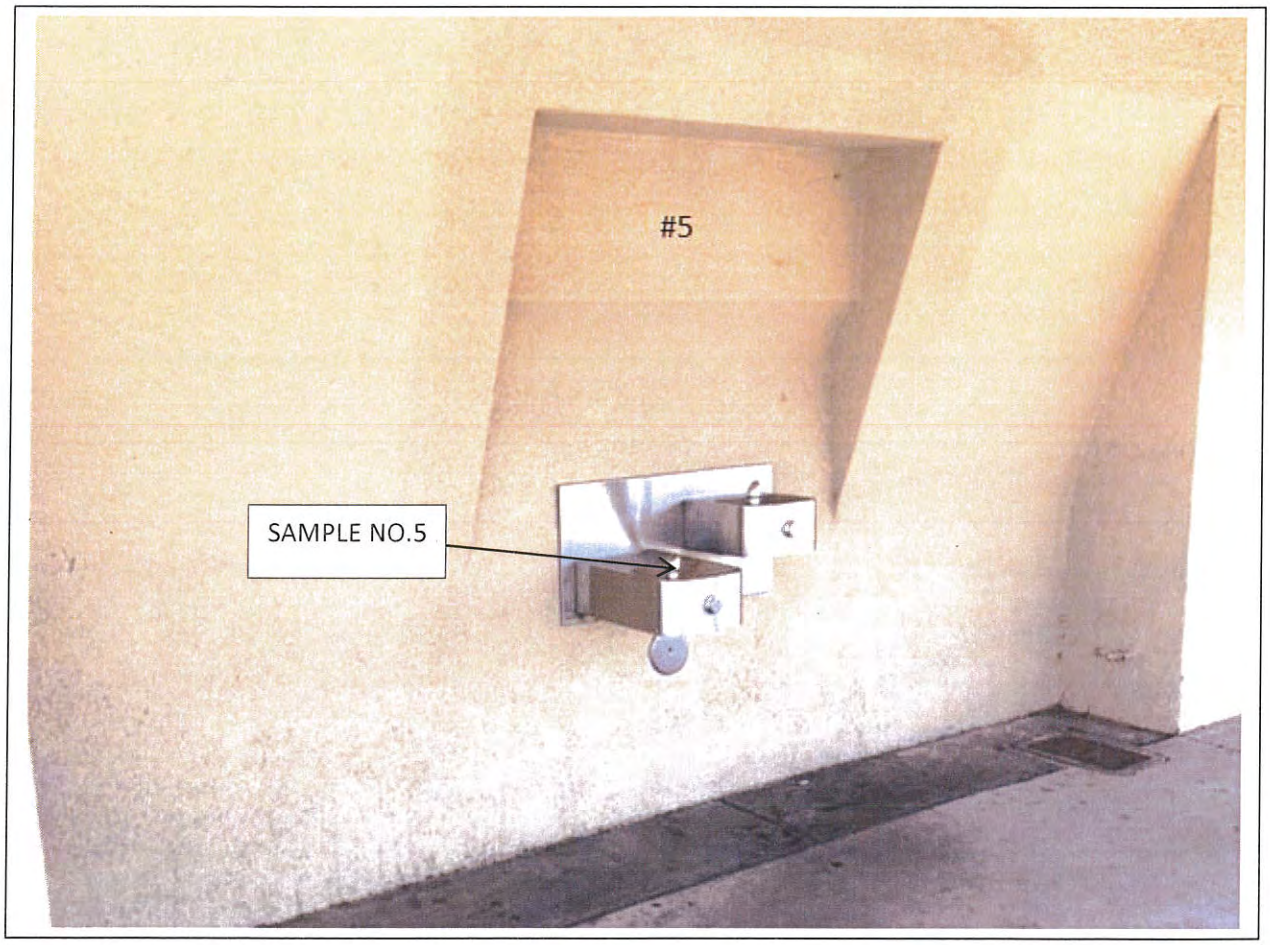

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168566

State Sample ID: 3710020-BBF-E

Date & Time Last Used: 042517 @ 1800 -D 2200

Date & Time Sample Collected: 042617 @ 0558

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: [illegible]

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

25-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168562	Twain HS	26-APR-2017	0605	JW	SAMPLE 1	
2	W1168563	Twain HS	26-APR-2017	0610	JW	SAMPLE 2	
3	W1168564	Twain HS	26-APR-2017	0613	JW	SAMPLE 3	
4	W1168565	Twain HS	26-APR-2017	0616	JW	SAMPLE 4	
5	W1168566	Twain HS	26-APR-2017	0559	JW	SAMPLE 5	

2314

Chain of Custody:

Relinquished by: Name: JERRY WESTON Sign: J-W	Received by: Name: Tom Burger Sign: TM B Burger	Date & Time: 4/26/17 @ 0640 Location: ALV LAB	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: tMaell
Received Date: 4/26/17
LIMS Received Time: 0725
Reviewed By: tM 4/26/17

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Twain Mesa Satellite

Physical Address of School: 10510 Reagan Rd., San Diego, CA 92126

First Bell: 7:27 AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 4/28/2017

Completed by Print Name: Ginette Commins

Signature: G Commins Date: 4/28/2017

School's Point of Contact for Sampling Assistance

Name: ~~Ginette Commins~~ Elizabeth Lara

Phone: ~~(858) 627-7201~~ 619-302-7616

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/9/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Twain Mesa Satellite, 10510 Reagan Rd, San Diego, CA 92126

Twain Mesa Satellite's street name address was renamed to Marauder Way. If you are using a Mobile GPS, enter this address:

10444 Marauder Way, San Diego, CA 92126

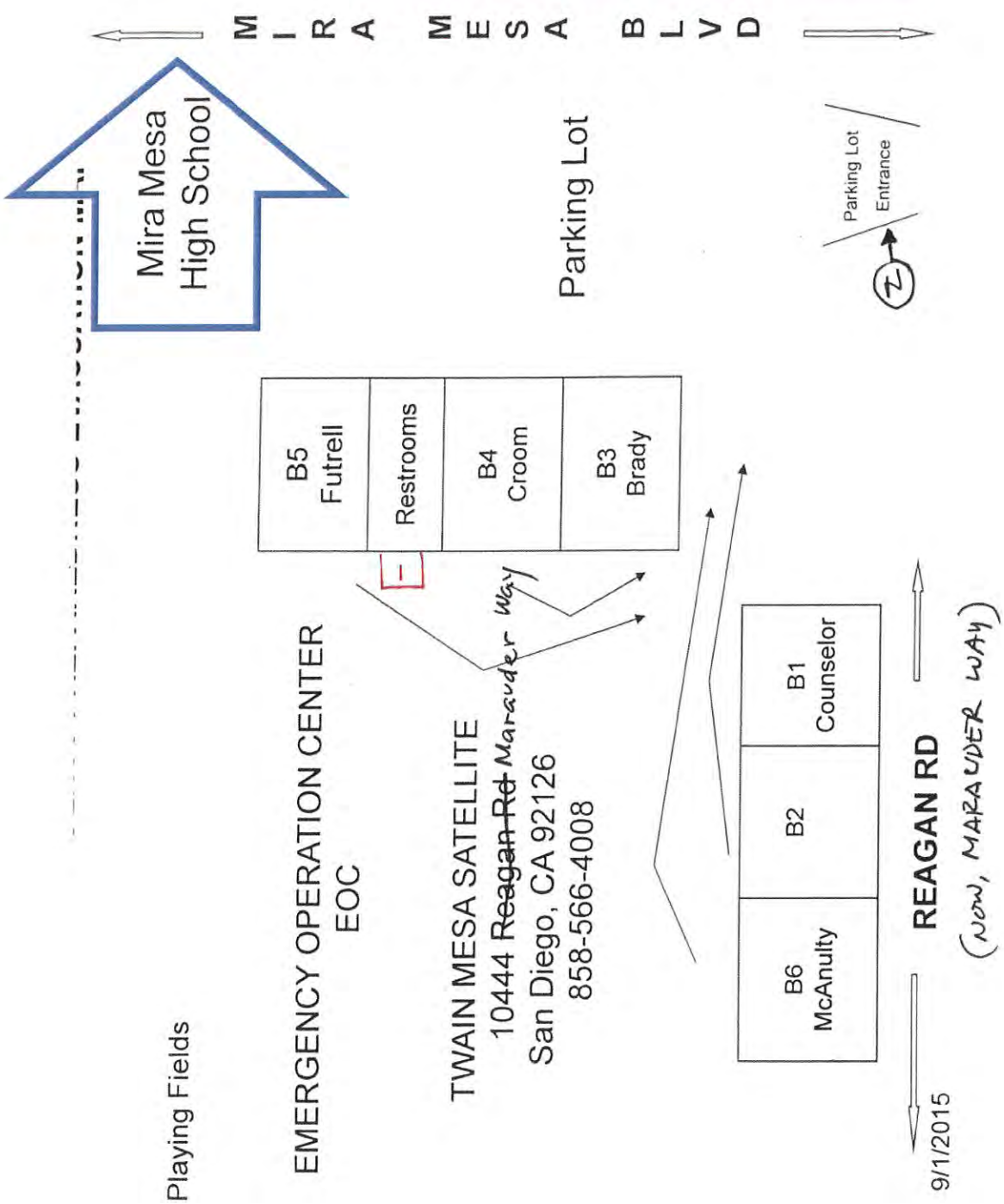

Sample No. 1

School: Twain Mesa Satellite

Name of Building: Portable Classrooms B5-B3

Location Description: Wall mounted exterior (South of Bldg), between restrooms

Type of Outlet: bubbler

Description: upper/right on a dual fountain (HIGH flow)

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location Code # Unknown

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1171694

State Sample ID: 3710020-BHG-A

Date & Time Last Used: 5/9/17 2200

Date & Time Sample Collected: 5/10/17 0633

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Water Quality Chemistry Services
Chain of Custody Form

09-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1171694	Twain Mesa Satellite	10-MAY-2017	0633	D.S.	SAMPLE 1	

Chain of Custody:

Relinquished by: Name: Dan Sowersby Sign: D. Sowersby	Received by: Name: Tom Burger Sign: Tom B. Burger	Date & Time: 5/10/17 0720 Location: ALV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-10-17
LIMS Received Time: 0633
Reviewed By:

1790

2318

Exhibit 31

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: University City Hiigh

Physical Address of School: 6949 Genesee Ave., San Diego, CA 92122

First Bell: 7:20am

Meeting Date: 4/05/2017

Sampling Plan Completion Date: 5/05/17

Completed by Print Name: Lori Sherman

Signature: *Lori Sherman* Date: 5/05/17

School's Point of Contact for Sampling Assistance

Name: ~~Lori Sherman~~ Cesar Jimenez 619-261-1588

Phone: 619-301-9086

Email: lsherman1@sandi.net

City of San Diego 3710020

Approved By: 5/15/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: University City High - 6949 Genesee Ave., San Diego, CA 92122

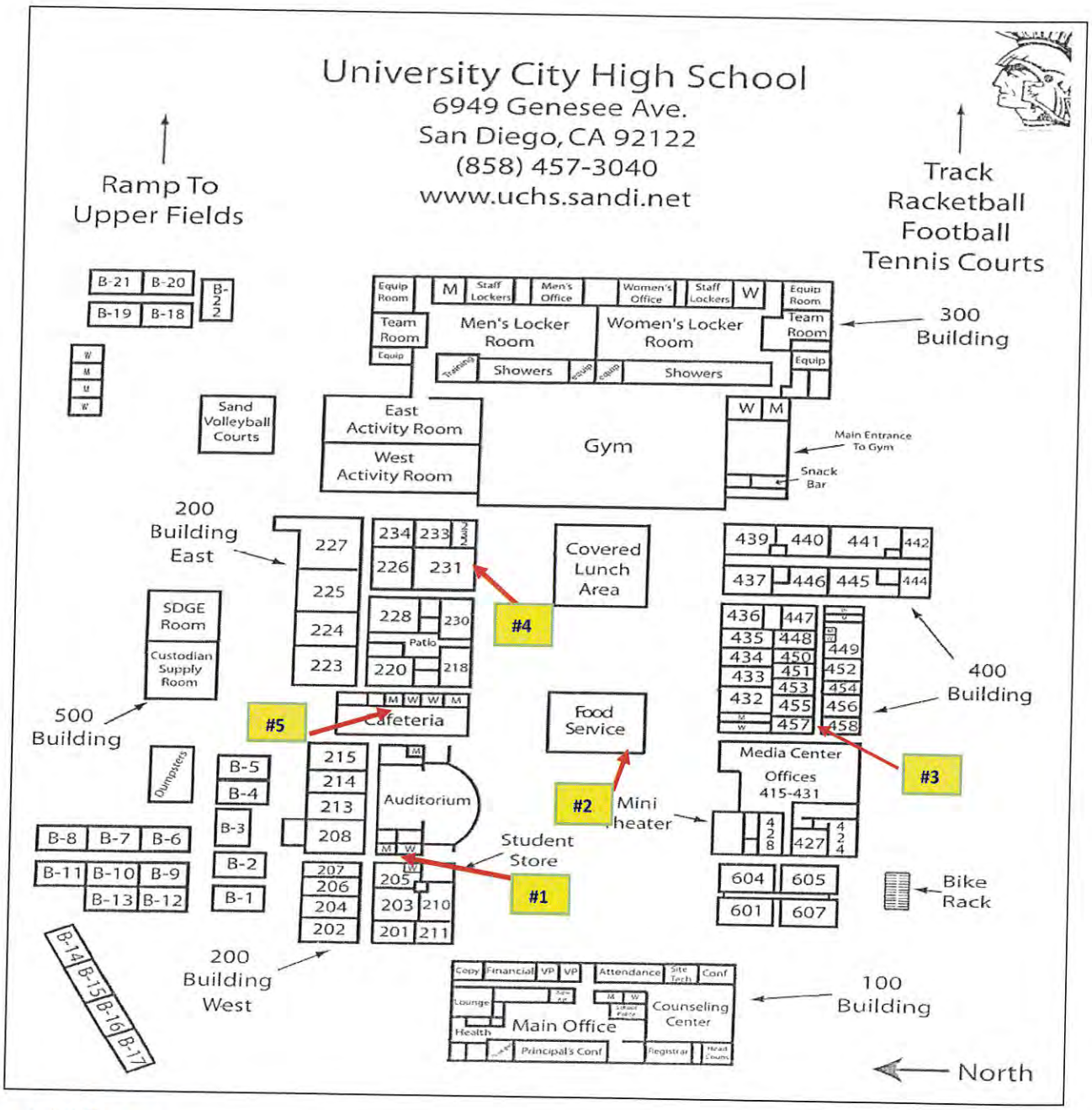

6:22 am.

Sample No. 1

School: University City High - 6949 Genesee Ave., San Diego, CA 92122

Name of Building: 200 Bldg

Location Description: Interior hallway between Men & Women's restroom

Type of Outlet: Bubbler

Description: Right bubbler

Comments/Miscellaneous: Around the corner from 208

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172899

State Sample ID: 3710020-BJC-A

Date & Time Last Used: 5/18/17 @ 2200

Date & Time Sample Collected: 5/19/17 @ 6:19 am

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector: A Molloy

* was a bit wet. at the base. - no visible leak observed

Sample No. 2

School: University City High - 6949 Genesee Ave., San Diego, CA 92122

Name of Building: Outdoor Food Service Kiosk (cold lunch line)

Location Description: West wall and around the corner from cold lunch line

Type of Outlet: Bubbler

Description: Right bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172900

State Sample ID: 3710020-BJC-B

Date & Time Last Used: 5/18/17 @ 2200

Date & Time Sample Collected: 5/19/17 6:08 am.

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: University City High - 6949 Genesee Ave., San Diego, CA 92122

Name of Building: 400 Bldg

Location Description: Interior hallway next to room 458

Type of Outlet: Bubbler

Description: Left bubbler

Comments/Miscellaneous:

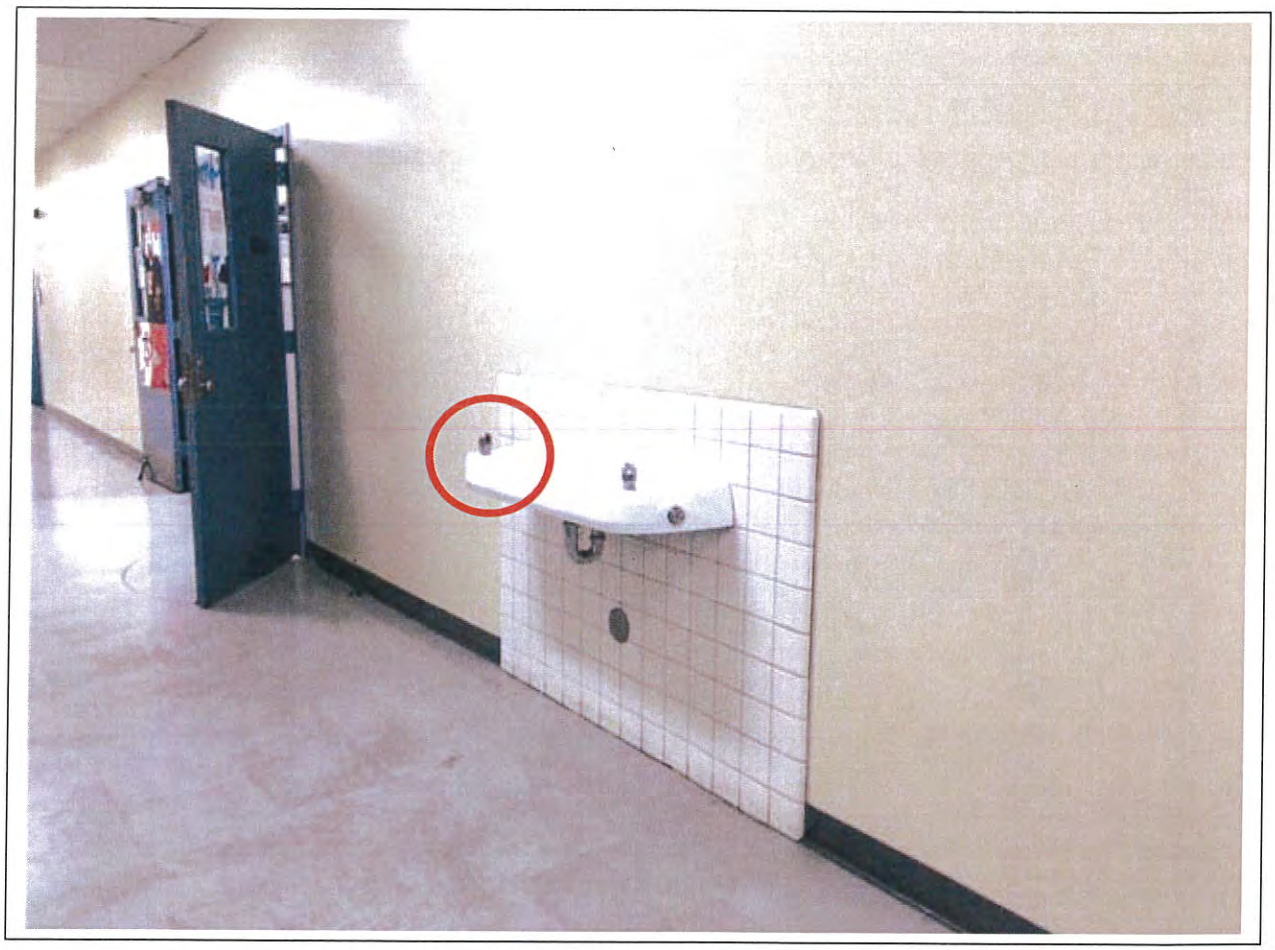

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172901

State Sample ID: 3710020-BJC-C

Date & Time Last Used: 5/18/17 @ 2200

Date & Time Sample Collected: 5/19/17 6:16 am

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: University City High - 6949 Genesee Ave., San Diego, CA 92122

Name of Building: Arts Tech

Location Description: South exterior wall (back side of room 231

Type of Outlet: Bubbler

Description: Left bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172902

State Sample ID: 3710020-BJC-D

Date & Time Last Used: 5/18/17 @ 2200

Date & Time Sample Collected: 5/19/17 6:11 a.m.

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 5

School: University City High - 6949 Genesee Ave., San Diego, CA 92122

Name of Building: Kitchen

Location Description: East interior wall

Type of Outlet: Faucet

Description:

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172903

State Sample ID: 3710020-BJC-E

Date & Time Last Used: 5/18/17 @ 2200 6:07 am.

Date & Time Sample Collected: 5/19/17 @

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Water Quality Chemistry Services
Chain of Custody Form

15-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1172899	University City High	19-MAY-2017	0619	A. Molloy	SAMPLE 1	
2	W1172900	University City High	19-MAY-2017	0608		SAMPLE 2	
3	W1172901	University City High	19-MAY-2017	0616		SAMPLE 3	
4	W1172902	University City High	19-MAY-2017	0611		SAMPLE 4	
5	W1172903	University City High	19-MAY-2017	0607		SAMPLE 5	

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign:	Received by: Name: Tom Burger Sign:	Date & Time: 5-19-17 0711 Location: ALV. LAB	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-19-17
LIMS Received Time: 1033
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Urban Discovery Academy

Physical Address of School: 840 14th Street San Diego, CA 92101

First Bell: 7.15am

Meeting Date: 4/17/17

Sampling Plan Completion Date: 4/17/17

Completed by Print Name: Tony Romano

Signature: _____ Date: 4/17/17

School's Point of Contact for Sampling Assistance

Name: Tony Romano

Phone: 617-840-7874

Email: tromano@urbandiscoveryacademy.com

City of San Diego 3710020

Approved By: Tom B. Burger 4-28-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: 840 14th Street San Diego, CA 92101

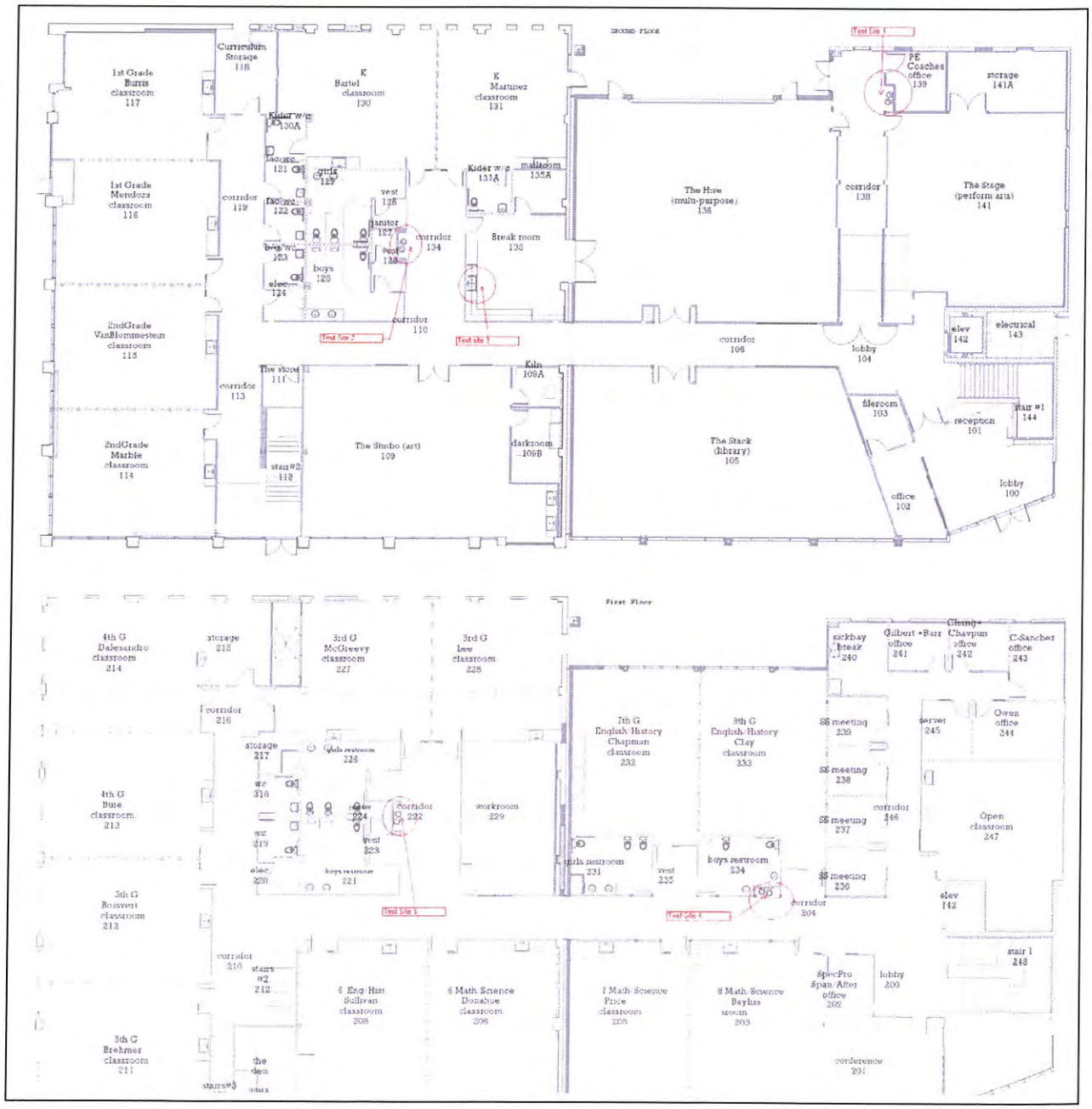

Sample No. 1

School: Urban Discovery Academy

Name of Building: Main Building Ground Floor

Location Description: East end of corridor 138 between room 139 and 141. Left fountain

Type of Outlet: Electric water fountain

Description: Electric Chilled water fountain Double Fountain, upper left bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169365

State Sample ID: 3710020-BDD-A

Date & Time Last Used: 2013 ~~2009~~ 5-4-17

Date & Time Sample Collected: 0558 5-5-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: TBurgin

Sample No. 2

School: Urban Discovery Academy

Name of Building: Main Building Ground Floor

Location Description: Between boys and girls restroom in corridor 134 right fountain bottle filling station

Type of Outlet: Electric water fountain

Description: Electric Chilled water fountain Double Fountain with bottle filling station Bottle filler sampled

Comments/Miscellaneous:

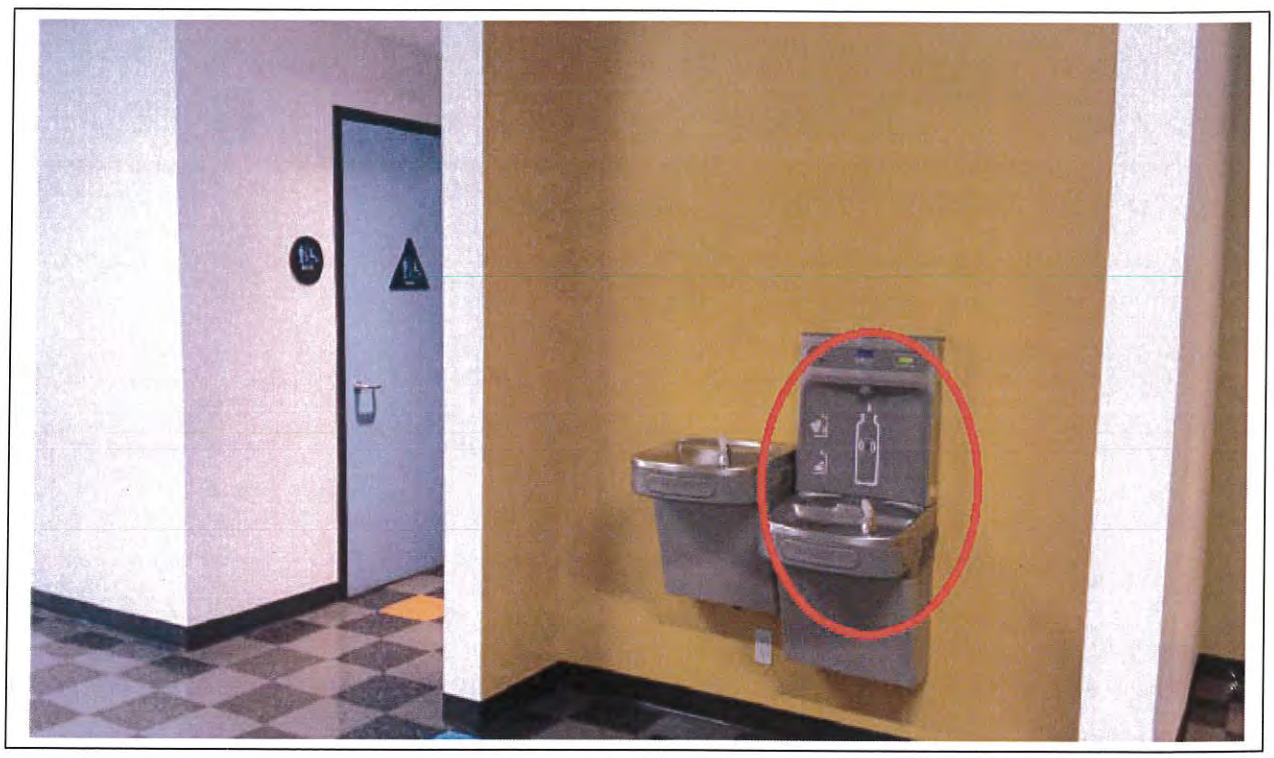

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169366

State Sample ID: 3710020-BDD-B

Date & Time Last Used: @ 813pm 5-4-17

Date & Time Sample Collected: 0601 5-5-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: TBurgn

Sample No. 3

School: Urban Discovery Academy

Name of Building: Main Building Ground Floor

Location Description: Staff Break Room Room 135

Type of Outlet: Faucet 2015 5-4-17

Description: Kitchen Sink Faucet 0603 5-5-17

Comments/Miscellaneous:

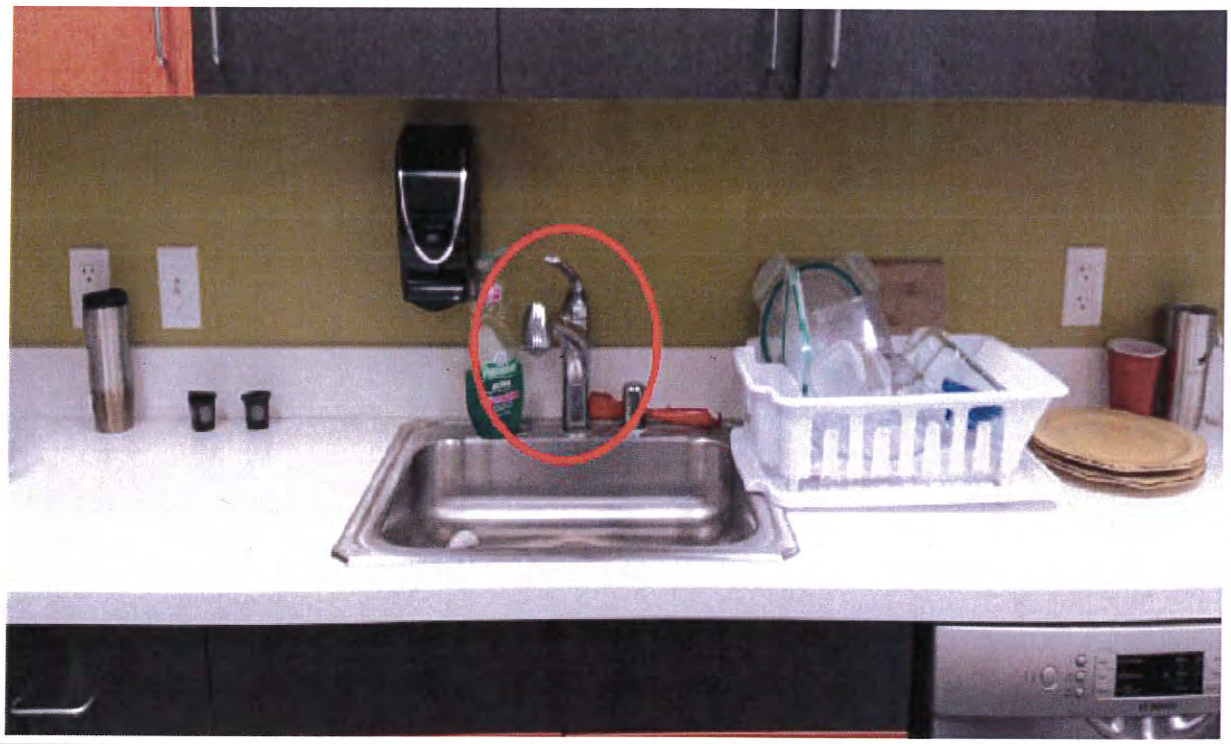

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169367

State Sample ID: 3710020-BDD-C

Date & Time Last Used: 2015 5-4-17

Date & Time Sample Collected: 0603 5-5-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: JBurger

Sample No. 4

School: Urban Discovery Academy

Name of Building: Main Building First Floor

Location Description: Corridor 204 to the left of room 233. Left fountain

Type of Outlet: Electric water fountain

Description: Electric Chilled water fountain Double Fountain

Comments/Miscellaneous:

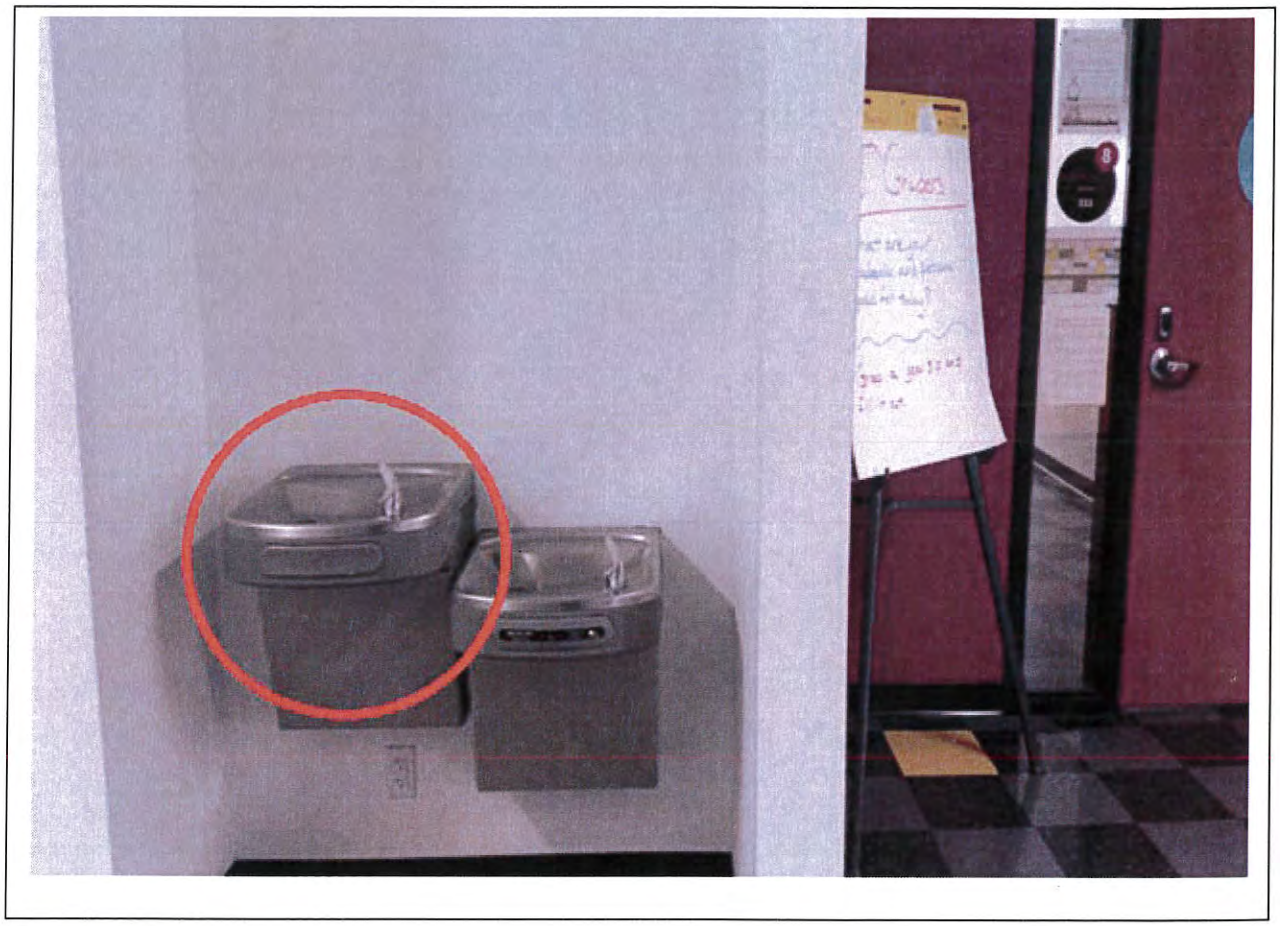

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169368

State Sample ID: 3710020-BDD-D

Date & Time Last Used: 5-4-17 2015

Date & Time Sample Collected: 5-5-17 0610

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: TBurger

Sample No. 5

School: Urban Discovery Academy

Name of Building: Main Building First Floor

Location Description: Between boys and girls restroom in corridor 222 right fountain bottle filling station

Type of Outlet: Electric water fountain

Description: Electric Chilled water fountain Double Fountain with bottle filling station

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169369

State Sample ID: 3710020-BDD-E

Date & Time Last Used: 2016 5-4-17

Date & Time Sample Collected: 0608 5-5-17

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: Tom Burgin

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

04-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1169365	Urban Discovery Academy	05-MAY-2017	0558	T. Burger	SAMPLE 1	
2	W1169366	Urban Discovery Academy	05-MAY-2017	0601		SAMPLE 2	
3	W1169367	Urban Discovery Academy	05-MAY-2017	0603		SAMPLE 3	
4	W1169368	Urban Discovery Academy	05-MAY-2017	0610		SAMPLE 4	
5	W1169369	Urban Discovery Academy	05-MAY-2017	0608		SAMPLE 5	

2334

Chain of Custody:

Relinquished by: Name: Tom Burger Sign: TM B. Burger	Received by: Name: Alejandra Molloy Sign: AMolloy	Date & Time: 5-5-17 0747 Location: WQL office	**Comments:** Sample W1169367 (#3) was not in CSD custody from 0603 until 1227 TBurger
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 0702 / 1251
LIMS Received Time: 5/05/17
Reviewed By:

1806

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Vista Grande Elementary School

Physical Address of School: 5606 Antigua Blvd. San Diego, CA 92124

First Bell: 7:35AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 04/26/2017

Completed by Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 04/26/2017

School's Point of Contact for Sampling Assistance

Name: ~~Daniel Lopez~~ Elizabeth Lara

Phone: ~~619-306-3383~~ 619-302-7616

Email: dlopez2@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 4/28/17 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Vista Grande Elementary School 5606 Antigua Blvd. San Diego, CA 92124

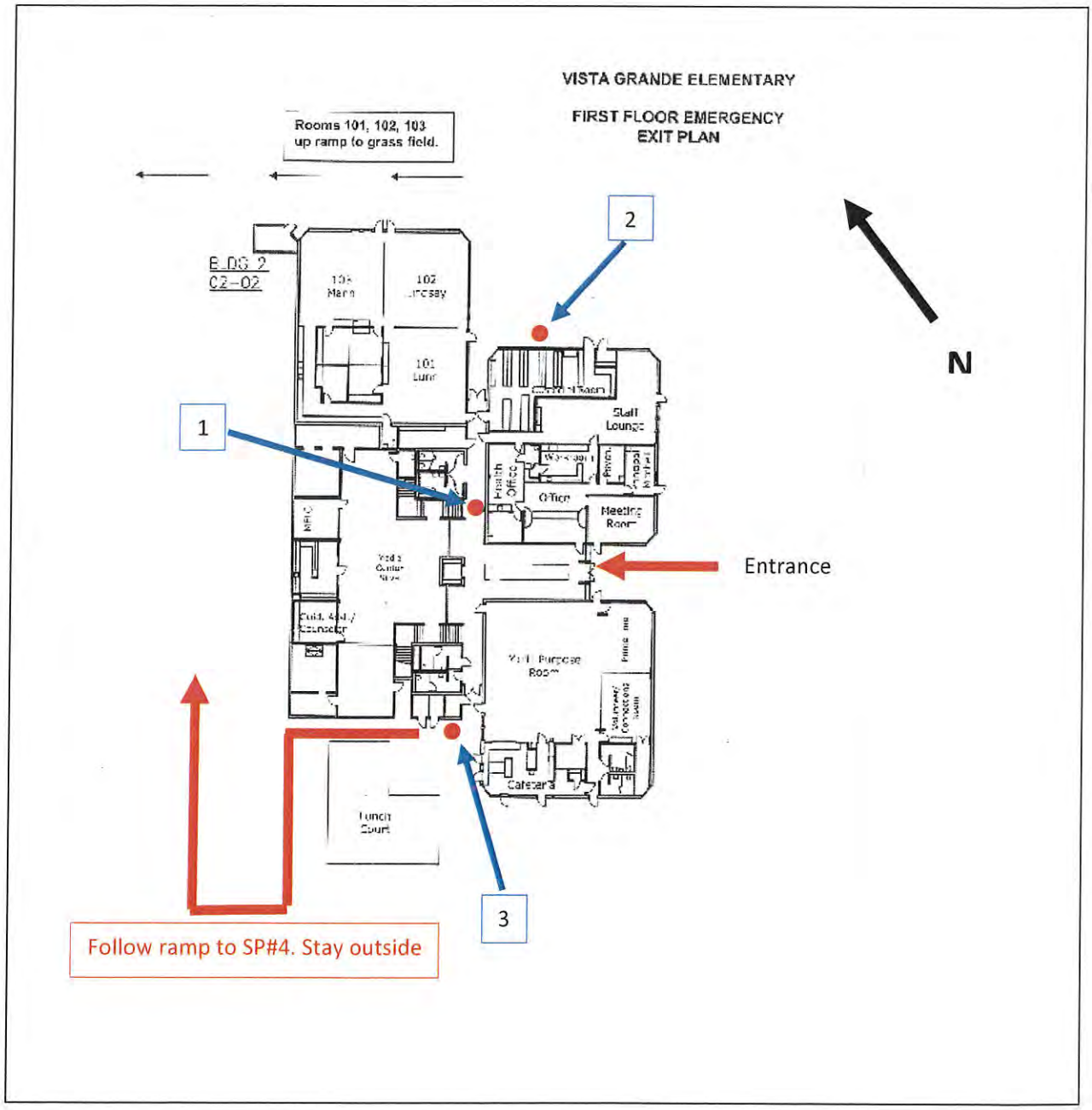

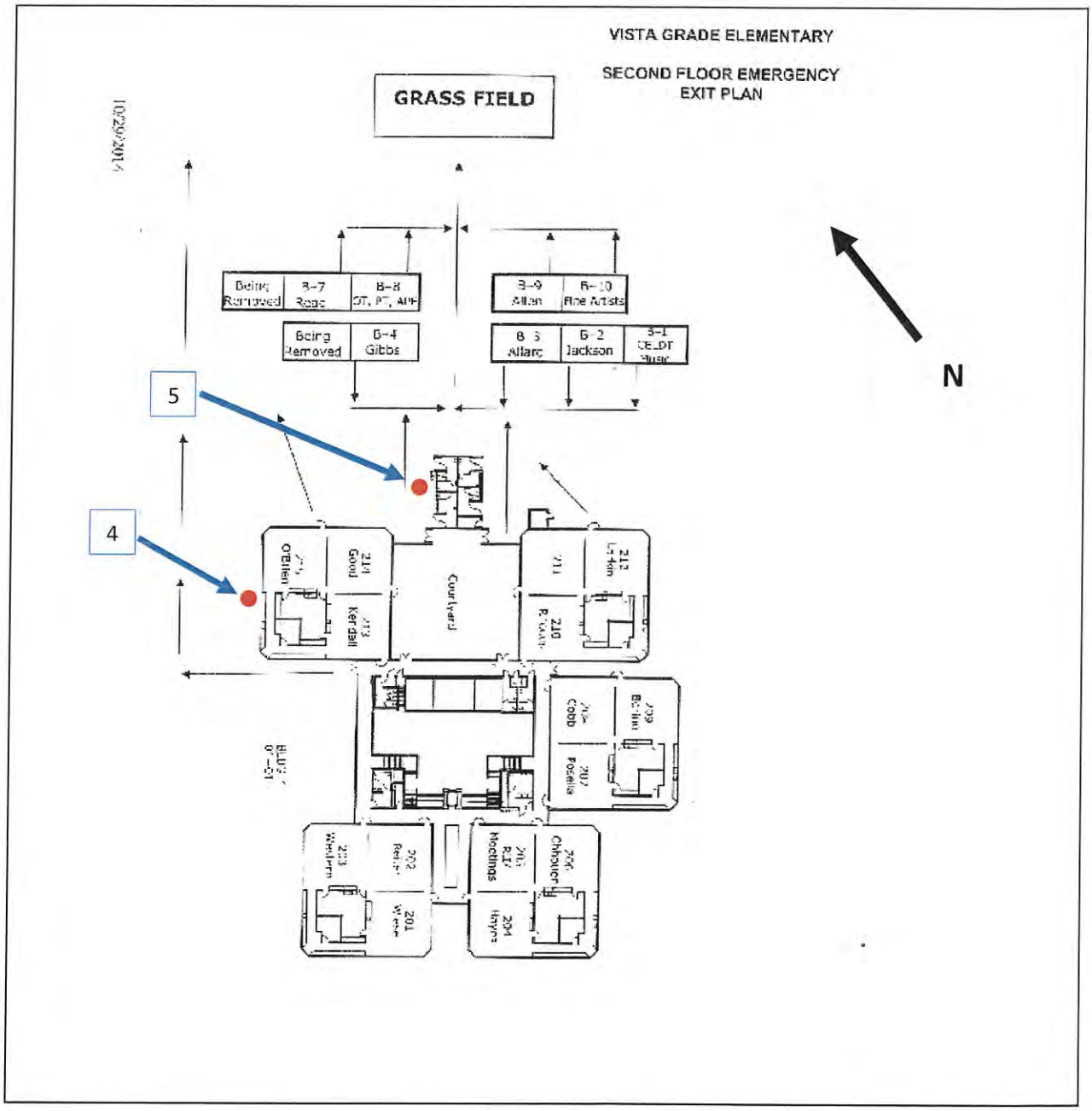
VISTA GRADE ELEMENTARY
SECOND FLOOR EMERGENCY EXIT PLAN
GRASS FIELD
N
5
4
Being Removed
B-7 Reac
B-8 OT, PT, AIH
B-9 Allen
B-10 Fine Artists
Being Removed
B-4 Gibbs
B-3 Allard
B-2 Jackson
B-1 OE, DT Music
Courtyard
Good
Kendall
O'Brien
Cobb
Rozelle
Hastings
Chalouner
Weldon

Sample No. 1

School: Vista Grande Elementary School

Name of Building: Main Building/Administration Building

Location Description: Middle hallway behind Health Office and Main Office 1st floor

Type of Outlet: Single Bubbler

Description: Single Bubbler

Comments/Miscellaneous:

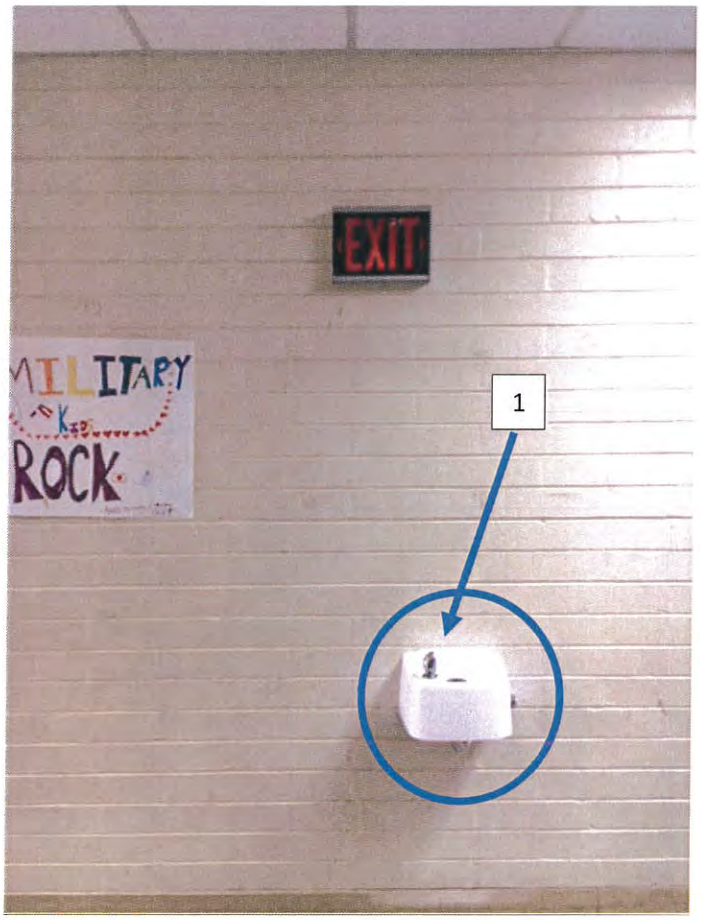

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169380

State Sample ID: 3710020-BDJ-A

Date & Time Last Used: 5/08/17 @ 2200

Date & Time Sample Collected: 5/09/17 @ 0603

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: Vista Grande Elementary School

Name of Building: Main Building

Location Description: Northeast side of building outside main hallway 1st floor

Type of Outlet: triple bubbler

Description: Center bubbler

Comments/Miscellaneous:

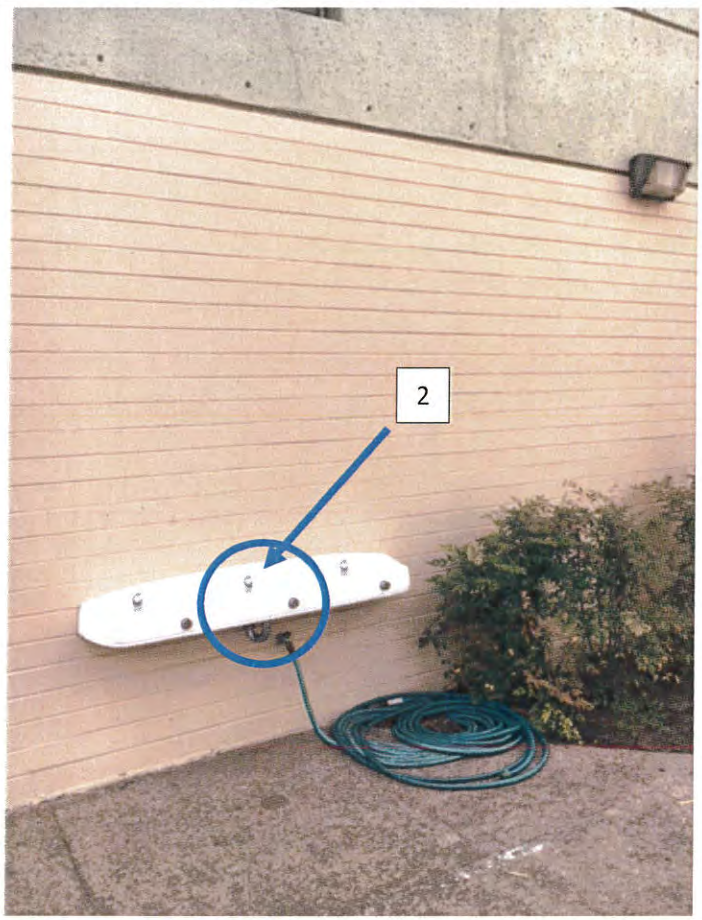

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169381

State Sample ID: 3710020-BDJ-B

Date & Time Last Used: 5/08/17 @ 2200

Date & Time Sample Collected: 5/09/17 @0605

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: Vista Grande Elementary School

Name of Building: Main Building

Location Description: Southwest side of building (outside)

Type of Outlet: 2 single bubblers

Description: Far left bubbler

Comments/Miscellaneous: To reach SP#4, walk up outside ramp to 2nd floor. Southwest direction.

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169382

State Sample ID: 3710020-BDJ-C

Date & Time Last Used: 5/08/17 @ 2200

Date & Time Sample Collected: 5/09/17 @ 0641

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: Vista Grande Elementary School

Name of Building: Main Building

Location Description: Outside of Room 215 West wall

Type of Outlet: Triple bubbler

Description: Far right bubbler

Comments/Miscellaneous:

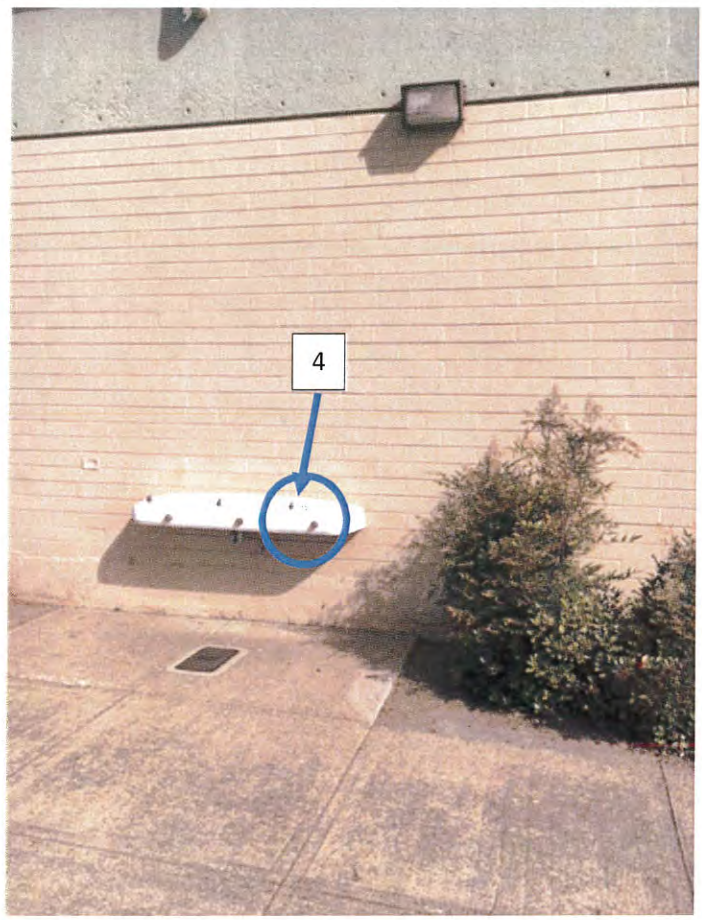

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169383

State Sample ID: 3710020-BDJ-D

Date & Time Last Used: 5/08/17 @ 2200

Date & Time Sample Collected: 5/09/17 @0611

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 5

School: Vista Grande Elementary School

Name of Building: Restroom building

Location Description: North of room 214

Type of Outlet: Single Bubblers

Description: Left bubbler

Comments/Miscellaneous:

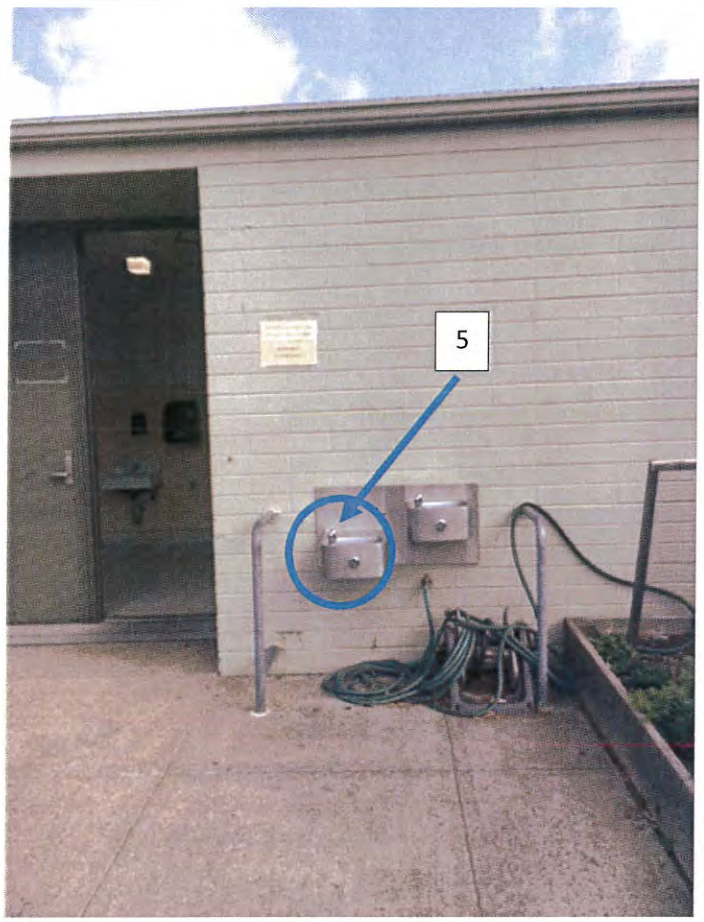

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169384

State Sample ID: 3710020-BDJ-E

Date & Time Last Used: 5/08/17 @ 2200

Date & Time Sample Collected: 5/09/17 @ 0608

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

08-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1169380	Vista Grande Elementary	09-MAY-2017	0603	A. Molloy	SAMPLE 1	
2	W1169381	Vista Grande Elementary	09-MAY-2017	0605		SAMPLE 2	
3	W1169382	Vista Grande Elementary	09-MAY-2017	0614		SAMPLE 3	
4	W1169383	Vista Grande Elementary	09-MAY-2017	0611		SAMPLE 4	
5	W1169384	Vista Grande Elementary	09-MAY-2017	0608		SAMPLE 5	

2343

Chain of Custody:

Relinquished by: Name: A Molloy Sign: Alejandra Molloy	Received by: Name: Sign:	Date & Time: 5/09/17 @ 0635 Location: WQL A1V	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-9-17
LIMS Received Time: 0721
Reviewed By:

1815

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Vista Hill Foundation

Physical Address of School: 6145 Decena Drive San Diego CA, 92120

First Bell: 8:30 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 4-24-2017

Completed by Print Name: Sergio Salinas

Signature: _____ Date: _____

School's Point of Contact for Sampling Assistance

Name: ~~Sergio Salinas~~ Cesar Jimenez

Phone: ~~(619) 302-0564~~ 619-261-1588

Email: ssalinas@sandi.net

City of San Diego 3710020

Approved By: _____ 5/22/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Vista Hill Foundation -6145 Decena Drive San Diego CA, 92120

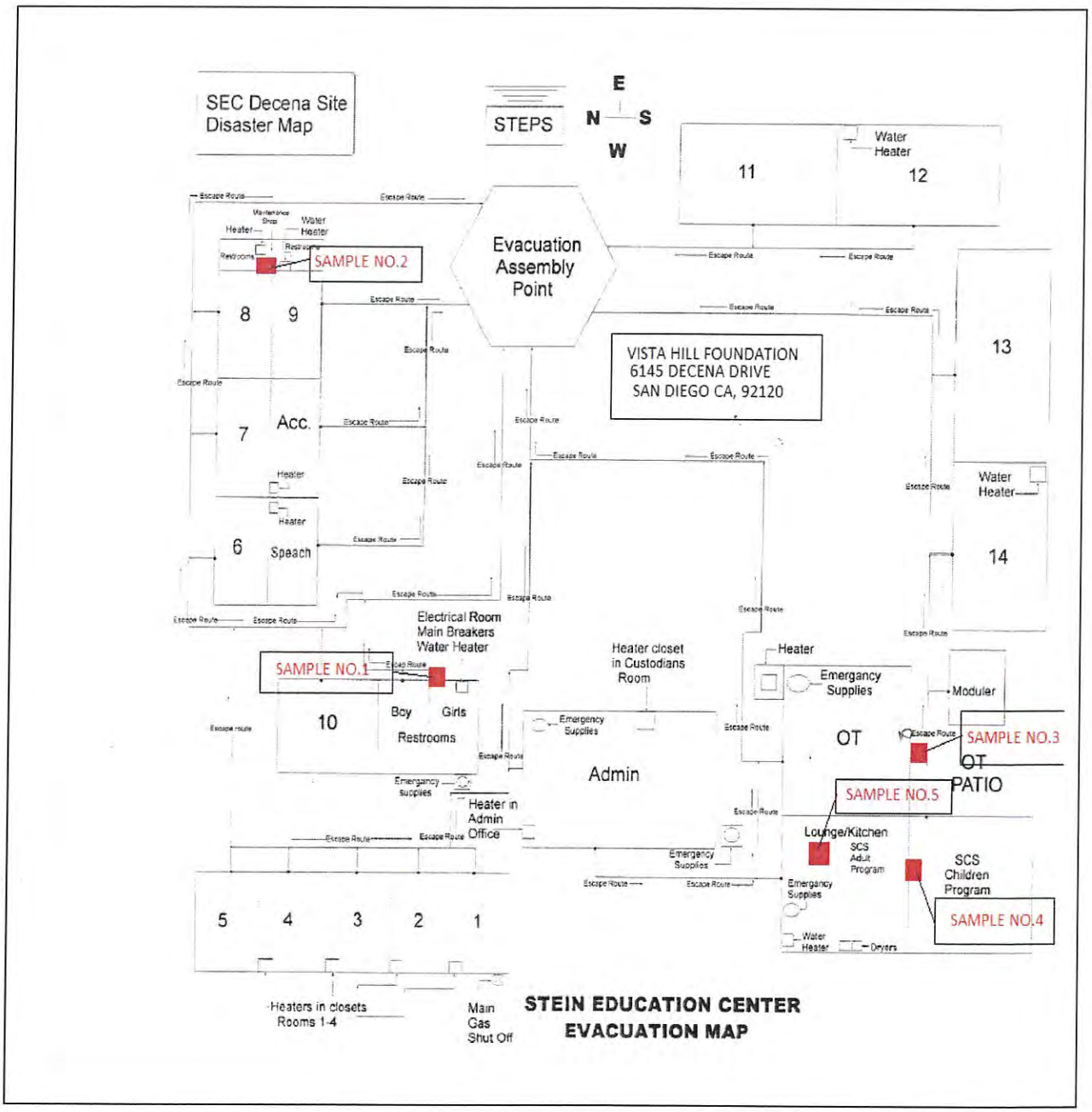

NORTH

Sample No. 1

School: Vista Hill Foundation -6145 Decena Drive San Diego CA, 92120

Name of Building: Building 10 / bathrooms

Location Description: Outside Bathrooms next to room 10

Type of Outlet: Bubbler

Description: Bubbler

Comments/Miscellaneous: (School ID NO.309)

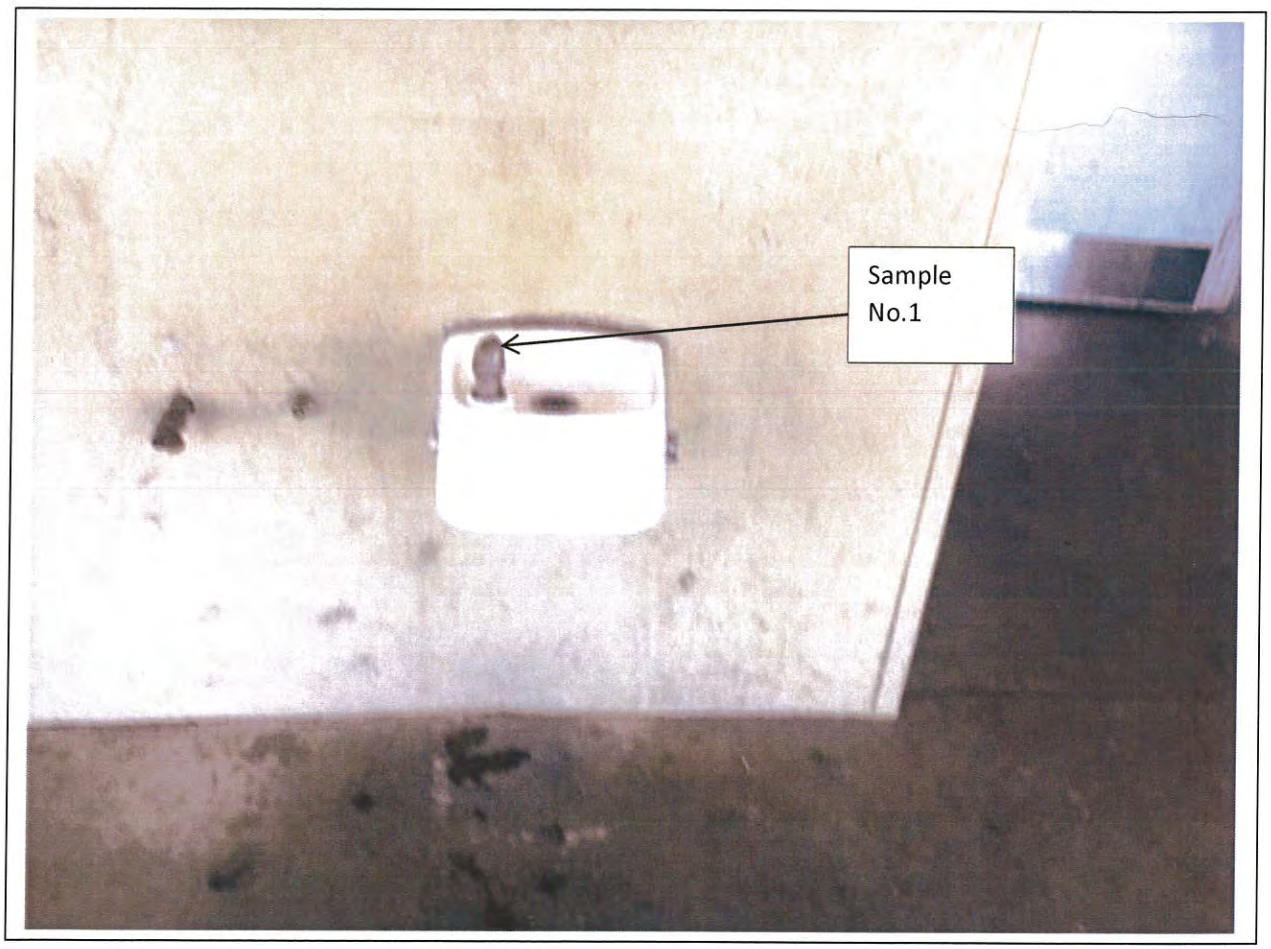

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174242

State Sample ID: 3710020-CAI-A

Date & Time Last Used: 5/22/17 2200

Date & Time Sample Collected: 5/23/17 0605

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 2

School: Vista Hill Foundation -6145 Decena Drive San Diego CA, 92120

Name of Building: Building 8/9

Location Description: Outside Drinking fountain behind building 8/9

Type of Outlet: Bubbler

Description: Bubbler

Comments/Miscellaneous: (School ID NO.309)

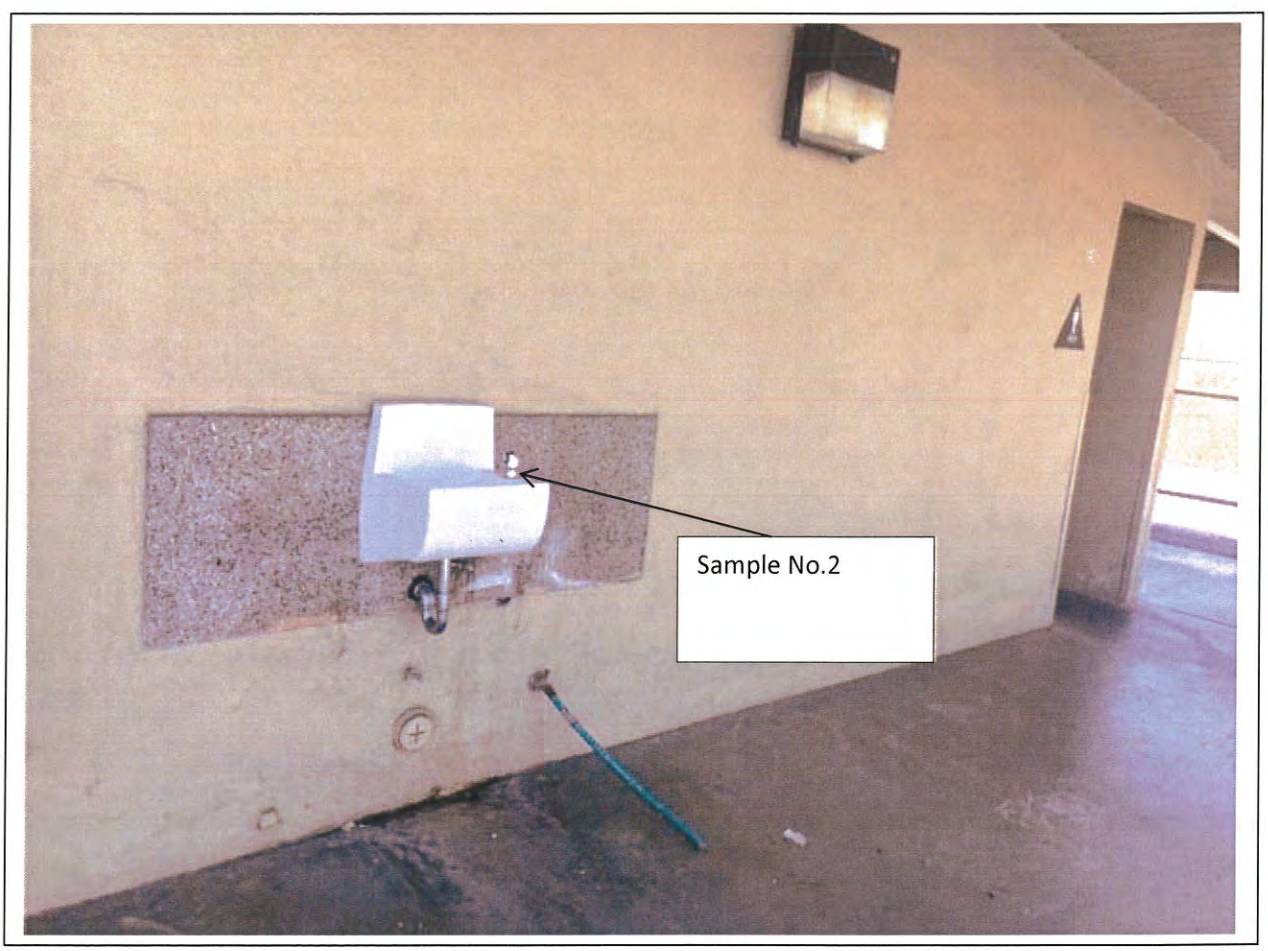

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174243

State Sample ID: 3710020-CAI-B

Date & Time Last Used: Broken not sampled

Date & Time Sample Collected:

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector:

Sample No. 3

School: Vista Hill Foundation -6145 Decena Drive San Diego CA, 92120

Name of Building OT Room

Location Description: Behind the OT room on play ground

Type of Outlet: Bubbler

Description: Bubbler

Comments/Miscellaneous: (School ID NO.309)

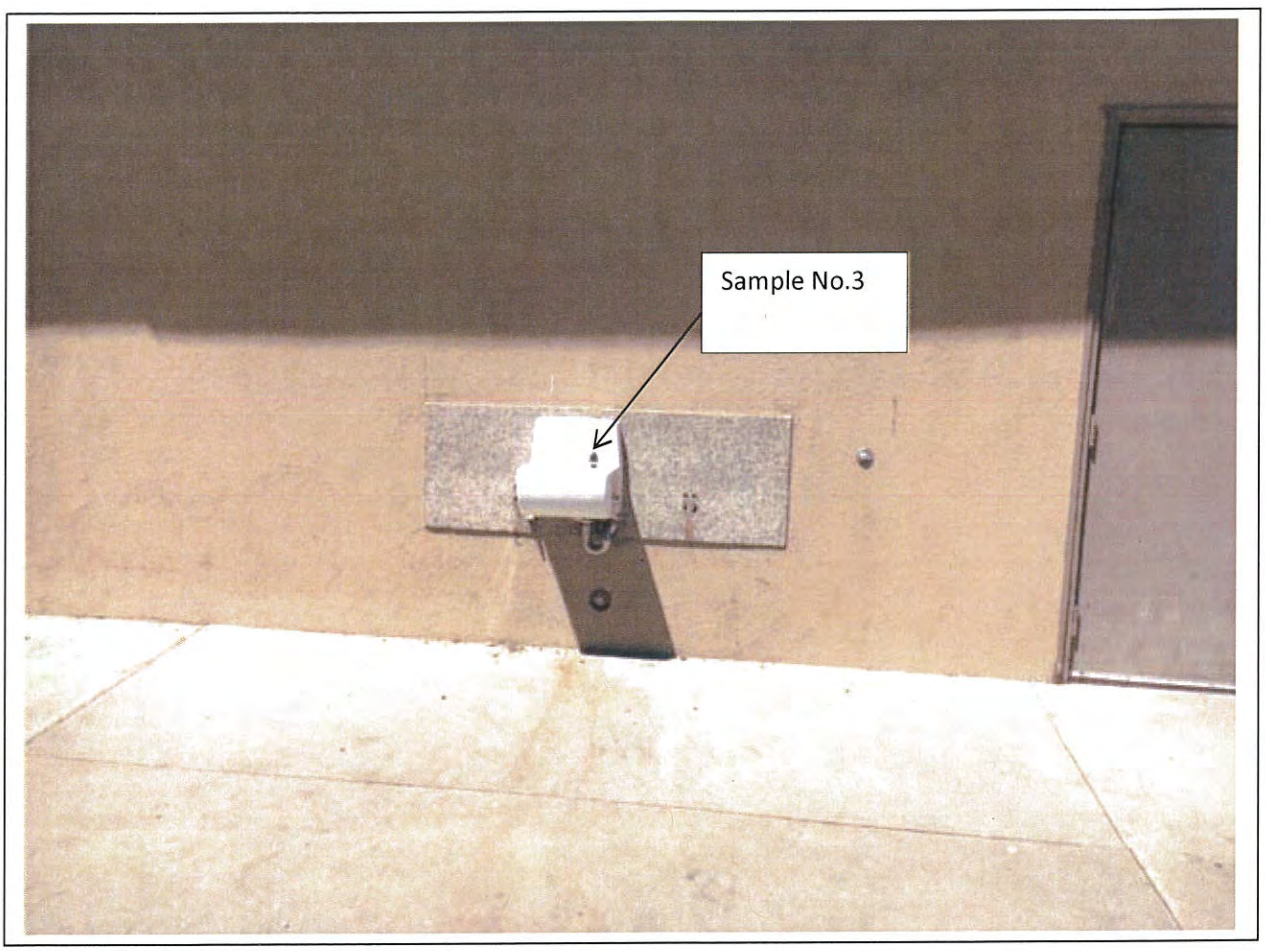

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174244

State Sample ID: 3710020-CAI-C

Date & Time Last Used: Broken

Date & Time Sample Collected:

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector:

Sample No. 4

School: Vista Hill Foundation -6145 Decena Drive San Diego CA, 92120

Name of Building: SCS Children Program (Rec Room)

Location Description: Inside sink (Rec Room)

Type of Outlet: Faucet

Description: Faucet

Comments/Miscellaneous: (School ID NO.309)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174245

State Sample ID: 3710020-CAI-D

Date & Time Last Used: 5/22/17 2200

Date & Time Sample Collected: 5/23/17 0641

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Sample No. 5

School: Vista Hill Foundation -6145 Decena Drive San Diego CA, 92120

Name of Building: Lounge/Kitchen

Location Description: Faucet Inside Kitchen

Type of Outlet: Faucet

Description: Faucet

Comments/Miscellaneous: (School ID NO.309)

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1174246

State Sample ID: 3710020-CAI-E

Date & Time Last Used: 5/22/17 2200

Date & Time Sample Collected: 5/23/17 0613

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: M. Nelson

Water Quality Chemistry Services
Chain of Custody Form

22-May-2017

Client Name: Water Quality Chemistry Services
Address: 5530 Kiowa Dr
La Mesa, CA 91942

Contact Name: Tom Burger
Phone #: (619) 668-3234

Special Notes: Samples 2 + 3 not taken. Drinking fountains broken

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1174242	Vista Hill Foundation	23-MAY-2017	0605	M. Nelson	SAMPLE 1	
2	W1174243	Vista Hill Foundation	23-MAY-2017	—		SAMPLE 2	
3	W1174244	Vista Hill Foundation	23-MAY-2017	—		SAMPLE 3	
4	W1174245	Vista Hill Foundation	23-MAY-2017	0611		SAMPLE 4	
5	W1174246	Vista Hill Foundation	23-MAY-2017	0613		SAMPLE 5	

Chain of Custody:

Relinquished by:	Received by:	Date & Time:
Name: M. Nelson Sign:	Name: Alejandra Molloy Sign: AMolloy	5/23/17 @ 0645 Location: WQL Alv
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:

Comments:

Received By: AMolloy
Received Date: 5/23/17
LIMS Received Time: 0713
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Valencia Park Elementary

Physical Address of School: 5580 Skyline Drive , San Diego CA 92114

First Bell: 8:30

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 3-24-2017

Completed by Print Name: Sergio Salinas

Signature:_____ Date:_____

School's Point of Contact for Sampling Assistance

Name: Sergio Salinas

Phone: (619) 302-0564

Email:ssalinas@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-7-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: 5580 Skyline Drive , San Diego CA 92114

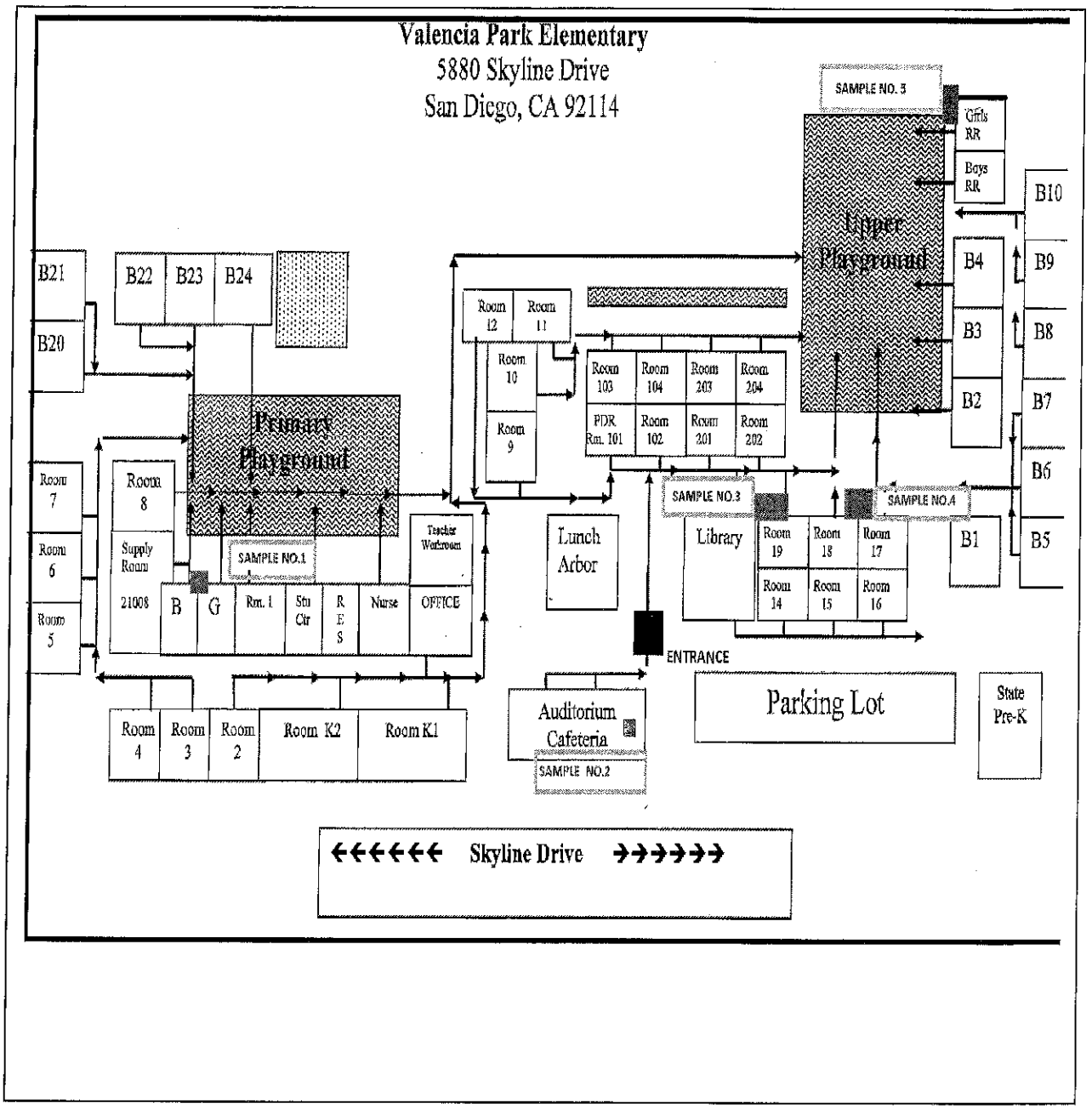

Sample No. 1

School: 5580 Skyline Drive , San Diego CA 92114

Name of Building: Boy & Girls Bathroom, next to supply room (21008)

Location Description: Outside drinking fountain Between Boy & Girls Bathroom, next to supply room (21008)

Type of Outlet: Bubbler LEFT

Description: Middle Bubbler ✓

Comments/Miscellaneous: (School ID NO.283)

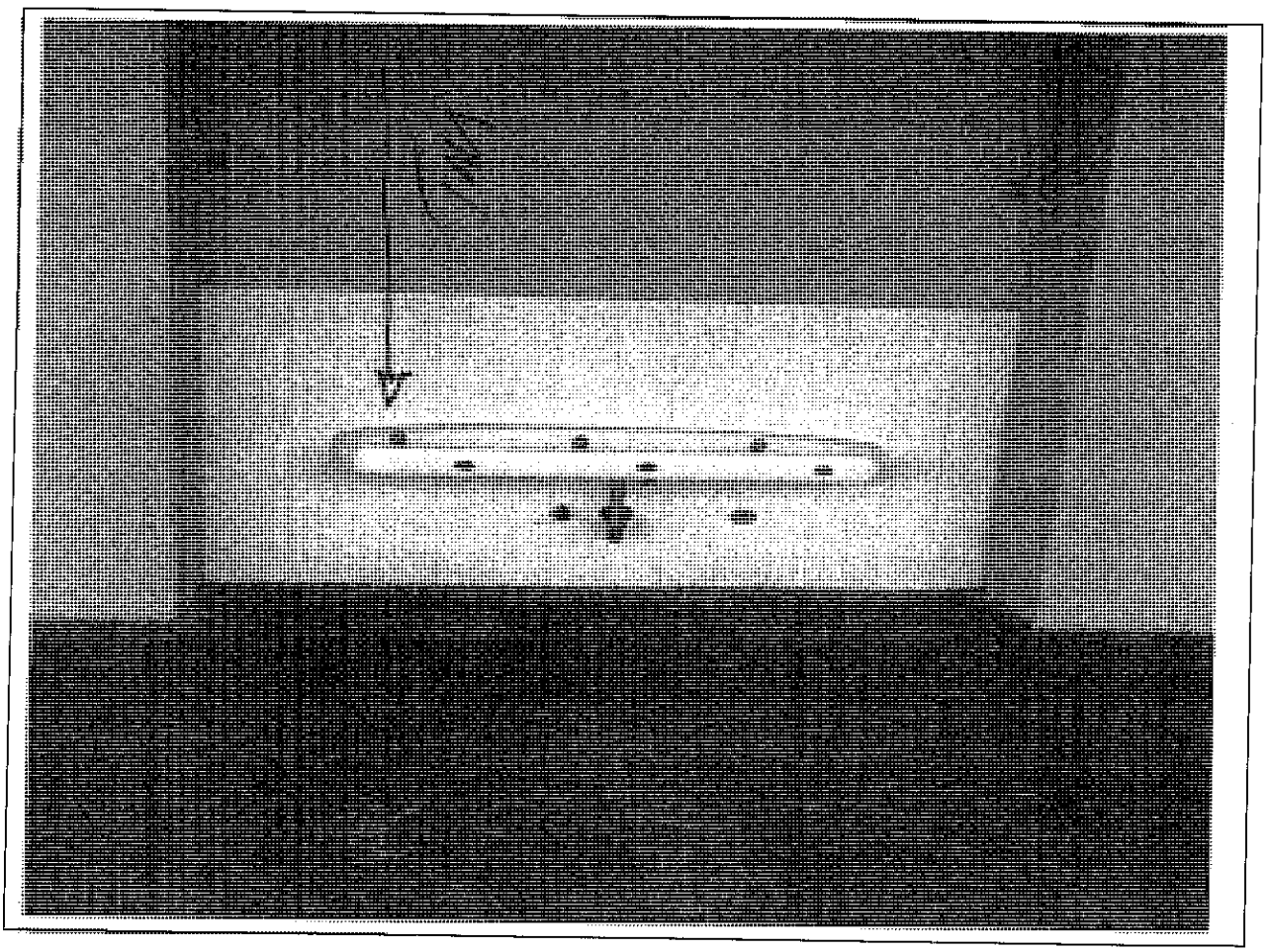

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165257

State Sample ID: 3710020-ACJ-A

Date & Time Last Used: 040717 @ 1800

Date & Time Sample Collected: 040817 @ 0748

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: [illegible]

Sample No. 2

School: 5580 Skyline Drive , San Diego CA 92114

Name of Building: Auditorium/Cafeteria

Location Description: Prep Kitchen sink, inside the cafeteria

Type of Outlet: Water faucet

Description: Faucet located inside the prep kitchen

Comments/Miscellaneous: (School ID NO.283)

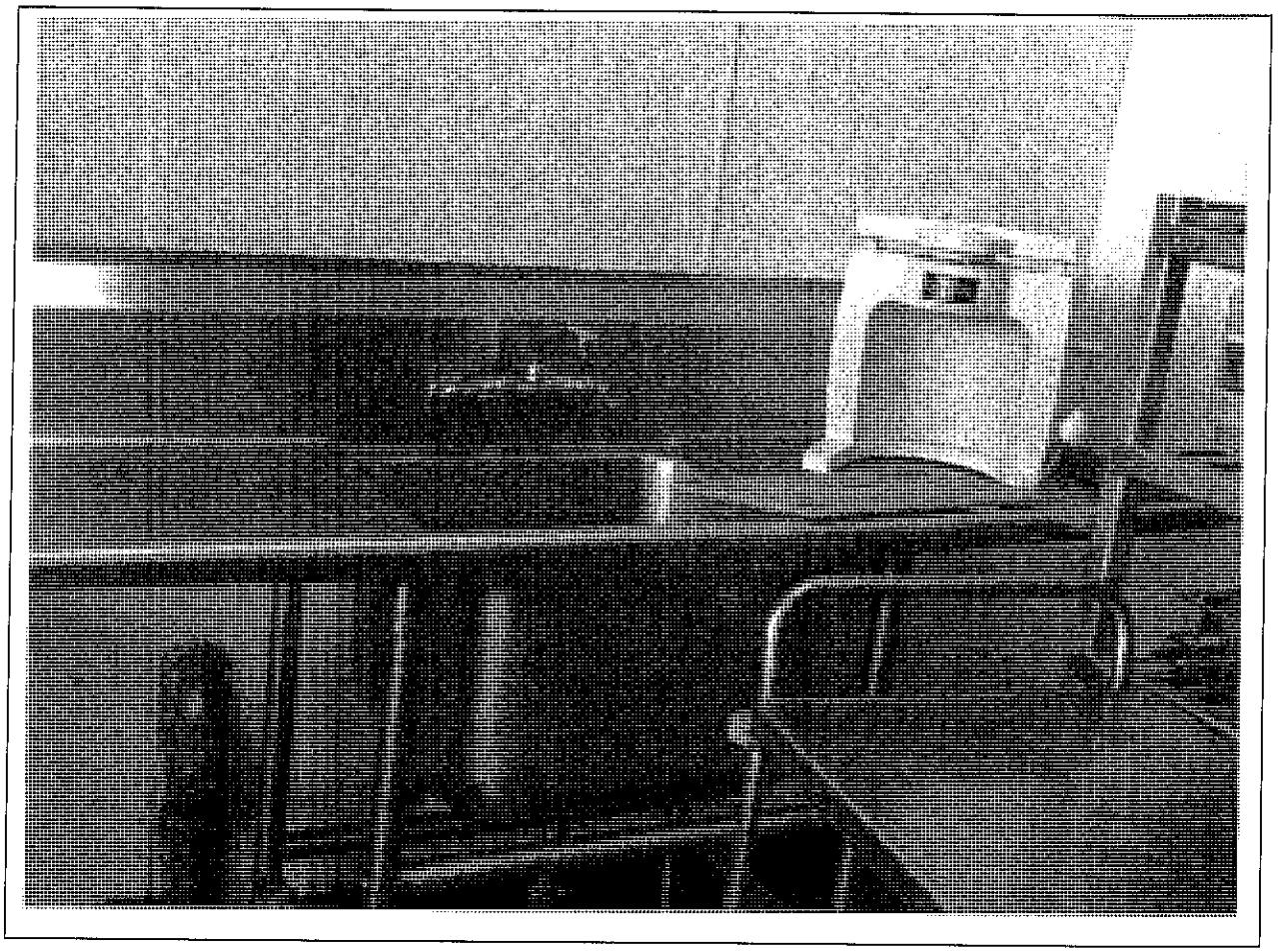

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165258

State Sample ID: 3710020-ACJ-B

Date & Time Last Used: 040717 @ 1800

Date & Time Sample Collected: 040817 @ 0754

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector:

Sample No. 3

School: 5580 Skyline Drive , San Diego CA 92114

Name of Building: Between Library and Room 19

Location Description: Outside drinking fountain between library and room 19

Type of Outlet: Bubbler

Description: Right bubbler

Comments/Miscellaneous: (School ID NO.283)

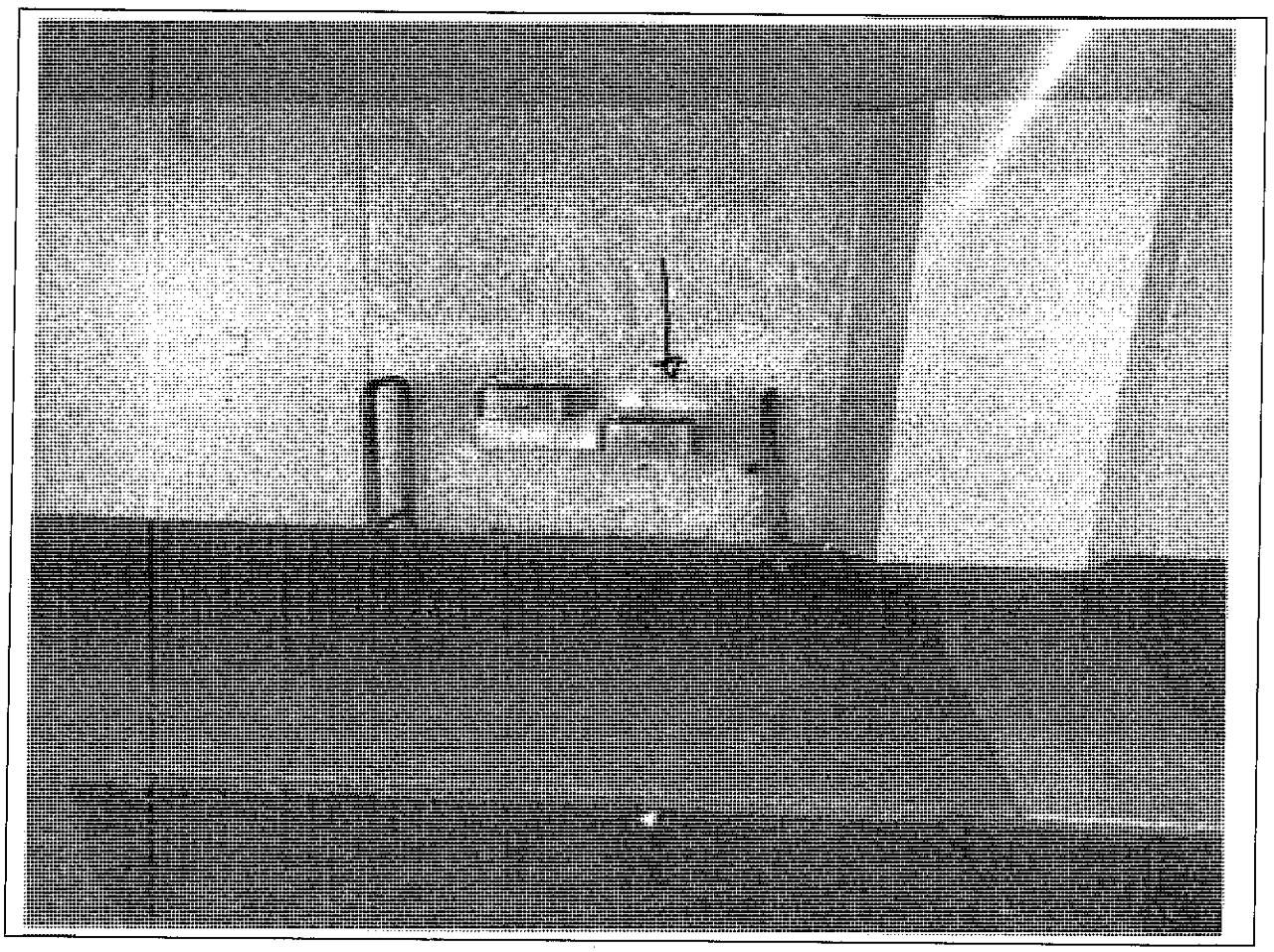

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165259

State Sample ID: 3710020-ACJ-C

Date & Time Last Used: 040717 @ 1800

Date & Time Sample Collected: 040817 @ 0800

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector:

Sample No. 4

School: 5580 Skyline Drive , San Diego CA 92114

Name of Building :Between Room 18 and 17

Location Description: Outside drinking fountain between room 18 and 17

Type of Outlet: Bubbler

Description: The Middle bubbler

Comments/Miscellaneous: (School ID NO.283)

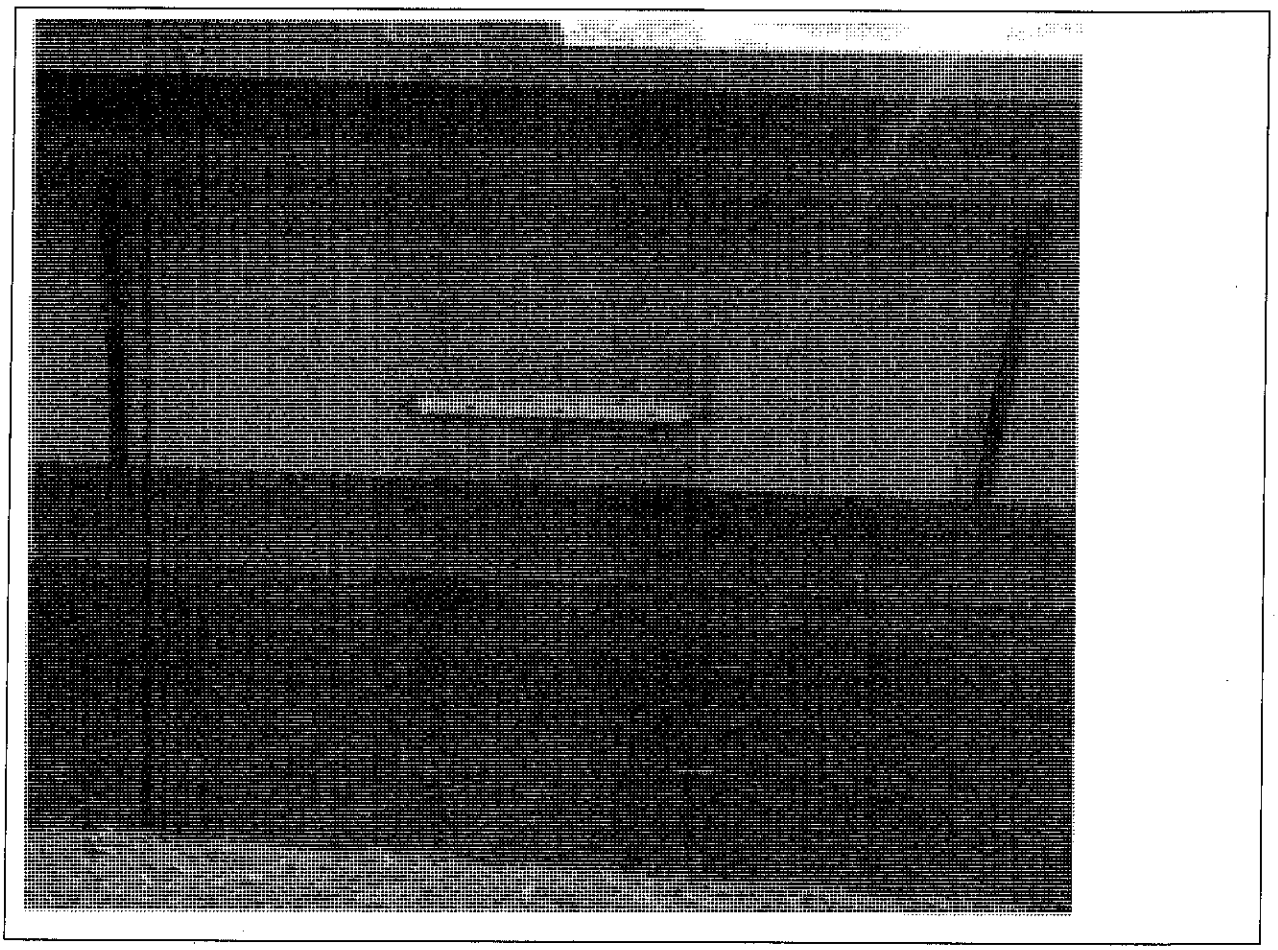

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165260

State Sample ID: 3710020-ACJ-D

Date & Time Last Used: 040717 @ 1800

Date & Time Sample Collected: 040817 @ 0803

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector:

Sample No. 5

School: 5580 Skyline Drive , San Diego CA 92114

Name of Building: Boys and Girls Bathroom (outside playground)

Location Description: Outside drinking fountain on the boys and girls bathrooms

Type of Outlet: Bubbler

Description: Right Bubbler

Comments/Miscellaneous: (School ID NO.283)

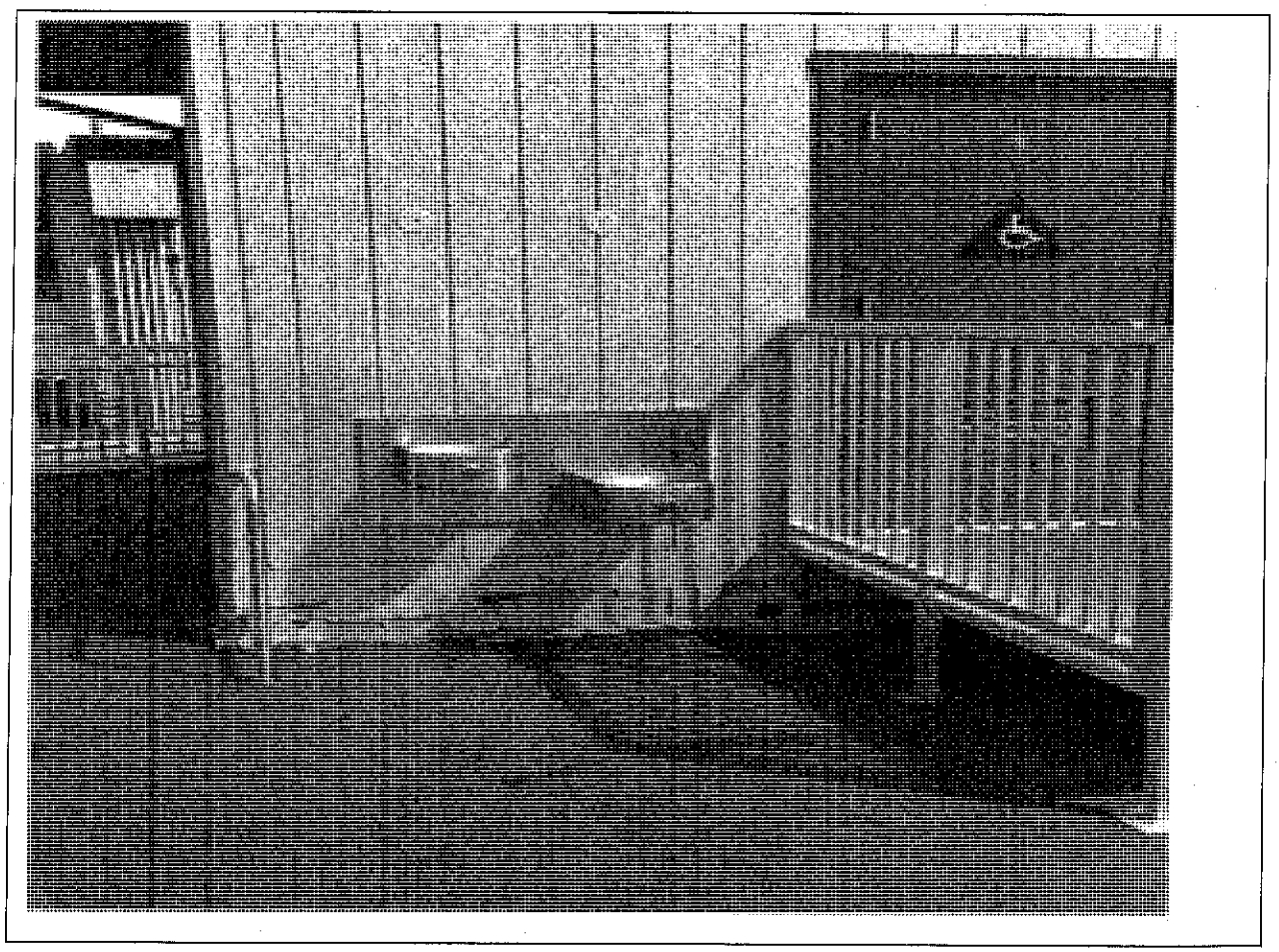

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165261

State Sample ID: 3710020-ACJ-E

Date & Time Last Used: 040717 @ 1800

Date & Time Sample Collected: 040817 @ 0807

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: [illegible]

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

07-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	~~Analysis Requested~~
1	W1165257	Valencia Park Elementary	08-APR-2017	0748	J Weston	SAMPLE 1	See Sample Plan
2	W1165258	Valencia Park Elementary	08-APR-2017	0754		SAMPLE 2	
3	W1165259	Valencia Park Elementary	08-APR-2017	0800		SAMPLE 3	
4	W1165260	Valencia Park Elementary	08-APR-2017	0803		SAMPLE 4	
5	W1165261	Valencia Park Elementary	08-APR-2017	0807		SAMPLE 5	

2359

Chain of Custody:

Relinquished by: Name: JERRY WESTON Sign: J-W	Received by: Name: Tom Burger Sign: Tom R Burger	Date & Time: 4-8-17 Location: ALV. LAB	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurm
Received Date: 4-8-17
LIMS Received Time: 1135
Reviewed By: IW

SD Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 4/18/17

San Diego Unified School District
Valencia Park Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1165257	04/08/17	07:48 AM	SAMPLE 1	3710020-ACJ-A	< 5	ug/L
W1165258	04/08/17	07:54 AM	SAMPLE 2	3710020-ACJ-B	< 5	ug/L
W1165259	04/08/17	08:00 AM	SAMPLE 3	3710020-ACJ-C	< 5	ug/L
W1165260	04/08/17	08:03 AM	SAMPLE 4	3710020-ACJ-D	< 5	ug/L
W1165261	04/08/17	08:07 AM	SAMPLE 5	3710020-ACJ-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Boys and Girls Bathroom next to Supply Room 21008, triple fountain left bubbler
SAMPLE 2	Auditorium Cafeteria Prep kitchen sink faucet
SAMPLE 3	Between Library and Room 19, dual fountain right bubbler
SAMPLE 4	Between Room 17 and 18, triple fountain, middle bubbler
SAMPLE 5	Boys and Girls Bathroom outside playground, dual fountain, right bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
Tom Burger, Associate Chemist

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Walker Elementary School

Physical Address of School: 9225 Hillery Dr San Diego Ca 92126

First Bell: 7:30

Meeting Date:... 3/22/2017

Sampling Plan Completion Date: 4/20/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 4/20/2017

School's Point of Contact for Sampling Assistance

Name: ~~Elizabeth Lara~~ Ginette Commins

Phone: ~~619-302-7616~~ 619-302-5285

Email: elara@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-25-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: 9225 Hillery Dr. San Diego , Ca

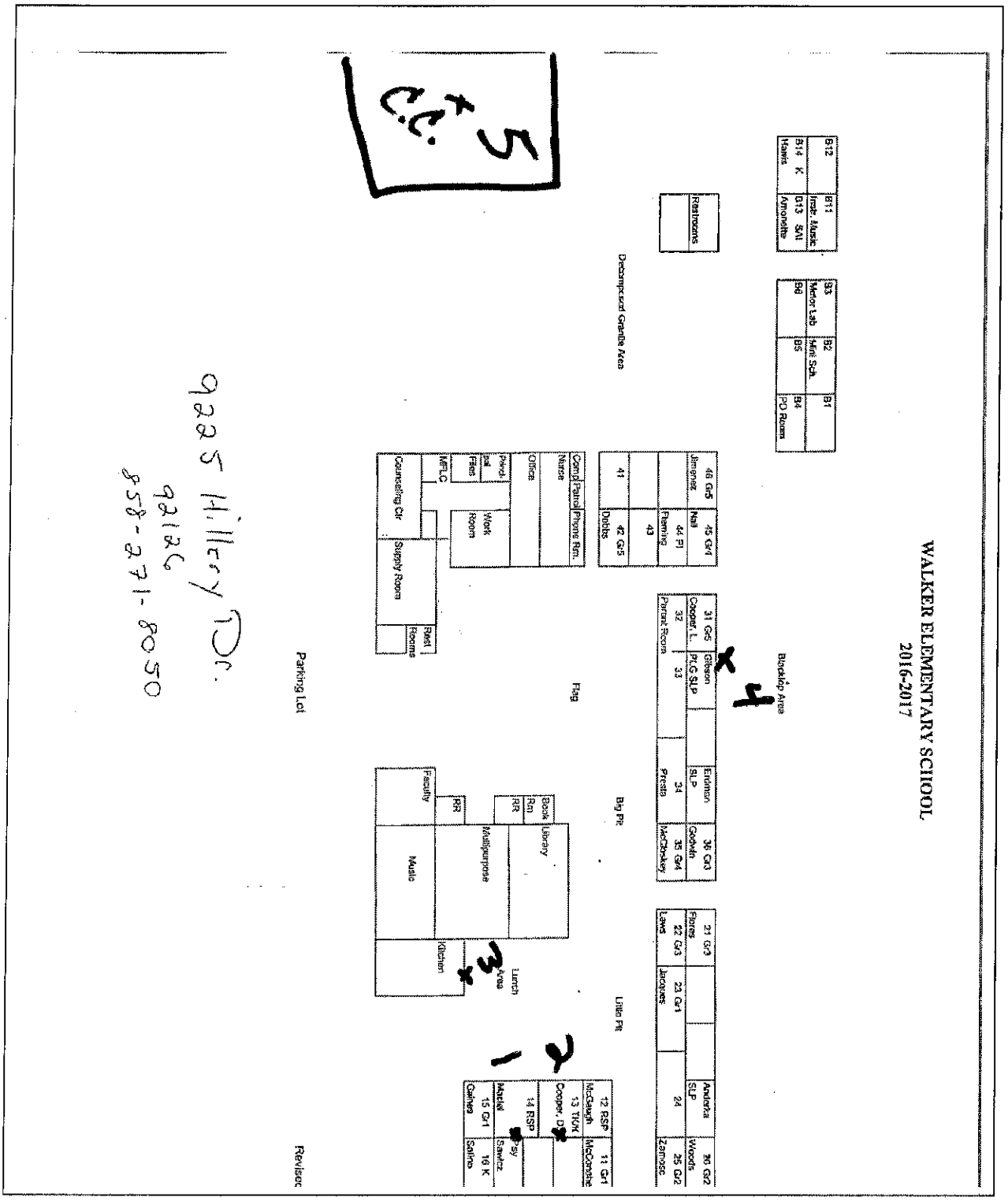

Sample No. 1

School: Walker Elementary School

Name of Building: 12-16

Location Description: Inside rm 14 at back of room in 3-C room

Type of Outlet: Bubbler drinking fountain

Description: Bubbler drinking fountain at sink

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168332

State Sample ID: 3710020-BBH-A

Date & Time Last Used: 4/25/17 @ 2200

Date & Time Sample Collected: 4/26/17 @ ~~0610~~ am 4/26/17 613

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: Walker Elementary School

Name of Building: 11-16

Location Description: Inside classroom 13 at back of room inside 3-D

Type of Outlet: Bubbler drinking fountain

Description: single drinking fountain at sink of 3-D

Comments/Miscellaneous:

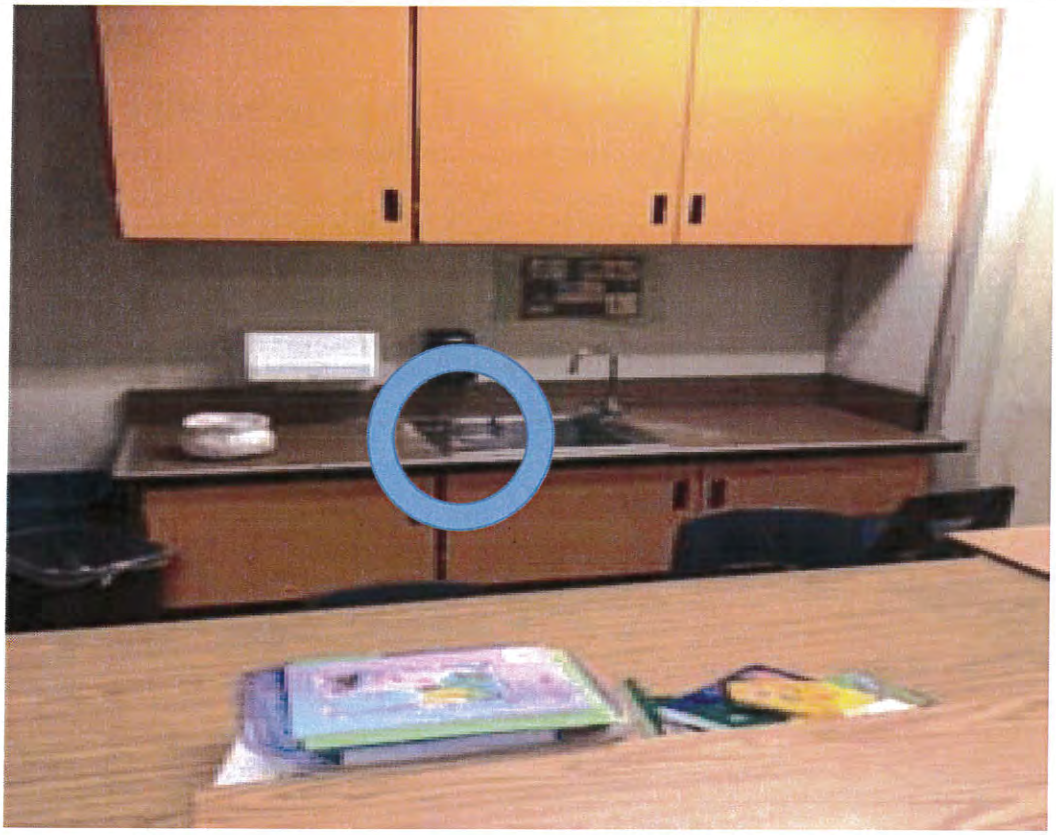

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168333

State Sample ID: 3710020-BBH-B

Date & Time Last Used: 4/25/17 @ 2200

Date & Time Sample Collected: 4/26/17 @ 610

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: Walker Elementary School

Name of Building: Kitchen/Lunch Area

Location Description: Outside near lunch court at kitchen wall

Type of Outlet: Bubbler drinking fountain

Description: Left bubbler of three on a single fountain

Comments/Miscellaneous:

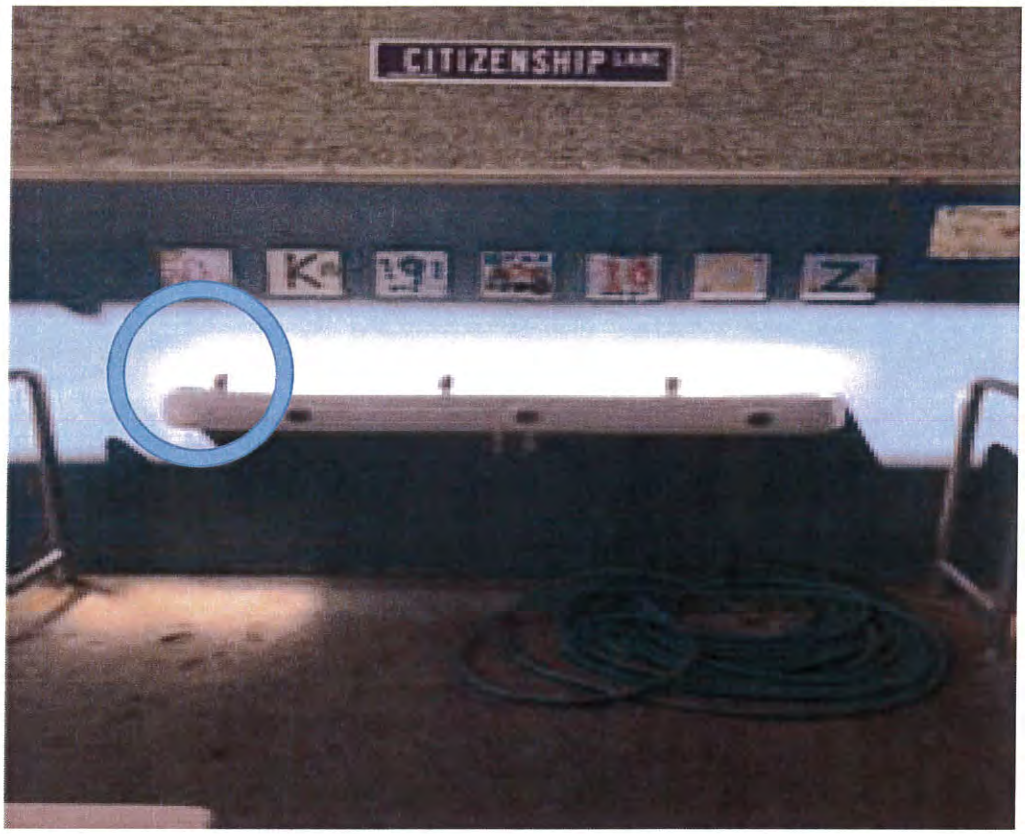

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168334

State Sample ID: 3710020-BBH-C

Date & Time Last Used: 4/25/17 @ 2200

Date & Time Sample Collected: 4/26/17 @ 607

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: Walker Elementary School

Name of Building: 31-36

Location Description: near black top playground closest to red play equipment

Type of Outlet: Bubbler water fountain

Description: Left bubbler water fountain of two

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168335

State Sample ID: 3710020-BBH-D

Date & Time Last Used: 4/25/17 @ 2200

Date & Time Sample Collected: 4/26/17 @ 603

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 5

School: Walker Elementary School

Name of Building: CC

Location Description: outdoor hallway on left wall between boys and girls restrooms

Type of Outlet: Bubbler drinking fountain

Description: Far Left single drinking fountain of two singles and one multi three bubbler

Comments/Miscellaneous: Tag before 4:00 pm day before sampling and Sample at 6:30 am

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168336

State Sample ID: 3710020-BBH-E

Date & Time Last Used: A 4/25/17 @ 2200

Date & Time Sample Collected: 4/26/17 @ 6:28

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Malloy

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

25-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168332	Walker Elementary	26-APR-2017	0613	A. Molloy	SAMPLE 1	
2	W1168333	Walker Elementary	26-APR-2017	0610		SAMPLE 2	
3	W1168334	Walker Elementary	26-APR-2017	0607		SAMPLE 3	
4	W1168335	Walker Elementary	26-APR-2017	0603		SAMPLE 4	
5	W1168336	Walker Elementary	26-APR-2017	0628		SAMPLE 5	

2368

Chain of Custody:

Relinquished by: Name: tMally Sign: Alejandra Molloy	Received by: Name: Tom Burger Sign: Tom B Burger	Date & Time: 4/26/17 @ 0605 Location: WQL A/V	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: tMally
Received Date: 4/26/17
LIMS Received Time: 0840
Reviewed By: SM 4/26

1840

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Wangenheim Middle School

Physical Address of School: 9 230 Gold Coast Drive

First Bell: 7:30

Meeting Date: ...3/22/2017

Sampling Plan Completion Date: 4/24/2017

Completed by Print Name: Elizabeth Lara

Signature: Elizabeth Lara Date: 4/24/2017

School's Point of Contact for Sampling Assistance

Name: ~~Elizabeth Lara~~ Lori Sherman

Phone: ~~619 302 7610~~ 619-301-9086

Email: elara@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-25-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Wagenheim Middle School 9230 Gold Coast Drive San Diego Ca 92126

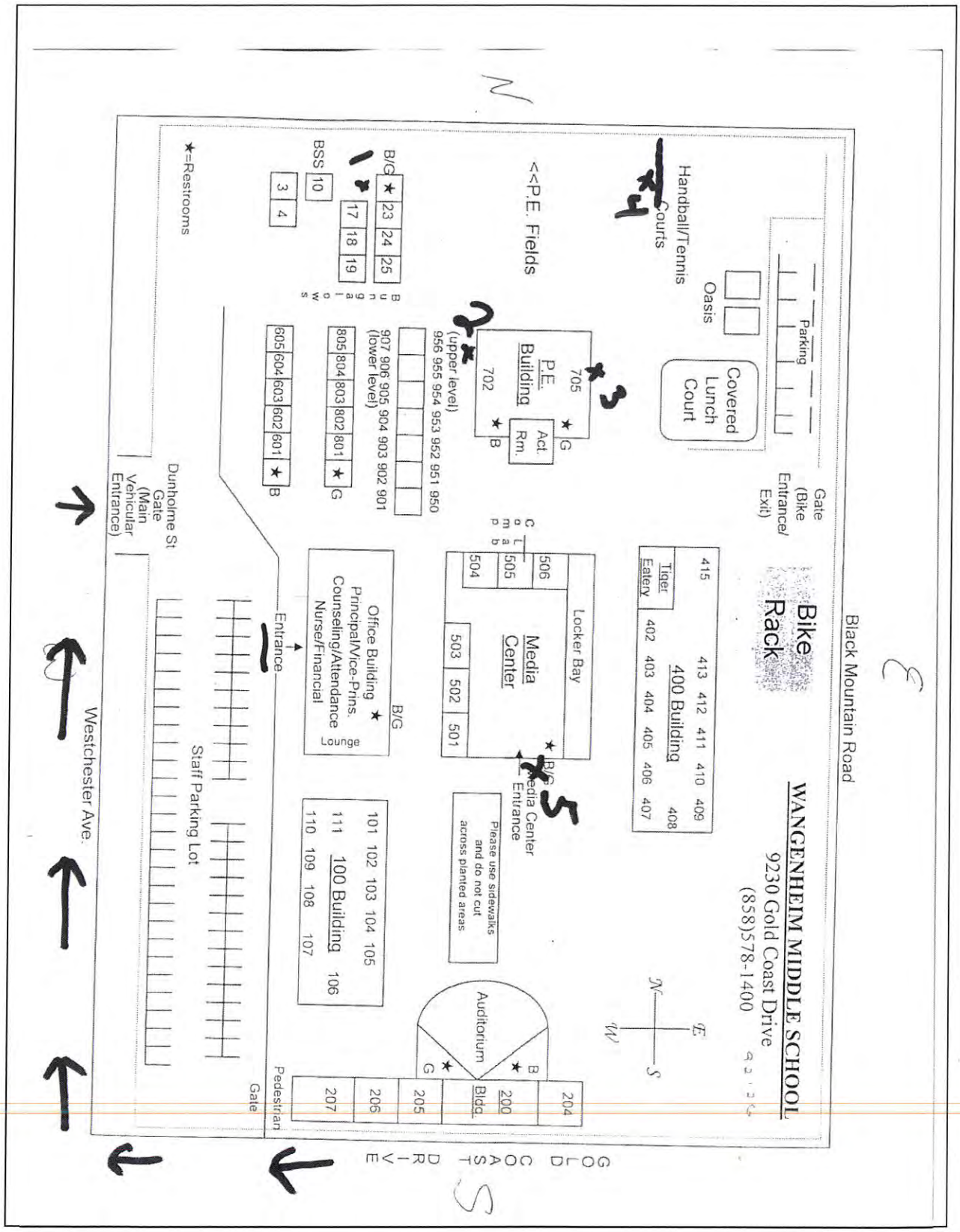

Sample No. 1

School: Wangenheim Middle School

Name of Building: Bungalow Restrooms

Location Description: Outside Between restrooms near room #23 and dirt field

Type of Outlet: Bubbler drinking fountain

Description: Left bubbler of Left drinking fountain

Comments/Miscellaneous:

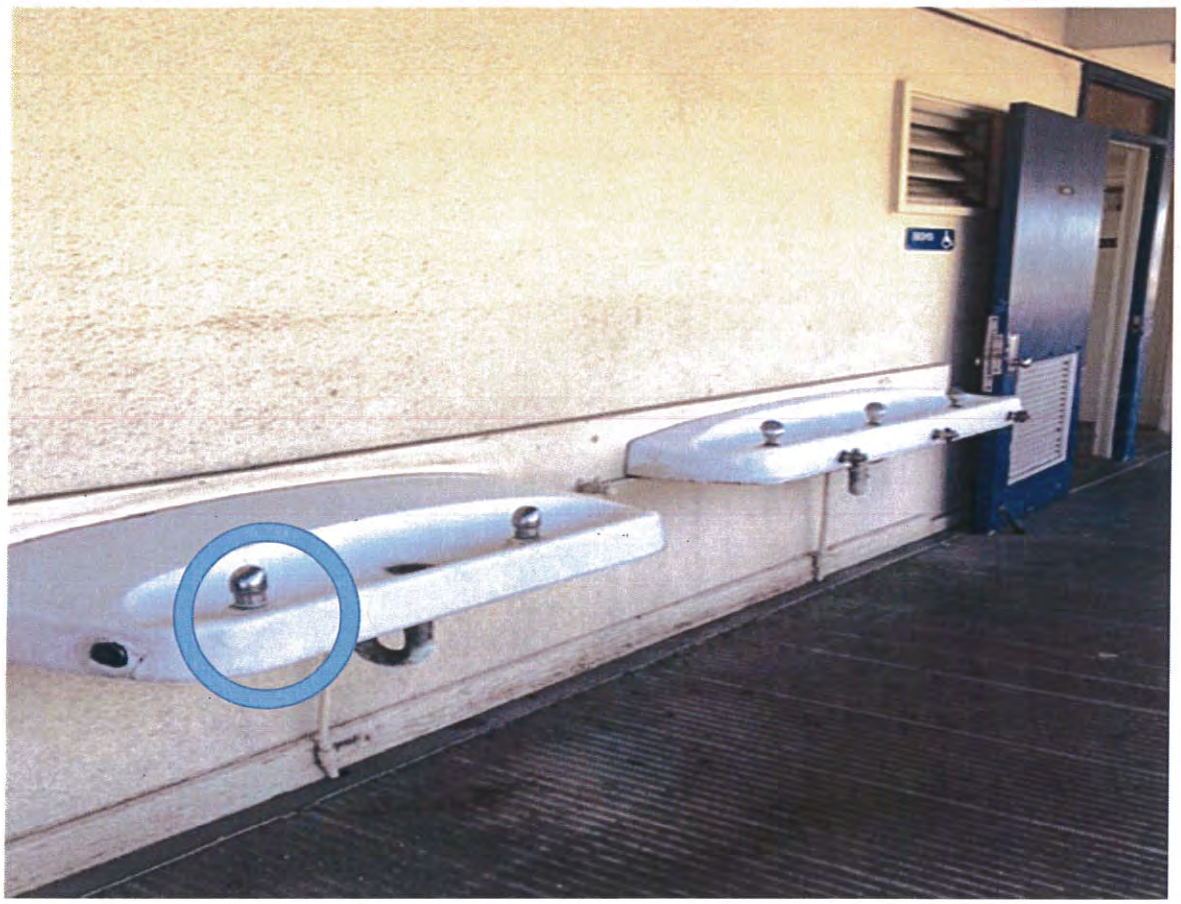

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168551

State Sample ID: 3710020-BBI-A

Date & Time Last Used: 4/25/17 2200

Date & Time Sample Collected: 4/26/17 0624

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 2

School: Wangenheim Middle School

Name of Building: PE

Location Description: Outside West end of P E building Boys Gym

Type of Outlet: Bubbler drinking fountain

Description:

Comments/Miscellaneous: left bubbler has slight leak; right bubbler sampled 4/26/17 DS

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168552

State Sample ID: 3710020-BBI-B

Date & Time Last Used: 4/25/17 2200

Date & Time Sample Collected: 4/26/17 0620

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sawersby

Sample No. 3

School: Wangenheim Middle School

Name of Building: Gym

Location Description: Outside East side Girls Gym

Type of Outlet: Bubbler drinking fountain

Description: Right bubbler of three

Comments/Miscellaneous:

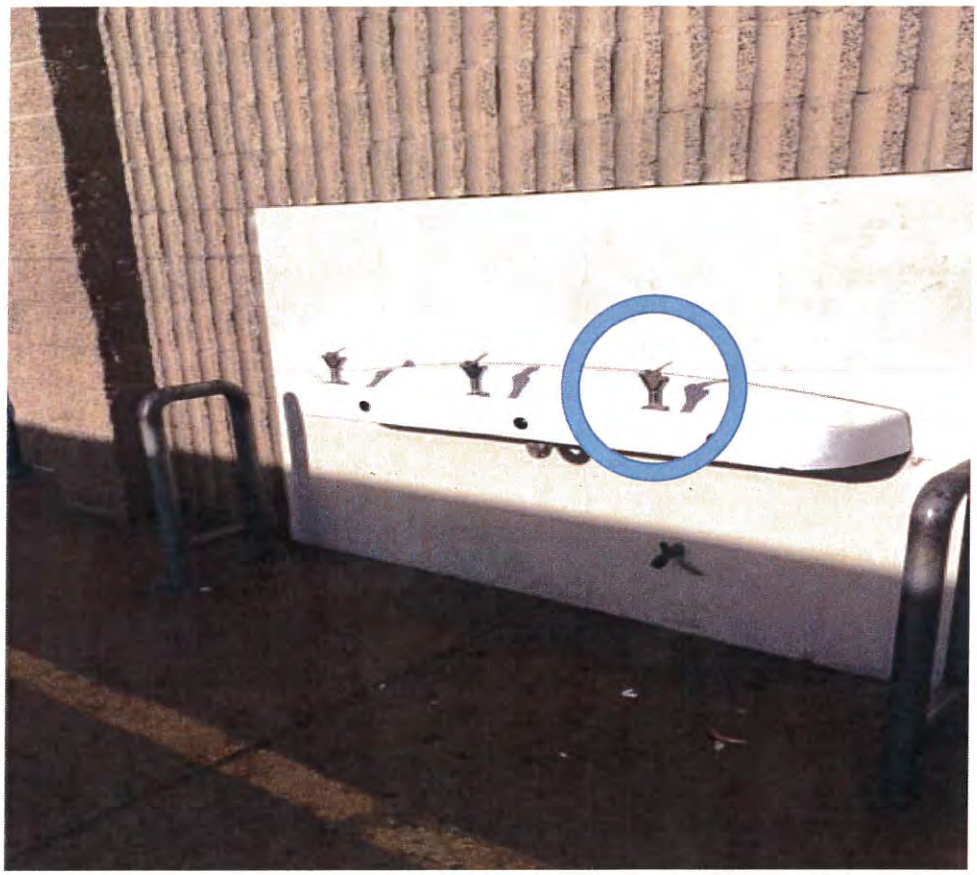

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168553

State Sample ID: 3710020-BBI-C

Date & Time Last Used: DS 4/25/17 2200

Date & Time Sample Collected: 4/26/17 0612

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 4

School: Wangenheim Middle School

Name of Building: Handball Courts

Location Description: West end of handball courts

Type of Outlet: Bubbler drinking fountain

Description: Left bubbler of two

Comments/Miscellaneous:

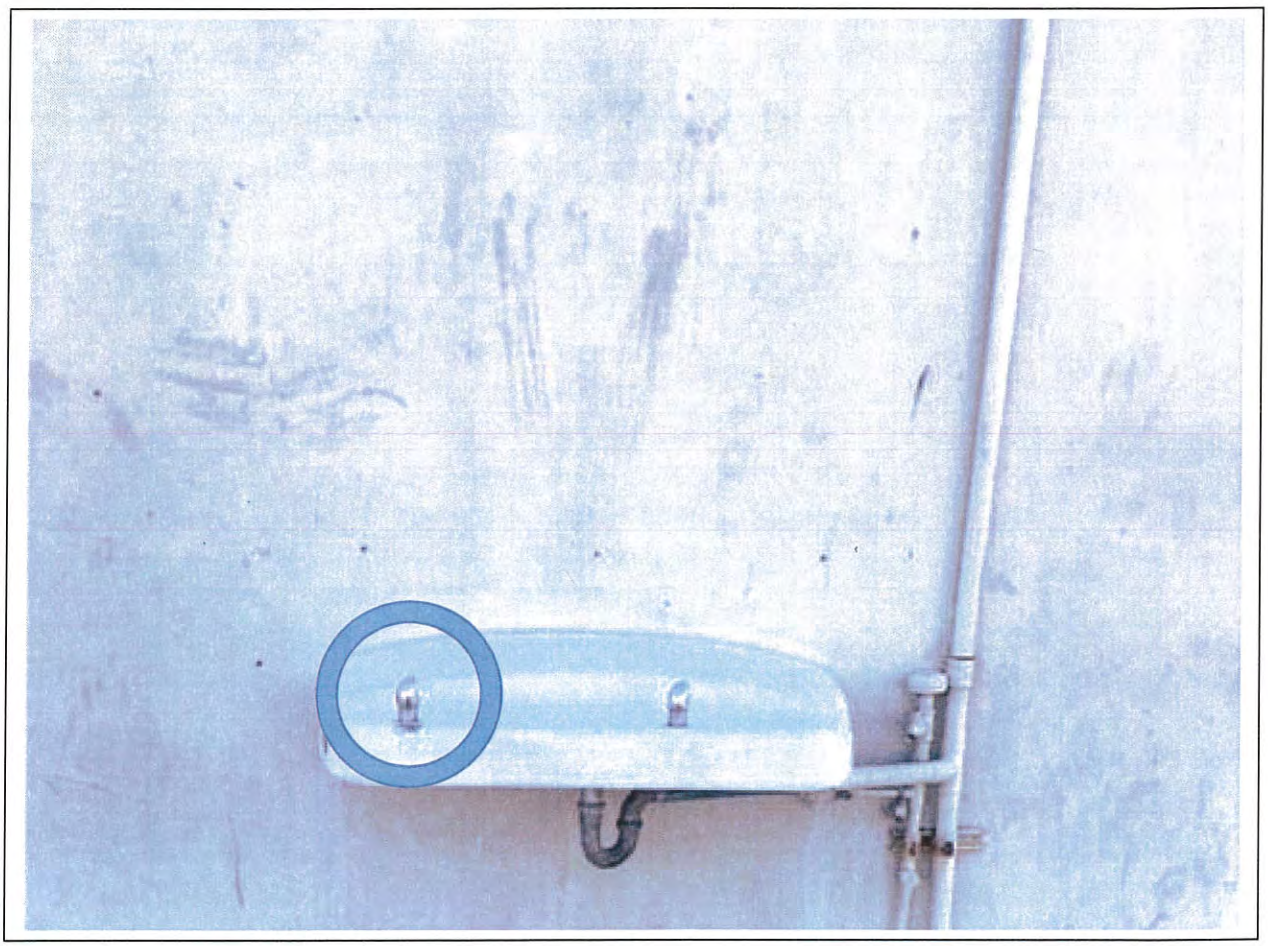

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168554

State Sample ID: 3710020-BBI-D

Date & Time Last Used: 4/25/17 2200

Date & Time Sample Collected: 4/26/17 0614

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 5

School: Wangenheim Middle School

Name of Building: 500 bldg. Media Center

Location Description: Outside South end between 507 & Girls restroom

Type of Outlet: Bubbler drinking fountain

Description: Left bubbler of two

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168555

State Sample ID: 3710020-BBI-E

Date & Time Last Used: 4/25/17 2200

Date & Time Sample Collected: 4/26/17 0608

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

25-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168551	Wangenheim Middle	26-APR-2017	0624	DS.	SAMPLE 1	
2	W1168552	Wangenheim Middle	26-APR-2017	0620	↑	SAMPLE 2	
3	W1168553	Wangenheim Middle	26-APR-2017	0612		SAMPLE 3	
4	W1168554	Wangenheim Middle	26-APR-2017	0614		SAMPLE 4	
5	W1168555	Wangenheim Middle	26-APR-2017	0608	↓	SAMPLE 5	

Chain of Custody:

Relinquished by: Name: Dan Sowersby Sign: D. Sowersby	Received by: Name: Tom Burger Sign: Tom B Burger	Date & Time: 4/26/17 0700 Location: ALV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: tMally
Received Date: 4/26/17
LIMS Received Time: 0740
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Washington Elementary School

Physical Address of School: 1789 State St., San Diego, CA 92101

First Bell: 8:10am

Meeting Date: 4/05/2017

Sampling Plan Completion Date: 4/18/17

Completed by Print Name: Lori Sherman

Signature: *Lori Sherman* Date: 4/18/17

School's Point of Contact for Sampling Assistance

Name: ~~Lori Sherman~~ Elizabeth Lara

Phone: ~~619-301-9086~~ 619-302-7616

Email: lsherman1@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-20-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Washington Elementary - 1789 State St., San Diego, CA 92101

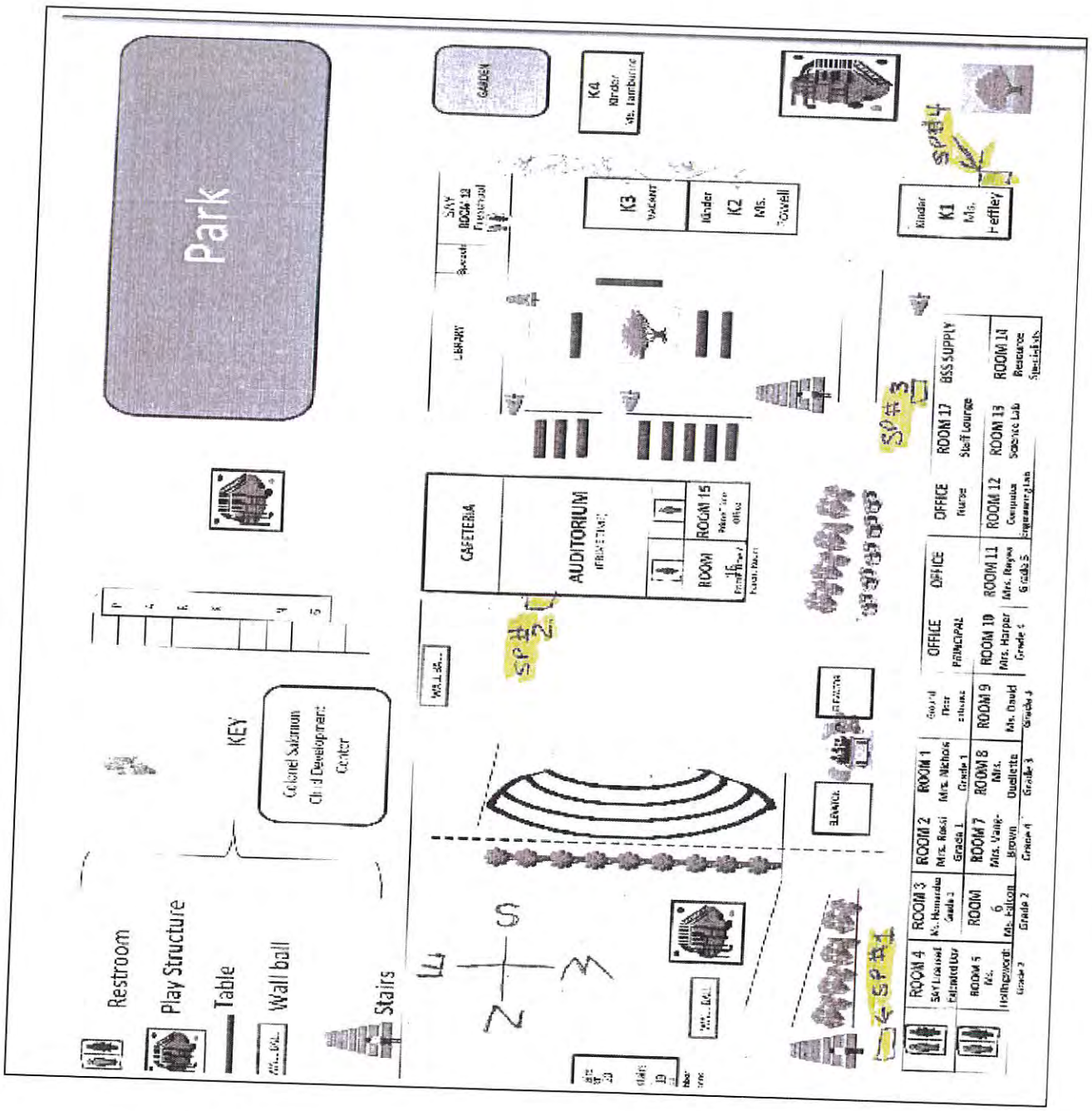

Sample Locations acknowledgement

School and Address: Col. Irving Salomon CDC (adjacent to Washington ES) - 1789 State St., San Diego, CA 92101

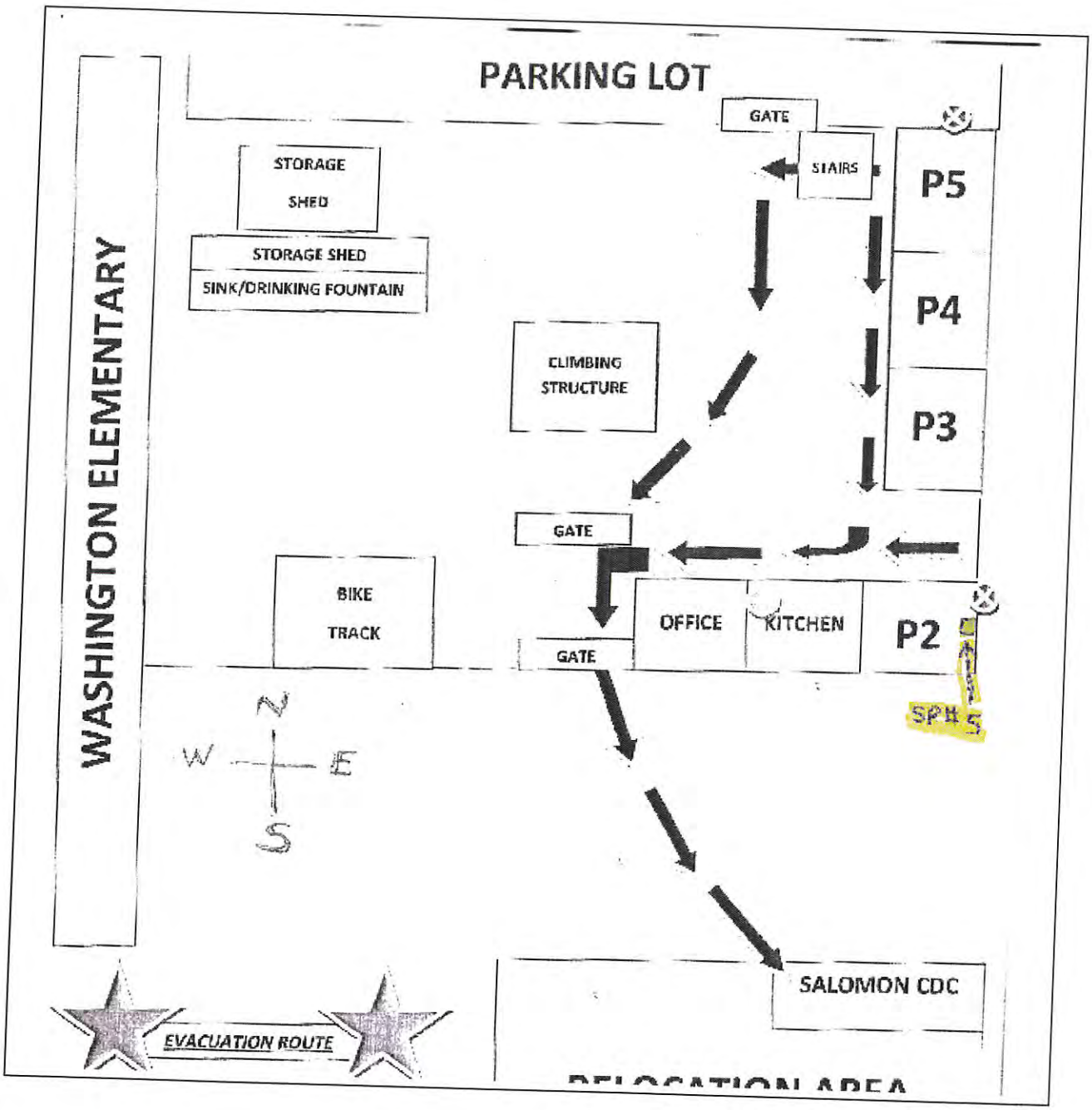

Sample No. 1

School: Washington Elementary - 1789 State St., San Diego, CA 92101

Name of Building: West wing

Location Description: Outside 1st floor west wing bldg. near room #4

Type of Outlet: Bubbler

Description: Left bubbler

Comments/Miscellaneous: Across from men/women restroom and under stairs.

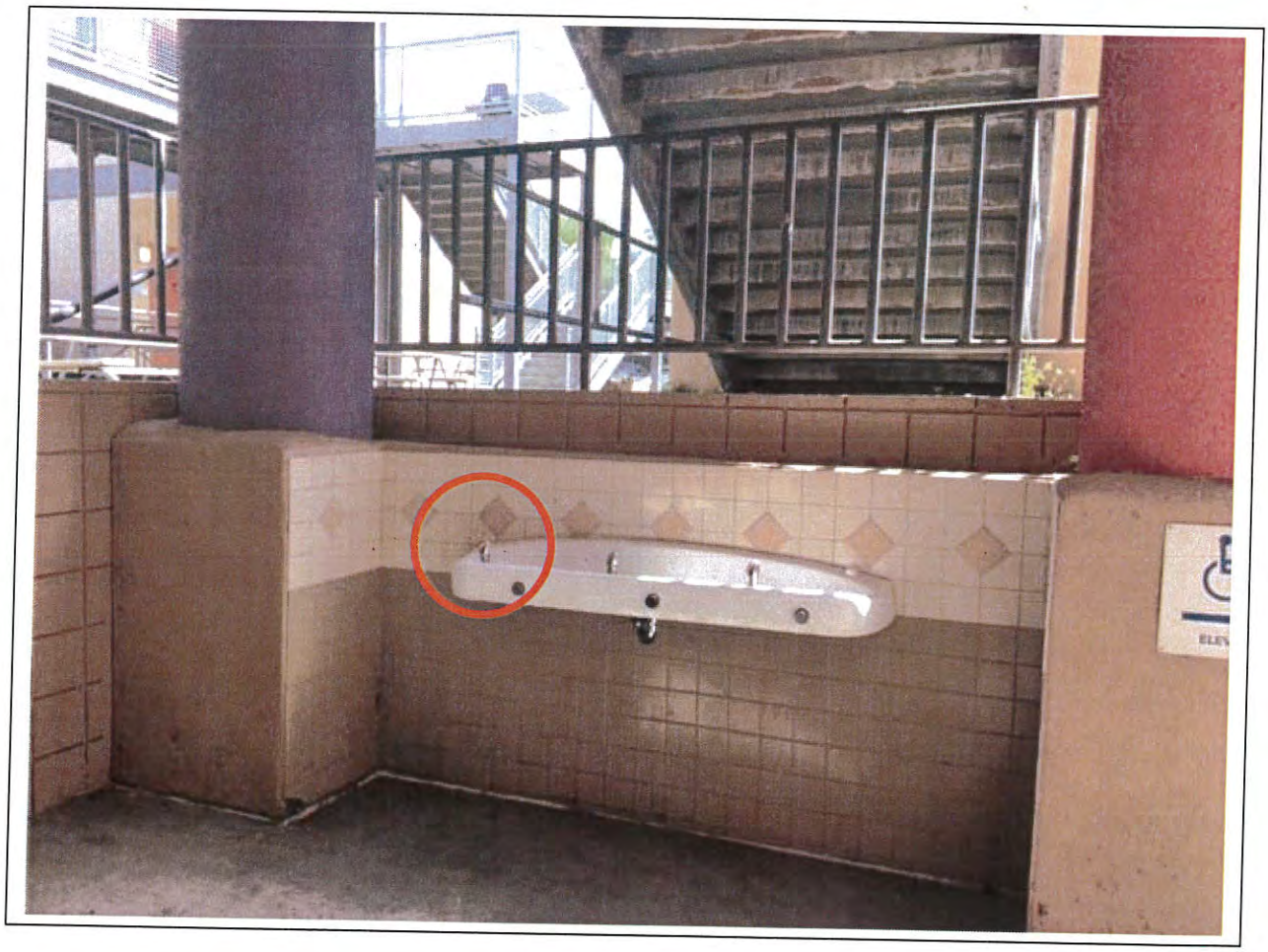

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168032

State Sample ID: 3710020-AIB-A

Date & Time Last Used: 4/20/17 1810

Date & Time Sample Collected: 4/21/17 0605

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sewersby

Sample No. 2

School: Washington Elementary - 1789 State St., San Diego, CA 92101

Name of Building: Multi-Purpose Bldg

Location Description: Outside north wall of Multi-Purpose bldg

Type of Outlet: Bubbler

Description: Center bubbler

Comments/Miscellaneous: Next to multi-purpose room doors

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168033

State Sample ID: 3710020-AIB-B

Date & Time Last Used: 4/20/17 1810

Date & Time Sample Collected: 4/21/17 0608

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 3

School: Washington Elementary - 1789 State St., San Diego, CA 92101

Name of Building: West wing

Location Description: Outside east wall across from custodial supply room and Rm 17

Type of Outlet: Bubbler

Description: Right bubbler

Comments/Miscellaneous: Next to lunch court

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168034

State Sample ID: 3710020-AIB-C

Date & Time Last Used: 4/20/17 1810

Date & Time Sample Collected: 4/21/17 0611

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: R Sowersby

Sample No. 4

School: Washington Elementary - 1789 State St., San Diego, CA 92101

Name of Building: Kindergarten Building

Location Description: Outside South wall next to K-1

Type of Outlet: Bubbler

Description: Center Bubbler

Comments/Miscellaneous: Next to playground area

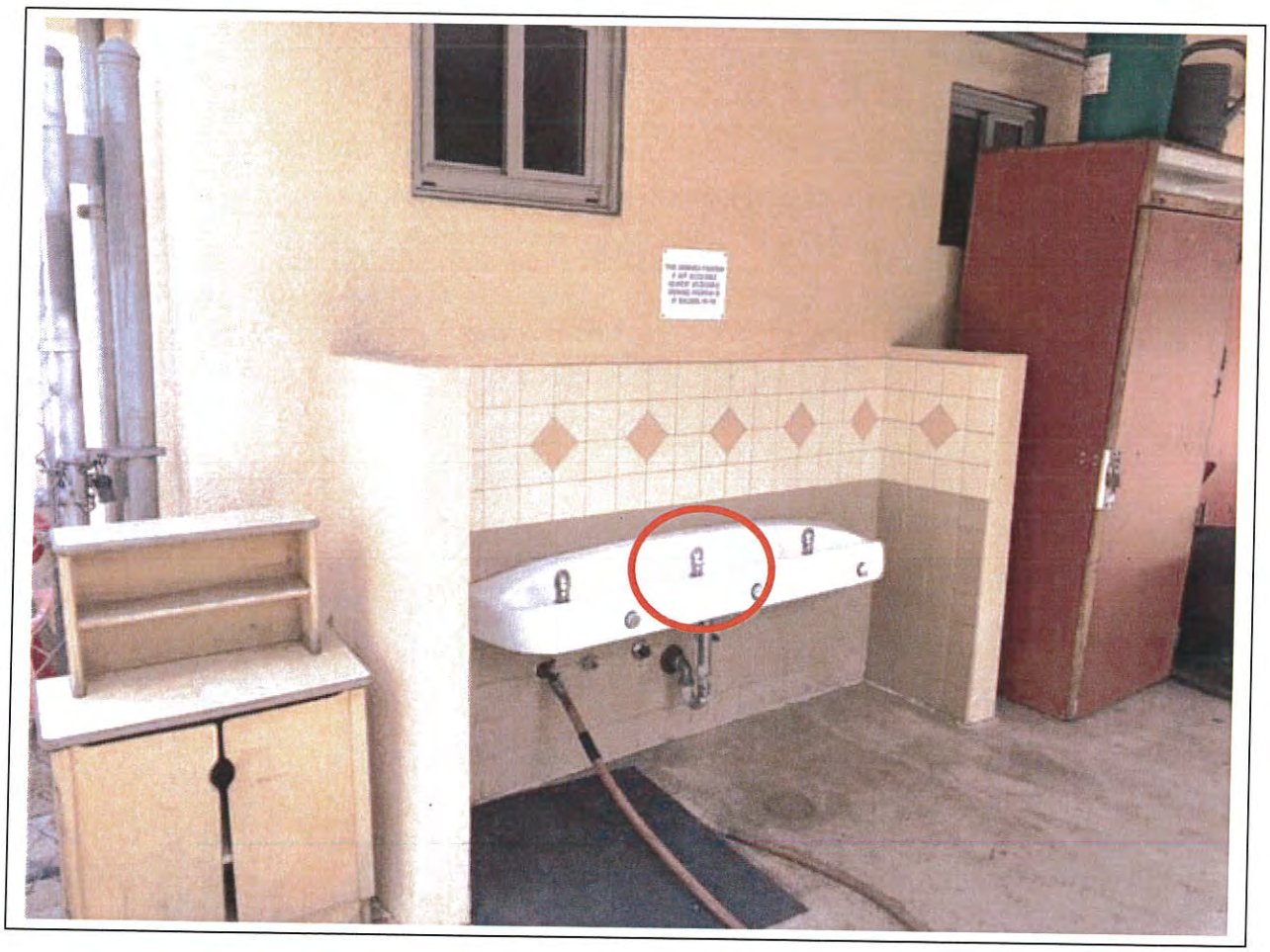

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168035

State Sample ID: 3710020-AIB-D

Date & Time Last Used: 4/20/17 1810

Date & Time Sample Collected: 4/21/17 0618

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Note:

Sample No. 5

School: Washington Elementary - 1789 State St., San Diego, CA 92101

Name of Building: Col. Irving Salomon CDC

Location Description: Inside classroom P-2

Type of Outlet: Sink Mount Bubbler

Description:

Comments/Miscellaneous: Sink located on east wall

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168036

State Sample ID: 3710020-AIB-E

Date & Time Last Used: 4/20/17, 1810

Date & Time Sample Collected: 4/21/17 0623

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Water Quality Chemistry Services
Chain of Custody Form

20-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168032	Washington Elementary	21-APR-2017	0605	D.S.	SAMPLE 1	
2	W1168033	Washington Elementary	21-APR-2017	0608		SAMPLE 2	
3	W1168034	Washington Elementary	21-APR-2017	0611		SAMPLE 3	
4	W1168035	Washington Elementary	21-APR-2017	0618		SAMPLE 4	
5	W1168036	Washington Elementary	21-APR-2017	0623		SAMPLE 5	

Chain of Custody:

Relinquished by: Name: Dan Sowersby Sign: D. Sowersby	Received by: Name: Tom Burger Sign: Tom B. Burger	Date & Time: 4/21/17 0650 Location: ALV	Comments:
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMally
Received Date: 4/21/17
LIMS Received Time: 0703
Reviewed By: AMally 4/26/17

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Wegeforth Elementary

Physical Address of School: 3443 Ediwhar Ave., San Diego, CA 92123-2207

First Bell: 8:00 AM

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 4-20-2017

Completed by Print Name: Cesar Jimenez

Signature: C.J. Date: 4-20-2017

School's Point of Contact for Sampling Assistance

Name: Cesar Jimenez

Phone: 619-261-1588

Email: cjimenez2@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-20-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

8

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Wegeforth Elementary - 3443 Ediwhar Ave., San Diego, CA 92123-2207

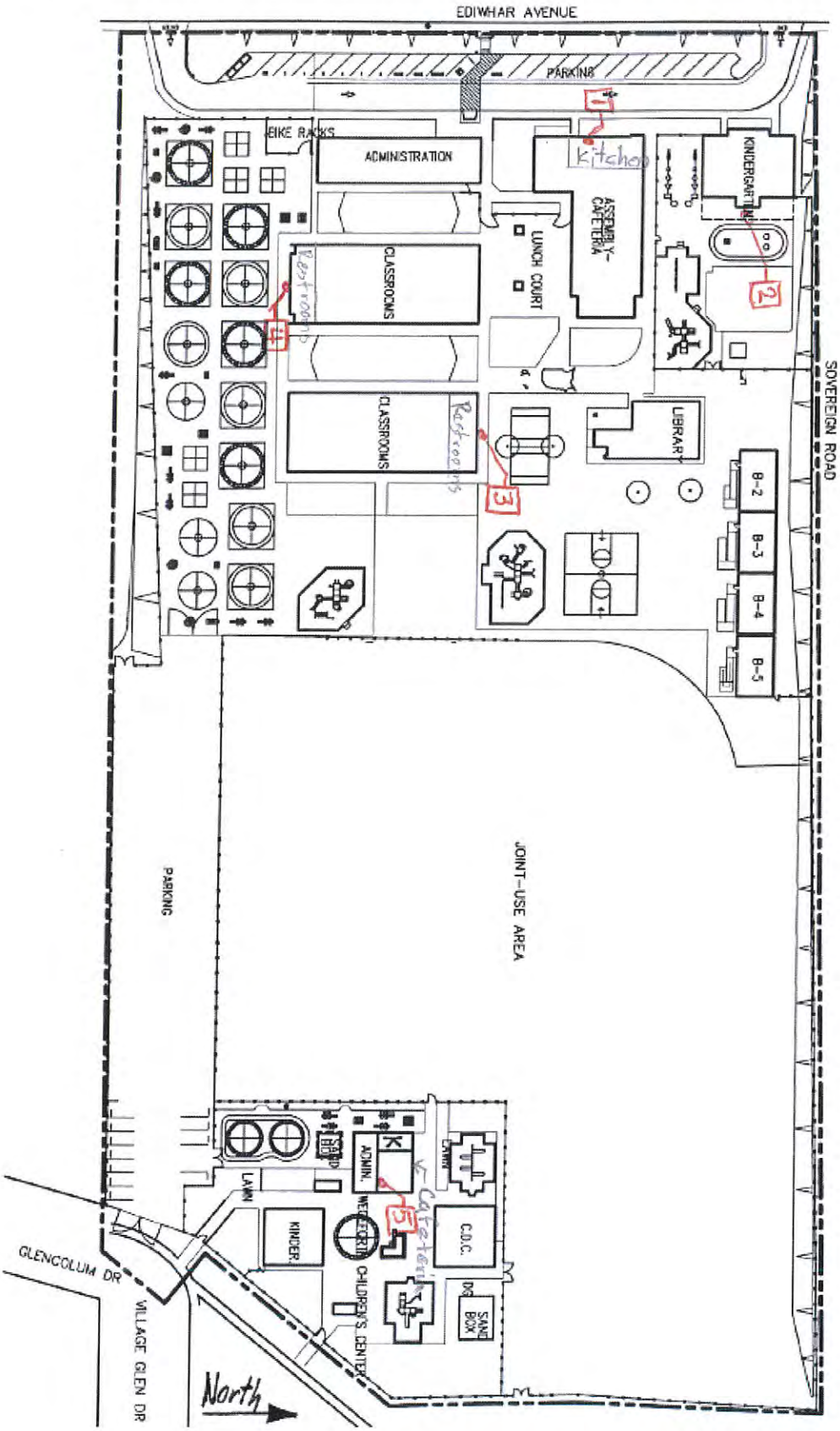

Sample No. 1

School: Wegeforth Elementary

Name of Building: Assembly- Cafeteria

Location Description: West wall of Kitchen

Type of Outlet: Faucet

Description: Faucet on a 2-compartment sink

Comments/Miscellaneous: SDUSD ID code #: 291-01

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168196

State Sample ID: 3710020-AJH-A

Date & Time Last Used: 4/21/17 @ 2200

Date & Time Sample Collected: 4/22/17 @ 0907

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 2

School: Wegeforth Elementary

Name of Building: Kindergarten Bldg.

Location Description: Exterior East wall

Type of Outlet: Bubbler

Description: Bubbler on a drinking fountain with faucet

Comments/Miscellaneous: SDUSD ID code #: 291-02

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168197

State Sample ID: 3710020-AJH-B

Date & Time Last Used: 4/21/17 @ 2200

Date & Time Sample Collected: 4/22/17 @ 0911

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: Wegeforth Elementary

Name of Building: Classroom Bldg. East

Location Description: Exterior North wall

Type of Outlet: Bubbler

Description: Right bubbler on a triple drinking fountain

Comments/Miscellaneous: SDUSD ID code #: 291-03

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168198

State Sample ID: 3710020-AJH-C

Date & Time Last Used: 4/21/17 @ 2200

Date & Time Sample Collected: 4/22/17 @ 0914

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: Wegeforth Elementary

Name of Building: Classroom Bldg. West

Location Description: Exterior south wall

Type of Outlet: Bubbler

Description: Right bubbler on a double drinking fountain

Comments/Miscellaneous: SDUSD ID code #: 291-04

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168199

State Sample ID: 3710020-AJH-D

Date & Time Last Used: 4/21/17 @ 2200

Date & Time Sample Collected: 4/22/17 @0918

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 5

School: Wegeforth Elementary

Name of Building: Administration/ Cafeteria Bldg. at CDC

Location Description: South wall of cafeteria

Type of Outlet: Bubbler

Description: Right Bubbler on a 2 compartment sink with faucets

Comments/Miscellaneous: SDUSD ID code #: 291-05

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168200

State Sample ID: 3710020-AJH-E

Date & Time Last Used:

Date & Time Sample Collected:

Direct Sample ☐ Transfer Sample ☐

Name of Water System Sample Collector:

Needed a different set of keys to enter facility.

0938

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

21-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168196	Wegeforth Elementary	22-APR-2017	0907	A. Molloy	SAMPLE 1	
2	W1168197	Wegeforth Elementary	22-APR-2017	0911	↓	SAMPLE 2	
3	W1168198	Wegeforth Elementary	22-APR-2017	0914		SAMPLE 3	
4	W1168199	Wegeforth Elementary	22-APR-2017	0918		SAMPLE 4	
5	W1168200	Wegeforth Elementary	22-APR-2017	—		SAMPLE 5	Needed different set of keys.

2393

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign: AMolloy	Received by: Name: Sign:	Date & Time: 4/22/17 @ 1010 Location: WQL AIV	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 4/22/17
LIMS Received Time: 1012
Reviewed By: AMolloy 4/26/17

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Wegeforth Elementary

Physical Address of School: 3443 Ediwhar Ave., San Diego, CA 92123-2207

First Bell: 8:00 AM

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 4-20-2017

Completed by Print Name: Cesar Jimenez

Signature: C.J. Date: 4-20-2017

School's Point of Contact for Sampling Assistance

Name: Cesar Jimenez

Phone: 619-261-1588

Email: cjimenez2@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-20-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Wegeforth Elementary - 3443 Ediwhar Ave., San Diego, CA 92123-2207

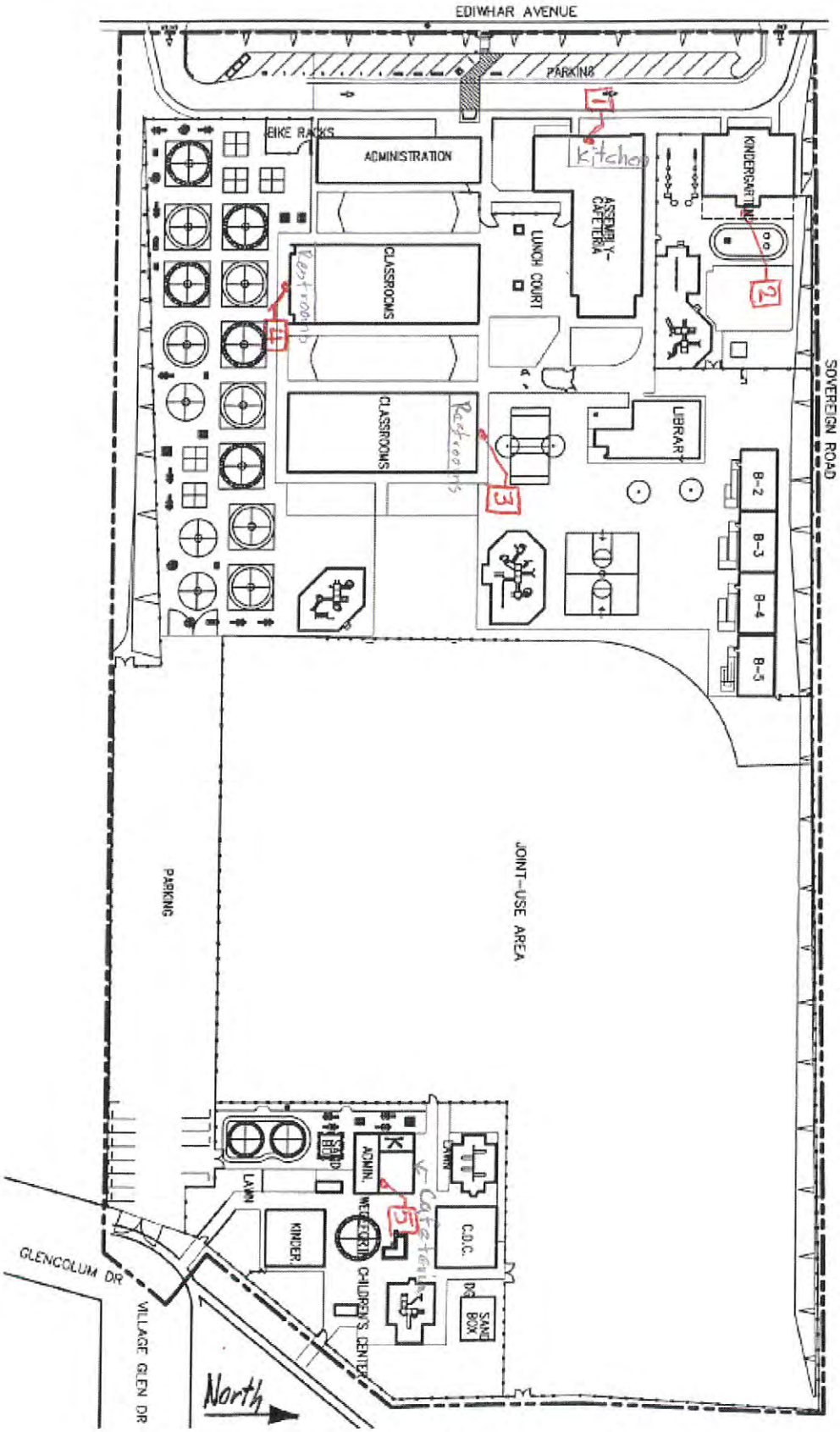

Sample No. 5

School: Wegeforth Elementary

Name of Building: Administration/ Cafeteria Bldg. at CDC

Location Description: South wall of cafeteria

Type of Outlet: Bubbler

Description: Right Bubbler on a 2 compartment sink with faucets

Comments/Miscellaneous: SDUSD ID code #: 291-05

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1168200

State Sample ID: 3710020-AJH-E

Date & Time Last Used: 4/24/17 2200

Date & Time Sample Collected: 4/25/17 0702

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: T Burger

Water Quality Chemistry Services
Chain of Custody Form

24-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1168502	Wegeforth Elementary	25-APR-2017	0702	TBurger	SAMPLE 5	

Chain of Custody:

Relinquished by:	Received by:	Date & Time:	Comments:
Name: Tom Burger Sign: Tm B Burger	Name: Alejandra Molloy Sign: AMolloy	4-25-17 0858 Location: ALV LAB	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 4/20/17
LIMS Received Time: 0853
Reviewed By: AMolloy 4/20/17

Exhibit 31

2397

1869

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Whitman Elementary School

Physical Address of School: 4050 Appleton St. San Diego, CA 92117

First Bell: 7:30AM

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 05/05/2017

Completed by Print Name: Daniel Lopez

Signature: Daniel Lopez Date: 05/05/2017

School's Point of Contact for Sampling Assistance

Name: ~~Daniel Lopez~~ ~~Elizabeth Lara~~ Lori Sherman

Phone: ~~619-306-3383~~ 619-301-9086

Email: dlopez2@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/15/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Whitman Elementary School 4050 Appleton St.San Diego, CA 92117

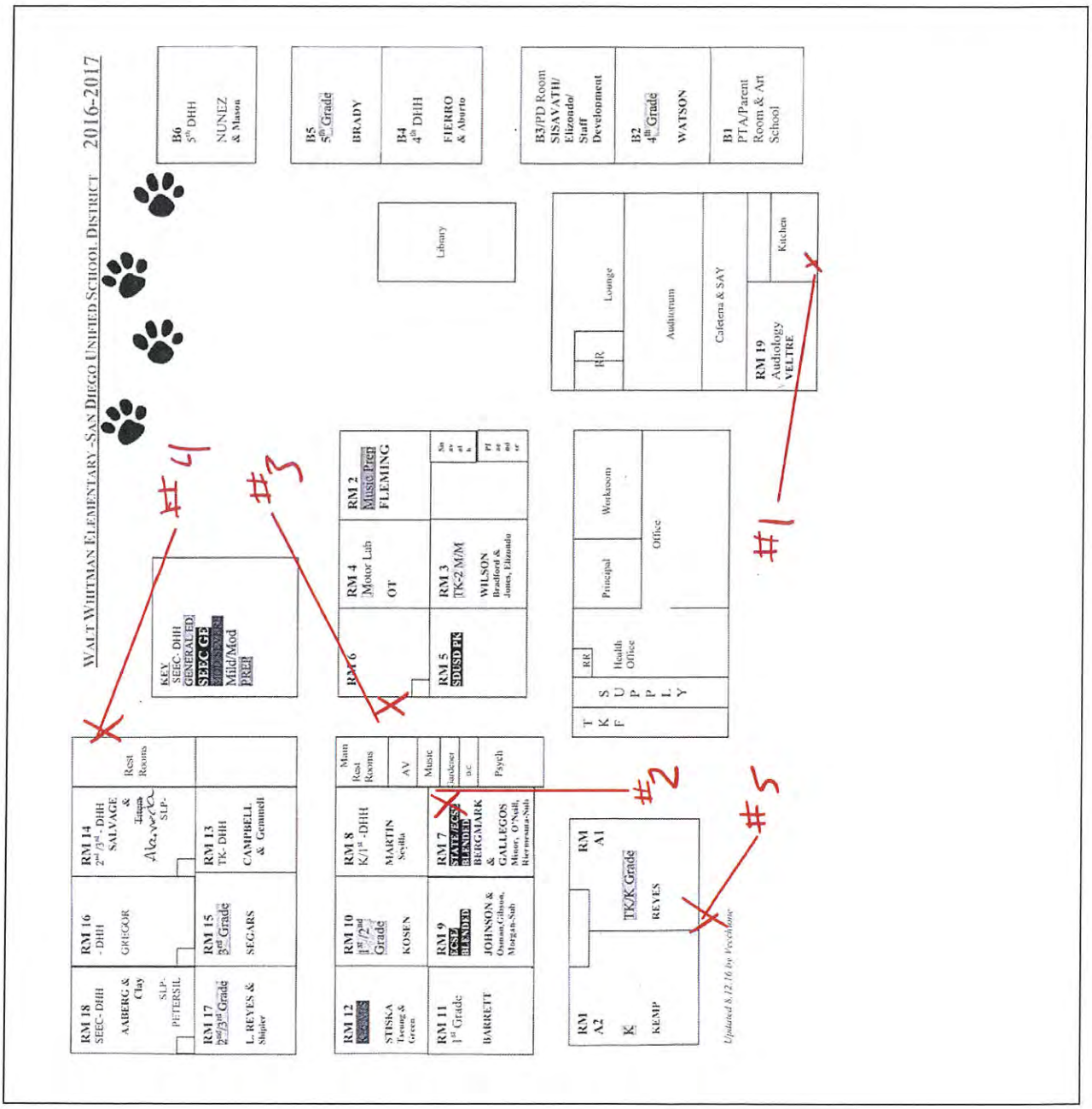

Sample No. 1

School: Whitman Elementary School

Name of Building: Kitchen

Location Description: East side of campus inside faucet

Type of Outlet: Kitchen Faucet

Description: Kitchen Faucet

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172904

State Sample ID: 3710020-BJA-A

Date & Time Last Used: 5/18/17 2200

Date & Time Sample Collected: 5/19/17 0603

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 2

School: Whitman Elementary School

Name of Building: Building Rooms 7-12

Location Description: Room 7

Type of Outlet: Bubbler

Description: Bubbler inside Room 7

Comments/Miscellaneous:

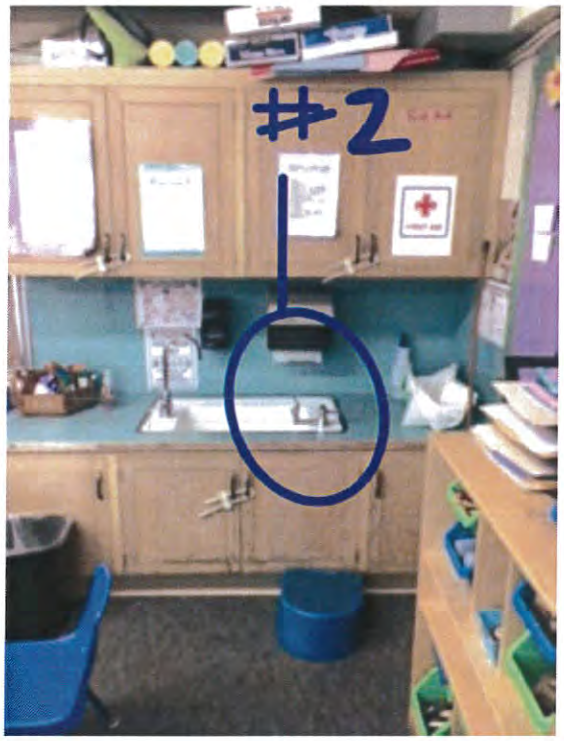

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172905

State Sample ID: 3710020-BJA-B

Date & Time Last Used: 5/18/17 2200

Date & Time Sample Collected: 5/19/17 0612

Direct Sample ☑ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 3

School: Whitman Elementary School

Name of Building: Building Rooms 2-6

Location Description: West facing wall next to Room 6

Type of Outlet: Triple bubbler

Description: Far right bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172906

State Sample ID: 3710020-BJA-C

Date & Time Last Used: 5/18/17 2200

Date & Time Sample Collected: 5/19/17 0607

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 4

School: Whitman Elementary School

Name of Building: Building Rooms 13-18

Location Description: East facing wall next to boys restroom

Type of Outlet: Triple bubbler

Description: Center bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172907

State Sample ID: 3710020-BJA-D

Date & Time Last Used: 5/18/17, 2200

Date & Time Sample Collected: 5/19/17 0609

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Sample No. 5

School: Whitman Elementary School

Name of Building: Kindergarten Building

Location Description: Kindergarten Play Yard

Type of Outlet: 2 single bubblers

Description:

Comments/Miscellaneous: sampled left bubbler

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1172908

State Sample ID: 3710020-BJA-E

Date & Time Last Used: 5/18/17 2200

Date & Time Sample Collected: 5/19/17 0615

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: D. Sowersby

Water Quality Chemistry Services
Chain of Custody Form

15-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1172904	Whitman Elementary	19-MAY-2017	0603	D.S.	SAMPLE 1	
2	W1172905	Whitman Elementary	19-MAY-2017	0612	↓	SAMPLE 2	
3	W1172906	Whitman Elementary	19-MAY-2017	0607	↓	SAMPLE 3	
4	W1172907	Whitman Elementary	19-MAY-2017	0609	↓	SAMPLE 4	
5	W1172908	Whitman Elementary	19-MAY-2017	0615	↓	SAMPLE 5	

Chain of Custody:

Relinquished by:	Received by:	Date & Time:	Comments:
Name: D. Sowersby Sign: D. Sowersby	Name: Tom Burger Sign: Tom B. Burger	5/19/17 0645 Location: ALV	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: T Burger
Received Date: 5-19-17
LIMS Received Time: 1033
Reviewed By:

1877

2405

Exhibit 31

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Whittier K-12

Physical Address of School: 3401 Clairemont Dr. San Diego, CA 92117

First Bell: 8:00 A.M.

Meeting Date: 03-22-2017

Sampling Plan Completion Date: 05-08-2017

Completed by Print Name: Joe Kinkead

Signature: Joe Kinkead Date: 05-08-2017

School's Point of Contact for Sampling Assistance

Name: Joe Kinkead

Phone: 619-559-2294

Email: jkinkead@sandi.net

Elizabeth Lara

City of San Diego 3710020

Approved By: 5/16/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Whittier K-12 3401 Clairemont Dr. San Diego, CA 92117

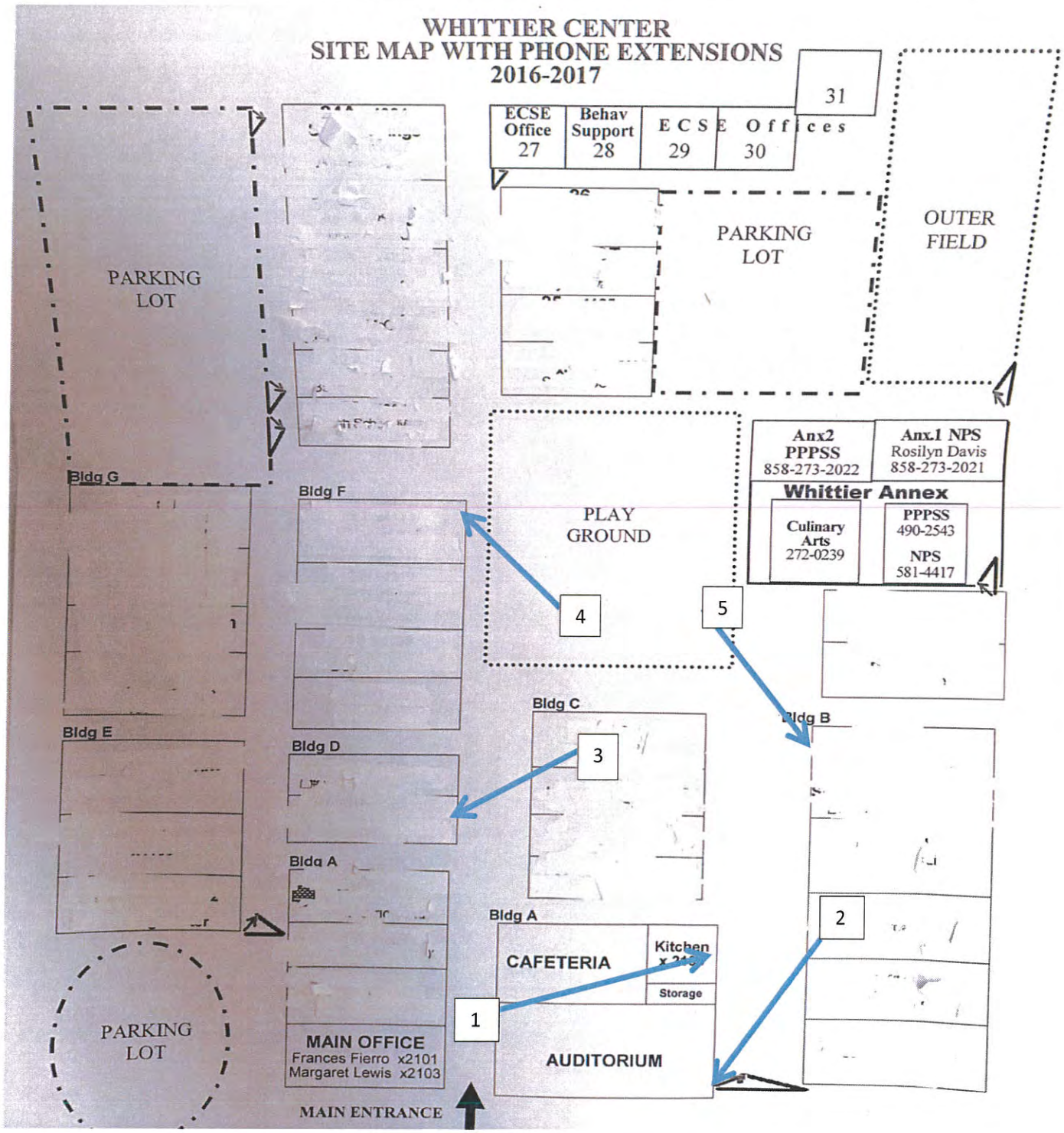

Sample No. 1

School: Whittier K-12 3401 Clairemont Dr. San Diego, CA 92117

Name of Building: Building A

Location Description: Kitchen

Type of Outlet: Sink along south wall

Description:

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173120

State Sample ID: 3710020-CAF-A

Date & Time Last Used: 5/23/17 @ 2200

Date & Time Sample Collected: 5/24/17 @ 0618

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Mollay

Sample No. 2

School: Whittier K-12 3401 Clairemont Dr. San Diego, CA 92117

Name of Building: Building A

Location Description: West facing wall outside of Auditorium door

Type of Outlet: Triple fountain

Description: Top right bubbler

Comments/Miscellaneous:

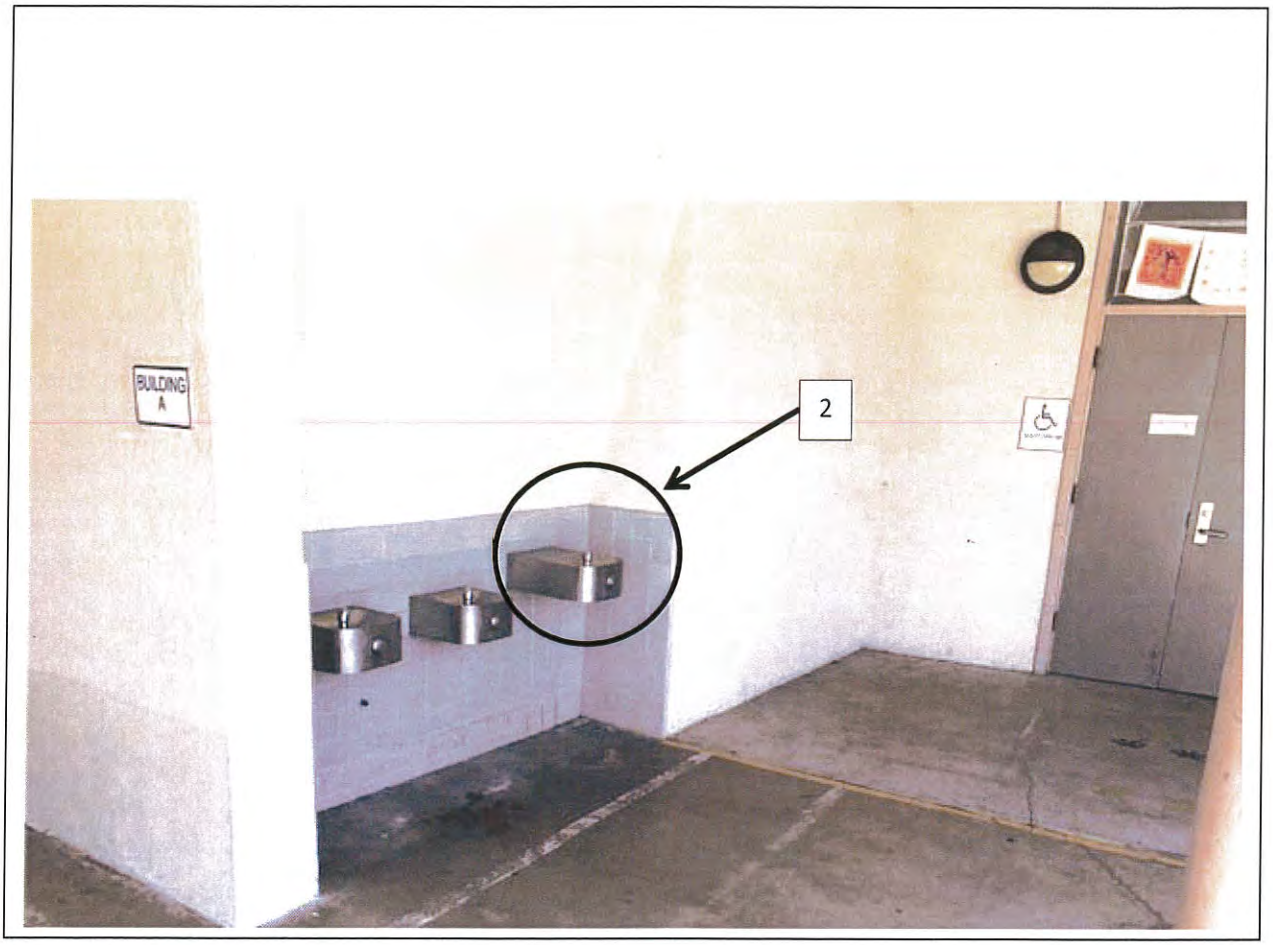

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173121

State Sample ID: 3710020-CAF-B

Date & Time Last Used: 5/23/17 @ 2200

Date & Time Sample Collected: 5/24/17 @ 0608

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: Whittier K-12 3401 Clairemont Dr. San Diego, CA 92117

Name of Building: Building D

Location Description: East facing wall next to girls restroom

Type of Outlet: Double fountain

Description: Top left bubbler

Comments/Miscellaneous:

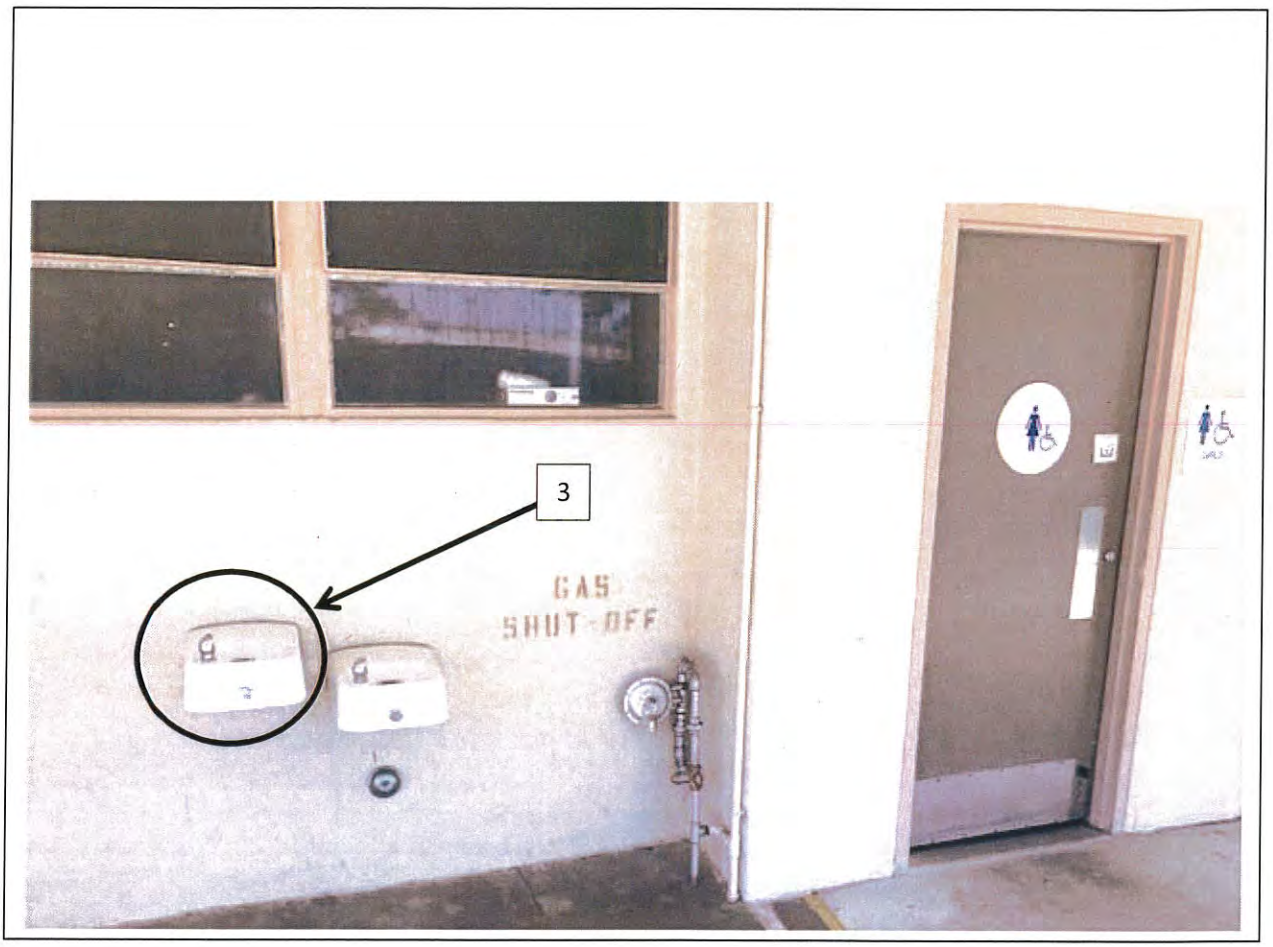

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173122

State Sample ID: 3710020-CAF-C

Date & Time Last Used: 5/23/17 @ 2200

Date & Time Sample Collected: 5/24/17 @ 0600

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: Whittier K-12 3401 Clairemont Dr. San Diego, CA 92117

Name of Building: Building F

Location Description: Northeast corner of building

Type of Outlet: Double fountain

Description: Top left bubbler

Comments/Miscellaneous:

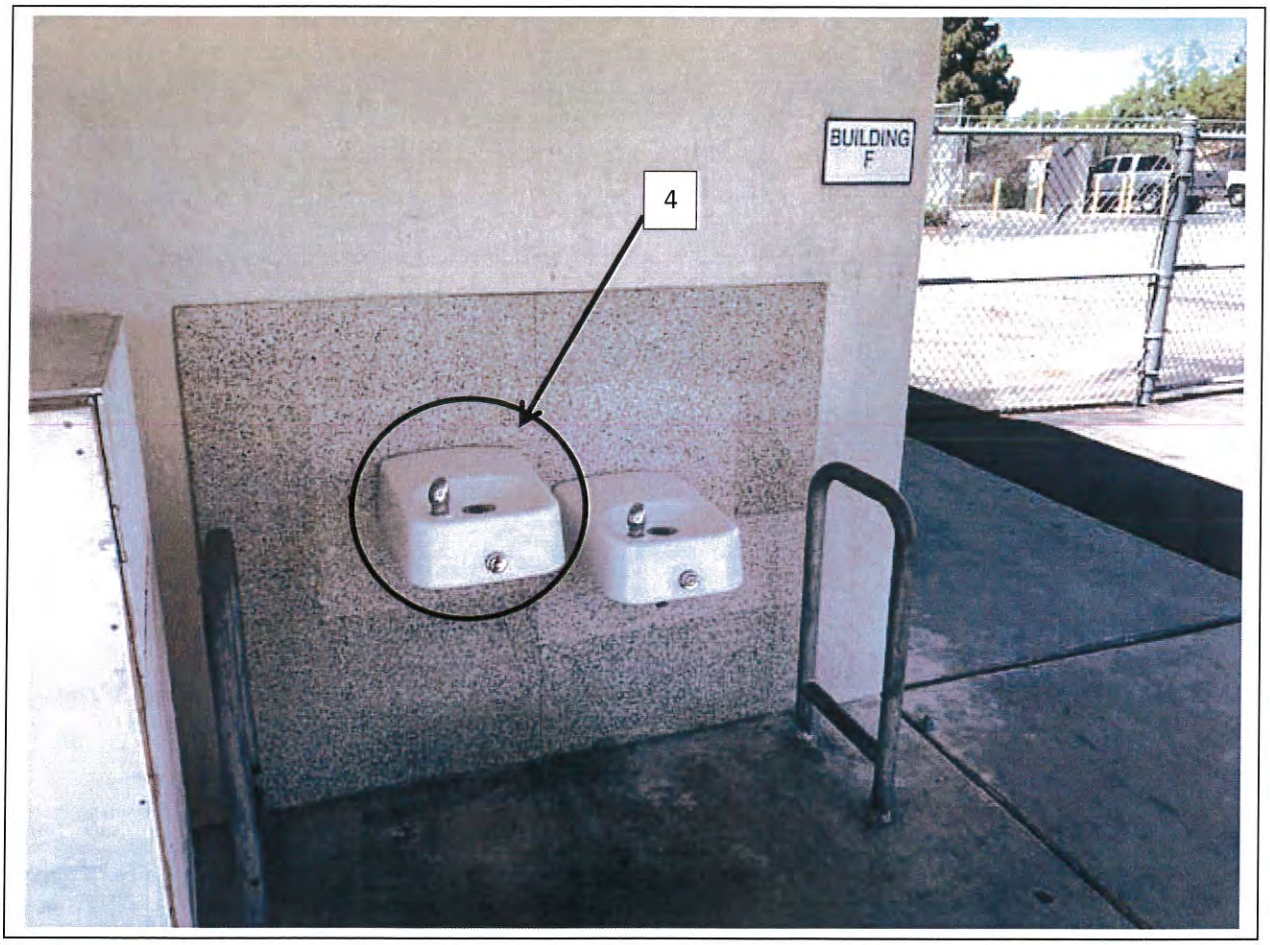

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173123

State Sample ID: 3710020-CAF-D

Date & Time Last Used: 5/23/17 @ 2200

Date & Time Sample Collected: 5/24/17 @ 0610

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 5

School: Whittier K-12 3401 Clairemont Dr. San Diego, CA 92117

Name of Building: Building B

Location Description: Northwest corner of building next to girls restroom

Type of Outlet: Double fountain

Description: Top right bubbler

Comments/Miscellaneous:

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1173124

State Sample ID: 3710020-CAF-E

Date & Time Last Used: 5/23/17 @ 2203

Date & Time Sample Collected: 5/24/17 @ 0613

Direct Sample ☒ Transfer Sample ☒

Name of Water System Sample Collector: A. Malloy

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

22-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1173120	Whittier K-12	24-MAY-2017	0618	A. Molloy	SAMPLE 1	
2	W1173121	Whittier K-12	24-MAY-2017	0608		SAMPLE 2	
3	W1173122	Whittier K-12	24-MAY-2017	0606		SAMPLE 3	
4	W1173123	Whittier K-12	24-MAY-2017	0610		SAMPLE 4	
5	W1173124	Whittier K-12	24-MAY-2017	0613		SAMPLE 5	

2413

Chain of Custody:

Relinquished by:	Received by:	Date & Time:	Comments:
Name: Alejandra Molloy Sign: AMolloy	Name: Sign:	5/24/17 @ 0645 Location: WQL A/V	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: AMolloy
Received Date: 5/24/17
LIMS Received Time: 0653
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: **Wilson Middle**

Physical Address of School: 3838 Orange Ave. San Diego, CA 92105-1038

First Bell: 8:30 am

Meeting Date: 3-22-2017

Sampling Plan Completion Date: 4-27-2017

Completed by Print Name: Cesar Jimenez

Signature: C.J. Date: 4-27-2017

School's Point of Contact for Sampling Assistance

Name: ~~Cesar Jimenez~~ Elizabeth Lara

Phone: ~~619-261-1588~~ 619-302-7616

Email: cjimenez2@sandi.net

City of San Diego 3710020

Approved By: Matt Nelson 5/1/2017 Matthew Nelson

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Wilson Middle - 3838 Orange Ave. San Diego, CA 92105-1038

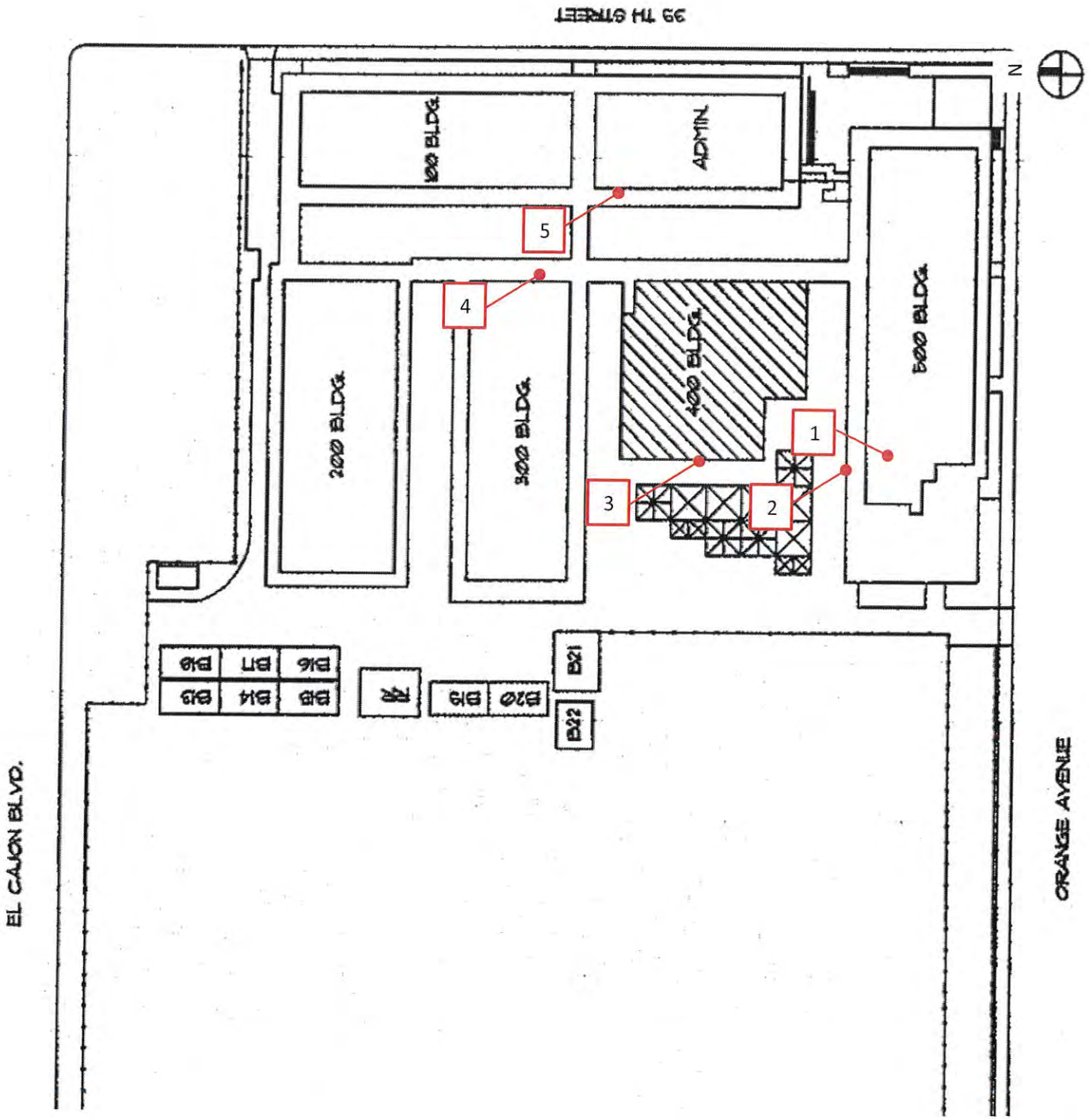

Sample No. 1

School: Wilson Middle

Name of Building: 500 Building

Location Description: North face of Interior wall of Kitchen

Type of Outlet: Faucet

Description: Faucet on a 2-compartment sink

Comments/Miscellaneous: SDUSD ID code #: 329-01

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169404

State Sample ID: 3710020-BED-A

Date & Time Last Used: 5/03/17 @ 2200

Date & Time Sample Collected: 5/04/17 @ 0605

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

site ~~source~~ ~~sin~~ had a drip.

Sample No. 2

School: Wilson Middle

Name of Building: 500 Building

Location Description: North face of north breezeway wall, near lunch shelter.

Type of Outlet: Bubbler

Description: Middle bubbler

Comments/Miscellaneous: SDUSD ID code #: 329-02

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169405

State Sample ID: 3710020-BED-B

Date & Time Last Used: 5/03/17 @ 2200

Date & Time Sample Collected: 5/04/17 @ 0600

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 3

School: Wilson Middle

Name of Building: 400 Building

Location Description: Exterior west wall

Type of Outlet: Bubbler

Description: Left bubbler on 2-double fountains

Comments/Miscellaneous: SDUSD ID code #: 329-03

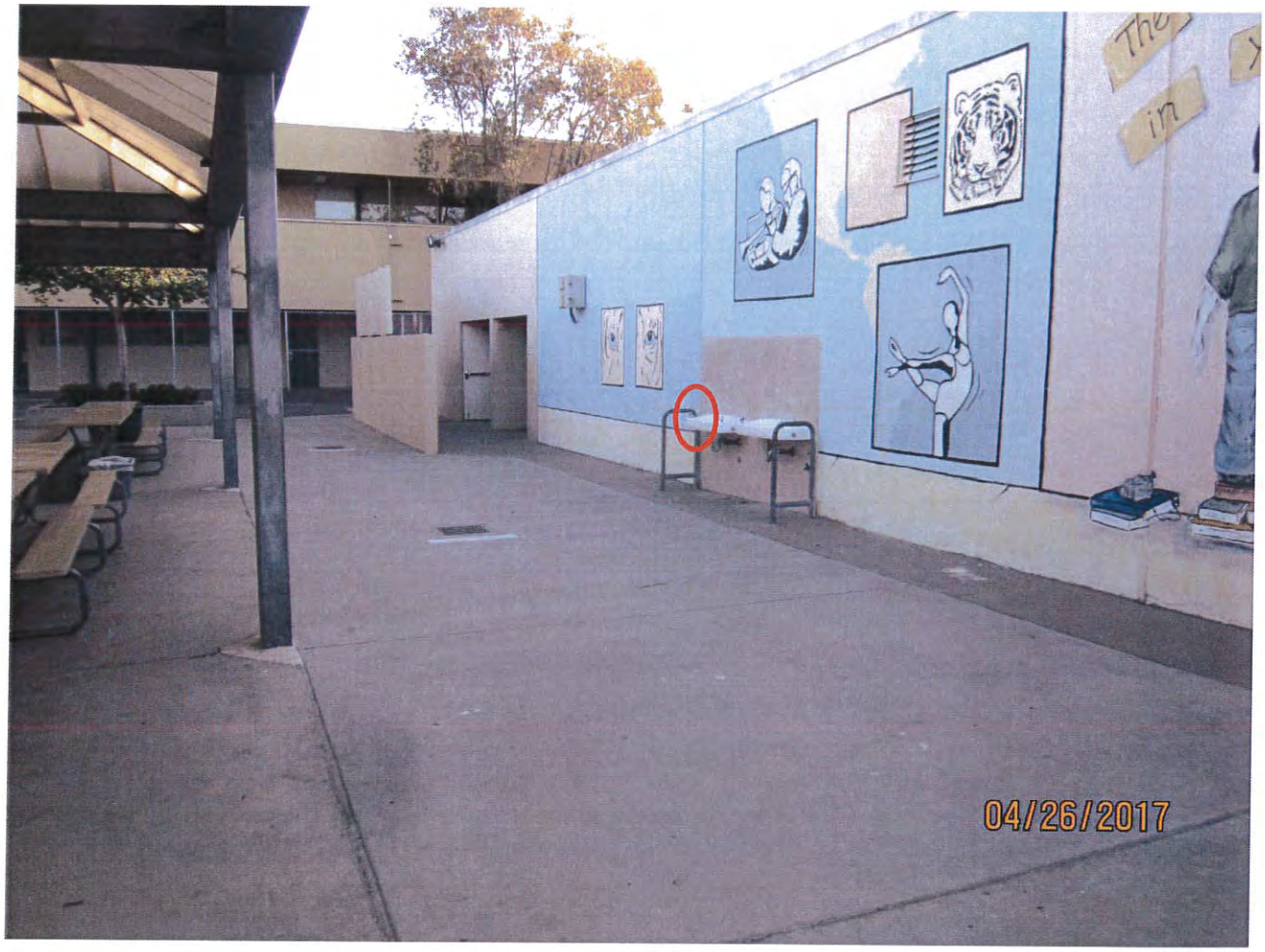

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169406

State Sample ID: 3710020-BED-C

Date & Time Last Used: 5/03/17 @ 2200

Date & Time Sample Collected: 5/04/17 @ 0609

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 4

School: Wilson Middle

Name of Building: Administration Building

Location Description: Exterior West wall

Type of Outlet: Bubbler

Description: Left/lower bubbler on a double fountain

Comments/Miscellaneous: SDUSD ID code #: 329-04

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169407

State Sample ID: 3710020-BED-D

Date & Time Last Used: 5/03/17 @ 2200

Date & Time Sample Collected: 5/04/17 @ 602

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Sample No. 5

School: Wilson Middle

Name of Building: 300 Building

Location Description: Exterior east wall

Type of Outlet: Bubbler

Description: Left bubbler on a double fountain

Comments/Miscellaneous: SDUSD ID code #: 329-05

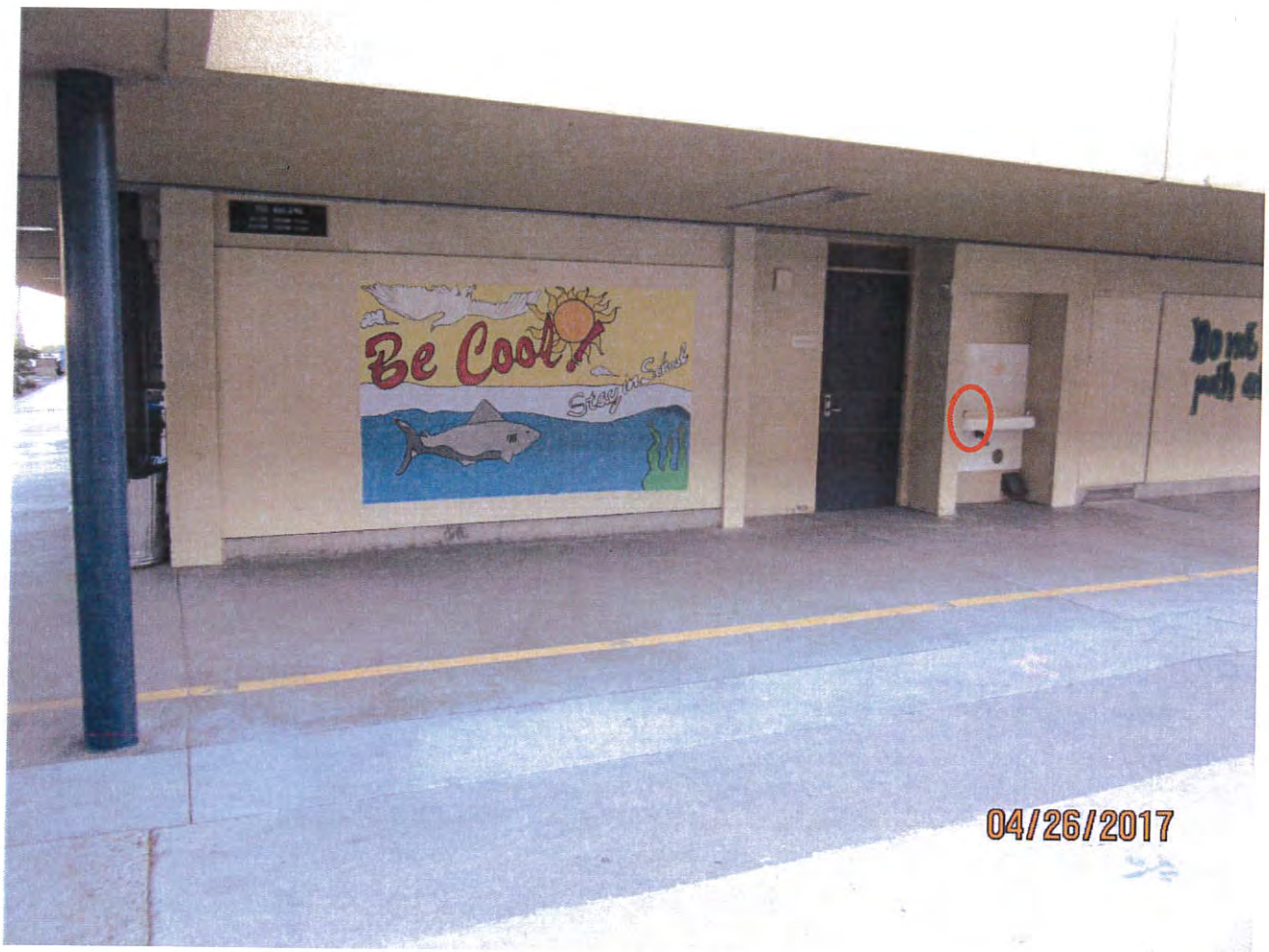

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1169408

State Sample ID: 3710020-BED-E

Date & Time Last Used: 5/03/17 ~~@ 6:13~~ @ 2200

Date & Time Sample Collected: 5/04/17 @0613

Direct Sample ☒ Transfer Sample ☐

Name of Water System Sample Collector: A. Molloy

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

03-May-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1169404	Wilson Middle	04-MAY-2017	0605	A. Molloy	SAMPLE 1	
2	W1169405	Wilson Middle	04-MAY-2017	0608		SAMPLE 2	
3	W1169406	Wilson Middle	04-MAY-2017	0609		SAMPLE 3	
4	W1169407	Wilson Middle	04-MAY-2017	0612		SAMPLE 4	
5	W1169408	Wilson Middle	04-MAY-2017	0613		SAMPLE 5	

2421

Chain of Custody:

Relinquished by: Name: Alejandra Molloy Sign: AMolloy	Received by: Name: ~~Tom~~ Burger Sign: TM B Burger	Date & Time: 5/04/17 0644 Location: WQL A1V	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 5-4-17
LIMS Received Time: 0717
Reviewed By:

Drinking Water Sampling in City of San Diego Public Water System Schools

Lead Sampling Plan

Water System Name: City of San Diego

Water System Number: 3710020

DOE School Name: Zamorano Elementary

Physical Address of School: 2655 Casey St, San Diego, CA 92139-2989

First Bell: 7:35 am

Meeting Date: 03/22/2017

Sampling Plan Completion Date: 03/31/2017

Completed by Print Name: Ginette Commins

Signature: GCommins Date: 03/31/2017

School's Point of Contact for Sampling Assistance

Name: Ginette Commins

Phone: (858) 627-7201

Email: gcommins@sandi.net

City of San Diego 3710020

Approved By: Tom B. Burger 4-7-17 Tom Burger

Signature & Date Print Name

Send completed sampling plan to:

Public Utilities Department
Attn: Lead Testing in Schools
5530 Kiowa Drive
La Mesa, CA 91942-1331

Or email to: tburger@sandiego.gov

A MS word document is preferred in addition to a scanned signed page 1.

For any questions on completing the sampling plan, contact Tom Burger at the above email or numbers listed: Office: 619-668-3234 Cell: 619-218-1193

Sample Locations acknowledgement

School and Address: Zamorano Elementary, 2655 Casey St, San Diego, CA 92139-2989

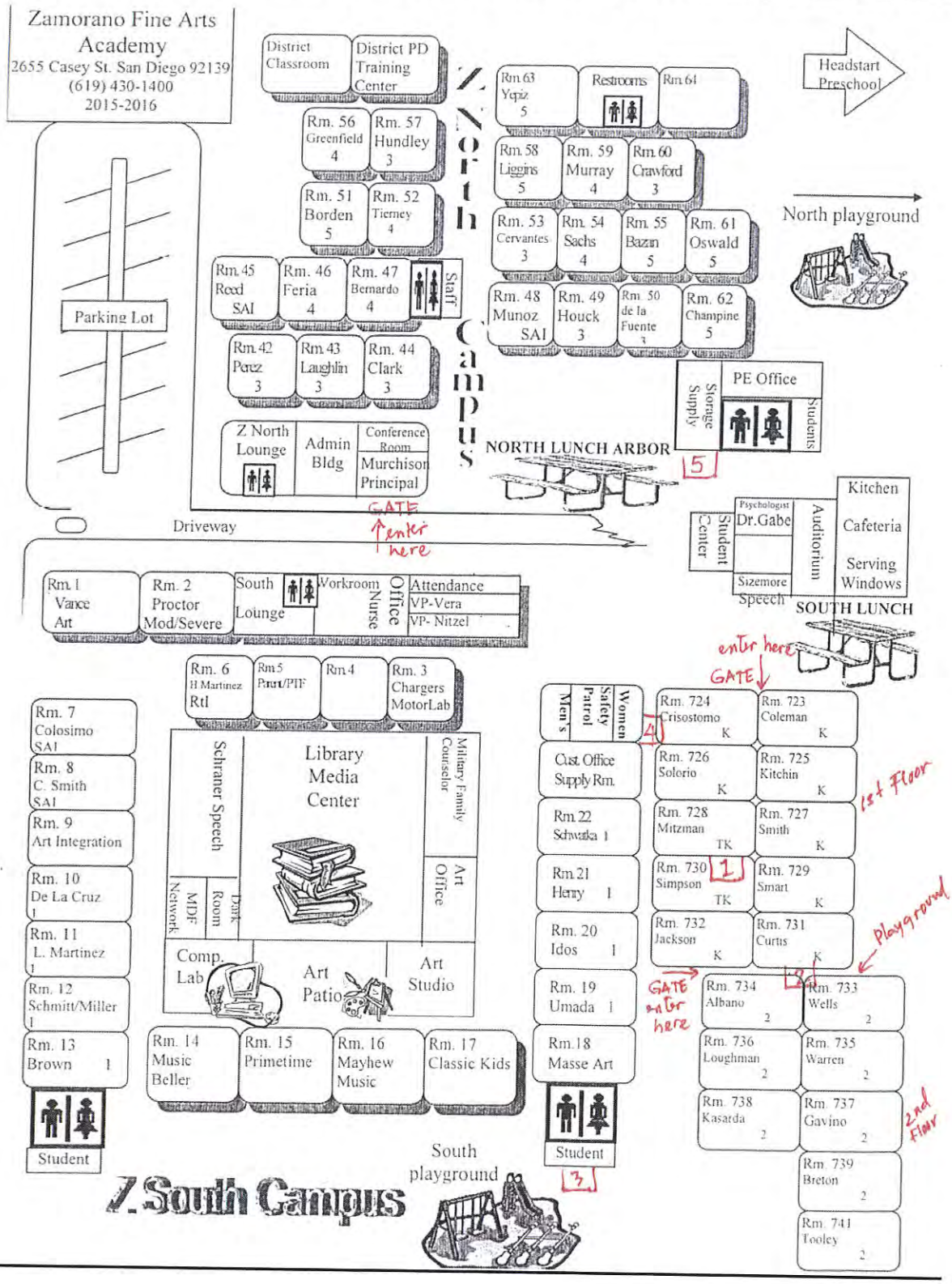

Sample No. 1

School: Zamorano Elementary

Name of Building: 700 @ South Campus

Location Description: Room 730-Transitional Kindergarten, classroom sink/faucet

Type of Outlet: bubbler

Description: bubbler at sink with lever handle

Comments/Miscellaneous: indoor drinking water source/SDUSD Location ID# 0125

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165247

State Sample ID: 3710020-ACI-A

Date & Time Last Used: 040717 @ 1800

Date & Time Sample Collected: 040817 @ 0840

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: G-W=

Sample No. 2

School: Zamorano Elementary

Name of Building: 700 @ South Campus

Location Description: Wall mounted exterior, 1st Floor, between Girl's and Boy's Restrooms, facing playground

Type of Outlet: bubbler

Description: lower/right on a dual fountain

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location ID# 0125

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165248

State Sample ID: 3710020-ACI-B

Date & Time Last Used: 040717 @ 1900

Date & Time Sample Collected: 040817 @ 0843

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector GWS

Sample No. 3

School: Zamorano Elementary

Name of Building: 1st Grade Classrooms @ South Campus

Location Description: Wall mounted exterior, between Girl's and Boy's Restrooms, facing south playground

Type of Outlet: bubbler

Description: lower/left on a dual fountain

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location ID# 0125

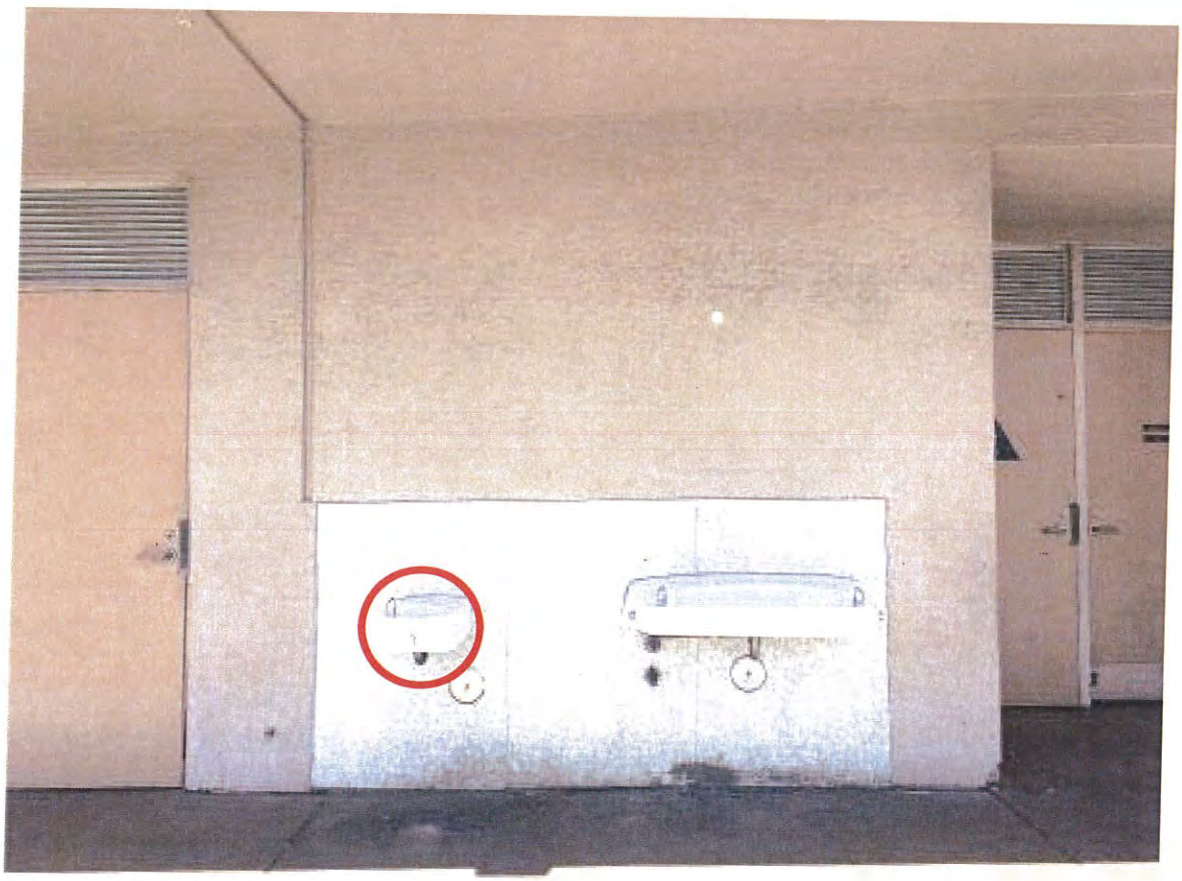

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165249

State Sample ID: 3710020-ACI-C

Date & Time Last Used: 040717 @ 1800

Date & Time Sample Collected: 040817 @ 0846

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: JWS

Sample No. 4

School: Zamorano Elementary

Name of Building: 1st Grade Classrooms @ South Campus

Location Description: Wall mounted exterior, next to Supply Room, facing South lunch arbor

Type of Outlet: bubbler

Description: lower/left on a dual fountain

Comments/Miscellaneous: drinking water source/SDUSD Location ID# 0125

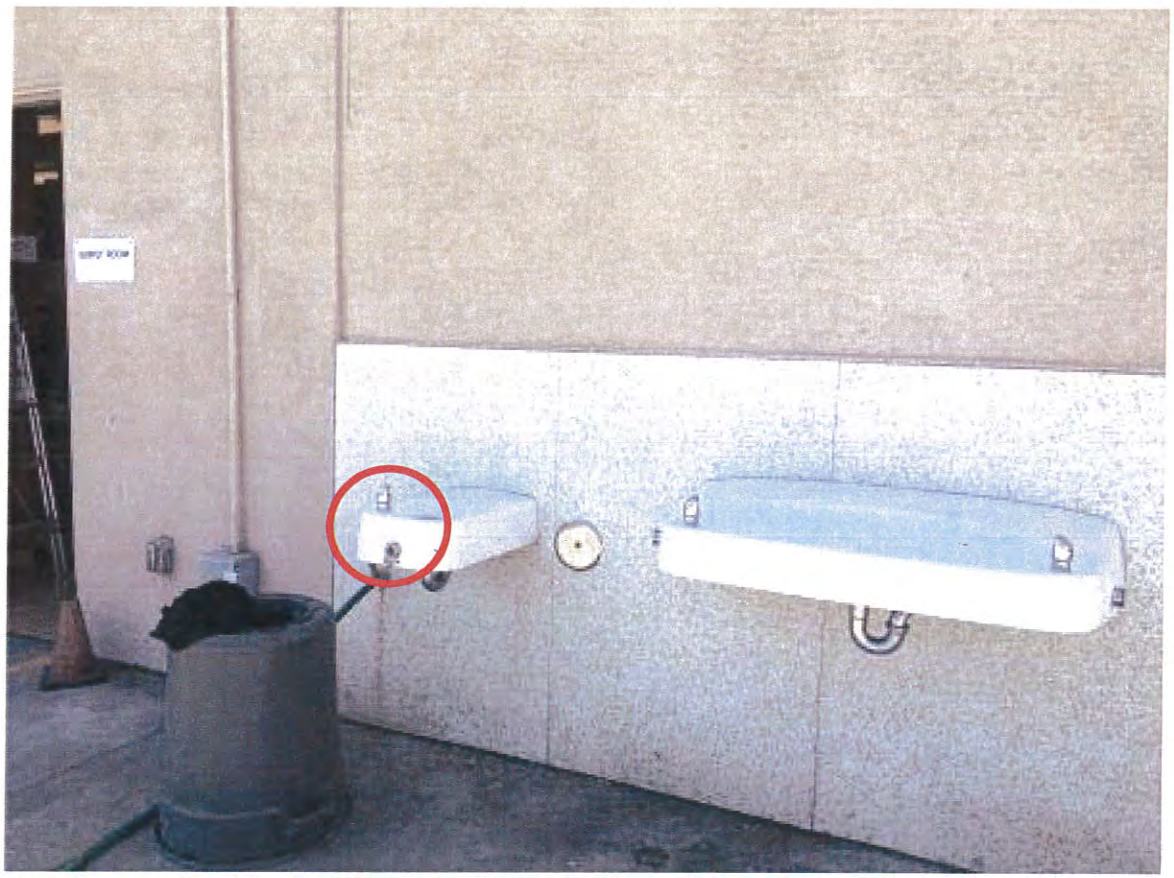

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165250

State Sample ID: 3710020-ACI-D

Date & Time Last Used: 040717 @ 1800

Date & Time Sample Collected: 040817 @ 0835

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: JWE

Sample No. 5

School: Zamorano Elementary

Name of Building: Restrooms @ North Campus

Location Description: Wall mounted exterior, next to Girl's Restrooms, facing North lunch arbor

Type of Outlet: bubbler

Description: upper/right bubbler on a dual fountain

Comments/Miscellaneous: outdoor drinking water source/SDUSD Location ID# 0125

City use only below this line

Sample type Initial ■ 1st Follow-up ☐ 2nd Follow-up ☐ Post-corrective action ☐

LIMS Sample ID: W1165251

State Sample ID: 3710020-ACI-E

Date & Time Last Used: 040717 @ 1800

Date & Time Sample Collected: 040817 @ 0850

Direct Sample ☐ Transfer Sample ☑

Name of Water System Sample Collector: [illegible]

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 4/18/17

San Diego Unified School District

Zamarano Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1165247	04/08/17	08:40 AM	SAMPLE 1	3710020-ACI-A	< 5	ug/L
W1165248	04/08/17	08:43 AM	SAMPLE 2	3710020-ACI-B	< 5	ug/L
W1165249	04/08/17	08:46 AM	SAMPLE 3	3710020-ACI-C	< 5	ug/L
W1165250	04/08/17	08:35 AM	SAMPLE 4	3710020-ACI-D	< 5	ug/L
W1165251	04/08/17	08:50 AM	SAMPLE 5	3710020-ACI-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Bldg 700 South Campus, Kindergarden Room 730 Sink Bubbler
SAMPLE 2	Bldg 700 South Campus, 1st Floor between Girl's and Boy's restrooms facing playground, dual fountain right bubbler
SAMPLE 3	1st Grade Room South Campus, Between Girl's and Boy's restrooms facing playground, left single fountain bubbler
SAMPLE 4	1st Grade Room South Campus, next to Supply Room, left single fixture bubbler
SAMPLE 5	Restrooms North Campus, next to Girl's restroom facing lunch arbor, dual fountain right bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B Burger

Tom Burger, Associate Chemist

Exhibit 31

Water Quality Chemistry Services
Chain of Custody Form

07-Apr-2017

Client Name: Water Quality Chemistry Services Address: 5530 Kiowa Dr La Mesa, CA 91942	Contact Name: Tom Burger Phone #: (619) 668-3234	Special Notes:

	Sample ID	Location	Sample_Date	Sample_Time	Sampled by:	Description	Analysis Requested
1	W1165247	Zamarano Elementary	08-APR-2017	0840	Jweston	SAMPLE 1	
2	W1165248	Zamarano Elementary	08-APR-2017	0843		SAMPLE 2	
3	W1165249	Zamarano Elementary	08-APR-2017	0846		SAMPLE 3	
4	W1165250	Zamarano Elementary	08-APR-2017	0835		SAMPLE 4	
5	W1165251	Zamarano Elementary	08-APR-2017	0850		SAMPLE 5	

2430

Chain of Custody:

Relinquished by: Name: JERRY WESTON Sign:	Received by: Name: Tom Burger Sign: Tom B. Burger	Date & Time: 4-8-17 1026 Location: WQL Lab	**Comments:**
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	
Relinquished by: Name: Sign:	Received by: Name: Sign:	Date & Time: Location:	

Received By: TBurger
Received Date: 4-8-17
LIMS Received Time: 1135
Reviewed By: N

1902

Sampling schedule 4/4/2016

Encanto Elementary School – Contact staff: Dan Lopez, Safety Tech
- Horton Elementary School – Contact Staff: Lori Sherman, Safety Tech
- Baker Elementary School - Contact Staff: Elizabeth Lara, Safety Tech
- Boone Elementary School - Contact Staff: Ginette Commins, Safety Tech
- Perry Elementary School - Contact Staff: Cesar Jimenez, Safety Tech

Sampling schedule 4/5/2017

Rolando Park Elementary School – Contact staff: Dan Lopez
- Johnson Elementary School – Contact staff: Lori Sherman
- Chavez Elementary School – Contact Staff: Elizabeth Lara
- Fulton Elementary School – Contact Staff: Ginette Commins
- Bell Middle School – Contact Staff: Cesar Jimenez

Sampling plans have been approved for the following five schools and water quality staff will collect water samples 6 am tomorrow Thursday April 6;

Mann Middle School – Contact staff: Dan Lopez , City Sampler: Walt Mulderig

Webster (K-6) Elementary School – Contact staff: Lori Sherman, City Sampler: Dan Sowersby

Balboa Elementary School – Contact Staff: Elizabeth Lara, City Sampler: Jerry Weston

Freese Elementary School – Contact Staff: Ginette Commins, City Sampler: Gloria Siqueiros

Bethune (k-8) School – Contact Staff: Ginette Commins, City Sampler: Tom Burger

Fulton (k-8) School – Contact Staff: Ginette Commins, City Sampler: Dave Mayo (re-sample) water was off this morning

Sampling plans have been approved for the following five schools and water quality staff will collect water samples 6 am tomorrow Friday April 7:

- Millennial Tech Middle School – Contact staff: Timothy Brown City Sampler: Alejandra Molloy

-Oak Park Elementary School – Contact staff: Daniel Lopaz, City Sampler: Dan Sowersby

- Rowan Elementary School – Contact Staff: Elizabeth Lara, City Sampler: Tom Burger - Morse

Morse High School – Contact Staff: Ginette Commins, City Sampler: Gloria Siqueiros

- Thrive Charter School – Contact Staff: Daniel Lopaz, City Sampler: Dave Mayo

We are planning to collect water samples tomorrow Saturday April 8. The following are the projected schools:

Bandini Elementary School – Contact staff: Ginette Commins City Sampler: Jerry Weston

Lincoln High School – Contact staff: Ginette Commins, City Sampler: Jerry Weston

Knox Middle School – Contact Staff: Ginette Commins, City Sampler: Jerry Weston

Valencia Park Elementary School – Contact Staff: Ginette Commins, City Sampler: Jerry Weston

Zamorano Elementary School - Contact Staff: Ginette Commins, City Sampler: Jerry Weston

Tomorrow Tuesday April 11 sampling schedule and staff:

Audubon Elementary School – Contact staff: Ginette Commins City Sampler: Erik Alvarenga

Nye Elementary School – Contact staff: Dan Lopez, City Sampler: Dan Sowersby

Porter North Elementary School – Contact Staff: Lori Sherman, City Sampler: Josh Rambo

Porter South Elementary School – Contact Staff: Lori Sherman, City Sampler: Josh Rambo

Pacific View Leadership Elementary School – Contact Staff: Cesar Jimenez, City Sampler: Dave Mayo

Tomorrow Wednesday April 12 sampling schedule and staff:

Knox Elementary School Contact staff: Elizabeth Lara City Sampler: Dan Sowersby

Penn Elementary School – Contact Staff: Cesar Jimenez, City Sampler: Tom Burger

Gompers Pre Academy – Contact staff: Lori Sherman, City Sampler: Josh Rambo

Iftin Charter School – Contact Staff: Dan Lopez, City Sampler: Dave Mayo

Crawford High School – Contact Staff: Ginette Commines City Sampler: Erik Alvarenga

Thursday April 13 sampling schedule and staff:

Paradis Hills Elementary School – Zone 4 - Contact staff: Cesar Jimenez City Sampler: Erik Alvarenga

Franklin Elementary School – Zone 3 – Contact Staff: Ginette Commines , City Sampler: David Mayo

School of Creative & performing Arts – Zone 4 – Contact staff: Dan Lopez, City Sampler: Dan Sowersby

Dailard Elementary School- Zone 3 – Contact Staff: Lori Sherman City Sampler: Josh Rambo

Foster Elementary School – Zone 3 – Contact Staff: Elizabeth Lara City Sampler: Alejandra Molloy

Friday April 14 sampling schedule and staff:

- Gage Elementary School – Zone 3 - Contact staff: Elizabeth Lara City Sampler: Erik Alvarenga

- Green Elementary School – Zone 3 – Contact Staff: Lori Sherman, City Sampler: David Mayo

- Clay Elementary School – Zone 3 – Contact staff: Dan Lopez, City Sampler: Tom Burger

- Memorial Prep Middle School- Zone 3 – Contact Staff: Cesar Jimenez City Sampler: Josh Rambo

- Rodriguez Elementary School – Zone 3 – Contact Staff: Ginette Commines City Sampler: Josh Rambo

Saturday April 15 sampling schedule and staff:

- Adams Elementary School – Zone 3 - Contact staff: Lori Sherman City Sampler: Dave mayo

Hardy Elementary School – Zone 3 – Contact Staff: Lori Sherman, City Sampler: David Mayo

- O'Farrell Charter School – Zone 4 – Contact staff: Lori Sherman, City Sampler: Dave mayo

- Chollas/Mead Elementary School- Zone 4 – Contact Staff: Lori Sherman City Sampler: Dave mayo

- Hoover High School – Zone 3 – Contact Staff: Lori Sherman City Sampler: Dave mayo

Tuesday April 18 Sampling schedule and staff:

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- Benchley/Weinberger Elementary School – Zone 3 - Contact staff: Elizabeth Lara City Sampler: Dan Sowersby

- Garfield High School – Zone 3 – Contact Staff: Lori Sherman, City Sampler: Tom Burger

- Grant K-8 – Zone 3– Contact staff: Ginette Commins City Sampler: Erik Alvarenga

- Hearst Elementary School- Zone 3 – Contact Staff: Dan Lopez City Sampler: Alejandra Molloy

- Henry High School – Zone 3 – Contact Staff: Cesar Jimenez y Sampler: Walt Mulderig

- Wednesday April 19 Sampling schedule and staff:

- Chollas/Mead ES – Zone 4 Contact staff: John Baker City Sampler: Tom Burger

- Holly Drive Charter – Zone 4 Contact Staff: Lori Sherman, City Sampler: Dave Mayo

- Lewis Middle School – Zone 3 Contact staff: Ginette Commins City Sampler: Alejandra Molloy

- Mckinley ES School- Zone 3 Contact Staff: Elizabeth Lara City Sampler: Dan Sowersby

- Pershing Middle School – Zone 3 Contact Staff: Cesar Jimenez City Sampler: Josh Rambo

Thursday April 20 Sampling schedule and staff:

- Keiller Leadership Academy Charter School – Zone 4 Contact staff: Ginette Commins City Sampler: Erik Alvarenga

- Roosevelt Middle School – Zone 3 Contact Staff: Elizabeth Lara, City Sampler: Dan Sowersby

- San Diego High School – Zone 3 Contact staff: Dan Lopez City Sampler: Dave Mayo

- Sherman ES School- Zone 3 Contact Staff: Lori Sherman City Sampler: Tom Burger

- San Diego Global Charter School – Zone 4 Contact Staff: Cesar Jimenez City Sampler: Alejandra Molloy

Tomorrow Friday April 21 Sampling schedule and staff:

- Ballard Charter School – Zone 3 Contact staff: Cesar Jimenez City Sampler: Dave Mayo

- ALBA High School – Zone 3 Contact Staff: Dan Lopez City Sampler: Alejandra Molloy

- Arroyo Paeo Charter School – Zone 3 Contact Staff: Dan Lopez, City Sampler: Alejandra Molloy

- Jefferson ES School – Zone 3 Contact staff: Lori Sherman City Sampler: Tom Burger

- Washington ES School- Zone 3 Contact Staff: Elizabeth Lara City Sampler: Dan Sowersby

- Lewis Middle School (one re-resample) – Zone 3 Contact Staff: Ginette Commins City Sampler: Alejandra Molloy

- Saturday April 22 Sampling schedule and staff:

- Wegeforth ES – Zone 2 Contact staff: Lori Sherman City Sampler: Alejandra Molloy

- ALBA High School – Zone 3 Contact Staff: Lori Sherman City Sampler: Alejandra Molloy

- Arroyo Paseo Charter School– Zone 3 Contact Staff: Lori Sherman City Sampler: Alejandra Molloy

- Angier Elementary School - Zone 2 Contact staff: Lori Sherman City Sampler: Alejandra Molloy

- Florence Elementary School - Zone 3 Contact Staff: Lori Sherman City Sampler: Alejandra Molloy

- Chesterton Elementary School - Zone 3 Contact Staff: Lori Sherman City Sampler: Alejandra Molloy
- Carson ES – Zone 3 Contact Staff: Lori Sherman City Sampler: Alejandra Molloy

School Sampling Schedule – Tuesday April 25, 2017

School Name	School Contact Staff	City Sampler Name
Hage ES - Zone 2	Lori Sherman	Jerry Weston
Hickman ES – Zone 2	Ginette Commins	Dan Sowersby
Sandburg ES – Zone 2	Ginette Commins	Dan Sowersby
Mason ES - Zone 2	Cesar Jimenez	Erik Alvarenga
Taft MS – Zone 2	Elizabeth Lara	Tom Burger
Wegeforth ES – Zone 2	Elizabeth Lara	Tom Burger (one sample)

School Sampling Schedule – Wednesday April 26, 2017

School Name	School Contact Staff	City Sampler Name
Scripps Ranch HS- Zone 2	Elizabeth Lara	Matt Nelson
Walker ES – Zone 2	Ginette Commins	Alejandra Molloy
Tubman Charter School– Zone 3	Cesar Jimenez	Tom Burger
Wangenheim MS - Zone 2	Lori Sherman	Dan Sowersby
Twain HS-Linda Vista – Zone 3	Dan Lopez	Jerry Weston

School Sampling Schedule – Thursday April 27, 2017

School Name	School Contact Staff	City Sampler Name
King Chavez (31st St) – Zone 3	Cesar Jimenez	Alejandra Molloy
Miramar Ranch – Zone 2	Lori Sherman	Feryal Moshavegh
Einstein Academy – Zone 3	Ginette Commins	Tom Burger
Dingeman ES- Zone 2	Elizabeth Lara	Dan Sowersby
Ross – Zone 2	Dan Lopez	Jerry Weston

School Sampling Schedule – Friday April 28, 2017

School Name	School Contact Staff	City Sampler Name
EB Scripps – Zone 2	Elizabeth Lara	Feryal Moshavegh
Hancock - Zone 2	Ginette Commins	Erik Alvarenga
Linda Vista ES – Zone 2	Cesar Jimenez	Josh Rambo
Miller ES- Zone 2	Lori Sherman	Erik Alvarenga
East Village – Zone 3	Dan Lopez	Dave Mayo

School Sampling Schedule – Saturday April 29, 2017

School Name	School Contact Staff	City Sampler Name
Serra Hs – Zone 2	Ginette Commins	Alejandra Molloy
Jones ES - Zone 2	Ginette Commins	Alejandra Molloy
Juarez ES – Zone 2	Ginette Commins	Alejandra Molloy
Marshall MS- Zone 2	Ginette Commins	Alejandra Molloy
Normal Heights ES– Zone 3	Ginette Commins	Alejandra Molloy

School Sampling Schedule – Wednesday May 3, 2017

No of Schools Sampled	Date	School Name	School Contact Staff	City Sampler Name
106	5/3/2017	Burbank ES – Zone 3	Timothy Brown	Jerry Weston
107	5/3/2017	Darnell Charter – Zone 4	Daniel Lopez	Dave Mayo
108	5/3/2017	Central ES – Zone 3	Ginette Commins	Alejandra Molloy
109	5/3/2017	Cherokee Point ES – Zone 3	Cesar Jimenez	Alejandra Molloy
110	5/3/2017	Garfield ES – Zone 3	Elizabeth Lara	Dan Sowersby

School Sampling Schedule – Thursday May 4, 2017

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
111	5/4/2017	Golden Hills K-8	3	Timothy Brown	Dave Mayo
112	5/4/2017	Ibarra ES	3	Daniel Lopez	Dan Sowersby
113	5/4/2017	Kimbrough ES	3	Ginette Commins	Josh Rambo
114	5/4/2017	Logan ES	3	Cesar Jimenez	Jerry Weston
115	5/4/2017	Wilson MS	3	Elizabeth Lara	Alejandra Molloy
122	5/4/2017	PL HTH – 7 campuses		Paul Dooley	Matt Nelson

San Diego Unified School Sampling Schedule – Friday May 5, 2017

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
116	5/5/2017	Language Academy	3	Daniel Lopez	Dave Mayo
117	5/5/2017	Euclid ES	3	Timothy Brown	Dan Sowersby
118	5/5/2017	Rosa Parks ES – sampled all but one, hot water was on, will go back tomorrow	4	Ginette Commins	Josh Rambo
119	5/5/2017	Joyner ES	4	Ginette Commins	Jerry Weston
120	5/5/2017	Challenger MS	2	Elizabeth Lara	Alejandra Molloy

Non San Diego Unified Schools

No. Of Schools sampled	Date	School Name	Type	School Contact Staff	City Sampler Name
8	5/4/17 - 5/5/2017	Point Loma HTH –7 Campus , 8 sample plans		Paul Dooley	Matt Nelson
1	5/5/2017	Urban Discovery	Private	Tony Romano	Tom Burger

San Diego Unified School Sampling Schedule – Saturday May 6, 2017

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
121	5/6/2017	De Portola MS	2	Ginette Commins	Alejandra Molloy
122	5/6/2017	Farb Ms	2	Ginette Commins	Alejandra Molloy
123	5/6/2017	Cubberly	2	Ginette Commins	Alejandra Molloy
124	5/6/2017	Kumeyaay	2	Ginette Commins	Alejandra Molloy
125	5/6/2017	Marshall ES	4	Ginette Commins	Alejandra Molloy
	5/6/2017	Clark MS, collecting one sample	4	Ginette Commins	Alejandra Molloy
	5/6/2017	Rosa Parks ES – collect 1 sample	4	Ginette Commins	Alejandra Molloy

Non San Diego Unified Schools

No. Of Schools sampled	Date	School Name	Type	School Contact Staff	City Sampler Name
7	5/4/17 - 5/5/2017	Point Loma HTH –7 Campus , 8 sample plans		Paul Dooley	Matt Nelson
1	5/5/2017	Urban Discovery	Private	Tony Romano	Tom Burger

Sampling Schedule and Staff Name Tuesday May 9, 2017

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
126	5/9/2017	SD CO-Op – Linda Vista	2	Cesar Jimenez	Tom Burger
127	5/9/2017	Doyle	1	Dan Lopez	Erik Alvarenga
128	5/9/2017	Vista Grande	2	Elizabeth Lara	Alejandra Molloy
129	5/9/2017	Fletcher	2	Tim Brown	Matt Nelson
130	5/9/2017	Lafayette	4	Ginette Commins	Dan Sowersby

South Bay Union

George Nicoloff Francisco (I didn't get a last name) Jerry Weston

Sampling Schedule and Staff Name Wednesday May 10, 2017

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
131	5/10/2017	Tierrasnata ES	2	Cesar Jimenez	Alejandra Molloy
132	5/10/2017	Mira Mesa HS	2	Elizabeth Lara	Dan Sowersby
133	5/10/2017	Twain Mesa	2	Elizabeth Lara	Dan Sowersby
134	5/10/2017	Alcott ES	1	Ginette Commins	Dave Mayo
135	5/10/2017	Clairemont HS	1	Tim Brown	Josh Rambo
136	5/10/2017	Edison ES	3	Dan Lopez	Matt Nelson

Sampling Schedule and Staff Name Thursday May 11, 2017

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
145	5/11/2017	Bay Park	1	Cesar Jimenez	Tom Burger
146	5/11/2017	Bird Rock	1	Elizabeth Lara	Erik Alvarenga
147	5/11/2017	Crown Pt	1	Ginette Commins	Brian Knerr
148	5/11/2017	Curie	1	Tim Brown	Jessica Mathews
149	5/11/2017	Field	1	Daniel Lopez	Jerry Weston

Sampling Schedule and Staff Name Friday May 12, 2017

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
150	5/12/2017	Jerabek ES	2	Elizabeth Lara	Matt Nelson
151	5/12/2017	Innovation MS	1	Cesar Jimenez	Alejandra Molloy
152	5/12/2017	Kearny HS	2	Daniel Lopez	Josh Rambo
153	5/12/2017	La Jolla ES	1	Ginette Commins	Jessica Mathews
154	5/12/2017	La Jolla HS	1	Timothy Brown	Erik Alvarenga

Sampling Schedule and Staff Name Saturday May 13, 2017

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
155	5/13/2017	Lindbergh Schwitzer East	2	Ginette Commins	Matt Nelson
156	5/13/2017	Lindbergh Schwitzer West	2	Ginette Commins	Matt Nelson
157	5/13/2017	Longfellow	1	Ginette Commins	Matt Nelson
158	5/13/2017	Madison HS	1	Ginette Commins	Matt Nelson
159	5/13/2017	Montgomery MS	2	Ginette Commins	Matt Nelson
160	5/13/2017	Muirlands MS	1	Ginette Commins	Matt Nelson

Sampling Schedule and Staff Name Tuesday May 16, 2017

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
161	5/16/2017	Hamilton ES	4	Daniel Lopez	Matt Nelson
162	5/16/2017	Ericson ES	2	Elizabeth Lara	Alejandra Molloy
163	5/16/2017	Perkins ES	3	Timothy Brown	Jerry Weston
164	5/16/2017	Mission Bay HS	1	Ginette Commins	Josh Rambo
165	5/16/2017	America's Finest Charter	4	Cesar Jimenez	Tom Burger

Sampling Schedule and Staff Name Wednesday May 17, 2017

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
166	5/17/2017	Salk	2	Timothy Brown	Alejandra Molloy
167	5/17/2017	Riley	2	Cesar Jimenez	Josh Rambo
168	5/17/2017	Pacific Beach ES	1	Ginette Commins	Jerry Weston
169	5/17/2017	Pacific Beach MS	1	Ginette Commins	Josh Rambo
170	5/17/2017	Ocean Beach	1	Daniel Lopez	Tom Burger
171	5/17/2017	Mt Everest	2	Elizabeth Lara	Matt Nelson
172	5/17/2017	Muir	2	Elizabeth Lara	Matt Nelson

Thursday May 18, 2017 Sampling Schedule and Staff:

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
173	5/18/2017	Preckels	1	Daniel Lopaz	Dan Sowersby
174	5/18/2017	Silver Gate	1	Timothy Brown	Tom Burger
175	5/18/2017	Sessions	1	Ginette Commins	Erik Alvarenga
176	5/18/2017	Standley	1	Cesar Jimenez	Alejandra Molloy
177	5/18/2017	Sequoia	1	Elizabeth Lara	Matt Nelson

Friday May 19, 2017 Sampling Schedule and Staff:

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
178	5/19/2017	Torrey Pines	1	Ginette Commins	Brian Knerr
179	5/19/2017	Twain @ Morse	4	Daniel Lopaz	Matt Nelson
180	5/19/2017	Toler	1	Timothy Brown	Josh Rambo
181	5/19/2017	University City HS	1	Cesar Jimenez	Alejandra Molloy
182	5/19/2017	Whitman	1	Lori Sherman	Dan Sowersby

Saturday May 20, 2017 Sampling Schedule and Staff:

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
183	5/20/2017	Hawthorne	1	Lori Sherman	Matt Nelson
184	5/20/2017	Creating Performing Media Art	1	Lori Sherman	Matt Nelson
185	5/20/2017	Dana	1	Lori Sherman	Matt Nelson
186	5/20/2017	Innovation MS	1	Lori Sherman	Matt Nelson
187	5/20/2017	Cabrillo	1	Lori Sherman	Matt Nelson

Tuesday, May 23, 2017 Sampling Schedule and Staff:

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
193	5/23/2017	Vista Hill	3	Cesar Jimenez	Matt Nelson
194	5/23/2017	Marcy	3	Timothy Brown	Dennis Brown
195	5/23/2017	Kavod Es Charter	3	Daniel Lopez	Feryal Moshavegh
196	5/23/2017	Cadman	1	Ginette Commins	Alejandra Molloy
197	5/23/2017	Marston	1	Elizabeth Lara	Brian Knerr

Wednesday, May 24, 2017 Sampling Schedule and Staff:

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
198	5/24/2017	Whittier Center	1	Elizabeth Lara	Alejandra Molloy
199	5/24/2017	Dewey	1	Ginette Commins	Matt Nelson
200	5/24/2017	Loma Portal	1	Daniel Lopez	Jerry Weston
201	5/24/2017	Correia	1	Timothy Brown	Josh Rambo
202	5/24/2017	Sunset View	1	Cesar Jimenez	Brian Knerr

Thursday, May 25, 2017 Sampling Schedule and Staff:

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
203	5/25/2017	Barnard Asian Pacific Lang Academy	1	Ginette Commins	Brian Knerr
204	5/25/2017	Point Loma	1	Daniel Lopez	Josh Rambo
205	5/25/2017	Holmes	2	Elizabeth Lara	Dave Mayo
206	5/25/2017	Mission Bay Montessori	1	Cesar Jimenez	Jerry Weston
207	5/25/2017	SESI Springall	3	Lori Sherman	Matt Nelson

Friday, May 26, 2017 Sampling Schedule and Staff:

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
208	5/26/2017	Ingenuity Charter	4	Daniel Lopez	Matt Nelson
Collect 2 samples	5/26/2017	Vita Hills	3	Cesar Jimenez	Matt Nelson
209	5/26/2017	SD French American	1	Ginette Commins	Josh Rambo
210	5/26/2017	The Cambridge School	private	Richard Ambuehl	Alejandra Molloy
211	5/26/2017	English/French school	private	Shelley Samaritoni	Erik Alvarenga
212	5/26/2017	Stella Maris Academy	private	Julie Hollis	Dave Mayo

Thursday, June 1, 2017 Sampling Schedule and Staff:

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
213	6/1/2017	The Children's School	1	Ginette Commins	Matt Nelson
214	6/1/2017	Del Mar Heights ES	DMUSD	Patrick Lum	Alejandra Molloy
215	6/1/2017	Del Mar Hills ES	DMUSD	Patrick Lum	Alejandra Molloy

Friday, June 2, 2017 Sampling Schedule and Staff:

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
1 - Resample	6/2/2017	Birney ES	3	John Baker	Tom Burger
216	6/2/2017	Sycamore Ridge	DMUSD	Patrick Lum	Alejandra Molloy
217	6/2/2017	Ashley Falls	DMUSD	Patrick Lum	Alejandra Molloy
218	6/2/2017	Carmel Del Mar	DMUSD	Patrick Lum	Alejandra Molloy
219	6/2/2017	Southwest Middle School	SWUSD	Mario Campos	Josh Rambo

Wednesday, June 7, 2017 Sampling Schedule and Staff:

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
223	6/7/2017	KIPP Adelante Preparatory Academy	Private	Robert Tannenbaum	Tom Burger

Wednesday, June 7, 2017 Sampling Schedule and Staff:

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
223	6/7/2017	KIPP Adelante Preparatory Academy	Private	Robert Tannenbaum	Tom Burger

Thursday, June 8, 2017 Sampling Schedule and Staff:

No of Schools Sampled	Date	School Name	Zone	School Contact Staff	City Sampler Name
224	6/7/2017	The Child's Primary School	Private	Mariel Cairns	Tom Burger

Tuesday, June 13, 2017 Sampling Schedule and Staff:

No of Schools Sampled	Date	School Name	District	School Contact Staff	City Sampler Name
225	6/13/2017	Torrey Pines High School	San Dieguito	Jim Mitroff	Tom Burger
226	6/13/2017	Carmel Valley Middle School	San Dieguito	Jim Mitroff	Tom Burger

Friday, June 16, 2017 Sampling Schedule and Staff:

No of Schools Sampled	Date	School Name	District	School Contact Staff	City Sampler Name
227	6/16/2017	Canyon Crest Academy	San Dieguito	Jim Mitroff	Tom Burger
228	6/16/2017	Montgomery MS	Sweetwater Union	Aldolpho Dela Torre	Gloria Siquerios

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services

Lead School Testing

Report Date: 7/13/17

Total Number of Samples Tested= 1,115

Sample Date	Sample ID	External ID	School Name	Sampling Point
03/03/17	W1158860	3710020-AAC-A	Emerson Elementary	Health Office, sink, faucet
03/03/17	W1158862	3710020-AAC-C	Emerson Elementary	Near room 115, between restrooms, right bubbler on double fountain
03/03/17	W1158863	3710020-AAC-D	Emerson Elementary	Inside room 106, back right corner sink, drinking bubbler
03/03/17	W1158864	3710020-AAC-E	Emerson Elementary	Outside, right of room 107 between restrooms, drinking fountain, left bubbler
03/07/17	W1158855	3710020-AAD-A	SDUSD SD Coop Charter #2	Room 127, bubbler in sink
03/07/17	W1158856	3710020-AAD-B	SDUSD SD Coop Charter #2	Room 128, bubbler in sink
03/07/17	W1158857	3710020-AAD-C	SDUSD SD Coop Charter #2	Room 132, bubbler in sink
03/07/17	W1158858	3710020-AAD-D	SDUSD SD Coop Charter #2	Room 129, bubbler in sink
03/07/17	W1158859	3710020-AAD-E	SDUSD SD Coop Charter #2	Room 130, bubbler in sink
03/07/17	W1159031	3710020-AAC-B	Emerson Elementary	Cafateria sink, near back left corner, pull down pot filler RE-SAMPLE ORIGINAL SAMPL
04/04/17	W1163952	3710020-AAJ-A	Encanto Elementary School	400 BLDG, outside wall bubbler, right bubbler
04/04/17	W1163953	3710020-AAJ-B	Encanto Elementary School	300 BLDG, lower level SW corner of building, right bubbler
04/04/17	W1163954	3710020-AAJ-C	Encanto Elementary School	200 BLDG, lower level SW corner
04/04/17	W1163955	3710020-AAJ-D	Encanto Elementary School	200 BLDG, upper level SW corner
04/04/17	W1163956	3710020-AAJ-E	Encanto Elementary School	100 BLDG, upper level SW corner
04/04/17	W1163972	3710020-ABA-A	Horton Elementary School	Kindergarten play area, South Wall, wall mount, left bubbler (149-01)
04/04/17	W1163973	3710020-ABA-B	Horton Elementary School	Cafeteria lunch court, South wall, triple fountain, right bubbler (149-02)
04/04/17	W1163974	3710020-ABA-C	Horton Elementary School	Between restroom boys 104 and girls 103 west wall hall, triple fountain, right bubbler (149
04/04/17	W1163975	3710020-ABA-D	Horton Elementary School	Between restroom boys #2 and girls #2 , lower fountain (149-04)
04/04/17	W1163976	3710020-ABA-E	Horton Elementary School	Cafeteria, Kithchen area, north wall, food prep faucet (149-05)
04/04/17	W1164073	3710020-AAG-A	Boone Elementary School	BLDG. 4, next to boys restroom and gardener's rm, wall mounted, right bubbler
04/04/17	W1164074	3710020-AAG-B	Boone Elementary School	BLDG. 3, btwn girls and boys' restrooms, wall mounted, right bubbler

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services

Lead School Testing

Report Date: 7/13/17

Total Number of Samples Tested= 1,115

Sample Date	Sample ID	External ID	School Name	Sampling Point
04/04/17	W1164075	3710020-AAG-C	Boone Elementary School	BLDG. 7, 1st Floor, btwn girls and boys restroom facing amphitheater, right bubbler
04/04/17	W1164076	3710020-AAG-D	Boone Elementary School	Portable Restrooms, between girls and boys restrooms, facing shade shelter, wall mount
04/04/17	W1164077	3710020-AAG-E	Boone Elementary School	Cafeteria, btwn cafeteria and auditorium, facing lunch arbor, wall mounted, right bubbler
04/04/17	W1164078	3710020-AAH-A	Perry Elementary	Cafeteria/auditorium bldg, kitchen, 2 compartment sink faucet (237-01)
04/04/17	W1164079	3710020-AAH-B	Perry Elementary	Cafeteria/auditorium bldg, ext wall near lunch court, lower left bubbler (237-02)
04/04/17	W1164080	3710020-AAH-C	Perry Elementary	BLDG 3, ext wall near supply room, lower left bubbler (237-03)
04/04/17	W1164081	3710020-AAH-D	Perry Elementary	BLDG 3, ext wall near girl restroom, right bubbler on right triple fountain (237-04)
04/04/17	W1164082	3710020-AAH-E	Perry Elementary	BLDG 4, ext wall near girls restroom, right bubbler on triple fountain. (237-05)
04/04/17	W1164083	3710020-AAI-A	Baker Elementary School	Admin/Auditorium btwn K1 & K2 restrooms right bubbler
04/04/17	W1164084	3710020-AAI-B	Baker Elementary School	Admin BLDG. btwn electrical meter rm & hallway door, right, tall bubbler
04/04/17	W1164085	3710020-AAI-C	Baker Elementary School	1-5 Supply Rm. near girls restroom & supply rm. upper right bubbler
04/04/17	W1164086	3710020-AAI-D	Baker Elementary School	7-12 next to custodian ups sign & girls restroom, left bubbler
04/04/17	W1164087	3710020-AAI-E	Baker Elementary School	Field Restrooms, outside bungalow restroom near sports field, lower right bubbler
04/05/17	W1164172	3710020-ABB-A	Chavez Elementary	Wall G near cafeteria, right bubbler
04/05/17	W1164173	3710020-ABB-B	Chavez Elementary	Auditorium, between mens/womens faculty rest rooms, right bubbler
04/05/17	W1164174	3710020-ABB-C	Chavez Elementary	D-102, near boys restroom D-108, right bubbler
04/05/17	W1164175	3710020-ABB-D	Chavez Elementary	upstairs D-204, between boys/girls restroom, right bubbler
04/05/17	W1164176	3710020-ABB-E	Chavez Elementary	Upstairs B Building, between restrooms B-204 and B-205, right bubbler
04/05/17	W1164183	3710020-ABD-A	Rolando Park Elementary	BLDG w/rooms 21-26, outside staff restroom, left bubbler
04/05/17	W1164184	3710020-ABD-B	Rolando Park Elementary	Outside cafeteria, facing playground, right bubbler
04/05/17	W1164185	3710020-ABD-C	Rolando Park Elementary	between student/staff restroom bldg, right bubbler
04/05/17	W1164186	3710020-ABD-D	Rolando Park Elementary	student/staff restroom bldg, under cover walkway, right bubbler

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04/05/17	W1164187	3710020-ABD-E	Rolando Park Elementary	Kindergarten area, outside K-1 and K-2, single bubbler
04/05/17	W1164188	3710020-ABE-A	Bell Middle School	BLDG 1300; Rm 1308(nurse) bubbler
04/05/17	W1164189	3710020-ABE-B	Bell Middle School	Cafeteria/Auditorium; lower faucet at two bowl sink
04/05/17	W1164190	3710020-ABE-C	Bell Middle School	Library BLDG 1100, west wall, upper/right bubbler
04/05/17	W1164191	3710020-ABE-D	Bell Middle School	PE BLDG 1200, north wall,next girls locker room, upper/left bubbler
04/05/17	W1164192	3710020-ABE-E	Bell Middle School	Phyiscal Ed BLDG 1200; west wall, next boys locker room, upper/left bubbler
04/05/17	W1164268	3710020-ABH-A	Johnson Elementary School	Kindergarten; S. wall Btwn Rm K1 & Storage RM 1. Right bubbler
04/05/17	W1164269	3710020-ABH-B	Johnson Elementary School	Cafeteria; E. wall @ Lunch Court; Upper/Left Bubbler
04/05/17	W1164270	3710020-ABH-C	Johnson Elementary School	Rm 1-6; S. wall btwn girls restroom & RM 4; right bubbler
04/05/17	W1164271	3710020-ABH-D	Johnson Elementary School	Child Development Cntr. S/E corner; E. wall playground; left bubbler
04/05/17	W1164272	3710020-ABH-E	Johnson Elementary School	Staff/Student portable restrooms, btwn men&women's restroom. Lower right bubbler
04/05/17	W1164295	3710020-AAD-B	SDUSD SD Coop Charter #2	Room 128, bubbler in sink
04/05/17	W1164296	3710020-AAD-A	SDUSD SD Coop Charter #2	Room 127, bubbler in sink
04/06/17	W1164332	3710020-AAC-C	Emerson Elementary	Near room 115, between restrooms, right bubbler on double fountain
04/06/17	W1164421	3710020-ABF-A	Fulton K-8	Cafeteria; Prep Kitchen Sink, near door
04/06/17	W1164422	3710020-ABF-B	Fulton K-8	Cafeteria; btwn cafeteria & auditorium; upper right bubbler
04/06/17	W1164423	3710020-ABF-C	Fulton K-8	BLDG Rms 1-6; near speech pathologist rm, right bubbler
04/06/17	W1164424	3710020-ABF-D	Fulton K-8	Portable Restroom; next men's restroom facing playground; front/lower bubbler
04/06/17	W1164425	3710020-ABF-E	Fulton K-8	Kindergarten Rms K1 - K3; btwn K2&K1 facing playground; right bubbler
04/06/17	W1164430	3710020-ABG-A	Mann Middle School	BLDG 100, Main Office, far left bubbler (312-1)
04/06/17	W1164431	3710020-ABG-B	Mann Middle School	Cafeteria BLDG, east side, triple fountain, center bubbler
04/06/17	W1164432	3710020-ABG-C	Mann Middle School	BLDG 300, next to custodian, single bubbler

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04/06/17	W1164433	3710020-ABG-D	Mann Middle School	Kitchen interior back wall, back sink, faucet
04/06/17	W1164434	3710020-ABG-E	Mann Middle School	BLDG 600, underneath cover outside, center bubbler
04/06/17	W1164507	3710020-ABI-A	Webster Elementary	Main office, admin, nurses office,goosneck faucet (289-01)
04/06/17	W1164508	3710020-ABI-B	Webster Elementary	Cafeteria, east facing wall, center bubbler (289-02)
04/06/17	W1164509	3710020-ABI-C	Webster Elementary	BLDG rooms 6-9, west wall between boys/girls restroom, far right bubbler (289-03)
04/06/17	W1164510	3710020-ABI-D	Webster Elementary	Bungalows, east facing, two triple fountains, left triple, far left bubbler (289-04)
04/06/17	W1164511	3710020-ABI-E	Webster Elementary	Library, west facing, drinking fountains, right bubbler
04/06/17	W1164531	3710020-ABJ-A	Balboa Elementary	BLDG 100, exterior between boys/girls restroom, right bubbler
04/06/17	W1164532	3710020-ABJ-B	Balboa Elementary	BLDG 400, inside hallway north, between girls/boys restroom, right bubbler
04/06/17	W1164533	3710020-ABJ-C	Balboa Elementary	BLDG 300 lower, right hallway, between boys/girls restroom, right bubbler
04/06/17	W1164534	3710020-ABJ-D	Balboa Elementary	BLDG 300 upstairs, between boys/girls restroom, right bubbler
04/06/17	W1164535	3710020-ABJ-E	Balboa Elementary	BLDG 200, next to teachers lounge, lower right bubbler
04/06/17	W1164613	3710020-ACA-A	Freese Elementary	two story BLDG w/rooms 27-34, exterior, 1st floor, between girls/boys restrooms, facing b
04/06/17	W1164614	3710020-ACA-B	Freese Elementary	Cafeteria exterior, between storage 4 & supply rooms, facing library courtyard
04/06/17	W1164615	3710020-ACA-C	Freese Elementary	rooms 10-13, ext next to room 13, facing library courtyard, lower left bubbler
04/06/17	W1164616	3710020-ACA-D	Freese Elementary	Main BLDG, room 2, classroom sinks, next to exit, bubbler on left sink
04/06/17	W1164617	3710020-ACA-E	Freese Elementary	Rooms 4-9, exterior between boys/girls restrooms, triple fountain, right bubbler
04/06/17	W1164640	3710020-ACB-A	Bethune K-8	bldg 1, room 23, kindergarten classroom sink, bubbler at sink
04/06/17	W1164641	3710020-ACB-B	Bethune K-8	Portable classrooms, room B-26, sink bubbler
04/06/17	W1164642	3710020-ACB-C	Bethune K-8	Portable restroom adjacent to rooms R1-R8, floor mounted fountain near mens room, up
04/06/17	W1164643	3710020-ACB-D	Bethune K-8	BLDG 6 exterior between custodian (gear locker) and boy's restroom, left single bubbler
04/06/17	W1164644	3710020-ACB-E	Bethune K-8	BLDG 6 exterior next to supply room, facing lunch court,left single fountain sink bubbler

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04/07/17	W1164824	3710020-ACC-A	Thrive Charter	BLDG 29, outside wall of room 29, middle bubbler on right fountain
04/07/17	W1164825	3710020-ACC-B	Thrive Charter	Room 35, bubbler in sink
04/07/17	W1164826	3710020-ACC-C	Thrive Charter	Room 36, bubbler in sink
04/07/17	W1164827	3710020-ACC-D	Thrive Charter	Room 37, bubbler in sink
04/07/17	W1164980	3710020-ACD-A	Oak Park Elementary	Kindergarten, room K-1, bubbler fountain (223-1)
04/07/17	W1164982	3710020-ACD-C	Oak Park Elementary	Cafeteria, Lunch area, triple fountain, middle bubbler (223-3)
04/07/17	W1164983	3710020-ACD-D	Oak Park Elementary	BLDG w/rooms 15-24, corner near room 15, left lower bubbler
04/07/17	W1164984	3710020-ACD-E	Oak Park Elementary	Bungalow, boys/girls restroom,single upper-right bubbler next to the dual fountain
04/07/17	W1165055	3710020-ACE-A	Rowan Elementary	Auditorium exterior, fountain near door, lower left bubbler.
04/07/17	W1165056	3710020-ACE-B	Rowan Elementary	BLDG 1, exterior next to room 4, triple fountain, left bubbler
04/07/17	W1165057	3710020-ACE-C	Rowan Elementary	BLDG 2, exterior next to room 8, triple fountain, left bubbler
04/07/17	W1165058	3710020-ACE-D	Rowan Elementary	PAL/Library, exterior, left of parent/teacher door, right fountain, single bubbler
04/07/17	W1165059	3710020-ACE-E	Rowan Elementary	BLDG 2, in room 8, bubbler at sink
04/07/17	W1165131	3710020-ACF-A	Millennial Tech Middle	Center court, east exterior wall, dual fixture, right bubbler (341-01)
04/07/17	W1165132	3710020-ACF-B	Millennial Tech Middle	Center court, west exterior wall, dual fixture, right bubbler (341-02)
04/07/17	W1165133	3710020-ACF-C	Millennial Tech Middle	BLDG 200, exterior, next to room 204, dual fixture, left bubbler (341-03)
04/07/17	W1165134	3710020-ACF-D	Millennial Tech Middle	BLDG 100, exterior, next to room 204, dual fixture, right bubbler (341-04)
04/07/17	W1165135	3710020-ACF-E	Millennial Tech Middle	Main office BLDG, east end, near men's restroom 3, single bubbler (341-05)
04/07/17	W1165137	3710020-ACG-A	Morse HS	Prep kitchen sink, under window, kitchen faucet cold
04/07/17	W1165138	3710020-ACG-B	Morse HS	Auditorium, exterior between boys/girls restroom, facing quad, 3 fountains, left bubbler or
04/07/17	W1165139	3710020-ACG-C	Morse HS	BLDG 300, exterior wall, next to girls restroom, facing library/innovation center, left bubbl
04/07/17	W1165140	3710020-ACG-D	Morse HS	Gym, exterior wall, facing covered walkway and courtyard/culinary arts, dual fixture, right

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04/07/17	W1165141	3710020-ACG-E	Morse HS	CDC Room 400, classroom sink, next to room 402, bubbler at sink
04/08/17	W1164177	3710020-ABC-A	Lincoln HS	BLDG 900, behind BLDG 900 in courtyard, upper bubbler
04/08/17	W1164178	3710020-ABC-B	Lincoln HS	BLDG 660, between 632 and 655, left bubbler
04/08/17	W1164179	3710020-ABC-C	Lincoln HS	BLDG 1400 food service, kitchen, faucet in prep room
04/08/17	W1164180	3710020-ABC-D	Lincoln HS	Softball and baseball field, east of softball field between stairs, lower bubbler
04/08/17	W1164181	3710020-ABC-E	Lincoln HS	BLDG 360, between 355 and 332, back of BLDG 360, left bubbler
04/08/17	W1165247	3710020-ACI-A	Zamarano Elementary	Bldg 700 South Campus.Kindergarden Rm 730 Sink Bubbler
04/08/17	W1165248	3710020-ACI-B	Zamarano Elementary	Bldg 700 South Campus.1st Floor between Girl's and Boy's restrooms facing playground.
04/08/17	W1165249	3710020-ACI-C	Zamarano Elementary	1st Grade room South Campus.Between Girl's and Boy's restrooms facing playground. le
04/08/17	W1165250	3710020-ACI-D	Zamarano Elementary	1st Grade room South Campus.Next to Supply Rm. left single fixture bubbler
04/08/17	W1165251	3710020-ACI-E	Zamarano Elementary	Restrooms North Campus. Next to Girl's restroom facing lunch arbor. Dual fountain right
04/08/17	W1165257	3710020-ACJ-A	Valencia Park Elementary	Boys and Girls Bathroom next to supply rm 21008, Triple fountain left bubbler.
04/08/17	W1165258	3710020-ACJ-B	Valencia Park Elementary	Auditorium Cafeteria Prep kitchen sink faucet.
04/08/17	W1165259	3710020-ACJ-C	Valencia Park Elementary	Between Library and Rm 19 Dual fountain Right Bubbler
04/08/17	W1165260	3710020-ACJ-D	Valencia Park Elementary	Between Rm 17 and 18 Triple fountain, middle bubbler
04/08/17	W1165261	3710020-ACJ-E	Valencia Park Elementary	Boys and Girls Bathroom outside playground. Dual fountain, right bubbler.
04/08/17	W1165270	3710020-AHA-A	SD Coop North	South side office, in office, bubbler at sink
04/08/17	W1165271	3710020-AHA-B	SD Coop North	back of bldg 22, under stairs, right bubbler
04/08/17	W1165272	3710020-AHA-C	SD Coop North	Room 16, inside, bubbler at sink
04/08/17	W1165273	3710020-AHA-D	SD Coop North	Room 29, inside, bubbler at sink
04/08/17	W1165274	3710020-AHA-E	SD Coop North	Room 22, inside, bubbler at sink
04/08/17	W1165275	3710020-ACC-E	Thrive Charter	Room 25, bubbler in sink

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04/08/17	W1165276	3710020-ACD-B	Oak Park Elementary	Main BLDG, office hallway, bubbler outside main office (223-2)
04/11/17	W1165284	3710020-ADB-A	Audubon K-8	100s BLDG, room 101, next to exit, bubbler in sink
04/11/17	W1165285	3710020-ADB-B	Audubon K-8	600s BLDG exterior, next to boys resroom, facing dirt field, triple fountain, right bubbler
04/11/17	W1165286	3710020-ADB-C	Audubon K-8	Assembly, exterior, between 219 and 220, dual fountain, upper right
04/11/17	W1165287	3710020-ADB-D	Audubon K-8	400's BLDG, exterior, near room 409, two fountains, upper left single bubbler
04/11/17	W1165288	3710020-ADB-E	Audubon K-8	Portable restroom, near rooms B18 - B20, exterior free standing two station, upper bubble
04/11/17	W1165289	3710020-ADC-A	Nye Elementary	Multi-purp bldg, kitchen, 2 compartment sink, faucet (218-01)
04/11/17	W1165290	3710020-ADC-B	Nye Elementary	BLDG 8, near lunch shelter, restrooms, triple fixture center bubbler (218-02)
04/11/17	W1165291	3710020-ADC-C	Nye Elementary	Portable classrooms, room B-08 exterior wall, triple fountain, right bubbler (218-03)
04/11/17	W1165292	3710020-ADC-D	Nye Elementary	BLBG 9, near library, right trpile fountain, right bubbler (218-04)
04/11/17	W1165293	3710020-ADC-E	Nye Elementary	BLDG 3, Exterior near playground, double fountain, left bubbler (218-05)
04/11/17	W1165294	3710020-ADE-A	Porter Elementary (South).	BLDG 400, east end, right lower bubbler
04/11/17	W1165295	3710020-ADE-B	Porter Elementary (South)	BLDG 500, room 501, bubbler at sink
04/11/17	W1165296	3710020-ADE-C	Porter Elementary (South)	BLDG 600 exterior, between 600 and 605, left upper bubbler
04/11/17	W1165297	3710020-ADE-D	Porter Elementary (South)	BLDG 202, kithchen prep sink, pull down washer
04/11/17	W1165298	3710020-ADE-E	Porter Elementary (South)	Restroom adjacent (north) of 200 building, exterior back, left upper bubbler
04/11/17	W1165314	3710020-ADD-A	Pacific View Elementary	BLDG 200, kitchen, faucet at 2 compartment sink (171-01)
04/11/17	W1165315	3710020-ADD-B	Pacific View Elementary	BLDG 200, exterior west wall, near lunch shelter, 3 fountains, lower left bubbler (171-02)
04/11/17	W1165316	3710020-ADD-C	Pacific View Elementary	BLDG 400, extterior north wall, quadruple fountain, right bubbler (171-03)
04/11/17	W1165317	3710020-ADD-D	Pacific View Elementary	BLDG 300, exterior west wall, adjacent to restrooms facing playground, triple fountain, rig
04/11/17	W1165318	3710020-ADD-E	Pacific View Elementary	Restroom T-1, exterior north wall, triple fountain, right bubbler (171-05)
04/11/17	W1165766	3710020-ADF-A	Porter Elementary North	Near staff restroom, behind room N204, exterior fountain between staff restrooms, 2 foun

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04/11/17	W1165767	3710020-ADF-B	Porter Elementary North	Kitchen/cafeteria, prep kitchen single compartment sink, sink faucet
04/11/17	W1165768	3710020-ADF-C	Porter Elementary North	BLDG 600, behind girls/boys restrooms, two fountains, upper left bubbler
04/11/17	W1165769	3710020-ADF-D	Porter Elementary North	BLDG 400, behind restrooms, two fountains, lower right bubbler
04/11/17	W1165770	3710020-ADF-E	Porter Elementary North	BLDG 400, in room N402, bubbler at sink
04/12/17	W1165252	3710020-ADA-A	Knox Middle	Auditorium, Exterior, next to stage door, across from luch arbor, upper right bubbler
04/12/17	W1165253	3710020-ADA-B	Knox Middle	Kitchen, 3 compartment sink, kitchen faucet
04/12/17	W1165254	3710020-ADA-C	Knox Middle	BLDG 3, next to supply room and girls restroom, 3 bubblers, far right
04/12/17	W1165255	3710020-ADA-D	Knox Middle	BLDG 3, west end, next to boys RR, and pole, triple fountain, center bubbler
04/12/17	W1165256	3710020-ADA-E	Knox Middle	Lower grass field, near restroom, freestanding dual bubbler, upper bubbler
04/12/17	W1166057	3710020-ADG-A	Gompers Prep	Auditorium, Exterior north wall, between girls/boys restrooms, dual fixture, left bubbler
04/12/17	W1166058	3710020-ADG-B	Gompers Prep	Cafeteria, kitchen, food prep area, east wall, swing arm faucet
04/12/17	W1166059	3710020-ADG-C	Gompers Prep	Locker room BLDG, north exterior wall at exercise room, dual fountain, right bubbler
04/12/17	W1166060	3710020-ADG-D	Gompers Prep	Rooms 46-47A, west wall at 47A, dual fixture, right bubbler
04/12/17	W1166061	3710020-ADG-E	Gompers Prep	Rooms 10-12, east wall across from 6/7th grade restroom, upper right bubbler
04/12/17	W1166072	3710020-ADH-A	Iftin Charter	BLDG 100, in kindergarten room1, bubbler at sink
04/12/17	W1166073	3710020-ADH-B	Iftin Charter	room 22, inside classroom, bubbler at sink
04/12/17	W1166074	3710020-ADH-C	Iftin Charter	BLDG 100, exterior facing coutyard, triple fountain, left bubbler
04/12/17	W1166075	3710020-ADH-D	Iftin Charter	BLDG 300, east facing exterior triple fountain, right bubbler
04/12/17	W1166076	3710020-ADH-E	Iftin Charter	BLDG 200, south facing exterior single & double fountain, left bubbler on double
04/12/17	W1166088	3710020-ADI-A	Crawford High School	Kitchen, south wall, southwest corner, 2 compartment sink, faucet
04/12/17	W1166089	3710020-ADI-B	Crawford High School	BLDG 900, west wall near girls locker room, right bubbler on dual fixture
04/12/17	W1166090	3710020-ADI-C	Crawford High School	BLDG 900, west wall near boys locker room, left bubbler on dual fixture

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04/12/17	W1166091	3710020-ADI-D	Crawford High School	BLDG 400, northwest side between restrooms, next to custodian locker, upper right bubb
04/12/17	W1166092	3710020-ADI-E	Crawford High School	BLDG 800 lower level, between restrooms and custodial locker 5, upper right bubbler
04/12/17	W1166093	3710020-ADJ-A	Penn Elementary	Library/multi purpose, Kitchen, faucet at single compartment deep sink, faucet (235-01)
04/12/17	W1166094	3710020-ADJ-B	Penn Elementary	Rooms 02-06 bldg, exterior wall of girls resrroom, facing B-7, triple fountain, left bubbler (
04/12/17	W1166095	3710020-ADJ-C	Penn Elementary	Portable classrooms, exterior wall at room B-3, two tripple fountains, left bubbler on right
04/12/17	W1166096	3710020-ADJ-D	Penn Elementary	Rooms 02-05 bldg, exterior wall of girls restroom, facing B-7,triple fountain, right bubbler
04/12/17	W1166097	3710020-ADJ-E	Penn Elementary	Rooms 02-04 bldg, exterior wall of girls restroom, facing B-12,triple fountain, left bubbler
04/13/17	W1166147	3710020-AEA-A	Paradise Hills Elementary	Cafeteria, inside kitchen, wall adjacent to parking lot, 2 compartment sink, faucet (229-01
04/13/17	W1166148	3710020-AEA-B	Paradise Hills Elementary	Admin BLDG, room 2, bubbler at sink (229-02)
04/13/17	W1166149	3710020-AEA-C	Paradise Hills Elementary	Admin BLDG, exterior wall of boys restroom, near supply room, left bubbler on double fou
04/13/17	W1166150	3710020-AEA-D	Paradise Hills Elementary	Admin BLDG, exterior wall of girls restroom, near room 11, right bubbler on triple fountain
04/13/17	W1166151	3710020-AEA-E	Paradise Hills Elementary	BLDG 900, exterior of room 8 facing playground, left lower bubbler (229-05)
04/13/17	W1166155	3710020-AEB-A	San Diego SCPA	BLDG 700 Cafeteria, in kitchen, north wall, single compartment sink faucet (368-01)
04/13/17	W1166156	3710020-AEB-B	San Diego SCPA	BLDG 600 PE exterior north wall, triple fountain, right bubbler (368-02)
04/13/17	W1166157	3710020-AEB-C	San Diego SCPA	BLDG 400, north of room 401, free standing concrete pedestal, single bubbler (368-03)
04/13/17	W1166158	3710020-AEB-D	San Diego SCPA	BLDG 200, northwest wall, lower right bubbler (368-04)
04/13/17	W1166159	3710020-AEB-E	San Diego SCPA	Admin bldg A, east of finance office,free standing concrete pedestal, single bubbler (368
04/13/17	W1166313	3710020-AEC-A	Franklin Elementary	Rooms 1-6, hallway wall mount, next to ramp facing girls restroom, dual fountain, left bub
04/13/17	W1166314	3710020-AEC-B	Franklin Elementary	Rooms 7-12, hallway wall mount, between rooms 7 and 9, dual fountain, left bubbler (113
04/13/17	W1166315	3710020-AEC-C	Franklin Elementary	Portable rooms B7-B9, in room B9, bubbler at sink (113-3)
04/13/17	W1166316	3710020-AEC-D	Franklin Elementary	Rooms 14-17,wall mount, between girls/boys restrooms, facing courtyard, lower left bubb
04/13/17	W1166317	3710020-AEC-E	Franklin Elementary	Kindergarten, room 18, sink between storage and girls restroom, bubbler at sink (113-5)

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04/13/17	W1166357	3710020-AED-A	Foster Elementary	BLDG 3, east end between boys restroom and gear locker, left lower bubbler (111-01)
04/13/17	W1166358	3710020-AED-B	Foster Elementary	BLDG 3, inside room 9, bubbler at sink (111-2)
04/13/17	W1166359	3710020-AED-C	Foster Elementary	BLDG 4, inside room 2, bubbler at sink (111-3)
04/13/17	W1166360	3710020-AED-D	Foster Elementary	BLDG 3, near south end, between boys RR and custodial closet, two fountains, right bubl
04/13/17	W1166361	3710020-AED-E	Foster Elementary	BLDG 5, room B-23, bubbler at sink (111-5)
04/13/17	W1166508	3710020-AEE-A	Dailard Elementary	BLDG 1, next to girls RR, triple fixture, right bubbler
04/13/17	W1166509	3710020-AEE-B	Dailard Elementary	BLDG 2, near RR and room 21, triple fixture, right bubbler
04/13/17	W1166510	3710020-AEE-C	Dailard Elementary	BLDG 5 Library/mutipurpose, between RRooms, right upper bubbler
04/13/17	W1166511	3710020-AEE-D	Dailard Elementary	Cafe adjacent to bldg 5 near lunch court, triple fixture, right bubbler
04/13/17	W1166512	3710020-AEE-E	Dailard Elementary	BLDG 3, next to RR, triple fixture, right bubbler
04/14/17	W1166639	3710020-AEF-C	Gage Elementary	200, room K-2, bubbler at sink
04/14/17	W1166640	3710020-AEF-D	Gage Elementary	BLDG 200, west corner, next to K-3 and girls RR, triple fountain, left bubbler
04/14/17	W1166641	3710020-AEF-E	Gage Elementary	BLDG 300, east side, between girls RR and custodial room, right fountain single bubbler
04/14/17	W1166642	3710020-AEF-A	Gage Elementary	BLDG 4, room B-8, bubbler at sink
04/14/17	W1166643	3710020-AEF-B	Gage Elementary	BLDG 5, lunch court, single bubbler left of hand sink
04/14/17	W1166644	3710020-AEI-A	Green Elementary	Multipurpose BLDG, south exterior, near RRoms and room 20,lower left bubblert
04/14/17	W1166645	3710020-AEI-B	Green Elementary	K-36 bldg, room 33 back, bubbler in sink
04/14/17	W1166646	3710020-AEI-C	Green Elementary	TK-26, east wall next to RR and custodial closet, triple fountain, left bubbler
04/14/17	W1166647	3710020-AEI-D	Green Elementary	11-16 BLDG, near playing field between RR, triple fountain, center bubbler
04/14/17	W1166648	3710020-AEI-E	Green Elementary	Kitchen, exterior near lunch court, triple fountain, center bubbler
04/14/17	W1166678	3710020-AFA-A	Clay Elementary	Kindergarten building, Exterior east facing wall near gate, small fountain w/single bubbler
04/14/17	W1166679	3710020-AFA-B	Clay Elementary	Nurses office, bubbler at sink

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04/14/17	W1166680	3710020-AFA-C	Clay Elementary	Main BLDG, near room 2, triple fountain, right bubbler
04/14/17	W1166681	3710020-AFA-D	Clay Elementary	West facing wall near room 10, triple fountain, center bubbler
04/14/17	W1166682	3710020-AFA-E	Clay Elementary	Cafeteria bldg, south wall, two fountains, lower right bubbler
04/14/17	W1166700	3710020-AEH-A	Rodriguez Elementary	Auditorium/Cafeteria Bldg. 800; S Wall in Kitchen; single faucet on single compartment si
04/14/17	W1166701	3710020-AEH-B	Rodriguez Elementary	Auditorium/Cafeteria Bldg. 800;Exterior north wall; Lower Left-side bubbler of 3 separate
04/14/17	W1166702	3710020-AEH-C	Rodriguez Elementary	Bldg. 500;Exterior West wall of 1st floor girls restrooms;Left lower Bubbler of 3 separate s
04/14/17	W1166703	3710020-AEH-D	Rodriguez Elementary	Lower Playground;NE of room 506; East/Lower Bubbler on a concrete pedestal double fo
04/14/17	W1166704	3710020-AEH-E	Rodriguez Elementary	Playground;S of room 302;West/Lower Bubbler on a metallic pedestal triple fountain
04/14/17	W1166747	3710020-AFB-A	Memorial Scholars & Athletes	King-Chávez Academy Classroom Bldg. 600;N wall;interior swing arm faucet at 2-compar
04/14/17	W1166748	3710020-AFB-B	Memorial Scholars & Athletes	Exterior south wall of food Service Bldg.;Right bubbler on double fountain
04/14/17	W1166749	3710020-AFB-C	Memorial Scholars & Athletes	Physical Ed. Bldg. 700; Exterior north wall;Right bubbler on triple fountain
04/14/17	W1166750	3710020-AFB-D	Memorial Scholars & Athletes	Media Center Bldg. 300; Exterior North wall; Left/lower bubbler of 2 separate single fount
04/14/17	W1166751	3710020-AFB-E	Memorial Scholars & Athletes	Auditorium Bldg. 100; Exterior North wall; : Left bubbler on double fountain
04/15/17	W1166828	3710020-AEH-A	Chollas/Mead	CDC building;Outside fountain in playground; pedestal dual fountain upper bubbler
04/15/17	W1166829	3710020-AEH-B	Chollas/Mead	CDC Building;Room # 3103;Right-lower bubbler at sink
04/15/17	W1166830	3710020-AEH-C	Chollas/Mead	Building Cafeteria;Outside drinking fountain in front of Cafeteria;Upper-Right Bubbler
04/15/17	W1166831	3710020-AEH-D	Chollas/Mead	300 Building;Outside Drinking fountain next to restrooms;Middle Bubbler
04/15/17	W1166836	3710020-AFD-A	Adams Elementary	BLDG 200, prep kitchen near entrance, swing arm faucet
04/15/17	W1166837	3710020-AFD-B	Adams Elementary	BLDG 300, 1st floor, near room 1 and science lab, lower left bubbler
04/15/17	W1166838	3710020-AFD-C	Adams Elementary	BLDG 300, 1st floor, between gardner and D3 rooms, triple fountain, left bubbler
04/15/17	W1166839	3710020-AFD-D	Adams Elementary	BLDG 300, 1st floor, west end, between kindergarten rooms 5 & 6, triple fountain, left bub
04/15/17	W1166840	3710020-AFD-E	Adams Elementary	BLDG 300, room 14, bubbler at sink

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04/15/17	W1166841	3710020-AFE-A	O'Farrell Charter	BLDG 400, between outside restrooms, upper right bubbler
04/15/17	W1166842	3710020-AFE-B	O'Farrell Charter	Cafeteria/staff lounge, triple fountain, middle bubbler
04/15/17	W1166843	3710020-AFE-C	O'Farrell Charter	Kitchen, single compartment sink, faucet
04/15/17	W1166844	3710020-AFE-D	O'Farrell Charter	BLDG 503 front, outside 3 fountains, middle fountain bubbler
04/15/17	W1166845	3710020-AFE-E	O'Farrell Charter	BLDG 300; adjacent to rooms 101 and 102, outside batrooms, upper right bubbler
04/15/17	W1166868	3710020-AEG-A	Hardy Elementary	Kindergarten Building, North facing side, outside play area, R side bubbler
04/15/17	W1166869	3710020-AEG-B	Hardy Elementary	Auditorium Building, outdoors on W side, R side upper bubbler
04/15/17	W1166870	3710020-AEG-C	Hardy Elementary	Administration Building; Nurse's office; sink faucet
04/15/17	W1166871	3710020-AEG-D	Hardy Elementary	Main classroom Building; S-facing wall close to RM5; Right side bubbler on triple fountain
04/15/17	W1166872	3710020-AEG-E	Hardy Elementary	Main Classroom Bdg; Triple bubbler on N-facing wall near Room #6; Bubbler on far left si
04/15/17	W1166873	3710020-AFC-A	Hoover High	Exterior East side of Cafeteria Building; Near entrance to faculty lunch room; R bubbler o
04/15/17	W1166874	3710020-AFC-B	Hoover High	Interior North side of Cafeteria building; Single Faucet on 2-compartment sink next to foo
04/15/17	W1166875	3710020-AFC-C	Hoover High	Exterior South side of Girls Locker Room; Far right bubbler on a triple bubbler fountain
04/15/17	W1166876	3710020-AFC-D	Hoover High	South side of 900 building (Southeast corner);Far right and upper bubbler of 2 separate s
04/15/17	W1166877	3710020-AFC-E	Hoover High	200 Building;Inside hallway next to Room 205;Lower right bubbler of 2 single fountains
04/18/17	W1166999	3710020-AGB-A	Benchley Weinberger	Outside kindergarten building between boys & girls restrooms;Lower LEFT-Bubbler drinki
04/18/17	W1167000	3710020-AGB-B	Benchley Weinberger	Auditorium;Between assembly door and stage door;FAR LEFT- bubbler of left drinking fo
04/18/17	W1167001	3710020-AGB-C	Benchley Weinberger	1-6 bldg;near playground between boys & girls RR;LEFT bubbler of LEFT water fountain
04/18/17	W1167002	3710020-AGB-D	Benchley Weinberger	7-12 BLDG;Between boys & girls restrooms across from Library;Left-lower bubbler from s
04/18/17	W1167003	3710020-AGB-E	Benchley Weinberger	LIBRARY;Outside Librarybetween adult RR;Lower LEFT-Drinking fountain of two;nearest
04/18/17	W1167057	3710020-AGG-A	Garfield High School	East Wing;near ASB;1st floor east wall between men and women's RR;Lower Left Bubble
04/18/17	W1167058	3710020-AGG-B	Garfield High School	Culinary Arts Kitchen;Right sink faucet

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04/18/17	W1167059	3710020-AGG-C	Garfield High School	West Wing;Fourth floor exterior west wall next to elevator;Left bubbler
04/18/17	W1167060	3710020-AGG-D	Garfield High School	West Wing;3rd floor exterior west wall across from women's restroom;Upper Left bubbler
04/18/17	W1167061	3710020-AGG-E	Garfield High School	West Wing;2nd floor exterior west wall next to men's restroom;Lower Right bubbler
04/18/17	W1167211	3710020-AFG-A	Henry High	Auditorium/stage/Prop room;Eastside exterior between custodian 6 door and M RR; L an
04/18/17	W1167212	3710020-AFG-B	Henry High	East interior wall of Kitchen; 2 compartment sink, faucet
04/18/17	W1167213	3710020-AFG-C	Henry High	300 bldg. west end, Restrooms; R side lower bubbler of 2 single fountains
04/18/17	W1167214	3710020-AFG-D	Henry High	100 BLDG; Exterior S Side next to Girl's RR; L lower bubbler of 2 single fountains
04/18/17	W1167215	3710020-AFG-E	Henry High	PRE-K BUNGALOW B-101; Bubbler water fountain R side of sink inside classroom
04/18/17	W1167251	3710020-AGF-A	Grant K-8	Administrative Building; Upper Level room 4 interior west wall near girl's restroom; Single
04/18/17	W1167252	3710020-AGF-B	Grant K-8	Administrative Building;East interior wall of Auditorium next to Food Serv. RM 221;Single
04/18/17	W1167253	3710020-AGF-C	Grant K-8	700 Building; Interior of classroom 11; Bubbler on the R side of the sink
04/18/17	W1167254	3710020-AGF-D	Grant K-8	Administrative Building; SWest exterior side of building next to PE Equip. RM 232; R bubl
04/18/17	W1167255	3710020-AGF-E	Grant K-8	Kindergarten Building; Right sink inside of classroom K-1; Sink-mount bubbler on right si
04/18/17	W1167256	3710020-AFJ-A	Hearst Elementary	Auditorium/Serving RM; Inside serving room near kitchen roll up door; R side bubbler on
04/18/17	W1167257	3710020-AFJ-B	Hearst Elementary	1-5 bldg.; Exterior west end near black top playground and Lunch court; Lower L side of 2
04/18/17	W1167258	3710020-AFJ-C	Hearst Elementary	7-12 BLDG; west end near black top playground basketball area;L side bubbler of a 3-bul
04/18/17	W1167259	3710020-AFJ-D	Hearst Elementary	1-6 BLDG; N exterior wall; L bubbler of 3-bubbler fountain near corner
04/18/17	W1167260	3710020-AFJ-E	Hearst Elementary	Kinder play ground; Outside kinder classrooms between toy storage doors; Lower L side
04/19/17	W1166990	3710020-AFH-A	Holly Drive Leadership	Room B-21 Bubbler in sink
04/19/17	W1166991	3710020-AFH-B	Holly Drive Leadership	Room B-19 Bubbler in sink
04/19/17	W1166992	3710020-AFH-C	Holly Drive Leadership	Room B-17 Bubbler in sink
04/19/17	W1166993	3710020-AFH-D	Holly Drive Leadership	Room B-16 Bubbler in sink

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04/19/17	W1166994	3710020-AFH-E	Holly Drive Leadership	Room B-14 Bubbler in sink
04/19/17	W1167284	3710020-AFI-B	Lewis Middle School	Cafeteria exterior, 2 triple fountains, right triple fountain, left bubbler
04/19/17	W1167285	3710020-AFI-C	Lewis Middle School	300 BLDG, between custodial #3 door and boys RR, single bubbler fountain next to a dua
04/19/17	W1167286	3710020-AFI-D	Lewis Middle School	200 BLDG, near room 210 and boys restroom, 2 dual bubbler fountains, right fountain rig
04/19/17	W1167287	3710020-AFI-E	Lewis Middle School	Boys Gym, near boys locker door and boys restroom, triple bubbler fountain, middle bubb
04/19/17	W1167320	3710020-AGC-A	Mckinley Elementary	Media Center Building (Room #4), Bubbler at sink
04/19/17	W1167321	3710020-AGC-B	Mckinley Elementary	Outside Media Center Building (Room #4), one dual bubbler founatin, right bubbler
04/19/17	W1167322	3710020-AGC-C	Mckinley Elementary	Outside behind the Media Center at bottom of stairs, blue single bubbler fountain to the le
04/19/17	W1167323	3710020-AGC-D	Mckinley Elementary	Outside Rooms 9 and 10 near RR, two single bubbler fountains, upper right fountain
04/19/17	W1167324	3710020-AGC-E	Mckinley Elementary	Outside RR's between B21 and B22, two single bubbler fountains, upper right fountain
04/19/17	W1167330	3710020-AGD-A	Pershing Middle	Inside kitchen west wall across from kettles, 3 compartment sink, 2 faucets, left faucet
04/19/17	W1167331	3710020-AGD-B	Pershing Middle	outside boys' gym across from lunch court near restroom, two single bubbler fountains, u
04/19/17	W1167332	3710020-AGD-C	Pershing Middle	Outside between 1004A -1002B classrooms, two single bubbler fountains, upper left foun
04/19/17	W1167333	3710020-AGD-D	Pershing Middle	outside near room 901, two single bubbler fountains, upper left fountain
04/19/17	W1167334	3710020-AGD-E	Pershing Middle	outside near room 205, two single bubbler fountains, upper left fountain
04/19/17	W1167335	3710020-AGA-A	Marvin Elementary	Outside next to lunch court next near kitchen door, 2 dual bubbler fountains, left fixture, ri
04/19/17	W1167336	3710020-AGA-B	Marvin Elementary	Outside near Room #6 between RR & Supply Closet, 2 single bubbler fountains, right fou
04/19/17	W1167337	3710020-AGA-C	Marvin Elementary	Outside near Room #11 between RR's, 2 dual bubbler fountains, right fountain, left bubbl
04/19/17	W1167338	3710020-AGA-D	Marvin Elementary	Outside bungalow restrooms next to room 19 b, 2 single bubbler fountains, right lower fou
04/19/17	W1167339	3710020-AGA-E	Marvin Elementary	at wall outside of kinder classrooms near playground, single bubbler drinking fountain
04/19/17	W1167379	3710020-AEH-E	Chollas/Mead	Kitchen;adjacent to room 501; double compartment sink faucet
04/20/17	W1167409	3710020-AGE-A	Keiler Leadership	Wall mounted exterior, between Auditorium & Cafeteria, facing lunch area, dual bubbler f

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04/20/17	W1167410	3710020-AGE-B	Keiler Leadership	Wall mounted exterior, 1st Floor, next to Equipment Room (H101A), facing Rooms 32-34
04/20/17	W1167411	3710020-AGE-C	Keiler Leadership	Near Rooms 5-8, Wall mounted exterior, next to Boys Restroom, facing courtyard & 2-sto
04/20/17	W1167412	3710020-AGE-D	Keiler Leadership	Near Rooms 9-11, Wall mounted exterior, next to a room (storage), facing Library, dual b
04/20/17	W1167413	3710020-AGE-E	Keiler Leadership	P.E. Complex, Wall mounted exterior, between Boys Restroom and Coaches Office, dual
04/20/17	W1167414	3710020-AGH-A	Roosevelt International	South side exterior next to B7, dual bubbler fountain, right bubbler
04/20/17	W1167415	3710020-AGH-B	Roosevelt International	800 Building, East side exterior between bulletin board and door, triple bubbler fountain, r
04/20/17	W1167416	3710020-AGH-C	Roosevelt International	Lunch Court, South wall next to lunch court, two single bubbler fountains, lower right foun
04/20/17	W1167417	3710020-AGH-D	Roosevelt International	Physical Education Building (400 building), South exterior wall next to boy's locker room,
04/20/17	W1167418	3710020-AGH-E	Roosevelt International	100 Building, West exterior wall between boys' and girls' restroom, triple bubbler fountain
04/20/17	W1167419	3710020-AGI-A	Sherman Elementary	Kinder play area outside of room #3, three single bubbler fountains, middle fountain
04/20/17	W1167420	3710020-AGI-B	Sherman Elementary	outside in lunch area, three single bubbler fountains, right fountain
04/20/17	W1167421	3710020-AGI-C	Sherman Elementary	Outside of room #12 left of boys RR, three single bubbler fountains, right fountain
04/20/17	W1167422	3710020-AGI-D	Sherman Elementary	Outside of room #28 left of boys RR, three single bubbler fountains, middle fountain
04/20/17	W1167423	3710020-AGI-E	Sherman Elementary	Outside of room # 21 (second floor), three single bubbler fountains, middle fountain
04/20/17	W1167436	3710020-AHE-A	San Diego High	100 Building, Inside Culinary Arts Classroom 114 across from range, faucet on single cor
04/20/17	W1167437	3710020-AHE-B	San Diego High	100 Building, East exterior wall next to Business Center door, two single bubbler fountain
04/20/17	W1167438	3710020-AHE-C	San Diego High	200 Building, South exterior wall between boy's locker room and gymnasium doors, triple
04/20/17	W1167439	3710020-AHE-D	San Diego High	1100 Building, Inside corridor west wall next to room 1105, two single bubbler fountains, l
04/20/17	W1167440	3710020-AHE-E	San Diego High	900 Building, South exterior wall next to room 901, two single bubbler fountains, lower lef
04/20/17	W1167446	3710020-AHF-A	San Diego Global	Room 102, bubbler at classroom sink/faucet with push button cap
04/20/17	W1167447	3710020-AHF-B	San Diego Global	Room 104, bubbler at classroom sink/faucet with push button cap
04/20/17	W1167448	3710020-AHF-C	San Diego Global	Room 105, bubbler at classroom sink/faucet with push button cap

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04/20/17	W1167449	3710020-AHF-D	San Diego Global	Room 107, bubbler at classroom sink/faucet with push button cap
04/20/17	W1167450	3710020-AHF-E	San Diego Global	Exterior, near grass area by 35th Street, floor mounted cement stand with two single bubl
04/21/17	W1168009	3710020-AHI-A	Ballard Elementary	Auditorium Bldg.; Outside Bathrooms next to the Auditorium; Upper left bubbler of 2 singl
04/21/17	W1168010	3710020-AHI-B	Ballard Elementary	Inside the Workroom/Staff Lounge; faucet the workroom interior sink
04/21/17	W1168011	3710020-AHI-C	Ballard Elementary	Kitchen Bldg; Interior hot and cold faucet on a single compartment metal sink
04/21/17	W1168012	3710020-AHI-D	Ballard Elementary	Building Main Office; Ext. Drinking fountain behind the main office in the playground; left u
04/21/17	W1168013	3710020-AHI-E	Ballard Elementary	I High Bldg.; SE end of the bldg.; 2 high/low sets of single fountains; Upper L bubbler of tl
04/21/17	W1168027	3710020-AIG-A	Jefferson Elementary	Exterior fountain on free standing wall facing cafeteria, upper right bubbler.
04/21/17	W1168028	3710020-AIG-B	Jefferson Elementary	Exterior wall mount, facing lunch court, between Girls/Boys RR, triple fountain, left bubble
04/21/17	W1168029	3710020-AIG-C	Jefferson Elementary	BLDG 200, 1st floor, between RM 202 and 203, double fountain, right bubbler
04/21/17	W1168030	3710020-AIG-D	Jefferson Elementary	BLDG 800, 1st floor, between RMs 5 and 6, dual fountain, right bubbler
04/21/17	W1168031	3710020-AIG-E	Jefferson Elementary	BLDG 800, 2nd floor, between RMs 13 and 14, dual fountain, left bubbler
04/21/17	W1168032	3710020-AIB-A	Washington Elementary	West wing, 1st floor, near room 4, across from RR, triple fountain, left bubbler
04/21/17	W1168033	3710020-AIB-B	Washington Elementary	Multi purp bldg, exterior north wall, triple fountain, center bubbler.
04/21/17	W1168034	3710020-AIB-C	Washington Elementary	West wing, 1st floor, across from custodial supply and RM 17, upper right bubbler
04/21/17	W1168035	3710020-AIB-D	Washington Elementary	Kindergarten BLDG, exterior south wall, next to K-1, triple fountain, center bubbler
04/21/17	W1168036	3710020-AIB-E	Washington Elementary	CDC Classroom P-2, east wall, bubbler at sink
04/21/17	W1168037	3710020-AFI-A	Lewis Middle School	Cafeteria single faucet dual sink
04/22/17	W1168017	3710020-AHH-A	Alba High	Main office Bldg.; Nurse's office; single bubbler on the right side of the sink inside the offi
04/22/17	W1168018	3710020-AHH-B	Alba High	Classroom building; Lunch patio area on Exterior North Wall; Upper left bubbler of 2 singl
04/22/17	W1168019	3710020-AHH-C	Alba High	Kitchen, two compartment sink, faucet
04/22/17	W1168020	3710020-AHH-D	Alba High	Classroom building; Room 4; Single bubbler on the r side of the interior sink

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04/22/17	W1168021	3710020-AHH-E	Alba High	Classroom building; Room 10; Single bubbler on the r side of the interior sink
04/22/17	W1168022	3710020-AIJ-A	Arroyo Paseo HS	Main classroom building, north exterior wall, triple fountain, left bubbler
04/22/17	W1168023	3710020-AIJ-B	Arroyo Paseo HS	Main building, room 18, bubbler at sink
04/22/17	W1168024	3710020-AIJ-C	Arroyo Paseo HS	Main building, room 17, bubbler at sink
04/22/17	W1168025	3710020-AIJ-D	Arroyo Paseo HS	Main building, room 14, bubbler at sink
04/22/17	W1168026	3710020-AIJ-E	Arroyo Paseo HS	Main building, room 13, bubbler at sink
04/22/17	W1168166	3710020-AGJ-A	Florence Elementary	Main Bldg Upper Level;Exterior west of Bldg. near boy's RR facing stairs; lower/left bubbl
04/22/17	W1168167	3710020-AGJ-B	Florence Elementary	West end Lower Level Main Bldg.; Ext.Wall mounted 3-bubbler fountain between Girls &
04/22/17	W1168168	3710020-AGJ-C	Florence Elementary	Cafeteria/Auditorium;Wall mounted exterior (West of Bldg.), facing lunch court; Lower left
04/22/17	W1168169	3710020-AGJ-D	Florence Elementary	Bldg. 301;Wall mounted exterior betw. Boy&Girls RRs, facing Kgarden/blacktop;Upper R
04/22/17	W1168170	3710020-AGJ-E	Florence Elementary	CDC (Rms C3 & C2);Wall mounted exterior (East of Bldg.)facing Children's Center Play A
04/22/17	W1168171	3710020-AJE-A	Chesterton Elementary	Auditorium exterior, North east corner, lower left bubbler
04/22/17	W1168172	3710020-AJE-B	Chesterton Elementary	Kitchen, south wall, right of range, wall mount faucet
04/22/17	W1168173	3710020-AJE-C	Chesterton Elementary	BLDG 200, south exterior facing blacktop, triple fountain, right bubbler
04/22/17	W1168174	3710020-AJE-D	Chesterton Elementary	BLDG 300, east exterior next to girls RR, triple white fountain, center bubbler
04/22/17	W1168175	3710020-AJE-E	Chesterton Elementary	B-50 classroom, bubbler at sink
04/22/17	W1168186	3710020-AJG-A	Angier Elementary	Lunch Court area near room 9; Far Left bubbler of exterior fountains closest to girls RR
04/22/17	W1168187	3710020-AJG-B	Angier Elementary	Exterior next to room 16; two triple fountains, right bubbler on right fountain
04/22/17	W1168188	3710020-AJG-C	Angier Elementary	Cafeteria/Kitchen; South interior wall in the corner in Kitchen; Spray faucet
04/22/17	W1168189	3710020-AJG-D	Angier Elementary	West exterior wall next to custodial room; Two double fountains, right bubbler of right fou
04/22/17	W1168190	3710020-AJG-E	Angier Elementary	Kindergarten; Inside K-2; bubbler on the right side of sink
04/22/17	W1168191	3710020-AJI-A	Carson Elementary	Room 14 exterior east wall, triple fountain, left bubbler

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04/22/17	W1168192	3710020-AJI-B	Carson Elementary	South/East facing wall at playground, next to girls RR, triple fountain, center bubbler
04/22/17	W1168193	3710020-AJI-C	Carson Elementary	Kindergarten playground , next to RM36, left bubbler on dual white fountain
04/22/17	W1168194	3710020-AJI-D	Carson Elementary	Cafeteria, kitchen south wall, spray nozzle
04/22/17	W1168195	3710020-AJI-E	Carson Elementary	South facing wall near boys RR, triple fountain, center bubbler
04/22/17	W1168196	3710020-AJH-A	Wegeforth Elementary	Assembly- Cafeteria; West wall of Kitchen; Faucet on a 2-compartment sink
04/22/17	W1168197	3710020-AJH-B	Wegeforth Elementary	Kindergarten Bldg.; Exterior east wall; Sample from R-side Bubbler on a drinking fountain
04/22/17	W1168198	3710020-AJH-C	Wegeforth Elementary	Classroom Bldg. East; : Exterior North wall; Right bubbler on a triple drinking fountain
04/22/17	W1168199	3710020-AJH-D	Wegeforth Elementary	Classroom Bldg. West; Exterior south wall ; Right bubbler on a double drinking fountain
04/25/17	W1168383	3710020-BAG-A	Hage Elementary	Harmonium, Inside first classroom door east wall, single bubbler fountain
04/25/17	W1168384	3710020-BAG-B	Hage Elementary	6-12 bldg., East end between boys RR & custodial closet, two single bubbler fountains lef
04/25/17	W1168385	3710020-BAG-C	Hage Elementary	inside classroom B-2, bubbler at sink
04/25/17	W1168386	3710020-BAG-D	Hage Elementary	Kindergarten, inside Rm # 18, bubbler at sink
04/25/17	W1168387	3710020-BAG-E	Hage Elementary	admin bldg. Rm. 17, bubbler at sink
04/25/17	W1168388	3710020-BAH-A	Hickman Elementary	Hickman Hall, Sink in the Prep Kitchen (South of Bldg), faucet above single basin sink
04/25/17	W1168389	3710020-BAH-B	Hickman Elementary	Hickman Hall, Wall mounted exterior (South of Bldg), outside of Prep Kitchen, facing lunc
04/25/17	W1168390	3710020-BAH-C	Hickman Elementary	10s Bldg (Rms 10-16), Wall mounted exterior (South of Bldg), between Girls RR & Custo
04/25/17	W1168391	3710020-BAH-D	Hickman Elementary	20s Bldg (Rms 21-26), Wall mounted exterior (West of Bldg), between Girls RR & Custod
04/25/17	W1168392	3710020-BAH-E	Hickman Elementary	40s Bldg (Rms 41-46), Wall mounted exterior (North of Bldg), between Girls RR & Custod
04/25/17	W1168393	3710020-BAI-A	Sandburg Elementary	Multipurpose Room, Wall mounted exterior (South of Bldg), between Auditorium Door & C
04/25/17	W1168394	3710020-BAI-B	Sandburg Elementary	Cafeteria & Kitchen, Wall mounted exterior (West of Kitchen, North of Cafeteria), facing lu
04/25/17	W1168395	3710020-BAI-C	Sandburg Elementary	400 bldg, Wall mounted exterior (West of Bldg), facing fence & field, next to Girls RR, trip
04/25/17	W1168396	3710020-BAI-D	Sandburg Elementary	Portable Classrooms, Wall mounted exterior (West of Bldg), between Girls & Boys RR, fa

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04/25/17	W1168397	3710020-BAI-E	Sandburg Elementary	300 bldg, Wall mounted exterior (South of Bldg), next to Girls rr, facing Kinder Playgroun
04/25/17	W1168398	3710020-BAJ-A	Mason Elementary	Auditorium, Wall mounted exterior (South of Bldg), between Girls RR & door to Auditoriur
04/25/17	W1168399	3710020-BAJ-B	Mason Elementary	Kitchen (Auditorium), Wall mounted exterior (West of Kitchen, North of Auditorium) facing
04/25/17	W1168400	3710020-BAJ-C	Mason Elementary	500 bldg, Wall mounted exterior (West of Bldg), next to Girls RR, facing 700 Bldg/Portabl
04/25/17	W1168401	3710020-BAJ-D	Mason Elementary	400 bldg, Wall mounted exterior (West of Bldg), next to Girls RR, facing Blacktop/Playgro
04/25/17	W1168402	3710020-BAJ-E	Mason Elementary	300 bldg, Wall mounted exterior (South of Bldg), next to Girls RR, facing Goldcoast Dr, tw
04/25/17	W1168403	3710020-BBA-A	Taft Middle	Cafeteria Bldg, East wall of kitchen, Faucet on a 2-compartment sink
04/25/17	W1168404	3710020-BBA-B	Taft Middle	Cafeteria, South walkway, quadruple bubbler fountain on brick pedistal, far right bubbler
04/25/17	W1168405	3710020-BBA-C	Taft Middle	Gymnasium, Exterior South wall of Girl's Locker room, triple bubbler fountain, right bubble
04/25/17	W1168406	3710020-BBA-D	Taft Middle	Gymnasium, Exterior South wall of Boy's Locker room, triple bubbler fountain, right bubbl
04/25/17	W1168407	3710020-BBA-E	Taft Middle	Library, South walkway, quadruple bubbler fountain on brick pedistal, far right bubbler
04/25/17	W1168502	3710020-AJH-E	Wegeforth Elementary	Admin./Cafeteria Bldg. at CDC; Interior South wall of cafeteria; Right Bubbler on the R-sic
04/26/17	W1168332	3710020-BBH-A	Walker Elementary	bldg 12-16, Inside rm 14 at back of room in 3-C room, Bubbler drinking fountain at sink
04/26/17	W1168333	3710020-BBH-B	Walker Elementary	bldg 11-16, Inside classroom 13 at back of room inside 3-D, bubbler at sink
04/26/17	W1168334	3710020-BBH-C	Walker Elementary	Kitchen/Lunch Area, Outside near lunch court at kitchen wall, three-bubbler fountain, left
04/26/17	W1168335	3710020-BBH-D	Walker Elementary	bldg 31-36, near black top playground closest to red play equipment, two single-bubbler f
04/26/17	W1168336	3710020-BBH-E	Walker Elementary	CC bldg, outdoor hallway on left wall between boys and girls RRs, two single-bubbler fou
04/26/17	W1168343	3710020-BAE-A	Harriet Tubman Charter	Main (Admin) Building, Outside (NW corner) of main building on West facing wall, triple b
04/26/17	W1168344	3710020-BAE-B	Harriet Tubman Charter	Cafeteria Building, Outside wall facing North, two sets of two single bubbler fountains, rig
04/26/17	W1168345	3710020-BAE-C	Harriet Tubman Charter	Inside Kitchen far South wall, regular faucet (not pull down) on 3 compartment sink
04/26/17	W1168346	3710020-BAE-D	Harriet Tubman Charter	Kindergarten Building, Room K-1, Single Bubbler on sink
04/26/17	W1168347	3710020-BAE-E	Harriet Tubman Charter	Bungalow Building, Outside of Room 16, freestanding fixture with 2 single bubbler fountai

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04/26/17	W1168551	3710020-BBI-A	Wangenheim Middle	Bungalow Restrooms, Outside Between restrooms near room #23 and dirt field, dual bub
04/26/17	W1168552	3710020-BBI-B	Wangenheim Middle	Outside West end of P E building Boys Gym, dual bubbler drinking fountain, right bubbler
04/26/17	W1168553	3710020-BBI-C	Wangenheim Middle	Outside East side Girls Gym, triple bubbler fountain, right bubbler
04/26/17	W1168554	3710020-BBI-D	Wangenheim Middle	West end of handball courts, dual bubbler fountain, left bubbler
04/26/17	W1168555	3710020-BBI-E	Wangenheim Middle	500 bldg. Media Center, Outside South end between 507 & Girls RR, dual bubbler founta
04/26/17	W1168556	3710020-BBG-A	Scripps Ranch High	Food Services Building, Inside west wall next to reverse osmosis water cylinder, single wa
04/26/17	W1168557	3710020-BBG-B	Scripps Ranch High	Gym, Inside lower floor Right side near staircase and men's restroom, three single-bubble
04/26/17	W1168558	3710020-BBG-C	Scripps Ranch High	Gym, Inside lower floor Left side near staircase and women's restroom, three single-bubb
04/26/17	W1168559	3710020-BBG-D	Scripps Ranch High	400 bldg, Lower floor hallway next to men's restroom and near rm# 413, Single bubbler d
04/26/17	W1168560	3710020-BBG-E	Scripps Ranch High	500 bldg, Lower Floor hallway between women's & men's RRs, same hall as no.4, Single
04/26/17	W1168562	3710020-BBF-A	Twain HS	BLDG 6, Exterior wall near RM 6, lower left bubbler
04/26/17	W1168563	3710020-BBF-B	Twain HS	Room 5, bubbler at sink
04/26/17	W1168564	3710020-BBF-C	Twain HS	Room 4, bubbler at sink
04/26/17	W1168565	3710020-BBF-D	Twain HS	Room 3, bubbler at sink
04/26/17	W1168566	3710020-BBF-E	Twain HS	BLDG 7-13, exterior west wall, lower left bubbler
04/27/17	W1168287	3710020-BAC-A	Einstein Academy	Main office building, Main office building, two compartment kitchen sink
04/27/17	W1168288	3710020-BAC-B	Einstein Academy	Main building outside multi purpose room, West wall between boys and girls RR, two sing
04/27/17	W1168289	3710020-BAC-C	Einstein Academy	2 story classroom building, Exterior south wall 1st floor between boys and girls RR, triple
04/27/17	W1168290	3710020-BAC-D	Einstein Academy	2 story classroom building, 1st floor interior adjacent to boys RR across from room 6, , tw
04/27/17	W1168291	3710020-BAC-E	Einstein Academy	2 story classroom building, 2nd floor adjacent to staircase across from room 9, dual bubb
04/27/17	W1168358	3710020-BBC-A	King-Chavez Academy	Outside Bathrooms east of main office, two single bubbler fountains, upper right fountain
04/27/17	W1168359	3710020-BBC-B	King-Chavez Academy	Outside, Next to girls bathroom and jungle gym, triple bubbler fountain, middle bubbler

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04/27/17	W1168360	3710020-BBC-C	King-Chavez Academy	Outside East of room 13, triple bubbler fountain, left bubbler
04/27/17	W1168361	3710020-BBC-D	King-Chavez Academy	Outside bathroom next to the Auditorium in front of Bathrooms, two single bubbler fountai
04/27/17	W1168362	3710020-BBC-E	King-Chavez Academy	Outside Bathrooms next to Library, three single bubbler fountains, middle fountain
04/27/17	W1168602	3710020-BCA-A	Dingeman Elementary	near Lunch Arbor, Between boys & girls RR and Custodian closet door, single bubbler rig
04/27/17	W1168603	3710020-BCA-B	Dingeman Elementary	B-4, NW end near RRs, triple bubbler fountain right of single bubbler fountain, right bubbl
04/27/17	W1168604	3710020-BCA-C	Dingeman Elementary	Kinder playground behind kinder classrooms near street, single bubbler brinking fountain
04/27/17	W1168605	3710020-BCA-D	Dingeman Elementary	B-20, inside classroom B-20 back of the room, bubbler at sink
04/27/17	W1168606	3710020-BCA-E	Dingeman Elementary	B-16, inside classroom B-16 back of the room, bubbler at sink
04/27/17	W1168617	3710020-BCD-A	Miramar Ranch Elementary	Lounge/lunch, south wall, triple fountain, left bubbler
04/27/17	W1168618	3710020-BCD-B	Miramar Ranch Elementary	kindergarten, north exterior wall, triple fountain, center bubbler
04/27/17	W1168619	3710020-BCD-C	Miramar Ranch Elementary	upper field bugalows, between boys/girls RR, two triple fountains, left fountain, left bubble
04/27/17	W1168620	3710020-BCD-D	Miramar Ranch Elementary	upper kinder area, fountain near TK B-3, double fountain, left bubbler
04/27/17	W1168621	3710020-BCD-E	Miramar Ranch Elementary	second floor hallway east end, near girls RR, lower left fountain bubbler
04/27/17	W1168766	3710020-BCE-A	Ross Elementary	Kitchen south wall, spray faucet at single compartment sink
04/27/17	W1168767	3710020-BCE-B	Ross Elementary	Auditorium/cafeteria, north exterior wall, triple drinking fountain, right bubbler
04/27/17	W1168768	3710020-BCE-C	Ross Elementary	BLDG 1-6, exterior east wall, three single fountains, lowest left bubbler
04/27/17	W1168769	3710020-BCE-D	Ross Elementary	BLDG 7-12, exterior east wall, three single fountains, lowest left bubbler
04/27/17	W1168770	3710020-BCE-E	Ross Elementary	Admin/kindergarten bldg, exterior south wall, left lower bubbler
04/28/17	W1168607	3710020-BCB-A	Scripps Elementary	300 bldg, Down stairs hallway near custodian door 2 & girls /boys RRs, two single bubble
04/28/17	W1168608	3710020-BCB-B	Scripps Elementary	300 bldg, Down stairs between 306 & RR, two single bubbler fountains, lower right founta
04/28/17	W1168609	3710020-BCB-C	Scripps Elementary	Lunch Court yard-Restrooms, south end of lunch court, two single bubbler fountains, upp
04/28/17	W1168610	3710020-BCB-D	Scripps Elementary	300 bldg, Up Stairs, near 356, two single bubbler fountains, lower right fountain

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04/28/17	W1168611	3710020-BCB-E	Scripps Elementary	300 bldg, Up Stairs, next to boys /girls RR & custodian door #3, two single bubbler founta
04/28/17	W1168622	3710020-BCI-A	Linda Vista Elementary	Kitchen, east interior wall, faucet at sink
04/28/17	W1168623	3710020-BCI-B	Linda Vista Elementary	RMs 1-13, North exterior wall across from play structure, lower left bubbler
04/28/17	W1168624	3710020-BCI-C	Linda Vista Elementary	State Preschool, south exterior of RM 7, dual fountain, left bubbler
04/28/17	W1168625	3710020-BCI-D	Linda Vista Elementary	RMs 14-22, west exterior wall near flagpole, lower left bubbler
04/28/17	W1168626	3710020-BCI-E	Linda Vista Elementary	cafeteria, south interior wall near kitchen, lower left bubbler
04/28/17	W1168627	3710020-BGB-A	East Village High	East interior wall of staff break room, bubbler at sink
04/28/17	W1168628	3710020-BGB-B	East Village High	Room B-2, art room, bubbler at sink
04/28/17	W1168629	3710020-BGB-C	East Village High	Room B-3, Island at front of room, bubbler at sink
04/28/17	W1168630	3710020-BGB-D	East Village High	Room B-2, south interior wall, bubbler at sink
04/28/17	W1168631	3710020-BGB-E	East Village High	East side of campus, next to fence, pedestal, lower bubbler
04/28/17	W1168771	3710020-BCF-A	Hancock Elementary	Kitchen, Southeast inside cafeteria, faucet above two compartment sink
04/28/17	W1168772	3710020-BCF-B	Hancock Elementary	Cafeteria, Southeast inside cafeteria, southeast corner, single bubbler fountain
04/28/17	W1168773	3710020-BCF-C	Hancock Elementary	Building 3, Outside of rooms 30 and 21 next to RRs, two single bubbler fountains, lower l
04/28/17	W1168774	3710020-BCF-D	Hancock Elementary	Building 2, North end of Building, triple bubbler fountain, center bubbler
04/28/17	W1168775	3710020-BCF-E	Hancock Elementary	Building 1, Inside Room 1, bubbler at sink
04/28/17	W1168791	3710020-BCH-A	Miller Elementary	Main office, nurse's area, faucet at sink
04/28/17	W1168792	3710020-BCH-B	Miller Elementary	Orange door bldg, south end, triple fountain, left bubbler
04/28/17	W1168793	3710020-BCH-C	Miller Elementary	Yellow door bldg, north end, triple fountain, left bubbler
04/28/17	W1168794	3710020-BCH-D	Miller Elementary	cafeteria, two compartment sink w/pulldown srayer and faucet, faucet
04/28/17	W1168795	3710020-BCH-E	Miller Elementary	Green door bldg, westerly end, triple and single fountains, right bubbler on triple fountain
04/29/17	W1168368	3710020-BBE-A	Normal Heights Elementary	200 bldg, : Wall mounted exterior (East of Bldg), 1st Floor (Rms 213-203), next to Unisex

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04/29/17	W1168369	3710020-BBE-B	Normal Heights Elementary	300 bldg, Rm 303, classroom sink, bubbler at sink
04/29/17	W1168370	3710020-BBE-C	Normal Heights Elementary	400 bldg, Wall mounted exterior (South of Bldg), 1st Floor, next to RRs and walkway, faci
04/29/17	W1168371	3710020-BBE-D	Normal Heights Elementary	500 bldg, Wall mounted exterior, 1st Floor, next to Women & Unisex Restrooms and walk
04/29/17	W1168372	3710020-BBE-E	Normal Heights Elementary	Multipurpose Bldg (Auditorium/Cafeteria), Wall mounted exterior (North of Bldg), next to F
04/29/17	W1169333	3710020-BCJ-A	Marshall Middle	PE building, Boys end, between boys & girls RR, two single bubbler fountains, lower right
04/29/17	W1169334	3710020-BCJ-B	Marshall Middle	Multi-Purpose Room, outside between boys & girls RR, two single bubbler fountains, upp
04/29/17	W1169335	3710020-BCJ-C	Marshall Middle	Building C, Outside lower floor east wall, two single bubbler fountains, upper left fountain
04/29/17	W1169336	3710020-BCJ-D	Marshall Middle	Building A, Outside east wall lowest level, two single bubbler fountains, upper left fountai
04/29/17	W1169337	3710020-BCJ-E	Marshall Middle	Building B, Lowest level east wall, two single bubbler fountains, upper left fountain
04/29/17	W1169338	3710020-BDA-A	Juarez Elementary	Kindergarten Bldg, Between K-1 & K-2 and next to girl's RR, two single bubbler fountains
04/29/17	W1169339	3710020-BDA-B	Juarez Elementary	Classrooms 1-6 bldg, North-East end of building next to boy/girl RRs, triple bubbler founta
04/29/17	W1169340	3710020-BDA-C	Juarez Elementary	Classrooms 9-12 bldg, East end of building next to boy's RR and P.E. Equipment room, t
04/29/17	W1169341	3710020-BDA-D	Juarez Elementary	Lunch Court, East exterior wall of kitchen next to lunch court, two single bubbler fountains
04/29/17	W1169342	3710020-BDA-E	Juarez Elementary	Kitchen, East interior wall of kitchen, sink faucet head above 2 compartment sink
04/29/17	W1169343	3710020-BDB-A	Jones Elementary	Kindergarten bldg, West exterior side between K-1 & K-2, two single-bubbler fountains, lo
04/29/17	W1169344	3710020-BDB-B	Jones Elementary	Auditorium/Multipurpose, East exterior wall between heater room & cafeteria door, two sir
04/29/17	W1169345	3710020-BDB-C	Jones Elementary	Kitchen, West interior wall in kitchen, spray nozzle above single compartment sink
04/29/17	W1169346	3710020-BDB-D	Jones Elementary	North-East exterior next to room 7 & P.E. Equipment room, triple bubbler fountain, left bul
04/29/17	W1169347	3710020-BDB-E	Jones Elementary	South-East exterior wall close to room 12, two single-bubbler fountains, lower left fountair
04/29/17	W1169348	3710020-BDC-A	Serra High	Main Office/ Building 1, South end of office hallway between RRs, single bubbler fountain
04/29/17	W1169349	3710020-BDC-B	Serra High	Building 2, Near rooms 213 and RRs, single bubbler fountain
04/29/17	W1169350	3710020-BDC-C	Serra High	Building 3 or 300 building, Outside North end near room 301, right triple bubbler fountain,

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04/29/17	W1169351	3710020-BDC-D	Serra High	Building 4 or 400 building, Inside hallway near room 411 next to RRs, two single-bubbler
04/29/17	W1169352	3710020-BDC-E	Serra High	inside Kitchen near lunch court, Located on kitchen island, faucet above single compartm
05/02/17	W1163912	3710020-AAE-A	Carver Elementary	Kindergarten Room #1, left sink bubbler, 057-1
05/02/17	W1163913	3710020-AAE-B	Carver Elementary	Kindergarten Room 2, right sink bubbler, 057-2
05/02/17	W1163914	3710020-AAE-C	Carver Elementary	Nurses office, bubbler in main sink, 057-3
05/02/17	W1163915	3710020-AAE-D	Carver Elementary	Interior patio, mid school, left fountain, middle bubbler 057-4
05/02/17	W1163916	3710020-AAE-E	Carver Elementary	interior patio, east of grass, right fountain, middle bubbler
05/02/17	W1165211	3710020-ACH-A	Bandini Elementary	Admin BLDG, west wall near corner, triple fountain, right bubbler
05/02/17	W1165212	3710020-ACH-B	Bandini Elementary	Kitchen, outside kitchen service building, double fountain, right bubbler
05/02/17	W1165213	3710020-ACH-C	Bandini Elementary	BLDG 7,8,9, near room 9, around corner from restrooms, double fountain, right bubbler
05/02/17	W1165214	3710020-ACH-D	Bandini Elementary	BLDG 7,8,9, in room 9, bubbler at sink
05/02/17	W1165215	3710020-ACH-E	Bandini Elementary	BLDG 10,11,12,13 in room 11, left side, bubbler at sink
05/02/17	W1166936	3710020-AFF-A	Fay Elementary	Main building, near elevator mechanical, upper right bubbler
05/02/17	W1166937	3710020-AFF-B	Fay Elementary	Main bldg, 2nd floor near custodial storage, lower left
05/02/17	W1166938	3710020-AFF-C	Fay Elementary	Kindergarten bldg, exterior north wall, upper right bubbler
05/02/17	W1166939	3710020-AFF-D	Fay Elementary	Cafeteria, exterior south wall between boys/girls RR, lower right bubbler
05/02/17	W1166940	3710020-AFF-E	Fay Elementary	Kitchen single compartment sink to the right of 3 stage sink
05/02/17	W1168057	3710020-AJD-A	Clark Middle	Kitchen, West side of kitchen near service area, sink faucet in wash sink, sign: "washing
05/02/17	W1168059	3710020-AJD-C	Clark Middle	400 / P.E. Building, Exterior drinking fountain on south wall adjacent to racquetball courts
05/02/17	W1168061	3710020-AJD-E	Clark Middle	200 Buildiing, room 207, sink faucet in center of room
05/02/17	W1168062	3710020-AJJ-A	Birney Elementary	Cafeteria, Wall mounted exterior (North of Bldg), facing lunch court, two single bubbler fo
05/02/17	W1168063	3710020-AJJ-B	Birney Elementary	Kindergarten/Preschool, Rm K1, classroom sink facing Restrooms, center bubbler betwe

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Water Quality Chemistry Services

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Report Date: 7/13/17

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Sample Date	Sample ID	External ID	School Name	Sampling Point
05/02/17	W1168064	3710020-AJJ-C	Birney Elementary	Wall mounted exterior behind the elevator (East of Bldg), next to Electrical Equipment Rm
05/02/17	W1168065	3710020-AJJ-D	Birney Elementary	200 BLGD, Wall mounted exterior (North of Bldg), between Storage 202 & 201/Girls & Bo
05/02/17	W1168066	3710020-AJJ-E	Birney Elementary	300 BLDG, Wall mounted exterior (North of Bldg), between Girls & Boys Restrooms, facir
05/03/17	W1168067	3710020-BAA-A	Burbank Elementary	Building 200 (first floor), Outside drinking fountain next to BDF/IDF/ Girls Bathroom(Hall w
05/03/17	W1168068	3710020-BAA-B	Burbank Elementary	Building 200 (Second Floor), Outside drinking fountain next to electrical room, two single
05/03/17	W1168069	3710020-BAA-C	Burbank Elementary	Building 300, Outside drinking fountain next to the 300 building south entrance, two single
05/03/17	W1168070	3710020-BAA-D	Burbank Elementary	Outside building 100 (playground), Drinking fountain in front of Building, two single bubble
05/03/17	W1168071	3710020-BAA-E	Burbank Elementary	inside Building 300 (Kitchen), faucet above single basin sink
05/03/17	W1168072	3710020-BAB-A	Central Elementary	Main Office Building, Outside North End of Campus Downstairs near Nurse's Office, two s
05/03/17	W1168073	3710020-BAB-B	Central Elementary	Cafeteria, Under covered lunch patio, two single bubbler fountains, lower left fountain
05/03/17	W1168074	3710020-BAB-C	Central Elementary	Cafeteria/Kitchen, Interior sink located in Southeast corner of kitchen, single faucet above
05/03/17	W1168075	3710020-BAB-D	Central Elementary	Northwest side of campus interior court yard, two single bubbler fountains, lower left foun
05/03/17	W1168076	3710020-BAB-E	Central Elementary	Bungalows, Room 53 at the Southwest corner of the campus, Bubbler on right side of sin
05/03/17	W1168277	3710020-AHD-A	Cherokee Point Elementary	Bldg. C; Wall mounted exterior (E of Bldg), facing lunch court area;upper R bubbler of 2 s
05/03/17	W1168278	3710020-AHD-B	Cherokee Point Elementary	2-Story Building A; Rm A101-Kindergarten, 1st Floor, single bubbler in classroom R side
05/03/17	W1168279	3710020-AHD-C	Cherokee Point Elementary	Ground level Bldg A;Wall-mounted ext. (East of Bldg), facing Bldg D, betw. A107-Mech. F
05/03/17	W1168280	3710020-AHD-D	Cherokee Point Elementary	Bldg D; Rm D102-Kinderg., 1st Floor, classroom sink/faucet;bubbler Rside of sink
05/03/17	W1168281	3710020-AHD-E	Cherokee Point Elementary	Bldg F; Wall mounted ext South side of Bldg, 1st Floor, next to Boys & Girls RRs, facing F
05/03/17	W1168297	3710020-BAD-A	Garfield Elementary	MultiPurpose Room (MPR)/Kitchen, Wall mounted along the hallway, between Girls & Bo
05/03/17	W1168298	3710020-BAD-B	Garfield Elementary	Kitchen, Wall mounted exterior (South of Bldg), between Kitchen & Rm 10, facing Lunch
05/03/17	W1168299	3710020-BAD-C	Garfield Elementary	Blg w/ Classrooms 12-18, Wall mounted exterior (East of Bldg), between Classrooms 17
05/03/17	W1168300	3710020-BAD-D	Garfield Elementary	classroom 2, classroom sink/faucet, bubbler with push button cap at sink

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05/03/17	W1168301	3710020-BAD-E	Garfield Elementary	CDC, CC3, classroom sink/faucet, 2 sinks, bubbler on right sink
05/03/17	W1169434	3710020-AHG-A	Darnall Charter	300 Building, Lunch Area outside of Men's Faculty RR, two single bubble fountains, uppe
05/03/17	W1169435	3710020-AHG-B	Darnall Charter	Bungalow Next to B-13, triple bubbler fountain, right bubbler
05/03/17	W1169436	3710020-AHG-C	Darnall Charter	200 Building, Near room 212, dual bubbler fountain, left bubbler
05/03/17	W1169437	3710020-AHG-D	Darnall Charter	700 Building, Corner of building, triple bubbler fountain, left bubbler
05/03/17	W1169438	3710020-AHG-E	Darnall Charter	600 building, Near boiler room and storage room, single bubbler fountain
05/04/17	W1168348	3710020-BAF-A	Ibarra Elementary	Library, Wall mounted exterior, facing Kinder Yard, two single bubbler fountains, lower lef
05/04/17	W1168349	3710020-BAF-B	Ibarra Elementary	Rooms 104-101 Two-story bldg., Wall mounted exterior, 1st Floor, next to restrooms, hall
05/04/17	W1168350	3710020-BAF-C	Ibarra Elementary	Elevator 2, Wall mounted exterior, behind Elevator bldg., facing stage/blacktop/lunch arb
05/04/17	W1168351	3710020-BAF-D	Ibarra Elementary	Elevator 1, Wall mounted exterior, behind Elevator bldg., facing blacktop, three single bul
05/04/17	W1168352	3710020-BAF-E	Ibarra Elementary	Rooms 112-109 Two-story bldg., Wall mounted exterior, next to RR, facing stairs, two sin
05/04/17	W1168353	3710020-BBB-A	Kimbrough Elementary	Multipurpose Bldg., North wall of Kitchen, Faucet on a two-compartment sink
05/04/17	W1168354	3710020-BBB-B	Kimbrough Elementary	Restrooms Bldg, South wall, two single bubbler fountains, lower left fountain
05/04/17	W1168355	3710020-BBB-C	Kimbrough Elementary	Administration Bldg., East wall, four single bubbler fountains, far left fountain
05/04/17	W1168356	3710020-BBB-D	Kimbrough Elementary	Classroom Bldg. 100, West wall of restrooms near room 105, five single bubbler fountain
05/04/17	W1168357	3710020-BBB-E	Kimbrough Elementary	Classroom Bldg. 100, West wall of restrooms near room 110, five single bubbler fountain
05/04/17	W1168363	3710020-BBD-A	Logan K-8	Service Bldg., North wall of Kitchen, Faucet on a single compartment sink
05/04/17	W1168364	3710020-BBD-B	Logan K-8	Service Bldg., East wall of Multipurpose room, dual bubbler fountain, right bubbler
05/04/17	W1168365	3710020-BBD-C	Logan K-8	Service Bldg., East wall of nurse’s office, Faucet on a single compartment sink
05/04/17	W1168366	3710020-BBD-D	Logan K-8	Classroom Building, Exterior west wall of southern rr, dual bubbler fountain, right bubbler
05/04/17	W1168367	3710020-BBD-E	Logan K-8	portable classrooms/ sport field, south of room B-10, West/lower bubbler on a concrete p
05/04/17	W1169400	3710020-AIH-A	High Tech High International	1st Floor corridor drinking fountain between Boys and Girls Restrooms;Upper L bubbler o

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05/04/17	W1169401	3710020-AIH-B	High Tech High International	2nd Floor Corridor drinking fountain adjacent to Classroom 205; Upper L bubbler of 2 sing
05/04/17	W1169402	3710020-AID-A	High Tech High Media Arts	2nd Floor;outside RM 217;corridor fountain adjacent to girls RR;upper left bubbler
05/04/17	W1169403	3710020-AID-B	High Tech High Media Arts	2nd Floor;outside RM 213;corridor fountain adjacent to boys RR;upper left bubbler
05/04/17	W1169404	3710020-BED-A	Wilson Middle	500 Building, North face of Interior wall of Kitchen, Faucet on a 2-compartment sink
05/04/17	W1169405	3710020-BED-B	Wilson Middle	500 Building, Northern facing exterior breezeway wall, near lunch shelter, triple bubbler fo
05/04/17	W1169406	3710020-BED-C	Wilson Middle	400 Building, Exterior west wall, two dual bubbler fountains, left fountain, left bubbler
05/04/17	W1169407	3710020-BED-D	Wilson Middle	Administration Building, Exterior West wall left of stairwell, two single-bubbler fountains, l
05/04/17	W1169408	3710020-BED-E	Wilson Middle	300 Building, Exterior east wall, dual bubbler fountain, left bubbler
05/04/17	W1169419	3710020-AIC-A	High Tech Elementary Explorer	1st floor;Inside Room 132; Upper L bubbler of 2 single fountains
05/04/17	W1169420	3710020-AIC-B	High Tech Elementary Explorer	1st floor; Play yard drinking fountain between exterior restrooms; single bubbler on a sing
05/04/17	W1169421	3710020-AIC-C	High Tech Elementary Explorer	1st floor; Corridor drinking fountain between boys and girls restroom; upper L bubbler of 2
05/04/17	W1169422	3710020-AIE-A	High Tech High	Corridor drinking fountain across from Computer Server Room 127;Upper L bubbler of 2 s
05/04/17	W1169423	3710020-AIE-B	High Tech High	Corridor drinking fountain adjacent to Girls Restrooms 169;Upper L bubbler of 2 single fo
05/04/17	W1170164	3710020-AHJ-A	High Tech High Media Arts 2	2291 Truxtun Road, Bldg. 37; Corridor drinking fountains adjacent to Restrooms; Upper L
05/04/17	W1170165	3710020-AIF-A	High Tech High Middle	BLDG 36;corridor fountain adjacent to RR bwtn 135 & 136; upper-left fountain bubbler
05/04/17	W1170167	3710020-AIF-C	High Tech High Middle	BLDG 36; Main Entry; exterior fountain to the left of main entry
05/04/17	W1170168	3710020-AID-A	High Tech High Middle Media Arts	2nd Floor;outside RM 217;corridor fountain adjacent to girls RR;upper left bubbler
05/04/17	W1170175	3710020-AIA-A	High Tech Elementary	1st Fl. corridor drinking fountain adjacent to Storage Room 142;Upper L bubbler of 2 sing
05/04/17	W1170176	3710020-AIA-B	High Tech Elementary	1st Fl. Corridor drinking fountain between Boys and Girls Restrooms; Upper L bubbler of
05/04/17	W1170178	3710020-AIA-D	High Tech Elementary	2nd Floor Drinking Fountain between Boys and Girls Restrooms; Upper L bubbler of 2 sir
05/04/17	W1170216	3710020-BGA-A	Golden Hill K-8	BLDG A, north wall of kitchen, faucet at 2 compartment sink
05/04/17	W1170217	3710020-BGA-B	Golden Hill K-8	BLDG G, south side of BLDG, exterior west facing left to boys RR, triple fountain, left bub

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05/04/17	W1170218	3710020-BGA-C	Golden Hill K-8	BLDG C, south side of BLDG, exterior south wall of staff restrooms, 3 single fountains, lo
05/04/17	W1170219	3710020-BGA-D	Golden Hill K-8	Newer gym, interior south wall, 2 fountains, lower left fountain
05/04/17	W1170220	3710020-BGA-E	Golden Hill K-8	BLDG E, exterior north side of BLDG, 2 single fountains, lower left fountain
05/05/17	W1163947	3710020-AAF-A	Rosa Parks Elementary School	Cafeteria, wall mounted exterior, lunch court, near boys rest room, east wall, left bubbler
05/05/17	W1163948	3710020-AAF-B	Rosa Parks Elementary School	Lunch court, storage area 3, west wall, right bubbler (230-02)
05/05/17	W1163949	3710020-AAF-C	Rosa Parks Elementary School	Kindergarten area @ room 1, (230-03)
05/05/17	W1163950	3710020-AAF-D	Rosa Parks Elementary School	BLDG 500, East wall under 506-509 signage, right bubbler
05/05/17	W1168292	3710020-AHB-A	Euclid Elementary	Building A;Lunch Patio on North end of campus near office; R-side bubbler on a 2-bubble
05/05/17	W1168293	3710020-AHB-B	Euclid Elementary	South end of Building A; Far R-side bubbler on a 3-bubbler fountain
05/05/17	W1168294	3710020-AHB-C	Euclid Elementary	North end Bldg. D; indoors first floor near restrooms; Lower R-side bubbler of 2 single fou
05/05/17	W1168295	3710020-AHB-D	Euclid Elementary	Bldg. K; Outdoor bubbler facing west;Lower L bubbler of 2 single fountains
05/05/17	W1168296	3710020-AHB-E	Euclid Elementary	Child Development Center, w end of campus next to employee parking lot; Lower L bubbl
05/05/17	W1168592	3710020-AJB-A	Joyner Elementary	Cafeteria, outside - Next to lunch court and women rr at checkered wall, two single-bubbl
05/05/17	W1168593	3710020-AJB-B	Joyner Elementary	700 bldg., Inside rm. 703 at sink, Bubbler drinking fountain located at sink
05/05/17	W1168594	3710020-AJB-C	Joyner Elementary	600 bldg., outside of womens RR, four single bubbler fountains, far left top fountain
05/05/17	W1168595	3710020-AJB-D	Joyner Elementary	300 bldg., inside room 315 at sink, bubbler at sink
05/05/17	W1168596	3710020-AJB-E	Joyner Elementary	400 bldg., outside near room 402, two single bubbler fountains, lower left fountain
05/05/17	W1169365	3710020-BDD-A	Urban Discovery Academy	Main bldg, ground floor, corridor 138, east end, between RMs 139-141, upper right bubbl
05/05/17	W1169366	3710020-BDD-B	Urban Discovery Academy	Main bldg, ground floor, corridor 134, between girls/boys RR, right bottle filling station
05/05/17	W1169367	3710020-BDD-C	Urban Discovery Academy	Main bldg, ground floor, Room 135, faucet at sink
05/05/17	W1169368	3710020-BDD-D	Urban Discovery Academy	Main bldg, 1st floor, to the left Room 233, faucet at sink, upper left fountain
05/05/17	W1169369	3710020-BDD-E	Urban Discovery Academy	Main bldg, 1st floor, corridor 222, between girls/boys RR, right bottle filling station

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05/05/17	W1169409	3710020-BEE-A	Challenger Middle	Food Service Facility, Wall mounted exterior (West of Bldg), facing lunch court, two single
05/05/17	W1169410	3710020-BEE-B	Challenger Middle	PE Complex, Wall mounted exterior (South of Bldg), next to Boys Restroom, facing lunch
05/05/17	W1169411	3710020-BEE-C	Challenger Middle	PE Complex, Wall mounted exterior (West of Bldg-RIGHT side fountain), next to Boys Lo
05/05/17	W1169412	3710020-BEE-D	Challenger Middle	PE Complex, Wall mounted exterior (West of Bldg-LEFT side fountain), next to Girls' Loc
05/05/17	W1169413	3710020-BEE-E	Challenger Middle	PE Complex, Wall mounted exterior (North of Bldg), next to Girls' RR, facing PE Tennis C
05/05/17	W1171125	3710020-AJF-A	Language Academy	100 Bldg.; NE corner of building (outside room 11); Left-side bubbler on a 2-bubbler foun
05/05/17	W1171126	3710020-AJF-B	Language Academy	400 Building; Exterior N side of Bldg.; Middle bubbler of 3 separate single fountains
05/05/17	W1171127	3710020-AJF-C	Language Academy	400 Bldg.; Rm 4; Interior 2-compartment sink; single bubbler on R side of sink
05/05/17	W1171128	3710020-AJF-D	Language Academy	400 Building; SW corner of building outside of room 3; Upper L bubbler of 2 separate sing
05/05/17	W1171129	3710020-AJF-E	Language Academy	Kindergarten building; Inside RM 2; Single bubbler on R side of a single sink
05/06/17	W1168597	3710020-BBJ-A	Cubberley Elementary	Kindergarten bldg., Inside K-1 in Center Island, Sink-mounted bubbler
05/06/17	W1168598	3710020-BBJ-B	Cubberley Elementary	Classrooms 1-6 bldg, North exterior side of building, two single-bubbler fountains, lower l
05/06/17	W1168599	3710020-BBJ-C	Cubberley Elementary	Classrooms 7-12 bldg, North exterior side of building, two single-bubbler fountains, upper
05/06/17	W1168600	3710020-BBJ-D	Cubberley Elementary	Cafeteria, East exterior side of building, three single bubbler fountains right of sink/bubble
05/06/17	W1168601	3710020-BBJ-E	Cubberley Elementary	Kitchen, West interior wall of kitchen, Spray nozzle at single compartment sink
05/06/17	W1169360	3710020-BDG-A	Kumeyaay Elementary	Kindergarten Building, Outside East facing wall, Triple bubbler fountain left of a single bul
05/06/17	W1169361	3710020-BDG-B	Kumeyaay Elementary	Library/Media and RR building, Center of campus east side of building between RRs, Trip
05/06/17	W1169362	3710020-BDG-C	Kumeyaay Elementary	Library/Media and RR building, Center of campus east side of building between RRs, Trip
05/06/17	W1169363	3710020-BDG-D	Kumeyaay Elementary	Bungalow K-5 (marked as K-3 on map), East end of kindergarten area, bubbler at sink
05/06/17	W1169364	3710020-BDG-E	Kumeyaay Elementary	Kindergarten Building Room K-2, bubbler at sink
05/06/17	W1169414	3710020-AJC-A	Marshall Elementary	Kindergarten Building, Room K-1 Interior, Bubbler on faucet
05/06/17	W1169415	3710020-AJC-B	Marshall Elementary	200 Building, Outside of RRs near room 201, dual bubbler fountain, left bubbler

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05/06/17	W1169416	3710020-AJC-C	Marshall Elementary	300 building, Outside of RRs near room 309, dual bubbler fountain, right bubbler
05/06/17	W1169417	3710020-AJC-D	Marshall Elementary	Portable RRs near T-1, Middle of upper yard area, triple bubbler fountain, center bubbler
05/06/17	W1169418	3710020-AJC-E	Marshall Elementary	Bungalow Building, South end of lower yard, triple bubbler fountain, center bubbler
05/06/17	W1169424	3710020-BEF-A	de Portola Middle	Basketball court area east side of campus, Outside of courts next to bleachers, triple bub
05/06/17	W1169425	3710020-BEF-B	de Portola Middle	Bungalow RRs, North side of campus across asphalt area, two single bubbler fountains, u
05/06/17	W1169426	3710020-BEF-C	de Portola Middle	Lunch Arbor, Next to fenced washing area east facing wall, triple bubbler fountain middle
05/06/17	W1169427	3710020-BEF-D	de Portola Middle	Restroom building, Back side of RR building across from Room #801, dual bubbler founta
05/06/17	W1169428	3710020-BEF-E	de Portola Middle	Media Center Building, In front of main entrance to Media Center, dual bubbler foutain, le
05/06/17	W1169429	3710020-BEG-A	Farb Middle	Cafeteria Bldg, Outside West facing wall next to Cafeteria, triple bubbler fountain, middle
05/06/17	W1169430	3710020-BEG-B	Farb Middle	Bldg Rooms 50-56, West facing wall next to Room 51, triple bubbler fountain, right bubble
05/06/17	W1169431	3710020-BEG-C	Farb Middle	Bldg Rooms 41-46,West facing wall next to Room 41, triple bubbler fountain, left bubbler
05/06/17	W1169432	3710020-BEG-D	Farb Middle	Kitchen, spray nozzle over right sink compartment
05/06/17	W1169433	3710020-BEG-E	Farb Middle	Administration/Main Office Bldg, Interior fountain center of office, two single-bubbler fount
05/06/17	W1171378	3710020-AAF-E	Rosa Parks Elementary School	Cafeteria, food prep area, sink swing arm (230-05)
05/06/17	W1171699	3710020-AJD-D	Clark Middle	200 bldg, 1st floor, northend between RMs 208-208, 2 single buublers, lower left bubbler
05/06/17	W1171700	3710020-AJD-B	Clark Middle	Main Building, westside of campus, north of library, under stairs near parent center, uppe
05/09/17	W1168612	3710020-BCC-A	Fletcher Elementary	Classrooms 1-6 bldg, South exterior end of building near basketball court, two single bub
05/09/17	W1168613	3710020-BCC-B	Fletcher Elementary	Classrooms 7-12 bldg, South end of building near black top play area, triple bubbler foun
05/09/17	W1168614	3710020-BCC-C	Fletcher Elementary	Cafeteria, Outside next to lunch court, two single bubbler fountain, lower left fountain
05/09/17	W1168615	3710020-BCC-D	Fletcher Elementary	Kindergarten Bldg, Inside K-1, bubbler on right side of sink with double faucets
05/09/17	W1168616	3710020-BCC-E	Fletcher Elementary	Kindergarten Bldg, Inside K-2, bubbler on right side of sink with double faucets
05/09/17	W1169380	3710020-BDJ-A	Vista Grande Elementary	Main Bldg, Middle hallway behind Health Office and Main Office 1st floor, single bubbler f

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05/09/17	W1169381	3710020-BDJ-B	Vista Grande Elementary	Main Bldg, Northeast side of building outside main hallway 1st floor, triple bubbler fountai
05/09/17	W1169382	3710020-BDJ-C	Vista Grande Elementary	Main Bldg, Southwest side of building (outside), two single bubbler fountains, lower left bu
05/09/17	W1169383	3710020-BDJ-D	Vista Grande Elementary	Main Bldg, Outside of Room 215 West wall, triple bubbler fountain, right bubbler
05/09/17	W1169384	3710020-BDJ-E	Vista Grande Elementary	Restroom building, North of room 214, two single bubbler fountains, lower left bubbler
05/09/17	W1171635	3710020-BGC-A	Lafayette Elementary	Kindergarten bldg, Inside K-5, bubbler at sink
05/09/17	W1171636	3710020-BGC-B	Lafayette Elementary	Kindergarten bldg, play area between K-3 & K-4 (exterior north facing wall), two single bu
05/09/17	W1171637	3710020-BGC-C	Lafayette Elementary	Classrooms 1-6 bldg, Exterior north wall between boy & girl's RR, three single bubbler fou
05/09/17	W1171638	3710020-BGC-D	Lafayette Elementary	Kitchen, Interior north wall next to ovens, spray nozzle above 2-compartment sink
05/09/17	W1171639	3710020-BGC-E	Lafayette Elementary	Classrooms 7-12 bldg, South exterior wall near storage room & custodian room 3, triple b
05/09/17	W1171640	3710020-BGD-A	Doyle Elementary	Admin Building, South side of Admin. near RRs, two single bubbler fountains, upper right
05/09/17	W1171641	3710020-BGD-B	Doyle Elementary	300 Building, West side of building near RRs, triple bubbler fountain, right bubbler
05/09/17	W1171642	3710020-BGD-C	Doyle Elementary	400 Building, West side of bldg near RRs, triple bubbler fountain, right bubbler
05/09/17	W1171643	3710020-BGD-D	Doyle Elementary	500 Building, South side of building, triple bubbler fountain, right bubbler
05/09/17	W1171644	3710020-BGD-E	Doyle Elementary	Café Building (Kitchen), south side of Auditorium, faucet above two-compartment sink
05/09/17	W1171645	3710020-BGE-A	San Diego Cooperative Charter	Auditorium Bldg, Interior North wall, two single bubbler fountains left of sink, upper right fo
05/09/17	W1171646	3710020-BGE-B	San Diego Cooperative Charter	Auditorium Bldg, Exterior North wall, single bubbler fountain
05/09/17	W1171647	3710020-BGE-C	San Diego Cooperative Charter	Elementary Classrooms Bldg, Exterior East wall, adjacent to RRs, dual bubbler fountain l
05/09/17	W1171648	3710020-BGE-D	San Diego Cooperative Charter	Middle School Bldg., Exterior North wall, adjacent to RRs, facing Genesee Ave, two singl
05/09/17	W1171649	3710020-BGE-E	San Diego Cooperative Charter	Administration Bldg, East wall inside room K-2, bubbler on sink
05/09/17	W1171714	3710020-AAB-A	George Nicoloff Elementary	BLDG C, in room 37, bubbler at sink
05/09/17	W1171715	3710020-AAB-B	George Nicoloff Elementary	Kitchen next to J bldg, south campus, west wall, faucet at sink
05/09/17	W1171716	3710020-AAB-C	George Nicoloff Elementary	North campus, bldg D, south side on playground, dual fountain, left bubbler

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05/09/17	W1171717	3710020-AAB-D	George Nicoloff Elementary	South campus, east wing near girls restroom, two wall mounted single fountains, upper le
05/09/17	W1171718	3710020-AAB-E	George Nicoloff Elementary	South campus, north wing, kindergarten room K2, bubbler at sink
05/10/17	W1168282	3710020-AHC-A	Edison Elementary	1000 Building (Main Office); Nurse's Office; single regular faucet
05/10/17	W1168283	3710020-AHC-B	Edison Elementary	South end of Building 1000; Exterior S-facing wall; Lower L bubbler of 2 single fountains
05/10/17	W1168284	3710020-AHC-C	Edison Elementary	West end of Restroom bldg. in front of restrooms and patio area; Lower L bubbler of 2 sir
05/10/17	W1168285	3710020-AHC-D	Edison Elementary	5000 Bldg.,N end of campus two-storybuilding; Indoor single bubbler in Rm 5104
05/10/17	W1168286	3710020-AHC-E	Edison Elementary	5000 Building; Outdoor N end of campus in pre-school and kindergarten area;Lower L bu
05/10/17	W1169375	3710020-BDI-A	Tierrasanta Elementary	East facing wall next to Multipurpose Room and Boys RR, two single-bubbler fountains, lo
05/10/17	W1169376	3710020-BDI-B	Tierrasanta Elementary	Lunch Arbor and Kitchen Area, On South facing wall of kitchen exterior, triple bubbler fou
05/10/17	W1169377	3710020-BDI-C	Tierrasanta Elementary	Kitchen, single compartment prep sink, faucet above sink
05/10/17	W1169378	3710020-BDI-D	Tierrasanta Elementary	Southwest class building, exterior, Southwest corner of campus, triple bubbler fountain, le
05/10/17	W1169379	3710020-BDI-E	Tierrasanta Elementary	Southeast class room building, exterior, South facing wall of building, double bubbler four
05/10/17	W1170038	3710020-BEI-A	Alcott Elementary	Kindergarten Area, North side of campus outside between Rooms 3 and 4, Sink with Fau
05/10/17	W1170039	3710020-BEI-B	Alcott Elementary	Building on Northwest side of campus near blacktop near rooms 20 and 21, triple bubbler
05/10/17	W1170040	3710020-BEI-C	Alcott Elementary	Center of campus on West facing wall near room 17 & RRs, triple bubbler fountain, left bu
05/10/17	W1170041	3710020-BEI-D	Alcott Elementary	South side of campus inside Room 15, bubbler at sink
05/10/17	W1170042	3710020-BEI-E	Alcott Elementary	South side of campus inside Room 14, bubbler at sink
05/10/17	W1171674	3710020-BGF-A	Mira Mesa High	400 bldg, Wall mounted exterior (South of Bldg) and north side of lunch court, between R
05/10/17	W1171675	3710020-BGF-B	Mira Mesa High	400 bldg-Kitchen, Sink in the Prep Kitchen, facing a wash-dedicated sink & walk-in fridge
05/10/17	W1171676	3710020-BGF-C	Mira Mesa High	400 bldg, Culinary Classroom 420, sink in the prep kitchen (North of the Room, next to ar
05/10/17	W1171677	3710020-BGF-D	Mira Mesa High	300 bldg, Wall mounted exterior (South of Bldg), facing Library Media Center & Finance C
05/10/17	W1171678	3710020-BGF-E	Mira Mesa High	Portable Classrooms 15-11, Wall mounted exterior (West of Bldg), between Girls and Bo

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05/10/17	W1171694	3710020-BHG-A	Twain Mesa Satellite	Portable Classrooms B5-B3, Wall mounted exterior (South of Bldg), between RRs, two si
05/10/17	W1172133	3710020-BHC-A	Clairemont High	Cafeteria Kitchen, East Interior Wall, spray nozzle above two compartment sink
05/10/17	W1172134	3710020-BHC-B	Clairemont High	Lunch Court Area/ West Exterior Wall, two triple bubbler fountains, middle bubbler on left
05/10/17	W1172135	3710020-BHC-C	Clairemont High	600 BLDG, Girls Lockeroom-East Exterior Wall, triple bubbler fountain, left bubbler
05/10/17	W1172136	3710020-BHC-D	Clairemont High	600 BLDG, Boys Lockeroom / West Exterior Wall, triple bubbler fountain, right bubbler
05/10/17	W1172137	3710020-BHC-E	Clairemont High	100 BLDG, East Exterior Wall at Rm 105/ Boys RR, two dual bubbler fountains, left fount
05/11/17	W1169385	3710020-BEA-A	Bay Park Elementary	East facing exterior wall next to blacktop area backside of room 5, triple bubbler fountain,
05/11/17	W1169386	3710020-BEA-B	Bay Park Elementary	North side of lunch arbor next to cafeteria, quintuple bubbler fountain, far right bubbler
05/11/17	W1169387	3710020-BEA-C	Bay Park Elementary	Kitchen, East interior wall next to range, faucet above single compartment sink
05/11/17	W1169388	3710020-BEA-D	Bay Park Elementary	Kindergarten bldg, West interior wall, bubbler at sink
05/11/17	W1170043	3710020-BEJ-A	Bird Rock Elementary	Kindergarten, Inside # K-2, Bubbler drinking fountain at hand washing sink
05/11/17	W1170044	3710020-BEJ-B	Bird Rock Elementary	Kindergarten K-3, Bubbler drinking fountain at sink
05/11/17	W1170045	3710020-BEJ-C	Bird Rock Elementary	Auditorium, Outside between men's & women's RRs near lunch court, two single-bubbler
05/11/17	W1170046	3710020-BEJ-D	Bird Rock Elementary	Cafeteria, Inside Kitchen, Single faucet at 2-compartment sink
05/11/17	W1170047	3710020-BEJ-E	Bird Rock Elementary	Bldg 1-7 rooms, Outside at lower playground, triple bubbler fountain below tree artwork o
05/11/17	W1170048	3710020-BFA-A	Curie Elementary	Classroom Bldg Rooms 7-10, North Side of building in front of girls RR, triple bubbler fou
05/11/17	W1170049	3710020-BFA-B	Curie Elementary	Classroom Bldg Rooms 7-10, West side of building next to boys RR, triple bubbler founta
05/11/17	W1170050	3710020-BFA-C	Curie Elementary	Classroom Bldg Rooms 1-6, In front of boy's RR, two single-bubbler fountains, upper left
05/11/17	W1170051	3710020-BFA-D	Curie Elementary	Classroom Bldg Rooms 1-6, In front of girl's restroom on east side of building, trilpe bubb
05/11/17	W1170052	3710020-BFA-E	Curie Elementary	Kindergarten Building, Outside in the play area between K1 and K2, two single bubbler fo
05/11/17	W1170243	3710020-BEC-A	Field Elementary	Classrooms 14-19 bldg, triple bubbler fountain, left bubbler
05/11/17	W1170244	3710020-BEC-B	Field Elementary	Classrooms 6-13 bldg, South exterior side next to boy's RR, triple bubbler fountain, left bu

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05/11/17	W1170245	3710020-BEC-C	Field Elementary	Classrooms 2-4 bldg, Inside classroom 2 on west wall, bubbler at sink
05/11/17	W1170246	3710020-BEC-D	Field Elementary	Kitchen, west interior wall, faucet above 2 compartment sink
05/11/17	W1170247	3710020-BEC-E	Field Elementary	Kindergarten bldg, Exterior east side between K-1 & K-2, single fountain bubbler
05/11/17	W1171679	3710020-BGG-A	Crown Point Elementary	Kitchen, Inside kitchen at food prep sink below window, faucet at 2 compartment sink
05/11/17	W1171680	3710020-BGG-B	Crown Point Elementary	4-14 bldg, Outside between RRs and #10, dual bubbler fountain left of single fountain, lef
05/11/17	W1171681	3710020-BGG-C	Crown Point Elementary	Outside K-1 bldg, north wall at black top playground, two single bubbler fountains, lower r
05/11/17	W1171682	3710020-BGG-D	Crown Point Elementary	K-1 bldg, South wall near kinder playground, single bubbler fountain
05/11/17	W1171683	3710020-BGG-E	Crown Point Elementary	16-18 bldg, Outside Between boys & girls RRs, triple bubbler fountain, middle bubbler
05/11/17	W1171698	3710020-BEA-E	Bay Park Elementary	Restroom Bungalow, East exterior side between boy & girl's RR, two single-bubbler fount
05/12/17	W1168781	3710020-BCG-A	Innovations Academy	Outside 400 bldg. RRs, three single-bubbler fountains, center fountain
05/12/17	W1168782	3710020-BCG-B	Innovations Academy	400 bldg, Inside room 402, left side of room, bubbler at sink
05/12/17	W1168783	3710020-BCG-C	Innovations Academy	300 bldg, Outside near girls RR and wheel chair symbol, two single-bubbler fountains, lov
05/12/17	W1168784	3710020-BCG-D	Innovations Academy	600 bldg, next to girls RR, three single-bubbler fountains, center fountain
05/12/17	W1168785	3710020-BCG-E	Innovations Academy	700 bldg, Inside room 703, bubbler at sink
05/12/17	W1169355	3710020-BDE-A	Jerabek Elementary	Outside near door to MPR, two single-bubbler fountains, lower left fountain
05/12/17	W1169356	3710020-BDE-B	Jerabek Elementary	Outside bungalow restrooms next to B-1, two triple bubbler fountains, left fountain left bub
05/12/17	W1169357	3710020-BDE-C	Jerabek Elementary	500 bldg, at wall near Red playground, two single-bubbler fountains, lower left fountain
05/12/17	W1169358	3710020-BDE-D	Jerabek Elementary	400 bldg, Outside wall near blue playground equipment, triple bubbler fountain, right bubb
05/12/17	W1169359	3710020-BDE-E	Jerabek Elementary	Kindergarten bldg, Outside wall near kinder playground, two single-bubbler fountains, upp
05/12/17	W1170058	3710020-BFC-A	La Jolla Elementary	Kindergarten Playground, Outside On wall of K-1 classroom near blue table, dual bubbler
05/12/17	W1170059	3710020-BFC-B	La Jolla Elementary	Inside K-2 classroom west side Center Island at sink, bubbler at sink
05/12/17	W1170060	3710020-BFC-C	La Jolla Elementary	bldg rooms 1,2, 3, and Conference, Outside East wall next to conference room door, triple

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05/12/17	W1170061	3710020-BFC-D	La Jolla Elementary	bldg rooms 6, 7,10, Outside between boys & girls RRs has checkered tile wall, 3 single b
05/12/17	W1170062	3710020-BFC-E	La Jolla Elementary	Auditorium, Inside near double doors, Bubbler drinking fountain on right side of hand was
05/12/17	W1170063	3710020-BFD-A	La Jolla High	Kitchen, Inside Kitchen Left set of sinks north wall near coffee maker, faucet above two c
05/12/17	W1170064	3710020-BFD-B	La Jolla High	Cafeteria, Outside North around corner from service windows near door J-5B janitor, two
05/12/17	W1170065	3710020-BFD-C	La Jolla High	900 bldg, Outside hallway next to #901, two single bubbler drinking fountains, upper left f
05/12/17	W1170066	3710020-BFD-D	La Jolla High	300 bldg, Outside between Girls restroom & door BDF 3, two single bubbler drinking foun
05/12/17	W1170067	3710020-BFD-E	La Jolla High	Library Media Center, Outside at wall near entrance to Library, two single bubbler drinkin
05/12/17	W1171684	3710020-BHE-A	Kearny SCT	Cafeteria, West Interior Wall, Single Faucet above single compartment sinks
05/12/17	W1171685	3710020-BHE-B	Kearny SCT	Lunch Court, East Facing Wall, two single bubbler fountains, upper right fountain
05/12/17	W1171686	3710020-BHE-C	Kearny SCT	Boys Locker Room, East Facing Exterior Wall, triple bubbler fountain, right bubbler
05/12/17	W1171687	3710020-BHE-D	Kearny SCT	Girls Gym, South Exterior Wall, triple bubbler fountain, left bubbler
05/12/17	W1171688	3710020-BHE-E	Kearny SCT	Auditorium, Interior wall mounted, left side as you enter building, two single bubbler fount
05/13/17	W1170238	3710020-BFF-A	Muirlands Middle	Library, Outside in front of Comp Lab E across from office, dual bubbler fountain, right bu
05/13/17	W1170239	3710020-BFF-B	Muirlands Middle	Upper 500 bldg, In hall between boys /girls RRs and lockers, two dual bubbler fountains,
05/13/17	W1170240	3710020-BFF-C	Muirlands Middle	400 bldg, Outside south hall near restroom and 402-green & blue sign above, triple bubbl
05/13/17	W1170241	3710020-BFF-D	Muirlands Middle	Cafeteria, Inside kitchen next to refrigerator, faucet above two compartment sink
05/13/17	W1170242	3710020-BFF-E	Muirlands Middle	100 bldg, Down stairs left to 100 bldg. between RRs near room 104
05/13/17	W1171689	3710020-BGH-A	Madison High	Cafeteria/ Kitchen, East Wing/ East Interior Wall, two compartment sink, right faucet over
05/13/17	W1171690	3710020-BGH-B	Madison High	Boys Lockeroom/ Sports Complex-Hannon Gym, South Exterior Wall, triple bubbler fount
05/13/17	W1171691	3710020-BGH-C	Madison High	Sports Complex/ Hannon Gym, North Wall at Dance Room Entrance, triple bubbler founta
05/13/17	W1171692	3710020-BGH-D	Madison High	400 BLDG, South Exterior Wall at Room 402, triple bubbler fountain, left bubbler
05/13/17	W1171693	3710020-BGH-E	Madison High	800 BLDG, North Exterior wall at Men's/ Women's RR, two single bubbler fountains, lowe

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05/13/17	W1171727	3710020-BGI-A	Montgomery Middle SDUSD	Cafeteria, East face of central room of kitchen, faucet above 2 compartment sink
05/13/17	W1171728	3710020-BGI-B	Montgomery Middle SDUSD	Auditorium/ 600 Bldg, Exterior north wall, near restrooms, dual bubbler fountain to the rigl
05/13/17	W1171729	3710020-BGI-C	Montgomery Middle SDUSD	PE building, Exterior west wall of Boys PE, two single bubbler fountains, lower right founta
05/13/17	W1171730	3710020-BGI-D	Montgomery Middle SDUSD	200 Bldg, West wall of first floor hallway, near room 214, single bubbler fountain
05/13/17	W1171731	3710020-BGI-E	Montgomery Middle SDUSD	100 Bldg, West wall of second floor hallway, near room 160, single bubbler fountain
05/13/17	W1171835	3710020-BGJ-A	Longfellow K-8	Lunch Court Area, East exterior wall next to lunch court, triple bubbler fountain, left bubbl
05/13/17	W1171836	3710020-BGJ-B	Longfellow K-8	Kindergarten, Inside room 401 west wall, bubbler at sink
05/13/17	W1171837	3710020-BGJ-C	Longfellow K-8	Classrooms 5-8 bldg, South exterior wall close to room 306, single bubbler fountain to the
05/13/17	W1171838	3710020-BGJ-D	Longfellow K-8	Classrooms 11-16 bldg, East exterior wall next to girl's RR, triple bubbler fountain, right b
05/13/17	W1171839	3710020-BGJ-E	Longfellow K-8	Inside bungalow K-3 on south wall, bubbler at sink
05/13/17	W1171840	3710020-BHA-A	Lindbergh/Schweitzer Elementary East	Library, East exterior wall of library between RRs, three single bubbler fountains, middle f
05/13/17	W1171841	3710020-BHA-B	Lindbergh/Schweitzer Elementary East	Auditorium/Cafeteria, South exterior wall next to auditorium/cafeteria door, dual bubbler fo
05/13/17	W1171842	3710020-BHA-C	Lindbergh/Schweitzer Elementary East	Wing 50-58, Interior hallway next to girl's restroom, dual bubbler fountain, right bubbler
05/13/17	W1171843	3710020-BHA-D	Lindbergh/Schweitzer Elementary East	Inside room 71, north wall, bubbler on right side of sink
05/13/17	W1171844	3710020-BHA-E	Lindbergh/Schweitzer Elementary East	Restroom Bungalow, South exterior side, dual bubbler fountain, right bubbler
05/13/17	W1171845	3710020-BHB-A	Lindbergh/Schweitzer Elementary West	Kitchen, West interior wall, spray nozzle above 2 compartment sink
05/13/17	W1171846	3710020-BHB-B	Lindbergh/Schweitzer Elementary West	Cafeteria/Auditorium, East exterior wall between cafeteria door & assembly door, two sing
05/13/17	W1171847	3710020-BHB-C	Lindbergh/Schweitzer Elementary West	Classrooms 4-9 bldg, West exterior wall between boys and girls RR, three single bubbler
05/13/17	W1171848	3710020-BHB-D	Lindbergh/Schweitzer Elementary West	Classrooms 10-14 bldg, North exterior wall between boys and girls RR, dual bubbler foun
05/13/17	W1171849	3710020-BHB-E	Lindbergh/Schweitzer Elementary West	South exterior wall between K-1 & K-2, two single bubbler sink/fountain combos, bubbler
05/16/17	W1168052	3710020-AJA-A	Hamilton Elementary	Outside of PE storage on main building near asphalt play area, two single bubbler fountai
05/16/17	W1168053	3710020-AJA-B	Hamilton Elementary	Main Building, Facing asphalt PE/Play Area, Around the corner from Sample Point 1, two

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05/16/17	W1168054	3710020-AJA-C	Hamilton Elementary	Main Building, Inside main office, Enter the Health Office through from desk area, Goose
05/16/17	W1168055	3710020-AJA-D	Hamilton Elementary	Outside 300 Building, 1st floor, corner of building, blue-green tile, two single bubbler foun
05/16/17	W1168056	3710020-AJA-E	Hamilton Elementary	Cafeteria Building, Kitchen Area, sink faucet on far sink used for food prep
05/16/17	W1170033	3710020-BEH-A	Ericson Elementary	40s bldg, Wall mounted exterior (South of Bldg), next to Girls' RR, facing blacktop, triple b
05/16/17	W1170034	3710020-BEH-B	Ericson Elementary	10s bldg, Wall mounted exterior (North of Bldg), next to Girls RR, facing playground, triple
05/16/17	W1170035	3710020-BEH-C	Ericson Elementary	50s bldg, Wall mounted exterior (North of Bldg), next to Room 53 & wall, facing blacktop,
05/16/17	W1170036	3710020-BEH-D	Ericson Elementary	Cafeteria, Wall mounted exterior (West of Bldg), facing lunch court, triple bubbler fountai
05/16/17	W1170037	3710020-BEH-E	Ericson Elementary	MultiPurpose Room, Wall mounted interior (North of the Room), two single bubbler founta
05/16/17	W1170233	3710020-BFE-A	Mission Bay High	Kitchen, Inside kitchen, North West corner of kitchen, Right set of sinks, faucet at two cor
05/16/17	W1170234	3710020-BFE-B	Mission Bay High	Cafeteria, Outside of cafeteria north near staff café door, two dual-bubbler fountains, righ
05/16/17	W1170235	3710020-BFE-C	Mission Bay High	Cafeteria, East wall next to tan lunch tables yellow door at right, triple bubbler fountain, le
05/16/17	W1170236	3710020-BFE-D	Mission Bay High	200 bldg, Outside hallway Next to #223, dual bubbler fountain, left bubbler
05/16/17	W1170237	3710020-BFE-E	Mission Bay High	200 bldg, #271 near athletic fields, dual bubbler fountain, left bubbler
05/16/17	W1172381	3710020-BHD-A	Perkins K-8	Multipurpose Bldg., North wall of kitchen, Faucet on a 2-compartment sink
05/16/17	W1172382	3710020-BHD-B	Perkins K-8	600 Bldg, Exterior south wall of Room 601, triple bubbler fountain, left bubbler
05/16/17	W1172383	3710020-BHD-C	Perkins K-8	500 Bldg, Exterior north wall of 1st floor RRs, two single bubbler fountains, lower left foun
05/16/17	W1172384	3710020-BHD-D	Perkins K-8	Administration Bldg, South wall of nurse's room, Faucet on a single compartment sink
05/16/17	W1172385	3710020-BHD-E	Perkins K-8	300 Bldg, Exterior south wall, triple bubbler fountain, middle bubbler
05/16/17	W1172550	3710020-BHH-A	America's Finest Charter	Kindergarten Bldg., Interior south wall of Room K1, two sinks, bubbler on left sink
05/16/17	W1172551	3710020-BHH-B	America's Finest Charter	Bldg. 2, Interior north wall of Room K2, two sinks, bubbler on left sink
05/16/17	W1172552	3710020-BHH-C	America's Finest Charter	Bldg. 2, Exterior north wall near faculty restrooms, single bubbler fountain
05/16/17	W1172553	3710020-BHH-D	America's Finest Charter	Bldg. 2, Exterior north wall near boys & girls RRs, triple bubbler fountain, left bubbler

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05/16/17	W1172554	3710020-BHH-E	America's Finest Charter	Bldg. 2, Exterior west wall near room “Storage B”, triple bubbler fountain, right bubbler
05/17/17	W1169370	3710020-BDH-A	Riley/New Dawn	Administration bldg, Kitchen (south side of kitchen near storage room), faucet above 2 co
05/17/17	W1169371	3710020-BDH-B	Riley/New Dawn	Administration building, Outside of auditorium facing lunch court (north), two single-bubbl
05/17/17	W1169372	3710020-BDH-C	Riley/New Dawn	Kinder bldg, Exterior west wall outside room 17, triple bubbler fountain, middle bubbler
05/17/17	W1169373	3710020-BDH-D	Riley/New Dawn	Classroom bldg C, Exterior wall northwest side outside room 16, triple bubbler fountain, le
05/17/17	W1169374	3710020-BDH-E	Riley/New Dawn	New Dawn main office, Interior south wall of teacher workroom in admin portable, faucet
05/17/17	W1170248	3710020-BFG-A	Pacific Beach Elementary	Kinder Playground, Outside at wall between classrooms K1 & K2, dual fountain, right bub
05/17/17	W1170249	3710020-BFG-B	Pacific Beach Elementary	Kindergarten, Inside K-2 at west wall, single bubbler fountain
05/17/17	W1170250	3710020-BFG-C	Pacific Beach Elementary	building with rooms 6,8,& Boys RR, Outside wall near room 6, triple bubbler fountain, left
05/17/17	W1170251	3710020-BFG-D	Pacific Beach Elementary	Inside room 12 at the sink near the corner by the window, bubbler at sink
05/17/17	W1170252	3710020-BFG-E	Pacific Beach Elementary	Cafeteria / Auditorium Hall, Inside hallway west end next to cafeteria entrance door, two s
05/17/17	W1170253	3710020-BFH-A	Pacific Beach Middle	Office, Outside right side of entrance to main office door, Single bubbler drinking fountain
05/17/17	W1170254	3710020-BFH-B	Pacific Beach Middle	Kitchen, Inside kitchen, single compartment sink to the left of larger sink, kitchen faucet a
05/17/17	W1170255	3710020-BFH-C	Pacific Beach Middle	Pit /Library, Outside at wall across from Kitchen in Lunch patio area near green door, Sin
05/17/17	W1170256	3710020-BFH-D	Pacific Beach Middle	100 Bldg. Down Stairs, south side inside building hallway on the right near double door e
05/17/17	W1170257	3710020-BFH-E	Pacific Beach Middle	Gym- Girls Locker, Outside west end of girls’ gym near basketball court, triple bubbler fou
05/17/17	W1172393	3710020-BHF-A	Ocean Beach Elementary	Rms 1-3 bldg, Cafeteria, Sink in the Prep Kitchen, next to Office, facing island prep, kitch
05/17/17	W1172394	3710020-BHF-B	Ocean Beach Elementary	Rms 7-8 bldg, Wall mounted exterior (South of Bldg), facing new lunch arbor, two single
05/17/17	W1172395	3710020-BHF-C	Ocean Beach Elementary	Rms 2-6 bldg, Wall mounted exterior (South of Bldg), facing tree & blacktop before the ol
05/17/17	W1172396	3710020-BHF-D	Ocean Beach Elementary	Rms 20-21, classroom sink, between Girls & Boys RRs, dual sinks, bubbler on right sink
05/17/17	W1172397	3710020-BHF-E	Ocean Beach Elementary	Kindergarten, Wall mounted Exterior (West of Bldg), between K1 & K2, facing blacktop/pl
05/17/17	W1172555	3710020-BHI-A	John Muir	Kindergarten/1st. Grade building, Inside K-TK classroom., double bubbler on sink, left bu

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Total Number of Samples Tested= 1,115

Sample Date	Sample ID	External ID	School Name	Sampling Point
05/17/17	W1172556	3710020-BHI-B	John Muir	rooms 6-11 bldg, East side of building, triple bubbler fountain, left bubbler
05/17/17	W1172557	3710020-BHI-C	John Muir	Rooms 2-5 and offices bldg, East side of building, two single bubbler fountains, upper left
05/17/17	W1172558	3710020-BHI-D	John Muir	Lunch court, Fountains outside lunch court east side, triple bubbler fountain, right bubbler
05/17/17	W1172559	3710020-BHI-E	John Muir	Kitchen/Auditourium, Inside kitchen east wall, faucet at single compartment sink
05/17/17	W1172837	3710020-BIC-A	Mt. Everest Academy	Rooms 1-6 bldg, West wall between boys and girls RRs (next to custodial gear locker), tw
05/17/17	W1172838	3710020-BIC-B	Mt. Everest Academy	rooms 7-12 bldg, West wall between unisex restroom and custodial gear locker, two singl
05/17/17	W1172839	3710020-BIC-C	Mt. Everest Academy	rooms 7-12 bldg, Inside room 7 southwest corner, bubbler at sink
05/17/17	W1172840	3710020-BIC-D	Mt. Everest Academy	South wall outside kitchen next to auditorium door, two single bubbler fountains, upper lef
05/17/17	W1172841	3710020-BIC-E	Mt. Everest Academy	rooms 13-14 bldg, two single bubbler fountains, upper right fountain
05/17/17	W1172842	3710020-BID-A	Jonas Salk Elementary	Multi-Purpose Room, Wall mounted interior (East of the Room), facing stage, next to rest
05/17/17	W1172843	3710020-BID-B	Jonas Salk Elementary	Wall mounted exterior (Southwest of the Bldg), next to Gas Shut off, upper left fountain
05/17/17	W1172844	3710020-BID-C	Jonas Salk Elementary	400 bldg-Upstairs, inside room 400 (West of Bldg), bubbler at sink
05/17/17	W1172845	3710020-BID-D	Jonas Salk Elementary	500 bldg-Downstairs, Kindergarten room 503, bubbler at sink
05/17/17	W1172846	3710020-BID-E	Jonas Salk Elementary	700 bldg, room 700, classroom sink between ES Office & Classroom 701, bubbler at sink
05/18/17	W1170184	3710020-BFI-A	Spreckels Elementary	Auditorium/Library Building, South facing wall outside of building near RRs, two single bu
05/18/17	W1170185	3710020-BFI-B	Spreckels Elementary	Cafeteria/Kitchen Building, Inside kitchen on North side of building, faucet above right sin
05/18/17	W1170186	3710020-BFI-C	Spreckels Elementary	Red Door Building, outside North side of building, two single bubbler fountains, lower left
05/18/17	W1170187	3710020-BFI-D	Spreckels Elementary	Yellow Door Building, outside West side of building, two single bubbler fountains, upper r
05/18/17	W1170188	3710020-BFI-E	Spreckels Elementary	Green Door Building, outside West side of building, triple bubbler fountain, middle bubble
05/18/17	W1172862	3710020-BIE-A	Sequoia Elementary	Kindergarten, East exterior wall between K-1 & K-2, single bubbler fountain
05/18/17	W1172863	3710020-BIE-B	Sequoia Elementary	Lunch Court, South exterior wall next to lunch court, triple bubbler fountain, middle bubble
05/18/17	W1172864	3710020-BIE-C	Sequoia Elementary	Kitchen, South interior wall, spray nozzle at two compartment sink

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05/18/17	W1172865	3710020-BIE-D	Sequoia Elementary	Classrooms 1-6 bldg, South exterior wall near restroom, triple bubbler fountain, left bubbl
05/18/17	W1172866	3710020-BIE-E	Sequoia Elementary	Classrooms 7-12 bldg, South exterior wall next to boy's restroom, triple bubbler fountain,
05/18/17	W1172867	3710020-BIF-A	Sessions Elementary	Cafeteria, Inside Kitchen under window has red counter, Standard Kitchen faucet
05/18/17	W1172868	3710020-BIF-B	Sessions Elementary	Auditorium, Outside near Auditorium door at wall near lunch court, triple bubbler fountain,
05/18/17	W1172869	3710020-BIF-C	Sessions Elementary	Pre-School-Kindergarten bldg, Inside # 20 at handwashing sink near restroom, two sinks,
05/18/17	W1172870	3710020-BIF-D	Sessions Elementary	Rooms 1-6 bldg, Outside North end near playground has ocean painting on wall, triple bu
05/18/17	W1172871	3710020-BIF-E	Sessions Elementary	Rooms 15-18-PSY Speech bldg, North end close to room Related Specialized Services &
05/18/17	W1172872	3710020-BIG-A	Silver Gate Elementary	Cafeteria, Wall mounted interior (East of the Room) Sink/faucet facing Dining Area, betw
05/18/17	W1172873	3710020-BIG-B	Silver Gate Elementary	building #1, Wall mounted exterior (North of Bldg), facing Lunch Arbor, two single bubble
05/18/17	W1172874	3710020-BIG-C	Silver Gate Elementary	building #1, Wall mounted exterior (West of Bldg), between Storage Rm & Corridor, facin
05/18/17	W1172875	3710020-BIG-D	Silver Gate Elementary	building #3, Wall mounted exterior (South of Bldg), between Custodian Locker Rm & Girls
05/18/17	W1172876	3710020-BIG-E	Silver Gate Elementary	building #2, Wall mounted exterior (East of Bldg), between Storage Rm & Corridor, facing
05/18/17	W1172877	3710020-BIH-A	Standley Middle	Admin Building, West facing wall near lunch patio area on outside bldg, triple bubbler fou
05/18/17	W1172878	3710020-BIH-B	Standley Middle	Kitchen/Supply Room Bldg, East facing wall near lunch and RRs, two single bubbler foun
05/18/17	W1172879	3710020-BIH-C	Standley Middle	600 Building, West Facing Wall near rooms 602 and 603, dual bubbler fountain, right bub
05/18/17	W1172880	3710020-BIH-D	Standley Middle	Media Center Building, East facing wall next to restrooms, two single bubbler fountains, u
05/18/17	W1172881	3710020-BIH-E	Standley Middle	Kitchen/Cafeteria Building, inside kitchen, faucet above two compartment sink
05/19/17	W1170296	3710020-BFJ-A	Torrey Pines Elementary	Cafeteria, Outside east wall next to double doors to cafeteria, two single-bubbler fountain
05/19/17	W1170297	3710020-BFJ-B	Torrey Pines Elementary	Rm 1-6 building, Next to #3 and RRs around corner, triple bubbler fountain, left bubbler
05/19/17	W1170298	3710020-BFJ-C	Torrey Pines Elementary	Kinder Playground, Outside at wall next to RRs, two single-bubbler fountains, lower left fc
05/19/17	W1170299	3710020-BFJ-D	Torrey Pines Elementary	Kindergarten, K-2 inside classroom, bubbler on right sink
05/19/17	W1170300	3710020-BFJ-E	Torrey Pines Elementary	Kitchen, faucet on two compartment sink

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05/19/17	W1171130	3710020-BHJ-A	Los Altos Elementary School	Main BLDG, room 202, bubbler at sink
05/19/17	W1171131	3710020-BHJ-B	Los Altos Elementary School	Main BLDG, room 504, bubbler at sink
05/19/17	W1171132	3710020-BHJ-C	Los Altos Elementary School	Main BLDG, SW upper fountain near RM 405
05/19/17	W1171133	3710020-BHJ-D	Los Altos Elementary School	Main BLDG, NW upper fountain near RM 305
05/19/17	W1171134	3710020-BHJ-E	Los Altos Elementary School	Main BLDG, upper fountain between MPR and library
05/19/17	W1172899	3710020-BJC-A	University City High	200 Bldg, Interior hallway between Men & Women's RR, Around the corner from 208, dua
05/19/17	W1172900	3710020-BJC-B	University City High	Outdoor Food Service Kiosk, West wall and around the corner from cold lunch line, dual l
05/19/17	W1172901	3710020-BJC-C	University City High	400 Bldg, Interior hallway next to room 458, dual bubbler fountain, left bubbler
05/19/17	W1172902	3710020-BJC-D	University City High	Arts Tech bldg, South exterior wall (back side of room 231), dual bubbler fountain, left bul
05/19/17	W1172903	3710020-BJC-E	University City High	Kitchen, East interior wall, faucet above two compartment sink
05/19/17	W1172904	3710020-BJA-A	Whitman Elementary	Kitchen, east side, faucet over 2 compartment sink
05/19/17	W1172905	3710020-BJA-B	Whitman Elementary	Rooms 7-12 bldg, Room 7, bubbler at sink
05/19/17	W1172906	3710020-BJA-C	Whitman Elementary	Rooms 2-6 bldg, West facing wall next to Room 6, triple bubbler fountain, right bubbler
05/19/17	W1172907	3710020-BJA-D	Whitman Elementary	Rooms 13-18 bldg, East facing wall next to boys RR, triple bubbler fountain, middle bubbl
05/19/17	W1172908	3710020-BJA-E	Whitman Elementary	Kindergarten bldg, Kindergarten Play Yard, two sinhle bubbler fountains, lower left bubble
05/19/17	W1172909	3710020-BIJ-A	Toler Elementary	Kindergarten bldg, South exterior wall between classrooms A and B, two single bubbler fo
05/19/17	W1172910	3710020-BIJ-B	Toler Elementary	Classrooms 1-6 (bldg. 1), North exterior wall next to boy's RR, Close to room 4, triple bub
05/19/17	W1172911	3710020-BIJ-C	Toler Elementary	Kitchen, North interior wall, faucet above two compartment sink
05/19/17	W1172912	3710020-BIJ-D	Toler Elementary	Classrooms 7-12 (bldg. 2), South exterior wall next to lunch court, three single bubbler fou
05/19/17	W1172913	3710020-BIJ-E	Toler Elementary	Restroom Bungalow, Exterior wall between boy & girl's restroom, two single bubbler foun
05/19/17	W1172914	3710020-BII-A	Twain Morse	Restroom Bungalow (south end of campus), Two triple bubbler fountains, right fountain, r
05/19/17	W1172915	3710020-BII-B	Twain Morse	Bungalow B10, inside, bubbler at sink

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05/19/17	W1172916	3710020-BII-C	Twain Morse	Bungalow B11, inside, bubbler at sink
05/19/17	W1172917	3710020-BII-D	Twain Morse	Bungalow B8/Office, inside, bubbler at sink
05/19/17	W1172918	3710020-BII-E	Twain Morse	Bungalow B7, inside, bubbler at sink
05/20/17	W1170053	3710020-BFB-A	Hawthorne Elementary	Kindergarten Building, West side of campus outside between K-1 and K-2, Sink with bubl
05/20/17	W1170054	3710020-BFB-B	Hawthorne Elementary	Building 2, West side of campus near room 6 (east facing wall), triple bubbler fountain, m
05/20/17	W1170055	3710020-BFB-C	Hawthorne Elementary	Building 4, East side of building 4 near room 12, dual bubbler fountain nect to single bubb
05/20/17	W1170056	3710020-BFB-D	Hawthorne Elementary	Cafeteria Building, North facing wall in front of cafeteria, two triple bubbler fountains, right
05/20/17	W1170057	3710020-BFB-E	Hawthorne Elementary	outside Restroom bungalow on far east side of campus, dual bubbler fountain next to sing
05/20/17	W1172996	3710020-BJE-A	Cabrillo Elementary	Kindergarten bldg, Wall mounted exterior (East of Bldg), between Classroom K1 & Heate
05/20/17	W1172997	3710020-BJE-B	Cabrillo Elementary	Portable Classroom B3, bubbler at sink
05/20/17	W1172998	3710020-BJE-C	Cabrillo Elementary	Classrooms 10-14 bldg, Wall mounted exterior (North of Bldg), between Corridor entranc
05/20/17	W1172999	3710020-BJE-D	Cabrillo Elementary	Classrooms 15-18 bldg, Room15, bubbler at sink
05/20/17	W1173000	3710020-BJE-E	Cabrillo Elementary	Portable Classroom B6, buubbler at sink
05/20/17	W1173001	3710020-BJD-A	Dana	120s - Hallway C, 1st Floor, Wall mounted interior, in the hall way, between Boys RR & C
05/20/17	W1173002	3710020-BJD-B	Dana (5 - 6)	200 - Hallway B-2, 2nd Floor, Wall mounted interior, in the hallway, between Boys RR & J
05/20/17	W1173003	3710020-BJD-C	Dana	150s - Hallway G, 1st Floor, Wall mounted interior, in the hallway, next to Girls RR, facing
05/20/17	W1173004	3710020-BJD-D	Dana	150s - Hallway G, 1st Floor, Wall mounted interior, in the hallway, next to Classroom 153
05/20/17	W1173005	3710020-BJD-E	Dana	Multi Purpose Room, Wall mounted exterior (West of Bldg), facing Library, next to back s
05/20/17	W1173006	3710020-BJF-A	Innovation Middle	Classrooms 1-6 bldg, East end of Bldg between Staff and Student RRs, two single bubble
05/20/17	W1173007	3710020-BJF-B	Innovation Middle	Classrooms 7-12 bldg, East end of bldg between Student RRs, two single bubbler fountai
05/20/17	W1173008	3710020-BJF-C	Innovation Middle	Lunch Court, : East Exterior Wall, two single bubbler fountains, upper right fountain
05/20/17	W1173009	3710020-BJF-D	Innovation Middle	Kitchen Prep Area, East Interior Wall, faucet above three compartment sink

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05/20/17	W1173010	3710020-BJF-E	Innovation Middle	Room 14, next to Nurse office and Custodial office, North Exterior Wall, two single bubble
05/20/17	W1173011	3710020-BJG-A	Creative, Performing, and Media Arts	100/200 BLDG, East end of Bldgs, breezeway, East Facing, two single bubbler fountains,
05/20/17	W1173012	3710020-BJG-B	Creative, Performing, and Media Arts	300/400 bldg, East end of Bldgs, breezeway, East Facing, two single bubbler fountains, u
05/20/17	W1173013	3710020-BJG-C	Creative, Performing, and Media Arts	400 Bldg at Custodial #2 between Boys and Girls RR, two dual bubbler fountains, left bub
05/20/17	W1173014	3710020-BJG-D	Creative, Performing, and Media Arts	Boys PE, North/ East Exterior Wall, two single bubbler fountains, lower right fountain
05/20/17	W1173015	3710020-BJG-E	Creative, Performing, and Media Arts	Cafeteria/ Kitchen- Food Prep, faucet above three compartment sink
05/23/17	W1168786	3710020-BDF-A	Marcy School	restroom BLDG, west side of campus near Sicard St., upper left bubbler
05/23/17	W1168787	3710020-BDF-B	Marcy School	portable classroom 8, NE corner, bubbler at sink
05/23/17	W1168788	3710020-BDF-C	Marcy School	portable classroom 10, NE corner, bubbler at sink
05/23/17	W1168789	3710020-BDF-D	Marcy School	portable classroom 1, SW corner, bubbler at sink
05/23/17	W1168790	3710020-BDF-E	Marcy School	restroom BLDG, north side of campus near Julian AVE, lower right bubbler
05/23/17	W1170170	3710020-BEB-A	Cadman Elementary	Inside K-1 room next to restroom, bubbler at sink
05/23/17	W1170171	3710020-BEB-B	Cadman Elementary	Inside K-2 between restrooms, two sinks with bubblers, bubbler on right sink
05/23/17	W1170172	3710020-BEB-C	Cadman Elementary	Classrooms 1-8 bldg, Exterior corner next to room 1, single bubbler fountain
05/23/17	W1170173	3710020-BEB-D	Cadman Elementary	Classrooms 9-12 bldg, Exterior wall next to room 11, dual bubbler fountain, left bubbler
05/23/17	W1170174	3710020-BEB-E	Cadman Elementary	Classrooms 1-8 bldg, Exterior wall next to room 8, dual bubbler fountain, left bubbler
05/23/17	W1173091	3710020-CAD-A	Marston Middle	Lockeroom 600 Bldg, South Exterior wall, triple bubbler fountain, left bubbler
05/23/17	W1173092	3710020-CAD-B	Marston Middle	Lockeroom 600 BLDG/ Hallway, North Facing fountain, two triple bubbler fountains, left b
05/23/17	W1173093	3710020-CAD-C	Marston Middle	Lockeroom 600 BLDG/ Rm 602, East Facing Exterior Wall, triple bubbler fountain, middle
05/23/17	W1173094	3710020-CAD-D	Marston Middle	Conservatory Terrace, Lunch Court/ East Facing; Exterior Wall Mounted System, two trip
05/23/17	W1173095	3710020-CAD-E	Marston Middle	200/ 300 Bldg, Walkway between 200 and 300 BLDG, two triple bubbler fountains, right b
05/23/17	W1174220	3710020-CAG-A	Kavod Elementary Charter	next to rooms 7-12, Outside Bathrooms next to custodial room, two single bubbler fountai

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05/23/17	W1174221	3710020-CAG-B	Kavod Elementary Charter	Room 12, bubbler at sink
05/23/17	W1174222	3710020-CAG-C	Kavod Elementary Charter	Room B4, bubbler at sink
05/23/17	W1174223	3710020-CAG-D	Kavod Elementary Charter	Room B6, bubbler at sink
05/23/17	W1174224	3710020-CAG-E	Kavod Elementary Charter	Room 7, bubbler at sink
05/23/17	W1174242	3710020-CAI-A	Vista Hill Foundation	Building 10 / bathrooms, Outside Bathrooms next to room 10, single bubbler fountain
05/23/17	W1174245	3710020-CAI-D	Vista Hill Foundation	SCS Children Program (Rec Room), faucet on inside sink
05/23/17	W1174246	3710020-CAI-E	Vista Hill Foundation	Lounge/Kitchen, faucet on two compartment kitchen sink
05/24/17	W1173068	3710020-CAA-A	Correia Middle	400 bldg, Wall mounted exterior, between Girls and Boys RRs, single bubbler fountain by
05/24/17	W1173069	3710020-CAA-B	Correia Middle	200 bldg, Wall mounted exterior on a covered breezeway, between Boys and Girls RRs, t
05/24/17	W1173070	3710020-CAA-C	Correia Middle	Kitchen/Cafe, Small three-compartment sink in the Back Kitchen Room, before the door c
05/24/17	W1173071	3710020-CAA-D	Correia Middle	Gym, Wall mounted exterior, next to Adapted P.E. Room, on the side of Girls' P.E., two d
05/24/17	W1173072	3710020-CAA-E	Correia Middle	Gym, Wall mounted exterior, between Boys' PE & Girls' PE, facing ramp to Lower Field, t
05/24/17	W1173073	3710020-CAB-A	Dewey Elementary	CDC, Rooms 15-22, Room 18, classroom sink/faucet, bubbler at sink
05/24/17	W1173074	3710020-CAB-B	Dewey Elementary	CDC, Rooms 15-22, Wall mounted exterior (South of Bldg), next to Hallway door, facing F
05/24/17	W1173075	3710020-CAB-C	Dewey Elementary	Rooms 7-13 bldg, Wall mounted exterior (South of Bldg), next to Hallway door, facing bla
05/24/17	W1173076	3710020-CAB-D	Dewey Elementary	Dirt Field (closer to Portable Classrooms & Restrooms), Floor mounted exterior, two foun
05/24/17	W1173077	3710020-CAB-E	Dewey Elementary	Front Office/Hallway, Wall mounted exterior (South of Bldg), facing Lunch Arbor, two sing
05/24/17	W1173086	3710020-CAC-A	Loma Portal Elementary	Office, Wall mounted exterior (West of Bldg), facing lunch court, two single bubbler founta
05/24/17	W1173087	3710020-CAC-B	Loma Portal Elementary	Rooms 3-7, Hallway, next to Boiler Room, facing Classroom 5, single bubbler fountain
05/24/17	W1173088	3710020-CAC-C	Loma Portal Elementary	Portable Restrooms and B25, Wall mounted exterior (North of Bldg), between Girls and B
05/24/17	W1173089	3710020-CAC-D	Loma Portal Elementary	Kindergarten, Wall mounted exterior (South of Bldg), between K2 and K1, facing Kinderga
05/24/17	W1173090	3710020-CAC-E	Loma Portal Elementary	Portable 32 & Supplies Room, Wall mounted exterior (West of Bldg), facing Playground,

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05/24/17	W1173096	3710020-CAE-A	Sunset View Elementary	Main Office, Wall mounted exterior (West of Bldg), next to Gate, triple bubbler fountain, m
05/24/17	W1173097	3710020-CAE-B	Sunset View Elementary	Auditorium/Cafeteria, Wall mounted exterior (East of Bldg), facing lunch arbor, two single
05/24/17	W1173098	3710020-CAE-C	Sunset View Elementary	Portable Classrooms, Wall mounted exterior of (East of B3), facing stairs, triple bubbler fo
05/24/17	W1173099	3710020-CAE-D	Sunset View Elementary	Portable Classroom/Restroom, Wall mounted exterior (South of Restroom/B6), next to sh
05/24/17	W1173100	3710020-CAE-E	Sunset View Elementary	Kindergarten, Wall mounted exterior (East of Bldg), between Storage and Kindergarten 1
05/24/17	W1173120	3710020-CAF-A	Whittier K-12	Building A, Kitchen, Sink along south wall, faucet above two compartment sink
05/24/17	W1173121	3710020-CAF-B	Whittier K-12	Building A, West facing wall outside of Auditorium door, three single bubbler fountains, up
05/24/17	W1173122	3710020-CAF-C	Whittier K-12	Building D, East facing wall next to girls RR, two single bubbler fountains, upper left fount
05/24/17	W1173123	3710020-CAF-D	Whittier K-12	Building F, Northeast corner of building, two single bubbler fountains, upper left fountain
05/24/17	W1173124	3710020-CAF-E	Whittier K-12	Building B, Northwest corner of building next to girls RR, two single bubbler fountains, up
05/25/17	W1170221	3710020-CAJ-A	Holmes Elementary	Outside Auditorium next to lunch court, two single bubbler fountains, upper right fountain
05/25/17	W1170222	3710020-CAJ-B	Holmes Elementary	Inside Kitchen, faucet above 2 compartment sink
05/25/17	W1170223	3710020-CAJ-C	Holmes Elementary	Room 9, Outside fountain next to room 9 and bathrooms, triple bubbler fountain, middle b
05/25/17	W1170224	3710020-CAJ-D	Holmes Elementary	room 3, Outside fountain next to room 3 and bathrooms, quadrupel bubbler fountain, far r
05/25/17	W1170225	3710020-CAJ-E	Holmes Elementary	Room K-1, Outside playground in front of K-1, bubbler on long sink
05/25/17	W1173058	3710020-BJI-A	Barnard Elementary	600 bldg Classrooms 18-20, Wall mounted exterior (North of Bldg), between Boys & Girls
05/25/17	W1173059	3710020-BJI-B	Barnard Elementary	300 bldg Classrooms 9-14, Wall mounted exterior (South of Bldg), between Girls' RR & R
05/25/17	W1173060	3710020-BJI-C	Barnard Elementary	400 bldg Classrooms 3-8, Wall mounted exterior (South of Bldg), between Girls' RR & Ro
05/25/17	W1173061	3710020-BJI-D	Barnard Elementary	Kindergarten, Rm K2, bubbler on left sink
05/25/17	W1173062	3710020-BJI-E	Barnard Elementary	Cafeteria/Auditorium, Wall mounted exterior (South of Bldg), facing lunch court, two singl
05/25/17	W1174236	3710020-CAH-A	Point Loma High	Math Bldg - 100, 1st Floor, Wall mounted interior (North of Bldg), Hallway, between Men a
05/25/17	W1174237	3710020-CAH-B	Point Loma High	Classroom Bldg - 200, 1st floor, Wall mounted exterior (South of Bldg), between Men and

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Sample Date	Sample ID	External ID	School Name	Sampling Point
05/25/17	W1174238	3710020-CAH-C	Point Loma High	800 Media Center, Wall mounted exterior (North of Bldg), facing Chatsworth Blvd, two sin
05/25/17	W1174239	3710020-CAH-D	Point Loma High	Classroom Bldg - 300, 1st floor, Wall mounted exterior (South of Bldg), next to Boys RR,
05/25/17	W1174240	3710020-CAH-E	Point Loma High	1100, Weight Room, Wall mounted exterior (East of Bldg), Southwest of Football Field, n
05/25/17	W1174388	3710020-CBA-A	Mission Bay Montessori	Kindergarten bldg, North wall of Room K1, bubbler at sink
05/25/17	W1174389	3710020-CBA-B	Mission Bay Montessori	Kindergarten bldg, Exterior east walkway, triple bubbler fountain, middle bubbler
05/25/17	W1174390	3710020-CBA-C	Mission Bay Montessori	Cafeteria bldg, Exterior south wall, breezeway between cafeteria and Administration
05/25/17	W1174391	3710020-CBA-D	Mission Bay Montessori	Northeastern classroom bldg. rooms 7 to 12, Exterior West wall, adjacent to RRs, triple b
05/25/17	W1174392	3710020-CBA-E	Mission Bay Montessori	Southeastern classroom bldg. rooms 1 to 6, Exterior East wall Adjacent to RRs, triple bub
05/25/17	W1174431	3710020-CBB-A	Springall Academy	Outside the Auditorium and the open room, two single bubbler fountains, upper right foun
05/25/17	W1174432	3710020-CBB-B	Springall Academy	Building 400, outside drinking fountain next to bathroom and room 407, two single bubble
05/25/17	W1174433	3710020-CBB-C	Springall Academy	Building 300- in front of the bathrooms, quadruple bubbler fountain, from left to right third
05/25/17	W1174434	3710020-CBB-D	Springall Academy	Inside Kitchen, faucet above two compartment sink
05/25/17	W1174435	3710020-CBB-E	Springall Academy	Outside elementary classroom, drinking fountain in the play area, two single bubbler foun
05/26/17	W1171655	3710020-BJH-A	English French Learning Academy	Main BLDG, exterior south wall, near RM 117, single fixture fountain
05/26/17	W1171656	3710020-BJH-B	English French Learning Academy	Main BLDG, 1st floor across from kitchen door, left of wall mounted fire house, single fixtu
05/26/17	W1171657	3710020-BJH-C	English French Learning Academy	Main BLDG, 1st floor, RM 116, sink faucet
05/26/17	W1171658	3710020-BJH-D	English French Learning Academy	Main BLDG, 1st floor, RM 112, south wall, sink faucet
05/26/17	W1171659	3710020-BJH-E	English French Learning Academy	Exterior of main bldg, north side, near room 102
05/26/17	W1172142	3710020-CBC-A	Ingenuity Charter	Classroom Bldg. 100C, Exterior North wall, adjacent to office 100A, dual bubbler fountain
05/26/17	W1172882	3710020-BIB-A	Stella Maris Academy	7645 Herschel Ave, Between 6/7 grade classrooms, single bubbler fountain
05/26/17	W1172883	3710020-BIB-B	Stella Maris Academy	7645 Herschel Ave, Between 4/6 grade classrooms, single bubbler fountain
05/26/17	W1172884	3710020-BIB-C	Stella Maris Academy	7704 Herschel Ave, Outside kitchen, single bubbler fountain

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services

Lead School Testing

Report Date: 7/13/17

Total Number of Samples Tested= 1,115

Sample Date	Sample ID	External ID	School Name	Sampling Point
05/26/17	W1172885	3710020-BIB-D	Stella Maris Academy	7704 Herschel Ave, Outside storage btw bathrooms, Filter unit
05/26/17	W1172886	3710020-BIB-E	Stella Maris Academy	7654 Herschel Ave, Admin BLDG, Kindergarten room, faucet at Sink
05/26/17	W1174243	3710020-CAI-B	Vista Hill Foundation	Building 8/9, Outside Drinking fountain behind building 8/9, single bubbler fountain
05/26/17	W1174244	3710020-CAI-C	Vista Hill Foundation	Behind the OT room on play ground, single bubbler fountain
05/26/17	W1174503	3710020-CBD-A	San Diego French-American School	Bldg. 1, Exterior South wall, adjacent to RRs, two single bubbler fountains, lower right fou
05/26/17	W1174504	3710020-CBD-B	San Diego French-American School	Bldg. 1, Exterior North wall, adjacent to RRs, two single bubbler fountains, upper left foun
05/26/17	W1174505	3710020-CBD-C	San Diego French-American School	Bldg. 1, Exterior North wall, adjacent to RRs, two single bubbler fountains, lower right fou
05/26/17	W1174506	3710020-CBD-D	San Diego French-American School	Multi-purpose room, Exterior South wall, two single bubbler fountains, lower right fountain
05/26/17	W1174507	3710020-CBD-E	San Diego French-American School	Bldg. 4, Exterior East wall, two single bubbler fountains, lower right fountain
05/26/17	W1174563	3710020-CBE-A	The Cambridge School	Primary Building, Downstairs courtyard between RRs, two single bubbler fountains, uppe
05/26/17	W1174564	3710020-CBE-B	The Cambridge School	Primary Building, Up courtyard stairs between RRs, two single bubbler fountains, lower le
05/26/17	W1174565	3710020-CBE-C	The Cambridge School	Primary Building, Staff Kitchen, faucet at sink
05/26/17	W1174566	3710020-CBE-D	The Cambridge School	Primary Building, Upstairs nurse's office, Quench water filtration unit and dispenser
05/26/17	W1174567	3710020-CBE-E	The Cambridge School	Primary Building, Courtyard next to Pre K bathroom, Pre K sink faucet
06/01/17	W1173063	3710020-BJJ-A	The Children's School	Auditorium building, Exterior southeast corner of building, quadruple bubbler, far left bubb
06/01/17	W1173064	3710020-BJJ-B	The Children's School	Auditorium building, Interior northeast side of building, faucet at sink
06/01/17	W1173065	3710020-BJJ-C	The Children's School	Classroom building (rooms9-12), Exterior east side of building, quadruple bubbler, far righ
06/01/17	W1173066	3710020-BJJ-D	The Children's School	Classroom building, Exterior northeast corner of building, two single bubbler fountains, lo
06/01/17	W1173067	3710020-BJJ-E	The Children's School	Alder building, Inside room 5, faucet at sink
06/01/17	W1174619	3710020-CBI-A	Del Mar Heights Elementary	East playground Area, In between Girls / Boys lower grade RRs, two single bubbler fount
06/01/17	W1174620	3710020-CBI-B	Del Mar Heights Elementary	D building, West side of D building in between boys / girls upper grade RRs, two single b
06/01/17	W1174621	3710020-CBI-C	Del Mar Heights Elementary	D building, Classroom D-3 back corner of room, bubbler at sink

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Water Quality Chemistry Services

Lead School Testing

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Sample Date	Sample ID	External ID	School Name	Sampling Point
06/01/17	W1174622	3710020-CBI-D	Del Mar Heights Elementary	west end of C-wing, dual bubbler fountain, right bubbler
06/01/17	W1174623	3710020-CBI-E	Del Mar Heights Elementary	A Building, Classroom A-1, bubbler at sink
06/01/17	W1174624	3710020-CBJ-A	Del Mar Hills Elementary	Kindergarten Area, Exterior drinking fountain outside room 22, two single bubbler fountai
06/01/17	W1174625	3710020-CBJ-B	Del Mar Hills Elementary	Room P-6, Childcare room, bubbler at sink
06/01/17	W1174626	3710020-CBJ-C	Del Mar Hills Elementary	Main bldg, Back of school in between Boys / Girls lower grade RRs, two single bubbler fo
06/01/17	W1174627	3710020-CBJ-D	Del Mar Hills Elementary	Main bldg, East of school in between Boys / Girls upper grade RRs, two single bubbler fo
06/01/17	W1174628	3710020-CBJ-E	Del Mar Hills Elementary	Main bldg, Room 18, bubbler at sink
06/02/17	W1174604	3710020-CBF-A	Southwest Middle School	Cafeteria, Kitchen Food Prep Sink, faucet above two compartment sink
06/02/17	W1174605	3710020-CBF-B	Southwest Middle School	Cafeteria, Exterior Building East Side, two single bubbler fountains, upper right fountain
06/02/17	W1174606	3710020-CBF-C	Southwest Middle School	800 Building, Exterior North Side, two single bubbler fountains, upper right fountain
06/02/17	W1174607	3710020-CBF-D	Southwest Middle School	Boys PE, Exterior North Side Building, two single bubbler fountains, upper right fountain
06/02/17	W1174608	3710020-CBF-E	Southwest Middle School	Adaptive Weight Room, inside Building West side Wall, two single bubbler fountains, low
06/02/17	W1174609	3710020-CBG-A	Ashley Falls Elementary	MUR, Behind boy's restroom, two single bubbler fountains, lower right fountain
06/02/17	W1174610	3710020-CBG-B	Ashley Falls Elementary	East side of 400 wing in between boys / girls upper grade RRs, two single bubbler fountai
06/02/17	W1174611	3710020-CBG-C	Ashley Falls Elementary	Classroom 605, Bottom of two story building right side, bubbler at sink
06/02/17	W1174612	3710020-CBG-D	Ashley Falls Elementary	west end of 400 building, two single bubbler fountains, upper right fountain
06/02/17	W1174613	3710020-CBG-E	Ashley Falls Elementary	Wing 300, Interior hallway across classroom 305, bubbler at sink
06/02/17	W1174614	3710020-CBH-A	Carmel Del Mar Elementary	Childcare 1-2, West side of school, bubbler at sink
06/02/17	W1174615	3710020-CBH-B	Carmel Del Mar Elementary	East side of 300 wing between girls / boys upper grade RRs, two single bubbler fountains
06/02/17	W1174616	3710020-CBH-C	Carmel Del Mar Elementary	300 wing, Classroom 303, bubbler at sink
06/02/17	W1174617	3710020-CBH-D	Carmel Del Mar Elementary	east end of wing 100 between girls / boys lower grade RRs, two single bubbler fountains,
06/02/17	W1174618	3710020-CBH-E	Carmel Del Mar Elementary	500 wing (Kindergarten), Classroom 501, bubbler at sink

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Water Quality Chemistry Services

Lead School Testing

Report Date: 7/13/17

Total Number of Samples Tested= 1,115

Sample Date	Sample ID	External ID	School Name	Sampling Point
06/02/17	W1175389	3710020-CCC-A	Sycamore Ridge	ASP building, in between ASP 1- ASP 2, two single bubbler fountains, upper right fountai
06/02/17	W1175390	3710020-CCC-B	Sycamore Ridge	Classroom ASP 1, bubbler at sink
06/02/17	W1175391	3710020-CCC-C	Sycamore Ridge	Eastside of F wing, exterior, two single bubbler fountains, lower left fountain
06/02/17	W1175392	3710020-CCC-D	Sycamore Ridge	South side of E-wing in between boys and girls RRs, two single bubbler fountains, upper
06/02/17	W1175393	3710020-CCC-E	Sycamore Ridge	Westside of building B left side of custodian room, two single bubbler fountains, lower left
06/02/17	W1176173	3710020-AJJ-A	Birney Elementary	After Remediation - Cafeteria, Wall mounted exterior (North of Bldg), facing lunch court, t
06/06/17	W1175394	3710020-CCD-A	Torrey Hills	Boys / girls upper grade restrooms (next to custodial room), two single bubbler fountains,
06/06/17	W1175395	3710020-CCD-B	Torrey Hills	Boys / girls lower grade restrooms (next to custodial room), two single bubbler fountains
06/06/17	W1175396	3710020-CCD-C	Torrey Hills	K building, Classroom K-5, bubbler at sink
06/06/17	W1175397	3710020-CCD-D	Torrey Hills	Classroom H-1, bubbler at sink
06/06/17	W1175398	3710020-CCD-E	Torrey Hills	Classroom C-1, bubbler at sink
06/06/17	W1175399	3710020-CCA-A	Ocean Air	South end of 300 wing, two single bubbler fountains, lower right fountain
06/06/17	W1175400	3710020-CCA-B	Ocean Air	600 wing, Classroom 601, bubbler at sink
06/06/17	W1175401	3710020-CCA-C	Ocean Air	Behind 400 wing in between boys / girls RRs, two single bubbler fountains, upper left four
06/06/17	W1175402	3710020-CCA-D	Ocean Air	Classroom 701, bubbler at sink
06/06/17	W1175403	3710020-CCA-E	Ocean Air	Behind MUR right side, two single bubbler fountains, upper left fountain
06/06/17	W1175404	3710020-CCB-A	Sage Canyon	Childcare, Sink in childcare room A / B, bubbler at sink
06/06/17	W1175405	3710020-CCB-B	Sage Canyon	200 wing, classroom 201 (kindergarten), bubbler at sink
06/06/17	W1175406	3710020-CCB-C	Sage Canyon	400 wing, Sink in hallway across from classroom 405, bubbler at sink
06/06/17	W1175407	3710020-CCB-D	Sage Canyon	north end of 300 wing, two single bubbler fountains on pedistal, lower left bubbler when fa
06/06/17	W1175408	3710020-CCB-E	Sage Canyon	MUR, Drinking fountain behind MUR by boys restroom, two single bubbler fountains, upp
06/07/17	W1171650	3710020-BJB-A	KIPP Adelante Preparatory Academy	1st floor open area, between girls/boys restroom, single fountain

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Water Quality Chemistry Services

Lead School Testing

Report Date: 7/13/17

Total Number of Samples Tested= 1,115

Sample Date	Sample ID	External ID	School Name	Sampling Point
06/07/17	W1171651	3710020-BJB-B	KIPP Adelante Preparatory Academy	2nd Floor, between girls/boys restroom, single fountain
06/07/17	W1171652	3710020-BJB-C	KIPP Adelante Preparatory Academy	3rd Floor, next to Room 308, upper left fountain
06/07/17	W1171653	3710020-BJB-D	KIPP Adelante Preparatory Academy	3rd Floor, next to Room 308, lower right fountain
06/08/17	W1176667	3710020-CCF-A	The Child's Primary School	exterior, downstairs, near lockers and girls bathroom, two single bubbler fountains, left fo
06/08/17	W1176668	3710020-CCF-B	The Child's Primary School	exterior, downstairs, near lockers and girls bathroom, two single bubbler fountains, right f
06/08/17	W1176669	3710020-CCF-C	The Child's Primary School	upstairs - kitchen prep sink along south wall, faucet at white colored sink
06/08/17	W1176670	3710020-CCF-D	The Child's Primary School	upstairs - kitchen prep sink under window, faucet at large metal sink
06/08/17	W1176671	3710020-CCF-E	The Child's Primary School	upstairs hallway - around the corner from kitchen and Storage, sinkle bubbler fountain
06/13/17	W1178601	3710020-CCH-A	Carmel Valley MS	300's BLDG, bottle filling station near RM 306
06/13/17	W1178602	3710020-CCH-B	Carmel Valley MS	Lunch court near gym, bottle filling station near RM 240
06/13/17	W1178603	3710020-CCH-C	Carmel Valley MS	Kitchen food prep, faucet at two compartment sink on south facing wall
06/13/17	W1178604	3710020-CCH-D	Carmel Valley MS	600's BLDG, sink in restroom
06/13/17	W1178605	3710020-CCH-E	Carmel Valley MS	900's BLDG, bottle filling station near RM 906
06/13/17	W1178638	3710020-CCI-A	Torrey Pines HS	between BLDG B and lunch pavillion, dual fountain, lower bubbler
06/13/17	W1178639	3710020-CCI-B	Torrey Pines HS	southwest exterior corner of gym, 3 dual fountains, left fountain, upper bubbler
06/13/17	W1178640	3710020-CCI-C	Torrey Pines HS	Food service south wall, 3 faucets, center faucet
06/13/17	W1178641	3710020-CCI-D	Torrey Pines HS	Weight RM exterior, free standing tripe fountain, center bubbler
06/13/17	W1178642	3710020-CCI-E	Torrey Pines HS	east side exterior of gym, near women's, two freestanding triple fountains, right triple, cer
06/16/17	W1175869	3710020-BIA-A	Montgomery Middle SUSD	Administration building, Nurses office, Faucet at sink
06/16/17	W1175870	3710020-BIA-B	Montgomery Middle SUSD	behind Girls PE, dual bubbler fountain, Right bubbler
06/16/17	W1175871	3710020-BIA-C	Montgomery Middle SUSD	900 BLDG, Between 500 hallway and RM 903, dual bubbler fountain, Right bubbler
06/16/17	W1175872	3710020-BIA-D	Montgomery Middle SUSD	500 BLDG, Between boys and girls RRs, two single bubbler fountains, lower right bubbler

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Water Quality Chemistry Services

Lead School Testing

Report Date: 7/13/17

Total Number of Samples Tested= 1,115

Sample Date	Sample ID	External ID	School Name	Sampling Point
06/16/17	W1175873	3710020-BIA-E	Montgomery Middle SUSD	Cafeteria, Left side of range, Faucet
06/16/17	W1178441	3710020-CCG-A	Canyon Crest Academy	Admin BLDG, Nurses Office, faucet at sink
06/16/17	W1178442	3710020-CCG-B	Canyon Crest Academy	Library/Media center, south of boys RR, bottle filler on north facing wall
06/16/17	W1178443	3710020-CCG-C	Canyon Crest Academy	Gym, backside of gym, southeast outside wall, far right drinking fountain
06/16/17	W1178444	3710020-CCG-D	Canyon Crest Academy	Food service room, south east wall, faucet at sink, non-pull down
06/16/17	W1178445	3710020-CCG-E	Canyon Crest Academy	BLDG D, outside East side, free standing bottle filler
06/30/17	W1175864	3710020-CCE-A	Southwest Senior High	Cafeteria kitchen, double sink below window, faucet at double sink
06/30/17	W1175865	3710020-CCE-B	Southwest Senior High	11OO BLDG, next to elevator, two single bubbler fountains, upper right fountain
06/30/17	W1175866	3710020-CCE-C	Southwest Senior High	Between 300 and 500 BLDG, two single bubbler fountains, upper left fountain
06/30/17	W1175867	3710020-CCE-D	Southwest Senior High	next to 605, two single bubbler fountains, upper left fountain
06/30/17	W1180979	3710020-CDA-A	Mar Vista High School	100 BLDG, near admin and AP office, two single fountains, upper left fountain
06/30/17	W1180980	3710020-CDA-B	Mar Vista High School	ASB building, exterior east wall, two single fountains, upper right fountain fountain
06/30/17	W1180981	3710020-CDA-C	Mar Vista High School	Cafeteria prep area, west wall under windows, faucet at sink
06/30/17	W1180982	3710020-CDA-D	Mar Vista High School	400 BLDG, near RM 405, dual fixture, right bubbler
06/30/17	W1180983	3710020-CDA-E	Mar Vista High School	New gym, south of campus, two separate single fountains, upper right fountain

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/27/17

San Diego Unified School District

Adams Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1166836	04/15/17	08:24 AM	SAMPLE 1	3710020-AFD-A	< 5	ug/L
W1166837	04/15/17	08:27 AM	SAMPLE 2	3710020-AFD-B	< 5	ug/L
W1166838	04/15/17	08:30 AM	SAMPLE 3	3710020-AFD-C	< 5	ug/L
W1166839	04/15/17	08:33 AM	SAMPLE 4	3710020-AFD-D	< 5	ug/L
W1166840	04/15/17	08:36 AM	SAMPLE 5	3710020-AFD-E	< 5	ug/L

Source	Source Description
SAMPLE 1	BLDG 200, prep kitchen near entrance, swing arm faucet
SAMPLE 2	BLDG 300, 1st floor, near room 1 and science lab, lower left bubbler
SAMPLE 3	BLDG 300, 1st floor, between gardner and D3 rooms, triple fountain, left bubbler
SAMPLE 4	BLDG 300, 1st floor, west end, between kindergarten rooms 5 & 6, triple fountain, left bubbler
SAMPLE 5	BLDG 300, room 14, bubbler at sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger

Tom Burger, Associate Chemist

Public Utilities

Environmental Monitoring and Technical Services
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Water Quality Chemistry Services
Lead School Testing
Report Date: 28-Apr-2017

San Diego Unified School District
ALBA High School

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168017	4/22/2017	6:47 AM	SAMPLE 1	3710020-AHH-A	< 5	µg/L
W1168018	4/22/2017	6:35 AM	SAMPLE 2	3710020-AHH-B	< 5	µg/L
W1168019	4/22/2017	6:45 AM	SAMPLE 3	3710020-AHH-C	< 5	µg/L
W1168020	4/22/2017	6:39 AM	SAMPLE 4	3710020-AHH-D	< 5	µg/L
W1168021	4/22/2017	6:42 AM	SAMPLE 5	3710020-AHH-E	< 5	µg/L

Source	Source Description
SAMPLE 1	Main office Bldg.; Nurse's office; single bubbler on the right side of the sink inside the office
SAMPLE 2	Classroom building; Lunch patio area on Exterior North Wall; Upper left bubbler of 2 single fountains
SAMPLE 3	Kitchen, two compartment sink, faucet
SAMPLE 4	Classroom building; Room 4; Single bubbler on the r side of the interior sink
SAMPLE 5	Classroom building; Room 10; Single bubbler on the r side of the interior sink

DRL=State Mandated Detection Limit for Reporting (DLR)= 5 µg/L
Action Level (AL) = 15 µg/L

Doug Campbell, Senior Chemist

Public Utilities

Environmental Monitoring and Technical Services
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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/23/17

San Diego Unified School District

Alcott Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1170038	05/10/17	06:11 AM	SAMPLE 1	3710020-BEI-A	< 5	ug/L
W1170039	05/10/17	06:09 AM	SAMPLE 2	3710020-BEI-B	< 5	ug/L
W1170040	05/10/17	06:02 AM	SAMPLE 3	3710020-BEI-C	< 5	ug/L
W1170041	05/10/17	06:00 AM	SAMPLE 4	3710020-BEI-D	< 5	ug/L
W1170042	05/10/17	05:59 AM	SAMPLE 5	3710020-BEI-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Kindergarten Area, North side of campus outside between Rooms 3 and 4, Sink with Faucet and a bubbler, bubbler is on right
SAMPLE 2	Building on Northwest side of campus near blacktop near rooms 20 and 21, triple bubbler fountain, center bubbler
SAMPLE 3	Center of campus on West facing wall near room 17 & RRs, triple bubbler fountain, left bubbler
SAMPLE 4	South side of campus inside Room 15, bubbler at sink
SAMPLE 5	South side of campus inside Room 14, bubbler at sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/26/17

San Diego Unified School District

America's Finest Charter

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1172550	05/16/17	06:01 AM	SAMPLE 1	3710020-BHH-A	< 5	ug/L
W1172551	05/16/17	06:04 AM	SAMPLE 2	3710020-BHH-B	< 5	ug/L
W1172552	05/16/17	06:07 AM	SAMPLE 3	3710020-BHH-C	< 5	ug/L
W1172553	05/16/17	06:09 AM	SAMPLE 4	3710020-BHH-D	< 5	ug/L
W1172554	05/16/17	06:12 AM	SAMPLE 5	3710020-BHH-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Kindergarten Bldg., Interior south wall of Room K1, two sinks, bubbler on left sink
SAMPLE 2	Bldg. 2, Interior north wall of Room K2, two sinks, bubbler on left sink
SAMPLE 3	Bldg. 2, Exterior north wall near faculty restrooms, single bubbler fountain
SAMPLE 4	Bldg. 2, Exterior north wall near boys & girls RRs, triple bubbler fountain, left bubbler
SAMPLE 5	Bldg. 2, Exterior west wall near room "Storage B", triple bubbler fountain, right bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/17/17

San Diego Unified School District

Angier Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168186	04/22/17	08:43 AM	SAMPLE 1	3710020-AJG-A	< 5	ug/L
W1168187	04/22/17	08:45 AM	SAMPLE 2	3710020-AJG-B	< 5	ug/L
W1168188	04/22/17	08:49 AM	SAMPLE 3	3710020-AJG-C	10.2	ug/L
W1168189	04/22/17	08:51 AM	SAMPLE 4	3710020-AJG-D	< 5	ug/L
W1168190	04/22/17	08:55 AM	SAMPLE 5	3710020-AJG-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Lunch Court area near room 9; Far Left bubbler of exterior fountains closest to girls RR
SAMPLE 2	Exterior next to room 16; two triple fountains, right bubbler on right fountain
SAMPLE 3	Cafeteria/Kitchen; South interior wall in the corner in Kitchen; Spray faucet
SAMPLE 4	West exterior wall next to custodial room; Two double fountains, right bubbler of right fountain
SAMPLE 5	Kindergarten; Inside K-2; bubbler on the right side of sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services

Lead School Testing

Report Date: 28-Apr-2017

San Diego Unified School District

Arroyo Paseo High School

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168022	4/22/2017	6:12 AM	SAMPLE 1	3710020-AIJ-A	< 5	µg/L
W1168023	4/22/2017	6:04 AM	SAMPLE 2	3710020-AIJ-B	< 5	µg/L
W1168024	4/22/2017	6:08 AM	SAMPLE 3	3710020-AIJ-C	< 5	µg/L
W1168025	4/22/2017	6:09 AM	SAMPLE 4	3710020-AIJ-D	< 5	µg/L
W1168026	4/22/2017	6:06 AM	SAMPLE 5	3710020-AIJ-E	< 5	µg/L

Source	Source Description
SAMPLE 1	Main classroom building, north exterior wall, triple fountain, left bubbler
SAMPLE 2	Main building, room 18, bubbler at sink
SAMPLE 3	Main building, room 17, bubbler at sink
SAMPLE 4	Main building, room 14, bubbler at sink
SAMPLE 5	Main building, room 13, bubbler at sink

DRL=State Mandated Detection Limit for Reporting (DLR)= 5 µg/L

Action Level (AL) = 15 µg/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/14/17

Del Mar Union School District

Ashley Falls Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1174609	06/02/17	06:32 AM	SAMPLE 1	3710020-CBG-A	< 5	ug/L
W1174610	06/02/17	06:35 AM	SAMPLE 2	3710020-CBG-B	< 5	ug/L
W1174611	06/02/17	06:37 AM	SAMPLE 3	3710020-CBG-C	< 5	ug/L
W1174612	06/02/17	06:40 AM	SAMPLE 4	3710020-CBG-D	< 5	ug/L
W1174613	06/02/17	06:42 AM	SAMPLE 5	3710020-CBG-E	< 5	ug/L

Source	Source Description
SAMPLE 1	MUR, Behind boy's restroom, two single bubbler fountains, lower right fountain
SAMPLE 2	East side of 400 wing in between boys / girls upper grade RRs, two single bubbler fountains, lower right fountain
SAMPLE 3	Classroom 605, Bottom of two story building right side, bubbler at sink
SAMPLE 4	west end of 400 building, two single bubbler fountains, upper right fountain
SAMPLE 5	Wing 300, Interior hallway across classroom 305, bubbler at sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/19/17

San Diego Unified School District
Audubon K-8

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1165284	04/11/17	06:10 AM	SAMPLE 1	3710020-ADB-A	< 5	ug/L
W1165285	04/11/17	06:15 AM	SAMPLE 2	3710020-ADB-B	< 5	ug/L
W1165286	04/11/17	06:05 AM	SAMPLE 3	3710020-ADB-C	< 5	ug/L
W1165287	04/11/17	06:20 AM	SAMPLE 4	3710020-ADB-D	< 5	ug/L
W1165288	04/11/17	06:25 AM	SAMPLE 5	3710020-ADB-E	< 5	ug/L

Source	Source Description
SAMPLE 1	100s BLDG, Room 101, next to exit, bubbler in sink
SAMPLE 2	600s BLDG exterior, next to boys resroom, facing dirt field, triple fountain, right bubbler
SAMPLE 3	Assembly, exterior, between 219 and 220, dual fountain, upper right
SAMPLE 4	400's BLDG, exterior, near Room 409, two fountains, upper left single bubbler
SAMPLE 5	Portable restroom, near Rooms B18 - B20, exterior free standing two station, upper bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
Tom Burger, Associate Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/12/17

San Diego Unified School District

Baker Elementary School

Sample ID	Sample Date	Sample Time	Description	External ID	Lead	Units
W1164083	04/04/17	06:05 AM	SAMPLE 1	3710020-AAI-A	< 5	ug/L
W1164084	04/04/17	06:08 AM	SAMPLE 2	3710020-AAI-B	< 5	ug/L
W1164085	04/04/17	06:11 AM	SAMPLE 3	3710020-AAI-C	< 5	ug/L
W1164086	04/04/17	06:15 AM	SAMPLE 4	3710020-AAI-D	< 5	ug/L
W1164087	04/04/17	06:18 AM	SAMPLE 5	3710020-AAI-E	< 5	ug/L

SAMPLE 1 Admin/Auditorium btwn K1 & K2 restrooms right bubbler

SAMPLE 2 Admin BLDG. btwn electrical meter rm & hallway door, right, tall bubbler

SAMPLE 3 1-5 Supply Rm. near girls restroom & supply rm. upper right bubbler

SAMPLE 4 7-12 next to custodian ups sign & girls restroom, left bubbler

SAMPLE 5 Field Restrooms, outside bungalow restroom near sports field, lower right bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/12/17

San Diego Unified School District

Balboa Elementary

Sample ID	Sample Date	Sample Time	Description	External ID	Lead	Units
W1164531	04/06/17	05:55 AM	SAMPLE 1	3710020-ABJ-A	< 5	ug/L
W1164532	04/06/17	06:05 AM	SAMPLE 2	3710020-ABJ-B	< 5	ug/L
W1164533	04/06/17	06:10 AM	SAMPLE 3	3710020-ABJ-C	< 5	ug/L
W1164534	04/06/17	06:15 AM	SAMPLE 4	3710020-ABJ-D	< 5	ug/L
W1164535	04/06/17	06:20 AM	SAMPLE 5	3710020-ABJ-E	< 5	ug/L

SAMPLE 1 BLDG 100, exterior between boys/girls restroom, right bubbler

SAMPLE 2 BLDG 400, inside hallway north, between girls/boys restroom, right bubbler

SAMPLE 3 BLDG 300 lower, right hallway, between boys/girls restroom, right bubbler

SAMPLE 4 BLDG 300 upstairs, between boys/girls restroom, right bubbler

SAMPLE 5 BLDG 200, next to teachers lounge, lower right bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/9/17

San Diego Unified School District
Bandini Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1165211	05/02/17	05:48 AM	SAMPLE 1	3710020-ACH-A	< 5	ug/L
W1165212	05/02/17	05:51 AM	SAMPLE 2	3710020-ACH-B	< 5	ug/L
W1165213	05/02/17	06:00 AM	SAMPLE 3	3710020-ACH-C	< 5	ug/L
W1165214	05/02/17	05:56 AM	SAMPLE 4	3710020-ACH-D	< 5	ug/L
W1165215	05/02/17	06:05 AM	SAMPLE 5	3710020-ACH-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Admin BLDG, west wall near corner, triple fountain, right bubbler
SAMPLE 2	Kitchen, outside kitchen service building, double fountain, right bubbler
SAMPLE 3	BLDG 7,8,9, near room 9, around corner from restrooms, double fountain, right bubbler
SAMPLE 4	BLDG 7,8,9, in room 9, bubbler at sink
SAMPLE 5	BLDG 10,11,12,13 in room 11, left side, bubbler at sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/7/17

San Diego Unified School District

Barnard Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1173058	05/25/17	05:58 AM	SAMPLE 1	3710020-BJI-A	< 5	ug/L
W1173059	05/25/17	06:01 AM	SAMPLE 2	3710020-BJI-B	< 5	ug/L
W1173060	05/25/17	06:03 AM	SAMPLE 3	3710020-BJI-C	< 5	ug/L
W1173061	05/25/17	06:07 AM	SAMPLE 4	3710020-BJI-D	< 5	ug/L
W1173062	05/25/17	06:09 AM	SAMPLE 5	3710020-BJI-E	< 5	ug/L

Source	Source Description
SAMPLE 1	600 bldg Classrooms 18-20, Wall mounted exterior (North of Bldg), between Boys & Girls RR, facing B28, dual bubbler fountain to the left of single fountain, left bubbler on
SAMPLE 2	300 bldg Classrooms 9-14, Wall mounted exterior (South of Bldg), between Girls' RR & Room 317, facing blacktop, triple bubbler fountain, middle bubbler
SAMPLE 3	400 bldg Classrooms 3-8, Wall mounted exterior (South of Bldg), between Girls' RR & Room 412, facing blacktop, dual bubbler fountain, right bubbler
SAMPLE 4	Kindergarten, Rm K2, bubbler on left sink
SAMPLE 5	Cafeteria/Auditorium, Wall mounted exterior (South of Bldg), facing lunch court, two single bubbler fountains, lower left fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/23/17

San Diego Unified School District

Bay Park Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1169385	05/11/17	06:18 AM	SAMPLE 1	3710020-BEA-A	< 5	ug/L
W1169386	05/11/17	06:08 AM	SAMPLE 2	3710020-BEA-B	< 5	ug/L
W1169387	05/11/17	06:05 AM	SAMPLE 3	3710020-BEA-C	< 5	ug/L
W1169388	05/11/17	06:13 AM	SAMPLE 4	3710020-BEA-D	< 5	ug/L
W1171698	05/11/17	06:22 AM	SAMPLE 5	3710020-BEA-E	< 5	ug/L

Source	Source Description
SAMPLE 1	East facing exterior wall next to blacktop area backside of room 5, triple bubbler fountain, right bubbler
SAMPLE 2	North side of lunch arbor next to cafeteria, quintuple bubbler fountain, far right bubbler
SAMPLE 3	Kitchen, East interior wall next to range, faucet above single compartment sink
SAMPLE 4	Kindergarten bldg, West interior wall, bubbler at sink
SAMPLE 5	Restroom Bungalow, East exterior side between boy & girl's RR, two single-bubbler fountains, upper left fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/12/17

San Diego Unified School District

Bell Middle School

Sample ID	Sample Date	Sample Time	Description	External ID	Lead	Units
W1164188	04/05/17	06:20 AM	SAMPLE 1	3710020-ABE-A	< 5	ug/L
W1164189	04/05/17	06:00 AM	SAMPLE 2	3710020-ABE-B	< 5	ug/L
W1164190	04/05/17	06:05 AM	SAMPLE 3	3710020-ABE-C	< 5	ug/L
W1164191	04/05/17	06:10 AM	SAMPLE 4	3710020-ABE-D	< 5	ug/L
W1164192	04/05/17	06:15 AM	SAMPLE 5	3710020-ABE-E	< 5	ug/L

Sample #	Sample Site
SAMPLE 1	BLDG 1300; Rm 1308(nurse) bubbler
SAMPLE 2	Cafeteria/Auditorium; lower faucet at two bowl sink
SAMPLE 3	Library BLDG 1100, west wall, upper/right bubbler
SAMPLE 4	PE BLDG 1200, north wall,next girls locker room, upper/left bubbler
SAMPLE 5	Phyiscal Ed BLDG 1200; west wall, next boys locker room, upper/left bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services

Lead School Testing

Report Date: 28-Apr-2017

San Diego Unified School District

Benchley Weinberger

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1166999	4/18/2017	6:03 AM	SAMPLE 1	3710020-AGB-A	< 5	µg/L
W1167000	4/18/2017	6:06 AM	SAMPLE 2	3710020-AGB-B	< 5	µg/L
W1167001	4/18/2017	6:08 AM	SAMPLE 3	3710020-AGB-C	< 5	µg/L
W1167002	4/18/2017	6:16 AM	SAMPLE 4	3710020-AGB-D	< 5	µg/L
W1167003	4/18/2017	6:13 AM	SAMPLE 5	3710020-AGB-E	< 5	µg/L

Source	Source Description
SAMPLE 1	Outside kindergarten building between boys & girls restrooms;Lower LEFT-Bubbler drinking fountain of two
SAMPLE 2	Auditorium;Between assembly door and stage door;FAR LEFT- bubbler of left drinking fountain of two near hand washing sink
SAMPLE 3	1-6 bldg;near playground between boys & girls RR;LEFT bubbler of LEFT water fountain near girls RR
SAMPLE 4	7-12 BLDG;Between boys & girls restrooms across from Library;Left-lower bubbler from stainless steel fountain
SAMPLE 5	LIBRARY;Outside Librarybetween adult RR;Lower LEFT-Drinking fountain of two;nearest to Mens RR

DRL=State Mandated Detection Limit for Reporting (DLR)= 5 µg/L

Action Level (AL) = 15 µg/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/12/17

San Diego Unified School District

Bethune K-8

Sample ID	Sample Date	Sample Time	Description	External ID	Lead	Units
W1164640	04/06/17	06:33 AM	SAMPLE 1	3710020-ACB-A	< 5	ug/L
W1164641	04/06/17	06:29 AM	SAMPLE 2	3710020-ACB-B	< 5	ug/L
W1164642	04/06/17	06:21 AM	SAMPLE 3	3710020-ACB-C	< 5	ug/L
W1164643	04/06/17	06:15 AM	SAMPLE 4	3710020-ACB-D	< 5	ug/L

Sample #	Sample Site
SAMPLE 1	BLDG 1, room 23, kindergarten classroom sink, bubbler at sink
SAMPLE 2	Portable classrooms, room B-26, sink bubbler
SAMPLE 3	Portable restroom adjacent to rooms R1-R8, floor mounted fountain near mens room, upper bubbler on dual fountain
SAMPLE 4	BLDG 6 exterior between custodian (gear locker) and boy's restroom, left single bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/23/17

San Diego Unified School District

Bird Rock Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1170043	05/11/17	06:10 AM	SAMPLE 1	3710020-BEJ-A	10.5	ug/L
W1170044	05/11/17	06:15 AM	SAMPLE 2	3710020-BEJ-B	< 5	ug/L
W1170045	05/11/17	05:55 AM	SAMPLE 3	3710020-BEJ-C	< 5	ug/L
W1170046	05/11/17	06:05 AM	SAMPLE 4	3710020-BEJ-D	< 5	ug/L
W1170047	05/11/17	06:00 AM	SAMPLE 5	3710020-BEJ-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Kindergarten, Inside # K-2, Bubbler drinking fountain at hand washing sink
SAMPLE 2	Kindergarten K-3, Bubbler drinking fountain at sink
SAMPLE 3	Auditorium, Outside between men's & women's RRs near lunch court, two single-bubbler fountains, lower left fountain
SAMPLE 4	Cafeteria, Inside Kitchen, Single faucet at 2-compartment sink
SAMPLE 5	Bldg 1-7 rooms, Outside at lower playground, triple bubbler fountain below tree artwork on wall, middle bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

Environmental Monitoring and Technical Services
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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/9/17

San Diego Unified School District
Birney Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168062	05/02/17	06:30 AM	SAMPLE 1	3710020-AJJ-A	19.0	ug/L
W1168063	05/02/17	06:30 AM	SAMPLE 2	3710020-AJJ-B	< 5	ug/L
W1168064	05/02/17	06:35 AM	SAMPLE 3	3710020-AJJ-C	< 5	ug/L
W1168065	05/02/17	06:35 AM	SAMPLE 4	3710020-AJJ-D	13.9	ug/L
W1168066	05/02/17	06:40 AM	SAMPLE 5	3710020-AJJ-E	9.48	ug/L

Source	Source Description
SAMPLE 1	Cafeteria, Wall mounted exterior (North of Bldg), facing lunch court, two single bubbler fountains, upper right fountain
SAMPLE 2	Kindergarten/Preschool, Rm K1, classroom sink facing Restrooms, center bubbler between two sink faucets
SAMPLE 3	Wall mounted exterior behind the elevator (East of Bldg), next to Electrical Equipment Rm 911 & Girls RR, two single bubbler fountains, lower left fo
SAMPLE 4	200 BLGD, Wall mounted exterior (North of Bldg), between Storage 202 & 201/Girls & Boys Restrooms, facing Blacktop/playground, triple bubbler f
SAMPLE 5	300 BLDG, Wall mounted exterior (North of Bldg), between Girls & Boys Restrooms, facing blacktop, two single bubbler fountains, upper right fount

DLR= State Mandated Detection Limit for Reporting (DLR)= 5
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/20/17

San Diego Unified School District

Birney Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1176173	06/02/17	06:10 AM	SAMPLE 1 1ST FOLLOW-UP	3710020-AJJ-A	< 5	ug/L

Source	Source Description
SAMPLE 1	After Remediation - Cafeteria, Wall mounted exterior (North of Bldg), facing lunch court, two single bubbler fountains, upper right fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom Burger Associate Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/12/17

San Diego Unified School District

Boone Elementary School

Sample ID	Sample Date	Sample Time	Description	External ID	Lead	Units
W1164073	04/04/17	06:20 AM	SAMPLE 1	3710020-AAG-A	< 5	ug/L
W1164074	04/04/17	06:13 AM	SAMPLE 2	3710020-AAG-B	< 5	ug/L
W1164075	04/04/17	06:22 AM	SAMPLE 3	3710020-AAG-C	< 5	ug/L
W1164076	04/04/17	06:28 AM	SAMPLE 4	3710020-AAG-D	< 5	ug/L
W1164077	04/04/17	06:10 AM	SAMPLE 5	3710020-AAG-E	< 5	ug/L

Sample #	Sample Site
SAMPLE 1	BLDG. 4, next to boys restroom and gardener's rm, wall mounted, right bubbler
SAMPLE 2	BLDG. 3, btwn girls and boys' restrooms, wall mounted, right bubbler
SAMPLE 3	BLDG. 7, 1st Floor, btwn girls and boys restroom facing amphitheater, right bubbler
SAMPLE 4	Portable Restrooms, btwn girls and boys restrooms, facing shade shelter, wall mounted right bubbler closet to the boys restroom
SAMPLE 5	Cafeteria, btwn cafeteria and auditorium, facing lunch arbor, wall mounted, right bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

San Diego Unified School District
Burbank Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168067	05/03/17	06:07 AM	SAMPLE 1	3710020-BAA-A	< 5	ug/L
W1168068	05/03/17	06:19 AM	SAMPLE 2	3710020-BAA-B	< 5	ug/L
W1168069	05/03/17	05:56 AM	SAMPLE 3	3710020-BAA-C	< 5	ug/L
W1168070	05/03/17	06:02 AM	SAMPLE 4	3710020-BAA-D	< 5	ug/L
W1168071	05/03/17	05:59 AM	SAMPLE 5	3710020-BAA-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Building 200 (first floor), Outside drinking fountain next to BDF/IDF/ Girls Bathroom(Hall way), two single bubbler fountains, lower right fountain
SAMPLE 2	Building 200 (Second Floor), Outside drinking fountain next to electrical room, two single bubbler fountains, lower right fountain
SAMPLE 3	Building 300, Outside drinking fountain next to the 300 building south entrance, two single bubbler fountains, upper left fountain
SAMPLE 4	Outside building 100 (playground), Drinking fountain in front of Building, two single bubbler fountains, upper left fountain
SAMPLE 5	inside Building 300 (Kitchen), faucet above single basin sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
Tom Burger, Associate Chemist

Environmental Monitoring and Technical Services
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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/7/17

San Diego Unified School District

Cabrillo Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1172996	05/20/17	05:43 AM	SAMPLE 1	3710020-BJE-A	< 5	ug/L
W1172997	05/20/17	05:49 AM	SAMPLE 2	3710020-BJE-B	< 5	ug/L
W1172998	05/20/17	05:52 AM	SAMPLE 3	3710020-BJE-C	< 5	ug/L
W1172999	05/20/17	05:56 AM	SAMPLE 4	3710020-BJE-D	8.69	ug/L
W1173000	05/20/17	06:01 AM	SAMPLE 5	3710020-BJE-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Kindergarten bldg, Wall mounted exterior (East of Bldg), between Classroom K1 & Heater Room, facing playground, bubbler on right side of sink with two faucets
SAMPLE 2	Portable Classroom B3, bubbler at sink
SAMPLE 3	Classrooms 10-14 bldg, Wall mounted exterior (North of Bldg), between Corridor entrance and Boys RR, two single bubbler fountains, lower right fountain
SAMPLE 4	Classrooms 15-18 bldg, Room15, bubbler at sink
SAMPLE 5	Portable Classroom B6, buubbler at sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 6/7/17

San Diego Unified School District

Cadman Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1170170	05/23/17	06:01 AM	SAMPLE 1	3710020-BEB-A	< 5	ug/L
W1170171	05/23/17	06:03 AM	SAMPLE 2	3710020-BEB-B	< 5	ug/L
W1170172	05/23/17	06:06 AM	SAMPLE 3	3710020-BEB-C	< 5	ug/L
W1170173	05/23/17	06:09 AM	SAMPLE 4	3710020-BEB-D	< 5	ug/L
W1170174	05/23/17	06:11 AM	SAMPLE 5	3710020-BEB-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Inside K-1 room next to restroom, bubbler at sink
SAMPLE 2	Inside K-2 between restrooms, two sinks with bubblers, bubbler on right sink
SAMPLE 3	Classrooms 1-8 bldg, Exterior corner next to room 1, single bubbler fountain
SAMPLE 4	Classrooms 9-12 bldg, Exterior wall next to room 11, dual bubbler fountain, left bubbler
SAMPLE 5	Classrooms 1-8 bldg, Exterior wall next to room 8, dual bubbler fountain, left bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/23/17

San Diego Unified School District

Clairemont High

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1172133	05/10/17	06:24 AM	SAMPLE 1	3710020-BHC-A	< 5	ug/L
W1172134	05/10/17	06:20 AM	SAMPLE 2	3710020-BHC-B	< 5	ug/L
W1172135	05/10/17	06:30 AM	SAMPLE 3	3710020-BHC-C	< 5	ug/L
W1172136	05/10/17	06:33 AM	SAMPLE 4	3710020-BHC-D	< 5	ug/L
W1172137	05/10/17	06:15 AM	SAMPLE 5	3710020-BHC-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Cafeteria Kitchen, East Interior Wall, spray nozzle above two compartment sink
SAMPLE 2	Lunch Court Area/ West Exterior Wall, two triple bubbler fountains, middle bubbler on left fountain
SAMPLE 3	600 BLDG, Girls Lockeroom-East Exterior Wall, triple bubbler fountain, left bubbler
SAMPLE 4	600 BLDG, Boys Lockeroom / West Exterior Wall, triple bubbler fountain, right bubbler
SAMPLE 5	100 BLDG, East Exterior Wall at Rm 105/ Boys RR, two dual bubbler fountains, left fountain, left bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

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Water Quality Chemistry Services
Lead School Testing
Report Date: 7/6/17

San Dieguito Union High School District

Canyon Crest Academy

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1178441	06/16/17	06:16 AM	SAMPLE 1	3710020-CCG-A	< 5	ug/L
W1178442	06/16/17	06:28 AM	SAMPLE 2	3710020-CCG-B	< 5	ug/L
W1178443	06/16/17	06:41 AM	SAMPLE 3	3710020-CCG-C	< 5	ug/L
W1178444	06/16/17	06:32 AM	SAMPLE 4	3710020-CCG-D	< 5	ug/L
W1178445	06/16/17	06:23 AM	SAMPLE 5	3710020-CCG-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Admin BLDG, Nurses Office, faucet at sink
SAMPLE 2	Library/Media center, south of boys RR, bottle filler on north facing wall
SAMPLE 3	Gym, backside of gym, southeast outside wall, far right drinking fountain
SAMPLE 4	Food service room, south east wall, faucet at sink, non-pull down
SAMPLE 5	BLDG D, outside East side, free standing bottle filler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

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Water Quality Chemistry Services
Lead School Testing
Report Date: 7/6/17

San Dieguito Union High School District

Carmel Valley Middle

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1178601	06/13/17	06:40 AM	SAMPLE 1	3710020-CCH-A	< 5	ug/L
W1178602	06/13/17	06:36 AM	SAMPLE 2	3710020-CCH-B	< 5	ug/L
W1178603	06/13/17	06:51 AM	SAMPLE 3	3710020-CCH-C	< 5	ug/L
W1178604	06/13/17	06:44 AM	SAMPLE 4	3710020-CCH-D	< 5	ug/L
W1178605	06/13/17	06:47 AM	SAMPLE 5	3710020-CCH-E	< 5	ug/L

Source	Source Description
SAMPLE 1	300's BLDG, bottle filling station near RM 306
SAMPLE 2	Lunch court near gym, bottle filling station near RM 240
SAMPLE 3	Kitchen food prep, faucet at two compartment sink on south facing wall
SAMPLE 4	600's BLDG, sink in restroom
SAMPLE 5	900's BLDG, bottle filling station near RM 906

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/14/17

Del Mar Union School District

Carmel Del Mar Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1174614	06/02/17	06:57 AM	SAMPLE 1	3710020-CBH-A	< 5	ug/L
W1174615	06/02/17	06:59 AM	SAMPLE 2	3710020-CBH-B	< 5	ug/L
W1174616	06/02/17	07:01 AM	SAMPLE 3	3710020-CBH-C	< 5	ug/L
W1174617	06/02/17	07:03 AM	SAMPLE 4	3710020-CBH-D	< 5	ug/L
W1174618	06/02/17	07:05 AM	SAMPLE 5	3710020-CBH-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Childcare 1-2, West side of school, bubbler at sink
SAMPLE 2	East side of 300 wing between girls / boys upper grade RRs, two single bubbler fountains, upper right fountain
SAMPLE 3	300 wing, Classroom 303, bubbler at sink
SAMPLE 4	east end of wing 100 between girls / boys lower grade RRs, two single bubbler fountains, lower left fountain
SAMPLE 5	500 wing (Kindergarten), Classroom 501, bubbler at sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/17/17

San Diego Unified School District

Carson Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168191	04/22/17	07:41 AM	SAMPLE 1	3710020-AJI-A	< 5	ug/L
W1168192	04/22/17	07:43 AM	SAMPLE 2	3710020-AJI-B	< 5	ug/L
W1168193	04/22/17	07:46 AM	SAMPLE 3	3710020-AJI-C	< 5	ug/L
W1168194	04/22/17	07:50 AM	SAMPLE 4	3710020-AJI-D	< 5	ug/L
W1168195	04/22/17	07:53 AM	SAMPLE 5	3710020-AJI-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Room 14 exterior east wall, triple fountain, left bubbler
SAMPLE 2	South/East facing wall at playground, next to girls RR, triple fountain, center bubbler
SAMPLE 3	Kindergarten playground , next to RM36, left bubbler on dual white fountain
SAMPLE 4	Cafeteria, kitchen south wall, spray nozzle
SAMPLE 5	South facing wall near boys RR, triple fountain, center bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/9/17

San Diego Unified School District
Carver Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1163912	05/02/17	06:12 AM	SAMPLE 1	3710020-AAE-A	< 5	ug/L
W1163913	05/02/17	06:15 AM	SAMPLE 2	3710020-AAE-B	< 5	ug/L
W1163914	05/02/17	06:06 AM	SAMPLE 3	3710020-AAE-C	< 5	ug/L
W1163915	05/02/17	06:19 AM	SAMPLE 4	3710020-AAE-D	< 5	ug/L
W1163916	05/02/17	06:23 AM	SAMPLE 5	3710020-AAE-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Kindergarten Room #1, left sink bubbler, 057-1
SAMPLE 2	Kindergarten Room 2, right sink bubbler, 057-2
SAMPLE 3	Nurses office, bubbler in main sink, 057-3
SAMPLE 4	Interior patio, mid school, left fountain, middle bubbler 057-4
SAMPLE 5	interior patio, east of grass, right fountain, middle bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

San Diego Unified School District

Central Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168072	05/03/17	05:31 AM	SAMPLE 1	3710020-BAB-A	< 5	ug/L
W1168073	05/03/17	05:34 AM	SAMPLE 2	3710020-BAB-B	< 5	ug/L
W1168074	05/03/17	05:36 AM	SAMPLE 3	3710020-BAB-C	< 5	ug/L
W1168075	05/03/17	05:41 AM	SAMPLE 4	3710020-BAB-D	< 5	ug/L
W1168076	05/03/17	05:46 AM	SAMPLE 5	3710020-BAB-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Main Office Building, Outside North End of Campus Downstairs near Nurse's Office, two single bubbler fountains, upper right fountain
SAMPLE 2	Cafeteria, Under covered lunch patio, two single bubbler fountains, lower left fountain
SAMPLE 3	Cafeteria/Kitchen, Interior sink located in Southeast corner of kitchen, single faucet above two basin sink
SAMPLE 4	Northwest side of campus interior court yard, two single bubbler fountains, lower left fountain
SAMPLE 5	Bungalows, Room 53 at the Southwest corner of the campus, Bubbler on right side of sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
Tom Burger, Associate Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

San Diego Unified School District

Challenger Middle

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1169409	05/05/17	06:05 AM	SAMPLE 1	3710020-BEE-A	< 5	ug/L
W1169410	05/05/17	06:07 AM	SAMPLE 2	3710020-BEE-B	< 5	ug/L
W1169411	05/05/17	06:10 AM	SAMPLE 3	3710020-BEE-C	< 5	ug/L
W1169412	05/05/17	06:12 AM	SAMPLE 4	3710020-BEE-D	< 5	ug/L
W1169413	05/05/17	06:15 AM	SAMPLE 5	3710020-BEE-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Food Service Facility, Wall mounted exterior (West of Bldg), facing lunch court, two single bubbler fountains, upper right fountain
SAMPLE 2	PE Complex, Wall mounted exterior (South of Bldg), next to Boys Restroom, facing lunch court, two single bubbler fountains, lower left fountain
SAMPLE 3	PE Complex, Wall mounted exterior (West of Bldg-RIGHT side fountain), next to Boys Locker Rm, dual bubbler fountain, left bubbler
SAMPLE 4	PE Complex, Wall mounted exterior (West of Bldg-LEFT side fountain), next to Girls' Locker Rm, facing P.E. fields, dual bubbler fountain, left bubbler
SAMPLE 5	PE Complex, Wall mounted exterior (North of Bldg), next to Girls' RR, facing PE Tennis Court, two single bubbler fountains, upper right fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/12/17

San Diego Unified School District

Chavez Elementary

Sample ID	Sample Date	Sample Time	Description	External ID	Lead	Units
W1164172	04/05/17	06:02 AM	SAMPLE 1	3710020-ABB-A	< 5	ug/L
W1164173	04/05/17	05:34 AM	SAMPLE 2	3710020-ABB-B	< 5	ug/L
W1164174	04/05/17	05:41 AM	SAMPLE 3	3710020-ABB-C	< 5	ug/L
W1164175	04/05/17	05:46 AM	SAMPLE 4	3710020-ABB-D	< 5	ug/L
W1164176	04/05/17	05:53 AM	SAMPLE 5	3710020-ABB-E	< 5	ug/L

Sample #	Sample Site
SAMPLE 1	Wall G near cafeteria, right bubbler
SAMPLE 2	Auditorium, between mens/womens faculty rest rooms, right bubbler
SAMPLE 3	D-102, near boys restroom D-108, right bubbler
SAMPLE 4	upstairs D-204, between boys/girls restroom, right bubbler
SAMPLE 5	Upstairs B Building, between restrooms B-204 and B-205, right bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

San Diego Unified School District

Cherokee Point Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168277	05/03/17	06:08 AM	SAMPLE 1	3710020-AHD-A	< 5	ug/L
W1168278	05/03/17	06:21 AM	SAMPLE 2	3710020-AHD-B	< 5	ug/L
W1168279	05/03/17	06:18 AM	SAMPLE 3	3710020-AHD-C	< 5	ug/L
W1168280	05/03/17	06:16 AM	SAMPLE 4	3710020-AHD-D	< 5	ug/L
W1168281	05/03/17	06:11 AM	SAMPLE 5	3710020-AHD-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Bldg. C; Wall mounted exterior (E of Bldg), facing lunch court area;upper R bubbler of 2 single fountains
SAMPLE 2	2-Story Building A; Rm A101-Kindergarten, 1st Floor, single bubbler in classroom R side of sink
SAMPLE 3	Ground level Bldg A;Wall-mounted ext. (East of Bldg), facing Bldg D, betw. A107-Mech. Rm & A104-103, towards Kinder Playgr.; Lower L bubbler of 2 single fountains
SAMPLE 4	Bldg D; Rm D102-Kinderg., 1st Floor, classroom sink/faucet;bubbler Rside of sink
SAMPLE 5	Bldg F; Wall mounted ext South side of Bldg, 1st Floor, next to Boys & Girls RRs, facing Playg/Blacktop;Middle bubbler of 3 single fountains

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/17/17

San Diego Unified School District

Chesterton Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168171	04/22/17	08:09 AM	SAMPLE 1	3710020-AJE-A	5.02	ug/L
W1168172	04/22/17	08:10 AM	SAMPLE 2	3710020-AJE-B	5.29	ug/L
W1168173	04/22/17	08:15 AM	SAMPLE 3	3710020-AJE-C	< 5	ug/L
W1168174	04/22/17	08:23 AM	SAMPLE 4	3710020-AJE-D	< 5	ug/L
W1168175	04/22/17	08:18 AM	SAMPLE 5	3710020-AJE-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Auditorium exterior, North east corner, lower left bubbler
SAMPLE 2	Kitchen, south wall, right of range, wall mount faucet
SAMPLE 3	BLDG 200, south exterior facing blacktop, triple fountain, right bubbler
SAMPLE 4	BLDG 300, east exterior next to girls RR, triple white fountain, center bubbler
SAMPLE 5	B-50 classroom, bubbler at sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/14/17

San Diego Unified School District

The Children's School

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1173063	06/01/17	06:01 AM	SAMPLE 1	3710020-BJJ-A	< 5	ug/L
W1173064	06/01/17	06:04 AM	SAMPLE 2	3710020-BJJ-B	< 5	ug/L
W1173065	06/01/17	06:06 AM	SAMPLE 3	3710020-BJJ-C	< 5	ug/L
W1173066	06/01/17	06:10 AM	SAMPLE 4	3710020-BJJ-D	< 5	ug/L
W1173067	06/01/17	06:13 AM	SAMPLE 5	3710020-BJJ-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Auditorium building, Exterior southeast corner of building, quadruple bubbler, far left bubbler
SAMPLE 2	Auditorium building, Interior northeast side of building, faucet at sink
SAMPLE 3	Classroom building (rooms9-12), Exterior east side of building, quadruple bubbler, far right bubbler
SAMPLE 4	Classroom building, Exterior northeast corner of building, two single bubbler fountains, lower right fountain
SAMPLE 5	Alder building, Inside room 5, faucet at sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/27/17

San Diego Unified School District

Clay Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1166678	04/14/17	06:01 AM	SAMPLE 1	3710020-AFA-A	< 5	ug/L
W1166679	04/14/17	06:04 AM	SAMPLE 2	3710020-AFA-B	< 5	ug/L
W1166680	04/14/17	06:09 AM	SAMPLE 3	3710020-AFA-C	< 5	ug/L
W1166681	04/14/17	06:18 AM	SAMPLE 4	3710020-AFA-D	< 5	ug/L
W1166682	04/14/17	06:14 AM	SAMPLE 5	3710020-AFA-E	10.5	ug/L

Source	Source Description
SAMPLE 1	Kindergarten building, Exterior east facing wall near gate, small fountain w/single bubbler
SAMPLE 2	Nurses office, bubbler at sink
SAMPLE 3	Main BLDG, near room 2, triple fountain, right bubbler
SAMPLE 4	West facing wall near room 10, triple fountain, center bubbler
SAMPLE 5	Cafeteria bldg, south wall, two fountains, lower right bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B Burger
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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/7/17

San Diego Unified School District

Correia Middle

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1173068	05/24/17	06:00 AM	SAMPLE 1	3710020-CAA-A	< 5	ug/L
W1173069	05/24/17	06:17 AM	SAMPLE 2	3710020-CAA-B	< 5	ug/L
W1173070	05/24/17	06:08 AM	SAMPLE 3	3710020-CAA-C	< 5	ug/L
W1173071	05/24/17	06:11 AM	SAMPLE 4	3710020-CAA-D	< 5	ug/L
W1173072	05/24/17	06:14 AM	SAMPLE 5	3710020-CAA-E	< 5	ug/L

Source	Source Description
SAMPLE 1	400 bldg, Wall mounted exterior, between Girls and Boys RRs, single bubbler fountain by itself to the left of wall protrusion two fountain set
SAMPLE 2	200 bldg, Wall mounted exterior on a covered breezeway, between Boys and Girls RRs, two dual bubbler fountains, left bubbler on left fountain
SAMPLE 3	Kitchen/Cafe, Small three-compartment sink in the Back Kitchen Room, before the door of Cashier, sink faucet
SAMPLE 4	Gym, Wall mounted exterior, next to Adapted P.E. Room, on the side of Girls' P.E., two dual bubbler fountains, left bubbler on left fountain
SAMPLE 5	Gym, Wall mounted exterior, between Boys' PE & Girls' PE, facing ramp to Lower Field, two dual bubbler fountains, left bubbler on left fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/7/17

San Diego Unified School District

CPMA Middle

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1173011	05/20/17	08:01 AM	SAMPLE 1	3710020-BJG-A	< 5	ug/L
W1173012	05/20/17	07:58 AM	SAMPLE 2	3710020-BJG-B	< 5	ug/L
W1173013	05/20/17	07:55 AM	SAMPLE 3	3710020-BJG-C	< 5	ug/L
W1173014	05/20/17	07:51 AM	SAMPLE 4	3710020-BJG-D	< 5	ug/L
W1173015	05/20/17	07:48 AM	SAMPLE 5	3710020-BJG-E	< 5	ug/L

Source	Source Description
SAMPLE 1	100/200 BLDG, East end of Bldgs, breezeway, East Facing, two single bubbler fountains, lower right fountain
SAMPLE 2	300/400 bldg, East end of Bldgs, breezeway, East Facing, two single bubbler fountains, upper left fountain
SAMPLE 3	400 Bldg at Custodial #2 between Boys and Girls RR, two dual bubbler fountains, left bubbler on right fountain
SAMPLE 4	Boys PE, North/ East Exterior Wall, two single bubbler fountains, lower right fountain
SAMPLE 5	Cafeteria/ Kitchen- Food Prep, faucet above three compartment sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/27/17

San Diego Unified School District

Crawford High School

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1166088	04/12/17	06:20 AM	SAMPLE 1	3710020-ADI-A	< 5	ug/L
W1166089	04/12/17	06:15 AM	SAMPLE 2	3710020-ADI-B	< 5	ug/L
W1166090	04/12/17	06:10 AM	SAMPLE 3	3710020-ADI-C	< 5	ug/L
W1166091	04/12/17	06:05 AM	SAMPLE 4	3710020-ADI-D	< 5	ug/L
W1166092	04/12/17	06:00 AM	SAMPLE 5	3710020-ADI-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Kitchen, south wall, southwest corner, 2 compartment sink, faucet
SAMPLE 2	BLDG 900, west wall near girls locker room, right bubbler on dual fixture
SAMPLE 3	BLDG 900, west wall near boys locker room, left bubbler on dual fixture
SAMPLE 4	BLDG 400, northwest side between restrooms, next to custodian locker, upper right bubbler
SAMPLE 5	BLDG 800 lower level, between restrooms and custodial locker 5, upper right bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/23/17

San Diego Unified School District

Crown Point Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1171679	05/11/17	06:09 AM	SAMPLE 1	3710020-BGG-A	< 5	ug/L
W1171680	05/11/17	06:15 AM	SAMPLE 2	3710020-BGG-B	< 5	ug/L
W1171681	05/11/17	06:18 AM	SAMPLE 3	3710020-BGG-C	< 5	ug/L
W1171682	05/11/17	06:21 AM	SAMPLE 4	3710020-BGG-D	< 5	ug/L
W1171683	05/11/17	06:25 AM	SAMPLE 5	3710020-BGG-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Kitchen, Inside kitchen at food prep sink below window, faucet at 2 compartment sink
SAMPLE 2	4-14 bldg, Outside between RRs and #10, dual bubbler fountain left of single fountain, left bibbler on dual fountain
SAMPLE 3	Outside K-1 bldg, north wall at black top playground, two single bubbler fountains, lower right fountain
SAMPLE 4	K-1 bldg, South wall near kinder playground, single bubbler fountain
SAMPLE 5	16-18 bldg, Outside Between boys & girls RRs, triple bubbler fountain, middle bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

San Diego Unified School District

Cubberley Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168597	05/06/17	07:07 AM	SAMPLE 1	3710020-BBJ-A	< 5	ug/L
W1168598	05/06/17	07:11 AM	SAMPLE 2	3710020-BBJ-B	< 5	ug/L
W1168599	05/06/17	07:12 AM	SAMPLE 3	3710020-BBJ-C	< 5	ug/L
W1168600	05/06/17	07:14 AM	SAMPLE 4	3710020-BBJ-D	< 5	ug/L
W1168601	05/06/17	07:17 AM	SAMPLE 5	3710020-BBJ-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Kindergarten bldg., Inside K-1 in Center Island, Sink-mounted bubbler
SAMPLE 2	Classrooms 1-6 bldg, North exterior side of building, two single-bubbler fountains, lower left fountain
SAMPLE 3	Classrooms 7-12 bldg, North exterior side of building, two single-bubbler fountains, upper right fountain
SAMPLE 4	Cafeteria, East exterior side of building, three single bubbler fountains right of sink/bubbler combo, far right single bubbler fountain
SAMPLE 5	Kitchen, West interior wall of kitchen, Spray nozzle at single compartment sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/23/17

San Diego Unified School District

Curie Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1170048	05/11/17	06:13 AM	SAMPLE 1	3710020-BFA-A	< 5	ug/L
W1170049	05/11/17	06:14 AM	SAMPLE 2	3710020-BFA-B	< 5	ug/L
W1170050	05/11/17	06:09 AM	SAMPLE 3	3710020-BFA-C	< 5	ug/L
W1170051	05/11/17	06:06 AM	SAMPLE 4	3710020-BFA-D	< 5	ug/L
W1170052	05/11/17	06:17 AM	SAMPLE 5	3710020-BFA-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Classroom Bldg Rooms 7-10, North Side of building in front of girls RR, triple bubbler fountain, center bubbler
SAMPLE 2	Classroom Bldg Rooms 7-10, West side of building next to boys RR, triple bubbler fountain, right bubbler
SAMPLE 3	Classroom Bldg Rooms 1-6, In front of boy's RR, two single-bubbler fountains, upper left fountain
SAMPLE 4	Classroom Bldg Rooms 1-6, In front of girl's restroom on east side of building, trilpe bubbler founatin, middle bubbler
SAMPLE 5	Kindergarten Building, Outside in the play area between K1 and K2, two single bubbler fountains, upper left fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/27/17

San Diego Unified School District

Dailard Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1166508	04/13/17	06:00 AM	SAMPLE 1	3710020-AEE-A	< 5	ug/L
W1166509	04/13/17	06:04 AM	SAMPLE 2	3710020-AEE-B	< 5	ug/L
W1166510	04/13/17	06:08 AM	SAMPLE 3	3710020-AEE-C	< 5	ug/L
W1166511	04/13/17	06:12 AM	SAMPLE 4	3710020-AEE-D	< 5	ug/L
W1166512	04/13/17	06:15 AM	SAMPLE 5	3710020-AEE-E	< 5	ug/L

Source	Source Description
SAMPLE 1	BLDG 1, next to girls RR, triple fixture, right bubbler
SAMPLE 2	BLDG 2, near RR and room 21, triple fixture, right bubbler
SAMPLE 3	BLDG 5 Library/mutipurpose, between RRooms, right upper bubbler
SAMPLE 4	Cafe adjacent to bldg 5 near lunch court, triple fixture, right bubbler
SAMPLE 5	BLDG 3, next to RR, triple fixture, right bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B Burger
Tom Burger, Associate Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/7/17

San Diego Unified School District

Dana (5-6)

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1173001	05/20/17	06:25 AM	SAMPLE 1	3710020-BJD-A	< 5	ug/L
W1173002	05/20/17	06:22 AM	SAMPLE 2	3710020-BJD-B	< 5	ug/L
W1173003	05/20/17	06:30 AM	SAMPLE 3	3710020-BJD-C	< 5	ug/L
W1173004	05/20/17	06:33 AM	SAMPLE 4	3710020-BJD-D	< 5	ug/L
W1173005	05/20/17	06:38 AM	SAMPLE 5	3710020-BJD-E	< 5	ug/L

Source	Source Description
SAMPLE 1	120s - Hallway C, 1st Floor, Wall mounted interior, in the hall way, between Boys RR & Classroom 121, facing Office 122, single bubbler fountain
SAMPLE 2	200 - Hallway B-2, 2nd Floor, Wall mounted interior, in the hallway, between Boys RR & Janitor 212 Rm, facing Classroom 207, single bubbler fountain
SAMPLE 3	150s - Hallway G, 1st Floor, Wall mounted interior, in the hallway, next to Girls RR, facing kitchen, single bubbler fountain
SAMPLE 4	150s - Hallway G, 1st Floor, Wall mounted interior, in the hallway, next to Classroom 153, facing Cafeteria, single bubbler fountain
SAMPLE 5	Multi Purpose Room, Wall mounted exterior (West of Bldg), facing Library, next to back staff parking lot, two single bubbler fountains, upper left fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

San Diego Unified School District

Darnall Charter

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1169434	05/03/17	06:06 AM	SAMPLE 1	3710020-AHG-A	< 5	ug/L
W1169435	05/03/17	06:08 AM	SAMPLE 2	3710020-AHG-B	< 5	ug/L
W1169436	05/03/17	06:11 AM	SAMPLE 3	3710020-AHG-C	< 5	ug/L
W1169437	05/03/17	06:14 AM	SAMPLE 4	3710020-AHG-D	< 5	ug/L
W1169438	05/03/17	06:17 AM	SAMPLE 5	3710020-AHG-E	< 5	ug/L

Source	Source Description
SAMPLE 1	300 Building, Lunch Area outside of Men's Faculty RR, two single bubble fountains, upper right fountain
SAMPLE 2	Bungalow Next to B-13, triple bubbler fountain, right bubbler
SAMPLE 3	200 Building, Near room 212, dual bubbler fountain, left bubbler
SAMPLE 4	700 Building, Corner of building, triple bubbler fountain, left bubbler
SAMPLE 5	600 building, Near boiler room and storage room, single bubbler fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger

Tom Burger, Associate Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

San Diego Unified School District

de Portola Middle

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1169424	05/06/17	06:28 AM	SAMPLE 1	3710020-BEF-A	< 5	ug/L
W1169425	05/06/17	06:26 AM	SAMPLE 2	3710020-BEF-B	< 5	ug/L
W1169426	05/06/17	06:24 AM	SAMPLE 3	3710020-BEF-C	< 5	ug/L
W1169427	05/06/17	06:22 AM	SAMPLE 4	3710020-BEF-D	< 5	ug/L
W1169428	05/06/17	06:19 AM	SAMPLE 5	3710020-BEF-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Basketball court area east side of campus, Outside of courts next to bleachers, triple bubbler fountain, right bubbler
SAMPLE 2	Bungalow RRs, North side of campus across asphalt area, two single bubbler fountains, upper left fountain
SAMPLE 3	Lunch Arbor, Next to fenced washing area east facing wall, triple bubbler fountain middle bubbler
SAMPLE 4	Restroom building, Back side of RR building across from Room #801, dual bubbler fountain, right bubbler
SAMPLE 5	Media Center Building, In front of main entrance to Media Center, dual bubbler foutain, left bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/27/17

Del Mar Union School District

Del Mar Hills Academy

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1174624	06/01/17	06:16 AM	SAMPLE 1	3710020-CBJ-A	< 5	ug/L
W1174625	06/01/17	06:18 AM	SAMPLE 2	3710020-CBJ-B	< 5	ug/L
W1174626	06/01/17	06:21 AM	SAMPLE 3	3710020-CBJ-C	< 5	ug/L
W1174627	06/01/17	06:27 AM	SAMPLE 4	3710020-CBJ-D	< 5	ug/L
W1174628	06/01/17	06:23 AM	SAMPLE 5	3710020-CBJ-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Kindergarten Area, Exterior drinking fountain outside room 22, two single bubbler fountains, upper right fountain
SAMPLE 2	Room P-6, Childcare room, bubbler at sink
SAMPLE 3	Main bldg, Back of school in between Boys / Girls lower grade RRs, two single bubbler fountains, lower left fountain
SAMPLE 4	Main bldg, East of school in between Boys / Girls upper grade RRs, two single bubbler fountains, upper right fountain
SAMPLE 5	Main bldg, Room 18, bubbler at sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger

Tom Burger, Associate Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/14/17

Del Mar Union School District

Del Mar Heights Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1174619	06/01/17	06:36 AM	SAMPLE 1	3710020-CBI-A	< 5	ug/L
W1174620	06/01/17	06:40 AM	SAMPLE 2	3710020-CBI-B	< 5	ug/L
W1174621	06/01/17	06:42 AM	SAMPLE 3	3710020-CBI-C	< 5	ug/L
W1174622	06/01/17	06:45 AM	SAMPLE 4	3710020-CBI-D	< 5	ug/L
W1174623	06/01/17	06:47 AM	SAMPLE 5	3710020-CBI-E	< 5	ug/L

Source	Source Description
SAMPLE 1	East playground Area, In between Girls / Boys lower grade RRs, two single bubbler fountains on pedistal, lower left fountain when facing palm trees
SAMPLE 2	D building, West side of D building in between boys / girls upper grade RRs, two single bubbler fountains, upper right fountain
SAMPLE 3	D building, Classroom D-3 back corner of room, bubbler at sink
SAMPLE 4	west end of C-wing, dual bubbler fountain, right bubbler
SAMPLE 5	A Building, Classroom A-1, bubbler at sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/7/17

San Diego Unified School District

Dewey Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1173073	05/24/17	05:51 AM	SAMPLE 1	3710020-CAB-A	< 5	ug/L
W1173074	05/24/17	05:54 AM	SAMPLE 2	3710020-CAB-B	< 5	ug/L
W1173075	05/24/17	06:01 AM	SAMPLE 3	3710020-CAB-C	< 5	ug/L
W1173076	05/24/17	05:57 AM	SAMPLE 4	3710020-CAB-D	< 5	ug/L
W1173077	05/24/17	06:05 AM	SAMPLE 5	3710020-CAB-E	< 5	ug/L

Source	Source Description
SAMPLE 1	CDC, Rooms 15-22, Room 18, classroom sink/faucet, bubbler at sink
SAMPLE 2	CDC, Rooms 15-22, Wall mounted exterior (South of Bldg), next to Hallway door, facing Playground/lunch arbor, dual bubbler fountain, right bubbler
SAMPLE 3	Rooms 7-13 bldg, Wall mounted exterior (South of Bldg), next to Hallway door, facing blacktop, triple bubbler fountain, right bubbler
SAMPLE 4	Dirt Field (closer to Portable Classrooms & Restrooms), Floor mounted exterior, two fountain fixture, lower left bubbler when facing portable classrooms
SAMPLE 5	Front Office/Hallway, Wall mounted exterior (South of Bldg), facing Lunch Arbor, two single bubbler fountains, lower left bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/5/17

San Diego Unified School District

Dingeman Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168602	04/27/17	05:59 AM	SAMPLE 1	3710020-BCA-A	< 5	ug/L
W1168603	04/27/17	06:06 AM	SAMPLE 2	3710020-BCA-B	< 5	ug/L
W1168604	04/27/17	06:14 AM	SAMPLE 3	3710020-BCA-C	< 5	ug/L
W1168605	04/27/17	06:02 AM	SAMPLE 4	3710020-BCA-D	< 5	ug/L
W1168606	04/27/17	06:08 AM	SAMPLE 5	3710020-BCA-E	< 5	ug/L

Source	Source Description
SAMPLE 1	near Lunch Arbor, Between boys & girls RR and Custodian closet door, single bubbler right of triple bubbler fountain
SAMPLE 2	B-4, NW end near RRs, triple bubbler fountain right of single bubbler fountain, right bubbler on triple fountain
SAMPLE 3	Kinder playground behind kinder classrooms near street, single bubbler brinking fountain
SAMPLE 4	B-20, inside classroom B-20 back of the room, bubbler at sink
SAMPLE 5	B-16, inside classroom B-16 back of the room, bubbler at sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

Environmental Monitoring and Technical Services
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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/23/17

San Diego Unified School District

Doyle Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1171640	05/09/17	06:00 AM	SAMPLE 1	3710020-BGD-A	< 5	ug/L
W1171641	05/09/17	06:00 AM	SAMPLE 2	3710020-BGD-B	< 5	ug/L
W1171642	05/09/17	06:05 AM	SAMPLE 3	3710020-BGD-C	< 5	ug/L
W1171643	05/09/17	06:05 AM	SAMPLE 4	3710020-BGD-D	< 5	ug/L
W1171644	05/09/17	06:15 AM	SAMPLE 5	3710020-BGD-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Admin Building, South side of Admin. near RRs, two single bubbler fountains, upper right fountain
SAMPLE 2	300 Building, West side of building near RRs, triple bubbler fountain, right bubbler
SAMPLE 3	400 Building, West side of bldg near RRs, triple bubbler fountain, right bubbler
SAMPLE 4	500 Building, South side of building, triple bubbler fountain, right bubbler
SAMPLE 5	Café Building (Kitchen), south side of Auditorium, faucet above two-compartment sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

Environmental Monitoring and Technical Services
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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/5/17

San Diego Unified School District

East Village High

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168627	04/28/17	05:50 AM	SAMPLE 1	3710020-BGB-A	< 5	ug/L
W1168628	04/28/17	05:55 AM	SAMPLE 2	3710020-BGB-B	< 5	ug/L
W1168629	04/28/17	06:00 AM	SAMPLE 3	3710020-BGB-C	< 5	ug/L
W1168630	04/28/17	06:02 AM	SAMPLE 4	3710020-BGB-D	< 5	ug/L
W1168631	04/28/17	06:05 AM	SAMPLE 5	3710020-BGB-E	< 5	ug/L

Source	Source Description
SAMPLE 1	East interior wall of staff break room, bubbler at sink
SAMPLE 2	Room B-2, art room, bubbler at sink
SAMPLE 3	Room B-3, Island at front of room, bubbler at sink
SAMPLE 4	Room B-2, south interior wall, bubbler at sink
SAMPLE 5	East side of campus, next to fence, pedestal, lower bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/23/17

San Diego Unified School District

Edison Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168282	05/10/17	06:14 AM	SAMPLE 1	3710020-AHC-A	< 5	ug/L
W1168283	05/10/17	06:08 AM	SAMPLE 2	3710020-AHC-B	< 5	ug/L
W1168284	05/10/17	06:03 AM	SAMPLE 3	3710020-AHC-C	< 5	ug/L
W1168285	05/10/17	05:56 AM	SAMPLE 4	3710020-AHC-D	< 5	ug/L
W1168286	05/10/17	05:59 AM	SAMPLE 5	3710020-AHC-E	< 5	ug/L

Source	Source Description
SAMPLE 1	1000 Building (Main Office); Nurse's Office; single regular faucet
SAMPLE 2	South end of Building 1000; Exterior S-facing wall; Lower L bubbler of 2 single fountains
SAMPLE 3	West end of Restroom bldg. in front of restrooms and patio area; Lower L bubbler of 2 single fountains
SAMPLE 4	5000 Bldg.,N end of campus two-storybuilding; Indoor single bubbler in Rm 5104
SAMPLE 5	5000 Building; Outdoor N end of campus in pre-school and kindergarten area;Lower L bubbler of 2 single fountains

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/5/17

San Diego Unified School District

Einstein Academy

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168287	04/27/17	06:30 AM	SAMPLE 1	3710020-BAC-A	< 5	ug/L
W1168288	04/27/17	05:56 AM	SAMPLE 2	3710020-BAC-B	< 5	ug/L
W1168289	04/27/17	06:02 AM	SAMPLE 3	3710020-BAC-C	< 5	ug/L
W1168290	04/27/17	06:35 AM	SAMPLE 4	3710020-BAC-D	< 5	ug/L
W1168291	04/27/17	06:41 AM	SAMPLE 5	3710020-BAC-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Main office building, Main office building, two compartment kitchen sink
SAMPLE 2	Main building outside multi purpose room, West wall between boys and girls RR, two single bubbler fountains, upper right fountain
SAMPLE 3	2 story classroom building, Exterior south wall 1st floor between boys and girls RR, triple bubbler fountain, middle bubbler
SAMPLE 4	2 story classroom building, 1st floor interior adjacent to boys RR across from room 6, , two single bubbler fountains, lower left fountain
SAMPLE 5	2 story classroom building, 2nd floor adjacent to staircase across from room 9, dual bubbler fountain, right bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

Environmental Monitoring and Technical Services
Water Quality Laboratory
ELAP Cert. 1058

City of San Diego
Water Quality Chemistry Services
Lead School Testing
March 13, 2017

Sample Date	Location	Sampling Site	State ID	CSD Sample ID	Units	Value	DLR
7-Mar-17	SDUSD SD COOP CHARTER #2	Room 128, bubbler in sink	3710020-AAD-B	W1158856	UG/L	38.6	5
7-Mar-17	SDUSD SD COOP CHARTER #2	Room 127, bubbler in sink	3710020-AAD-A	W1158855	UG/L	22.0	5
7-Mar-17	SDUSD SD COOP CHARTER #2	Room 130, bubbler in sink	3710020-AAD-E	W1158859	UG/L	<DLR	5
7-Mar-17	SDUSD SD COOP CHARTER #2	Room 129, bubbler in sink	3710020-AAD-D	W1158858	UG/L	<DLR	5
7-Mar-17	SDUSD SD COOP CHARTER #2	Room 132, bubbler in sink	3710020-AAD-C	W1158857	UG/L	<DLR	5
3-Mar-17	Emerson Elementary	Inside room 106, back right corner sink, drinking bubbler	3710020-AAC-D	W1158863	UG/L	<DLR	5
7-Mar-17	Emerson Elementary	Cafateria sink, near back left corner, pull down pot filler	3710020-AAC-B	W1159031	UG/L	<DLR	5
3-Mar-17	Emerson Elementary	Near room 115, between restrooms, right bubbler on double fountain	3710020-AAC-C	W1158862	UG/L	29.0	5
3-Mar-17	Emerson Elementary	Health Office, sink, faucet	3710020-AAC-A	W1158860	UG/L	<DLR	5
3-Mar-17	Emerson Elementary	Outside, right of room 107 between restrooms, drinking fountain, left bubbler	3710020-AAC-E	W1158864	UG/L	<DLR	5

DLR= State Mandated Detection Limit for Reporting
Action Level = 15 UG/L

Tom B Burger

Tom Burger, Associate Chemist

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Public Utilities

City of San Diego
Water Quality Chemistry Services
Lead School Testing
Report Date: 4/12/17

San Diego Unified School District

Emerson Elementary

Sample Date	Sample Time	Sample Site	Sample ID	State ID	Lead UG/L
6-Apr-17	0707	Near room 115, between restrooms, right bubbler on double fountain - after remediation	W1164332	3710020-AAC-C	<5

DLR= State Mandated Detection Limit for Reporting (DLR) = 5 UG/L
Action Level (AL) = 15 UG/L

Doug Campbell, Senior Chemist

Public Utilities

Environmental Monitoring and Technical Services
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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/12/17

San Diego Unified School District

Encanto Elementary School

Sample ID	Sample Date	Sample Time	Description	External ID	Lead	Units
W1163952	04/04/17	05:45 AM	SAMPLE 1	3710020-AAJ-A	5.15	ug/L
W1163953	04/04/17	05:50 AM	SAMPLE 2	3710020-AAJ-B	< 5	ug/L
W1163954	04/04/17	05:55 AM	SAMPLE 3	3710020-AAJ-C	5.73	ug/L
W1163955	04/04/17	06:00 AM	SAMPLE 4	3710020-AAJ-D	9.19	ug/L
W1163956	04/04/17	06:05 AM	SAMPLE 5	3710020-AAJ-E	< 5	ug/L

Sample #	Sample Site
SAMPLE 1	400 BLDG, outside wall bubbler, right bubbler
SAMPLE 2	300 BLDG, lower level SW corner of building, right bubbler
SAMPLE 3	200 BLDG, lower level SW corner
SAMPLE 4	200 BLDG, upper level SW corner
SAMPLE 5	100 BLDG, upper level SW corner

DLR= State Mandated Detection Limit for Reporting (DLR)= 5
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/7/17

English French Learning Academy

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1171655	05/26/17	07:10 AM	SAMPLE 1	3710020-BJH-A	< 5	ug/L
W1171656	05/26/17	07:05 AM	SAMPLE 2	3710020-BJH-B	< 5	ug/L
W1171657	05/26/17	07:05 AM	SAMPLE 3	3710020-BJH-C	< 5	ug/L
W1171658	05/26/17	07:00 AM	SAMPLE 4	3710020-BJH-D	35.9	ug/L
W1171659	05/26/17	07:00 AM	SAMPLE 5	3710020-BJH-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Main BLDG, exterior south wall, near RM 117, single fixture fountain
SAMPLE 2	Main BLDG, 1st floor across from kitchen door, left of wall mounted fire house, single fixture cooler
SAMPLE 3	Main BLDG, 1st floor, RM 116, sink faucet
SAMPLE 4	Main BLDG, 1st floor, RM 112, south wall, sink faucet
SAMPLE 5	Exterior of main bldg, north side, near room 102

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/26/17

San Diego Unified School District

Ericson Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1170033	05/16/17	06:03 AM	SAMPLE 1	3710020-BEH-A	< 5	ug/L
W1170034	05/16/17	06:10 AM	SAMPLE 2	3710020-BEH-B	< 5	ug/L
W1170035	05/16/17	06:13 AM	SAMPLE 3	3710020-BEH-C	< 5	ug/L
W1170036	05/16/17	06:05 AM	SAMPLE 4	3710020-BEH-D	< 5	ug/L
W1170037	05/16/17	06:07 AM	SAMPLE 5	3710020-BEH-E	< 5	ug/L

Source	Source Description
SAMPLE 1	40s bldg, Wall mounted exterior (South of Bldg), next to Girls' RR, facing blacktop, triple bubbler fountain, left bubbler
SAMPLE 2	10s bldg, Wall mounted exterior (North of Bldg), next to Girls RR, facing playground, triple bubbler fountain, middle bubbler
SAMPLE 3	50s bldg, Wall mounted exterior (North of Bldg), next to Room 53 & wall, facing blacktop, three single bubbler fountains, middle fountain
SAMPLE 4	Cafeteria, Wall mounted exterior (West of Bldg), facing lunch court, triple bubbler fountain, left bubbler
SAMPLE 5	MultiPurpose Room, Wall mounted interior (North of the Room), two single bubbler fountains, upper left fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

San Diego Unified School District

Euclid Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168292	05/05/17	06:02 AM	SAMPLE 1	3710020-AHB-A	< 5	ug/L
W1168293	05/05/17	06:05 AM	SAMPLE 2	3710020-AHB-B	< 5	ug/L
W1168294	05/05/17	06:09 AM	SAMPLE 3	3710020-AHB-C	< 5	ug/L
W1168295	05/05/17	06:22 AM	SAMPLE 4	3710020-AHB-D	6.65	ug/L
W1168296	05/05/17	06:15 AM	SAMPLE 5	3710020-AHB-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Building A;Lunch Patio on North end of campus near office; R-side bubbler on a 2-bubbler fountain
SAMPLE 2	South end of Building A; Far R-side bubbler on a 3-bubbler fountain
SAMPLE 3	North end Bldg. D; indoors first floor near restrooms; Lower R-side bubbler of 2 single fountains
SAMPLE 4	Bldg. K; Outdoor bubbler facing west;Lower L bubbler of 2 single fountains
SAMPLE 5	Child Development Center, w end of campus next to employee parking lot; Lower L bubbler of 2 single fountains

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

San Diego Unified School District

Farb Middle

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1169429	05/06/17	06:40 AM	SAMPLE 1	3710020-BEG-A	< 5	ug/L
W1169430	05/06/17	06:47 AM	SAMPLE 2	3710020-BEG-B	< 5	ug/L
W1169431	05/06/17	06:49 AM	SAMPLE 3	3710020-BEG-C	< 5	ug/L
W1169432	05/06/17	06:43 AM	SAMPLE 4	3710020-BEG-D	< 5	ug/L
W1169433	05/06/17	06:53 AM	SAMPLE 5	3710020-BEG-E	6.97	ug/L

Source	Source Description
SAMPLE 1	Cafeteria Bldg, Outside West facing wall next to Cafeteria, triple bubbler fountain, middle bubbler
SAMPLE 2	Bldg Rooms 50-56, West facing wall next to Room 51, triple bubbler fountain, right bubbler
SAMPLE 3	Bldg Rooms 41-46,West facing wall next to Room 41, triple bubbler fountain, left bubbler
SAMPLE 4	Kitchen, spray nozzle over right sink compartment
SAMPLE 5	Administration/Main Office Bldg, Interior fountain center of office, two single-bubbler fountains, lower left fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/9/17

San Diego Unified School District

Fay Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1166936	05/02/17	05:58 AM	SAMPLE 1	3710020-AFF-A	< 5	ug/L
W1166937	05/02/17	06:12 AM	SAMPLE 2	3710020-AFF-B	< 5	ug/L
W1166938	05/02/17	06:00 AM	SAMPLE 3	3710020-AFF-C	< 5	ug/L
W1166939	05/02/17	06:05 AM	SAMPLE 4	3710020-AFF-D	< 5	ug/L
W1166940	05/02/17	06:07 AM	SAMPLE 5	3710020-AFF-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Main building, near elevator mechanical, upper right bubbler
SAMPLE 2	Main bldg, 2nd floor near custodial storage, lower left
SAMPLE 3	Kindergarten bldg, exterior north wall, upper right bubbler
SAMPLE 4	Cafeteria, exterior south wall between boys/girls RR, lower right bubbler
SAMPLE 5	Kitchen single compartment sink to the right of 3 stage sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/23/17

San Diego Unified School District

Field Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1170243	05/11/17	06:04 AM	SAMPLE 1	3710020-BEC-A	< 5	ug/L
W1170244	05/11/17	06:00 AM	SAMPLE 2	3710020-BEC-B	< 5	ug/L
W1170245	05/11/17	05:55 AM	SAMPLE 3	3710020-BEC-C	< 5	ug/L
W1170246	05/11/17	05:47 AM	SAMPLE 4	3710020-BEC-D	< 5	ug/L
W1170247	05/11/17	05:51 AM	SAMPLE 5	3710020-BEC-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Classrooms 14-19 bldg, triple bubbler fountain, left bubbler
SAMPLE 2	Classrooms 6-13 bldg, South exterior side next to boy's RR, triple bubbler fountain, left bubbler
SAMPLE 3	Classrooms 2-4 bldg, Inside classroom 2 on west wall, bubbler at sink
SAMPLE 4	Kitchen, west interior wall, faucet above 2 compartment sink
SAMPLE 5	Kindergarten bldg, Exterior east side between K-1 & K-2, single fountain bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/23/17

San Diego Unified School District

Fletcher Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168612	05/09/17	05:57 AM	SAMPLE 1	3710020-BCC-A	< 5	ug/L
W1168613	05/09/17	06:01 AM	SAMPLE 2	3710020-BCC-B	6.82	ug/L
W1168614	05/09/17	05:52 AM	SAMPLE 3	3710020-BCC-C	< 5	ug/L
W1168615	05/09/17	06:08 AM	SAMPLE 4	3710020-BCC-D	< 5	ug/L
W1168616	05/09/17	06:11 AM	SAMPLE 5	3710020-BCC-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Classrooms 1-6 bldg, South exterior end of building near basketball court, two single bubbler fountains, upper left fountain
SAMPLE 2	Classrooms 7-12 bldg, South end of building near black top play area, triple bubbler fountain, left bubbler
SAMPLE 3	Cafeteria, Outside next to lunch court, two single bubbler fountain, lower left fountain
SAMPLE 4	Kindergarten Bldg, Inside K-1, bubbler on right side of sink with double faucets
SAMPLE 5	Kindergarten Bldg, Inside K-2, bubbler on right side of sink with double faucets

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/17/17

San Diego Unified School District

Florence Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168166	04/22/17	07:07 AM	SAMPLE 1	3710020-AGJ-A	< 5	ug/L
W1168167	04/22/17	07:09 AM	SAMPLE 2	3710020-AGJ-B	< 5	ug/L
W1168168	04/22/17	07:17 AM	SAMPLE 3	3710020-AGJ-C	< 5	ug/L
W1168169	04/22/17	07:20 AM	SAMPLE 4	3710020-AGJ-D	< 5	ug/L
W1168170	04/22/17	07:13 AM	SAMPLE 5	3710020-AGJ-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Main Bldg Upper Level;Exterior west of Bldg. near boy's RR facing stairs; lower/left bubbler of 2 single fountains
SAMPLE 2	West end Lower Level Main Bldg.; Ext.Wall mounted 3-bubbler fountain between Girls & Boys RRs; R side bubbler
SAMPLE 3	Cafeteria/Auditorium;Wall mounted exterior (West of Bldg.), facing lunch court; Lower left of 2 single fountains
SAMPLE 4	Bldg. 301;Wall mounted exterior betw. Boy&Girls RRs, facing Kgarden/blacktop;Upper R bubbler of 2 single fountains
SAMPLE 5	CDC (Rms C3 & C2);Wall mounted exterior (East of Bldg.)facing Children's Center Play Area; single bubbler fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/27/17

San Diego Unified School District

Foster Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1166357	04/13/17	06:07 AM	SAMPLE 1	3710020-AED-A	< 5	ug/L
W1166358	04/13/17	06:10 AM	SAMPLE 2	3710020-AED-B	< 5	ug/L
W1166359	04/13/17	06:13 AM	SAMPLE 3	3710020-AED-C	< 5	ug/L
W1166360	04/13/17	06:17 AM	SAMPLE 4	3710020-AED-D	< 5	ug/L
W1166361	04/13/17	06:20 AM	SAMPLE 5	3710020-AED-E	< 5	ug/L

Source	Source Description
SAMPLE 1	BLDG 3, east end between boys restroom and gear locker, left lower bubbler (111-01)
SAMPLE 2	BLDG 3, inside room 9, bubbler at sink (111-2)
SAMPLE 3	BLDG 4, inside room 2, bubbler at sink (111-3)
SAMPLE 4	BLDG 3, near south end, between boys RR and custodial closet, two fountains, right bubbler on left fountain(111-4)
SAMPLE 5	BLDG 5, room B-23, bubbler at sink (111-5)

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/27/17

San Diego Unified School District

Franklin Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1166313	04/13/17	05:54 AM	SAMPLE 1	3710020-AEC-A	< 5	ug/L
W1166314	04/13/17	05:58 AM	SAMPLE 2	3710020-AEC-B	< 5	ug/L
W1166315	04/13/17	06:09 AM	SAMPLE 3	3710020-AEC-C	5.15	ug/L
W1166316	04/13/17	06:04 AM	SAMPLE 4	3710020-AEC-D	< 5	ug/L
W1166317	04/13/17	06:07 AM	SAMPLE 5	3710020-AEC-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Rooms 1-6, hallway wall mount, next to ramp facing girls restroom, dual fountain, left bubbler (113-1)
SAMPLE 2	Rooms 7-12, hallway wall mount, between rooms 7 and 9, dual fountain, left bubbler (113-2)
SAMPLE 3	Portable rooms B7-B9, in room B9, bubbler at sink (113-3)
SAMPLE 4	Rooms 14-17,wall mount, between girls/boys restrooms, facing courtyard, lower left bubbler (113-4)
SAMPLE 5	Kindergarten, room 18, sink between storage and girls restroom, bubbler at sink (113-5)

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/12/17

San Diego Unified School District
Freese Elementary

Sample ID	Sample Date	Sample Time	Description	External ID	Lead	Units
W1164613	04/06/17	06:29 AM	SAMPLE 1	3710020-ACA-A	< 5	ug/L
W1164614	04/06/17	06:25 AM	SAMPLE 2	3710020-ACA-B	< 5	ug/L
W1164615	04/06/17	06:16 AM	SAMPLE 3	3710020-ACA-C	< 5	ug/L
W1164616	04/06/17	06:12 AM	SAMPLE 4	3710020-ACA-D	< 5	ug/L
W1164617	04/06/17	06:21 AM	SAMPLE 5	3710020-ACA-E	< 5	ug/L

SAMPLE 1 two story BLDG w/rooms 27-34, exterior, 1st floor, between girls/boys restrooms, facing blacktop, lower left bubbler

SAMPLE 2 Cafeteria exterior, between storage 4 & supply rooms, facing library courtyard

SAMPLE 3 rooms 10-13, ext next to room 13, facing library courtyard, lower left bubbler

SAMPLE 4 Main BLDG, room 2, classroom sinks, next to exit, bubbler on left sink

SAMPLE 5 Rooms 4-9, exterior between boys/girls restrooms, triple fountain, right bubbler

DLR= State Mandated Detection Limit for Reporting (DI
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/12/17

San Diego Unified School District

Fulton K-8

Sample ID	Sample Date	Sample Time	Description	External ID	Lead	Units
W1164421	04/06/17	05:55 AM	SAMPLE 1	3710020-ABF-A	< 5	ug/L
W1164422	04/06/17	05:59 AM	SAMPLE 2	3710020-ABF-B	< 5	ug/L
W1164423	04/06/17	06:02 AM	SAMPLE 3	3710020-ABF-C	< 5	ug/L
W1164424	04/06/17	06:05 AM	SAMPLE 4	3710020-ABF-D	< 5	ug/L
W1164425	04/06/17	06:11 AM	SAMPLE 5	3710020-ABF-E	5.41	ug/L

SAMPLE 1 Cafeteria; Prep Kitchen Sink, near door

SAMPLE 2 Cafeteria; btwn cafeteria & auditorium; upper right bubbler

SAMPLE 3 BLDG Rms 1-6; near speech pathologist rm, right bubbler

SAMPLE 4 Portable Restroom; next men's restroom facing playground; front/lower bubbler

SAMPLE 5 Kindergarten Rms K1 - K3; btwn K2&K1 facing playground; right bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/27/17

San Diego Unified School District

Gage Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1166639	04/14/17	06:05 AM	SAMPLE 1	3710020-AEF-C	5.21	ug/L
W1166640	04/14/17	06:05 AM	SAMPLE 2	3710020-AEF-D	10.1	ug/L
W1166641	04/14/17	06:10 AM	SAMPLE 3	3710020-AEF-E	< 5	ug/L
W1166642	04/14/17	06:15 AM	SAMPLE 4	3710020-AEF-A	< 5	ug/L
W1166643	04/14/17	06:15 AM	SAMPLE 5	3710020-AEF-B	< 5	ug/L

Source	Source Description
SAMPLE 1	200, room K-2, bubbler at sink
SAMPLE 2	BLDG 200, west corner, next to K-3 and girls RR, triple fountain, left bubbler
SAMPLE 3	BLDG 300, east side, between girls RR and custodial room, right fountain single bubbler
SAMPLE 4	BLDG 4, room B-8, bubbler at sink
SAMPLE 5	BLDG 5, lunch court, single bubbler left of hand sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B Burger
Tom Burger, Associate Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

San Diego Unified School District

Garfield Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168297	05/03/17	06:02 AM	SAMPLE 1	3710020-BAD-A	< 5	ug/L
W1168298	05/03/17	06:04 AM	SAMPLE 2	3710020-BAD-B	< 5	ug/L
W1168299	05/03/17	06:07 AM	SAMPLE 3	3710020-BAD-C	< 5	ug/L
W1168300	05/03/17	06:15 AM	SAMPLE 4	3710020-BAD-D	5.26	ug/L
W1168301	05/03/17	06:13 AM	SAMPLE 5	3710020-BAD-E	< 5	ug/L

Source	Source Description
SAMPLE 1	MultiPurpose Room (MPR)/Kitchen, Wall mounted along the hallway, between Girls & Boys RR, facing Classroom 9, dual bubbler fountain, right bubbler
SAMPLE 2	Kitchen, Wall mounted exterior (South of Bldg), between Kitchen & Rm 10, facing Lunch Court, dual bubbler fountain, left bubbler
SAMPLE 3	Blg w/ Classrooms 12-18, Wall mounted exterior (East of Bldg), between Classrooms 17 & 16, facing playground/blacktop, dual bubbler fountain, left bubbler
SAMPLE 4	classroom 2, classroom sink/faucet, bubbler with push button cap at sink
SAMPLE 5	CDC, CC3, classroom sink/faucet, 2 sinks, bubbler on right sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger

Tom Burger, Associate Chemist

Public Utilities

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Water Quality Chemistry Services

Lead School Testing

Report Date: 28-Apr-2017

San Diego Unified School District

Garfield High School

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1167057	4/18/2017	5:59 AM	SAMPLE 1	3710020-AGG-A	< 5	µg/L
W1167058	4/18/2017	6:03 AM	SAMPLE 2	3710020-AGG-B	< 5	µg/L
W1167059	4/18/2017	6:09 AM	SAMPLE 3	3710020-AGG-C	< 5	µg/L
W1167060	4/18/2017	6:13 AM	SAMPLE 4	3710020-AGG-D	< 5	µg/L
W1167061	4/18/2017	6:16 AM	SAMPLE 5	3710020-AGG-E	< 5	µg/L

Source	Source Description
SAMPLE 1	East Wing;near ASB;1st floor east wall between men and women's RR;Lower Left Bubbler next to Men's RR
SAMPLE 2	Culinary Arts Kitchen;Right sink faucet
SAMPLE 3	West Wing;Fourth floor exterior west wall next to elevator;Left bubbler
SAMPLE 4	West Wing;3rd floor exterior west wall across from women's restroom;Upper Left bubbler
SAMPLE 5	West Wing;2nd floor exterior west wall next to men's restroom;Lower Right bubbler

DRL=State Mandated Detection Limit for Reporting (DLR)= 5 µg/L

Action Level (AL) = 15 µg/L

Doug Campbell, Senior Chemist

Environmental Monitoring and Technical Services
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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

San Diego Unified School District

Golden Hill K-8

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1170216	05/04/17	05:54 AM	SAMPLE 1	3710020-BGA-A	< 5	ug/L
W1170217	05/04/17	05:57 AM	SAMPLE 2	3710020-BGA-B	< 5	ug/L
W1170218	05/04/17	06:00 AM	SAMPLE 3	3710020-BGA-C	< 5	ug/L
W1170219	05/04/17	06:03 AM	SAMPLE 4	3710020-BGA-D	< 5	ug/L
W1170220	05/04/17	06:06 AM	SAMPLE 5	3710020-BGA-E	< 5	ug/L

Source	Source Description
SAMPLE 1	BLDG A, north wall of kitchen, faucet at 2 compartment sink
SAMPLE 2	BLDG G, south side of BLDG, exterior west facing left to boys RR, triple fountain, left bubbler
SAMPLE 3	BLDG C, south side of BLDG, exterior south wall of staff restrooms, 3 single fountains, lower right fountain
SAMPLE 4	Newer gym, interior south wall, 2 fountains, lower left fountain
SAMPLE 5	BLDG E, exterior north side of BLDG, 2 single fountains, lower left fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
Tom Burger, Associate Chemist

Public Utilities

Environmental Monitoring and Technical Services
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Water Quality Chemistry Services
Lead School Testing
Report Date: 28-Apr-2017

San Diego Unified School District
Gompers Preparatory Academy

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1166057	4/12/2017	5:40 AM	SAMPLE 1	3710020-ADG-A	< 5	µg/L
W1166058	4/12/2017	5:45 AM	SAMPLE 2	3710020-ADG-B	< 5	µg/L
W1166059	4/12/2017	5:48 AM	SAMPLE 3	3710020-ADG-C	< 5	µg/L
W1166060	4/12/2017	5:52 AM	SAMPLE 4	3710020-ADG-D	< 5	µg/L
W1166061	4/12/2017	5:56 AM	SAMPLE 5	3710020-ADG-E	< 5	µg/L

Source	Source Description
SAMPLE 1	Auditorium, Exterior north wall, between girls/boys restrooms, dual fixture, left bubbler
SAMPLE 2	Cafeteria, kitchen, food prep area, east wall, swing arm faucet
SAMPLE 3	Locker room BLDG, north exterior wall at exercise room, dual fountain, right bubbler
SAMPLE 4	Rooms 46-47A, west wall at 47A, dual fixture, right bubbler
SAMPLE 5	Rooms 10-12, east wall across from 6/7th grade restroom, upper right bubbler

DRL=State Mandated Detection Limit for Reporting (DLR)= 5 µg/L
Action Level (AL) = 15 µg/L

Doug Campbell, Senior Chemist

Public Utilities

Environmental Monitoring and Technical Services
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Water Quality Chemistry Services

Lead School Testing

Report Date: 28-Apr-2017

San Diego Unified School District

Grant K-8

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1167251	4/18/2017	6:05 AM	SAMPLE 1	3710020-AGF-A	< 5	µg/L
W1167252	4/18/2017	6:00 AM	SAMPLE 2	3710020-AGF-B	< 5	µg/L
W1167253	4/18/2017	6:20 AM	SAMPLE 3	3710020-AGF-C	< 5	µg/L
W1167254	4/18/2017	6:10 AM	SAMPLE 4	3710020-AGF-D	< 5	µg/L
W1167255	4/18/2017	6:15 AM	SAMPLE 5	3710020-AGF-E	< 5	µg/L

Source	Source Description
SAMPLE 1	Administrative Building; Upper Level room 4 interior west wall near girl's restroom; Single wall mount bubbler
SAMPLE 2	Administrative Building;East interior wall of Auditorium next to Food Serv. RM 221;Single wall mount bubbler
SAMPLE 3	700 Building; Interior of classroom 11; Bubbler on the R side of the sink
SAMPLE 4	Administrative Building; SWest exterior side of building next to PE Equip. RM 232; R bubbler of a 2 bubbler fountain
SAMPLE 5	Kindergarten Building; Right sink inside of classroom K-1; Sink-mount bubbler on right side

DRL=State Mandated Detection Limit for Reporting (DLR)= 5 µg/L

Action Level (AL) = 15 µg/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/27/17

San Diego Unified School District

Green Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1166644	04/14/17	05:34 AM	SAMPLE 1	3710020-AEI-A	< 5	ug/L
W1166645	04/14/17	05:36 AM	SAMPLE 2	3710020-AEI-B	< 5	ug/L
W1166646	04/14/17	05:40 AM	SAMPLE 3	3710020-AEI-C	< 5	ug/L
W1166647	04/14/17	05:43 AM	SAMPLE 4	3710020-AEI-D	< 5	ug/L
W1166648	04/14/17	05:29 AM	SAMPLE 5	3710020-AEI-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Multipurpose BLDG, south exterior, near RRoms and room 20,lower left bubblert
SAMPLE 2	K-36 bldg, room 33 back, bubbler in sink
SAMPLE 3	TK-26, east wall next to RR and custodial closet, triple fountain, left bubbler
SAMPLE 4	11-16 BLDG, near playing field between RR, triple fountain, center bubbler
SAMPLE 5	Kitchen, exterior near lunch court, triple fountain, center bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
Tom Burger, Associate Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/4/17

San Diego Unified School District

Hage Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168383	04/25/17	06:20 AM	SAMPLE 1	3710020-BAG-A	< 5	ug/L
W1168384	04/25/17	06:13 AM	SAMPLE 2	3710020-BAG-B	< 5	ug/L
W1168385	04/25/17	06:08 AM	SAMPLE 3	3710020-BAG-C	< 5	ug/L
W1168386	04/25/17	06:05 AM	SAMPLE 4	3710020-BAG-D	< 5	ug/L
W1168387	04/25/17	06:00 AM	SAMPLE 5	3710020-BAG-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Harmonium, Inside first classroom door east wall, single bubbler fountain
SAMPLE 2	6-12 bldg., East end between boys RR & custodial closet, two single bubbler fountains left of dual fountain, lower left fountain
SAMPLE 3	inside classroom B-2, bubbler at sink
SAMPLE 4	Kindergarten, inside Rm # 18, bubbler at sink
SAMPLE 5	admin bldg. Rm. 17, bubbler at sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
Tom Burger, Associate Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/26/17

San Diego Unified School District

Hamilton Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168052	05/16/17	06:01 AM	SAMPLE 1	3710020-AJA-A	< 5	ug/L
W1168053	05/16/17	05:59 AM	SAMPLE 2	3710020-AJA-B	< 5	ug/L
W1168054	05/16/17	06:08 AM	SAMPLE 3	3710020-AJA-C	< 5	ug/L
W1168055	05/16/17	05:53 AM	SAMPLE 4	3710020-AJA-D	< 5	ug/L
W1168056	05/16/17	06:05 AM	SAMPLE 5	3710020-AJA-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Outside of PE storage on main building near asphalt play area, two single bubbler fountains, lower right fountain
SAMPLE 2	Main Building, Facing asphalt PE/Play Area, Around the corner from Sample Point 1, two single bubbler fountains, lower left fountain
SAMPLE 3	Main Building, Inside main office, Enter the Health Office through from desk area, Goose Neck sink faucet
SAMPLE 4	Outside 300 Building, 1st floor, corner of building, blue-green tile, two single bubbler fountains, lower right fountain
SAMPLE 5	Cafeteria Building, Kitchen Area, sink faucet on far sink used for food prep

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/4/17

San Diego Unified School District

Hancock Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168771	04/28/17	06:10 AM	SAMPLE 1	3710020-BCF-A	< 5	ug/L
W1168772	04/28/17	06:10 AM	SAMPLE 2	3710020-BCF-B	< 5	ug/L
W1168773	04/28/17	06:15 AM	SAMPLE 3	3710020-BCF-C	< 5	ug/L
W1168774	04/28/17	06:15 AM	SAMPLE 4	3710020-BCF-D	< 5	ug/L
W1168775	04/28/17	06:20 AM	SAMPLE 5	3710020-BCF-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Kitchen, Southeast inside cafeteria, faucet above two compartment sink
SAMPLE 2	Cafeteria, Southeast inside cafeteria, southeast corner, single bubbler fountain
SAMPLE 3	Building 3, Outside of rooms 30 and 21 next to RRs, two single bubbler fountains, lower left fountain
SAMPLE 4	Building 2, North end of Building, triple bubbler fountain, center bubbler
SAMPLE 5	Building 1, Inside Room 1, bubbler at sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/27/17

San Diego Unified School District

Hardy Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1166868	04/15/17	07:56 AM	SAMPLE 1	3710020-AEG-A	< 5	ug/L
W1166869	04/15/17	07:52 AM	SAMPLE 2	3710020-AEG-B	< 5	ug/L
W1166870	04/15/17	08:07 AM	SAMPLE 3	3710020-AEG-C	< 5	ug/L
W1166871	04/15/17	08:00 AM	SAMPLE 4	3710020-AEG-D	< 5	ug/L
W1166872	04/15/17	08:04 AM	SAMPLE 5	3710020-AEG-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Kindergarten Building, North facing side, outside play area, R side bubbler
SAMPLE 2	Auditorium Building, outdoors on W side, R side upper bubbler
SAMPLE 3	Administration Building; Nurse's office; sink faucet
SAMPLE 4	Main classroom Building; S-facing wall close to RM5; Right side bubbler on triple fountain
SAMPLE 5	Main Classroom Bdg; Triple bubbler on N-facing wall near Room #6; Bubbler on far left side

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
Tom Burger, Associate Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 28-Apr-2017

San Diego Unified School District
Ballard Parent Center

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168009	4/21/2017	6:20 AM	SAMPLE 1	3710020-AHI-A	< 5	µg/L
W1168010	4/21/2017	6:26 AM	SAMPLE 2	3710020-AHI-B	10.0	µg/L
W1168011	4/21/2017	6:23 AM	SAMPLE 3	3710020-AHI-C	< 5	µg/L
W1168012	4/21/2017	6:18 AM	SAMPLE 4	3710020-AHI-D	< 5	µg/L
W1168013	4/21/2017	6:10 AM	SAMPLE 5	3710020-AHI-E	< 5	µg/L

Source	Source Description
SAMPLE 1	Auditorium Bldg.; Outside Bathrooms next to the Auditorium; Upper left bubbler of 2 single fountains
SAMPLE 2	Inside the Workroom/Staff Lounge; faucet the workroom interior sink
SAMPLE 3	Kitchen Bldg; Interior hot and cold faucet on a single compartment metal sink
SAMPLE 4	Building Main Office; Ext. Drinking fountain behind the main office in the playground; left upper bubler
SAMPLE 5	I High Bldg.; SE end of the bldg.; 2 high/low sets of single fountains; Upper L bubbler of the R set of single fountains

DRL=State Mandated Detection Limit for Reporting (DLR)= 5 µg/L
Action Level (AL) = 15 µg/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/4/17

San Diego Unified School District
Harriet Tubman Charter

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168343	04/26/17	06:15 AM	SAMPLE 1	3710020-BAE-A	< 5	ug/L
W1168344	04/26/17	06:12 AM	SAMPLE 2	3710020-BAE-B	< 5	ug/L
W1168345	04/26/17	06:09 AM	SAMPLE 3	3710020-BAE-C	9.84	ug/L
W1168346	04/26/17	06:27 AM	SAMPLE 4	3710020-BAE-D	< 5	ug/L
W1168347	04/26/17	06:20 AM	SAMPLE 5	3710020-BAE-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Main (Admin) Building, Outside (NW corner) of main building on West facing wall, triple bubbler fountain, middle bubbler
SAMPLE 2	Cafeteria Building, Outside wall facing North, two sets of two single bubbler fountains, right set of fountains, lower left fountain
SAMPLE 3	Inside Kitchen far South wall, regular faucet (not pull down) on 3 compartment sink
SAMPLE 4	Kindergarten Building, Room K-1, Single Bubbler on sink
SAMPLE 5	Bungalow Building, Outside of Room 16, freestanding fixture with 2 single bubbler fountains, lower fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
Tom Burger, Associate Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/7/17

San Diego Unified School District

Hawthorne Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1170053	05/20/17	07:18 AM	SAMPLE 1	3710020-BFB-A	< 5	ug/L
W1170054	05/20/17	07:13 AM	SAMPLE 2	3710020-BFB-B	< 5	ug/L
W1170055	05/20/17	07:10 AM	SAMPLE 3	3710020-BFB-C	< 5	ug/L
W1170056	05/20/17	07:23 AM	SAMPLE 4	3710020-BFB-D	< 5	ug/L
W1170057	05/20/17	07:27 AM	SAMPLE 5	3710020-BFB-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Kindergarten Building, West side of campus outside between K-1 and K-2, Sink with bubbler on right side
SAMPLE 2	Building 2, West side of campus near room 6 (east facing wall), triple bubbler fountain, middle bubbler
SAMPLE 3	Building 4, East side of building 4 near room 12, dual bubbler fountain nect to single bubbler fountain, right bubbler on dual fountain
SAMPLE 4	Cafeteria Building, North facing wall in front of cafeteria, two triple bubbler fountains, right fountain, center bubbler
SAMPLE 5	outside Restroom bungalow on far east side of campus, dual bubbler fountain next to single bubbler fountain, left bubbler on dual fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/28/17

San Diego Unified School District

Hearst Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1167256	04/18/17	06:11 AM	SAMPLE 1	3710020-AFJ-A	< 5	ug/L
W1167257	04/18/17	06:13 AM	SAMPLE 2	3710020-AFJ-B	< 5	ug/L
W1167258	04/18/17	06:15 AM	SAMPLE 3	3710020-AFJ-C	< 5	ug/L
W1167259	04/18/17	06:17 AM	SAMPLE 4	3710020-AFJ-D	< 5	ug/L
W1167260	04/18/17	06:20 AM	SAMPLE 5	3710020-AFJ-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Auditorium/Serving RM; Inside serving room near kitchen roll up door; R side bubbler on a single 3-fixture white sink
SAMPLE 2	1-5 bldg.; Exterior west end near black top playground and Lunch court; Lower L side of 2 single fountains
SAMPLE 3	7-12 BLDG; west end near black top playground basketball area;L side bubbler of a 3-bubbler water fountain
SAMPLE 4	1-6 BLDG; N exterior wall; L bubbler of 3-bubbler fountain near corner
SAMPLE 5	Kinder play ground: Outside kinder classrooms between toy storage doors; Lower L side bubbler of 2 separate single fountains

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
Tom Burger, Associate Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/4/17

San Diego Unified School District

Hickman Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168388	04/25/17	06:32 AM	SAMPLE 1	3710020-BAH-A	< 5	ug/L
W1168389	04/25/17	06:35 AM	SAMPLE 2	3710020-BAH-B	< 5	ug/L
W1168390	04/25/17	06:40 AM	SAMPLE 3	3710020-BAH-C	5.02	ug/L
W1168391	04/25/17	06:42 AM	SAMPLE 4	3710020-BAH-D	< 5	ug/L
W1168392	04/25/17	06:47 AM	SAMPLE 5	3710020-BAH-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Hickman Hall, Sink in the Prep Kitchen (South of Bldg), faucet above single basin sink
SAMPLE 2	Hickman Hall, Wall mounted exterior (South of Bldg), outside of Prep Kitchen, facing lunch court, triple bubbler fountain, left bubbler
SAMPLE 3	10s Bldg (Rms 10-16), Wall mounted exterior (South of Bldg), between Girls RR & Custodian closet, facing grass courtyard, triple bubbler fountain, right bubbler
SAMPLE 4	20s Bldg (Rms 21-26), Wall mounted exterior (West of Bldg), between Girls RR & Custodian closet, facing Blacktop, triple bubbler fountain, middle bubbler
SAMPLE 5	40s Bldg (Rms 41-46), Wall mounted exterior (North of Bldg), between Girls RR & Custodian closet, facing Playground, triple bubbler fountain, right bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
Tom Burger, Associate Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

High Tech High Media Arts

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1169402	05/04/17	06:50 AM	SAMPLE 1	3710020-AID-A	< 5	ug/L
W1169403	05/04/17	06:52 AM	SAMPLE 2	3710020-AID-B	< 5	ug/L

Source	Source Description
SAMPLE 1	2nd Floor;outside RM 217;corridor fountain adjacent to girls RR;upper left bubbler
SAMPLE 2	2nd Floor;outside RM 213;corridor fountain adjacent to boys RR;upper left bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger

Tom Burger, Associate Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

High Tech Elementary Explorer

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1169419	05/04/17	06:39 AM	SAMPLE 1	3710020-AIC-A	< 5	ug/L
W1169420	05/04/17	06:41 AM	SAMPLE 2	3710020-AIC-B	< 5	ug/L
W1169421	05/04/17	06:37 AM	SAMPLE 3	3710020-AIC-C	< 5	ug/L

Source	Source Description
SAMPLE 1	1st floor;Inside Room 132; Upper L bubbler of 2 single fountains
SAMPLE 2	1st floor; Play yard drinking fountain between exterior restrooms; single bubbler on a single fountain
SAMPLE 3	1st floor; Corridor drinking fountain between boys and girls restroom; upper L bubbler of 2 single fountains

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger

Tom Burger, Associate Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

High Tech High

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1169422	05/04/17	07:21 AM	SAMPLE 1	3710020-AIE-A	< 5	ug/L
W1169423	05/04/17	07:26 AM	SAMPLE 2	3710020-AIE-B	< 5	ug/L

Source	Source Description
SAMPLE 1	Corridor drinking fountain across from Computer Server Room 127;Upper L bubbler of 2 single fountains
SAMPLE 2	Corridor drinking fountain adjacent to Girls Restrooms 169;Upper L bubbler of 2 single fountains

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
Tom Burger, Associate Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

High Tech High International

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1169400	05/04/17	07:07 AM	SAMPLE 1	3710020-AIH-A	< 5	ug/L
W1169401	05/04/17	07:10 AM	SAMPLE 2	3710020-AIH-B	< 5	ug/L

Source	Source Description
SAMPLE 1	1st Floor corridor drinking fountain between Boys and Girls Restrooms;Upper L bubbler of 2 single fountains
SAMPLE 2	2nd Floor Corridor drinking fountain adjacent to Classroom 205; Upper L bubbler of 2 single fountains

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
Tom Burger, Associate Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

High Tech High Middle

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1170165	05/04/17	07:33 AM	SAMPLE 1	3710020-AIF-A	< 5	ug/L
W1170167	05/04/17	07:36 AM	SAMPLE 3	3710020-AIF-C	< 5	ug/L

Source	Source Description
SAMPLE 1	BLDG 36;corridor fountain adjacent to RR bwtn 135 & 136; upper-left fountain bubbler
SAMPLE 3	BLDG 36; Main Entry; exterior fountain to the left of main entry

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger

Tom Burger, Associate Chemist

Public Utilities

Environmental Monitoring and Technical Services
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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

High Tech High Media Arts 2

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1170164	05/04/17	08:10 AM	SAMPLE 1	3710020-AHJ-A	< 5	ug/L

Source	Source Description
SAMPLE 1	2291 Truxtun Road, Bldg. 37; Corridor drinking fountains adjacent to Restrooms; Upper L bubbler of 2 single fountains

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger

Tom Burger, Associate Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/28/17

San Diego Unified School District

Holly Drive Leadership

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1166990	04/19/17	05:50 AM	SAMPLE 1	3710020-AFH-A	< 5	ug/L
W1166991	04/19/17	05:55 AM	SAMPLE 2	3710020-AFH-B	< 5	ug/L
W1166992	04/19/17	06:07 AM	SAMPLE 3	3710020-AFH-C	< 5	ug/L
W1166993	04/19/17	05:59 AM	SAMPLE 4	3710020-AFH-D	< 5	ug/L
W1166994	04/19/17	06:03 AM	SAMPLE 5	3710020-AFH-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Room B-21 Bubbler in sink
SAMPLE 2	Room B-19 Bubbler in sink
SAMPLE 3	Room B-17 Bubbler in sink
SAMPLE 4	Room B-16 Bubbler in sink
SAMPLE 5	Room B-14 Bubbler in sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
Tom Burger, Associate Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/7/17

San Diego Unified School District

Holmes Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1170221	05/25/17	06:06 AM	SAMPLE 1	3710020-CAJ-A	< 5	ug/L
W1170222	05/25/17	06:14 AM	SAMPLE 2	3710020-CAJ-B	< 5	ug/L
W1170223	05/25/17	06:09 AM	SAMPLE 3	3710020-CAJ-C	< 5	ug/L
W1170224	05/25/17	06:12 AM	SAMPLE 4	3710020-CAJ-D	< 5	ug/L
W1170225	05/25/17	06:01 AM	SAMPLE 5	3710020-CAJ-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Outside Auditorium next to lunch court, two single bubbler fountains, upper right fountain
SAMPLE 2	Inside Kitchen, faucet above 2 compartment sink
SAMPLE 3	Room 9, Outside fountain next to room 9 and bathrooms, triple bubbler fountain, middle bubbler
SAMPLE 4	room 3, Outside fountain next to room 3 and bathrooms, quadrupel bubbler fountain, far right bubbler
SAMPLE 5	Room K-1, Outside playground in front of K-1, bubbler on long sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

Environmental Monitoring and Technical Services
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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/27/17

San Diego Unified School District

Hoover High

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1166873	04/15/17	07:22 AM	SAMPLE 1	3710020-AFC-A	< 5	ug/L
W1166874	04/15/17	07:24 AM	SAMPLE 2	3710020-AFC-B	< 5	ug/L
W1166875	04/15/17	07:19 AM	SAMPLE 3	3710020-AFC-C	< 5	ug/L
W1166876	04/15/17	07:28 AM	SAMPLE 4	3710020-AFC-D	< 5	ug/L
W1166877	04/15/17	07:33 AM	SAMPLE 5	3710020-AFC-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Exterior East side of Cafeteria Building; Near entrance to faculty lunch room; R bubbler on triple fountain
SAMPLE 2	Interior North side of Cafeteria building; Single Faucet on 2-compartment sink next to food service windows
SAMPLE 3	Exterior South side of Girls Locker Room; Far right bubbler on a triple bubbler fountain
SAMPLE 4	South side of 900 building (Southeast corner);Far right and upper bubbler of 2 separate single fountains
SAMPLE 5	200 Building;Inside hallway next to Room 205;Lower right bubbler of 2 single fountains

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
Tom Burger, Associate Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/12/17

San Diego Unified School District

Horton Elementary School

Sample ID	Sample Date	Sample Time	Description	External ID	Lead	Units
W1163972	04/04/17	05:59 AM	SAMPLE 1	3710020-ABA-A	< 5	ug/L
W1163973	04/04/17	06:03 AM	SAMPLE 2	3710020-ABA-B	< 5	ug/L
W1163974	04/04/17	06:15 AM	SAMPLE 3	3710020-ABA-C	< 5	ug/L
W1163975	04/04/17	06:11 AM	SAMPLE 4	3710020-ABA-D	< 5	ug/L
W1163976	04/04/17	06:06 AM	SAMPLE 5	3710020-ABA-E	< 5	ug/L

SAMPLE 1 Kindergarten play area, South Wall, wall mount, left bubbler (149-01)

SAMPLE 2 Cafeteria lunch court, South wall, triple fountain, right bubbler (149-02)

SAMPLE 3 Between restroom boys 104 and girls 103 west wall hall, triple fountain, right bubbler (149-03)

SAMPLE 4 Between restroom boys #2 and girls #2 , lower fountain (149-04)

SAMPLE 5 Cafeteria, Kithchen area, north wall, food prep faucet (149-05)

DLR= State Mandated Detection Limit for Reporting (D
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

High Tech High Middle Media Arts

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1170168	05/04/17	06:56 AM	SAMPLE 1	3710020-AID-A	< 5	ug/L

Source	Source Description
SAMPLE 1	2nd Floor;outside RM 217;corridor fountain adjacent to girls RR;upper left bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
Tom Burger, Associate Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

High Tech High Media Arts 2

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1170164	05/04/17	08:10 AM	SAMPLE 1	3710020-AHJ-A	< 5	ug/L

Source	Source Description
SAMPLE 1	2291 Truxtun Road, Bldg. 37; Corridor drinking fountains adjacent to Restrooms; Upper L bubbler of 2 single fountains

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger

Tom Burger, Associate Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

High Tech Elementary Explorer

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1169419	05/04/17	06:39 AM	SAMPLE 1	3710020-AIC-A	< 5	ug/L
W1169420	05/04/17	06:41 AM	SAMPLE 2	3710020-AIC-B	< 5	ug/L
W1169421	05/04/17	06:37 AM	SAMPLE 3	3710020-AIC-C	< 5	ug/L

Source	Source Description
SAMPLE 1	1st floor;Inside Room 132; Upper L bubbler of 2 single fountains
SAMPLE 2	1st floor; Play yard drinking fountain between exterior restrooms; single bubbler on a single fountain
SAMPLE 3	1st floor; Corridor drinking fountain between boys and girls restroom; upper L bubbler of 2 single fountains

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger

Tom Burger, Associate Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

High Tech High Middle

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1170165	05/04/17	07:33 AM	SAMPLE 1	3710020-AIF-A	< 5	ug/L
W1170167	05/04/17	07:36 AM	SAMPLE 3	3710020-AIF-C	< 5	ug/L

Source	Source Description
SAMPLE 1	BLDG 36;corridor fountain adjacent to RR bwtn 135 & 136; upper-left fountain bubbler
SAMPLE 3	BLDG 36; Main Entry; exterior fountain to the left of main entry

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger

Tom Burger, Associate Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

High Tech Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1170175	05/04/17	07:55 AM	SAMPLE 1	3710020-AIA-A	< 5	ug/L
W1170176	05/04/17	07:52 AM	SAMPLE 2	3710020-AIA-B	< 5	ug/L
W1170178	05/04/17	07:59 AM	SAMPLE 4	3710020-AIA-D	< 5	ug/L

Source	Source Description
SAMPLE 1	1st Fl. corridor drinking fountain adjacent to Storage Room 142;Upper L bubbler of 2 single fountains
SAMPLE 2	1st Fl. Corridor drinking fountain between Boys and Girls Restrooms; Upper L bubbler of 2 separate bubbler fountains
SAMPLE 4	2nd Floor Drinking Fountain between Boys and Girls Restrooms; Upper L bubbler of 2 single fountains

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
Tom Burger, Associate Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

High Tech High

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1169422	05/04/17	07:21 AM	SAMPLE 1	3710020-AIE-A	< 5	ug/L
W1169423	05/04/17	07:26 AM	SAMPLE 2	3710020-AIE-B	< 5	ug/L

Source	Source Description
SAMPLE 1	Corridor drinking fountain across from Computer Server Room 127;Upper L bubbler of 2 single fountains
SAMPLE 2	Corridor drinking fountain adjacent to Girls Restrooms 169;Upper L bubbler of 2 single fountains

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
Tom Burger, Associate Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

High Tech High Media Arts

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1169402	05/04/17	06:50 AM	SAMPLE 1	3710020-AID-A	< 5	ug/L
W1169403	05/04/17	06:52 AM	SAMPLE 2	3710020-AID-B	< 5	ug/L

Source	Source Description
SAMPLE 1	2nd Floor;outside RM 217;corridor fountain adjacent to girls RR;upper left bubbler
SAMPLE 2	2nd Floor;outside RM 213;corridor fountain adjacent to boys RR;upper left bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger

Tom Burger, Associate Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

High Tech High International

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1169400	05/04/17	07:07 AM	SAMPLE 1	3710020-AIH-A	< 5	ug/L
W1169401	05/04/17	07:10 AM	SAMPLE 2	3710020-AIH-B	< 5	ug/L

Source	Source Description
SAMPLE 1	1st Floor corridor drinking fountain between Boys and Girls Restrooms;Upper L bubbler of 2 single fountains
SAMPLE 2	2nd Floor Corridor drinking fountain adjacent to Classroom 205; Upper L bubbler of 2 single fountains

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger

Tom Burger, Associate Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

San Diego Unified School District

Ibarra Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168348	05/04/17	06:01 AM	SAMPLE 1	3710020-BAF-A	< 5	ug/L
W1168349	05/04/17	06:05 AM	SAMPLE 2	3710020-BAF-B	< 5	ug/L
W1168350	05/04/17	06:15 AM	SAMPLE 3	3710020-BAF-C	< 5	ug/L
W1168351	05/04/17	06:12 AM	SAMPLE 4	3710020-BAF-D	< 5	ug/L
W1168352	05/04/17	06:10 AM	SAMPLE 5	3710020-BAF-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Library, Wall mounted exterior, facing Kinder Yard, two single bubbler fountains, lower left fountain
SAMPLE 2	Rooms 104-101 Two-story bldg., Wall mounted exterior, 1st Floor, next to restrooms, hallway facing Multipurpose Bldg., two single bubbler fountains, lower left fountain
SAMPLE 3	Elevator 2, Wall mounted exterior, behind Elevator bldg., facing stage/blacktop/lunch arbor, three single bubbler fountains, high middle fountain
SAMPLE 4	Elevator 1, Wall mounted exterior, behind Elevator bldg., facing blacktop, three single bubbler fountains, lower left fountain
SAMPLE 5	Rooms 112-109 Two-story bldg., Wall mounted exterior, next to RR, facing stairs, two single bubbler fountains, upper right fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
Tom Burger, Associate Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/27/17

San Diego Unified School District

Iftin Charter

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1166072	04/12/17	05:57 AM	SAMPLE 1	3710020-ADH-A	< 5	ug/L
W1166073	04/12/17	06:02 AM	SAMPLE 2	3710020-ADH-B	< 5	ug/L
W1166074	04/12/17	06:11 AM	SAMPLE 3	3710020-ADH-C	< 5	ug/L
W1166075	04/12/17	06:04 AM	SAMPLE 4	3710020-ADH-D	< 5	ug/L
W1166076	04/12/17	06:14 AM	SAMPLE 5	3710020-ADH-E	< 5	ug/L

Source	Source Description
SAMPLE 1	BLDG 100, in kindergarten room1, bubbler at sink
SAMPLE 2	room 22, inside classroom, bubbler at sink
SAMPLE 3	BLDG 100, exterior facing coutyard, triple fountain, left bubbler
SAMPLE 4	BLDG 300, east facing exterior triple fountain, right bubbler
SAMPLE 5	BLDG 200, south facing exterior single & double fountain, left bubbler on double

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Environmental Monitoring and Technical Services
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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/7/17

Ingenuity Charter

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1172142	05/26/17	06:01 AM	SAMPLE 1	3710020-CBC-A	< 5	ug/L

Source	Source Description
SAMPLE 1	Classroom Bldg. 100C, Exterior North wall, adjacent to office 100A, dual bubbler fountain, right bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/7/17

San Diego Unified School District

Innovation Middle

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1173006	05/20/17	08:26 AM	SAMPLE 1	3710020-BJF-A	< 5	ug/L
W1173007	05/20/17	08:29 AM	SAMPLE 2	3710020-BJF-B	< 5	ug/L
W1173008	05/20/17	08:34 AM	SAMPLE 3	3710020-BJF-C	< 5	ug/L
W1173009	05/20/17	08:40 AM	SAMPLE 4	3710020-BJF-D	< 5	ug/L
W1173010	05/20/17	08:19 AM	SAMPLE 5	3710020-BJF-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Classrooms 1-6 bldg, East end of Bldg between Staff and Student RRs, two single bubbler fountains, lower left fountain
SAMPLE 2	Classrooms 7-12 bldg, East end of bldg between Student RRs, two single bubbler fountains, upper right fountain
SAMPLE 3	Lunch Court, : East Exterior Wall, two single bubbler fountains, upper right fountain
SAMPLE 4	Kitchen Prep Area, East Interior Wall, faucet above three compartment sink
SAMPLE 5	Room 14, next to Nurse office and Custodial office, North Exterior Wall, two single bubbler fountains, lower left fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/23/17

San Diego Unified School District

Innovations Academy

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168781	05/12/17		SAMPLE 1	3710020-BCG-A	< 5	ug/L
W1168782	05/12/17		SAMPLE 2	3710020-BCG-B	< 5	ug/L
W1168783	05/12/17		SAMPLE 3	3710020-BCG-C	< 5	ug/L
W1168784	05/12/17		SAMPLE 4	3710020-BCG-D	< 5	ug/L
W1168785	05/12/17		SAMPLE 5	3710020-BCG-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Outside 400 bldg. RRs, three single-bubbler fountains, center fountain
SAMPLE 2	400 bldg, Inside room 402, left side of room, bubbler at sink
SAMPLE 3	300 bldg, Outside near girls RR and wheel chair symbol, two single-bubbler fountains, lower right fountain
SAMPLE 4	600 bldg, next to girls RR, three single-bubbler fountains, center fountain
SAMPLE 5	700 bldg, Inside room 703, bubbler at sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

Environmental Monitoring and Technical Services
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Water Quality Chemistry Services

Lead School Testing

Report Date: 28-Apr-2017

San Diego Unified School District

Jefferson Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168027	4/21/2017	6:00 AM	SAMPLE 1	3710020-AIG-A	< 5	µg/L
W1168028	4/21/2017	6:04 AM	SAMPLE 2	3710020-AIG-B	< 5	µg/L
W1168029	4/21/2017	6:15 AM	SAMPLE 3	3710020-AIG-C	< 5	µg/L
W1168030	4/21/2017	6:07 AM	SAMPLE 4	3710020-AIG-D	< 5	µg/L
W1168031	4/21/2017	6:11 AM	SAMPLE 5	3710020-AIG-E	< 5	µg/L

Source	Source Description
SAMPLE 1	Exterior fountain on free standing wall facing cafeteria, upper right bubbler.
SAMPLE 2	Exterior wall mount, facing lunch court, between Girls/Boys RR, triple fountain, left bubbler
SAMPLE 3	BLDG 200, 1st floor, between RM 202 and 203, double fountain, right bubbler
SAMPLE 4	BLDG 800, 1st floor, between RMs 5 and 6, dual fountain, right bubbler
SAMPLE 5	BLDG 800, 2nd floor, between RMs 13 and 14, dual fountain, left bubbler

DRL=State Mandated Detection Limit for Reporting (DLR)= 5 µg/L
Action Level (AL) = 15 µg/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/23/17

San Diego Unified School District

Jerabek Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1169355	05/12/17	06:00 AM	SAMPLE 1	3710020-BDE-A	< 5	ug/L
W1169356	05/12/17	06:08 AM	SAMPLE 2	3710020-BDE-B	< 5	ug/L
W1169357	05/12/17	06:11 AM	SAMPLE 3	3710020-BDE-C	< 5	ug/L
W1169358	05/12/17	06:14 AM	SAMPLE 4	3710020-BDE-D	< 5	ug/L
W1169359	05/12/17	06:20 AM	SAMPLE 5	3710020-BDE-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Outside near door to MPR, two single-bubbler fountains, lower left fountain
SAMPLE 2	Outside bungalow restrooms next to B-1, two triple bubbler fountains, left fountain left bubbler
SAMPLE 3	500 bldg, at wall near Red playground, two single-bubbler fountains, lower left fountain
SAMPLE 4	400 bldg, Outside wall near blue playground equipment, triple bubbler fountain, right bubbler
SAMPLE 5	Kindergarten bldg, Outside wall near kinder playground, two single-bubbler fountains, upper right fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

Environmental Monitoring and Technical Services
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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/7/17

San Diego Unified School District

John Muir Magnet

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1172555	05/17/17	06:25 AM	SAMPLE 1	3710020-BHI-A	< 5	ug/L
W1172556	05/17/17	06:33 AM	SAMPLE 2	3710020-BHI-B	< 5	ug/L
W1172557	05/17/17	06:35 AM	SAMPLE 3	3710020-BHI-C	< 5	ug/L
W1172558	05/17/17	06:38 AM	SAMPLE 4	3710020-BHI-D	< 5	ug/L
W1172559	05/17/17	06:41 AM	SAMPLE 5	3710020-BHI-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Kindergarten/1st. Grade building, Inside K-TK classroom., double bubbler on sink, left bubbler
SAMPLE 2	rooms 6-11 bldg, East side of building, triple bubbler fountain, left bubbler
SAMPLE 3	Rooms 2-5 and offices bldg, East side of building, two single bubbler fountains, upper left fountain
SAMPLE 4	Lunch court, Fountains outside lunch court east side, triple bubbler fountain, right bubbler
SAMPLE 5	Kitchen/Auditourium, Inside kitchen east wall, faucet at single compartment sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/12/17

San Diego Unified School District

Johnson Elementary School

Sample ID	Sample Date	Sample Time	Description	External ID	Lead	Units
W1164268	04/05/17	05:50 AM	SAMPLE 1	3710020-ABH-A	< 5	ug/L
W1164269	04/05/17	05:55 AM	SAMPLE 2	3710020-ABH-B	< 5	ug/L
W1164270	04/05/17	06:00 AM	SAMPLE 3	3710020-ABH-C	< 5	ug/L
W1164271	04/05/17	06:10 AM	SAMPLE 4	3710020-ABH-D	< 5	ug/L
W1164272	04/05/17	06:15 AM	SAMPLE 5	3710020-ABH-E	< 5	ug/L

SAMPLE 1 Kindergarten; S. wall Btwn Rm K1 & Storage RM 1. Right bubbler

SAMPLE 2 Cafeteria; E. wall @ Lunch Court; Upper/Left Bubbler

SAMPLE 3 Rm 1-6; S. wall btwn girls restroom & RM 4; right bubbler

SAMPLE 4 Child Development Cntr. S/E corner; E. wall playground; left bubbler

SAMPLE 5 Staff/Student portable restrooms/ btwn men&women's restroom. Lower/right bubbler

DLR= State Mandated Detection Limit for Reporting (DLF
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Environmental Monitoring and Technical Services
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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/26/17

San Diego Unified School District

Jonas Salk Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1172842	05/17/17	05:39 AM	SAMPLE 1	3710020-BID-A	< 5	ug/L
W1172843	05/17/17	05:42 AM	SAMPLE 2	3710020-BID-B	< 5	ug/L
W1172844	05/17/17	05:47 AM	SAMPLE 3	3710020-BID-C	< 5	ug/L
W1172845	05/17/17	05:50 AM	SAMPLE 4	3710020-BID-D	< 5	ug/L
W1172846	05/17/17	05:53 AM	SAMPLE 5	3710020-BID-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Multi-Purpose Room, Wall mounted interior (East of the Room), facing stage, next to restroom, two single bubbler fountains, lower right fountain
SAMPLE 2	Wall mounted exterior (Southwest of the Bldg), next to Gas Shut off, upper left fountain
SAMPLE 3	400 bldg-Upstairs, inside room 400 (West of Bldg), bubbler at sink
SAMPLE 4	500 bldg-Downstairs, Kindergarten room 503, bubbler at sink
SAMPLE 5	700 bldg, room 700, classroom sink between ES Office & Classroom 701, bubbler at sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

Environmental Monitoring and Technical Services
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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/4/17

San Diego Unified School District

Jones Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1169343	04/29/17	06:56 AM	SAMPLE 1	3710020-BDB-A	< 5	ug/L
W1169344	04/29/17	06:48 AM	SAMPLE 2	3710020-BDB-B	< 5	ug/L
W1169345	04/29/17	06:52 AM	SAMPLE 3	3710020-BDB-C	< 5	ug/L
W1169346	04/29/17	07:03 AM	SAMPLE 4	3710020-BDB-D	< 5	ug/L
W1169347	04/29/17	07:00 AM	SAMPLE 5	3710020-BDB-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Kindergarten bldg, West exterior side between K-1 & K-2, two single-bubbler fountains, lower left fountain
SAMPLE 2	Auditorium/Multipurpose, East exterior wall between heater room & cafeteria door, two single-bubbler fountains, lower left fountain
SAMPLE 3	Kitchen, West interior wall in kitchen, spray nozzle above single compartment sink
SAMPLE 4	North-East exterior next to room 7 & P.E. Equipment room, triple bubbler fountain, left bubbler
SAMPLE 5	South-East exterior wall close to room 12, two single-bubbler fountains, lower left fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

San Diego Unified School District

Joyner Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168592	05/05/17	06:01 AM	SAMPLE 1	3710020-AJB-A	< 5	ug/L
W1168593	05/05/17	06:06 AM	SAMPLE 2	3710020-AJB-B	< 5	ug/L
W1168594	05/05/17	06:04 AM	SAMPLE 3	3710020-AJB-C	< 5	ug/L
W1168595	05/05/17	06:09 AM	SAMPLE 4	3710020-AJB-D	< 5	ug/L
W1168596	05/05/17	06:11 AM	SAMPLE 5	3710020-AJB-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Cafeteria, outside - Next to lunch court and women rr at checkered wall, two single-bubbler fountains, lower left fountain
SAMPLE 2	700 bldg., Inside rm. 703 at sink, Bubbler drinking fountain located at sink
SAMPLE 3	600 bldg., outside of womens RR, four single bubbler fountains, far left top fountain
SAMPLE 4	300 bldg., inside room 315 at sink, bubbler at sink
SAMPLE 5	400 bldg., outside near room 402, two single bubbler fountains, lower left fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/4/17

San Diego Unified School District

Juarez Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1169338	04/29/17	07:17 AM	SAMPLE 1	3710020-BDA-A	< 5	ug/L
W1169339	04/29/17	07:24 AM	SAMPLE 2	3710020-BDA-B	5.02	ug/L
W1169340	04/29/17	07:26 AM	SAMPLE 3	3710020-BDA-C	< 5	ug/L
W1169341	04/29/17	07:28 AM	SAMPLE 4	3710020-BDA-D	< 5	ug/L
W1169342	04/29/17	07:30 AM	SAMPLE 5	3710020-BDA-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Kindergarten Bldg, Between K-1 & K-2 and next to girl's RR, two single bubbler fountains, lower left fountain
SAMPLE 2	Classrooms 1-6 bldg, North-East end of building next to boy/girl RRs, triple bubbler fountain, right bubbler
SAMPLE 3	Classrooms 9-12 bldg, East end of building next to boy's RR and P.E. Equipment room, triple bubbler fountain, right bubbler
SAMPLE 4	Lunch Court, East exterior wall of kitchen next to lunch court, two single bubbler fountains, upper right fountain
SAMPLE 5	Kitchen, East interior wall of kitchen, sink faucet head above 2 compartment sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/7/17

San Diego Unified School District

Kavod Elementary Charter

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1174220	05/23/17	05:45 AM	SAMPLE 1	3710020-CAG-A	< 5	ug/L
W1174221	05/23/17	05:50 AM	SAMPLE 2	3710020-CAG-B	< 5	ug/L
W1174222	05/23/17	06:05 AM	SAMPLE 3	3710020-CAG-C	< 5	ug/L
W1174223	05/23/17	06:07 AM	SAMPLE 4	3710020-CAG-D	< 5	ug/L
W1174224	05/23/17	06:10 AM	SAMPLE 5	3710020-CAG-E	< 5	ug/L

Source	Source Description
SAMPLE 1	next to rooms 7-12, Outside Bathrooms next to custodial room, two single bubbler fountains, upper right fountain
SAMPLE 2	Room 12, bubbler at sink
SAMPLE 3	Room B4, bubbler at sink
SAMPLE 4	Room B6, bubbler at sink
SAMPLE 5	Room 7, bubbler at sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/23/17

San Diego Unified School District

Kearny SCT

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1171684	05/12/17	06:05 AM	SAMPLE 1	3710020-BHE-A	< 5	ug/L
W1171685	05/12/17	06:00 AM	SAMPLE 2	3710020-BHE-B	< 5	ug/L
W1171686	05/12/17	06:15 AM	SAMPLE 3	3710020-BHE-C	< 5	ug/L
W1171687	05/12/17	06:08 AM	SAMPLE 4	3710020-BHE-D	< 5	ug/L
W1171688	05/12/17	05:58 AM	SAMPLE 5	3710020-BHE-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Cafeteria, West Interior Wall, Single Faucet above single compartment sinks
SAMPLE 2	Lunch Court, East Facing Wall, two single bubbler fountains, upper right fountain
SAMPLE 3	Boys Locker Room, East Facing Exterior Wall, triple bubbler fountain, right bubbler
SAMPLE 4	Girls Gym, South Exterior Wall, triple bubbler fountain, left bubbler
SAMPLE 5	Auditorium, Interior wall mounted, left side as you enter building, two single bubbler fountains, lower left fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/28/17

San Diego Unified School District

Keiler Leadership

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1167409	04/20/17	06:00 AM	SAMPLE 1	3710020-AGE-A	< 5	ug/L
W1167410	04/20/17	06:05 AM	SAMPLE 2	3710020-AGE-B	< 5	ug/L
W1167411	04/20/17	06:15 AM	SAMPLE 3	3710020-AGE-C	< 5	ug/L
W1167412	04/20/17	06:10 AM	SAMPLE 4	3710020-AGE-D	< 5	ug/L
W1167413	04/20/17	06:10 AM	SAMPLE 5	3710020-AGE-E	5.12	ug/L

Source	Source Description
SAMPLE 1	Wall mounted exterior, between Auditorium & Cafeteria, facing lunch area, dual bubbler fountain to the right of sink, left bubbler
SAMPLE 2	Wall mounted exterior, 1st Floor, next to Equipment Room (H101A), facing Rooms 32-34, two single bubbler fountains, lower right fountain
SAMPLE 3	Near Rooms 5-8, Wall mounted exterior, next to Boys Restroom, facing courtyard & 2-story bldg, dual bubbler fountain, right bubbler
SAMPLE 4	Near Rooms 9-11, Wall mounted exterior, next to a room (storage), facing Library, dual bubbler fountain, left bubbler
SAMPLE 5	P.E. Complex, Wall mounted exterior, between Boys Restroom and Coaches Office, dual bubbler fountain, right bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
Tom Burger, Associate Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

San Diego Unified School District

Kimbrough Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168353	05/04/17	06:05 AM	SAMPLE 1	3710020-BBB-A	< 5	ug/L
W1168354	05/04/17	06:09 AM	SAMPLE 2	3710020-BBB-B	5.05	ug/L
W1168355	05/04/17	06:00 AM	SAMPLE 3	3710020-BBB-C	< 5	ug/L
W1168356	05/04/17	06:13 AM	SAMPLE 4	3710020-BBB-D	< 5	ug/L
W1168357	05/04/17	06:15 AM	SAMPLE 5	3710020-BBB-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Multipurpose Bldg., North wall of Kitchen, Faucet on a two-compartment sink
SAMPLE 2	Restrooms Bldg, South wall, two single bubbler fountains, lower left fountain
SAMPLE 3	Administration Bldg., East wall, four single bubbler fountains, far left fountain
SAMPLE 4	Classroom Bldg. 100, West wall of restrooms near room 105, five single bubbler fountains, middle fountain
SAMPLE 5	Classroom Bldg. 100, West wall of restrooms near room 110, five single bubbler fountains, middle fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
Tom Burger, Associate Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/23/17

San Diego Unified School District
King-Chavez Academy

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168358	04/27/17	06:00 AM	SAMPLE 1	3710020-BBC-A	< 5	ug/L
W1168359	04/27/17	06:02 AM	SAMPLE 2	3710020-BBC-B	< 5	ug/L
W1168360	04/27/17	06:05 AM	SAMPLE 3	3710020-BBC-C	< 5	ug/L
W1168361	04/27/17	06:10 AM	SAMPLE 4	3710020-BBC-D	< 5	ug/L
W1168362	04/27/17	06:12 AM	SAMPLE 5	3710020-BBC-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Outside Bathrooms east of main office, two single bubbler fountains, upper right fountain
SAMPLE 2	Outside, Next to girls bathroom and jungle gym, triple bubbler fountain, middle bubbler
SAMPLE 3	Outside East of room 13, triple bubbler fountain, left bubbler
SAMPLE 4	Outside bathroom next to the Auditorium in front of Bathrooms, two single bubbler fountains, upper right fountain
SAMPLE 5	Outside Bathrooms next to Library, three single bubbler fountains, middle fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

Environmental Monitoring and Technical Services
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Water Quality Chemistry Services
Lead School Testing
Report Date: 7/6/17

San Diego Unified School District

KIPP Adelante Preparatory Academy

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1171650	06/07/17	06:20 AM	SAMPLE 1	3710020-BJB-A	< 5	ug/L
W1171651	06/07/17	06:25 AM	SAMPLE 2	3710020-BJB-B	< 5	ug/L
W1171652	06/07/17	06:29 AM	SAMPLE 3	3710020-BJB-C	< 5	ug/L
W1171653	06/07/17	06:30 AM	SAMPLE 4	3710020-BJB-D	< 5	ug/L

Source	Source Description
SAMPLE 1	1st floor open area, between girls/boys restroom, single fountain
SAMPLE 2	2nd Floor, between girls/boys restroom, single fountain
SAMPLE 3	3rd Floor, next to Room 308, upper left fountain
SAMPLE 4	3rd Floor, next to Room 308, lower right fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/27/17

San Diego Unified School District

Knox Middle

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1165252	04/12/17	06:18 AM	SAMPLE 1	3710020-ADA-A	< 5	ug/L
W1165253	04/12/17	06:15 AM	SAMPLE 2	3710020-ADA-B	< 5	ug/L
W1165254	04/12/17	06:10 AM	SAMPLE 3	3710020-ADA-C	< 5	ug/L
W1165255	04/12/17	06:22 AM	SAMPLE 4	3710020-ADA-D	< 5	ug/L
W1165256	04/12/17	06:27 AM	SAMPLE 5	3710020-ADA-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Auditorium, Exterior, next to stage door, across from luch arbor, upper right bubbler
SAMPLE 2	Kitchen, 3 compartment sink, kitchen faucet
SAMPLE 3	BLDG 3, next to supply room and girls restroom, 3 bubblers, far right
SAMPLE 4	BLDG 3, west end, next to boys RR, and pole, triple fountain, center bubbler
SAMPLE 5	Lower grass field, near restroom, freestanding dual bubbler, upper bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

San Diego Unified School District

Kumeyaay Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1169360	05/06/17	05:51 AM	SAMPLE 1	3710020-BDG-A	< 5	ug/L
W1169361	05/06/17	06:05 AM	SAMPLE 2	3710020-BDG-B	< 5	ug/L
W1169362	05/06/17	06:01 AM	SAMPLE 3	3710020-BDG-C	< 5	ug/L
W1169363	05/06/17	05:55 AM	SAMPLE 4	3710020-BDG-D	< 5	ug/L
W1169364	05/06/17	05:49 AM	SAMPLE 5	3710020-BDG-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Kindergarten Building, Outside East facing wall, Triple bubbler fountain left of a single bubbler fountain, left bubbler on triple fountain
SAMPLE 2	Library/Media and RR building, Center of campus east side of building between RRs, Triple bubbler fountain right of a single bubbler fountain, right bubbler
SAMPLE 3	Library/Media and RR building, Center of campus east side of building between RRs, Triple bubbler fountain left of a single bubbler fountain, middle bubbler
SAMPLE 4	Bungalow K-5 (marked as K-3 on map), East end of kindergarten area, bubbler at sink
SAMPLE 5	Kindergarten Building Room K-2, bubbler at sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/23/17

San Diego Unified School District

La Jolla Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1170058	05/12/17	05:58 AM	SAMPLE 1	3710020-BFC-A	< 5	ug/L
W1170059	05/12/17	06:01 AM	SAMPLE 2	3710020-BFC-B	< 5	ug/L
W1170060	05/12/17	06:05 AM	SAMPLE 3	3710020-BFC-C	< 5	ug/L
W1170061	05/12/17	06:08 AM	SAMPLE 4	3710020-BFC-D	< 5	ug/L
W1170062	05/12/17	06:12 AM	SAMPLE 5	3710020-BFC-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Kindergarten Playground, Outside On wall of K-1 classroom near blue table, dual bubbler founatin, right fountain
SAMPLE 2	Inside K-2 classroom west side Center Island at sink, bubbler at sink
SAMPLE 3	bldg rooms 1,2, 3, and Conference, Outside East wall next to conference room door, triple bubbler fountain, left bubbler
SAMPLE 4	bldg rooms 6, 7,10, Outside between boys & girls RRs has checkered tile wall, 3 single bubbler fountains, center fountain
SAMPLE 5	Auditorium, Inside near double doors, Bubbler drinking fountain on right side of hand washing sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/23/17

San Diego Unified School District

La Jolla High

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1170063	05/12/17	06:15 AM	SAMPLE 1	3710020-BFD-A	6.34	ug/L
W1170064	05/12/17	06:10 AM	SAMPLE 2	3710020-BFD-B	10.5	ug/L
W1170065	05/12/17	06:20 AM	SAMPLE 3	3710020-BFD-C	< 5	ug/L
W1170066	05/12/17	06:05 AM	SAMPLE 4	3710020-BFD-D	< 5	ug/L
W1170067	05/12/17	06:30 AM	SAMPLE 5	3710020-BFD-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Kitchen, Inside Kitchen Left set of sinks north wall near coffee maker, faucet above two compartment sink
SAMPLE 2	Cafeteria, Outside North around corner from service windows near door J-5B janitor, two single bubbler drinking fountains, left fountain
SAMPLE 3	900 bldg, Outside hallway next to #901, two single bubbler drinking fountains, upper left fountain
SAMPLE 4	300 bldg, Outside between Girls restroom & door BDF 3, two single bubbler drinking fountains, upper right fountain
SAMPLE 5	Library Media Center, Outside at wall near entrance to Library, two single bubbler drinking fountains, upper right fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

San Diego Unified School District

Language Academy

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1171125	05/05/17	06:09 AM	SAMPLE 1	3710020-AJF-A	5.58	ug/L
W1171126	05/05/17	05:53 AM	SAMPLE 2	3710020-AJF-B	< 5	ug/L
W1171127	05/05/17	06:04 AM	SAMPLE 3	3710020-AJF-C	6.61	ug/L
W1171128	05/05/17	05:58 AM	SAMPLE 4	3710020-AJF-D	< 5	ug/L
W1171129	05/05/17	06:01 AM	SAMPLE 5	3710020-AJF-E	6.13	ug/L

Source	Source Description
SAMPLE 1	100 Bldg.; NE corner of building (outside room 11); Left-side bubbler on a 2-bubbler fountain
SAMPLE 2	400 Building; Exterior N side of Bldg.; Middle bubbler of 3 separate single fountains
SAMPLE 3	400 Bldg.; Rm 4; Interior 2-compartment sink; single bubbler on R side of sink
SAMPLE 4	400 Building; SW corner of building outside of room 3; Upper L bubbler of 2 separate single fountains
SAMPLE 5	Kindergarten building; Inside RM 2; Single bubbler on R side of a single sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/23/17

San Diego Unified School District

Lafayette Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1171635	05/09/17	06:16 AM	SAMPLE 1	3710020-BGC-A	< 5	ug/L
W1171636	05/09/17	06:09 AM	SAMPLE 2	3710020-BGC-B	< 5	ug/L
W1171637	05/09/17	06:03 AM	SAMPLE 3	3710020-BGC-C	< 5	ug/L
W1171638	05/09/17	05:59 AM	SAMPLE 4	3710020-BGC-D	< 5	ug/L
W1171639	05/09/17	06:06 AM	SAMPLE 5	3710020-BGC-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Kindergarten bldg, Inside K-5, bubbler at sink
SAMPLE 2	Kindergarten bldg, play area between K-3 & K-4 (exterior north facing wall), two single bubbler fountains, lower left fountain
SAMPLE 3	Classrooms 1-6 bldg, Exterior north wall between boy & girl's RR, three single bubbler fountains, middle fountain
SAMPLE 4	Kitchen, Interior north wall next to ovens, spray nozzle above 2-compartment sink
SAMPLE 5	Classrooms 7-12 bldg, South exterior wall near storage room & custodian room 3, triple bubbler fountain, left bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/28/17

San Diego Unified School District

Lewis Middle School

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168037	04/21/17	05:33 AM	SAMPLE 1	3710020-AFI-A	< 5	ug/L
W1167284	04/19/17	05:35 AM	SAMPLE 2	3710020-AFI-B	< 5	ug/L
W1167285	04/19/17	05:38 AM	SAMPLE 3	3710020-AFI-C	< 5	ug/L
W1167286	04/19/17	05:41 AM	SAMPLE 4	3710020-AFI-D	< 5	ug/L
W1167287	04/19/17	05:44 AM	SAMPLE 5	3710020-AFI-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Cafeteria single faucet dual sink
SAMPLE 2	Cafeteria exterior, 2 triple fountains, right triple fountain, left bubbler
SAMPLE 3	300 BLDG, between custodial #3 door and boys RR, single bubbler fountain next to a dual fountain
SAMPLE 4	200 BLDG, near room 210 and boys restroom, 2 dual bubbler fountains, right fountain right bubbler
SAMPLE 5	Boys Gym, near boys locker door and boys restroom, triple bubbler fountain, middle bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
Tom Burger, Associate Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/18/17

San Diego Unified School District
Lincoln High School

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1164177	04/08/17	07:05 AM	SAMPLE 1	3710020-ABC-A	< 5	ug/L
W1164178	04/08/17	07:31 AM	SAMPLE 2	3710020-ABC-B	< 5	ug/L
W1164179	04/08/17	07:27 AM	SAMPLE 3	3710020-ABC-C	< 5	ug/L
W1164180	04/08/17	07:15 AM	SAMPLE 4	3710020-ABC-D	< 5	ug/L
W1164181	04/08/17	07:20 AM	SAMPLE 5	3710020-ABC-E	< 5	ug/L

Source	Source Description
SAMPLE 1	BLDG 900, behind BLDG 900 in courtyard, upper bubbler
SAMPLE 2	BLDG 660, between 632 and 655, left bubbler
SAMPLE 3	BLDG 1400 food service, kitchen, faucet in prep room
SAMPLE 4	Softball and baseball field, east of softball field between stairs, lower bubbler
SAMPLE 5	BLDG 360, between 355 and 332, back of BLDG 360, left bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
Tom Burger, Associate Chemist

Public Utilities

Environmental Monitoring and Technical Services
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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/4/17

San Diego Unified School District

Linda Vista Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168622	04/28/17	06:11 AM	SAMPLE 1	3710020-BCI-A	< 5	ug/L
W1168623	04/28/17	06:25 AM	SAMPLE 2	3710020-BCI-B	< 5	ug/L
W1168624	04/28/17	06:27 AM	SAMPLE 3	3710020-BCI-C	< 5	ug/L
W1168625	04/28/17	06:20 AM	SAMPLE 4	3710020-BCI-D	< 5	ug/L
W1168626	04/28/17	06:15 AM	SAMPLE 5	3710020-BCI-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Kitchen, east interior wall, faucet at sink
SAMPLE 2	RMs 1-13, North exterior wall across from play structure, lower left bubbler
SAMPLE 3	State Preschool, south exterior of RM 7, dual fountain, left bubbler
SAMPLE 4	RMs 14-22, west exterior wall near flagpole, lower left bubbler
SAMPLE 5	cafeteria, south interior wall near kitchen, lower left bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger

Tom Burger, Associate Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/23/17

San Diego Unified School District

Lindbergh/Schweitzer Elementary East

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1171840	05/13/17	06:46 AM	SAMPLE 1	3710020-BHA-A	< 5	ug/L
W1171841	05/13/17	06:32 AM	SAMPLE 2	3710020-BHA-B	< 5	ug/L
W1171842	05/13/17	06:35 AM	SAMPLE 3	3710020-BHA-C	< 5	ug/L
W1171843	05/13/17	06:39 AM	SAMPLE 4	3710020-BHA-D	< 5	ug/L
W1171844	05/13/17	06:42 AM	SAMPLE 5	3710020-BHA-E	7.98	ug/L

Source	Source Description
SAMPLE 1	Library, East exterior wall of library between RRs, three single bubbler fountains, middle fountain
SAMPLE 2	Auditorium/Cafeteria, South exterior wall next to auditorium/cafeteria door, dual bubbler fountain, left bubbler
SAMPLE 3	Wing 50-58, Interior hallway next to girl's restroom, dual bubbler fountain, right bubbler
SAMPLE 4	Inside room 71, north wall, bubbler on right side of sink
SAMPLE 5	Restroom Bungalow, South exterior side, dual bubbler fountain, right bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/23/17

San Diego Unified School District

Lindbergh/Schweitzer Elementary West

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1171845	05/13/17	06:57 AM	SAMPLE 1	3710020-BHB-A	< 5	ug/L
W1171846	05/13/17	07:01 AM	SAMPLE 2	3710020-BHB-B	< 5	ug/L
W1171847	05/13/17	07:03 AM	SAMPLE 3	3710020-BHB-C	< 5	ug/L
W1171848	05/13/17	07:06 AM	SAMPLE 4	3710020-BHB-D	< 5	ug/L
W1171849	05/13/17	07:10 AM	SAMPLE 5	3710020-BHB-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Kitchen, West interior wall, spray nozzle above 2 compartment sink
SAMPLE 2	Cafeteria/Auditorium, East exterior wall between cafeteria door & assembly door, two single bubbler fountains, right fountain
SAMPLE 3	Classrooms 4-9 bldg, West exterior wall between boys and girls RR, three single bubbler fountains, center fountain
SAMPLE 4	Classrooms 10-14 bldg, North exterior wall between boys and girls RR, dual bubbler fountain, right bubbler
SAMPLE 5	South exterior wall between K-1 & K-2, two single bubbler sink/fountain combos, bubbler on right sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

San Diego Unified School District

Logan K-8

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168363	05/04/17	06:05 AM	SAMPLE 1	3710020-BBD-A	< 5	ug/L
W1168364	05/04/17	06:08 AM	SAMPLE 2	3710020-BBD-B	< 5	ug/L
W1168365	05/04/17	06:11 AM	SAMPLE 3	3710020-BBD-C	< 5	ug/L
W1168366	05/04/17	06:16 AM	SAMPLE 4	3710020-BBD-D	< 5	ug/L
W1168367	05/04/17	06:20 AM	SAMPLE 5	3710020-BBD-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Service Bldg., North wall of Kitchen, Faucet on a single compartment sink
SAMPLE 2	Service Bldg., East wall of Multipurpose room, dual bubbler fountain, right bubbler
SAMPLE 3	Service Bldg., East wall of nurse's office, Faucet on a single compartment sink
SAMPLE 4	Classroom Building, Exterior west wall of southern rr, dual bubbler fountain, right bubbler
SAMPLE 5	portable classrooms/ sport field, south of room B-10, West/lower bubbler on a concrete pedestal double fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/7/17

San Diego Unified School District

Loma Portal Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1173086	05/24/17	05:57 AM	SAMPLE 1	3710020-CAC-A	< 5	ug/L
W1173087	05/24/17	06:00 AM	SAMPLE 2	3710020-CAC-B	< 5	ug/L
W1173088	05/24/17	06:08 AM	SAMPLE 3	3710020-CAC-C	< 5	ug/L
W1173089	05/24/17	06:03 AM	SAMPLE 4	3710020-CAC-D	< 5	ug/L
W1173090	05/24/17	05:53 AM	SAMPLE 5	3710020-CAC-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Office, Wall mounted exterior (West of Bldg), facing lunch court, two single bubbler fountains, upper right fountain
SAMPLE 2	Rooms 3-7, Hallway, next to Boiler Room, facing Classroom 5, single bubbler fountain
SAMPLE 3	Portable Restrooms and B25, Wall mounted exterior (North of Bldg), between Girls and Boys RRs, facing B27, two triple bubbler fountains, right bubbler on right fountain
SAMPLE 4	Kindergarten, Wall mounted exterior (South of Bldg), between K2 and K1, facing Kindergarten playground & tables, triple bubbler fountain, middle bubbler
SAMPLE 5	Portable 32 & Supplies Room, Wall mounted exterior (West of Bldg), facing Playground, two triple bubbler fountains, middle bubbler on left fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/23/17

San Diego Unified School District

Longfellow K-8

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1171835	05/13/17	08:28 AM	SAMPLE 1	3710020-BGJ-A	< 5	ug/L
W1171836	05/13/17	08:14 AM	SAMPLE 2	3710020-BGJ-B	< 5	ug/L
W1171837	05/13/17	08:16 AM	SAMPLE 3	3710020-BGJ-C	< 5	ug/L
W1171838	05/13/17	08:22 AM	SAMPLE 4	3710020-BGJ-D	< 5	ug/L
W1171839	05/13/17	08:25 AM	SAMPLE 5	3710020-BGJ-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Lunch Court Area, East exterior wall next to lunch court, triple bubbler fountain, left bubbler
SAMPLE 2	Kindergarten, Inside room 401 west wall, bubbler at sink
SAMPLE 3	Classrooms 5-8 bldg, South exterior wall close to room 306, single bubbler fountain to the right of dual bubbler
SAMPLE 4	Classrooms 11-16 bldg, East exterior wall next to girl's RR, triple bubbler fountain, right bubbler
SAMPLE 5	Inside bungalow K-3 on south wall, bubbler at sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/8/17

Chula Vista Elementary School District

Los Altos Elementary School

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1171130	05/19/17	06:20 AM	SAMPLE 1	3710020-BHJ-A	< 5	ug/L
W1171131	05/19/17	06:00 AM	SAMPLE 2	3710020-BHJ-B	< 5	ug/L
W1171132	05/19/17	06:10 AM	SAMPLE 3	3710020-BHJ-C	< 5	ug/L
W1171133	05/19/17	06:25 AM	SAMPLE 4	3710020-BHJ-D	< 5	ug/L
W1171134	05/19/17	06:13 AM	SAMPLE 5	3710020-BHJ-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Main BLDG, room 202, bubbler at sink
SAMPLE 2	Main BLDG, room 504, bubbler at sink
SAMPLE 3	Main BLDG, SW upper fountain near RM 405
SAMPLE 4	Main BLDG, NW upper fountain near RM 305
SAMPLE 5	Main BLDG, upper fountain between MPR and library

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/23/17

San Diego Unified School District

Madison High

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1171689	05/13/17	07:37 AM	SAMPLE 1	3710020-BGH-A	< 5	ug/L
W1171690	05/13/17	07:28 AM	SAMPLE 2	3710020-BGH-B	< 5	ug/L
W1171691	05/13/17	07:32 AM	SAMPLE 3	3710020-BGH-C	< 5	ug/L
W1171692	05/13/17	07:40 AM	SAMPLE 4	3710020-BGH-D	< 5	ug/L
W1171693	05/13/17	07:48 AM	SAMPLE 5	3710020-BGH-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Cafeteria/ Kitchen, East Wing/ East Interior Wall, two compartment sink, right faucet over right compartment
SAMPLE 2	Boys Lockeroom/ Sports Complex-Hannon Gym, South Exterior Wall, triple bubbler fountain, right bubbler
SAMPLE 3	Sports Complex/ Hannon Gym, North Wall at Dance Room Entrance, triple bubbler fountain, middle bubbler
SAMPLE 4	400 BLDG, South Exterior Wall at Room 402, triple bubbler fountain, left bubbler
SAMPLE 5	800 BLDG, North Exterior wall at Men's/ Women's RR, two single bubbler fountains, lower left fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/12/17
San Diego Unified School District

Mann Middle School

Sample ID	Sample Date	Sample Time	Description	External ID	Lead	Units
W1164430	04/06/17	06:01 AM	SAMPLE 1	3710020-ABG-A	< 5	ug/L
W1164431	04/06/17	06:06 AM	SAMPLE 2	3710020-ABG-B	6.98	ug/L
W1164432	04/06/17	06:08 AM	SAMPLE 3	3710020-ABG-C	9.31	ug/L
W1164433	04/06/17	06:10 AM	SAMPLE 4	3710020-ABG-D	< 5	ug/L
W1164434	04/06/17	06:18 AM	SAMPLE 5	3710020-ABG-E	< 5	ug/L

SAMPLE 1 BLDG 100, Main Office, far left bubbler (312-1)

SAMPLE 2 Cafeteria BLDG, east side, triple fountain, center bubbler

SAMPLE 3 BLDG 300, next to custodian, single bubbler

SAMPLE 4 Kitchen interior back wall, back sink, faucet

SAMPLE 5 BLDG 600, underneath cover outside, center bubbler

DLR= State Mandated Detection Limit for Reporting (D
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 7/6/17

Sweetwater Union High School District

Mar Vista High School

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1180979	06/30/17	06:17 AM	SAMPLE 1	3710020-CDA-A	< 5	ug/L
W1180980	06/30/17	06:24 AM	SAMPLE 2	3710020-CDA-B	< 5	ug/L
W1180981	06/30/17	06:27 AM	SAMPLE 3	3710020-CDA-C	< 5	ug/L
W1180982	06/30/17	06:32 AM	SAMPLE 4	3710020-CDA-D	< 5	ug/L
W1180983	06/30/17	06:37 AM	SAMPLE 5	3710020-CDA-E	< 5	ug/L

Source	Source Description
SAMPLE 1	100 BLDG, near admin and AP office, two single fountains, upper left fountain
SAMPLE 2	ASB building, exterior east wall, two single fountains, upper right fountain fountain
SAMPLE 3	Cafeteria prep area, west wall under windows, faucet at sink
SAMPLE 4	400 BLDG, near RM 405, dual fixture, right bubbler
SAMPLE 5	New gym, south of campus, two separate single fountains, upper right fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/7/17

San Diego Unified School District

Marcy School

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168786	05/23/17	06:08 AM	SAMPLE 1	3710020-BDF-A	< 5	ug/L
W1168787	05/23/17	06:57 AM	SAMPLE 2	3710020-BDF-B	< 5	ug/L
W1168788	05/23/17	06:55 AM	SAMPLE 3	3710020-BDF-C	< 5	ug/L
W1168789	05/23/17	07:01 AM	SAMPLE 4	3710020-BDF-D	< 5	ug/L
W1168790	05/23/17	06:14 AM	SAMPLE 5	3710020-BDF-E	< 5	ug/L

Source	Source Description
SAMPLE 1	restroom BLDG, west side of campus near Sicard St., upper left bubbler
SAMPLE 2	portable classroom 8, NE corner, bubbler at sink
SAMPLE 3	portable classroom 10, NE corner, bubbler at sink
SAMPLE 4	portable classroom 1, SW corner, bubbler at sink
SAMPLE 5	restroom BLDG, north side of campus near Julian AVE, lower right bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

San Diego Unified School District

Marshall Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1169414	05/06/17	08:44 AM	SAMPLE 1	3710020-AJC-A	< 5	ug/L
W1169415	05/06/17	08:41 AM	SAMPLE 2	3710020-AJC-B	< 5	ug/L
W1169416	05/06/17	08:48 AM	SAMPLE 3	3710020-AJC-C	< 5	ug/L
W1169417	05/06/17	08:50 AM	SAMPLE 4	3710020-AJC-D	< 5	ug/L
W1169418	05/06/17	08:54 AM	SAMPLE 5	3710020-AJC-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Kindergarten Building, Room K-1 Interior, Bubbler on faucet
SAMPLE 2	200 Building, Outside of RRs near room 201, dual bubbler fountain, left bubbler
SAMPLE 3	300 building, Outside of RRs near room 309, dual bubbler fountain, right bubbler
SAMPLE 4	Portable RRs near T-1, Middle of upper yard area, triple bubbler fountain, center bubbler
SAMPLE 5	Bungalow Building, South end of lower yard, triple bubbler fountain, center bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/4/17

San Diego Unified School District

Marshall Middle

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1169333	04/29/17	05:42 AM	SAMPLE 1	3710020-BCJ-A	< 5	ug/L
W1169334	04/29/17	05:37 AM	SAMPLE 2	3710020-BCJ-B	< 5	ug/L
W1169335	04/29/17	05:47 AM	SAMPLE 3	3710020-BCJ-C	< 5	ug/L
W1169336	04/29/17	05:50 AM	SAMPLE 4	3710020-BCJ-D	< 5	ug/L
W1169337	04/29/17	05:53 AM	SAMPLE 5	3710020-BCJ-E	< 5	ug/L

Source	Source Description
SAMPLE 1	PE building, Boys end, between boys & girls RR, two single bubbler fountains, lower right fountain
SAMPLE 2	Multi-Purpose Room, outside between boys & girls RR, two single bubbler fountains, upper right fountain
SAMPLE 3	Building C, Outside lower floor east wall, two single bubbler fountains, upper left fountain
SAMPLE 4	Building A, Outside east wall lowest level, two single bubbler fountains, upper left fountain
SAMPLE 5	Building B, Lowest level east wall, two single bubbler fountains, upper left fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/4/17

San Diego Unified School District

Marshall Middle

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1169333	04/29/17	05:42 AM	SAMPLE 1	3710020-BCJ-A	< 5	ug/L
W1169334	04/29/17	05:37 AM	SAMPLE 2	3710020-BCJ-B	< 5	ug/L
W1169335	04/29/17	05:47 AM	SAMPLE 3	3710020-BCJ-C	< 5	ug/L
W1169336	04/29/17	05:50 AM	SAMPLE 4	3710020-BCJ-D	< 5	ug/L
W1169337	04/29/17	05:53 AM	SAMPLE 5	3710020-BCJ-E	< 5	ug/L

Source	Source Description
SAMPLE 1	PE building, Boys end, between boys & girls RR, two single bubbler fountains, lower right fountain
SAMPLE 2	Multi-Purpose Room, outside between boys & girls RR, two single bubbler fountains, upper right fountain
SAMPLE 3	Building C, Outside lower floor east wall, two single bubbler fountains, upper left fountain
SAMPLE 4	Building A, Outside east wall lowest level, two single bubbler fountains, upper left fountain
SAMPLE 5	Building B, Lowest level east wall, two single bubbler fountains, upper left fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/7/17

San Diego Unified School District

Marston Middle

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1173091	05/23/17	06:19 AM	SAMPLE 1	3710020-CAD-A	< 5	ug/L
W1173092	05/23/17	06:15 AM	SAMPLE 2	3710020-CAD-B	< 5	ug/L
W1173093	05/23/17	06:11 AM	SAMPLE 3	3710020-CAD-C	< 5	ug/L
W1173094	05/23/17	06:08 AM	SAMPLE 4	3710020-CAD-D	< 5	ug/L
W1173095	05/23/17	06:05 AM	SAMPLE 5	3710020-CAD-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Lockeroom 600 Bldg, South Exterior wall, triple bubbler fountain, left bubbler
SAMPLE 2	Lockeroom 600 BLDG/ Hallway, North Facing fountain, two triple bubbler fountains, left bubbler on left fountain
SAMPLE 3	Lockeroom 600 BLDG/ Rm 602, East Facing Exterior Wall, triple bubbler fountain, middle bubbler
SAMPLE 4	Conservatory Terrace, Lunch Court/ East Facing; Exterior Wall Mounted System, two triple bubbler fountains, left bubbler on left fountain
SAMPLE 5	200/ 300 Bldg, Walkway between 200 and 300 BLDG, two triple bubbler fountains, right bubbler on right fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/28/17

San Diego Unified School District

Marvin Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1167335	04/19/17	05:56 AM	SAMPLE 1	3710020-AGA-A	< 5	ug/L
W1167336	04/19/17	06:10 AM	SAMPLE 2	3710020-AGA-B	< 5	ug/L
W1167337	04/19/17	06:07 AM	SAMPLE 3	3710020-AGA-C	< 5	ug/L
W1167338	04/19/17	06:03 AM	SAMPLE 4	3710020-AGA-D	< 5	ug/L
W1167339	04/19/17	05:59 AM	SAMPLE 5	3710020-AGA-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Outside next to lunch court next near kitchen door, 2 dual bubbler fountains, left fixture, right bubbler
SAMPLE 2	Outside near Room #6 between RR & Supply Closet, 2 single bubbler fountains, right fountain
SAMPLE 3	Outside near Room #11 between RR's, 2 dual bubbler fountains, right fountain, left bubbler
SAMPLE 4	Outside bungalow restrooms next to room 19 b, 2 single bubbler fountains, right lower fountain
SAMPLE 5	at wall outside of kinder classrooms near playground, single bubbler drinking fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
Tom Burger, Associate Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/4/17

San Diego Unified School District

Mason Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168398	04/25/17	06:20 AM	SAMPLE 1	3710020-BAJ-A	< 5	ug/L
W1168399	04/25/17	06:00 AM	SAMPLE 2	3710020-BAJ-B	< 5	ug/L
W1168400	04/25/17	06:05 AM	SAMPLE 3	3710020-BAJ-C	< 5	ug/L
W1168401	04/25/17	06:10 AM	SAMPLE 4	3710020-BAJ-D	< 5	ug/L
W1168402	04/25/17	06:15 AM	SAMPLE 5	3710020-BAJ-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Auditorium, Wall mounted exterior (South of Bldg), between Girls RR & door to Auditorium, facing Gate-Staff Parking Lot, two single bubbler fountains, upper right fountain
SAMPLE 2	Kitchen (Auditorium), Wall mounted exterior (West of Kitchen, North of Auditorium) facing lunch court, triple bubbler fountain, right bubbler
SAMPLE 3	500 bldg, Wall mounted exterior (West of Bldg), next to Girls RR, facing 700 Bldg/Portable Classrooms, triple bubbler fountain, left bubbler
SAMPLE 4	400 bldg, Wall mounted exterior (West of Bldg), next to Girls RR, facing Blacktop/Playground, triple bubbler fountain, middle bubbler
SAMPLE 5	300 bldg, Wall mounted exterior (South of Bldg), next to Girls RR, facing Goldcoast Dr, two single bubbler fountains, lower right fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
Tom Burger, Associate Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/28/17

San Diego Unified School District

Mckinley Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1167320	04/19/17	06:05 AM	SAMPLE 1	3710020-AGC-A	9.75	ug/L
W1167321	04/19/17	06:07 AM	SAMPLE 2	3710020-AGC-B	5.92	ug/L
W1167322	04/19/17	06:11 AM	SAMPLE 3	3710020-AGC-C	12.9	ug/L
W1167323	04/19/17	06:20 AM	SAMPLE 4	3710020-AGC-D	< 5	ug/L
W1167324	04/19/17	06:15 AM	SAMPLE 5	3710020-AGC-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Media Center Building (Room #4), Bubbler at sink
SAMPLE 2	Outside Media Center Building (Room #4), one dual bubbler founatin, right bubbler
SAMPLE 3	Outside behind the Media Center at bottom of stairs, blue single bubbler fountain to the left of double bubbler fountain
SAMPLE 4	Outside Rooms 9 and 10 near RR, two single bubbler fountains, upper right fountain
SAMPLE 5	Outside RR's between B21 and B22, two single bubbler fountains, upper right fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/27/17

San Diego Unified School District

Memorial Scholars & Athletes

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1166747	04/14/17	06:27 AM	SAMPLE 1	3710020-AFB-A	< 5	ug/L
W1166748	04/14/17	06:37 AM	SAMPLE 2	3710020-AFB-B	< 5	ug/L
W1166749	04/14/17	06:30 AM	SAMPLE 3	3710020-AFB-C	< 5	ug/L
W1166750	04/14/17	06:42 AM	SAMPLE 4	3710020-AFB-D	< 5	ug/L
W1166751	04/14/17	06:40 AM	SAMPLE 5	3710020-AFB-E	< 5	ug/L

Source	Source Description
SAMPLE 1	King-Chávez Academy Classroom Bldg. 600;N wall;interior swing arm faucet at 2-compartment sink
SAMPLE 2	Exterior south wall of food Service Bldg.;Right bubbler on double fountain
SAMPLE 3	Physical Ed. Bldg. 700; Exterior north wall;Right bubbler on triple fountain
SAMPLE 4	Media Center Bldg. 300; Exterior North wall; Left/lower bubbler of 2 separate single fountains.
SAMPLE 5	Auditorium Bldg. 100; Exterior North wall; : Left bubbler on double fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/18/17

San Diego Unified School District
Millennial Tech Middle

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1165131	04/07/17	05:41 AM	SAMPLE 1	3710020-ACF-A	< 5	ug/L
W1165132	04/07/17	05:43 AM	SAMPLE 2	3710020-ACF-B	< 5	ug/L
W1165133	04/07/17	05:46 AM	SAMPLE 3	3710020-ACF-C	< 5	ug/L
W1165134	04/07/17	05:49 AM	SAMPLE 4	3710020-ACF-D	< 5	ug/L
W1165135	04/07/17	05:52 AM	SAMPLE 5	3710020-ACF-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Center court, east exterior wall, dual fixture, right bubbler (341-01)
SAMPLE 2	Center court, west exterior wall, dual fixture, right bubbler (341-02)
SAMPLE 3	BLDG 200, exterior, next to Room 204, dual fixture, left bubbler (341-03)
SAMPLE 4	BLDG 100, exterior, next to Room 104, dual fixture, right bubbler (341-04)
SAMPLE 5	Main office BLDG, east end, near men's restroom 3, single bubbler (341-05)

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/4/17

San Diego Unified School District

Miller Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168791	04/28/17	05:40 AM	SAMPLE 1	3710020-BCH-A	5.37	ug/L
W1168792	04/28/17	05:45 AM	SAMPLE 2	3710020-BCH-B	< 5	ug/L
W1168793	04/28/17	05:50 AM	SAMPLE 3	3710020-BCH-C	< 5	ug/L
W1168794	04/28/17	05:55 AM	SAMPLE 4	3710020-BCH-D	< 5	ug/L
W1168795	04/28/17	05:40 AM	SAMPLE 5	3710020-BCH-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Main office, nurse's area, faucet at sink
SAMPLE 2	Orange door bldg, south end, triple fountain, left bubbler
SAMPLE 3	Yellow door bldg, north end, triple fountain, left bubbler
SAMPLE 4	cafeteria, two compartment sink w/pulldown srayer and faucet, faucet
SAMPLE 5	Green door bldg, westerly end, triple and single fountains, right bubbler on triple fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/23/17

San Diego Unified School District

Mira Mesa High

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1171674	05/10/17	06:22 AM	SAMPLE 1	3710020-BGF-A	< 5	ug/L
W1171675	05/10/17	06:19 AM	SAMPLE 2	3710020-BGF-B	< 5	ug/L
W1171676	05/10/17	06:14 AM	SAMPLE 3	3710020-BGF-C	< 5	ug/L
W1171677	05/10/17	06:07 AM	SAMPLE 4	3710020-BGF-D	< 5	ug/L
W1171678	05/10/17	06:28 AM	SAMPLE 5	3710020-BGF-E	< 5	ug/L

Source	Source Description
SAMPLE 1	400 bldg, Wall mounted exterior (South of Bldg) and north side of lunch court, between RRs, two single bubble fountains, upper left fountain
SAMPLE 2	400 bldg-Kitchen, Sink in the Prep Kitchen, facing a wash-dedicated sink & walk-in fridge, faucet at single compartment sink
SAMPLE 3	400 bldg, Culinary Classroom 420, sink in the prep kitchen (North of the Room, next to an ice machine, faucet at 2 compartment sink
SAMPLE 4	300 bldg, Wall mounted exterior (South of Bldg), facing Library Media Center & Finance Office, 3 pairs of single bubbler fountains, right pair, lower left fountain
SAMPLE 5	Portable Classrooms 15-11, Wall mounted exterior (West of Bldg), between Girls and Boys RRs, two single bubble fountains, lower left fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/5/17

San Diego Unified School District

Miramar Ranch Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168617	04/27/17	05:31 AM	SAMPLE 1	3710020-BCD-A	< 5	ug/L
W1168618	04/27/17	05:33 AM	SAMPLE 2	3710020-BCD-B	< 5	ug/L
W1168619	04/27/17	05:35 AM	SAMPLE 3	3710020-BCD-C	< 5	ug/L
W1168620	04/27/17	05:37 AM	SAMPLE 4	3710020-BCD-D	< 5	ug/L
W1168621	04/27/17	05:40 AM	SAMPLE 5	3710020-BCD-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Lounge/lunch, south wall, triple fountain, left bubbler
SAMPLE 2	kindergarten, north exterior wall, triple fountain, center bubbler
SAMPLE 3	upper field bugalows, between boys/girls RR, two triple fountains, left fountain, left bubbler
SAMPLE 4	upper kinder area, fountain near TK B-3, double fountain, left bubbler
SAMPLE 5	second floor hallway east end, near girls RR, lower left fountain bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/26/17

San Diego Unified School District

Mission Bay High

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1170233	05/16/17	05:58 AM	SAMPLE 1	3710020-BFE-A	< 5	ug/L
W1170234	05/16/17	06:01 AM	SAMPLE 2	3710020-BFE-B	< 5	ug/L
W1170235	05/16/17	06:06 AM	SAMPLE 3	3710020-BFE-C	< 5	ug/L
W1170236	05/16/17	06:04 AM	SAMPLE 4	3710020-BFE-D	< 5	ug/L
W1170237	05/16/17	06:10 AM	SAMPLE 5	3710020-BFE-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Kitchen, Inside kitchen, North West corner of kitchen, Right set of sinks, faucet at two compartment sink
SAMPLE 2	Cafeteria, Outside of cafeteria north near staff café door, two dual-bubbler fountains, right fountain, right bubbler
SAMPLE 3	Cafeteria, East wall next to tan lunch tables yellow door at right, triple bubbler fountain, left bubbler
SAMPLE 4	200 bldg, Outside hallway Next to #223, dual bubbler fountain, left bubbler
SAMPLE 5	200 bldg, #271 near athletic fields, dual bubbler fountain, left bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/7/17

Mission Bay Montessori

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1174388	05/25/17	06:35 AM	SAMPLE 1	3710020-CBA-A	< 5	ug/L
W1174389	05/25/17	06:30 AM	SAMPLE 2	3710020-CBA-B	< 5	ug/L
W1174390	05/25/17	06:30 AM	SAMPLE 3	3710020-CBA-C	< 5	ug/L
W1174391	05/25/17	06:40 AM	SAMPLE 4	3710020-CBA-D	< 5	ug/L
W1174392	05/25/17	06:45 AM	SAMPLE 5	3710020-CBA-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Kindergarten bldg, North wall of Room K1, bubbler at sink
SAMPLE 2	Kindergarten bldg, Exterior east walkway, triple bubbler fountain, middle bubbler
SAMPLE 3	Cafeteria bldg, Exterior south wall, breezeway between cafeteria and Administration
SAMPLE 4	Northeastern classroom bldg. rooms 7 to 12, Exterior West wall, adjacent to RRs, triple bubbler fountain, middle bubbler
SAMPLE 5	Southeastern classroom bldg. rooms 1 to 6, Exterior East wall Adjacent to RRs, triple bubbler fountain, right bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

San Diego Unified School District

Clark Middle

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168057	05/02/17	05:57 AM	SAMPLE 1	3710020-AJD-A	< 5	ug/L
W1171700	05/06/17	07:51 AM	SAMPLE 2	3710020-AJD-B	< 5	ug/L
W1168059	05/02/17	06:17 AM	SAMPLE 3	3710020-AJD-C	< 5	ug/L
W1171699	05/06/17	07:48 AM	SAMPLE 4	3710020-AJD-D	< 5	ug/L
W1168061	05/02/17	06:13 AM	SAMPLE 5	3710020-AJD-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Kitchen, West side of kitchen near service area, sink faucet in wash sink, sign: "washing sink for fruits and vegetables only"
SAMPLE 2	Main Building, westside of campus, north of library, under stairs near parent center, upper right bubbler
SAMPLE 3	400 / P.E. Building, Exterior drinking fountain on south wall adjacent to racquetball courts, two single bubbler fountains, upper right fountain
SAMPLE 4	200 bldg, 1st floor, northend between RMs 208-208, 2 single buublers, lower left bubbler
SAMPLE 5	200 Buildiing, room 207, sink faucet in center of room

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/23/17

San Diego Unified School District

Montgomery Mddle

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1171727	05/13/17	05:57 AM	SAMPLE 1	3710020-BGI-A	< 5	ug/L
W1171728	05/13/17	06:05 AM	SAMPLE 2	3710020-BGI-B	< 5	ug/L
W1171729	05/13/17	06:08 AM	SAMPLE 3	3710020-BGI-C	< 5	ug/L
W1171730	05/13/17	06:00 AM	SAMPLE 4	3710020-BGI-D	< 5	ug/L
W1171731	05/13/17	06:14 AM	SAMPLE 5	3710020-BGI-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Cafeteria, East face of central room of kitchen, faucet above 2 compartment sink
SAMPLE 2	Auditorium/ 600 Bldg, Exterior north wall, near restrooms, dual bubbler fountain to the right of two single fountains, right bubbler on dual fountain
SAMPLE 3	PE building, Exterior west wall of Boys PE, two single bubbler fountains, lower right fountain
SAMPLE 4	200 Bldg, West wall of first floor hallway, near room 214, single bubbler fountain
SAMPLE 5	100 Bldg, West wall of second floor hallway, near room 160, single bubbler fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 7/6/17

Sweetwater Union High School District

Montgomery Middle SUSD

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1175869	06/16/17	06:10 AM	SAMPLE 1	3710020-BIA-A	6.9	ug/L
W1175870	06/16/17	06:25 AM	SAMPLE 2	3710020-BIA-B	7.43	ug/L
W1175871	06/16/17	06:20 AM	SAMPLE 3	3710020-BIA-C	< 5	ug/L
W1175872	06/16/17	06:15 AM	SAMPLE 4	3710020-BIA-D	< 5	ug/L
W1175873	06/16/17	06:30 AM	SAMPLE 5	3710020-BIA-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Administration building, Nurses office, Faucet at sink
SAMPLE 2	behind Girls PE, dual bubbler fountain, Right bubbler
SAMPLE 3	900 BLDG, Between 500 hallway and RM 903, dual bubbler fountain, Right bubbler
SAMPLE 4	500 BLDG, Between boys and girls RRs, two single bubbler fountains, lower right bubbler
SAMPLE 5	Cafeteria, Left side of range, Faucet

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/18/17

San Diego Unified School District

Morse High School

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1165137	04/07/17	06:11 AM	SAMPLE 1	3710020-ACG-A	< 5	ug/L
W1165138	04/07/17	06:18 AM	SAMPLE 2	3710020-ACG-B	< 5	ug/L
W1165139	04/07/17	06:30 AM	SAMPLE 3	3710020-ACG-C	< 5	ug/L
W1165140	04/07/17	06:24 AM	SAMPLE 4	3710020-ACG-D	< 5	ug/L
W1165141	04/07/17	06:40 AM	SAMPLE 5	3710020-ACG-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Prep kitchen sink, under window, kitchen faucet cold
SAMPLE 2	Auditorium, exterior between boys/girls restroom, facing quad, 3 fountains, left bubbler on dual fixture
SAMPLE 3	BLDG 300, exterior wall, next to girls restroom, facing library/innovation center, left bubbler
SAMPLE 4	Gym, exterior wall, facing covered walkway and courtyard/culinary arts, dual fixture, right bubbler
SAMPLE 5	CDC Room 400, classroom sink, next to Room 402, bubbler at sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/26/17

San Diego Unified School District

Mt. Everest Academy

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1172837	05/17/17	06:08 AM	SAMPLE 1	3710020-BIC-A	< 5	ug/L
W1172838	05/17/17	06:11 AM	SAMPLE 2	3710020-BIC-B	< 5	ug/L
W1172839	05/17/17	06:15 AM	SAMPLE 3	3710020-BIC-C	< 5	ug/L
W1172840	05/17/17	06:02 AM	SAMPLE 4	3710020-BIC-D	< 5	ug/L
W1172841	05/17/17	06:05 AM	SAMPLE 5	3710020-BIC-E	8.88	ug/L

Source	Source Description
SAMPLE 1	Rooms 1-6 bldg, West wall between boys and girls RRs (next to custodial gear locker), two single bubbler fountains, upper left fountain
SAMPLE 2	rooms 7-12 bldg, West wall between unisex restroom and custodial gear locker, two single bubbler fountains, lower left fountain
SAMPLE 3	rooms 7-12 bldg, Inside room 7 southwest corner, bubbler at sink
SAMPLE 4	South wall outside kitchen next to auditorium door, two single bubbler fountains, upper left fountain
SAMPLE 5	rooms 13-14 bldg, two single bubbler fountains, upper right fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/23/17

San Diego Unified School District

Muirlands Middle

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1170238	05/13/17	09:01 AM	SAMPLE 1	3710020-BFF-A	< 5	ug/L
W1170239	05/13/17	08:59 AM	SAMPLE 2	3710020-BFF-B	< 5	ug/L
W1170240	05/13/17	08:57 AM	SAMPLE 3	3710020-BFF-C	< 5	ug/L
W1170241	05/13/17	08:54 AM	SAMPLE 4	3710020-BFF-D	< 5	ug/L
W1170242	05/13/17	08:51 AM	SAMPLE 5	3710020-BFF-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Library, Outside in front of Comp Lab E across from office, dual bubbler fountain, right bubbler
SAMPLE 2	Upper 500 bldg, In hall between boys /girls RRs and lockers, two dual bubbler fountains, left fountain, left bubbler
SAMPLE 3	400 bldg, Outside south hall near restroom and 402-green & blue sign above, triple bubbler fountain, center bubbler
SAMPLE 4	Cafeteria, Inside kitchen next to refrigerator, faucet above two compartment sink
SAMPLE 5	100 bldg, Down stairs left to 100 bldg. between RRs near room 104

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/19/17

South Bay Union School District

George Nicoloff Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1171714	05/09/17	06:25 AM	SAMPLE 1	3710020-AAB-A	< 5	ug/L
W1171715	05/09/17	06:07 AM	SAMPLE 2	3710020-AAB-B	< 5	ug/L
W1171716	05/09/17	06:20 AM	SAMPLE 3	3710020-AAB-C	< 5	ug/L
W1171717	05/09/17	06:09 AM	SAMPLE 4	3710020-AAB-D	< 5	ug/L
W1171718	05/09/17	06:15 AM	SAMPLE 5	3710020-AAB-E	< 5	ug/L

Source	Source Description
SAMPLE 1	BLDG C, in room 37, bubbler at sink
SAMPLE 2	Kitchen next to J bldg, south campus, west wall, faucet at sink
SAMPLE 3	North campus, bldg D, south side on playground, dual fountain, left bubbler
SAMPLE 4	South campus, east wing near girls restroom, two wall mounted single fountains, upper left bubbler
SAMPLE 5	South campus, north wing, kindergarten room K2, bubbler at sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/4/17

San Diego Unified School District

Normal Heights Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168368	04/29/17	07:53 AM	SAMPLE 1	3710020-BBE-A	< 5	ug/L
W1168369	04/29/17	07:55 AM	SAMPLE 2	3710020-BBE-B	< 5	ug/L
W1168370	04/29/17	07:58 AM	SAMPLE 3	3710020-BBE-C	< 5	ug/L
W1168371	04/29/17	08:00 AM	SAMPLE 4	3710020-BBE-D	< 5	ug/L
W1168372	04/29/17	08:03 AM	SAMPLE 5	3710020-BBE-E	< 5	ug/L

Source	Source Description
SAMPLE 1	200 bldg, : Wall mounted exterior (East of Bldg), 1st Floor (Rms 213-203), next to Unisex RR, facing courtyard, two single bubbler fountains, upper left four
SAMPLE 2	300 bldg, Rm 303, classroom sink, bubbler at sink
SAMPLE 3	400 bldg, Wall mounted exterior (South of Bldg), 1st Floor, next to RRs and walkway, facing stairs, two single bubbler fountains, upper left fountain
SAMPLE 4	500 bldg, Wall mounted exterior, 1st Floor, next to Women & Unisex Restrooms and walkway, two single bubbler fountains, upper left fountain
SAMPLE 5	Multipurpose Bldg (Auditorium/Cafeteria), Wall mounted exterior (North of Bldg), next to RRs & Lunch Arbor, two single bubbler fountains, lower right fount

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/19/17

San Diego Unified School District

Porter Elementary North

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1165766	04/11/17	06:00 AM	SAMPLE 1	3710020-ADF-A	< 5	ug/L
W1165767	04/11/17	06:00 AM	SAMPLE 2	3710020-ADF-B	< 5	ug/L
W1165768	04/11/17	06:00 AM	SAMPLE 3	3710020-ADF-C	< 5	ug/L
W1165769	04/11/17	06:00 AM	SAMPLE 4	3710020-ADF-D	< 5	ug/L
W1165770	04/11/17	06:00 AM	SAMPLE 5	3710020-ADF-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Near staff restroom, behind Room N204, exterior fountain between staff restrooms, 2 fountains, left bubbler
SAMPLE 2	Kitchen/cafeteria, prep kitchen single compartment sink, sink faucet
SAMPLE 3	BLDG 600, behind girls/boys restrooms, two fountains, upper left bubbler
SAMPLE 4	BLDG 400, behind restrooms, two fountains, lower right bubbler
SAMPLE 5	BLDG 400, in Room N402, bubbler at sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B Burger
Tom Burger, Associate Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/18/17

San Diego Unified School District

Oak Park Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1164980	04/07/17	06:15 AM	SAMPLE 1	3710020-ACD-A	< 5	ug/L
W1165276	04/08/17	09:17 AM	SAMPLE 2	3710020-ACD-B	< 5	ug/L
W1164982	04/07/17	06:00 AM	SAMPLE 3	3710020-ACD-C	< 5	ug/L
W1164983	04/07/17	06:02 AM	SAMPLE 4	3710020-ACD-D	< 5	ug/L
W1164984	04/07/17	06:08 AM	SAMPLE 5	3710020-ACD-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Kindergarten, Room K-1, bubbler fountain (223-1)
SAMPLE 2	Main BLDG, office hallway, bubbler outside main office (223-2)
SAMPLE 3	Cafeteria, Lunch area, triple fountain, middle bubbler (223-3)
SAMPLE 4	BLDG w/Rooms 15-24, corner near Room 15, left lower bubbler
SAMPLE 5	Bungalow, boys/girls restroom, single upper-right bubbler next to the dual fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
Tom Burger, Associate Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/14/17

Del Mar Union School District

Ocean Air

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1175399	06/06/17	06:32 AM	SAMPLE 1	3710020-CCA-A	< 5	ug/L
W1175400	06/06/17	06:34 AM	SAMPLE 2	3710020-CCA-B	< 5	ug/L
W1175401	06/06/17	06:38 AM	SAMPLE 3	3710020-CCA-C	< 5	ug/L
W1175402	06/06/17	06:40 AM	SAMPLE 4	3710020-CCA-D	< 5	ug/L
W1175403	06/06/17	06:43 AM	SAMPLE 5	3710020-CCA-E	< 5	ug/L

Source	Source Description
SAMPLE 1	South end of 300 wing, two single bubbler fountains, lower right fountain
SAMPLE 2	600 wing, Classroom 601, bubbler at sink
SAMPLE 3	Behind 400 wing in between boys / girls RRs, two single bubbler fountains, upper left fountain
SAMPLE 4	Classroom 701, bubbler at sink
SAMPLE 5	Behind MUR right side, two single bubbler fountains, upper left fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/26/17

San Diego Unified School District

Ocean Beach Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1172393	05/17/17	06:08 AM	SAMPLE 1	3710020-BHF-A	< 5	ug/L
W1172394	05/17/17	06:11 AM	SAMPLE 2	3710020-BHF-B	< 5	ug/L
W1172395	05/17/17	06:15 AM	SAMPLE 3	3710020-BHF-C	< 5	ug/L
W1172396	05/17/17	06:19 AM	SAMPLE 4	3710020-BHF-D	5.31	ug/L
W1172397	05/17/17	06:01 AM	SAMPLE 5	3710020-BHF-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Rms 1-3 bldg, Cafeteria, Sink in the Prep Kitchen, next to Office, facing island prep, kitchen faucet above single compartment sink
SAMPLE 2	Rms 7-8 bldg, Wall mounted exterior (South of Bldg), facing new lunch arbor, two single bubbler fountains, lower left fountain
SAMPLE 3	Rms 2-6 bldg, Wall mounted exterior (South of Bldg), facing tree & blacktop before the old lunch arbor, two single bubbler fountains, lower left fountain
SAMPLE 4	Rms 20-21, classroom sink, between Girls & Boys RRs, dual sinks, bubbler on right sink
SAMPLE 5	Kindergarten, Wall mounted Exterior (West of Bldg), between K1 & K2, facing blacktop/playground, two single bubbler fountains, lower left fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/27/17

San Diego Unified School District

O'Farrell Charter

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1166841	04/15/17	06:15 AM	SAMPLE 1	3710020-AFE-A	< 5	ug/L
W1166842	04/15/17	06:05 AM	SAMPLE 2	3710020-AFE-B	< 5	ug/L
W1166843	04/15/17	06:02 AM	SAMPLE 3	3710020-AFE-C	< 5	ug/L
W1166844	04/15/17	05:57 AM	SAMPLE 4	3710020-AFE-D	< 5	ug/L
W1166845	04/15/17	06:11 AM	SAMPLE 5	3710020-AFE-E	< 5	ug/L

Source	Source Description
SAMPLE 1	BLDG 400, between outside restrooms, upper right bubbler
SAMPLE 2	Cafeteria/staff lounge, triple fountain, middle bubbler
SAMPLE 3	Kitchen, single compartment sink, faucet
SAMPLE 4	BLDG 503 front, outside 3 fountains, middle fountain bubbler
SAMPLE 5	BLDG 300; adjacent to rooms 101 and 102, outside batrooms, upper right bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/8/17

San Diego Unified School District

Pacific Beach Middle

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1170253	05/17/17	06:09 AM	SAMPLE 1	3710020-BFH-A	< 5	ug/L
W1170254	05/17/17	06:02 AM	SAMPLE 2	3710020-BFH-B	< 5	ug/L
W1170255	05/17/17	06:05 AM	SAMPLE 3	3710020-BFH-C	< 5	ug/L
W1170256	05/17/17	06:13 AM	SAMPLE 4	3710020-BFH-D	< 5	ug/L
W1170257	05/17/17	06:17 AM	SAMPLE 5	3710020-BFH-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Office, Outside right side of entrance to main office door, Single bubbler drinking fountain
SAMPLE 2	Kitchen, Inside kitchen, single compartment sink to the left of larger sink, kitchen faucet above sink
SAMPLE 3	Pit /Library, Outside at wall across from Kitchen in Lunch patio area near green door, Single bubbler drinking fountain
SAMPLE 4	100 Bldg. Down Stairs, south side inside building hallway on the right near double door exit, single bubber fountain to the left of dual fountain
SAMPLE 5	Gym- Girls Locker, Outside west end of girls' gym near basketball court, triple bubbler fountain, left bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/26/17

San Diego Unified School District

Pacific Beach Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1170248	05/17/17	06:45 AM	SAMPLE 1	3710020-BFG-A	< 5	ug/L
W1170249	05/17/17	06:42 AM	SAMPLE 2	3710020-BFG-B	< 5	ug/L
W1170250	05/17/17	06:38 AM	SAMPLE 3	3710020-BFG-C	< 5	ug/L
W1170251	05/17/17	06:35 AM	SAMPLE 4	3710020-BFG-D	< 5	ug/L
W1170252	05/17/17	06:30 AM	SAMPLE 5	3710020-BFG-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Kinder Playground, Outside at wall between classrooms K1 & K2, dual fountain, right bubbler
SAMPLE 2	Kindergarten, Inside K-2 at west wall, single bubbler fountain
SAMPLE 3	building with rooms 6,8,& Boys RR, Outside wall near room 6, triple bubbler fountain, left bubbler
SAMPLE 4	Inside room 12 at the sink near the corner by the window, bubbler at sink
SAMPLE 5	Cafeteria / Auditorium Hall, Inside hallway west end next to cafeteria entrance door, two single-bubbler fountains, lower left fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/19/17

San Diego Unified School District

Pacific View Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1165314	04/11/17	06:07 AM	SAMPLE 1	3710020-ADD-A	< 5	ug/L
W1165315	04/11/17	06:10 AM	SAMPLE 2	3710020-ADD-B	< 5	ug/L
W1165316	04/11/17	06:13 AM	SAMPLE 3	3710020-ADD-C	< 5	ug/L
W1165317	04/11/17	06:16 AM	SAMPLE 4	3710020-ADD-D	< 5	ug/L
W1165318	04/11/17	06:19 AM	SAMPLE 5	3710020-ADD-E	< 5	ug/L

Source	Source Description
SAMPLE 1	BLDG 200, kitchen, faucet at 2 compartment sink (171-01)
SAMPLE 2	BLDG 200, exterior west wall, near lunch shelter, 3 fountains, lower left bubbler (171-02)
SAMPLE 3	BLDG 400, extterior north wall, quadruple fountain, right bubbler (171-03)
SAMPLE 4	BLDG 300, exterior west wall, adjacent to restrooms facing playground, triple fountain, right bubbler (171-04)
SAMPLE 5	Restroom T-1, exterior north wall, triple fountain, right bubbler (171-05)

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B Burger
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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/27/17

San Diego Unified School District

Paradise Hills Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1166147	04/13/17	06:05 AM	SAMPLE 1	3710020-AEA-A	< 5	ug/L
W1166148	04/13/17	06:10 AM	SAMPLE 2	3710020-AEA-B	< 5	ug/L
W1166149	04/13/17	06:15 AM	SAMPLE 3	3710020-AEA-C	< 5	ug/L
W1166150	04/13/17	06:15 AM	SAMPLE 4	3710020-AEA-D	< 5	ug/L
W1166151	04/13/17	06:20 AM	SAMPLE 5	3710020-AEA-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Cafeteria, inside kitchen, wall adjacent to parking lot, 2 compartment sink, faucet (229-01)
SAMPLE 2	Admin BLDG, room 2, bubbler at sink (229-02)
SAMPLE 3	Admin BLDG, exterior wall of boys restroom, near supply room, left bubbler on double fountain (229-03)
SAMPLE 4	Admin BLDG, exterior wall of girls restroom, near room 11, right bubbler on triple fountain (229-04))
SAMPLE 5	BLDG 900, exterior of room 8 facing playground, left lower bubbler (229-05)

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 28-Apr-2017

San Diego Unified School District
Henry High School

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1167211	4/18/2017	6:06 AM	SAMPLE 1	3710020-AFG-A	6.34	µg/L
W1167212	4/18/2017	6:18 AM	SAMPLE 2	3710020-AFG-B	< 5	µg/L
W1167213	4/18/2017	6:21 AM	SAMPLE 3	3710020-AFG-C	< 5	µg/L
W1167214	4/18/2017	6:26 AM	SAMPLE 4	3710020-AFG-D	< 5	µg/L
W1167215	4/18/2017	6:37 AM	SAMPLE 5	3710020-AFG-E	< 5	µg/L

Source	Source Description
SAMPLE 1	Auditorium/stage/Prop room;Eastside exterior between custodian 6 door and M RR; L and upper single bubbler of 2 single fountains
SAMPLE 2	East interior wall of Kitchen; 2 compartment sink, faucet
SAMPLE 3	300 bldg. west end, Restrooms; R side lower bubbler of 2 single fountains
SAMPLE 4	100 BLDG; Exterior S Side next to Girl's RR; L lower bubbler of 2 single fountains
SAMPLE 5	PRE-K BUNGALOW B-101; Bubbler water fountain R side of sink inside classroom

DRL=State Mandated Detection Limit for Reporting (DLR)= 5 µg/L
Action Level (AL) = 15 µg/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/27/17

San Diego Unified School District

Penn Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1166093	04/12/17	06:09 AM	SAMPLE 1	3710020-ADJ-A	< 5	ug/L
W1166094	04/12/17	06:15 AM	SAMPLE 2	3710020-ADJ-B	< 5	ug/L
W1166095	04/12/17	06:22 AM	SAMPLE 3	3710020-ADJ-C	< 5	ug/L
W1166096	04/12/17	06:18 AM	SAMPLE 4	3710020-ADJ-D	< 5	ug/L
W1166097	04/12/17	06:26 AM	SAMPLE 5	3710020-ADJ-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Library/multi purpose, Kitchen, faucet at single compartment deep sink, faucet (235-01)
SAMPLE 2	Rooms 02-06 bldg, exterior wall of girls resrroom, facing B-7, triple fountain, left bubbler (235-02)
SAMPLE 3	Portable classrooms, exterior wall at room B-3, two tripple fountains, left bubbler on right triple (235-03)
SAMPLE 4	Rooms 02-05 bldg, exterior wall of girls restroom, facing B-7,triple fountain, right bubbler (235-04)
SAMPLE 5	Rooms 02-04 bldg, exterior wall of girls restroom, facing B-12,triple fountain, left bubbler (235-05)

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/26/17

San Diego Unified School District

Perkins K-8

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1172381	05/16/17	06:02 AM	SAMPLE 1	3710020-BHD-A	< 5	ug/L
W1172382	05/16/17	06:04 AM	SAMPLE 2	3710020-BHD-B	< 5	ug/L
W1172383	05/16/17	06:08 AM	SAMPLE 3	3710020-BHD-C	< 5	ug/L
W1172384	05/16/17	06:16 AM	SAMPLE 4	3710020-BHD-D	< 5	ug/L
W1172385	05/16/17	06:12 AM	SAMPLE 5	3710020-BHD-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Multipurpose Bldg., North wall of kitchen, Faucet on a 2-compartment sink
SAMPLE 2	600 Bldg, Exterior south wall of Room 601, triple bubbler fountain, left bubbler
SAMPLE 3	500 Bldg, Exterior north wall of 1st floor RRs, two single bubbler fountains, lower left fountain
SAMPLE 4	Administration Bldg, South wall of nurse's room, Faucet on a single compartment sink
SAMPLE 5	300 Bldg, Exterior south wall, triple bubbler fountain, middle bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/12/17
San Diego Unified School District

Perry Elementary

Sample ID	Sample Date	Sample Time	Description	External ID	Lead	Units
W1164078	04/04/17	06:09 AM	SAMPLE 1	3710020-AAH-A	< 5	ug/L
W1164079	04/04/17	06:11 AM	SAMPLE 2	3710020-AAH-B	< 5	ug/L
W1164080	04/04/17	06:14 AM	SAMPLE 3	3710020-AAH-C	< 5	ug/L
W1164081	04/04/17	06:18 AM	SAMPLE 4	3710020-AAH-D	< 5	ug/L
W1164082	04/04/17	06:26 AM	SAMPLE 5	3710020-AAH-E	5.14	ug/L

SAMPLE 1 Cafeteria/auditorium bldg, kitchen, 2 compartment sink faucet (237-01)

SAMPLE 2 Cafeteria/auditorium bldg, ext wall near lunch court, lower left bubbler (237-02)

SAMPLE 3 BLDG 3, ext wall near supply room, lower left bubbler (237-03)

SAMPLE 4 BLDG 3, ext wall near girl restroom, right bubbler on right triple fountain (237-04)

SAMPLE 5 BLDG 4, ext wall near girls restroom, right bubbler on triple fountain. (237-05)

DLR= State Mandated Detection Limit for Reporting (DI
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/28/17

San Diego Unified School District

Pershing Middle

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1167330	04/19/17	05:30 AM	SAMPLE 1	3710020-AGD-A	< 5	ug/L
W1167331	04/19/17	05:35 AM	SAMPLE 2	3710020-AGD-B	< 5	ug/L
W1167332	04/19/17	05:37 AM	SAMPLE 3	3710020-AGD-C	< 5	ug/L
W1167333	04/19/17	05:42 AM	SAMPLE 4	3710020-AGD-D	< 5	ug/L
W1167334	04/19/17	05:46 AM	SAMPLE 5	3710020-AGD-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Inside kitchen west wall across from kettles, 3 compartment sink, 2 faucets, left faucet
SAMPLE 2	outside boys' gym across from lunch court near restroom, two single bubbler fountains, upper left fountain
SAMPLE 3	Outside between 1004A -1002B classrooms, two single bubbler fountains, upper left fountain
SAMPLE 4	outside near room 901, two single bubbler fountains, upper left fountain
SAMPLE 5	outside near room 205, two single bubbler fountains, upper left fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/7/17

San Diego Unified School District

Point Loma High

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1174236	05/25/17	06:10 AM	SAMPLE 1	3710020-CAH-A	< 5	ug/L
W1174237	05/25/17	06:12 AM	SAMPLE 2	3710020-CAH-B	< 5	ug/L
W1174238	05/25/17	06:15 AM	SAMPLE 3	3710020-CAH-C	< 5	ug/L
W1174239	05/25/17	06:18 AM	SAMPLE 4	3710020-CAH-D	< 5	ug/L
W1174240	05/25/17	06:19 AM	SAMPLE 5	3710020-CAH-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Math Bldg - 100, 1st Floor, Wall mounted interior (North of Bldg), Hallway, between Men and Women RRs, two single bubbler fountains, upper right fountain
SAMPLE 2	Classroom Bldg - 200, 1st floor, Wall mounted exterior (South of Bldg), between Men and Women RRs, facing stairs and Admin Main Office Bldg, two single bubbler founta
SAMPLE 3	800 Media Center, Wall mounted exterior (North of Bldg), facing Chatsworth Blvd, two single bubbler fountains, upper left fountain
SAMPLE 4	Classroom Bldg - 300, 1st floor, Wall mounted exterior (South of Bldg), next to Boys RR, two single bubbler fountains, lower left fountain
SAMPLE 5	1100, Weight Room, Wall mounted exterior (East of Bldg), Southwest of Football Field, next to Rollup Door, two single bubbler fountains, lower right fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/19/17

San Diego Unified School District

Porter Elementary North

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1165766	04/11/17	06:00 AM	SAMPLE 1	3710020-ADF-A	< 5	ug/L
W1165767	04/11/17	06:00 AM	SAMPLE 2	3710020-ADF-B	< 5	ug/L
W1165768	04/11/17	06:00 AM	SAMPLE 3	3710020-ADF-C	< 5	ug/L
W1165769	04/11/17	06:00 AM	SAMPLE 4	3710020-ADF-D	< 5	ug/L
W1165770	04/11/17	06:00 AM	SAMPLE 5	3710020-ADF-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Near staff restroom, behind Room N204, exterior fountain between staff restrooms, 2 fountains, left bubbler
SAMPLE 2	Kitchen/cafeteria, prep kitchen single compartment sink, sink faucet
SAMPLE 3	BLDG 600, behind girls/boys restrooms, two fountains, upper left bubbler
SAMPLE 4	BLDG 400, behind restrooms, two fountains, lower right bubbler
SAMPLE 5	BLDG 400, in Room N402, bubbler at sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B Burger

Tom Burger, Associate Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/19/17

San Diego Unified School District

Porter Elementary South

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1165294	04/11/17	06:40 AM	SAMPLE 1	3710020-ADE-A	< 5	ug/L
W1165295	04/11/17	06:45 AM	SAMPLE 2	3710020-ADE-B	< 5	ug/L
W1165296	04/11/17	06:47 AM	SAMPLE 3	3710020-ADE-C	< 5	ug/L
W1165297	04/11/17	06:30 AM	SAMPLE 4	3710020-ADE-D	< 5	ug/L
W1165298	04/11/17	06:25 AM	SAMPLE 5	3710020-ADE-E	< 5	ug/L

Source	Source Description
SAMPLE 1	BLDG 400, east end, right lower bubbler
SAMPLE 2	BLDG 500, Room 501, bubbler at sink
SAMPLE 3	BLDG 600 exterior, between 600 and 605, left upper bubbler
SAMPLE 4	BLDG 202, kithchen prep sink, pull down washer
SAMPLE 5	Restroom adjacent (north) of BLDG 200, exterior back, left upper bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom Burger, Associate Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/26/17

San Diego Unified School District

Riley/New Dawn

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1169370	05/17/17	06:14 AM	SAMPLE 1	3710020-BDH-A	< 5	ug/L
W1169371	05/17/17	06:10 AM	SAMPLE 2	3710020-BDH-B	< 5	ug/L
W1169372	05/17/17	06:18 AM	SAMPLE 3	3710020-BDH-C	< 5	ug/L
W1169373	05/17/17	06:22 AM	SAMPLE 4	3710020-BDH-D	< 5	ug/L
W1169374	05/17/17	06:28 AM	SAMPLE 5	3710020-BDH-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Administration bldg, Kitchen (south side of kitchen near storage room), faucet above 2 compartment sink
SAMPLE 2	Administration building, Outside of auditorium facing lunch court (north), two single-bubbler fountains, upper right fountain
SAMPLE 3	Kinder bldg, Exterior west wall outside room 17, triple bubbler fountain, middle bubbler
SAMPLE 4	Classroom bldg C, Exterior wall northwest side outside room 16, triple bubbler fountain, left bubbler
SAMPLE 5	New Dawn main office, Interior south wall of teacher workroom in admin portable, faucet at sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/27/17

San Diego Unified School District

Rodriguez Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1166700	04/14/17	06:05 AM	SAMPLE 1	3710020-AEH-A	< 5	ug/L
W1166701	04/14/17	06:00 AM	SAMPLE 2	3710020-AEH-B	< 5	ug/L
W1166702	04/14/17	06:12 AM	SAMPLE 3	3710020-AEH-C	< 5	ug/L
W1166703	04/14/17	06:10 AM	SAMPLE 4	3710020-AEH-D	< 5	ug/L
W1166704	04/14/17	06:17 AM	SAMPLE 5	3710020-AEH-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Auditorium/Cafeteria Bldg. 800; S Wall in Kitchen; single faucet on single compartment sink
SAMPLE 2	Auditorium/Cafeteria Bldg. 800;Exterior north wall; Lower Left-side bubbler of 3 separate single fountains
SAMPLE 3	Bldg. 500;Exterior West wall of 1st floor girls restrooms;Left lower Bubbler of 3 separate single fountains
SAMPLE 4	Lower Playground;NE of room 506; East/Lower Bubbler on a concrete pedestal double fountain
SAMPLE 5	Playground;S of room 302;West/Lower Bubbler on a metallic pedestal triple fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom Burger, Associate Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/12/17

San Diego Unified School District

Rolando Park Elementary

Sample ID	Sample Date	Sample Time	Description	External ID	Lead	Units
W1164183	04/05/17	05:33 AM	SAMPLE 1	3710020-ABD-A	< 5	ug/L
W1164184	04/05/17	05:37 AM	SAMPLE 2	3710020-ABD-B	< 5	ug/L
W1164185	04/05/17	05:40 AM	SAMPLE 3	3710020-ABD-C	< 5	ug/L
W1164186	04/05/17	05:43 AM	SAMPLE 4	3710020-ABD-D	< 5	ug/L
W1164187	04/05/17	05:48 AM	SAMPLE 5	3710020-ABD-E	< 5	ug/L

SAMPLE 1 BLDG w/rooms 21-26, outside staff restroom, left bubbler

SAMPLE 2 Outside cafeteria, facing playground, right bubbler

SAMPLE 3 between student/staff restroom bldg, right bubbler

SAMPLE 4 student/staff restroom bldg, under cover walkway, right bubbler

SAMPLE 5 Kindergarten area, outside K-1 and K-2, single bubbler

DLR= State Mandated Detection Limit for Reporting (DL
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 28-Apr-2017

San Diego Unified School District
Roosevelt International Middle School

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1167414	4/20/2017	6:10 AM	SAMPLE 1	3710020-AGH-A	< 5	µg/L
W1167415	4/20/2017	6:15 AM	SAMPLE 2	3710020-AGH-B	< 5	µg/L
W1167416	4/20/2017	6:17 AM	SAMPLE 3	3710020-AGH-C	< 5	µg/L
W1167417	4/20/2017	6:22 AM	SAMPLE 4	3710020-AGH-D	< 5	µg/L
W1167418	4/20/2017	6:29 AM	SAMPLE 5	3710020-AGH-E	< 5	µg/L

Source	Source Description
SAMPLE 1	South side exterior next to B7, dual bubbler fountain, right bubbler
SAMPLE 2	800 Building, East side exterior between bulletin board and door, triple bubbler fountain, middle bubbler
SAMPLE 3	Lunch Court, South wall next to lunch court, two single bubbler fountains, lower right fountain
SAMPLE 4	Physical Education Building (400 building), South exterior wall next to boy's locker room, quadruple bubbler fountain, far left bubbler
SAMPLE 5	100 Building, West exterior wall between boys' and girls' restroom, triple bubbler fountain, left bubbler

DRL=State Mandated Detection Limit for Reporting (DLR)= 5 µg/L
Action Level (AL) = 15 µg/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

San Diego Unified School District

Rosa Parks Elementary School

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1163947	05/05/17	05:42 AM	SAMPLE 1	3710020-AAF-A	< 5	ug/L
W1163948	05/05/17	05:40 AM	SAMPLE 2	3710020-AAF-B	< 5	ug/L
W1163949	05/05/17	05:48 AM	SAMPLE 3	3710020-AAF-C	< 5	ug/L
W1163950	05/05/17	05:45 AM	SAMPLE 4	3710020-AAF-D	< 5	ug/L
W1171378	05/06/17	07:36 AM	SAMPLE 5	3710020-AAF-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Cafeteria, wall mounted exterior, lunch court, near boys rest room, east wall, left bubbler (230-01)
SAMPLE 2	Lunch court, storage area 3, west wall, right bubbler (230-02)
SAMPLE 3	Kindergarten area @ room 1, (230-03)
SAMPLE 4	BLDG 500, East wall under 506-509 signage, right bubbler
SAMPLE 5	Cafeteria, food prep area, sink swing arm (230-05)

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/5/17

San Diego Unified School District

Ross Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168766	04/27/17	05:55 AM	SAMPLE 1	3710020-BCE-A	< 5	ug/L
W1168767	04/27/17	05:59 AM	SAMPLE 2	3710020-BCE-B	< 5	ug/L
W1168768	04/27/17	06:01 AM	SAMPLE 3	3710020-BCE-C	< 5	ug/L
W1168769	04/27/17	06:04 AM	SAMPLE 4	3710020-BCE-D	< 5	ug/L
W1168770	04/27/17	06:10 AM	SAMPLE 5	3710020-BCE-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Kitchen south wall, spray faucet at single compartment sink
SAMPLE 2	Auditorium/cafeteria, north exterior wall, triple drinking fountain, right bubbler
SAMPLE 3	BLDG 1-6, exterior east wall, three single fountains, lowest left bubbler
SAMPLE 4	BLDG 7-12, exterior east wall, three single fountains, lowest left bubbler
SAMPLE 5	Admin/kindergarten bldg, exterior south wall, left lower bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/18/17

San Diego Unified School District

Rowan Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1165055	04/07/17	06:02 AM	SAMPLE 1	3710020-ACE-A	< 5	ug/L
W1165056	04/07/17	06:14 AM	SAMPLE 2	3710020-ACE-B	< 5	ug/L
W1165057	04/07/17	06:08 AM	SAMPLE 3	3710020-ACE-C	< 5	ug/L
W1165058	04/07/17	06:20 AM	SAMPLE 4	3710020-ACE-D	< 5	ug/L
W1165059	04/07/17	06:25 AM	SAMPLE 5	3710020-ACE-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Auditorium exterior, fountain near door, lower left bubbler.
SAMPLE 2	BLDG 1, exterior next to Room 4, triple fountain, left bubbler
SAMPLE 3	BLDG 2, exterior next to Room 8, triple fountain, left bubbler
SAMPLE 4	PAL/Library, exterior, left of parent/teacher door, right fountain, single bubbler
SAMPLE 5	BLDG 2, in Room 8, bubbler at sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B Burger
Tom Burger, Associate Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/14/17

Del Mar Union School District

Sage Canyon

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1175404	06/06/17	06:06 AM	SAMPLE 1	3710020-CCB-A	< 5	ug/L
W1175405	06/06/17	06:09 AM	SAMPLE 2	3710020-CCB-B	< 5	ug/L
W1175406	06/06/17	06:13 AM	SAMPLE 3	3710020-CCB-C	< 5	ug/L
W1175407	06/06/17	06:16 AM	SAMPLE 4	3710020-CCB-D	< 5	ug/L
W1175408	06/06/17	06:18 AM	SAMPLE 5	3710020-CCB-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Childcare, Sink in childcare room A / B, bubbler at sink
SAMPLE 2	200 wing, classroom 201 (kindergarten), bubbler at sink
SAMPLE 3	400 wing, Sink in hallway across from classroom 405, bubbler at sink
SAMPLE 4	north end of 300 wing, two single bubbler fountains on pedistal, lower left bubbler when facing wall
SAMPLE 5	MUR, Drinking fountain behind MUR by boys restroom, two single bubbler fountains, upper right fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/23/17

San Diego Unified School District

San Diego Cooperative Charter

Linda Vista Campus

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1171645	05/09/17	06:07 AM	SAMPLE 1	3710020-BGE-A	< 5	ug/L
W1171646	05/09/17	06:10 AM	SAMPLE 2	3710020-BGE-B	6.06	ug/L
W1171647	05/09/17	06:13 AM	SAMPLE 3	3710020-BGE-C	< 5	ug/L
W1171648	05/09/17	06:17 AM	SAMPLE 4	3710020-BGE-D	< 5	ug/L
W1171649	05/09/17	06:22 AM	SAMPLE 5	3710020-BGE-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Auditorium Bldg, Interior North wall, two single bubbler fountains left of sink, upper right fountain
SAMPLE 2	Auditorium Bldg, Exterior North wall, single bubbler fountain
SAMPLE 3	Elementary Classrooms Bldg, Exterior East wall, adjacent to RRs, dual bubbler fountain left of triple bubbler, left bubbler on dual fountain
SAMPLE 4	Middle School Bldg., Exterior North wall, adjacent to RRs, facing Genesee Ave, two single bubbler fountains to the right of triple bubbler, lower left single bubbler f
SAMPLE 5	Administration Bldg, East wall inside room K-2, bubbler on sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services

Lead School Testing

Report Date: 28-Apr-2017

San Diego Unified School District

San Diego High School

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1167436	4/20/2017	6:24 AM	SAMPLE 1	3710020-AHE-A	< 5	µg/L
W1167437	4/20/2017	6:26 AM	SAMPLE 2	3710020-AHE-B	< 5	µg/L
W1167438	4/20/2017	6:06 AM	SAMPLE 3	3710020-AHE-C	< 5	µg/L
W1167439	4/20/2017	6:18 AM	SAMPLE 4	3710020-AHE-D	< 5	µg/L
W1167440	4/20/2017	6:10 AM	SAMPLE 5	3710020-AHE-E	< 5	µg/L

Source	Source Description
SAMPLE 1	100 Building, Inside Culinary Arts Classroom 114 across from range, faucet on single compartment sink
SAMPLE 2	100 Building, East exterior wall next to Business Center door, two single bubbler fountains, lower right fountain
SAMPLE 3	200 Building, South exterior wall between boy's locker room and gymnasium doors, triple bubbler fountain, left bubbler
SAMPLE 4	1100 Building, Inside corridor west wall next to room 1105, two single bubbler fountains, lower right fountain
SAMPLE 5	900 Building, South exterior wall next to room 901, two single bubbler fountains, lower left fountain

DRL=State Mandated Detection Limit for Reporting (DLR)= 5 µg/L

Action Level (AL) = 15 µg/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 28-Apr-2017

San Diego Unified School District
San Diego Global Vision Academy

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1167446	4/20/2017	5:59 AM	SAMPLE 1	3710020-AHF-A	< 5	µg/L
W1167447	4/20/2017	6:01 AM	SAMPLE 2	3710020-AHF-B	< 5	µg/L
W1167448	4/20/2017	6:03 AM	SAMPLE 3	3710020-AHF-C	< 5	µg/L
W1167449	4/20/2017	6:05 AM	SAMPLE 4	3710020-AHF-D	< 5	µg/L
W1167450	4/20/2017	5:53 AM	SAMPLE 5	3710020-AHF-E	< 5	µg/L

Source	Source Description
SAMPLE 1	Room 102, bubbler at classroom sink/faucet with push button cap
SAMPLE 2	Room 104, bubbler at classroom sink/faucet with push button cap
SAMPLE 3	Room 105, bubbler at classroom sink/faucet with push button cap
SAMPLE 4	Room 107, bubbler at classroom sink/faucet with push button cap
SAMPLE 5	Exterior, near grass area by 35th Street, floor mounted cement stand with two single bubbler fountains, upper fountain

DRL=State Mandated Detection Limit for Reporting (DLR)= 5 µg/L
Action Level (AL) = 15 µg/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/4/17

San Diego Unified School District
Sandburg Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168393	04/25/17	06:05 AM	SAMPLE 1	3710020-BAI-A	< 5	ug/L
W1168394	04/25/17	06:10 AM	SAMPLE 2	3710020-BAI-B	< 5	ug/L
W1168395	04/25/17	06:15 AM	SAMPLE 3	3710020-BAI-C	< 5	ug/L
W1168396	04/25/17	06:18 AM	SAMPLE 4	3710020-BAI-D	< 5	ug/L
W1168397	04/25/17	06:20 AM	SAMPLE 5	3710020-BAI-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Multipurpose Room, Wall mounted exterior (South of Bldg), between Auditorium Door & Girls' RR, facing Office, two single bubbler fountains, upper right fountain
SAMPLE 2	Cafeteria & Kitchen, Wall mounted exterior (West of Kitchen, North of Cafeteria), facing lunch court, triple bubbler fountain, right bubbler
SAMPLE 3	400 bldg, Wall mounted exterior (West of Bldg), facing fence & field, next to Girls RR, triple bubbler fountain, middle bubbler
SAMPLE 4	Portable Classrooms, Wall mounted exterior (West of Bldg), between Girls & Boys RR, facing Blacktop, two triple bubbler fountains, left fountain, right bubbler
SAMPLE 5	300 bldg, Wall mounted exterior (South of Bldg), next to Girls rr, facing Kinder Playground, triple bubbler fountain, left bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger

Tom Burger, Associate Chemist

Public Utilities

Environmental Monitoring and Technical Services
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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/7/17

San Diego French-American School

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1174503	05/26/17	06:15 AM	SAMPLE 1	3710020-CBD-A	< 5	ug/L
W1174504	05/26/17	06:17 AM	SAMPLE 2	3710020-CBD-B	< 5	ug/L
W1174505	05/26/17	06:19 AM	SAMPLE 3	3710020-CBD-C	< 5	ug/L
W1174506	05/26/17	06:21 AM	SAMPLE 4	3710020-CBD-D	< 5	ug/L
W1174507	05/26/17	06:25 AM	SAMPLE 5	3710020-CBD-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Bldg. 1, Exterior South wall, adjacent to RRs, two single bubbler fountains, lower right fountain
SAMPLE 2	Bldg. 1, Exterior North wall, adjacent to RRs, two single bubbler fountains, upper left fountain
SAMPLE 3	Bldg. 1, Exterior North wall, adjacent to RRs, two single bubbler fountains, lower right fountain
SAMPLE 4	Multi-purpose room, Exterior South wall, two single bubbler fountains, lower right fountain
SAMPLE 5	Bldg. 4, Exterior East wall, two single bubbler fountains, lower right fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/27/17

San Diego Unified School District
San Diego SCPA

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1166155	04/13/17	06:00 AM	SAMPLE 1	3710020-AEB-A	< 5	ug/L
W1166156	04/13/17	06:04 AM	SAMPLE 2	3710020-AEB-B	< 5	ug/L
W1166157	04/13/17	06:08 AM	SAMPLE 3	3710020-AEB-C	< 5	ug/L
W1166158	04/13/17	06:12 AM	SAMPLE 4	3710020-AEB-D	< 5	ug/L
W1166159	04/13/17	06:15 AM	SAMPLE 5	3710020-AEB-E	< 5	ug/L

Source	Source Description
SAMPLE 1	BLDG 700 Cafeteria, in kitchen, north wall, single compartment sink faucet (368-01)
SAMPLE 2	BLDG 600 PE exterior north wall, triple fountain, right bubbler (368-02)
SAMPLE 3	BLDG 400, north of room 401, free standing concrete pedestal, single bubbler (368-03)
SAMPLE 4	BLDG 200, northwest wall, lower right bubbler (368-04)
SAMPLE 5	Admin bldg A, east of finance office,free standing concrete pedestal, single bubbler (368-05)

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

Environmental Monitoring and Technical Services
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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/4/17

San Diego Unified School District

Scripps Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168607	04/28/17	06:01 AM	SAMPLE 1	3710020-BCB-A	< 5	ug/L
W1168608	04/28/17	06:03 AM	SAMPLE 2	3710020-BCB-B	< 5	ug/L
W1168609	04/28/17	06:08 AM	SAMPLE 3	3710020-BCB-C	< 5	ug/L
W1168610	04/28/17	06:11 AM	SAMPLE 4	3710020-BCB-D	< 5	ug/L
W1168611	04/28/17	06:13 AM	SAMPLE 5	3710020-BCB-E	< 5	ug/L

Source	Source Description
SAMPLE 1	300 bldg, Down stairs hallway near custodian door 2 & girls /boys RRs, two single bubbler fountains, lower right fountain
SAMPLE 2	300 bldg, Down stairs between 306 & RR, two single bubbler fountains, lower right fountain
SAMPLE 3	Lunch Court yard-Restrooms, south end of lunch court, two single bubbler fountains, upper left fountain
SAMPLE 4	300 bldg, Up Stairs, near 356, two single bubbler fountains, lower right fountain
SAMPLE 5	300 bldg, Up Stairs, next to boys /girls RR & custodian door #3, two single bubbler fountains, lower left fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger

Tom Burger, Associate Chemist

Public Utilities

Environmental Monitoring and Technical Services
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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/5/17

San Diego Unified School District

Scripps Ranch High

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168556	04/26/17	05:52 AM	SAMPLE 1	3710020-BBG-A	< 5	ug/L
W1168557	04/26/17	05:57 AM	SAMPLE 2	3710020-BBG-B	< 5	ug/L
W1168558	04/26/17	06:01 AM	SAMPLE 3	3710020-BBG-C	< 5	ug/L
W1168559	04/26/17	06:07 AM	SAMPLE 4	3710020-BBG-D	< 5	ug/L
W1168560	04/26/17	06:11 AM	SAMPLE 5	3710020-BBG-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Food Services Building, Inside west wall next to reverse osmosis water cylinder, single water kitchen faucet at single sink for food prep
SAMPLE 2	Gym, Inside lower floor Right side near staircase and men's restroom, three single-bubbler fountains, middle fountain
SAMPLE 3	Gym, Inside lower floor Left side near staircase and women's restroom, three single-bubbler fountains, left fountain
SAMPLE 4	400 bldg, Lower floor hallway next to men's restroom and near rm# 413, Single bubbler drinking fountain
SAMPLE 5	500 bldg, Lower Floor hallway between women's & men's RRs, same hall as no.4, Single bubbler drinking fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

Environmental Monitoring and Technical Services
Water Quality Laboratory
ELAP Cert. 1058

City of San Diego
Water Quality Chemistry Services
Lead School Testing
March 13, 2017

Sample Date	Location	Sampling Site	State ID	CSD Sample ID	Units	Value	DLR
7-Mar-17	SDUSD SD COOP CHARTER #2	Room 128, bubbler in sink	3710020-AAD-B	W1158856	UG/L	38.6	5
7-Mar-17	SDUSD SD COOP CHARTER #2	Room 127, bubbler in sink	3710020-AAD-A	W1158855	UG/L	22.0	5
7-Mar-17	SDUSD SD COOP CHARTER #2	Room 130, bubbler in sink	3710020-AAD-E	W1158859	UG/L	<DLR	5
7-Mar-17	SDUSD SD COOP CHARTER #2	Room 129, bubbler in sink	3710020-AAD-D	W1158858	UG/L	<DLR	5
7-Mar-17	SDUSD SD COOP CHARTER #2	Room 132, bubbler in sink	3710020-AAD-C	W1158857	UG/L	<DLR	5
3-Mar-17	Emerson Elementary	Inside room 106, back right corner sink, drinking bubbler	3710020-AAC-D	W1158863	UG/L	<DLR	5
7-Mar-17	Emerson Elementary	Cafateria sink, near back left corner, pull down pot filler	3710020-AAC-B	W1159031	UG/L	<DLR	5
3-Mar-17	Emerson Elementary	Near room 115, between restrooms, right bubbler on double fountain	3710020-AAC-C	W1158862	UG/L	29.0	5
3-Mar-17	Emerson Elementary	Health Office, sink, faucet	3710020-AAC-A	W1158860	UG/L	<DLR	5
3-Mar-17	Emerson Elementary	Outside, right of room 107 between restrooms, drinking fountain, left bubbler	3710020-AAC-E	W1158864	UG/L	<DLR	5

DLR= State Mandated Detection Limit for Reporting
Action Level = 15 UG/L

Tom B Burger

Tom Burger, Associate Chemist

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Public Utilities

City of San Diego
Water Quality Chemistry Services
Lead School Testing
Report Date: 4/12/17

San Diego Unified School District

San Diego Cooperative Charter 2 South Campus

Sample Date	Sample Time	Sample Site	Sample ID	State ID	Lead UG/L
5-Apr-17	631	Room 127, bubbler in sink - after remediation	W1164296	3710020-AAD-A	<5
5-Apr-17	634	Room 128, bubbler in sink - after remediation	W1164295	3710020-AAD-B	6.42

DLR= State Mandated Detection Limit for Reporting (DLR) = 5 UG/L
Action Level (AL) = 15 UG/L

Doug Campbell, Senior Chemist

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 5/26/17

San Diego Unified School District

Sequoia Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1172862	05/18/17	05:58 AM	SAMPLE 1	3710020-BIE-A	< 5	ug/L
W1172863	05/18/17	06:03 AM	SAMPLE 2	3710020-BIE-B	< 5	ug/L
W1172864	05/18/17	06:05 AM	SAMPLE 3	3710020-BIE-C	< 5	ug/L
W1172865	05/18/17	06:10 AM	SAMPLE 4	3710020-BIE-D	< 5	ug/L
W1172866	05/18/17	06:12 AM	SAMPLE 5	3710020-BIE-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Kindergarten, East exterior wall between K-1 & K-2, single bubbler fountain
SAMPLE 2	Lunch Court, South exterior wall next to lunch court, triple bubbler fountain, middle bubbler
SAMPLE 3	Kitchen, South interior wall, spray nozzle at two compartment sink
SAMPLE 4	Classrooms 1-6 bldg, South exterior wall near restroom, triple bubbler fountain, left bubbler
SAMPLE 5	Classrooms 7-12 bldg, South exterior wall next to boy's restroom, triple bubbler fountain, left bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/4/17

San Diego Unified School District

Serra High

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1169348	04/29/17	06:13 AM	SAMPLE 1	3710020-BDC-A	< 5	ug/L
W1169349	04/29/17	06:17 AM	SAMPLE 2	3710020-BDC-B	< 5	ug/L
W1169350	04/29/17	06:19 AM	SAMPLE 3	3710020-BDC-C	< 5	ug/L
W1169351	04/29/17	06:24 AM	SAMPLE 4	3710020-BDC-D	< 5	ug/L
W1169352	04/29/17	06:28 AM	SAMPLE 5	3710020-BDC-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Main Office/ Building 1, South end of office hallway between RRs, single bubbler fountain
SAMPLE 2	Building 2, Near rooms 213 and RRs, single bubbler fountain
SAMPLE 3	Building 3 or 300 building, Outside North end near room 301, right triple bubbler fountain, middle bubbler
SAMPLE 4	Building 4 or 400 building, Inside hallway near room 411 next to RRs, two single-bubbler fountains, left fountain
SAMPLE 5	inside Kitchen near lunch court, Located on kitchen island, faucet above single compartment sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/26/17

San Diego Unified School District

Sessions Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1172867	05/18/17	05:55 AM	SAMPLE 1	3710020-BIF-A	< 5	ug/L
W1172868	05/18/17	06:00 AM	SAMPLE 2	3710020-BIF-B	< 5	ug/L
W1172869	05/18/17	06:00 AM	SAMPLE 3	3710020-BIF-C	< 5	ug/L
W1172870	05/18/17	06:05 AM	SAMPLE 4	3710020-BIF-D	< 5	ug/L
W1172871	05/18/17	06:05 AM	SAMPLE 5	3710020-BIF-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Cafeteria, Inside Kitchen under window has red counter, Standard Kitchen faucet
SAMPLE 2	Auditorium, Outside near Auditorium door at wall near lunch court, triple bubbler fountain, left bubbler
SAMPLE 3	Pre-School-Kindergarten bldg, Inside # 20 at handwashing sink near restroom, two sinks, bubbler on left sink
SAMPLE 4	Rooms 1-6 bldg, Outside North end near playground has ocean painting on wall, triple bubbler fountain, middle bubbler
SAMPLE 5	Rooms 15-18-PSY Speech bldg, North end close to room Related Specialized Services & RRs, triple bubbler fountain, right bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 28-Apr-2017

San Diego Unified School District
Sherman Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1167419	4/20/2017	6:02 AM	SAMPLE 1	3710020-AGI-A	< 5	µg/L
W1167420	4/20/2017	6:07 AM	SAMPLE 2	3710020-AGI-B	< 5	µg/L
W1167421	4/20/2017	6:13 AM	SAMPLE 3	3710020-AGI-C	< 5	µg/L
W1167422	4/20/2017	6:16 AM	SAMPLE 4	3710020-AGI-D	< 5	µg/L
W1167423	4/20/2017	6:21 AM	SAMPLE 5	3710020-AGI-E	< 5	µg/L

Source	Source Description
SAMPLE 1	Kinder play area outside of room #3, three single bubbler fountains, middle fountain
SAMPLE 2	outside in lunch area, three single bubbler fountains, right fountain
SAMPLE 3	Outside of room #12 left of boys RR, three single bubbler fountains, right fountain
SAMPLE 4	Outside of room #28 left of boys RR, three single bubbler fountains, middle fountain
SAMPLE 5	Outside of room # 21 (second floor), three single bubbler fountains, middle fountain

DRL=State Mandated Detection Limit for Reporting (DLR)= 5 µg/L
Action Level (AL) = 15 µg/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/26/17

San Diego Unified School District

Silver Gate Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1172872	05/18/17	06:08 AM	SAMPLE 1	3710020-BIG-A	< 5	ug/L
W1172873	05/18/17	06:06 AM	SAMPLE 2	3710020-BIG-B	< 5	ug/L
W1172874	05/18/17	06:03 AM	SAMPLE 3	3710020-BIG-C	< 5	ug/L
W1172875	05/18/17	06:15 AM	SAMPLE 4	3710020-BIG-D	< 5	ug/L
W1172876	05/18/17	06:12 AM	SAMPLE 5	3710020-BIG-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Cafeteria, Wall mounted interior (East of the Room) Sink/faucet facing Dining Area, between Kitchen & conference CC2, bubbler on right side of tile sink basin
SAMPLE 2	building #1, Wall mounted exterior (North of Bldg), facing Lunch Arbor, two single bubbler fountains, upper right fountain
SAMPLE 3	building #1, Wall mounted exterior (West of Bldg), between Storage Rm & Corridor, facing blacktop, triple bubbler fountain, left bubbler
SAMPLE 4	building #3, Wall mounted exterior (South of Bldg), between Custodian Locker Rm & Girls' RR, facing blacktop/playground, triple bubbler fountain, left bubbler
SAMPLE 5	building #2, Wall mounted exterior (East of Bldg), between Storage Rm & Corridor, facing Library Bldg, triple bubbler fountain, right bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 7/6/17

Sweetwater Union High School District

Southwest Senior High

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1175864	06/30/17	05:35 AM	SAMPLE 1	3710020-CCE-A	< 5	ug/L
W1175865	06/30/17	05:42 AM	SAMPLE 2	3710020-CCE-B	< 5	ug/L
W1175866	06/30/17	05:45 AM	SAMPLE 3	3710020-CCE-C	< 5	ug/L
W1175867	06/30/17	05:48 AM	SAMPLE 4	3710020-CCE-D	< 5	ug/L

Source	Source Description
SAMPLE 1	Cafeteria kitchen, double sink below window, faucet at double sink
SAMPLE 2	11OO BLDG, next to elevator, two single bubbler fountains, upper right fountain
SAMPLE 3	Between 300 and 500 BLDG, two single bubbler fountains, upper left fountain
SAMPLE 4	next to 605, two single bubbler fountains, upper left fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

Environmental Monitoring and Technical Services
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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/14/17

Sweetwater Union High School District

Southwest Middle School

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1174604	06/02/17	06:20 AM	SAMPLE 1	3710020-CBF-A	< 5	ug/L
W1174605	06/02/17	06:22 AM	SAMPLE 2	3710020-CBF-B	< 5	ug/L
W1174606	06/02/17	06:25 AM	SAMPLE 3	3710020-CBF-C	< 5	ug/L
W1174607	06/02/17	06:26 AM	SAMPLE 4	3710020-CBF-D	< 5	ug/L
W1174608	06/02/17	06:30 AM	SAMPLE 5	3710020-CBF-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Cafeteria, Kitchen Food Prep Sink, faucet above two compartment sink
SAMPLE 2	Cafeteria, Exterior Building East Side, two single bubbler fountains, upper right fountain
SAMPLE 3	800 Building, Exterior North Side, two single bubbler fountains, upper right fountain
SAMPLE 4	Boys PE, Exterior North Side Building, two single bubbler fountains, upper right fountain
SAMPLE 5	Adaptive Weight Room, inside Building West side Wall, two single bubbler fountains, lower right fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/26/17

San Diego Unified School District

Spreckels Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1170184	05/18/17	05:57 AM	SAMPLE 1	3710020-BFI-A	< 5	ug/L
W1170185	05/18/17	06:02 AM	SAMPLE 2	3710020-BFI-B	< 5	ug/L
W1170186	05/18/17	06:08 AM	SAMPLE 3	3710020-BFI-C	< 5	ug/L
W1170187	05/18/17	06:12 AM	SAMPLE 4	3710020-BFI-D	< 5	ug/L
W1170188	05/18/17	06:16 AM	SAMPLE 5	3710020-BFI-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Auditorium/Library Building, South facing wall outside of building near RRs, two single bubbler fountains, upper right fountain
SAMPLE 2	Cafeteria/Kitchen Building, Inside kitchen on North side of building, faucet above right sink compartment next to spray nozzle
SAMPLE 3	Red Door Building, outside North side of building, two single bubbler fountains, lower left fountain
SAMPLE 4	Yellow Door Building, outside West side of building, two single bubbler fountains, upper right fountain
SAMPLE 5	Green Door Building, outside West side of building, triple bubbler fountain, middle bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Environmental Monitoring and Technical Services
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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/7/17

Springall Academy

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1174431	05/25/17	05:40 AM	SAMPLE 1	3710020-CBB-A	< 5	ug/L
W1174432	05/25/17	05:42 AM	SAMPLE 2	3710020-CBB-B	< 5	ug/L
W1174433	05/25/17	05:46 AM	SAMPLE 3	3710020-CBB-C	< 5	ug/L
W1174434	05/25/17	05:36 AM	SAMPLE 4	3710020-CBB-D	< 5	ug/L
W1174435	05/25/17	05:28 AM	SAMPLE 5	3710020-CBB-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Outside the Auditorium and the open room, two single bubbler fountains, upper right fountain
SAMPLE 2	Building 400, outside drinking fountain next to bathroom and room 407, two single bubbler fountains, upper right fountain
SAMPLE 3	Building 300- in front of the bathrooms, quadruple bubbler fountain, from left to right third bubbler
SAMPLE 4	Inside Kitchen, faucet above two compartment sink
SAMPLE 5	Outside elementary classroom, drinking fountain in the play area, two single bubbler fountains, lower right fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/26/17

San Diego Unified School District

Standley Middle

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1172877	05/18/17	06:18 AM	SAMPLE 1	3710020-BIH-A	< 5	ug/L
W1172878	05/18/17	06:15 AM	SAMPLE 2	3710020-BIH-B	< 5	ug/L
W1172879	05/18/17	06:21 AM	SAMPLE 3	3710020-BIH-C	< 5	ug/L
W1172880	05/18/17	06:24 AM	SAMPLE 4	3710020-BIH-D	< 5	ug/L
W1172881	05/18/17	06:10 AM	SAMPLE 5	3710020-BIH-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Admin Building, West facing wall near lunch patio area on outside bldg, triple bubbler fountain, middle bubbler
SAMPLE 2	Kitchen/Supply Room Bldg, East facing wall near lunch and RRs, two single bubbler fountains, upper right fountain
SAMPLE 3	600 Building, West Facing Wall near rooms 602 and 603, dual bubbler fountain, right bubbler
SAMPLE 4	Media Center Building, East facing wall next to restrooms, two single bubbler fountains, upper right fountain
SAMPLE 5	Kitchen/Cafeteria Building, inside kitchen, faucet above two compartment sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Environmental Monitoring and Technical Services
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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/7/17

Stella Maris Academy

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1172882	05/26/17	06:55 AM	SAMPLE 1	3710020-BIB-A	< 5	ug/L
W1172883	05/26/17	06:57 AM	SAMPLE 2	3710020-BIB-B	< 5	ug/L
W1172884	05/26/17	06:48 AM	SAMPLE 3	3710020-BIB-C	< 5	ug/L
W1172885	05/26/17	06:51 AM	SAMPLE 4	3710020-BIB-D	< 5	ug/L
W1172886	05/26/17	06:43 AM	SAMPLE 5	3710020-BIB-E	< 5	ug/L

Source	Source Description
SAMPLE 1	7645 Herschel Ave, Between 6/7 grade classrooms, single bubbler fountain
SAMPLE 2	7645 Herschel Ave, Between 4/6 grade classrooms, single bubbler fountain
SAMPLE 3	7704 Herschel Ave, Outside kitchen, single bubbler fountain
SAMPLE 4	7704 Herschel Ave, Outside storage btw bathrooms, Filter unit
SAMPLE 5	7654 Herschel Ave, Admin BLDG, Kindergarten room, faucet at Sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/7/17

San Diego Unified School District

Sunset View Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1173096	05/24/17	06:19 AM	SAMPLE 1	3710020-CAE-A	< 5	ug/L
W1173097	05/24/17	06:17 AM	SAMPLE 2	3710020-CAE-B	< 5	ug/L
W1173098	05/24/17	06:31 AM	SAMPLE 3	3710020-CAE-C	< 5	ug/L
W1173099	05/24/17	06:29 AM	SAMPLE 4	3710020-CAE-D	< 5	ug/L
W1173100	05/24/17	06:24 AM	SAMPLE 5	3710020-CAE-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Main Office, Wall mounted exterior (West of Bldg), next to Gate, triple bubbler fountain, middle bubbler
SAMPLE 2	Auditorium/Cafeteria, Wall mounted exterior (East of Bldg), facing lunch arbor, two single bubbler fountains, upper left fountain
SAMPLE 3	Portable Classrooms, Wall mounted exterior of (East of B3), facing stairs, triple bubbler fountain, middle bubbler
SAMPLE 4	Portable Classroom/Restroom, Wall mounted exterior (South of Restroom/B6), next to shed, facing grass field, triple bubbler fountain, left bubbler
SAMPLE 5	Kindergarten, Wall mounted exterior (East of Bldg), between Storage and Kindergarten 1, facing tables & playground, dual bubbler fountain, right bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/14/17

Del Mar Union School District

Sycamore Ridge

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1175389	06/02/17	06:12 AM	SAMPLE 1	3710020-CCC-A	< 5	ug/L
W1175390	06/02/17	06:14 AM	SAMPLE 2	3710020-CCC-B	< 5	ug/L
W1175391	06/02/17	06:16 AM	SAMPLE 3	3710020-CCC-C	< 5	ug/L
W1175392	06/02/17	06:18 AM	SAMPLE 4	3710020-CCC-D	< 5	ug/L
W1175393	06/02/17	06:22 AM	SAMPLE 5	3710020-CCC-E	< 5	ug/L

Source	Source Description
SAMPLE 1	ASP building, in between ASP 1- ASP 2, two single bubbler fountains, upper right fountain
SAMPLE 2	Classroom ASP 1, bubbler at sink
SAMPLE 3	Eastside of F wing, exterior, two single bubbler fountains, lower left fountain
SAMPLE 4	South side of E-wing in between boys and girls RRs, two single bubbler fountains, upper right fountain
SAMPLE 5	Westside of building B left side of custodian room, two single bubbler fountains, lower left fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

Environmental Monitoring and Technical Services
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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/4/17

San Diego Unified School District

Taft Middle

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168403	04/25/17	06:09 AM	SAMPLE 1	3710020-BBA-A	< 5	ug/L
W1168404	04/25/17	06:00 AM	SAMPLE 2	3710020-BBA-B	< 5	ug/L
W1168405	04/25/17	06:05 AM	SAMPLE 3	3710020-BBA-C	6.29	ug/L
W1168406	04/25/17	06:12 AM	SAMPLE 4	3710020-BBA-D	< 5	ug/L
W1168407	04/25/17	06:16 AM	SAMPLE 5	3710020-BBA-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Cafeteria Bldg, East wall of kitchen, Faucet on a 2-compartment sink
SAMPLE 2	Cafeteria, South walkway, quadruple bubbler fountain on brick pedistal, far right bubbler
SAMPLE 3	Gymnasium, Exterior South wall of Girl's Locker room, triple bubbler fountain, right bubbler
SAMPLE 4	Gymnasium, Exterior South wall of Boy's Locker room, triple bubbler fountain, right bubbler
SAMPLE 5	Library, South walkway, quadruple bubbler fountain on brick pedistal, far right bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger

Tom Burger, Associate Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 7/6/17

The Child's Primary School

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1176667	06/08/17	06:33 AM	SAMPLE 1	3710020-CCF-A	< 5	ug/L
W1176668	06/08/17	06:35 AM	SAMPLE 2	3710020-CCF-B	< 5	ug/L
W1176669	06/08/17	06:39 AM	SAMPLE 3	3710020-CCF-C	< 5	ug/L
W1176670	06/08/17	06:42 AM	SAMPLE 4	3710020-CCF-D	< 5	ug/L
W1176671	06/08/17	06:45 AM	SAMPLE 5	3710020-CCF-E	6.76	ug/L

Source	Source Description
SAMPLE 1	exterior, downstairs, near lockers and girls bathroom, two single bubbler fountains, left fountain
SAMPLE 2	exterior, downstairs, near lockers and girls bathroom, two single bubbler fountains, right fountain
SAMPLE 3	upstairs - kitchen prep sink along south wall, faucet at white colored sink
SAMPLE 4	upstairs - kitchen prep sink under window, faucet at large metal sink
SAMPLE 5	upstairs hallway - around the corner from kitchen and Storage, sinkle bubbler fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/7/17

The Cambridge School

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1174563	05/26/17	05:56 AM	SAMPLE 1	3710020-CBE-A	< 5	ug/L
W1174564	05/26/17	06:00 AM	SAMPLE 2	3710020-CBE-B	< 5	ug/L
W1174565	05/26/17	05:52 AM	SAMPLE 3	3710020-CBE-C	< 5	ug/L
W1174566	05/26/17	06:03 AM	SAMPLE 4	3710020-CBE-D	< 5	ug/L
W1174567	05/26/17	05:57 AM	SAMPLE 5	3710020-CBE-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Primary Building, Downstairs courtyard between RRs, two single bubbler fountains, upper right fountain
SAMPLE 2	Primary Building, Up courtyard stairs between RRs, two single bubbler fountains, lower left fountain
SAMPLE 3	Primary Building, Staff Kitchen, faucet at sink
SAMPLE 4	Primary Building, Upstairs nurse's office, Quench water filtration unit and dispenser
SAMPLE 5	Primary Building, Courtyard next to Pre K bathroom, Pre K sink faucet

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 4/18/17

San Diego Unified School District

Thrive Charter

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1164824	04/07/17	06:24 AM	SAMPLE 1	3710020-ACC-A	< 5	ug/L
W1164825	04/07/17	06:28 AM	SAMPLE 2	3710020-ACC-B	< 5	ug/L
W1164826	04/07/17	06:31 AM	SAMPLE 3	3710020-ACC-C	< 5	ug/L
W1164827	04/07/17	06:34 AM	SAMPLE 4	3710020-ACC-D	< 5	ug/L
W1165275	04/08/17	09:36 AM	SAMPLE 5	3710020-ACC-E	< 5	ug/L

Source	Source Description
SAMPLE 1	BLDG 29, outside wall of Room 29, middle bubbler on right fountain
SAMPLE 2	Room 35, bubbler in sink
SAMPLE 3	Room 36, bubbler in sink
SAMPLE 4	Room 37, bubbler in sink
SAMPLE 5	Room 25, bubbler in sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B Burger

Tom Burger, Associate Chemist

Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 5/23/17

San Diego Unified School District

Tierrasanta Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1169375	05/10/17	06:23 AM	SAMPLE 1	3710020-BDI-A	< 5	ug/L
W1169376	05/10/17	06:13 AM	SAMPLE 2	3710020-BDI-B	< 5	ug/L
W1169377	05/10/17	06:11 AM	SAMPLE 3	3710020-BDI-C	< 5	ug/L
W1169378	05/10/17	06:18 AM	SAMPLE 4	3710020-BDI-D	< 5	ug/L
W1169379	05/10/17	06:20 AM	SAMPLE 5	3710020-BDI-E	< 5	ug/L

Source	Source Description
SAMPLE 1	East facing wall next to Multipurpose Room and Boys RR, two single-bubbler fountains, lower left fountain
SAMPLE 2	Lunch Arbor and Kitchen Area, On South facing wall of kitchen exterior, triple bubbler fountain, center bubbler
SAMPLE 3	Kitchen, single compartment prep sink, faucet above sink
SAMPLE 4	Southwest class building, exterior, Southwest corner of campus, triple bubbler fountain, left bubbler
SAMPLE 5	Southeast class room building, exterior, South facing wall of building, double bubbler fountain left of single bubbler fountain. right bubbler on double fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/7/17

San Diego Unified School District

Toler Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1172909	05/19/17	06:05 AM	SAMPLE 1	3710020-BIJ-A	< 5	ug/L
W1172910	05/19/17	06:09 AM	SAMPLE 2	3710020-BIJ-B	< 5	ug/L
W1172911	05/19/17	06:12 AM	SAMPLE 3	3710020-BIJ-C	< 5	ug/L
W1172912	05/19/17	06:15 AM	SAMPLE 4	3710020-BIJ-D	< 5	ug/L
W1172913	05/19/17	06:18 AM	SAMPLE 5	3710020-BIJ-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Kindergarten bldg, South exterior wall between classrooms A and B, two single bubbler fountains, lower left bubbler
SAMPLE 2	Classrooms 1-6 (bldg. 1), North exterior wall next to boy's RR, Close to room 4, triple bubbler fountain, center bubbler
SAMPLE 3	Kitchen, North interior wall, faucet above two compartment sink
SAMPLE 4	Classrooms 7-12 (bldg. 2), South exterior wall next to lunch court, three single bubbler fountains, upper right fountain
SAMPLE 5	Restroom Bungalow, Exterior wall between boy & girl's restroom, two single bubbler fountains, upper left bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 7/6/17

San Dieguito Union High School District

Torrey Pines HS

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1178638	06/13/17	06:03 AM	SAMPLE 1	3710020-CCI-A	< 5	ug/L
W1178639	06/13/17	06:09 AM	SAMPLE 2	3710020-CCI-B	< 5	ug/L
W1178640	06/13/17	06:24 AM	SAMPLE 3	3710020-CCI-C	< 5	ug/L
W1178641	06/13/17	06:15 AM	SAMPLE 4	3710020-CCI-D	< 5	ug/L
W1178642	06/13/17	06:21 AM	SAMPLE 5	3710020-CCI-E	< 5	ug/L

Source	Source Description
SAMPLE 1	between BLDG B and lunch pavillion, dual fountain, lower bubbler
SAMPLE 2	southwest exterior corner of gym, 3 dual fountains, left fountain, upper bubbler
SAMPLE 3	Food service south wall, 3 faucets, center faucet
SAMPLE 4	Weight RM exterior, free standing tripe fountain, center bubbler
SAMPLE 5	east side exterior of gym, near women's, two freestanding triple fountains, right triple, center bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/14/17

Del Mar Union School District

Torrey Hills

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1175394	06/06/17	07:08 AM	SAMPLE 1	3710020-CCD-A	< 5	ug/L
W1175395	06/06/17	06:58 AM	SAMPLE 2	3710020-CCD-B	< 5	ug/L
W1175396	06/06/17	06:55 AM	SAMPLE 3	3710020-CCD-C	< 5	ug/L
W1175397	06/06/17	07:02 AM	SAMPLE 4	3710020-CCD-D	< 5	ug/L
W1175398	06/06/17	07:06 AM	SAMPLE 5	3710020-CCD-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Boys / girls upper grade restrooms (next to custodial room), two single bubbler fountains, upper right fountain
SAMPLE 2	Boys / girls lower grade restrooms (next to custodial room), two single bubbler fountains, lower left fountain
SAMPLE 3	K building, Classroom K-5, bubbler at sink
SAMPLE 4	Classroom H-1, bubbler at sink
SAMPLE 5	Classroom C-1, bubbler at sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/7/17

San Diego Unified School District

Torrey Pines Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1170296	05/19/17	06:06 AM	SAMPLE 1	3710020-BFJ-A	< 5	ug/L
W1170297	05/19/17	06:10 AM	SAMPLE 2	3710020-BFJ-B	< 5	ug/L
W1170298	05/19/17	06:13 AM	SAMPLE 3	3710020-BFJ-C	< 5	ug/L
W1170299	05/19/17	06:16 AM	SAMPLE 4	3710020-BFJ-D	< 5	ug/L
W1170300	05/19/17	06:03 AM	SAMPLE 5	3710020-BFJ-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Cafeteria, Outside east wall next to double doors to cafeteria, two single-bubbler fountains, lower left fountain
SAMPLE 2	Rm 1-6 building, Next to #3 and RRs around corner, triple bubbler fountain, left bubbler
SAMPLE 3	Kinder Playground, Outside at wall next to RRs, two single-bubbler fountains, lower left fountain
SAMPLE 4	Kindergarten, K-2 inside classroom, bubbler on right sink
SAMPLE 5	Kitchen, faucet on two compartment sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/23/17

San Diego Unified School District

Twain Mesa Satellite

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1171694	05/10/17	06:33 AM	SAMPLE 1	3710020-BHG-A	< 5	ug/L

Source	Source Description
SAMPLE 1	Portable Classrooms B5-B3, Wall mounted exterior (South of Bldg), between RRs, two single bubbler fountains, upper right fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/5/17

San Diego Unified School District

Twain High

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168562	04/26/17	06:05 AM	SAMPLE 1	3710020-BBF-A	< 5	ug/L
W1168563	04/26/17	06:10 AM	SAMPLE 2	3710020-BBF-B	< 5	ug/L
W1168564	04/26/17	06:13 AM	SAMPLE 3	3710020-BBF-C	< 5	ug/L
W1168565	04/26/17	06:16 AM	SAMPLE 4	3710020-BBF-D	< 5	ug/L
W1168566	04/26/17	05:58 AM	SAMPLE 5	3710020-BBF-E	< 5	ug/L

Source	Source Description
SAMPLE 1	BLDG 6, Exterior wall near RM 6, lower left bubbler
SAMPLE 2	Room 5, bubbler at sink
SAMPLE 3	Room 4, bubbler at sink
SAMPLE 4	Room 3, bubbler at sink
SAMPLE 5	BLDG 7-13, exterior west wall, lower left bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/7/17

San Diego Unified School District

Twain Morse

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1172914	05/19/17	05:55 AM	SAMPLE 1	3710020-BII-A	< 5	ug/L
W1172915	05/19/17	05:59 AM	SAMPLE 2	3710020-BII-B	< 5	ug/L
W1172916	05/19/17	05:59 AM	SAMPLE 3	3710020-BII-C	< 5	ug/L
W1172917	05/19/17	06:08 AM	SAMPLE 4	3710020-BII-D	< 5	ug/L
W1172918	05/19/17	06:11 AM	SAMPLE 5	3710020-BII-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Restroom Bungalow (south end of campus), Two triple bubbler fountains, right fountain, middle bubbler
SAMPLE 2	Bungalow B10, inside, bubbler at sink
SAMPLE 3	Bungalow B11, inside, bubbler at sink
SAMPLE 4	Bungalow B8/Office, inside, bubbler at sink
SAMPLE 5	Bungalow B7, inside, bubbler at sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/7/17

San Diego Unified School District

University City High

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1172899	05/19/17	06:19 AM	SAMPLE 1	3710020-BJC-A	< 5	ug/L
W1172900	05/19/17	06:08 AM	SAMPLE 2	3710020-BJC-B	< 5	ug/L
W1172901	05/19/17	06:16 AM	SAMPLE 3	3710020-BJC-C	< 5	ug/L
W1172902	05/19/17	06:11 AM	SAMPLE 4	3710020-BJC-D	5.38	ug/L
W1172903	05/19/17	06:07 AM	SAMPLE 5	3710020-BJC-E	< 5	ug/L

Source	Source Description
SAMPLE 1	200 Bldg, Interior hallway between Men & Women's RR, Around the corner from 208, dual bubbler fountain, right bubbler
SAMPLE 2	Outdoor Food Service Kiosk, West wall and around the corner from cold lunch line, dual bubbler fountain, right bubbler
SAMPLE 3	400 Bldg, Interior hallway next to room 458, dual bubbler fountain, left bubbler
SAMPLE 4	Arts Tech bldg, South exterior wall (back side of room 231), dual bubbler fountain, left bubbler
SAMPLE 5	Kitchen, East interior wall, faucet above two compartment sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

Urban Discovery Academy

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1169365	05/05/17	05:58 AM	SAMPLE 1	3710020-BDD-A	< 5	ug/L
W1169366	05/05/17	06:01 AM	SAMPLE 2	3710020-BDD-B	< 5	ug/L
W1169367	05/05/17	06:03 AM	SAMPLE 3	3710020-BDD-C	< 5	ug/L
W1169368	05/05/17	06:10 AM	SAMPLE 4	3710020-BDD-D	< 5	ug/L
W1169369	05/05/17	06:08 AM	SAMPLE 5	3710020-BDD-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Main bldg, ground floor, corridor 138, east end, between RMs 139-141, upper right bubbler
SAMPLE 2	Main bldg, ground floor, corridor 134, between girls/boys RR, right bottle filling station
SAMPLE 3	Main bldg, ground floor, Room 135, faucet at sink
SAMPLE 4	Main bldg, 1st floor, to the left Room 233, faucet at sink, upper left fountain
SAMPLE 5	Main bldg, 1st floor, corridor 222, between girls/boys RR, right bottle filling station

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/18/17

San Diego Unified School District

Valencia Park Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1165257	04/08/17	07:48 AM	SAMPLE 1	3710020-ACJ-A	< 5	ug/L
W1165258	04/08/17	07:54 AM	SAMPLE 2	3710020-ACJ-B	< 5	ug/L
W1165259	04/08/17	08:00 AM	SAMPLE 3	3710020-ACJ-C	< 5	ug/L
W1165260	04/08/17	08:03 AM	SAMPLE 4	3710020-ACJ-D	< 5	ug/L
W1165261	04/08/17	08:07 AM	SAMPLE 5	3710020-ACJ-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Boys and Girls Bathroom next to Supply Room 21008, triple fountain left bubbler
SAMPLE 2	Auditorium Cafeteria Prep kitchen sink faucet
SAMPLE 3	Between Library and Room 19, dual fountain right bubbler
SAMPLE 4	Between Room 17 and 18, triple fountain, middle bubbler
SAMPLE 5	Boys and Girls Bathroom outside playground, dual fountain, right bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
Tom Burger, Associate Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/23/17

San Diego Unified School District

Vista Grande Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1169380	05/09/17	06:03 AM	SAMPLE 1	3710020-BDJ-A	< 5	ug/L
W1169381	05/09/17	06:05 AM	SAMPLE 2	3710020-BDJ-B	< 5	ug/L
W1169382	05/09/17	06:14 AM	SAMPLE 3	3710020-BDJ-C	< 5	ug/L
W1169383	05/09/17	06:11 AM	SAMPLE 4	3710020-BDJ-D	< 5	ug/L
W1169384	05/09/17	06:08 AM	SAMPLE 5	3710020-BDJ-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Main Bldg, Middle hallway behind Health Office and Main Office 1st floor, single bubbler fountain
SAMPLE 2	Main Bldg, Northeast side of building outside main hallway 1st floor, triple bubbler fountain, middle bubbler
SAMPLE 3	Main Bldg, Southwest side of building (outside), two single bubbler fountains, lower left bubbler
SAMPLE 4	Main Bldg, Outside of Room 215 West wall, triple bubbler fountain, right bubbler
SAMPLE 5	Restroom building, North of room 214, two single bubbler fountains, lower left bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/7/17

Vista Hill Foundation

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1174242	05/23/17	06:05 AM	SAMPLE 1	3710020-CAI-A	< 5	ug/L
W1174243	05/26/17	07:02 AM	SAMPLE 2	3710020-CAI-B	< 5	ug/L
W1174244	05/26/17	06:58 AM	SAMPLE 3	3710020-CAI-C	11.9	ug/L
W1174245	05/23/17	06:11 AM	SAMPLE 4	3710020-CAI-D	< 5	ug/L
W1174246	05/23/17	06:13 AM	SAMPLE 5	3710020-CAI-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Building 10 / bathrooms, Outside Bathrooms next to room 10, single bubbler fountain
SAMPLE 2	Building 8/9, Outside Drinking fountain behind building 8/9, single bubbler fountain
SAMPLE 3	Behind the OT room on play ground, single bubbler fountain
SAMPLE 4	SCS Children Program (Rec Room), faucet on inside sink
SAMPLE 5	Lounge/Kitchen, faucet on two compartment kitchen sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/4/17

San Diego Unified School District

Walker Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168332	04/26/17	06:13 AM	SAMPLE 1	3710020-BBH-A	< 5	ug/L
W1168333	04/26/17	06:10 AM	SAMPLE 2	3710020-BBH-B	< 5	ug/L
W1168334	04/26/17	06:07 AM	SAMPLE 3	3710020-BBH-C	< 5	ug/L
W1168335	04/26/17	06:03 AM	SAMPLE 4	3710020-BBH-D	< 5	ug/L
W1168336	04/26/17	06:28 AM	SAMPLE 5	3710020-BBH-E	< 5	ug/L

Source	Source Description
SAMPLE 1	bldg 12-16, Inside rm 14 at back of room in 3-C room, Bubbler drinking fountain at sink
SAMPLE 2	bldg 11-16, Inside classroom 13 at back of room inside 3-D, bubbler at sink
SAMPLE 3	Kitchen/Lunch Area, Outside near lunch court at kitchen wall, three-bubbler fountain, left bubbler
SAMPLE 4	bldg 31-36, near black top playground closest to red play equipment, two single-bubbler fountains, lower left fountain
SAMPLE 5	CC bldg, outdoor hallway on left wall between boys and girls RRs, two single-bubbler fountains to the left of triple bubbler fountain, lower left single fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger

Tom Burger, Associate Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/4/17

San Diego Unified School District
Wangenheim Middle

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168551	04/26/17	06:24 AM	SAMPLE 1	3710020-BBI-A	< 5	ug/L
W1168552	04/26/17	06:20 AM	SAMPLE 2	3710020-BBI-B	< 5	ug/L
W1168553	04/26/17	06:12 AM	SAMPLE 3	3710020-BBI-C	< 5	ug/L
W1168554	04/26/17	06:14 AM	SAMPLE 4	3710020-BBI-D	< 5	ug/L
W1168555	04/26/17	06:08 AM	SAMPLE 5	3710020-BBI-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Bungalow Restrooms, Outside Between restrooms near room #23 and dirt field, dual bubbler fountain to the left of triple fountain, left bubbler on dual fountain
SAMPLE 2	Outside West end of P E building Boys Gym, dual bubbler drinking fountain, right bubbler
SAMPLE 3	Outside East side Girls Gym, triple bubbler fountain, right bubbler
SAMPLE 4	West end of handball courts, dual bubbler fountain, left bubbler
SAMPLE 5	500 bldg. Media Center, Outside South end between 507 & Girls RR, dual bubbler fountain, left bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger
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Water Quality Chemistry Services
Lead School Testing
Report Date: 28-Apr-2017

San Diego Unified School District
Washington Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168032	4/21/2017	6:05 AM	SAMPLE 1	3710020-AIB-A	< 5	µg/L
W1168033	4/21/2017	6:08 AM	SAMPLE 2	3710020-AIB-B	< 5	µg/L
W1168034	4/21/2017	6:11 AM	SAMPLE 3	3710020-AIB-C	< 5	µg/L
W1168035	4/21/2017	6:18 AM	SAMPLE 4	3710020-AIB-D	< 5	µg/L
W1168036	4/21/2017	6:23 AM	SAMPLE 5	3710020-AIB-E	< 5	µg/L

Source	Source Description
SAMPLE 1	West wing, 1st floor, near room 4, across from RR, triple fountain, left bubbler
SAMPLE 2	Multi purp bldg, exterior north wall, triple fountain, center bubbler.
SAMPLE 3	West wing, 1st floor, across from custodial supply and RM 17, upper right bubbler
SAMPLE 4	Kindergarten BLDG, exterior south wall, next to K-1, triple fountain, center bubbler
SAMPLE 5	CDC Classroom P-2, east wall, bubbler at sink

DRL=State Mandated Detection Limit for Reporting (DLR)= 5 µg/L
Action Level (AL) = 15 µg/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 4/12/17

San Diego Unified School District

Webster Elementary

Sample ID	Sample Date	Sample Time	Description	External ID	Lead	Units
W1164507	04/06/17	06:15 AM	SAMPLE 1	3710020-ABI-A	< 5	ug/L
W1164508	04/06/17	06:00 AM	SAMPLE 2	3710020-ABI-B	7.14	ug/L
W1164509	04/06/17	06:02 AM	SAMPLE 3	3710020-ABI-C	< 5	ug/L
W1164510	04/06/17	06:05 AM	SAMPLE 4	3710020-ABI-D	5.09	ug/L
W1164511	04/06/17	06:10 AM	SAMPLE 5	3710020-ABI-E	< 5	ug/L

SAMPLE 1 Main office, admin, nurses office,goosneck faucet (289-01)

SAMPLE 2 Cafeteria, east facing wall, center bubbler (289-02)

SAMPLE 3 BLDG rooms 6-9, west wall between boys/girls restroom, far right bubbler (289-03)

SAMPLE 4 Bungalows, east facing, two triple fountains, left triple, far left bubbler (289-04)

SAMPLE 5 Library, west facing, drinking fountains, right bubbler

DLR= State Mandated Detection Limit for Reporting (D
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

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Water Quality Chemistry Services
Lead School Testing
Report Date: 5/23/17

San Diego Unified School District

Wegeforth Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1168196	04/22/17	09:07 AM	SAMPLE 1	3710020-AJH-A	5.85	ug/L
W1168197	04/22/17	09:11 AM	SAMPLE 2	3710020-AJH-B	6.12	ug/L
W1168198	04/22/17	09:14 AM	SAMPLE 3	3710020-AJH-C	< 5	ug/L
W1168199	04/22/17	09:18 AM	SAMPLE 4	3710020-AJH-D	5.16	ug/L
W1168502	04/25/17	07:02 AM	SAMPLE 5	3710020-AJH-E	6.83	ug/L

Source	Source Description
SAMPLE 1	Assembly- Cafeteria; West wall of Kitchen; Faucet on a 2-compartment sink
SAMPLE 2	Kindergarten Bldg.; Exterior east wall; Sample from R-side Bubbler on a drinking fountain with a faucet
SAMPLE 3	Classroom Bldg. East; : Exterior North wall; Right bubbler on a triple drinking fountain
SAMPLE 4	Classroom Bldg. West; Exterior south wall ; Right bubbler on a double drinking fountain
SAMPLE 5	Admin./Cafeteria Bldg. at CDC; Interior South wall of cafeteria; Right Bubbler on the R-side sink

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

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Water Quality Chemistry Services
Lead School Testing
Report Date: 6/7/17

San Diego Unified School District

Whitman Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1172904	05/19/17	06:03 AM	SAMPLE 1	3710020-BJA-A	< 5	ug/L
W1172905	05/19/17	06:12 AM	SAMPLE 2	3710020-BJA-B	< 5	ug/L
W1172906	05/19/17	06:07 AM	SAMPLE 3	3710020-BJA-C	< 5	ug/L
W1172907	05/19/17	06:09 AM	SAMPLE 4	3710020-BJA-D	< 5	ug/L
W1172908	05/19/17	06:15 AM	SAMPLE 5	3710020-BJA-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Kitchen, east side, faucet over 2 compartment sink
SAMPLE 2	Rooms 7-12 bldg, Room 7, bubbler at sink
SAMPLE 3	Rooms 2-6 bldg, West facing wall next to Room 6, triple bubbler fountain, right bubbler
SAMPLE 4	Rooms 13-18 bldg, East facing wall next to boys RR, triple bubbler fountain, middle bubbler
SAMPLE 5	Kindergarten bldg, Kindergarten Play Yard, two sinhle bubbler fountains, lower left bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 6/7/17

San Diego Unified School District

Whittier K-12

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1173120	05/24/17	06:18 AM	SAMPLE 1	3710020-CAF-A	< 5	ug/L
W1173121	05/24/17	06:08 AM	SAMPLE 2	3710020-CAF-B	5.19	ug/L
W1173122	05/24/17	06:06 AM	SAMPLE 3	3710020-CAF-C	< 5	ug/L
W1173123	05/24/17	06:10 AM	SAMPLE 4	3710020-CAF-D	< 5	ug/L
W1173124	05/24/17	06:13 AM	SAMPLE 5	3710020-CAF-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Building A, Kitchen, Sink along south wall, faucet above two compartment sink
SAMPLE 2	Building A, West facing wall outside of Auditorium door, three single bubbler fountains, upper right fountain
SAMPLE 3	Building D, East facing wall next to girls RR, two single bubbler fountains, upper left fountain
SAMPLE 4	Building F, Northeast corner of building, two single bubbler fountains, upper left fountain
SAMPLE 5	Building B, Northwest corner of building next to girls RR, two single bubbler fountains, upper right fountain

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Doug Campbell, Senior Chemist

Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A, San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 5/12/17

San Diego Unified School District
Wilson Middle

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1169404	05/04/17	06:05 AM	SAMPLE 1	3710020-BED-A	< 5	ug/L
W1169405	05/04/17	06:08 AM	SAMPLE 2	3710020-BED-B	< 5	ug/L
W1169406	05/04/17	06:09 AM	SAMPLE 3	3710020-BED-C	< 5	ug/L
W1169407	05/04/17	06:12 AM	SAMPLE 4	3710020-BED-D	< 5	ug/L
W1169408	05/04/17	06:13 AM	SAMPLE 5	3710020-BED-E	< 5	ug/L

Source	Source Description
SAMPLE 1	500 Building, North face of Interior wall of Kitchen, Faucet on a 2-compartment sink
SAMPLE 2	500 Building, Northern facing exterior breezeway wall, near lunch shelter, triple bubbler fountain, center bubbler
SAMPLE 3	400 Building, Exterior west wall, two dual bubbler fountains, left fountain, left bubbler
SAMPLE 4	Administration Building, Exterior West wall left of stairwell, two single-bubbler fountains, lower left fountain
SAMPLE 5	300 Building, Exterior east wall, dual bubbler fountain, left bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B. Burger

Tom Burger, Associate Chemist

Public Utilities

Environmental Monitoring and Technical Services
2392 Kincaid Road MS 45A. San Diego, CA 92101
Tel(619) 758-2300 Fax (619) 758-2309

Water Quality Chemistry Services
Lead School Testing
Report Date: 4/18/17

San Diego Unified School District

Zamarano Elementary

Sample ID	Sample Date	Sample Time	Source	External ID	Lead	Units
W1165247	04/08/17	08:40 AM	SAMPLE 1	3710020-ACI-A	< 5	ug/L
W1165248	04/08/17	08:43 AM	SAMPLE 2	3710020-ACI-B	< 5	ug/L
W1165249	04/08/17	08:46 AM	SAMPLE 3	3710020-ACI-C	< 5	ug/L
W1165250	04/08/17	08:35 AM	SAMPLE 4	3710020-ACI-D	< 5	ug/L
W1165251	04/08/17	08:50 AM	SAMPLE 5	3710020-ACI-E	< 5	ug/L

Source	Source Description
SAMPLE 1	Bldg 700 South Campus, Kindergarden Room 730 Sink Bubbler
SAMPLE 2	Bldg 700 South Campus, 1st Floor between Girl's and Boy's restrooms facing playground, dual fountain right bubbler
SAMPLE 3	1st Grade Room South Campus, Between Girl's and Boy's restrooms facing playground, left single fountain bubbler
SAMPLE 4	1st Grade Room South Campus, next to Supply Room, left single fixture bubbler
SAMPLE 5	Restrooms North Campus, next to Girl's restroom facing lunch arbor, dual fountain right bubbler

DLR= State Mandated Detection Limit for Reporting (DLR)= 5 ug/L
Action Level (AL) = 15 ug/L

Tom B Burger
Tom Burger, Associate Chemist

LEAD TESTING IN SCHOOLS LOCATED IN CITY OF SAN DIEGO WATER SERVICE AREA

COSTS as of July 28, 2017

Data Used

	229	Number of School Sites
$	57.69	Hourly Rate for Deputy Director
$	41.57	Hourly Rate for Sr. Chemist
$	36.09	Hourly Rate for Associate. Chemist
$	31.41	Hourly Rate for Assistant Chemist
$	38.68	Hourly Rate for Associate Engineer (no PE)
$	31.41	Hourly Rate for Biologist 2
$	18.23	Hourly Rate for Public Information Clerk
$	23.59	Hourly Rate for Lab Tech
$	23.56	Hourly Rate for Admin Aide II
$	33.51	Hourly Rate for Assistant Engineer
$	38.89	Hourly Rate for Supv Mgmt Analyst
$	47.90	Lab Analysis cost/per sample using method 200.8 (lead specifically)
$	0.535	C- Mileage Reimbursement Per Mile
	20%	Load Rate for FY 2017 / City Comptroller)
	19.4%	Load Rate for FY 2018 / City Comptroller)
	110.0%	Overhead Rate for FY 2017 / City Comptroller)
	133.4%	Overhead Rate for FY 2018 / City Comptroller)

LEAD TESTING IN SCHOOLS LOCATED IN CITY OF SAN DIEGO WATER SERVICE AREA

COSTS as of July 28, 2017

1 Program Planning and Program Management Elements	Discussions to develop overall plan to satisfy legislation. Preparation of program included efforts of the following classifications. Additional coolers along with special lead-free sample bottles were ordered for this project. However, personnel costs for work performed prior to Jan 12, 2017 were not captured by IO 12004507.		
Program Planning	Senior Chemist - Doug Campbell (90% of 3 months) Associate Chemist - Tom Burger (90% of 3 months) Assistant Chemist - Alejandra Molloy (50% of 1 month)		
	Cost of specialized sampling bottles	**$**	**2,333.92**
	Cost of reusable coolers	**$**	**1,396.48**
Program Management	Coordinating requests, training, sampling, reporting. Communication with DDW and City management. Reporting daily to Department Management		
	Deputy Director - Peter Vroom Senior Chemist - Doug Campbell (30% of 3 months) Associate Chemist - Tom Burger (30% of 3 months) Public Information Clerk - Yvonne Blantz (~10% of 3 months) Associate Engineer - Feryal Moshavegh (~65% of 3 months) Nita Torres - AAII - customer calls, emails management Assistant Engineer - Jesse Sun - maps Assistant Engineer - My Lee Huynh - maps Laboratory Technicians - general lab support		
2 Site Specific Planning Elements	Review and approval of school sampling plans submitted by schools and preparation of sampling kits at approximately 2.5 hours per site. This worked was alternated between an Associate Chemist, an Assistant Chemist or Biologist II.		
	Associate Chemist - Tom Burger (50%) Biologist II - Matt Nelson (37.5%) Assistant Chemist - Alejandra Molloy (12.5%) 229 School Sites Completed		

LEAD TESTING IN SCHOOLS LOCATED IN CITY OF SAN DIEGO WATER SERVICE AREA

COSTS as of July 28, 2017

3 Trip and Site Collection	Site specific costs for time spent in travel to site, time to wait for site representative, collection of 5 samples per site. These also include OT costs for sites sampled during Saturday and afterhours on weekdays. C Mileage Reimbursement used to obtain cost for sampling effort using employee vehicles or City vehicle. This is estimated average of 24 miles per site for calculation. C mileage is reimbursed at $.535 per mile. No mileage reimbursement was charged using the internal order. Average round trip drive time to each site (~30 minutes) Average sample collection time for each site (~20 minutes) 183 school sites were sampled during normal work hours 46 schools were sampled outside normal work hours	**$**	**2,940.36**
4 Sample Receiving	Time for Assistant Chemist to receive samples for each site (15 minutes per site) Sample receiving for 229 schools.		
5 Laboratory Analysis Cost	Method 200.8 for Metals by ICP-MS usually cost $326 for a suite of metals. WQCS streamline process for Lead only thus $47.90 for laboratory cost per analysis (229 sites and 1116 samples processed).	**$**	**53,456.40**
6 External Reporting	Reporting to school districts and Department of Drinking Water by Associate Chemist.		

Coolers and Sample Bottles	**$**	**3,730.40**
Total PE Costs	**$**	**313,882.09**
Laboratory Analysis Cost	**$**	**53,456.40**
C Mileage	**$**	**2,940.36**
TOTAL COST	**$**	**374,009**

	Permit Amendment Categories	Actual Costs FY17	Actual Costs FY18	Estimated Costs FY18
1.	This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to November 1, 2019, as provided for in Provision 3. This line also includes costs related to the administration of the permit amendment that are not specifically captured by the detailed breakdowns below. This includes, but is not limited to, time spent reading and interpreting the permit amendment, staff discussions on strategies for implementing the program, discussions with management on resource availability and challenges, conversations with DDW related to permit amendment implementation, planning meetings with SDUSD staff related to program roles and responsibilities, production of documentations and data for Public Relations Act requests, responses to media requests for information, and other general program planning costs.	$ 115,724.90	$ -	$ -
2.	Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by July 1, 2017. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.	$ 6,706.65	$ -	$ -
3.	If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:	$ -	$ -	$ -
a.	Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "3Ts for Reducing Lead in Drinking Water in Schools" as general guidance. The 3T document can be found online at: https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf	$ 25,566.73	$ 9,299.63	$ 11,693.89
b.	Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.	$ 9,294.99	$ 4,739.59	$ 4,069.22
c.	Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in Appendix A (Sampling Guidance) which is attached. Sample sites may be either treated or untreated.	$ 64,103.96	$ 5,000.29	$ 12,476.13
d.	Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.	$ -	$ -	$ -
e.	Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.	$ 6,090.78	$ -	$ 1,208.59
f.	Submit the samples to an ELAP certified laboratory for analysis of lead.	$ 61,087.21	$ 6,399.85	$ 12,364.08
g.	Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.	$ 4,261.12	$ 1,549.94	$ 1,948.98
h.	Provide a copy of the results to the requesting authorized school representative.	$ 3,059.99	$ 677.17	$ 607.19
i.	Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.	$ 4,261.12	$ 1,549.94	$ 1,948.98
j.	If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,	$ -	$ -	$ -
i.	Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.	$ -	$ -	$ -
ii.	Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.	$ -	$ -	$ -
iii.	If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.	$ -	$ -	$ -

iv.	Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)	$ 4,547.46	$ 1,549.94	$ 2,005.80
k.	Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.	$ -	$ -	$ -
l.	Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.	$ 4,261.12	$ 1,549.94	$ 1,948.98
m.	Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.	$ 17,044.49	$ 6,199.75	$ 7,795.93
7.	The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.	$ 12,783.37	$ 4,649.82	$ 5,846.95
8.	The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:	$ 12,783.37	$ 4,649.82	$ 5,846.95
9.	The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.			
	TOTAL	**$ 351,577.26**	**$ 47,815.67**	**$ 69,761.67**
	check	$ 351,577.26	$ 47,815.67	$ 69,761.67
	Total FY17 & FY18		**$ 399,392.93**	
	check		$ 399,392.93	

Sent via email to: ***Schadwick@sandiego.gov*** ***and*** ***rpalmucci@sandiego.gov***

February 21, 2018

Mr. Scott Chadwick
City of San Diego
City Hall 202 C St. 901A
San Diego, CA 92101

Mr. Raymond Palmucci
Office of the San Diego City Attorney
1200 Third Avenue Ste 1100
San Diego, CA 92101

RE: Notice of Incomplete Test Claim
SWRCB Water Supply Permit Amendment 2017-PA-SCHOOLS for PWS No. 3710020

Dear Mr. Chadwick and Mr. Palmucci:

On January 11, 2018, the City of San Diego filed a Test Claim with the Commission on State Mandates (Commission) on the above-named matter.

Upon initial review, Commission staff finds this Test Claim to be incomplete because:

1. A copy of the delegation by ordinance or resolution from the city council supporting the assertion that the duties of city manager have been delegated by the City of San Diego to the Chief Operating Officer, as required by section 1183.1(a)(2) of the Commission's regulations, has not been provided;
2. All of the code sections (including statutes, chapters, and bill numbers) referenced in the narrative, declarations, and documentation are not listed in *Section 4.* of the test claim form as required and it is unclear whether you are alleging that anything other than the executive order listed in *Section 4.* imposes the mandate and is being pled in this test claim; and
3. The following are not provided in *Section 5. Written Narrative* or in *Section 6. Declarations* as required by Government Code section 17553(b)(1-2): (1) the actual increased costs incurred by the claimant with specific references to the sections of the executive order(s) or statute(s) alleged to impose a reimbursable state-mandated program to implement each new activity and modified existing activity required by the alleged mandate during the fiscal year for which the claim was filed (fiscal year 2016-2017); (2) the actual or estimated annual costs that will be incurred by the claimant with specific references to the sections of the executive order(s) statute(s) alleged to impose a reimbursable state-mandated program to implement each new activity and modified existing activity required by the alleged mandate during the fiscal year immediately following the fiscal year for which the claim was filed (fiscal year 2017-2018); and (3) a statewide cost estimate of increased costs that all local agencies or school districts will incur to implement the alleged mandate during the fiscal year immediately following the fiscal year for which the claim was filed.

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Only a "City Manager, Director of Finance, or Other Officer with a Delegation by Ordinance or Resolution from the City Council, May File on Behalf of a City."

Pursuant to section 1183.1(a)(2) of Commission regulations, only specified authorized city officials may file on behalf of a city.

Section 1183.1(a)(2) of Commission regulations state that only a "city manager, director of finance, or other officer with a delegation by ordinance or resolution from the city council, may file on behalf of a city." Mr. Chadwick's title is listed in *Section 2* of the test claim form as "Chief Operating Officer, City of San Diego." In his declaration, Mr. Chadwick asserts "I have been delegated City Manager responsibilities by San Diego Resolution R-308553 (Nov. 13, 2013), approved by the Council of the City of San Diego on October 29, 2013."[1] However, a copy of Resolution R-308553 has not been provided. Please include a copy of Resolution R-308553 in your response.

Identify Executive Orders Alleged to Impose the Mandate and Their Effective Dates in *Section 4* of the Test Claim Form.

Section 4 of the test claim form states:

> Please identify all code sections (include statutes, chapters, and bill numbers) (e.g., Penal Code Section 2045, Statutes 2004, Chapter 54 [AB 290]), regulations (include register number and effective date), and executive orders (include effective date) that impose the alleged mandate.

In this case, the claimant listed "State Water Resources Control Board Division of Drinking Water, Water Supply Permit Amendment 2017PA-SCHOOLS for City of San Diego Public Water System No. 3710020, effective January 18, 2017" in *Section 4*. However, the narrative,[2] a declaration[3], and documentation[4] all refer to and include a bill, AB 746, that was not listed in *Section 4*, and therefore is not properly pled as part of this Test Claim. Please clarify whether or not it is your intention to plead AB 746, please revise *Section 4* of the test claim form, as appropriate, and please provide the specific code sections alleged to impose the mandate and statute year, chapter number, and effective date, as required.

A *Detailed Description* of Costs and a Statewide Estimate of Costs Is Required.

Government Code section 17553(b)(1)(A-E) specifies that all test claims shall contain at least the following elements:

> (A) *A detailed description* of the new activities and *costs* that arise from the mandate.
>
> (B) *A detailed description of existing* activities and *costs* that are modified by the mandate.

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[1] Test Claim, page 43 (Declaration of Scott Chadwick).

[2] Test Claim, pages 13-14 (Narrative).

[3] Test Claim, page 59 (Declaration of Seth Gates).

[4] Test Claim, page 2773 (Assembly Bill No. 746).

> (C) *The actual increased costs incurred by the claimant during the fiscal year for which the claim was filed* to implement the alleged mandate.
>
> (D) The *actual or estimated annual costs that will be incurred* by the claimant to implement the alleged mandate during the fiscal year immediately following the fiscal year for which the claim was filed.
>
> (E) *A statewide cost estimate of increased costs that all local agencies* or school districts will incur to implement the alleged mandate during the fiscal year immediately following the fiscal year for which the claim was filed.

For example, the narrative, declarations, and documentation provide broad explanations of activities alleged to be required by the test claim statute(s) but no distinctions are made between new activities and modified existing activities and no references are made alleging which provisions of the test claim executive order (or statute if applicable) requires each specific activity described. A table[5] is provided in the narrative purporting to show annual aggregate costs incurred for some of the activities, and a few invoices[6] and a more detailed table of aggregate costs through July 28, 2017[7] is provided in the documentation. However, the charts are considered hearsay since they are intended to prove the truth of the matter asserted and no connection is made between the test claim executive order (or statute if applicable), the activities, and the actual or estimated costs alleged to be mandated by the state. Actual costs should be provided, if already incurred and estimated costs must be provided when the costs are yet to be incurred or as yet unknown.

Finally, rather than providing "a statewide cost estimate of increased costs that all local agencies ...will incur to implement the alleged mandate during the fiscal year immediately following the fiscal year for which the claim was filed," the narrative indicates:

> This Test Claim concerns a Permit Amendment issued to the City. Although the Permit Amendment was issued to other public water systems in the state that serve at least one K-12 school, the City does not have information regarding the costs incurred by these other similarly situated entities, the current lead testing/monitoring services these entities are currently required to provide nor the ability of these entities to recover costs associated with compliance with the Permit Amendment from ratepayers. To the best of the City's knowledge, no statewide cost estimate is available.[8]

Assuming that this Test Claim pleads only the executive order listed in *Section 4,* which only applies to the claimant, the claimant need only include its own actual and estimated costs for 2016-2017 and 2017-2018 because the statewide cost for that executive order are necessarily limited to the claimant's costs. But the claimant has provided no estimate of its own costs that are yet to be incurred for 2017-2018. However, if AB 746 is pled, a *statewide* cost estimate for all affected local agencies is a test claim filing requirement imposed by Government Code

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[5] Test Claim, page 26 (Narrative).

[6] Test Claim, pages 294-299 (Documentation, Exhibit 19).

[7] Test Claim, pages 2753-2755 (Documentation, Exhibit 35).

[8] Test Claim, page 27 (Narrative).

section 17553(b)(1)(E) and it must be provided for the Test Claim to be considered complete. Preparation of a statewide cost estimate is a duty imposed on the claimant by section 17553(b)(1)(E) of the Government Code and is not optional or only required to be included when there has already been one prepared. A statewide cost estimate is just that - an estimate based on information that may be obtainable by the claimant, keeping in mind that a test claim functions similarly to a class action. The test claim procedure was established to expeditiously resolve disputes affecting multiple agencies, and functions like a class action in that one test claim is filed on a statute or executive order on behalf of all similarly situated local agencies or school districts.[9] It is understood that the claimants may not be able to provide the actual costs for all permitees under the test claim executive order(s) or statute(s), however a reasonable estimate based on available facts is required by law.

Declarations Based on Information and Belief Are Admissible in Test Claim Proceedings, But Each Finding of the Commission Must Be Supported With Evidence That Would Be Admissible Over An Objection In a Civil Action.

Government Code section 17553(b)(2) specifies, in relevant part, that the written narrative of a test claim shall be supported with declarations under penalty of perjury, based on the declarant's personal knowledge, information, or belief, and signed by persons who are authorized and competent to do so, as follows:

> (A) *Declarations of actual or estimated increased costs* that will be incurred by the claimant to implement the alleged mandate.
>
> (B) *Declarations identifying all local, state, or federal funds, or fee authority that may be used to offset the increased costs* that will be incurred by the claimant to implement the alleged mandate, including direct and indirect costs.
>
> (C) *Declarations describing new activities performed to implement specified provisions of the new statute or executive order* alleged to impose a reimbursable state-mandated program. Specific references shall be made to chapters, articles, sections, or page numbers alleged to impose a reimbursable state-mandated program.

In this case, all four of the declarants attest "under penalty of perjury"[10] that "I make this declaration based on my own personal knowledge, except for matters set forth herein based on information and belief, and as to those matters I believe them to be true."[11] However it is unclear which elements are based on "my own personal knowledge" and which elements are based on "information and belief."

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[9] Government Code sections 17521 and 17553; *City of San Jose v. State of California* (1996) 45 Cal.App.4th 1802, 1807.

[10] Test Claim, page 42 (Declaration of Raymond C. Palmucci), page 56 (Declaration of Scott Chadwick), page 66 (Declaration of Seth Gates), and page 78 (Declaration of Peter Vroom).

[11] Test Claim, page 36 (Declaration of Raymond C. Palmucci), page 43 (Declaration of Scott Chadwick), page 57 (Declaration of Seth Gates), and page 67 (Declaration of Peter Vroom).

The declarations of Mr. Scott Chadwick,[12] Mr. Seth Gates,[13] and Mr. Peter Vroom[14] provide a summary of the alleged Permit requirements and describe the activities performed by the City but only Mr. Chadwick and Mr. Gates provide a total amount of actual costs for fiscal year 2016-2017, and an amount of actual costs for a portion of fiscal year 2017-2018 stated to be "thus far."[15] None of these declarations include an estimate of the total statewide cost for 2017-2018 as required.

In addition, the declarations of Mr. Seth Gates and Mr. Peter Vroom specify costs related to the purchase of sample bottles and coolers for sampling kits,[16] for which supporting invoices are provided.[17] However, neither Mr. Chadwick, Mr. Gates, nor Mr. Vroom provide any connection between the sections of the executive order and the associated costs for each activity alleged to be mandated by the state nor provide either actual or estimated costs for the full fiscal year 2017-2018, as required. Finally, a table is provided in the supporting documentation for the Test Claim purporting to show some cost information for some of the activities described "as of July 28, 2017"[18] although neither Mr. Chadwick, Mr. Gates, nor Mr. Vroom cite to it in their declarations or attest to any of the information contained therein, and the total cost amount provided "$374,009"[19] does not agree with the time frames or aggregate amounts provided by any of the declarants. A finding that an activity imposes costs mandated by the State must be supported by evidence in the record. Although it is generally permissible to file declarations based on information and belief with the Commission, such declarations are hearsay and not sufficient in themselves to support a finding unless admissible over an objection in civil actions.

In this Test Claim, neither the narrative nor the declarations provide: (1) the amount of *actual* increased costs incurred to implement each new activity and modified existing activity required by the alleged mandate during the fiscal year for which this Test Claim was filed (fiscal year 2016-2017) with specific references to the sections of the executive order(s) or statute(s) alleged to impose a reimbursable state-mandated program; or (2) the amount of *actual or estimated* annual costs that will be incurred to implement each new activity and modified existing activity required by the alleged mandate during the fiscal year immediately following the fiscal year for which this Test Claim was filed (fiscal year 2017-2018) with specific references to the sections of the executive order(s) or statute(s) alleged to impose a reimbursable state-mandated program.

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[12] Test Claim, pages 43-56 (Declaration of Scott Chadwick).

[13] Test Claim, pages 57-66 (Declaration of Seth Gates).

[14] Test Claim, pages 67-78 (Declaration of Peter Vroom).

[15] Test Claim, page 52 (Declaration of Scott Chadwick) and pages 61-62 (Declaration of Seth Gates).

[16] Test Claim, page 59 (Declaration of Seth Gates), page 69 (Declaration of Peter Vroom).

[17] Test Claim, pages 294-299 (Documentation, Exhibit 19).

[18] Test Claim, pages 2753-2755 (Documentation, Exhibit 35).

[19] Test Claim, page 2755 (Documentation, Exhibit 35).

A Finding of Costs Mandated by the State May Not Be Based on Hearsay Evidence Alone.

As indicated above, section 1187.5(a) of the Commission's regulations provides that "Hearsay evidence may be used for the purpose of supplementing or explaining other evidence but shall not be sufficient in itself to support a finding unless it would be admissible over an objection in civil actions." Government Code section 17559(b) provides that a claimant or the state may commence a proceeding in accordance with the provisions of section 1094.5 of the Code of Civil Procedure to set aside a decision of the Commission on the ground that the Commission's decision is not supported by substantial evidence in the record. This requires that each finding of fact that the Commission makes (including whether there are costs mandated by the state, which is a mixed issue of law and fact) must meet the *Topanga* standard.[20] In *Topanga* the court explained:

> Section 1094.5 clearly contemplates that at minimum, the reviewing court must determine both whether substantial evidence supports the administrative agency's findings and whether the findings support the agency's decision. Subdivision (b) of Code of Civil Procedure section 1094.5 prescribes that when petitioned for a writ of mandamus, a court's inquiry should extend, among other issues, to whether 'there was any prejudicial abuse of discretion.' Subdivision (b) then defines "abuse of discretion" to include instances in which the administrative order or decision 'is not supported by the findings, or the findings are not supported by the evidence.' (Emphasis added.) Subdivision (c) declares that 'in all . . . cases' (emphasis added) other than those in which the reviewing court is authorized by law to judge the evidence independently, 'abuse of discretion in established if the court determines that the findings are not supported by substantial evidence in the light of the whole record.'. . .

A finding of increased costs mandated by the state is often a mixed question of law and fact under Government Code sections 17514 and 17556. Thus, any costs alleged, for which you seek a favorable finding of increased costs mandated by the state, must be supported by evidence in the record in accordance with section 1187.5 of the Commission's regulations.

Thus, the claimant must submit either declarations that include all of the required elements described above made according to the declarant's own personal knowledge or made according to the declarant's information and belief along with other non-hearsay evidence to support a finding of costs mandated by the state. The claimant may choose not to submit evidence that would be admissible over an objection in civil actions with regard to the issue of costs mandated by the state at this time (since this issue is not jurisdictional). However, without such evidence, the Commission cannot make a finding of costs mandated by the state. Therefore, it is far preferable that evidence of costs that would be admissible over an objection in civil actions be filed with the test claim so that, to the extent that a state-mandated new program of higher level of service is found, there is evidence in the record to support a finding of costs mandated by the state. To approve a test claim, the Commission must make a finding of *both* a state-mandated new program or higher level of service *and* costs mandated by the state.

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[20] *Topanga Association for a Scenic Community v. County Of Los Angeles* (1974) 11 Cal.3d 506.

Curing This Test Claim

1. Please provide a copy of the delegation by ordinance or resolution from the city council supporting the assertion that the duties of city manager have been delegated by the City of San Diego to the Chief Operating Officer, as required by section 1183.1(a)(2) of the Commission's regulations;
2. Please revise the Test Claim form in *Section 4. Test Claim Statutes or Executive Orders Cited*, if necessary, to include all of the statutes and executive orders that impose the alleged mandate.
3. Please revise the narrative to specify: (1) the actual increased costs incurred by the claimant with specific references to the sections of the executive order(s) or statute(s) alleged to impose a reimbursable state-mandated program to implement each new activity and modified existing activity required by the alleged mandate during the fiscal year for which the claim was filed (fiscal year 2016-2017); (2) the actual or estimated annual costs with specific references to the sections of the executive order(s) or statute(s) alleged to impose a reimbursable state-mandated program that will be incurred to implement each new activity and modified existing activity required by the alleged mandate during the fiscal year immediately following the fiscal year for which the claim was filed (fiscal year 2017-2018); and (3) a statewide cost estimate of increased costs that all local agencies or school districts will incur to implement the alleged mandated program during the fiscal year immediately following the fiscal year for which the claim was filed.
4. Please revise the declarations to clearly indicate what is based on personal knowledge and what only on information and belief (which may be supported with other documentary evidence) and to specify: (1) the actual increased costs incurred by the claimant with specific references to the sections of the executive order(s) or statute(s) alleged to impose a reimbursable state-mandated program to implement each new activity and modified existing activity required by the alleged mandate during the fiscal year for which the claim was filed (fiscal year 2016-2017); and (2) the actual or estimated annual costs with specific references to the sections of the executive order(s) or statute(s) alleged to impose a reimbursable state-mandated program that will be incurred to implement each new activity and modified existing activity required by the alleged mandate during the fiscal year immediately following the fiscal year for which the claim was filed (fiscal year 2017-2018).

Retaining Your Original Filing Date

To retain the original filing date of January 11, 2018, please refile the required elements to cure this Test Claim within 30 days of the date of this letter by **March 23, 2018**. If a complete test claim is not received within 30 calendar days from the date of this letter, the executive director may disallow the original test claim filing date. (Cal. Code Regs., tit. 2, § 1183.1(f).)

As provided in the Commission's regulations, a real party in interest may appeal to the Commission for review of the actions and decisions of the executive director. Please refer to California Code of Regulations, title 2, section 1181.1(c).

The revised test claim may be submitted electronically via the Commission's e-filing system pursuant to section 1181.3 of the Commission's regulations and will replace the original filing. Please see the Commission's website at http://www.csm.ca.gov/dropbox_procedures.php

Sincerely,

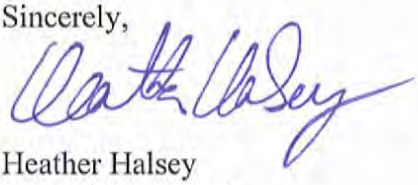

Heather Halsey
Executive Director

DECLARATION OF SERVICE BY EMAIL

I, the undersigned, declare as follows:

I am a resident of the County of Sacramento and I am over the age of 18 years, and not a party to the within action. My place of employment is 980 Ninth Street, Suite 300, Sacramento, California 95814.

On February 21, 2018 I served via e-mail to ***Schadwick@sandiego.gov*** ***and*** ***rpalmucci@sandiego.gov*** the:

Notice of Incomplete Test Claim
SWRCB Water Supply Permit Amendment 2017-PA-SCHOOLS for PWS No. 3710020

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that this declaration was executed on February 21, 2018 at Sacramento, California.

Jill Magee

Jill L. Magee
Commission on State Mandates
980 Ninth Street, Suite 300
Sacramento, CA 95814
(916) 323-3562

Frequently Asked Questions about Lead Testing of Drinking Water in California Schools

DISCLAIMER: This document is intended to provide answers to questions that may arise regarding lead testing of drinking water in California schools. Nothing in this document supersedes any statutory or regulatory requirements or permit provisions for public water systems.

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Purpose and Requirements of Permit Amendments Requiring Public Water Systems to Assist Schools in Lead Testing of Drinking Water

1. What are the new permit requirements for lead testing of drinking water in California schools? Why were these permit amendments issued?

In early 2017, the State Water Resources Control Board Division of Drinking Water (DDW) and the Local Primacy Agencies who have delegated enforcement authority over public water systems issued amendments to the domestic water supply permits of approximately 1,200 community water systems. The permit amendments were issued to community water systems that DDW or the LPA, respectively, had reason to believe served a K-12 school. The permit amendments require the water systems to which they were issued to collect and analyze up to five water samples from drinking water fountains and regularly used drinking water faucets at a school, if the testing is requested by a superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school.

Recent events in cities across the United States have shown that lead in drinking water remains an ongoing public health challenge and an important concern for children's health. DDW or the LPA issued the permit amendments to allow schools (Kindergarten through 12th grade) to perform lead testing on water from regularly used drinking water faucets used for drinking or cooking, and requiring community water systems to assist schools in this effort.

2. Are schools required to test their drinking water for lead?

There are approximately 500 schools in California that are permitted as a public water system because they have their own water supply, such as a well. Those schools are already required to test their taps for lead (and copper), and have been performing this testing for many years. No permit amendments were issued to schools that are already regulated as public water systems.

However, most schools in California are served by community water systems which have not been required to test their water for lead under the current Lead and Copper Rule.

3. Why did our water system receive a permit amendment requiring lead testing of drinking water in schools when there are no schools in our distribution system?

DDW and the LPAs issued the permit amendments requiring lead testing of drinking water in California schools to those community water systems in California that they believe serve a school. If your water system does not serve potable water to at least

one K-12 school listed in the California School Directory, the permit amendment does not apply to your water system and no further action is necessary.

4. Our water system is regulated by a Local Primacy Agency (LPA), not DDW. How do the lead testing requirements apply to our system?

The LPAs issued permit amendments to those community water systems they regulate that they believed to be serving a K-12 school. The LPA should be consulted as needed and as required by the permit amendment. As stated in the permit amendment, sampling results should be reported to the DDW database, rather than to the LPA.

Requests for Lead Sampling in Schools

5. I am a school administrator. How can I have the drinking water at my school tested for lead?

The superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school must submit a written request to the public water system that serves water to the school. DDW has created a template to request sampling. The designee is any authorized school personnel designated in writing by the superintendent, charter school governing board, or private school administrator, such as an environmental health manager or principal. The superintendent, charter school governing board, or private school administrator must provide written authorization to the water system for a designee to request lead testing. Water systems are not required to proceed with lead sampling at a school if a written request has not been made by authorized personnel.

You can visit the DDW website to determine which community water system serves your school. You can also contact your local DDW office and we can assist you in determining which community water system serves your school.

6. When can lead testing be requested?

The superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school that is served by a public water system to whom a permit amendment was issued can submit a written request for lead testing to their community water system any time before November 1, 2019.

7. Which schools can request lead testing of their drinking water?

The DDW-issued permit amendments require community water systems to assist any school in their service area that is listed in the California School Directory. This directory includes schools for grades K-12, including private, charter, magnet and

non-public schools. The directory does *not* include preschools, daycare centers, or postsecondary schools.

Collecting Samples in Schools

8. How will the lead testing be performed?

As stated in the permit amendments and documents referenced in the amendments, a water system representative will make an appointment to come to the school, develop a sampling plan, and collect up to five water samples. Samples may be collected from regularly used drinking fountains, cafeteria/food preparation areas, or reusable water bottle filling stations. Samples may be taken at sites where drinking water receives additional treatment, such as water softening. Sampling sites should be selected according to the sampling guidance prepared by DDW, which is referenced in the permit amendments.

The samples will be sent to a laboratory for analysis. Laboratories used for sample analysis must be certified for lead testing of drinking water by the state Environmental Laboratory Accreditation Program (ELAP).

9. When will the sampling be conducted?

The permit amendments require that within 90 days of receiving the sampling request, the water system must meet with school officials, finalize a sampling plan, and collect water samples, or develop an alternate schedule that is approved by DDW.

The samples will be collected while school is in session in order to get the most representative results. Samples will be collected by a water system representative who is adequately trained to collect lead samples. The water system will receive the results of the sample analyses from the laboratory and meet with school officials to discuss the sampling results.

10. What size sample bottle should be used? How should the sample be preserved? Should aerators be removed? Can samples be invalidated?

DDW has prepared a sampling protocol for lead testing of drinking water in California schools, which includes information on sample bottle size, preservation and chain of custody requirements, reporting requirements, and sample invalidation procedures. It should be noted that the DDW sampling protocol has different requirements than the USEPA's *3Ts (Training, Testing and Telling) Program for Schools*, including sample size and lead action level. Water systems should adhere to the DDW sampling protocol when conducting lead sampling in California schools.

11. Who pays for lead testing of drinking water in California schools?

The permit amendments require that the community water system that serves the school is responsible for all costs associated with collecting, analyzing, and reporting drinking water samples for lead testing at up to five locations at each school, and is required to meet with the authorized school representative to develop a sampling plan and review the sampling results. The community water system will *not* pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water, but is required to conduct repeat sampling at the school to confirm elevated lead levels and the effectiveness of any corrective action taken by the school.

12. Can a school take drinking water samples at more than five locations?

The DDW-issued permit amendments require that water systems assist schools in sampling up to five locations at each school. If the school district wishes to sample additional locations, the water system is not required to assist in the collection or analysis of those samples. Only five samples per school will be reported to the DDW database.

Reporting Results

13. Who will get the results of lead testing of drinking water performed at California schools?

The permit amendments require that the lab results from the sampling be reported directly to the community water system. The water system will then provide the results to the school and meet with the school staff to assist with interpretation of the sample results, as described in the permit amendments.

Water systems are required to include a summary of the number of schools requesting lead sampling in their annual Consumer Confidence Report (CCR).

14. When taking the school samples, my water system would like to take a distribution system sample at the same time. How do I report this sample result?

A distribution system sample, such as from a routine Total Coliform Rule (TCR) monitoring location near the school, may be taken at the same time as the school sampling is performed to determine water quality before it enters the school's plumbing. This is a routine practice at some water systems; however, these distribution samples are not required by the DDW-issued permit amendment and should not be reported to the DDW database, because the database is only designed to accept sample results from school tap locations.

Interpreting and Responding to Sample Results

15. What is the action level for lead in drinking water at schools?

The DDW-issued permit amendments and the sampling protocol referenced in the permit amendments have established 15 parts per billion (ppb) as the action level for lead sampling in schools. This is the same concentration as the action level for residential tap sampling conducted by water systems for the Lead and Copper Rule. One part per billion is equivalent to about one drop in an Olympic-sized swimming pool.

The USEPA's *3Ts (Training, Testing and Telling) Program for Schools* currently uses 20 ppb in a 250 milliliter (mL) sample as the trigger level for follow-up testing; however, the California lead sampling of drinking water in schools sampling protocol was developed to align more closely with the tap sampling already performed by community water systems under the Lead and Copper Rule.

16. The Lead and Copper Rule uses a 90th percentile value to determine compliance with the action level. Does that apply to the lead sampling in schools program?

Each sample location at a school is compared individually to the 15 ppb action level. There is no 90th percentile calculation.

17. What happens if lead is detected in the drinking water at a school?

The USEPA's *3Ts (Training, Testing and Telling) Program for Schools* and the American Water Works Association's *Assisting Schools and Child Care Facilities in Addressing Lead in Drinking Water* contain detailed information on routine, interim, and long-term remedies if lead is detected in drinking water at a school.

As required by the permit amendments, the community water system will notify school officials within two school business days of receiving any sample results that exceed the lead action level of 15 parts per billion (ppb), and will then meet with the school staff to assist with interpretation of the sample results and provide information regarding potential corrective actions. The water system will conduct repeat sampling at any locations that exceed 15 ppb and obtain the results from the laboratory within 10 business day, as well as after any corrective action is taken. Repeat sampling will not be conducted at a sample site if the school chooses to remove the tap from service.

The community water system that serves the school is responsible for all costs associated with collecting, analyzing, and reporting drinking water samples for lead testing at California schools required by the permit amendments and the water system is also required to meet with the authorized school representative to develop

a sampling plan and review the sampling results. The community water system will *not* pay for any maintenance or corrections needed at the school.

To assist schools in providing access to, and improving the quality of, drinking water in public schools pursuant to Senate Bill 828 (2016), the State Water Board is establishing a new grant program. Approximately $9.5 million will be available later in 2017 for schools to install water bottle filling stations, install or replace drinking water fountains, and for the installation of treatment devices at these locations that are capable of removing contaminants from drinking water.

It should be noted that DDW has no regulatory authority over schools served by public water systems and cannot require any specific action be taken by the school or school district in the event of a lead action level exceedance at a school.

18. If elevated lead levels are found in a school's drinking water, will other drinking water tap locations be sampled for lead?

If elevated lead levels are found in a school, the school district may choose to sample additional drinking water tap locations; however, the community water system that serves the school is not required to conduct sampling at any locations other than the five locations chosen for initial sampling.

19. If elevated lead levels are found in a school's drinking water, will the community water system that serves the school receive a citation or fines?

Community water system compliance with the Lead and Copper Rule will continue to be determined by the results of residential sampling done according to the water system's Lead and Copper Rule tap sampling plan. Elevated lead levels found during a special sampling event at a school will not cause a water system to be out of compliance with the Lead and Copper Rule.

Information about Lead Sources and Health Effects

20. What are other environmental sources of lead exposure for children?

According to the USEPA's 3Ts (Training, Testing and Telling) Program for Schools, the most common source of lead exposure for children is chips and particles of deteriorated lead paint, especially if they are exposed to house dust or soil contaminated by leaded paint. Other potential sources include lead in the air from industrial emissions, lead deposits in soils near streets from past emissions by automobiles using leaded gas, and lead in consumer products and food, such as imported candies, medicines, dishes, toys, jewelry, and plastics.

21. Where does lead in drinking water come from?

According to the USEPA's *3Ts (Training, Testing and Telling) Program for Schools*: "Most lead gets into drinking water after the water leaves the local well or treatment plant and comes into contact with plumbing materials containing lead. These include lead pipe and lead solder (commonly used until 1986), as well as faucets, valves, and other components made of brass. The physical/chemical interaction that occurs between the water and plumbing is referred to as corrosion. The extent to which corrosion occurs contributes to the amount of lead that can be released into the drinking water."

22. What are the health risks of lead in drinking water?

Lead can affect almost every organ and system in your body. The most sensitive is the central nervous system (brain), particularly in children. Lead also damages kidneys and the reproductive system. The effects are the same whether it is breathed or swallowed. Lead in children's blood has been associated with reduced IQ and attention span, learning disabilities, poor classroom performance, hyperactivity, behavioral problems, impaired growth, and hearing loss.

Infants and children who drink water containing lead in excess of the lead action level may experience delays in their physical or mental development. Children may show slight deficits in attention span and learning abilities. Adults who drink this water over many years may develop kidney problems or high blood pressure.

Information about Lead Testing of Drinking Water in Other Locations

23. How can I find out what my community water system's Lead and Copper Rule sampling results are?

Lead and copper sampling results, as well as other water quality data, are reported in your community water system's annual Consumer Confidence Report (CCR), which is sent or emailed to customers around July 1 of every year. You can obtain a copy of the most recent CCR by contacting your community water system by phone or checking their website. You can also search the USEPA website for the CCR.

24. How can I have the drinking water at my home tested for lead?

USEPA has recommendations for testing drinking water in the home. You can also find information on lead sampling in drinking water for individual homeowners and homes on a private well on the State Water Board website. State-certified, commercial labs that can analyze drinking water for lead and other inorganics can be found by searching the Geographic Information System map on the ELAP website. Customers can also contact their community water system and volunteer to participate in the residential tap sampling program for the Lead and Copper Rule.

Sources of Additional Information about Lead Testing of Drinking Water in California Schools

25. Whom can I contact for more information about lead testing of drinking water in California schools?

If you have additional questions about any aspect of lead testing of drinking water in California schools, send an email to DDW-PLU@waterboards.ca.gov, or call (916) 449-5646.

26. Can I get information about lead testing of drinking water in California schools in Spanish?

En español:

- Preguntas Frecuentes (FAQs) sobre las Pruebas para Detectar Plomo en el Agua Potable de Escuelas de CA
- USEPA El plomo del agua potable en las escuelas y los centros de cuidado infantil: https://espanol.epa.gov/espanol/el-plomo-del-agua-potable-en-las-escuelas-y-los-centros-de-cuidado-infantil

Links to Resources Cited in this Document

Title	Author	Link
DDW Lead Sampling in Schools Website	**DDW**	http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
3Ts for Reducing Lead in Drinking Water in Child Care Facilities	USEPA	http://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=20017JVA.txt
3Ts for Reducing Lead in Drinking Water in Schools	USEPA	https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf
Assisting Schools and Child Care Facilities in Addressing Lead in Drinking Water	AWWA	http://www.awwa.org/portals/0/files/legreg/documents/assistingschoolslead2005.pdf
California School Directory	CDE	http://www.cde.ca.gov/re/sd/index.asp
Centers for Disease Control Healthy Schools	CDC	http://www.cdc.gov/healthyschools/nutrition/schoolnutrition.htm
Certified Environmental Laboratories in California	ELAP	http://www.waterboards.ca.gov/drinking_water/certlic/labs/index.shtml
Consumer Confidence Report Search Tool	USEPA	https://ofmpub.epa.gov/apex/safewater/f?p=136:102
DDW District Office Contact Information	DDW	http://www.waterboards.ca.gov/drinking_water/programs/documents/ddwem/DDWdistrictofficesmap.pdf
DDW Lead Sampling in Schools Sampling Protocol	DDW	http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
DDW Supply Service Area Lookup Tool	DDW	http://www.waterboards.ca.gov/waterrights/water_issues/programs/drought/water_supplier.shtml
Home Water Testing	USEPA	https://www.epa.gov/sites/production/files/2015-11/documents/2005_09_14_faq_fs_homewatertesting.pdf

National Drinking Water Alliance	UC	http://www.drinkingwateralliance.org
School Water Quality Improvement Funding Program	DFA	http://www.waterboards.ca.gov/water_issues/programs/grants_loans/
Water Quality Funding Sources for Schools	USEPA	https://www.epa.gov/dwreginfo/water-quality-funding-sources-schools-resource-k-12-schools-and-child-care-facilities

October 12, 2017

KeyCite Yellow Flag - Negative Treatment
Distinguished by Pajaro Valley Water Mgmt. Agency v. Amrhein, Cal.App. 6 Dist., May 21, 2007

24 Cal.4th 830
Supreme Court of California

APARTMENT ASSOCIATION OF LOS ANGELES COUNTY, INC., et al., Plaintiffs and Appellants,
v.
CITY OF LOS ANGELES, Defendant and Respondent.

No. S082645.
|
Jan. 8, 2001.

Synopsis
Association of apartment owners sought declaratory and injunctive relief, challenging validity of city ordinances which imposed fee on residential rental properties for purpose of funding program for eradication of substandard housing. The Superior Court, Los Angeles County, No. BC195216, Charles W. McCoy, Jr., J., sustained city's demurrer. Association appealed. The Supreme Court granted review superseding the opinion of the Court of Appeal. The Supreme Court, Mosk, J., held that city ordinance imposed fee upon business activity of renting residential dwellings and, thus, did not violate provision of state constitution restricting fees imposed directly on property owners in their capacity as such.

Reversed.

Opinion, 88 Cal.Rptr.2d 255, superseded.

Brown, J., filed a dissenting opinion, in which Baxter, J., joined.

West Headnotes (12)

[1] **Appeal and Error** Review Dependent on Whether Questions Are of Law or of Fact
Question of law is for the appellate courts to decide on independent review of the facts.

6 Cases that cite this headnote

[2] **Municipal Corporations** Constitutional Requirements and Restrictions
City ordinance imposing an inspection fee on private landlords was imposed upon business activity of renting residential dwellings, that was separate and apart from property ownership and that was more in the nature of a fee for a business license than a charge against property, and, thus, did not violate provision of state constitution restricting fees imposed directly on property owners in their capacity as such. West's Ann.Cal. Const. Art. 13D, § 2(e).

18 Cases that cite this headnote

[3] **Evidence** Laws of the State

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Supreme Court would take judicial notice of printed discussion issued by the Legislative Analyst in connection with initiative measure under consideration. West's Ann.Cal.Evid.Code §§ 452(c), 459(a).

Cases that cite this headnote

[4] **Municipal Corporations** Constitutional Requirements and Restrictions

Provisions of state constitution restricting fees imposed directly on property owners in their capacity as such is progeny of state constitutional provisions governing tax limitation and, accordingly, must be construed in that context. West's Ann.Cal. Const. Art. 13A, § 1 et seq.; Art. 13D, § 1 et seq.

2 Cases that cite this headnote

[5] **Taxation** Levy and apportionment

Levy may not be imposed on a property owner in its capacity as property owner, unless it meets constitutional prerequisites. West's Ann.Cal. Const. Art. 13D, § 2(e).

1 Cases that cite this headnote

[6] **Property** Right of alienation

Power to alienate property or a property right is not limited to the right to sell or assign it; it means generally the power to transfer or convey it to another.

Cases that cite this headnote

[7] **Property** Right of alienation

Right of alienation applies when fee holders seek to convey lesser estates.

Cases that cite this headnote

[8] **Municipal Corporations** Constitutional Requirements and Restrictions

Supreme Court may not interpret provisions of state constitution governing assessment and property related fee reform as if it had been rewritten. West's Ann.Cal. Const. Art. 13D, § 1 et seq.

Cases that cite this headnote

[9] **Municipal Corporations** Constitutional Requirements and Restrictions

Any incongruity regarding exemptions for existing development fees and all charges to provide gas and electrical service in provision of state constitution limiting property taxes, assessments, fees, and charges could not trump the plain language limiting provision's application to exactions levied solely by virtue of property ownership. West's Ann.Cal. Const. Art. 13D, §§ 1(b), 2(e), 3(b).

18 Cases that cite this headnote

[10] **Municipal Corporations** Constitutional Requirements and Restrictions

City's ability to enforce payment of inspection fee by imposing a lien on property did not establish that fee was property-related, rather than business-related, within meaning of provision of state constitution restricting

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fees imposed directly on property owners in their capacity as such; city was simply availing itself of all possible means to collect the fee. West's Ann.Cal. Const. Art. 13D, § 2(e).

14 Cases that cite this headnote

[11] **Municipal Corporations** Constitutional Requirements and Restrictions

Liberal construction cannot overcome the plain language of provision of state constitution limiting its scope to exactions levied solely by virtue of property ownership. West's Ann.Cal. Const. Art. 13D, § 2(e).

1 Cases that cite this headnote

[12] **Constitutional Law** Intrinsic Aids to Construction

Statutes Liberal or strict construction

As a rule, a command that a constitutional provision or a statute be liberally construed does not license either enlargement or restriction of its evident meaning.

6 Cases that cite this headnote

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Opinion

MOSK, J.

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We granted review to decide whether a city ordinance imposing an inspection fee on private landlords violates article XIII D of the California Constitution (article XIII D), added by initiative measure, Proposition 218, in 1996. We conclude that it does not.

In July 1998, the City of Los Angeles put into effect the Los Angeles Housing Code. It is codified as article 1 of chapter XVI of the Los Angeles Municipal Code (§ 161.101 et seq.). Later that month, plaintiffs sued the city for declaratory and injunctive relief, alleging that Los Angeles Municipal Code section 161.352, imposing an inspection fee on private landlords, is unenforceable because it was enacted without complying with section 6 of article XIII D. The city demurred. The trial court sustained the demurrer without *****721** leave to amend, finding that the fee was not subject to the constitutional requirements. It entered judgment for the city.

In its statement of decision, the trial court recognized that the inspection fee "appears arguably to fall within the wide range of assessments which Proposition 218 was apparently written to encompass." But it added, "In ***834** *Pennell v. City of San Jose* (1986) 42 Cal.3d 365, 375[, 228 Cal.Rptr. 726, 721 P.2d 1111], the California Supreme Court held that a fee charged to cover the costs of operating San Jose's rent control ordinances, and not used to raise general revenue, is not subject to Article XIII A of the California Constitution. The City's ordinance here fits squarely within both the reason and rule of *Pennell.* The ordinance levies only property used for residential apartment rentals, and the money is used only to pay for regulat [ing such] rentals to insure, among other things, that they do not degenerate into what is commonly called 'slum conditions.' The assessment is not imposed on all property owners-only a subset of owners who rent apartments."

****933** The Court of Appeal reversed, holding that the state constitutional provision invalidated the city ordinance. The court wrote: "There is nothing in Proposition 218 that exempts regulatory fees imposed on residential rental properties. It thus adds nothing to say, as does the City, that the fees are not 'imposed upon property owners in general, but only those who voluntarily engage in the business of renting, generate the risks of slum housing, and specially benefit from regular inspections as they contribute to the overall reputability and safety of the housing provided.' Quite plainly, Proposition 218 applies to any 'fee' or 'charge,' both of which are defined to mean 'any levy other than an ad valorem tax, a special tax, or an assessment, imposed by an agency upon a parcel or upon a person as an incident of property ownership, including a user fee or charge for a property-related service.' (Art. XIII D, § 2, subd. (e)....) However well intentioned the City's program to abolish slum housing may be, we find it impossible to say that a fee imposed upon the owners of rental units so the City can locate and eradicate substandard housing is anything other than a user fee or charge for a property-related service." (Italics and fn. omitted.)

I.

A.

Section 161.102 of the Los Angeles Municipal Code states the reason for enacting the Los Angeles Housing Code: "It is found and declared that there exist in the City of Los Angeles substandard and unsanitary residential buildings and dwelling units the physical conditions and characteristics of which render them unfit or unsafe for human occupancy and habitation, and which conditions and characteristics are such as to be detrimental to or jeopardize the health, safety and welfare of their occupants and of the public.

"It is further found and declared that the existence of such substandard buildings as dwelling units threatens the physical, social and economic stability of sound residential buildings and areas, and of their supporting ***835** neighborhood facilities and institutions; necessitates disproportionate expenditures of public funds for remedial action; impairs the efficient and economical exercise of governmental powers and functions; and destroys the amenity of residential areas and neighborhoods and of the community as a whole."

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Los Angeles Municipal Code section 161.301, entitled Scope, declares that the Los Angeles Housing Code applies to "all residential rental properties with two or more dwelling units on the same lot, the land, buildings and structures appurtenant thereto," but not to owner-occupied units, on-campus dormitory housing, hotels, motels, or certain other types of housing also specifically exempted.

Division 3.5 of the Los Angeles Housing Code (§ 161.351 et seq.) is entitled Housing Inspection Fees. Section 161.351 limits the scope of division 3.5 to "residential *****722** rental properties with two or more dwellings subject to the provisions of this Code." Those properties "will be subject to regular inspection by the General Manager or an authorized representative. Inspections may also be complaint-based." (*Ibid.*)

Section 161.352 of the Los Angeles Municipal Code, at issue here, sets forth the inspection fee schedule. It provides, in its entirety: "Owners of all buildings subject to inspection shall pay a service fee of $12.00 per unit per year. The fee will be used to finance the cost of inspection and enforcement by the Housing Department. Should the owner fail to pay the required fee, the City of Los Angeles will recover it, plus accrued interest, utilizing any remedies provided by law including nuisance abatement or municipal tax lien procedures established by ordinance or state law. This fee shall be known as the 'Systematic Code Enforcement Program Fee.' " (*Ibid.,* boldface omitted.)

B.

In November 1996 the voters approved Proposition 218, the Right to Vote on Taxes Act. (Ballot Pamp., Gen. Elec. (Nov. 5, 1996) text of Prop. 218, § 1, p. 108; reprinted as Historical Notes, 2A West's Ann. Cal. Const. (2001 supp.) foll. art. XIII C, § 1, p. 33.) The proposition amended the California Constitution, adding article XIII D. Section 3, ****934** subdivision (a)(3) of article XIII D provides that, with certain exceptions not relevant here, "No tax, assessment, fee, or charge shall be assessed by any agency upon any parcel of property or upon any person as an incident of property ownership except: [¶] ... [¶] ... as provided by this article." An agency is a local or regional governmental entity. (*Id.,* § 2, subd. (a); Cal. Const., art. XIII C, § 1, subd. (b).)

***836** Section 1 of article XIII D provides that it applies to "all assessments, fees and charges, whether imposed pursuant to state statute or local government charter authority." Fees and charges are defined in subdivision (e) of section 2 thereof. " 'Fee' or 'charge' means any levy other than an ad valorem tax, a special tax, or an assessment, imposed by an agency upon a parcel or upon a person as an incident of property ownership, including a user fee or charge for a property-related service." (*Ibid.*)

"Property-related service" is further defined. It "means a public service having a direct relationship to property ownership." (Art. XIII D, § 2, subd. (h).)

Thus, and in summary, article XIII D applies, with certain exceptions not relevant here, to "any levy ... upon a parcel or upon a person as an incident of property ownership, including a user fee or charge for a property-related service." (Art. XIII D, § 2, subd. (e).) As will appear, the outcome of this case turns on the meaning of this language.

C.

[1] Before us is "a question of law for the appellate courts to decide on independent review of the facts." (*Sinclair Paint Co. v. State Bd. of Equalization* (1997) 15 Cal.4th 866, 874, 64 Cal.Rptr.2d 447, 937 P.2d 1350.) Though our reasoning turns on the language of the constitutional stricture, it may be helpful to explain, as did the Court of Appeal in *Howard*

Jarvis Taxpayers Assn. v. City of Riverside (1999) 73 Cal.App.4th 679, 86 Cal.Rptr.2d 592 (*Howard Jarvis*), the reasons that led to placing Proposition 218 on the ballot.

"Proposition 218 can best be understood against its historical background, which begins in 1978 with the adoption of Proposition 13. 'The purpose of Proposition 13 was to cut local property taxes. [Citation.]' [Citation.] Its principal provisions limited ad valorem property taxes to 1 percent of a property's assessed valuation and limited increases in the assessed valuation to 2 percent per year unless and until the property changed hands. (Cal. Const., art. XIII A, §§ 1, 2.)

"To prevent local governments from subverting its limitations, Proposition 13 also prohibited counties, cities, and special *****723** districts from enacting any special tax without a two-thirds vote of the electorate. (Cal. Const., art. XIII A, § 4; *Rider* v. *County of San Diego* (1991) 1 Cal.4th 1, 6–7, 2 Cal.Rptr.2d 490, 820 P.2d 1000.) It has been held, however, that a special assessment is not a special tax within the meaning of Proposition 13. (*Knox* v. *City of* ***837** *Orland* (1992) 4 Cal.4th 132, 141, 14 Cal.Rptr.2d 159, 841 P.2d 144, and cases cited.) Accordingly, a special assessment could be imposed without a two-thirds vote.

"In November 1996, in part to change this rule, the electorate adopted Proposition 218, which added articles XIII C and XIII D to the California Constitution. Proposition 218 allows only four types of local property taxes: (1) an ad valorem property tax; (2) a special tax; (3) an assessment; and (4) a fee or charge. (Cal. Const., art. XIII D, § 3, subd. (a)(1)–(4); see also [*id.*], § 2, subd. (a).) It buttresses Proposition 13's limitations on ad valorem property taxes and special taxes by placing analogous restrictions on assessments, fees, and charges." (*Howard Jarvis, supra,* 73 Cal.App.4th 679, 681–682, 86 Cal.Rptr.2d 592.)

D.

[2] The Court of Appeal explained the parties' differing views of the effect of article XIII D on the city ordinance. "As viewed by [plaintiffs], the fee is imposed 'upon a parcel or upon a person as an incident of property ownership' and is, therefore, subject to the procedural requirements of Proposition 218. As viewed by the City, the fee is imposed upon a business activity (the rental of residential ****935** dwellings), separate and apart from property ownership, and purely for regulatory purposes, and it is therefore not subject to Proposition 218." (Italics omitted.)

[3] Adhering before us to their point of view, plaintiffs contend that "nothing in Proposition 218 ... support[s] the contention that [it] was not meant to affect the ability of local governments to impose and collect business 'regulatory fees.' " The city also adheres to its position, devoting much of its briefing to an argument that because its inspection fee is a regulatory fee on business operations, it falls outside the purview of article XIII D. Examining the ballot arguments for and against Proposition 218 and the Legislative Analyst's analysis of the measure, the city also contends that article XIII D was intended only to restrict fees imposed directly on property owners in their capacity as such. A regulatory fee imposed on residential rental businesses, the city argues, necessarily falls outside article XIII D's ambit, even if the fee bears some relation to ownership of real property. [1]

As will appear, neither party is entirely correct. The relevant language of article XIII D does not compel a conclusion in plaintiffs' favor; rather, it ***838** compels the opposite. The city also misses the mark when it contends (or at least implies) that a regulatory fee or a levy on the operation of a business necessarily falls outside the scope of article XIII D.

But both parties are partly correct. Plaintiffs accurately state that the constitutional provision does not speak of regulatory fees or levies on business operations. Hence, the mere fact that a levy is regulatory (as this inspection fee clearly is) or touches on business activities (as it clearly does) is not enough, by itself, to remove it from article XIII D's scope. But the city is correct that article XIII D only restricts *****724** fees imposed directly on property owners in their capacity as such. The inspection fee is not imposed solely because a person owns property. Rather, it is imposed because

the property is being rented. It ceases along with the business operation, whether or not ownership remains in the same hands. For that reason, the city must prevail.

II.

Section 2 of Proposition 218 stated the measure's purpose. "The people of the State of California hereby find and declare that Proposition 13 was intended to provide effective tax relief and to require voter approval of tax increases. However, local governments have subjected taxpayers to excessive tax, assessment, fee and charge increases that not only frustrate the purposes of voter approval for tax increases, but also threaten the economic security of all Californians and the California economy itself. This measure protects taxpayers by limiting the methods by which local governments exact revenue from taxpayers without their consent." (Ballot Pamp., Gen. Elec., *supra*, text of Prop. 218, § 2, p. 108; reprinted as Historical Notes, 2A West's Ann. Cal. Const. *supra,* foll. art. XIII C, § 1, p. 33.)

The repeated references to taxes and taxpayers suggest an intent to prohibit unratified exactions imposed on property owners as such, rather than on the business of renting or leasing apartments—i.e., "residential rental properties with two or more dwellings" (L.A.Mun.Code, § 161.351).

[4] As explained in *Howard Jarvis, supra,* 73 Cal.App.4th 679, 86 Cal.Rptr.2d 592, Proposition 218 is Proposition 13's progeny. Accordingly, it must be construed in that context. (*People ex rel. Lungren v. Superior Court* (1996) 14 Cal.4th ***839** 294, 301, 58 Cal.Rptr.2d 855, 926 P.2d 1042.) Specifically, because Proposition 218 was designed to close government-devised loopholes in Proposition 13, the intent and purpose of the latter ****936** informs our interpretation of the former. Proposition 13 was directed at taxes imposed on property owners, in particular homeowners. The text of Proposition 218, the ballot arguments (both in favor and against), the Legislative Analyst's analysis, and the annotations of the Howard Jarvis Taxpayers Association, which drafted Proposition 218, all focus on exactions, whether they are called taxes, fees, or charges, that are directly associated with property ownership.

The Legislative Analyst's analysis, printed in the November 1996 ballot pamphlet, is illustrative. It explained that Proposition 218 "would constrain local governments' ability to impose fees, assessments, and taxes," meaning "property-related" fees, including fees for water, sewer and refuse collection, but excluding gas and electricity charges (see Cal. Const., art. XIII D, § 3, subd.(b)) and development fees (see *id.,* § 1, subd.(b)). (Ballot Pamp., Gen. Elec., *supra*, Legis. Analyst's analysis, p. 73.) It did not refer to levies linked more indirectly to property ownership.

The ballot arguments for Proposition 218 are also illustrative. "Proposition 218 guarantees your right to vote on local tax increases-even when they are called something else, like 'assessments' or 'fees' and imposed on homeowners." (Ballot Pamp., Gen. Elec., *supra*, argument in favor of Prop. 218, p. 76.) "After voters passed Proposition 13, politicians created a loophole in the law that allows them to raise taxes without voter approval by calling taxes 'assessments' and 'fees.' " (*Ibid.*) "There are now over 5,000 local districts which can impose fees and assessments without the consent of local voters. Special districts have increased assessments by over 2400% over 15 years. Likewise, cities have increased utility taxes 415% and raised benefit assessments 976%, a ten-fold increase." (*Ibid.*) "To confirm the impact of fees and assessments on you, look at your property tax bill. You will see a growing list of assessments imposed without voter approval. The list will grow even longer unless Proposition 218 passes." (*Ibid.*)

*****725** The ballot arguments identify what was perhaps the drafter's main concern: tax increases disguised via euphemistic relabeling as "fees," "charges," or "assessments." But in fairness to plaintiffs, it cannot be denied that the text of article XIII D does not limit its scope to taxes and taxpayers. We turn to the definitive language: restrictions on *any* levy imposed "upon a parcel or upon a person as an incident of property ownership." (Art. XIII D, § 2, subd. (e).)

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[5] The foregoing language means that a levy may not be imposed on a property owner as such—i.e., in its capacity as property owner—unless it ***840** meets constitutional prerequisites. In this case, however, the fee is imposed on landlords not in their capacity as landowners, but in their capacity as business owners. The exaction at issue here is more in the nature of a fee for a business license than a charge against property. It is imposed only on those landowners who choose to engage in the residential rental business, and only while they are operating the business.

The contrary reasoning of the Court of Appeal, and of plaintiffs, stems from a reliance on the word "incident," leaving aside that the constitutional provision does not refer to fees imposed *on* an incident of property ownership, but on a parcel or a person *as* an incident of property ownership. As amicus curiae for the city persuasively argue, the distinction is crucial.

Were the principal words *parcel* and *person* missing, and were *as* replaced with *on,* so that article XIII D restricted the city's ability to impose fees "on an incident of property ownership," plaintiffs' argument might have merit. For among the incidents[2] ****937** of estates in land are the so-called bundle of rights that flow from such tenure. (31 C.J.S. (1996) Estates § 12, pp. 28–30; *id.,* § 14, pp. 32, 34; *id.,* § 31, p. 58.) Among them is the fundamental right to alienate one's property held in fee simple. (E.g., *id.,* § 12, p. 30; *Holien v. Trydahl* (N.D.1965) 134 N.W.2d 851, 856; *Davis v. Geyer* (1942) 151 Fla. 362, 369, 9 So.2d 727, 728; ***841** *Hardy v. Galloway* 1892) 111 N.C. 519, 523, 15 S.E. 890; see also *Yee v. City of Escondido* (1992) 503 U.S. 519, 528, 112 S.Ct. 1522, 118 L.Ed.2d 153.) That incident, or right, has been called "inseparable" (*Holien, supra,* 134 N.W.2d at p. 856; *Hardy, supra,* 15 S.E. at p. 890), "indispensable" (*Dukes v. Crumpton* (1958) 233 Miss. 611, 620, 103 So.2d 385, 388), and "necessary" (*Re Collier* (Nfld.1966) 60 D.L.R.2d 70, 75 [52 M.P .R. 211, 216] (per Puddester, J.)).

*****726** **[6]** **[7]** The power to alienate property or a property right is not limited to the right to sell or assign it. It means generally the power "to transfer or convey [it] to another." (Black's Law Dict., *supra,* p. 73, col. 1.) The conveyance need not be the whole fee. The right of alienation applies when fee holders seek to convey lesser estates.[3] " '[T]he power or right of alienation' " " 'incident to the ownership of an estate in fee-simple' " " 'include[s] the power or right to dispose of property held in fee ... by *lease,* mortgage, or other mode of conveyance....' " (*Porter v. Barrett* (1925) 233 Mich. 373, 379–380, 206 N.W. 532, 535, quoting *Manierre v. Welling* (1911) 32 R.I. 104, 140, 78 A. 507, 522, italics added here.)

Accordingly, *if* article XIII D restricted the city's ability to impose a "tax, assessment, fee, or charge on an incident of property ownership" (cf. *id.,* §§ 2, subd. (e), 3), plaintiffs' argument might be persuasive. The business of renting apartments is an incident of owning them, an activity necessarily dependent on that ownership but not vice versa. One can own apartments without renting them, but no one can rent them without owning them. (See fn. 2, *ante,* 102 Cal.Rptr.2d at p. 725, 14 P.3d at p. 936.)[4]

****938** **[8]** But the language of article XIII D is materially dissimilar. As stated, article XIII D, section 3 provides that "[n]o tax, assessment, fee, or charge ***842** shall be assessed by any agency upon any parcel of *****727** property or upon any person as an incident of property ownership except ... [¶] ... [¶] ... as provided by this article." (See also *id.,* § 2, subd. (e).) In other words, taxes, assessments, fees, and charges are subject to the constitutional strictures when they burden landowners *as landowners.* The ordinance does not do so: it imposes a fee on its subjects by virtue of their ownership of a business—i.e., because they are landlords.[5] What plaintiffs ask us to do is to alter the foregoing language-changing "as an incident of property ownership" to "on an incident of property ownership." But to do so would be to ignore its plain meaning-namely, that it applies only to exactions levied solely by virtue of property ownership. We may not interpret article XIII D as if it had been rewritten. (Accord, *People ex rel. Lungren v. Superior Court, supra,* 14 Cal.4th 294, 301, 58 Cal.Rptr.2d 855, 926 P.2d 1042.)

The language of article XIII D, sections 2, subdivision (e), and 3, shows that it applies to levies imposed on a person or on property strictly as an incident of property ownership. Had the law included levies imposed on incidents of the ownership

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or use of residential real property (as relevant ***843** here, the exercise of the right to rent one's property), its text would have said so. But it did not. And although the plain language of the relevant constitutional provisions requires us not to consider extrinsic evidence of the voters' intent, we reiterate, purely as an aside, that neither the ballot arguments nor the Legislative Analyst's analysis suggested that article XIII D was intended to encompass fees of the type at issue here.

The subordinate clause in section 2, subdivision (e), of article XIII D, as clarified in section 2, subdivision (h), supports our conclusion. It may be recalled that among the fees or charges covered by article XIII D, section 2, subdivision (e), is "a user fee or charge for a property-related service." Such a service "means a public service having a direct relationship to property ownership." (*Id.,* § 2, subd. (h).) In this case, the relationship between the city's inspection fee and property ownership is indirect—it is overlain by the requirement that the landowner be a landlord.

As stated, the foregoing clause is subordinate. It does not include all possible fees and charges that fall within the ambit of article XIII D. But it does provide additional evidence of the scope of the constitutional ****939** provision.[6]

*****728** At oral argument, plaintiffs emphasized article XIII D's exemptions for existing development fees and all charges to provide gas and electrical ***844** service. (Art. XIII D, §§ 1, subd. (b), 3, subd. (b).) They assert that a developer fee is a fee on an incident of property—the right to improve it—and that there would have been no need to exempt such fees if other fees imposed on incidents of property did not fall within article XIII D's scope. Similarly, they argue that one can own property without having utility service, and that if article XIII D applied strictly to levies that are imposed solely on the basis of property ownership, there would have been no need to exempt such utility charges in the constitutional provision.

[9] We note, however, that the provision regarding development fees refers only to those existing at the time of article XIII D's enactment. Moreover, it is unclear to us whether a fee to provide gas or electricity service is the same as a fee imposed on the consumption of electricity or gas. In any event, we believe that the aforementioned exemptions may have been included in an abundance of caution in case court interpretations of article XIII D similar to the Court of Appeal's should prevail. Finally, we do not believe that any incongruity can trump the plain language we have discussed herein. In short, we are unpersuaded.

[10] Similarly unpersuasive is plaintiffs' contention, also emphasized at oral argument, that the city's ability to enforce payment of the inspection fee by imposing a lien on the property shows that the fee is property-related, not business-related. The fact is that the city is simply availing itself of all possible means to collect the fee. Property liens may be precipitated by at least one cause unconnected to land ownership (except ownership of the land on which the lien is imposed): the cost of removing graffiti. (Gov.Code, § 38772.) A lien may be imposed on parents' land to defray the cost of removing graffiti their child has scrawled on that belonging to another. (*Id.,* subd. (b).)

[11] **[12]** Plaintiffs also advert to section 5 of Proposition 218, which requires that "[t]he provisions of this act shall be liberally construed to effectuate its purposes of limiting local government revenue and enhancing taxpayer consent." (Ballot Pamp., Gen. Elec., *supra*, text of Prop. 218, § 5, p. 109; reprinted as Historical Notes, 2A West's Ann. Cal. Const., *supra,* foll. art. XIII C, p. 33.) But "[l]iberal construction cannot overcome the plain language of Proposition 218 limiting [its] scope ... to [levies] based on real property." (*Howard Jarvis Taxpayers Assn. v.* ****940** *City of San Diego* (1999) 72 Cal.App.4th 230, 237–238, 84 Cal.Rptr.2d 804.) As a rule, a command that a constitutional provision or a statute be liberally construed " does not license either enlargement or restriction of its evident meaning" (*People v. Cruz* (1974) 12 Cal.3d 562, 566, 116 Cal.Rptr. 242, 526 P.2d 250). Thus, ***845** given that article XIII D's scope is, as we have explained, unambiguously limited to burdens on landowners as such, " 'no resort to this command [of liberal construction] is required' " (*Howard Jarvis, supra,* 73 Cal.App.4th 679, 687, 86 Cal.Rptr.2d 592, quoting *Buhlert Trucking v. Workers' Comp. Appeals* *****729** *Bd.* (1988) 199 Cal.App.3d 1530, 1533, fn. 4, 247 Cal.Rptr. 190) or even permitted.

III.

The Court of Appeal's judgment is reversed.

GEORGE, C.J., KENNARD, J., WERDEGAR, J. and CHIN, J., concur.

Dissenting Opinion by BROWN, J.
I respectfully dissent.

Under the provisions of Proposition 218, affected property owners must approve the imposition of any new or increased fee, which is "any levy other than an ad valorem tax, a special tax, or an assessment, imposed by an agency upon a parcel or upon a person as an incident of property ownership, including a user fee or charge for a property-related service." (Cal. Const., art. XIII D, § 2, subd. (e) (article XIII D).) The dispositive determination in this case is whether a rental inspection fee is imposed "upon a person as an incident of property ownership." (*Ibid.*) To find that it is not, the majority concludes the Court of Appeal erroneously substituted "on" for "as." It is the majority that errs, however, in assuming "incident" denotes "the so-called bundle of rights that flow from [estates in land]." (Maj. opn., *ante,* p. 725, 14 P.3d at p. 936; see maj. opn., *ante,* pp. 725–726, 14 P.3d at pp. 936–937.) In my view, the voters did not intend the courts to look any further than a standard dictionary in applying the terms of article XIII D.

"A constitutional amendment should be construed in accordance with the natural and ordinary meaning of its words. [Citation.]" (*Amador Valley Joint Union High Sch. Dist. v. State Bd. of Equalization* (1978) 22 Cal.3d 208, 245, 149 Cal.Rptr. 239, 583 P.2d 1281; *People ex rel. Lungren v.. Superior Court* (1996) 14 Cal.4th 294, 302, 58 Cal.Rptr.2d 855, 926 P.2d 1042.) Nothing in the ballot arguments in favor of or against Proposition 218 or in the Legislative Analyst's analysis implies that a different rule should obtain with respect to "incident," or that the voters intended it to have other than a plain meaning. The dictionary defines an "incident" as "something incident to something else," that is, "dependent upon or involved in something else." (Webster's New World Dict. (3d college ed.1988) p. 682; see also Black's Law Dict. (4th ed.1968) p. 904, col. 2 ["Used as a noun, [incident] denotes anything which inseparably belongs to, or is connected with, or inherent in, another thing.... Also, less strictly, it denotes anything which is usually ***846** connected with another, or connected for some purposes, though not inseparably"].) In other words, if the imposition of a fee depends upon one's ownership of property, it comes within the purview of article XIII D unless otherwise excepted.

The fee at issue here plainly meets this definition. Pursuant to its police powers, the City of Los Angeles (City) enacted a Housing Code (L.A.Mun.Code, § 161.101 et seq.), which provides that residential rental properties are subject to regular inspection for substandard and unsanitary conditions. Under the Housing Code, funding for these inspections devolves to a particular class of property owners, the landlords of the rental units, who must pay a $12 fee for every unit owned. (*Id.,* § 161.352.)[1] As the majority ****941** acknowledges, "no one can rent [apartments] without owning them." (Maj. opn., *ante,* 102 Cal.Rptr.2d at p. 726, 14 P.3d at p. 937; see also *Nash v. City of Santa Monica* (1984) 37 Cal.3d 97, 105, 207 Cal.Rptr. 285, 688 P.2d 894.) And no one is subject to *****730** the rental inspection fee without owning them. This exaction is thus imposed "as an incident of property ownership" (art. XIII D, § 2, subd. (e)); that is, it is dependent upon such ownership. (Cf. Off. of Legis. Analyst, Understanding Proposition 218 (Dec.1996) p. 30 ["Generally, we think these fees would be considered property-related if there were no practical way that the owner could avoid the fee, short of selling the property or fundamentally changing its use"].) Moreover, "[s]hould the owner fail to pay the required fee, the City of Los Angeles will recover it, plus accrued interest, utilizing any remedies provided by law including nuisance abatement or municipal tax lien procedures established by ordinance or state law." (L.A.Mun.Code, § 161.352.) The use of tax lien procedures is a typical enforcement mechanism for delinquent levies imposed against property.

The majority avoids this result in part by finding the City "imposes a fee on its subjects by virtue of their ownership of a business—i.e., because they are landlords." (Maj. opn., *ante,* 102 Cal.Rptr.2d p. 938, 14 P.3d p. 727.) The last portion of this statement proves too much: Landlords are property owners. Imposition of the fee is an incident of, i.e., depends upon, that status and thereby runs afoul of article XIII D. As for the first portion of the statement, it ignores or disregards what the majority elsewhere concedes, that the business at issue is inseparable from property ownership. No amount of parsing can change that ineluctable fact.

***847** The majority also concludes "neither the ballot arguments nor the Legislative Analyst's analysis suggested that article XIII D was intended to encompass fees of the type at issue here." (Maj. opn., *ante,* p. 727, 14 P.3d p. 938.) Ultimately, the terms of the measure as enacted control our interpretation (see *Kopp v. Fair Pol. Practices Com.* (1995) 11 Cal.4th 607, 673, 47 Cal.Rptr.2d 108, 905 P.2d 1248 (conc. opn. of Mosk, J.)); and their plain meaning does not support the majority's reasoning. But the ballot materials also belie the majority's conclusion. While those materials do not specifically mention rental inspection fees, such an intention is readily discernable from any fair reading. The Legislative Analyst warned generally that "[t]his measure would constrain local governments' ability to impose fees" and "[r]educe the amount of fees ... businesses pay." (Ballot Pamp., Gen. Elec. (Nov. 5, 1996), analysis of Prop. 218 by the Legis. Analyst, p. 73 (Ballot Pamphlet).) More particularly, the Legislative Analyst's list of "most likely fees and assessments affected by these provisions" (*id.* at p. 74) easily encompasses this type of exaction: "park and recreation programs, fire protection, lighting, ambulance, business improvement programs, library, and water service." (*Ibid.*) The argument in favor of Proposition 218 reminded the electorate that "[a]fter voters passed Proposition 13, politicians created a loophole in the law that allows them to raise taxes without voter approval by calling taxes 'assessments' and 'fees.' " (Ballot Pamp., *supra,* argument in favor of Prop. 218, p. 76.) "Proposition 218 guarantees your right to vote on local tax increases—even when they are called something else, like 'assessments' or 'fees'...." (*Ibid.*) The argument did not limit the type of "fee" that would be subject to a vote under article XIII D but instead promised, "Proposition 218 ... stops politicians' end-runs around Proposition 13." (Ballot Pamp., *supra,* rebuttal to argument against Prop. 218, p. 77.) Particularly in light of its timing, the City's rental inspection fee appears to be just the kind of evasive maneuver at which proponents aimed Proposition 218. (See generally *Huntington Park Redevelopment Agency v. Martin* (1985) 38 Cal.3d 100, 105, 211 Cal.Rptr. 133, 695 P.2d 220 [purpose, in part, of Prop. 13 was "to prevent the government from recouping its losses from decreased property ****942** taxes by imposing or increasing other taxes"].)

In this regard, the majority also fails to accord any significance to two important provisions of Proposition 218. In any action challenging imposition of a new or *****731** increased fee or charge, the initiative assigns to the agency "the burden ... to demonstrate compliance with this article" (art. XIII D, § 6, subd. (b)(5)), thereby reversing the usual deference accorded governmental action in such matters and making it more difficult to defend its legitimacy. (See Ballot Pamp., *supra,* analysis of Prop. 218 by the Legis. ***848** Analyst, p. 74; see also art. XIII D, § 4, subd. (f) [imposing same burden for assessments].) The voters also expressly provided that Proposition 218 "shall be liberally construed to effectuate its purposes of limiting local government revenue and enhancing taxpayer consent." (Ballot Pamp., *supra,* text of Prop. 218, § 5, p. 109, also reprinted as Historical Notes, 2A West's Ann. Cal. Const. (2000 supp.) foll. art. XIII C, § 1, p. 25.) The majority's construction frustrates both these goals.

The City argues that conditioning imposition of its rental inspection fee on compliance with the procedures set forth in article XIII D would allow landlords to defeat regulation of their businesses. This argument misses two critical points: First and generally, since the City has decided its rental inspections are necessary to eradicate "substandard and unsanitary residential buildings and dwelling units the physical conditions and characteristics of which ... are such as to be detrimental to or jeopardize the health, safety and welfare of their occupants and of the public" (L.A.Mun.Code, § 161.102), it can reasonably expect the public to pay for the program.

Second and specifically, the Los Angeles Municipal Code already provides substantial enforcement authority to prosecute landlords who violate the City's Housing Code. If a property owner fails to correct violations, the City may recover its administrative as well as abatement costs (L.A.Mun.Code, § 161.206.2), may seek criminal penalties including

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fines and imprisonment (*id.,* § 161.206.3), and may pursue civil remedies as provided in the Health and Safety Code (L.A.Mun.Code, § 161.206.4).

When the voters passed Proposition 13 in 1978, they sought to restrict the ability of government to impose taxes and other charges on property owners without their approval. For almost two decades, however, they witnessed politicians evade this constitutional limitation. The message of Proposition 218 is that they meant what they said. With the majority turning a deaf ear to that message, we may well expect a future effort to "stop[ ] politicians' end-runs around Proposition 13." (Ballot Pamp., *supra,* rebuttal to argument against Prop. 218, p. 77.)

BAXTER, J., concurs.

All Citations

24 Cal.4th 830, 14 P.3d 930, 102 Cal.Rptr.2d 719, 01 Cal. Daily Op. Serv. 209, 2001 Daily Journal D.A.R. 237

Footnotes

1 We have also received several amicus curiae briefs. Along with one of them is a request to judicially notice three purported local mobilehome park rent control ordinances and two other documents regarding that topic. The request is denied. The five documents have no bearing on the question before us.
Amici curiae also include a printed discussion issued by the Legislative Analyst in December 1996 and entitled Understanding Proposition 218. This document contains material relevant to the question at bench, and we grant the request for judicial notice regarding it. (Evid.Code, §§ 452, subd. (c), 459, subd. (a).)

2 Over time, "incident" has meant many things. As a noun, the meanings include the burden of the risk of a diminution of the value of real property during condemnation proceedings (*Agins v. City of Tiburon* (1980) 447 U.S. 255, 263, fn. 9, 100 S.Ct. 2138, 65 L.Ed.2d 106), the " 'burdens and disabilities' " of slavery prohibited by the Thirteenth Amendment to the United States Constitution (*Jones v. Mayer Co.* (1968) 392 U.S. 409, 441, 88 S.Ct. 2186, 20 L.Ed.2d 1189), or, in earlier times, the monetary obligations imposed by the king or a mesne lord (McPherson, *Revisiting the Manor of East Greenwich* (1998) 42 Am. J. Legal Hist. 35, 39; see also 2 Coke (1641) Institutes of the Lawes of England (Butler & Hargrave's Notes ed.) 69a, § 95, fn. 7). And, in a more general sense, the meanings of "incident" include benefits or duties that appertain to some greater right or interest, i.e., the principal. (Civ.Code, §§ 662, 1084, 3540; *Owsley v. Hamner* (1951) 36 Cal.2d 710, 716–717, 227 P.2d 263; *Fender v. Waller* (1941) 139 Neb. 612, 616, 298 N.W. 349, 351; *Harris v. Elliott* (1836) 35 U.S. (10 Pet.) 25, 54, 9 L.Ed. 333.)
In its fourth edition (1897), Bouvier's Law Dictionary defined "incident" as a term "used both substantively and adjectively of a thing which, either usually or naturally and inseparably depends upon, appertains to, or follows another that is more worthy. For example, ... the right of alienation is necessarily incident to a fee-simple at common law...." (*Id.* at p. 1006, col. 1.)
Many cases have followed the Bouvier's Law Dictionary definition, or ones similar to it. (E.g., *Watts v. Copeland* (1933) 170 S.C. 449, 452, 170 S.E. 780; *Moccasin State Bank v. Waldron* (1928) 81 Mont. 579, 586, 264 P. 940.) "Thus, timber trees are incident to the freehold, and so is a right of way." (*In re Estate of Bellesheim* (1888) 1 N.Y.S. 276, 278 [dictum]; accord, *Harris v. Elliott, supra,* 35 U.S. (10 Pet.) at p. 54 [easements]; Black's Law Dict. (7th ed.1999) p. 765, col. 1 ["the utility easement is incident to the ownership of the tract"] .)

3 It is, of course, axiomatic in Anglo American law that ownership of real property in fee simple absolute is the greatest possible estate (1 Coke (1628) Institutes of the Lawes of England (Butler & Hargrave's Notes ed.) 18a, § 11), and among the panoply of lesser estates are such nonfreehold chattels real as leases for a specific term and periodic tenancies (*Pacific Southwest Realty Co. v. County of Los Angeles* (1991) 1 Cal.4th 155, 162, 2 Cal.Rptr.2d 536, 820 P.2d 1046)—in common parlance, rentals or leases of limited duration. (1 Tiffany, The Law of Real Property (3d ed.1939) § 76, pp. 112–113; *Wilgus v. Commonwealth* (1873) 72 Ky. (9 Bush.) 556, 557, 1873 WL 6660, citing 2 Blackstone, Commentaries *143 [" 'An estate for years in land is regarded in law as inferior to an estate for life or an inheritance' "]; *Brydges v. Millionair Club* (1942) 15 Wash.2d 714, 719 [132 P.2d 188, 190]; see also *Williams v. R.R.* (1921) 182 N.C. 267, 272, 108 S.E. 915, 918.)

4 In *Acme Freight Lines Inc. v. Vidalia* (1942) 193 Ga. 334, 18 S.E.2d 540 (*Acme Freight*), similar statutory language favored an analogous argument—that a tax on an incident of the trucking business was a tax on a trucking company's ancillary delivery business.

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In *Acme Freight,* a trucking company sought an injunction against a city's practice of imposing a business tax on those ancillary operations. The firm relied on this law: "No subdivision of this State ... shall levy any excise, license, or occupation tax of any nature *on ... any incidents* of said motor carrier business, or on a motor common carrier." (*Acme Freight, supra,* 193 Ga. 334, 335, 18 S.E.2d 540, 541, italics added.)

The city, Vidalia, acknowledged "its lack of authority to levy any tax against the plaintiff in reference to its transportation of freight as a motor common carrier.... Justification for the tax is founded upon the fact that, in addition to the operation of trucks for the transportation of freight ..., the plaintiff carries on ... a 'pick-up and delivery service' in and around the city. The trial judge ruled that this 'is not a *necessary* incident to the operation of a common carrier,' and that as to it 'the plaintiff is not a motor common carrier, but is engaged in a special and distinct business in the City of Vidalia, and is taxable as such.' This formula interpolates before the word 'incidents,' used in the statute, the word 'necessary' so as to require, as a condition of tax immunity, that the operation be a necessary incident of the business of a motor common carrier. This appears to us to be erroneous. [Rather,] ... an incident of the business of a motor common carrier of freight would be something naturally associated as pertinent to such transportation and necessarily dependent upon it, but without which the business of transportation might nevertheless be carried on. In other words, the incidental operation would be necessarily dependent upon the transportation, but the business of transportation would not be necessarily dependent upon the incidental operation.... As we understand the evidence adduced in this case, the plaintiff's operations against which the tax is said to be levied is of the above-described character; and accordingly we conclude that the tax is illegal, and should have been enjoined." (*Acme Freight, supra,* 193 Ga. 334, 335–336, 18 S.E.2d 540, 541.)

5 We acknowledge that landlords may rent because they wish to keep the property occupied in their absence, for philanthropic reasons, or to a family member for a nominal charge. Such arrangements are not rare, and may lie within the province of the ordinance, which refers to "residential rental properties." But even nonprofit or charitable purposes are business purposes under broad constructions of the term, and we believe that as long as the property is being rented for consideration, it is being conveyed for a business purpose. (Cf. *Marin Municipal Water Dist. v. Chenu* (1922) 188 Cal. 734, 738, 207 P. 251 [" 'business' " has "a narrower meaning applicable to occupation or employment for livelihood or gain, and to mercantile or commercial enterprises or transactions"].)

6 We turn to discuss briefly the authorities on which the city chiefly relies. They consist of two cases: *Sinclair Paint Co. v. State Bd. of Equalization, supra,* 15 Cal.4th 866, 64 Cal.Rptr.2d 447, 937 P.2d 1350; and *Pennell v. City of San Jose* (1986) 42 Cal.3d 365, 228 Cal.Rptr. 726, 721 P.2d 1111 (affd. *sub nom. Pennell v.. San Jose* (1988) 485 U.S. 1, 108 S.Ct. 849, 99 L.Ed.2d 1). They are inapposite.

In *Sinclair* we held that an exaction on sources of lead contamination to remediate the effects of lead poisoning was a fee, not a tax. In *Pennell,* we held that a $3.75 charge on each residential rental unit, imposed by a rent control ordinance to fund its hearing process, also was a fee, not a tax. In *Sinclair* and *Pennell,* we defined such fees, which are similar to the city's inspection charge, as regulatory in nature. Regulatory fees are those " ' "charged in connection with regulatory activities[,] which fees do not exceed the reasonable cost of providing services necessary to the activity for which the fee is charged and which are not levied for unrelated revenue purposes." ' " (*Sinclair Paint Co. v. State Bd. of Equalization, supra,* 15 Cal.4th 866, 876, 64 Cal.Rptr.2d 447, 937 P.2d 1350, quoting *Pennell v. City of San Jose, supra,* 42 Cal.3d 365, 375, 228 Cal.Rptr. 726, 721 P.2d 1111, in turn quoting *Mills v. County of Trinity* (1980) 108 Cal.App.3d 656, 659–660, 166 Cal.Rptr. 674, bracketed material added here.)

We have stated that the city's inspection fee is a regulatory fee. And we have concluded that it does not fall within article XIII D's ambit. But *Sinclair* and *Pennell* do not concern themselves with the issue we confront here. Indeed, in *Sinclair* we cautioned that "We are not here concerned with issues arising under constitutional amendments effected by a recent initiative measure (Proposition 218) adopted at the November 5, 1996, General Election. That measure contains new restrictions on local agencies' power to impose fees and assessments." (*Sinclair Paint Co. v. State Bd. of Equalization, supra,* 15 Cal.4th 866, 873, fn. 2, 64 Cal.Rptr.2d 447, 937 P.2d 1350.) In *Pennell v. City of San Jose, supra*, 42 Cal.3d 365, 228 Cal.Rptr.726, 721 P.2d 1111, we could not have written a similar caveat, for article XIII D did not exist at the time. But it applies just as well.

1 Los Angeles Municipal Code section 161.352 provides: "*Owners* of all buildings subject to inspection shall pay a service fee of $12.00 per unit per year. The fee will be used to finance the cost of inspection and enforcement by the Housing Department. Should the *owner* fail to pay the required fee, the City of Los Angeles will recover it, plus accrued interest, utilizing any remedies provided by law including nuisance abatement or municipal tax lien procedures established by ordinance or state law. This fee shall be known as the 'Systematic Code Enforcement Program Fee.' " (Italics added.)

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KeyCite Yellow Flag - Negative Treatment
Distinguished by City of San Buenaventura v. United Water Conservation District, Cal., December 4, 2017

39 Cal.4th 205
Supreme Court of California

BIGHORN–DESERT VIEW WATER AGENCY, Plaintiff, Cross-defendant and Respondent,
v.
Kari VERJIL, as Registrar of Voters, etc., Defendant and Cross-defendant;
E.W. Kelley, Real Party in Interest, Cross-complainant and Appellant.

No. S127535.
|
July 24, 2006.

Synopsis
Background: Local public water district sought declaratory judgment invalidating proposed county initiative measure that would reduce domestic water rates and require voter preapproval of any subsequent rate increases. The Superior Court, San Bernardino County, No. SCV97005, Tara Reilly, J., entered judgment for district. Proponent of voter initiative appealed. The Court of Appeal affirmed. The Supreme Court granted review and transferred the case for reconsideration back to the Court of Appeal, which again affirmed. The Supreme Court again granted review, superseding the opinions of the Court of Appeal.

Holdings: The Supreme Court, Kennard, J., held that:

[1] portion of measure that would reduce district's charges for delivering domestic water to existing customers was not subject to state constitutional restrictions, disapproving *Howard Jarvis Taxpayers Assn. v. City of Los Angeles,* 85 Cal.App.4th 79, 101 Cal.Rptr.2d 905; but

[2] portion of measure that would require voter preapproval for future increases was constitutionally prohibited; and

[3] due to invalidity of latter portion, initiative was properly withheld from county ballot.

Affirmed.

Opinions, 8 Cal.Rptr.3d 485, 15 Cal.Rptr.3d 911, superseded.

West Headnotes (9)

[1] **Water Law** Water Rates, Rents, Connection Fees, and Other Charges
County initiative measure that would reduce a local public water district's charges for delivering domestic water to existing customers was protected by state constitutional guarantee against prohibition of initiative proposing reduction of local "fee or charge"; disapproving *Howard Jarvis Taxpayers Assn. v. City of Los Angeles,* 85 Cal.App.4th 79, 101 Cal.Rptr.2d 905. West's Ann.Cal. Const. Art. 13C, § 3.

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See 7 Witkin, Summary of Cal. Law (10th ed. 2005) Constitutional Law, § 159; 9 Witkin, Summary of Cal. Law (10th ed. 2005) Taxation, § 131 et seq.

16 Cases that cite this headnote

[2] **Constitutional Law** Intent in general

When interpreting a provision of the state Constitution, the Supreme Court's aim is to determine and effectuate the intent of those who enacted the constitutional provision at issue.

7 Cases that cite this headnote

[3] **Constitutional Law** Intent in general

When the voters enacted a state constitutional provision, their intent governs the Supreme Court's construction of the provision.

1 Cases that cite this headnote

[4] **Constitutional Law** Meaning of Language in General

Constitutional Law Plain, ordinary, or common meaning

To determine the voters' intent in enacting a state constitutional provision, the Supreme Court begins by examining the constitutional text, giving the words their ordinary meanings.

6 Cases that cite this headnote

[5] **Constitutional Law** Giving effect to every word

Constitutional Law Giving effect to entire instrument

In construing a constitutional provision, if possible, significance should be given to every word, phrase, sentence, and part of the provision in pursuance of the legislative purpose.

1 Cases that cite this headnote

[6] **Constitutional Law** Intrinsic Aids to Construction

When a word has been used in different parts of a single state constitutional enactment, courts normally infer that the word was intended to have the same meaning throughout.

4 Cases that cite this headnote

[7] **Water Law** Water Rates, Rents, Connection Fees, and Other Charges

Proposed county initiative measure that would impose a requirement of voter preapproval for any future increase in local public water district's charges for delivering domestic water to existing customers, or new charge, was prohibited under state constitution. West's Ann.Cal. Const. Art. 13C, § 3, Art. 13D, § 6(c).

16 Cases that cite this headnote

[8] **Constitutional Law** Giving effect to entire instrument

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Constitutional Law Harmonizing provisions

Related constitutional provisions should be read together and construed in a manner that gives effect to each, yet does not lead to disharmony with the others.

4 Cases that cite this headnote

[9] **Municipal Corporations** Initiative procedure

When a significant part of a proposed initiative measure is invalid, the measure may not be submitted to the voters.

2 Cases that cite this headnote

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No appearance for Defendant and Cross-defendant.

Opinion

KENNARD, J.

***208** ****221** In November 1996, California voters adopted Proposition 218, which added articles XIII C and XIII D to the California Constitution. In *Richmond v. Shasta Community Services Dist.* (2004) 32 Cal.4th 409, 9 Cal.Rptr.3d 121, 83 P.3d 518 (*Richmond*), we construed article XIII D as it applies to fees that a local public water district charged for making new service connections to its domestic water delivery system. We concluded that those connection charges were not "assessments" or "property-related fees or ***209** charges" within the meaning of article XIII D. (*Richmond, supra,* at pp. 425, 428, 9 Cal.Rptr.3d 121, 83 P.3d 518.)

Here, we consider a related issue, one that involves section 3 of article XIII C, which provides that "the initiative power shall not be prohibited or otherwise limited in matters of reducing or repealing any local tax, assessment, fee or charge." Does this provision grant local voters authority to adopt an initiative ****222** measure that would reduce a local public

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water district's charges for delivering domestic water to existing customers and that also would require voter preapproval for any future increase in those charges or for the imposition of any new charge?

As explained below, we conclude that section 3 of article XIII C grants local voters a right to use the initiative power to reduce the rate that a public water district charges for domestic water. We also conclude, however, that this new constitutional provision does not grant local voters a right to impose a voter-approval requirement on all future adjustments of water delivery charges, and that the proposed initiative at issue here was properly withheld from the ballot because it included a provision to impose such a requirement.

I

In 1969, the California Legislature formed the Bighorn–Desert View Water Agency (Agency) as a special district under the Bighorn Mountains Water Agency Law.[1] (Stats.1969, ch. 1175, p. 2273 et seq.) The Agency provides domestic water service to residents in a roughly 42–square–mile area north of Yucca Valley in San Bernardino County.

E.W. Kelley is a resident of San Bernardino County and the proponent of a local initiative measure to reduce the Agency's *****76** water rate and other charges. Kelley's initiative proposed to reduce the Agency's water rate from $4.00 to $2.00 per 100–cubic–foot billing unit,[2] to reduce the "non-cap recovery charge" from $4.65 to $2.50 per month, and to reduce the "MWA ***210** pipeline charge" from $13.62 to $11.50 per month. The initiative also would have required the Agency to obtain voter approval before increasing any existing water rate, fee, or charge, or imposing any new water rate, fee, or charge.

Kelley succeeded in qualifying the initiative for the ballot. On October 24, 2002, Sharon Beringson, as the Interim Registrar of Voters for San Bernardino County, certified the initiative, and the next day by letter she informed the Agency of its duty under Elections Code section 9310 to either adopt the initiative or submit it to the voters at a special election. The Agency did neither, however. Instead, on November 20, 2002, it filed a complaint for declaratory relief in the superior court, naming Beringson as the defendant and Kelley as the real party in interest.

In the complaint, the Agency asked the court to declare the initiative impermissible under California law, and beyond the power of the Agency's electorate to enact, because it would interfere with the statutory responsibility of the Agency's board of directors to set the water rate high enough to cover its costs. (See Stats.1969, ch. 1175, § 25, pp. 2285–2286, 72 B. West's Ann. Wat.-Appen., *supra,* ch. 112, p. 203 ["The board of directors, so far as practicable, shall fix such rate or rates for water in the agency ... as will result in revenues which will pay the operating expenses of the agency, ... provide for repairs and depreciation of works, provide a reasonable surplus for improvements, extensions, and enlargements, pay the interest on any bonded debt, and provide a sinking or other fund for the payment of the principal of such debt as it may become due."].)

Kelley answered the complaint and filed a motion for judgment on the pleadings and a cross-petition for writ of mandate seeking to compel the Agency to either adopt the initiative as an ordinance or submit it to the voters at a special election. Asserting that the Agency was challenging the legality of the proposed initiative both on its face (insofar as it asserted that its board of directors had the exclusive power to set the agency's ****223** water rates and charges) and as applied (insofar as it asserted that the particular rates and charges that the initiative would set would leave the Agency with insufficient net revenues), Kelly argued that the as-applied challenge could not be raised before the election and that the facial challenge failed because the initiative was authorized and protected by section 3 of article XIII C of the California Constitution. In its opposition to Kelley's motion for judgment on the pleadings, the Agency argued, essentially, that it was raising only a facial challenge to the proposed initiative.

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***211** At the hearing on the motion for judgment on the pleadings, the parties agreed that the only issue was the validity of the initiative on its face, that the facts relevant to that issue were undisputed, and that the issue could be decided as a matter of law. The trial court, declaring that voters in the area served by the Agency lacked power to affect its water rates and fees and charges, denied Kelley's motion *****77** and cross-petition and entered a judgment of declaratory relief for the Agency.

Kelley appealed the judgment to the Court of Appeal, arguing that his initiative was authorized by article XIII C, section 3 of the California Constitution. The Court of Appeal affirmed the superior court's ruling, and Kelley petitioned this court for review. We granted review and then transferred the case back to the Court of Appeal with directions to vacate its decision and to reconsider the issues in light of *Richmond, supra,* 32 Cal.4th 409, 9 Cal.Rptr.3d 121, 83 P.3d 518.

The Court of Appeal again found in favor of the Agency, holding that article XIII C did not authorize Kelley's initiative because the initiative did not deal with special or general taxes, which the Court of Appeal held to be the only subject matter article XIII C covers. The court held that the Agency's rate, fees, and charges were not subject to Proposition 218, and thus could not be reduced by voter initiative. Kelley again petitioned this court for review, which we again granted.

II

Article XIII C of the California Constitution is entitled Voter Approval for Local Tax Levies. Section 1 of article XIII C defines the terms " '[g]eneral tax,' " " '[s]pecial tax,' " " '[l]ocal government,' " and " '[s]pecial district.' " Section 2 of article XIII C provides, in subdivision (b), that "[n]o local government may impose, extend, or increase any general tax unless and until that tax is submitted to the electorate and approved by a majority vote," and it provides, in subdivision (d), that "[n]o local government may impose, extend, or increase any special tax unless and until that tax is submitted to the electorate and approved by a two-thirds vote." Section 3, the provision at issue here, states: "Initiative Power for Local Taxes, Assessments, Fees and Charges. Notwithstanding any other provision of this Constitution, including, but not limited to, Sections 8 and 9 of Article II, the initiative power shall not be prohibited or otherwise limited in matters of reducing or repealing *any local tax, assessment, fee or charge.* The power of initiative to affect *local taxes, assessments, fees and charges* shall be applicable to all local governments ***212** and neither the Legislature nor any local government charter shall impose a signature requirement higher than that applicable to statewide statutory initiatives." [3] (Italics added.)

[1] With a single sentence, the Court of Appeal rejected Kelley's reliance on article XIII C as authority for the proposed initiative. The Court of Appeal stated: "Article XIII C governs special and general taxes, which are not at issue here." Kelley argues that this statement is erroneous because section 3 of article XIII C is not limited to special and general taxes, but applies by it terms to "any local tax, assessment, fee or charge."

[2] **[3]** **[4]** When interpreting a provision of our state Constitution, our aim is "to determine ****224** and effectuate the intent of those who enacted the constitutional provision at issue." (*Richmond, supra,* 32 Cal.4th at p. 418, 9 Cal.Rptr.3d 121, 83 P.3d 518.) When, as here, the voters enacted the provision, their intent governs. (*Delaney* *****78** *v. Superior Court* (1990) 50 Cal.3d 785, 798, 268 Cal.Rptr. 753, 789 P.2d 934.) To determine the voters' intent, "we begin by examining the constitutional text, giving the words their ordinary meanings." (*Richmond, supra,* at p. 418, 9 Cal.Rptr.3d 121, 83 P.3d 518.)

[5] Article XIII C, section 3 of the California Constitution expressly states that the initiative power cannot be limited or prohibited when an initiative proposes to reduce or repeal "any local tax, assessment, fee or charge." In construing a constitutional or statutory provision, " ' "[i]f possible, significance should be given to every word, phrase, sentence and part of an act in pursuance of the legislative purpose." ' " (*DuBois v. Workers' Comp. Appeals Bd.* (1993) 5 Cal.4th 382, 388, 20 Cal.Rptr.2d 523, 853 P.2d 978.) If possible, therefore, we must give significance to the words "assessment, fee

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or charge" in article XIII C, section 3, as meaning something other than "local tax." Accordingly, it would appear that article XIII C, section 3, is not limited to local special and general taxes but applies also to assessments, fees, and charges.

In the ballot pamphlet for the election at which Proposition 218 (which included both article XIII C and article XIII D) was adopted, the Legislative Analyst gave this description of how Proposition 218 would affect initiative powers: "The measure states that Californians have the power to repeal or ***213** reduce any local tax, assessment, or fee through the initiative process." (Ballot Pamp., Gen. Elec. (Nov. 5, 1996), analysis of Prop. 218 by Legis. Analyst, p. 74.) Thus, the Legislative Analyst appears to have also read section 3 of article XIII C as applying to fees as well as to special and general taxes and so described it to the voters who enacted it. (See *People v. Birkett* (1999) 21 Cal.4th 226, 243–244, 87 Cal.Rptr.2d 205, 980 P.2d 912 [argument and analyses in official ballot pamphlet may be consulted to determine voters' understanding and intent].)

Because the Agency offers no argument in support of the Court of Appeal's assertion that article XIII C applies only to special and general taxes, and not to fees, we will not belabor the point. We conclude that article XIII, section 3, applies to assessments, fees, and charges and not just to special and general taxes.

Are the amounts that the Agency bills its customers for the delivery of domestic water properly characterized as fees or charges within the meaning of those words in article XIII C, section 3? Although article XIII C contains definitions of the terms "general tax" and "special tax" (Cal. Const., art. XIII C, § 1, subds. (a), (d)), it does not define the terms "fee" or "charge." Article XIII D, which was enacted together with article XIII C as part of Proposition 218, does contain a definition of those terms. According to that definition, " '[f]ee' or 'charge' means any levy other than an ad valorem tax, a special tax, or an assessment, imposed by an agency upon a parcel or upon a person as an incident of property ownership, including a user fee or charge for a property related service." (Cal. Const., art. XIII D, § 2, subd. (e).) It is unclear, however, whether that definition governs the meaning of the terms "fee" and "charge" in article XIII C, section 3.

[6] Section 2 of article XIII D of the state Constitution, which contains definitions for various terms, including "fee" and "charge," begins with the words, "As used *in this article.*" (Italics added.) Therefore, although the definitions in section 2 of article XIII D govern the meaning of the defined terms in article XIII D (see *People v. Canty* (2004) 32 Cal.4th 1266, 1277, 14 Cal.Rptr.3d 1, 90 P.3d 1168; *****79** *Richmond, supra,* 32 Cal.4th at p. 423, 9 Cal.Rptr.3d 121, 83 P.3d 518), those definitions do not *necessarily* apply outside of article XIII D and, in particular, in article XIII C. On the other hand, when a word has been used in different parts of a single enactment, courts normally infer that the word was intended to have the same meaning throughout. (*People v. Roberge* (2003) 29 Cal.4th 979, 987, 129 Cal.Rptr.2d 861, 62 P.3d 97.) Because article XIII C and article XIII D were enacted together by Proposition 218, it seems ***214** unlikely that the ****225** terms "fee" and "charge" were meant to carry *entirely* different meanings in those two articles, although some variation in meaning is possible.[4]

We considered a related question in *Richmond, supra,* 32 Cal.4th 409, 9 Cal.Rptr.3d 121, 83 P.3d 518. At issue there was whether a water service connection fee was a fee or charge within the meaning of article XIII D's definition of the terms "fee" and "charge" as "any levy other than an ad valorem tax, a special tax, or an assessment, imposed by an agency upon a parcel or upon a person as an incident of property ownership, *including a user fee or charge for a property related service.*" (Cal. Const., art. XIII D, 2, subd. (e), italics added; see *Richmond, supra,* at p. 415, 9 Cal.Rptr.3d 121, 83 P.3d 518.) Of relevance here, we stated:

"In the ballot pamphlet for the election at which article XIII D was adopted, the Legislative Analyst stated that '[f]ees for water, sewer, and refuse collection service probably meet the measure's definition of property-related fee.' (Ballot Pamp., Gen. Elec. (Nov. 5, 1996), analysis of Prop. 218 by Legis. Analyst, p. 73.) The Legislative Analyst apparently concluded that water service has a direct relationship to property ownership, and thus is a property-related service within the meaning of article XIII D because water is indispensable to most uses of real property; because water is provided

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through pipes that are physically connected to the property; and because a water provider may, by recording a certificate, obtain a lien on the property for the amount of any delinquent service charges (see Gov.Code, §§ 61621, 61621.3)....

"Several provisions of article XIII D tend to confirm the Legislative Analyst's conclusion that charges for utility services such as electricity and water should be understood as charges imposed 'as an incident of property ownership.' For example, subdivision (b) of section 3 provides that 'fees for the provision of electrical or gas service shall not be deemed charges or fees imposed as an incident of property ownership' under article XIII D. Under the rule of construction that the expression of some things in a statute implies the exclusion of other things not expressed (*In re Bryce C.* (1995) 12 Cal.4th 226, 231, 48 Cal.Rptr.2d 120, 906 P.2d 1275), the expression that electrical and gas service charges are not within the category of property-related fees implies that similar charges for other utility services, such as water and sewer, are property-related fees subject to the restrictions of article XIII D.

***215** "This implication is reinforced by subdivision (c) of article XIII D, section 6, which expressly excludes 'fees or charges for sewer, water, and refuse collection services' from the voter approval requirements *****80** that article XIII D imposes on property-related fees and charges. Because article XIII D does not include similar express exemptions from the other requirements that it imposes on property-related fee[s] and charges, the implication is strong that fees for water, sewer, and refuse collection services are subject to those other requirements. (See *Howard Jarvis Taxpayers Assn. v. City of Roseville* (2002) 97 Cal.App.4th 637, 645, 119 Cal.Rptr.2d 91 [reaching the same conclusion].)

"Thus, we agree that water service fees, being fees for property-related services, may be fees or charges within the meaning of article XIII D. But we do not agree that *all* water service charges are necessarily subject to the restrictions that article XIII D imposes on fees and charges. Rather, we conclude that a water service fee is a fee or charge under article XIII D if, but only if, it is imposed 'upon a person as an incident of property ownership.' (Art. XIII D, § 2, subd. (e).)" (*Richmond, supra,* 32 Cal.4th at pp. 426–427, 9 Cal.Rptr.3d 121, 83 P.3d 518.)

For purposes of identifying fees and charges under California Constitution article XIII D, we drew a distinction between water service connection charges and charges for ****226** ongoing water delivery. We explained: "A fee for ongoing water service through an existing connection is imposed 'as an incident of property ownership' because it requires nothing other than normal ownership and use of property. But a fee for making a new connection to the system is not imposed 'as an incident of property ownership' because it results from the owner's voluntary decision to apply for the connection." (*Richmond, supra,* 32 Cal.4th at p. 427, 9 Cal.Rptr.3d 121, 83 P.3d 518.)

Comparing the provisions of article XIII C and article XIII D, it appears to us that the words "fee" and "charge," which appear in both articles, may well have been intended to have a narrower, more restrictive meaning in article XIII D. The title of article XIII D is Assessment and *Property–Related* Fee Reform (italics added) and section 6 of article XIII D, which imposes restrictions on fees, is titled *Property Related* Fees and Charges (italics added). Consistent with these references to "property-related" fees, article XIII D's definition of "fee" requires that it be imposed "upon a parcel or upon a person as an incident of property ownership." (Cal. Const., art. XIII D, § 2, subd. (e).) By comparison, the words "property related" do not appear anywhere in article XIII C, nor does anything in the text of article XIII C suggest that it is limited to levies imposed on real property or on persons as an incident of property ownership. Thus, the terms "fee" and "charge" in section 3 of article XIII C may not be subject to the "property-related" qualification that was at issue in *Richmond, supra,* 32 Cal.4th 409, 9 Cal.Rptr.3d 121, 83 P.3d 518. At the same time, any levy that ***216** qualifies as a property-related fee or charge under article XIII D must also qualify as a "fee" or "charge" under article XIII C, section 3. Nothing in the text of article XIII C, or in the ballot pamphlet for the November 1996 general election at which it was adopted, suggests an intent to *exclude* property-related fees and charges from the reach of section 3 of article XIII C, or to impose any separate or additional restriction on the meaning of "fee" or "charge" as used in article XIII C.

Thus, it is possible that California Constitution article XIII C's grant of initiative power extends to some fees that, because they are not property related, are not fees within the meaning of article XIII D. But we perceive no basis for

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excluding from article XIII C's authorization any of the ***81 fees subject to article XIII D. The absence of a restrictive definition of "fee" or "charge" in article XIII C suggests that those terms include all levies that are ordinarily understood to be fees or charges, including all of the property-related fees and charges subject to article XIII D.

For present purposes, it is unnecessary to arrive at an exact definition of the terms "fee" and "charge" as used in article XIII C. It is sufficient to conclude that a public water agency's charges for ongoing water delivery, which are fees and charges within the meaning of article XIII D (*Richmond, supra,* 32 Cal.4th at pp. 426–427, 9 Cal.Rptr.3d 121, 83 P.3d 518), are also fees within the meaning of section 3 of article XIII C. Therefore, section 3 of article XIII C establishes that the initiative power "shall not be prohibited or otherwise limited in matters of reducing or repealing" a public agency's water delivery charges. In other words, this constitutional provision expressly authorizes initiative measures like Kelley's insofar as they seek to reduce or repeal a public agency's water rates and other water delivery charges.

The Agency urges us to draw a distinction between water delivery charges that are "consumption based" (calculated according to the quantity of water delivered) and charges that are imposed regardless of water usage. Under this proposed distinction, the Agency's water rate, which is a charge per 100 cubic feet of water, is a consumption-based charge, while its "non-cap recovery charge" and "MWA Pipeline charge" (both of which the Agency imposes in a fixed amount per month per customer) are not. The Agency argues that consumption-based water charges are not fees or charges within the meaning of article XIII D because they are not imposed "as an incident of property ownership" (Cal. Const., art. XIII D, § 2, subd. (e)), but instead as a result of the voluntary decisions of each water customer as to how much water to use. We are not persuaded.

**227 Article XIII D defines "fee" or "charge" as "*including* a user fee or charge for a property related service." (Cal. Const., art. XIII D, § 2, subd. (e), *217 italics added.) The word "including" is " 'ordinarily a term of enlargement.' " (*Hassan v. Mercy American River Hospital* (2003) 31 Cal.4th 709, 717, 3 Cal.Rptr.3d 623, 74 P.3d 726.) As we explained in *Richmond, supra,* 32 Cal.4th 409, 9 Cal.Rptr.3d 121, 83 P.3d 518, domestic water delivery through a pipeline is a property-related service within the meaning of this definition. (*Id.* at pp. 426–427, 9 Cal.Rptr.3d 121, 83 P.3d 518.) Accordingly, once a property owner or resident has paid the connection charges and has become a customer of a public water agency, all charges for water delivery incurred thereafter are charges for a property-related service, whether the charge is calculated on the basis of consumption or is imposed as a fixed monthly fee.[5] Consumption-based water delivery charges also fall within the definition of user fees, which are "amounts charged to a person using a service where the amount of the charge is generally related to the value of the services provided." (*Utility Audit Co., Inc. v. City of Los Angeles* (2003) 112 Cal.App.4th 950, 957, 5 Cal.Rptr.3d 520.) Because it is imposed for the property-related service of water delivery, the Agency's water rate, as well as its fixed monthly charges, are fees or charges within the meaning of article XIII D, and thus, for the reasons we have explained, they are also fees or charges within the ***82 meaning of section 3 of article XIII C. Under the constitutional grant of power in section 3 of article XIII C, the initiative may be used to reduce each of those water delivery charges.

The Agency also argues that even if its water rate and other water delivery charges are fees or charges within the meaning of section 3 of article XIII C of the California Constitution, Kelley's initiative is nonetheless invalid because the Legislature has granted the Agency's governing board exclusive authority to set the Agency's rate and other charges. (See *DeVita v. County of Napa* (1995) 9 Cal.4th 763, 775–777, 38 Cal.Rptr.2d 699, 889 P.2d 1019 [discussing exclusive delegation]; *Committee of Seven Thousand v. Superior Court* (1988) 45 Cal.3d 491, 511, 247 Cal.Rptr. 362, 754 P.2d 708 [same].) The Legislature is bound by the state Constitution, however, and the evident purpose of article XIII C is to extend the local initiative power to fees and charges imposed by local public agencies. We need not determine whether the Legislature intended to preclude the use of the initiative to reduce the Agency's fees because even if it did so intend, the Legislature's authority in enacting the statutes under which the Agency operates must in this instance yield to constitutional command.

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[7] To this point we have considered only the portions of Kelley's initiative that would reduce the Agency's water delivery charges. Kelley's initiative measure would do more than roll back the Agency's water rate and other charges, however. It would also require the Agency's board of directors to ***218** obtain voter approval before increasing any existing rate or charge or imposing any new rate or charge. Nothing in section 3 of California Constitution article XIII C authorizes initiative measures that impose voter-approval requirements for future increases in fees or charges.

Arguing to the contrary, Kelley points to the reference in section 3 of article XIII C to "[t]he power of initiative to *affect* local taxes, assessments, fees and charges." (Italics added.) He asserts that by imposing a voter-approval requirement on future increases in water delivery charges, his initiative would "affect" those charges and therefore is within the constitutional grant of initiative power. We disagree. The entire sentence reads: "The power of initiative to affect local taxes, assessments, fees and charges shall be applicable to all local governments and neither the Legislature nor any local government charter shall impose a signature requirement higher than that applicable to statewide statutory initiatives." (Cal. Const., art. XIII C, § 3.) The evident purpose of this sentence is not to define how the initiative may be used to ****228** impact fees and charges, but instead to specify that the initiative power extends to charges imposed by all local public agencies and that the signature requirement applied to statewide initiatives may not be exceeded. The scope of the initiative power is set by the previous sentence, stating that "the initiative power shall not be prohibited or otherwise limited *in matters of reducing or repealing* any local tax, assessment, fee or charge." (*Ibid.,* italics added.) Thus, analysis of the text of section 3 of article XIII C supports the conclusion that the initiative power granted by that section extends only to "reducing or repealing" taxes, assessments, fees, and charges.

[8] That the voters who enacted Proposition 218 did not intend to authorize initiative measures imposing voter-approval requirements on future water delivery charge increases is confirmed by an examination of section 6 of California Constitution article XIII D. Related provisions *****83** "should be read together and construed in a manner that gives effect to each, yet does not lead to disharmony with the others." (*City of Huntington Beach v. Board of Administration* (1992) 4 Cal.4th 462, 468, 14 Cal.Rptr.2d 514, 841 P.2d 1034; see also *Cooley v. Superior Court* (2002) 29 Cal.4th 228, 248, 127 Cal.Rptr.2d 177, 57 P.3d 654; *Garcia v. McCutchen* (1997) 16 Cal.4th 469, 476, 66 Cal.Rptr.2d 319, 940 P.2d 906; *DeVita v. County of Napa, supra,* 9 Cal.4th at p. 778, 38 Cal.Rptr.2d 699, 889 P.2d 1019; *Pacific Southwest Realty Co. v. County of Los Angeles* (1991) 1 Cal.4th 155, 167, 2 Cal.Rptr.2d 536, 820 P.2d 1046.) Article XIII D, section 6, subdivision (c), says that "[*e*]*xcept for fees or charges for* sewer, *water,* and refuse collection services, no property related fee or charge shall be imposed or increased unless and until that fee or charge is submitted and approved by a majority vote of the property owners of the property subject to the fee or charge or, at the option of the agency, by a two-thirds vote of the electorate residing in the affected area." (Italics added.) Thus, article XIII D ***219** expressly exempts water service charges from the voter-approval requirement that it imposes on all other fees and charges.

At least as to fees and charges that are property related, section 6 of California Constitution article XIII D would appear to embody the electorate's intent as to when voter-approval should be required, or not required, before existing fees may be increased or new fees imposed, and the electorate chose not to impose a voter-approval requirement for increases in water service charges. Although this provision does not expressly prohibit local initiatives that would impose such a requirement, neither does it authorize them. The provisions of article XIII C support a similar conclusion. Although section 2 of article XIII C imposes voter-approval requirements for general taxes and for special taxes, nothing in article XIII C imposes a voter-approval requirement for fees or charges.

Kelley has asserted no authority other than section 3 of California Constitution article XIII C for the portion of his initiative that would require voter approval before any future increase in water delivery charges, and we have concluded that article XIII C does not authorize that provision. Kelley apparently concedes that in the absence of the authority granted by section 3 of article XIII C, the exclusive delegation rule (*DeVita v. County of Napa, supra,* 9 Cal.4th at pp. 775–777, 38 Cal.Rptr.2d 699, 889 P.2d 1019; *Committee of Seven Thousand v. Superior Court, supra,* 45 Cal.3d at p. 511, 247 Cal.Rptr. 362, 754 P.2d 708) bars initiative measures that infringe on the power of the Agency's governing board to set its water delivery rate and charges. Accordingly, we agree with the Court of Appeal that Kelley's initiative is invalid

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insofar as it seeks to impose a voter-approval requirement on future actions by the Agency's board of directors to increase the existing water rate and other charges or to impose new charges.

To some extent, this portion of the initiative is superfluous, because under Elections Code section 9323[6] voter approval is required ****229** before a local district's governing board may amend an ordinance adopted by initiative, unless the ordinance provides *****84** otherwise. (See *DeVita v. County of Napa, supra,* 9 Cal.4th at p. 788, 38 Cal.Rptr.2d 699, 889 P.2d 1019 [discussing similar statute for county ordinance]; *Mobilepark West Homeowners Assn. v. Escondido Mobilepark West* (1995) 35 Cal.App.4th 32, 40–41, 41 Cal.Rptr.2d 393 [discussing similar statute for city ordinance].) Therefore, if the voters were to approve an initiative lowering the Agency's water rate or other charge, the Agency's governing board would need voter approval before it could change the rate or charge ***220** that had been set by initiative. The Agency's governing board would not need voter approval, however, to increase a charge that was not affected by initiative or to impose an entirely new charge.

We have concluded that under section 3 of California Constitution article XIII C, local voters by initiative may reduce a public agency's water rate and other delivery charges, but also that section 3 of article XIII C does not authorize an initiative to impose a requirement of voter preapproval for future rate increases or new charges for water delivery. In other words, by exercising the initiative power voters may decrease a public water agency's fees and charges for water service, but the agency's governing board may then raise other fees or impose new fees without prior voter approval. Although this power-sharing arrangement has the potential for conflict, we must presume that both sides will act reasonably and in good faith, and that the political process will eventually lead to compromises that are mutually acceptable and both financially and legally sound. (See *DeVita v. County of Napa, supra,* 9 Cal.4th at pp. 792–793, 38 Cal.Rptr.2d 699, 889 P.2d 1019 ["We should not presume ... that the electorate will fail to do the legally proper thing."].) We presume local voters will give appropriate consideration and deference to a governing board's judgments about the rate structure needed to ensure a public water agency's fiscal solvency, and we assume the board, whose members are elected (see Stats.1969, ch. 1175, § 5, p. 2274, 72B West's Ann. Wat.-Appen., *supra,* ch. 112, p. 190), will give appropriate consideration and deference to the voters' expressed wishes for affordable water service. The notice and hearing requirements of subdivision (a) of section 6 of California Constitution article XIII D[7] will facilitate communications between a public water agency's board and its customers, and the substantive restrictions on property-related charges in ***221** subdivision (b) of *****85** the same section[8] should allay customers' concerns ****230** that the agency's water delivery charges are excessive.

In holding that section 3 of article XIII C of the state Constitution authorizes initiative measures that reduce public agency water service charges, we are not holding that the authorized initiative power is free of all limitations. In particular, we are not determining whether the electorate's initiative power is subject to the statutory provision requiring that water service charges be set at a level that "will pay the operating expenses of the agency, ... provide for repairs and depreciation of works, provide a reasonable surplus for improvements, extensions, and enlargements, pay the interest on any bonded debt, and provide a sinking or other fund for the payment of the principal of such debt as it may become due." (Stats.1969, ch. 1175, § 25, p. 2286, 72B West's Ann. Wat.-Appen., *supra,* ch. 112, p. 203.) That issue is not currently before us.

III

[9] We have concluded that Kelley's initiative is invalid insofar as it seeks to require voter approval before the Agency's governing board may increase water service charges or impose new charges. When a significant part of a proposed initiative measure is invalid, the measure may not be submitted to the voters. (*American Federation of Labor v. Eu* (1984) 36 Cal.3d 687, 715–716, 206 Cal.Rptr. 89, 686 P.2d 609; *City and County of San Francisco v. Patterson* (1988) 202 Cal.App.3d 95, 105–106, 248 Cal.Rptr. 290.) Accordingly, the trial court correctly determined that the initiative ***222** could not be placed on the ballot, and it properly granted judgment for the Agency, and the Court of Appeal correctly affirmed the trial court's judgment, although its reasoning differed substantially from the reasoning we use here.

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The judgment of the Court of Appeal is affirmed.

GEORGE, C.J., BAXTER, WERDEGAR, CHIN, MORENO, and CORRIGAN, JJ., concur.

All Citations

39 Cal.4th 205, 138 P.3d 220, 46 Cal.Rptr.3d 73, 06 Cal. Daily Op. Serv. 6649, 2006 Daily Journal D.A.R. 9616

Footnotes

1 The Agency was formed under the name Bighorn Mountains Water Agency and acquired its current name after consolidation in 1989 with Desert View Water District. (See Wat.Code, §§ 33300–33306; Stats.1989, ch. 570, § 3, p. 1878, 73B West's Ann. Wat.-Appen. (1995 ed.) ch. 112, p. 189.)

2 Although the Agency's water rate was $4.00 per 100–cubic–foot billing unit when the initiative was circulated for signatures, it was scheduled to be reduced to $2.30 per billing unit in June 2003. Thus, one could argue, as Kelley has, that the actual reduction proposed by the initiative was not from $4.00 to $2.00, but from $2.30 to $2.00 per billing unit. We need not resolve this dispute.

3 In section 9 of article II, the state Constitution defines "referendum" as "the power of the electors to approve or reject statutes or parts of statutes *except ... statutes providing for tax levies ....*" (Cal. Const., art. II, § 9, subd. (a), italics added.) Under this definition, tax measures are exempt from referendum. (See *Rossi v. Brown* (1995) 9 Cal.4th 688, 697, 38 Cal.Rptr.2d 363, 889 P.2d 557.) But the state Constitution imposes no similar limitation on the initiative. (See *id.* at pp. 699–705, 38 Cal.Rptr.2d 363, 889 P.2d 557.)

4 Because article XIII D provides a single definition that includes both "fee" and "charge," those terms appear to be synonymous in both article XIII D and article XIII C. This is an exception to the normal rule of construction that each word in a constitutional or statutory provision is assumed to have independent significance. (*DuBois v. Workers' Comp. Appeals Bd., supra,* 5 Cal.4th at p. 388, 20 Cal.Rptr.2d 523, 853 P.2d 978.) We use the terms interchangeably in this opinion.

5 *Howard Jarvis Taxpayers Assn. v. City of Los Angeles* (2000) 85 Cal.App.4th 79, 101 Cal.Rptr.2d 905, which was decided before *Richmond, supra,* 32 Cal.4th 409, 9 Cal.Rptr.3d 121, 83 P.3d 518, is disapproved insofar as it is inconsistent with this conclusion.

6 That section reads: "No ordinance proposed by initiative petition and adopted either by the district board without submission to the voters or adopted by the voters shall be repealed or amended except by a vote of the people, unless provision is otherwise made in the original ordinance. In all other respects, an ordinance proposed by initiative petition and adopted shall have the same force and effect as any ordinance adopted by the board." (Elec.Code, § 9323.)

7 "(a) Procedures for New or Increased Fees and Charges. An agency shall follow the procedures pursuant to this section in imposing or increasing any fee or charge as defined pursuant to this article, including, but not limited to, the following:

"(1) The parcels upon which a fee or charge is proposed for imposition shall be identified. The amount of the fee or charge proposed to be imposed upon each parcel shall be calculated. The agency shall provide written notice by mail of the proposed fee or charge to the record owner of each identified parcel upon which the fee or charge is proposed for imposition, the amount of the fee or charge proposed to be imposed upon each, the basis upon which the amount of the proposed fee or charge was calculated, the reason for the fee or charge, together with the date, time, and location of a public hearing on the proposed fee or charge.

"(2) The agency shall conduct a public hearing upon the proposed fee or charge not less than 45 days after mailing the notice of the proposed fee or charge to the record owners of each identified parcel upon which the fee or charge is proposed for imposition. At the public hearing, the agency shall consider all protests against the proposed fee or charge. If written protests against the proposed fee or charge are presented by a majority of owners of the identified parcels, the agency shall not impose the fee or charge." (Cal. Const., art. XIII D, § 6, subd. (a).)

8 "(b) Requirements for Existing, New or Increased Fees and Charges. A fee or charge shall not be extended, imposed, or increased by any agency unless it meets all of the following requirements:

"(1) Revenues derived from the fee or charge shall not exceed the funds required to provide the property related service.

"(2) Revenues derived from the fee or charge shall not be used for any purpose other than that for which the fee or charge was imposed.

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"(3) The amount of a fee or charge imposed upon any parcel or person as an incident of property ownership shall not exceed the proportional cost of the service attributable to the parcel.

"(4) No fee or charge may be imposed for a service unless that service is actually used by, or immediately available to, the owner of the property in question. Fees or charges based on potential or future use of a service are not permitted. Standby charges, whether characterized as charges or assessments, shall be classified as assessments and shall not be imposed without compliance with Section 4.

"(5) No fee or charge may be imposed for general governmental services including, but not limited to, police, fire, ambulance or library services, where the service is available to the public at large in substantially the same manner as it is to property owners." (Cal. Const., art. XIII D, § 6, subd. (b).)

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53 Cal.3d 482, 808 P.2d 235, 280 Cal.Rptr. 92

COUNTY OF FRESNO, Plaintiff and Appellant,
v.
THE STATE OF CALIFORNIA et al., Defendants and Respondents.

No. S015637.
Supreme Court of California
Apr 22, 1991.

SUMMARY

A county filed a test claim with the Commission on State Mandates seeking, under Cal. Const., art. XIII B, § 6 (state must provide subvention of funds to reimburse local governments for costs of state- mandated programs or increased levels of service), reimbursement from the state for costs incurred in implementing the Hazardous Materials Release Response Plans and Inventory Act (Health & Saf. Code, § 25500 et seq.). The commission found the county had the authority to charge fees to pay for the program, and the program was thus not a reimbursable state-mandated program under Gov. Code, § 17556, subd. (d), which provides that costs are not state-mandated if the agency has authority to levy a charge or fee sufficient to pay for the program. The county filed a petition for writ of mandate and a complaint for declaratory relief against the state. The trial court denied relief. (Superior Court of Fresno County, No. 379518-4, Gary S. Austin, Judge.) The Court of Appeal, Fifth Dist., No. F011925, affirmed.

The Supreme Court affirmed the decision of the Court of Appeal. The court held, as to the single issue on review, that Gov. Code, § 17556, subd. (d), was facially constitutional under Cal. Const., art. XIII B, § 6. It held art. XIII B was not intended to reach beyond taxation, and § 6 was included in art. XIII B in recognition that Cal. Const., art. XIII A, severely restricted the taxing powers of local governments. It held that art. XIII B, § 6 was designed to protect the tax revenues of local governments from state mandates that would require an expenditure of such revenues and, when read in textual and historical context, requires subvention only when the costs in question can be recovered solely from tax revenues. Accordingly, the court held that Gov. Code, § 17556, subd. (d), effectively construed the term "cost" in the constitutional provision as excluding expenses that are recoverable from sources other than taxes, and that such a construction is altogether sound. (Opinion by Mosk, J., with Lucas, C. J., Broussard, Panelli, Kennard, JJ., and Best (Hollis G.), J.,* concurring. Separate concurring opinion by Arabian, J.)

HEADNOTES

Classified to California Digest of Official Reports

(1)
State of California § 11--Reimbursement to Local Governments for State-mandated Costs--Costs for Which Fees May Be Levied--Validity of Exclusion.
In a proceeding by a county seeking reversal of a decision by the Commission on State Mandates that the state was not required by Cal. Const., art. XIII B, § 6, to reimburse the county for costs incurred in implementing the Hazardous Materials Release Response Plans and Inventory Act (Health & Saf. Code, § 25500 et seq.), the trial court properly found that Gov. Code, § 17556, subd. (d) (costs are not state-mandated if agency has authority to levy charge or fee sufficient to pay for program), was facially constitutional. Cal. Const., art. XIII B, was intended to apply to taxation and was

not intended to reach beyond taxation, as is apparent from its language and confirmed by its history. It was designed to protect the tax revenues of local governments from state mandates that would require expenditure of such revenues; read in its textual and historical contexts, requires subvention only when the costs in question can be recovered solely from tax revenues. Gov. Code, § 17556, subd. (d), effectively construes the term "costs" in the constitutional provision as excluding expenses that are recoverable from sources other than taxes, and that construction is altogether sound. Accordingly, Gov. Code, § 17556, subd. (d), is facially constitutional under Cal. Const., art. XIII B, § 6.

[See **Cal.Jur.3d (Rev),** Municipalities, § 361; 9 **Witkin,** Summary of Cal. Law (9th ed. 1988) Taxation, § 124.]

COUNSEL
Max E. Robinson, County Counsel, and Pamela A. Stone, Deputy County Counsel, for Plaintiff and Appellant.
B. C. Barnum, County Counsel (Kern), and Patricia J. Randolph, Deputy County Counsel, as Amici Curiae on behalf of Plaintiff and Appellant. ***484**
John K. Van de Kamp and Daniel E. Lungren, Attorneys General, N. Eugene Hill, Assistant Attorney General, and Richard M. Frank, Deputy Attorney General, for Defendants and Respondents.

MOSK, J.

We granted review in this proceeding to decide whether section 17556, subdivision (d), of the Government Code (section 17556(d)) is facially valid under article XIII B, section 6, of the California Constitution (article XIII B, section 6).

Article XIII B, section 6, provides: "Whenever the Legislature or any state agency mandates a new program or higher level of service on any local government, the state shall provide a subvention of funds to reimburse such local government for the costs of such program or increased level of service, except that the Legislature may, but need not, provide such subvention of funds for the following mandates: [¶] (a) Legislative mandates requested by the local agency affected; [¶] (b) Legislation defining a new crime or changing an existing definition of a crime; or [¶] (c) Legislative mandates enacted prior to January 1, 1975, or executive orders or regulations initially implementing legislation enacted prior to January 1, 1975."

The Legislature enacted Government Code sections 17500 through 17630 to implement article XIII B, section 6. (Gov. Code, § 17500.) It created a "quasi-judicial body" (*ibid.*) called the Commission on State Mandates (commission) (*id.,* § 17525) to "hear and decide upon [any] claim" by a local government that the local government "is entitled to be reimbursed by the state for costs" as required by article XIII B, section 6. (Gov. Code, § 17551, subd. (a).) It defined "costs" as "costs mandated by the state"- "any increased costs" that the local government "is required to incur ... as a result of any statute ..., or any executive order implementing any statute ..., which mandates a new program or higher level of service of any existing program" within the meaning of article XIII B, section 6. (Gov. Code, § 17514.) Finally, in section 17556(d) it declared that "The commission shall not find costs mandated by the state ... if, after a hearing, the commission finds that" the local government "has the authority to levy service charges, fees, or assessments sufficient to pay for the mandated program or increased level of service."

For the reasons discussed below, we conclude that section 17556(d) is facially constitutional under article XIII B, section 6. ***485**

I. Facts and Procedural History

The present proceeding arose after the Legislature enacted the Hazardous Materials Release Response Plans and Inventory Act (Act). (Health & Saf. Code, § 25500 et seq.) The Act establishes minimum statewide standards for business and area plans relating to the handling and release or threatened release of hazardous materials. (*Id.,* § 25500.) It requires local governments to implement its provisions. (*Id.,* § 25502.) To cover the costs they may incur, it authorizes them to collect fees from those who handle hazardous materials. (*Id.,* § 25513.)

The County of Fresno (County) implemented the Act but chose not to impose the authorized fees. Instead, it filed a so-called "test" or initial claim with the commission (Gov. Code, § 17521) seeking reimbursement from the State of California (State) under article XIII B, section 6. After a hearing, the commission rejected the claim. In its statement of decision, the commission made the following findings, among others: the Act constituted a "new program"; the County did indeed incur increased costs; but because it had authority under the Act to levy fees sufficient to cover such costs, section 17556(d) prohibited a finding of reimbursable costs.

The County then filed a petition for writ of mandate and complaint for declaratory relief against the State, the commission, and others, seeking vacation of the commission's decision and a declaration that section 17556(d) is unconstitutional under article XIII B, section 6. While the matter was pending, the commission amended its statement of decision to include another basis for denial of the test claim: the Act did not constitute a "program" under the rationale of *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46 [233 Cal.Rptr. 38, 729 P.2d 202] (*County of Los Angeles*), because it did not impose unique requirements on local governments.

After a hearing, the trial court denied the petition and effectively dismissed the complaint. It determined, inter alia, that mandate under Code of Civil Procedure section 1094.5 was the County's sole remedy, and that the commission was the sole properly named respondent. It also determined that section 17556(d) is constitutional under article XIII B, section 6. It did not address the question whether the Act constituted a "program" under *County of Los Angeles.* Judgment was entered accordingly.

The Court of Appeal affirmed. It held the Act did indeed constitute a "program" under *County of Los Angeles, supra,* 43 Cal.3d 46. It also held section 17556(d) is constitutional under article XIII B, section 6. ***486**

([1]) We granted review to decide a single issue, i.e., whether section 17556(d) is facially constitutional under article XIII B, section 6.

II. Discussion

We begin our analysis with the California Constitution. At the June 6, 1978, Primary Election, article XIII A was added to the Constitution through the adoption of Proposition 13, an initiative measure aimed at controlling ad valorem property taxes and the imposition of new "special taxes." (*Amador Valley Joint Union High Sch. Dist. v. State Bd. of Equalization* (1978) 22 Cal.3d 208, 231-232 [149 Cal.Rptr. 239, 583 P.2d 1281].) The constitutional provision imposes a limit on the power of state and local governments to adopt and levy taxes. (*City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 59, fn. 1 [266 Cal.Rptr. 139, 785 P.2d 522] (*City of Sacramento*).)

At the November 6, 1979, Special Statewide Election, article XIII B was added to the Constitution through the adoption of Proposition 4, another initiative measure. That measure places limitations on the ability of both state and local governments to appropriate funds for expenditures.

"Articles XIII A and XIII B work in tandem, together restricting California governments' power both to levy and to spend [taxes] for public purposes." (*City of Sacramento, supra,* 50 Cal.3d at p. 59, fn. 1.)

Article XIII B of the Constitution was intended to apply to taxation-specifically, to provide "permanent protection for taxpayers from excessive taxation" and "a reasonable way to provide discipline in tax spending at state and local levels." (See *County of Placer v. Corin* (1980) 113 Cal.App.3d 443, 446 [170 Cal.Rptr. 232], quoting and following Ballot Pamp., Proposed Stats. and Amends. to Cal. Const. with arguments to voters, Special Statewide Elec. (Nov. 6, 1979), argument in favor of Prop. 4, p. 18.) To this end, it establishes an "appropriations limit" for both state and local governments (Cal. Const., art. XIII B, § 8, subd. (h)) and allows no "appropriations subject to limitation" in excess thereof (*id.,* § 2). (See *County of Placer v. Corin, supra,* 113 Cal.App.3d at p. 446.) It defines the relevant "appropriations subject to limitation" as "any authorization to expend during a fiscal year the proceeds of taxes ...." (Cal. Const., art. XIII

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B, § 8, subd. (b).) It defines "proceeds of taxes" as including "all tax revenues and the proceeds to ... government from," inter alia, "regulatory licenses, user charges, and user fees *to the extent that such proceeds exceed the costs reasonably borne by* [*government*] *in providing the regulation, product, or service ....*" (Cal. Const., art. XIII B, § 8, subd. (c), italics added.) Such "excess" proceeds from "licenses," "charges," and "fees" "are but ***487** *taxes*" for purposes here. (*County of Placer v. Corin, supra,* 113 Cal.App.3d at p. 451, italics in original.)

Article XIII B of the Constitution, however, was not intended to reach beyond taxation. That fact is apparent from the language of the measure. It is confirmed by its history. In his analysis, the Legislative Analyst declared that Proposition 4 "would not restrict the growth in appropriations financed from other [i.e., nontax] sources of revenue, including federal funds, bond funds, traffic fines, user fees based on reasonable costs, and income from gifts." (Ballot Pamp., Proposed Stats. and Amends. to Cal. Const. with arguments to voters, Special Statewide Elec. (Nov. 6, 1979), analysis by Legislative Analyst, p. 16.)

Section 6 was included in article XIII B in recognition that article XIII A of the Constitution severely restricted the taxing powers of local governments. (See *County of Los Angeles, supra,* 43 Cal.3d at p. 61.) The provision was intended to preclude the state from shifting financial responsibility for carrying out governmental functions onto local entities that were ill equipped to handle the task. (*Ibid.*; see *Lucia Mar Unified School Dist. v. Honig* (1988) 44 Cal.3d 830, 836, fn. 6 [244 Cal.Rptr. 677, 750 P.2d 318].) Specifically, it was designed to protect the tax revenues of local governments from state mandates that would require expenditure of such revenues. Thus, although its language broadly declares that the "state shall provide a subvention of funds to reimburse ... local government for the costs [of a state-mandated new] program or higher level of service," read in its textual and historical context section 6 of article XIII B requires subvention only when the costs in question can be recovered *solely from tax revenues.*

In view of the foregoing analysis, the question of the facial constitutionality of section 17556(d) under article XIII B, section 6, can be readily resolved. As noted, the statute provides that "The commission shall not find costs mandated by the state ... if, after a hearing, the commission finds that" the local government "has the authority to levy service charges, fees, or assessments sufficient to pay for the mandated program or increased level of service." Considered within its context, the section effectively construes the term "costs" in the constitutional provision as excluding expenses that are recoverable from sources other than taxes. Such a construction is altogether sound. As the discussion makes clear, the Constitution requires reimbursement only for those expenses that are recoverable solely from taxes. It follows that section 17556(d) is facially constitutional under article XIII B, section 6.

The County argues to the contrary. It maintains that section 17556(d) in essence creates a new exception to the reimbursement requirement of ***488** article XIII B, section 6, for self-financing programs and that the Legislature cannot create exceptions to the reimbursement requirement beyond those enumerated in the Constitution.

We do not agree that in enacting section 17556(d) the Legislature created a new exception to the reimbursement requirement of article XIII B, section 6. As explained, the Legislature effectively-and properly-construed the term "costs" as excluding expenses that are recoverable from sources other than taxes. In a word, such expenses are outside of the scope of the requirement. Therefore, they need not be explicitly excepted from its reach.

The County nevertheless argues that no matter how characterized, section 17556(d) is indeed inconsistent with article XIII B, section 6. Its contention is in substance as follows: the source of section 17556(d) is former Revenue and Taxation Code section 2253.2; at the time of Proposition 4, subdivision (b)(4) of that former section stated that the State Board of Control shall not allow a claim for reimbursement of costs mandated by the state if the legislation contains a self-financing authority; the drafters of Proposition 4 incorporated some of the provisions of former Revenue and Taxation Code section 2253.2 into article XIII B, section 6, but did not incorporate former subdivision (b)(4); their failure to do so reveals an intent to treat as immaterial the presence or absence of a "self-financing" provision; and such an intent is confirmed by the "legislative history" set out at page 55 in Spirit of 13, Inc., Summary of Proposed Implementing

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Legislation and Drafters' Intent: "the state may not arbitrarily declare that it is not going to comply with Section 6 ... if the state provides new compensating revenues."

In our view, the County's argument is unpersuasive. Even if we assume arguendo that the intent of those who drafted Proposition 4 is as claimed, what is crucial here is the intent of those who voted for the measure. (See *County of Los Angeles, supra,* 43 Cal.3d 46, 56.) There is no substantial evidence that the voters sought what the County assumes the drafters desired. Moreover, the "legislative history" cited above cannot be considered relevant; it was written and circulated after the passage of Proposition 4. As such, it could not have affected the voters in any way.

To avoid this result, the County advances one final argument: "Based on the authority of [section 17556(d)], the Commission on State Mandates refuses to hear mandates on the merits once it finds that the authority to charge fees is given by the Legislature. This position is taken whether or not fees can actually or legally be charged to recover the entire costs of the program." ***489**

The County appears to be making one or both of the following arguments: (1) the commission applies section 17556(d) in an unconstitutional manner; or (2) the Act's self-financing authority is somehow lacking. Such contentions, however, miss the designated mark. They raise questions bearing on the constitutionality of section 17556(d) as applied and the legal efficacy of the authority conferred by the Act. The sole issue on review, however, is the facial constitutionality of section 17556(d).

III. Conclusion

For the reasons set forth above, we conclude that section 17556(d) is facially constitutional under article XIII B, section 6.

The judgment of the Court of Appeal is affirmed.

Lucas, C. J., Broussard, J., Panelli, J., Kennard, J., and Best (Hollis G.), J.,* concurred.

ARABIAN, J.,

Concurring.

I concur in the determination that Government Code section 17556, subdivision (d) [1] (section 17556(d)), does not offend article XIII B, section 6, of the California Constitution (article XIII B, section 6). In my estimation, however, the constitutional measure of the issue before us warrants fuller examination than the majority allow. A literalistic analysis begs the question of whether the Legislature had the authority to act statutorily upon a subject matter the electorate has spoken to constitutionally through the initiative process.

Article XIII B, section 6, unequivocally commands that "the state shall provide a subvention of funds to reimburse ... local government for the costs of [a new] program or increased level of service" except as specified therein. Article XIII B does not define this reference to "costs." (See Cal. Const., art. XIII B, § 8.) Rather, the Legislature assumed the task of explicating the related concept of "costs mandated by the state" when it created the Commission on State Mandates and enacted procedures intended to implement article XIII B, section 6, more effectively. (See § 17500 et seq.) As part of this statutory scheme, it exempted the state from its constitutionally imposed subvention obligation under certain enumerated circumstances. Some of these exemptions the electorate expressly contemplated in approving article XIII B, section 6 (§ 17556, subds. (a), (c), & (g); see § 17514), while others are strictly of legislative formulation and derive from ***490** former Revenue and Taxation Code section 2253.2. (§ 17556, subds. (b), (d), (e), & (f).)

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The majority find section 17556 valid notwithstanding the mandatory language of article XIII B, section 6, based on the circular and conclusory rationale that "the Legislature effectively-and properly-construed the term 'costs' as excluding expenses that are recoverable from sources other than taxes. In a word, such expenses are outside of the scope of the [subvention] requirement. Therefore, they need not be explicitly excepted from its reach." (Maj. opn., *ante,* at p. 488.) In my view, excluding or otherwise removing something from the purview of a law is tantamount to creating an exception thereto. When an exclusionary implication is clear from the import or effect of the statutory language, use of the word "except" should not be necessary to construe the result for what it clearly is. In this circumstance, "I would invoke the folk wisdom that if an object looks like a duck, walks like a duck and quacks like a duck, it is likely to be a duck." (*In re Deborah C.* (1981) 30 Cal.3d 125, 141 [177 Cal.Rptr. 852, 635 P.2d 446] (conc. opn. by Mosk, J.).)

Of at least equal importance, section 17500 et seq. constitutes a legislative implementation of article XIII B, section 6. As such, the overall statutory scheme must comport with the express constitutional language it was designed to effectuate as well as the implicit electoral intent. Eschewing semantics, I would squarely and forthrightly address the fundamental and substantial question of whether the Legislature could lawfully enlarge upon the scope of article XIII B, section 6, to include exceptions not originally designated in the initiative.

I do not hereby seek to undermine the majority holding but rather to set it on a firmer constitutional footing. "[S]tatutes must be given a reasonable interpretation, one which will carry out the intent of the legislators and render them valid and operative rather than defeat them. In so doing, sections of the Constitution, as well as the codes, will be harmonized where reasonably possible, in order that all may stand." (*Rose v. State of California* (1942) 19 Cal.2d 713, 723 [123 P.2d 505]; see also *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 58 [233 Cal.Rptr. 38, 729 P.2d 202].) To this end, it is a fundamental premise of our form of government that "the Constitution of this State is not to be considered as a grant of power, but rather as a restriction upon the powers of the Legislature; and ... it is competent for the Legislature to exercise all powers not forbidden ...." (*People v. Coleman* (1854) 4 Cal. 46, 49.) "Two important consequences flow from this fact. First, the entire law-making authority of the state, except the people's right of initiative and referendum, is vested in the ***491** Legislature, and that body may exercise any and all legislative powers which are not expressly or by necessary implication denied to it by the Constitution. [Citations.] *In other words, 'we do not look to the Constitution to determine whether the legislature is authorized to do an act, but only to see if it is prohibited.'* [Citation.] [¶] Secondly, all intendments favor the exercise of the Legislature's plenary authority: 'If there is any doubt as to the Legislature's power to act in any given case, the doubt should be resolved in favor of the Legislature's action. Such restrictions and limitations [imposed by the Constitution] are to be construed strictly, and are not to be extended to include matters not covered by the language used.' [Citations.]" (*Methodist Hosp. of Sacramento v. Saylor* (1971) 5 Cal.3d 685, 691 [97 Cal.Rptr. 1, 488 P.2d 161], italics added.) "Specifically, the express enumeration of legislative powers is not an exclusion of others not named unless accompanied by negative terms. [Citations.]" (*Dean v. Kuchel* (1951) 37 Cal.2d 97, 100 [230 P.2d 811].)

As the majority opinion impliedly recognizes, neither the language nor the intent of article XIII B conflicts with the exercise of legislative prerogative we review today. Of paramount significance, neither section 6 nor any other provision of article XIII B prohibits statutory delineation of additional circumstances obviating reimbursement for state mandated programs. (See *Dean v. Kuchel, supra,* 37 Cal.2d at p. 101; *Roth Drugs, Inc. v. Johnson* (1936) 13 Cal.App.2d 720, 729 [57 P.2d 1022]; see also *Kehrlein v. City of Oakland* (1981) 116 Cal.App.3d 332, 338 [172 Cal.Rptr. 111].)

Furthermore, the initiative was "[b]illed as a flexible way to provide discipline in government spending" by creating appropriations limits to restrict the amount of such expenditures. (*County of Placer v. Corin* (1980) 113 Cal.App.3d 443, 447 [170 Cal.Rptr. 232]; see Cal. Const., art. XIII B, § 1.) By their nature, user fees do not affect the equation of local government spending: While they facilitate implementation of newly mandated state programs or increased levels of service, they are excluded from the "appropriations subject to limitations" calculation and its attendant budgetary constraints. (See Cal. Const., art. XIII B, § 8; see also *City Council v. South* (1983) 146 Cal.App.3d 320, 334 [194 Cal.Rptr. 110]; *County of Placer v. Corin, supra,* 113 Cal.App.3d at pp. 448-449; Cal. Const., art. XIII B, § 3, subd. (b); cf. *Russ*

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Bldg. Partnership v. City and County of San Francisco (1987) 199 Cal.App.3d 1496, 1505 [246 Cal.Rptr. 21] [" 'fees not exceeding the reasonable cost of providing the service or regulatory activity for which the fee is charged and which are not levied for general revenue purposes, have been considered outside the realm of "special taxes" [limited by California Constitution, article XIII A]' "]; *Terminal Plaza Corp. v. City* ***492** *and County of San Francisco* (1986) 177 Cal.App.3d 892, 906 [223 Cal.Rptr. 379] [same].)

This conclusion fully accommodates the intent of the voters in adopting article XIII B, as reflected in the ballot materials accompanying the proposition. (See *Amador Valley Joint Union High Sch. Dist. v. State Bd. of Equalization* (1978) 22 Cal.3d 208, 245-246 [149 Cal.Rptr. 239, 583 P.2d 1281].) In general, these materials convey that "[t]he goals of article XIII B, of which section 6 is a part, were to protect residents from excessive taxation and government spending." (*County of Los Angeles v. State of California, supra,* 43 Cal.3d at p. 61; *Huntington Park Redevelopment Agency v. Martin* (1985) 38 Cal.3d 100, 109- 110 [211 Cal.Rptr. 133, 695 P.2d 220].) To the extent user fees are not borne by the general public or applied to the general revenues, they do not bear upon this purpose. Moreover, by imputation, voter approval contemplated the continued imposition of reasonable user fees outside the scope of article XIII B. (Ballot Pamp., Proposed Amends. to Cal. Const. with arguments to voters, Limitation of Government Appropriations, Special Statewide Elec. (Nov. 6, 1979), arguments in favor of and against Prop. 4, p. 18 [initiative "Will curb excessive user fees imposed by local government" but "will Not eliminate user fees ..."]; see *County of Placer v. Corin, supra,* 113 Cal.App.3d at p. 452.)

"The concern which prompted the inclusion of section 6 in article XIII B was the perceived attempt by the state to enact legislation or adopt administrative orders creating programs to be administered by local agencies, thereby transferring to those agencies the fiscal responsibility for providing services which the state believed should be extended to the public." (*County of Los Angeles v. State of California, supra,* 43 Cal.3d at p. 56; see *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 66 [266 Cal.Rptr. 139, 785 P.2d 522].) "Section 6 had the additional purpose of precluding a shift of financial responsibility for carrying out governmental functions from the state to local agencies which had had their taxing powers restricted by the enactment of article XIII A in the preceding year and were ill equipped to take responsibility for any new programs." (*County of Los Angeles v. State of California, supra,* 43 Cal.3d at p. 61.) An exemption from reimbursement for state mandated programs for which local governments are authorized to charge offsetting user fees does not frustrate or compromise these goals or otherwise disturb the balance of local government financing and expenditure.[2] (See ***493** *County of Placer v. Corin, supra,* 113 Cal.App.3d at p. 452, fn. 7.) Article XIII B, section 8, subdivision (c), specifically includes regulatory licenses, user charges, and user fees in the appropriations limitation equation only "to the extent that those proceeds exceed the costs reasonably borne by [the governmental] entity in providing the regulation, product, or service ...."

The self-executing nature of article XIII B does not alter this analysis. "It has been uniformly held that the legislature has the power to enact statutes providing for reasonable regulation and control of rights granted under constitutional provisions. [Citations.]" (*Chesney v. Byram* (1940) 15 Cal.2d 460, 465 [101 P.2d 1106].) " ' "Legislation may be desirable, by way of providing convenient remedies for the protection of the right secured, or of regulating the claim of the right so that its exact limits may be known and understood; but all such legislation must be subordinate to the constitutional provision, and in furtherance of its purpose, and must not in any particular attempt to narrow or embarrass it." [Citations.]' " (*Id.,* at pp. 463-464; see also *County of Contra Costa v. State of California* (1986) 177 Cal.App.3d 62, 75 [222 Cal.Rptr. 750].) Section 17556(d) is not "merely [a] transparent attempt[] to do indirectly that which cannot lawfully be done directly." (*Carmel Valley Fire Protection Dist. v. State of California* (1987) 190 Cal.App.3d 521, 541 [234 Cal.Rptr. 795].) On the contrary, it creates no conflict with the constitutional directive it subserves. Hence, rather than pursue an interpretive expedient, this court should expressly declare that it operates as a valid legislative implementation thereof.

"[Initiative] provisions of the Constitution and of charters and statutes should, as a general rule, be liberally construed in favor of the reserved power. [Citations.] As opposed to that principle, however, 'in examining and ascertaining the

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intention of the people with respect to the scope and nature of those ... powers, it is proper and important to consider what the consequences of applying it to a particular act of legislation would be, and if upon such consideration it be found that by so applying it the inevitable effect would be greatly to impair or wholly destroy the efficacy of some other governmental power, the practical application of which is essential and, perhaps, ... indispensable, to the convenience, comfort, and well-being of the inhabitants of certain legally established districts or subdivisions of the state or of the whole state, then in such case the courts may and should assume that the people intended no such result to flow from the application of those powers and that they do not so apply.' [Citation.]" (*Hunt v. Mayor & Council of Riverside* (1948) 31 Cal.2d 619, 628-629 [191 P.2d 426].) ***494**

This court is not infrequently called upon to resolve the tension of apparent or actual conflicts in the express will of the people. [3] Whether that expression emanates directly from the ballot or indirectly through legislative implementation, each deserves our fullest estimation and effectuation. Given the historical and abiding role of government by initiative, I decline to circumvent that responsibility and accept uncritically the Legislature's self-validating statutory scheme as the basis for approving the exercise of its prerogative. It is not enough to say a broader constitutional analysis yields the same result and therefore is unnecessary. We provide a higher quality of justice harmonizing rather than ignoring the divers voices of the people, for such is the nature of our office. ***495**

Footnotes

* Presiding Justice, Court of Appeal, Fifth Appellate District, assigned by the Chairperson of the Judicial Council.

* Presiding Justice, Court of Appeal, Fifth Appellate District, assigned by the Chairperson of the Judicial Council.

1 Unless otherwise indicated, all further statutory references are to the Government Code.

2 This conclusion also accords with the traditional and historical role of user fees in promoting the multifarious functions of local government by imposing on those receiving a service the cost of providing it. (Cf. *County of Placer v. Corin, supra,* 113 Cal.App.3d at p. 454 ["Special assessments, being levied only for improvements that benefit particular parcels of land, and not to raise general revenues, are simply not the type of exaction that can be used as a mechanism for circumventing these tax relief provisions. [Citation.]"].)

3 See, e.g., *Zumwalt v. Superior Court* (1989) 49 Cal.3d 167 [260 Cal.Rptr. 545, 776 P.2d 247]; *Los Angeles County Transportation Com. v. Richmond* (1982) 31 Cal.3d 197 [182 Cal.Rptr. 324, 643 P.2d 941]; *California Housing Finance Agency v. Patitucci* (1978) 22 Cal.3d 171 [148 Cal.Rptr. 875, 583 P.2d 729]; *California Housing Finance Agency v. Elliott* (1976) 17 Cal.3d 575 [131 Cal.Rptr. 361, 551 P.2d 1193]; *Blotter v. Farrell* (1954) 42 Cal.2d 804 [270 P.2d 481]; *Dean v. Kuchel, supra,* 37 Cal.2d 97; *Hunt v. Mayor & Council of Riverside, supra,* 31 Cal.2d 619.

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1 Cal.5th 749
Supreme Court of California

DEPARTMENT OF FINANCE et al., Plaintiffs and Respondents,
v.
COMMISSION ON STATE MANDATES, Defendant and Respondent;
County of Los Angeles et al., Real Parties in Interest and Appellants.

S214855
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Filed 8/29/2016
|
As Modified on Denial of Rehearing 11/16/2016

Synopsis
Background: Department of Finance, State Water Resources Control Board, and regional water quality control board filed petition for writ of administrative mandamus seeking to overturn decision of Commission on State Mandates that regional board's conditions on permit authorizing local agencies to operate storm drain systems constituted state mandates subject to reimbursement. The Superior Court, Los Angeles County, No. BS130730, Ann I. Jones, J., granted petition. Local agencies appealed. The Court of Appeal, Johnson, J., affirmed. Local agencies petitioned for review. The Supreme Court granted review, superseding the opinion of the Court of Appeal.

Holdings: The Supreme Court, Corrigan, J., held that:

[1] permit itself did not indicate that permit conditions were federal mandates not subject to reimbursement;

[2] Commission was not required to defer to regional board's conclusion that challenged conditions were federally mandated;

[3] condition requiring local agencies to conduct inspections of certain facilities and construction sites was not a federal mandate; and

[4] condition requiring local agencies to install and maintain trash receptacles was not a federal mandate.

Reversed and remanded.

Opinion, 163 Cal.Rptr.3d 439, superseded.

Cuéllar, J., filed separate concurring and dissenting opinion with which Liu and Kruger, JJ., concurred.

West Headnotes (14)

[1] **Environmental Law** Purpose

Federal Clean Water Act (CWA) is a comprehensive water quality statute designed to restore and maintain the chemical, physical, and biological integrity of the nation's water. Federal Water Pollution Control Act § 101, 33 U.S.C.A. § 1251 et seq.

Cases that cite this headnote

[2] **Environmental Law** Discharge of pollutants

State permitting system for issuing permits for pollutant discharge from storm sewer system regulates discharges under both state and federal law. Federal Water Pollution Control Act § 101, 33 U.S.C.A. § 1251 et seq.; Cal. Water Code §§ 13370(c), 13372(a), 13374, 13377.

Cases that cite this headnote

[3] **Administrative Law and Procedure** Scope

Ordinarily, when scope of review in trial court is whether administrative decision is supported by substantial evidence, the scope of review on appeal is the same; however, appellate court independently reviews conclusions as to the meaning and effect of constitutional and statutory provisions.

Cases that cite this headnote

[4] **Trial** Construction of writings

Question whether statute or executive order imposes a mandate is a question of law.

1 Cases that cite this headnote

[5] **Municipal Corporations** Power and Duty to Tax in General

States Limitation of amount of indebtedness or expenditure

Taxation Power of legislature in general

Constitutional provision restricting amounts state and local governments may appropriate and spend each year from proceeds of taxes and provision imposing direct constitutional limit on state and local power to adopt and levy taxes work in tandem, together restricting state and local governments' power both to levy and to spend for public purposes. Cal. Const. arts. 13A, 13B.

Cases that cite this headnote

[6] **Municipal Corporations** Power and Duty to Tax in General

States Limitation of amount of indebtedness or expenditure

States Limitation of use of funds or credit

Taxation Power of legislature in general

Reimbursement provision in constitutional provision providing that, if legislature or state agency required local government to provide new program or higher level of service, local government is entitled to reimbursement from state for associated costs, was included in recognition of the fact that provision restricting amounts state and local governments may appropriate and spend each year from proceeds of taxes and provision imposing direct constitutional limit on state and local power to adopt and levy taxes severely restrict taxing and spending powers of local governments. Cal. Const. arts. 13A, 13B, § 6(a).

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2 Cases that cite this headnote

[7] **Municipal Corporations** Power and Duty to Tax in General

States Limitation of amount of indebtedness or expenditure

States Limitation of use of funds or credit

Taxation Power of legislature in general

Purpose of constitutional provision providing that, if legislature or state agency required local government to provide new program or higher level of service, local government is entitled to reimbursement from state for associated costs is to prevent state from shifting financial responsibility for carrying out governmental functions to local agencies, which are ill equipped to assume increased financial responsibilities because of the taxing and spending limitations imposed by constitutional articles restricting amounts state and local governments may appropriate and spend each year from proceeds of taxes and imposing direct constitutional limit on state and local power to adopt and levy taxes. Cal. Const. arts. 13A, 13B, § 6(a).

2 Cases that cite this headnote

[8] **Environmental Law** Conditions and limitations

Permit issued by regional water quality board authorizing local agencies to operate storm drain systems, which contained conditions designed to maintain quality of state water and to comply with federal Clean Water Act, did not itself demonstrate what conditions would have been imposed had federal Environmental Protection Agency (EPA) granted permit, and thus permit itself did not indicate that conditions were federal mandates not subject to reimbursement under constitutional provision requiring state to reimburse local agency for costs associated with new program or higher level of service mandated by legislature or state agency; in issuing permit, regional board was implementing both state and federal law and was authorized to include conditions more exacting than federal law required. Federal Water Pollution Control Act § 101, 33 U.S.C.A. § 1251 et seq.; 40 C.F.R. §§ 122.26(b)(8), 122.26(b)(19); Cal. Const. art. XIII B, § 6(a); Cal. Water Code §§ 13001, 13370(c), 13372(a), 13374, 13377; Cal. Gov't Code §§ 17514, 17556(c).

1 Cases that cite this headnote

[9] **Environmental Law** Conditions and limitations

Commission on State Mandates was not required to defer to regional water quality control board's conclusion that challenged conditions contained in permits issued by regional board authorizing local agencies to operate storm drain systems were federally mandated, and thus qualified for exception to constitutional provision requiring state to reimburse local agency for costs associated with new program or higher level of service mandated by legislature or state agency; state had burden to show challenged conditions were mandated by federal law, requiring Commission to defer to regional board would have failed to honor legislature's intent in creating Commission, and policies supporting constitutional provision would have been undermined if Commission were required to defer to regional board on federal mandate question. Federal Water Pollution Control Act § 101, 33 U.S.C.A. § 1251 et seq.; 40 C.F.R. §§ 122.26(b)(8), 122.26(b)(19); Cal. Const. art. XIIIB, § 6(a); Cal. Water Code §§ 13001, 13370(c); Cal. Gov't Code §§ 17514, 17556(c).

1 Cases that cite this headnote

[10] **Environmental Law** Water pollution

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In trial court action challenging regional water quality control board's authority to impose specific permit conditions for discharging pollutants from storm sewer system, board's findings regarding what conditions satisfied federal standard are entitled to deference. Federal Water Pollution Control Act §§ 402, 402, 33 U.S.C.A. §§ 1342(a)(1), 1342(a)(2); 40 C.F.R. §§ 122.26(b)(8), 122.26(b)(19); Cal. Water Code §§ 13001, 13263(a), 13370(c).

1 Cases that cite this headnote

[11] **Environmental Law** Water pollution

In trial court action challenging regional water quality control board's authority to impose specific permit conditions for discharging pollutants from storm sewer system, party challenging the board's decision would have the burden of demonstrating its findings were not supported by substantial evidence or that the board otherwise abused its discretion. 40 C.F.R. §§ 122.26(b)(8), 122.26(b)(19); Cal. Water Code §§ 13001, 13263(a), 13370(c).

1 Cases that cite this headnote

[12] **States** State expenses and charges and statutory liabilities

Typically, the party claiming the applicability of exception to constitutional provision providing that, if legislature or state agency required local government to provide new program or higher level of service, local government is entitled to reimbursement from state for associated costs, bears the burden of demonstrating that exception applies. Cal. Const. art. XIII B, § 6; Cal. Gov't Code § 17556(c).

1 Cases that cite this headnote

[13] **Environmental Law** Conditions and limitations

Condition contained in permit issued by regional water quality board authorizing local agencies to operate storm drain systems, which required local agencies to conduct inspections of certain commercial and industrial facilities and construction sites, was not a federal mandate, but rather was a state mandate subject to reimbursement under constitutional provision providing that, if legislature or state agency required local government to provide new program or higher level of service, local government was entitled to reimbursement from state for associated costs; neither federal Clean Water Act (CWA) nor Environmental Protection Agency (EPA) regulations required local agencies to inspect facilities or construction sites, state and federal law required regional board to conduct inspections, and regional board exercised its discretion and shifted obligation to conduct inspections to local agencies. Federal Water Pollution Control Act §§ 402, 402, 33 U.S.C.A. §§ 1342(p)(3)(A), 1342(p)(3)(B)(iii); 40 C.F.R. §§ 122.26(b)(8), 122.26(b)(14)(x), 122.26(b)(19), 122.26(d)(2)(iv)(B)(1), 122.26(d)(2)(iv)(C)(1), 122.26(d)(2)(iv)(D)(3); Cal. Const. art. XIII B, § 6(a); Cal. Water Code §§ 13001, 13260, 13263, 13267(c), 13370(c); Cal. Gov't Code §§ 17514, 17556(c).

1 Cases that cite this headnote

[14] **Environmental Law** Conditions and limitations

Condition contained in permit issued by regional water quality board authorizing local agencies to operate storm drain systems, which required local agencies to install and maintain trash receptacles at transit stops, was not a federal mandate, but rather was a state mandate subject to reimbursement under constitutional provision providing that, if legislature or state agency required local government to provide new program or higher level of service, local government was entitled to reimbursement from state for associated costs; while local agencies were required to include a description of practices for operating and maintaining roadways and procedures

for reducing impact of discharges from storm sewers in their permit application under federal Clean Water Act (CWA) and Environmental Protection Agency (EPA) regulation, issuing agency had discretion whether to make those practices conditions of the permit, and EPA had issued permits in other cities that did not include trash receptacle condition. Federal Water Pollution Control Act § 101, 33 U.S.C.A. § 1251 et seq.; 40 C.F.R. §§ 122.26(b)(8), 122.26(b)(19), 122.26(d)(2)(iv)(A)(3); Cal. Const. art. XIII B, § 6(a); Cal. Water Code §§ 13001, 13370(c); Cal. Gov't Code §§ 17514, 17556(c).

See 9 Witkin, Summary of Cal. Law (10th ed. 2005) Taxation, § 119.

2 Cases that cite this headnote

****359** *****48** Ct.App. 2/1 B237153, Los Angeles County Super. Ct. No. BS130730

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Opinion

Corrigan, J.

****360 *754** Under our state Constitution, if the Legislature or a state agency requires a local government to provide a new program or higher level of service, the local government is entitled to reimbursement from the state for the associated costs. (Cal. Const., art. XIII B, § 6, subd. (a).) There are exceptions, however. Under one of them, if the new program or increased service is mandated by a federal law or regulation, reimbursement is not required. (Gov. Code, § 17556, subd. (c).)

The services in question here are provided by local agencies that operate storm drain systems pursuant to a state-issued permit. Conditions in that permit are designed to maintain the quality of California's water, and to comply with the federal Clean Water Act. The Court of Appeal held that certain permit conditions were federally mandated, and thus not reimbursable. We reverse, concluding that no federal law or regulation imposed the conditions nor did the federal regulatory system require the state to impose them. Instead, the permit conditions were imposed as a result of the state's discretionary action.

****361 I. BACKGROUND**

The Regional Water Quality Control Board, Los Angeles Region (the Regional Board) is a state agency. It issued a permit authorizing Los Angeles County, the Los Angeles County Flood Control District, and 84 cities (collectively, the Operators) to operate storm drainage systems.[1] *****50** Permit ***755** conditions required that the Operators take various steps to reduce the discharge of waste and pollutants into state waters. The conditions included installing and maintaining trash receptacles at transit stops, as wells as inspecting certain commercial and industrial facilities and construction sites.

Some Operators sought reimbursement for the cost of satisfying the conditions. The Commission on State Mandates (the Commission) concluded each required condition was a new program or higher level of service, mandated by the state rather than by federal law. However, it found the Operators were only entitled to state reimbursement for the costs of the trash receptacle condition, because they could levy fees to cover the costs of the required inspections. (See discussion, *post*, at p. 12.) The trial court and the Court of Appeal disagreed, finding that all of the requirements were federally mandated.

We granted review. To resolve this issue, it is necessary to consider both the permitting system and the reimbursement obligation in some detail.

A. The Permitting System

The Operators' municipal storm sewer systems discharge both waste and pollutants.[2] State law controls "waste" discharges. (Wat. Code, § 13265.) Federal law regulates discharges of "pollutant[s]." (33 U.S.C. § 1311(a).) Both state and later-enacted federal law require a permit to operate such systems.

California's Porter–Cologne Water Quality Control Act (Porter–Cologne Act or the Act; Wat. Code, § 13000 et seq.) was enacted in 1969. It established the State Water Resources Control Board (State Board), along with nine regional water quality control boards, and gave those agencies "primary responsibility for the coordination and control of water quality." (Wat. Code, § 13001; see *City of Burbank v. State Water Resources Control Bd.* (2005) 35 Cal.4th 613, 619, 26 Cal.Rptr.3d 304, 108 P.3d 862 (*City of Burbank*).) The State Board establishes statewide policy. The regional boards formulate and ***756** adopt water quality control plans and issue permits governing the discharge of waste. (*Building Industry Assn. of San Diego County v. State Water Resources Control Bd.* (2004) 124 Cal.App.4th 866, 875, 22 Cal.Rptr.3d 128 (*Building Industry*).)

The Porter–Cologne Act requires any person discharging, or proposing to discharge, waste that could affect the quality of state waters to file a report with the appropriate regional board. (*****51** Wat. Code, § 13260, subd. (a)(1).) The regional board then "shall prescribe requirements as to the nature" of the discharge, implementing any applicable water quality control plans. (Wat. Code, § 13263, subd. (a).) The Operators must follow ****362** all requirements set by the Regional Board. (Wat. Code, §§ 13264, 13265.)

[1] The federal Clean Water Act (the CWA; 33 U.S.C. § 1251 et seq.) was enacted in 1972, and also established a permitting system. The CWA is a comprehensive water quality statute designed to restore and maintain the chemical, physical, and biological integrity of the nation's waters. (*City of Burbank, supra,* 35 Cal.4th at p. 620, 26 Cal.Rptr.3d 304, 108 P.3d 862.) The CWA prohibits pollutant discharges unless they comply with: (1) a permit (see 33 U.S.C. §§ 1328, 1342, 1344); (2) established effluent limitations or standards (see 33 U.S.C. §§ 1312, 1317); or (3) established national standards of performance (see 33 U.S.C. § 1316). (33 U.S.C. § 1311(a).) The CWA allows any state to adopt and enforce

its own water quality standards and limitations, so long as those standards and limitations are not "less stringent" than those in effect under the CWA. (33 U.S.C. § 1370.)

The CWA created the National Pollutant Discharge Elimination System (NPDES), authorizing the Environmental Protection Agency (EPA) to issue a permit for any pollutant discharge that will satisfy all requirements established by the CWA or the EPA Administrator. (33 U.S.C. § 1342(a)(1), (a)(2).) The federal system notwithstanding, a state may administer its own permitting system if authorized by the EPA. [3] If the EPA concludes a state has adequate authority to administer its proposed program, it must grant approval (33 U.S.C. § 1342(b)) and suspend its own issuance of permits (33 U.S.C. § 1342(c)(1)). [4]

[2] ***757** California was the first state authorized to issue its own pollutant discharge permits. (*People of St. of Cal., etc. v. Environmental Pro. Agcy.* (9th Cir. 1975) 511 F.2d 963, 970, fn. 11, revd. on other grounds in *Environmental Protection Agency v. California* (1976) 426 U.S. 200, 96 S.Ct. 2022, 48 L.Ed.2d 578.) Shortly after the CWA's enactment, the Legislature amended the Porter–Cologne Act, adding chapter 5.5 (Wat. Code, § 13370 et seq.) to authorize state issuance of permits (Wat. Code, § 13370, subd. (c)). The Legislature explained the amendment was "in the interest of the people of the state, in order to avoid direct regulation by the federal government of persons already subject to regulation under state law pursuant to [the Porter–Cologne Act]." (*Ibid.*) The Legislature provided that Chapter 5.5 be "construed to ensure consistency" with the CWA. (Wat. Code, § 13372, subd. (a).) It directed that state and regional boards issue waste discharge requirements "ensur[ing] compliance with all applicable provisions of the [CWA] ... *together with any more stringent effluent standards or limitations* necessary to implement water quality control plans, or for the protection of beneficial uses, or to prevent nuisance." *****52** (Wat. Code, § 13377, italics added.) To align the state and federal permitting systems, the legislation provided that the term " 'waste discharge requirements' " under the Act was equivalent to the term " 'permits' " under the CWA. (Wat. Code, § 13374.) Accordingly, California's permitting system now regulates discharges under both state and federal law. (*WaterKeepers Northern California v. State Water Resources Control Bd.* (2002) 102 Cal.App.4th 1448, 1452, 126 Cal.Rptr.2d 389; accord *Building Industry, supra,* 124 Cal.App.4th at p. 875, 22 Cal.Rptr.3d 128.)

In 1987, Congress amended the CWA to clarify that a permit is required for any discharge from a municipal storm sewer system serving a population of 100,000 or more. (33 U.S.C. § 1342(p)(2)(C), (D).) Under those amendments, a permit may be issued either on a system- or jurisdiction-wide basis, must effectively prohibit non-storm water discharges into the storm sewers, and must "require controls to reduce the discharge of ****363** pollutants *to the maximum extent practicable*." (33 U.S.C. § 1342(p)(3)(B), italics added.) The phrase "maximum extent practicable" is not further defined. How that phrase is applied, and by whom, are important aspects of this case.

EPA regulations specify the information to be included in a permit application. (See 40 C.F.R. § 122.26(d)(1)(i)-(vi), (d)(2)(i)-(viii).) Among other things, an applicant must set out a proposed management program that includes management practices; control techniques; and system, design, and engineering methods to reduce the discharge of pollutants to the maximum extent practicable. (40 C.F.R. § 122.26(d)(2)(iv).) The permit-issuing agency has discretion to determine which practices, whether or not proposed by the applicant, will be imposed as conditions. (*Ibid.*)

***758 B. The Permit in Question**

In 2001, Los Angeles County (the County), acting for all Operators, applied for a permit from the Regional Board. The board issued a permit (the Permit), with conditions intended to "reduce the discharge of pollutants in storm water to the Maximum Extent Practicable" in the Operators' jurisdiction. The Permit stated that its conditions implemented *both* the Porter–Cologne Act and the CWA.

Part 4 of the Permit contains the four requirements at issue. Part 4(C) addresses commercial and industrial facilities, and required the Operators to inspect certain facilities twice during the five-year term of the Permit. Inspection requirements

were set out in substantial detail.[5] Part 4(E) of the Permit addresses construction sites. It required each Operator to "implement a program to control runoff from construction activity at all construction sites within its jurisdiction," and to inspect each construction *****53** site of one acre or greater at least "once during the wet season."[6] Finally, Part 4(F) of the Permit addresses pollution from public agency activities. Among other things, it directed each Operator not otherwise regulated to "[p]lace trash receptacles at all transit stops within its jurisdiction," and to maintain them as necessary.

C. Local Agency Claims

1. Applicable procedures for seeking reimbursement

As mentioned, when the Legislature or a state agency requires a local government to provide a new program or higher level of service, the state must "reimburse that local government for the costs of the program or increased level of service." (Cal. Const., art. XIII B, § 6, subd. (a) (hereafter, ***759** section 6).)[7] However, reimbursement is not required if "[t]he statute or executive order imposes a requirement that is mandated by a federal law or regulation and results in costs mandated by the federal government, unless the statute or executive order mandates costs that exceed the mandate in that federal law or regulation." (Gov. Code, § 17556, subd. (c).)

****364** The Legislature has enacted comprehensive procedures for the resolution of reimbursement claims (Gov. Code, § 17500 et seq.) and created the Commission to adjudicate them. (Gov. Code, §§ 17525, 17551.) It also established "a test-claim procedure to expeditiously resolve disputes affecting multiple agencies." (*Kinlaw v. State of California* (1991) 54 Cal.3d 326, 331, 285 Cal.Rptr. 66, 814 P.2d 1308 (*Kinlaw*).)

The first reimbursement claim filed with the Commission is called a test claim. (Gov. Code, § 17521.) The Commission must hold a public hearing, at which the Department of Finance (the Department), the claimant, and any other affected department or agency may present evidence. (Gov. Code, §§ 17551, 17553.) The Commission then determines "whether a state mandate exists and, if so, the amount to be reimbursed." (*Kinlaw, supra,* 54 Cal.3d at p. 332, 285 Cal.Rptr. 66, 814 P.2d 1308.) The Commission's decision is reviewable by writ of mandate. (Gov. Code, § 17559.)

2. The test claims

The County and other Operators filed test claims with the Commission, seeking reimbursement for the Permit's inspection and trash receptacle requirements. The Department, State Board, and Regional Board (collectively, the State) responded that the Operators were not entitled to reimbursement because each requirement was federally mandated.

The Department argued that the EPA had delegated its federal permitting authority to the Regional Board, which acted as an administrator for the EPA, ensuring the state's program complied with the CWA. The Department acknowledged the Regional Board had discretion to set detailed permit conditions, but urged that the challenged conditions were required for the Permit to comply with federal law.

*****54** The State and Regional Boards argued somewhat differently. They contended the CWA required the Regional Board to impose specific permit ***760** controls to reduce the discharge of pollutants to the "maximum extent practicable." Thus, when the Regional Board determined the Permit's conditions, those conditions were part of the federal mandate. The State and Regional Boards also argued that the challenged conditions were "animated" by EPA regulations. In support of the trash receptacle requirement, they relied on 40 Code of Federal Regulations part 122.26(d)(2)(iv)(A)(3).[8] In support of the inspection requirements, they relied on 40 Code of Federal Regulations part 122.26(d)(2)(iv)(B)(1),[9] (C)(1),[10] and (D)(3).[11]

****365** The Operators argued the conditions were not mandated by federal law, because nothing in the CWA or in the cited federal regulations required them to install trash receptacles or perform the required site inspections. They also submitted evidence showing that none of the challenged requirements were ***761** contained in their previous permits issued by the Regional Board, nor were they imposed on other municipal storm sewer systems by the EPA.

As to the inspection requirements, the Operators argued that state law required *****55** the *state and regional boards* to regulate discharges of waste. This regulatory authority included the power to inspect facilities and sites. The Regional Board had used the Permit conditions to shift those inspection responsibilities to them. They also presented evidence that the Regional Board was required to inspect industrial facilities and construction sites for compliance with statewide permits issued by the State Board (see *ante*, 207 Cal.Rptr.3d at pp. 52, 53, fns. 5, 6, 378 P.3d at p. 363, fns. 5, 6). They urged that the Regional Board had shifted that obligation to the Operators as well. Finally, the Operators submitted a declaration from a county employee indicating the Regional Board had offered to pay the County to inspect industrial facilities *on behalf of* the Regional Board, but revoked that offer after including the inspection requirement in the Permit.

The EPA submitted comments to the Commission indicating that the challenged permit requirements were designed to reduce the discharge of pollutants to the "maximum extent practicable." Thus, the EPA urged the requirements fell "within the scope" of federal regulations and other EPA guidance regarding storm water management programs. The Bay Area Stormwater Management Agencies Association, the League of California Cities, and the California State Association of Counties submitted comments urging that the challenged requirements were state, rather than federal, mandates.

3. The commission's decision

By a four-to-two vote, the Commission partially approved the test claims, concluding none of the challenged requirements were mandated by federal law. However, the Commission determined the Operators were not entitled to reimbursement for the inspection requirements because they had authority to levy fees to pay for the required inspections. Under Government Code section 17556, subdivision (d), the constitutional reimbursement requirement does not apply if the local government has the authority to levy fees or assessments sufficient to pay for the mandated program or service.

4. Petitions for writ of mandate

The State challenged the Commission's determination that the requirements were state mandates. By cross-petition, the County and certain cities challenged the Commission's finding that they could impose fees to pay for the inspections.

The trial court concluded that, because each requirement fell "within the maximum extent practicable standard," they were federal mandates not ***762** subject to reimbursement. It granted the State's petition and ordered the Commission to issue a new statement of decision. The court did not reach the cross-claims relating to fee authority. Certain Operators appealed.[12] The Court of Appeal affirmed, concluding as a matter of law that the trash receptacle and inspection requirements were federal mandates.

****366 II. DISCUSSION**

A. Standard of Review

[3] [4] Courts review a decision of the Commission to determine whether it is supported by substantial evidence. (Gov. Code, § 17559.) Ordinarily, when the scope of review in the trial court is whether the administrative decision is supported by substantial evidence, the scope of review on appeal is the same. (***56 *County of Los Angeles v. Commission on State Mandates* (1995) 32 Cal.App.4th 805, 814, 38 Cal.Rptr.2d 304 (*County of Los Angeles*).) However, the appellate court independently reviews conclusions as to the meaning and effect of constitutional and statutory provisions. (*City of San Jose v. State of California* (1996) 45 Cal.App.4th 1802, 1810, 53 Cal.Rptr.2d 521.) The question whether a statute or executive order imposes a mandate is a question of law. (*Ibid.*) Thus, we review the entire record before the Commission, which includes references to federal and state statutes and regulations, as well as evidence of other permits and the parties' obligations under those permits, and independently determine whether it supports the Commission's conclusion that the conditions here were not federal mandates. (*Ibid.*)

B. Analysis

The parties do not dispute here that each challenged requirement is a new program or higher level of service. The question here is whether the requirements were mandated by a federal law or regulation.

1. The federal mandate exception

[5] Voters added article XIII B to the California Constitution in 1979. Also known as the "Gann limit," it "restricts the amounts state and local governments may appropriate and spend each year from the 'proceeds of taxes.' " (*City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 58–59, 266 Cal.Rptr. 139, 785 P.2d 522 (*City of Sacramento*).) "Article XIII B is to be distinguished from article XIII A, which was adopted as Proposition 13 at *763 the June 1978 election. Article XIII A imposes a direct constitutional limit on state and local power to *adopt and levy taxes*. Articles XIII A and XIII B work in tandem, together restricting California governments' power both to levy and to spend for public purposes." (*Id.* at p. 59, fn. 1, 266 Cal.Rptr. 139, 785 P.2d 522.)

[6] [7] The "concern which prompted the inclusion of section 6 in article XIII B was the perceived attempt by the state to enact legislation or adopt administrative orders creating programs to be administered by local agencies, thereby transferring to those agencies the fiscal responsibility for providing services which the state believed should be extended to the public." (*County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56, 233 Cal.Rptr. 38, 729 P.2d 202.) The reimbursement provision in section 6 was included in recognition of the fact "that articles XIII A and XIII B severely restrict the taxing and spending powers of local governments." (*County of San Diego v. State of California* (1997) 15 Cal.4th 68, 81, 61 Cal.Rptr.2d 134, 931 P.2d 312 (*County of San Diego*).) The purpose of section 6 is to prevent "the state from shifting financial responsibility for carrying out governmental functions to local agencies, which are 'ill equipped' to assume increased financial responsibilities because of the taxing and spending limitations that articles XIII A and XIII B impose." (*County of San Diego*, at p. 81, 61 Cal.Rptr.2d 134, 931 P.2d 312.) Thus, with certain exceptions, section 6 "requires the state 'to pay for any new governmental programs, or for higher levels of service under existing programs, that it imposes upon local governmental agencies.' " (*County of San Diego*, at p. 81, 61 Cal.Rptr.2d 134, 931 P.2d 312.)

As noted, reimbursement is not required if the statute or executive order imposes "a requirement that is mandated by a federal law or regulation," unless the state mandate imposes costs that exceed the federal mandate. (Gov. Code, § 17556, subd. (c).) The question here is how to apply that ***57 exception when federal law requires a local agency to obtain a permit, authorizes the state to issue the permit, and provides the state discretion in determining which conditions are necessary to achieve a general standard established by federal law, and when state law allows the imposition of conditions that exceed the federal standard. Previous decisions **367 of this court and the Courts of Appeal provide guidance.

In *City of Sacramento, supra,* 50 Cal.3d 51, 266 Cal.Rptr. 139, 785 P.2d 522, this court addressed local governments' reimbursement claims for the costs of extending unemployment insurance protection to their employees. (*Id.*, at p. 59,

266 Cal.Rptr. 139, 785 P.2d 522.) Since 1935, the applicable federal law had provided powerful incentives for states to implement their own unemployment insurance programs. Those incentives included federal subsidies and a substantial federal tax credit for all corporations in states with certified federal programs. (*Id.* at p. 58, 266 Cal.Rptr. 139, 785 P.2d 522.) California had implemented such a program. (*Ibid.*) In 1976, Congressional legislation required ***764** that unemployment insurance protection be extended to local government employees. (*Ibid.*) If a state failed to comply with that directive, it "faced [the] loss of the federal tax credit and administrative subsidy." (*Ibid.*) The Legislature passed a law requiring local governments to participate in the state's unemployment insurance program. (*Ibid.*)

Two local governments sought reimbursement for the costs of complying with that requirement. Opposing the claims, the state argued its action was compelled by federal law. This court agreed, reasoning that, if the state had "failed to conform its plan to new federal requirements as they arose, its businesses [would have] faced a new and serious penalty" of double taxation, which would have placed those businesses at a competitive disadvantage against businesses in states complying with federal law. (*City of Sacramento, supra,* 50 Cal.3d at p. 74, 266 Cal.Rptr. 139, 785 P.2d 522.) Under those circumstances, we concluded that the "state simply did what was necessary to avoid certain and severe federal penalties upon its resident businesses." (*Ibid.*) Because "[t]he alternatives were so far beyond the realm of practical reality that they left the state '*without discretion*' to depart from federal standards," we concluded "the state acted in response to a federal 'mandate.' " (*Ibid.* italics added.)

County of Los Angeles, supra, 32 Cal.App.4th 805, 38 Cal.Rptr.2d 304, involved a different kind of federal compulsion. In *Gideon v. Wainwright* (1963) 372 U.S. 335, 83 S.Ct. 792, 9 L.Ed.2d 799, the United States Supreme Court held that states were required by the federal Constitution to provide counsel to indigent criminal defendants. That requirement had been construed to include "the right to the use of any experts that will assist counsel in preparing a defense." (*County of Los Angeles*, at p. 814, 38 Cal.Rptr.2d 304.) The Legislature enacted Penal Code section 987.9, requiring local governments to provide indigent criminal defendants with experts for the preparation of their defense. (*County of Los Angeles*, at p. 811, fn. 3, 38 Cal.Rptr.2d 304.) Los Angeles County sought reimbursement for the costs of complying with the statute. The state argued the statute's requirements were mandated by federal law.

The state prevailed. The Court of Appeal reasoned that, even without Penal Code section 987.9, the county would have been "responsible for providing ancillary services" under binding Supreme Court precedent. (*County of Los Angeles, supra,* 32 Cal.App.4th at p. 815, 38 Cal.Rptr.2d 304.) Penal Code section 987.9 merely codified an existing federal mandate. (*****58** *County of Los Angeles*, at p. 815, 38 Cal.Rptr.2d 304.)

Hayes v. Commission on State Mandates (1992) 11 Cal.App.4th 1564, 15 Cal.Rptr.2d 547 (*Hayes*) provides a contrary example. *Hayes* involved the federal Education of the Handicapped Act (EHA; 20 U.S.C. § 1401 et seq.). EHA was a "comprehensive measure designed to provide all handicapped children with basic educational opportunities." (*Hayes*, at p. 1594, 15 Cal.Rptr.2d 547 ***765**) EHA required each state to adopt an implementation plan, and mandated "certain substantive and procedural requirements," but left "primary responsibility for implementation to the state." (*Hayes*, at p. 1594, 15 Cal.Rptr.2d 547.)

Two local governments sought reimbursement for the costs of special education assessment hearings which were required under the state's adopted plan. The state argued the requirements imposed under its plan were federally mandated. The *Hayes* court rejected that argument. Reviewing ****368** the historical development of special education law (*Hayes, supra,* 11 Cal.App.4th at pp. 1582–1592, 15 Cal.Rptr.2d 547), the court concluded that, so far as the state was concerned, the requirements established by the EHA were federally mandated. (*Hayes*, at p. 1592, 15 Cal.Rptr.2d 547.) However, that conclusion "mark[ed] the starting point rather than the end of [its] consideration." (*Ibid.*) The court explained that, in determining whether federal law requires a specified function, like the assessment hearings, the focus of the inquiry is whether the "manner of implementation of the federal program was left to the *true discretion* of the state." (*Id.* at p. 1593, 15 Cal.Rptr.2d 547, italics added.) If the state "has adopted an implementing statute or regulation pursuant to the federal mandate," and had "no 'true choice' " as to the manner of implementation, the local government is not entitled

to reimbursement. (*Ibid.*) If, on the other hand, "the manner of implementation of the federal program was left to the true discretion of the state," the local government might be entitled to reimbursement. (*Ibid.*)

According to the *Hayes* court, the essential question is how the costs came to be imposed upon the agency required to bear them. "If the state freely chose to impose the costs upon the local agency as a means of implementing a federal program then the costs are the result of a reimbursable state mandate regardless whether the costs were imposed upon the state by the federal government." (*Hayes, supra,* 11 Cal.App.4th at p. 1594, 15 Cal.Rptr.2d 547.) Applying those principles, the court concluded that, to the extent "the state implemented the [EHA] by freely choosing to impose new programs or higher levels of service upon local school districts, the costs of such programs or higher levels of service are state mandated and subject to" reimbursement. (*Ibid.*)

From *City of Sacramento*, *County of Los Angeles*, and *Hayes*, we distill the following principle: If federal law compels the state to impose, or itself imposes, a requirement, that requirement is a federal mandate. On the other hand, if federal law gives the state discretion whether to impose a particular implementing requirement, and the state exercises its discretion to impose the requirement by virtue of a "true choice," the requirement is not federally mandated.

Division of Occupational Safety & Health v. State Bd. of Control (1987) 189 Cal.App.3d 794, 234 Cal.Rptr. 661 (*Division of Occupational Safety*) is ***766** instructive. The federal Occupational Safety and Health Act (Fed. OSHA; 29 U.S.C. § 651 et seq.) preempted states from regulating matters covered by Fed. OSHA unless a *****59** state had adopted its own plan and gained federal approval. (*Division of Occupational Safety*, at p. 803, 234 Cal.Rptr. 661.) No state was obligated to adopt its own plan. But, if a state did so, the plan had to include standards at least as effective as Fed. OSHA's and extend those standards to state and local employees. California adopted its own plan, which was federally approved. The state then issued a regulation that, according to local fire districts, required them to maintain three-person firefighting teams. Previously, they had been permitted to maintain two-person teams. (*Division of Occupational Safety*, at pp. 798–799, 234 Cal.Rptr. 661.) The local fire districts sought reimbursement for the increased level of service. The state opposed, arguing the requirement was mandated by federal law.

The court agreed with the fire districts. As the court explained, a Fed. OSHA regulation arguably required the maintenance of three-person firefighting teams. (*Division of Occupational Safety, surpra,* 189 Cal.App.3d at p. 802, 234 Cal.Rptr. 661.) However, that federal regulation specifically excluded local fire districts. (*Id.* at p. 803, 234 Cal.Rptr. 661.) Had the state elected to be governed by *Fed. OSHA standards*, that exclusion would have allowed those fire districts to maintain two-person teams. (*Division of Occupational Safety*, at p. 803, 234 Cal.Rptr. 661.) The conditions for approval of the *state's plan* required effective enforcement and coverage of public employees. But those conditions did not make the costs of complying with the state regulation federally mandated. "[T]he decision to establish ... a federally approved [local] plan is an option which the state exercises ****369** freely." (*Ibid.*) In other words, the state was not "*compelled* to ... extend jurisdiction over occupational safety to local governmental employers," which would have otherwise fallen under a federal exclusion. (*Ibid.*) Because the state "was not required to promulgate [the state regulation] to comply with federal law, the exemption for federally mandated costs does not apply." (*Id.* at p. 804, 234 Cal.Rptr. 661.) [13]

San Diego Unified School Dist. v. Commission on State Mandates (2004) 33 Cal.4th 859, 16 Cal.Rptr.3d 466, 94 P.3d 589 (*San Diego Unified*) provides another example. In *Goss v. Lopez* (1975) 419 U.S. 565, 95 S.Ct. 729, 42 L.Ed.2d 725, the United States Supreme Court held that if a school principal chose to recommend a student for expulsion, federal due process principles required the school district to give that student a hearing. Education Code section 48918 provided for expulsion hearings. (*San Diego Unified*, at p. 868, 16 Cal.Rptr.3d 466, 94 P.3d 589.) Under Education Code section 48915, a school principal had ***767** *discretion* to recommend expulsion under certain circumstances, but was compelled to recommend expulsion for a student who possessed a firearm. (*San Diego Unified*, at p. 869, 16 Cal.Rptr.3d 466, 94 P.3d 589.) Federal law at the time did not require expulsion for a student who brought a gun to school. (*Id.* at p. 883, 16 Cal.Rptr.3d 466, 94 P.3d 589.)

The school district argued it was entitled to reimbursement of *all* expulsion hearing costs. This court drew a distinction between discretionary and mandatory expulsions. We concluded the costs of hearings for *discretionary* expulsions flowed from a federal mandate. (*****60** *San Diego Unified, supra,* 33 Cal.4th at pp. 884–890, 16 Cal.Rptr.3d 466, 94 P.3d 589.)[14] We declined, however, to extend that rule to the costs related to *mandatory* expulsions. Because it was *state law* that required an expulsion recommendation for firearm possession, all hearing costs triggered by the mandatory expulsion provision were reimbursable state-mandated expenses. (*Id.* at pp. 881–883, 16 Cal.Rptr.3d 466, 94 P.3d 589). As was the case in *Hayes*, the key factor was how the costs came to be imposed on the entity that was required to bear them. The school principal could avoid the cost of a federally-mandated hearing by choosing not to recommend an expulsion. But, when a state statute *required* an expulsion recommendation, the attendant hearing costs did not flow from a federal mandate. (*San Diego Unified, supra,* 33 Cal.4th at p. 881, 16 Cal.Rptr.3d 466, 94 P.3d 589.)

2. Application

Review of the Commission's decision requires a determination as to whether federal statutory, administrative, or case law imposed, or compelled the Regional Board to impose, the challenged requirements on the Operators.

It is clear federal law did not compel the Regional Board to impose these particular requirements. There was no evidence the state was compelled to administer its *own* permitting system rather than allowing the EPA do so under the CWA. (33 U.S.C. § 1342(a).) In this respect, the case is similar to *Division of Occupational Safety, supra,* 189 Cal.App.3d 794, 234 Cal.Rptr. 661. Here, as in that case, the state chose to administer its own program, finding it was "in the interest of the people of the state, *in order to avoid direct regulation by the federal government* of persons already subject to regulation" under state law. (Wat. Code, § 13370, subd. (c), italics added.) Moreover, the Regional Board was not required by federal law to impose any specific permit conditions. The federal CWA broadly directed the board to issue permits with conditions designed to reduce pollutant discharges to the maximum ****370** extent practicable. But the EPA's regulations gave the board discretion to determine which ***768** specific controls were necessary to meet that standard. (40 C.F.R. § 122.26(d)(2)(iv).) This case is distinguishable from *City of Sacramento, supra,* 50 Cal.3d 51, 266 Cal.Rptr. 139, 785 P.2d 522, where the state risked the loss of subsidies and tax credits for all its resident businesses if it failed to comply with federal legislation. Here, the State was not compelled by federal law to impose any particular requirement. Instead, as in *Hayes, supra,* 11 Cal.App.4th 1564, 15 Cal.Rptr.2d 547, the Regional Board had discretion to fashion requirements which it determined would meet the CWA's maximum extent practicable standard.

[8] **[9]** The State argues the Commission failed to account for the flexibility in the CWA's regulatory scheme, which conferred discretion on the State and regional boards in deciding what conditions were necessary to comply with the CWA. In exercising that discretion, those agencies were required to rely on their scientific, technical, and experiential knowledge. Thus, the State contends the Permit itself is the best indication of what requirements *would have been imposed* by the EPA if the Regional Board had not done so, and the Commission should have deferred to *****61** the board's determination of what conditions federal law required.

We disagree that the Permit itself demonstrates what conditions would have been imposed had the EPA granted the Permit. In issuing the Permit, the Regional Board was implementing both state and federal law and was authorized to include conditions more exacting than federal law required. (*City of Burbank, supra,* 35 Cal.4th at pp. 627–628, 26 Cal.Rptr.3d 304, 108 P.3d 862.) It is simply not the case that, because a condition was in the Permit, it was, ipso facto, required by federal law.

[10] **[11]** We also disagree that the Commission should have deferred to the Regional Board's conclusion that the challenged requirements were federally mandated. That determination is largely a question of law. Had the Regional Board found, when imposing the disputed permit conditions, that those conditions were the only means by which the maximum extent practicable standard could be implemented, deference to the board's expertise in reaching that finding

would be appropriate. The board's legal authority to administer the CWA and its technical experience in water quality control would call on sister agencies as well as courts to defer to that finding.[15] The State, however, provides no authority for the proposition that, absent such a finding, the Commission should defer to a state agency as to whether requirements were state or federally mandated. Certainly, in a trial court action challenging the *board's authority* to impose specific permit conditions, the board's findings regarding what conditions satisfied the federal standard would be entitled to deference. (See, e.g., *City of Rancho Cucamonga v. Regional Water Quality Control Bd.* (2006) 135 Cal.App.4th 1377, 1384, 38 Cal.Rptr.3d 450, citing *Fukuda v. City of Angels* (1999) 20 Cal.4th 805, 817–818, 85 Cal.Rptr.2d 696, 977 P.2d 693 ***769**) Resolution of those questions would bring into play the particular technical expertise possessed by members of the regional board. In those circumstances, the party challenging the board's decision would have the burden of demonstrating its findings were not supported by substantial evidence or that the board otherwise abused its discretion. (*Rancho Cucamonga*, at p. 1387, 38 Cal.Rptr.3d 450; *Building Industry, supra,* 124 Cal.App.4th at pp. 888–889, 22 Cal.Rptr.3d 128.)

Reimbursement proceedings before the Commission are different. The question here was not whether the Regional Board had authority to impose the challenged requirements. It did. The narrow question here was who will pay for them. In answering that legal question, the Commission applied California's constitutional, statutory, and common law to the single issue of reimbursement. In the context of these proceedings, the State has the burden to show the challenged conditions were mandated by federal law.

[12] Section 6 establishes a general rule requiring reimbursement of all state-mandated costs. Government Code section 17556, subdivision (c), codifies an exception to that ****371** rule. Typically, the party claiming the applicability of an exception bears the burden of demonstrating that it applies. (See *Simpson Strong–Tie Co., Inc. v. Gore* (2010) 49 Cal.4th 12, 23, 109 Cal.Rptr.3d 329, 230 P.3d 1117; see also, *Long Beach Police Officers Assn. v. City of Long Beach* (2014) 59 Cal.4th 59, 67, 172 Cal.Rptr.3d 56, 325 P.3d 460.) Here, the State must explain why federal law mandated these requirements, rather than forcing the Operators to prove the opposite. The State's proposed rule, requiring the Commission to defer to the Regional Board, would leave the Commission with no role to play on the narrow question of who must pay. Such a result would fail to honor the Legislature's *****62** intent in creating the Commission.

Moreover, the policies supporting article XIII B of the California Constitution and section 6 would be undermined if the Commission were required to defer to the Regional Board on the federal mandate question. The central purpose of article XIII B is to rein in local government spending. (*City of Sacramento, supra,* 50 Cal.3d at pp. 58–59, 266 Cal.Rptr. 139, 785 P.2d 522.) The purpose of section 6 is to protect local governments from state attempts to impose or shift the costs of new programs or increased levels of service by entitling local governments to reimbursement. (*County of San Diego, supra,* 15 Cal.4th at p. 81, 61 Cal.Rptr.2d 134, 931 P.2d 312.) Placing the burden on the state to demonstrate that a requirement is federally mandated, and thus excepted from reimbursement, serves those purposes.

Applying the standard of review described above, we evaluate the entire record and independently review the Commission's determination the challenged conditions were not federal mandates. We conclude the Commission was correct. These permit conditions were not federally mandated.

***770** *a) The inspection requirements*

[13] Neither the CWA's "maximum extent practicable" provision nor the EPA regulations on which the State relies expressly required the Operators to inspect these particular facilities or construction sites. The CWA makes no mention of inspections. (33 U.S.C. § 1342(p)(3)(B)(iii).) The regulations required the Operators to include in their permit application a description of priorities and procedures for inspecting certain industrial facilities and construction sites, but suggested that the Operators would have discretion in selecting which facilities to inspect. (See C.F.R. § 122.26(d)(2)(iv)(C)(1).) The regulations do not mention commercial facility inspections at all.

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Further, as the Operators explained, state law made the *Regional Board* responsible for regulating discharges of waste within its jurisdiction. (Wat. Code, §§ 13260, 13263.) This regulatory authority included the power to "inspect the facilities of any person to ascertain whether ... waste discharge requirements are being complied with." (Wat. Code, § 13267, subd. (c).) Thus, state law imposed an overarching mandate that the Regional Board inspect the facilities and sites.

In addition, federal law and practice required the Regional Board to inspect all industrial facilities and construction sites. Under the CWA, the State Board, as an issuer of NPDES permits, was required to issue permits for storm water discharges "associated with industrial activity." (33 U.S.C. § 1342(p)(3)(A).) The term "industrial activity" includes "construction activity." (40 C.F.R. § 122.26(b)(14)(x).) The Operators submitted evidence that the State Board had satisfied its obligation by issuing a general industrial activity stormwater permit and a general construction activity stormwater permit. Those statewide permits imposed controls designed to reduce pollutant discharges from industrial facilities and construction sites. Under the CWA, those facilities and sites could operate under the statewide permits rather than obtaining site-specific pollutant discharge permits.

The Operators showed that, in those statewide permits, the State Board had placed responsibility for inspecting facilities and sites on the *Regional Board*. The Operators submitted letters from the EPA indicating the State and regional boards were responsible for enforcing the terms of the statewide permits. The Operators also noted the State Board was authorized *****63** to charge a fee to facilities and sites that subscribed to the statewide permits (****372** Wat. Code, § 13260, subd. (d)), and that a portion of that fee was earmarked to pay the Regional Board for "inspection and regulatory compliance issues." (Wat. Code, § 13260, subd. (d)(2)(B)(iii).) Finally, there was evidence the Regional Board offered to pay the County to inspect industrial facilities. There would have been little reason to make that offer if federal law required the County to inspect those facilities.

***771** This record demonstrates that the Regional Board had primary responsibility for inspecting these facilities and sites. It shifted that responsibility to the Operators by imposing these Permit conditions. The reasoning of *Hayes, supra,* 11 Cal.App.4th 1564, 15 Cal.Rptr.2d 547, provides guidance. There, the EHA required the state to provide certain services to special education students, but gave the state discretion in implementing the federal law. (*Hayes*, at p. 1594, 15 Cal.Rptr.2d 547.) The state exercised its "true discretion" by selecting the specific requirements it imposed on local governments. As a result, the *Hayes* court held the costs incurred by the local governments were state-mandated costs. (*Ibid.*) Here, state and federal law required the Regional Board to conduct inspections. The Regional Board exercised its discretion under the CWA, and shifted that obligation to the Operators. That the Regional Board did so while exercising its permitting authority under the CWA does not change the nature of the Regional Board's action under section 6. Under the reasoning of *Hayes*, the inspection requirements were not federal mandates.

The State argues the inspection requirements were federally mandated because the CWA required the Regional Board to impose permit controls, and the EPA regulations contemplated that some kind of operator inspections would be required. That the EPA regulations contemplated some form of inspections, however, does not mean that federal law required the scope and detail of inspections required by the Permit conditions.[16] As explained, the evidence before the Commission showed the opposite to be true.

b) The trash receptacle requirement

[14] The Commission concluded the trash receptacle requirement was not a federal mandate because neither the CWA nor the regulation cited by the State explicitly required the installation and maintenance of trash receptacles. The State contends the requirement was mandated by the CWA and by the EPA regulation that directed the Operators to include in their application a "description of practices for operating and maintaining public streets, roads and highways and

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procedures for reducing the impact on receiving waters of discharges from municipal storm sewer systems." (40 C.F.R. § 122.26(d)(2)(iv)(A)(3).)

The Commission's determination was supported by the record. While the Operators were required to include a description of practices and procedures in their permit application, the issuing agency has discretion whether to make ***772** those practices conditions of the permit. (40 C.F.R. § 122.26(d)(2)(iv).) No regulation cited by the State required trash receptacles at *****64** transit stops. In addition, there was evidence that the EPA had issued permits to other municipal storm sewer systems in Anchorage, Boise, Boston, Albuquerque, and Washington, D.C. that did not require trash receptacles at transit stops. The fact the EPA itself had issued permits in other cities, but did not include the trash receptacle condition, undermines the argument that the requirement was federally mandated.

c) Conclusion

Although we have upheld the Commission's determination on the federal mandate question, the State raised other arguments in its writ petition. Further, the issues presented in the Operators' cross-petition were not addressed by either the trial court or the Court of Appeal. We remand the matter so those issues can be addressed in the first instance.

****373 III. DISPOSITION**

We reverse the judgment of the Court of Appeal and remand for further proceedings consistent with our opinion.

We Concur:

Cantil–Sakauye, C.J.

Werdegar, J.

Chin, J.

CONCURRING AND DISSENTING OPINION BY CUÉLLAR, J.

A local government is entitled to reimbursement from the state when the Legislature or a state agency requires it to provide new programs or increased service. (Cal. Const., art. XIII B, § 6, subd. (a).) But one crucial exception coexists with this rule. It applies where the new program or increased service is mandated by a federal statute or regulation. (Gov. Code, § 17556, subd. (c).) We consider in this case whether certain conditions to protect water quality included in a permit from the Regional Water Quality Board, Los Angeles Region (Regional Board or Board)—specifically, installation and maintenance of trash receptacles at transit stops, as well as inspections of certain commercial and industrial facilities and construction sites—constitute state mandates subject to reimbursement, or federal mandates within the statutory reimbursement exception.

What the majority concludes is that federal law did not compel imposition of the conditions, and that the local agencies would not necessarily have been required to comply with them had they not been imposed by the state. In doing so, the majority upholds and treats as correct a decision by the Commission on State Mandates (the Commission) that is flawed in its approach and far too parsimonious in its analysis. This is no small feat: not ***773** only must the majority discount any expertise the Regional Board might bring to bear on the mandate question (see maj. opn., *ante*, 207 Cal.Rptr.3d at pp. 61–62, 378 P.3d at pp. 370–371), but it must also overlook the Commission's reliance on an overly narrow analytical

framework and prop up the Commission's decision with evidence on which the agency *could have relied*, rather than that on which it did (see *id.* at pp. 62–64, 378 P.3d at pp. 371–373).

Moreover, when the majority considers whether the permit conditions are indeed federally mandated, it purports to apply de novo review to the Commission's legal determination. (See maj. opn., *ante*, at pp. 207 Cal.Rptr.3d at pp. 55, 61, 62, 378 P.3d at pp. 365, 370, 371.) What it actually applies seems far more deferential to the Commission's decision—something akin to substantial evidence review—despite the Commission's own failure in affording deference *****65** to the Regional Board and, more generally, its reliance on the wrong decision-making framework. (Cf. *People v. Barnwell* (2007) 41 Cal.4th 1038, 1052, 63 Cal.Rptr.3d 82, 162 P.3d 596 ["A substantial evidence inquiry examines the record in the light most favorable to the judgment and upholds it if the record contains reasonable, credible evidence of solid value upon which a reasonable trier of fact *could* have relied in reaching the conclusion in question"].) Indeed, what the majority overlooks is that the Commission itself should have considered the effect of the evidence on which the majority now relies in deciding whether the challenged permit conditions were necessary to comply with federal law. And in doing so, the Commission should have extended a measure of deference to the Regional Board's expertise in administering the statutory scheme. (See *County of Los Angeles v. Cal. State Water Resources Control Bd.* (2006) 143 Cal.App.4th 985, 997, 50 Cal.Rptr.3d 619 (*State Water Board*).)

Because the Commission failed to do so, and because the Commission's interpretation of the federal Clean Water Act (the CWA; 33 U.S.C. § 1251 et seq.) failed to account for the complexities of the statute, I would reverse the Court of Appeal's judgment and remand with instructions for the Commission to reconsider its decision. So I concur in the majority's judgment reversing the Court of Appeal, but dissent from its conclusion upholding the Commission's decision rather than remanding the matter for further proceedings.

I.

To determine whether it is the state rather than local governments that should bear ****374** the entirety of the financial burden associated with a new program or increased service, the Commission must examine the nature of the federal scheme in question. That scheme is the CWA, a statute Congress amended in 1972 to establish the National Pollutant Discharge Elimination System (the NPDES) as a means of achieving and enforcing limitations on ***774** pollutant discharges. (See *EPA v. State Water Resources Control Bd.* (1976) 426 U.S. 200, 203–204, 96 S.Ct. 2022, 48 L.Ed.2d 578.) The role envisioned for the states under the NPDES is a major one, encompassing both the opportunity to assume the primary responsibility for the implementation and enforcement of federal effluent discharge limitations by issuing permits as well as the discretion to enact requirements that are more onerous than the federal standard. (See 33 U.S.C. §§ 1251(b), 1342(b).)

But states undertaking such implementation must do so in a manner that complies with regulations promulgated by the Environmental Protection Agency (the EPA), as well as the CWA's broad provisions (including the "maximum extent practicable" standard (33 U.S.C. § 1342(p)(3)(B)(iii))), and subject to the EPA's continuing revocation authority (see *id.*, § 1342(c)(3)). Despite the breadth of the requirements the statute imposes on states assuming responsibility for permitting enforcement and the expansive nature of the EPA's revocation authority, neither the statute nor its implementing regulations include a safe harbor provision establishing a minimum level of compliance with the federal standard—an absence the majority tacitly acknowledges. (See maj. opn., *ante*, 207 Cal.Rptr.3d at p. 60, 378 P.3d at p. 369 ["the Regional Board was not required by federal law to impose any specific permit conditions"].) Instead, implementation of the federal mandate requires the state agency—here, the Regional Board—to exercise technical judgments about the feasibility of alternative permitting conditions *****66** necessary to achieve compliance with the federal statute.

With no statutory safe harbor that the Regional Board could have relied on to ensure the EPA's approval of the state permitting process, the Board interpreted the federal standard in light of the statutory text, implementing regulations,

and its technical appraisal of potential alternatives. In discharging its own role, the Commission was then bound to afford the Regional Board a measure of "sister-agency" deference. (See *Yamaha Corp. of America v. State Bd. of Equalization* (1998) 19 Cal.4th 1, 7, 78 Cal.Rptr.2d 1, 960 P.2d 1031 [explaining that "the binding power of an agency's *interpretation* of a statute or regulation is contextual: Its power to persuade is both circumstantial and dependent on the presence or absence of factors that support the merit of the interpretation"].) In this case, the Regional Board informed localities that, in its view, the various permit conditions it imposed would satisfy the maximum extent practicable standard. The EPA agreed the requirements were within the scope of the federal standard. The Regional Board's judgment that these conditions will control pollutant discharges to the extent required by federal law is at the core of the agency's institutional expertise. That expertise merits a measure of deference because the Regional Board's ken includes not only its greater familiarity with the CWA (relative to other entities), but also technical knowledge relevant to judgments about the water quality consequences of particular permitting conditions relevant to the provisions of the ***775** CWA. (See, e.g., 33 U.S.C. § 1342(p)(3)(B)(iii) [requiring that permits include "management practices, control techniques and system, design and engineering methods, and such other provisions as ... the State determines appropriate for the control of such pollutants"].) Casting aside the Regional Board's expertise on the issue at hand, the majority nonetheless upholds the Commission's ruling.

Remand to the Commission would have been the more appropriate course for multiple reasons. First, the Commission applied the wrong framework for its analysis. It failed to consider all the evidence relevant to whether the permit conditions were necessary for compliance with federal law. The commission compounded its error by relying on an interpretation of the CWA that misconstrues the federal statutory scheme governing the state permitting process.

****375** In particular, the Commission treated the problem as essentially a simple matter of searching the statutory text and regulations for precisely the same terms used by the Regional Board's permit conditions. Unless the requirement in question is referenced explicitly in a federal statutory or regulatory provision, the Commission's analysis suggests, the requirement cannot be a federal mandate. With respect to trash receptacles, the Commission stated: "Because installing and maintaining trash receptacles at transit stops is not expressly required of cities or counties or municipal separate storm sewer dischargers in the federal statutes or regulations, these are activities that 'mandate costs that exceed the mandate in the federal law or regulation.' " And with respect to industrial facility inspections, the Commission said this: "Inasmuch as the federal regulation (40 CFR § 122.26 (c)) authorizes coverage under a statewide general permit for the inspections of industrial activities, and the federal regulation (40 CFR § 122.26 (d)(2)(iv)(D)) does not expressly require those inspections to be performed by the county or cities (or the 'owner or operator of the discharge') the Commission finds that the state has freely chosen to impose *****67** these activities on the permittees." (Fn. omitted.)

Existing law does not support this method of determining what constitutes a federal mandate. Instead, our past decisions emphasize the need to consider the implications of multiple statutory provisions and broader statutory context when interpreting federal law to determine if a given condition constitutes a federal mandate. (See *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 76, 266 Cal.Rptr. 139, 785 P.2d 522 (*City of Sacramento*); see also *San Diego Unified School Dist. v. Commission on State Mandates* (2004) 33 Cal.4th 859, 890, 16 Cal.Rptr.3d 466, 94 P.3d 589 ["challenged state rules or procedures that are intended to implement an applicable federal law—and whose costs are, *in context*, de minimis—should be treated as part and parcel of the underlying federal mandate" (italics added)].) In contrast, ***776** the Commission's overly narrow approach to determining what constitutes a federal mandate risks creating a standard that will never be met so long as the state retains any shred of discretion to implement a federal program. It cannot be that so long as a federal statute or regulation does not expressly require every permit term issued by a state agency, then the permit is a state, rather than a federal, mandate. But this is precisely how the Commission analyzed the issue—an analysis that, remarkably, the majority does not even question. Instead, the majority combs the record for evidence that could have supported the result the Commission reached. In so doing, the majority implicitly acknowledges that the Commission's approach to resolving the question at the heart of this case was deficient.

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But if the Commission applied the wrong framework for its analysis, the right course is to remand. Doing so would obviate the need to cobble together scattered support for a decision by the Commission that was premised, in the first instance, on the Commission's own misconstrual of the inquiry before it. Instead, we should give the Commission an opportunity to reevaluate its conclusion in light of the entire record and to, where appropriate, solicit further information from the parties to shed light on what permit conditions are necessary for compliance with federal law.

The potential consequences of allowing the Commission to continue on its present path are quite troubling. For if the law were as the Commission suggests, the state would be unduly discouraged from participating in federal programs like the NPDES—even though participation might otherwise be in California's interest—if the state knows ex ante that it will be unable to pass along the expenses to the local areas that experience the most costs and benefits from the mandate at issue. Our law on unfunded mandates does not compel such a result. Nor is there an apparent prudential rationale in support of it.

The Commission's approach also fails to appreciate the EPA's role in implementing (through its interpretation and enforcement of the CWA) statutory requirements that the CWA describes in relatively broad terms. Indeed, what may be "practicable" in Los Angeles ****376** may not be in San Francisco, much less in Kansas City or Detroit. (See *Building Industry Assn. of San Diego County v. State Water Resources Control Bd.* (2004) 124 Cal.App.4th 866, 889, 22 Cal.Rptr.3d 128 (*Building Industry Assn.*) [explaining that "the maximum extent practicable standard is a highly flexible concept that depends on balancing numerous factors, including the particular control's technical feasibility, cost, public acceptance, regulatory compliance, and effectiveness"].) It also suggests a lack of understanding of two interrelated matters on which the Regional *****68** Board likely has expertise: the consequences of the measures included as permit conditions relative to any ***777** alternatives and the interpretation of a complex federal statute governing regulation of the environment.

Second, beyond failing to consider all the relevant evidence bearing on the necessity of the imposed permit conditions, the Commission failed to extend any meaningful deference to the Regional Board's conclusions—even though such deference was warranted given that the nature of the decisions involved in interpreting the CWA included evaluating appropriate alternatives and determining which of those were necessary to satisfy the federal standard. (See *State Water Board, supra,* 143 Cal.App.4th at p. 997, 50 Cal.Rptr.3d 619 ["we defer to the regional board's expertise in construing language which is not clearly defined in statutes involving pollutant discharge into storm drain sewer systems"]; *City of Rancho Cucamonga v. Regional Water Quality Control Bd.* (2006) 135 Cal.App.4th 1377, 1384, 38 Cal.Rptr.3d 450 (*Rancho Cucamonga*) ["consideration [should be] given to the [regional board's] interpretations of its own statutes and regulations"]; *Building Industry Assn., supra,* 124 Cal.App.4th at p. 879, fn. 9, 22 Cal.Rptr.3d 128 ["we do consider and give due deference to the Water Boards' statutory interpretations [of the CWA] in this case"]; see also *Cal. Building Industry Assn. v. Bay Area Air Quality Management Dist.* (2015) 62 Cal.4th 369, 389–390, 196 Cal.Rptr.3d 94, 362 P.3d 792 [explaining that "an agency's expertise and technical knowledge, especially when it pertains to a complex technical statute, is relevant to the court's assessment of the value of an agency interpretation"].) In the direct challenge to the permit at issue here, the local agencies argued that the Regional Board exceeded even those requirements associated with the maximum extent practicable standard, an argument the appellate court rejected in an unpublished section of its opinion. Because of its failure to afford any deference to the Regional Board or to conduct an analysis more consistent with the relevant standard of review, the Commission essentially forces the Board to defend its decision twice: once on direct challenge and a second time before the Commission.

Conditions as prosaic as trash receptacle requirements initially may not seem to implicate the Regional Board's expertise. Yet its unique experience and technical competence matter even with respect to these conditions, because the use of such conditions implicates a decision not to use alternatives that might require greater conventional expert judgment to evaluate. Moreover, the Regional Board is likely to accumulate a distinct and greater degree of knowledge regarding issues such as the reactions of stakeholders to different requirements, and related factors relevant to determining which conditions are necessary to satisfy the CWA's maximum extent practicable standard.

The Commission acknowledged that the State Water Resources Control Board—as well as the EPA—believed the permit requirements did not exceed ***778** this federal standard. "The comments of the State Water Board and U.S. EPA," the Commission noted, "assert that the permit conditions merely implement a federal mandate under the federal Clean Water Act and its regulations." But the Commission afforded these conclusions no clear deference in determining whether the requirements were state mandates.

Nor is the majority correct in suggesting that the Commission had only a limited responsibility, if it had one at all, to extend any deference to the Regional Board. (See maj. opn., *****69** *ante*, 207 Cal.Rptr.3d at pp. 61–62, 378 P.3d at pp. 370–371.) The Regional Board's judgment as to whether the imposed permit ****377** conditions were necessary to comply with federal law was a prerequisite to the Commission's own task, which was to review the Board's determination in light of all the relevant evidence. To the extent ambiguity exists as to whether the Regional Board's conclusions incorporated any findings that these conditions were necessary to meet the federal standard (see *id.* at pp. 61–62, 378 P.3d at pp. 370–371), remand to clarify the Board's position is in order. By instead simply upholding the Commission's conclusion without remand, the majority displaces any meaningful role for the Regional Board's expert judgment.

The majority does so even though courts have routinely emphasized the pivotal role regional boards play in interpreting the CWA's intricate mandate. (See *State Water Board, supra,* 143 Cal.App.4th at p. 997, 50 Cal.Rptr.3d 619; *Rancho Cucamonga, supra,* 135 Cal.App.4th at p. 1384, 38 Cal.Rptr.3d 450.) And for good reason: If the Regional Board's judgment is that the trash receptacle and inspection requirements are necessary to control pollutant discharges to the maximum extent practicable, such a conclusion is well within the purview of its expertise. Unsurprisingly, then, we have never concluded that the technical knowledge relevant to interpreting the requirements of the CWA—a statute that lacks a safe harbor and where discerning what phrases such as maximum extent practicable mean given existing conditions and technology is complex—lies beyond the ambit of the Regional Board's expertise, or otherwise proves distinct from the sort of expertise that merits deference.

Third, the Commission devoted insufficient attention in its analysis to the role of states in implementing the CWA, and to how that role can be harmonized with the significant protections against unfunded mandates that the state Constitution provides. (See Cal. Const., art. XIII B, § 6, subd. (a).) By allowing states to assume such an important role in implementing its provisions, the CWA reflects principles of cooperative federalism. (See 33 U.S.C. §§ 1251(b), 1342(b); see also *Boise Cascade Corp. v. EPA* (9th Cir. 1991) 942 F.2d 1427, 1430 ["The federal-state relationship established by the [Clean Water] Act is ... illustrated in Congress' goal of encouraging states to 'assume the major role in the operation of the NPDES program' "].) In accordance with the CWA's express provisions, California chose to assume ***779** the responsibility for implementation of the NPDES program in the state—a role that requires further specification of permitting conditions. (See 33 U.S.C. § 1342(c)(3) [states must administer permitting programs "in accordance with requirements of this section," including compliance with the maximum extent practicable standard].) In the process, the state must comply with the constitutional protections against unfunded mandates requiring reimbursement of localities if permit conditions exceed what is necessary to comply with the relevant federal mandate. But given the nature of the relevant CWA provisions—and particularly the maximum extent practicable standard—it is wrong to assume that the conditions at issue in this case exceed what is necessary to comply with the CWA simply because neither the statute nor its regulations explicitly mention those conditions. The consequence of that assumption, moreover, risks discouraging the state from assuming cooperative federalism responsibilities—and may even encourage the state to withdraw from administering the NPDES. Indeed, counsel for the state indicated at oral argument that if the Commission's reasoning were upheld—and the state were required to foot the bill for any *****70** conditions not expressly mentioned in the applicable federal statutes or regulations—it might think twice about entering into such arrangements of cooperative federalism.

In light of these concerns with the Commission's approach to this case, it is difficult to see the basis for—or utility of—upholding the Commission's decision, even under the inscrutable standard of review the majority employs. (See *California Youth Authority v. State Personnel Bd.* (2002) 104 Cal.App.4th 575, 586, 128 Cal.Rptr.2d 514 [substantial evidence review

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requires that all evidence be considered, including evidence that does not support the agency's decision]; see also *Sierra Club v. U.S. Army Corps of Engineers* (2d Cir. 1983) 701 F.2d 1011, 1030 ["the court may properly be skeptical as to whether an [agency report's] conclusions have a substantial basis in fact if the responsible agency has ****378** apparently ignored the conflicting views of other agencies having pertinent expertise"].) The better course, in my view, would be for us to articulate the appropriate standard for evaluating the question whether these permit conditions are state mandates and then remand for the Commission to apply it in the first instance.

II.

The Commission relied on a narrow approach that only compares the terms of a permit with the text of the CWA and its implementing regulations. Instead, the Commission should have employed a more flexible methodology in determining whether the permit conditions were federally mandated. Such a flexible approach accords with our prior case law. (See *City of Sacramento, supra,* 50 Cal.3d at p. 76, 266 Cal.Rptr. 139, 785 P.2d 522 [whether local government appropriations are ***780** federally mandated and therefore exempt from taxing and spending limitations under section 9, subdivision (b), of article XIII B of the California Constitution depends on, inter alia, the nature and purpose of the federal program, whether its design suggests an intent to coerce, when state or local participation began, and the legal and practical consequences of nonparticipation or withdrawal].) Moreover, it would have the added benefit of not discouraging the state from participating in ventures of cooperative federalism.

The majority may be correct that the facts of *City of Sacramento* are distinguishable. (See maj. opn., *ante*, 207 Cal.Rptr.3d at p. 60, 378 P.3d at p. 369.) In that case, the state risked forsaking subsidies and tax credits for its resident businesses if it failed to comply with federal law requiring that unemployment insurance protection be extended to local government employees. (*Id.* at p. 56, 378 P.3d at p. 366 .) Here, in contrast, the negative consequences of failing to comply with federal law may seem less severe, at least in fiscal terms: the EPA may determine that the state is not in compliance with the CWA and reassert authority over permitting. (See 33 U.S.C. § 1342(c)(3).) But *City of Sacramento* nonetheless remains relevant, even though a precisely comparable level of coercion may not exist here. The flexible approach we articulated in that case remains the best way to ensure that some weight is given to the Regional Board's technical expertise, and the conclusions resulting therefrom, while also taking account of the cooperative federalism arrangements built into the CWA.

So instead of adopting an approach foreign to our precedent, the Commission should have begun its analysis with the statutory and regulatory text—and then it should have considered other relevant materials and record evidence bearing on whether the permit conditions are necessary *****71** to satisfy federal law. Crucially, such evidence includes how the federal regulatory scheme operates in practice. The Commission could have examined, for instance, previous permits issued by the EPA in similarly situated jurisdictions, comparing them to the inspection and trash receptacle requirements the Regional Board imposed here and giving due consideration to the EPA's conclusion that the maximum extent practicable standard is applied in a highly site-specific and flexible manner in order to account for unique local challenges and conditions. (See 64 Fed. Reg. 68722, 68754 (Dec. 8, 1999).) The Commission could also have considered whether, instead of identifying permitting conditions necessary to comply with the CWA, the state shifted onto local governments responsibility to conduct inspections or provide trash receptacles. The majority wisely notes that these are factors the Commission *could* have examined. (See maj. opn., *ante*, at pp. 62–64, 378 P.3d at pp. 371–373.) But the Commission mentioned this evidence only briefly, failing to grapple in any meaningful way with its implications for the issue at hand. We should allow the Commission an opportunity to do so in the first instance.

***781** The Commission should have also accorded appropriate deference to the Regional Board's conclusions regarding how best to comply with the federal maximum extent practicable standard. One way to ensure that such deference is given would be to place on the party seeking reimbursement the burden of demonstrating that the challenged permit conditions clearly exceed the federal standard, or that they were otherwise unnecessary ****379** to reduce pollutant discharges to the maximum extent practicable. Doing so would make sense where the state is implementing a federal

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program that envisions routine state participation, the federal program does not itself define the minimum degree of compliance required, and the state's implementing agency reasonably determines in its expertise that certain conditions are necessary to comply with the applicable federal standard.

* * *

The Commission's decision—and the approach that produced it—fails to accord with existing law and with the nature of the applicable federal scheme. The state is not responsible for reimbursing localities for permit conditions that are necessary to comply with federal law, a circumstance that renders interpretation of the CWA central to this case. A core principle of the CWA is to facilitate cooperative federalism, by allowing states to take on a critical responsibility in exchange for compliance with a set of demanding standards overseen by a federal agency capable of withdrawing approval for noncompliance. (See *Arkansas v. Oklahoma* (1992) 503 U.S. 91, 101, 112 S.Ct. 1046, 117 L.Ed.2d 239 ["The Clean Water Act anticipates a partnership between the States and the Federal Government, animated by a shared objective: 'to restore and maintain the chemical, physical, and biological integrity of the Nation's waters' "]; *Shell Oil Co. v. Train* (9th Cir. 1978) 585 F.2d 408, 409 ["Shell's complaint must be read against the background of the cooperative federal-state scheme for the control of water pollution"].) The Commission failed to interpret the statute in light of nuances in its text and structure. And it failed to offer even a modicum of deference to the Regional Board's interpretation, despite the Board's clear expertise that the technical nature of the questions necessary to interpret the scope of the CWA demands.

Accordingly, I would remand the matter to the Court of Appeal with directions that it instruct the Commission to reconsider its decision. On reconsideration, the Commission should appropriately defer to the *****72** Regional Board, consider all relevant evidence bearing on the question at hand, and ensure the evidence clearly shows the challenged permit conditions were not necessary to comply with the federal mandate. This is the standard that most ***782** thoroughly reflects our existing law and the nature of the CWA. Any dilution of it exacerbates the risk of undermining the nuanced federal-state arrangement at the heart of the CWA.

We Concur:

Liu, J.

Kruger, J.

All Citations

1 Cal.5th 749, 378 P.3d 356, 207 Cal.Rptr.3d 44, 16 Cal. Daily Op. Serv. 9501, 2016 Daily Journal D.A.R. 8996, 2016 Daily Journal D.A.R. 11,393

Footnotes

1 The cities involved are the Cities of Agoura Hills, Alhambra, Arcadia, Artesia, Azusa, Baldwin Park, Bell, Bellflower, Bell Gardens, Beverly Hills, Bradbury, Burbank, Calabasas, Carson, Cerritos, Claremont, Commerce, Compton, Covina, Cudahy, Culver City, Diamond Bar, Downey, Duarte, El Monte, El Segundo, Gardena, Glendale, Glendora, Hawaiian Gardens, Hawthorne, Hermosa Beach, Hidden Hills, Huntington Park, Industry, Inglewood, Irwindale, La Cañada Flintridge, La Habra Heights, Lakewood, La Mirada, La Puente, La Verne, Lawndale, Lomita, Los Angeles, Lynwood, Malibu, Manhattan Beach, Maywood, Monrovia, Montebello, Monterey Park, Norwalk, Palos Verdes Estates, Paramount, Pasadena, Pico Rivera, Pomona, Rancho Palos Verdes, Redondo Beach, Rolling Hills, Rolling Hills Estates, Rosemead, San Dimas, San Fernando, San Gabriel, San Marino, Santa Clarita, Santa Fe Springs, Santa Monica, Sierra Madre, Signal Hill, South El Monte, South Gate, South Pasadena, Temple City, Torrance, Vernon, Walnut, West Covina, West Hollywood, Westlake Village, and Whittier.

2 The systems at issue here are "municipal separate storm sewer systems," sometimes referred to by the acronym "MS4." (40 C.F.R. § 122.26(b)(19) (2001).) A "municipal separate storm sewer" is a system owned or operated by a public agency with jurisdiction over disposal of waste and designed or used for collecting or conveying storm water. (40 C.F.R. § 122.26(b)(8) (2001).) Unless otherwise indicated, all further citations to the Code of Federal Regulations are to the 2001 version.

3 For a state to acquire permitting authority, the governor must give the EPA a "description of the program [the state] proposes to establish," and the attorney general must affirm that the laws of the state "provide adequate authority to carry out the described program." (33 U.S.C. § 1342(b).)

4 The EPA may withdraw approval of a state's program (33 U.S.C. § 1342(c)(3)), and also retains some supervisory authority: States must inform the EPA of all permit applications received and of any action related to the consideration of a submitted application (33 U.S.C. § 1342(d)(1)).

5 As to commercial facilities, Part 4(C)(2)(a) required each Operator to inspect each restaurant, automotive service facility, retail gasoline outlet, and automotive dealership within its jurisdiction, and to confirm that the facility employed best management practices in compliance with state law, county and municipal ordinances, a Regional Board resolution, and the Operators' storm water quality management program (SQMP). For each type of facility, the Permit set forth specific inspection tasks. Part 4(C)(2)(b) addressed industrial facilities, requiring the Operators to inspect them and confirm that each complied with county and municipal ordinances, a Regional Board resolution, and the SQMP. The Operators also were required to inspect industrial facilities for violations of the general industrial activity stormwater permit, a statewide permit issued by the State Board that regulates discharges from industrial facilities. (See discussion, *post*, at pp. 62–63, 378 P.3d at pp. 371–372.)

6 Part 4(E)(4) required inspections for violations of the general construction activity stormwater permit, another statewide permit issued by the State Board. (See discussion, *post*, at pp. 62–63, 378 P.3d at pp. 371–372.)

7 " 'Costs mandated by the state' means any increased costs which a local agency or school district is required to incur ... as a result of any statute enacted on or after January 1, 1975, or any executive order implementing any statute enacted on or after January 1, 1975, which mandates a new program or higher level of service of an existing program within the meaning of Section 6 of Article XIIIB of the California Constitution." (Gov. Code, § 17514.)

8 40 Code of Federal Regulations part 122.26(d)(2)(iv)(A) provides that the proposed management plan in an operator's permit application must be based, in part, on a "description of structural and source control measures to reduce pollutants from runoff from commercial and residential areas that are discharged from the municipal storm sewer system that are to be implemented during the life of the permit, accompanied with an estimate of the expected reduction of pollutant loads and a proposed schedule for implementing such controls," and that, at a minimum, that description shall include, among other things, a "description of practices for operating and maintaining public streets, roads and highways and procedures for reducing the impact on receiving waters of discharges from municipal storm sewer systems, including pollutants discharged as a result of deicing activities." (40 C.F.R. § 122.26(d)(2)(iv)(A), (A)(3).)

9 40 Code of Federal Regulations part 122.26(d)(2)(iv)(B) provides that the proposed management plan in an operator's permit application must be based, in part, on a "description of a program, including a schedule, to detect and remove ... illicit discharges and improper disposal into the storm sewer," and that the proposed program shall include a "description of a program, including inspections, to implement and enforce an ordinance, orders or similar means to prevent illicit discharges to the municipal separate storm sewer system." (40 C.F.R. § 122.26(d)(2)(iv)(B), (B)(1).)

10 40 Code of Federal Regulations part 122.26(d)(2)(iv)(C) provides that the proposed management plan in an operator's permit application must be based, in part, on a "description of a program to monitor and control pollutants in storm water discharges to municipal systems from municipal landfills, hazardous waste treatment, disposal and recovery facilities, industrial facilities that are subject to section 313 of title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA), and industrial facilities that the municipal permit applicant determines are contributing a substantial pollutant loading to the municipal storm sewer system," and that the program shall "[i]dentify priorities and procedures for inspections and establishing and implementing control measures for such discharges." (40 C.F.R. § 122.26(d)(2)(iv)(C), (C)(1).)

11 40 Code of Federal Regulations part 122.26(d)(2)(iv)(D) provides that the proposed management plan in an operator's permit application must be based, in part, on a "description of a program to implement and maintain structural and nonstructural best management practices to reduce pollutants in storm water runoff from construction sites to the municipal storm sewer system," which shall include, a "description of procedures for identifying priorities for inspecting sites and enforcing control measures which consider the nature of the construction activity, topography, and the characteristics of soils and receiving water quality." (40 C.F.R. § 122.26(d)(2)(iv)(D), (D)(3).)

12 The appellants are County and the Cities of Artesia, Azusa, Bellflower, Beverly Hills, Carson, Commerce, Covina, Downey, Monterey Park, Norwalk, Rancho Palo Verdes, Signal Hill, Vernon, and Westlake Village.

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13 In the end, the court held that the challenged state regulation did not obligate the local fire district to maintain three-person firefighting teams. Accordingly, the state regulation did not mandate an increase in costs. (*Division of Occupational Safety, supra,* 189 Cal.App.3d at pp. 807–808, 234 Cal.Rptr. 661.)

14 To the extent Education Code section 48918 imposed requirements that went beyond the mandate of federal law, those requirements were merely incidental to the federal mandate, and at most resulted in "a de minimis cost." (*San Diego Unified, supra,* 33 Cal.4th at p. 890, 16 Cal.Rptr.3d 466, 94 P.3d 589.) The State does not argue here that the costs of the challenged permit conditions were de minimis.

15 Of course, this finding would be case specific, based among other things on local factual circumstances.

16 The State also relied on a 2008 letter from the EPA indicating that the requirements to inspect industrial facilities and construction sites fell within the maximum extent practicable standard under the CWA. That letter, however, does not indicate that federal law required municipal storm sewer system operators to inspect all industrial facilities and construction sites within their jurisdictions.

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Distinguished by Bay Area Cellular Telephone Co. v. City of Union City, Cal.App. 1 Dist., April 29, 2008

32 Cal.4th 409
Supreme Court of California

Jerry RICHMOND et al., Plaintiffs and Appellants,
v.
SHASTA COMMUNITY SERVICES DISTRICT, Defendant and Respondent.

No. S105078.
|
Feb. 9, 2004.

Synopsis
Background: Property owners brought action challenging constitutionality of resolution adopted by water district that increased connection fee charged to new users and continued unchanged, as part of connection fee, a fee for fire suppression. The Superior Court, Shasta County, No. 0134636, Richard A. McEachen, J., upheld enactment. Property owners appealed. The Court of Appeal affirmed in part and reversed in part. The Supreme Court granted review, superseding the opinion of the Court of Appeal.

Holdings: The Supreme Court, Kennard, J., held that:

[1] district's capacity charge, imposed on applicants for new service connections, was not an "assessment" subject to state constitutional restrictions;

[2] district's fee for fire suppression as part of new connection fee was not subject to constitutional restrictions on fees; and

[3] district could amend ordinance establishing new connection fees by resolution.

Judgment of the Court of Appeal reversed and matter remanded to that court with directions.

Opinion, 116 Cal.Rptr.2d 343, superseded.

West Headnotes (9)

[1] **Water Law** Charges as Taxes or Assessments

Water district's capacity charge, imposed on applicants for new service connections, was not an "assessment" subject to state constitutional restrictions on assessments, since district could only estimate number of connections and could not identify specific parcels for which new applications would be made, as required by constitutional provision. West's Ann.Cal. Const. Art. 13D, §§ 2, 4.

See 9 Witkin, Summary of Cal. Law (9th ed. 1989) Taxation, §§ 110A, 110B; Cal. Jur. 3d, Property Tax, § 4.

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15 Cases that cite this headnote

[2] **Constitutional Law** General Rules of Construction

The principles of constitutional interpretation are similar to those governing statutory construction.

2 Cases that cite this headnote

[3] **Constitutional Law** Intent in general

The aim of constitutional interpretation is to determine and effectuate the intent of those who enacted the constitutional provision at issue.

5 Cases that cite this headnote

[4] **Constitutional Law** Meaning of Language in General

Constitutional Law Plain, ordinary, or common meaning

To determine intent of enactors of a constitutional provision, the Supreme Court begins by examining the constitutional text, giving the words their ordinary meanings.

1 Cases that cite this headnote

[5] **Constitutional Law** Reasonableness of result

Constitutional Law Meaning of Language in General

Courts construe constitutional phrases liberally and practically; where possible they avoid a literalism that effects absurd, arbitrary, or unintended results.

1 Cases that cite this headnote

[6] **Constitutional Law** Meaning of Language in General

Constitutional Law Relation to former constitution

Statutes Defined terms;definitional provisions

Statutes Legislative Construction

Rule, holding that when a term has been given a particular meaning by a judicial decision it should be presumed to have the same meaning in later-enacted statutes or constitutional provisions, does not apply when the statute or constitutional provision contains its own definition of the term at issue; if the Legislature has provided an express definition of a term, that definition ordinarily is binding on the courts.

2 Cases that cite this headnote

[7] **Water Law** Connection and capitalization fees

Water district's capacity charge, imposed on applicants for new service connections, was not a “development fee”; district had no authority to approve or disapprove property development, and a property owner could request a new service connection without proposing any new development.

18 Cases that cite this headnote

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[8] **Water Law** Charge for fire protection service

Water district's fee for fire suppression as part of new connection fee was not subject to constitutional restrictions on fees, since it was not imposed as an incident to ownership; although supplying water was a property-related service within constitutional definition of a fee or charge, a water service fee was a "fee or charge" only if it was imposed upon a person as an incident of property ownership, and making a new connection to the system was not such imposition, since it resulted from an owner's voluntary decision to apply for the connection. West's Ann.Cal. Const. Art. 13D, §§ 2(e), 3(b), 6(a, b); West's Ann.Cal.Gov.Code §§ 61621, 61621.3.

20 Cases that cite this headnote

[9] **Water Law** Connection and capitalization fees

Water district could amend ordinance establishing new connection fee by resolution under authority of Mitigation Fee Act, which allowed such action by ordinance or resolution; district was not subject to statute requiring sewage system actions to be enacted by ordinance. West's Ann.Cal.Gov.Code § 66016(b); West's Ann.Cal.Health & Safety Code § 5471.

3 Cases that cite this headnote

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Opinion

KENNARD, J.

In November 1996, California voters adopted Proposition 218, the Right to Vote on Taxes Act, which added articles XIII C and XIII D to the California Constitution. (See *Apartment Assn. of Los Angeles County,* ***415** *Inc. v. City of Los Angeles* (2001) 24 Cal.4th 830, 835, 102 Cal.Rptr.2d 719, 14 P.3d 930.) Article XIII D of the state Constitution (hereafter article XIII D) specifies various restrictions and requirements for assessments, fees, and charges that local governments impose on real property or on persons as an incident of property ownership. Here, the main issue is whether a charge that a local water district imposed as a condition of making a new connection to the water system, and that the district

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used to finance capital improvements to the water system, is subject to the restrictions of article XIII D. Other questions presented are whether article XIII D prohibits a local water district from continuing to include in the new connection fees a fire suppression charge, the proceeds of which are used to purchase firefighting and emergency medical equipment for the district's volunteer fire department, and whether an ordinance imposing a water connection fee may be amended by a resolution.

On these questions, we conclude: (1) a capacity charge imposed as a condition for making a new connection to a water system, the proceeds of which are used to finance capital improvements, is not an assessment within the meaning of article XIII D, and thus it is not subject to article XIII D's restrictions on assessments; (2) a fire suppression fee imposed as a condition for making a new connection to a water system, the proceeds of which are used to purchase firefighting and emergency medical *****124** equipment, is not a property-related fee or charge under article XIII D, and thus it is not subject to article XIII D's prohibition against property-related fees and charges for general governmental services; and (3) an ordinance enacted by a community services district to impose a water connection fee may be amended by a resolution. Because these conclusions are consistent with the trial court's judgment but inconsistent with part of the Court of Appeal's opinion, we will reverse that court's judgment with directions to affirm the trial court's judgment.

I. FACTS AND PROCEDURAL HISTORY

Because neither party petitioned the Court of Appeal for a rehearing, we take the facts largely from that court's opinion. (See Cal. Rules of Court, rule 28(c)(2).)

Defendant Shasta Community Services District (the District) is a local public entity organized under the community services district law (Gov.Code, § 61000 et seq.). It operates a water system for residential and commercial users and a volunteer fire department that provides both fire suppression and emergency medical services. In February 1994, the District adopted an ordinance (No. 1–94) establishing a "standard connection fee" of $2,000, plus the cost of a water meter, for new water service connections. ***416** According to the ordinance, this fee included a capacity charge[1] of $600 for future improvements to the water system and a fire suppression charge of $400. The ordinance did not expressly allocate the remaining $1,000, but one may infer that it covered the cost of installing the water service connection because the ordinance also provided that if the water main was not on the same side of the street or highway as the property to be served, "the District will charge the actual ****521** cost of the connection to the extent such cost exceed[s] the sum of $1,000."

In November 1997, the District adopted a resolution (No. 10–97) to amend this ordinance. According to the resolution, applicants for new water service connections would be required to pay: (1) a "standard connection fee"; (2) the actual cost of a water meter; and (3) if the property owner chose to have the District install the service connection, the "actual cost of the materials, labor, and overhead" for installing the "entire service connection including the meter, line setter, meter box, appurtenant equipment, and mainline extension, if any." The "standard connection fee" consisted of a $3,176 capacity charge for capital improvements to the water system and a $400 fire suppression charge. The resolution stated that the $3,176 capacity charge was "based upon estimated project costs of $762,300 for future improvements assigned to the new development of 240 future connections which equals $3,176 per connection."

In March 1998, plaintiffs Jerry Richmond, Linda Panich, Hank Edelstein, and Victoria Edelstein, both individually and doing business as a joint venture, brought this action to test the validity of the resolution increasing the fees for new connections. (Code Civ. Proc., § 860; Gov.Code, §§ 66013, 66022.) They alleged that they owned real property within the District and also within an area proposed for annexation into the District. They challenged the resolution on many grounds, only three of which are relevant here: (1) The resolution imposed an assessment within the meaning of article XIII D, but *****125** the District had not satisfied the constitutional requirements for imposing an assessment; (2) the $400 fire suppression charge was a "fee" or "charge" within the meaning of article XIII D, and it violated article XIII

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D's prohibition against fees or charges for general governmental services; and (3) the 1994 ordinance could be amended only by another ordinance, not by a mere resolution. Plaintiffs requested a declaratory judgment that the resolution was void and a permanent injunction restraining the District from enforcing it.

***417** The action was tried to the court without a jury. At the trial, the District presented evidence showing, among other things, that the capital improvements to be funded by the $3,176 capacity charge, including a new 500,000–gallon storage tank, would both remedy existing deficiencies in the water system and expand the system's ability to provide service to new customers through new connections. The $3,176 charge was calculated by allocating 50 percent of the cost of the improvements to new connections and 50 percent to existing connections. Water customers throughout the district would benefit from the improvements, but customers in certain higher-elevation areas would receive somewhat less benefit than other customers. After considering the evidence, the superior court granted judgment for the District. The court concluded: (1) The connection fee imposed by resolution No. 10–97 is not a special assessment but a development fee exempt from article XIII D; (2) the fire suppression charge is merely the continuation of a fee imposed before article XIII D was enacted; and (3) the connection fee could legally be adopted by a resolution (enactment of an ordinance was not required).

On plaintiffs' appeal, the Court of Appeal affirmed the judgment, except as to the fire suppression charge. The court reasoned that the District's connection fee was not an assessment within the meaning of article XIII D because that constitutional provision by implication defines an assessment as a charge imposed on specific identified parcels, whereas the connection fee was not imposed on identified parcels. Because the connection fee was imposed only when a property owner requested a new service connection, the specific properties for which connections would be sought could not be identified (although the number of such requests could be estimated), and thus the connection charge could not be characterized as an assessment. The Court of Appeal also concluded that the connection fee, because it was incurred only when the owner voluntarily requested a new service connection, was properly characterized as a development fee, and as such it was exempt from the requirements of article XIII D.

****522** With respect to the fire suppression charge, however, the Court of Appeal accepted plaintiff's argument that it was a fee for general governmental services prohibited by section 6, subdivision (b)(5), of article XIII D. The Court of Appeal rejected the District's argument that this provision did not apply to fees authorized by laws enacted before article XIII D became effective, but only to fees that were newly enacted or increased thereafter.

Finally, the Court of Appeal concluded that the District could validly use a resolution to amend an ordinance.

*418 II. THE CAPACITY CHARGE

[1] **[2]** **[3]** **[4]** To determine whether the District's $3,176 capacity charge, imposed only on applicants for new service connections, violates article XIII D's restrictions on assessments, we must interpret our state Constitution. "The principles of constitutional interpretation are similar to those governing statutory construction." *****126** (*Thompson v. Department of Corrections* (2001) 25 Cal.4th 117, 122, 105 Cal.Rptr.2d 46, 18 P.3d 1198.) The aim of constitutional interpretation is to determine and effectuate the intent of those who enacted the constitutional provision at issue. (*Ibid.*) To determine that intent, we begin by examining the constitutional text, giving the words their ordinary meanings. (*Ibid.;* accord, *Leone v. Medical Board* (2000) 22 Cal.4th 660, 665, 94 Cal.Rptr.2d 61, 995 P.2d 191.)

Section 2 of article XIII D defines an "assessment" as "any levy or charge upon real property ... for a special benefit conferred upon the real property...." (Art. XIII D, § 2, subd. (b).) It defines "special benefit" as "a particular and distinct benefit over and above general benefits conferred on real property located in the district or to the public at large...." (*Id.,* § 2, subd. (i).)

Section 4 of article XIII D establishes procedures and requirements for assessments. A local public agency may not impose an assessment, as defined in article XIII D, unless: (1) the agency identifies "all parcels which will have a special benefit conferred upon them and upon which an assessment will be imposed" (art. XIII D, § 4, subd. (a)); (2) the agency obtains an engineer's report that supports the assessment (*id.,* § 4, subd. (b)); (3) the assessment does not exceed the reasonable cost of the proportional special benefit conferred on the affected parcel (*id.,* § 4, subds. (a) & (f)); and (4) after giving notice to affected property owners and holding a public hearing, the agency does not receive a majority protest based on ballots "weighted according to the proportional financial obligation of the affected property" (*id.,* § 4, subds. (c)-(e)).

To determine what constitutes an assessment under article XIII D, it is necessary to consider not only article XIII D's definition of an assessment, but also the requirements and procedures that article XIII D imposes on assessments. Article XIII D requires that an agency imposing an assessment identify "all parcels which *will* have a special benefit conferred upon them and upon which an assessment *will* be imposed." (Art. XIII D, § 4, subd. (a), italics added.) The agency then must give written notice of the proposed assessment to the owners of these identified parcels (*id.,* § 4, subd. (c)) and provide an opportunity for a protest using ballots "weighted according to the proportional financial obligation of the affected property" (*id.,* § 4, subd. (e)).

***419** Because the capacity charge is imposed only on property owners who apply for a new service connection, the District cannot identify the parcels upon which the capacity charge will be imposed. Here, the District *estimated* that there would be 240 new connection applications, but the District did not and could not *identify* the specific parcels for which new connection applications would be made. At most, the District can identify the parcels within its boundaries on which the capacity charge *would* be imposed *if* the owners applied for a service connection. But the matter is more complex, because many existing undeveloped parcels would likely be subdivided into an indeterminable number of smaller parcels, for each of which a connection might be requested, thus making it impossible to now determine "the proportional financial obligation of the affected property." And even this understates the problem, because owners of property outside the District's ****523** boundaries may seek service connections by applying for annexation of their property into the District. Therefore, it is impossible for the District to comply with article XIII D's requirement that the agency identify the parcels on which the assessment will be imposed *****127** and provide an opportunity for a majority protest weighted according to the proportional financial obligation of the affected property.

We agree with the Court of Appeal that the proper conclusion to be drawn from this impossibility of compliance is that an assessment within the meaning of article XIII D must not only confer a special benefit on real property, but also be imposed on identifiable parcels of real property. Because the District does not impose the capacity charge on identifiable parcels, but only on individuals who request a new service connection, the capacity charge is not an assessment within the meaning of article XIII D.

[5] This construction is consistent with settled rules of constitutional interpretation. "Courts construe constitutional phrases liberally and practically; where possible they avoid a literalism that effects absurd, arbitrary, or unintended results." (*Carman v. Alvord* (1982) 31 Cal.3d 318, 327, 182 Cal.Rptr. 506, 644 P.2d 192; see also *California Correctional Peace Officers Assn. v. State Personnel Bd.* (1995) 10 Cal.4th 1133, 1147, 43 Cal.Rptr.2d 693, 899 P.2d 79 ["a practical construction is preferred"].) Construing article XIII D's definition of assessment as applying only to charges imposed on identifiable parcels avoids the probably unintended result of prohibiting local water districts from imposing capacity charges, no matter how modest or reasonable, for new connections because of the inherent impossibility of identifying in advance the parcels for which new connections would later be requested.

This construction is also consistent with article XIII D's definition of an assessment as a "levy or charge *upon real property* ...." (Art. XIII D, § 2, ***420** subd. (b), italics added.)[2] The District does not impose the capacity charge on real property as such, but on individuals who apply for new service connections. It is the applicant who must pay, and the District may not impose a lien or otherwise have recourse to the property to compel payment. Rather, the District simply does not

initiate water service until the charge is paid. A charge that operates in this way cannot be described as a charge upon real property, within the meaning of article XIII D.

Finally, this construction is consistent with the aim of Proposition 218 to enhance taxpayer consent. Here, the District proposed to divide the costs of new capital improvements between users receiving service through existing connections and users applying for new connections. This case concerns only imposition of costs on new connections. Presumably, any costs imposed on customers receiving service through existing connections would be subject to article XIII D's voter approval requirements, and thus their consent. Customers who apply for new connections give consent by the act of applying. Moreover, water connection fees are already subject to significant constraints under Government Code section 66013. [3]

*****128 *421 **524** Plaintiffs rely on this court's decision in *****129** *San Marcos Water Dist. v. San Marcos Unified School Dist.* (1986) 42 Cal.3d 154, 228 Cal.Rptr. 47, 720 P.2d 935 (*San Marcos*). The issue there was whether a provision of the state Constitution exempting public entities from payment of property taxes (Cal. Const., art. XIII, § 3, subd. (b)) applied to a local water district's capacity fee, used to fund capital improvements to the water system. The constitutional property tax exemption for public entities had been construed to include ***422** special assessments, but not user fees, and thus the issue presented to this court was whether the capacity charge was more properly characterized as a special assessment or as a user fee for purposes of this constitutional provision. We concluded that a capacity charge was a hybrid, in the sense that it had some characteristics of a user fee and some characteristics of an assessment. (*San Marcos, supra,* at p. 163, 228 Cal.Rptr. 47, 720 P.2d 935.) We concluded also, however, that the fee should be considered an assessment for purposes of the public entity property tax exemption. We established a bright-line rule that "a fee aimed at assisting a utility district to defray costs of capital ****525** improvements will be deemed a special assessment from which other public entities are exempt." (*Id.* at pp. 164–165, 228 Cal.Rptr. 47, 720 P.2d 935.) [4]

San Marcos, supra, 42 Cal.3d 154, 228 Cal.Rptr. 47, 720 P.2d 935, is not on point here. We were not there construing the term "assessment" as used in article XIII D; instead, we were construing the constitutional provision exempting public entities from property taxes (Cal. Const., art. XIII, § 3, subd. (b)), a provision in which the term "assessment" does not appear. In deciding what constituted an assessment in *San Marcos,* we sought to determine and effectuate the constitutional purpose for exempting public entities from property taxes, a purpose that plays no role in interpreting the provisions of article XIII D that are at issue here. The characteristic that we found determinative for identifying assessments in *San Marcos*—that the proceeds of the fee were used for capital improvements—forms no part of article XIII D's definition of assessments. For each of these reasons, we agree with the Court of Appeal that *San Marcos* is not helpful, much less controlling, in this strikingly different context. (See *Ginns v. Savage* (1964) 61 Cal.2d 520, 524, fn. 2, 39 Cal.Rptr. 377, 393 P.2d 689 ["Language used in any opinion is of course to be understood in the light of the facts and the issue then before the court, and an opinion is not authority for a proposition not therein considered."]; *People v. Woodhead* (1987) 43 Cal.3d 1002, 1008, 239 Cal.Rptr. 656, 741 P.2d 154 [a word may have different legal meanings in different contexts]; *In re Marriage of Buol* (1985) 39 Cal.3d 751, 757, fn. 6, 218 Cal.Rptr. 31, 705 P.2d 354 [same].)

[6] Plaintiffs invoke the rule that when a term has been given a particular meaning by a judicial decision, it should be presumed to have the same meaning in later-enacted statutes or constitutional provisions. (See *People v. Hurtado* (2002) 28 Cal.4th 1179, 1188–1189, 124 Cal.Rptr.2d 186, 52 P.3d 116; *Arnett v. Dal* *****130** *Cielo* (1996) 14 Cal.4th 4, 19, 56 Cal.Rptr.2d 706, 923 ***423** P.2d 1.) Plaintiffs argue that *San Marcos, supra,* 42 Cal.3d 154, 228 Cal.Rptr. 47, 720 P.2d 935, gave the term "assessment" a precise legal meaning as applying to capacity charges used to fund capital improvements, and therefore the term "assessment" in article XIII D, enacted after *San Marcos,* must be construed to have the same meaning. But the rule that plaintiffs invoke does not apply when, as here, the statute or constitutional provision contains its own definition of the term at issue: "If the Legislature has provided an express definition of a term, that definition ordinarily is binding on the courts." (*Curle v. Superior Court* (2001) 24 Cal.4th 1057, 1063, 103 Cal.Rptr.2d 751, 16 P.3d 166.) Here, article XIII D provides both an express definition of assessment and an implied qualification

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of that definition through the requirement that the agency identify the specific parcels on which the assessment will be imposed.

Plaintiffs next rely on the definition of assessment in Government Code section 53750, part of the Proposition 218 Omnibus Implementation Act (Gov.Code, §§ 53750–53753) that the Legislature enacted in 1997. (Stats.1997, ch. 38, § 5.) Government Code section 53750 states that "[f]or purposes of Article XIII C and Article XIII D of the California Constitution" an "assessment" means "any levy or charge by an agency upon real property that is based upon the special benefit conferred upon the real property by a public improvement or service, that is imposed to pay the capital cost of the public improvement, the maintenance and operation expenses of the public improvement, or the cost of the service being provided." (Gov.Code, § 53750, subd. (b).) As plaintiffs point out, this definition does not distinguish between charges imposed only in response to a request for service and charges imposed on previously identified parcels. In this respect, ****526** the statutory definition is no different from the constitutional definition in section 2, subdivision (b), of article XIII D. But the statutory provisions implementing article XIII D, like article XIII D itself, assume that assessments are imposed only on identified parcels. Under Government Code section 53753, subdivision (b), before levying a new or increased assessment, an agency must give notice " to the record owner of each identified parcel." Government Code section 53750, subdivision (g), defines an "identified parcel" as "a parcel of real property that an agency has identified as having a special benefit conferred upon it and upon which a proposed assessment is to be imposed...." Because the statutory provisions merely reflect the constitutional provisions, they do not alter our conclusion that under article XIII D an assessment is a charge imposed on previously identified parcels, and not a charge imposed only as a condition of extending service through a new service connection.

Arguing that a charge imposed only on property owners who voluntarily seek a governmental service or approval may properly be characterized as an assessment, plaintiffs call our attention to the Integrated Financing District ***424** Act (Gov.Code, § 53175 et seq.), under which local agencies may establish "contingent assessments" payable only when a landowner applies for development approval. (See *id.,* § 53187.) As plaintiffs point out, the Integrated Financing District Act includes notice and majority protest provisions for owners of property subject to the contingent assessment (*id.,* § 53183). (See *Southern Pacific Pipe Lines, Inc. v. Board of Supervisors* (1992) 9 Cal.App.4th 451, 461–462, 11 Cal.Rptr.2d 745.) We agree that the District's capacity charge is similar to a contingent assessment under the Integrated Financing District Act, but this *****131** observation does not assist plaintiffs. Unlike article XIII D, the Integrated Financing District Act does not require a local agency to identify in advance the particular parcels that *will be* subject to the assessment. Instead, the notice of intention to impose a contingent assessment goes to all owners of property within the proposed assessment zone, and the assessment cannot be imposed if protested by "the owners of more than one-half of the area of the property within the proposed ... district which is proposed to be subject to the contingent assessment immediately or in the future...." (Gov.Code, § 53183, subd. (d).) Thus, under the Integrated Financing District Act, in contrast to article XIII D, all owners of property *potentially* subject to a charge are entitled to notice and a weighted vote.

Article XIII D could have been written, like the Integrated Financing District Act, to cover contingent assessments as well as assessments imposed only on previously identified parcels. But it was not written in that manner, and we remain persuaded that a capacity charge contingent on some voluntary action by the property owner is not an assessment within the meaning of article XIII D.

[7] Plaintiffs argue that the Court of Appeal erred in characterizing the District's capacity charge as a development fee. Observing that development fees "are imposed only if a property owner elects to develop" (*Loyola Marymount University v. Los Angeles Unified School Dist.* (1996) 45 Cal.App.4th 1256, 1267, 53 Cal.Rptr.2d 424), the Court of Appeal reasoned that the District's capacity charge, because it was imposed only in response to a property owner's voluntary decision to request a service connection, should be considered a development fee and thus exempt from the requirements of article XIII D under its section 1, subdivision (b), stating that "[n]othing in this article ... shall be construed to ... [a]ffect existing laws relating to the imposition of fees or charges as a condition of property development."

Plaintiffs insist that the District's capacity charge cannot be a development fee because the District has no authority to approve or disapprove property development, and because a property owner may request a new service connection without proposing any new development, such as when the owner ***425** of a previously developed residential parcel decides to use the District's water instead of water from an existing well on the property.

We agree with plaintiffs that the District's capacity charge is not a development fee. It is similar to a development fee in being imposed ****527** only in response to a property owner's voluntary application to a public entity, but it is different in that the application may be only for a water service connection without necessarily involving any development of the property. (See *Utility Cost Management v. Indian Wells Valley Water Dist., supra,* 26 Cal.4th at p. 1191, 114 Cal.Rptr.2d 459, 36 P.3d 2 [noting that a capacity charge "might apply regardless of whether a development project is at issue"]; *Capistrano Beach Water Dist. v. Taj Development Corp.* (1999) 72 Cal.App.4th 524, 530, 85 Cal.Rptr.2d 382 [concluding that a capacity charge is not a development fee under the Mitigation Fee Act (Gov.Code, § 66000 et seq.)].) Our agreement that the capacity charge is not a development fee does not assist plaintiffs, however, because it does not mean that the capacity charge is an assessment within the meaning of article XIII D. The capacity charge is neither an assessment nor a development fee under article XIII D.

We conclude, as did the trial court and the Court of Appeal, that the District's *****132** capacity charge is not an assessment under article XIII D.

III. THE FIRE SUPPRESSION CHARGE

Article XIII D provides: "No fee or charge may be imposed for general governmental services including, but not limited to, police, *fire,* ambulance or library services, where the service is available to the public at large in substantially the same manner as it is to property owners." (Art. XIII D, § 6, subd. (b)(5), italics added.) At the trial below, the evidence showed that the District uses the proceeds of the fire suppression component of the connection fee to purchase equipment for its volunteer fire department, including both firefighting equipment and emergency medical equipment.[5] The fire department provides firefighting and emergency medical services to the public at large. Accordingly, the District's fire suppression charge is "imposed for general governmental services" within the meaning of section 6, subdivision (b)(5), of article XIII D, and it is prohibited by that provision if it satisfies article XIII D's definition of a "fee or charge."

***426** Article XIII D defines a "fee" or "charge" as "any levy other than an ad valorem tax, a special tax, or an assessment, imposed by an agency upon a parcel or upon a person as an incident of property ownership, including a user fee or charge for a property-related service." (*Id.,* § 2, subd. (e).) It defines "property-related service" as "a public service having a direct relationship to property ownership." (*Id.,* § 2, subd. (h).)

[8] The District argues that the connection fee, including its fire suppression component, does not fall within article XIII D's definition of a fee or charge because it is not imposed "upon a parcel or upon a person as an incident of property ownership." (Art. XIII D, § 2, subd. (e).) The District does not impose the fee on parcels of real property but on persons who apply for a water service connection. The District does not impose the fee on such persons "as an incident of property ownership" but instead as an incident of their voluntary decisions to request water service. If a person fails to pay the connection fee, the District does not collect it by levying upon the person's property. Rather, because the person applying for service has not satisfied a condition for extending service, the District does not make the water connection and does not provide water service.

We agree that a connection charge, because it is not imposed "as an incident of property ownership" (art. XIII D, § 2, subd. (e)), is not a fee or charge under article XIII D. A connection fee is not imposed simply by virtue of property ownership, but instead it is imposed as an incident of the voluntary act of ****528** the property owner in applying for a service connection.

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Urging a different construction, plaintiffs rely on article XIII D's definition of a fee or charge as "including a user fee or charge for a property-related service." (*Id.,* § 2, subd. (e).) They argue that supplying water is a "property-related service," and, therefore, all charges for water service must be deemed to be imposed *****133** "upon a person as an incident of property ownership."

We agree that supplying water is a "property-related service" within the meaning of article XIII D's definition of a fee or charge. In the ballot pamphlet for the election at which article XIII D was adopted, the Legislative Analyst stated that "[f]ees for water, sewer, and refuse collection service probably meet the measure's definition of property-related fee." (Ballot Pamp., Gen. Elec. (Nov. 5, 1996), analysis of Prop. 218 by Legis. Analyst, p. 73.) The Legislative Analyst apparently concluded that water service has a direct relationship to property ownership, and thus is a property-related service within the meaning of article XIII D because water is indispensable to most uses of real property; because water is provided through pipes that are physically connected to the property; and because a water provider may, by recording a certificate, obtain a lien on the property for the amount of any ***427** delinquent service charges (see Gov.Code, §§ 61621, 61621.3). But the Legislative Analyst was apparently referring to fees imposed on existing water service customers, not fees imposed as a condition of initiating water service in the first instance.

Several provisions of article XIII D tend to confirm the Legislative Analyst's conclusion that charges for utility services such as electricity and water should be understood as charges imposed "as an incident of property ownership." For example, subdivision (b) of section 3 provides that "fees for the provision of electrical or gas service shall not be deemed charges or fees imposed as an incident of property ownership" under article XIII D. Under the rule of construction that the expression of some things in a statute implies the exclusion of other things not expressed (*In re Bryce C.* (1995) 12 Cal.4th 226, 231, 48 Cal.Rptr.2d 120, 906 P.2d 1275), the expression that electrical and gas service charges are not within the category of property-related fees implies that similar charges for other utility services, such as water and sewer, are property-related fees subject to the restrictions of article XIII D.

This implication is reinforced by subdivision (c) of article XIII D, section 6, which expressly excludes "fees or charges for sewer, water, and refuse collection services" from the voter approval requirements that article XIII D imposes on property-related fees and charges. Because article XIII D does not include similar express exemptions from the other requirements that it imposes on property-related fee and charges, the implication is strong that fees for water, sewer, and refuse collection services are subject to those other requirements. (See *Howard Jarvis Taxpayers Assn. v. City of Roseville* (2002) 97 Cal.App.4th 637, 645, 119 Cal.Rptr.2d 91 [reaching the same conclusion].)

Thus, we agree that water service fees, being fees for property-related services, may be fees or charges within the meaning of article XIII D. But we do not agree that *all* water service charges are necessarily subject to the restrictions that article XIII D imposes on fees and charges. Rather, we conclude that a water service fee is a fee or charge under article XIII D if, but only if, it is imposed "upon a person as an incident of property ownership." (Art. XIII D, § 2, subd. (e).) A fee for ongoing water service through an existing connection is imposed "as an incident of property ownership" because it requires nothing other than normal ownership and use of property. But a fee for making a new connection to the system is not imposed "as an incident of property ownership" because it results from the owner's voluntary decision to apply for the connection.

*****134** Any doubt on this point is removed by considering the requirements that article XIII D imposes on property-related fees and charges. As with assessments, article XIII D requires local government agencies to identify the ***428** parcels affected by a property-related fee or charge. Specifically, it requires the agency to identify "[t]he parcels ****529** upon which a fee or charge is proposed for imposition." (Art. XIII D, § 6, subd. (a)(1).) As we have explained, it is impossible for the District to comply with such a requirement for connection charges, because the District cannot determine in advance which property owners will apply for water service connection. As with assessments, this

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impossibility of compliance strongly suggests that connection fees for new users are not subject to article XIII D's restrictions on property-related fees.

Because the connection fee, including the fire suppression charge, is not a property-related fee or charge within the meaning of article XIII D, it is not subject to article XIII D's prohibition on property-related fees or charges for general governmental services.

IV. AMENDMENT OF AN ORDINANCE BY A RESOLUTION

[9] Government Code section 66016, part of the Mitigation Fee Act (Gov.Code, § 66000 et seq.), provides in subdivision (b): "Any action by a local agency to levy a new fee or service charge or to approve an increase in an existing fee or service charge shall be taken only by ordinance *or resolution.*" (Italics added.) We agree with the Court of Appeal that this provision authorizes the District to use a resolution to increase existing connection fees, and that this authorization applies even when the fees were initially imposed by an ordinance.

Arguing to the contrary, plaintiffs assert that the Mitigation Fee Act is procedural rather than substantive. In other words, it does not give local water districts substantive authority to impose fees, but instead it merely regulates the manner in which fees may be imposed. But whether a fee imposed by ordinance may be amended by resolution is essentially a question of procedure, not substance. Therefore, we may and do construe Government Code section 66016 as giving the District authority to use a resolution to amend a fee ordinance.

In support of their position that the District may not use a resolution to amend an ordinance imposing a connection fee, plaintiffs rely on *Cavalier Acres, Inc. v. San Simeon Acres Community Services District* (1984) 151 Cal.App.3d 798, 199 Cal.Rptr. 4 (*Cavalier Acres*), in which the Court of Appeal concluded that a community services district could impose or increase water charges only by ordinance. In reaching this conclusion, the *Cavalier Acres* Court of Appeal relied on Government Code section 61621.5 and Health and Safety Code section 5471. Relying on the rule of construction that when two statutory provisions conflict, the one that is more specific controls, ***429** the *Cavalier Acres* Court of Appeal stated that, as applied to water charges imposed by a community services district, Government Code section 61621.5 and Health and Safety Code section 5471 were both more specific than Government Code section 66016.

Government Code section 61621.5 is part of the Community Services District Law (Gov.Code, § 61000 et seq.). As here relevant, it provides: "Except as otherwise provided in this section, a district may *by ordinance* adopt regulations binding upon all persons to govern the construction and use of its facilities and property, including regulations imposing reasonable charges for the use thereof." (Gov.Code, § 61621.5, subd. (a), italics added.) By its *****135** terms, this provision applies only to charges for the use of a community services district's *facilities,* not charges for its *services.* The Community Services District Law gives districts authority to impose charges for services, including charges for water, in a different section, Government Code section 61621. (See *Waterman Convalescent Hospital, Inc. v. Jurupa Community Services Dist.* (1996) 53 Cal.App.4th 1550, 1552–1553, 62 Cal.Rptr.2d 264.) As relevant here, it provides: "A district may prescribe, revise and collect rates or other charges for the services and facilities furnished by it...." (Gov.Code, § 61621.) Nothing in this provision requires a community services district to act by ordinance rather than by resolution when, as here, it revises and prescribes the charges for water service.

Health and Safety Code section 5471 is part of article 4 ("Sanitation and Sewerage Systems") of chapter 6 ("General Provisions with Respect to Sewers") of part 3 ("Community Facilities") of division 5 ("Sanitation") of ****530** the Health and Safety Code. As relevant here, it reads: "In addition to the powers granted in the principal act, *any entity* shall have power, *by an ordinance* approved by a two-thirds vote of the members of the legislative body thereof, to prescribe, revise and collect, fees, tolls, rates, rentals, or other charges, including *water,* sewer standby or immediate availability

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charges, for services and facilities furnished by it, either within or without its territorial limits, in connection with its *water,* sanitation, storm drainage, or sewerage system....” (Italics added.)

Health and Safety Code section 5471 does not apply to the District because it is not an “entity” within the meaning of this provision. Health and Safety Code section 5470 states that “ ‘[e]ntity’ means and includes counties, cities and counties, cities, sanitary districts, county sanitation districts, sewer maintenance districts, and other public corporations and districts authorized to acquire, construct, maintain and operate sanitary sewers and sewerage systems.” The District is a public agency organized as a community services district under the Community Services District Law (Gov.Code, § 61000 et seq.) to provide water service. Nothing in the record indicates it is authorized ***430** to construct, maintain, or operate sewers or sewerage systems. In this respect, *Cavalier Acres, supra,* 151 Cal.App.3d 798, 199 Cal.Rptr. 4, is distinguishable because the community services district at issue there provided both water and sewer services. (See *id.* at p. 800, 199 Cal.Rptr. 4.)

Moreover, even if we assume that Health and Safety Code section 5471 applies to the District, that provision, by its terms, confers authority “[i]n addition to” the authority otherwise granted to a public entity. In other words, its main purpose is to supplement rather than to limit a public agency's authority to impose charges for water or sewer services in connection with a water or sewerage system. For a public agency organized as a community services district, the “principal act” (*ibid.*) providing its authority is the Community Services District Law (Gov.Code, § 61000 et seq.). As we have seen, Government Code section 61621 authorizes community services districts to establish charges for water services without requiring that they act by ordinance rather than by resolution, and Government Code section 66016, part of the Mitigation Fee Act (Gov.Code, § 66000 et seq.), expressly authorizes districts to use either a resolution or an ordinance to impose or increase a service charge. We do not read Health and Safety Code section 5471 as limiting or abrogating that authority.

Again, we find *Cavalier Acres, supra,* 151 Cal.App.3d 798, 199 Cal.Rptr. 4, to be *****136** distinguishable. In 1984, when the Court of Appeal decided *Cavalier Acres,* the wording of Health and Safety Code section 5471 was materially different. The introductory phrase (“In addition to the powers granted in the principal act”) was not present, having been added later by amendment. (Stats.1988, ch. 706, § 1, p. 2348.) The 1988 amendment demonstrates the Legislature's intent that Health and Safety Code section 5471 not be read as limiting the powers conferred on public entities by the laws under which they were organized.

V. CONCLUSION

Before beginning to provide water service to real property through a new connection, the District requires its new customers to pay a capacity fee and a fire suppression fee. Both of these fees are used to fund capital improvements, the former to the water system and the latter to the volunteer fire department. Because these fees are imposed only on the self-selected group of water service applicants, and not on real property that the District has identified or is able to identify, and because neither fee can ever become a charge on the property itself, we conclude that neither fee is subject to the restrictions that article XIII D imposes on property assessments and property-related fees. We also conclude that the District could properly use a resolution to amend an ordinance establishing these fees.

***431** The judgment of the Court of Appeal is reversed and the matter is remanded to that court with directions to affirm the trial court's judgment.

****531** WE CONCUR: GEORGE, C.J., BAXTER, WERDEGAR, CHIN, BROWN and MORENO, JJ.

All Citations

32 Cal.4th 409, 83 P.3d 518, 9 Cal.Rptr.3d 121, 2004 Daily Journal D.A.R. 1146, 2004 Daily Journal D.A.R. 1429

Footnotes

1 The Government Code defines a "capacity charge" as "a charge for facilities in existence at the time a charge is imposed or charges for new facilities to be constructed in the future that are of benefit to the person or property being charged." (Gov.Code, § 66013, subd. (b)(3).)

2 In this regard, it may be instructive to compare article XIII D's definition of an assessment as a "levy or charge upon real property" (*id.,* § 2, subd. (b)) with its definition of a fee or charge as a "levy ... upon a parcel or upon a person as an incident of property ownership ..." (*id.,* § 2, subd. (e)). Although a property-related fee or charge may be imposed either on the property itself or upon the owner as an incident of ownership, a levy must be imposed on the property itself to qualify as an assessment under article XIII D.

3 Government Code section 66013 provides:

"(a) Notwithstanding any other provision of law, when a local agency imposes fees for water connections or sewer connections, or imposes capacity charges, those fees or charges shall not exceed the estimated reasonable cost of providing the service for which the fee or charge is imposed, unless a question regarding the amount of the fee or charge imposed in excess of the estimated reasonable cost of providing the services or materials is submitted to, and approved by, a popular vote of two-thirds of those electors voting on the issue.

"(b) As used in this section:

"(1) 'Sewer connection' means the connection of a structure or project to a public sewer system.

"(2) 'Water connection' means the connection of a structure or project to a public water system, as defined in subdivision (f) of Section 116275 of the Health and Safety Code.

"(3) 'Capacity charge' means a charge for facilities in existence at the time a charge is imposed or charges for new facilities to be constructed in the future that are of benefit to the person or property being charged.

"(4) 'Local agency' means a local agency as defined in Section 66000.

"(5) 'Fee' means a fee for the physical facilities necessary to make a water connection or sewer connection, including, but not limited to, meters, meter boxes, and pipelines from the structure or project to a water distribution line or sewer main, and that does not exceed the estimated reasonable cost of labor and materials for installation of those facilities.

"(c) A local agency receiving payment of a charge as specified in paragraph (3) of subdivision (b) shall deposit it in a separate capital facilities fund with other charges received, and account for the charges in a manner to avoid any commingling with other moneys of the local agency, except for investments, and shall expend those charges solely for the purposes for which the charges were collected. Any interest income earned from the investment of moneys in the capital facilities fund shall be deposited in that fund.

"(d) For a fund established pursuant to subdivision (c), a local agency shall make available to the public, within 180 days after the last day of each fiscal year, the following information for that fiscal year:

"(1) A description of the charges deposited in the fund.

"(2) The beginning and ending balance of the fund and the interest earned from investment of moneys in the fund.

"(3) The amount of charges collected in that fiscal year.

"(4) An identification of all of the following:

"(A) Each public improvement on which charges were expended and the amount of the expenditure for each improvement, including the percentage of the total cost of the public improvement that was funded with those charges if more than one source of funding was used.

"(B) Each public improvement on which charges were expended that was completed during that fiscal year.

"(C) Each public improvement that is anticipated to be undertaken in the following fiscal year.

"(5) A description of each interfund transfer or loan made from the capital facilities fund. The information provided, in the case of an interfund transfer, shall identify the public improvements on which the transferred moneys are, or will be, expended. The information, in the case of an interfund loan, shall include the date on which the loan will be repaid, and the rate of interest that the fund will receive on the loan.

"(e) The information required pursuant to subdivision (d) may be included in the local agency's annual financial report.

"(f) The provisions of subdivisions (c) and (d) shall not apply to any of the following:

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"(1) Moneys received to construct public facilities pursuant to a contract between a local agency and a person or entity, including, but not limited to, a reimbursement agreement pursuant to Section 66003.

"(2) Charges that are used to pay existing debt service or which are subject to a contract with a trustee for bondholders that requires a different accounting of the charges, or charges that are used to reimburse the local agency or to reimburse a person or entity who advanced funds under a reimbursement agreement or contract for facilities in existence at the time the charges are collected.

"(3) Charges collected on or before December 31, 1998.

"(g) Any judicial action or proceeding to attack, review, set aside, void, or annul the ordinance, resolution, or motion imposing a fee or capacity charge subject to this section shall be brought pursuant to Section 66022.

"(h) Fees and charges subject to this section are not subject to the provisions of Chapter 5 (commencing with Section 66000), but are subject to the provisions of Sections 66016, 66022, and 66023.

"(i) The provisions of subdivisions (c) and (d) shall only apply to capacity charges levied pursuant to this section."

4 In response to our *San Marcos* decision, the Legislature granted local water districts authority to impose capacity charges on other public entities, thereby removing the public entity exemption. (See Gov.Code, §§ 54999–54999.6; *Utility Cost Management v. Indian Wells Valley Water Dist.* (2001) 26 Cal.4th 1185, 1189, 114 Cal.Rptr.2d 459, 36 P.3d 2; *City of Marina v. Board of Trustees* (2003) 109 Cal.App.4th 1179, 1182–1183, 135 Cal.Rptr.2d 815; *Utility Cost Management v. East Bay Mun. Utility Dist.* (2000) 79 Cal.App.4th 1242, 1246–1247, 94 Cal.Rptr.2d 777.)

5 Government Code section 50078 authorizes "[a]ny local agency which provides fire suppression services" to "determine and levy an assessment for fire suppression services." Plaintiffs have argued that the District may not rely on this provision as authority for its fire suppression fee because Government Code section 50001 defines "local agency" to include only cities and counties. Plaintiffs have overlooked Government Code section 50078.1, subdivision (b), which defines "local agency," as used in Government Code section 50078, to include any city, county, "or special district."

End of Document

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#5400
2/5/18

(R-2018-299)

RESOLUTION NUMBER R- 311528

DATE OF FINAL PASSAGE FEB 08 2018

A RESOLUTION OF THE COUNCIL OF THE CITY OF SAN DIEGO CONFIRMING THE APPOINTMENT OF KRIS MICHELL TO SERVE AS CITY MANAGER

WHEREAS, San Diego Charter section 265 sets forth the duties of the City of San Diego (City)'s Mayor; and

WHEREAS, San Diego Charter section 265(b)(7) states that the Mayor has "[s]ole authority to appoint the City Manager, subject to Council confirmation"; and

WHEREAS, the City Manager is commonly referred to as the City's Chief Operating Officer; and

WHEREAS, Chief Operating Officer Scott Chadwick is resigning his position, effective February 16, 2018, to pursue a new employment opportunity; and

WHEREAS, Mr. Chadwick's resignation leaves a vacancy in the position, and Mayor Faulconer has appointed Kris Michell to the position, effective February 17, 2018, with the appointment subject to City Council confirmation; and

WHEREAS, Mayor Faulconer has supervisory authority over the Chief Operating Officer, in accordance with San Diego Charter section 265(b)(7), and the authority to set the compensation for the Chief Operating Officer, in accordance with San Diego Charter sections 28 and 70, so long as the compensation is within the salary rates for the position as established by the City Council in adopting the annual Salary Ordinance; NOW, THEREFORE,

BE IT RESOLVED by the Council of the City of San Diego that the Council confirms the appointment of Kris Michell to the position of City Manager, which is also known as Chief Operating Officer, effective February 17, 2018.

APPROVED: MARA W. ELLIOTT, City Attorney

By _____
Joan F. Dawson
Deputy City Attorney

JFD:jdf
01/25/18
Or.Dept: HR
Doc. No.: 1676001

I certify that the foregoing Resolution was passed by the Council of the City of San Diego, at this meeting of FEB 05 2018.

ELIZABETH S. MALAND
City Clerk

By _____
Deputy City Clerk

Approved: 2/8/18
(date)

_____
KEVIN L. FAULCONER, Mayor

Vetoed: _____
(date)

_____
KEVIN L. FAULCONER, Mayor

Passed by the Council of The City of San Diego on FEB 05 2018, by the following vote:

Councilmembers	Yeas	Nays	Not Present	Recused
Barbara Bry	☒	☐	☐	☐
Lorie Zapf	☒	☐	☐	☐
Chris Ward	☒	☐	☐	☐
Myrtle Cole	☒	☐	☐	☐
Mark Kersey	☒	☐	☐	☐
Chris Cate	☒	☐	☐	☐
Scott Sherman	☒	☐	☐	☐
David Alvarez	☒	☐	☐	☐
Georgette Gomez	☒	☐	☐	☐

Date of final passage FEB 08 2018.

(Please note: When a resolution is approved by the Mayor, the date of final passage is the date the approved resolution was returned to the Office of the City Clerk.)

AUTHENTICATED BY:

KEVIN L. FAULCONER
Mayor of The City of San Diego, California.

(Seal)

ELIZABETH S. MALAND
City Clerk of The City of San Diego, California.

By Linda Irwin, Deputy

Office of the City Clerk, San Diego, California

Resolution Number R- 311528

8. CLAIM CERTIFICATION

*Read, sign, and date this section and insert at the end of the test claim submission.**

This test claim alleges the existence of a reimbursable state-mandated program within the meaning of article XIII B, section 6 of the California Constitution and Government Code section 17514. I hereby declare, under penalty of perjury under the laws of the State of California, that the information in this test claim submission is true and complete to the best of my own knowledge or information or belief.

Kris Michell
Print or Type Name of Authorized Local Agency or School District Official

Chief Operating Officer, City of San Diego
Print or Type Title

Signature of Authorized Local Agency or School District Official

Date 3/29/18

** If the declarant for this Claim Certification is different from the Claimant contact identified in section 2 of the test claim form, please provide the declarant's address, telephone number, fax number, and e-mail address below.*

DECLARATION OF SERVICE BY EMAIL

I, the undersigned, declare as follows:

I am a resident of the County of Sacramento and I am over the age of 18 years, and not a party to the within action. My place of employment is 980 Ninth Street, Suite 300, Sacramento, California 95814.

On April 13, 2018, I served the:

- **Notice of Complete Test Claim, Schedule for Comments, Request for Administrative Record, and Notice of Tentative Hearing Date issued April 13, 2018**
- **Test Claim filed by the City of San Diego on January 11, 2018**

  Lead Sampling in Schools, Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017, 17-TC-03
  City of San Diego, Claimant

by making it available on the Commission's website and providing notice of how to locate it to the email addresses provided on the attached mailing list.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that this declaration was executed on April 13, 2018 at Sacramento, California.

Jill Magee

Jill L. Magee
Commission on State Mandates
980 Ninth Street, Suite 300
Sacramento, CA 95814
(916) 323-3562

COMMISSION ON STATE MANDATES

Mailing List

Last Updated: 4/13/18

Claim Number: 17-TC-03

Matter: Lead Sampling in Schools, Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017

Claimant: City of San Diego

TO ALL PARTIES, INTERESTED PARTIES, AND INTERESTED PERSONS:

Each commission mailing list is continuously updated as requests are received to include or remove any party or person on the mailing list. A current mailing list is provided with commission correspondence, and a copy of the current mailing list is available upon request at any time. Except as provided otherwise by commission rule, when a party or interested party files any written material with the commission concerning a claim, it shall simultaneously serve a copy of the written material on the parties and interested parties to the claim identified on the mailing list provided by the commission. (Cal. Code Regs., tit. 2, § 1181.3.)

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CALIFORNIA
Water Boards

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GOVERNOR

MATTHEW RODRIQUEZ
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ENVIRONMENTAL PROTECTION

State Water Resources Control Board

RECEIVED
August 13, 2018
Commission on
State Mandates

August 13, 2018

VIA CSM DROPBOX

Heather Halsey
Executive Director
Commission on State Mandates
980 Ninth Street, Suite 300
Sacramento, CA 95814

Re: *Lead Sampling in Schools, Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, 17-TC-03*, Comments of the State Water Resources Control Board

Dear Ms. Halsey:

The State Water Resources Control Board (State Water Board) submits these comments in opposition to Test Claim No. 17-TC-03 (Test Claim). The Test Claim, originally filed by the City of San Diego (City) with the Commission on State Mandates (Commission) on January 11, 2018,[1] seeks reimbursement of estimated and other unspecified costs of implementing or complying with requirements set forth in an amendment to the City's drinking water supply permit, the *Amendment to the Domestic Drinking Water Supply Permit Issued to the City of San Diego, Permit Amendment No. 2017PA-SCHOOLS* (Permit Amendment). The City contends that the Permit Amendment contains requirements that constitute unfunded mandates subject to subvention under article XIIIB, section 6, of the California Constitution. For the reasons set forth below, the Commission should deny the Test Claim in its entirety.

I. INTRODUCTION

The State Water Board issued the Permit Amendment to the City on January 18, 2017. The Permit Amendment, one of over 1,100 drinking water supply permit amendments the State Water Board simultaneously issued to both privately and publicly owned water systems, implements a statewide program to test for lead in drinking water on K-12 school sites. The Permit Amendment requires the City, upon receiving a request to test from a K-12 school, to conduct lead testing on the school site, analyze the results, and share these results with both the school and the State Water Board. The Permit Amendment requires the City to cover the costs associated with this testing, analysis, and reporting. The City is not obligated to take any

[1] The Commission initially found the Test Claim to be incomplete and allowed the City an opportunity to cure the defects, which the City did with a filing submitted on April 6, 2018. The Commission found that, with the additional submission, the Test Claim was complete and that it would retain the January 11, 2018 filing date.

corrective or remedial action in response to elevated lead levels found on any particular school site.

In this Test Claim, the City argues that Proposition 218 prevents the City from using water rates collected from its over 3,000,0000 customers to fund the school testing, which the City estimates to total $469,154.60. The City further argues that the State Water Board should have allowed the City to bill the K-12 school sites directly for the testing, which the City contends is authorized under Proposition 26. The State Water Board disagrees with the City's narrow application of Proposition 218 to the facts of this case because the City fails to recognize the benefit that all customers will receive from the increased lead testing.

The Commission need not address the City's Proposition 218 argument, however, because, as a threshold matter, the Permit Amendment does not constitute a "new program or higher level of service" subject to article XIIIB, section 6, of the California Constitution. For article XIIIB, section 6, to apply to a particular action, the action must be: (1) a program involving a government service peculiar to government; or (2) a program which imposes a unique requirement on local government. The Permit Amendment meets neither prong of this alternative test. Drinking water is provided by both government and non-government entities; providing drinking water is not a service peculiar to governmental agencies. And because the State Water Board imposed the exact same requirements in the Permit Amendment on both publicly and privately owned water systems, the Permit Amendment imposes no unique requirements on local governments. Accordingly, the Permit Amendment is not a new program or higher level of service under article XIIIB, section 6, and this Test Claim should be rejected.

II. BACKGROUND

This section provides an overview of the legal, regulatory, and factual context for the State Water Board's decision to issue the Permit Amendment.

A. Drinking Water Systems in California

While some California residents continue to rely on onsite private domestic wells for their drinking water supply, water systems provide drinking water to the vast majority of Californians. Water systems may be privately owned (i.e., private corporations, investor-owned utilities, mutual water companies) or publicly owned (i.e., cities, counties, special districts). Of the 6,970 water systems currently operating in California, 5,314 are private entities and 1,656 are public entities.[2] Thus, slightly more than 75 percent of drinking water systems are privately owned. Although the majority of the water systems in California are privately owned, many of the largest water systems are publicly owned. Accordingly, publicly owned water systems serve the majority of Californians.[3]

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[2] The State Water Board maintains a database of all known water systems in California, which can be accessed by the public at https://sdwis.waterboards.ca.gov/PDWW/. On May 18, 2018, a report was generated which classified all water systems as either private or public, and grouped each system based on geographic location (May 2018 Water System Report). Attachment 101. [Note. Page 406 of Attachment 101 shows a breakdown for publicly owned water systems, and page 408 shows a breakdown for privately owned water systems.]

[3] May 2018 Water System Report. Attachment 101. [See note in prior footnote 2.]

Water systems are divided into two general categories: public water systems and state small water systems.[4] A public water system is defined as a system that provides water for human consumption[5] to at least 15 or more connections or that regularly serves 25 or more people daily.[6] The term public water system, although somewhat misleading, denotes that the water system generally serves the public-at-large, not that the water system is publicly owned.[7] Public water systems may be either public or private entities.

Public water systems are further classified as either community water systems, non-community non-transient water systems, or transient water systems. Community water systems are city, county, regulated utilities, privately owned water systems, regional water systems, and water districts that generally provide water where people live.[8] Non-community non-transient water systems are schools and businesses which provide their own water, and which have employees or other people who regularly consume the water.[9] Transient water systems include entities such as rural gas stations, restaurants, and state and national parks that provide their own potable water source where most water is consumed by those who do not reside or regularly spend time there.[10]

A state small water system is defined as a water system that provides water for human consumption that serves at least five, but not more than 14, service connections and does not regularly serve drinking water to more than an average of 25 individuals daily for more than 60 days out of the year.[11] Like public water systems, state small water systems may be either public or private entities.

The State Water Board directly regulates most public water systems, including the City. Although the State Water Board adopts regulations applicable to state small water systems, primary responsibility for regulating state small water systems rests with county local health officers.[12] Additionally, the State Water Board has delegated primary responsibility for regulating some small public water systems, which serve fewer than 200 service connections, to county local health officers.[13]

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[4] Please see the State Water Board, Decision Tree for Classification of Water Systems. Attachment 103.

[5] Human consumption is defined as the use of water for drinking, bathing or showering, hand washing, oral hygiene, or cooking, including, but not limited to, preparing food and washing dishes. (Health & Saf. Code, § 116275, subd. (d).)

[6] *Id.,* subd. (h).

[7] It should be noted that the term public water system comes from the federal Safe Drinking Water Act. (42 U.S.C., § 300f, subd. (4).)

[8] *Id.,* subd. (i).

[9] *Id.*, subd. (k).

[10] *Id.*, subd. (o).

[11] Health & Saf. Code, § 116275, subd. (n).

[12] *Id.*, § 116340.

[13] *Id.*, § 116330.

B. The State Water Board's Role in Regulating Drinking Water Systems

The State Water Board[14] is the state agency responsible for implementing both the federal Safe Drinking Water Act[15] and the California Safe Drinking Water Act,[16] and is charged with fulfilling the legislative mandate that every resident of California has the right to pure and safe drinking water.[17] To this end, and among other things, the State Water Board issues drinking water supply permits to public water systems, adopts regulations setting maximum contaminant levels for primary drinking water standards, provides financial assistance in the form of grants and low interest loans to water systems for infrastructure upgrades, and takes enforcement actions to ensure compliance with federal and state laws and regulations. Much of this work is accomplished by the 24 State Water Board, Division of Drinking Water (DDW) district offices.[18]

It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases.[19] It is also the policy of the state to improve laws governing drinking water quality, to improve upon the minimum requirements of the federal Safe Drinking Water Act, to establish primary drinking water standards that are at least as stringent as those established under the federal Safe Drinking Water Act, and to establish a program that is more protective of public health than the minimum federal standards.[20] It is the State Water Board's responsibility to establish a drinking water regulatory program that provides for the orderly and efficient delivery of safe drinking water throughout the state and to give the establishment of drinking water standards and public health goals greater emphasis and visibility within the state.[21]

C. Health Effects of Lead in Drinking Water

The significant and severe health risks associated with prolonged lead exposure are well documented. There are multiple pathways to lead exposure, including but not limited to, eating, drinking, breathing, touching, and transplacental exposure. The United States Environmental Protection Agency (U.S. EPA) estimates that drinking water can make up 20% of exposure in children and up to 60% in infants.[22] Once it has entered the body, lead that is not excreted is absorbed and stored in the blood, mineralizing tissue (such as bones and teeth), and soft tissue (such as the liver, kidneys, lungs, brain, and heart).

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[14] The Drinking Water Program was transferred from California Department of Public Health to the State Water Board on July 1, 2014. (Health & Saf. Code, § 116271.) The transfer of responsibility aligned the state's drinking water and water quality programs in an integrated organizational structure to best position the state to both effectively protect water quality and public health as it relates to water quality, while meeting current needs and future demands on water supplies.

[15] 42 U.S.C. § 300f *et seq.*

[16] Health & Saf. Code, § 116270 *et seq.*

[17] *Id.*, § 116270, subd. (a); see Wat. Code, § 106.3, subd. (a).

[18] A map of the 24 district offices is attached as Attachment 104.

[19] Health & Saf. Code, § 116270, subd. (d).

[20] *Id.*, § 116270, subd. (f).

[21] *Id.*, § 116270, subd. (g).

[22] U.S. EPA, Basic Information about Lead in Drinking Water, https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water.

In particular, lead poisoning is a serious concern for children as absorption rates in children are greater than those of adults and the impacts more severe. According to the federal Agency for Toxic Substances & Disease Registry, children absorb 50 percent of ingested lead after a meal compared to 20 percent absorption by adults.[23] Once absorbed, the harmful impacts to children's health include decreased academic achievement and IQ, attention related behaviors, delayed puberty, and difficulties in coordinating fine movements.[24] One study that analyzed behavioral traits of about 1,300 preschool children found that average blood lead levels of 6.4 micrograms per deciliter were associated with increased anxiety, depression, and aggression.[25] This is a cause for concern since 2.6% of preschool children in the United States had a blood lead concentration greater than five micrograms per deciliter between 2007 and 2010.[26] Another study completed in 2002 examined blood lead levels in 4,853 primary-school children and found that average blood lead levels of 1.9 µg/dl lead to decreased performance in math and reading assessments. Furthermore, a study following 301 primary-school students found that children with elevated bone lead levels had higher instances of aggression and delinquency in classroom settings.[27]

Beyond the immediate health effects in children, lead poisoning can also have adverse health side effects later in adult life, including developmental problems in offspring, hypertension, renal effects, and reproductive problems.

D. Lead and Copper Rule

Elevated lead levels in drinking water are primarily caused by the interaction between the particular chemistry of the drinking water, or corrosivity, on one hand, and the pipes, valves, and fixtures of the water distribution system, on the other hand. Lead contained in the pipes, valves, and fixtures which comprise a water distribution system typically pose a health risk only when the water passing through the distribution system causes this lead to leach into the drinking water. As evidenced by the lead crisis in Flint, Michigan, the corrosivity water critically impacts lead leach rates and, ultimately, the amount of lead in drinking water at taps and faucets.[28]

The federal and state's Lead and Copper Rule (collectively, "Lead and Copper Rule") contain similar requirements designed to limit lead leaching, both when the drinking water flows through the water system's distribution system and when it leaves the water system and enters the private distribution systems of residences, businesses, and other facilities.[29] Community water

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[23] Tarrago, Oscar, and Mary Jean Brown, *Case Studies in Environmental Medicine: Lead Toxicity* (June 12, 2017) Environmental Health and Medicine Education, Centers for Disease Control and Prevention, p. 64. Attachment 105.

[24] *Id.*, at p. 76.

[25] Liu, Jianghong et al., *Blood Lead Levels and Children's Behavioral and Emotional Problems: A Cohort Study* (August 1, 2014) JAMA Pediatrics 168.8. Attachment 106.

[26] Lanphear, Bruce, *Prevention of Childhood Lead Toxicity* (July 2016) Pediatrics, Vol. 1, No. 1. Attachment 116.

[27] Needleman, Herbert, *Lead Poisoning* (August 18, 2003) Annual Review of Medicine Vol 55:209-222). Attachment 107.

[28] Pieper, Kelsey et. al, *Flint Water Crisis Caused by Interrupted Corrosion Control: Investigating "Ground Zero" Home* (February 1, 2017) Environ. Sci. & Tech, 2017, 51. Attachment 108. Masten, Susan et. al, *Flint Water Crisis: What Happened and Why* (December 2016) J Am Water Works Assoc. 108(12): 22-34. Attachment 109.

[29] 40 C.F.R. § 141.80 *et. seq.*; Cal. Code Regs., tit. 22, § 64670 *et. seq.* It is worth noting that that in its report discussing the upcoming revisions to the federal Lead and Copper Rule, U.S. EPA stated that it was considering "mandatory sampling for schools that are not public water systems in the revised LCR, given the presence of

(footnote continued on next page)

systems, such as operated by the City, are required to implement a monitoring and sampling program involving a pool of sample sites, which primarily consist of private residences.[30] Together, the sampling sites provide an overall picture of lead levels in the water customers are consuming—the assumption being that the houses and other facilities near sampling sites will have similar plumbing characteristics and, therefore, similar amounts of lead in tap water. Through routine sampling of private residences, water systems monitor the lead levels system-wide, and take appropriate corrective action should lead levels exceed the applicable action level, currently set at 0.015 mg/L in more than ten percent of the tap water samples.[31]

Elevated lead levels are addressed through corrosion control measures (i.e., actions to change the chemistry of the water), source water treatment, lead service line replacement, and public education.

E. The Permit Amendment

In January 2017, in response to the Governor's veto message for Senate Bill 334,[32] the State Water Board initiated a new program requiring any community water system which serves a K-12 school to test for lead in drinking water upon request by the K-12 school.[33] The lead sampling of drinking water in schools program was effectuated by the simultaneous amendment of more than 1,100 drinking water supply permits for community water systems.[34] Of the more than 1,100 permit amendments, approximately 450 were issued to privately owned and operated water systems.[35] The amending language for each drinking water permit is identical to the City's Permit Amendment at issue in this Test Claim.[36]

The City's Permit Amendment requires the City, upon receiving a request from a public or private K-12 school prior to November 1, 2019, to develop a sampling plan and to complete the

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(footnote continued from previous page)
vulnerable populations in the school environment and the ongoing challenges that schools continue to encounter with elevated lead levels in drinking water." U.S. EPA, *Lead and Copper Rule Revisions: White Paper* (Oct. 2016). Attachment 1247.

[30] The specific number of sampling sites depends on the size of the system. (40 C.F.R. § 141.86; Cal. Code Regs., tit. 22, § 64675.) Large systems, such as the City, are required to sample at 100 for standard monitoring and 50 sites for reduced monitoring. (*Ibid.*)

[31] 40 C.F.R. § 141.80; Cal. Code Regs., tit. 22, § 64678.

[32] Among other things, Senate Bill 334 would have required a school district which has a drinking water source which does not meet drinking water standards to provide an alternative drinking water supply to its students. Senate Bill No. 334 (2015-2016 Reg. Sess.). Attachment 112. In his veto message, Governor Brown directed the State Water Board to incorporate water quality testing in schools as part of the state Lead and Copper Rule. Office of the Governor, *Veto Message Regarding Senate Bill 334* (Oct. 9, 2015). Attachment 113.

[33] While the majority of K-12 schools are served by community water systems, there are some K-12 schools which operate their own public water systems. The lead testing initiative did not apply to these schools because the Lead and Copper rule already requires testing of these systems.

[34] These permit amendments are attached starting with Attachment 117.

[35] State Water Resources Control Board, Permit Amendment Spreadsheet (May 2018). Attachment 102.

[36] Although there may be some differences between the permit amendments with respect to the recipient or the signatory, the substantive requirements at issue in this Test Claim are identical among all permit amendments.

initial sampling within 90 days of the request.[37] One to five samples must be collected at each school from regularly used drinking water fountains, cafeteria/food preparation areas, or reusable bottle water filling stations.[38] Sampling results must be provided to the school and to DDW. Sampling results above 15 parts per billion (ppb) require additional sampling and analysis.[39]

An important element of the lead testing in schools program is that the requesting schools receive the lead testing at no charge. The Permit Amendment requires the City to cover all costs associated with the sampling activities, the laboratory fees for all lead samples, the reporting of results to DDW and the schools, and the laboratory coordination and instruction, as well as other costs associated with staff time spent complying with the Permit Amendment.[40] Consistent with the Lead and Copper rule, the City is not responsible for costs associated with any maintenance or corrective actions (i.e., replacing pipes or fixtures) needed to address elevated lead levels in the drinking water for any particular school site.[41]

F. Assembly Bill 746

In October 2017, Governor Brown signed Assembly Bill 746 (AB 746), which added new requirements for lead testing of potable water systems on schools which are similar to those contained in the Permit Amendment.[42] While the Permit Amendment only required the City to test for lead following a request from a K-12 school, AB 746 requires each community water system that serves a K-12 public school to affirmatively test for lead in the school site before July 1, 2019.[43] AB 746 requires certain notification procedures based on the results of the testing, and requires the local educational agency to take certain actions if the testing results indicate elevated levels of lead.[44]

AB 746 does not require testing in the following situations: (1) the school site was constructed or modernized after January 1, 2010; (2) the local educational agency of the school site is currently permitted as a public water system and is currently required to test for lead in the potable water system; and (3) the local educational agency completed lead testing of the potable water system after January 1, 2009, and has posted this information, including regarding any exceedances, on its website, (4) the local educational agency has requested testing from its community water system consistent with the requirements of AB 746, such as the testing required by the Permit Amendment.[45]

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[37] Permit Amendment, p. 2. If the sampling cannot be completed within 90 days of the request, the City shall complete the sampling consistent with a time schedule approved by the State Water Board, Division of Drinking Water.

[38] *Ibid.*

[39] *Id.*, p. 4.

[40] Permit Amendment, p. 4.

[41] *Id.*, p. 5.

[42] Assem. Bill No. 746 (2017-2018 Reg. Sess), Stats. 2017, ch. 746; Health & Saf. Code, § 116277.

[43] Health & Saf. Code, § 116277, subd. (a)(1).

[44] *Id.,* § 116277, subd. (a)(2) and (b)(2).

[45] Health & Saf. Code, § 116277, subd. (e).

III. OVERVIEW OF MANDATES LAW

Article XIIIB, section 6, of the California Constitution provides, "Whenever the Legislature or any state agency mandates a new program or higher level of service on any local government, the State shall provide a subvention of funds to reimburse that local government for the costs of the program or increased level of service." Implementing statutes clarify that no subvention of funds is required if: (1) the mandate imposes a requirement that is mandated by a federal law or regulation and results in costs mandated by the federal government, unless the statute or executive order mandates costs that exceed the mandate in that federal law or regulation;[46] (2) the local agency proposed the mandate;[47] or (3) the local agency has the authority to levy service charges, fees, or assessments sufficient to pay for the new program or higher level of service.[48]

Numerous judicial decisions have further defined limitations on the requirements for subvention of funds. Specifically, subvention is only required if expenditure of tax monies is required, and not if the costs can be reallocated or paid for with fees.[49] In addition, reimbursement to local agencies is required only for the costs involved in carrying out functions peculiar to government, not for expenses incurred by local agencies as an incidental impact of laws that apply generally to all state residents and entities. Laws of general application are not entitled to subvention.[50] The fact that a requirement may single out local governments is not dispositive; where local agencies are required to perform the same functions as private industry, no subvention is required.[51]

IV. ARGUMENTS

A. The Permit Amendment is Not a New Program or Higher Level of Service and, Therefore, Is Not an Unfunded State Mandate

The threshold issue in this matter is whether the Permit Amendment constitutes a "new program or higher level of service" for purposes of article XIIIB, section 6, of the California Constitution. A determination that the Permit Amendment is not a new program or higher level of service would render article XIIIB, section 6, inapplicable and no subvention would be required.

The California Supreme Court has established that only those programs which involve a function or service peculiar to government, or which impose unique requirements on local government, are eligible for subvention. The Permit Amendment satisfies neither prong of this test. With respect to the first prong, the City's operation of a community water system is not a function or service peculiar to local government because public water systems are operated by both private and governmental entities. As for the second prong, the Permit Amendment imposes no unique requirements on the City because the State Water Board imposed the exact

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[46] Gov. Code, § 17556, subd. (c).

[47] *Id.*, subd. (a).

[48] *Id.*, subd. (d).

[49] *County of Los Angeles v. Commission on State Mandates* (2003) 110 Cal.App.4th 1176; *Redevelopment Agency v. Commission on State Mandates* (1997) 55 Cal.App.4th 976.

[50] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46.

[51] *City of Richmond v. Commission on State Mandates* (1998) 64 Cal.App.4th 1190.

same lead testing in school requirements on over 1,100 publicly and privately owned water systems.

(1) To Constitute a New Program or Higher Level of Service, a Program Must Provide a Government Service Which is Peculiar to Government or Impose Unique Requirements on a Local Government

Not every new law or state requirement constitutes a new program or higher level of service. In *County of Los Angeles v. State of California*,[52] the California Supreme Court expressed concern that, read broadly, article XIII B, section 6 could be construed to apply each and every time a new law of general application was passed—thus requiring the Legislature to discern the likely effect on local governments and provide an appropriation to pay for each incidental increase in local costs.[53] Rejecting this interpretation, the Supreme Court addressed the meaning of "new program or higher level of service" as follows:

> Looking at the language of [article XIII B, section 6] then, it seems clear that by itself the term "higher level of service" is meaningless. It must be read in conjunction with the predecessor phrase "new program" to give it meaning. Thus read, it is apparent that the subvention requirement for increased or higher level of service is directed to state mandated increases in services provided by local agencies in existing "programs." But the term program is not defined in article XIII B. What programs then did the electorate have in mind when section 6 was adopted? We conclude that the drafters and the electorate had in mind the commonly understood meanings of the term—*programs that carry out the governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state.*[54]

As to the first prong of this alternative test, the Supreme Court further narrowed the range of programs subject to subvention:

> The concern which prompted inclusion of section 6 in article XIII B was the perceived attempt by the state to enact legislation or adopt administrative orders creating programs to be administered by local agencies, thereby transferring to those agencies the fiscal responsibility for providing services which the state believed should be extended to the public. . . .*[T]he intent underlying section 6 was to require reimbursement to local agencies for the costs involved in carrying out functions peculiar to government, not for expenses incurred by local agencies as an incidental impact of laws that apply general to all state residents and entities.*[55]

Courts have consistently applied this "peculiarly governmental function" requirement when determining whether a particular program is subject to subvention.[56] Thus, the alternative test

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[52] *County of Los Angeles v. State of California*, *supra*, 43 Cal.3d 46.

[53] *Id.*, at p. 57.

[54] *Id.*, at p. 56 (italics added).

[55] *Id.*, at pp. 56-57 (italics added).

[56] *Carmel Valley Fire Protection District v. State of California* (1987) 190 Cal.App.3d 521, 537-38; *County of Los Angeles v. Department of Industrial Relations* (1989) 214 Cal.App.3d 1538, 1545-46.

for determining whether a particular state action is a new program or higher level of service is as follows: (1) programs that carry out the governmental function of providing services to the public which are peculiar to government; or (2) laws which, to implement a state policy, impose unique requirements on local governments and do not generally apply to all residents and entities in the state.[57] As discussed below, the Permit Amendment does not meet either prong of this alternative test and, as such, is not a new program or higher level of service subject to subvention.

(2) The Permit Amendment Does Not Involve a Function Peculiar to Government

The Permit Amendment requires the City, as the owner and operator of a community water system, to provide lead testing services to K-12 schools. The service or function at issue relates to the City's provision of drinking water as a public water system. Thus, to meet the first prong of the Supreme Court's alternative test, the operation of its public water system must be a service that is peculiar to government. This test is not met here.

The Court of Appeal's decision in *Carmel Valley Fire Protection District v. State of California*[58] is instructive in determining what types of services are peculiar to government. In *Carmel Valley*, three counties sought reimbursement of funds expended in complying with a state order to provide protective clothing and equipment for county fire fighters.[59] In ruling that the state order met the first prong of the Supreme Court's test, the court explained:

> First, fire protection is a peculiarly governmental function. [Citation.] 'Police and fire protection are two of the most essential and basic functions of local government.' [citing to *Verreos v. City and County of San Francisco* (1976) 63 Cal.App.3d 86, 107 [133 Cal.Rptr. 649].] This classification is not weakened by State's assertion that there are private sector fire fighters who are also subject to the executive orders. Our record is incomplete because the issue was not presented below. Nonetheless, we have no difficulty in concluding as a matter of judicial notice that the overwhelming number of fire fighters discharge classical governmental function.

Here, the court equated peculiar with essential and basic functions of local government, under circumstances where there was a mere assertion that the service was provided by private entities without any indication that private provision of this service was anything but de minimis. This comports with the dictionary definition of "peculiar" as "belonging exclusively to" or "distinctive in nature or character from others."[60]

The Supreme Court's decision in *City of Sacramento v. State of California*[61] interprets service peculiar to government in a similar manner. *City of Sacramento* involved claims for subvention

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[57] *San Diego Unified School Dist. v. Commission on State Mandates* (2004) 33 Cal.4th 859, 874 (reaffirming the test set forth in *County of Los Angeles v. State of California, supra*, 43 Cal.3d 46, 56); *Lucia Mar Unified School Dist. v. Bill Honig* (1988) 44 Cal.3d 830, 835.

[58] *Carmel Valley Fire Protection District v. State of California*, supra, 190 Cal.App.3d 521.

[59] *Id.*, at pp. 530-32.

[60] www.dictionary.com (last visited on August 10, 2018).

[61] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51.

of costs incurred in providing unemployment compensation coverage for city employees.[62] In rejecting this claim, the Supreme Court distinguished the nature of providing unemployment compensation coverage with that of providing education to persons with disabilities, noting that "[t]he education of handicapped students was clearly a *traditional* 'governmental' service to the public."[63] Taken together, *Carmel Valley* and *City of Sacramento* construe a service peculiar to government as a service which is "essential and basic," "classical," and "traditional."

The decisions in *Carmel Valley and City of Sacramento* also comport with the policy rationale underpinning the Supreme Court's alternative test. In *County of Los Angeles v. State of California*, the Supreme Court expressly rejected the argument that subvention was required for laws of general application, noting that:

> The language of section 6 is far too vague to support an inference that it was intended that each time the Legislature passes a law of general application it must discern the likely effect on local governments and provide an appropriation to pay for any incidental increase in local costs. We believe that if the electorate had intended such a far-reaching construction of section 6, the language would have explicitly indicated the word "program" was being used in such a unique fashion. [Citations.][64]

The Supreme Court was similarly concerned with impacts to the basic functioning of the Legislature.

> Were section 6 construed to require state subvention for the incidental cost to local governments of general laws, the result would be far-reaching indeed. Although such laws may be passed by simple majority vote of each house of the Legislature (art. IV, § 8, subd. (b)), the revenue measures necessary to make them effective may not. A bill which will impose costs subject to subvention of local agencies must be accompanied by a revenue measure providing the subvention required by article XIII B. (Rev. & Tax. Code, §§ 2255, subd. (c).) Revenue bills must be passed by two-thirds vote of each house of the Legislature. (Art. IV, § 12, subd. (d).) Thus, were we to construe section 6 as applicable to general legislation whenever it might have an incidental effect on local agency costs, such legislation would become effective only if passed on a supermajority vote. Certainly no such intent is reflected in the language or history of article XIII B or section 6.[65]

By limiting the type of governmental services peculiar to government to those which are essential, basic, classical, and traditional to government, the holdings in *Carmel Valley* and *City of Sacramento* prevent the application of section 6 to every law that impacts any of the myriad of services that a modern large city, such as the City, provides to its residents. Absent this interpretation, it is conceivable that any law of general application impacting a service provided

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[62] *Id.*, at pp. 57-59.

[63] *Id.*, at p. 68 (discussing the Supreme Court's prior decision in *Lucia Mar Unified School Dist. v. Honig* (1988) 44 Cal.3d 830) (emphasis added).

[64] *County of Los Angeles v. State of California*, supra, 43 Cal.3d 46, 57.

[65] *Ibid* (footnote omitted).

by the City could be subject to subvention—which is expressly what the Supreme Court rejected in *County of Los Angeles* and sought to avoid through its alternative test.

Additionally, *Carmel Valley* and *City of Sacramento* are consistent with a line of cases decided prior to California's adoption of the Government Claims Act,[66] and which involved tort claims for damages against local governments.[67] The threshold issue in these cases was whether the doctrine of sovereign immunity provided a shield against liability. Whether sovereign immunity applied turned on whether governmental activity at issue was categorized as a "government" or "public" activity or a "corporate" or "private" activity. The California Supreme Court explained the distinction between the public and private functions of government as follows:

> [A] municipal corporation, when carrying on a public service, such as furnishing water, light, heat, or power to its inhabitants is not acting in its governmental capacity as a sovereign, but is acting in a proprietary capacity…[68]

The court in *In Re Bonds of Orosi Public Utility District* v. *McHuaig*[69] further explained:

> We take it to be now a generally accepted proposition that, while a municipality, which undertakes to supply those of its inhabitants who will pay therefor with utilities and facilities of urban life, if performing a function not governmental, but more often committed to private corporations or persons with whom it may come into competition, it is, in fact, engaging in business upon municipal capital and for municipal purposes.[70]

Thus, historically, California courts distinguished between those functions which are utilitarian in nature, such as providing water[71] and power[72] to its residents, and those functions which implicate the unique authority vested in the state and its political subdivisions, such as fire and police.[73] Although for the purposes of sovereign immunity, the distinction between the corporate and governmental functions of government is no longer relevant,[74] this line of cases remains appropriate and persuasive authority for defining what constitutes a service peculiar to government.

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[66] Gov. Code, § 810 *et. seq.*; see *State Dept. of State Hospitals v. Superior Court* (2015) 61 Cal.4th 339, 347.

[67] *Chafor v. City of Long Beach* (1917) 174 Cal. 478 (involving a suit for damages following a death caused by the collapse of a City-owned pier); *Plaza v. City of San Mateo* (1954) 123 Cal.App.2d 103 (involving injuries sustained by a wayward golf ball from a city maintained golf course); *City of Concord v. Tony Freitas* (1956) 144 Cal.App.2d 822 (claim against city involved action for false arrest, false imprisonment, and assault and battery).

[68] *City of Pasadena v. Railroad Commission of California* (1920) 183 Cal. 526, 529, disapproved of by *County of Inyo v. Public Utilities Com.* (1980) 26 Cal.3d 154.

[69] *In Re Bonds of Orosi Public Utility District* v. *McHuaig* (1925) 196 Cal. 43.

[70] *Id.*, at p. 58.

[71] *City of South Pasadena v. Pasadena Land & Water Co.* (1908) 152 Cal. 579, 573; *Nourse v. City of Los Angeles* (1914) 25 Cal.App 384, 385; *Marin Water and Power Co. v. Town of Sausalito* (1920) 49 Cal.App 78, 79.

[72] *Davoust v. City of Alameda* (1906) 149 Cal. 69, 72.

[73] *Chappelle v. City of Concord, supra*, 144 Cal.App.2d 822, 825 (holding that the operation of a police power is a governmental function).

[74] *Muskopf v. Corning Hospital Dist.* (1961) 55 Cal.2d 211, 219-20 (abrogating governmental immunity).

The principle that water service should be considered in the nature of a utility function, often provided by private entities, rather than a basic governmental function, is underscored by the Service Duplication Law.[75] Under the Service Duplication Law, a local government must provide compensation to a privately owned drinking water supplier when the local government provides or extends drinking water service into the service area of the privately owned supplier.[76] This statutory requirement for compensation, not for appropriation of any fixtures or equipment but merely because the local government is providing a service that would otherwise be provided by the private water supplier, amounts to a legislative determination that water service is not a service that is or should be peculiar to local governments.

Turning to the Permit Amendment at issue in this Test Claim, simply put, the provision of drinking water is not a function or service which is peculiar to local government. As discussed above, statewide, the overwhelming majority (over 75 percent) of drinking water systems are privately owned. No state or federal law requires a city or county to operate a drinking water system. Indeed, many cities and counties do not provide potable water to their residents and, instead, rely on private companies to provide drinking water to city and county residents. Unlike the provision of firefighting services in *Carmel Valley* or the provision of education services to persons with disabilities in *City of Sacramento*, operating a public water system is not an "essential", "basic", "classical" or "traditional" government function. Drinking water service is a utility service, provided by both public and private entities to their customers.

(3) The Permit Amendment Does Not Impose Unique Requirements on The City

To constitute a program under the second prong of the alternative test, the Permit Amendment must, "to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state."[77] To determine whether the Permit Amendment meets this definition, the Permit Amendment must be viewed in context of the State Water Board's statewide program for lead testing of drinking water in schools, as implemented by the more than 1,100 simultaneously-adopted and substantially identical permit amendments. When viewed within this larger programmatic context, the Permit Amendment imposes no unique requirements on the City and is not a new program subject to subvention under article XIIIB, section 6, of the California Constitution.

The California Supreme Court specifically endorsed considering the larger context of a particular action when determining whether an action meets the definition of a program in *City of Sacramento v. State of California*.[78] In that case, the law at issue required local governments to provide the same unemployment compensation protection as was required of private employers.[79] The City argued that because the law applied only to local governments, the requirements were uniquely imposed on local governments and, thus, required subvention.[80] The Supreme Court rejected this argument, explaining:

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[75] Pub. Util. Code, § 1501 *et seq.*

[76] *Id.*, § 1504.

[77] *County of Los Angeles v. State of California, supra*, 43 Cal.3d 46, 56.

[78] *City of Sacramento v. State of California, supra*, 50 Cal.3d 51

[79] *Id., at p.* 67.

[80] *Id.*, at p. 68.

> The distinction proposed by plaintiffs would have an anomalous result. The state could avoid subvention under *County of Los Angeles* standards by imposing new obligations on the public and private sectors *at the same time*. However, if it chose to proceed by stages, extending such obligations first to private entities, and only later to local governments, it would have to pay. This was not the intent of our recent decision.[81]

Although the facts in this Test Claim differ somewhat from the *City of Sacramento*, the rule applies equally—when determining whether a state action imposes unique requirements on a local agency, other relevant laws or actions may and should be considered.

As explained above, the City was one of more than 1,100 public water systems that received permit amendments substantially identical to the City's Permit Amendment. The State Water Board issued these permit amendments within a few days of each other.[82] Collectively, these permit amendments, including the Permit Amendment at issue in this Test Claim, effectuate the statewide lead testing of drinking water in schools program. Of the over 1,100 public water systems that received the permit amendments, approximately 450 water systems are privately owned. Accordingly, the Permit Amendment, as part of the State Water Board's lead testing in schools program, imposed no unique requirements on the City that were not imposed on the privately owned water systems.

Failure to consider the larger programmatic context of the Permit Amendment could result in numerous public water systems claiming that it's individual drinking water permit contains "unique" requirements—thus subjecting the State Water Board to potentially hundreds of individual claims before the Commission based on the same permit language. Viewing each individual drinking water permit in a vacuum, and not relative to other similarly situated water systems, could result in a determination that each requirement was unique to that particular water system because the drinking water permit only applies to that entity—even if the State Water Board imposed the same requirements on other privately owned and operated water systems as it has here.[83] This cannot be the result the voters intended to embrace in the ballot measure giving rise to article XIII B, section 6.[84]

Moreover, the relevant state policy animating the lead testing of drinking water in schools program and the Permit Amendment is the California Safe Drinking Water Act. The California

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[81] *Id.*, at p. 69 (emphasis added).

[82] Permit amendments were issued on or about January 17, 2017.

[83] The State Water Board recognizes that in its decision in *In Re Test Claim on Los Angeles Regional [Water] Quality Control Board Order No. 01-182, Permit CAS004001*, the Commission on State Mandates rejected the argument that, because National Pollutant Discharge Elimination System ("NPDES") permits generally apply to both public and private entities, the particular NPDES permit at issue did not constitute a program subject to subvention. (*In Re Test Claim on Los Angeles Regional [Water] Quality Control Board Order No. 01-182, Permit CAS004001, Case Nos. 03-TC-04, 03-TC-19, 03-TC-20, 03-TC-21.*) Relying the Supreme Court's decision in *County of Los Angeles v. Commission on State Mandates*, the Commission explained that the issue is not "whether NPDES permits generally constitute a 'program' within the meaning of article XIII B, section 6," it is whether the particular permit at issue constitutes a program. (*Ibid.*, citing to *County of Los Angeles v. Commission on State Mandates* (2007) 150 Cal.App.4th 898, 919). The State Water Board does not read the Commission's decision, or the Supreme Court's decision in *County of Los Angeles*, as precluding the Commission from considering identical language from other drinking water system permits in determining whether the Permit Amendment imposes a unique requirement on the City.

[84] *County of Los Angeles, v. State of California, supra*, 43 Cal.3d 46, 57.

Safe Drinking Water Act, a law of general application, proclaims that "[e]very resident of California has the right to pure and safe drinking water,"[85] and "[i]s intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable."[86] The health effects of elevated lead levels in children is well documented, and the lead testing of schools program simply effectuates the Safe Drinking Water Act.[87]

In conclusion, the Permit Amendment imposes the same lead testing requirements on over 1,100 publicly and privately owned public water systems, including the City. The Permit Amendment includes no unique requirements on the City, or local governments generally. The Permit Amendment was authorized by the California Safe Drinking Water Act, a law of general application. As such, the Permit Amendment fails to meet the second prong of the Supreme Court's alternative test, and is not a program subject to subvention under article XIIIB, section 6, of the California Constitution.

B. Proposition 218 Does Not Prevent the City from Raising Water Rates to Cover Costs Associated with The Permit Amendment

Even assuming the Permit Amendment is a new program or higher level of service, the Test Claim should be rejected because the City has the authority to levy service charges, fees, or assessments sufficient to pay for the costs of compliance with the Permit Amendment. Contrary to the City's argument, Proposition 218 provides no constitutional bar to the City's use of water rates to fund the school testing required by the Permit Amendment.

The City does not claim that it lacks authority to raise water rates to fund compliance with the Permit Amendment. Rather, the City contends that Proposition 218 constitutionally bars the City from using water rates to fund its compliance with the Permit Amendment.[88] The City argues that because the testing for lead in schools has no relationship to providing water service to other water system customers, allowing the ratepayer funds to absorb the costs of lead sampling in schools would result in water service fees exceeding the proportional cost attributable to the parcel.[89] Furthermore, the City contends that the school lead testing is not a property-related service that can properly be funded by water rates.[90]

The City's argument fails because it ignores the direct benefit that compliance with the Permit Amendment confers on all water system as a whole and, by extension, each of the ratepayers. As discussed above, the Lead and Copper rule requires testing for lead in private residences, the purpose being to ensure that the City's water does not contain excess lead or exacerbate

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[85] Health & Saf. Code, § 116270, subd. (a).

[86] *Id.*, § 116270, subd. (e).

[87] Recently, on remand from the California Supreme Court's decision in *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, the Superior Court for the County of Los Angeles found that the underlying federal and state prohibition against pollution and unlawful discharges, and not the particular permit at issue, was the relevant "state policy" for purposes of determining application of article XIII B, section 6. (*Department of Finance v. Commission on State Mandates* (Sup. Ct. Los Angeles County, 1986, No. BS130730) Judgment, pp. 12-13.) And, because the federal and state prohibition against unlawful discharges is a law of general application, the individual permit effectuating this prohibition was not a program subject to subvention under article XIIIB, section 6. (*Ibid.*)

[88] Test Claim, Section 5: Written Narrative, pp. 41-42.

[89] *Id.*, p. 41.

[90] *Ibid.*

lead leaching from pipes and fixtures in customers' homes and businesses. By requiring additional lead testing in the schools, the Permit Amendment functionally extends the Lead and Copper rule by providing additional testing points which can inform the City about how the water chemistry in its distribution network may be impacting not only the particular schools, but residences who obtain water from a common source or through a common delivery system.[91] And to the extent the City takes corrective action, for example by additional treatment to reduce corrosivity, all users, not just the schools, will benefit for from the reduced threat of lead exposure. Therefore, just as the testing of private residences under the Lead and Copper rule benefits the water system as a whole, and by extension, each of the ratepayers, not just the owners of the residences being tested, the lead testing in K-12 schools provides a similar direct benefit to each ratepayer by providing additional testing inputs the City can use to optimize its water chemistry and quality to reduce the amount of lead in in all residences and businesses.

Additionally, the lead testing in schools provides a direct benefit for each ratepayer by maintaining, and possibly, improving property values. Reports and studies have consistently found a positive correlation between real property values and good schools.[92] High lead levels in school drinking water can adversely impact the desirability of a particular school, which would, in turn, reduce property values of surrounding residences. By identifying which schools must address excess lead levels in its drinking system, the lead testing requirements further the goal of ensuring that students do not drink water containing high levels of lead. Ultimately, this effort to rid schools of drinking water containing high lead levels improves the desirability of particular schools, which has a correspondingly positive affect on surrounding property values.

In addition, schools often are used for community meetings, and people within the community often use school playing fields. School facilities, including drinking fountains, provide a benefit to the entire community, and the entire community benefits from provision of safe drinking water.

Because compliance with the Permit Amendment provides a direct benefit to each ratepayer, the lead testing of K-12 schools is a property related service that can be appropriately funded through water rates.

It should also be recognized that the City's argument that it cannot charge fees for the costs of compliance with the Permit Amendment assumes that the permit amendment is a new program or higher level of service. If the Permit Amendment is a not a new program or higher level of service, as discussed in section IV. A. above, all ratepayers benefit from compliance, and the City can set water rates to cover costs for compliance, because compliance is required for the City to provide water service at all.

A private entity or local government cannot operate a public water system without a permit from the State Water Board.[93] The permit is subject to revocation for failure to comply.[94] If the Permit

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[91] Edmund G. Brown, Oct. 9, 2015, Veto Message Regarding Senate Bill 334 (directing the State Water Board to work with school districts and local public water systems to incorporate water quality testing in schools as part of their Lead and Copper rule). Attachment 111.

[92] Harney, *School Quality is tied [to] home prices in new study. But other factors may affect values*, The Washington Post (Oct. 4, 2013), Attachment 113; National Assn. of Realtors, Realtor Magazine, *Survey: Buyers Will Pay More for Good Schools* (July 30, 2013), Attachment 114; Rothwell, Jonathan, *Housing Costs, Zoning, and Access to High Scoring Schools* (April 2012), Attachment 115.

[93] Health & Saf. Code, § 116525, subd. (a).

Amendment is not a new program or higher level of service, and the City therefore can neither obtain a subvention or be excused from compliance under article XIIIB, section 6, of the California Constitution,[95] the City must comply with the Permit Amendment in order to provide drinking water service within its service area. Compliance with permit conditions benefits all customers of the City and other public water systems, because compliance is necessary for the public water system to continue operating as a utility providing drinking water service to any of the customers. Therefore, drinking water fees may spread the cost of compliance among all customers. There is no requirement that when drinking water requirements are set to protect sensitive groups such as children that the costs of compliance be imposed solely on households, businesses and public facilities that include or serve those sensitive groups. Because permit compliance is a condition necessary to enter or continue in the business of providing drinking water service, all customers benefit from the utility's compliance with permit requirements. Both public entities like the City and the privately owned utilities that would step in if a public entity decided to cease providing drinking water service may appropriately include costs of compliance in the charges to its customers.

V. CONCLUSION

For the reasons set forth above, the Commission should deny the Test Claim in its entirety.

I certify and declare under penalty of perjury under laws of the State of California that the foregoing facts are true and correct to the best of my personal knowledge or information or belief. I further declare that all documents attached are true and correct copies of such documents as they exist in the State Water Board's files, or were obtained from publicly available sources.

Very Truly Yours,

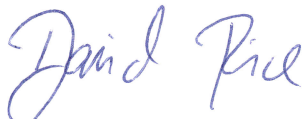

David Rice
Senior Staff Counsel

cc: Service List via CSM Dropbox

(footnote continued from previous page)
[94] *Id.*, § 116625.

[95] See Cal. Const., art. XIIIB, § 6, subd. (b).

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KeyCite Yellow Flag - Negative Treatment
Proposed Legislation

United States Code Annotated
Title 42. The Public Health and Welfare
Chapter 6A. Public Health Service (Refs & Annos)
Subchapter XII. Safety of Public Water Systems
Part A. Definitions (Refs & Annos)

42 U.S.C.A. § 300f

§ 300f. Definitions

Effective: December 16, 2016
Currentness

For purposes of this subchapter:

(1) The term "primary drinking water regulation" means a regulation which--

(A) applies to public water systems;

(B) specifies contaminants which, in the judgment of the Administrator, may have any adverse effect on the health of persons;

(C) specifies for each such contaminant either--

(i) a maximum contaminant level, if, in the judgment of the Administrator, it is economically and technologically feasible to ascertain the level of such contaminant in water in public water systems, or

(ii) if, in the judgment of the Administrator, it is not economically or technologically feasible to so ascertain the level of such contaminant, each treatment technique known to the Administrator which leads to a reduction in the level of such contaminant sufficient to satisfy the requirements of section 300g-1 of this title; and

(D) contains criteria and procedures to assure a supply of drinking water which dependably complies with such maximum contaminant levels; including accepted methods for quality control and testing procedures to insure compliance with such levels and to insure proper operation and maintenance of the system, and requirements as to (i) the minimum quality of water which may be taken into the system and (ii) siting for new facilities for public water systems.

At any time after promulgation of a regulation referred to in this paragraph, the Administrator may add equally effective quality control and testing procedures by guidance published in the Federal Register. Such procedures shall be treated as an alternative for public water systems to the quality control and testing procedures listed in the regulation.

(2) The term "secondary drinking water regulation" means a regulation which applies to public water systems and which specifies the maximum contaminant levels which, in the judgment of the Administrator, are requisite to protect the public welfare. Such regulations may apply to any contaminant in drinking water (A) which may adversely affect the odor or appearance of such water and consequently may cause a substantial number of the persons served by the public water system providing such water to discontinue its use, or (B) which may otherwise adversely affect the public welfare. Such regulations may vary according to geographic and other circumstances.

(3) The term "maximum contaminant level" means the maximum permissible level of a contaminant in water which is delivered to any user of a public water system.

(4) Public water system.--

(A) In general.--The term "public water system" means a system for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at least fifteen service connections or regularly serves at least twenty-five individuals. Such term includes (i) any collection, treatment, storage, and distribution facilities under control of the operator of such system and used primarily in connection with such system, and (ii) any collection or pretreatment storage facilities not under such control which are used primarily in connection with such system.

(B) Connections.--

(i) In general.--For purposes of subparagraph (A), a connection to a system that delivers water by a constructed conveyance other than a pipe shall not be considered a connection, if--

(I) the water is used exclusively for purposes other than residential uses (consisting of drinking, bathing, and cooking, or other similar uses);

(II) the Administrator or the State (in the case of a State exercising primary enforcement responsibility for public water systems) determines that alternative water to achieve the equivalent level of public health protection provided by the applicable national primary drinking water regulation is provided for residential or similar uses for drinking and cooking; or

(III) the Administrator or the State (in the case of a State exercising primary enforcement responsibility for public water systems) determines that the water provided for residential or similar uses for drinking, cooking, and bathing is centrally treated or treated at the point of entry by the provider, a pass-through entity, or the user to achieve the equivalent level of protection provided by the applicable national primary drinking water regulations.

(ii) Irrigation districts.--An irrigation district in existence prior to May 18, 1994, that provides primarily agricultural service through a piped water system with only incidental residential or similar use shall not be

considered to be a public water system if the system or the residential or similar users of the system comply with subclause (II) or (III) of clause (i).

(C) Transition period.--A water supplier that would be a public water system only as a result of modifications made to this paragraph by the Safe Drinking Water Act Amendments of 1996 shall not be considered a public water system for purposes of the Act until the date that is two years after August 6, 1996. If a water supplier does not serve 15 service connections (as defined in subparagraphs (A) and (B)) or 25 people at any time after the conclusion of the 2-year period, the water supplier shall not be considered a public water system.

(5) The term "supplier of water" means any person who owns or operates a public water system.

(6) The term "contaminant" means any physical, chemical, biological, or radiological substance or matter in water.

(7) The term "Administrator" means the Administrator of the Environmental Protection Agency.

(8) The term "Agency" means the Environmental Protection Agency.

(9) The term "Council" means the National Drinking Water Advisory Council established under section 300j-5 of this title.

(10) The term "municipality" means a city, town, or other public body created by or pursuant to State law, or an Indian Tribe.

(11) The term "Federal agency" means any department, agency, or instrumentality of the United States.

(12) The term "person" means an individual, corporation, company, association, partnership, State, municipality, or Federal agency (and includes officers, employees, and agents of any corporation, company, association, State, municipality, or Federal agency).

(13)(A) Except as provided in subparagraph (B), the term "State" includes, in addition to the several States, only the District of Columbia, Guam, the Commonwealth of Puerto Rico, the Northern Mariana Islands, the Virgin Islands, American Samoa, and the Trust Territory of the Pacific Islands.

(B) For purposes of section 300j-12 of this title, the term "State" means each of the 50 States, the District of Columbia, and the Commonwealth of Puerto Rico.

(14) The term "Indian Tribe" means any Indian tribe having a Federally recognized governing body carrying out substantial governmental duties and powers over any area. For purposes of sections 300j-12, 300j-19a, and 300j-19b of this title, the term includes any Native village (as defined in section 1602(c) of Title 43).

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(15) Community water system.--The term "community water system" means a public water system that--

(A) serves at least 15 service connections used by year-round residents of the area served by the system; or

(B) regularly serves at least 25 year-round residents.

(16) Noncommunity water system.--The term "noncommunity water system" means a public water system that is not a community water system.

CREDIT(S)

(July 1, 1944, c. 373, Title XIV, § 1401, as added Pub.L. 93-523, § 2(a), Dec. 16, 1974, 88 Stat. 1661; amended Pub.L. 94-317, Title III, § 301(b)(2), June 23, 1976, 90 Stat. 707; Pub.L. 94-484, Title IX, § 905(b)(1), Oct. 12, 1976, 90 Stat. 2325; Pub.L. 95-190, § 8(b), Nov. 16, 1977, 91 Stat. 1397; Pub.L. 99-339, Title III, § 302(b), June 19, 1986, 100 Stat. 666; Pub.L. 104-182, Title I, § 101(a), (b)(1), Aug. 6, 1996, 110 Stat. 1615, 1616; Pub.L. 114-322, Title II, § 2111, Dec. 16, 2016, 130 Stat. 1729.)

42 U.S.C.A. § 300f, 42 USCA § 300f
Current through P.L. 115-223. Title 26 current through 115-227.

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40 C.F.R. § 141.80

§ 141.80 General requirements.

Effective: December 10, 2007
Currentness

(a) Applicability and effective dates.

(1) The requirements of this subpart I constitute the national primary drinking water regulations for lead and copper. Unless otherwise indicated, each of the provisions of this subpart applies to community water systems and non-transient, non-community water systems (hereinafter referred to as "water systems" or "systems").

(2) [Reserved by 72 FR 57814]

(b) Scope. These regulations establish a treatment technique that includes requirements for corrosion control treatment, source water treatment, lead service line replacement, and public education. These requirements are triggered, in some cases, by lead and copper action levels measured in samples collected at consumers' taps.

(c) Lead and copper action levels.

(1) The lead action level is exceeded if the concentration of lead in more than 10 percent of tap water samples collected during any monitoring period conducted in accordance with § 141.86 is greater than 0.015 mg/L (i.e., if the "90th percentile" lead level is greater than 0.015 mg/L).

(2) The copper action level is exceeded if the concentration of copper in more than 10 percent of tap water samples collected during any monitoring period conducted in accordance with § 141.86 is greater than 1.3 mg/L (i.e., if the "90th percentile" copper level is greater than 1.3 mg/L).

(3) The 90th percentile lead and copper levels shall be computed as follows:

(i) The results of all lead or copper samples taken during a monitoring period shall be placed in ascending order from the sample with the lowest concentration to the sample with the highest concentration. Each sampling result shall be assigned a number, ascending by single integers beginning with the number 1 for the sample with the lowest

contaminant level. The number assigned to the sample with the highest contaminant level shall be equal to the total number of samples taken.

(ii) The number of samples taken during the monitoring period shall be multiplied by 0.9.

(iii) The contaminant concentration in the numbered sample yielded by the calculation in paragraph (c)(3)(ii) is the 90th percentile contaminant level.

(iv) For water systems serving fewer than 100 people that collect 5 samples per monitoring period, the 90th percentile is computed by taking the average of the highest and second highest concentrations.

(v) For a public water system that has been allowed by the State to collect fewer than five samples in accordance with § 141.86(c), the sample result with the highest concentration is considered the 90th percentile value.

(d) Corrosion control treatment requirements.

(1) All water systems shall install and operate optimal corrosion control treatment as defined in § 141.2.

(2) Any water system that complies with the applicable corrosion control treatment requirements specified by the State under §§ 141.81 and 141.82 shall be deemed in compliance with the treatment requirement contained in paragraph (d)(1) of this section.

(e) Source water treatment requirements. Any system exceeding the lead or copper action level shall implement all applicable source water treatment requirements specified by the State under § 141.83.

(f) Lead service line replacement requirements. Any system exceeding the lead action level after implementation of applicable corrosion control and source water treatment requirements shall complete the lead service line replacement requirements contained in § 141.84.

(g) Public education requirements. Pursuant to § 141.85, all water systems must provide a consumer notice of lead tap water monitoring results to persons served at the sites (taps) that are tested. Any system exceeding the lead action level shall implement the public education requirements.

(h) Monitoring and analytical requirements. Tap water monitoring for lead and copper, monitoring for water quality parameters, source water monitoring for lead and copper, and analyses of the monitoring results under this subpart shall be completed in compliance with §§ 141.86, 141.87, 141.88, and 141.89.

(i) Reporting requirements. Systems shall report to the State any information required by the treatment provisions of this subpart and § 141.90.

(j) Recordkeeping requirements. Systems shall maintain records in accordance with § 141.91.

(k) Violation of national primary drinking water regulations. Failure to comply with the applicable requirements of §§ 141.80–141.91, including requirements established by the State pursuant to these provisions, shall constitute a violation of the national primary drinking water regulations for lead and/or copper.

Credits
[56 FR 32113, July 15, 1991; 57 FR 28788, June 29, 1992; 72 FR 57814, Oct. 10, 2007]

AUTHORITY: 42 U.S.C. 300f, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–4, 300j–9, and 300j–11.

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Code of Federal Regulations
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter D. Water Programs
Part 141. National Primary Drinking Water Regulations (Refs & Annos)
Subpart I. Control of Lead and Copper (Refs & Annos)

40 C.F.R. § 141.81

§ 141.81 Applicability of corrosion control treatment steps to small, medium-size and large water systems.

Effective: December 10, 2007
Currentness

(a) Systems shall complete the applicable corrosion control treatment requirements described in § 141.82 by the deadlines established in this section.

(1) A large system (serving >50,000 persons) shall complete the corrosion control treatment steps specified in paragraph (d) of this section, unless it is deemed to have optimized corrosion control under paragraph (b)(2) or (b)(3) of this section.

(2) A small system (serving ≤3300 persons) and a medium-size system (serving >3,300 and ≤50,000 persons) shall complete the corrosion control treatment steps specified in paragraph (e) of this section, unless it is deemed to have optimized corrosion control under paragraph (b)(1), (b)(2), or (b)(3) of this section.

(b) A system is deemed to have optimized corrosion control and is not required to complete the applicable corrosion control treatment steps identified in this section if the system satisfies one of the criteria specified in paragraphs (b)(1) through (b)(3) of this section. Any such system deemed to have optimized corrosion control under this paragraph, and which has treatment in place, shall continue to operate and maintain optimal corrosion control treatment and meet any requirements that the State determines appropriate to ensure optimal corrosion control treatment is maintained.

(1) A small or medium-size water system is deemed to have optimized corrosion control if the system meets the lead and copper action levels during each of two consecutive six-month monitoring periods conducted in accordance with § 141.86.

(2) Any water system may be deemed by the State to have optimized corrosion control treatment if the system demonstrates to the satisfaction of the State that it has conducted activities equivalent to the corrosion control steps applicable to such system under this section. If the State makes this determination, it shall provide the system with written notice explaining the basis for its decision and shall specify the water quality control parameters representing optimal corrosion control in accordance with § 141.82(f). Water systems deemed to have optimized corrosion control under this paragraph shall operate in compliance with the State–designated optimal water quality control parameters in accordance with § 141.82(g) and continue to conduct lead and copper tap and water quality parameter sampling in accordance with § 141.86(d)(3) and § 141.87(d), respectively. A system shall provide the State with the following information in order to support a determination under this paragraph:

(i) The results of all test samples collected for each of the water quality parameters in § 141.82(c)(3).

(ii) A report explaining the test methods used by the water system to evaluate the corrosion control treatments listed in § 141.82(c)(1), the results of all tests conducted, and the basis for the system's selection of optimal corrosion control treatment;

(iii) A report explaining how corrosion control has been installed and how it is being maintained to insure minimal lead and copper concentrations at consumers' taps; and

(iv) The results of tap water samples collected in accordance with § 141.86 at least once every six months for one year after corrosion control has been installed.

(3) Any water system is deemed to have optimized corrosion control if it submits results of tap water monitoring conducted in accordance with § 141.86 and source water monitoring conducted in accordance with § 141.88 that demonstrates for two consecutive 6–month monitoring periods that the difference between the 90th percentile tap water lead level computed under § 141.80(c)(3), and the highest source water lead concentration is less than the Practical Quantitation Level for lead specified in § 141.89(a)(1)(ii).

(i) Those systems whose highest source water lead level is below the Method Detection Limit may also be deemed to have optimized corrosion control under this paragraph if the 90th percentile tap water lead level is less than or equal to the Practical Quantitation Level for lead for two consecutive 6–month monitoring periods.

(ii) Any water system deemed to have optimized corrosion control in accordance with this paragraph shall continue monitoring for lead and copper at the tap no less frequently than once every three calendar years using the reduced number of sites specified in § 141.86(c) and collecting the samples at times and locations specified in § 141.86(d)(4)(iv). Any such system that has not conducted a round of monitoring pursuant to § 141.86(d) since September 30, 1997, shall complete a round of monitoring pursuant to this paragraph no later than September 30, 2000.

(iii) Any water system deemed to have optimized corrosion control pursuant to this paragraph shall notify the State in writing pursuant to § 141.90(a)(3) of any upcoming long-term change in treatment or addition of a new source as described in that section. The State must review and approve the addition of a new source or long-term change in water treatment before it is implemented by the water system. The State may require any such system to conduct additional monitoring or to take other action the State deems appropriate to ensure that such systems maintain minimal levels of corrosion in the distribution system.

(iv) As of July 12, 2001, a system is not deemed to have optimized corrosion control under this paragraph, and shall implement corrosion control treatment pursuant to paragraph (b)(3)(v) of this section unless it meets the copper action level.

(v) Any system triggered into corrosion control because it is no longer deemed to have optimized corrosion control under this paragraph shall implement corrosion control treatment in accordance with the deadlines in paragraph

(e) of this section. Any such large system shall adhere to the schedule specified in that paragraph for medium-size systems, with the time periods for completing each step being triggered by the date the system is no longer deemed to have optimized corrosion control under this paragraph.

(c) Any small or medium-size water system that is required to complete the corrosion control steps due to its exceedance of the lead or copper action level may cease completing the treatment steps whenever the system meets both action levels during each of two consecutive monitoring periods conducted pursuant to § 141.86 and submits the results to the State. If any such water system thereafter exceeds the lead or copper action level during any monitoring period, the system (or the State, as the case may be) shall recommence completion of the applicable treatment steps, beginning with the first treatment step which was not previously completed in its entirety. The State may require a system to repeat treatment steps previously completed by the system where the State determines that this is necessary to implement properly the treatment requirements of this section. The State shall notify the system in writing of such a determination and explain the basis for its decision. The requirement for any small- or medium-size system to implement corrosion control treatment steps in accordance with paragraph (e) of this section (including systems deemed to have optimized corrosion control under paragraph (b)(1) of this section) is triggered whenever any small- or medium-size system exceeds the lead or copper action level.

(d) Treatment steps and deadlines for large systems. Except as provided in paragraph (b)(2) and (3) of this section, large systems shall complete the following corrosion control treatment steps (described in the referenced portions of §§ 141.82, 141.86, and 141.87) by the indicated dates.

(1) Step 1: The system shall conduct initial monitoring (§ 141.86(d)(1) and § 141.87(b)) during two consecutive six-month monitoring periods by January 1, 1993.

(2) Step 2: The system shall complete corrosion control studies (§ 141.82(c)) by July 1, 1994.

(3) Step 3: The State shall designate optimal corrosion control treatment (§ 141.82(d)) by January 1, 1995.

(4) Step 4: The system shall install optimal corrosion control treatment (§ 141.82(e)) by January 1, 1997.

(5) Step 5: The system shall complete follow-up sampling (§ 141.86(d)(2) and § 141.87(c)) by January 1, 1998.

(6) Step 6: The State shall review installation of treatment and designate optimal water quality control parameters (§ 141.82(f)) by July 1, 1998.

(7) Step 7: The system shall operate in compliance with the State-specified optimal water quality control parameters (§ 141.82(g)) and continue to conduct tap sampling (§ 141.86(d)(3) and § 141.87(d)).

(e) Treatment Steps and deadlines for small and medium-size systems. Except as provided in paragraph (b) of this section, small and medium-size systems shall complete the following corrosion control treatment steps (described in the referenced portions of §§ 141.82, 141.86 and 141.87) by the indicated time periods.

(1) Step 1: The system shall conduct initial tap sampling (§ 141.86(d)(1) and § 141.87(b)) until the system either exceeds the lead or copper action level or becomes eligible for reduced monitoring under § 141.86(d)(4). A system exceeding the lead or copper action level shall recommend optimal corrosion control treatment (§ 141.82(a)) within six months after the end of the monitoring period during which it exceeds one of the action levels.

(2) Step 2: Within 12 months after the end of the monitoring period during which a system exceeds the lead or copper action level, the State may require the system to perform corrosion control studies (§ 141.82(b)). If the State does not require the system to perform such studies, the State shall specify optimal corrosion control treatment (§ 141.82(d)) within the following timeframes:

(i) For medium-size systems, within 18 months after the end of the monitoring period during which such system exceeds the lead or copper action level.

(ii) For small systems, within 24 months after the end of the monitoring period during which such system exceeds the lead or copper action level.

(3) Step 3: If the State requires a system to perform corrosion control studies under step 2, the system shall complete the studies (§ 141.82(c)) within 18 months after the State requires that such studies be conducted.

(4) Step 4: If the system has performed corrosion control studies under step 2, the State shall designate optimal corrosion control treatment (§ 141.82(d)) within 6 months after completion of step 3.

(5) Step 5: The system shall install optimal corrosion control treatment (§ 141.82(e)) within 24 months after the State designates such treatment.

(6) Step 6: The system shall complete follow-up sampling (§ 141.86(d)(2) and § 141.87(c)) within 36 months after the State designates optimal corrosion control treatment.

(7) Step 7: The State shall review the system's installation of treatment and designate optimal water quality control parameters (§ 141.82(f)) within 6 months after completion of step 6.

(8) Step 8: The system shall operate in compliance with the State-designated optimal water quality control parameters (§ 141.82(g)) and continue to conduct tap sampling (§ 141.86(d)(3) and § 141.87(d)).

Credits

[56 FR 32113, July 15, 1991; 59 FR 33862, June 30, 1994; 65 FR 2004, Jan. 12, 2000; 72 FR 57814, Oct. 10, 2007]

AUTHORITY: 42 U.S.C. 300f, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–4, 300j–9, and 300j–11.

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40 C.F.R. § 141.82

§ 141.82 Description of corrosion control treatment requirements.

Currentness

Each system shall complete the corrosion control treatment requirements described below which are applicable to such system under § 141.81.

(a) System recommendation regarding corrosion control treatment. Based upon the results of lead and copper tap monitoring and water quality parameter monitoring, small and medium-size water systems exceeding the lead or copper action level shall recommend installation of one or more of the corrosion control treatments listed in paragraph (c)(1) of this section which the system believes constitutes optimal corrosion control for that system. The State may require the system to conduct additional water quality parameter monitoring in accordance with § 141.87(b) to assist the State in reviewing the system's recommendation.

(b) State decision to require studies of corrosion control treatment (applicable to small and medium-size systems). The State may require any small or medium-size system that exceeds the lead or copper action level to perform corrosion control studies under paragraph (c) of this section to identify optimal corrosion control treatment for the system.

(c) Performance of corrosion control studies.

(1) Any public water system performing corrosion control studies shall evaluate the effectiveness of each of the following treatments, and, if appropriate, combinations of the following treatments to identify the optimal corrosion control treatment for that system:

(i) Alkalinity and pH adjustment;

(ii) Calcium hardness adjustment; and

(iii) The addition of a phosphate or silicate based corrosion inhibitor at a concentration sufficient to maintain an effective residual concentration in all test tap samples.

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(2) The water system shall evaluate each of the corrosion control treatments using either pipe rig/loop tests, metal coupon tests, partial-system tests, or analyses based on documented analogous treatments with other systems of similar size, water chemistry and distribution system configuration.

(3) The water system shall measure the following water quality parameters in any tests conducted under this paragraph before and after evaluating the corrosion control treatments listed above:

(i) Lead;

(ii) Copper;

(iii) pH;

(iv) Alkalinity;

(v) Calcium;

(vi) Conductivity;

(vii) Orthophosphate (when an inhibitor containing a phosphate compound is used);

(viii) Silicate (when an inhibitor containing a silicate compound is used);

(ix) Water temperature.

(4) The water system shall identify all chemical or physical constraints that limit or prohibit the use of a particular corrosion control treatment and document such constraints with at least one of the following:

(i) Data and documentation showing that a particular corrosion control treatment has adversely affected other water treatment processes when used by another water system with comparable water quality characteristics; and/or

(ii) Data and documentation demonstrating that the water system has previously attempted to evaluate a particular corrosion control treatment and has found that the treatment is ineffective or adversely affects other water quality treatment processes.

(5) The water system shall evaluate the effect of the chemicals used for corrosion control treatment on other water quality treatment processes.

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(6) On the basis of an analysis of the data generated during each evaluation, the water system shall recommend to the State in writing the treatment option that the corrosion control studies indicate constitutes optimal corrosion control treatment for that system. The water system shall provide a rationale for its recommendation along with all supporting documentation specified in paragraphs (c)(1) through (5) of this section.

(d) State designation of optimal corrosion control treatment.

(1) Based upon consideration of available information including, where applicable, studies performed under paragraph (c) of this section and a system's recommended treatment alternative, the State shall either approve the corrosion control treatment option recommended by the system, or designate alternative corrosion control treatment(s) from among those listed in paragraph (c)(1) of this section. When designating optimal treatment the State shall consider the effects that additional corrosion control treatment will have on water quality parameters and on other water quality treatment processes.

(2) The State shall notify the system of its decision on optimal corrosion control treatment in writing and explain the basis for this determination. If the State requests additional information to aid its review, the water system shall provide the information.

(e) Installation of optimal corrosion control. Each system shall properly install and operate throughout its distribution system the optimal corrosion control treatment designated by the State under paragraph (d) of this section.

(f) State review of treatment and specification of optimal water quality control parameters. The State shall evaluate the results of all lead and copper tap samples and water quality parameter samples submitted by the water system and determine whether the system has properly installed and operated the optimal corrosion control treatment designated by the State in paragraph (d) of this section. Upon reviewing the results of tap water and water quality parameter monitoring by the system, both before and after the system installs optimal corrosion control treatment, the State shall designate:

(1) A minimum value or a range of values for pH measured at each entry point to the distribution system;

(2) A minimum pH value, measured in all tap samples. Such value shall be equal to or greater than 7.0, unless the State determines that meeting a pH level of 7.0 is not technologically feasible or is not necessary for the system to optimize corrosion control;

(3) If a corrosion inhibitor is used, a minimum concentration or a range of concentrations for the inhibitor, measured at each entry point to the distribution system and in all tap samples, that the State determines is necessary to form a passivating film on the interior walls of the pipes of the distribution system;

(4) If alkalinity is adjusted as part of optimal corrosion control treatment, a minimum concentration or a range of concentrations for alkalinity, measured at each entry point to the distribution system and in all tap samples;

(5) If calcium carbonate stabilization is used as part of corrosion control, a minimum concentration or a range of concentrations for calcium, measured in all tap samples.

The values for the applicable water quality control parameters listed above shall be those that the State determines to reflect optimal corrosion control treatment for the system. The State may designate values for additional water quality control parameters determined by the State to reflect optimal corrosion control for the system. The State shall notify the system in writing of these determinations and explain the basis for its decisions.

(g) Continued operation and monitoring. All systems optimizing corrosion control shall continue to operate and maintain optimal corrosion control treatment, including maintaining water quality parameters at or above minimum values or within ranges designated by the State under paragraph (f) of this section, in accordance with this paragraph for all samples collected under § 141.87(d) through (f). Compliance with the requirements of this paragraph shall be determined every six months, as specified under § 141.87(d). A water system is out of compliance with the requirements of this paragraph for a six-month period if it has excursions for any State–specified parameter on more than nine days during the period. An excursion occurs whenever the daily value for one or more of the water quality parameters measured at a sampling location is below the minimum value or outside the range designated by the State. Daily values are calculated as follows. States have discretion to delete results of obvious sampling errors from this calculation.

(1) On days when more than one measurement for the water quality parameter is collected at the sampling location, the daily value shall be the average of all results collected during the day regardless of whether they are collected through continuous monitoring, grab sampling, or a combination of both. If EPA has approved an alternative formula under § 142.16 of this chapter in the State's application for a program revision submitted pursuant to § 142.12 of this chapter, the State's formula shall be used to aggregate multiple measurements taken at a sampling point for the water quality parameter in lieu of the formula in this paragraph.

(2) On days when only one measurement for the water quality parameter is collected at the sampling location, the daily value shall be the result of that measurement.

(3) On days when no measurement is collected for the water quality parameter at the sampling location, the daily value shall be the daily value calculated on the most recent day on which the water quality parameter was measured at the sample site.

(h) Modification of State treatment decisions. Upon its own initiative or in response to a request by a water system or other interested party, a State may modify its determination of the optimal corrosion control treatment under paragraph (d) of this section or optimal water quality control parameters under paragraph (f) of this section. A request for modification by a system or other interested party shall be in writing, explain why the modification is appropriate, and provide supporting documentation. The State may modify its determination where it concludes that such change is necessary to ensure that the system continues to optimize corrosion control treatment. A revised determination shall be made in writing, set forth the new treatment requirements, explain the basis for the State's decision, and provide an implementation schedule for completing the treatment modifications.

(i) Treatment decisions by EPA in lieu of the State. Pursuant to the procedures in § 142.19, the EPA Regional Administrator may review treatment determinations made by a State under paragraphs (d), (f), or (h) of this section

and issue federal treatment determinations consistent with the requirements of those paragraphs where the Regional Administrator finds that:

(1) A State has failed to issue a treatment determination by the applicable deadlines contained in § 141.81,

(2) A State has abused its discretion in a substantial number of cases or in cases affecting a substantial population, or

(3) The technical aspects of a State's determination would be indefensible in an expected Federal enforcement action taken against a system.

Credits
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40 C.F.R. § 141.83

§ 141.83 Source water treatment requirements.

Effective: December 10, 2007
Currentness

Systems shall complete the applicable source water monitoring and treatment requirements (described in the referenced portions of paragraph (b) of this section, and in §§ 141.86, and 141.88) by the following deadlines.

(a) Deadlines for completing source water treatment steps—

(1) Step 1: A system exceeding the lead or copper action level shall complete lead and copper source water monitoring (§ 141.88(b)) and make a treatment recommendation to the State (§ 141.83(b)(1)) no later than 180 days after the end of the monitoring period during which the lead or copper action level was exceeded.

(2) Step 2: The State shall make a determination regarding source water treatment (§ 141.83(b)(2)) within 6 months after submission of monitoring results under step 1.

(3) Step 3: If the State requires installation of source water treatment, the system shall install the treatment (§ 141.83(b)(3)) within 24 months after completion of step 2.

(4) Step 4: The system shall complete follow-up tap water monitoring (§ 141.86(d)(2) and source water monitoring (§ 141.88(c)) within 36 months after completion of step 2.

(5) Step 5: The State shall review the system's installation and operation of source water treatment and specify maximum permissible source water levels (§ 141.83(b)(4)) within 6 months after completion of step 4.

(6) Step 6: The system shall operate in compliance with the State-specified maximum permissible lead and copper source water levels (§ 141.83(b)(4)) and continue source water monitoring (§ 141.88(d)).

(b) Description of source water treatment requirements—

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(1) System treatment recommendation. Any system which exceeds the lead or copper action level shall recommend in writing to the State the installation and operation of one of the source water treatments listed in paragraph (b)(2) of this section. A system may recommend that no treatment be installed based upon a demonstration that source water treatment is not necessary to minimize lead and copper levels at users' taps.

(2) State determination regarding source water treatment. The State shall complete an evaluation of the results of all source water samples submitted by the water system to determine whether source water treatment is necessary to minimize lead or copper levels in water delivered to users' taps. If the State determines that treatment is needed, the State shall either require installation and operation of the source water treatment recommended by the system (if any) or require the installation and operation of another source water treatment from among the following: Ion exchange, reverse osmosis, lime softening or coagulation/filtration. If the State requests additional information to aid in its review, the water system shall provide the information by the date specified by the State in its request. The State shall notify the system in writing of its determination and set forth the basis for its decision.

(3) Installation of source water treatment. Each system shall properly install and operate the source water treatment designated by the State under paragraph (b)(2) of this section.

(4) State review of source water treatment and specification of maximum permissible source water levels. The State shall review the source water samples taken by the water system both before and after the system installs source water treatment, and determine whether the system has properly installed and operated the source water treatment designated by the State. Based upon its review, the State shall designate the maximum permissible lead and copper concentrations for finished water entering the distribution system. Such levels shall reflect the contaminant removal capability of the treatment properly operated and maintained. The State shall notify the system in writing and explain the basis for its decision.

(5) Continued operation and maintenance. Each water system shall maintain lead and copper levels below the maximum permissible concentrations designated by the State at each sampling point monitored in accordance with § 141.88. The system is out of compliance with this paragraph if the level of lead or copper at any sampling point is greater than the maximum permissible concentration designated by the State.

(6) Modification of State treatment decisions. Upon its own initiative or in response to a request by a water system or other interested party, a State may modify its determination of the source water treatment under paragraph (b)(2) of this section, or maximum permissible lead and copper concentrations for finished water entering the distribution system under paragraph (b)(4) of this section. A request for modification by a system or other interested party shall be in writing, explain why the modification is appropriate, and provide supporting documentation. The State may modify its determination where it concludes that such change is necessary to ensure that the system continues to minimize lead and copper concentrations in source water. A revised determination shall be made in writing, set forth the new treatment requirements, explain the basis for the State's decision, and provide an implementation schedule for completing the treatment modifications.

(7) Treatment decisions by EPA in lieu of the State. Pursuant to the procedures in § 142.19, the EPA Regional Administrator may review treatment determinations made by a State under paragraphs (b)(2), (4), or (6) of this section and issue Federal treatment determinations consistent with the requirements of those paragraphs where the Administrator finds that:

(i) A State has failed to issue a treatment determination by the applicable deadlines contained in § 141.83(a),

(ii) A state has abused its discretion in a substantial number of cases or in cases affecting a substantial population, or

(iii) The technical aspects of a State's determination would be indefensible in an expected Federal enforcement action taken against a system.

Credits
[56 FR 32113, July 15, 1991; 72 FR 57815, Oct. 10, 2007]

AUTHORITY: 42 U.S.C. 300f, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–4, 300j–9, and 300j–11.

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40 C.F.R. § 141.84

§ 141.84 Lead service line replacement requirements.

Effective: December 10, 2007
Currentness

(a) Systems that fail to meet the lead action level in tap samples taken pursuant to § 141.86(d)(2), after installing corrosion control and/or source water treatment (whichever sampling occurs later), shall replace lead service lines in accordance with the requirements of this section. If a system is in violation of § 141.81 or § 141.83 for failure to install source water or corrosion control treatment, the State may require the system to commence lead service line replacement under this section after the date by which the system was required to conduct monitoring under § 141.86(d)(2) has passed.

(b)(1) A water system shall replace annually at least 7 percent of the initial number of lead service lines in its distribution system. The initial number of lead service lines is the number of lead lines in place at the time the replacement program begins. The system shall identify the initial number of lead service lines in its distribution system, including an identification of the portion(s) owned by the system, based on a materials evaluation, including the evaluation required under § 141.86(a) and relevant legal authorities (e.g., contracts, local ordinances) regarding the portion owned by the system. The first year of lead service line replacement shall begin on the first day following the end of the monitoring period in which the action level was exceeded under paragraph (a) of this section. If monitoring is required annually or less frequently, the end of the monitoring period is September 30 of the calendar year in which the sampling occurs. If the State has established an alternate monitoring period, then the end of the monitoring period will be the last day of that period.

(2) Any water system resuming a lead service line replacement program after the cessation of its lead service line replacement program as allowed by paragraph (f) of this section shall update its inventory of lead service lines to include those sites that were previously determined not to require replacement through the sampling provision under paragraph (c) of this section. The system will then divide the updated number of remaining lead service lines by the number of remaining years in the program to determine the number of lines that must be replaced per year (7 percent lead service line replacement is based on a 15–year replacement program, so, for example, systems resuming lead service line replacement after previously conducting two years of replacement would divide the updated inventory by 13). For those systems that have completed a 15–year lead service line replacement program, the State will determine a schedule for replacing or retesting lines that were previously tested out under the replacement program when the system re-exceeds the action level.

(c) A system is not required to replace an individual lead service line if the lead concentration in all service line samples from that line, taken pursuant to § 141.86(b)(3), is less than or equal to 0.015 mg/L.

(d) A water system shall replace that portion of the lead service line that it owns. In cases where the system does not own the entire lead service line, the system shall notify the owner of the line, or the owner's authorized agent, that the system will replace the portion of the service line that it owns and shall offer to replace the owner's portion of the line. A system is not required to bear the cost of replacing the privately-owned portion of the line, nor is it required to replace the privately-owned portion where the owner chooses not to pay the cost of replacing the privately-owned portion of the line, or where replacing the privately-owned portion would be precluded by State, local or common law. A water system that does not replace the entire length of the service line also shall complete the following tasks.

(1) At least 45 days prior to commencing with the partial replacement of a lead service line, the water system shall provide notice to the resident(s) of all buildings served by the line explaining that they may experience a temporary increase of lead levels in their drinking water, along with guidance on measures consumers can take to minimize their exposure to lead. The State may allow the water system to provide notice under the previous sentence less than 45 days prior to commencing partial lead service line replacement where such replacement is in conjunction with emergency repairs. In addition, the water system shall inform the resident(s) served by the line that the system will, at the system's expense, collect a sample from each partially-replaced lead service line that is representative of the water in the service line for analysis of lead content, as prescribed under § 141.86(b)(3), within 72 hours after the completion of the partial replacement of the service line. The system shall collect the sample and report the results of the analysis to the owner and the resident(s) served by the line within three business days of receiving the results. Mailed notices post-marked within three business days of receiving the results shall be considered "on time."

(2) The water system shall provide the information required by paragraph (d)(1) of this section to the residents of individual dwellings by mail or by other methods approved by the State. In instances where multi-family dwellings are served by the line, the water system shall have the option to post the information at a conspicuous location.

(e) The State shall require a system to replace lead service lines on a shorter schedule than that required by this section, taking into account the number of lead service lines in the system, where such a shorter replacement schedule is feasible. The State shall make this determination in writing and notify the system of its finding within 6 months after the system is triggered into lead service line replacement based on monitoring referenced in paragraph (a) of this section.

(f) Any system may cease replacing lead service lines whenever first draw samples collected pursuant to § 141.86(b)(2) meet the lead action level during each of two consecutive monitoring periods and the system submits the results to the State. If first draw tap samples collected in any such system thereafter exceeds the lead action level, the system shall recommence replacing lead service lines pursuant to paragraph (b)(2) of this section.

(g) To demonstrate compliance with paragraphs (a) through (d) of this section, a system shall report to the State the information specified in § 141.90(e).

Credits

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Notes of Decisions (4)

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40 C.F.R. § 141.85

§ 141.85 Public education and supplemental monitoring requirements.

Effective: December 10, 2007
Currentness

All water systems must deliver a consumer notice of lead tap water monitoring results to persons served by the water system at sites that are tested, as specified in paragraph (d) of this section. A water system that exceeds the lead action level based on tap water samples collected in accordance with § 141.86 shall deliver the public education materials contained in paragraph (a) of this section in accordance with the requirements in paragraph (b) of this section. Water systems that exceed the lead action level must sample the tap water of any customer who requests it in accordance with paragraph (c) of this section.

(a) Content of written public education materials—

(1) Community water systems and non-transient non-community water systems. Water systems must include the following elements in printed materials (e.g., brochures and pamphlets) in the same order as listed below. In addition, language in paragraphs (a)(1)(i) through (ii) and (a)(1)(vi) of this section must be included in the materials, exactly as written, except for the text in brackets in these paragraphs for which the water system must include system-specific information. Any additional information presented by a water system must be consistent with the information below and be in plain language that can be understood by the general public. Water systems must submit all written public education materials to the State prior to delivery. The State may require the system to obtain approval of the content of written public materials prior to delivery.

(i) IMPORTANT INFORMATION ABOUT LEAD IN YOUR DRINKING WATER. [INSERT NAME OF WATER SYSTEM] found elevated levels of lead in drinking water in some homes/buildings. Lead can cause serious health problems, especially for pregnant women and young children. Please read this information closely to see what you can do to reduce lead in your drinking water.

(ii) Health effects of lead. Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development.

(iii) Sources of Lead.

(A) Explain what lead is.

(B) Explain possible sources of lead in drinking water and how lead enters drinking water. Include information on home/building plumbing materials and service lines that may contain lead.

(C) Discuss other important sources of lead exposure in addition to drinking water (e.g., paint).

(iv) Discuss the steps the consumer can take to reduce their exposure to lead in drinking water.

(A) Encourage running the water to flush out the lead.

(B) Explain concerns with using hot water from the tap and specifically caution against the use of hot water for preparing baby formula.

(C) Explain that boiling water does not reduce lead levels.

(D) Discuss other options consumers can take to reduce exposure to lead in drinking water, such as alternative sources or treatment of water.

(E) Suggest that parents have their child's blood tested for lead.

(v) Explain why there are elevated levels of lead in the system's drinking water (if known) and what the water system is doing to reduce the lead levels in homes/buildings in this area.

(vi) For more information, call us at [INSERT YOUR NUMBER] [(IF APPLICABLE), or visit our Web site at [INSERT YOUR WEB SITE HERE]]. For more information on reducing lead exposure around your home/building and the health effects of lead, visit EPA's Web site at http://www.epa.gov/lead or contact your health care provider.

(2) Community water systems. In addition to including the elements specified in paragraph (a)(1) of this section, community water systems must:

(i) Tell consumers how to get their water tested.

(ii) Discuss lead in plumbing components and the difference between low lead and lead free.

(b) Delivery of public education materials.

(1) For public water systems serving a large proportion of non–English speaking consumers, as determined by the State, the public education materials must contain information in the appropriate language(s) regarding the importance of the notice or contain a telephone number or address where persons served may contact the water system to obtain a translated copy of the public education materials or to request assistance in the appropriate language.

(2) A community water system that exceeds the lead action level on the basis of tap water samples collected in accordance with § 141.86, and that is not already conducting public education tasks under this section, must conduct the public education tasks under this section within 60 days after the end of the monitoring period in which the exceedance occurred:

(i) Deliver printed materials meeting the content requirements of paragraph (a) of this section to all bill paying customers.

(ii)(A) Contact customers who are most at risk by delivering education materials that meet the content requirements of paragraph (a) of this section to local public health agencies even if they are not located within the water system's service area, along with an informational notice that encourages distribution to all the organization's potentially affected customers or community water system's users. The water system must contact the local public health agencies directly by phone or in person. The local public health agencies may provide a specific list of additional community based organizations serving target populations, which may include organizations outside the service area of the water system. If such lists are provided, systems must deliver education materials that meet the content requirements of paragraph (a) of this section to all organizations on the provided lists.

(B) Contact customers who are most at risk by delivering materials that meet the content requirements of paragraph (a) of this section to the following organizations listed in 1 through 6 that are located within the water system's service area, along with an informational notice that encourages distribution to all the organization's potentially affected customers or community water system's users:

(1) Public and private schools or school boards.

(2) Women, Infants and Children (WIC) and Head Start programs.

(3) Public and private hospitals and medical clinics.

(4) Pediatricians.

(5) Family planning clinics.

(6) Local welfare agencies.

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(C) Make a good faith effort to locate the following organizations within the service area and deliver materials that meet the content requirements of paragraph (a) of this section to them, along with an informational notice that encourages distribution to all potentially affected customers or users. The good faith effort to contact at-risk customers may include requesting a specific contact list of these organizations from the local public health agencies, even if the agencies are not located within the water system's service area:

(1) Licensed childcare centers

(2) Public and private preschools.

(3) Obstetricians–Gynecologists and Midwives.

(iii) No less often than quarterly, provide information on or in each water bill as long as the system exceeds the action level for lead. The message on the water bill must include the following statement exactly as written except for the text in brackets for which the water system must include system-specific information: [INSERT NAME OF WATER SYSTEM] found high levels of lead in drinking water in some homes. Lead can cause serious health problems. For more information please call [INSERT NAME OF WATER SYSTEM] [or visit (INSERT YOUR WEB SITE HERE)]. The message or delivery mechanism can be modified in consultation with the State; specifically, the State may allow a separate mailing of public education materials to customers if the water system cannot place the information on water bills.

(iv) Post material meeting the content requirements of paragraph (a) of this section on the water system's Web site if the system serves a population greater than 100,000.

(v) Submit a press release to newspaper, television and radio stations.

(vi) In addition to paragraphs (b)(2)(i) through (v) of this section, systems must implement at least three activities from one or more categories listed below. The educational content and selection of these activities must be determined in consultation with the State.

(A) Public Service Announcements.

(B) Paid advertisements.

(C) Public Area Information Displays.

(D) E–mails to customers.

(E) Public Meetings.

(F) Household Deliveries.

(G) Targeted Individual Customer Contact.

(H) Direct material distribution to all multi-family homes and institutions.

(I) Other methods approved by the State.

(vii) For systems that are required to conduct monitoring annually or less frequently, the end of the monitoring period is September 30 of the calendar year in which the sampling occurs, or, if the State has established an alternate monitoring period, the last day of that period.

(3) As long as a community water system exceeds the action level, it must repeat the activities pursuant to paragraph (b)(2) of this section as described in paragraphs (b)(3)(i) through (iv) of this section.

(i) A community water system shall repeat the tasks contained in paragraphs (b)(2)(i), (ii) and (vi) of this section every 12 months.

(ii) A community water system shall repeat tasks contained in paragraph (b)(2)(iii) of this section with each billing cycle.

(iii) A community water system serving a population greater than 100,000 shall post and retain material on a publicly accessible Web site pursuant to paragraph (b)(2)(iv) of this section.

(iv) The community water system shall repeat the task in paragraph (b)(2)(v) of this section twice every 12 months on a schedule agreed upon with the State. The State can allow activities in paragraph (b)(2) of this section to extend beyond the 60–day requirement if needed for implementation purposes on a case-by-case basis; however, this extension must be approved in writing by the State in advance of the 60–day deadline.

(4) Within 60 days after the end of the monitoring period in which the exceedance occurred (unless it already is repeating public education tasks pursuant to paragraph (b)(5) of this section), a non-transient non-community water system shall deliver the public education materials specified by paragraph (a) of this section as follows:

(i) Post informational posters on lead in drinking water in a public place or common area in each of the buildings served by the system; and

(ii) Distribute informational pamphlets and/or brochures on lead in drinking water to each person served by the non-transient non-community water system. The State may allow the system to utilize electronic transmission in lieu of or combined with printed materials as long as it achieves at least the same coverage.

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(iii) For systems that are required to conduct monitoring annually or less frequently, the end of the monitoring period is September 30 of the calendar year in which the sampling occurs, or, if the State has established an alternate monitoring period, the last day of that period.

(5) A non-transient non-community water system shall repeat the tasks contained in paragraph (b)(4) of this section at least once during each calendar year in which the system exceeds the lead action level. The State can allow activities in (b)(4) of this section to extend beyond the 60–day requirement if needed for implementation purposes on a case-by-case basis; however, this extension must be approved in writing by the State in advance of the 60–day deadline.

(6) A water system may discontinue delivery of public education materials if the system has met the lead action level during the most recent six-month monitoring period conducted pursuant to § 141.86. Such a system shall recommence public education in accordance with this section if it subsequently exceeds the lead action level during any monitoring period.

(7) A community water system may apply to the State, in writing (unless the State has waived the requirement for prior State approval), to use only the text specified in paragraph (a)(1) of this section in lieu of the text in paragraphs (a)(1) and (a)(2) of this section and to perform the tasks listed in paragraphs (b)(4) and (b)(5) of this section in lieu of the tasks in paragraphs (b)(2) and (b)(3) of this section if:

(i) The system is a facility, such as a prison or a hospital, where the population served is not capable of or is prevented from making improvements to plumbing or installing point of use treatment devices; and

(ii) The system provides water as part of the cost of services provided and does not separately charge for water consumption.

(8) A community water system serving 3,300 or fewer people may limit certain aspects of their public education programs as follows:

(i) With respect to the requirements of paragraph (b)(2)(vi) of this section, a system serving 3,300 or fewer must implement at least one of the activities listed in that paragraph.

(ii) With respect to the requirements of paragraph (b)(2)(ii) of this section, a system serving 3,300 or fewer people may limit the distribution of the public education materials required under that paragraph to facilities and organizations served by the system that are most likely to be visited regularly by pregnant women and children.

(iii) With respect to the requirements of paragraph (b)(2)(v) of this section, the State may waive this requirement for systems serving 3,300 or fewer persons as long as system distributes notices to every household served by the system.

(c) Supplemental monitoring and notification of results. A water system that fails to meet the lead action level on the basis of tap samples collected in accordance with § 141.86 shall offer to sample the tap water of any customer who requests

it. The system is not required to pay for collecting or analyzing the sample, nor is the system required to collect and analyze the sample itself.

(d) Notification of results—

(1) Reporting requirement. All water systems must provide a notice of the individual tap results from lead tap water monitoring carried out under the requirements of § 141.86 to the persons served by the water system at the specific sampling site from which the sample was taken (e.g., the occupants of the residence where the tap was tested).

(2) Timing of notification. A water system must provide the consumer notice as soon as practical, but no later than 30 days after the system learns of the tap monitoring results.

(3) Content. The consumer notice must include the results of lead tap water monitoring for the tap that was tested, an explanation of the health effects of lead, list steps consumers can take to reduce exposure to lead in drinking water and contact information for the water utility. The notice must also provide the maximum contaminant level goal and the action level for lead and the definitions for these two terms from § 141.153(c).

(4) Delivery. The consumer notice must be provided to persons served at the tap that was tested, either by mail or by another method approved by the State. For example, upon approval by the State, a non-transient non-community water system could post the results on a bulletin board in the facility to allow users to review the information. The system must provide the notice to customers at sample taps tested, including consumers who do not receive water bills.

Credits

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40 C.F.R. § 141.86

§ 141.86 Monitoring requirements for lead and copper in tap water.

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Currentness

(a) Sample site location.

(1) By the applicable date for commencement of monitoring under paragraph (d)(1) of this section, each water system shall complete a materials evaluation of its distribution system in order to identify a pool of targeted sampling sites that meets the requirements of this section, and which is sufficiently large to ensure that the water system can collect the number of lead and copper tap samples required in paragraph (c) of this section. All sites from which first draw samples are collected shall be selected from this pool of targeted sampling sites. Sampling sites may not include faucets that have point-of-use or point-of-entry treatment devices designed to remove inorganic contaminants.

(2) A water system shall use the information on lead, copper, and galvanized steel that it is required to collect under § 141.42(d) of this part [special monitoring for corrosivity characteristics] when conducting a materials evaluation. When an evaluation of the information collected pursuant to § 141.42(d) is insufficient to locate the requisite number of lead and copper sampling sites that meet the targeting criteria in paragraph (a) of this section, the water system shall review the sources of information listed below in order to identify a sufficient number of sampling sites. In addition, the system shall seek to collect such information where possible in the course of its normal operations (e.g., checking service line materials when reading water meters or performing maintenance activities):

(i) All plumbing codes, permits, and records in the files of the building department(s) which indicate the plumbing materials that are installed within publicly and privately owned structures connected to the distribution system;

(ii) All inspections and records of the distribution system that indicate the material composition of the service connections that connect a structure to the distribution system; and

(iii) All existing water quality information, which includes the results of all prior analyses of the system or individual structures connected to the system, indicating locations that may be particularly susceptible to high lead or copper concentrations.

(3) The sampling sites selected for a community water system's sampling pool ("tier l sampling sites") shall consist of single family structures that:

(i) Contain copper pipes with lead solder installed after 1982 or contain lead pipes; and/or

(ii) Are served by a lead service line. When multiple-family residences comprise at least 20 percent of the structures served by a water system, the system may include these types of structures in its sampling pool.

(4) Any community water system with insufficient tier 1 sampling sites shall complete its sampling pool with "tier 2 sampling sites", consisting of buildings, including multiple-family residences that:

(i) Contain copper pipes with lead solder installed after 1982 or contain lead pipes; and/or

(ii) Are served by a lead service line.

(5) Any community water system with insufficient tier 1 and tier 2 sampling sites shall complete its sampling pool with "tier 3 sampling sites", consisting of single family structures that contain copper pipes with lead solder installed before 1983. A community water system with insufficient tier 1, tier 2, and tier 3 sampling sites shall complete its sampling pool with representative sites throughout the distribution system. For the purpose of this paragraph, a representative site is a site in which the plumbing materials used at that site would be commonly found at other sites served by the water system.

(6) The sampling sites selected for a non-transient noncommunity water system ("tier l sampling sites") shall consist of buildings that:

(i) Contain copper pipes with lead solder installed after 1982 or contain lead pipes; and/or

(ii) Are served by a lead service line.

(7) A non-transient non-community water system with insufficient tier 1 sites that meet the targeting criteria in paragraph (a)(6) of this section shall complete its sampling pool with sampling sites that contain copper pipes with lead solder installed before 1983. If additional sites are needed to complete the sampling pool, the non-transient non-community water system shall use representative sites throughout the distribution system. For the purpose of this paragraph, a representative site is a site in which the plumbing materials used at that site would be commonly found at other sites served by the water system.

(8) Any water system whose distribution system contains lead service lines shall draw 50 percent of the samples it collects during each monitoring period from sites that contain lead pipes, or copper pipes with lead solder, and 50 percent of the samples from sites served by a lead service line. A water system that cannot identify a sufficient number of sampling sites served by a lead service line shall collect first-draw samples from all of the sites identified as being served by such lines.

(b) Sample collection methods.

(1) All tap samples for lead and copper collected in accordance with this subpart, with the exception of lead service line samples collected under § 141.84(c) and samples collected under paragraph (b)(5) of this section, shall be first-draw samples.

(2) Each first-draw tap sample for lead and copper shall be one liter in volume and have stood motionless in the plumbing system of each sampling site for at least six hours. First-draw samples from residential housing shall be collected from the cold water kitchen tap or bathroom sink tap. First-draw samples from a nonresidential building shall be one liter in volume and shall be collected at an interior tap from which water is typically drawn for consumption. Non-first-draw samples collected in lieu of first-draw samples pursuant to paragraph (b)(5) of this section shall be one liter in volume and shall be collected at an interior tap from which water is typically drawn for consumption. First-draw samples may be collected by the system or the system may allow residents to collect first-draw samples after instructing the residents of the sampling procedures specified in this paragraph. To avoid problems of residents handling nitric acid, acidification of first-draw samples may be done up to 14 days after the sample is collected. After acidification to resolubilize the metals, the sample must stand in the original container for the time specified in the approved EPA method before the sample can be analyzed. If a system allows residents to perform sampling, the system may not challenge, based on alleged errors in sample collection, the accuracy of sampling results.

(3) Each service line sample shall be one liter in volume and have stood motionless in the lead service line for at least six hours. Lead service line samples shall be collected in one of the following three ways:

(i) At the tap after flushing the volume of water between the tap and the lead service line. The volume of water shall be calculated based on the interior diameter and length of the pipe between the tap and the lead service line;

(ii) Tapping directly into the lead service line; or

(iii) If the sampling site is a building constructed as a single-family residence, allowing the water to run until there is a significant change in temperature which would be indicative of water that has been standing in the lead service line.

(4) A water system shall collect each first draw tap sample from the same sampling site from which it collected a previous sample. If, for any reason, the water system cannot gain entry to a sampling site in order to collect a follow-up tap sample, the system may collect the follow-up tap sample from another sampling site in its sampling pool as long as the new site meets the same targeting criteria, and is within reasonable proximity of the original site.

(5) A non-transient non-community water system, or a community water system that meets the criteria of § 141.85(b)(7), that does not have enough taps that can supply first-draw samples, as defined in § 141.2, may apply to the State in writing to substitute non-first-draw samples. Such systems must collect as many first-draw samples from appropriate taps as possible and identify sampling times and locations that would likely result in the longest standing time for the remaining sites. The State has the discretion to waive the requirement for prior State approval of non-first-draw sample sites selected by the system, either through State regulation or written notification to the system.

(c) Number of samples. Water systems shall collect at least one sample during each monitoring period specified in paragraph (d) of this section from the number of sites listed in the first column ("standard monitoring") of the table in

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this paragraph. A system conducting reduced monitoring under paragraph (d)(4) of this section shall collect at least one sample from the number of sites specified in the second column ("reduced monitoring") of the table in this paragraph during each monitoring period specified in paragraph (d)(4) of this section. Such reduced monitoring sites shall be representative of the sites required for standard monitoring. A public water system that has fewer than five drinking water taps, that can be used for human consumption meeting the sample site criteria of paragraph (a) of this section to reach the required number of sample sites listed in paragraph (c) of this section, must collect at least one sample from each tap and then must collect additional samples from those taps on different days during the monitoring period to meet the required number of sites. Alternatively the State may allow these public water systems to collect a number of samples less than the number of sites specified in paragraph (c) of this section, provided that 100 percent of all taps that can be used for human consumption are sampled. The State must approve this reduction of the minimum number of samples in writing based on a request from the system or onsite verification by the State. States may specify sampling locations when a system is conducting reduced monitoring. The table is as follows:

System size (number of people served)	Number of sites (standard monitoring)	Number of sites (reduced monitoring)
>100,000	100	50
10,001 to 100,000	60	30
3,301 to 10,000	40	20
501 to 3,300	20	10
101 to 500	10	5
≤100	5	5

(d) Timing of monitoring—

(1) Initial tap sampling.

The first six-month monitoring period for small, medium-size and large systems shall begin on the following dates:

System size (No. people served)	First six-month monitoring period begins on
>50,000	January 1, 1992.
3,301 to 50,000	July 1, 1992.
≤3,300	July 1, 1993.

(i) All large systems shall monitor during two consecutive six-month periods.

(ii) All small and medium-size systems shall monitor during each six-month monitoring period until:

(A) The system exceeds the lead or copper action level and is therefore required to implement the corrosion control treatment requirements under § 141.81, in which case the system shall continue monitoring in accordance with paragraph (d)(2) of this section, or

(B) The system meets the lead and copper action levels during two consecutive six-month monitoring periods, in which case the system may reduce monitoring in accordance with paragraph (d)(4) of this section.

(2) Monitoring after installation of corrosion control and source water treatment.

(i) Any large system which installs optimal corrosion control treatment pursuant to § 141.81(d)(4) shall monitor during two consecutive six-month monitoring periods by the date specified in § 141.81(d)(5).

(ii) Any small or medium-size system which installs optimal corrosion control treatment pursuant to § 141.81(e)(5) shall monitor during two consecutive six-month monitoring periods by the date specified in § 141.81(e)(6).

(iii) Any system which installs source water treatment pursuant to § 141.83(a)(3) shall monitor during two consecutive six-month monitoring periods by the date specified in § 141.83(a)(4).

(3) Monitoring after State specifies water quality parameter values for optimal corrosion control. After the State specifies the values for water quality control parameters under § 141.82(f), the system shall monitor during each subsequent six-month monitoring period, with the first monitoring period to begin on the date the State specifies the optimal values under § 141.82(f).

(4) Reduced monitoring.

(i) A small or medium-size water system that meets the lead and copper action levels during each of two consecutive six-month monitoring periods may reduce the number of samples in accordance with paragraph (c) of this section, and reduce the frequency of sampling to once per year. A small or medium water system collecting fewer than five samples as specified in paragraph (c) of this section, that meets the lead and copper action levels during each of two consecutive six-month monitoring periods may reduce the frequency of sampling to once per year. In no case can the system reduce the number of samples required below the minimum of one sample per available tap. This sampling shall begin during the calendar year immediately following the end of the second consecutive six-month monitoring period.

(ii) Any water system that meets the lead action level and maintains the range of values for the water quality control parameters reflecting optimal corrosion control treatment specified by the State under § 141.82(f) during each of two consecutive six-month monitoring periods may reduce the frequency of monitoring to once per year and reduce the number of lead and copper samples in accordance with paragraph (c) of this section if it receives written approval from the State. This sampling shall begin during the calendar year immediately following the end of the second consecutive six-month monitoring period. The State shall review monitoring, treatment, and other relevant information submitted by the water system in accordance with § 141.90, and shall notify the system in writing when it determines the system is eligible to commence reduced monitoring pursuant to this paragraph. The State shall

review, and where appropriate, revise its determination when the system submits new monitoring or treatment data, or when other data relevant to the number and frequency of tap sampling becomes available.

(iii) A small or medium-size water system that meets the lead and copper action levels during three consecutive years of monitoring may reduce the frequency of monitoring for lead and copper from annually to once every three years. Any water system that meets the lead action level and maintains the range of values for the water quality control parameters reflecting optimal corrosion control treatment specified by the State under § 141.82(f) during three consecutive years of monitoring may reduce the frequency of monitoring from annually to once every three years if it receives written approval from the State. Samples collected once every three years shall be collected no later than every third calendar year. The State shall review monitoring, treatment, and other relevant information submitted by the water system in accordance with § 141.90, and shall notify the system in writing when it determines the system is eligible to reduce the frequency of monitoring to once every three years. The State shall review, and where appropriate, revise its determination when the system submits new monitoring or treatment data, or when other data relevant to the number and frequency of tap sampling becomes available.

(iv) A water system that reduces the number and frequency of sampling shall collect these samples from representative sites included in the pool of targeted sampling sites identified in paragraph (a) of this section. Systems sampling annually or less frequently shall conduct the lead and copper tap sampling during the months of June, July, August, or September unless the State has approved a different sampling period in accordance with paragraph (d)(4)(iv)(A) of this section.

(A) The State, at its discretion, may approve a different period for conducting the lead and copper tap sampling for systems collecting a reduced number of samples. Such a period shall be no longer than four consecutive months and must represent a time of normal operation where the highest levels of lead are most likely to occur. For a non-transient non-community water system that does not operate during the months of June through September, and for which the period of normal operation where the highest levels of lead are most likely to occur is not known, the State shall designate a period that represents a time of normal operation for the system. This sampling shall begin during the period approved or designated by the State in the calendar year immediately following the end of the second consecutive six-month monitoring period for systems initiating annual monitoring and during the three-year period following the end of the third consecutive calendar year of annual monitoring for systems initiating triennial monitoring.

(B) Systems monitoring annually, that have been collecting samples during the months of June through September and that receive State approval to alter their sample collection period under paragraph (d)(4)(iv)(A) of this section, must collect their next round of samples during a time period that ends no later than 21 months after the previous round of sampling. Systems monitoring triennially that have been collecting samples during the months of June through September, and receive State approval to alter the sampling collection period as per paragraph (d)(4)(iv)(A) of this section, must collect their next round of samples during a time period that ends no later than 45 months after the previous round of sampling. Subsequent rounds of sampling must be collected annually or triennially, as required by this section. Small systems with waivers, granted pursuant to paragraph (g) of this section, that have been collecting samples during the months of June through September and receive State approval to alter their sample collection period under paragraph (d)(4)(iv)(A) of this section must collect their next round of samples before the end of the 9–year period.

(v) Any water system that demonstrates for two consecutive 6–month monitoring periods that the tap water lead level computed under § 141.80(c)(3) is less than or equal to 0.005 mg/L and the tap water copper level computed under

§ 141.80(c)(3) is less than or equal to 0.65 mg/L may reduce the number of samples in accordance with paragraph (c) of this section and reduce the frequency of sampling to once every three calendar years.

(vi)(A) A small or medium-size water system subject to reduced monitoring that exceeds the lead or copper action level shall resume sampling in accordance with paragraph (d)(3) of this section and collect the number of samples specified for standard monitoring under paragraph (c) of this section. Such a system shall also conduct water quality parameter monitoring in accordance with § 141.87(b), (c) or (d) (as appropriate) during the monitoring period in which it exceeded the action level. Any such system may resume annual monitoring for lead and copper at the tap at the reduced number of sites specified in paragraph (c) of this section after it has completed two subsequent consecutive six-month rounds of monitoring that meet the criteria of paragraph (d)(4)(i) of this section and/or may resume triennial monitoring for lead and copper at the reduced number of sites after it demonstrates through subsequent rounds of monitoring that it meets the criteria of either paragraph (d)(4)(iii) or (d)(4)(v) of this section.

(B) Any water system subject to the reduced monitoring frequency that fails to meet the lead action level during any four-month monitoring period or that fails to operate at or above the minimum value or within the range of values for the water quality parameters specified by the State under § 141.82(f) for more than nine days in any six-month period specified in § 141.87(d) shall conduct tap water sampling for lead and copper at the frequency specified in paragraph (d)(3) of this section, collect the number of samples specified for standard monitoring under paragraph (c) of this section, and shall resume monitoring for water quality parameters within the distribution system in accordance with § 141.87(d). This standard tap water sampling shall begin no later than the six-month period beginning January 1 of the calendar year following the lead action level exceedance or water quality parameter excursion. Such a system may resume reduced monitoring for lead and copper at the tap and for water quality parameters within the distribution system under the following conditions:

(1) The system may resume annual monitoring for lead and copper at the tap at the reduced number of sites specified in paragraph (c) of this section after it has completed two subsequent six-month rounds of monitoring that meet the criteria of paragraph (d)(4)(ii) of this section and the system has received written approval from the State that it is appropriate to resume reduced monitoring on an annual frequency. This sampling shall begin during the calendar year immediately following the end of the second consecutive six-month monitoring period.

(2) The system may resume triennial monitoring for lead and copper at the tap at the reduced number of sites after it demonstrates through subsequent rounds of monitoring that it meets the criteria of either paragraph (d)(4)(iii) or (d)(4)(v) of this section and the system has received written approval from the State that it is appropriate to resume triennial monitoring.

(3) The system may reduce the number of water quality parameter tap water samples required in accordance with § 141.87(e)(1) and the frequency with which it collects such samples in accordance with § 141.87(e)(2). Such a system may not resume triennial monitoring for water quality parameters at the tap until it demonstrates, in accordance with the requirements of § 141.87(e)(2), that it has re-qualified for triennial monitoring.

(vii) Any water system subject to a reduced monitoring frequency under paragraph (d)(4) of this section shall notify the State in writing in accordance with § 141.90(a)(3) of any upcoming long-term change in treatment or addition of

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a new source as described in that section. The State must review and approve the addition of a new source or long-term change in water treatment before it is implemented by the water system. The State may require the system to resume sampling in accordance with paragraph (d)(3) of this section and collect the number of samples specified for standard monitoring under paragraph (c) of this section or take other appropriate steps such as increased water quality parameter monitoring or re-evaluation of its corrosion control treatment given the potentially different water quality considerations.

(e) Additional monitoring by systems. The results of any monitoring conducted in addition to the minimum requirements of this section shall be considered by the system and the State in making any determinations (i.e., calculating the 90th percentile lead or copper level) under this subpart.

(f) Invalidation of lead or copper tap water samples. A sample invalidated under this paragraph does not count toward determining lead or copper 90th percentile levels under § 141.80(c)(3) or toward meeting the minimum monitoring requirements of paragraph (c) of this section.

(1) The State may invalidate a lead or copper tap water sample at least if one of the following conditions is met.

(i) The laboratory establishes that improper sample analysis caused erroneous results.

(ii) The State determines that the sample was taken from a site that did not meet the site selection criteria of this section.

(iii) The sample container was damaged in transit.

(iv) There is substantial reason to believe that the sample was subject to tampering.

(2) The system must report the results of all samples to the State and all supporting documentation for samples the system believes should be invalidated.

(3) To invalidate a sample under paragraph (f)(1) of this section, the decision and the rationale for the decision must be documented in writing. States may not invalidate a sample solely on the grounds that a follow-up sample result is higher or lower than that of the original sample.

(4) The water system must collect replacement samples for any samples invalidated under this section if, after the invalidation of one or more samples, the system has too few samples to meet the minimum requirements of paragraph (c) of this section. Any such replacement samples must be taken as soon as possible, but no later than 20 days after the date the State invalidates the sample or by the end of the applicable monitoring period, whichever occurs later. Replacement samples taken after the end of the applicable monitoring period shall not also be used to meet the monitoring requirements of a subsequent monitoring period. The replacement samples shall be taken at the same locations as the invalidated samples or, if that is not possible, at locations other than those already used for sampling during the monitoring period.

(g) Monitoring waivers for small systems. Any small system that meets the criteria of this paragraph may apply to the State to reduce the frequency of monitoring for lead and copper under this section to once every nine years (i.e., a "full waiver") if it meets all of the materials criteria specified in paragraph (g)(1) of this section and all of the monitoring criteria specified in paragraph (g)(2) of this section. If State regulations permit, any small system that meets the criteria in paragraphs (g)(1) and (2) of this section only for lead, or only for copper, may apply to the State for a waiver to reduce the frequency of tap water monitoring to once every nine years for that contaminant only (i.e., a "partial waiver").

(1) Materials criteria. The system must demonstrate that its distribution system and service lines and all drinking water supply plumbing, including plumbing conveying drinking water within all residences and buildings connected to the system, are free of lead-containing materials and/or copper-containing materials, as those terms are defined in this paragraph, as follows:

(i) Lead. To qualify for a full waiver, or a waiver of the tap water monitoring requirements for lead (i.e., a "lead waiver"), the water system must provide certification and supporting documentation to the State that the system is free of all lead-containing materials, as follows:

(A) It contains no plastic pipes which contain lead plasticizers, or plastic service lines which contain lead plasticizers; and

(B) It is free of lead service lines, lead pipes, lead soldered pipe joints, and leaded brass or bronze alloy fittings and fixtures, unless such fittings and fixtures meet the specifications of any standard established pursuant to 42 U.S.C. 300g–6(e) (SDWA section 1417(e)).

(ii) Copper. To qualify for a full waiver, or a waiver of the tap water monitoring requirements for copper (i.e., a "copper waiver"), the water system must provide certification and supporting documentation to the State that the system contains no copper pipes or copper service lines.

(2) Monitoring criteria for waiver issuance. The system must have completed at least one 6–month round of standard tap water monitoring for lead and copper at sites approved by the State and from the number of sites required by paragraph (c) of this section and demonstrate that the 90th percentile levels for any and all rounds of monitoring conducted since the system became free of all lead-containing and/or copper-containing materials, as appropriate, meet the following criteria.

(i) Lead levels. To qualify for a full waiver, or a lead waiver, the system must demonstrate that the 90th percentile lead level does not exceed 0.005 mg/L.

(ii) Copper levels. To qualify for a full waiver, or a copper waiver, the system must demonstrate that the 90th percentile copper level does not exceed 0.65 mg/L.

(3) State approval of waiver application. The State shall notify the system of its waiver determination, in writing, setting forth the basis of its decision and any condition of the waiver. As a condition of the waiver, the State may require the system to perform specific activities (e.g., limited monitoring, periodic outreach to customers to remind

them to avoid installation of materials that might void the waiver) to avoid the risk of lead or copper concentration of concern in tap water. The small system must continue monitoring for lead and copper at the tap as required by paragraphs (d)(1) through (d)(4) of this section, as appropriate, until it receives written notification from the State that the waiver has been approved.

(4) Monitoring frequency for systems with waivers.

(i) A system with a full waiver must conduct tap water monitoring for lead and copper in accordance with paragraph (d)(4)(iv) of this section at the reduced number of sampling sites identified in paragraph (c) of this section at least once every nine years and provide the materials certification specified in paragraph (g)(1) of this section for both lead and copper to the State along with the monitoring results. Samples collected every nine years shall be collected no later than every ninth calendar year.

(ii) A system with a partial waiver must conduct tap water monitoring for the waived contaminant in accordance with paragraph (d)(4)(iv) of this section at the reduced number of sampling sites specified in paragraph (c) of this section at least once every nine years and provide the materials certification specified in paragraph (g)(1) of this section pertaining to the waived contaminant along with the monitoring results. Such a system also must continue to monitor for the non-waived contaminant in accordance with requirements of paragraph (d)(1) through (d)(4) of this section, as appropriate.

(iii) Any water system with a full or partial waiver shall notify the State in writing in accordance with § 141.90(a)(3) of any upcoming long-term change in treatment or addition of a new source, as described in that section. The State must review and approve the addition of a new source or long-term change in water treatment before it is implemented by the water system. The State has the authority to require the system to add or modify waiver conditions (e.g., require recertification that the system is free of lead-containing and/or copper-containing materials, require additional round(s) of monitoring), if it deems such modifications are necessary to address treatment or source water changes at the system.

(iv) If a system with a full or partial waiver becomes aware that it is no longer free of lead-containing or copper-containing materials, as appropriate, (e.g., as a result of new construction or repairs), the system shall notify the State in writing no later than 60 days after becoming aware of such a change.

(5) Continued eligibility. If the system continues to satisfy the requirements of paragraph (g)(4) of this section, the waiver will be renewed automatically, unless any of the conditions listed in paragraph (g)(5)(i) through (g)(5)(iii) of this section occurs. A system whose waiver has been revoked may re-apply for a waiver at such time as it again meets the appropriate materials and monitoring criteria of paragraphs (g)(1) and (g)(2) of this section.

(i) A system with a full waiver or a lead waiver no longer satisfies the materials criteria of paragraph (g)(1)(i) of this section or has a 90th percentile lead level greater than 0.005 mg/L.

(ii) A system with a full waiver or a copper waiver no longer satisfies the materials criteria of paragraph (g)(1)(ii) of this section or has a 90th percentile copper level greater than 0.65 mg/L.

(iii) The State notifies the system, in writing, that the waiver has been revoked, setting forth the basis of its decision.

(6) Requirements following waiver revocation. A system whose full or partial waiver has been revoked by the State is subject to the corrosion control treatment and lead and copper tap water monitoring requirements, as follows:

(i) If the system exceeds the lead and/or copper action level, the system must implement corrosion control treatment in accordance with the deadlines specified in § 141.81(e), and any other applicable requirements of this subpart.

(ii) If the system meets both the lead and the copper action level, the system must monitor for lead and copper at the tap no less frequently than once every three years using the reduced number of sample sites specified in paragraph (c) of this section.

(7) Pre–existing waivers. Small system waivers approved by the State in writing prior to April 11, 2000 shall remain in effect under the following conditions:

(i) If the system has demonstrated that it is both free of lead-containing and copper-containing materials, as required by paragraph (g)(1) of this section and that its 90th percentile lead levels and 90th percentile copper levels meet the criteria of paragraph (g)(2) of this section, the waiver remains in effect so long as the system continues to meet the waiver eligibility criteria of paragraph (g)(5) of this section. The first round of tap water monitoring conducted pursuant to paragraph (g)(4) of this section shall be completed no later than nine years after the last time the system has monitored for lead and copper at the tap.

(ii) If the system has met the materials criteria of paragraph (g)(1) of this section but has not met the monitoring criteria of paragraph (g)(2) of this section, the system shall conduct a round of monitoring for lead and copper at the tap demonstrating that it meets the criteria of paragraph (g)(2) of this section no later than September 30, 2000. Thereafter, the waiver shall remain in effect as long as the system meets the continued eligibility criteria of paragraph (g)(5) of this section. The first round of tap water monitoring conducted pursuant to paragraph (g)(4) of this section shall be completed no later than nine years after the round of monitoring conducted pursuant to paragraph (g)(2) of this section.

Credits

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40 C.F.R. § 141.87

§ 141.87 Monitoring requirements for water quality parameters.

Effective: December 10, 2007
Currentness

All large water systems, and all small- and medium-size systems that exceed the lead or copper action level shall monitor water quality parameters in addition to lead and copper in accordance with this section. The requirements of this section are summarized in the table at the end of this section.

(a) General requirements—

(1) Sample collection methods.

(i) Tap samples shall be representative of water quality throughout the distribution system taking into account the number of persons served, the different sources of water, the different treatment methods employed by the system, and seasonal variability. Tap sampling under this section is not required to be conducted at taps targeted for lead and copper sampling under § 141.86(a). [Note: Systems may find it convenient to conduct tap sampling for water quality parameters at sites used for coliform sampling under 40 CFR 141.21.]

(ii) Samples collected at the entry point(s) to the distribution system shall be from locations representative of each source after treatment. If a system draws water from more than one source and the sources are combined before distribution, the system must sample at an entry point to the distribution system during periods of normal operating conditions (i.e., when water is representative of all sources being used).

(2) Number of samples.

(i) Systems shall collect two tap samples for applicable water quality parameters during each monitoring period specified under paragraphs (b) through (e) of this section from the following number of sites.

System size (No. people served)	No. of sites for water quality parameters
>100,000	25
10,001-100,000	10

3,301 to 10,000	3
501 to 3,300	2
101 to 500	1
≤100	1

(ii) Except as provided in paragraph (c)(3) of this section, systems shall collect two samples for each applicable water quality parameter at each entry point to the distribution system during each monitoring period specified in paragraph (b) of this section. During each monitoring period specified in paragraphs (c)–(e) of this section, systems shall collect one sample for each applicable water quality parameter at each entry point to the distribution system.

(b) Initial sampling. All large water systems shall measure the applicable water quality parameters as specified below at taps and at each entry point to the distribution system during each six-month monitoring period specified in § 141.86(d)(1). All small and medium-size systems shall measure the applicable water quality parameters at the locations specified below during each six-month monitoring period specified in § 141.86(d)(1) during which the system exceeds the lead or copper action level.

(1) At taps:

(i) pH;

(ii) Alkalinity;

(iii) Orthophosphate, when an inhibitor containing a phosphate compound is used;

(iv) Silica, when an inhibitor containing a silicate compound is used;

(v) Calcium;

(vi) Conductivity; and

(vii) Water temperature.

(2) At each entry point to the distribution system: all of the applicable parameters listed in paragraph (b)(1) of this section.

(c) Monitoring after installation of corrosion control. Any large system which installs optimal corrosion control treatment pursuant to § 141.81(d)(4) shall measure the water quality parameters at the locations and frequencies specified below during each six-month monitoring period specified in § 141.86(d)(2)(i). Any small or medium-size system which

installs optimal corrosion control treatment shall conduct such monitoring during each six-month monitoring period specified in § 141.86(d)(2)(ii) in which the system exceeds the lead or copper action level.

(1) At taps, two samples for:

(i) pH;

(ii) Alkalinity;

(iii) Orthophosphate, when an inhibitor containing a phosphate compound is used;

(iv) Silica, when an inhibitor containing a silicate compound is used;

(v) Calcium, when calcium carbonate stabilization is used as part of corrosion control.

(2) Except as provided in paragraph (c)(3) of this section, at each entry point to the distribution system, at least one sample no less frequently than every two weeks (biweekly) for:

(i) pH;

(ii) When alkalinity is adjusted as part of optimal corrosion control, a reading of the dosage rate of the chemical used to adjust alkalinity, and the alkalinity concentration; and

(iii) When a corrosion inhibitor is used as part of optimal corrosion control, a reading of the dosage rate of the inhibitor used, and the concentration of orthophosphate or silica (whichever is applicable).

(3) Any ground water system can limit entry point sampling described in paragraph (c)(2) of this section to those entry points that are representative of water quality and treatment conditions throughout the system. If water from untreated ground water sources mixes with water from treated ground water sources, the system must monitor for water quality parameters both at representative entry points receiving treatment and representative entry points receiving no treatment. Prior to the start of any monitoring under this paragraph, the system shall provide to the State written information identifying the selected entry points and documentation, including information on seasonal variability, sufficient to demonstrate that the sites are representative of water quality and treatment conditions throughout the system.

(d) Monitoring after State specifies water quality parameter values for optimal corrosion control. After the State specifies the values for applicable water quality control parameters reflecting optimal corrosion control treatment under § 141.82(f), all large systems shall measure the applicable water quality parameters in accordance with paragraph (c) of this section and determine compliance with the requirements of § 141.82(g) every six months with the first six-month period to begin on either January 1 or July 1, whichever comes first, after the State specifies the optimal values under § 141.82(f). Any small or medium-size system shall conduct such monitoring during each six-month period specified in this

paragraph in which the system exceeds the lead or copper action level. For any such small and medium-size system that is subject to a reduced monitoring frequency pursuant to § 141.86(d)(4) at the time of the action level exceedance, the start of the applicable six-month monitoring period under this paragraph shall coincide with the start of the applicable monitoring period under § 141.86(d)(4). Compliance with State-designated optimal water quality parameter values shall be determined as specified under § 141.82(g).

(e) Reduced monitoring.

(1) Any water system that maintains the range of values for the water quality parameters reflecting optimal corrosion control treatment during each of two consecutive six-month monitoring periods under paragraph (d) of this section shall continue monitoring at the entry point(s) to the distribution system as specified in paragraph (c)(2) of this section. Such system may collect two tap samples for applicable water quality parameters from the following reduced number of sites during each six-month monitoring period.

System size (No. of people served)	Reduced No. of sites for water quality parameters
>100,000	10
10,001 to 100,000	7
3,301 to 10,000	3
501 to 3,300	2
101 to 500	1
≤100	1

(2)(i) Any water system that maintains the range of values for the water quality parameters reflecting optimal corrosion control treatment specified by the State under § 141.82(f) during three consecutive years of monitoring may reduce the frequency with which it collects the number of tap samples for applicable water quality parameters specified in this paragraph (e)(1) of this section from every six months to annually. This sampling begins during the calendar year immediately following the end of the monitoring period in which the third consecutive year of six-month monitoring occurs. Any water system that maintains the range of values for the water quality parameters reflecting optimal corrosion control treatment specified by the State under § 141.82(f), during three consecutive years of annual monitoring under this paragraph may reduce the frequency with which it collects the number of tap samples for applicable water quality parameters specified in paragraph (e)(1) of this section from annually to every three years. This sampling begins no later than the third calendar year following the end of the monitoring period in which the third consecutive year of monitoring occurs.

(ii) A water system may reduce the frequency with which it collects tap samples for applicable water quality parameters specified in paragraph (e)(1) of this section to every three years if it demonstrates during two consecutive monitoring periods that its tap water lead level at the 90th percentile is less than or equal to the PQL for lead specified in § 141.89 (a)(1)(ii), that its tap water copper level at the 90th percentile is less than or equal to 0.65 mg/L for copper in § 141.80(c)(2), and that it also has maintained the range of values for the water quality parameters reflecting optimal corrosion control treatment specified by the State under § 141.82(f). Monitoring conducted every three years shall be done no later than every third calendar year.

(3) A water system that conducts sampling annually shall collect these samples evenly throughout the year so as to reflect seasonal variability.

(4) Any water system subject to the reduced monitoring frequency that fails to operate at or above the minimum value or within the range of values for the water quality parameters specified by the State in § 141.82(f) for more than nine days in any six-month period specified in § 141.82(g) shall resume distribution system tap water sampling in accordance with the number and frequency requirements in paragraph (d) of this section. Such a system may resume annual monitoring for water quality parameters at the tap at the reduced number of sites specified in paragraph (e)(1) of this section after it has completed two subsequent consecutive six-month rounds of monitoring that meet the criteria of that paragraph and/or may resume triennial monitoring for water quality parameters at the tap at the reduced number of sites after it demonstrates through subsequent rounds of monitoring that it meets the criteria of either paragraph (e)(2)(i) or (e)(2)(ii) of this section.

(f) Additional monitoring by systems. The results of any monitoring conducted in addition to the minimum requirements of this section shall be considered by the system and the State in making any determinations (i.e., determining concentrations of water quality parameters) under this section or § 141.82.

Summary of Monitoring Requirements for Water Quality Parameters [1]

Monitoring period	Parameters [2]	Location	Frequency
Initial monitoring.....	pH, alkalinity, orthophosphate or silica [3], calcium, conductivity, temperature	Taps and at entry point(s) to distribution system.....	Every 6 months.
After installation of corrosion control.....	pH, alkalinity, orthophosphate or silica [3], calcium [4]	Taps.....	Every 6 months.
	pH, alkalinity, dosage rate and concentration (if alkalinity adjusted as part of corrosion control), inhibitor dosage rate and inhibitor residual [5]	Entry point(s) to distribution system [6]	No less frequently than every two weeks.

After State specifies parameter values for optimal corrosion control.....	pH, alkalinity, orthophosphate or silica [3], calcium [4]	Taps.....	Every 6 months.
	pH, alkalinity dosage rate and concentration (if alkalinity adjusted as part of corrosion control), inhibitor dosage rate and inhibitor residual [5]	Entry point(s) to distribution system [6]	No less frequently than every two weeks.
Reduced monitoring.....	pH, alkalinity, orthophosphate or silica [3], calcium [4]	Taps.....	Every 6 months, annually [7] or every 3 years [8]; reduced number of sites.
	pH, alkalinity dosage rate and concentration (if alkalinity adjusted as part of corrosion control), inhibitor dosage rate and inhibitor residual [5]	Entry point(s) to distribution system [6]	No less frequently than every two weeks.

Credits

[56 FR 32113, July 15, 1991; 57 FR 28788, June 29, 1992; 59 FR 33862, June 30, 1994; 65 FR 2010, Jan. 12, 2000; 72 FR 57818, Oct. 10, 2007]

AUTHORITY: 42 U.S.C. 300f, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–4, 300j–9, and 300j–11.

Current through Aug. 3, 2018; 83 FR 38243.

Footnotes

1 Table is for illustrative purposes; consult the text of this section for precise regulatory requirements.

2 Small and medium-size systems have to monitor for water quality parameters only during monitoring periods in which the system exceeds the lead or copper action level.

3 Orthophosphate must be measured only when an inhibitor containing a phosphate compound is used. Silica must be measured only when an inhibitor containing silicate compound is used.

4 Calcium must be measured only when calcium carbonate stabilization is used as part of corrosion control.

5 Inhibitor dosage rates and inhibitor residual concentrations (orthophosphate or silica) must be measured only when an inhibitor is used.

6 Ground water systems may limit monitoring to representative locations throughout the system.

7 Water systems may reduce frequency of monitoring for water quality parameters at the tap from every six months to annually if they have maintained the range of values for water quality parameters reflecting optimal corrosion control during 3 consecutive years of monitoring.

8 Water systems may further reduce the frequency of monitoring for water quality parameters at the tap from annually to once every 3 years if they have maintained the range of values for water quality parameters reflecting optimal corrosion control during 3 consecutive years of annual monitoring. Water systems may accelerate to triennial monitoring for water quality parameters at the tap if they have maintained 90th percentile lead levels less than or equal to 0.005 mg/L, 90th percentile copper levels less than or equal to 0.65 mg/L, and the range of water quality parameters designated by the State under § 141.82(f) as representing optimal corrosion control during two consecutive six-month monitoring periods.

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40 C.F.R. § 141.88

§ 141.88 Monitoring requirements for lead and copper in source water.

Effective: December 10, 2007
Currentness

(a) Sample location, collection methods, and number of samples.

(1) A water system that fails to meet the lead or copper action level on the basis of tap samples collected in accordance with § 141.86 shall collect lead and copper source water samples in accordance with the following requirements regarding sample location, number of samples, and collection methods:

(i) Groundwater systems shall take a minimum of one sample at every entry point to the distribution system which is representative of each well after treatment (hereafter called a sampling point). The system shall take one sample at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.

(ii) Surface water systems shall take a minimum of one sample at every entry point to the distribution system after any application of treatment or in the distribution system at a point which is representative of each source after treatment (hereafter called a sampling point). The system shall take each sample at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.

Note to paragraph (a)(1)(ii): For the purposes of this paragraph, surface water systems include systems with a combination of surface and ground sources.

(iii) If a system draws water from more than one source and the sources are combined before distribution, the system must sample at an entry point to the distribution system during periods of normal operating conditions (i.e., when water is representative of all sources being used).

(iv) The State may reduce the total number of samples which must be analyzed by allowing the use of compositing. Compositing of samples must be done by certified laboratory personnel. Composite samples from a maximum of five samples are allowed, provided that if the lead concentration in the composite sample is greater than or equal to 0.001 mg/L or the copper concentration is greater than or equal to 0.160 mg/L, then either:

(A) A follow-up sample shall be taken and analyzed within 14 days at each sampling point included in the composite; or

(B) If duplicates of or sufficient quantities from the original samples from each sampling point used in the composite are available, the system may use these instead of resampling.

(2) Where the results of sampling indicate an exceedance of maximum permissible source water levels established under § 141.83(b)(4), the State may require that one additional sample be collected as soon as possible after the initial sample was taken (but not to exceed two weeks) at the same sampling point. If a State-required confirmation sample is taken for lead or copper, then the results of the initial and confirmation sample shall be averaged in determining compliance with the State-specified maximum permissible levels. Any sample value below the detection limit shall be considered to be zero. Any value above the detection limit but below the PQL shall either be considered as the measured value or be considered one-half the PQL.

(b) Monitoring frequency after system exceeds tap water action level. Any system which exceeds the lead or copper action level at the tap shall collect one source water sample from each entry point to the distribution system no later than six months after the end of the monitoring period during which the lead or copper action level was exceeded. For monitoring periods that are annual or less frequent, the end of the monitoring period is September 30 of the calendar year in which the sampling occurs, or if the State has established an alternate monitoring period, the last day of that period.

(c) Monitoring frequency after installation of source water treatment. Any system which installs source water treatment pursuant to § 141.83(a)(3) shall collect an additional source water sample from each entry point to the distribution system during two consecutive six-month monitoring periods by the deadline specified in § 141.83(a)(4).

(d) Monitoring frequency after State specifies maximum permissible source water levels or determines that source water treatment is not needed.

(1) A system shall monitor at the frequency specified below in cases where the State specifies maximum permissible source water levels under § 141.83(b)(4) or determines that the system is not required to install source water treatment under § 141.83(b)(2).

(i) A water system using only groundwater shall collect samples once during the three-year compliance period (as that term is defined in § 141.2) in effect when the applicable State determination under paragraph (d)(1) of this section is made. Such systems shall collect samples once during each subsequent compliance period. Triennial samples shall be collected every third calendar year.

(ii) A water system using surface water (or a combination of surface and ground water) shall collect samples once during each calendar year, the first annual monitoring period to begin during the year in which the applicable State determination is made under paragraph (d)(1) of this section.

(2) A system is not required to conduct source water sampling for lead and/or copper if the system meets the action level for the specific contaminant in tap water samples during the entire source water sampling period applicable to the system under paragraph (d)(1) (i) or (ii) of this section.

(e) Reduced monitoring frequency.

(1) A water system using only ground water may reduce the monitoring frequency for lead and copper in source water to once during each nine-year compliance cycle (as that term is defined in § 141.2) provided that the samples are collected no later than every ninth calendar year and if the system meets one of the following criteria:

(i) The system demonstrates that finished drinking water entering the distribution system has been maintained below the maximum permissible lead and copper concentrations specified by the State in § 141.83(b)(4) during at least three consecutive compliance periods under paragraph (d)(1) of this section; or

(ii) The State has determined that source water treatment is not needed and the system demonstrates that, during at least three consecutive compliance periods in which sampling was conducted under paragraph (d)(1) of this section, the concentration of lead in source water was less than or equal to 0.005 mg/L and the concentration of copper in source water was less than or equal to 0.65 mg/L.

(2) A water system using surface water (or a combination of surface water and ground water) may reduce the monitoring frequency in paragraph (d)(1) of this section to once during each nine-year compliance cycle (as that term is defined in § 141.2) provided that the samples are collected no later than every ninth calendar year and if the system meets one of the following criteria:

(i) The system demonstrates that finished drinking water entering the distribution system has been maintained below the maximum permissible lead and copper concentrations specified by the State in § 141.83(b)(4) for at least three consecutive years; or

(ii) The State has determined that source water treatment is not needed and the system demonstrates that, during at least three consecutive years, the concentration of lead in source water was less than or equal to 0.005 mg/L and the concentration of copper in source water was less than or equal to 0.65 mg/L.

(3) A water system that uses a new source of water is not eligible for reduced monitoring for lead and/or copper until concentrations in samples collected from the new source during three consecutive monitoring periods are below the maximum permissible lead and copper concentrations specified by the State in § 141.83(a)(5).

Credits

[56 FR 32113, July 15, 1991; 57 FR 28788, 28789, June 29, 1992; 65 FR 2012, Jan. 12, 2000; 72 FR 57819, Oct. 10, 2007]

AUTHORITY: 42 U.S.C. 300f, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–4, 300j–9, and 300j–11.

Current through Aug. 3, 2018; 83 FR 38243.

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40 C.F.R. § 141.89

§ 141.89 Analytical methods.

Effective: December 10, 2007
Currentness

(a) Analyses for lead, copper, pH, conductivity, calcium, alkalinity, orthophosphate, silica, and temperature shall be conducted with the methods in § 141.23(k)(1).

(1) Analyses for alkalinity, calcium, conductivity, orthophosphate, pH, silica, and temperature may be performed by any person acceptable to the State. Analyses under this section for lead and copper shall only be conducted by laboratories that have been certified by EPA or the State. To obtain certification to conduct analyses for lead and copper, laboratories must:

(i) Analyze Performance Evaluation samples, which include lead and copper, provided by or acceptable to EPA or the State at least once a year by each method for which the laboratory desires certification; and

(ii) Achieve quantitative acceptance limits as follows:

(A) For lead: ±30 percent of the actual amount in the Performance Evaluation sample when the actual amount is greater than or equal to 0.005 mg/L. The Practical Quantitation Level, or PQL for lead is 0.005 mg/L.

(B) For Copper: ±10 percent of the actual amount in the Performance Evaluation sample when the actual amount is greater than or equal to 0.050 mg/L. The Practical Quantitation Level, or PQL for copper is 0.050 mg/L.

(iii) Achieve the method detection limit for lead of 0.001 mg/L according to the procedures in appendix B of part 136 of this title. This need only be accomplished if the laboratory will be processing source water composite samples under § 141.88(a)(1)(iv).

(iv) Be currently certified by EPA or the State to perform analyses to the specifications described in paragraph (a)(1) of this section.

(2) States have the authority to allow the use of previously collected monitoring data for purposes of monitoring, if the data were collected and analyzed in accordance with the requirements of this subpart.

(3) All lead and copper levels measured between the PQL and MDL must be either reported as measured or they can be reported as one-half the PQL specified for lead and copper in paragraph (a)(1)(ii) of this section. All levels below the lead and copper MDLs must be reported as zero.

(4) All copper levels measured between the PQL and the MDL must be either reported as measured or they can be reported as one-half the PQL (0.025 mg/L). All levels below the copper MDL must be reported as zero.

(b) [Reserved]

Credits

[56 FR 32113, July 15, 1991; 57 FR 28789, June 29, 1992; 57 FR 31847, July 17, 1992; 59 FR 33863, June 30, 1994; 59 FR 62470, Dec. 5, 1994; 63 FR 47113, Sept. 3, 1998; 63 FR 72200, Dec. 31, 1998; 64 FR 67466, Dec. 1, 1999; 65 FR 2012, Jan. 12, 2000; 72 FR 57819, Oct. 10, 2007]

AUTHORITY: 42 U.S.C. 300f, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–4, 300j–9, and 300j–11.

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40 C.F.R. § 141.90

§ 141.90 Reporting requirements.

Effective: December 10, 2007
Currentness

All water systems shall report all of the following information to the State in accordance with this section.

(a) Reporting requirements for tap water monitoring for lead and copper and for water quality parameter monitoring.

(1) Except as provided in paragraph (a)(1)(viii) of this section, a water system shall report the information specified below for all tap water samples specified in § 141.86 and for all water quality parameter samples specified in § 141.87 within the first 10 days following the end of each applicable monitoring period specified in § 141.86 and § 141.87 (i.e., every six months, annually, every 3 years, or every 9 years). For monitoring periods with a duration less than six months, the end of the monitoring period is the last date samples can be collected during that period as specified in §§ 141.86 and 141.87.

(i) The results of all tap samples for lead and copper including the location of each site and the criteria under § 141.86(a)(3), (4), (5), (6), and/or (7) under which the site was selected for the system's sampling pool;

(ii) Documentation for each tap water lead or copper sample for which the water system requests invalidation pursuant to § 141.86(f)(2);

(iii) [Reserved]

(iv) The 90th percentile lead and copper concentrations measured from among all lead and copper tap water samples collected during each monitoring period (calculated in accordance with § 141.80(c)(3)), unless the State calculates the system's 90th percentile lead and copper levels under paragraph (h) of this section;

(v) With the exception of initial tap sampling conducted pursuant to § 141.86(d)(1), the system shall designate any site which was not sampled during previous monitoring periods, and include an explanation of why sampling sites have changed;

(vi) The results of all tap samples for pH, and where applicable, alkalinity, calcium, conductivity, temperature, and orthophosphate or silica collected under § 141.87(b)–(e);

(vii) The results of all samples collected at the entry point(s) to the distribution system for applicable water quality parameters under § 141.87(b)–(e);

(viii) A water system shall report the results of all water quality parameter samples collected under § 141.87(c) through (f) during each six-month monitoring period specified in § 141.87(d) within the first 10 days following the end of the monitoring period unless the State has specified a more frequent reporting requirement.

(2) For a non-transient non-community water system, or a community water system meeting the criteria of § 141.85(b)(7), that does not have enough taps that can provide first-draw samples, the system must either:

(i) Provide written documentation to the State identifying standing times and locations for enough non-first-draw samples to make up its sampling pool under § 141.86(b)(5) by the start of the first applicable monitoring period under § 141.86(d) that commences after April 11, 2000, unless the State has waived prior State approval of non-first-draw sample sites selected by the system pursuant to § 141.86(b)(5); or

(ii) If the State has waived prior approval of non-first-draw sample sites selected by the system, identify, in writing, each site that did not meet the six-hour minimum standing time and the length of standing time for that particular substitute sample collected pursuant to § 141.86(b)(5) and include this information with the lead and copper tap sample results required to be submitted pursuant to paragraph (a)(1)(i) of this section.

(3) At a time specified by the State, or if no specific time is designated by the State, then as early as possible prior to the addition of a new source or any long-term change in water treatment, a water system deemed to have optimized corrosion control under § 141.81(b)(3), a water system subject to reduced monitoring pursuant to § 141.86(d)(4), or a water system subject to a monitoring waiver pursuant to § 141.86(g), shall submit written documentation to the State describing the change or addition. The State must review and approve the addition of a new source or long-term change in treatment before it is implemented by the water system. Examples of long-term treatment changes include the addition of a new treatment process or modification of an existing treatment process. Examples of modifications include switching secondary disinfectants, switching coagulants (e.g., alum to ferric chloride), and switching corrosion inhibitor products (e.g., orthophosphate to blended phosphate). Long-term changes can include dose changes to existing chemicals if the system is planning long-term changes to its finished water pH or residual inhibitor concentration. Long-term treatment changes would not include chemical dose fluctuations associated with daily raw water quality changes.

(4) Any small system applying for a monitoring waiver under § 141.86(g), or subject to a waiver granted pursuant to § 141.86(g)(3), shall provide the following information to the State in writing by the specified deadline:

(i) By the start of the first applicable monitoring period in § 141.86(d), any small water system applying for a monitoring waiver shall provide the documentation required to demonstrate that it meets the waiver criteria of §§ 141.86(g)(1) and (2).

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(ii) No later than nine years after the monitoring previously conducted pursuant to § 141.86(g)(2) or § 141.86(g)(4)(i), each small system desiring to maintain its monitoring waiver shall provide the information required by §§ 141.86(g)(4)(i) and (ii).

(iii) No later than 60 days after it becomes aware that it is no longer free of lead-containing and/or copper-containing material, as appropriate, each small system with a monitoring waiver shall provide written notification to the State, setting forth the circumstances resulting in the lead-containing and/or copper-containing materials being introduced into the system and what corrective action, if any, the system plans to remove these materials.

(iv) By October 10, 2000, any small system with a waiver granted prior to April 11, 2000 and that has not previously met the requirements of § 141.86(g)(2) shall provide the information required by that paragraph.

(5) Each ground water system that limits water quality parameter monitoring to a subset of entry points under § 141.87(c)(3) shall provide, by the commencement of such monitoring, written correspondence to the State that identifies the selected entry points and includes information sufficient to demonstrate that the sites are representative of water quality and treatment conditions throughout the system.

(b) Source water monitoring reporting requirements.

(1) A water system shall report the sampling results for all source water samples collected in accordance with § 141.88 within the first 10 days following the end of each source water monitoring period (i.e., annually, per compliance period, per compliance cycle) specified in § 141.88.

(2) With the exception of the first round of source water sampling conducted pursuant to § 141.88(b), the system shall specify any site which was not sampled during previous monitoring periods, and include an explanation of why the sampling point has changed.

(c) Corrosion control treatment reporting requirements. By the applicable dates under § 141.81, systems shall report the following information:

(1) For systems demonstrating that they have already optimized corrosion control, information required in § 141.81(b) (2) or (3).

(2) For systems required to optimize corrosion control, their recommendation regarding optimal corrosion control treatment under § 141.82(a).

(3) For systems required to evaluate the effectiveness of corrosion control treatments under § 141.82(c), the information required by that paragraph.

(4) For systems required to install optimal corrosion control designated by the State under § 141.82(d), a letter certifying that the system has completed installing that treatment.

(d) Source water treatment reporting requirements. By the applicable dates in § 141.83, systems shall provide the following information to the State:

(1) If required under § 141.83(b)(1), their recommendation regarding source water treatment;

(2) For systems required to install source water treatment under § 141.83(b)(2), a letter certifying that the system has completed installing the treatment designated by the State within 24 months after the State designated the treatment.

(e) Lead service line replacement reporting requirements. Systems shall report the following information to the State to demonstrate compliance with the requirements of § 141.84:

(1) No later than 12 months after the end of a monitoring period in which a system exceeds the lead action level in sampling referred to in § 141.84(a), the system must submit written documentation to the State of the material evaluation conducted as required in § 141.86(a), identify the initial number of lead service lines in its distribution system at the time the system exceeds the lead action level, and provide the system's schedule for annually replacing at least 7 percent of the initial number of lead service lines in its distribution system.

(2) No later than 12 months after the end of a monitoring period in which a system exceeds the lead action level in sampling referred to in § 141.84(a), and every 12 months thereafter, the system shall demonstrate to the State in writing that the system has either:

(i) Replaced in the previous 12 months at least 7 percent of the initial lead service lines (or a greater number of lines specified by the State under § 141.84(e)) in its distribution system, or

(ii) Conducted sampling which demonstrates that the lead concentration in all service line samples from an individual line(s), taken pursuant to § 141.86(b)(3), is less than or equal to 0.015 mg/L. In such cases, the total number of lines replaced and/or which meet the criteria in § 141.84(c) shall equal at least 7 percent of the initial number of lead lines identified under paragraph (e)(1) of this section (or the percentage specified by the State under § 141.84(e)).

(3) The annual letter submitted to the State under paragraph (e)(2) of this section shall contain the following information:

(i) The number of lead service lines scheduled to be replaced during the previous year of the system's replacement schedule;

(ii) The number and location of each lead service line replaced during the previous year of the system's replacement schedule;

(iii) If measured, the water lead concentration and location of each lead service line sampled, the sampling method, and the date of sampling.

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(4) Any system which collects lead service line samples following partial lead service line replacement required by § 141.84 shall report the results to the State within the first ten days of the month following the month in which the system receives the laboratory results, or as specified by the State. States, at their discretion may eliminate this requirement to report these monitoring results. Systems shall also report any additional information as specified by the State, and in a time and manner prescribed by the State, to verify that all partial lead service line replacement activities have taken place.

(f) Public education program reporting requirements.

(1) Any water system that is subject to the public education requirements in § 141.85 shall, within ten days after the end of each period in which the system is required to perform public education in accordance with § 141.85(b), send written documentation to the State that contains:

(i) A demonstration that the system has delivered the public education materials that meet the content requirements in § 141.85(a) and the delivery requirements in § 141.85(b); and

(ii) A list of all the newspapers, radio stations, television stations, and facilities and organizations to which the system delivered public education materials during the period in which the system was required to perform public education tasks.

(2) Unless required by the State, a system that previously has submitted the information required by paragraph (f)(1)(ii) of this section need not resubmit the information required by paragraph (f)(1)(ii) of this section, as long as there have been no changes in the distribution list and the system certifies that the public education materials were distributed to the same list submitted previously.

(3) No later than 3 months following the end of the monitoring period, each system must mail a sample copy of the consumer notification of tap results to the State along with a certification that the notification has been distributed in a manner consistent with the requirements of § 141.85(d).

(g) Reporting of additional monitoring data. Any system which collects sampling data in addition to that required by this subpart shall report the results to the State within the first ten days following the end of the applicable monitoring period under §§ 141.86, 141.87 and 141.88 during which the samples are collected.

(h) Reporting of 90th percentile lead and copper concentrations where the State calculates a system's 90th percentile concentrations. A water system is not required to report the 90th percentile lead and copper concentrations measured from among all lead and copper tap water samples collected during each monitoring period, as required by paragraph (a)(1)(iv) of this section if:

(1) The State has previously notified the water system that it will calculate the water system's 90th percentile lead and copper concentrations, based on the lead and copper tap results submitted pursuant to paragraph (h)(2)(i) of

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this section, and has specified a date before the end of the applicable monitoring period by which the system must provide the results of lead and copper tap water samples;

(2) The system has provided the following information to the State by the date specified in paragraph (h)(1) of this section:

(i) The results of all tap samples for lead and copper including the location of each site and the criteria under § 141.86(a)(3), (4), (5), (6), and/or (7) under which the site was selected for the system's sampling pool, pursuant to paragraph (a)(1)(i) of this section; and

(ii) An identification of sampling sites utilized during the current monitoring period that were not sampled during previous monitoring periods, and an explanation why sampling sites have changed; and

(3) The State has provided the results of the 90th percentile lead and copper calculations, in writing, to the water system before the end of the monitoring period.

Credits

[56 FR 32113, July 15, 1991; 57 FR 28789, June 29, 1992; 59 FR 33864, June 30, 1994; 65 FR 2012, Jan. 12, 2000; 72 FR 57819, Oct. 10, 2007]

AUTHORITY: 42 U.S.C. 300f, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–4, 300j–9, and 300j–11.

Current through Aug. 3, 2018; 83 FR 38243.

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40 C.F.R. § 141.91

§ 141.91 Recordkeeping requirements.

Currentness

Any system subject to the requirements of this subpart shall retain on its premises original records of all sampling data and analyses, reports, surveys, letters, evaluations, schedules, State determinations, and any other information required by §§ 141.81 through 141.88. Each water system shall retain the records required by this section for no fewer than 12 years.

Credits
[56 FR 32113, July 15, 1991]

AUTHORITY: 42 U.S.C. 300f, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–4, 300j–9, and 300j–11.

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West's Annotated California Codes
Health and Safety Code (Refs & Annos)
Division 104. Environmental Health (Refs & Annos)
Part 12. Drinking Water (Refs & Annos)
Chapter 4. California Safe Drinking Water Act (Refs & Annos)
Article 1. Pure and Safe Drinking Water (Refs & Annos)

West's Ann.Cal.Health & Safety Code § 116270

§ 116270. Legislative findings and declarations

Effective: January 1, 2016
Currentness

The Legislature finds and declares all of the following:

(a) Every resident of California has the right to pure and safe drinking water.

(b) Feasible and affordable technologies are available and shall be used to remove toxic contaminants from public water supplies.

(c) According to the State Department of Health Services, over 95 percent of all large public water systems in California are in compliance with health-based action levels established by the department for various contaminants.

(d) It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases.

(e) This chapter is intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable. This chapter provides the means to accomplish this objective.

(f) It is the intent of the Legislature to improve laws governing drinking water quality, to improve upon the minimum requirements of the federal Safe Drinking Water Act Amendments of 1996, to establish primary drinking water standards that are at least as stringent as those established under the federal Safe Drinking Water Act, and to establish a program under this chapter that is more protective of public health than the minimum federal requirements.

(g) It is the further intent of the Legislature to establish a drinking water regulatory program within the state board to provide for the orderly and efficient delivery of safe drinking water within the state and to give the establishment of drinking water standards and public health goals greater emphasis and visibility within the state.

(h) This act shall be construed to ensure consistency with the requirements for states to obtain and maintain primary enforcement responsibility for public water systems under the federal Safe Drinking Water Act and acts amendatory thereof or supplementary thereto.

Credits

(Formerly § 116300, added by Stats.1995, c. 415, (S.B.1360) § 6. Amended by Stats.1996, c. 755 (S.B.1307), § 3. Renumbered § 116270 and amended by Stats.1997, c. 734 (S.B.1307), § 6, eff. Oct. 7, 1997. Amended by Stats.2015, c. 673 (A.B.1531), § 3, eff. Jan. 1, 2016.)

West's Ann. Cal. Health & Safety Code § 116270, CA HLTH & S § 116270
Current with urgency legislation through Ch. 119 of 2018 Reg.Sess

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West's Annotated California Codes
Health and Safety Code (Refs & Annos)
Division 104. Environmental Health (Refs & Annos)
Part 12. Drinking Water (Refs & Annos)
Chapter 4. California Safe Drinking Water Act (Refs & Annos)
Article 1. Pure and Safe Drinking Water (Refs & Annos)

West's Ann.Cal.Health & Safety Code § 116271

§ 116271. State Water Resources Control Board; transfer of authority, powers and duties from predecessor agencies and departments; continuing duties

Effective: January 1, 2018
Currentness

(a) The state board succeeds to and is vested with all of the authority, duties, powers, purposes, functions, responsibilities, and jurisdiction of the State Department of Public Health, its predecessors, and its director for purposes of all of the following:

(1) The Environmental Laboratory Accreditation Act (Article 3 (commencing with Section 100825) of Chapter 4 of Part 1 of Division 101).

(2) Article 3 (commencing with Section 106875) of Chapter 4 of Part 1.

(3) Article 1 (commencing with Section 115825) of Chapter 5 of Part 10.

(4) This chapter and the Safe Drinking Water State Revolving Fund Law of 1997 (Chapter 4.5 (commencing with Section 116760)).

(5) Article 2 (commencing with Section 116800), Article 3 (commencing with Section 116825), and Article 4 (commencing with Section 116875) of Chapter 5.

(6) Chapter 7 (commencing with Section 116975).

(7) The Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Division 43 (commencing with Section 75001) of the Public Resources Code).

(8) The Water Recycling Law (Chapter 7 (commencing with Section 13500) of Division 7 of the Water Code).

(9) Chapter 7.3 (commencing with Section 13560) of Division 7 of the Water Code.

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(10) The California Safe Drinking Water Bond Law of 1976 (Chapter 10.5 (commencing with Section 13850) of Division 7 of the Water Code).

(11) Wholesale Regional Water System Security and Reliability Act (Division 20.5 (commencing with Section 73500) of the Water Code).

(12) Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002 (Division 26.5 (commencing with Section 79500) of the Water Code).

(b) The state board shall maintain a drinking water program and carry out the duties, responsibilities, and functions described in this section. Statutory reference to "department," "state department," or "director" regarding a function transferred to the state board shall refer to the state board. This section does not impair the authority of a local health officer to enforce this chapter or a county's election not to enforce this chapter, as provided in Section 116500.

(c) The state board shall succeed to the status of grantee or applicant, as appropriate, for any federal Drinking Water State Revolving Fund capitalization grants that the State Department of Public Health and any of its predecessors applied for.

(d) Regulations adopted, orders issued, and all other administrative actions taken by the State Department of Public Health, any of its predecessors, or its director, pursuant to the authorities now vested in the state board and in effect immediately preceding the operative date of this section shall remain in effect and are fully enforceable unless and until readopted, amended, or repealed, or until they expire by their own terms. Regulations in the process of adoption pursuant to the authorities vested in the state board shall continue under the authority of the state board unless and until the state board determines otherwise. Any other administrative action adopted, prescribed, taken, or performed by, or on behalf of, the State Department of Public Health, or its director, in the administration of a program or the performance of a duty, responsibility, or authorization transferred to the state board shall remain in effect and shall be deemed to be an action of the state board unless and until the state board determines otherwise.

(e) Permits, licenses, accreditations, certificates, and other formal approvals and authorizations issued by the State Department of Public Health, any of its predecessors, or its director pursuant to authorities vested in the state board pursuant to this section are not affected by the transfer and remain in effect, subject to all applicable laws and regulations, unless and until renewed, reissued, revised, amended, suspended, or revoked by the state board or its deputy director, as authorized pursuant to subdivision (k).

(f) Any action or proceeding by or against the State Department of Public Health, including any officer or employee of the State Department of Public Health named in an official capacity, or any of its predecessors, pertaining to matters vested in the state board by this section shall not abate, but shall continue in the name of the state board. The state board shall be substituted for the State Department of Public Health, including any officer or employee of the State Department of Public Health named in an official capacity, and any of its predecessors, by the court or agency where the action or proceeding is pending. The substitution shall not in any way affect the rights of the parties to the action or proceeding.

(g) On and after the operative date of this section, the unexpended balance of all funds available for use by the State Department of Public Health or any of its predecessors in carrying out any functions transferred to the state board are available for use by the state board.

(h) Books, documents, data, records, and property of the State Department of Public Health pertaining to functions transferred to the state board shall be transferred to the state board. This subdivision does not transfer any part of property commonly known as the Richmond Campus that is owned by the State Public Works Board.

(i) A contract, lease, license, or any other agreement, including local primacy agreements, as described in Section 116330, to which the State Department of Public Health, any of its predecessors, its director, or their agents, is a party, are not void or voidable by reason of this section, but shall continue in full force and effect, with the state board assuming all of the rights, obligations, liabilities, and duties of the State Department of Public Health and any of its predecessors as it relates to the duties, powers, purposes, responsibilities, and jurisdiction vested in the state board pursuant to this section. This assumption does not affect the rights of the parties to the contract, lease, license, or agreement.

(j) If the Department of Water Resources entered into agreements on behalf of the State Department of Public Health or its predecessor, the State Department of Health Services, pursuant to Chapter 4.5 (commencing with Section 116760), the state board shall also succeed the Department of Water Resources as a party to those agreements and to all related security instruments, including, but not limited to, fiscal services agreements, deeds of trust, guarantees, letters of credit, and deposit control agreements.

(k)(1) The state board shall appoint a deputy director who reports to the executive director to oversee the issuance and enforcement of public water system permits and other duties as appropriate. The deputy director shall have public health expertise.

(2) The deputy director is delegated the state board's authority to provide notice, approve notice content, approve emergency notification plans, and take other action pursuant to Article 5 (commencing with Section 116450), to issue, renew, reissue, revise, amend, or deny any public water system permits pursuant to Article 7 (commencing with Section 116525), to suspend or revoke any public water system permit pursuant to Article 8 (commencing with Section 116625), and to issue citations, assess penalties, or issue orders pursuant to Article 9 (commencing with Section 116650). Decisions and actions of the deputy director taken pursuant to Article 5 (commencing with Section 116450) or Article 7 (commencing with Section 116525) are deemed decisions and actions taken by the state board, but are not subject to reconsideration by the state board except as provided in Section 116540. Decisions and actions of the deputy director taken pursuant to Article 8 (commencing with Section 116625) and Article 9 (commencing with Section 116650) are deemed decisions and actions taken by the state board, but any aggrieved person may petition the state board for reconsideration of the decision or action. This subdivision is not a limitation on the state board's authority to delegate any other powers and duties.

(3) The state board shall not delegate any authority, duty, power, purpose, function, or responsibility specified in this section, including, but not limited to, issuance and enforcement of public water system permits, to the regional water quality control boards.

Credits

(Added by Stats.2014, c. 35 (S.B.861), § 63, eff. June 20, 2014, operative July 1, 2014. Amended by Stats.2017, c. 327 (A.B.1438), § 26, eff. Jan. 1, 2018.)

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West's Ann. Cal. Health & Safety Code § 116271, CA HLTH & S § 116271
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KeyCite Yellow Flag - Negative Treatment
Proposed Legislation

West's Annotated California Codes
Health and Safety Code (Refs & Annos)
Division 104. Environmental Health (Refs & Annos)
Part 12. Drinking Water (Refs & Annos)
Chapter 4. California Safe Drinking Water Act (Refs & Annos)
Article 1. Pure and Safe Drinking Water (Refs & Annos)

West's Ann.Cal.Health & Safety Code § 116275

§ 116275. Definitions

Effective: January 1, 2017
Currentness

As used in this chapter:

(a) "Contaminant" means any physical, chemical, biological, or radiological substance or matter in water.

(b) "Department" means the state board.

(c) "Primary drinking water standards" means:

(1) Maximum levels of contaminants that, in the judgment of the state board, may have an adverse effect on the health of persons.

(2) Specific treatment techniques adopted by the state board in lieu of maximum contaminant levels pursuant to subdivision (j) of Section 116365.

(3) The monitoring and reporting requirements as specified in regulations adopted by the state board that pertain to maximum contaminant levels.

(d) "Secondary drinking water standards" means standards that specify maximum contaminant levels that, in the judgment of the state board, are necessary to protect the public welfare. Secondary drinking water standards may apply to any contaminant in drinking water that may adversely affect the odor or appearance of the water and may cause a substantial number of persons served by the public water system to discontinue its use, or that may otherwise adversely affect the public welfare. Regulations establishing secondary drinking water standards may vary according to geographic and other circumstances and may apply to any contaminant in drinking water that adversely affects the taste, odor, or appearance of the water when the standards are necessary to ensure a supply of pure, wholesome, and potable water.

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(e) "Human consumption" means the use of water for drinking, bathing or showering, hand washing, oral hygiene, or cooking, including, but not limited to, preparing food and washing dishes.

(f) "Maximum contaminant level" means the maximum permissible level of a contaminant in water.

(g) "Person" means an individual, corporation, company, association, partnership, limited liability company, municipality, public utility, or other public body or institution.

(h) "Public water system" means a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year. A public water system includes the following:

(1) Any collection, treatment, storage, and distribution facilities under control of the operator of the system that are used primarily in connection with the system.

(2) Any collection or pretreatment storage facilities not under the control of the operator that are used primarily in connection with the system.

(3) Any water system that treats water on behalf of one or more public water systems for the purpose of rendering it safe for human consumption.

(i) "Community water system" means a public water system that serves at least 15 service connections used by yearlong residents or regularly serves at least 25 yearlong residents of the area served by the system.

(j) "Noncommunity water system" means a public water system that is not a community water system.

(k) "Nontransient noncommunity water system" means a public water system that is not a community water system and that regularly serves at least 25 of the same persons over six months per year.

(*l*) "Local health officer" means a local health officer appointed pursuant to Section 101000 or a local comprehensive health agency designated by the board of supervisors pursuant to Section 101275 to carry out the drinking water program.

(m) "Significant rise in the bacterial count of water" means a rise in the bacterial count of water that the state board determines, by regulation, represents an immediate danger to the health of water users.

(n) "State small water system" means a system for the provision of piped water to the public for human consumption that serves at least five, but not more than 14, service connections and does not regularly serve drinking water to more than an average of 25 individuals daily for more than 60 days out of the year.

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(*o*) "Transient noncommunity water system" means a noncommunity water system that does not regularly serve at least 25 of the same persons over six months per year.

(p) "User" means a person using water for domestic purposes. User does not include a person processing, selling, or serving water or operating a public water system.

(q) "Waterworks standards" means regulations adopted by the state board entitled "California Waterworks Standards" (Chapter 16 (commencing with Section 64551) of Division 4 of Title 22 of the California Code of Regulations).

(r) "Local primacy agency" means a local health officer that has applied for and received primacy delegation pursuant to Section 116330.

(s) "Service connection" means the point of connection between the customer's piping or constructed conveyance, and the water system's meter, service pipe, or constructed conveyance. A connection to a system that delivers water by a constructed conveyance other than a pipe shall not be considered a connection in determining if the system is a public water system if any of the following apply:

(1) The water is used exclusively for purposes other than residential uses, consisting of drinking, bathing, and cooking, or other similar uses.

(2) The state board determines that alternative water to achieve the equivalent level of public health protection provided by the applicable primary drinking water regulation is provided for residential or similar uses for drinking and cooking.

(3) The state board determines that the water provided for residential or similar uses for drinking, cooking, and bathing is centrally treated or treated at the point of entry by the provider, a passthrough entity, or the user to achieve the equivalent level of protection provided by the applicable primary drinking water regulations.

(t) "Resident" means a person who physically occupies, whether by ownership, rental, lease, or other means, the same dwelling for at least 60 days of the year.

(u) "Water treatment operator" means a person who has met the requirements for a specific water treatment operator grade pursuant to Section 106875.

(v) "Water distribution operator" means a person who has met the requirements for a specific water distribution operator grade pursuant to Section 106875.

(w) "Water treatment plant" means a group or assemblage of structures, equipment, and processes that treats, blends, or conditions the water supply of a public water system.

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(x) "Water distribution system" means any combination of pipes, tanks, pumps, and other physical features that deliver water from the source or water treatment plant to the consumer.

(y) "Public health goal" means a goal established by the Office of Environmental Health Hazard Assessment pursuant to subdivision (c) of Section 116365.

(z) "Small community water system" means a community water system that serves no more than 3,300 service connections or a yearlong population of no more than 10,000 persons.

(aa) "Disadvantaged community" means the entire service area of a community water system, or a community therein, in which the median household income is less than 80 percent of the statewide average.

(ab) "State board" means the State Water Resources Control Board.

(ac) "Deputy director" means the deputy director appointed by the state board pursuant to subdivision (k) of Section 116271.

Credits

(Formerly § 4010.1, added by Stats.1976, c. 1087, p. 4908, § 2. Amended by Stats.1989, c. 823, § 5; Stats.1990, c. 1182 (A.B.2158), § 1; Stats.1992, c. 1248 (A.B.2995), § 1; Stats.1994, c. 1010 (S.B.2053), § 156; Stats.1995, c. 673 (S.B.1172), § 1. Renumbered § 116275 and amended by Stats.1996, c. 1023 (S.B.1497), § 182, eff. Sept. 29, 1996; Stats.1996, c. 874 (S.B.1851), § 3; Stats.1996, c. 875 (A.B.2727), § 3. Amended by Stats.1997, c. 734 (S.B.1307), § 1, eff. Oct. 7, 1997; Stats.1999, c. 755 (S.B.1107), § 14; Stats.2002, c. 425 (S.B.1822), § 1; Stats.2007, c. 614 (A.B.783), § 1; Stats.2011, c. 516 (A.B.1194), § 1; Stats.2015, c. 24 (S.B.83), § 17, eff. June 24, 2015; Stats.2015, c. 673 (A.B.1531), § 4, eff. Jan. 1, 2016; Stats.2016, c. 305 (A.B.2890), § 17, eff. Jan. 1, 2017.)

West's Ann. Cal. Health & Safety Code § 116275, CA HLTH & S § 116275
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KeyCite Red Flag - Severe Negative Treatment
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West's Annotated California Codes
Health and Safety Code (Refs & Annos)
Division 104. Environmental Health (Refs & Annos)
Part 12. Drinking Water (Refs & Annos)
Chapter 4. California Safe Drinking Water Act (Refs & Annos)
Article 1. Pure and Safe Drinking Water (Refs & Annos)

West's Ann.Cal.Health & Safety Code § 116277

§ 116277. Testing for lead in potable water system at schoolsite; lead levels; sampling plan; exceptions

Effective: January 1, 2018
Currentness

(a)(1) A community water system that serves a schoolsite of a local educational agency with a building constructed before January 1, 2010, on that schoolsite shall test for lead in the potable water system of the schoolsite on or before July 1, 2019.

(2) The community water system shall report its findings to the schoolsite within 10 business days after the community water system receives the results from the testing laboratory or within two business days if it is found that the schoolsite's lead level exceeds 15 parts per billion.

(3) If the lead level exceeds 15 parts per billion, the community water system shall also test a water sample from the point in which the schoolsite connects to the community water system's supply network to determine the lead level of the water entering the schoolsite from the community water system's water supply network.

(b)(1) A local educational agency shall allow the community water system access to each of the local educational agency's schoolsites that are subject to subdivision (a) to conduct testing.

(2) If the lead level exceeds 15 parts per billion, the local educational agency shall notify the parents and guardians of the pupils who attend the schoolsite or preschool where the elevated lead levels are found.

(c)(1) If lead levels exceed 15 parts per billion, the local educational agency shall take immediate steps to make inoperable and shut down from use all fountains and faucets where the excess lead levels may exist. Additional testing may be required to determine if all or just some of the school's fountains and faucets are required to be shut down.

(2) Each local educational agency shall work with the schoolsites within its service area to ensure that a potable source of drinking water is provided for students at each schoolsite where fountains or faucets have been shut down due to elevated lead levels. Providing a potable source of drinking water may include, but is not limited to, replacing any pipes or fixtures that are contributing to the elevated lead levels, providing onsite water filtration, or providing bottled water as a short-term remedy.

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(d) Each community water system, in cooperation with the appropriate corresponding local educational agency, shall prepare a sampling plan for each schoolsite where lead sampling is required under subdivision (a). The community water system and the local educational agency may request assistance from the state board or any local health agency responsible for regulating community water systems in developing the plan.

(e) This section shall not apply to a schoolsite that is subject to any of the following:

(1) The schoolsite was constructed or modernized after January 1, 2010.

(2) The local educational agency of the schoolsite is currently permitted as a public water system and is currently required to test for lead in the potable water system.

(3) The local educational agency completed lead testing of the potable water system after January 1, 2009, and posts information about the lead testing on the local educational agency's public Internet Web site, including, at a minimum, identifying any schoolsite where the level of lead in drinking water exceeds 15 parts per billion.

(4) The local educational agency has requested testing from its community water system consistent with the requirements of this section.

(f) For purposes of this section, the following definitions apply:

(1) “Local educational agency” means a school district, county office of education, or charter school located in a public facility.

(2) “Potable water system” means water fountains and faucets used for drinking or preparing food.

(g) This section shall become inoperative on July 1, 2019, and, as of January 1, 2020, is repealed.

Credits
(Added by Stats.2017, c. 746 (A.B.746), § 1, eff. Jan. 1, 2018.)

West's Ann. Cal. Health & Safety Code § 116277, CA HLTH & S § 116277
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West's Annotated California Codes
Health and Safety Code (Refs & Annos)
Division 104. Environmental Health (Refs & Annos)
Part 12. Drinking Water (Refs & Annos)
Chapter 4. California Safe Drinking Water Act (Refs & Annos)
Article 2. Department and Local Responsibilities (Refs & Annos)

West's Ann.Cal.Health & Safety Code § 116330

§ 116330. Local administration and enforcement; retained authority; application for local administration and enforcement; agreements; duration of delegation; evaluation of local drinking water programs; funding

Currentness

(a) The department may delegate primary responsibility for the administration and enforcement of this chapter within a county to a local health officer authorized by the board of supervisors to assume these duties, by means of a local primacy delegation agreement if the local health officer demonstrates that it has the capability to meet the local primacy program requirements established by the department pursuant to subdivision (h) of Section 116375. This delegation shall not include the regulation of community water systems serving 200 or more service connections. The local primacy agreement may contain terms and conditions that the department deems necessary to carry out this chapter. The local primacy agreement shall provide that, although the local primacy agency shall be primarily responsible for administration and enforcement of this chapter for the designated water systems, the department does not thereby relinquish its authority, but rather shall retain jurisdiction to administer and enforce this chapter for the designated water systems to the extent determined necessary by the department.

(b) Any local health officer seeking a local primacy delegation shall submit an application to the department. The application shall be submitted by March 1, 1993, for local health officers seeking local primacy agreements for the 1993-94 fiscal year. Thereafter, the application shall be submitted by January 1, of the fiscal year immediately preceding the commencement of the fiscal year for which the local primacy delegation is sought. The application shall be in the format, and shall contain information, required by the department. The department shall approve the application for primacy if the department determines that the local health officer is capable of meeting the primacy program requirements established by the department.

(c) A local primacy delegation approved by the department shall remain in effect until any of the following conditions occur:

(1) The delegation is withdrawn by mutual agreement.

(2) The local primacy agency provides 120-day advance written notice to the department that it no longer wishes to retain local primacy.

(3) The department determines that the local primacy agency no longer complies with the department's local primacy program requirements. The department shall provide written notice to the local primacy agency and the board of

supervisors and shall provide an opportunity for a public hearing prior to initiation of any local primacy revocation action by the department.

(d) The department shall evaluate the drinking water program of each local primacy agency at least annually. The department shall prepare a report of the evaluation and list any program improvements needed to conform to the department's local primacy program requirements. A copy of the evaluation report shall be provided to the local primacy agency and the board of supervisors. The local primacy agency shall be granted a reasonable amount of time to make any needed program improvements prior to the initiation of any local primacy revocation actions.

(e) To the extent funds are available in the Safe Drinking Water Account, the department shall provide the local primacy agency with an annual drinking water surveillance program grant to cover the cost of conducting the inspection, monitoring, surveillance, and water quality evaluation activities specified in the local primacy agreement. The annual program grant pursuant to this subdivision shall not exceed the amount that the department determines would be necessary for the department to conduct inspection, monitoring, surveillance, and water quality evaluation activities in the absence of a local primacy agreement for those systems in that county.

(f) The local primacy agency shall act for the department as the primary agency responsible for the administration and enforcement of this chapter for the specified public water systems and shall be empowered with all of the authority granted to the department by this chapter over those water systems.

Credits
(Added by Stats.1995, c. 415 (S.B.1360), § 6.)

West's Ann. Cal. Health & Safety Code § 116330, CA HLTH & S § 116330
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Health and Safety Code (Refs & Annos)
Division 104. Environmental Health (Refs & Annos)
Part 12. Drinking Water (Refs & Annos)
Chapter 4. California Safe Drinking Water Act (Refs & Annos)
Article 7. Requirements and Compliance (Refs & Annos)

West's Ann.Cal.Health & Safety Code § 116525

§ 116525. Permits to operate public water system; applications; renewal or amendment of permit

Currentness

(a) No person shall operate a public water system unless he or she first submits an application to the department and receives a permit as provided in this chapter. A change in ownership of a public water system shall require the submission of a new application.

(b) The department may require a new application whenever a change in regulatory jurisdiction has occurred.

(c) The department may renew, reissue, revise, or amend any domestic water supply permit whenever the department deems it to be necessary for the protection of public health whether or not an application has been filed.

Credits
(Added by Stats.1995, c. 415 (S.B.1360), § 6.)

West's Ann. Cal. Health & Safety Code § 116525, CA HLTH & S § 116525
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Part 12. Drinking Water (Refs & Annos)
Chapter 4. California Safe Drinking Water Act (Refs & Annos)
Article 8. Violations (Refs & Annos)

West's Ann.Cal.Health & Safety Code § 116625

§ 116625. Suspension or revocation of permit; grounds; notice and hearing; temporary suspension

Effective: January 1, 2018
Currentness

(a) The state board, after providing notice to the permittee and opportunity for a hearing, may suspend or revoke any permit issued pursuant to this chapter if the state board determines pursuant to the hearing that the permittee is not complying with the permit, this chapter, or any regulation, standard, or order issued or adopted thereunder, or that the permittee has made a false statement or representation on any application, record, or report maintained or submitted for purposes of compliance with this chapter. If the permittee does not request a hearing within the period specified in the notice, the state board may suspend or revoke the permit without a hearing. If the permittee submits a timely request for a hearing, the hearing shall be before the state board or a member of the state board, in accordance with Section 183 of the Water Code and the rules for adjudicative proceedings adopted under Section 185 of the Water Code. If the permit at issue has been temporarily suspended pursuant to subdivision (b), the notice shall be provided within 15 days of the effective date of the temporary suspension order. The commencement of the hearing under this subdivision shall be as soon as practicable, but no later than 60 days after the effective date of the temporary suspension order, unless the state board grants an extension of the 60 day period upon request of the permittee.

(b) The state board may temporarily suspend any permit issued pursuant to this chapter before any hearing when the action is necessary to prevent an imminent or substantial danger to health. The state board shall notify the permittee of the temporary suspension and the effective date of the temporary suspension and, at the same time, notify the permittee that a hearing has been scheduled. The hearing shall be held as soon as possible, but not later than 15 days after the effective date of the temporary suspension unless the state board grants an extension of the 15 day period upon request of the permittee, and shall deal only with the issue of whether the temporary suspension shall remain in place pending a hearing under subdivision (a). The hearing shall be conducted under the rules for adjudicative proceedings adopted by the state board under Section 185 of the Water Code. The temporary suspension shall remain in effect until the hearing under this subdivision is completed and the state board has made a final determination on the temporary suspension, which shall be made within 15 days after the completion of the hearing unless the state board grants an extension of the 15 day period upon request of the permittee. If the determination is not transmitted within 15 days after the hearing is completed, or any extension of this period requested by the permittee, the temporary suspension shall be of no further effect. Dissolution of the temporary suspension does not deprive the state board of jurisdiction to proceed with a hearing on the merits under subdivision (a).

Credits

(Added by Stats.1995, c. 415 (S.B.1360), § 6. Amended by Stats.1997, c. 220 (S.B.68), § 33, eff. Aug. 4, 1997; Stats.2017, c. 327 (A.B.1438), § 29, eff. Jan. 1, 2018.)

West's Ann. Cal. Health & Safety Code § 116625, CA HLTH & S § 116625
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West's Ann.Cal.Pub.Util.Code § 1501

§ 1501. Legislative findings and declarations

Currentness

The Legislature recognizes the substantial obligation undertaken by a privately owned public utility which is franchised under the Constitution or by a certificate of public convenience and necessity to provide water service in that the utility must provide facilities to meet the present and prospective needs of those in its service area who may request service. At the same time, the rates that may be charged for water service by a regulated utility are fixed by the Public Utilities Commission at levels which assume that the facilities so installed will remain used and useful in the operation of the utility for a period of time measured by the physical life of such facilities.

The Legislature finds and declares that the potential loss of value of such facilities which may result from the construction and operation by a political subdivision of similar or duplicating facilities in the service area of such a private utility often deters such private utility from obtaining a certificate or extending its facilities to provide in many areas a water supply essential to the health and safety of the citizens thereof.

The Legislature further finds and declares that it is necessary for the public health, safety, and welfare that privately owned public utilities regulated by the state be compensated for damages that they may suffer by reason of political subdivisions extending their facilities into the service areas of such privately owned public utilities.

Credits
(Added by Stats.1965, c. 1752, p. 3924, § 1.)

West's Ann. Cal. Pub. Util. Code § 1501, CA PUB UTIL § 1501
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West's Annotated California Codes
Public Utilities Code (Refs & Annos)
Division 1. Regulation of Public Utilities (Refs & Annos)
Part 1. Public Utilities Act (Refs & Annos)
Chapter 8.5. Service Duplication (Refs & Annos)

West's Ann.Cal.Pub.Util.Code § 1502

§ 1502. Definitions

Currentness

(a) As used in this chapter, "political subdivision" means a county, city and county, city, municipal water district, county water district, irrigation district, public utility district, California water district, or any other public corporation.

(b) As used in this chapter, "service area" means an area served by a privately owned public utility in which the facilities have been dedicated to public use and in which territory the utility is required to render service to the public.

(c) As used in this chapter, "operating system" means an integrated water system for the supply of water to a service area of a privately owned public utility.

(d) As used in this chapter, "private utility" means a privately owned public utility providing a water service.

(e) As used in this chapter, "type of service" means, among other things, domestic, commercial, industrial, fire protection, wholesale, or irrigation service.

(f) As used in this chapter, "reclaimed water" means reclaimed water as defined in Section 13050 of the Water Code.

(g) As used in this chapter, "private use" means an entity's use of its own reclaimed water.

Credits
(Added by Stats.1965, c. 1752, p. 3925, § 1. Amended by Stats.1994, c. 859 (S.B.778), § 1.)

West's Ann. Cal. Pub. Util. Code § 1502, CA PUB UTIL § 1502
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West's Annotated California Codes
Public Utilities Code (Refs & Annos)
Division 1. Regulation of Public Utilities (Refs & Annos)
Part 1. Public Utilities Act (Refs & Annos)
Chapter 8.5. Service Duplication (Refs & Annos)

West's Ann.Cal.Pub.Util.Code § 1503

§ 1503. Water service; compensation of private utility after duplication of service by political subdivision

Currentness

The Legislature finds and declares that whenever a political subdivision constructs facilities to provide or extend water service, or provides or extends such service, to any service area of a private utility with the same type of service, such an act constitutes a taking of the property of the private utility for a public purpose to the extent that the private utility is injured by reason of any of its property employed in providing the water service being made inoperative, reduced in value or rendered useless to the private utility for the purpose of providing water service to the service area.

Credits
(Added by Stats.1965, c. 1752, p. 3925, § 1. Amended by Stats.1975, c. 1240, § 67, operative July 1, 1976.)

West's Ann. Cal. Pub. Util. Code § 1503, CA PUB UTIL § 1503
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West's Annotated California Codes
Public Utilities Code (Refs & Annos)
Division 1. Regulation of Public Utilities (Refs & Annos)
Part 1. Public Utilities Act (Refs & Annos)
Chapter 8.5. Service Duplication (Refs & Annos)

West's Ann.Cal.Pub.Util.Code § 1504

§ 1504. Compensation; ascertainment; acquisition of property when compensation equals value of property of utility

Currentness

Just compensation for the property so taken for public purposes shall be as may be mutually agreed by the political subdivision and the private utility or as ascertained and fixed by a court of competent jurisdiction pursuant to the laws of this state relating to eminent domain, including consideration of the useful value to the political subdivision of the property so taken.

Whenever the compensation by a political subdivision under this section is an amount equal to the just compensation value of all the property of the private utility in the operating system that the private utility employs in providing water service to the service area, the political subdivision may, by resolution, provide for the acquisition of all such property.

A political subdivision engaged in activities set forth in Section 1503 shall pay just compensation for the property so taken for public purposes.

Credits
(Added by Stats.1965, c. 1752, p. 3925, § 1.)

West's Ann. Cal. Pub. Util. Code § 1504, CA PUB UTIL § 1504
Current with urgency legislation through Ch. 119 of 2018 Reg.Sess

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Public Utilities Code (Refs & Annos)
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Part 1. Public Utilities Act (Refs & Annos)
Chapter 8.5. Service Duplication (Refs & Annos)

West's Ann.Cal.Pub.Util.Code § 1505

§ 1505. Utilities extending water service to territory served by political subdivision

Currentness

The provisions of Sections 1503 and 1504 will be applicable to any private utility which constructs facilities to provide or extend water service or provides or extends such service to any territory theretofore served by a political subdivision with the same type of service.

Credits
(Added by Stats.1965, c. 1752, p. 3926, § 1.)

West's Ann. Cal. Pub. Util. Code § 1505, CA PUB UTIL § 1505
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West's Annotated California Codes
Public Utilities Code (Refs & Annos)
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Part 1. Public Utilities Act (Refs & Annos)
Chapter 8.5. Service Duplication (Refs & Annos)

West's Ann.Cal.Pub.Util.Code § 1505.5

§ 1505.5. Compensation to political subdivision providing water service

Currentness

The provisions of Sections 1503 and 1504 will be applicable to any political subdivision which constructs facilities to provide or extend water service or provides or extends such service to any territory theretofore actually being lawfully served by any other political subdivision with facilities designed and constructed to provide the same type of service. The provisions of this section shall not apply to any territory, or portion thereof, which is the subject of any final judgment or litigation pending on the effective date of this section involving any duplication of water service occurring prior to the effective date of this section.

Credits
(Added by Stats.1973, c. 997, p. 1984, § 1.)

West's Ann. Cal. Pub. Util. Code § 1505.5, CA PUB UTIL § 1505.5
Current with urgency legislation through Ch. 119 of 2018 Reg.Sess

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West's Annotated California Codes
Public Utilities Code (Refs & Annos)
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Part 1. Public Utilities Act (Refs & Annos)
Chapter 8.5. Service Duplication (Refs & Annos)

West's Ann.Cal.Pub.Util.Code § 1506

§ 1506. Private utility as including mutual water company; property affected; exceptions

Effective: January 1, 2015
Currentness

(a) As used in this chapter, "private utility" includes a mutual water company. In its application to mutual water companies, this chapter affects and relates only to the property, or portion of any property, of a mutual water company that is employed by the company in providing water service in or for a territory that is actually being provided with water service by the company when a political subdivision constructs facilities to provide or extend water service or provides or extends the service to the territory, and that territory shall constitute the "service area" of a mutual water company as used in Section 1502.

(b) Subject to the preservation of rights of a mutual water company in subdivision (c), this section does not apply to a political subdivision that constructs facilities to provide or extend recycled water service to the territory of the mutual water company, if the political subdivision complies with the Water Recycling Act of 1991 (Chapter 7.5 (commencing with Section 13575) of Division 7 of the Water Code).

(c) The exception in subdivision (b), for a political subdivision that constructs facilities to provide or extend recycled water service to the territory of the mutual water company, does not apply to those customers and their properties to which the mutual water company was providing recycled water service, or for whom the mutual water company has identified and developed specific plans to provide recycled water service, as of December 31, 2014.

Credits
(Added by Stats.1965, c. 1752, p. 3926, § 1. Amended by Stats.2014, c. 817 (A.B.2443), § 1, eff. Jan. 1, 2015.)

West's Ann. Cal. Pub. Util. Code § 1506, CA PUB UTIL § 1506
Current with urgency legislation through Ch. 119 of 2018 Reg.Sess

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West's Annotated California Codes
Public Utilities Code (Refs & Annos)
Division 1. Regulation of Public Utilities (Refs & Annos)
Part 1. Public Utilities Act (Refs & Annos)
Chapter 8.5. Service Duplication (Refs & Annos)

West's Ann.Cal.Pub.Util.Code § 1507

§ 1507. Application of chapter; conditions

Currentness

This chapter shall not be applicable if all of the following conditions are met:

(a) The use is limited to the private use of reclaimed water by an entity that owns a water reclamation plant.

(b) The use is limited to the premises of a water reclamation plant or landfill owned by the entity that owns or operates the water reclamation plant.

(c) The use is limited to dust suppression, and irrigation purposes, and other uses on the site for which reclaimed water has been approved by the State Department of Health Services.

(d) No existing reclaimed water facilities, whether owned or operated by a private utility or political subdivision, can reasonably and economically serve the intended use.

(e) If reclaimed water is used on the premises of a landfill, the entity provides appropriate compensation to the private utility or political subdivision for those facilities directly used for the water services being replaced by reclaimed water service. Appropriate compensation shall not include valuations based on revenues lost by the private utility or political subdivision due to replacement of water service with reclaimed water.

(f) This section shall apply only in Los Angeles County.

Credits
(Added by Stats.1994, c. 859 (S.B.778), § 2.)

West's Ann. Cal. Pub. Util. Code § 1507, CA PUB UTIL § 1507
Current with urgency legislation through Ch. 119 of 2018 Reg.Sess

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KeyCite Red Flag - Severe Negative Treatment
KeyCite Red Flag Negative Treatment§1508. Repealed by Stats.1953, c. 701, p. 1970, §1

West's Annotated California Codes
Public Utilities Code (Refs & Annos)
Division 1. Regulation of Public Utilities (Refs & Annos)
Part 1. Public Utilities Act (Refs & Annos)
Chapter 8.5. Service Duplication (Refs & Annos)

West's Ann.Cal.Pub.Util.Code § 1508

§ 1508. Repealed by Stats.1953, c. 701, p. 1970, § 1

Currentness

West's Ann. Cal. Pub. Util. Code § 1508, CA PUB UTIL § 1508
Current with urgency legislation through Ch. 119 of 2018 Reg.Sess

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West's Annotated California Codes
Water Code (Refs & Annos)
Division 1. General State Powers over Water (Refs & Annos)
Chapter 1. General State Policy (Refs & Annos)

West's Ann.Cal.Water Code § 106.3

§ 106.3. Safe, clean, affordable, and accessible water; consideration by state agencies; application and implementation of section

Effective: January 1, 2013
Currentness

(a) It is hereby declared to be the established policy of the state that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes.

(b) All relevant state agencies, including the department, the state board, and the State Department of Public Health, shall consider this state policy when revising, adopting, or establishing policies, regulations, and grant criteria when those policies, regulations, and criteria are pertinent to the uses of water described in this section.

(c) This section does not expand any obligation of the state to provide water or to require the expenditure of additional resources to develop water infrastructure beyond the obligations that may exist pursuant to subdivision (b).

(d) This section shall not apply to water supplies for new development.

(e) The implementation of this section shall not infringe on the rights or responsibilities of any public water system.

Credits
(Added by Stats.2012, c. 524 (A.B.685), § 1.)

West's Ann. Cal. Water Code § 106.3, CA WATER § 106.3
Current with urgency legislation through Ch. 119 of 2018 Reg.Sess

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Barclays Official California Code of Regulations Currentness
Title 22. Social Security
Division 4. Environmental Health
Chapter 17.5. Lead and Copper
Article 1. General Requirements and Definitions

22 CCR § 64670

§ 64670. General Requirements.

(a) Unless otherwise indicated, the requirements in this chapter apply to community water systems and nontransient-noncommunity water systems (hereinafter referred to as "water systems" or "systems").

(b) An action level exceedance shall not constitute a violation of this chapter.

(c) Analyses for lead, copper, pH, conductivity, calcium, alkalinity, orthophosphate, silica, and temperature shall be conducted using the methods prescribed at 40 Code of Federal Regulations, Section 141.89 [Federal Register (FR) 56 (110), 26460-26564, June 7, 1991; amended July 15, 1991 (56 FR 32113), June 29, 1992 (57 FR 28786), June 30, 1994 (59 FR 33860), and January 12, 2000 (65 FR 1250)]. Field tests shall be performed by water treatment or distribution operators certified by the Department pursuant to Section 106875 of the Health and Safety Code or by personnel trained to perform these tests by the Department, a certified laboratory, or certified operator.

(d) A new water system shall initiate compliance with this chapter within six months of distributing water to consumers. An existing system that changes size pursuant to the definitions in sections 64671.30, 64671.40 and 64671.70, shall initiate compliance with the requirements of this chapter applicable to the new size within six months.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New chapter 17.5, article 1 and section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer of chapter 17.5 (articles 1-9, sections 64670-64692), article 1 (sections 64670-64672.6) and section and new chapter 17.5 (articles 1-9, sections 64670-64690.80), article 1 (sections 64670-64671.85) and section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64670, 22 CA ADC § 64670

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22 CCR § 64671.05

§ 64671.05. Action Level.

"Action level", for the purpose of this chapter only, means the concentration of lead or copper in water that is used to determine the requirements of this chapter that a system shall meet.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.05, 22 CA ADC § 64671.05

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22 CCR § 64671.08

§ 64671.08. Action Level Exceedance.

"Action level exceedance", for the purpose of this chapter only, means that the level of lead or copper is greater than the respective action level, as determined pursuant to section 64678(d) through (g).

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.08, 22 CA ADC § 64671.08

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22 CCR § 64671.09

§ 64671.09. Corrosion Control Treatment or CCT.

"Corrosion control treatment" or "CCT" means the corrosion control treatment that minimizes the lead and copper concentrations at users' taps without causing the water system to violate any primary drinking water standards.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.09, 22 CA ADC § 64671.09

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22 CCR § 64671.10

§ 64671.10. Corrosion Inhibitor.

"Corrosion inhibitor" means a substance capable of reducing the corrosivity of water toward metal plumbing materials, especially lead and copper, by forming a protective film on the interior surface of those materials.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.10, 22 CA ADC § 64671.10

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22 CCR § 64671.15

§ 64671.15. Detection Limit for Purposes of Reporting or DLR.

"Detection limit for purposes of reporting" or "DLR" means the designated minimum level at or above which any analytical finding of a contaminant in drinking water resulting from monitoring required under this chapter shall be reported to the Department.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.15, 22 CA ADC § 64671.15

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22 CCR § 64671.20

§ 64671.20. Effective Corrosion Inhibitor Residual.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116300-116750, Health and Safety Code; and 40 Code of Federal Regulations 141.2.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order, including amendment of Note, transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.20, 22 CA ADC § 64671.20

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Barclays Official California Code of Regulations Currentness
Title 22. Social Security
Division 4. Environmental Health
Chapter 17.5. Lead and Copper
Article 1. General Requirements and Definitions

22 CCR § 64671.25

§ 64671.25. First Draw Sample.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116300-116750, Health and Safety Code; and 40 Code of Federal Regulations 141.2.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of Note(Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.25, 22 CA ADC § 64671.25

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22 CCR § 64671.30

§ 64671.30. Large Water System.

"Large water system", for the purpose of this chapter only, means a water system that serves more than 50,000 persons.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of Note(Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.30, 22 CA ADC § 64671.30

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Title 22. Social Security
Division 4. Environmental Health
Chapter 17.5. Lead and Copper
Article 1. General Requirements and Definitions

22 CCR § 64671.35

§ 64671.35. Lead Service Line.

"Lead service line" means a service line made of lead that connects the water main to the building inlet and any lead pigtail, gooseneck or other fitting which is connected to such lead line.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of Note(Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.35, 22 CA ADC § 64671.35

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22 CCR § 64671.40

§ 64671.40. Medium-Size Water System.

"Medium-size water system", for the purpose of this chapter only, means a water system that serves greater than 3,300 and less than or equal to 50,000 persons.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of Note(Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.40, 22 CA ADC § 64671.40

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22 CCR § 64671.50

§ 64671.50. Optimal Corrosion Control Treatment.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116300 through 116750, Health and Safety Code; and 40 Code of Federal Regulations 141.2.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of Note(Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.50, 22 CA ADC § 64671.50

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22 CCR § 64671.55

§ 64671.55. Period.

"Period", for the purpose of this chapter only, means a six-month monitoring timeframe.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.55, 22 CA ADC § 64671.55

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22 CCR § 64671.60

§ 64671.60. Service Line Sample.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116300 through 116750, Health and Safety Code; and 40 Code of Federal Regulations 141.2.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of Note(Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.60, 22 CA ADC § 64671.60

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22 CCR § 64671.65

§ 64671.65. Single-Family Structure.

"Single-family structure" means a building constructed as a single-family residence that is currently used as either a residence or a place of business.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of Note(Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.65, 22 CA ADC § 64671.65

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22 CCR § 64671.70

§ 64671.70. Small Water System.

"Small water system", for the purpose of this chapter only, means a water system that serves 3,300 persons or fewer.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of Note(Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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Chapter 17.5. Lead and Copper
Article 1. General Requirements and Definitions

22 CCR § 64671.75

§ 64671.75. Tap Sampling.

"Tap sampling" means sampling conducted pursuant to sections 64675 (General Requirements for Tap Sampling for Lead and Copper), 64675.5 (Tap Sampling Frequency), and 64677 (Sampling Collection Methods for Taps) at sites selected pursuant to section 64676 (Sampling Site Selection).

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.75, 22 CA ADC § 64671.75

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22 CCR § 64671.80

§ 64671.80. Water Quality Parameter or WQP.

"Water quality parameter" or "WQP", for the purposes of this chapter, means a characteristic or constituent of water, or a water treatment chemical added to water to control corrosion.

Note: Authority cited: Sections 116350, 116375, 131052 and 131200, Health and Safety Code. Reference: Sections 116275 and 116350, Health and Safety Code.

HISTORY

1. New section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

2. Amendment of section and Note filed 5-28-2014; operative 7-1-2014 (Register 2014, No. 22).

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22 CCR § 64671.80, 22 CA ADC § 64671.80

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22 CCR § 64671.85

§ 64671.85. WQP Monitoring.

"WQP monitoring" means sampling conducted pursuant to sections 64680 (General WQP Monitoring Requirements), 64681 (Initial WQP Monitoring), and 64682 (WQP Monitoring Requirements after CCT Installation).

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.85, 22 CA ADC § 64671.85

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22 CCR § 64672

§ 64672. Analytical Methods and Detection Limits.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116300 through 116750, Health and Safety Code; and 40 Code of Federal Regulations 141.89.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order, including new subsections (c)-(d), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64672, 22 CA ADC § 64672

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22 CCR § 64672.3

§ 64672.3. Determination of Compliance with Lead and Copper Action Levels.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116300 through 116750, Health and Safety Code; and 40 Code of Federal Regulations 141.80(c).

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64672.3, 22 CA ADC § 64672.3

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22 CCR § 64672.6

§ 64672.6. Use of Information Developed Prior to December 1, 1995.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116300 through 116750, Health and Safety Code; and 40 Code of Federal Regulations 141.81(d) and (e).

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order, including amendment of subsections (c)(2)-(3), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64672.6, 22 CA ADC § 64672.6

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22 CCR § 64673

§ 64673. Small and Medium-Size Water System Requirements.

(a) The requirements in this section are applicable to all small and medium-size water systems.

(b) Each small and medium-size system shall conduct standard tap sampling for lead and copper pursuant to section 64675 (General Requirements for Tap Sampling for Lead and Copper). Tap sampling frequency may be reduced pursuant to section 64675.5 (Tap Sampling Frequency).

(c) A small or medium-size system with an action level exceedance shall take the following steps:

(1) Monitor WQPs beginning with the first period after the exceedance, pursuant to section 64681 (Initial WQP Monitoring).

(2) Proceed with subparagraphs (A) through (E) if a corrosion control study is required by the Department based on a review of the system's water quality, distribution system, water treatment, and system features. If such a study is required, the Department will notify the system in writing within 12 months of the action level exceedance.

(A) Complete the study, pursuant to section 64683 (Corrosion Control Study Procedure), within eighteen months of being notified of the requirement; the system will be notified of the Department's designation within six months of the study's completion;

(B) Begin installation of the CCT designated by the Department, pursuant to section 64684 (CCT Installation and Operation), within twelve months of being notified of the Department's designation;

(C) Complete CCT installation and begin operation within 24 months of the designation;

(D) Complete two periods of standard tap sampling pursuant to section 64675 (General Requirements for Tap Sampling for Lead and Copper) and two periods of WQP monitoring pursuant to section 64682 (WQP Monitoring After CCT Installation) within 36 months of the designation; and

(E) Monitor WQPs and operate in compliance with the WQP levels specified by the Department pursuant to section 64684 (CCT Installation and Operation), beginning no later than within 42 months of the designation.

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(3) If the Department does not require a corrosion control study, the system shall submit to the Department, within six months of the action level exceedance, a written recommendation for CCT. The Department may require the system to conduct additional WQP monitoring to assist in the review of the CCT recommendation. The Department will designate CCT and notify the system in writing within the following timeframes; the system shall then comply with paragraphs (2)(B) through (E):

(A) For medium-size systems, within 12 months of the exceedance, and

(B) For small-size systems, within 18 months of the exceedance;

(4) Monitor source waters, pursuant to article 6 (Source Water Requirements for Action Level Exceedances) of this chapter;

(d) A small or medium-size system with an action level exceedance for lead shall:

(1) Complete a lead public education program, pursuant to article 7 (Public Education Program for Lead Action Level Exceedances) of this chapter; and

(2) Replace lead service lines, pursuant to article 8 (Lead Service Line Requirements for Action Level Exceedances) of this chapter.

(e) A small or medium-size system that is required to comply with subsections (c) or (d) may cease completing the steps whenever the system does not have an action level exceedance during each of two consecutive periods. If any such system thereafter has an exceedance during any period, the system shall:

(1) Resume completion of the applicable steps, beginning with the first step that was not previously completed. The Department may require a system to repeat steps previously completed if the Department determines that this is necessary to implement the requirements of this section, based on a review of the system's data and treatment status.

(2) Resume standard tap sampling pursuant to 64675 (General Requirements for Tap Sampling for Lead and Copper).

(3) Conduct WQP monitoring during the period in which the system exceeded the action level, pursuant to section 64682, (WQP Monitoring After CCT Installation) or 64684 (CCT Installation and Operation).

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

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HISTORY

1. New article 2 and section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of subsection (b)(2)(B) (Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer of article 2 (sections 64673-64676), new article 2 (sections 64673-64674) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64673, 22 CA ADC § 64673

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22 CCR § 64674

§ 64674. Large Water System Requirements.

(a) The requirements in this section are applicable to all large water systems.

(b) Each large system shall conduct standard tap sampling pursuant to section 64675 (General Requirements for Tap Sampling for Lead and Copper), and monitor for WQPs pursuant to section 64681 (Initial WQP Monitoring). Tap sampling frequency may be reduced pursuant to section 64675.5 (Tap Sampling Frequency).

(c) Each large system shall complete a corrosion control study, pursuant to section 64683 (Corrosion Control Study Procedure), unless it can meet one of the following criteria:

(1) The system submits the following documentation to the Department and the Department determines in writing that the system has optimized corrosion control based on its review of the submittal:

(A) The results of all test samples collected for each of the WQPs in section 64683(a)(3) (Corrosion Control Study Procedure);

(B) A report explaining the test methods used by the water system to evaluate corrosion control treatment alternatives pursuant to section 64683 (Corrosion Control Study Procedure), the results of all tests conducted, and the basis for the system's selection of CCT;

(C) A report explaining how CCT has been installed and is being operated pursuant to section 64684 (CCT Installation and Operation); and

(D) The results of tap sampling for lead and copper for two consecutive periods after corrosion control has been installed; or

(2) The system demonstrates for two consecutive periods that the difference between the 90th percentile tap sampling lead level and the highest source water monitoring result for each period is less than the reporting level for purposes of reporting (DLR), pursuant to subsections 64678 (a), (b) and (c) (Determination of Exceedances of Lead and Copper Action Levels), or that the source water lead levels are below the method detection level of 0.001 mg/L and the 90th percentile lead level is equal to or less than the DLR for each period. In either case, the system shall also not have a copper action level exceedance. If such a system ceases to meet this criteria, it shall conduct a corrosion control

study, pursuant to section 64683 (Corrosion Control Study Procedure) within eighteen months of not meeting the criteria, and proceed thereafter pursuant to subsection (e).

(d) Each large system that conducts a corrosion control study will be notified of the Department's designation for CCT within 6 months of the study's completion and shall comply with the following timeframes:

(1) Begin CCT installation within 12 months of being notified of the Department's designation for CCT.

(2) Complete CCT installation within 24 months of the Department's designation.

(3) Complete two periods of WQP monitoring and tap sampling for lead and copper within 36 months of the Department's designation.

(4) Operate in compliance with the WQP levels specified by the Department pursuant to section 64684 (CCT Installation and Operation), beginning no later than within 42 months of the Department's designation. WQP tap monitoring may be reduced as follows:

(A) Pursuant to section 64682(c) (WQP Monitoring After CCT Installation), if the system has no action level exceedance; or

(B) To once every three years at the reduced number of sites pursuant to table 64680-A, if the system has 90th percentile levels that do not exceed 0.005 mg/L for lead and 0.65 mg/L for copper for two consecutive periods.

(5) If source water treatment has been installed, conduct source sampling for lead and copper pursuant to section 64685 (Source Water Monitoring and Treatment Designation).

(e) A large system with an action level exceedance for lead shall:

(1) Monitor source waters, pursuant to article 6 (Source Water Requirements) of this chapter;

(2) Complete a lead public education program, pursuant to article 7 (Public Education Program for Action Level Exceedances) of this chapter; and

(3) Replace lead service lines, pursuant to article 8 (Lead Service Line Requirements) of this chapter.

(f) A large system with an action level exceedance for copper shall monitor source waters pursuant to article 6 (Source Water Requirements) of this chapter.

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Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order, including amendment of subsections (a)(2) and (a)(4)-(6), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64675

§ 64675. General Requirements for Tap Sampling for Lead and Copper.

(a) During each period, each system shall conduct standard tap sampling by collecting one sample from the number of sites based on the number of people served specified in table 64675-A under Standard Tap Sampling.

(b) During each period, each system conducting reduced tap sampling shall collect at least one sample from the number of sites based on the number of people served specified in table 64675-A under Reduced Tap Sampling, as follows:

(1) The sites shall be representative of the sites required for standard tap sampling.

(2) The samples shall be collected during the months of June, July, August, or September, unless the Department approves an alternate set of four months based on a review of the system's operations and lead and copper data, in which case the system shall initiate sampling during the alternate set of four months when directed in writing to do so by the Department, as follows:

(A) No later than 21 months after the previous period, if sampling annually, or

(B) No later than 45 months after the previous period, if sampling triennially.

Table 64675-A Lead and Copper Tap Sampling Sites

System Size	Standard Tap Sampling	Reduced Tap Sampling
	(Minimimum Number of Sites)	
>100,000	100	50
10,001 to 100,000	60	30
3,301 to 10,000	40	20
501 to 3,300	20	10
101 to 500	10	5
<101	5	5

Lead and Copper Tap Sampling Sites

System Size	*Standard Tap Sampling*	*Reduced Tap Sampling*
	(Minimimum Number of Sites)	
>100,000	100	50
10,001 to 100,000	60	30
3,301 to 10,000	40	20
501 to 3,300	20	10
101 to 500	10	5
<101	5	5

(c) Sample sites shall be selected pursuant to section 64676 (Sample Site Selection).

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order, including amendment of subsection (a)(1), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer of article 3 (sections 64677-64678), new article 3 (sections 64675-64679) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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Chapter 17.5. Lead and Copper
Article 3. Monitoring for Lead and Copper

22 CCR § 64675.5

§ 64675.5. Tap Sampling Frequency.

(a) A system shall conduct standard tap sampling for two consecutive periods; thereafter, tap sampling frequency may be reduced pursuant to section 64675 (General Requirements for Tap Sampling for Lead and Copper) as follows:

(1) If a system has 90th percentile levels that do not exceed 0.005 mg/L for lead and 0.65 mg/L for copper for two consecutive periods, it may reduce the sampling to once every three years at the reduced number of sites;

(2) For systems that do not meet the criteria in paragraph (1), after two consecutive periods with no action level exceedance, the frequency may be reduced to annually at the reduced number of sites, if the system receives written approval from the Department based on its review of the system's data. After sampling for three years (including the initial sampling year) with no action level exceedance, the frequency may be reduced to once every three years at the reduced number of sites, if the system receives written approval from the Department.

(b) If a system demonstrates for two consecutive periods that the difference between the 90th percentile tap sampling lead level and the highest source water monitoring result for each period is less than the reporting level for purposes of reporting (DLR), pursuant to subsections 64678(a), (b), and (c) or that the source water lead levels are below the method detection level of 0.001 mg/L and the 90th percentile lead level is equal to or less than the DLR for each period, the system shall conduct tap sampling once every three years.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64675.5, 22 CA ADC § 64675.5

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22 CCR § 64676

§ 64676. Sample Site Selection.

(a) Each system shall identify a pool of sampling sites that:

(1) Is large enough to ensure that the water system can collect the number of lead and copper tap samples required in section 64675 (General Requirements for Tap Sampling for Lead and Copper);

(2) Meets the criteria in subsections (c) or (d), as applicable; and

(3) Does not include faucets that have point-of-use or point-of-entry treatment devices designed to remove inorganic contaminants.

(b) Prior to identifying sampling sites, each system shall conduct an evaluation of its distribution system to determine the construction materials (lead, copper, and galvanized steel) exposed to the water. If necessary to ensure the sample site criteria is met, the system shall collect additional information during the course of its normal operations (e.g., checking service line materials when reading water meters, or performance maintenance activities) and from the following:

(1) All plumbing codes, permits, and records in the files of the building department(s) that indicate the plumbing materials installed within publicly and privately owned structures connected to the distribution system;

(2) All inspections and records of the distribution system that indicate the material composition of the service connections connecting a structure to the distribution system; and

(3) All existing water quality information, which includes the results of prior analyses of the system or individual structures connected to the system, indicating locations that may be particularly susceptible to high lead or copper concentrations.

(c) Each community water system shall:

(1) Identify a sampling pool of "tier 1" sampling sites consisting of single-family structures except that, when multiple-family residences comprise at least 20 percent of the structures served by a water system, the system may include these types of structures as "tier 1" sites in its sampling pool. The "tier 1" sampling sites shall

(A) Contain copper pipes with lead solder installed after 1982; or

(B) Contain lead pipes; or

(C) Be served by a lead service line.

(2) If there is an insufficient number of "tier 1" sites, complete its sampling pool with "tier 2" sampling sites, consisting of buildings, including multiple-family residences that:

(A) Contain copper pipes with lead solder installed after 1982; or

(B) Contain lead pipes; or

(C) Are served by a lead service line.

(3) If there is an insufficient number of "tier 1" and "tier 2" sampling sites, complete its sampling pool with "tier 3" sampling sites, consisting of single-family structures that contain copper pipes with lead solder installed before 1983. A system with an insufficient number of tier 1, 2 and 3 sites shall complete its sampling pool with representative sites (i.e., plumbing materials commonly found at other sites) throughout the distribution system.

(d) Each nontransient-noncommunity water system shall:

(1) Identify a pool of "tier 1" sampling sites consisting of buildings that:

(A) Contain copper pipes with lead solder installed after 1982; or

(B) Contain lead pipes; or

(C) Are served by a lead service line.

(2) If there is an insufficient number of "tier 1" sites that meet the criteria in paragraph (1), complete its sampling pool with sites that contain copper pipes with lead solder installed before 1983. If additional sites are needed to complete the sampling pool, the system shall use representative sites (i.e., plumbing materials commonly found at other sites) throughout the distribution system.

(e) Each system whose distribution system contains lead service lines shall draw 50 percent of the samples it collects during each period from sites that contain lead pipes, or copper pipes with lead solder, and 50 percent of the samples

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from sites served by a lead service line. A system that cannot identify a sufficient number of sites served by a lead service line shall collect first draw samples from all of the sites identified as being served by such lines.

(f) A system that does not have enough taps that can provide first-draw samples shall submit written documentation to the Department identifying standing times and locations for enough non-first-draw samples to make up its sampling pool by the start of its next monitoring period.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64677

§ 64677. Sample Collection Methods for Taps.

(a) All tap samples for lead and copper collected pursuant to this chapter, with the exception of lead service line samples collected under section 64689 (Lead Service Line Sampling) and samples collected under subsection (d), shall be first-draw samples, pursuant to subsection (b).

(b) A first-draw sample shall be one liter in volume and have stood motionless in the plumbing system of each site for at least six hours, but not more than twelve. Samples from residential housing shall be collected from the cold-water kitchen tap or bathroom sink tap. Samples from a non-residential building shall be collected at an interior tap from which water is typically drawn for consumption. Samples may be collected by the system or the system may allow residents to collect tap samples after instructing the residents of the sampling procedures specified in this section. To avoid problems of residents handling nitric acid, acidification of samples may be done up to 14 days after collection. After acidification to resolubilize the metals, the sample shall stand in the original container for the time specified by the method used pursuant to section 64670(c) before it can be analyzed. If a system allows residents to perform sampling, the system may not challenge, based on alleged errors in sample collection, the accuracy of sampling results.

(c) A system shall collect each tap sample from the same site from which it collected a sample during the previous period. If the system cannot gain entry to a site in order to collect a tap sample, it may collect the tap sample from another site in its sampling pool as long as the new site meets the same criteria, and is as close as possible to the original site.

(d) A system that does not have enough taps to supply first-draw samples may apply to the Department in writing to substitute non-first-draw samples. Such systems shall collect as many first-draw samples as possible and identify sampling times and locations that would likely result in the longest standing time for the remaining sites.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New article 3 and section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order, including amendment of subsection (a), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer of article 3 (sections 64677-64678) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64677, 22 CA ADC § 64677

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22 CCR § 64677.5

§ 64677.5. Sample Invalidation.

(a) A lead or copper sample may be invalidated by the Department if at least one of the following conditions is met and documented in writing:

(1) The laboratory establishes that improper sample analysis caused erroneous results;

(2) The Department determines that the sample was taken from a site that did not meet the site selection criteria in section 64676 (Sample Site Selection);

(3) The sample container was damaged in transit;

(4) The Department determines the sample does not meet the requirements in section 64677 (Sample Collection Methods for Taps); or

(5) There is substantial reason to believe that the sample was subject to tampering.

(b) To apply for invalidation of one or more samples, a system shall report the results of all samples for the period to the Department, including written documentation to support the system's belief that one or more samples should be invalidated.

(c) A sample invalidated pursuant to subsection (a) shall not count toward determining lead or copper 90th percentile levels or toward meeting any monitoring requirements in this chapter.

(d) The system shall collect replacement samples for any invalidated samples if, after the invalidation of one or more samples, the system has too few samples to meet the monitoring requirements of this chapter. Replacement samples taken after the end of the applicable period shall not be used to meet the monitoring requirements of a subsequent period. Replacement samples shall be collected as follows:

(1) As soon as possible, but no later than 20 days after the system receives notification from the Department that it has invalidated the sample, or by the end of the applicable period, whichever occurs later; and

(2) At the same locations as the invalidated samples or, if that is not possible, at locations other than those already used for sampling during the monitoring period.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64677.5, 22 CA ADC § 64677.5

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Title 22. Social Security
Division 4. Environmental Health
Chapter 17.5. Lead and Copper
Article 3. Monitoring for Lead and Copper

22 CCR § 64678

§ 64678. Determination of Exceedances of Lead and Copper Action Levels.

(a) The detection limits for purposes of reporting (DLRs) for lead and copper are as follows:

Table 64678-A. DLRs for Lead and Copper

Contaminant	DLR (mg/L)
Lead	0.005
Copper	0.050

Contaminant *DLR (mg/L)*
Lead 0.005
Copper 0.050

(b) For purposes of determining the difference in concentration between the source water and the 90th percentile tap results, the following shall apply:

(1) Analytical results for lead greater than or equal to 0.001 mg/L and less than 0.005 mg/L shall be as measured or 0.0025 mg/L, whichever is greater.

(2) Analytical results for copper greater than or equal to 0.001 mg/L and less than 0.050 mg/L shall be as measured or 0.025 mg/L, whichever is greater.

(3) Analytical results below 0.001 mg/L for lead and copper shall be considered zero.

(c) Analytical results below the DLRs for lead and copper specified shall be reported as zero.

(d) The lead action level is exceeded if the concentration of lead in more than 10 percent of the tap water samples collected during any period is greater than 0.015 mg/L (i.e., if the “90th percentile” lead level is greater than 0.015 mg/L).

(e) The copper action level is exceeded if the concentration of copper in more than 10 percent of the tap water samples collected during any period is greater than 1.3 mg/L (i.e., if the “90th percentile” copper level is greater than 1.3 mg/L).

(f) The 90th percentile lead and copper levels shall be computed as follows:

(1) The results of all lead or copper samples collected during a period shall be placed in ascending order from the sample with the lowest concentration to the sample with the highest concentration. Each sampling result shall be assigned a number, ascending by single integers beginning with the number 1 for the sample with the lowest contaminant level. The number assigned to the sample with the highest contaminant level shall be equal to the total number of samples taken.

(2) The number of samples taken during the period shall be multiplied by 0.9.

(3) The contaminant concentration in the numbered sample identified by the calculation in paragraph (f)(2) is the 90th percentile contaminant level.

(4) For water systems serving less than or equal to 100 people that collect 5 samples per period, the 90th percentile is computed by taking the average of the highest and second highest concentrations.

(g) The results of any monitoring conducted in addition to the minimum requirements of this section shall be considered by the system and submitted to the department for making any determinations.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64678, 22 CA ADC § 64678

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22 CCR § 64678.5

§ 64678.5. Monitoring Waivers for Small Systems.

(a) A small water system may apply to the Department for a waiver to reduce the tap sampling frequency for lead and copper to once every nine years, and shall continue tap sampling as required by this chapter until it receives written notification from the Department that the waiver has been approved.

(b) A system that meets the following materials and monitoring criteria for both lead and copper will be granted a full waiver, while a system that meets both sets of criteria for only one of the chemicals will be granted a partial waiver that covers only that chemical.

(1) To meet the materials criteria, a system shall provide certification and documentation that its distribution system and service lines and all drinking water supply plumbing, including plumbing conveying drinking water within all residences and buildings connected to the system, satisfy the following:

(A) For lead, the system shall be free of the following lead-containing materials:

1. Plastic pipes that contain lead plasticizers, or plastic service lines that contain lead plasticizers; and

2. Lead service lines, lead pipes, lead soldered pipe joints, and leaded brass or bronze alloy fittings and fixtures, unless the utility can demonstrate to the Department that such fittings and fixtures will not leach lead into the drinking water.

(B) For copper, the system shall be free of copper pipes and copper service lines.

(2) To meet the monitoring criteria, the system shall have completed at least one period of standard tap sampling and demonstrate that the 90th percentile levels for all periods of tap sampling conducted since the system became free of all lead-containing and/or copper-containing materials, as appropriate, do not exceed the following:

(A) For lead, 0.005 mg/L.

(B) For copper, 0.65 mg/L.

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(c) If granted a waiver, the system shall

(1) Comply with any requirements that the Department includes as conditions of the waiver, such as limited monitoring, periodic outreach to customers to remind them to avoid installation of materials that might void the waiver;

(2) Conduct tap sampling at the reduced number of sites for one period every nine years for the chemical(s) for which the waiver has been granted;

(3) Provide the materials certification specified in paragraph (b)(1) for the chemical(s) for which the waiver has been granted, along with the monitoring results; and

(4) If the waiver was granted for only one chemical, continue to monitor pursuant to this chapter for the other chemical.

(d) If the system continues to satisfy the requirements of subsections (b) and (c), the waiver will be renewed automatically, unless the Department notifies the system in writing that the waiver has been revoked and why. A system whose waiver has been revoked may re-apply for a waiver at such time as it again meets the appropriate materials and monitoring criteria in subsection (b) and (c).

(e) If a system with a waiver adds a new source of water or changes any water treatment, the Department may require the system to add or modify waiver conditions (e.g., require recertification that the system is free of lead-containing and/or copper-containing materials, require additional tap sampling periods), if it deems such modifications are necessary to address treatment or source water changes at the system.

(f) If a system with a waiver becomes aware that it is no longer free of lead-containing or copper-containing materials, it shall notify the Department in writing no later than 60 days after becoming aware of such a change.

(g) If a system with a waiver that has been collecting samples during the months of June, July, August and September receives Department approval for an alternate set of months pursuant to section 64675(b)(2) (General Requirements for Tap Sampling for Lead and Copper), it shall conduct its next tap sampling before the waiver expires.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64678.5, 22 CA ADC § 64678.5

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22 CCR § 64679

§ 64679. Supplemental Monitoring.

A water system with a lead action level exceedance shall offer to sample the tap water of any customer who requests it. The system is not required to pay for collecting or analyzing the sample.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New article 4 and section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order, including amendment of subsections (d) and (f), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer of article 4 (section 64679) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64680

§ 64680. General WQP Monitoring Requirements.

(a) WQP tap monitoring shall be:

(1) Representative of water quality throughout the distribution system, by considering the number of persons served, the different sources of water and treatment methods employed, and seasonal variability;

(2) Not restricted to sites targeted for lead and copper sampling; and

(3) Include two samples for each applicable WQP during each period, from the standard number of sites, based on the number of persons served, specified in table 64680-A.

Table 64680-A WQP Tap Monitoring Sites

System Size	Standard Tap Sampling	Reduced Tap Sampling
	(Minimimum Number of Sites)	
>100,000	25	10
10,001 to 100,000	10	7
3,301 to 10,000	3	3
501 to 3,300	2	2
101 to 500	1	1
<101	1	1

System Size *Standard Tap Sampling* *Reduced Tap Sampling*
(Minimimum Number of Sites)
>100,000 25 10
10,001 to 100,000 10 7
3,301 to 10,000 3 3
501 to 3,300 2 2
101 to 500 1 1
<101 1 1

(b) Initial WQP monitoring at the entry point(s) to the distribution system shall be two samples for each applicable WQP at each entry point from locations representative of each source after treatment. After the installation of CCT, only one sample is required at each entry point. If a system draws water from more than one source and the sources are combined before distribution, the system shall sample at each entry point during normal operating conditions.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New article 5 and section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of subsection (a)(1)(D)2.A. (Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order, including amendment of subsections (a)(1)(D)2.D., (a) (1)(D)3.A. and (b)(5), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer of former article 4 (section 64679), repealer of former article 5 (sections 64680-64681), new article 4 (sections 64680-64684) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64681

§ 64681. Initial WQP Monitoring.

For initial WQP monitoring, each system shall monitor for the following WQPs, pursuant to section 64680 (General WQP Monitoring Requirements):

(a) pH;

(b) Alkalinity;

(c) Orthophosphate, when an inhibitor containing a phosphate compound is used;

(d) Silica, when an inhibitor containing a silicate compound is used;

(e) Calcium;

(f) Conductivity; and

(g) Water temperature.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

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4. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64682

§ 64682. WQP Monitoring After CCT Installation.

(a) Each system that installs CCT shall monitor the following WQPs, pursuant to section 64680 (General WQP Monitoring Requirements), as applicable:

(1) At taps:

(A) pH;

(B) Alkalinity;

(C) Orthophosphate, when an inhibitor containing a phosphate compound is used;

(D) Silica, when an inhibitor containing a silicate compound is used;

(E) Calcium, when calcium carbonate stabilization is used as part of corrosion control.

(2) At each entry point to the distribution system every two weeks as a minimum:

(A) pH;

(B) When alkalinity is adjusted as part of CCT, a reading of the dosage rate of the chemical used to adjust alkalinity, and the alkalinity concentration; and

(C) When a corrosion inhibitor is used as part of CCT, a reading of the dosage rate of the inhibitor used, and the concentration of the active ingredient(s).

(b) A ground water system may use entry points that are representative of water quality and treatment conditions throughout the system for the monitoring required in paragraph (a)(2) as follows:

(1) If waters from untreated and treated groundwater sources mix, the system shall monitor entry points representative of each;

(2) Prior to monitoring, the system shall submit written documentation to the Department identifying the sites and demonstrating that they are representative.

(c) Subject to the Department's written approval, a system that has no action level exceedance and meets the Department-specified WQP values or ranges may reduce tap monitoring as follows:

(1) After two consecutive periods during which it has met the WQP values or ranges, the system shall monitor each period at the reduced number of sites, pursuant to table 64680-A;

(2) After three consecutive years (including the initial sampling year) during which it has met the WQP values or ranges, the system shall monitor annually at the reduced number of sites at evenly-spaced intervals throughout the year; and

(3) After three consecutive years of annual monitoring during which the system meets the WQP values or ranges, the system shall monitor once every three years at the reduced number of sites at evenly-spaced intervals throughout the monitoring year.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New article 6 and section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of subsection (b) (Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order, including amendment of subsection (i), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer of article 6 (sections 64682-64685) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64683

§ 64683. Corrosion Control Study Procedure.

(a) Each system conducting a corrosion control study shall:

(1) Evaluate the effectiveness of each of the following treatments, and, if appropriate, combinations of the following treatments to identify the CCT for that system:

(A) Alkalinity and pH adjustment;

(B) Calcium hardness adjustment; and

(C) The addition of a corrosion inhibitor at a concentration sufficient to maintain an effective residual concentration throughout the distribution system.

(2) Evaluate each of the corrosion control treatments using either pipe rig/loop tests, metal coupon tests, partial-system tests, or analyses based on documentation of such treatments from systems of similar size, water chemistry and distribution system configuration.

(3) Measure the following WQPs in any tests conducted under this subsection before and after evaluating the corrosion control treatments listed above:

(A) Lead;

(B) Copper;

(C) pH;

(D) Alkalinity;

(E) Calcium;

(F) Conductivity;

(G) Corrosion control inhibitor active ingredient (when an inhibitor is used);

(H) Water temperature.

(4) Identify all chemical or physical constraints that limit or prohibit the use of a particular corrosion control treatment and document such constraints with at least one of the following:

(A) Data and documentation showing that a particular corrosion control treatment has adversely affected other water treatment processes when used by another water system with comparable water quality characteristics; and/or

(B) Data and documentation demonstrating that the water system has previously attempted to evaluate a particular corrosion control treatment and has found that the treatment is ineffective or adversely affects other water quality treatment processes.

(5) Evaluate the effect of the chemicals used for corrosion control treatment on other water treatment processes.

(6) Recommend to the Department in writing the treatment option that the corrosion control studies indicate constitutes CCT for that system on the basis of an analysis of the data generated during each evaluation. The water system shall provide a rationale for its recommendation along with all supporting documentation specified in paragraphs (a)(1) through (5) of this section.

(b) Based on the study conducted pursuant to subsection (a), and a system's recommended treatment alternative, the Department will either approve the corrosion control treatment option recommended by the system, or designate alternative corrosion control treatment(s) from among those listed in paragraph (a)(1) of this section, notify the system of its decision on CCT in writing and explain the basis for its determination. If the Department requests additional information to aid its review, the water system shall provide the information.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of subsections (c)(2) and (d) (Register 96, No. 38).

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4. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer of former article 5 (sections 64680-64681), new article 5 (sections 64683-64685) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64684

§ 64684. CCT Installation and Operation.

(a) Each system shall install and operate throughout its distribution system the CCT designated by the Department in subsection 64683(b) (Corrosion Control Studies) or paragraph 64673(c)(3) (Small and Medium-size Water System Requirements) and monitor WQPs pursuant to section 64682 (WQP Monitoring After CCT Installation). When the system completes its installation of CCT, it shall submit a letter to the Department certifying that it has done so.

(b) After the system installs CCT, the Department will review the treatment and pre- and post-treatment tap sampling and WQP monitoring data and specify WQPs in writing within 42 months of its CCT designation as follows:

(1) A minimum value or a range of values for pH measured at each entry point to the distribution system;

(2) A minimum pH value of 7.0 or greater, measured in all tap samples, unless the Department determines that meeting a pH level of 7.0 is not technologically feasible or is not necessary for the system to optimize corrosion control;

(3) If a corrosion inhibitor is used, a minimum concentration or a range of concentrations for the inhibitor, measured at each entry point to the distribution system and in all tap samples, that the Department determines is necessary to maintain a passivating film on the interior walls of the pipes of the distribution system;

(4) If alkalinity is adjusted as part of CCT, a minimum concentration or a range of concentrations for alkalinity, measured at each entry point to the distribution system and in all tap samples;

(5) If calcium carbonate stabilization is used as part of corrosion control, a minimum concentration or a range of concentrations for calcium, measured in all tap samples; and

(6) Values for additional WQPs determined by the Department to reflect CCT for the system.

(c) After the Department specifies WQP values and ranges, each system shall monitor pursuant to section 64680 (General WQP Monitoring Requirements) and maintain WQPs as specified by the Department.

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(d) A system shall be out of compliance with the WQP values and ranges specified by the Department pursuant to subsection (b) for any period during which it has excursions for more than nine days.

(1) An excursion occurs when a "daily value" at one or more sample sites for one or more WQPs in a day is below the minimum value or outside the range of Department-specified WQPs.

(2) A "daily value" for a WQP at a site is determined as follows:

(A) If sampling is more than once a day by continuous monitoring, grab sampling or both, the daily value shall be the average of all the day's results at the sampling site.

(B) If sampling is once a day, the daily value shall be the day's result.

(C) If sampling is less than once a day, the daily value shall apply to the day that the water supplier receives the result from the laboratory or the 30th day after the sample is collected, whichever comes first.

(3) When an excursion occurs, within 48 hours of being notified of the results of the initial sample(s), the system shall investigate the cause and collect a followup sample at each affected site for each WQP that did not meet the Department-specified values. The criteria in paragraphs (d)(1) and (2) shall be applied to the followup sample results to determine if another excursion has occurred.

(e) A system conducting reduced WQP tap monitoring that fails to meet the Department-specified WQPs shall resume standard WQP tap monitoring pursuant to section 64680 (General WQP Monitoring Requirements).

(f) The results of any monitoring conducted in addition to the minimum requirements of this section shall be considered by the system and submitted to the Department for making any determinations (i.e., determining concentrations of WQPs).

(g) Upon its own initiative or in response to a request by a system, the Department may modify in writing its designation of CCT or its specified WQP values and ranges if it determines that modification is necessary to ensure that the system continues to maintain CCT. Any request shall be in writing, explain the reason for the requested modification, and include supporting documentation.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

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2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of subsection (b)(2)(A) (Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order, including amendment of subsection (a), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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Chapter 17.5. Lead and Copper
Article 6. Source Water Requirements for Action Level Exceedances

22 CCR § 64685

§ 64685. Source Water Monitoring and Treatment Designation.

(a) Within six months of an action level exceedance, a system shall:

(1) Collect one lead and copper source water sample from each entry point to the distribution system that is representative of the source or combined sources and is collected after any treatment, if treatment is applied before distribution;

(2) In writing, either recommend to the Department the installation and operation of a source water treatment (ion exchange, reverse osmosis, lime softening, or coagulation/filtration) or demonstrate that source water treatment is not needed to minimize lead and copper levels at users' taps; and

(3) Submit any additional information requested by the Department to aid in its determination of whether source water treatment is necessary to minimize lead and copper levels in water delivered to users' taps.

(b) The Department will make a determination regarding source water treatment within six months after submission of monitoring results under subsection (a).

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order, including amendment of subsection (a)(1), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer of former article 6 (sections 64682-64685), new article 6 (sections 64685-64686) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64686

§ 64686. Requirements Subsequent to the Department's Designation.

(a) If the Department determines that source water treatment is required pursuant to subsection 64685(b), the system shall comply with the following within the specified timeframes that begin with the Department's determination regarding source water treatment:

(1) Install the treatment within 24 months and submit a letter to the Department certifying that installation has been completed;

(2) Collect an additional source water sample from each entry point to the distribution system during two consecutive periods within 36 months;

(3) Complete two consecutive periods of standard monitoring for lead and copper pursuant to section 64675 (General Requirements for Tap Sampling for Lead and Copper) within 36 months.

(b) Within 6 months after the system installs source water treatment, based on its review of the data collected pursuant to subsection (a) and the contaminant removal capability of the installed treatment when properly operated, the Department will specify maximum permissible lead and copper levels for water entering the distribution system. The water system shall comply with these maximum permissible levels.

(c) After the Department specifies maximum permissible levels or determines that source water treatment is not needed, the system shall conduct standard monitoring related to source water pursuant to table 64686-A, according to source water type. If approved by the Department based on a review of source water data, the system may reduce monitoring pursuant to table 64686-A.

Table 64686-A. Standard and Reduced Monitoring Related to Source Water

Type of monitoring	Ground water	Surface water with or without groundwater
Standard monitoring	1 sample at each entry point every year, as a minimum	1 sample at each entry point every 3 years, as a minimum

Reduced monitoring, after 3 consecutive rounds of standard monitoring in compliance with maximum permissible levels.	1 sample at each entry point every 9 years	1 sample at each entry point every 9 years

Type of monitoring	*Ground water*	*Surface water with or without groundwater*
Standard monitoring	1 sample at each entry point every 3 years, as a minimum	1 sample at each entry point every year, as a minimum
Reduced monitoring, after 3 consecutive rounds of standard monitoring in compliance with maximum permissible levels.	1 sample at each entry point every 9 years	1 sample at each entry point every 9 years

(d) If a system does not have an action level exceedance for lead and/or copper during three consecutive years for groundwater or one year for surface water with or without groundwater, the system is not required to conduct sampling related to source water for the specific chemical.

(e) If the results of sampling indicate an exceedance of the maximum permissible levels specified pursuant to subsection (b), one additional sample may be collected at the same sampling point as soon as possible within 14 days of the initial sample to confirm the result. If a confirmation sample is collected, then the average of the initial and confirmation sample results shall be used to determine compliance with the maximum permissible levels.

(f) A water system that begins using a new water source shall reinitiate standard monitoring pursuant to subsection (c) and conduct three rounds of monitoring with the new source online before reducing the monitoring frequency.

(g) Upon its own initiative or in response to a request by a system, the Department may modify its determination of the source water treatment, or maximum permissible lead and copper concentrations for treated source water. Any request shall be in writing, explain the reason for the requested modification, and include supporting documentation.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 1-16-90; operative 2-15-90 (Register 90, No. 4).

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2. Renumbering and amendment of Noteof former section 64686 to section 64469 filed 5-27-92; operative 6-26-92 (Register 92, No. 22).

3. New article 7 and section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

4. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

5. Certificate of Compliance as to 12-11-95 order, including amendment of subsections (b)(1) and (c), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

6. Repealer of article 7 (sections 64686-64688) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

This database is current through 7/27/18 Register 2018, No. 30

22 CCR § 64686, 22 CA ADC § 64686

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Title 22. Social Security
Division 4. Environmental Health
Chapter 17.5. Lead and Copper
Article 7. Public Education Program for Lead Action Level Exceedances

22 CCR § 64687

§ 64687. Lead Public Education Program Content and Delivery.

(a) Each system with a lead action level exceedance shall conduct a lead public education program that includes delivery of the following public education materials pursuant to subsection (d). Within 10 days after the period during which the program was required, the system shall submit a letter to the Department demonstrating that it has delivered the public education materials as required and include a list of all the newspapers, radio stations, television stations, facilities and organizations to which the system delivered the materials during the previous year.

(1) Except as provided in subsection (b), a community water system shall include the following text in all of the printed materials it distributes through its lead public education program:

(A) Introduction. The California Department of Health Services (DHS), the U.S. Environmental Protection Agency, and [insert name of water supplier] are concerned about lead in your drinking water. Although most homes have very low levels of lead in their drinking water, some homes in the community have lead levels above the state and federal action level of 15 parts per billion (ppb), or 0.015 milligrams of lead per liter of water (mg/L). Under state and federal law we are required to have a program in place to minimize lead in your drinking water by [insert date when corrosion control will be completed for your system]. This program includes corrosion control treatment, source water treatment, and public education. We are also required to replace the portion of each lead service line that we own if the line contributes lead concentrations of 15 ppb or more after we have completed the comprehensive treatment program. If you have any questions about how we are carrying out the requirements of the lead regulation please give us a call at [insert water system's phone number]. This brochure explains the simple steps you can take to protect you and your family by reducing your exposure to lead in drinking water.

(B) Health Effects of Lead. Lead is a common metal found throughout the environment in lead-based paint, air, soil, household dust, food, certain types of pottery porcelain and pewter, and water. Lead can pose a significant risk to your health if too much of it enters your body. Lead builds up in the body over many years and can cause damage to the brain, red blood cells and kidneys. The greatest risk is to young children and pregnant women. Amounts of lead that won't hurt adults can slow down normal mental and physical development of growing bodies. In addition, a child at play often comes into contact with sources of lead contamination -- like dirt and dust -- that rarely affect an adult. It is important to wash children's hands and toys often, and to try to make sure they only put food in their mouths.

(C) Lead In Drinking Water

1. Lead in drinking water, although rarely the sole cause of lead poisoning, can significantly increase a person's total lead exposure, particularly the exposure of infants who drink baby formulas and concentrated juices that are mixed with water. The U.S. Environmental Protection Agency estimates that drinking water can make up 20 percent or more of a person's total exposure to lead.

2. Lead is unusual among drinking water contaminants in that it seldom occurs naturally in water supplies like rivers and lakes. Lead enters drinking water primarily as a result of the corrosion, or wearing away, of materials containing lead in the water distribution system and household plumbing. These materials include lead-based solder used to join copper pipe, brass and chrome plated brass faucets, and in some cases, pipes made of lead that connect your house to the water main (service lines). In 1986, Congress banned the use of lead solder containing greater than 0.2% lead, and restricted the lead content of faucets, pipes and other plumbing materials to 8.0%. In California, a similar law prohibiting the use of both lead solder and lead pipe was enacted in 1985.

3. When water stands in lead pipes or plumbing systems containing lead for several hours or more, the lead may dissolve into your drinking water. This means the first water drawn from the tap in the morning, or later in the afternoon after returning from work or school, can contain fairly high levels of lead.

(D) Steps You Can Take in the Home to Reduce Exposure to Lead in Drinking Water

1. Despite our best efforts mentioned earlier to control water corrosivity and remove lead from the water supply, lead levels in some homes or buildings can be high. To find out whether you need to take action in your own home, have your drinking water tested to determine if it contains excessive concentrations of lead. Testing the water is essential because you cannot see, taste, or smell lead in drinking water. Some local laboratories that can provide this service are listed at the end of this booklet. For more information on having your water tested, please call [insert phone number of water system].

2. If a water test indicates that the drinking water drawn from a tap in your home contains lead above 15 ppb, then you should take the following precautions:

A. Let the water run from the tap before using it for drinking or cooking any time the water in a faucet has gone unused for more than six hours. The longer water resides in your home's plumbing the more lead it may contain. Flushing the tap means running the cold water faucet until the water gets noticeably colder, usually about 15 to 30 seconds. If your house has a lead service line to the water main, you may have to flush the water for a longer time, perhaps one minute, before drinking. Although toilet flushing or showering flushes water through a portion of your home's plumbing system, you still need to flush the water in each faucet before using it for drinking or cooking. Flushing tap water is a simple and inexpensive measure you can take to protect your family's health. It usually uses less than one or two gallons of water and costs less than [insert a cost estimate based on flushing two times a day for 30 days] per month. To conserve water, fill a couple of bottles for drinking water after flushing the tap, and whenever possible use the first flush water to wash the dishes or water the plants. If you live in a high-rise building, letting the water flow before using it may not work to lessen your risk from lead. The plumbing systems have more, and sometimes larger pipes than smaller buildings. Ask your landlord for help in locating the source of the lead and for advice on reducing the lead level.

B. Try not to cook with, or drink water from the hot water tap. Hot water can dissolve more lead more quickly than cold water. If you need hot water, draw water from the cold tap and heat it on the stove.

C. Remove loose lead solder and debris from the plumbing materials installed in newly constructed homes, or homes in which the plumbing has recently been replaced, by removing the faucet strainers from all taps and running the water from 3 to 5 minutes. Thereafter, periodically remove the strainers and flush out any debris that has accumulated over time.

D. If your copper pipes are joined with lead solder that has been installed illegally since it was banned in 1986, notify the plumber who did the work and request that he or she replace the lead solder with lead-free solder. Lead solder looks dull gray, and when scratched with a key looks shiny. In addition, notify the California Department of Health Services and your local environmental health department about the violation.

E. Determine whether or not the service line that connects your home or apartment to the water main is made of lead. The best way to determine if your service line is made of lead is by either hiring a licensed plumber to inspect the line or by contacting the plumbing contractor who installed the line. You can identify the plumbing contractor by checking the record of building permits which should be maintained in the files of the [insert name of department that issues building permits]. A licensed plumber can at the same time check to see if your home's plumbing contains lead solder, lead pipes, or pipe fittings that contain lead. The public water system that delivers water to your home should also maintain records of the materials located in the distribution system. If the service line that connects your dwelling to the water main contributes more than 15 ppb to drinking water, after our comprehensive treatment program is in place, we are required to replace the portion of the line we own. If the line is only partially owned by the [insert name of the city, county, or water system that owns the line], we are required to provide the owner of the privately-owned portion of the service line with information on how to replace the privately-owned portion of the service line, and offer to replace that portion of the line at the owner's expense. If we replace only the portion of the line that we own, we also are required to notify you in advance and provide you with information on the steps you can take to minimize exposure to any temporary increase in lead levels that may result from the partial replacement, to take a follow-up sample at our expense from the line within 72 hours after the partial replacement, and to mail or otherwise provide you with the results of that sample within three business days of receiving the results. Acceptable replacement alternatives include copper, stainless steel, and plastic pipes. Partial replacement should avoid the creation of mixed piping systems and include the installation of approved dielectric couplings at all dissimilar metal interfaces.

F. Have an electrician check your wiring. If grounding wires from the electrical system are attached to your pipes, corrosion may be greater. Check with a licensed electrician or your local electrical code to determine if your wiring can be grounded elsewhere. DO NOT attempt to change the wiring yourself because improper grounding can cause electrical shock and fire hazards.

3. The steps described above will reduce the lead concentrations in your drinking water. However, if a water test indicates that the drinking water coming from your tap contains lead concentrations in excess of 15 ppb after flushing, or after we have completed our actions to minimize lead levels, then you may want to take the following additional measures:

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A. Purchase or lease a home treatment device. Home treatment devices are limited in that each unit treats only the water that flows from the faucet to which it is connected, and all of the devices require periodic maintenance and replacement. Devices such as reverse osmosis systems or distillers can effectively remove lead from your drinking water. Since these treatments remove dissolved minerals, water treated by these devices will have a greater tendency to leach lead from brass faucets or fittings which the water contacts after treatment. Some activated carbon filters may reduce lead levels at the tap, however all lead reduction claims should be investigated. Be sure to check the actual performance of a specific home treatment device before and after installing the unit. The California Department of Health Services certifies the effectiveness of home treatment devices. Only devices certified by the California Department of Health Services to remove lead should be used for this purpose.

B. Purchase bottled water for drinking and cooking.

4. You can consult a variety of sources for additional information. Your family doctor or pediatrician can perform a blood test for lead and provide you with information about the health effects of lead. State and local government agencies that can be contacted include:

A. [insert the name of city or county department of public utilities] at [insert phone number] can provide you with information about your community's water supply, and a list of local laboratories that have been certified by the California Department of Health Services for testing water quality;

B. [insert the name of city or county department that issues building permits] at [insert phone number] can provide you with information about building permit records that should contain the names of plumbing contractors that plumbed your home; and

C. California Department of Health Services, Childhood Lead Poisoning Prevention Branch at [insert the phone number] or the [insert the name of the city or county health department] at [insert phone number] can provide you with information about the health effects of lead and how you can have your child's blood tested.

5. The following is a list of some state approved laboratories in your area that you can call to have your water tested for lead. [Insert names and phone numbers of at least two laboratories].

(2) Except as provided in subsection (b), a nontransient-noncommunity water system shall include either the text in paragraph (a)(1) or the following text, in all of the printed materials it distributes through its lead public education program.

(A) Introduction. The California Department of Health Services, the United States Environmental Protection Agency (EPA) and [insert name of water supplier] are concerned about lead in your drinking water. Some drinking water samples taken from this facility have lead levels above the EPA action level of 15 parts per billion (ppb), or 0.015 milligrams of lead per liter of water (mg/L). Under Federal law we are required to have a program in place to minimize lead in your drinking water by [insert date when corrosion control will be completed for your system]. This program includes corrosion control treatment, source water treatment, and public education. We are also required to replace the portion of each lead service line that we own if the line contributes lead concentrations

of more than 15 ppb after we have completed the comprehensive treatment program. If you have any questions about how we are carrying out the requirements of the lead regulation please give us a call at [insert water system's phone number]. This brochure explains the simple steps you can take to protect yourself by reducing your exposure to lead in drinking water.

(B) Health Effects of Lead. Lead is found throughout the environment in lead-based paint, air, soil, household dust, food, certain types of pottery porcelain and pewter, and water. Lead can pose a significant risk to your health if too much of it enters your body. Lead builds up in the body over many years and can cause damage to the brain, red blood cells and kidneys. The greatest risk is to young children and pregnant women. Amounts of lead that won't hurt adults can slow down normal mental and physical development of growing bodies. In addition, a child at play often comes into contact with sources of lead contamination - like dirt and dust - that rarely affect an adult. It is important to wash children's hands and toys often, and to try to make sure they only put food in their mouths.

1. Lead in drinking water, although rarely the sole cause of lead poisoning, can significantly increase a person's total lead exposure, particularly the exposure of infants who drink baby formulas and concentrated juices that are mixed with water. The EPA estimates that drinking water can make up 20 percent or more of a person's total exposure to lead.

2. Lead is unusual among drinking water contaminants in that it seldom occurs naturally in water supplies like rivers and lakes. Lead enters drinking water primarily as a result of the corrosion, or wearing away, of materials containing lead in the water distribution system and household plumbing. These materials include lead-based solder used to join copper pipe, brass and chrome-plated brass faucets, and in some cases, pipes made of lead that connect houses and buildings to water mains (service lines). In 1986, Congress banned the use of lead solder containing greater than 0.2% lead, and restricted the lead content of faucets, pipes and other plumbing materials to 8.0%.

3. When water stands in lead pipes or plumbing systems containing lead for several hours or more, the lead may dissolve into your drinking water. This means the first water drawn from the tap in the morning, or later in the afternoon if the water has not been used all day, can contain fairly high levels of lead.

(D) Steps You Can Take. Steps you can take to reduce exposure to lead in drinking water include:

1. Let the water run from the tap before using it for drinking or cooking any time the water in a faucet has gone unused for more than six hours. The longer water resides in plumbing the more lead it may contain. Flushing the tap means running the cold water faucet for about 15-30 seconds. Although toilet flushing or showering flushes water through a portion of the plumbing system, you still need to flush the water in each faucet before using it for drinking or cooking. Flushing tap water is a simple and inexpensive measure you can take to protect your health. It usually uses less than one gallon of water.

2. Do not cook with, or drink water from the hot water tap. Hot water can dissolve more lead more quickly than cold water. If you need hot water, draw water from the cold tap and then heat it.

3. The steps described above will reduce the lead concentrations in your drinking water. However, if you are still concerned, you may wish to use bottled water for drinking and cooking.

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4. You can consult a variety of sources for additional information. Your family doctor or pediatrician can perform a blood test for lead and provide you with information about the health effects of lead. State and local government agencies that can be contacted include:

A. [insert the name or title of facility official if appropriate] at [insert phone number] can provide you with information about your facility's water supply; and

B. [insert the name or title of the State Department of Health Services] at [insert phone number] or the [insert the name of the city or county health department] at [insert phone number] can provide you with information about the health effects of lead.

(b) Any additional information presented shall be consistent with the information in subsection (a) and be in plain language that can be understood by laypersons. A system may delete information pertaining to lead service lines, on approval by the Department, if the water system does not have any such lines. Building permit record availability and consumer access to these records may be modified, if approved by the Department.

(c) The system shall include the following information in all public service announcements submitted under its lead public education program to television and radio stations for broadcasting:

(1) Why should everyone want to know the facts about lead and drinking water? Because unhealthy amounts of lead can enter drinking water through the plumbing in your home. That's why I urge you to do what I did. I had my water tested for [insert free or cost per sample]. You can contact the [insert the name of the city or water system] for information on testing and on simple ways to reduce your exposure to lead in drinking water.

(2) To have your water tested for lead, or to get more information about this public health concern, please call [insert the phone number of the city or water system].

(d) The system shall conduct the lead public education program as follows:

(1) In communities where a significant proportion of the population speaks a language other than English, public education materials shall be communicated in the appropriate language(s).

(2) Within 60 days after it has a lead action level exceedance, unless it is already conducting a lead public education program, a community water system shall:

(A) Insert notices in each customer's water utility bill containing the information in paragraph (a)(1), along with the following alert on the water bill itself in large print: SOME HOMES IN THIS COMMUNITY HAVE ELEVATED LEAD LEVELS IN THEIR DRINKING WATER. LEAD CAN POSE A SIGNIFICANT RISK TO YOUR HEALTH. PLEASE READ THE ENCLOSED NOTICE FOR FURTHER INFORMATION. A community water system with a billing cycle that does not include a billing within 60 days of the exceedance, or that cannot

insert information in the bill without making major changes to its billing system, may use a separate mailing as long as it is conducted within 60 days of the exceedance.

(B) Submit the information in paragraph (a)(1) to the editorial departments of the major daily and weekly newspapers circulated throughout the community.

(C) Deliver pamphlets and/or brochures that contain the public education materials in subparagraphs (a)(1)(B) and (D) to facilities and organizations, including the following:

1. Public schools and/or local school boards;

2. City or county health department;

3. Women, Infants, and Children and/or Head Start Program(s) whenever available;

4. Public and private hospitals and/or clinics;

5. Pediatricians;

6. Family planning clinics; and

7. Local welfare agencies.

(D) Submit the public service announcement in subsection (c) to at least five of the radio and television stations with the largest audiences that broadcast to the community served by the system.

(3) A community system shall repeat the tasks in subparagraphs (d)(2)(A),(B) and (C) every 12 months, and the tasks in subparagraph (d)(2)(D) every 6 months for as long as the system has a lead action level exceedance.

(4) Within 60 days after it has a lead action level exceedance, unless it is already conducting a lead public education program, a nontransient-noncommunity system shall deliver the public education materials in paragraphs (a)(1) or (a)(2) as follows:

(A) Post informational posters on lead in drinking water in a public place or common area in each of the buildings served by the system; and

(B) Distribute informational pamphlets and/or brochures on lead in drinking water to each person served by the system. The Department may allow the system to utilize electronic transmission in lieu of or combined with printed materials as long as it achieves at least the same coverage.

(5) A nontransient-noncommunity system shall repeat the tasks in paragraph (4) at least once during each calendar year in which the system has a lead action level exceedance.

(6) A system may discontinue the lead public education program if it does not have a lead action level exceedance during the most recent period. The system shall recommence the program pursuant to this section if it subsequently has a lead action level exceedance.

(7) A community water system may apply to the Department, in writing, to use the text in paragraph (a)(2) in lieu of the text in paragraph (a)(1) and to perform the tasks listed in paragraphs (d)(4) and (c)(5) of this section in lieu of the tasks in paragraphs (d)(2) and (d)(3) of this section if:

(A) The system is a facility, such as a prison or a hospital, where the population served is not capable of or is prevented from making improvements to plumbing or installing point of use treatment devices; and

(B) The system provides water as part of the cost of services provided and does not separately charge for water consumption.

(8) A community water system serving 3,300 or fewer people may omit the task contained in subparagraph (d)(2)(D). As long as it distributes notices containing the information contained in paragraph (a)(1) of this section to every household served by the system, such systems may further limit their public education programs as follows:

(A) Systems serving 500 or fewer people may forego the task contained in subparagraph (d)(2)(B). Such a system may limit the distribution of the public education materials required under subparagraph (d)(2)(C) to facilities and organizations served by the system that are most likely to be visited regularly by pregnant women and children, unless notified by the Department in writing that it shall make a broader distribution.

(B) If approved by the Department in writing, a system serving 501 to 3,300 people may omit the task in subparagraph (d)(2)(B) and/or limit the distribution of the public education materials required under subparagraph (d)(2)(C) to facilities and organizations served by the system that are most likely to be visited regularly by pregnant women and children.

(9) A community water system serving 3,300 or fewer people that delivers the lead public education in accordance with paragraph (d)(8)(A) of this section shall repeat these requirements at least once during each calendar year in which the system exceeds the lead action level.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

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1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order, including amendment of subsection (a), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer of former article 7 (sections 64686-64688), new article 7 (section 64687) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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Title 22. Social Security
Division 4. Environmental Health
Chapter 17.5. Lead and Copper
Article 8. Lead Service Line Requirements for Action Level Exceedances

22 CCR § 64688

§ 64688. Lead Service Line Replacement.

(a) A system shall replace lead service lines if:

(1) It has a lead action level exceedance in tap samples after installing corrosion control and/or source water treatment (whichever sampling occurs later) and/or

(2) It is in violation for failure to install source water treatment or CCT.

(b) Within 6 months after it has a lead action level exceedance, the system shall demonstrate in writing that it has conducted a materials evaluation including that in section 64676 (Sample Site Selection) to identify the initial number of lead service lines in its distribution system, and shall submit both the demonstration and a schedule for complying with subsection (c) to the Department.

(c) Except as provided in subsection (e), a system that is required to conduct lead service line replacement shall annually replace at least 7 percent of the initial number of lead service lines in its distribution system, pursuant to the following.

(1) At the time the lead service line replacement begins, the system shall identify the initial number of lead service lines in its distribution system based on the evaluation in section 64676 (Sample Site Selection).

(2) The first year of lead service line replacement shall begin on the date the system first had a lead action level exceedance subsequent to its installation of CCT and, if required pursuant to section 64686, source water treatment.

(3) The system is not required to replace an individual lead service line if the lead concentration in each and every service line sample from that line, taken pursuant to the section 64687 (Lead Service Line Sampling), is less than or equal to 0.015 mg/L.

(4) The system shall replace that portion of the lead service line that it owns and keep ownership documentation in its files and offer to replace the building owner's portion of the line with the cost being borne by the building owner. If the building owner does not accept the offer, the system shall:

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(A) At least 45 days prior to commencing the partial replacement, notify the resident(s) of all buildings served by the line that they may experience a temporary increase of lead levels in their drinking water, along with guidance on measures they may take to minimize their exposure. If the replacement is in conjunction with emergency repairs, the Department will allow a shorter notice, depending on the nature of the emergency and the timing involved. The notice shall be mailed unless an alternate method is approved by the Department, based on the feasibility of insuring that all consumers receive the notice; and

(B) Inform the resident(s) that the system will collect a first flush tap water sample within 72 hours after the partial replacement of the service line has been completed if the resident(s) so desire. If the resident(s) accept the offer, the system shall collect the sample and report the results to the resident(s) and the owner within three business days of receiving the results and to the Department.

(d) Within 12 months after the lead action level exceedance, and every 12 months thereafter, the system shall submit in writing to the Department the number of lead service lines scheduled to be replaced during the previous year of the system's replacement schedule, along with the following information to the Department:

(1) The number and location of each lead service line replaced during the previous year of the system's replacement schedule to demonstrate that it has replaced at least 7 percent of the initial lead service lines within the previous 12 months, or a greater number of lines if required by the Department; or

(2) Lead service line sampling results that demonstrate that the lead level from an individual line(s) is less than or equal to 0.015 mg/L, pursuant to section 64689 (Lead Service Line Sampling). The system shall submit the results of the lead service line sampling including the lead levels, location of each lead service line sampled, the sampling method, and the date of sampling. It shall also include the number and location of each lead service line replaced during the previous year. In such cases, the total number of lines replaced and/or that meet the criteria shall equal at least 7 percent of the initial number of lead lines identified or the percentage required by the Department.

(e) A system shall replace lead service lines at a faster rate than that required by subsection (b), taking into account the number of lead service lines in the system, if the Department determines either that this is necessary based on elevated blood lead levels in the population served, or that it is feasible to complete the lead service line replacement program in a shorter time without increasing the water rates to the customers.

(f) A system may cease replacing lead service lines when it has two consecutive periods without a lead action level exceedance. If the system has a lead action level exceedance during any subsequent period, it shall recommence replacing lead service lines.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

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2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order, including amendment of subsections (c)(1)-(2) and (c)(4), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer of former article 8 (sections 64689-64690), new article 8 (sections 64688-64689) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64688, 22 CA ADC § 64688

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Barclays Official California Code of Regulations Currentness
Title 22. Social Security
Division 4. Environmental Health
Chapter 17.5. Lead and Copper
Article 8. Lead Service Line Requirements for Action Level Exceedances

22 CCR § 64689

§ 64689. Lead Service Line Sampling.

(a) Each lead service line sample shall be one liter in volume and have stood motionless in the lead service line for at least six hours, but not more than twelve.

(b) Lead service line samples shall be collected in one of the following three ways:

(1) At the tap after flushing the volume of water between the tap and the lead service line. The volume of water to be flushed shall be calculated based on the interior diameter and length of the pipe between the tap and the lead service line;

(2) Tapping directly into the lead service line; or

(3) If the sampling site is a building constructed as a single-family residence, allowing the water to run until there is a change in temperature that would be indicative of water that has been standing in the lead service line.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New article 8 and section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order, including amendment of subsection (b), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer of article 8 (sections 64689-64690) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64689, 22 CA ADC § 64689

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Barclays Official California Code of Regulations Currentness
Title 22. Social Security
Division 4. Environmental Health
Chapter 17.5. Lead and Copper
Article 8. Lead Service Line Requirements for Action Level Exceedances

22 CCR § 64690

§ 64690. Source Water Monitoring Frequency Requirements.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116300 through 116750, Health and Safety Code; and 40 Code of Federal Regulations 141.88(b through e).

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of subsection (c)(1)(B) (Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64690, 22 CA ADC § 64690

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Barclays Official California Code of Regulations Currentness
Title 22. Social Security
Division 4. Environmental Health
Chapter 17.5. Lead and Copper
Article 9. Reporting and Recordkeeping

22 CCR § 64690.10

§ 64690.10. Data Reporting.

Each system shall report the following within the first 10 days after the end of each period during which such sampling or monitoring was conducted:

(a) For lead and copper tap sampling:

(1) The results of all tap samples including the location of each site and the associated tier criteria from section 64676 (Sample Site Selection);

(2) The 90th percentile lead and copper concentrations calculated pursuant to section 64678 (Determination of Exceedances of Lead and Copper Action Levels); and

(3) With the exception of the first period of tap sampling, an identification of any site that was not sampled during previous periods, along with an explanation of why the sampling site was changed;

(b) For WQP monitoring, the results of all samples collected and analyzed pursuant to article 4 (WQP Monitoring) of this chapter;

(c) For source water monitoring:

(1) The results for all samples related to source water collected and analyzed under article 6 (Source Water Requirements for Action Level Exceedances) of this chapter; and

(2) With the exception of the first round of sampling related to source water, an identification of any site that was not sampled during previous periods along with an explanation of why the sampling point was changed; and

(d) The results for any samples collected and analyzed for lead and copper or WQPs in addition to those required by this chapter.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

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HISTORY

1. Repealer of former article 9 (sections 64691-64692), new article 9 (sections 64690.10-64690.80) and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

This database is current through 7/27/18 Register 2018, No. 30

22 CCR § 64690.10, 22 CA ADC § 64690.10

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Barclays Official California Code of Regulations Currentness
Title 22. Social Security
Division 4. Environmental Health
Chapter 17.5. Lead and Copper
Article 9. Reporting and Recordkeeping

22 CCR § 64690.80

§ 64690.80. Recordkeeping.

Any system subject to the requirements of this chapter shall retain on its premises original records of all sampling data and analyses, reports, surveys, letters, evaluations, schedules, Department determinations, and any other information required by this chapter. Each water system shall retain the records required by this section for no fewer than 12 years or two compliance cycles (as defined in Section 64400.20), whichever is longer.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64690.80, 22 CA ADC § 64690.80

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Barclays Official California Code of Regulations Currentness
Title 22. Social Security
Division 4. Environmental Health
Chapter 17.5. Lead and Copper
Article 9. Reporting and Recordkeeping

22 CCR § 64691

§ 64691. Reporting Requirements.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116300 through 116750, Health and Safety Code; and 40 Code of Federal Regulations 141.90.

HISTORY

1. New article 9 and section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer of article 9 (sections 64691-64692) and repealer of section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

This database is current through 7/27/18 Register 2018, No. 30

22 CCR § 64691, 22 CA ADC § 64691

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22 CCR § 64692

§ 64692. Recordkeeping Requirements.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116300 through 116750, Health and Safety Code; and 40 Code of Federal Regulations 141.91.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64692, 22 CA ADC § 64692

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KeyCite Yellow Flag - Negative Treatment
Declined to Follow by Connell v. Superior Court, Cal.App. 3 Dist., November 20, 1997

190 Cal.App.3d 521, 234 Cal.Rptr. 795

CARMEL VALLEY FIRE PROTECTION DISTRICT et al., Plaintiffs and Respondents,
v.
THE STATE OF CALIFORNIA et al., Defendants and Appellants.
RINCON DEL DIABLO MUNICIPAL WATER DISTRICT et al., Plaintiffs and Respondents,
v.
THE STATE OF CALIFORNIA et al., Defendants and Appellants.
COUNTY OF LOS ANGELES, Plaintiff and Respondent,
v.
THE STATE OF CALIFORNIA et al., Defendants and Appellants.

No. B006078., No. B011941., No. B011942.
Court of Appeal, Second District, Division 5, California.
Feb 19, 1987.

SUMMARY

The trial court, in separate proceedings brought by three counties against the state for reimbursement of funds expended by the counties in complying with a state order to provide protective clothing and equipment for county fire fighters, issued writs of mandate compelling the state to reimburse the counties. Previously, the counties had filed test claims with the State Board of Control for reimbursement of similar expenses. The board determined that there was a state mandate and the counties should be reimbursed. The state did not seek judicial review of the board's decision. Thereafter, a local government claims bill, Sen. Bill No. 1261 (Stats. 1981, ch. 1090, p. 4191) was introduced to provide appropriations to pay some of the counties' claims for the state-mandated costs. After various amendments, the legislation was enacted into law without the appropriations. The counties then sought reimbursement by filing petitions for writs of mandate and complaints for declaratory relief. (Superior Court of Los Angeles County, No. C437471, Norman L. Epstein, Judge; No. C514623 and No. C515319, Jack T. Ryburn, Judge.)

In a consolidated appeal, the Court of Appeal affirmed with certain modifications. It held that, by failing to seek judicial review of the board's decision, the state had waived its right to contest the board's finding that the counties' expenditures were state mandated. Similarly, it held that the state was collaterally estopped from attacking the board's findings. It also held that the executive orders requiring the expenditures constituted the type of "program" that is subject to the constitutional imperative of subvention under Cal. Const., art. XIII B, § 6. The court also held that the trial courts had not ordered an appropriation in violation of the separation of powers doctrine, and that the trial courts correctly determined that certain legislative disclaimers, findings, and budget control language did not exonerate the state from its constitutionally and statutorily imposed obligation to reimburse the counties' state-mandated costs. Further, the court held that the trial courts properly authorized the counties to satisfy their claims by offsetting fines and forfeitures due to the state, and that the counties were entitled to interest. (Opinion by Eagleson, J., with Ashby, Acting P. J., and Hastings, J., concurring.)

HEADNOTES

Classified to California Digest of Official Reports

(1a, 1b)
Estoppel and Waiver § 23--Waiver--Trial and Appeal--Failure to Seek Judicial Review of Administrative Decision--Waiver of Right to Contest Findings.
In a proceeding by a county for a writ of mandate to compel reimbursement by the state for funds expended in complying with a state order to provide protective clothing and equipment to county fire fighters, the state waived its right to contest findings made by the State Board of Control in a previous proceeding. The board found that the costs were state-mandated and that the county was entitled to reimbursement. The state failed to seek judicial review of the board's decision, and the statute of limitations applicable to such review had passed. Moreover, the state, through its agents, had acquiesced in the board's findings by seeking an appropriation to satisfy the validated claims, which, however, was rebuffed by the Legislature.

(2)
Estoppel and Waiver § 19--Waiver--Requisites.
Waiver occurs where there is an existing right; actual or constructive knowledge of its existence; and either an actual intention to relinquish it, or conduct so inconsistent with an intent to enforce the right as to induce a reasonable belief that it has been waived. A right that is waived is lost forever. The doctrine of waiver applies to rights and privileges afforded by statute.

[See **Cal.Jur.3d,** Estoppel and Waiver § 21; **Am.Jur.2d,** Estoppel and Waiver § 154.]

(3a, 3b, 3c, 3d)
Judgments § 81--Res Judicata--Collateral Estoppel--County's Action for Reimbursement of State-mandated Costs--Findings of State Board of Control.
In a proceeding brought by a county for a writ of mandate to compel reimbursement by the state for funds expended in complying with a state order to provide protective clothing and equipment to county fire fighters, the state was collaterally estopped from attacking the findings made, in a previous proceeding, by the State Board of Control that the costs were state-mandated and that the county was entitled to reimbursement. The issues were fully litigated before the board. Similarly, although the state was not a party to the board hearings, it was in privity with those state agencies which did participate. Moreover, a determination of conclusiveness would not work an injustice.

(4)
Judgments § 81--Res Judicata--Collateral Estoppel--Elements.
In order for the doctrine of collateral estoppel to apply, the issues in the two proceedings must be the same, the prior proceeding must have resulted in a final judgment on the merits, and the parties or their privies must be involved.

(5)
Judgments § 84--Res Judicata--Collateral Estoppel--Identity of Parties--Privity--Governmental Agents.
The agents of the same government are in privity with each other for purposes of collateral estoppel, since they represent not their own rights but the right of the government.

(6)
Judgments § 96--Res Judicata--Collateral Estoppel--Matters Concluded-- Questions of Law.
A prior judgment on a question of law decided by a court is conclusive in a subsequent action between the same parties where both causes involved arose out of the same subject matter or transaction, and where holding the judgment to be conclusive will not result in an injustice.

(7)
State of California § 11--Fiscal Matters--Reimbursement to County for State-mandated Costs--New Programs.
A "new program," for purposes of determining whether the program is subject to the constitutional imperative of subvention under Cal. Const., art. XIII B, § 6, is one which carries out the governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state.

(8)
State of California § 7--Actions--Reimbursement of County Funds for State-mandated Costs--New Programs.
In an action brought by a county for a writ of mandate to compel reimbursement by the state for funds expended in complying with state executive orders to provide protective clothing and equipment to county fire fighters, the trial court properly determined that the executive orders constituted the type of "new program" that was subject to the constitutional imperative of subvention under Cal. Const., art. XIII B, § 6. Fire protection is a peculiarly governmental function. Also, the executive orders manifest a state policy to provide updated equipment to all fire fighters, impose unique requirements on local governments, and do not apply generally to all residents and entities in the state, but only to those involved in fire fighting.

(9)
Constitutional Law § 37--Doctrine of Separation of Powers--Violations of Doctrine--Judicial Order of Appropriation.
In a proceeding brought by a county for a writ of mandate to compel reimbursement by the state for funds expended in complying with a state order to provide protective clothing and equipment to county fire fighters, the trial

court's judgment granting the writ was not in violation of the separation of powers doctrine. The court order did not directly compel the Legislature to appropriate funds or to pay funds not yet appropriated, but merely affected an existing appropriation.

(10)
Constitutional Law § 40--Distribution of Governmental Powers--Between Branches of Government--Judicial Power and Its Limits--Order Directing Treasurer to Pay on Already Appropriated Funds.
Once funds have been appropriated by legislative action, a court transgresses no constitutional principle when it orders the State Controller or other similar official to make appropriate expenditures from such funds. Thus, a judgment which ordered the State Controller to draw warrants and directed the State Treasurer to pay on already-appropriated funds permissibly compelled performance of a ministerial duty.

(11)
State of California § 12--Fiscal Matters--Appropriations--Reimbursement to County for State-mandated Costs.
Appropriations affected by a court order need not specifically refer to the particular expenditure in question in order to be available. Thus, in a proceeding brought by a county for a writ of mandate to compel reimbursement by the state for funds expended in complying with a state order to provide protective clothing and equipment to county fire fighters, the funds appropriated for the Department of Industrial Relations for the prevention of industrial injuries and deaths of state workers were available for reimbursement, despite the fact that the funds were not specifically appropriated for reimbursement. The funds were generally related to the nature of costs incurred by the county.

(12a, 12b)
Fires and Fire Districts § 2--Statutes and Ordinances--County Compliance With State Executive Order to Provide Protective Equipment--Federal Mandate.
A county's purchase of protective clothing and equipment for its fire fighters was not the result of a federally mandated program so as to relieve the state of its obligation (Cal. Const., art. XIII B, § 6) to reimburse the county for the cost of the purchases. The county had made the purchase in compliance with a state executive order. The federal government does not have jurisdiction over local fire departments and there are no applicable federal standards for local government structural fire fighting clothing and equipment. Hence, the county's obedience to the state executive orders was not federally mandated.

(13)
Statutes § 20--Construction--Judicial Function--Legislative Declarations.
The interpretation of statutory language is purely a judicial function. Legislative declarations are not binding on the courts and are particularly suspect when they are the product of an attempt to avoid financial responsibility.

(14a, 14b)
Statutes § 10--Title and Subject Matter--Single Subject Rule.
In a proceeding brought by a county for a writ of mandate to compel reimbursement by the state for funds expended in complying with a state order to provide protective clothing and equipment to county fire fighters (Cal. Admin. Code, tit. 8, §§ 3401-3409), the trial court properly invalidated, as violating the single subject rule, the budget control language of Stats. 1981, ch. 1090, § 3. The express purpose of ch. 1090 was to increase funds available for reimbursing certain claims. The budget control language, on the other hand, purported to make the reimbursement provisions of Rev. & Tax. Code, § 2207, and former Rev. & Tax. Code, § 2231, unavailable to the county. Because the budget control language did not reasonably relate to the bill's stated purpose, it was invalid.

(15)
Statutes § 10--Title and Subject Matter--Single Subject Rule.
The single subject rule essentially requires that a statute have only one subject matter and that the subject be clearly expressed in a statute's title. The rule's primary purpose is to prevent “logrolling” in the enactment of laws, which occurs where a provision unrelated to a bill's main subject matter and title is included in it with the hope that the provision will remain unnoticed and unchallenged. By invalidating these unrelated clauses, the single subject rule prevents the passage of laws which might otherwise not have passed had the legislative mind been directed to them. However, in order to minimize judicial interference in the Legislature's activities, the single subject rule is to be construed liberally. A provision violates the rule only if it does not promote the main purpose of the act or does

not have a necessary and natural connection with that purpose.

(16)
Statutes § 5--Operation and Effect--Retroactivity--Reimbursement to County for State-mandated Costs.
The budget control language of Stats. 1981, ch. 1090, § 3, which purported to make the reimbursement provisions of Rev. & Tax. Code, § 2207 and former Rev. & Tax. Code, § 2231, unavailable to a county seeking reimbursement (Cal. Const., art. XIII B, § 6) for expenditures made in purchasing state-required protective clothing and equipment for county fire fighters (Cal. Admin. Code, tit. 8, §§ 3401-3409), was invalid as a retroactive disclaimer of the county's right to reimbursement for debts incurred in prior years.

(17)
State of California § 13--Fiscal Matters--Limitations on Disposal-- Reimbursement to Counties for State-mandated Costs.
The budget control language of § 28.40 of the 1981 Budget Act and § 26.00 of the 1983 and 1984 Budget Acts did not exonerate the state from its constitutional and statutory obligations to reimburse a county for the expenses incurred in complying with a state mandate to purchase protective clothing and equipment for county fire fighters. The language was invalid in that it violated the single subject rule, attempted to amend existing statutory law, and was unrelated to the Budget Acts' main purpose of appropriating funds to support the annual budget.

(18)
Constitutional Law § 4--Legislative Power to Create Workers' Compensation System--Effect on County's Right to Reimbursement.
Cal. Const., art. XIV, § 4, which vests the Legislature with unlimited plenary power to create and enforce a complete workers' compensation system, does not affect a county's right to state reimbursement for costs incurred in complying with state-mandated safety orders.

(19)
Constitutional Law § 7--Mandatory, Directory, and Self-executing Provisions--Subvention Provisions--County Reimbursement for State-mandated Costs.
The subvention provisions of Cal. Const., art. XIII B, § 6, operate so as to require the state to reimburse counties for state-mandated costs incurred between January 1, 1975, and June 30, 1980. The amendment, which became effective on July 1, 1980, provided that the Legislature "may, but need not," provide reimbursement for mandates enacted before January 1, 1975. Nevertheless, the Legislature must reimburse mandates passed after that date, even though the state did not have to begin reimbursement until the effective date of the amendment.

(20)
Mandamus and Prohibition § 5--Mandamus--Conditions Affecting Issuance--Exhaustion of Administrative Remedies--County Reimbursement for State-mandated Costs.
A county's right of action in traditional mandamus to compel reimbursement for state-mandated costs did not accrue until the county had exhausted its administrative remedies. The exhaustion of remedies occurred when it became unmistakably clear that the legislative process was complete and that the state had breached its duty to reimburse the county.

(21)
Mandamus and Prohibition § 13--Mandamus--Conditions Affecting Issuance--Existence and Adequacy of Other Remedy.
A party seeking relief by mandamus is not required to exhaust a remedy that was not in existence at the time the action was filed.

(22a, 22b)
State of California § 7--Actions--Reimbursement to County for State-mandated Costs--County's Right to Offset Fines and Forfeitures Due to State.
In a proceeding by a county for a writ of mandate to compel reimbursement by the state for funds expended in complying with a state order to provide protective clothing and equipment for county fire fighters, the trial court did not err in authorizing the county to satisfy its claims by offsetting fines and forfeitures due to the state. The order did not impinge upon the Legislature's exclusive power to appropriate funds or control budget matters.

(23)

Equity § 5--Scope and Types of Relief--Offset.
The right to offset is a long-established principle of equity. Either party to a transaction involving mutual debits and credits can strike or balance, holding himself owing or entitled only to the net difference. Although this doctrine exists independent of statute, its governing principle has been partially codified in Code Civ. Proc., § 431.70 (limited to cross-demands for money).

(24)
State of California § 7--Actions--Reimbursement to County for State-mandated Costs--State's Use of Statutory Offset Authority.
In a proceeding brought by a county for a writ of mandate to compel reimbursement by the state for funds expended in complying with a state order to provide protective clothing and equipment to county fire fighters, the trial court did not err in enjoining the exercise of the state's statutory offset authority (Gov. Code, § 12419.5) until the county was fully reimbursed. In view of the state's manifest reluctance to reimburse, and its otherwise unencumbered statutory right of offset, the trial court was well within its authority to prevent this method of frustrating the county's collection efforts from occurring.

(25)
State of California § 7--Actions--Reimbursement to County for State-mandated Costs--State's Right to Revert or Dissipate Undistributed Appropriations.
In a proceeding brought by a county for a writ of mandate to compel reimbursement by the state for funds expended in complying with a state order to provide protective clothing and equipment to county fire fighters, the trial court properly enjoined, and was not precluded by Gov. Code, § 16304.1, from enjoining, the state from directly or indirectly reverting the reimbursement award sum from the general fund line item accounts, and from otherwise dissipating that sum in a manner that would make it unavailable to satisfy the court's judgment in favor of the county.

(26)
Parties § 2--Indispensable Parties--County Auditor Controller--County Action to Collect Reimbursement From State.
In an action brought by a county for a writ of mandate to compel reimbursement by the state for funds expended in complying with a state order to provide protective clothing and equipment to county fire fighters, the county auditor-controller was not an indispensable party whose absence would result in a loss of the trial court's jurisdiction. The auditor-controller was an officer of the county and was subject to the direction and control of the county board of supervisors. He was indirectly represented in the proceedings because his principal, the county, was the party litigant. Additionally, he claimed no personal interest in the action and his pro forma absence in no way impeded complete relief

(27)
Parties § 2--Indispensable Parties--Fines and Forfeitures--County Action to Collect Reimbursement From State.
In an action brought by a county for a writ of mandate to compel reimbursement by the state for costs expended in complying with a state order to provide protective clothing and equipment to county fire fighters, the funds created by the collected fines and forfeitures which the county was allowed to offset to satisfy its claims against the state were not “indispensable parties” to the litigation. The action was not an in rem proceeding, and the ownership of a particular stake was not in dispute. Complete relief could be afforded without including the specified funds as a party.

(28)
Interest § 4--Interest on Judgments--County Action for Reimbursement of State-mandated Costs--State Reliance on Invalid Statute.
An invalid statute voluntarily enacted and promulgated by the state is not a defense to its obligation to pay interest on damages under Civ. Code, § 3287, subd. (a). Thus, in an action brought by a county for writ of mandate to compel reimbursement by the state for funds expended in complying with a state order to provide protective clothing and equipment to county fire fighters, the state could not avoid its obligation to pay interest on the funds by relying on invalid budget control language which purported to restrict payment on reimbursement claims.

(29)
Appellate Review § 127--Review--Scope and Extent--Interpretation of Statutes.
An appellate court is not limited by the interpretation of statutes given by the trial court.

(30)
Appellate Review § 162--Determination of Disposition of Cause-- Modification--Action Against State--Appropriation.
In an action against the state, an appellate court is empowered to add a directive that the trial court order be modified to include charging orders against funds appropriated by subsequent budget acts.

COUNSEL
John K. Van de Kamp, Attorney General, N. Eugene Hill, Assistant Attorney General, Marilyn K. Mayer and Carol Hunter, Deputy Attorneys General, for Defendants and Appellants.
De Witt Clinton, County Counsel, Amanda F. Susskind, Deputy County Counsel, Ross & Scott, William D. Ross and Diana P. Scott, for Plaintiffs and Respondents.

EAGLESON, J.

These consolidated appeals arise from three separate trial court proceedings concerning the heretofore unsuccessful efforts of various local agencies to secure reimbursement of state-mandated costs.

Case No. 2d Civ. B006078 (Carmel Valley et al. case) was the first matter decided by the trial court. The memorandum of decision in that case was judicially noticed by the trial court which heard the consolidated matters in 2d Civ. B011941 (Rincon et al. case) and 2d Civ. B011942 (County of Los Angeles case). Issues common to all three cases will be discussed together ***530** under the County of Los Angeles appeal, while issues unique to the other two appeals will be considered separately.

We identify the parties to the various proceedings in footnote 1.[1] For literary convenience, however, we will refer to all appellants as the State and all respondents as the County unless otherwise indicated.

Appeal In Case No. 2 Civil B011942

(County of Los Angeles Case)

Facts and Procedural History

County employs fire fighters for whom it purchased protective clothing and equipment, as required by title 8, California Administrative Code, sections 3401-3409, enacted in 1978 (executive orders). County argues that it is entitled to State reimbursement for these expenditures because they constitute a state-mandated "new program" or "higher level of service." County relies on Revenue and Taxation Code section 2207[2] and former ***531** section 2231,[3] and California Constitution, article XIII B, section 6[4] to support its claim.

County filed a test claim with the State Board of Control (Board) for these costs incurred during fiscal years 1978-1979 and 1979-1980.[5] After hearings were held on the matter, the Board determined on November 20, 1979, that there was a state mandate and that County should be reimbursed. State did not seek judicial review of this quasi-judicial decision of the Board.

Thereafter, a local government claims bill, Senate Bill Number 1261 (Stats. 1981, ch. 1090, p. 4191) (S.B. 1261) was introduced to provide appropriations to pay some of County's claims for these state-mandated costs. This bill was amended by the Legislature to delete all appropriations for the payment of these claims. Other claims of County not provided for in S.B. 1261 were contained in another local government claims bill, Assembly Bill Number 171 (Stats. 1982, ch. 28, p. 51) (A.B. 171). The appropriations in this bill were deleted by the Governor. Both pieces of legislation, sans appropriations, were enacted into law.[6]

On September 21, 1984, following these legislative rebuffs, County sought reimbursement by filing a petition for writ of mandate (Code Civ. Proc., § 1085) and complaint for declaratory relief. After appropriate responses were filed and a hearing was held, the court executed a judgment on February 6, 1985, granting a peremptory writ of mandate. A writ of mandate was issued and other findings and orders made. It is from this judgment of ***532** February 6, 1985, that State appeals. The relevant portions of the judgment are set forth verbatim below.[7] ***533**

Contentions

State advances two basic contentions. It first asserts that the costs incurred by County are not state mandated because they are not the result of a "new program," and do not provide a "higher level of service." Either or both of these requirements are the sine qua non of reimbursement. Second, assuming a "new program" or "higher level of service" exists, portions of the trial court order aimed at

assisting the reimbursement process were made in excess of the court's jurisdiction.

These contentions are without merit. We modify and affirm all three judgments.

Discussion

I

Issue of State Mandate

The threshold question is whether County's expenditures are state mandated. The right to reimbursement is triggered when the local agency incurs "costs mandated by the state" in either complying with a "new program" or providing "an increased level of service of an existing program." [8] State advances many theories as to why the Board erred in concluding that these expenditures are state-mandated costs. One of these arguments is whether the executive orders are a "new program" as that phrase has been recently defined by our Supreme Court in *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46 [233 Cal.Rptr. 38, 729 P.2d 202]. ***534**

As we shall explain, State has waived its right to challenge the Board's findings and is also collaterally estopped from doing so. Additionally, although State is not similarly precluded from raising issues presented by the *State of California* case, we conclude that the executive orders are a "new program" within the meaning of article XIII B, section 6.

A. *Waiver*

([1a])We initially conclude that State has waived its right to contest the Board's findings. ([2])Waiver occurs where there is an existing right; actual or constructive knowledge of its existence; and either an actual intention to relinquish it, or conduct so inconsistent with an intent to enforce the right as to induce a reasonable belief that it has has been waived. (*Medico-Dental etc. Co. v. Horton & Converse* (1942) 21 Cal.2d 411, 432 [132 P.2d 457]; *Loughan v. Harger-Haldeman* (1960) 184 Cal.App.2d 495, 502-503 [7 Cal.Rptr. 581].) A right that is waived is lost forever. (*L.A. City Sch. Dist. v. Landier Inv. Co.* (1960) 177 Cal.App.2d 744, 752 [2 Cal.Rptr. 662].) The doctrine of waiver applies to rights and privileges afforded by statute. (*People v. Murphy* (1962) 207 Cal.App.2d 885, 888 [24 Cal.Rptr. 803].)

([1b])State now contends to be an aggrieved party and seeks to dispute the Board's findings. However it failed to seek judicial review of that November 20, 1979 decision (Code Civ. Proc., § 1094.5) as authorized by former Revenue and Taxation Code section 2253.5. The three-year statute of limitations applicable to such review has long since passed. (*Green v. Obledo* (1981) 29 Cal.3d 126, 141, fn. 10 [172 Cal.Rptr. 206, 624 P.2d 256]; Code Civ. Proc., § 338, subd. 1.)

In addition, State, through its agents, acquiesced in the Board's findings by seeking an appropriation to satisfy the validated claims. (Former Rev. & Tax. Code, § 2255, subd. (a).) On September 30, 1981, S.B. 1261 became law. On February 12, 1982, A.B. 171 was enacted. Appropriations had been stripped from each bill. State did not then seek review of the Board determinations even though time remained before the three-year statutory period expired. This inaction is clearly inconsistent with any intent to contest the validity of the Board's decision and results in a waiver.

B. *Administrative Collateral Estoppel*

([3a])We next conclude that State is collaterally estopped from attacking the Board's findings. ([4])Traditionally, collateral estoppel has been applied to bar relitigation of an issue decided in a prior court proceeding. In order for the doctrine to apply, the issues in the two proceedings must ***535** be the same, the prior proceeding must have resulted in a final judgment on the merits, and the same parties or their privies must be involved. (*People v. Sims* (1982) 32 Cal.3d 468, 484 [186 Cal.Rptr. 77, 651 P.2d 321].)

The doctrine was extended in *Sims* to apply to a final adjudication of an administrative agency of statutory creation so as to preclude relitigation of the same issues in a subsequent criminal case. Our Supreme Court held that collateral estoppel applies to such prior adjudications where three requirements are met: (1) the administrative agency acted in a judicial capacity; (2) it resolved disputed issues properly before it; and (3) all parties were provided with the opportunity to fully and fairly litigate their claims. (*Id.* at p. 479.) All of the elements of administrative collateral estoppel are present here.

([3b])The Board was created by the state Legislature to exercise quasi-judicial powers in adjudging the validity

of claims against the State. (*County of Sacramento v. Loeb* (1984) 160 Cal.App.3d 446, 452 [206 Cal.Rptr. 626].) At the time of the hearings, the Board proceedings were the sole administrative remedy available to local agencies seeking reimbursement for state-mandated costs. (Former Rev. & Tax. Code, § 2250.) Board examiners had the power to administer oaths, examine witnesses, issue subpoenas, and receive evidence. (Gov. Code, § 13911.) The hearings were adversarial in nature and allowed for the presentation of evidence by the claimant, the Department of Finance, and any other affected agency. (Former Rev. & Tax. Code, § 2252.)

The record indicates that the state mandate issues in this case were fully litigated before the Board. A representative of the state Division of Occupational Safety and Health and the Department of Industrial Relations testified as to why County's costs were not state mandated. Representatives of the various claimant fire districts in turn offered testimony contradicting that view. The proceedings culminated in a verbatim transcript and a written statement of the basis for the Board's decision.

State complains, however, that some of the traditional elements of the collateral estoppel doctrine are missing. In particular, State argues that it was not a party to the Board hearings and was not in privity with those state agencies which did participate.

([5])"[T]he courts have held that the agents of the same government are in privity with each other, since they represent not their own rights but the right of the government. [Fn. omitted.]" (*Lerner v. Los Angeles City Board of Education* (1963) 59 Cal.2d 382, 398 [29 Cal.Rptr. 657, 380 P.2d 97].) As we stated in our introduction of the parties in this case, the party ***536** known as "State" is merely a shorthand reference to the various state agencies and officials named as defendants below. Each of these defendants is an agent of the State of California and had a mutual interest in the Board proceedings. They are thus in privity with those state agencies which did participate below (e.g., Occupational Safety and Health Division).

It is also clear that even though the question of whether a cost is state mandated is one of law (*City of Merced v. State of California* (1984) 153 Cal.App.3d 777, 781 [200 Cal.Rptr. 642]), subsequent litigation on that issue is foreclosed here. ([6])A prior judgment on a question of law decided by a court is conclusive in a subsequent action between the same parties where both causes involved arose out of the same subject matter or transaction, and where holding the judgment to be conclusive will not result in an injustice. (*City of Los Angeles v. City of San Fernando* (1975) 14 Cal.3d 199, 230 [123 Cal.Rptr. 1, 537 P.2d 1250]; *Beverly Hills Nat. Bank v. Glynn* (1971) 16 Cal.App.3d 274, 286-287 [93 Cal.Rptr. 907]; Rest.2d Judgments, § 28, p. 273.) [9]

([3d])Here, the basic issues of state mandate and the amount of reimbursement arose out of County's required compliance with the executive orders. In either forum-Board or court-the claims and the evidentiary and legal determination of their validity would be considered in similar fashion.

Furthermore, a determination of conclusiveness would not work an injustice. As we have noted, the Board was statutorily created to consider the validity of the various claims now being litigated. Processing of reimbursement claims in this manner was the only administrative remedy available to County. If we were to grant State's request and review the Board's determination de novo, we would, in any event, adhere to the well-settled principle of affording "great weight" to "the contemporaneous administrative construction of the enactment by those charged with its enforcement ...." (*Coca-Cola Co. v. State Bd. of Equalization* (1945) 25 Cal.2d 918, 921 [156 P.2d 1].)

There is no policy reason to limit the application of the collateral estoppel doctrine to successive court proceedings. In *City and County of San Francisco v. Ang* (1979) 97 Cal.App.3d 673, 679 [159 Cal.Rptr. 56], the doctrine was applied to bar relitigation in a subsequent civil proceeding of a zoning issue previously decided by a city board of permit appeals. We similarly hold that the questions of law decided by the Board are binding in all of the subsequent civil proceedings presented here. State therefore is collaterally ***537** estopped to raise the issues of state mandate and amount of reimbursement in this appeal.

C. *Executive Orders-A "New Program" Under Article XIII B, Section 6*

([7])The recent decision by our Supreme Court in *County of Los Angeles v. State of California*, *supra.*, 43 Cal.3d at p. 49 presents a new issue not previously considered by the Board or the trial court. That question is whether

the executive orders constitute the type of "program" that is subject to the constitutional imperative of subvention under article XIII B, section 6.[10] We conclude that they are.

In *State of California*, the Court concluded that the term "program" has two alternative meanings: "programs that carry out the governmental function of providing services to the public, *or* laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state." (*Id.* at p. 56, italics added.) Although only one of these findings is necessary to trigger reimbursement, both are present here.

([8])First, fire protection is a peculiarly governmental function. (*County of Sacramento v. Superior Court* (1972) 8 Cal.3d 479, 481 [105 Cal.Rptr. 374, 503 P.2d 1382].) "Police and fire protection are two of the most essential and basic functions of local government." (*Verreos v. City and County of San Francisco* (1976) 63 Cal.App.3d 86, 107 [133 Cal.Rptr. 649].) This classification is not weakened by State's assertion that there are private sector fire fighters who are also subject to the executive orders. Our record on this point is incomplete because the issue was not presented below. Nonetheless, we have no difficulty in concluding as a matter of judicial notice that the overwhelming number of fire fighters discharge a classical governmental function.[11] ***538**

The second, and alternative, prong of the *State of California* definition is also satisfied. The executive orders manifest a state policy to provide updated equipment to all fire fighters. Indeed, compliance with the executive orders is compulsory. The requirements imposed on local governments are also unique because fire fighting is overwhelmingly engaged in by local agencies. Finally, the orders do not apply generally to all residents and entities in the State but only to those involved in fire fighting.

These facts are distinguishable from those presented in *State of California*. There, the court held that a state-mandated increase in workers' compensation benefits did not require state subvention because the costs incurred by local agencies were only an incidental impact of laws that applied generally to all state residents and entities (i.e., to all workers and all governmental and nongovernmental employers). Governmental employers in that setting were indistinguishable from private employers who were obligated through insurance or direct payment to pay the statutory increases.

State of California only defined the scope of the word "program" as used in California Constitution, article XIII B, section 6. We apply the same interpretation to former Revenue and Taxation Code section 2231 even though the statute was enacted much earlier. The pertinent language in the statute is identical to that found in the constitutional provision and no reason has been advanced to suggest that it should be construed differently. In any event, a different interpretation must fall before a constitutional provision of similar import. (*County of Los Angeles v. Payne* (1937) 8 Cal.2d 563, 574 [66 P.2d 658].)

II

Issue of Whether Court Orders Exceeded Its Jurisdiction

A. *The Court Has Not Ordered an Appropriation in Violation of the Separation of Powers Doctrine*

([9])State begins its general attack on the judgment by citing the longstanding principle that a court order which directly compels the Legislature to appropriate funds or to pay funds not yet appropriated violates the separation of powers doctrine. (Cal. Const., art. III, § 3; art. XVI, § 7; *Mandel v. Myers* (1981) 29 Cal.3d 531, 540 [174 Cal.Rptr. 841, 629 P.2d 935].)[12] State ***539** observes (and correctly so) that the relevant constitutional (art. XIII B, § 6) and statutory (Rev. & Tax. Code, § 2207 & former § 2231) provisions are not appropriations measures. (See *City of Sacramento v. California State Legislature* (1986) 187 Cal.App.3d 393, 398 [231 Cal.Rptr. 686].) Since State otherwise discerns no manifest legislative intent to appropriate funds to pay County's claims (*City & County of S. F. v. Kuchel* (1948) 32 Cal.2d 364, 366 [196 P.2d 545]), it concludes that the judgment unconstitutionally compels performance of a legislative act.

State further argues that the judiciary's ability to reach an existing agency-support appropriation (State Department of Industrial Relations) (fn. 7, ¶ 1, *ante*) has been approved in only two contexts. First, the court can order payment from an existing appropriation, the expenditure of which has been legislatively prohibited by an unconstitutional or unlawful restriction. (*Committee to Defend Reproductive Rights v. Cory* (1982) 132 Cal.App.3d 852, 856 [183 Cal.Rptr. 475].) Second, once an adjudication has finally determined the rights of the

parties, the court may compel satisfaction of the judgment from a current unexpended, unencumbered appropriation which administrative agencies routinely have used for the purpose in question. (*Mandel v. Myers*, *supra.*, 29 Cal.3d at p. 544.) State insists that these facts are not present here.

County rejoins that a writ of traditional mandate (Code Civ. Proc., § 1085) is the correct method of compelling State to perform a clear and present ministerial legal obligation. (*County of Sacramento v. Loeb*, *supra.*, 160 Cal.App.3d at pp. 451-452.) The ministerial obligation here is contained in California Constitution, article XIII B, section 6 and in Revenue and Taxation Code section 2207 and former section 2231. These provisions require State to reimburse local agencies for state-mandated costs.

We reject State's general characterization of the judgment by noting that it only affects an existing appropriation. It declares (fn. 7, ¶ 1, *ante*) that only funds already "*appropriated* by the Legislature for the State Department of Industrial Relations for the Prevention of Industrial Injuries and Deaths of California Workers within the Department's General Fund" shall be spent for reimbursement of County's state-mandated costs. (Italics added.) There is absolutely no language purporting to require the Legislature to enact appropriations or perform any other act that might violate separation of powers principles. ([10])By simply ordering the State Controller to draw warrants and directing the State Treasurer to pay on already appropriated funds (fn. 7, ¶ 2, *ante*), the judgment permissibly compels performance of a ministerial duty: "[O]nce funds have already been appropriated by legislative action, a court transgresses no constitutional principle when it orders the State Controller or other similar official to make appropriate expenditures ***540** from such funds. [Citations.]" (*Mandel v. Myers*, *supra.*, 29 Cal.3d at p. 540.)

As we will discuss in further detail below, the subject funds (fn. 7, ¶ 1, *ante*) were saddled with an unconstitutional restriction (fn. 7, ¶ 7, *ante*). However, *Mandel* establishes that such a restriction does not necessarily infect the entire appropriation. There, the Legislature had improperly prohibited the use of budget funds to pay a court-ordered and administratively approved attorney's fees award. The court reasoned that as long as appropriated funds were "reasonably available for the expenditures in question, the separation of powers doctrine poses no barrier to a judicial order directing the payment of such funds." (*Id.* at p. 542.) The court went on to find that money in a general "operating expenses and equipment" fund was, by both the Budget Act's terms and prior administrative practice, reasonably available to pay the attorney's fees award.

Contrary to State's argument, *Mandel* does not require that past administrative practice support a judgment for reimbursement from an otherwise available appropriation. Although there was evidence of a prior administrative practice of paying counsel fees from funds in the "operating expenses and equipment" budget, this fact was not the main predicate of the court's holding. Rather, the decisive factor was that the budget item in question functioned as a "catchall" appropriation in which funds were still reasonably available to satisfy the State's adjudicated debt. (*Id.* at pp. 543-544.)

Another illustration of this principle is found in *Serrano v. Priest* (1982) 131 Cal.App.3d 188 [182 Cal.Rptr. 387]. Plaintiffs in that case secured a judgment against the State of California for $800,000 in attorney's fees. The judgment was not paid, and subsequent proceedings were brought against State to satisfy the judgment. The trial court directed the State Controller to pay the $800,000 award, plus interest, from funds appropriated by the Legislature for "operating expenses and equipment" of the Department of Education, Superintendent of Public Instruction and State Board of Education. (*Id.* at p. 192.) This court affirmed that order even though there was no evidence that the agencies involved had ever paid court-ordered attorney's fees from that portion of the budget. Relying on *Mandel*, we concluded that funds were reasonably available from appropriations enacted in the Budget Act in effect at the time of the court's order, as well as from similar appropriations in subsequent budget acts.

([11])State also incorrectly asserts that the appropriations affected by the court's order must specifically refer to the particular expenditure in question in order to be available. This notion was summarily dismissed in *Mandel v. Myers*, *supra.*, 29 Cal.3d at pp. 543-544. Likewise, in *Committee to Defend* ***541** *Reproductive Rights v. Cory*, *supra.*, 132 Cal.App.3d at pp. 857-858, the court decreed that payments for Medi-Cal abortions could properly be ordered from monies appropriated for other Medi-Cal services, even though this use had been specifically prohibited by the Legislature.

Applying these various principles here, we note that the judgment (fn. 7, ¶ 2, *ante*) identified funds in account numbers 8350-001-001, 8350-001-452, 8350-001-453 and 8350-001-890 as being available for reimbursement. Within these 1984-1985 account appropriations for the Department of Industrial Relations were monies for Program 40, the Prevention of Industrial Injuries and Deaths of California Workers. The evidence clearly showed that the remaining balances on hand would cover the cost of reimbursement. Since it is conceded that the fire fighting protective clothing and equipment in this case was purchased to prevent deaths and injuries to fire fighters, these funds, although not specifically appropriated for the reimbursement in question, were generally related to the nature of costs incurred by County and are therefore reasonably available for reimbursement.

B. *Legislative Disclaimers, Findings and Budget Control Language Are No Defense to Reimbursement*

As a general defense against the order to reimburse, State insists that the Legislature has itself concluded that the claimed costs are not reimbursable. This determination took the combined form of disclaimers, findings and budget control language. State interprets this self-serving legislation, as well as the legislative and gubernatorial deletions, as forever sweeping away State's obligation to reimburse the state-mandated costs at issue. Consequently, any order that ignores these restrictions on payment would amount to a court-ordered appropriation. As we shall conclude, these efforts are merely transparent attempts to do indirectly that which cannot lawfully be done directly.

The seminal legislation that gave rise to the 1978 executive orders was enacted by Statutes 1973, chapter 993, and is labeled the California Occupational Safety and Health Act (Cal/OSHA). It is modeled after federal law and is designed to assure safe working conditions for all California workers. A legislative disclaimer appearing in section 106 of that bill reads: "No appropriation is made by this act ... for the reimbursement of any local agency for any costs that may be incurred by it in carrying on any program or performing any service required to be carried on ...." The stated reason for this decision not to appropriate was that the cost of implementing the act was "minimal on a statewide basis in relation to the effect on local tax rates." (Stats. 1973, ch. 993, § 106, p. 1954.) ***542**

Again, in 1974, the Legislature stated: "Notwithstanding Section 2231 of the Revenue and Taxation Code, there shall be no reimbursement pursuant to this section, nor shall there be an appropriation made by this act, because the Legislature finds that this act and any executive regulations or safety orders issued pursuant thereto merely implement federal law and regulations." (Stats. 1974, ch. 1284, § 106, p. 2787.) This statute amended section 106 of Statutes 1973, chapter 993, and was a post facto change in the stated legislative rationale for not providing reimbursement.

Presumably because of the large number of reimbursement claims being filed, the Legislature subsequently used budget control language to confirm that compliance with the executive orders should not trigger reimbursement. Some of this legislation was effective September 30, 1981, as part of a local agency and school district reimbursement bill. The control language provided that "[t]he Board of Control shall not accept, or submit to the Legislature, any more claims pursuant to ... Sections 3401 to 3409, inclusive, of Title 8 of the California Administrative Code." (Stats. 1981, ch. 1090, § 3, p. 4193.) [13]

Further control language was inserted in the 1981, 1983 and 1984 Budget Acts. (Stats. 1981, ch. 99, § 28.40, p. 606; Stats. 1983, ch. 324, § 26.00, p. 1504; Stats. 1984, ch. 258, § 26.00.) This language prohibits encumbering appropriations to reimburse costs incurred under the executive orders, except under certain limited circumstances.

([12a])State first challenges the trial court's finding that expenditures mandated by the executive orders were not the result of a federally mandated program (fn. 7, ¶ 8, *ante*), despite the legislative finding in Statutes 1974, chapter 1284, section 106. We agree with the court's decision that there was no federal mandate.

The significance of this no-federal-mandate finding is revealed by examining past changes in the statutory definition of state-mandated costs. As thoroughly discussed in *City of Sacramento v. State of California* (1984) 156 Cal.App.3d 182, 196-197 [203 Cal.Rptr. 258] disapproved on other grounds in *County of Los Angeles v. State of California*, *supra.*, 43 Cal.3d at p. 58, fn. 10, the concept of federally mandated costs has provided local agencies with a financial escape valve ever since passage

of the "Property Tax Relief Act of 1972." (Stats. 1972, ch. 1406, § 1, p. 2931.) That act limited local governments' power to levy property taxes, while requiring that they be reimbursed by the State for providing compulsory increased levels of service or ***543** new programs. However, under Revenue and Taxation Code section 2271, "costs mandated by the federal government" were not subject to reimbursement and local governments were permitted to levy taxes in addition to the maximum property tax rate to pay such costs.

On November 6, 1979, the limitation on local government's ability to raise property taxes, and the duty of the State to reimburse for state-mandated costs, became a part of the California Constitution through the initiative process. Article XIII B, section 6, enacted at that time, directs state subvention similar in nature to that required by the preexisting provisions of Revenue and Taxation Code section 2207 and former section 2231. As a defense against this duty to reimburse local agencies, the Legislature began to insert disclaimers in bills which mandated costs on local agencies. It also amended Revenue and Taxation Code section 2206 to expand the definition of nonreimbursable "costs mandated by the federal government" to include the following: "costs resulting from enactment of a state law or regulation where failure to enact such law or regulation to meet specific federal program or service requirements would result in substantial monetary penalties or loss of funds to public or private persons in the state."

In applying this definition here, State offers nothing more than the bare legislative finding contained in Statutes 1974, chapter 1284, section 106. State contends that a federally mandated cost cannot, by definition, be a state-mandated cost. Therefore, if the cost is federally mandated, local agency reimbursement is not required. ([13])**(See fn. 14.)** Although State's argument is correct in the abstract, neither the facts nor federal law supports the underlying assumption that there is a federal mandate. [14]

([12b])Both the Board and the court had in evidence a letter from a responsible official of the federal Occupational Safety and Health Administration (OSHA). The letter emphasizes the independence of state and federal OSHA standards: "OSHA does not have jurisdiction over the fire departments of any political subdivision of a state whether the state has elected to have its own state plan under the OSHA act or not .... [¶] More specifically, in 1978, the State of California promulgated standards applicable to fire departments in California. Therefore, California standards, rather than ***544** federal OSHA standards, are applicable to fire departments in that state ...." This theme is also reflected in a section of OSHA which expressly disclaims jurisdiction over local agencies such as County. (29 U.S.C. § 652(5).) Accordingly, as a matter of law, there are no federal standards for local government structural fire fighting clothing and equipment.

In short, while the Legislature's enactment of Cal/OSHA to comply with federal OSHA standards is commendable, it certainly was not compelled. Consequently, County's obedience to the 1978 executive orders is not federally mandated.

([14a])The trial court also properly invalidated the budget control language in Statutes 1981, chapter 1090, section 3 (fn. 7, ¶ 7, *ante*) because it violated the single subject rule. [15] This legislative restriction purported to make the reimbursement provisions of Revenue and Taxation Code section 2207 and former section 2231 unavailable to County.

([15])The single subject rule essentially requires that a statute have only one subject matter and that the subject be clearly expressed in the statute's title. The rule's primary purpose is to prevent "log-rolling" in the enactment of laws. This disfavored practice occurs where a provision unrelated to a bill's main subject matter and title is included in it with the hope that the provision will remain unnoticed and unchallenged. By invalidating these unrelated clauses, the single subject rule prevents the passage of laws which otherwise might not have passed had the legislative mind been directed to them. (*Planned Parenthood Affiliates v. Swoap* (1985) 173 Cal.App.3d 1187, 1196 [219 Cal.Rptr. 664].) However, in order to minimize judicial interference in the Legislature's activities, the single subject rule is to be construed liberally. A provision violates the rule only if it does not promote the main purpose of the act or does not have a necessary and natural connection with that purpose. (*Metropolitan Water Dist. v. Marquardt* (1963) 59 Cal.2d 159, 172-173 [28 Cal.Rptr. 724, 379 P.2d 28].)

([14b])The stated purpose of chapter 1090 is to increase funds available for reimbursing certain claims. It describes itself as an "act making an appropriation to pay claims

of local agencies and school districts for additional reimbursement for specified state-mandated local costs, awarded by the State Board of Control, and declaring the urgency thereof, to take effect immediately." (Stats. 1981, ch. 1090, p. 4191.) There is nothing in this introduction ***545** alerting the reader to the fact that the bill prohibits the Board from entertaining claims pursuant to the Cal/OSHA executive orders. The control language does not modify or repeal these orders, nor does it abrogate the necessity for County's continuing compliance therewith. It simply places County's claims reimbursement process in limbo.

This special appropriations bill is similar in kind to appropriations in an annual budget act. Observations that have been made in connection with the enactment of a budget bill are appropriate here. "[T]he annual budget bill is particularly susceptible to abuse of [the single subject] rule. 'History tells us that the general appropriation bill presents a special temptation for the attachment of riders. It is a necessary and often popular bill which is certain of passage. If a rider can be attached to it, the rider can be adopted on the merits of the general appropriation bill without having to depend on its own merits for adoption.' [Citation.]" (*Planned Parenthood Affiliates v. Swoap*, *supra.*, 173 Cal.App.3d at p. 1198.) Therefore, the annual budget bill must only concern the subject of appropriations to support the annual budget and may not constitutionally be used to substantively amend or change existing statutory law. (*Association for Retarded Citizens v. Department of Developmental Services* (1985) 38 Cal.3d 384, 394 [211 Cal.Rptr. 758, 696 P.2d 150].) We see no reason to apply a less stringent standard to a special appropriations bill. Because the language in chapter 1090 prohibiting the Board from processing claims does not reasonably relate to the bill's stated purpose, it is invalid.

([16])The budget control language in chapter 1090 is also invalid as a retroactive disclaimer of County's right to reimbursement for debts incurred in prior years. This legislative technique was condemned in *County of Sacramento v. Loeb*, *supra.*, 160 Cal.App.3d at p. 446. There, the Legislature had enacted a Government Code section which prohibited using appropriations for any purpose which had been denied by any formal action of the Legislature. The State attempted to use this code section to uphold a special appropriations bill which had deleted County's Board-approved claims for costs which were incurred prior to the enactment of the code section. The court held that the code section did not apply retroactively to defeat County's claims: "A retroactive statute is one which relates back to a previous transaction and gives that transaction a legal effect different from that which it had under the law when it occurred ... 'Absent some clear policy requiring the contrary, statutes modifying liability in civil cases are not to be construed retroactively.'" (*Id.* at p. 459, quoting *Robinson v. Pediatric Affiliates Medical Group, Inc.* (1979) 98 Cal.App.3d 907, 912 [159 Cal.Rptr. 791].) Similarly, the control language in chapter 1090 does not apply retroactively to County's prior, Board-approved claims. ***546**

([17])Finally, the control language in section 28.40 of the 1981 Budget Act and section 26.00[16] of the 1983 and 1984 Budget Acts does not work to defeat County's claims. (Stats. 1981, ch. 99, § 28.40, p. 606; Stats. 1983, ch. 324, § 26.00, p. 1504; Stats. 1984, ch. 258, § 26.00.) This section is comprised of both substantive and procedural provisions. We are concerned primarily with those portions that purport to exonerate State from its constitutionally and statutorily imposed obligation to reimburse County's state-mandated costs.

The writ of mandate directed compliance with the procedural provisions of these sections and is not a point of dispute on appeal. Subsection (a) affords the Legislature one last opportunity to appropriate funds which are to be encumbered for the purpose of paying state-mandated costs, an invitation repeatedly rejected. Subsection (b) directs that the Department of Finance notify the chairpersons of the appropriate committees in each house and chairperson of the Joint Legislative Budget Committee of the need to encumber funds. Presumably, the objective of this procedure is to give the Legislature another opportunity to amend or repeal substantive legislation requiring local agencies to incur state-mandated costs. Again, the Legislature declined to act. Legislative action pursuant to subsection (b) could arguably ameliorate the plight of local agencies prospectively, but would be of no practical assistance to a local agency creditor seeking reimbursement for costs already incurred.

The first portion of each section, however, imposes a budgetary restriction on encumbering appropriated funds to reimburse for state-mandated costs arising out of compliance with the executive orders, absent a specific

appropriation pursuant to subparagraph (b). For the reasons stated above, this substantive language is invalid under the single subject rule. It attempts to amend existing statutory law and is unrelated to the Budget Acts' main purpose of appropriating funds to support the annual budget. (*Association for Retarded Citizens v. Department of Developmental Services*, *supra.*, 38 Cal.3d at p. 394.) Now unfettered by invalid restrictions, the appropriations involved in this case are reasonably available for reimbursement. ***547**

C. *The Legislature's Plenary Power to Regulate Worker Safety Does Not Affect the Right to Reimbursement*

([18])State contends that article XIV, section 4 of the California Constitution vests the Legislature with unlimited plenary power to create and enforce a complete workers' compensation system. It postulates that the Legislature may determine that the interest in worker safety and health is furthered by requiring local agencies to bear the costs of safety devices. This non sequitur is advanced without citation of authority.

Article XIV, section 4 concerns the power to enact workers' compensation statutes and regulations. It does not focus on the issue of reimbursement for state-mandated costs, which is covered by Revenue and Taxation Code section 2207 and former section 2231, and article XIII B, section 6. Since these latter provisions do not effect a pro tanto repeal of the Legislature's plenary power over workers' compensation law (see *County of Los Angeles v. State of California*, *supra.*, 43 Cal.3d 46), they do not conflict with article XIV, section 4.

Moreover, even though the reimbursement issue has come before the Legislature repeatedly since 1972, no law has been enacted to exempt compliance with workers' compensation executive orders from the mandatory reimbursement provisions of Revenue and Taxation Code section 2207 and former section 2231. Likewise, article XIII B, section 6 does not provide an exception to the obligation to reimburse local agencies for compliance with these safety orders.

D. *Pre-1980 Claims Are Reimbursable Under Article XIII B, Section 6, Effective July 1, 1980*

([19])State further argues that to the extent County's claims for fiscal years 1978-1979 and 1979-1980 are predicated on the subvention provisions of article XIII B, section 6, they fall within a "window period" of nonreimbursement. This assertion emanates from section 6, subdivision (c), which states that the Legislature "[m]ay, but need not," provide reimbursement for mandates enacted before January 1, 1975. State reasons that because the constitutional amendment did not become effective until July 1, 1980, claims for costs incurred between January 1, 1975 and June 30, 1980, need not be reimbursed.

This notion was rejected in *City of Sacramento v. State of California*, *supra.*, 156 Cal.App.3d at p. 182 on behalf of local agencies seeking reimbursement of unemployment insurance costs mandated by a 1978 statute. Basing its decision on well-settled principles of constitutional interpretation ***548** and upon a prior published opinion of the Attorney General, the court interpreted section 6, subdivision (c) as follows: "[T]he Legislature *may* reimburse mandates enacted prior to January 1, 1975, and *must* reimburse mandates passed after that date, but does not have to begin such reimbursement until the effective date of article XIII B (July 1, 1980)." (*Id.* at p. 191, italics in original.) In other words, the amendment operates on "window period" mandates even though the reimbursement process may not actually commence until later.

We agree with this reasoning and find costs incurred by County under the 1978 executive orders subject to reimbursement under the Constitution.

E. *Claims Under Revenue and Taxation Code Section 2207 and Former Section 2231 Are Not Time-barred*

([20])State collaterally asserts that to the extent County bases its claims on Revenue and Taxation Code section 2207 and former section 2231, they are barred by Code of Civil Procedure sections 335 and 338, subdivision 1. This omnibus challenge to the order directing payment has no merit.

Code of Civil Procedure section 335 is a general introductory section to the statute of limitations for all matters except recovery of real property. Code of Civil Procedure section 338, subdivision 1 requires "[a]n action upon a liability created by statute" to be commenced within three years.

A claimant does not exhaust its administrative remedies and cannot come under the court's jurisdiction until

the legislative process is complete. (*County of Contra Costa v. State of California* (1986) 177 Cal.App.3d 62, 77 [222 Cal.Rptr. 750].) Here, County pursued its remedy before the Board and prevailed. Thereafter, as required by law, appropriate legislation was introduced. Both the Board hearings and the subsequent efforts to secure legislative appropriations were part of the legislative process. (Former Rev. & Tax. Code, § 2255, subd. (a).) It was not until the legislation was enacted sans appropriations on September 30, 1981 (S.B. 1261) and February 12, 1982 (A.B. 171) that it became unmistakably clear that this process had ended and State had breached its duty to reimburse. At these respective moments of breach, County's right of action in traditional mandamus accrued. County's petition was filed on September 21, 1984, within the three-year statutory period. [17] (*Lerner v. Los Angeles City Board of Education*, *supra.*, 59 Cal.2d at p. 398.) ***549**

F. *Government Code Section 17612*'s Remedy for *Unfunded Mandates Does Not Supplant the Court's Order*

State continues its general attack on the order directing payment by arguing that the Legislature has "defined" the remedy available to a local agency if a mandate is unfunded. That remedy is found in Government Code section 17612, subdivision (b) and reads: "If the Legislature deletes from a local government claims bill funding for a mandate, the local agency ... *may* file in the Superior Court of the County of Sacramento an action in declaratory relief to declare the mandate unenforceable and enjoin its enforcement." (Italics added.) (See also former Rev. & Tax. Code, § 2255, subd. (c), eff. Oct. 1, 1982.)

State hints that this procedure is the only remedy available to a local agency if funding is not provided. At oral argument, State admitted that this declaration of enforceability and injunction against enforcement would be prospective only. This remedy would provide no relief to local agencies which have complied with the executive orders.

We conclude that Government Code section 17612, subdivision (b) is inapplicable here because it did not become operative until January 1, 1985. It was not in place when the Board rendered its decision on November 20, 1979; when funding was deleted from S.B. 1261 (Sept. 30, 1981) and A.B. 171 (Feb. 12, 1982); or when this litigation commenced on September 21, 1984. ([21])A party is not required to exhaust a remedy that was not in existence at the time the action was filed. (*Ross v. Superior Court* (1977) 19 Cal.3d 899, 912, fn. 9 [141 Cal.Rptr. 133, 569 P.2d 727].) To abide by this post facto legislation now would condone legislative interference in a specific controversy already assigned to the judicial branch for resolution. (*Serrano v. Priest*, *supra.*, 131 Cal.App.3d at p. 201.)

Also, this remedy is purely a discretionary course of action. By using the permissive word "may," the Legislature did not intend to override article XIII B, section 6 and Revenue and Taxation Code section 2207 and former section 2231. These constitutional and statutory imprimaturs each impose upon the State an obligation to reimburse for state-mandated costs. Once that determination is finally made, the State is under a clear and present ministerial duty to reimburse. In the absence of compliance, traditional mandamus lies. (Code Civ. Proc., § 1085.) [18] ***550**

G. *The Court's Order Properly Allows County the Right of Offset*

([22a])As the first in a series of objections to portions of the judgment which assist in the reimbursement process, State argues that the court has improperly authorized County to satisfy its claims by offsetting fines and forfeitures due to State. (Fn. 7, ¶ 5, *ante*.) The fines and forfeitures are those found in Penal Code sections 1463.02, 1463.03, 1463.5a and 1464; Government Code sections 13967, 26822.3 and 72056; Fish and Game Code section 13100; Health and Safety Code section 11502; and Vehicle Code sections 1660.7, 42004 and 41103.5. [19]

Broadly speaking, these statutes require County to periodically transfer all or part of the fines and forfeitures collected by it for specified law violations to the State Treasury. They are to be held there "to the credit" of various state agencies, or for payment into specific funds. State contends that since these statutes require mandatory, regular transfers and do not expressly permit diversion for other purposes, the court had no power to allow County to offset. State cites no authority for this contention.

([23])The right to offset is a long-established principle of equity. Either party to a transaction involving mutual

debits and credits can strike a balance, holding himself owing or entitled only to the net difference. (*Kruger v. Wells Fargo Bank* (1974) 11 Cal.3d 352, 362 [113 Cal.Rptr. 449, 521 P.2d 441, 65 A.L.R.3d 1266].) Although this doctrine exists independent of statute, its governing principle has been partially codified (Code Civ. Proc., § 431.70) (limited to cross-demands for money).

The doctrine has been applied in favor of a local agency against the State. In *County of Sacramento v. Lackner* (1979) 97 Cal.App.3d 576[159 Cal.Rptr.1], for example, the court of appeal upheld a trial court's decision to grant a writ of mandate that ordered funds awarded the County under a favorable judgment to be offset against its current liabilities to the State under the Medi-Cal program. The court stated that such an order does not interfere with the "Legislature's control over the 'submission, approval and enforcement of budgets....'" (*Id.* at p. 592, quoting Cal. Const., art. IV, § 12, subd. (e).)

([22b])The order herein likewise does not impinge upon the Legislature's exclusive power to appropriate funds or control budget matters. The identified ***551** fines and forfeitures are collected by the County for statutory law violations. Some of these funds remain with the County, while others are transferred to the State. State's portions are uncertain as to amount and date of transfer. State does not come into actual possession of these funds until they are transferred. State's holding of these funds "to the credit" of a particular agency, or for payment to a specific fund, does not commence until their receipt. Until that time, they are unencumbered, unrestricted and subject to offset.

H. *State's Use of its Statutory Offset Authority Was Properly Enjoined*

([24])State further contends that the trial court exceeded its jurisdiction by enjoining the exercise of State's statutory offset authority until County is fully reimbursed. (Fn. 7, ¶ 11, *ante*.)[20] This order complemented that portion of the order discussed, *infra.*, which allowed County to temporarily offset fines and forfeitures as an aid in the reimbursement process.

State correctly observes that it has not unlawfully used its offset authority during the course of this dispute. However, State has not needed to do so because it has adopted other means of avoiding payment on County's claims. In view of State's manifest reluctance to reimburse, and its otherwise unencumbered statutory right of offset, the trial court was well within its authority to prevent this method of frustrating County's collection efforts from occurring. (See *County of Los Angeles v. State of California* (1984) 153 Cal.App.3d 568 [200 Cal.Rptr. 394].)

I. *The Injunction Against Reversion or Dissipation of Undisbursed Appropriations Is Proper*

([25])State continues that the order (fn. 7, ¶ 4, *ante*) enjoining it from directly or indirectly reverting the reimbursement award sum from the general fund line item accounts, and from otherwise dissipating that sum in a manner that would make it unavailable to satisfy this court's judgment, violates Government Code section 16304.1.[21] This section reverts undisbursed ***552** balances in any appropriation to the fund from which the appropriation was made. No authority is cited for State's proposition. To the contrary, *County of Sacramento v. Loeb*, *supra.*, 160 Cal.App.3d at pp. 456-457 expressly confirms this type of ancillary remedy as a legitimate exercise of the court's authority to assist in collecting on an adjudicated debt, the payment of which has been delayed all too long.

That portion of the order restraining reversion is particularly innocuous because it only affects undisbursed balances in an appropriation. At the time of reversion, it is crystal clear that these remaining funds are unneeded for the primary purpose for which appropriated; otherwise, they would not exist. Moreover, that portion of the order restraining dissipation of the reimbursement award sum in a manner that would make it unavailable to satisfy a court's judgment is similarly a proper exercise of the court's authority. By not reimbursing County for the state-mandated costs, State would be contravening its constitutional and statutory obligations to subvent. To the extent it is not reimbursed, County would be compelled, contrary to law, to bear the cost of complying with a state-imposed obligation.

J. *The Auditor Controller and the Specified Funds Are Not Indispensable Parties*

([26], [27])State next contends that the Auditor Controller of Los Angeles County and the "specified" fines and forfeitures County was allowed to offset are indispensable parties. Failure to join them in the action or to serve them

with process purportedly renders the trial court's order void as in excess of its jurisdiction.[22] State cites only the general statutory definition of an indispensable party (Code Civ. Proc., § 389) to support this assertion.

The Auditor Controller is an officer of the County and is subject to the ***553** direction and control of the County board of supervisors. (Gov. Code, § 24000, subds. (d), (e), 26880; L.A. County Code, § 2.10.010.) He is indirectly represented in these proceedings because his principal, the County, is the party litigant. Additionally, he claims no personal interest in the fines and forfeitures and his pro forma absence in no way impedes complete relief.

The funds created by the collected fines and forfeitures also are not indispensable parties. This is not an in rem proceeding, and the ownership of a particular stake is not in dispute. Rather, this is an action to compel a ministerial obligation imposed by law. Complete relief may be afforded without including the specified funds as a party.

K. *County is Entitled to Interest*

([28])State insists that an award of interest to County unfairly penalizes State for not paying claims which it was prohibited by law from paying under Statutes 1981, chapter 1090, section 3. This argument is unavailing.

Civil Code section 3287, subdivision (a) allows interest to any person "entitled to recover damages certain, or capable of being made certain by calculation...." Interest begins on the day that the right to recover vests in the claimant. By its own terms, this section applies to any judgment debtor, "including the state...or any political subdivision of the state."

The judgment orders interest at the legal rate from September 30, 1981, for reimbursement funds originally contained in S.B. 1261, and from February 12, 1982, for the funds originally contained in A.B. 171. These are the respective dates that the bills were enacted without appropriations. As we concluded earlier, County's cause of action did not arise and its right to recover did not vest until this legislative process was complete. County offers no authority to suggest that any other vesting date is appropriate.

Furthermore, State cannot avoid its obligation to pay interest by relying on the invalid budget control language in Statutes 1981, chapter 1090, section 3. "An invalid statute voluntarily enacted and promulgated by the state is not a defense to its obligation to pay interest under Civil Code section 3287, subdivision (a)." (*Olson v. Cory* (1983) 35 Cal.3d 390, 404 [197 Cal.Rptr. 843, 673 P.2d 720].)

Appeal in Case No. 2 Civil B011941

(Rincon et al. Case)

The procedural history and legal issues raised in the *Rincon et al.* appeal are essentially similar to those discussed in the County of Los Angeles matter. ***554**

County, although not a party to this underlying trial court proceeding, filed a test claim with the Board. All parties agree that County represented the interests of the named respondents here.

The Board action resulted in a finding of state-mandated costs. It further found that Rincon et al. were entitled to reimbursement in the amount of $39,432. After the Legislature and the Governor, respectively, deleted the funding from the two appropriations bills, S.B. 1261 and A.B. 171, Rincon et al. filed a petition for writ of mandate and declaratory relief. This action was consolidated for hearing in the trial court with the action in B011942 (County of Los Angeles matter). The within judgment was also signed, filed and entered on February 6, 1985. The reimbursement order was directed against the 1984-1985 budget appropriations. State appeals from that judgment.

The court here included a judicial determination that the Board, or its successors, hear and approve the claims of certain other respondents for costs incurred in connection with the state-mandated program. (Fn. 7, ¶ 9, *ante*.) This special directive was necessary because the claims of these respondents (petitioners below) have not yet been determined.[23] Since we have ruled that State is barred by the doctrines of waiver and administrative collateral estoppel from raising the state mandate issue, the validity of these claims becomes a question of law susceptible to but one conclusion, and mandamus properly lies. (*County of Sacramento v. Loeb*, *supra.*, 160 Cal.App.3d at p. 453.) This portion of the order also underscores, for the Board's edification, the determination that the statutory restriction on the Board authority to proceed is invalid.[24]

Once again, our determinations and conclusions in the County of Los Angeles matter are equally applicable here.

Appeal in Case No. 2 Civil B006078

(Carmel Valley et al.)

Again, the procedural history and legal issues raised in this appeal are essentially similar to those discussed in the County of Los Angeles matter.

County filed a test claim with the Board. All parties agree that the County represented the interests of the named respondents here. ***555**

On December 17, 1980, the Board found that a state mandate existed and that specific amounts of reimbursement were due several respondents totalling $159,663.80. Following the refusal of the Legislature to appropriate funds for reimbursement, Carmel Valley et al. filed a petition for writ of mandate and declaratory relief on January 3, 1983. Judgment was entered on May 23, 1984. The reimbursement order was directed against 1983-1984 budget appropriations.

The judgment differs from the other two because it does not decree a specific reimbursement amount. The trial court determined that even though the Board had approved the claims, the State was not precluded from contesting that determination. The court's reasons were that the State, in its answer, had denied that the money claimed was actually spent, and that Board approval had not been implemented by subsequent legislation. The court concluded that the reimbursement process, of which the Board action was an intrinsic part, was "aborted."

We disagree with this portion of the court's analysis. The moment S.B. 1261 and A.B. 171 were enacted into law without appropriations, Carmel Valley et al. had exhausted their administrative remedies and were entitled to seek a writ of mandate. At the time of trial, State was barred by the doctrines of waiver and administrative collateral estoppel from contesting the state mandate issue or the amount of reimbursement. The trial court therefore should have rendered a judgment for the amount of reimbursement. Having failed to do so, this fact-finding responsibility falls upon this court. Although we ordinarily are not equipped to handle this function, the writ of mandate in this case identifies the amount of the approved claims as $159,663.80. We accordingly will amend the judgment to reflect that amount.

The trial court also predicated its judgment for Carmel Valley et al. solely on the basis of Revenue and Taxation Code section 2207 and former section 2231. In doing so, the court did not have the benefit of the decision in *City of Sacramento v. State of California*, *supra.*, 156 Cal.App.3d at p. 182.[25] That case held that mandates passed after January 1, 1975, must be reimbursed pursuant to article XIII B, section 6 of the California Constitution, but that reimbursement need not commence until July 1, 1980. In light of this rule, we conclude that the trial court's decision ordering reimbursement is also supported by article XIII B, section 6. ***556**

State raises another point specific to this particular appeal. In its answer to the writ petition, State admitted that the local agency expenditures were state mandated. Consequently, the issue was not contested at the trial court level. However, State vigorously contends here that it is not bound by its trial court admissions because the state mandate issue is purely a question of law.

([29])State is correct in contending that an appellate court is not limited by the interpretation of statutes given by the trial court. (*City of Merced v. State of California*, *supra.*, 153 Cal.App.3d at p. 781.) However, State's victory on this point is Pyrrhic. Regardless of how the issue is characterized, State is precluded from contesting the Board findings on appeal because of the independent application of the doctrines of waiver and administrative collateral estoppel. These doctrines would also have applied at the trial court level if State's answer had raised the issue of state mandate in the first instance.

We also reject State's argument, advanced for the first time on appeal, that the executive orders of 1978 initially implement legislation enacted prior to January 1, 1975, and that state reimbursement is therefore discretionary. (Cal. Const., art. XIII B, § 6, subd. (c).) Again, State is barred by the doctrines of waiver and administrative collateral estoppel from arguing that costs incurred under the executive orders are not subject to reimbursement.

State continues that the *Carmel Valley* judgment against the Department of Industrial Relations is erroneous. Since the department was never made a party in the suit, nor served with process, the resulting judgment reflects

a denial of due process and is in excess of the court's jurisdiction. (See Code Civ. Proc., § 389; fn. 22, *ante*.)

This assertion is but a variant of the same argument advanced in the County of Los Angeles case, *supra.*, which we rejected as meritless. The department is part of the State of California. (Lab. Code, § 50.) State extensively argued the department's position and even offered into evidence a declaration from the chief of fiscal accounting of the department. As stated earlier, agents of the same government are in privity with each other. (*People v. Sims*, *supra.*, 32 Cal.3d at p. 487.)

Ross v. Superior Court, *supra.*, 19 Cal.3d at p. 899 demonstrates how, through the notion of privity, a government agent can be held in contempt for knowingly violating a court order issued against another agent of the same government. There, a court in an earlier proceeding had decided that defendant Department of Health and Welfare must pay unlawfully withheld welfare benefits to qualified recipients. The County Board of Supervisors, ***557** who were not parties to this action, knew about the court's order but refused to comply. The Supreme Court affirmed a trial court decision holding the Board in contempt for violating the order directing payment. The court reasoned that, as an agent of the Department of Health and Welfare, the Board did not collectively or individually need to be named as a party in order to be bound by a court order of which they had actual knowledge.

The determinations and conclusions in the County of Los Angeles case are likewise applicable here.

([30])An appellate court is empowered to add a directive that the trial court order be modified to include charging orders against funds appropriated by subsequent budget acts. (*Serrano v. Priest*, *supra.*, 131 Cal.App.3d at pp. 198, 201.) We do so here with respect to all three judgments. ***558**

Modification of Judgments in All Three Appeals

The trial court judgments ordering reimbursement from specific account appropriations were entered many months ago. We will affirm these judgments and thereby validate the trial courts' determination that funds already appropriated for the State Department of Industrial Relations were reasonably available for payment at the time of the courts' orders.

Due to the passage of time, we requested State at oral argument to confirm whether the appropriations designated in the respective judgments are still available for encumbrance. State's counsel responded by rearguing that the weight of the evidence did not support the trial courts' findings that specific funds were reasonably available for reimbursement. Counsel further hinted that the funds may not actually be available.

We hope that counsel for the State is mistaken. But in order to emphasize our strong and unequivocal determination that the local agency petitioners be promptly reimbursed, we will take judicial notice of the enactment of the 1985-1986 Budget Act (Stats. 1985, ch. 111) and the 1986-1987 Budget Act (Stats. 1986, ch. 186). (*Serrano v. Priest*, *supra.*, 131 Cal.App.3d at p. 197.) Both acts appropriate money for the State Department of Industrial Relations and fund the identical account numbers referred to in the trial courts' judgments. They are:

Account Numbers	1985-1986 Budget Act	1986-1987 Budget Act
8350-001-001	$94,673,000	$106,153,000
8350-001-452	2,295,000	2,514,000
8350-001-453	2,859,000	2,935,000
8350-001-890	16,753,000	17,864,000

Disposition

2d Civ. B011942 (*County of Los Angeles Case*)

The judgment is modified as follows:

(1) The following sentence is added to paragraph 2: "If the hereinabove described funds are not available for

reimbursement, the warrants shall be drawn against funds in the same account numbers enacted in the 1985-86 and 1986-87 Budget Acts."

(2) The words "Fish and Game Code Section 13100" are deleted from paragraph 5.

(3) The peremptory writ of mandate is modified to command the Controller to draw warrants, if necessary, against the same account numbers identified in the judgment as appropriated by the 1985-1986 and 1986-1987 Budget Acts.

As modified, the judgment is affirmed. Respondents to recover costs on appeal.

***2d Civ. B011941* (*Rincon et al. Case*)**

The judgment is modified as follows:

(1) The following sentence is added to paragraph 2: "If the hereinabove described funds are not available for reimbursement, the warrants shall be drawn against funds in the same account numbers enacted in the 1985-86 and 1986-87 Budget Acts."

(2) The peremptory writ of mandate is modified to command the Controller to draw warrants, if necessary, against the same account numbers identified in the judgment as appropriated by the 1985-1986 and 1986-1987 Budget Acts.

As modified, the judgment is affirmed. Respondents to recover costs on appeal.

***2d Civ. B006078* (*Carmel Valley et al. Case*)**

The judgment is modified as follows: ***559**

(1) The following sentences are added to paragraph 2: "The reimbursement amounts total $159,663.80. If the hereinabove described funds are not available for reimbursement, the warrants shall be drawn against funds in the same account numbers enacted in the 1985-86 and 1986-87 Budget Acts."

(2) The peremptory writ of mandate is modified to command the Controller to draw warrants, if necessary, against the same account numbers identified in the judgment as appropriated by the 1985-1986 and 1986-1987 Budget Acts.

As modified, the judgment is affirmed. Respondents to recover costs on appeal.

Ashby, Acting P. J., and Hastings, J., concurred.

A petition for a rehearing was denied March 17, 1987, and appellant's petition for review by the Supreme Court was denied May 14, 1987. Eagleson, J., did not participate therein. ***560**

Footnotes

1 *2d Civ. B006078*: The petitioners below and respondents on appeal are Carmel Valley Fire Protection District, City of Anaheim, Aptos Fire Protection District, Citrus Heights Fire Protection District, Fair Haven Fire Protection District, City of Glendale, City of San Luis Obispo, County of Santa Barbara and Ventura County Fire Protection District.
The respondents below and appellants here are State of California, Kenneth Cory and Jesse Marvin Unruh.
2d Civ. B011941: The petitioners below and respondents on appeal are Rincon Del Diablo Municipal Water District, Twenty-Nine Palms Water District, Alpine Fire Protection District, Bonita-Sunnyside Fire Protection District, Encinitas Fire Protection District, Fallbrook Fire Protection District, City of San Luis Obispo, Montgomery Fire Protection District, San Marcos Fire Protection District, Spring Valley Fire Protection District, Vista Fire Protection District and City of Coronado.
Respondents below and appellants here are State of California, State Department of Finance, State Department of Industrial Relations, State Board of Control, Kenneth Cory, State Controller, Jesse Marvin Unruh, State Treasurer, and Mark H. Bloodgood, Auditor-Controller, County of Los Angeles.
2d Civ. B011942: The County of Los Angeles is the petitioner below and respondent on appeal. Respondents below and appellants here are State of California, State Department of Finance, State Department of Industrial Relations, Kenneth Cory, and Jesse Marvin Unruh.
All respondents on appeal are conceded to be "local agencies," as defined in Revenue and Taxation Code section 2211.

2 The pertinent parts of Revenue and Taxation Code section 2207 provide: " 'Costs mandated by the state' means any incureased costs which a local agency is required to incur as a result of the following" [¶] (a) Any law enacted after

January 1, 1973, which mandates a new program or a n incureased level of service of an existing program: [¶] (b) Any executive order issued after January 1, 1973, which mandates a new program; [¶] (c) Any executive order isued after January 1, 1973, which (i) implements or interprets a state statute and (ii), by such implementation or interpretation, increases program levels above the levels required prior to January 1, 1973 ..."

3 The pertinent parts of former Revenue and Taxation Code section 2231, subdivision (a) provide: "The state shall reimburse each local agency for all 'costs mandated by the state', as defined in Section 2207." This section was repealed (Stats. 1986, ch. 879, § 23), and replaced by Government Code section 17561. We will refer to the earlier code section.

4 The pertinent parts of section 6, article XIII B of the California Constitution, enacted by initiative measure, provide: "Whenever the Legislature or any state agency mandates a new program or higher level of service on any local government, the state shall provide a subvention of funds to reimburse such local government for the costs of such program or increased level of service, except that the Legislature may, but need not, provide such subvention of funds for the following mandates: [¶] ... [¶¶] (c) Legislative mandates enacted prior to January 1, 1975, or executive orders or regulations initially implementing legislation enacted prior to January 1, 1975." This constitutional amendment became effective July 1, 1980.

5 County filed its test claim pursuant to former Revenue and Taxation Code section 2218, which was repealed by Statutes 1986, chapter 879, section 19.

Additionally, the Board is no longer in existence. The Commission on State Mandates has succeeded to these functions. (Gov. Code, §§ 17525, 17630.)

6 The final legislation did include appropriations for other local agencies on other types of approved claims.

7 "1. The Court adjudges and declares that funds appropriated by the Legislature for the State Department of Industrial Relations for the Prevention of Industrial Injuries and Deaths of California Workers within the Department's General Fund may properly be and should be spent for the reimbursement of state-mandated costs incurred by Petitioner as established in this action.

"2. A peremptory writ of mandamus shall issue under the seal of this Court, commanding Respondent State of California, through its Department of Finance, to give notification in writing as specified in Section 26.00 of the Budget Act of 1984 (Chapter 258, Statutes of 1984) of the necessity to encumber funds in conformity [with]this order and, unless the Legislature approves a bill that would enact a general law, within 30 days of said notification that would obviate the necessity of such payment, Respondent Kenn[e]th Cory, the State Controller of the State of California, or his successors in office, if any, shall draw warrants on funds appropriated for the State Department of Industrial Relations for the 1984-85 Budget Year in account numbers 8350-001-001, 8350-001-452, 8350-001-453, and 8350-001-890 as implemented in Chapter 258 Statutes of 1984, sufficient to satisfy the claims of Petitioner, plus interest, as set forth in the motion and accompanying writ of mandamus. Said writ shall also issue against Jessie [*sic*] Marvin Unruh, the State Treasurer of the State of California, and his successors in office, if any, commanding him to make payment on the warrants drawn by Respondent Kenneth Cory.

"3. Pending the final disposition of this proceeding, or the payment of the applicable reimbursement claims and interest as set forth herein, Respondents, and each of of [*sic*] them, their successors in office, agents, servants and employees and all persons acting in concert [or] participation with them, are hereby enjoined and restrained from directly or indirectly expending from the 1984-85 General Fund Budget of the State Department of Industrial Relations as is more particularly described in paragraph number 2 hereinabove, any sums greater than that which would leave in said budget at the conclusion of the 1984-85 fiscal year an amount less than the reimbursement amounts on the aggregate amount of $307,685 in this case, together with interest at the legal rate through payment of said reimbursement amounts. Said amounts are hereinafter referred to collectively as the 'reimbursement award sum'.

"4. Pending the final disposition of this proceeding or the payment of the reimbursement award sum at issue herein, Respondents, and each of them, their successors in office, agents, servants and employees, and all persons acting in concert or participation with them, are hereby enjoined and restrained from directly or indirectly reverting the reimbursement award sum from the General Fund line-item accounts of the Department of Industrial Relations to the General Funds of the State of California and from otherwise dissipating the reimbursement award sum in a manner that would make it unavailable to satisfy this Court's judgment.

"5. In addition to the foregoing relief, Petitioner is entitled to offset amounts sufficient to satisfy the claims of Petitioner, plus interest, against funds held by Petitioner as fines and forfeitures which are collected by the local Courts, transferred to the Petitioner and remitted to Respondents on a monthly basis. Those fines and forfeitures are levied, and their distribution provided, as set forth in Penal Code Sections 1463.02, 1463.03, 14[6] 3.5[a], and 1464; Government Code Sections

13967, 26822.3 and 72056, Fish and Game Code Section 13100; Health and Safety Code Section 11502 and Vehicle Code Sections 1660.7, 42004, and 41103.5.

"6. The Court adjudges and declares that the State has a continuing obligation to reimburse Petitioner for costs incurred in fiscal years subsequent to its claim for expenditures in the 1978-79 and 1979-80 fiscal years as set forth in the petition and the accompanying motion for the issuance of a writ of mandate.

"7. The Court adjudges and declares that deletion of funding and prohibition against accepting claims for expenditures incurred as a result of the state-mandated program of Title 8, California Administrative Code Sections 3401 through 3409 as contained in Section 3 of Chapter 109[0], Statutes of 1981 were invalid and unconstitutional.

"8. The Court adjudges and declares that the expenditures incurred by Petitioner as a result of the state-mandated program of Title 8, California Administrative Code Sections 3401 through 3409 were not the result of any federally mandated program.

"9. A peremptory writ of mandamus shall issue under the seal of this Court commanding Respondent State Board of Control, or its successor-in-interest, to hear and approve the claims of Petitioner for costs incurred in complying with the state-mandated program of Title 8, California Administrative Code Sections 3401 through 3409 subsequent to fiscal year 1979-80.

. . . . ."

"11. The Court adju[d]ges and declares that the State Respondents are prohibited from offsetting, or attempting to implement an offset against moneys due and owing Petitioner until Petitioner is completely reimbursed for all of its costs in complying with the state mandate of Title 8, California Administrative Code Sections 3401 through 3409."

8 This language is taken from Revenue and Taxation Code section 2207 and former section 2231. Article XIII B, section 6 refers to "higher" level of service rather than "increased" level of service. We perceive the intent of the two provisions to be identical. The parties also use these words interchangeably.

9 As it happened, the entire Board determination involved a question of law since the dollar amount of the claimed reimbursement was not disputed.

10 State is not precluded from raising this new issue on appeal. Questions of law decided by an administrative agency invoke the collateral estoppel doctrine only when a determination of conclusiveness will not work an injustice. Likewise, the doctrine of waiver is inapplicable if a litigant has no actual or constructive knowledge of his rights. Since the *State of California* rule had not been announced at the time of the Board or trial court proceedings herein, the doctrines of waiver and collateral estoppel are inapplicable to State on this particular issue. Both parties have been afforded additional time to brief the matter.

11 County suggests that to the extent private fire brigades exist, they are customarily part-time individuals who perform the function on a part-time basis. As such, they are excluded by the balance of the definitional term in title 8, California Administrative Code section 3402, which provides, in pertinent part: "... The term [fire fighter] does not apply to emergency pick-up labor or other persons who may perform first-aid fire extinguishment as collateral to their regular duties."

12 Article III, section 3 of the California Constitution provides: "The powers of state government are legislative, executive, and judicial. Persons charged with the exercise of one power may not exercise either of the others except as permitted by this Constitution."

Article XVI, section 7 of the California Constitution provides: "Money may be drawn from the Treasury only through an appropriation made by law and upon a Controller's duly drawn warrant."

13 When Governor Brown deleted the appropriations from A.B. 171, he stated that he was relying on the pronouncements in Statutes 1974, chapter 1284 and Statutes 1981, chapter 1090.

14 We address this subject only because the trial court found that the costs were not federally mandated. Actually, State cannot raise this issue on appeal because of the waiver and administrative collateral estoppel doctrines. We note, however, where there is a quasi-judicial finding that a cost is state mandated, there is an implied finding that the cost is not federally mandated; the two concepts are mutually exclusive.

Moreover, our task is aided by the fact that interpretation of statutory language is purely a judicial function. Legislative declarations are not binding on the courts and are particularly suspect when they are the product of an attempt to avoid financial responsibility. (*City of Sacramento v. State of California*, *supra.*, 156 Cal.App.3d at pp. 196-197.)

15 Article IV, section 9 of the California Constitution reads: "A statute shall embrace but one subject, which shall be expressed in its title. If a statute embraces a subject not expressed in its title, only the part not expressed is void. A statute may not be amended by reference to its title. A section of a statute may not be amended unless the section is re-enacted as amended."

16 Each of these sections contains the following language: "No funds appropriated by this act shall be encumbered for the purpose of funding any increased state costs or local governmental costs, or both such costs, arising from the issuance of an executive order as defined in section 2209 of the Revenue and Taxation Code or subject to the provisions of section 2231 of the Revenue and Taxation Code, unless (a) such funds to be encumbered are appropriated for such purpose, or (b) notification in writing of the necessity of the encumbrance of funds available to the state agency, department, board, bureau, office, or commission is given by the Department of Finance, at least 30 days before such encumbrance is made, to the chairperson of the committee in each house which considers appropriations and the Chairperson of the Joint Legislative Budget Committee, or such lesser time as the chairperson of the committee, or his or her designee, determines."

17 Technically, Statute has waived the statute of limitations defense because it was not raised in its answer. (*Ventura County Employees' Retirement Association v. Pope* (1978) 87 Cal.App.3d 938, 956 [151 Cal.Rptr. 695].)

18 We leave undecided the question of whether this type of legislation could ever be held to override California Constitution, article XIII B, section 6. The Constitution of the State is supreme. Any statute in conflict therewith is invalid. (*County of Los Angeles v. Payne*, *supra.*, 8 Cal.2d at p. 574.)

Similarly, former Revenue and Taxation Code section 2255, subdivision (c) cannot abrogate the constitutional directive to reimburse.

19 At oral argument, County conceded that the order authorizing offset of Fish and Game Code section 13100 fines and forfeitures is inappropriate. These collected funds must be spent exclusively for protection, conservation, propagation or preservation of fish, game, mollusks, or crustaceans, and for administration and enforcement of laws relating thereto, or for any such purpose. (Cal. Const., art. XVI, § 9; 20 Ops. Cal. Atty. Gen. 110 (1952).)

20 Government Code section 12419.5 provides: "The Controller may, in his discretion, offset any amount due a state agency from a person or entity, against any amount owing such person or entity by any state agency. The Controller may deduct from the claim, and draw his warrants for the amounts offset in favor of the respective state agencies to which due, and, for any balance, in favor of the claimant.... The amount due any person or entity from the state or any agency thereof is the net amount otherwise owing such person or entity after any offset as in this section provided." (See also *Tyler v. State of California* (1982) 134 Cal.App.3d 973, 975-976 [185 Cal.Rptr. 49].)

21 Government Code section 16304.1 provides: "Disbursements in liquidation of encumbrances may be made before or during the two years following the last day an appropriation is available for encumbrance.... Whenever, during [such two-year period], the Director of Finance determines that the project for which the appropriation was made is completed and that a portion of the appropriation is not necessary for disbursements, such portion shall, upon order of the Director of Finance, revert to and become a part of the fund from which the appropriation was made. Upon the expiration of two years...following the last day of the period of its availability, the undisbursed balance in any appropriation shall revert to and become a part of the fund from which the appropriation was made...."

22 Code of Civil Procedure section 389, subdivision (a) provides: "A person who is subject to service of process and whose joinder will not deprive the court of jurisdiction over the subject matter of the action shall be joined as a party in the action if (1) in his absence complete relief cannot be accorded among those already parties or (2) he claims an interest relating to the subject of the action and is so situated that the disposition of the action in his absence may (i) as a practical matter impair or impede his ability to protect that interest or (ii) leave any of the persons already parties subject to a substantial risk of incurring double, multiple, or otherwise inconsistent obligations by reason of his claimed interest. If he has not been so joined, the court shall order that he be made a party."

23 Responding to the budget control language directing it to refuse to process these claims, the Board declined to hear these matters.

24 Because certain claims have not yet been processed, we assume that the issue of the amount of reimbursement may still be at large. Our record is not clear on this point.

25 The decision in *City of Sacramento*, *supra.*, was filed just one day before the trial court signed the written order in this case. The Revenue and Taxation Code sections on which the court relied were operational before the costs claimed in this case were incurred.

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Called into Doubt by Smith v. City of San Jose, Cal.App. 1 Dist., December 7, 1965

L.R.A. 1917E,685, 174 Cal. 478, 163 P. 670

GEORGE CHAFOR et al., Respondents,
v.
CITY OF LONG BEACH (a Municipal Corporation), Appellant.

Supreme Court of California.
L. A. No. 4100.
March 2, 1917.

MUNICIPAL CORPORATIONS—MAINTENANCE OF AUDITORIUM—PROPRIETARY CAPACITY—LIABILITY FOR NEGLIGENCE.
A municipal corporation acts in its private and proprietary, as distinguished from its governmental, capacity, in constructing and maintaining an auditorium in pursuance of the permissive authorization given by the act of 1903 (Stats. 1903, p. 412), and is liable to one lawfully on such premises for personal injuries resulting from its negligence in maintaining the structure, notwithstanding it derived no pecuniary benefit from the use being made of the building at the time of the injury.

ID.—ABSENCE OF PECUNIARY GAIN FROM USE OF BUILDING—GOVERNMENTAL FUNCTION.
The fact that the municipality reaps no direct pecuniary return from the use of the building for a particular purpose, ages not make its act in so using it the performance of a governmental function.

ID.—BUILDING ERECTED ON TIDE-LAND.
It is immaterial to the liability of the city that the building was constructed in part upon tide-lands belonging to the state, and that its construction and maintenance of the building under such circumstances was *ultra vires.*

APPEAL from a judgment of the Superior Court of Los Angeles County, and from an order refusing a new trial. Paul J. McCormick, Judge.

The facts are stated in the opinion of the court.

***479** Haas & Dunnigan, Byron C. Hanna, Stephen G. Long, George F. Kapp, Wilbur F. Downs, and George L. Hoodenpyl, for Appellant.
William A. Alderson, for Respondents.
Harry M. Irwin, Waldo M. York, T. E. Gibbon, Valentine & Newby, Kemp, Mitchell & Silberberg, Leo V. Youngworth, Harry A. Hollzer, T. A. Williams, Steely & Jeffers, *Amici Curiae,* on behalf of Respondents on a prior petition for rehearing.

HENSHAW, J.

This action was brought by the husband by the minor son of Edith Chafor to recover damages for the death of Edith, occasioned by the negligence of the defendant city. Trial was had before a jury, resulting in a verdict for the plaintiffs. Judgment followed the verdict, and from that judgment and from the order of the court denying defendant's motion for a new trial it prosecutes this appeal.

Long Beach is a maritime city. Prior to the accident it had constructed and was maintaining a wharf or pier extending into the ocean. The superstructure of this pier was supported by piles driven into the beach and ocean-bed. Near the outer end of this pier, and a little distance from it, the city had built and was also maintaining a structure known as an auditorium. The approach to the auditorium from the pier, a distance of about forty feet, was by means of a platform. From this platform doors gave entrance on to the main floor of the auditorium. The 24th of May, 1914, was ***480** the birthday of Queen Victoria. Certain of the inhabitants of Long Beach and of adjacent territory proposed to assemble in the auditorium for the purpose of celebrating this "Empire Day." A set program for the ceremonies and entertainment had been announced. In effect such part of the public as was interested in the event was invited to attend. Edith Chafor was a resident of the city of Los Angeles, and went to Long Beach for these ceremonies. They were inaugurated by a street parade headed by the municipal band. This parade was to end at the auditorium. While it was on the march people assembled on the platform, seeking admission to the auditorium. The doors were closed, so that a crowd collected on this platform. It gave way under the weight of this crowd, and carrying with it a part of the underpinning and superstructure of the auditorium building proper, precipitated some two hundred of the assemblage on to the beach sands twenty or more feet below. Edith Chafor

was one of these, and her dead body was removed from the wreckage.

As the question whether or not the city of Long Beach, which admittedly had built and was maintaining this auditorium and its approach, was doing so in a governmental capacity is the principal question presented on this appeal, it becomes pertinent to point out that the construction and maintenance of this auditorium, which was essentially a hall for public assemblages and gatherings, were not enjoined upon the municipality by positive law. Therefore the duty of maintenance was not a duty imposed by law. The auditorium was constructed under the permission of a statute of 1903. (Stats. 1903, p. 412.) This statute authorized and permitted a municipality to issue bonds and incur indebtedness for the purpose of constructing and maintaining such "public assembly or convention hall." It provided that the legislative body of the city "shall have power to appoint such officers or agents and to make and enforce such rules and regulations as may be necessary for the management, control, letting, and use of such public assembly or convention halls." It further provided that "all moneys derived from the use or hire of such assembly or convention hall shall be deposited in the treasury of the municipality to the credit of said public hall fund." After specifying the first applications to be made of the moneys thus received, it further declares that ***481** "any surplus remaining … may be appropriated and used for general municipal purposes." It is not in controversy but that this particular assembly hall was maintained under the provisions of this act, and that its management and control, also under the provisions of the act, were in the hands of defendant's board of public works. Control of the actual letting or permission to use the hall was retained by the city council.

The evidence discloses that upon the day in question the right to the use and occupancy of the hall had been given to an organization known as the Sons of St. George, and that the auditorium would be open to the general public after the Sons of St. George, with the paraders and their friends, had been admitted. The parade was led by a lieutenant of the city's police, with a number of the police force. These were followed by the municipal band. The mayor of the city and his wife were in the first automobile. The destination of all was the auditorium, which, under these circumstances, the mayor himself had entered just prior to the disaster. It cannot be said then that Edith Chafor was a trespasser at the time and place of her death. She was at least a licensee by permission or invitation, and if the city is responsible at all it is responsible for the exercise of ordinary care to see that such a licensee is not injured. (*Schmidt v. Bauer*, 80 Cal. 565, [5 L. R. A. 580, 22 Pac. 256]; *Means v. Southern California Ry.*, 144 Cal. 473, [1 Ann. Cas. 206, 77 Pac. 1001]; *Hontz v. San Pedro etc. R. R. Co.*, 173 Cal. 750, [161 Pac. 971].) With the ground thus cleared of these minor obstructions we can approach unhampered the consideration of the principal proposition: Was the city of Long Beach, at the time and on the occasion of this accident, managing this assembly hall in its governmental capacity or in a private and proprietary capacity?

To the resolution of this question we now come, prefacing the consideration by the statement, which will hereinafter be abundantly established, that there is no substantial controversy over the governing law. With the decision of the case of *Russell v. The Men of Devon,* 2 Term. Rep. 667, and the cases which followed it, it became an established principle of the English common law that an individual could not sustain an action against a political subdivision for negligence in its performance of any governmental function, nor of any ***482** public function expressly ordained and commanded by law. The reasonings supporting this were various. At times it was declared that it was better for the individual to suffer than for the public to be inconvenienced, and that this principle was stronger than that other and conflicting one which declared that for every injury the law gives a remedy. The city was but a hand of the sovereign and it was the "right divine of kings to govern wrong." Later it was argued that the moneys of a municipal corporation were designed to be devoted to public ends, and that it would be a misapplication of them to permit any part of them to be used in the liquidation of private damages. But this principle of decision, while firmly established where not abrogated by statute, failed to commend itself alike to jurists and to legislators, and it was argued that as neither a political subdivision nor yet the state itself could injure a man's property without compensation, it seemed somewhat fallacious and absurd to say that it could negligently injure him or destroy his life without liability to compensation for its wrongdoing. It was a clear instance, so it was argued, of making the rights of property higher and more sacred than the rights of man. Thus it came about that courts soon made a discrimination in these cases between the purely governmental or ordained functions of the

municipality, for remissness in the performance of which it was not liable, and those which, though undertaken and performed for the general benefit of the inhabitants of the municipality, were neither ordained nor in their nature essentially governmental. And recognizing, as has been said, the inherent injustice of the established rule, the disposition of the courts on the one hand was to uphold such actions under a very rigid construction of the phrase "governmental functions," while upon the other hand the legislatures in many states by positive enactment did away entirely with the distinction and made municipal corporations liable to precisely the same extent for the same acts as were private corporations. And indeed it may be added that, even without legislative sanction, in at least one instance the highest court of a state has repudiated as unsound the distinction between the governmental and private functions of a municipal corporation, and has declared that in every case the mode and measure of the liability of a public corporation should be that prescribed as to an individual or a private corporation. ***483** (*Bowden v. Kansas City,* 69 Kan. 587, [105 Am. St. Rep. 187, 1 Ann. Cas. 955, 66 L. R. A. 181, 77 Pac. 573].) And in this state it is not without interest to point out that the legislature has in terms imposed this liability upon all counties, cities, and cities and counties by a statute enacted in 1911 (Stats. 1911, p. 1115), though by reason of the fact that the substance of this enactment was neither declared nor hinted at in its title it is undoubted that for this reason the act is void. (*Brunson v. City of Santa Monica,* 27 Cal. App. 89, [148 Pac. 950].)

Again it is important to note that the true test does not rest upon the determination as to whether or not the municipality is reaping a monetary gain. A very large class of cases arises where this fact is established, as where parts of public buildings, such as a city hall, are leased or rented to private individuals, when it is uniformly held that the city in doing this thing is acting in a private capacity. But while it is true that the exaction of a rent or the making of a private profit is a very potent factor in determining the character of the act, the converse is not true. In other words, the act does not become governmental merely by virtue of the fact that the city from the performance of it reaps no direct pecuniary return. It may be and is equally a private, proprietary act if no financial return at all be exacted, or if the financial return which is exacted does not amount to a profit on the enterprise. The true principle has too often been confounded with the mere question of pecuniary gain. We may be excused, therefore, in elucidating this fact for quoting at some length. Thus in Dillon on Municipal Corporations, fifth edition, section 109, the principle is thus aptly and admirably stated:

The powers of a municipal corporation are … denominated "governmental, legislative or public; the other, proprietary or private. … On distinction of these powers rests the doctrine of the common-law liability of municipal corporations. In its governmental or public character the corporation is made, by the state, one of its instruments, or the local depository of certain limited and prescribed political powers, to be exercised for the public good on behalf of the state rather than for itself. … But in its proprietary or private character, the theory is that the powers are supposed not to be conferred, primarily or chiefly from considerations connected ***484** with the government of the state at large, but for private advantage of the compact community, which is incorporated as a distinct legal personality, or corporate individual; and as to such powers and to property acquired thereunder, and contract made with reference thereto, the corporation is to be regarded *quoad hoc* as a private corporation, or at least not public in the sense that the power of the legislature over it or the rights represented by it, is omnipotent."

The text of the learned author will be found supported by every well-considered adjudication. Noteworthy amongst these is the case of *City of Galveston v. Posnainsky,* 62 Tex. 118, [50 Am. Rep. 517], where the distinction between governmental and proprietary functions is elaborately considered and it is said:

The tendency of the decisions is evidently to recognize the liability of even quasi-corporations to suit not expressly given by statute, when injury results from the negligence of officials or agents exercising powers purely ministerial in reference to matters which cannot be said to pertain to duties purely public; to matters which, though in a restricted sense are public, yet more directly affect the welfare and pecuniary interest of the inhabitants of the *quasi*-corporation, upon whose will rests the determination whether the given act shall be performed and how it shall be performed, and upon whom rests solely the expense of the work put in operation by themselves, through which, at least indirectly, they receive benefit in which the general public, if at all, but slightly participates. …

It would seem that, in so far as municipal corporations of any class, and however incorporated, exercise powers conferred on them for purposes essentially public—purposes pertaining to the administration of general laws made to enforce the general policy of the state—they should be deemed agencies of the state, and not subject to be sued for any act or omission occurring while in the exercise of such power, unless, by statute, the action be given; that, in reference to such matters, they should stand as does sovereignty, whose agents they are, subject to be sued only when the state, by statute, declares they may be. …

"In so far, however, as they exercise powers not of this character, voluntarily assumed—powers intended for the private advantage and benefit of the locality and its inhabitants —there seems to be no sufficient reason why they should be ***485** relieved from that liability to suit and measure of actual damage to which an individual or private corporation exercising the same powers for a purpose essentially private would be liable."

We have thus been at pains to set forth the principle determinative of the question as to whether or not a particular act pertains to the governmental rather than to the proprietary activities of a city, because the discussions of some courts, notably those of Massachusetts, have been misconstrued upon the element of pecuniary gain. *Hill v. City of Boston,* 122 Moss. 344, [23 Am. Rep. 332], illustrates this. It is to be noted that the court is there dealing, and so expresses itself, with the "neglect of a public duty imposed upon it [the municipality] by law for the benefit of the public and from the performance of which the corporation receives no profit or advantage." The particular case was an action of tort against the city of Boston to recover damages for injuries received by a child while attending a public school, under the express duty imposed by general law to maintain such public schools, and it is held that the municipality is not liable. The supreme court of Massachusetts did not in any way broaden the definition of governmental functions as applied to municipal acts. It did not rest its decision, as well it might, upon the proposition that the maintenance of public schools, being a duty enjoined upon the municipality, partook of the nature of a governmental function. Nor yet, while recognizing and declaring that it was a duty, the performance of which was enjoined upon the city by general law, did it exonerate the city for liability on this account, but held and declared that in the performance of such *ordained* duties the city would not be liable when the performance of the duty was not connected with any pecuniary benefit to the municipality, thereby plainly implying that even though the duty were ordained by general law, if it contemplated any pecuniary benefit to the municipality, it would stand liable as would a private individual. To illustrate the unwillingness of the Massachusetts courts to extend the doctrine of municipal immunity, the case of *Dickinson v. City of Boston,* 188 Mass. 595, [1 L. R. A. (N. S.) 664, 75 N. E. 68], is instructive. The city of Boston was by law responsible for the negligent maintenance of its public streets. To prevent accidents on those streets it was not required by ***486** law to light them at night. However, by a permissive statute the city "was authorized but not required to maintain lamps to light its streets." It maintained such lights for the general benefit of the inhabitants, for their general safety, and specifically to lessen the danger of accidents upon the highways. One of its lamp-posts, negligently maintained, fell and injured the plaintiff. In his action brought to recover damages these matters are discussed, and it was urged, amongst many other reasons, that the city was not liable in that it was reaping no pecuniary benefit from the maintenance of the lights, but that the benefit was a general public benefit to the inhabitants. The supreme court of Massachusetts made answer: "It was unnecessary for the plaintiff to show that any direct commercial profit had been derived. The indirect benefit thus conferred supplied a sufficient motive for the defendant's action. Having voluntarily taken the enterprise for its private benefit, and not acting in the performance of any public duty, it is liable for negligence in the management of its corporate property when used for such purposes." (Citing numerous cases.) Still further, as showing the limits within which the courts circumscribe the meaning of the phrase "governmental function," may be cited *Ehrgott v. Mayor of New York,* 96 N. Y. 264, [48 Am. Rep. 622], where it is held that it is settled by a long line of decisions that municipal corporations proper, having the powers conferred upon them respecting streets within their limits, owe to the public the duty to keep them in a safe condition for use in the usual mode by travelers, and are liable in a civil action for special injury resulting from neglect to perform this duty; and the *City of Kokomo v. Loy* (Ind.), 112 N. E. 994, where the supreme court of Indiana applies the same doctrine to injuries resulting from the negligent upkeep of a public park as well as public streets.

That the distinction between governmental and private functions has been adopted as the principle governing the adjudications in this state, our decisions leave no doubt. Thus in the early case of *Touchard v. Touchard,* 5 Cal. 306, 307, it is said: "A corporation, both by the civil and common law, is a person, an artificial person, and although a municipal corporation has delegated to it certain powers of government, it is only in reference to those delegated powers that it will be regarded as a government. In reference to all other of ***487** its transactions, such as affect its ownership of property in buying, selling, or granting, and in reference to all matters of contract, it must be looked upon and treated as a private person." In *Bloom v. San Francisco,* 64 Cal. 503, [3 Pac. 129], in the conduct of the municipal hospital the city and county maintained a nuisance. Action was brought to recover damages occasioned by this nuisance, and it was held that "the city and county of San Francisco had such proprietorship of the city and county hospital as rendered it liable for damages in the case presented." In *South Pasadena v. Pasadena Land etc. Co.*, 152 Cal. 579, [93 Pac. 490], it is declared that in the carrying on of a water service for the benefit of South Pasadena the city of Pasadena will not be acting in its political, public, or governmental capacity. And in *Davoust v. City of Alameda,* 149 Cal. 69, [9 Ann. Cas. 847, 5 L. R. A. (N. S.) 536, 84 Pac. 760], this court, reviewing our cases, and drawing the indicated distinction between governmental and proprietary functions, held that the negligent operation of an electric-light plant by the city, which light plant was operated for the twofold purpose of lighting the city and furnishing electric light and power to its inhabitants, made the city liable, upon the ground that it was not exercising any governmental power or function.

Nor is it difficult to set forth the definition of governmental functions as applied to a city. Under the theory of the common law, that the municipality is protected from liability only while exercising the delegated functions of sovereignty, the governmental powers of a city are those pertaining to the making and enforcing of police regulations, to prevent crime, to preserve the public health, to prevent fires, the caring for the poor, and the education of the young; and in the performance of these functions all buildings and instrumentalities connected therewith come under the application of the principle. (*City of Kokomo v. Loy* (Ind.), 112 N. E. 994.)

But it is of course true that modern cities and towns enter upon many forms of activity, operate utilities for the benefit of the inhabitants, and provide many means for the easing or improving of the condition of the people that were never dreamed of at common law. Nevertheless the uniform holding as to all such activities on principles manifestly just to the people themselves is that no matter how beneficial they may be in a general sense to the inhabitants of the municipality, ***488** unless they are governmental in their essence, the municipality's conduct in managing them is controlled by the same rules of liability that apply to an individual. Thus, while schoolhouses, city halls, jails, firehouses, are with much uniformity held to be instrumentalities for governmental purposes, no such rule applies to other buildings constructed by a municipality, though for the benefit, convenience, or advantage of its people. And even in the case of strictly governmental buildings, if the city shall let a portion of one of them to a private tenant, while retaining control of the rest, that tenant is entitled to his recovery for the city's negligent maintenance of his premises. (*Worden v. New Bedford,* 131 Mass. 23, [41 Am. Rep. 185].)

But when the building is one constructed and maintained not for governmental purposes, then are the authorities uniform that even though it be so maintained under permission of the statute, and though it be maintained for the benefit of the inhabitants, or for such of them as may desire to use it, the municipality acts in a private, proprietary capacity and is liable for its torts as would be a private individual. The cases so holding with reference to municipal water-plants and their structures, and gas-plants and their structures, are so numerous as not even to call for specific citation. The same rule is universally applied to market-houses built by the municipality and maintained for the convenience of the people. (*Barron v. Detroit,* 94 Mich. 601, [34 Am. St. Rep. 366, 19 L. R. A. 452, 54 N. W. 273]; *Town of Suffolk v. Parker,* 79 Va. 660, [52 Am. Rep. 640]; *Weymouth v. New Orleans,* 40 La. Ann. 344, [4 South. 218]; *Baltimore v. Brannon,* 14 Md. 227.) As instances of the application of the same rule to other buildings may be cited *Libby v. Portland,* 105 Me. 370, [18 Ann. Cas. 547, 26 L. R. A. (N. S.) 141, 74 Atl. 805], *Henderson v. Kansas City,* 177 Mo. 477, [76 S. W. 1045], and *Cowley v. Borough of Sunderland,* 6 Hurl. & N. 233. In this last case the borough of Sunderland, under the permission of a Victorian statute, maintained baths and washhouses for the use of the inhabitants. The

argument was there made that the woman, injured in a mangle, which it was charged was negligently constructed and maintained, was a mere volunteer and licensee, and electing to use the machine could not recover. But answer was made that the statute was passed for the benefit of the poor and more ignorant ***489** classes of the population. The corporation chose to avail itself of its powers to erect these washhouses, and in the discharge of the statutory duty thus undertaken it was bound to exercise ordinary care and diligence.

What, then, remains to be said concerning the building here under consideration? It was not a structure, the maintenance of which was enjoined by law. It was not a building used for any of the governmental functions of the municipality. True, it was maintained for the benefit of the municipality in the sense that it afforded the populace a meeting place for many forms of amusement and instruction. But in all these respects it differed no whit from any other auditorium or assembly hall built and maintained by private capital for the same purposes. The city had full charge of it, could let it out, or refuse to let it out at its pleasure. The act under which it was authorized, though not compelled to build it, contemplated that it should be let for profit, and that the proceeds of these lettings should go to defray the expense of maintenance and the cost of construction. That in any individual instance the city allowed it to be used without a rental charge, no more affected the governing principle than it would be affected if a private proprietor did the same thing. The payment of rent, much or little or none at all, did not transform the particular use of this assembly hall, which use was let or permitted for the celebration of the birthday of a foreign potentate, into a governmental function of the city of Long Beach. Appellant in its brief declares the proposition to be "whether the law authorizing the act was such as authorized a proprietary or governmental institution and in this respect the design of the act is the main thing to be held in mind and not the result." Considering that design, and therein noting that the act provides for a rental charge for the use of the assembly hall, and contemplates that that rental charge should or may be sufficient to pay for the operating expenses, to provide a sinking fund, and even to contribute to the general funds of the city, can it be doubted for one moment that in the view of the legislature the city was simply empowered to enter into a proprietary business for its personal advantage and financial gain? Upon the other hand, that the city of Long Beach maintained this assembly hall for the very purposes indicated by the legislative permission is made manifest by the ***490** offered official resolution of the city, "fixing the charges for the use of the public auditorium in the city of Long Beach." In this resolution we find that conventions or mass meetings not for the purpose of financial gain, whether the assemblage be of the residents or nonresidents of the city of Long Beach, may have the use of the auditorium free. If financial gain enter into the purpose of the convention or mass meeting, then the charge shall be from twenty-five to one hundred dollars per day. When used by nonresidents of the city of Long Beach for purposes of entertainment and amusement the charge is $35 a day. When used by residents of the city of Long Beach for like purposes of amusement the charge is $15 a day. When used by nonresidents of the city of Long Beach for purely charitable or philanthropic purposes, if "an admission is charged, the proceeds to be used outside of the city of Long Beach, the charge shall be $25 a day. If only a collection is taken, the charge shall be $15." Wherein is to be drawn the slightest distinction between the use and operation of the city of Long Beach of this hall and the same use and occupation if it were owned by an individual and let for identical purposes? Nor does the fact that in an individual instance no rental charge was made at all affect the proposition, nor work a modification of the governing principle. A private individual granting the use of his hall for this occasion without rental charge would not be exonerated. The city of Long Beach, doing precisely the same thing, stands in precisely the same legal position. Therefore we consider the conclusion absolutely unescapable, upon principle and under the authorities, that the city of Long Beach was acting in a private and proprietary capacity in the general maintenance of this assembly hall, and was likewise so acting upon the specific occasion here in question when it was there let or its use permitted for the celebration of "Empire Day."

Neither of the California cases relied upon by appellant is at all in point. In *Melvin v. State,* 121 Cal. 16, [53 Pac. 416], plaintiff sought to recover damages from the state for injuries received at the state fair at Sacramento, and received a verdict which was set aside on motion. This court held that the state was not liable for two reasons: First, that it had distinctly disclaimed liability for the acts of its agents —the state board of agriculture—in declaring that "in no event shall the state be liable for any premium, award or ***491** debt created by said board of agriculture," and it declared that such a liability for injury was within

the meaning of this language. Second, it held that the state board of agriculture was a mere corporate agency of the state for public and governmental functions, saying: "We find none of the elements of a private corporation in its creation, its powers, or the mode of their exercise. Its objects are public and educational. … It exists for the sole purpose of promoting the public interest in the business of agriculture and kindred objects. It is an agency of the government, and in no sense an organization for pecuniary profit to the state." *Denning v. State,* 123 Cal. 316, [55 Pac. 1000], was an action by an employee of the harbor commission to recover for injuries received while in the employ of the commission as a night deckhand on a tug belonging to the state. This case is distinguished in *Davoust v. City of Alameda,* 149 Cal. 69, [9 Ann. Cas. 847, 5 L. R. A. (N. S.) 536, 84 Pac. 760], and in the latter case it is pointed out "that the plaintiff when injured was employed in a distinct branch of the service, viz., the protection against or extinguishment of fires, which, even in the case of municipal corporations, is uniformly held to be the exercise of a purely governmental function."

The negligent maintenance of the structure was sufficiently established by the evidence to justify the implied finding of the jury.

The conclusion already expressed concerning the general purpose of the construction of this auditorium, and the specific purpose of its use upon the day in question, does not at all depend upon the evidence which was introduced to the effect that the city did not charge any rental upon the day in question, and that it did rent portions of the auditorium for purposes of private gain. The fact that no rental was charged upon this particular day is in no wise determinative of the question, and the evidence of the rental for gain of portions of the structure and of the pier, even if excluded, could not have changed the inevitable result.

The appellant sought to introduce evidence to prove that the building was constructed in part upon tide-lands belonging to the state, and that its construction and maintenance of the building under these circumstances was *ultra vires.* We can perceive no possible force to this contention, and ***492** state it only that it may appear that it has not been overlooked.

The judgment and order appealed from are therefore affirmed.

Melvin, J., Lorigan, J., Sloss, J., and Lawlor, J., concurred.

SHAW, J., Dissenting.
I dissent from the opinion of the majority of the court. On the main question of the liability of municipalities for the negligence of their officers whereby personal injuries are caused, I am satisfied with the views expressed by Victor E. Shaw, Justice *pro tem.*, upon the decision of the case at the former hearing. The following are the parts of that opinion wherein the question is discussed:

Conceding negligence on the part of the officers and employees of the city by reason of which Edith Chafor was killed, is defendant liable in damages to the plaintiffs for such loss as they may have sustained by reason of her death? Municipal corporations in the performance of their functions act in a double character. (Dillon on Municipal Corporations, 5th ed., secs. 38, 1303.) In the one they, as subordinate agencies of the state, are intrusted with the exercise of limited governmental powers for the benefit of the local public, in the performance of which, in this state there being no statutory provision, they are not liable for the negligence of their officers, agents, and servants through whom they act. (See concurring opinion of Justice Shaw in the case of *Davoust v. City of Alameda,* 149 Cal. 69, 75, [9 Ann. Cas. 847, 5 L. R. A. (N. S.) 536, 84 Pac. 760], and authorities there cited.) In the other, they may exercise powers conferred, not for the benefit of the public, but for their own private and pecuniary profit, in which case they are, in exercising such powers, liable for damages resulting from the negligence of their officers, agents and employees to the same extent and governed by the same rules as are applicable to corporations or individuals engaged in like business. (*Davoust v. City of Alameda, supra; Esberg Cigar Co. v. Portland,* 34 Or. 282, [75 Am. St. Rep. 651, 43 L. R. A. 435, 55 Pac. 961]; *Western Sav. Fund Society v. Philadelphia,* 31 Pa. St. 175, 183, [72 Am. Dec. 730].)

This distinction is recognized and conceded by counsel for respondents, who insists that the construction, maintenance, ***493** and use of this assembly hall was not a governmental function, but that it was maintained, used, and operated purely as a corporate enterprise from which the city in its private or proprietary character received revenue, emolument, and gain, just as a city

does in operating a lighting or water plant by means whereof the city distributes to its citizens, for hire and tolls, electric current or water. If respondents' position be sustained, it must follow that the city should be held liable to plaintiffs in damages. In support of their contention, respondents insist, first, that the statute heretofore referred to, pursuant to which bonds were issued for the construction of the hall, fixes the character thereof as private and proprietary; and, second, that the evidence shows that the assembly hall was erected and maintained by the city in its proprietary capacity, and from the letting of which and exacting rentals for the use thereof it derived revenue, gain, and profit.

Respondents' proposition that the character, use, and maintenance of the assembly hall or auditorium is conclusively fixed as proprietary, as distinguished from governmental, is based upon section 8 of the legislative act referred to (Stats. 1903, p. 412), pursuant to which, as stated, bonds were issued and from the proceeds of the sale of which the building was constructed. This section provides: "All moneys derived from the use or hire of such assembly or convention hall shall be deposited in the treasury of the municipality to the credit of said public hall fund, and shall be applied, exclusively, to the following purposes, to wit, First—For the necessary expenses of conducting, maintaining, and insuring such hall, and of making all improvements and repairs thereof. Second—For the payment of installments of interest or principal becoming due on said bonds until the whole of said bonded indebtedness shall have been paid. Third—Any surplus remaining after providing for the purposes, first and second above specified, may be appropriated and used for general municipal purposes." At the time in question the city of Long Beach, operating under a freeholder's charter, had a board of public works, which, not only as provided in section 9 of the act, but in the charter as well, committed to said board the control, management, letting, and use of such hall. Save as to these provisions, the act is silent as to the capacity, whether governmental or private, in which the city should ***494** construct and maintain the hall. That the city might let the hall for private use, exacting a rental therefor, admits of no question. The act itself, however, does not restrict nor purport to limit the power of the city to such use of the hall. On the contrary, as declared pursuant to section 2 thereof, the public interest and necessity demanded the construction of such hall, which, as we construe it, was intended for use by the city in a dual capacity; that is, both governmental and private. It might be and, as shown by the evidence, was used as a meeting place for its legislative body; for gatherings to discuss questions of public interest; for religious and political conventions; for recreation, amusement, or educational purposes, the function of providing a place for such meetings being purely governmental in character for the general benefit of the public. (*Clarke v. Inhabitants of Brookfield,* 81 Mo. 503, [51 Am. Rep. 243].) On the other hand, as determined by the city, it might, through its proper officers, let all or any part of the structure for private uses, exacting rentals therefor, in which case the revenue derived must be applied as provided by section 8 of the act. In the case of *Davis v. Rockport,* 213 Mass. 279, [43 L. R. A. (N. S.) 1139, 100 N. E. 612], it is said: "A municipality has the power to let for profit real estate held for public purposes and not needed for the present for such a purpose. It is not compelled to let the property lie idle. … It either could allow the property to remain unused or it could let the same or a part thereof for profit. If it took the former course, it was answerable only as a municipality in possession of property intended for public use. If it took the latter course then it became answerable as a private owner." Not infrequently cities, anticipating future needs, acquire property for a public use and until devoted to such purpose let the same for private use for hire. The city of Los Angeles furnishes an illustration of the principle here stated. It holds real estate purchased for public purposes which, not presently required therefor, it lets for private uses. In Dillon on Municipal Corporations, fifth edition, section 1657, it is said: "It has been held that the maintenance of a city hall for the use of the city officers and employees as well as for the transaction of the city's business, is the exercise of a governmental function, and that the city cannot impliedly be held liable for negligence on the part of its officers and agents in maintaining and repairing the city ***495** hall or in controlling and managing the same. But the liability of the city has been sustained where the city has rented out the city hall building or some considerable part thereof, and the person injured had come to the building to transact business with the city's tenants." (*Little v. City of Holyoke,* 177 Mass. 114, [52 L. R. A. 417, 58 N. E. 170].) The principle is further illustrated by city water systems which, like this hall, serve a dual purpose; one being governmental in supplying water through hydrants for fire protection, and the other private in supplying water for profit for the use of its inhabitants. If an individual sustains damage by reason of the negligence of the city in the operation of a plant for

supplying water to its inhabitants, it, like an individual, is liable therefor. (*Denning v. State,* 123 Cal. 316, [55 Pac. 1000]; *Esberg Cigar Co. v. Portland,* 34 Or. 282, [75 Am. St. Rep. 651, 43 L. R. A. 435, 55 Pac. 961].) On the other hand, if the damage results from the operation of the plant in the exercise of the power of the city in affording protection from fire, then the city is not accountable for such damages. (*Judson v. Borough of Winsted,* 80 Conn. 384, [15 L. R. A. (N. S.) 91, 68 Atl. 999].) Our conclusion is that the act was not designed as requiring the hall to be constructed and maintained by the city in its private corporate character for emolument and gain, but that it was intended for either private or governmental use, varying from time to time, as the city, through its proper officers, might determine.

Since there is nothing in the act of the legislature which fixed the capacity in which the city held and conducted the hall or restricted the purpose for which it should be used, the question becomes one of fact to be determined from the evidence.

This brings us to respondents' second proposition, namely: that defendant at all times conducted and operated the assembly hall, not in the exercise of a governmental function, but in the capacity of a private corporation and proprietor thereof, by letting the same for private uses and reserving rental for such use. It does not appear from the record that the board of public works which, under the charter and act of the legislature, had control of the letting and charge of the hall, ever at any time authorized the use of it for holding the exercises on what was termed "Empire Day" to commemorate the birthday of Queen Victoria. Indeed, so far as disclosed, ***496** the committee of persons in charge of the celebration assumed the right to hold the exercises there, without consulting with defendant or any of its officials. Waiving this informality, however, and conceding that such authority and right were implied, no pretense or claim is made that the hall *was let for hire, or that any rental or revenue was exacted for its use on said occasion.* Indeed, with the exception of one occasion in *March, 1910,* when the assembly hall was by the city council, for a consideration of $25 paid to the city clerk, let for the purposes of a lecture delivered therein, the record fails to disclose that the assembly hall proper, as disconnected from two booths or rooms, was ever at any time let for hire for any private purpose whatsoever. On the contrary, during the same period of time, it appears that the city, at large expense for services of janitors and other necessary charges of maintenance, has devoted it to the use of the public, wherein to hold political, religious, and other meetings, concerts by the municipal band, school commencements, and, indeed, all sorts of meetings of a public nature and for the public benefit, for which no rental or charge was exacted. Notwithstanding such fact, however, the trial court, upon the apparent theory that the structure wherein the hall was located, together with the pier and wharf, should be regarded as one unit and the whole thereof be deemed a "public assembly convention hall," permitted plaintiffs to introduce evidence showing that since 1908 defendant had received as hire for the two booths, one in the northwest corner and one in the northeast corner of the building, the combined area of which was 1,582 square feet as compared with an area of 17,446 square feet in the hall proper, the sum of $1,461; that for certain booths and rooms erected at the ocean-end of the pier extending more than one thousand feet beyond the assembly hall building, the city had received several thousand dollars revenue for rent thereof, and the sum of two thousand dollars for a franchise or permit issued to a bathhouse company to construct and maintain a pipe-line along the pier by means whereof to obtain water for its bathhouse, besides receipts of other revenues from the use of the pier and wharf. In admitting such evidence the trial court committed prejudicial error. In our opinion, the pier and wharf and booths at the end thereof were no part of the assembly hall building, but entirely distinct and separate therefrom, as much so, indeed, as though the approach or way ***497** covering the intervening space between the pier and entrance to the hall had never been constructed. Hence, the rental received from this pier and wharf could not be deemed revenue derived from the letting of the assembly hall for hire.

We perceive no reason why a municipality having a city hall building erected solely for public uses, may not let rooms therein which are not immediately required for such public use, as to which it would occupy the position of a corporate proprietor and as such, like a private owner, be liable for damages sustained by reason of its negligence in connection therewith. "When a city or town does not devote such building [public hall] exclusively to municipal uses, but lets it or a part of it for its own advantage and emolument by receiving rents or otherwise, it is liable while it is so let in the same manner as a private owner would be." (*Worden v. City of New Bedford,* 131 Mass. 23, [41 Am. Rep. 185]; *Little v. City of Holyoke,* 177 Mass.

114, [52 L. R. A. 417, 58 N. E. 170]; *Chicago v. Selz etc. Co.*, 202 Ill. 545, [67 N. E. 386]; *Davis v. Rockport,* 213 Mass. 279, [43 L. R. A. (N. S.) 1139, 100 N. E. 612].) This being true, the letting for hire of these two small booths, disconnected as they were from the assembly hall, as to which defendant's character was that of a private owner, did not fix or affect its character or function in the maintenance of the assembly hall. They were no part of the hall and, like the wharf, the rental received for the use thereof was not for the letting of the hall for hire. Hence, it follows that the ruling of the court in admitting evidence of the letting of these two booths was likewise erroneous.

Not only was there no evidence of the letting of the assembly hall by the city or its officers, but there was no evidence, nor is there any claim or pretense, that any rental was exacted or paid for such use upon the occasion of the accident wherein Edith Chafor lost her life.

The building or structure abutted a street on the easterly side thereof from which the hall could be reached by a stairway leading to the entrance of the building. The building was a two-story structure, the lower floor being uninclosed and at all times open to anyone desiring to go there. The second floor upon which the assembly hall was located was surrounded by an open and covered balcony eleven feet wide, furnished with seats, and open at all times to the general public, the use of which and the lower floor may be likened ***498** to the use of a public city park. It thus appears that the building was not only designed and constructed for a double use, but that in the conduct and maintenance thereof the city has in part used it in its private corporate capacity in letting for hire the two small booths referred to; that it has used a part thereof, to wit, the balconies and lower floor, at all times in its governmental capacity, like a public park, and that, with the exception of one occasion, in March, 1910, has used the assembly hall at all times without profit, gain, or emolument for the benefit of the general public.

"If correct in our conclusion that the maintenance and use of the hall was not impressed with an exclusive proprietary character, but that the character of the use on the occasion in question must be determined from evidence showing a letting of the hall for private use for hire, as to which the record is wholly silent, it necessarily follows that the court committed highly prejudicial error in, of its own motion, instructing the jury that 'the construction, erection, and maintenance of the auditorium building by the city of Long Beach was an act of said city in the exercise of its proprietary or private capacity, and the measure of its responsibility or liability in relation thereto is the same as that of any other individual or private corporation engaged in similar conduct, and no more or no less.' "

For the foregoing reasons I am of the opinion that the judgment should be reversed.

Angellotti, C. J., concurred.
Rehearing denied.

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144 Cal.App.2d 822, 301 P.2d 968

LEO CHAPPELLE, JR., a Minor, etc., Appellant,
v.
CITY OF CONCORD et al., Respondents.

Civ. No. 17000.
District Court of Appeal, First District, Division 2, California.
Oct. 4, 1956.

HEADNOTES

(1a, 1b, 1c)
Judgments § 352--Res Judicata--Judgment on Demurrer.
In an action against a city for false imprisonment, false arrest, assault and battery by a police officer and negligence in retaining him in the city's service, a judgment of dismissal was proper under the doctrine of res judicata where the issues had been adjudicated in a prior action in which general demurrers based, amongst other grounds, on the city's sovereign immunity were sustained without leave to amend, and where, for the same reason, no cause of action was stated by the complaint in the instant action.

(2)
Judgments § 352--Res Judicata--Judgment on Demurrer.
Whether and to what extent a judgment entered on sustaining a demurrer is res judicata depends on the character of the demurrer.

Conclusiveness of judgment on demurrer, notes, 13 **A.L.R.** 1104; 106 **A.L.R.** 437. See also **Cal.Jur.2d,** Judgments, § 234; **Am.Jur.,** Pleading, § 251 et seq.

(3)
Judgments § 352--Res Judicata--Judgment on Demurrer.
A judgment on a general demurrer will have the effect of a bar in a new action in which the complaint states the same facts as those held not to constitute a cause of action on the former demurrer or, notwithstanding differences in the facts alleged, when the ground on which the demurrer in the former action was sustained is equally applicable to the second one.

(4)
Municipal Corporations § 439--Torts--Liability.
The operation of a police department by a municipality is a governmental function, and in the absence of a special statute the municipality is not liable for the torts of its officers in performance of that function.

Municipal immunity from liability for torts, note, 120 **A.L.R.** 1376. See also **Cal.Jur.,** Municipal Corporations, § 343; **Am.Jur.,** Municipal Corporations, § 572.

(5)
Municipal Corporations § 439--Torts--Liability.
In the absence of a special statute, a municipality is not liable for damages caused by negligence in the exercise of a governmental function.

(6a, 6b)
False Imprisonment § 27--Judgment--Res Judicata.
An action against a police officer for false arrest, false imprisonment and assault and battery is barred under res judicata by a final judgment for defendant in a prior action based on a complaint identical to that filed in the instant action, notwithstanding the judgment in the prior action was in error in applying the claim presentation requirement of Gov. Code, § 1981, to intentional torts.

(7)
Public Officers § 66.1--Liability--Actions--Filing Claim as Condition Precedent.
Gov. Code, § 1981, making filing of a claim a prerequisite to recovery of damages for personal injuries resulting from negligence or carelessness of a public officer, does not apply to intentional torts such as false arrest, false imprisonment and assault and battery.

See **Cal.Jur.,** Public Officers, § 88 et seq.; **Am.Jur.,** Municipal Corporations, § 688.

(8)
Judgments § 347--Res Judicata--Judgment as Bar.
An erroneous judgment is as conclusive as a correct one.

(9)
Judgments § 347--Res Judicata--Judgment as Bar.
Res judicata may sometimes not be applied when rigid adherence to the doctrine would defeat the ends of justice,

but the mere fact that the prior judgment was erroneous is not, in itself, sufficient to prevent application of the doctrine.

SUMMARY

APPEAL from a judgment of the Superior Court of Contra Costa County. Hugh H. Donovan, Judge. Affirmed.

Action for damages for false arrest, false imprisonment, assault and battery, and negligence. Judgment for defendants affirmed.

COUNSEL
Benjamin F. Marlowe for Appellant.
Thomas F. McBride, City Attorney, and Thomas John Coll for Respondents.

THE COURT.

Plaintiff appeals from a judgment entered on the sustaining of demurrers to his complaint and dismissal ***824** of said complaint on the ground that the issues raised in it had been adjudicated in a prior judgment.

([1a]) Plaintiff, a minor, through his guardian *ad litem,* had brought an action against the city of Concord (hereinafter called the City) and Tony Freitas, a police officer of the City, for false arrest, false imprisonment, assault and battery allegedly occurred on June 10, 1954. The action against the City was also based on negligence in retaining defendant Freitas in its service as a police officer notwithstanding his reputation for violence. It was further alleged in the first amended complaint in said action that plaintiff served a claim on the city clerk of the City on February 24, 1955, at which time he had first heard of his legal rights against the City from his guardian *ad litem.* Demurrers of both the City and Freitas were sustained without leave to amend and judgment for defendants was entered accordingly on May 18, 1955. Plaintiff did not appeal from said judgment but on the same date filed a new complaint, which introduced the present action. Its allegations were literally the same as those of the first amended complaint in the prior action, except that an allegation was added to the effect that immediately after the assault plaintiff's guardian *ad litem* was informed by the City through its city manager that it was not necessary for her to file a claim on behalf of plaintiff and that the City would take care of everything, that in reliance on said representation, plaintiff failed timely to file a verified claim and that the City therefore is estopped to rely on said failure. The demurrers sustained to said complaint are mentioned in the judgment but their character does not appear from the transcript. However, the judgment for defendants must at any rate be upheld on the basis of res judicata.

([2]) Whether and in how far a judgment entered on the sustaining of a demurrer is res judicata depends on the character of the demurrer sustained. To plaintiff's first amended complaint, the defendants demurred both generally (no cause of action stated) and specially for ambiguity, uncertainty and unintelligibility, the special demurrers relating to different minor details. The fact that the demurrers to the first amended complaint were sustained without leave to amend shows that it was the general demurrers that were sustained. That such was also the understanding of plaintiff is shown by the fact that in his new complaint he did not try to cure the alleged defects against which the special demurrers were directed. ([3]) A judgment on a general demurrer will have the effect ***825** of a bar in a new action in which the complaint states the same facts which were held not to constitute a cause of action on the former demurrer or, notwithstanding differences in the facts alleged, when the ground on which the demurrer in the former action was sustained, is equally applicable to the second one. (*Goddard v. Security Title Ins. & Guar. Co.,* 14 Cal.2d 47, 52 [92 P.2d 804]; *Keidatz v. Albany,* 39 Cal.2d 826, 828 [249 P.2d 264].) Under this rule the former judgment is a bar to the present action.

([1b]) No cause of action against the City is stated in either complaint because in the governmental function here involved it is protected against tort liability by the sovereign immunity. ([4]) The operation of a police department by a municipality is a governmental function, and in the absence of a special statute rendering it liable, the municipality is not liable for the torts of its officers in the performance of said function. (*Henry v. City of Los Angeles,* 114 Cal.App.2d 603 [250 P.2d 643] and cases there cited.) ([5]) The same rule applies to damages caused by the negligence of the municipality itself in the exercise of a governmental function. (*Miller v. City of Palo Alto,* 208 Cal. 74, 75 [280 P. 108].) *Fernelius v. Pierce,* 22 Cal.2d 226 [138 P.2d 12], on which appellant relies, was an action against individual superior officers of the tort feasor, to which individuals the sovereign immunity does not extend. ([1c]) The governmental character of the function was

one of the grounds adduced by the City for its general demurrer and we must presume that the demurrer was sustained in whole or in part on that ground. The new allegation with respect to the estoppel of the City is wholly irrelevant to this point. The application of the doctrine of res judicata with respect to the action against the City was correct.

([6a], [7]) The general demurrer of defendant Freitas was based solely on the requirement of section 1981 of the Government Code that for certain personal injury and property damage actions against a public officer a verified claim must within 90 days be presented to the officer claimed to have caused the damage, which presentation was not alleged. The contention was unsound. Section 1981, *supra,* according to its language refers to *negligence or carelessness* of a public officer only. It does not apply to intentional torts like the ones here alleged. (*Sarafini v. City & County of San Francisco,* 143 Cal.App.2d 570, 574-575 [300 P.2d 44]; *Cf. Ward v. Jones,* 39 Cal.2d 756, 760 [249 P.2d 246].) No ***826** other ground why no action would lie against the tort feasor himself appears. However, the general demurrer was sustained and plaintiff did not appeal so that the judgment became final. ([8]) "An erroneous judgment is as conclusive as a correct one." (*Panos v. Great Western Packing Co.,* 21 Cal.2d 636, 640 [134 P.2d 242]; *Weil v. Barthel,* 45 Cal.2d 835, 839 [291 P.2d 30].) With respect to the action against defendant Freitas, the complaint in the action before us and the one in the prior action are identical. The only additional allegation, the one concerning the estoppel, relates to defendant City only. ([6b]) The adjudication in the prior action was then conclusive in this respect.

([9]) We are aware of the fact that in rare cases exceptions to the application of the res judicata doctrine have been made when rigid adherence would defeat the ends of justice, contrary to important considerations of policy. (See *Greenfield v. Mather,* 32 Cal.2d 23, 35 [194 P.2d 1]; 50 C.J.S. 13; 30 Am.Jur. 909.) However, such exception is not applied simply because the decision is erroneous. Even in *Greenfield v. Mather, supra,* which goes further in this direction than any other case known to us, many circumstances were stated showing the exceptional character of the case, in which many appeals to the Supreme Court had been taken and in which conflicting decisions had been given on points not clearly in issue, and even in that case three justices dissented. Here, both parties misapprehended the law and induced the court to do the same and plaintiff permitted the decision to become final although appeal was available. There is no reason to permit him to relitigate the point, contrary to the purpose of the res judicata doctrine that there be an end to litigation when once a final decision as to a point has been obtained by the parties.

Judgment affirmed. ***827**

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Overruled in Part by Los Angeles Met. Trans. Auth. v. Public Util. Com'n, Cal., June 20, 1963

183 Cal. 526, 192 P. 25, 10 A.L.R. 1425

CITY OF PASADENA, Petitioner,
v.
RAILROAD COMMISSION OF THE STATE OF CALIFORNIA, Respondent.

Supreme Court of California.
L. A. No. 6325.
August 12, 1920.

[1]
PUBLIC UTILITIES—MUNICIPAL CORPORATIONS—CONSTITUTIONAL LAW.
Section 23 of article XII of the constitution, which declares that every "private corporation" which owns and operates a plant "for the production, generation, transmission, delivery or furnishing of heat, light, water or power" is a public utility subject to such control and regulation by the Railroad Commission as may be provided by the legislature, does not include municipal corporations, and, therefore, the rates charged by a municipality in supplying its inhabitants with electricity from electric works constructed and operated by it are not under the control of the Railroad Commission.

[2]
MUNICIPAL CORPORATIONS — CONDUCT OF PUBLIC UTILITY — STATUS OF CORPORATION.
While a municipal corporation when carrying on a public service acts in a proprietary capacity, and for some purposes with respect to such business it is subject to the same rules as private persons, it does not change its character as a municipal corporation by engaging in such an enterprise.

[3]
STATUTORY CONSTRUCTION — WORDS OF CONSTITUTION.
The words of the constitution should be given their general meaning, unless they appear to be used in a legal or technical sense.

[4]
PUBLIC UTILITIES—POWERS OF RAILROAD COMMISSION—EXTENT OF AUTHORITY OF LEGISLATURE—CONSTITUTIONAL LAW.
Section 22 of article XII of the constitution, authorizing the legislature to confer upon the Railroad Commission additional powers of the same kind or different from those conferred by the section which are not inconsistent with the powers conferred upon the commission by the constitution, is limited to such powers as are cognate and germane to the purposes for which the Railroad Commission was created, and cannot be construed to give the legislature authority to confer upon the commission power to regulate the rates of service charged by municipal corporations operating municipally owned public utilities.

[5]
ID.—REGULATION OF RATES OF ELECTRICAL CORPORATIONS—CONSTRUCTION OF PUBLIC UTILITIES ACT—MUNICIPALLY OWNED PUBLIC UTILITIES NOT INCLUDED.
The provision of the Public Utilities Act conferring upon the Railroad Commission power to regulate the rates of every electrical corporation, a term which it defines as including every corporation or person owning, controlling, operating, or managing any electric plant for compensation within the state (Stats. 1915, p. 115, sec. 2, subd. r), does not empower the commission to regulate and control the rates and service of an electrical plant owned and operated by a municipality.

PROCEEDING on Certiorari to review an order of the Railroad Commission requiring a municipal corporation to file a schedule of rates for electric service. Order annulled.

The facts are stated in the opinion of the court.

***527** James H. Howard for Appellant.
Hugh Gordon, Douglas Brookman and Gibson, Dunn & Crutcher for Respondent.

***528** SHAW, J.

The charter of the city of Pasadena, adopted in 1901, gives it power to construct and operate electric works and supply electricity to its inhabitants for light and heat. The city constructed electric works, and prior to 1909 began to

supply its inhabitants with electricity. In 1909 it extended its wires into the adjoining city of South Pasadena, and ever since that time it has been supplying electricity to the inhabitants of the latter city for similar purposes. On August 30, 1919, on the complaint of the Pacific Light and Power Company, which was also engaged in supplying electricity to the inhabitants of South Pasadena, the Railroad Commission, in pursuance of section 14 and other provisions of the Public Utilities Act (Stats. 1915, p. 122), made an order requiring the city of Pasadena "to file with the railroad commission a complete schedule of all its rates, charges, rules and regulations for the service of electric energy to consumers within the limits of South Pasadena." The object of the present proceeding in this court is to review and annul said order on the ground that it is in excess of the jurisdiction of the commission.

The theory of the plaintiff is that the Public Utilities Act, under which the Railroad Commission made the order, has no application to any public service carried on by a municipal corporation under the authority of the constitution and laws of the state. We are of the opinion that this proposition must be sustained.

The authority of the legislature to make laws conferring powers upon the Railroad Commission is derived from sections 22 and 23 of article XII of the constitution. The defendant relies mainly on the two opening sentences of section 23, which are as follows:

"Every private corporation, and every individual or association of individuals, owning, operating, managing, or controlling any commercial railroad, interurban railroad, street railroad, canal, pipe-line, plant, or equipment, or any part of such railroad, canal, pipe-line, plant, or equipment, within this state, for the transportation or conveyance of passengers, or express matter, or freight of any kind, including crude oil, or for the transmission of telephone or telegraph messages, or for the production, generation, transmission, delivery or furnishing of heat, light, water or power or for the furnishing of storage or wharfage facilities, either directly or indirectly, ***529** to or for the public, and every common carrier, is hereby declared to be a public utility subject to such control and regulation by the Railroad Commission as may be provided by the legislature, and every class of private corporations, individuals, or associations of individuals hereafter declared by the legislature to be public utilities shall likewise be subject to such control and regulation. The Railroad Commission shall have and exercise such power and jurisdiction to supervise and regulate public utilities, in the state of California, and to fix the rates to be charged for commodities furnished, or services rendered by public utilities as shall be conferred upon it by the legislature, and the right of the legislature to confer powers upon the Railroad Commission respecting public utilities is hereby declared to be plenary and to be unlimited by any provision of this constitution."

(1) It will be observed that the first sentence of this clause declares that every "private corporation" which owns and operates a plant "for the production, generation, transmission, delivery or furnishing of heat, light, water or power" is a public utility. The subsequent sentence declaring the right of the legislature to confer powers upon the Railroad Commission to be plenary is limited to the conferring of powers "respecting public utilities." This, of course, means public utilities as defined in the first sentence. That sentence, by its terms, applies exclusively to private corporations and natural persons or associations of persons. It does not include a municipal corporation in the definition. The argument on behalf of the defendant is that a municipal corporation, when carrying on a public service, such as furnishing water, light, heat, or power to its inhabitants, is not acting in its governmental capacity as sovereign, but is acting in a proprietary capacity, and that for some purposes with respect to such action it is subject to the same rules as private persons. For example, it is liable in damages for injuries caused by negligence of its servants in the operation of such public service, whereas it is not so liable for negligence of its servants, such as policemen, who are carrying out its governmental powers. This proposition is well established. (*Davoust v. Alameda*, 149 Cal. 70, [9 Ann. Cas. 847, 5 L. R. A. (N. S.) 536, 84 Pac. 760]; *South Pasadena v. Pasadena L. & W. Co.,* 152 Cal. 595, [93 Pac. 490]; ***530** *Chafor v. Long Beach,* 174 Cal. 487, [Ann. Cas. 1918D, 106, L. R. A. 1917E, 685, 163 Pac. 670].) Upon these premises it is said that a city acts in a dual capacity—that it is a public corporation with respect to its strictly governmental powers, and a private corporation with respect to its public service functions; that for this reason the phrase "private corporation" in section 23 must be held to include municipalities whenever the so-called proprietary powers of the municipality are concerned, and that, therefore, the legislature may confer powers upon the Railroad Commission to regulate the rates of municipalities for carrying on such public service.

(2) It is not true that a city is a private corporation when carrying on a municipally owned public utility. No decision so holds. All the decisions on the subject recognize the fact that a city does not change its character by engaging in such enterprises. The entire course of reasoning in the opinions is founded on the postulate that such city retains its character as a municipal corporation, and the burden of the arguments consists of efforts to find reasons for holding it liable to the same extent as a private corporation engaged in the same service, notwithstanding the fact that the city carries on the business as a municipal corporation. They all assume that such city is as much a municipal corporation with respect to such business functions as it is with regard to the exercise of its purely governmental powers. The distinction does not go to its character as a corporation, but to its liabilities in exercising one class of its powers, as compared to its liabilities in the exercise of its functions as a local governmental agency.

The phrase "private corporation" in section 23 should therefore be given its natural and ordinary meaning, and consequently this section does not include municipal corporations among the public utilities it deals with. That this must have been the intent of the framers of the section and of the voters who adopted it is shown by other provisions of the section and by the address in its favor sent to each voter with the sample ballot and copy of the proposed amendment just prior to the election. The section carefully provides that, notwithstanding the powers thereby given to the Railroad Commission "respecting public utilities," the powers of control over "any public utility" that were vested in any municipal corporation should not be affected by the section ***531** unless the voters of such municipality, at an election held for that purpose, should decide to relinquish such powers. This, of course, refers to "public utilities" as defined in the opening clause of the section. The proviso would not engender the suspicion that the municipal corporation itself was included in the "public utilities" to which it refers, nor lead anyone to suppose that the voters were to be invited to surrender to the commission the control and management of any municipally owned water systems, lighting plants or street-car lines. It does strongly imply that it refers solely to the powers of such cities to regulate the operations of privately owned systems of that kind. The address to the voters, after stating that the term "public utilities" was so defined by the section as to embrace every conceivable kind of public service, summarized its effect on that subject as follows: "Briefly, the amendment proposes to extend the jurisdiction of the Railroad Commission to every kind of public service excepting that furnished by municipally owned plants," and pointed out that the provision reserving to cities the powers over public utilities theretofore vested in them was inserted in the section because of the feeling that the voters of such cities might feel reluctant to submit to the revocation of such powers and the transfer thereof to the Railroad Commission without their consent. By this address the voters were clearly informed that municipal corporations were not included in the definition of public utilities in the opening clause of the section. To hold that under all these circumstances the voters nevertheless were aware of the refined distinction between the governmental powers and proprietary powers of cities and towns and understood that municipal corporations, so far as they exercise proprietary functions, were to be included in the definition of public utilities and in the term "private corporations," seems to be the height of absurdity. While many lawyers may understand the distinction, it is certainly true that the ordinary citizen has no conception thereof.

It is true that section 23 was amended in 1914 so as to provide that the rate regulating power of municipal corporations over "public utilities" should no longer be retained by them. But the definition of the term "public utilities" remained unchanged, and the amendment made rather emphasizes the proposition that municipal corporations performing ***532** such public service were not supposed to be embraced in the definition.

Furthermore, at the election of 1911 the people also adopted an amended section 19 of article XI, which provides that "any municipal corporation may establish and operate public works for supplying its inhabitants with light, water, power, heat," and the like, and might also furnish such service to inhabitants outside its boundaries. They were empowered to do these things as municipal corporations, not as private corporations, thus showing that they were not, while so doing, to be classed as private corporations.

The conclusion we have reached is in accordance with the well-established rules for the construction of the language of a constitution.

(3) The constitution, "unlike the acts of our legislature, owes its whole force and authority to its ratification by the people; and they judged of it by the meaning apparent on its face according to the general use of the words employed, where they do not appear to have been used in a legal or technical sense." (*Miller v. Dunn*, 72 Cal. 465, [1 Am. St. Rep. 67, 14 Pac. 27].) Where a word has a popular and also a technical meaning, "the courts will accord to it its popular meaning, unless the very nature of the subject indicates or the context suggests that it is employed in its technical sense." (*Weill v. Kentfield*, 54 Cal. 113.)

The defendant also claims that the right of the legislature to confer such powers upon the Railroad Commission is given by a passage in the amended section 22 of article XII, an amendment also adopted in 1911. This section creates the Railroad Commission and contains provisions for the appointment of its members and for its organization, and confers upon it certain powers with regard to common carriers of freight and passengers, and thereupon it provides that "no provision of this constitution shall be construed as a limitation upon the authority of the legislature to confer upon the Railroad Commission additional powers of the same kind or different from those conferred herein which are not inconsistent with the powers conferred upon the Railroad Commission in this constitution, and the authority of the legislature to confer such additional powers is expressly declared to be plenary and unlimited by any provision of this constitution."

***533** If the provision of section 22 that "the authority of the legislature to confer upon the Railroad Commission *additional powers* of the same kind or *different from* those conferred herein which are not inconsistent with the powers conferred" upon the commission by the constitution, should be thenceforth "plenary and unlimited by any provision of this constitution," is to be taken literally, its possible results would be so startling that it cannot be conceived that any citizen could ever be induced knowingly to vote for such a measure. If so construed, the legislature would thereby be empowered to confer upon the Railroad Commission all the powers of government, executive, judicial, and even the legislative power itself. Of course, no such effect can be allowed to this broad declaration. It must be construed in connection with the general subject of the section, with the other sections which precede it relating to the same general subject, and with the place in which it occurs in the constitution. It is a part of article XII, the whole of which is devoted to the subject of private corporations, as distinguished from public corporations, the latter being the particular subject of article XI. The powers referred to are, therefore, to be understood to mean powers relating to private corporations, except where the words indicate a different intent. Section 22 was in article XII as originally adopted. It was the concluding section of a series beginning with section 17, all of which related to common carriers and the public control and regulation thereof. While amendments of sections 20 and 21 were also adopted in 1911, they were not changed so as to relate to any other subject. Section 22, before the amendment of 1911, also created a Railroad Commission and granted to it certain powers over common carriers in language in many respects similar to the amendment.

(4) Considering all these circumstances, the only reasonable conclusion is that the authority intended to be given to the legislature by this section to confer powers upon the Railroad Commission must be limited to the subject of powers over common carriers and transportation and the control and regulation thereof by the commission, and such other things as may be necessary or convenient for the proper and effectual exercise of such powers of regulation and control. The subject of similar powers over all other classes of public utilities carried on by private corporations or persons is covered by ***534** the provisions of section 23, as we have seen. The provisions of section 22 should not be extended beyond the matters included in the context and the subject matter of the article in which it occurs, and hence it cannot be construed to give the legislature authority to confer upon the commission power to regulate the rates of service charged by municipal corporations operating municipally owned public utilities.

This is in harmony with the interpretation heretofore given to this provision of the section. In *Pacific etc. Co. v. Eshleman*, 166 Cal., at page 691, [Ann. Cas. 1915C, 822, 50 L. R. A. (N. S.) 652, 137 Pac. 1119], the court, speaking through Justice Sloss, said concerning these clauses of sections 22 and 23: "To the extent, then, that the legislature has acted in conferring powers (*germane to the subject of the regulation and control of public utilities*) upon the Railroad Commission, it necessarily follows that the validity of such grant of powers is not to be questioned by reason of any other provision of the state constitution." (Italics ours.) And again on page 702, on the same subject, the learned justice, by way of conclusion, said: "This statement is, however, to be taken subject

to the qualification that the powers conferred by the legislature upon the Railroad Commission must be such as are cognate and germane to the purposes for which the Railroad Commission was created, i.e., the regulation and control of public utilities." And in the same case Justice Henshaw said in summing up: "The legality of such powers as the legislature has or may thus confer upon the commission, if cognate and germane to the subject of public utilities, may not be questioned under the state constitution" (page 689). The court here, as the context of the opinions plainly shows, uses the phrase "public utilities" with the meaning given to it by the definition thereof in section 23, and as referring solely to public service carried on by private corporations or natural persons.

The defendant contends that the decision in *South Pasadena v. Pasadena L. & W. Co.*, 152 Cal. 579, [93 Pac. 490], is contrary to these conclusions. In that case the defendant, a private corporation, owned a water system supplying water to a defined territory situated partly in Pasadena and partly in South Pasadena, they being adjoining cities. Pasadena was about to acquire the system from the company as a part of its municipal water system. The suit was brought to ***535** enjoin the company from making the transfer. In the course of the opinion it is declared that after Pasadena acquired the water system it would be obliged to continue the public service in South Pasadena, as before, and that South Pasadena, under section 19, article XI, and section 1, article XIV, of the constitution, as it then stood, would thereafter, as before, have the right to fix the rates to be charged for the water served within that city. The main reason given was that since the constitution then gave to each city power to fix rates for water supplied within its limits for public use, the power of South Pasadena was paramount with respect to the rates for water supplied therein. The case was decided in 1908, prior to the adoption of the constitutional amendments we are now considering. Section 19, article XI, then gave powers to cities to regulate the rates for public service of water or light within its limits by "any individual or any company duly incorporated for that purpose." Section 1, article XIV, provided that rates for the use of water supplied in any city by "any person, company, or corporation in this state" should be fixed annually by such city. The word "private" was not appended as a limitation of the meaning of the words "company" and "corporation" in these sections, as it is now in section 23 of article XII, and as there was no other body then authorized to fix such rates, the words "company" and "corporation" were obviously as applicable to rates for water supplied by a municipal corporation to the inhabitants of an adjoining city as to rates for water so supplied by any other corporation, and this the court there assumed without stating it. The decision can have no bearing upon the meaning of the words "private corporation" in the part of section 23 of article XII defining "public utility," adopted in 1911.

It may be that, by reason of the recent amendment of section 19, article XI, in the few cases where one city operates a municipal plant for a public service which extends into another city, there may be some doubt which one of the two cities shall have the right to fix the rates for such outside service. The terms of the amendment are not clear on the question. With that subject we are not here concerned. It is clear, as we have shown, that the city furnishing the outside public service is not a "public utility" within the meaning of that term, as defined in section 23, article XII, and ***536** hence that the Railroad Commission has no power to fix its rates for such service.

(5) It is also suggested that the Public Utilities Act confers upon the commission power to regulate the rates of every "electrical corporation," a term which it defines as including "every corporation or person … owning, controlling, operating or managing any electric plant for compensation within the state" (Stats. 1915, p. 115, sec. 2, subd. r), and that this definition is broad enough to include municipal corporations. The language of the subdivision and also that of the other subdivisions of the section indicate that the legislative purpose extended to the regulation of commercial corporations only, and that municipal corporations were not within its purview. If municipal corporations are to be included, the result would be that the Railroad Commission would have power to regulate and control the rates and the service of every water plant, gas plant, electrical plant, and street-car system owned or operated by any municipality in the state. We cannot believe that the very general language used should be so broadly interpreted, in the absence of any specific mention of municipal corporations, even if it were conceded that the legislature under the general grant of legislative power (art. IV, sec. 1), might transfer such powers from the municipalities to the commission.

We find no tenable ground upon which to base the conclusion that the rates charged by a municipality for its

service in carrying on any public utility, either within its own limits or in outside territory, are under the control of the Railroad Commission.

The order is annulled.

Angellotti, C. J., Olney, J., Wilbur, J., Lennon, J., and Lawlor, J., concurred.
Rehearing denied.

All the Justices concurred.

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64 Cal.App.4th 1190, 75 Cal.Rptr.2d 754,
63 Cal. Comp. Cases 733, 98 Cal. Daily Op.
Serv. 4644, 98 Daily Journal D.A.R. 6559

CITY OF RICHMOND, Plaintiff and Appellant,
v.
COMMISSION ON STATE MANDATES,
Defendant and Respondent; DEPARTMENT OF FINANCE, Real Party in Interest and Respondent.

No. C026835.
Court of Appeal, Third District, California.
May 28, 1998.

SUMMARY

A city filed an administrative mandamus action against the Commission on State Mandates, seeking a determination that an amendment to Lab. Code, § 4707, making local safety members of the Public Employees' Retirement System (PERS) eligible for both PERS and workers' compensation death benefits, was a state mandate to which the city was entitled to reimbursement under Cal. Const., art. XIII B, § 6, which applies when a state law establishes a new program or higher level of service payable by local governments. The amendment eliminated local safety members of PERS from the coordination provisions for death benefits payable under workers' compensation and under PERS, whereby survivors of a local safety member of PERS who are killed in the line of duty receive both a death benefit under workers' compensation and a special death benefit under PERS, instead of only the latter. The trial court denied the petition, finding that the amendment created an increased cost but not an increased level of service by local governments. (Superior Court of Sacramento County, No. 96CS03417, James Timothy Ford, Judge.)

The Court of Appeal affirmed. The court held that although the amendment increased the cost of providing services, that could not be equated with requiring an increased level of service, and did not constitute a new program. Neither did the amendment impose a unique requirement on local governments that was not applicable to all residents and entities within the state. The amendment merely made the workers' compensation death benefit requirements as applicable to local governments as they are to private employers. Local entities are not entitled to reimbursement for all increased costs mandated by state law, but only those costs resulting from a new program or an increased level of service imposed upon them by the state. Although a law is addressed only to local governments and imposes new costs on them, it may still not be a reimbursable state mandate. The court also held that assembly bill analyses stating that the amendment was a reimbursable state mandate (Cal. Const., art. XIII B, § 6), were irrelevant to the issue. The Legislature has entrusted the determination of what constitutes a state mandate to the Commission on State Mandates, subject to judicial review, and has provided that the initial determination by Legislative Counsel is not binding on the commission. (Opinion by Morrison, J., with Puglia, P. J., and Nicholson, J., concurring.)

HEADNOTES

Classified to California Digest of Official Reports

(1)
Administrative Law § 138--Judicial Review and Relief--Appellate Court-- Standard--Decision of Commission on State Mandates.
Under Gov. Code, § 17559, a proceeding to set aside a decision of the Commission on State Mandates on a claim may be commenced on the ground that the commission's decision was not supported by substantial evidence. Where the scope of review in the trial court is whether the administrative decision is supported by substantial evidence, review on appeal is generally the same. However, the appellate court independently reviews the superior court's legal conclusions as to the meaning and effect of constitutional and statutory provisions. The question of whether a law is a state-mandated program or a higher level of service under Cal. Const., art. XIII B, § 6, is a question of law that is reviewed de novo.

(2a, 2b, 2c)
State of California § 11--Fiscal Matters--Reimbursement for State Mandates--Workers' Compensation Death Benefits Payable to Local Safety Members.
An amendment to Lab. Code, § 4707, to eliminate local safety members of the Public Employees' Retirement System (PERS) from the coordination provisions for

death benefits payable under workers' compensation and under PERS, whereby the survivors of a local safety member of PERS who is killed in the line of duty receive both a death benefit under workers' compensation and a special death benefit under PERS, instead of only the latter, did not mandate a new program or higher level of service on local governments, requiring a subvention of funds to reimburse the local government under Cal. Const., art. XIII B, § 6. Although the amendment increased the cost of providing services, that could not be equated with requiring an increased level of service, and did not constitute a new program. Neither did it impose a unique requirement on local governments that was not applicable to all residents and entities within the state. The amendment merely made the workers' compensation death benefit requirements as applicable to local governments as they are to private employers.

(3a, 3b)
State of California § 11--Fiscal Matters--Reimbursement for State Mandates--Purpose.
Cal. Const., art. XIII B, § 6, which requires a subvention of funds to reimburse local governments when a state law mandates a new program or higher level of service on local governments, was intended to require reimbursement to local agencies for the costs involved in carrying out functions peculiar to government, not for expenses incurred by local agencies as an incidental impact of laws that apply generally to all state residents and entities. Although a law is addressed only to local governments and imposes new costs on them, it may still not be a reimbursable state mandate.

[See 9 Witkin, Summary of Cal. Law (9th ed. 1989) Taxation, § 123A.]

(4)
Statutes § 43--Construction--Aids--Legislative Analysis--Reimbursement for State Mandates--Legislative Intent.
Assembly bill analyses of an amendment to Lab. Code, § 4707, making local safety members of the Public Employees' Retirement System (PERS) eligible for both PERS and workers' compensation death benefits, stating that it was a reimbursable state mandate (Cal. Const., art. XIII B, § 6), were irrelevant to the issue. The Legislature has entrusted the determination of what constitutes a state mandate to the Commission on State Mandates, subject to judicial review (Gov. Code, §§ 17500, 17559) and has provided that the initial determination by legislative counsel is not binding on the commission (Gov. Code, § 17575).

COUNSEL
Nossaman, Guthner, Knox & Elliott, Robert J. Sullivan, Stephen P. Wilman, John T. Kennedy and Scott N. Yamaguchi for Plaintiff and Appellant.
Dwight L. Herr, County Counsel (Santa Cruz), Ronald R. Ball, City Attorney (Carlsbad), Michael G. Colantuono, City Attorney (Cudahay), William B. Conners, City Attorney (Monterey), Jonathan B. Stone, City Attorney (Montebello), Daniel J. McHugh, City Attorney (Redlands), Jeffrey G. Jorgensen, City Attorney (San Luis Obispo), Brian Libow, City Attorney (San Pablo), Howard, Rice, Nemerovski, Canady & Falk and Richard C. Jacobs as Amici Curiae on behalf of Plaintiff and Appellant.
Gary D. Hori and Shawn D. Silva for Defendant and Respondent.
Daniel E. Lungren, Attorney General, Linda A. Cabatic, Assistant Attorney General, Marsha Bedwell and Shelleyanne W. L. Chang, Deputy Attorneys General, for Real Party in Interest and Respondent. ***1193**

MORRISON, J.

Chapter 478 of the Statutes of 1989 (chapter 478) amended Labor Code section 4707 to eliminate local safety members of the Public Employees' Retirement System (PERS) from the coordination provisions for death benefits payable under workers' compensation and under PERS. As a result, the survivors of a local safety member of PERS who is killed in the line of duty receives both a death benefit under workers' compensation and a special death benefit under PERS, instead of only the latter. This proceeding presents the question whether chapter 478 mandates a new program or higher level of service on local governments, requiring a subvention of funds to reimburse the local government under article XIII B section 6 of the California Constitution. We conclude that chapter 478 is not a state mandate requiring reimbursement and affirm the judgment.

Factual and Procedural Background

The workers' compensation system provides for death benefits payable to the deceased employee's survivors. (Lab. Code, § 4700 et seq.) There are also preretirement death benefits under PERS. (Gov. Code, § 21530 et seq.) There is a special death benefit under PERS if the death

was industrial and the deceased was a patrol, state peace officer/firefighter, state safety officer, state industrial, or local safety member. (Gov. Code, § 21537.) Labor Code section 4707 provides a coordination or offset for workers' compensation death benefits when the special death benefit under PERS is payable. In such cases, no workers' compensation death benefit, other than burial expenses, is payable, except that if the PERS special death benefit is less than the workers' compensation death benefit, the difference is paid as a workers' compensation death benefit. The total death benefit is equal to the greater of the PERS special death benefit or the workers' compensation benefit, not the combination of the two death benefits.

Prior to 1989, Labor Code section 4707 provided in part: "No benefits, except reasonable expenses of burial ... shall be awarded under this division on account of the death of an employee who is a member of the Public Employees' Retirement System unless it shall be determined that a special death benefit ... will not be paid by the Public Employees' Retirement System to the widow or children under 18 years of age, of the deceased, on account of said death, but if the total death allowance paid to said widow and children shall be less than the benefit otherwise payable under this division such widow and children shall be entitled, under this division, to the difference." (Stats. 1977, ch. 468, § 4, pp. 1528-1529.) ***1194**

Chapter 478 amended Labor Code section 4707 to make technical changes, to provide the death benefit is payable to the surviving spouse rather than to the widow, and to add subdivision (b). Subdivision (b) of Labor Code section 4707 reads: "The limitation prescribed by subdivision (a) shall not apply to local safety members of the Public Employees' Retirement System." (Stats. 1989, ch. 478, § 1, p. 1689.)

In 1992, David Haynes, a police officer for the City of Richmond (Richmond), was killed in the line of duty. Officer Haynes was a local safety member of PERS. His wife and children received the PERS special death benefit; they also received a death benefit under workers' compensation.

Richmond filed a test claim with the Commission on State Mandates (the Commission), contending chapter 478 created a state-mandated local cost.[1] Richmond sought reimbursement of the cost of the workers' compensation death benefit, estimated to be $295,432. As part of its test claim, Richmond included legislative history of chapter 478, purporting to show a legislative intent to create a reimbursable state mandate.

The Commission denied the test claim. It found that chapter 478 dealt with workers' compensation benefits and case law held that workers' compensation laws are laws of general application and not subject to section 6 of article XIII B of the California Constitution. It noted the legislative history containing analyses that chapter 478 was a state mandate had been prepared before the issuance of *City of Sacramento v. State of California* (1990) 50 Cal.3d 51 [266 Cal.Rptr. 139, 785 P.2d 522].

Richmond filed a petition for a writ of administrative mandate under Code of Civil Procedure section 1094.5, seeking to compel the Commission to approve its claim. Both the Commission and the Department of Finance, as real parties in interest, responded. The court denied the petition, finding chapter 478 created an increased cost but not an increased level of service by local governments.

Discussion

I

([1]) Under Government Code section 17559, a proceeding to set aside the Commission's decision on a claim may be commenced on the ground that the Commission's decision is not supported by substantial evidence. Where ***1195** the scope of review in the trial court is whether the administrative decision is supported by substantial evidence, our review on appeal is generally the same. (*County of Los Angeles v. Commission on State Mandates* (1995) 32 Cal.App.4th 805, 814 [38 Cal.Rptr.2d 304].) However, we independently review the superior court's legal conclusions as to the meaning and effect of constitutional and statutory provisions. (*City of San Jose v. State of California* (1996) 45 Cal.App.4th 1802, 1810 [53 Cal.Rptr.2d 521].) The question of whether chapter 478 is a state-mandated program or higher level of service under article XIII B, section 6 of the California Constitution is a question of law we review de novo. (45 Cal.App.4th at p. 1810.)

With certain exceptions not relevant here, "Whenever the Legislature or any state agency mandates a new program or higher level of service on any local government, the state shall provide a subvention of funds to reimburse

such local government for the costs of such program or increased level of service ....“ (Cal. Const. art. XIII B, § 6, (hereafter referred to as section 6).)

In *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46 [233 Cal.Rptr. 38, 729 P.2d 202], the Supreme Court considered whether laws increasing the amount employers, including local governments, had to pay in certain workers' compensation benefits were a reimbursable ”higher level of service“ under section 6. The court looked to the intent of the voters in adopting the constitutional provision by initiative. (43 Cal.3d at p. 56.) Noting that the phrase ”higher level of service“ is meaningless alone, the court found it must be read in conjunction with the phrase ”new program.“ The court concluded, ”that the drafters and the electorate had in mind the commonly understood meanings of the term-programs that carry out the governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state.“ (*Ibid.*)

([2a]) Richmond contends chapter 478 meets both tests to qualify as a program under section 6. Richmond contends increased death benefits are provided to generate a higher quality of local safety officers and thus provide the public with a higher level of service. Richmond argues that providing increased death benefits to local safety workers is analogous to providing protective clothing and equipment for fire fighters. In *Carmel Valley Fire Protection Dist. v. State of California* (1987) 190 Cal.App.3d 521 [234 Cal.Rptr. 795], executive orders requiring updated protective clothing and equipment for firefighters were found to be reimbursable state mandates under section 6. The executive orders applied only to fire protection, a peculiarly governmental function. The court noted that police and fire ***1196** protection are two of the most essential and basic functions of local government. (190 Cal.App.3d at p. 537.) Richmond urges that since chapter 478 applies only to local safety members, it is also a state mandate directed to a peculiarly local governmental function.

In *Carmel Valley Fire Protection Dist. v. State of California*, *supra*, 190 Cal.App.3d 521, the executive order required updated equipment for the fighting of fires. The use of this equipment would result in more effective fire protection and thus would provide a higher level of service to the public. Here chapter 478 addresses death benefits, not the equipment used by local safety members. Increasing the cost of providing services cannot be equated with requiring an increased level of service under a section 6 analysis. A higher cost to the local government for compensating its employees is not the same as a higher cost of providing services to the public. (*City of Anaheim v. State of California* (1987) 189 Cal.App.3d 1478, 1484 [235 Cal.Rptr. 101] [temporary increase in PERS benefit to retired employees which resulted in higher contribution rate by local government was not a program or service under section 6].) In *County of Los Angeles v. State of California, supra*, 43 Cal.3d 46, the increase in certain workers' compensation benefits resulted in an increase in the cost to local governments of providing services. Nonetheless, the Supreme Court found no ”higher level of service“ under section 6. Similarly, a new requirement for mandatory unemployment insurance for local government employees, an increase in the cost of providing services, was not a ”new program“ or ”higher level of service“ in *City of Sacramento v. State of California, supra,* 50 Cal.3d 51, 66-70. Chapter 478 fails to meet the first test of a ”program“ under section 6.

Richmond urges chapter 478 meets the second test of a program under section 6 because it imposed a unique requirement on local governments that was not applicable to all residents and entities within the state. (*County of Los Angeles v. State of California, supra*, 43 Cal.3d 46, 56.) Richmond argues that only local governments have ”local safety members“ and chapter 478 required double death benefits, both PERS and workers' compensation, for this specific group of employees. By requiring double death benefits for local safety members, chapter 478 imposed a unique requirement on local government.

The Commission takes a different view of chapter 478. First, it argues that chapter 478 addresses an aspect of workers' compensation law, which, under *County of Los Angeles v. State of California, supra*, 43 Cal.3d 46, is a law of general application to which section 6 does not apply. The Commission argues chapter 478 imposes no unique requirement; it merely ***1197** eliminates the previous exemption from providing workers' compensation death benefits to local safety members. As such, chapter 478 simply puts local government employers on the same footing as all other nonexempt employers, requiring that they provide the workers' compensation death benefit. That chapter 478 affects only local government does

not compel the conclusion that it imposes a unique requirement on local government. The Commission contends Richmond's view of chapter 478 is too narrow; the law must be considered in its broader context.

While Richmond's argument has surface appeal, we conclude the Commission's view is the correct one. Section 6 was designed to prevent the state from forcing programs on local government. ([3a]) "[T]he intent underlying section 6 was to require reimbursement to local agencies for the costs involved in carrying out functions peculiar to government, not for expenses incurred by local agencies as an incidental impact of laws that apply generally to all state residents and entities. Laws of general application are not passed by the Legislature to 'force' programs on localities." (*County of Los Angeles v. State of California, supra*, 43 Cal.3d at pp. 56-57.) "The goals of article XIII B, of which section 6 is a part, were to protect residents from excessive taxation and government spending. [Citation.] Section 6 had the additional purpose of precluding a shift of financial responsibility for carrying out governmental functions from the state to local agencies which had had their taxing powers restricted by the enactment of article XIII A in the preceding year and were ill equipped to take responsibility for any new programs. Neither of these goals is frustrated by requiring local agencies to provide the same protections to their employees as do private employers. Bearing the costs of salaries, unemployment insurance, and workers' compensation coverage-costs which all employers must bear-neither threatens excessive taxation or governmental spending, nor shifts from the state to a local agency the expense of providing governmental services. " (*Id.* at p. 61.)

Although a law is addressed only to local governments and imposes new costs on them, it may still not be a reimbursable state mandate. In *City of Sacramento v. State of California, supra*, 50 Cal.3d 51, the Legislature enacted a statute requiring local governments to participate in the state's unemployment insurance system on behalf of their employees. Local entities made a claim for reimbursement. First, the Supreme Court found that like an increase in workers' compensation benefits, a requirement to provide unemployment insurance did not compel new or increased "service to the public" at the local level. (*Id.* at pp. 66-67.) The court next addressed whether the new law imposed a unique requirement on local governments.

"Here, the issue is whether costs *unrelated* to the provision of public services are *nonetheless* reimbursable costs of government, because they are ***1198** imposed on local governments 'unique[ly],' and not merely as an incident of compliance with general laws. State and local governments, and nonprofit corporations, had previously enjoyed a special *exemption* from requirements imposed on most other employers in the state and nation. Chapter 2/78 merely eliminated the exemption and made these previously exempted entities subject to the general rule. By doing so, it may have imposed a requirement 'new' to local agencies, but that requirement was not 'unique.' [¶] The distinction proposed by plaintiffs would have an anomalous result. The state could avoid subvention under *County of Los Angeles* standards by imposing new obligations on the public and private sectors *at the same time*. However, if it chose to proceed by stages, extending such obligations first to private entities, and only later to local governments, it would have to pay. This was not the intent of our recent decision." (*City of Sacramento v. State of California, supra*, 50 Cal.3d 51, 68-69, italics in original.)

Richmond argues that Labor Code section 4707, prior to chapter 478, was not an exemption from workers' compensation, relying on *Jones v. Kaiser Industries Corp.* (1987) 43 Cal.3d 552 [237 Cal.Rptr. 568, 737 P.2d 771]. In *Jones,* the plaintiff, a city police officer, was killed in a traffic accident while on duty. His survivors brought suit against the city, contending it has created and maintained a dangerous condition at the intersection where the accident occurred. Plaintiffs argued their suit was not barred by the exclusivity provisions of workers' compensation because they did not receive a workers' compensation death benefit under Labor Code section 4707. The court rejected this argument. First, plaintiffs did receive a benefit under workers' compensation in the form of burial expenses. Further, Labor Code section 4707 was designed not to exclude plaintiffs from receiving workers' compensation benefits, but to assure they received the maximum benefit under either PERS or workers' compensation. (43 Cal.3d at p. 558.)

Under *Jones* v. *Kaiser Industries Corp*., *supra*, 43 Cal.3d 552, one receiving a special death benefit under PERS rather than the workers' compensation death benefit is not considered exempt from workers' compensation for purposes of its exclusivity provisions, precluding a suit against the employer for negligence. This conclusion does not affect the analysis that chapter 478, by removing the

offset provisions for employers of local safety members, merely makes local governments "indistinguishable in this respect from private employers." (*County of Los Angeles v. State of California*, *supra,* 43 Cal.3d at p. 58.)

([2b]) Richmond's error is in viewing chapter 478 from the perspective of what the final result is, rather than from the perspective of what the law mandates. ([3b]) "We recognize that, as is made indisputably clear from ***1199** the language of the constitutional provision, local entities are not entitled to reimbursement for all increased costs mandated by state law, but only those costs resulting from a new program or an increased level of service imposed upon them by the state." (*Lucia Mar Unified School Dist. v. Honig* (1988) 44 Cal.3d 830, 835 [244 Cal.Rptr. 677, 750 P.2d 318].) ([2c]) While the result of chapter 478 is that local safety members of PERS now are eligible for two death benefits and local governments will have to fund the workers' compensation benefit, chapter 478 does not mandate double death benefits. Instead, it merely eliminates the offset provisions of Labor Code section 4707. In this regard, the law makes the workers' compensation death benefit requirements as applicable to local governments as they are to private employers. It imposes no "unique requirement" on local governments.

Further, the view that the Legislature was proceeding by stages in enacting chapter 478 finds support in the history of the nearly identical predecessor to chapter 478, Assembly Bill No. 1097 (1987-1988 Reg. Sess.). Assembly Bill No. 1097 was passed in 1988, but was vetoed by the Governor. While the final version of Assembly Bill No. 1097 was virtually identical to chapter 478 in adding subdivision (b) to Labor Code section 4707 (Assem. Bill No. 1097 (1987-1988 Reg. Sess.) as amended Mar. 22, 1988), the bill was very different when it began. The initial version of Assembly Bill No. 1097 repealed Labor Code section 4707 in its entirety. (Assem. Bill No. 1097 (1987-1988 Reg. Sess.) introduced Mar. 2, 1987.) The next version made Labor Code section 4707 applicable only to state members of PERS. (Assem. Bill No. 1097 (1987-1988 Reg. Sess.) as amended June 15, 1987.) The final version left Labor Code section 4707 applicable to all but local safety members of PERS.

II

([4]) As part of its test claim, Richmond included portions of the legislative history of chapter 478 to show the Legislature intended to create a state mandate. This history includes numerous bill analyses by legislative committees that state the bill creates a state-mandated local program.

Government Code section 17575 requires the Legislative Counsel to determine if a bill mandates a new program or higher level of service under section 6. If the Legislative Counsel determines the bill will mandate a new program or higher level of service under section 6, the bill must contain a section specifying that reimbursement shall be made from the state mandate fund, that there is no mandate, or that the mandate is being disclaimed. (Gov. Code, § 17579.) The Legislative Counsel found that chapter 478 imposed ***1200** a state-mandated local program. The enacted statute provided: "Notwithstanding Section 17610 of the Government Code, if the Commission on State Mandates determines that this act contains costs mandated by the state, reimbursement to local agencies and school districts for those costs shall be made pursuant to Part 7 (commencing with Section 17500) of Division 4 of Title 2 of the Government Code. If the statewide cost of the claim for reimbursement does not exceed one million dollars ($1,000,000), reimbursement shall be made from the State Mandates Claims Fund." (Stats. 1989, ch. 478, § 2, p. 1689.)

One analysis concluded this language was technically deficient because it does not contain a specific acknowledgment that the bill is a state mandate. Reimbursement could not be made until the Commission held a hearing on a test claim. The analysis concluded it "should not be a serious problem because the information provided in this analysis could also be provided to the Commission on State Mandates if any local agency submits a claim for reimbursement to that Commission."

Another analysis suggested including an appropriation to avoid the necessity of the Commission having to determine that the bill was a mandate.

Richmond argues this legislative history shows the Legislature intended chapter 478 to be a state mandate and that it should be considered in making that determination. Amici curiae submitted a brief urging that case law holding that legislative history is irrelevant to the issue of whether there is a state-mandated new program or higher level of service under section 6 is wrongly decided. [2] Amici curiae argue that the intent of the Legislature should

control. They further note that the legislative history of chapter 478 shows that the initial opposition of the League of California Cities was dropped after the bill was amended to ensure reimbursement, and that the Governor signed the bill after he had vetoed a similar one that was not considered a state mandate. Amici curiae argue that to ignore the widespread understanding that the bill created a state mandate would undermine the legislative process.

In *County of Los Angeles v. Commission on State Mandates, supra,* 32 Cal.App.4th 805, plaintiff sought reimbursement for costs incurred under Penal Code section 987.9 for providing certain services to indigent criminal defendants. Plaintiff argued the Legislature's initial appropriation of funds to cover the costs incurred under Penal Code section 987.9 was a final and ***1201** unchallengeable determination that section 987.9 constituted a state mandate. The court rejected this argument. "The findings of the Legislature as to whether section 987.9 constitutes a state mandate are irrelevant." (32 Cal.App.4th at p. 818.)

The court, relying on *Kinlaw v. State of California* (1991) 54 Cal.3d 326 [285 Cal.Rptr. 66, 814 P.2d 1308], found the Legislature had created a comprehensive and exclusive procedure for implementing and enforcing section 6. (*County of Los Angeles v. Commission on State Mandates, supra*, 32 Cal.App.4th at pp. 818-819.) This procedure is set forth in Government Code section 17500 et seq. "[T]he statutory scheme contemplates that the Commission, as a quasi-judicial body, has the sole and exclusive authority to adjudicate whether a state mandate exists. Thus, any legislative findings are irrelevant to the issue of whether a state mandate exists, and the Commission properly determined that no state mandate existed." (32 Cal.App.4th at p. 819.)

In *City of San Jose v. State of California, supra,* 45 Cal.App.4th 1802, 1817-1818, the court relied upon *County of Los Angeles v. Commission on State Mandates*, *supra,* 32 Cal.App.4th 805, in rejecting the argument that the determination by Legislative Counsel that a bill imposed a state mandate was entitled to deference.

Amici curiae contend these cases are wrong because they ignore the cardinal rules of statutory construction that courts must construe statutes to conform to the purpose and intent of lawmakers and that the intent of the Legislature should be ascertained to effectuate the purpose of the law.

Amici curiae are correct that " 'the objective of statutory interpretation is to ascertain and effectuate legislative intent.' [Citation.]" (*Trope v. Katz* (1995) 11 Cal.4th 274, 280 [45 Cal.Rptr.2d 241, 902 P.2d 259].) Where such intent is not clear from the language of the statute, we may resort to extrinsic aids, including legislative history. (*People v. Coronado* (1995) 12 Cal.4th 145, 151 [48 Cal.Rptr.2d 77, 906 P.2d 1232].) Here, however, the issue is not the interpretation of Labor Code section 4707. The parties agree it requires that the survivors of local safety members killed due to an industrial injury receive both the special death benefit under PERS and the workers' compensation death benefit. Rather, the issue is whether section 6 requires reimbursement for the costs incurred by local governments under chapter 478. The Legislature has entrusted that determination to the Commission, subject to judicial review. (Gov. Code, §§ 17500, 17559.) It has provided that the initial determination by Legislative Counsel is not binding on the Commission. (*Id.*, § 17575.) Indeed, the language of chapter 478 recognizes that the determination of whether the bill is a state mandate lies with ***1202** the Commission. It reads, "*if* the Commission on State Mandates determines that this act contains costs mandated by the state, ..." (Stats. 1989, ch. 478, § 2, p. 1689, italics added.) While the legislative history of chapter 478 may evince the understanding or belief of the Legislature that chapter 478 created a state mandate, such understanding or belief is irrelevant to the issue of whether a state mandate exists. (*County of Los Angeles v. Commission on State Mandates, supra*, 32 Cal.App.4th 805, 819.)

Disposition

The judgment is affirmed.

Puglia, P. J., and Nicholson, J., concurred.

Appellant's petition for review by the Supreme Court was denied August 19, 1998. ***1203**

Footnotes

1 ” 'Test claim' means the first claim filed with the commission alleging that a particular statute or executive order imposes costs mandated by the state.“ (Gov. Code, § 17521.)

2 The California State Association of Counties, and the Cities of Carlsbad, Cudahy, Montebello, Monterey, Redlands, San Luis Obispo and San Pablo filed an amici curiae brief in support of Richmond.

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Implied Overruling Recognized by Hayes v. Commission on State Mandates, Cal.App. 3 Dist., December 30, 1992

50 Cal.3d 51, 785 P.2d 522, 266 Cal.Rptr. 139

CITY OF SACRAMENTO et al., Plaintiffs and Appellants,
v.
THE STATE OF CALIFORNIA et al., Defendants and Respondents

No. S006188.
Supreme Court of California
Jan 29, 1990.

SUMMARY

A city and a county filed claims with the State Board of Control seeking subvention of the costs imposed on them by Stats. 1978, ch. 2, which extended mandatory coverage under the state's unemployment insurance law to include state and local governments and nonprofit corporations. The board denied the claims, ruling that Stats. 1978, ch. 2, did not enact a state-mandated program for which reimbursement was required under Cal. Const., art. XIII B. On mandamus the trial court overruled the board and found the cost reimbursable, and the Court of Appeal affirmed. On remand, the board determined the amounts due on the claims originally submitted; however, the Legislature failed to appropriate the necessary funds for disbursement. The city then commenced a class action against the state on behalf of all local governments in the state. The complaint sought injunctive and declaratory relief barring enforcement of Stats. 1978, ch. 2, in the absence of state subvention; a writ of mandate directing that past, current, and/or future subvention funds be appropriated and disbursed, and/or that the Employment Development Department pay local agencies' past, current, and future unemployment insurance contributions from its own budget; and damages for past failures to reimburse. The trial court granted summary judgment for the state. (Superior Court of Sacramento County, No. 331607, Darrel W. Lewis, Judge.) The Court of Appeal, Third Dist., No. C002265, reversed.

The Supreme Court reversed the judgment of the Court of Appeal. The court held that the trial court did not err in granting summary judgment for the state on the ground that the local costs of providing unemployment insurance coverage were not subject to subvention under Cal. Const., art. XIII B, or parallel statutes (Rev. & Tax. Code, former §§ 2207, 2231, subd. (a); Gov. Code, §§ 17514, 17561, subd. (a)). The state had not compelled provision of new or increased "service to the public" at the local level, nor had it imposed a state policy "uniquely" on local governments. However, the court held, Stats. 1978, ch. 2, implemented a federal "mandate" within the meaning of Cal. Const., art. XIII B, and prior statutes restraining local taxation; thus, subject to superseding constitutional ceilings on taxation by state and local governments, an agency governed by Stats. 1978, ch. 2, may tax and spend as necessary to meet the expenses required to comply with that legislation. (Opinion by Eagleson, J., with Lucas, C. J., Mosk, Broussard, Panelli and Kennard, JJ., concurring. Separate concurring and dissenting opinion by Kaufman, J., concurring in the judgment.)

HEADNOTES

Classified to California Digest of Official Reports

(1)
Property Taxes § 7.5--Constitutional Provisions; Statutes and Ordinances--Real Property Tax Limitation--Exemptions for Federally Mandated Costs.
To the extent that a "federally mandated" cost is exempt from prior statutory limits on local taxation, Cal. Const., art. XIII A, restricting the assessment and taxing powers of state and local governments, eliminates the exemption insofar as it would allow levies in excess of the constitutional ceiling.

(2)
State of California § 7--Actions--Reimbursement to Local Governments for Unemployment Insurance Costs--Exhaustion of Remedies.
A class action by a city on behalf of all local governments in the state, against the state, in which it was alleged that Stats. 1978, ch. 2 (extending mandatory coverage under the state's unemployment insurance law to include state and local governments and nonprofit corporations), mandated a new program or higher level of service on local agencies for which reimbursement by the state of local compliance costs was required under Cal. Const., art. XIII B, was not barred by any failure of plaintiffs to

exhaust their remedies. The city and a county had filed timely claims for reimbursement of expenses incurred, to comply with Stats. 1978, ch. 2. When the State Board of Control initially denied the claims, the city and the county pursued judicial remedies, culminating in a Court of Appeal opinion concluding that reimbursement was required. The board then upheld the claims. Insofar as the Legislature thereafter declined to appropriate the necessary funds for disbursement, the city and the county were authorized to bring an enforcement action.

(3a, 3b)
State of California § 7--Actions--Reimbursement to Local Governments for Unemployment Insurance Costs--Remedies Available.
Cal. Const., art. XIII, § 32, precluding any suit to enjoin or impede collection of a tax, did not bar a class action brought by a city on behalf of all local governments in the state, against the state, in which it was alleged that Stats. 1978, ch. 2 (extending mandatory coverage under the state's unemployment insurance law to include state and local governments and nonprofit corporations), mandated a new program or higher level of service on local agencies for which reimbursement by the state of local compliance costs was required under Cal. Const., art. XIII B. The state contended that the only remedy open to the city was to pay its unemployment "taxes" and then seek a "refund" under the "exclusive" procedures set forth in the Unemployment Insurance Code. However, the city was not challenging, directly or indirectly, the validity or application of the unemployment insurance law as such, or the propriety of any "tax" assessed thereunder; rather, it claimed that all its costs of affording unemployment compensation to its employees were subject to a statutory and constitutional subvention that the state refused to make. For the same reasons, the city's claim for reimbursement for past expenses was not barred.

(4)
Constitutional Law § 40--Distribution of Governmental Powers--Between Branches of Government--Judicial Power.
Under the separation of powers doctrine, the Legislature cannot be compelled to appropriate or authorize the disbursement of specific funds.

[See **Am.Jur.2d,** Constitutional Law, § 316.]

(5a, 5b, 5c)
Judgments § 81--Res Judicata--Collateral Estoppel--Public-interest Exception--Reimbursement to Local Governments for Unemployment Insurance Costs.
In a class action by a city on behalf of all local governments in the state, against the state, in which it was alleged that Stats. 1978, ch. 2 (extending mandatory coverage under the state's unemployment insurance law to include state and local governments and nonprofit corporations), mandated a new program or higher level of service on local agencies for which reimbursement by the state of local compliance costs was required under Cal. Const., art. XIII B, the state was not collaterally estopped from litigating the reimbursement issue. The city and a county had previously brought an action against the state, culminating in a Court of Appeal opinion concluding that reimbursement was required. The Legislature then declined to appropriate the necessary funds for disbursement. Even if the formal prerequisites for collateral estoppel were present, the public-interest exception to that doctrine governed, since strict application of the doctrine would foreclose any reexamination of the earlier holding, and the consequences of any error transcended those that would apply to mere private parties.

(6)
Judgments § 81--Res Judicata--Collateral Estoppel--Questions of Law.
Generally, collateral estoppel bars a party to a prior action, or one in privity with him, from relitigating issues finally decided against him in the earlier action. However, when the issue is a question of law rather than of fact, the prior determination is not conclusive either if injustice would result or if the public interest requires that relitigation not be foreclosed.

(7)
State of California § 7--Actions--Reimbursement to Local Governments for Unemployment Insurance Costs--Summary Judgment--Effect of Failure of Moving Party to Challenge Prior Summary Adjudication of Issues.
In a class action by a city, on behalf of all local governments in the state, against the state, in which it was alleged that Stats. 1978, ch. 2 (extending mandatory coverage under the state's unemployment insurance law to include state and local governments and nonprofit corporations), mandated a new program or higher level

of service on local agencies for which reimbursement by the state of local compliance costs was required under Cal. Const., art. XIII B, the trial court did not lack the power to grant summary judgment for the state on the authority of a newly decided California Supreme Court case. The trial court had previously granted the city's motion for summary adjudication of issues, and the state had failed to seek timely mandamus review of that prior, contrary order. However, failure to challenge a summary adjudication order by the discretionary avenue of writ review cannot foreclose a party from asserting subsequent changes in law that render such a pretrial order incorrect.

(8)
Judgments § 68--Res Judicata--Identity of Parties--Class Action--Where Prior Action Involved Individual Claims.
In a class action by a city on behalf of all local governments in the state, against the state, in which it was alleged that Stats. 1978, ch. 2 (extending mandatory coverage under the state's unemployment insurance law to include state and local governments and nonprofit corporations), mandated a new program or higher level of service on local agencies for which reimbursement by the state of local compliance costs was required under Cal. Const., art. XIII B, res judicata did not preclude examination of an earlier Court of Appeal opinion, in an action by the city and a county, concluding that reimbursement was required. The issues presented in the current action were not limited to the validity of any finally adjudicated individual claims; rather, they encompassed the question of the state's subvention obligations in general under Stats. 1978, ch. 2.

(9a, 9b)
State of California § 11--Fiscal Matters--Reimbursement to Local Governments--State-mandated Programs--Unemployment Insurance Costs.
In a class action by a city on behalf of all local governments in the state, against the state, in which it was alleged that Stats. 1978, ch. 2 (extending mandatory coverage under the state's unemployment insurance law to include state and local governments and nonprofit corporations), mandated a new program or higher level of service on local agencies for which reimbursement by the state was required under Cal. Const., art. XIII B, the trial court did not err in granting summary judgment for the state on the ground that the local costs of providing such coverage were not subject to subvention under Cal. Const., art. XIII B, or parallel statutes (Rev. & Tax. Code, former §§ 2207, 2231, subd. (a); Gov. Code, §§ 17514, 17561, subd. (a)). The state had not compelled provision of new or increased "service to the public" at the local level, nor had it imposed a state policy "uniquely" on local governments. The phrase, "To force programs on local governments," in the voters' pamphlet relating to Cal. Const., art. XIII B, § 6, confirmed that the intent underlying that section was to require reimbursement to local agencies for the costs involved in carrying out functions peculiar to government, not for expenses incurred by local agencies as an incidental impact of laws that apply generally to all state residents and entities.

[See **Cal.Jur.3d,** State of California, § 78.]

(10)
State of California § 11--Fiscal Matters--Reimbursement to Local Governments--State-mandated Programs.
The concepts of reimbursable state-mandated costs in Cal. Const., art. XIII B, requiring that the state reimburse local governments for the costs of state-mandated new programs or higher levels of service, and Rev. & Tax. Code, former §§ 2207, 2231, are identical.

(11a, 11b, 11c)
State of California § 11--Fiscal Matters-- Reimbursement to Local Governments--Federally Mandated Programs--Unemployment Insurance Costs.
Stats. 1978, ch. 2, extending mandatory coverage under the state's unemployment insurance law to include state and local governments and nonprofit corporations, implemented a federal "mandate" within the meaning of Cal. Const., art. XIII B, and prior statutes restricting local taxation; thus, subject to superseding constitutional ceilings on taxation by state and local governments, an agency governed by Stats. 1978, ch. 2, may tax and spend as necessary to meet the expenses required to comply with that legislation. In enacting Stats. 1978, ch. 2, the state simply did what was necessary to avoid certain and severe federal penalties upon its resident businesses; the alternatives were so far beyond the realm of practical reality that they left the state "without discretion" to depart from federal standards. (Disapproving, insofar as it is inconsistent with this analysis, the decision in *City of Sacramento v. State of California* (1984) 156 Cal.App.3d 182 [203 Cal.Rptr. 258].)

(12)
Constitutional Law § 11--Construction of Constitutions--Liberality and Flexibility.
Constitutional enactments must receive a liberal, practical commonsense construction that will meet changed conditions and the growing needs of the people. While a constitutional amendment should be construed in accordance with the natural and ordinary meaning of its words, the literal language of enactments may be disregarded to avoid absurd results and to fulfill the apparent intent of the framers.

(13)
State of California § 11--Fiscal Matters--Reimbursement to Local Governments--Federally Mandated Programs.
In determining whether a program is federally mandated, to exempt its cost from a local government's statutory taxation limit (Rev. & Tax. Code, § 2271), and to exclude any appropriation required to comply with the mandate from the constitutional spending limit of the affected entity (Cal. Const., art. XIII B, § 9, subd. (b)), the result will depend on the nature and purpose of the federal program; whether its design suggests an intent to coerce; when state and/or local participation began; the penalties, if any, assessed for withdrawal or refusal to participate or comply; and any other legal and practical consequences of nonparticipation, noncompliance, or withdrawal. The courts and the Commission on State Mandates must respect the governing principle of Cal. Const., art. XIII B, § 9, subd. (b): neither state nor local agencies may escape their spending limits when their participation in federal programs is truly voluntary.

COUNSEL
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John K. Van de Kamp, Attorney General, N. Eugene Hill, Assistant Attorney General, Paul H. Dobson, Richard M. Frank, Floyd D. Shimomura and Carol Hunter, Deputy Attorneys General, for Defendants and Respondents.
De Witt W. Clinton, County Counsel (Los Angeles), Amanda F. Susskind, Deputy County Counsel, Kitt Berman, Ross & Scott and William D. Ross as Amici Curiae on behalf of Defendants and Respondents. ***57**

EAGLESON, J.

In response to changes in federal law, chapter 2 of the Statutes of 1978 (hereafter chapter 2/78) extended mandatory coverage under the state's unemployment insurance law to include state and local governments and nonprofit corporations. Here we consider whether, in chapter 2/78, the state "mandate[d] a new program or higher level of service" on the local agencies, and must therefore reimburse local compliance costs under article XIII B of the California Constitution and related statutes.

We conclude that the state is *not* required to reimburse the chapter 2/78 expenses of local governments. The obligations imposed by chapter 2/78 fail to meet the "program" and "service" standards for mandatory subvention we recently set forth in *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46 [233 Cal.Rptr. 38, 729 P.2d 202] (hereafter *County of Los Angeles*). Chapter 2/78 imposes no "unique" obligation on local governments, nor does it require them to provide new or increased governmental services to the public. The Court of Appeal decision, finding the expenses reimbursable, must therefore be reversed.

However, our holding does not leave local agencies powerless to counter the fiscal pressures created by chapter 2/78. Though provisions of the Revenue and Taxation Code limit local property tax levies, and article XIII B itself places spending limits on both state and local governments, "costs mandated by the federal government" are expressly excluded from these ceilings. Chapter 2/78 imposes such "federally mandated" costs, because it was adopted by the state under federal coercion tantamount to compulsion. Hence, subject to overriding limitations on taxation rates (see, e.g., Cal. Const., art. XIII A), both state and local governments may levy and spend for their chapter 2/78 coverage obligations without reduction of the fiscal limits applicable to other needs and services.

I. Facts.

In 1972, and again in 1973, the Legislature enacted comprehensive schemes for local property tax relief. Though frequently amended thereafter, these statutes retained three principal features. First, they placed a limit on the local property tax rate. Second, they required the *state* to reimburse local governments for their costs resulting from state laws "which mandate ... new program[s] or ... increased level[s] of service" at the local level. Finally, they allowed local governments to

exceed their property taxation limits to fund certain other nondiscretionary expenses, including "costs mandated by the federal government." (Stats. 1972, ch. 1406, § 14.7, pp. ***58** 2961-2967; Stats. 1973, ch. 358, § 3, pp. 783-790; Rev. & Tax. Code, §§ 2206, 2260 et seq., 2271; former §§ 2164.3, 2165, 2167, 2169, 2207, 2231; Gov. Code, § 17500 et seq.)

Since adoption of the Social Security Act in 1935, federal law has provided powerful incentives to enactment of unemployment insurance protection by the individual states. In current form, the Federal Unemployment Tax Act (hereafter FUTA) (26 U.S.C. § 3301 et seq.) assesses an annual tax upon the gross wages paid by covered private employers nationwide. The tax rate, which has varied over the years, stands at 6.2 percent for calendar year 1990. (26 U.S.C. §§ 3301(1), 3306.) However, employers in a state with a federally "certified" unemployment insurance program may credit their contributions to the state system against up to 90 percent of the federal tax (currently computed at 6 percent for this purpose). (*Id.*, §§ 3302-3304.) A "certified" state program also qualifies for federal administrative funds. (42 U.S.C. §§ 501-503.)

California enacted its unemployment insurance system "on the eve of the adoption of the Social Security Act" in 1935 (*Steward Machine Co.* v. *Davis* (1937) 301 U.S. 548, 587-588 [81 L.Ed. 1279, 1291-1292, 57 S.Ct. 883, 109 A.L.R. 1293]; see Stats. 1935, ch. 352, § 1 et seq., p. 1226 et seq.) and has sought to maintain federal compliance ever since. Every other state has also adopted an unemployment insurance plan in response to the federal stimulus.

In 1976, Congress enacted Public Law number 94-566 (hereafter Public Law 94-566). Insofar as pertinent here, Public Law 94-566 amended FUTA to require for the first time that a "certified" state plan include coverage of the employees of public agencies. (Pub.L. No. 94-566 (Oct. 20, 1976) § 115(a), 90 Stat. 2670; 26 U.S.C. §§ 3304(a)(6)(A), 3309(a); see 26 U.S.C. § 3306(c)(7).) States which did not alter their unemployment compensation laws accordingly faced loss of the federal tax credit and administrative subsidy.

The Legislature thereafter adopted chapter 2/78 to conform California's system to Public Law 94-566. Among other things, chapter 2/78 effectively requires the state and all local governments, beginning January 1, 1978, to participate in the state unemployment insurance system on behalf of their employees. (Stats. 1978, ch. 2, §§ 12, 24, 31, 36.5, 58-61, pp. 12-14, 16, 18, 24-27; Unemp. Ins. Code, §§ 135, subd. (a), 605, 634.5, 802-804.)

In November 1979, the voters adopted Proposition 4, adding article XIII B to the state Constitution. ([1]) **(See fn. 1.)** Article XIII B - the so-called "Gann limit" - restricts the amounts state and local governments may ***59** appropriate and spend each year from the "proceeds of taxes." (§§ 1, 3, 8, subds. (a)-(c).) [1] In language similar to that of earlier statutes, article XIII B also requires state reimbursement of resulting local costs whenever, after January 1, 1975, "the Legislature or any state agency mandates a new program or higher level of service on any local government, ..." (§ 6.) Such mandatory state subventions are excluded from the local agency's spending limit, but included within the state's. (§ 8, subds. (a), (b).) Finally, article XIII B excludes from either the state or local spending limit any "[a]ppropriations required for purposes of complying with mandates of the courts *or the federal government* which, *without discretion*, require an expenditure for additional services or which *unavoidably* make the providing of existing services more costly." (§ 9, subd. (b) [hereafter section 9(b)], italics added.)

The City of Sacramento (City) and the County of Los Angeles (County) filed claims with the State Board of Control (Board) (see Rev. & Tax. Code, former § 2250 et seq.; see now Gov. Code, § 17550 et seq.) seeking state subvention of the costs imposed on them by chapter 2/78 during 1978 and portions of 1979. The Board denied the claims, ruling that chapter 2/78 was an enactment required by federal law and thus was not a reimbursable state mandate. On mandamus (Code Civ. Proc., § 1094.5; Rev. & Tax. Code, former § 2253.5; see now Gov. Code, § 17559), the Sacramento Superior Court overruled the Board and found the costs reimbursable. The court ordered the Board to determine the amounts of the City's and the County's individual claims, and also to adopt "parameters and guidelines" to be applied in determining "these ... and other claims" arising under chapter 2/78. (Rev. & Tax. Code, former § 2253.2; see now Gov. Code, §§ 17555, 17557.) [2]

In *City of Sacramento v. State of California* (1984) 156 Cal.App.3d 182 [203 Cal.Rptr. 258] (hereafter *Sacramento I*), the Court of Appeal affirmed. Among other things, the court concluded (pp. 194-199) that chapter 2/78

***60** imposed *state*-mandated costs reimbursable under section 6 of article XIII B, since the potential loss of federal funds and tax credits did not render Public Law 94-566 so coercive as to constitute a "[*mandate*] ... of the *federal* government" under section 9(b). (Italics added.) We denied hearing.

On remand, the Board determined the amounts due on the claims originally submitted by the City and the County. As required by the judgment, the Board also adopted "parameters and guidelines" for reimbursement of chapter 2/78 costs to all affected local agencies. However, during the 1984 session of the Legislature, no bills were introduced for reimbursement of pre-1984 costs, and bills to fund costs in and after 1984 failed passage.

From and after the decision in *Sacramento I*, the City paid "under protest" its quarterly billings from the Employment Development Department (EDD) for unemployment compensation. Each payment included a claim for refund of unemployment taxes pursuant to Unemployment Insurance Code section 1176 et seq. EDD responded to the refund claims by referring the City to its statutory subvention remedies.

Accordingly, in July 1985, the City began returning its quarterly billings unpaid. It thereupon commenced the instant class action in Sacramento Superior Court on behalf of all local governments in the state. Named as defendants were the State of California, the Governor, EDD, the state Controller and Treasurer, and the Legislature. The complaint sought (1) injunctive and declaratory relief barring enforcement of chapter 2/78 in the absence of state subvention; (2) a writ of mandate directing that past, current, and future subvention funds be appropriated and disbursed, and/or that EDD pay local agencies' past, current, and future unemployment-insurance contributions from its own budget; and (3) damages for past failures to reimburse.

Shortly after this suit was filed, the Legislature appropriated some chapter 2/78 funds for fiscal year 1984-1985 (Stats. 1985, ch. 1217, §§ 12, 17, subd. (b), pp. 4148, 4150), and it subsequently authorized limited funds in the 1986 Budget Act (Stats. 1986, ch. 186, § 2.00, p. 1006). On defendants' demurrer, the trial court later dismissed plaintiffs' claims for reimbursement for these post-1984 periods.[3] Thereafter, the trial court certified the suit as a class action and granted plaintiffs' motion for summary adjudication of issues based on *Sacramento I.* ***61**

While the case remained pending at the trial level, we decided *County of Los Angeles*. There we held that article XIII B, and earlier subvention statutes, requires state reimbursement *only* when the state compels local governments to provide new or upgraded "programs that carry out the governmental function of providing *services to the public*, or ..., to implement a state policy, [the state] impose[s] *unique* requirements on local governments [that] do not apply generally to all residents and entities in the state." (43 Cal.3d at p. 56, italics added.)

Defendants in this case thereupon moved for summary judgment, urging that extension of unemployment insurance coverage to public employees satisfied neither reimbursement standard set forth in *County of Los Angeles*. The trial court agreed and awarded summary judgment.

The Court of Appeal reversed on two independent grounds. First, the court ruled that defendants were collaterally estopped by *Sacramento I* to relitigate the reimbursability of chapter 2/78 costs. Second, the court found that chapter 2/78 imposed "unique requirements" on local governments, within the meaning of *County of Los Angeles*, since the legislation was aimed solely at local agencies and subjected them to obligations from which they were previously exempt.

II. Jurisdiction; Plaintiffs' Exhaustion of Remedies.

([2]) After we granted review, we asked the parties and amici curiae[4] to brief whether the current suit is jurisdictionally barred by any failure of plaintiffs to exhaust their remedies (see *Abelleira v. District Court of Appeal* (1941) 17 Cal.2d 280, 291-295 [109 P.2d 942, 132 A.L.R. 715]), or for any other reason. If so, the summary judgment for defendants against all plaintiffs was proper notwithstanding the merits of the subvention claim. In that event, the judgment of the Court of Appeal must be reversed without consideration of the substantive issues raised by the appeal.

However, we find no failure to exhaust which would bar us from reaching the merits. Defendants concede plaintiffs exhausted all administrative remedies provided by the statutes governing subvention of state-mandated

costs. The concession appears correct, at least as to the City and the County. These two agencies filed timely claims for reimbursement of expenses incurred to comply with chapter 2/78. When the Board initially denied the claims, the City and the County pursued judicial remedies culminating in ***62** *Sacramento I*. By direction of the judgment in *Sacramento I*, the Board ultimately upheld the City's and County's 1979 claims, determined their amount, and adopted "parameters and guidelines" for statewide reimbursement that were later included in the Board's government-claims report to the Legislature. (Rev. & Tax. Code, former §§ 2253.2, 2255, subd. (a).)

These procedures exhausted the City's and the County's administrative and judicial avenues, short of this suit, to obtain redress on the claims adjudicated in *Sacramento I*. Insofar as the Legislature thereafter declined to appropriate the necessary funds for disbursement by the Controller, the City and the County were authorized to bring an enforcement action. (Rev. & Tax. Code, former § 2255, subd. (c); Gov. Code, § 17612, subd. (b); *County of Contra Costa v. State of California* (1986) 177 Cal.App.3d 62, 72 [222 Cal.Rptr. 750]; see *Carmel Valley Fire Protection Dist. v. State of California* (1987) 190 Cal.App.3d 521, 548-549 [234 Cal.Rptr. 795].) [5]

([3a]) Defendants urge, however, that plaintiffs essentially are seeking resolution of a "tax" question - the validity *vel non* of their unemployment tax contributions - but have failed to satisfy the special procedures applicable to such cases. Defendants insist that because article XIII, section 32, of the California Constitution broadly precludes any suit to enjoin or impede collection of a tax (e.g., *Calfarm Ins. Co. v. Deukmejian* (1989) 48 Cal.3d 805, 838-841 [258 Cal.Rptr. 161, 771 P.2d 1247]; *Western Oil & Gas Assn. v. State Bd. of Equalization* (1987) 44 Cal.3d 208, 213 [242 Cal.Rptr. 334, 745 P.2d 1360]; *Pacific Gas & Electric Co. v. State Bd. of Equalization* (1980) 27 Cal.3d 277, 279-284 [165 Cal.Rptr. 122, 611 P.2d 463]), plaintiffs' claims for declaratory and injunctive relief are barred.

The only remedy constitutionally open to plaintiffs, defendants assert, is to pay their unemployment "taxes" and then seek a "refund" under the "exclusive" procedures set forth in the Unemployment Insurance Code. (Unemp. Ins. Code, §§ 1176 et seq., 1241, subd. (a).) Insofar as plaintiffs' complaint *does* seek reimbursement for past contributions, defendants suggest, plaintiffs have not correctly pursued the Unemployment Insurance Code procedures.

We question, but do not decide, whether a *public entity's* contributions to the state unemployment insurance system can ever constitute a "tax" subject ***63** to article XIII, section 32. Even if so, defendants' claim lacks merit under the circumstances presented here.

"The policy behind [article XIII,] section 32 is to allow revenue collection to continue during [tax] litigation so that essential public services dependent on the funds are not unnecessarily disrupted. [Citation.] ...." (*Pacific Gas & Electric Co., supra*, 27 Cal.3d at p. 283.) The administrative "refund" procedures established by the unemployment insurance law are designed to ensure initial examination of unemployment tax disputes by the agency with specific expertise in that area.

However, plaintiffs attempt no challenge, direct or indirect, to the validity or application of the unemployment insurance law as such, or to the propriety of any "tax" assessed thereunder. Nor have plaintiffs bypassed the agency or procedures established to decide such disputes.

Rather, plaintiffs claim that *all* their costs of affording unemployment compensation to their employees are subject to a statutory and constitutional *subvention* which the state refuses to make. It is incidental that these costs happen to include what might be characterized as a "tax." As the subvention statutes require, plaintiffs City and County have pursued all available remedies before the agency (formerly the Board, now the Commission) created to decide *subvention* issues; that agency has upheld their submitted claims in full, but the necessary appropriations have been withheld.

Under these circumstances, the Legislature has concluded that a local entity should be forced to continue incurring the unfunded costs subject to "refund." Rather, the entity is expressly authorized to bring suit to declare such an unfunded mandate *unenforceable*. (Rev. & Tax. Code, former § 2255, subd. (c); Gov. Code, § 17612, subd. (b).) [6]

The importance of such a remedy stems from the fundamental legislative prerogative to control appropriations. ([4]) Under the separation of powers doctrine, the Legislature cannot be compelled to

appropriate or authorize the disbursement of specific funds. (*Mandel* v. *Myers* (1981) 29 Cal.3d 531, 540 [174 Cal.Rptr. 841, 629 P.2d 935].) Since the Legislature will have demonstrated its refusal to fund a particular mandate by the time a mandamus action is filed, the literal "tax refund" process urged by defendants may often be meaningless.

([3b]) Insofar as plaintiffs also seek reimbursement for past expenses, similar considerations dictate that the governing statutes are those created ***64** to resolve subvention problems rather than garden-variety disputes over the unemployment insurance tax. [7] We find nothing in the language, history, or purpose of article XIII, section 32, or of the unemployment insurance law, which bars the instant complaint. We therefore have jurisdiction to decide whether chapter 2/78 constitutes a reimbursable mandate.

III. Collateral Estoppel; Res Judicata.

([5a]) However, *plaintiffs* claim that because *Sacramento I* "finally" decided whether chapter 2/78 constitutes a reimbursable state mandate, the *state* and its agents are collaterally estopped from relitigating the issue here. The Court of Appeal agreed that the doctrine of collateral estoppel applies. Under the circumstances, we are not persuaded.

([6]) Generally, collateral estoppel bars the party to a prior action, or one in privity with him, from relitigating issues finally decided against him in the earlier action. (*Clemmer v. Hartford Insurance Co.* (1978) 22 Cal.3d 865, 874 [151 Cal.Rptr. 285, 587 P.2d 1098].) "... But when the issue is a question of law rather than of fact, the prior determination is not conclusive either if injustice would result or if the public interest requires that relitigation not be foreclosed. [Citations.] ...." (*Consumers Lobby Against Monopolies v. Public Utilities Com.* (1979) 25 Cal.3d 891, 902 [160 Cal.Rptr. 124, 603 P.2d 41].)

([5b]) Even if the formal prerequisites for collateral estoppel are present here, the public-interest exception governs. Whether chapter 2/78 costs are reimbursable under article XIII B and parallel statutes constitutes a pure question of law. The *state* was the losing party in *Sacramento I*, and also the only entity legally affected by that decision. Thus, strict application of collateral estoppel would foreclose any reexamination of the holding of that case. The state would remain bound, and no other person would have occasion to challenge the precedent.

Yet the consequences of any error transcend those which would apply to mere private parties. If the result of *Sacramento I* is wrong but unimpeachable, taxpayers statewide will suffer unjustly the consequences of the state's continuing obligation to fund the chapter 2/78 costs of local agencies. On the other hand, if the state fails to appropriate the funds to meet this ***65** obligation, and chapter 2/78 therefore cannot be enforced (Rev. & Tax. Code, former § 2255, subd. (c); Gov. Code, § 17612, subd. (b)), the resulting failure to comply with federal law could cost California employers millions. [8] ([7]) **(See fn. 9.)**, ([5c]) Under these circumstances, neither stare decisis nor collateral estoppel can permanently foreclose our ability to examine the reimbursability of chapter 2/78 costs. [9]

([8]) As below, plaintiffs also argue that reconsideration of *Sacramento I* is precluded by res judicata. They suggest that the prior litigation resolved not only the *legal issues* presented by this appeal, but all *claims* among the current parties as well.

Of course, res judicata and the rule of final judgments bar us from disturbing individual claims or causes of action, on behalf of specific agencies, which have been finally adjudicated and are no longer subject to review. (Code Civ. Proc., § 1908 et seq.; *Slater, supra*, 15 Cal.3d at p. 796; *Bernhard v. Bank of America* (1942) 19 Cal.2d 807, 810 [122 P.2d 892].) However, the issues presented in the current action are not limited to the validity of any such finally adjudicated individual claims. Rather, they encompass the question of defendants' subvention obligations *in general* under chapter 2/78. We therefore conclude that defendants may contend in this lawsuit that chapter 2/78 is not a reimbursable state mandate. [10] We turn to the merits of that issue. ***66**

IV. "New Program" or "Increased Service"?

([9a]) As before, defendants urge that by extending unemployment insurance coverage to local government employees, the Legislature did not mandate a "new program" or an "increased" or "higher level of service" on local governments. Thus, they assert, the local costs of providing such coverage are not subject to subvention under article XIII B, section 6, or parallel statutes. (Rev. & Tax. Code, former §§ 2207, 2231, subd. (a); Gov. Code, §§

17514, 17561, subd. (a).) The trial court granted summary judgment for defendants on this basis. Contrary to the conclusions reached by the Court of Appeal, the trial court's ruling was correct.

Our analysis is controlled by our decision in *County of Los Angeles*. There we determined that a general increase in workers' compensation benefits did not, when applied to local governments, constitute a reimbursable state mandate under article XIII B.

In so holding, we focused on the particular language of article XIII B, section 6, which requires state subvention of a local government's costs of any "new program" or "increased level of service" imposed upon it by the state. We dismissed the notion that, by employing the quoted phrases, the voters intended *all* local costs resulting from compliance with state law to be subject to mandatory reimbursement. Rather, we explained, "[t]he concern which prompted the inclusion of section 6 in article XIII B was the perceived attempt by the state to enact legislation or adopt administrative orders creating programs to be administered by local agencies, thereby transferring to those agencies the fiscal responsibility for providing services which the state believed should be extended to the public. ..." (43 Cal.3d at p. 56.)

Under these circumstances, we reasoned, the electorate must have intended the undefined terms "new program" and "increased level of service" to carry their "commonly understood meanings ... - programs that carry out the governmental function of providing *services to the public*, or laws which, to implement a state policy, impose *unique requirements* on local governments and do not apply generally to all residents and entities in the state." (43 Cal.3d at p. 56, italics added.)

Local governments' costs of complying with a general statewide increase in the level of workers' compensation benefits do not qualify under these standards, we concluded. As we noted, "... [w]orkers' compensation is not a program administered by local agencies to provide service to the public. ([10]) **(See fn. 11.)** Although local agencies must provide benefits to ***67** their employees ..., they are indistinguishable in this respect from private employers. ..." (43 Cal.3d at p. 58.) [11]

([9b]) Similar considerations apply here. By requiring local governments to provide unemployment compensation protection to their own employees, the state has not compelled provision of new or increased "service to the public" at the local level. Nor has it imposed a state policy "unique[ly]" on local governments. Most private employers in the state already were required to provide unemployment protection to their employees. Extension of this requirement to local governments, together with the state government and nonprofit corporations, merely makes the local agencies "indistinguishable in this respect from private employers."

Plaintiffs nonetheless suggest there are several bases for reaching a different result here than in *County of Los Angeles*. None of the asserted distinctions has merit.

Plaintiffs first note the proponents' declaration in the voters' pamphlet that the purpose of article XIII B, section 6, was to prevent the state from "forcing" unfunded programs on local agencies. Plaintiffs invoke this pamphlet language for the proposition that any new cost "forced" on local governments by state law is subject to subvention.

The claim is directly contrary to our holding in *County of Los Angeles*. As we explained, "[i]n ... context, the [pamphlet] phrase 'to force *programs* on local governments' confirms that the intent underlying section 6 [of article XIII B] was to require reimbursement to local agencies for the costs involved in carrying out *functions peculiar to government*, not for expenses incurred by local agencies as an *incidental impact* of laws that apply generally to all state residents and entities. ... [¶] The language of section 6 is far too vague to support an inference that ... each time the Legislature ***68** passes a law of general application it must discern the likely effect on local governments and provide an appropriation to pay for any incidental increase in local costs. ..." (43 Cal.3d at pp. 56-57, italics added.) [12]

Plaintiffs next urge the Court of Appeal's premise - that chapter 2/78 did impose a "unique" requirement on local agencies within the meaning of *County of Los Angeles*, since it applied only to them, and compelled costs to which they were not previously subject. Plaintiffs cite our recent decision in *Lucia Mar Unified School Dist.* v. *Honig* (1988) 44 Cal.3d 830 [244 Cal.Rptr. 677, 750 P.2d 318]. There we held, inter alia, that by requiring each local school district to contribute part of the expense of educating its handicapped students in state-run schools - a cost

previously absorbed entirely by the state - the Legislature created a "*new* program" subject to subvention under article XIII B, section 6. As we observed, "although the schools for the handicapped have been operated by the state for many years, the program was *new insofar as [the local districts] are concerned* ...." (P. 835, italics added.)

Lucia Mar is inapposite here. The education of handicapped students was clearly a traditional governmental "service to the public," and it qualified as a "program" on that basis. This function had long been performed by the state, and the only issue was whether the belated shifting of the program's costs to local governments made it "new" for subvention purposes. A negative answer to that question would have undermined a central purpose of article XIII B, section 6 - to prevent the state's transfer of the *cost of government* from *itself* to the local level.

Here, the issue is whether costs *unrelated* to the provision of public services are *nonetheless* reimbursable costs of government, because they are imposed on local governments "unique[ly]," and not merely as an incident of compliance with general laws. State and local governments, and non-profit corporations, had previously enjoyed a special *exemption* from requirements imposed on most other employers in the state and nation. Chapter 2/78 merely eliminated the exemption and made these previously exempted entities subject to the general rule. By doing so, it may have imposed a requirement "new" to local agencies, but that requirement was not "unique." ***69**

The distinction proposed by plaintiffs would have an anomalous result. The state could avoid subvention under *County of Los Angeles* standards by imposing new obligations on the public and private sectors *at the same time*. However, if it chose to proceed by stages, extending such obligations first to private entities, and only later to local governments, it would have to pay. This was not the intent of our recent decision.

Next, plaintiffs complain that the new costs imposed on local governments by chapter 2/78 are too great to be deemed "incidental" within the meaning of *County of Los Angeles*. However, our decision did not use the word "incidental" to mean merely "insignificant in amount." Rather, we declared that the state need not reimburse local governments for expenses *incidentally imposed* upon them by laws of general application. In *County of Los Angeles*, we assumed that the expenses imposed *in common* on the private and public sectors by such a general law - as by the across-the-board increase in workers' compensation benefits there at issue - might be substantial. Notwithstanding this possibility, we found the voters did not intend to require a state subsidy of the public sector in such cases. (43 Cal.3d at pp. 56-58.)

Finally, plaintiffs and their amici curiae urge us to overrule *County of Los Angeles*. They insist that our "program" and "unique requirement" limitations conflict with the language and purpose of article XIII B. First, they note that *nonreimbursable* state-mandated costs are expressly listed in subdivisions (a) through (c) of article XIII B, section 6.[13] Under the maxim *inclusio unius est exclusio alterius*, they reason, further exceptions may not be implied. Second, they assert, our limiting construction allows the state to "force" many costly but unfunded requirements on local governments, which the latter must absorb without relief from their own article XIII B spending limits. This, they aver, cannot have been the voters' intent.

These arguments misapprehend both the language of article XIII B, section 6, and our *County of Los Angeles* holding. Our reasoning in that case is not inconsistent with subdivisions (a) through (c) of section 6. Those paragraphs simply exclude certain state-imposed costs *even if they would otherwise be reimbursable under the "new program" or "increased service"* ***70** *standards*. Subdivisions (a) through (c) do not purport to define what constitutes a "new program" or "increased level of service."

Moreover, the "program" and "service" standards developed in *County of Los Angeles* create no undue risk that the state will impose expensive unfunded obligations against local agencies' article XIII B spending limits. On the contrary, our standards require reimbursement whenever the state freely chooses to impose on local agencies *any* peculiarly "governmental" cost which they were not previously required to absorb.

On the other hand, as we explained in *County of Los Angeles*, extension of the subvention requirements to costs "incidentally" imposed on local governments would require the Legislature to assess the fiscal effect on local agencies of each law of general application. Moreover, it would subject much general legislation to

the supermajority vote required to pass a companion local-government revenue bill. Each such necessary appropriation would, in turn, cut into the *state's* article XIII B spending limit. (§ 8, subd. (a).) We concluded that nothing in the language, history, or apparent purpose of article XIII B suggested such far-reaching limitations on legitimate state power. (43 Cal.3d at pp. 56-58.)

We remain persuaded by this reasoning. [14] We decline to overrule *County of Los Angeles*. Under the teaching of that case, we hold that chapter 2/78 imposes no local costs which must be reimbursed pursuant to article XIII B, section 6, and parallel statutes.

V. "Federal" Mandate?

([11a]) This case proceeded through the Court of Appeal solely on the issue whether chapter 2/78 constitutes a reimbursable "state mandate," as defined in *County of Los Angeles*. After we granted review, and in the public interest, we also decided to reexamine a related holding contained in *Sacramento I* - that chapter 2/78 does not qualify as a "federal" mandate.

Proper application of the "federal mandate" concept has important implications beyond subvention. A "cost mandated by the federal government" is exempt from a local government's statutory taxation limit. (Rev. & Tax. Code, § 2271.) Moreover, an appropriation required to comply with a ***71** federal mandate is excluded from the constitutional spending limit of any affected entity, state or local (Cal. Const., art. XIII B, § 9 (b)). Accordingly, we requested supplemental briefs on this question. [15]

After due consideration, we reject *Sacramento I's* premise. We conclude that chapter 2/78 does impose "costs mandated by the federal government," as described in article XIII B and parallel statutes. [16]

Article XIII B, section 9(b), defines federally mandated appropriations as those "required for purposes of complying with mandates of ... the federal government which, *without discretion*, require an expenditure for additional services or which *unavoidably make the providing of existing services more costly*." (Italics added.)

As in *Sacramento I*, plaintiffs argue that the words "without discretion" and "unavoidably" require clear *legal* compulsion not present in Public Law 94-566. Defendants respond, as before, that the consequences of California's failure to comply with the federal "carrot and stick" scheme were so substantial that the state had no realistic "discretion" to refuse. [17] In *Sacramento I*, the Court of Appeal adopted plaintiffs' narrow view. On reflection, we disagree.

Though section 9(b) seems plain on its face, we find a latent ambiguity in context. At the time article XIII B was adopted, United States Supreme Court decisions construing the Tenth Amendment *severely limited* federal power to dictate policy or programs to the sovereign states or their subdivisions. [18] Indeed, by its early ruling that federal unemployment insurance ***72** laws did not violate state sovereignty insofar as they merely employed a "carrot and stick" to induce state compliance (*Steward Machine Co.* v. *Davis, supra*, 301 U.S. 548, 585-593 [81 L.Ed. 1279, 1290-1294]), the high court helped set the stage for two generations of pervasive federal regulation by this indirect means. [19]

Just three years before article XIII B was adopted, the court struck down, on Tenth Amendment grounds, Congress's effort to extend the minimum-wage and maximum-hour requirements of the Fair Labor Standards Act directly to local government employees. (*National League of Cities v. Usery* (1976) 426 U.S. 833 [49 L.Ed.2d 245, 96 S.Ct. 2465].) Overruling earlier authority (see *Maryland* v. *Wirtz* (1968) 392 U.S. 183 [20 L.Ed.2d 1020, 88 S.Ct. 2017]), the court held in *Usery, supra*, that constitutional principles of federalism prohibit Congress from using its otherwise "plenary" commerce power against the "States as States," so as to interfere with the essential "attributes of [state government] sovereignty." (426 U.S. at pp. 840-855 [49 L.Ed.2d at pp. 250-260].) Accordingly, said the court, Congress could not "force directly upon the States its choices as to how essential decisions regarding the conduct of integral governmental functions are to be made. ..." (*Id.*, at p. 855 [49 L.Ed.2d at p. 259].)

Usery dealt with federal efforts to regulate sovereign units of government as employers. However, the court's rationale obviously applied with equal or greater force to direct federal regulation of state and local governments *as governments*. Under *Usery's* reasoning, it seems manifest that Congress's direct power to require or prohibit substantive governmental policies or programs

by state or local agencies was greatly curtailed. Such power would interfere impermissibly with "integral governmental functions" and essential "attributes of [state] sovereignty. [20] ***73**

After article XIII B's adoption, both the result and the reasoning of *Usery* were overruled in *Garcia v. San Antonio Metro. Transit Auth.* (1985) 469 U.S. 528 [83 L.Ed.2d 1016, 105 S.Ct. 1005]. In *Garcia*, a five-justice majority concluded that the political structure of the federal system, rather than rigid categories of inviolable state "sovereignty," constitutes state and local governments' primary protection against Congress's overreaching efforts to regulate them. (Pp. 547-555 [83 L.Ed.2d at pp. 1031-1037].)

However, this later development does not alter two crucial facts extant when article XIII B was enacted. First, the power of the federal government to impose its direct regulatory will on state and local agencies was *then* sharply in doubt. Second, in conformity with this principle, the vast bulk of cost-producing federal influence on government at the state and local levels was by inducement or incentive rather than direct compulsion. [21] That remains so to this day.

Thus, if article XIII B's reference to "federal mandates" were limited to strict legal compulsion by the federal government, it would have been largely superfluous. [22] ([12]) It is well settled that "constitutional ... enactments must receive a liberal, practical common-sense construction which will meet changed conditions and the growing needs of the people. [Citations.] ...." (*Amador Valley Joint Union High Sch. Dist. v. State Bd. of Equalization* (1978) 22 Cal.3d 208, 245 [149 Cal.Rptr. 239, 583 P.2d 1281].) While "[a] constitutional amendment should be construed in accordance with the natural and ordinary meaning of its words[,] [citation] [, t]he literal language of enactments may be disregarded to avoid absurd results and to fulfill the apparent intent of the framers. [Citations.]" (*Ibid.*)

([11b]) As the drafters and adopters of article XIII B must have understood, certain regulatory standards imposed by the federal government ***74** under "cooperative federalism" schemes are coercive on the states and localities in every practical sense. The instant facts amply illustrate the point. Joint federal-state operation of a system of unemployment compensation has been a fundamental aspect of our political fabric since the Great Depression. California had afforded federally "certified" unemployment insurance protection to its workers for over 40 years by the time Public Law 94-566, chapter 2/78, and article XIII B were adopted. Every other state also operated such a system. If California failed to conform its plan to new federal requirements as they arose, its businesses faced a new and serious penalty - full, double unemployment taxation by both state and federal governments. Besides constituting an intolerable expense against the state's economy on its face, this double taxation would place California employers at a serious competitive disadvantage against their counterparts in states which remained in federal compliance.

Plaintiffs and their amici curiae suggest California could have chosen to terminate its own unemployment insurance system, thus leaving the state's employers faced only with the federal tax. However, we cannot imagine the drafters and adopters of article XIII B intended to force the state to such draconian ends.

Here, the state simply did what was necessary to avoid certain and severe federal penalties upon its resident businesses. The alternatives were so far beyond the realm of practical reality that they left the state "without discretion" to depart from federal standards. We therefore conclude that the state acted in response to a federal "mandate" for purposes of article XIII B. [23] ***75**

Unlike the *Sacramento I* court, we deem significant the Legislature's persistent agreement with our construction. In 1980, after the adoption of article XIII B, it amended the statutory definition of "costs mandated by the federal government" to provide that these include "costs resulting from enactment of a state law or regulation where failure to enact such law or regulation to meet specific federal program or service requirements would result in *substantial monetary penalties* or *loss of funds* to *public or private persons* in the state. ..." (Rev. & Tax. Code, § 2206, italics added; Stats. 1980, ch. 1256, § 3, p. 4247.)

In *Sacramento I*, the Court of Appeal declined to apply this statutory amendment "retroactively" to article XIII B. (156 Cal.App.3d at pp. 197-198.) The Legislature immediately responded. In 1984 statutes enacted for the express purpose of "implement[ing]" article XIII B (see Gov. Code, § 17500), the Legislature reiterated its 1980

definition. (*Id.*, § 17513; Stats. 1984, ch. 1459, § 1, p. 5114.)[24]

Plaintiffs contend that these statutory pronouncements deserve little interpretive weight since, among other things, they are "internally inconsistent." Plaintiffs stress the proviso in Revenue and Taxation Code, section 2206, and in Government Code, section 17513, that the phrase "' [c]osts mandated by the federal government' does *not* include costs which are specifically reimbursed or funded by the federal or state government or programs or services which may be implemented at the *option* of the state, local agency, or school district." (Italics added.)

We see no fatal inconsistencies. The first clause of the proviso merely confirms, as article XIII B itself specifies, that program funds voluntarily provided by another unit of government may not be excluded from the ***76** spending limits of recipient local agencies. (Compare art. XIII B, §§ 8, subd. (b), 9(b).) The second clause isolates a concern which we share - that state or local governments might otherwise claim "federally mandated costs " even where participation in a federal program, or compliance with federal " standards," is a matter of true choice. (Cf., e.g., *Carmel Valley Fire Protection Dist., supra*, 190 Cal.App.3d at pp. 542-544.)[25]

Given the variety of cooperative federal-state-local programs, we here attempt no final test for "mandatory" versus "optional" compliance with federal law. ([13]) A determination in each case must depend on such factors as the nature and purpose of the federal program; whether its design suggests an intent to coerce; when state and/or local participation began; the penalties, if any, assessed for withdrawal or refusal to participate or comply; and any other legal and practical consequences of nonparticipation, noncompliance, or withdrawal. Always, the courts and the Commission must respect the governing principle of article XIII B, section 9(b): neither state nor local agencies may escape their spending limits when their participation in federal programs is truly voluntary.

([11c]) For reasons expressed above, we are satisfied under these standards that chapter 2/78 did implement a federal "mandate" within the meaning of article XIII B and prior statutes restricting local taxation. Hence, subject to superseding constitutional ceilings on taxation by state and local governments, an agency governed by chapter 2/78 may tax and spend as necessary to meet the expenses required to comply with that legislation. To the extent *Sacramento I* is inconsistent with our analysis, that decision is disapproved.

VI. Conclusion.

We have concluded that chapter 2/78 is a "federal mandate" which exempts affected state and local agencies from pertinent limits on their power to tax, appropriate, and spend. However, local governments' expenses ***77** of complying with chapter 2/78 are not subject to compulsory state subvention, because chapter 2/78 imposed no new or increased "program or service," and no "unique" requirement, on local agencies. The contrary judgment of the Court of Appeal is reversed.

Lucas, C. J., Mosk, J., Broussard, J., Panelli, J., and Kennard, J., concurred.

KAUFMAN, J.,

Concurring and Dissenting.

I concur in the judgment. Given this court's decision in *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46 [233 Cal.Rptr. 38, 729 P.2d 202], I am compelled to agree that the obligation imposed on local governments by the 1978 state unemployment insurance legislation is not a "new program or higher level of service" within the meaning of article XIII B, section 6, of the California Constitution, and that for this reason the state is not constitutionally obligated to provide a subvention of funds to reimburse the unemployment insurance costs of local governments. I respectfully dissent, however, from the additional conclusion, stated in part V of the majority opinion, that these unemployment insurance costs are "mandates of ... the federal government" and therefore exempt from the state and local government appropriation limits of article XIII B and from property taxation limits imposed by statute. In reaching this additional conclusion the majority decides an issue not raised by the parties and completely outside the scope of this action. As so often happens when a court reaches beyond the confines of the case before it to render a gratuitous advisory opinion, the majority decides the issue incorrectly.

All too frequently in recent years (see, e.g., *S. G. Borello & Sons, Inc. v. Department of Industrial Relations* (1989) 48 Cal.3d 341, 345, fn. 1 [256 Cal.Rptr. 543, 769 P.2d 399]) this court, in its misguided zeal to provide enlightenment, has reached out to decide an issue not tendered by the parties. The majority's failure to exercise proper judicial restraint in the instant case is another example of this trend and one I find particularly disturbing since it violates a fundamental and venerable tenet of judicial practice - i.e., "A court will not decide a constitutional question unless such construction is absolutely necessary." (*Estate of Johnson* (1903) 139 Cal. 532, 534 [73 P. 424]; accord, *People* v. *Williams* (1976) 16 Cal.3d 663, 667 [128 Cal.Rptr. 888, 547 P.2d 1000]; *Palermo v. Stockton Theatres, Inc.* (1948) 32 Cal.2d 53, 65 [195 P.2d 1].) The federal mandate issue which the majority here decides, because it turns on the proper construction of article XIII B, section 9, of our state Constitution, is a constitutional issue. Using this case to resolve that issue is, to my mind, indefensible.

To see just how far the majority has wandered from the issues essential to the proper resolution of this case, one need only point out that this action ***78** was not brought to settle a dispute about taxation or appropriation limits, nor has this court been informed that any such dispute exists. Rather, this action was brought to enforce the holding in *City of Sacramento v. State of California* (1984) 156 Cal.App.3d 182 [203 Cal.Rptr. 258] (*Sacramento I*), that the state is constitutionally obligated to reimburse the unemployment insurance costs of local governments. The governmental entities litigating this proceeding have not sought a judicial determination of the 1978 unemployment insurance legislation's effect on their statutory or constitutional taxing or spending limits, nor have they raised any issue regarding whether unemployment insurance costs are federally mandated for any purpose. The federal mandate issue was first injected into the case by this court when we requested additional briefing on the questions whether the unemployment insurance costs of local governments are federally mandated under article XIII B, section 9, of the state Constitution and, if so, whether this conclusion necessarily exempts the state from any obligation it might otherwise have to reimburse local governments for these costs.

The majority's federal mandate discussion does not even provide an alternative ground for the holding denying reimbursement of local governments' unemployment insurance costs, for the majority purports to decide whether unemployment insurance costs are federally mandated without deciding whether resolution of this issue has any bearing on entitlement to reimbursement (see maj. opn., *ante*, p. 71, fn. 16). The majority's only justification for deciding whether unemployment insurance costs are federally mandated is that the issue has " important implications" inasmuch as federally mandated costs are "exempt from a local government's statutory taxation limit (Rev. & Tax. Code, § 2271) " and "from the constitutional spending limit of any affected entity, state or local (Cal. Const., art. XIII B, § 9(b))." (Maj. opn., *ante*, pp. 70-71.) But the present case is an inappropriate vehicle for deciding these weighty issues since neither the state nor the local entities have any reason to contest the other's exemptions from spending or taxation limits. In other words, the parties now before us are not adverse on these issues and so have not defined and argued opposing points of view with the vigor and thoroughness essential to proper judicial resolution of complex legal questions, particularly those of constitutional magnitude. Those who might have argued in favor of including unemployment insurance costs in the taxing and spending limits - for example, the proponents of the initiative measure by which article XIII B was enacted - are not represented in this proceeding.

Were the issue properly presented in this case, I would conclude that the unemployment insurance costs are not federally mandated. The text of a constitution "should be construed in accordance with the natural and ordinary meaning of its words." (***79** *Amador Valley Joint Union High Sch. Dist.* v. *State Bd. of Equalization* (1978) 22 Cal.3d 208, 245 [149 Cal.Rptr. 239, 583 P.2d 1281].) The language at issue here excludes from the definition of " appropriations subject to limitation" those appropriations " required for purposes of complying with *mandates* of the courts or the federal government which, *without discretion, require* an expenditure for additional services or which *unavoidably* make the providing of existing services more costly. " (Cal. Const., art. XIII B, § 9, subd. (b), italics added.)

The meaning of this language is clear; to look beyond the text for some other meaning is both unnecessary and improper under accepted rules of constitutional interpretation. (See *State Board of Education* v. *Levit* (1959) 52 Cal.2d 441, 462 [343 P.2d 8]; *People v. Knowles*

(1950) 35 Cal.2d 175, 182-183 [217 P.2d 1].) A "mandate" is "an order, command [or] charge." (*Xth Olympiad Com. v. American Olym. Assn.* (1935) 2 Cal.2d 600, 604 [42 P.2d 1023]; see also, *Morris* v. *County of Marin* (1977) 18 Cal.3d 901, 908 [136 Cal.Rptr. 251, 559 P.2d 606] ["mandatory duty" is "an obligatory duty which a governmental entity is required to perform"]; *Bridgman v. American Book Co.* (1958) 12 Misc.2d 63, 66 [173 N.Y.S.2d 502, 506] ["mandate" is "a command, order or direction ... which a person is bound to obey"].) The mandates to which the constitutional provision at issue refers are those "of the courts or the federal government." The coercive force of court mandates is, of course, the force of law. That "mandates of ... the federal government" are similarly limited to those obligations imposed by force of federal law is shown not only by the term "mandate" itself but also by the terms "without discretion " and " unavoidably," which plainly exclude any form of inducement using political or economic pressure rather than legal compulsion.

Laws limiting governmental appropriations and indebtedness have traditionally exempted two categories of expenditures: those required to meet emergencies and those required to satisfy duties or mandates imposed by law. (See, e.g., *County of Los Angeles v. Byram* (1951) 36 Cal.2d 694, 698-700 [227 P.2d 4]; *County of Los Angeles* v. *Payne* (1937) 8 Cal.2d 563, 569-575 [66 P.2d 658]; *State* v. *City Council of City of Helena* (1939) 108 Mont. 347 [90 P.2d 514, 516]; *Raynor v. King County* (1940) 2 Wn.2d 199 [97 P.2d 696, 707].) The latter category has been interpreted as including only those obligations compelled by force of law, as opposed to economic or political necessity or expedience. (See *County of Los Angeles v. Byram, supra*, at pp. 698-700; *County of Los Angeles* v. *Payne, supra*, at pp. 573-574.) Article XIII B of the California Constitution follows the pattern of other similar laws; it provides exemptions for emergency appropriations in section 3, subdivision (c), and for legal duties or "mandates" in section 9, subdivision (b). I see no basis for concluding that the term "mandate," which in the context of government debt and appropriation limitations has traditionally ***80** meant a duty imposed by force of law, has suddenly acquired a novel and more expansive meaning in section 9. On the contrary, the drafters of section 9 appear to have taken pains to avoid any such interpretation.

As stated in *Sacramento I*, "The concept of federal mandates ... is defined in section 9 of article XIII B. Subdivision (b) of that section excludes from a governmental entity's appropriation limit '[a]ppropriations required for purposes of complying with mandates of ... the federal government which, *without discretion, require* an expenditure' by the governmental entity. (Italics added.) As contemplated by article XIII B, section 9, a federal mandate is one pursuant to which the federal government imposes a cost upon a governmental entity, and the entity has *no discretion* to refuse the cost. Chapter 2 [the 1978 unemployment insurance legislation] was not a federal mandate within this constitutional definition, as the State had the discretion to participate or not in the federal unemployment insurance system. " (*Sacramento I, supra*, 156 Cal.App.3d 182, 197, italics in original.) Giving the constitutional language its usual and ordinary meaning, I agree with the Court of Appeal that federal law "mandates" an expenditure only if the expenditure is legally compelled, and not if the federal law merely provides economic or political inducements, no matter how powerful or coercive. Since it is undisputed that the state was under no legal compulsion to enact the 1978 unemployment insurance legislation, the burdens of that legislation are not " mandates of ... the federal government."

In support of its contrary conclusion, the majority reasons as follows: (1) when article XIII B of the California Constitution was drafted and enacted, the Tenth Amendment to the United States Constitution had been construed to prohibit Congress from imposing costs on state and local governments; (2) as a result, virtually all federal laws imposing costs on state and local governments did so through "carrot and stick" incentive programs rather than by direct legal compulsion; and (3) the exemption for "mandates of ... the federal government" must be construed to encompass at least some of these incentive programs because otherwise it would be almost entirely superfluous. I find each of these points highly questionable, if not demonstratively unsound.

First, the Tenth Amendment has never been interpreted as entirely prohibiting the federal government from imposing costs on state and local government. Rather, *National League of Cities v. Usery* (1976) 426 U.S. 833 [49 L.Ed.2d 245, 96 S.Ct. 2465] defined an exception to the broad sweep of Congress's commerce clause authority. Under

this exception, "traditional governmental functions" of state and local governments were protected from direct and intrusive federal regulation. (426 U.S. at p. 852 [49 L.Ed.2d at pp. 257-258].) As explained in *Garcia v. San Antonio Metro. Transit* ***81** *Auth.* (1985) 469 U.S. 528, 538-547 [83 L.Ed.2d 1016, 1025-1032, 105 S.Ct. 1005], the result was an inconsistent patchwork of decisions upholding or striking laws depending on whether the regulated activities were perceived by the court as being traditionally associated with state or local government or constituting " attributes of state sovereignty." Thus, a significant number of laws imposing costs on state and local governments survived Tenth Amendment scrutiny even before the decision in *Garcia v. San Antonio Metro. Transit Auth., supra*. (See, e.g., *EEOC v. Wyoming* (1983) 460 U.S. 226 [75 L.Ed.2d 18, 103 S.Ct. 1054] [holding state and local government employee retirement policies subject to federal age discrimination regulations]; see generally, Skover, *"Phoenix Rising" and Federalism Analysis* (1986) 13 Hastings Const.L.Q. 271, 286-288.) More importantly, however, I see no reason to assume that the drafters of article XIII B intended that the federal mandate exemption would have broad application, encompassing a large number of federal programs. Rather, construing the exemption narrowly seems entirely consistent with the probable intent of those who drafted the provision.

The test proposed by the majority for identifying those incentive programs which qualify as "mandates of ... the federal government" will require an extensive factual inquiry into the practical consequences of noncompliance with the federal law. It will be burdensome to apply and its outcome will be difficult to predict. Besides being wholly unnecessary to resolution of this case, and violating the probable intent of the voters who enacted article XIII B of the California Constitution, [1] the majority's discussion of the federal mandate issue is certain to generate more difficulties than it resolves. ***82**

Footnotes

1 Article XIII B is to be distinguished from article XIII A, which was adopted as Proposition 13 at the June 1978 election. Article XIII A imposes a direct constitutional limit on state and local power to *adopt and levy taxes*. Articles XIII A and XIII B work in tandem, together restricting California governments' power both to levy and to spend for public purposes. Moreover, to the extent "federally mandated" costs are exempt from prior *statutory* limits on local *taxation* (see *ante*, at pp. 57-58), article XIII A eliminates the exemption insofar as it would allow levies in excess of the constitutional ceiling. All further section references are to article XIII B of the California Constitution, unless otherwise indicated.

2 The claims for reimbursement were originally premised entirely on Revenue and Taxation Code section 2201 et seq. While the City's and the County's mandamus petitions were pending in superior court, article XIII B was adopted. The City and the County amended their petitions to include article XIII B as an additional basis for relief, and the case proceeded accordingly.

3 The trial court also sustained the Legislature's demurrer without leave to amend and dismissed the Legislature as a party defendant. The Court of Appeal affirmed the dismissal in a separate proceeding. (See *City of Sacramento v. California State Legislature* (1986) 187 Cal.App.3d 393 [231 Cal.Rptr. 686].)

4 Amicus curiae briefs were filed on behalf of plaintiffs by (1) the League of California Cities, the Association of California Water Agencies, and the Fire District Association of California, and (2) the County of Los Angeles and the County Supervisors Association of California.

5 In 1986, the Legislature repealed sections 2250-2255 of the Revenue and Taxation Code. (Stats. 1986, ch. 879, §§ 37-48, p. 3047.) The Board's functions have been transferred to the Commission on State Mandates (Commission), but the procedures for administrative and judicial determination of subvention disputes remain functionally similar. (Gov. Code, §§ 17500 et seq., 17600 et seq.)

6 Indeed, when the City filed protective claims for "refund" with EDD in the wake of *Sacramento I*, that agency consistently disclaimed authority to decide the subvention issue presented and "suggest[ed]" that the City pursue its remedies before the Commission.

7 As we note above, courts are powerless to compel appropriations *per se*. However, that fact does not render a prayer for reimbursement of *past* costs wholly meaningless. California courts have previously recognized judicial power to fashion other appropriate reimbursement remedies. (See, e.g., *Carmel Valley Fire Protection Dist., supra*, 190 Cal.App.3d at pp. 550-552; also cf. *Mandel, supra*, 29 Cal.3d at pp. 535-537, 539-552.) Such power is especially important where subvention is constitutionally compelled.

8 For these reasons, this case is distinguishable from *Slater v. Blackwood* (1975) 15 Cal.3d 791 [126 Cal.Rptr. 225, 543 P.2d 593], cited by the Court of Appeal. *Slater*, a suit between private parties, held only that the "injustice" exception to the rule of collateral estoppel cannot be based *solely* on an intervening change in the law. (P. 796.) Here, as we note, overriding public-interest issues are involved.

9 By the same token, the state has not ignored available remedies or otherwise "waived" its right to argue the issues presented by this appeal. The state immediately raised the applicability of *County of Los Angeles* to this suit once our decision therein became final.

Plaintiffs claim the instant trial court had no power to grant summary judgment for defendants on authority of *County of Los Angeles*. Plaintiffs assert that because defendants failed to seek timely mandamus review of the prior, contrary order granting summary adjudication of issues in *plaintiffs'* favor, the issues decided by the earlier order must be "deemed established." (See Code Civ. Proc., § 437c, subd. (f).) We disagree. Failure to challenge a summary adjudication order by the *discretionary* avenue of writ review cannot foreclose a party from asserting *subsequent* changes in law which render such a pretrial order incorrect.

10 Plaintiffs imply that because the original claims by the City and the County were filed decided as statutory "test claims" (Rev. & Tax. Code, former §§ 2218, 2253.2; see now Gov. Code, §§ 17555, 17557), the "cause of action" adjudicated therein encompasses *all* claims by *all* local agencies for *all* years. However, the obvious purpose of the statutory "test claim" procedure is to resolve the *legal issue whether particular state legislation creates a reimbursable mandate*, not to adjudicate every individual claim for reimbursement which may thereafter accrue. The "test claim" result has *precedential* effect for all subsequent claims, but res judicata effect only for the individual claims which were actually adjudicated.

11 While our discussion centered on the meaning of section 6 of article XIII B, it relied heavily on the legislative history of parallel provisions of the 1972 and 1973 property tax relief statutes. When article XIII B was adopted in November 1979, the Revenue and Taxation Code already required state subvention of local "[c]osts mandated by the state," defined as "any increased costs which a local agency is required to incur as a result of ... [¶] [a]ny law enacted after January 1, 1973, which mandates a *new program* or an *increased level of service* of an existing program." (Rev. & Tax. Code, former §§ 2207 [italics added], 2231, subd. (a).) However, a further statutory definition of "increased level of service" to include any state mandate "which makes necessary expanded or additional costs to a county, city and county, city, or special district" had been repealed in 1975. (*County of Los Angeles*, 43 Cal.3d at p. 55; see Rev. & Tax. Code, former § 2231, subd. (e), repealed by Stats. 1975, ch. 486, § 6, p. 999.) We found the repealer significant to the limited meaning of the statutory term "increased level of service" as later incorporated in article XIII B. (43 Cal.3d at pp. 55-56.) Our implicit conclusion, which we now make explicit, was that the statutory and constitutional concepts of reimbursable state-mandated costs are identical.

12 Indeed, our reasoning here was expressly foreshadowed in *County of Los Angeles*. There we observed: "The Court of Appeal reached a different conclusion in [*Sacramento I*], with respect to a newly enacted law requiring that all public employees be covered by unemployment insurance. Approaching the question as ... whether the expense was a 'state mandated cost,' rather than as whether the provision of an employee benefit was a 'program or service' within the meaning of the Constitution, the court concluded that reimbursement was required. To the extent that this decision is inconsistent with our conclusion here, it is disapproved." (43 Cal.3d at p. 58, fn. 10.)

13 Article XIII B, section 6, provides that the state shall provide a subvention of funds to reimburse a local agency for costs incurred by the agency "[w]henever the [state] mandates [on the agency] a new program or higher level of service ..., except that the Legislature may, but need not, provide such subvention of funds for the following mandates: [¶] (a) Legislative mandates requested by the local agency affected; [¶] (b) Legislation defining a new crime or changing an existing definition of a crime; or [¶] (c) Legislative mandates enacted prior to January 1, 1975, or executive orders or regulations initially implementing legislation enacted prior to January 1, 1975."

14 Nor do we agree that subvention depends on whether the "benefit" of a state-imposed local requirement falls principally at the state or local level. Attempts to apply such a "benefit" test to the myriad of individual cases could easily produce debates bordering on the metaphysical. Nothing in the language or history of article XIII B, or prior subvention statutes, suggests an intent to force such debates upon the Legislature each time it considers legislation affecting local governments.

15 For the reasons expressed in part III, *ante*, our consideration of this issue is not foreclosed by principles of collateral estoppel.

16 In *Sacramento I*, both the parties and the Court of Appeal assumed that if a cost was "federally mandated," it was therefore *not* a "state mandated" cost subject to subvention. In other words, it was assumed, an expense could not

be both "state mandated" and "federally mandated," even if imposed by the state under federal compulsion. It was in this context that *Sacramento I* addressed the "federal mandate" issue. (See also *Carmel Valley Fire Protection Dist., supra*, 190 Cal.App.3d at p. 543.) We here express no view on the question whether "federal" and "state" mandates are mutually exclusive for purposes of state subvention, but leave that issue for another day. We decide only that, insofar as an expense is "federally mandated," as described in the state Constitution and statutes, it is exempt from the pertinent taxation and spending limits.

17 Ironically, the local agencies here argue *against* a "federal mandate," with the state in opposition to that view. An anti-"federal mandate" position seems directly contrary to the local agencies' interests, since its acceptance would mean the agencies are not eligible for exemptions from their pertinent taxing and spending limits. However, all parties appear still bound by the premise of *Sacramento I* that if a cost is "federally mandated," it is ineligible for state subvention. As noted above (see fn. 16, *ante*), we do not decide that issue here.

18 The Tenth Amendment to the United States Constitution provides: "The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people."

19 The traditional categorical-aid provisions of the Social Security Act (e.g., 42 U.S.C. §§ 301 et seq. [old-age assistance], 601 et seq. [aid to needy families with dependent children], 1201 et seq. [aid to the blind], 1351 et seq. [aid to the permanently and totally disabled]), and statutes concerned with occupational safety and health (e.g., 29 U.S.C. § 651 et seq.), highways and mass transit (e.g., 23 U.S.C. § 101 et seq.), education (e.g., 20 U.S.C. § 241a et seq.), and air and water pollution (e.g., 33 U.S.C. §§ 1251 et seq., 1311 et seq.; 42 U.S.C. § 7401 et seq.) are but a few examples of federal laws imposing greater or lesser degrees of inducement to state and local compliance with federal policies and programs.

20 *Hodel v. Virginia Surface Mining & Recl. Assn.* (1981) 452 U.S. 264 [69 L.Ed.2d 1, 101 S.Ct. 2352] later implicitly confirmed this premise. There, Virginia mine operators challenged a federal surface-mining regulatory scheme on grounds it displaced state authority and sovereignty. The federal law imposed minimum federal standards, to be enforced by federal or state officials at the state's choice, and allowed states to take over regulation by imposing equal or higher standards of their own. (30 U.S.C. §§ 1201 et seq., 1251-1254.) The court upheld the program, noting it regulated private persons, not the "States as States. " Moreover, said the court, since states were not ordered to adopt their own surface-mining standards, "there can be no suggestion that the Act commandeers the legislative processes of the States by directly compelling them to enact and enforce a federal regulatory program. [Citations.] .... " (452 U.S. at pp. 286-288 [69 L.Ed.2d at pp. 22-24].)

21 The United States Constitution includes specific limitations on the subject-matter jurisdiction of state and local governments (art. I, § 10), imposes certain direct obligations and restrictions on the "States as States" (e.g., art. I, § 2, cls. 1, 4; art. I, § 3, cls. 1, 2; art II, § 1, cl. 2; art. IV, §§ 1, 2, cls. 1, 2; Amends. XIV, XV), and grants Congress power to prevent denial of certain constitutional rights by the states (Amends. XIII, XIV, XV). Obviously, however, these provisions account for only a minute portion of the costs incurred by state and local governments as a result of federal programs and regulations.

22 For this reason, federal cases cited by plaintiffs and their amici curiae for the proposition that Public Law 94-566 is not "coercive " (e.g., *County of Los Angeles, Cal. v. Marshall* (D.C. Cir. 1980) 631 F.2d 767 [203 App.D.C. 185]; *State, etc.* v. *Marshall* (1st. Cir. 1980) 616 F.2d 240) are inapposite. Those decisions applied *Tenth Amendment* principles to determine whether Public Law 94-566 was constitutionally valid. Had Public Law 94-566 been struck down on this ground, it would *not* have resulted in local costs to which the "federal mandate" provisions of article XIII B might extend. Thus, applying the Tenth Amendment cases to determine whether a cost is "federally mandated " for purposes of article XIII B presents a problem in circular reasoning.

23 The dissent cites two older cases for the premise that in antidebt and antispending measures, the exception recognized for "mandatory" costs and expenditures has traditionally been limited to obligations imposed by law. Neither cited decision is dispositive or persuasive here.

County of Los Angeles v. Byram (1951) 36 Cal.2d 694 [227 P.2d 4], and the cases therein cited, concern the constitutional provision (Cal. Const., former art. XI, § 18, see now art. XVI, § 18 (hereafter section 18)) which prohibits local governments, absent voter approval, from incurring debts or liabilities which exceed in any year the income or revenue provided for such year. Section 18 is *absolute on its face* and, unlike article XIII B, it contains *no express exception* for mandatory expenses. Though sometimes founded on contorted linguistic analyses (see, e.g., *City of Long Beach* v. *Lisenby* (1919) 180 Cal. 52, 56 [179 P. 198]), the *implied* exceptions to section 18, as recognized in *Byram* and other cases, arise from a rule of necessity and despite the absolute constitutional language. Such implied exceptions must, of course, be narrowly confined.

On the other hand, *County of Los Angeles v. Payne* (1937) 8 Cal.2d 563 [66 P.2d 658], also cited by the dissent, construed former Political Code section 3714, which limited a local government's annual expenditures to its previously adopted budget. Section 3714 *did* contain an express exception for "mandatory expenses *required by law*." (Italics added.) *Payne's* adherence to the explicit terms of the statutory exception is hardly remarkable.

In contrast with the measure considered in *Byram*, article XIII B and the Revenue and Taxation Code *do* expressly exempt "federally mandated " expenses from the pertinent taxation and appropriations limits. Unlike the measure construed in *Payne*, neither article XIII B nor the Revenue and Taxation Code expressly limit their exemptions to obligations " required by law." Article XIII B uses the broader terms "unavoidably " and "without discretion," suggesting recognition by the drafters and voters that forces beyond strict legal compulsion may produce expenses that are realistically involuntary. The Revenue and Taxation Code explicitly includes coercive federal "carrot and stick" requirements within the federally "mandated" costs exempt from statutory property tax limits. (Rev. & Tax. Code, § 2206.)

24 Plaintiffs suggest that by reenacting this language in the wake of *Sacramento I*, the Legislature "acquiesced" in the Court of Appeal's narrow definition of "costs mandated by the federal government." We are not persuaded. *Sacramento I* did not *construe* the statutory language; it simply found a postdated statute *irrelevant* to the proper interpretation of article XIII B. By later readopting its expanded definition in statutes designed to "implement" article XIII B, the Legislature expressed its disagreement with *Sacramento I*, not its acquiescence. Contrary to the implications of *Sacramento I*, legislative efforts to resolve ambiguities in constitutional language are entitled to serious judicial consideration. (See authorities cited *ante*.)

25 In the *Carmel Valley* case, the state claimed, among other things, that local costs of purchasing protective clothing and equipment for firefighters, as required by regulations under the California Occupational Safety and Health Act, constituted a nonreimbursable "federal mandate " because the California standards merely "implemented" federal law. However, the evidence was contrary; a letter from the federal Occupational Safety and Health Administration disclaimed federal jurisdiction over California's political subdivisions and stated that state and federal standards were independent. (190 Cal.App.3d at pp. 543-544.) Examination of the pertinent statutory scheme reinforces the view that compliance with federal standards in this area is "optional" with the state. Other than loss of limited federal administrative funds (29 U.S.C. § 672(g)), the only sanction for California's decision not to maintain a federally approved occupational safety and health system is that federal standards, administered by federal personnel, will then prevail within the state. (*Id.*, § 667(b)-(h).)

1 Those voters no doubt will be upset to learn that their tax dollars will be dissipated in litigation to determine such metaphysical questions as whether a decision to participate in a federal program was "truly voluntary."

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KeyCite Yellow Flag - Negative Treatment
Superseded by Constitutional Amendment as Stated in Green Valley Landowners Assn. v. City of Vallejo, Cal.App. 1 Dist., October 16, 2015

152 Cal. 579, 93 P. 490

CITY OF SOUTH PASADENA, Appellant,
v.
PASADENA LAND AND WATER COMPANY, Respondent.

Supreme Court of California.
L. A. No. 1793.
January 2, 1908.

WATER CORPORATION—TRANSFER OF ENTIRE PROPERTY—LEGISLATIVE SANCTION ESSENTIAL.
A *quasi*-public corporation, engaged in supplying water for public use, cannot, without legislative sanction, transfer to another the entire property devoted to such service and the business of carrying it on.

ID.—CONSENT OF STOCKHOLDERS TO TRANSFER OF ENTIRE WATER SYSTEM.
Under section 361a of the Civil Code, as enacted in 1903, a *quasi*-public corporation, such as a water company, with the consent of the stockholders thereof holding of record at least two thirds of its issued capital stock, but not otherwise, may make a transfer of its business, franchises, and property as a whole, including its water-pipes in the streets of a municipality, and the right to use such streets, as a way, which it had under section 19 of Article XI of the constitution.

ID.—TRANSFER OF FRANCHISE—RELEASE OF LIABILITIES.
Section 10 of Article XII of the Constitution, providing that the Legislature shall not pass any laws permitting "the leasing or alienation of any franchise, so as to release the franchise or property held thereunder from the liabilities of the lessor or grantor, lessee or grantee, contracted or incurred in the operation, use, or enjoyment of such franchise, or any of its privileges," does not prohibit such a transfer by a water company, but merely forbids a transfer of a franchise "so as to relieve the franchise or property held thereunder," from liabilities so incurred or contracted. The transferee would take the franchise and property pertaining to it subject to all its burdens, and, so long as it held it, would be obliged to continue the performance of the public service to which it had been dedicated, or to allow others to do so in its behalf.

ID.—PUBLIC USE—DEDICATION OF WATER TO—RIGHT TO CONTINUANCE OF USE—MANDAMUS.
In the case of the establishment of a water system to supply water for public use, all the persons to whose use the water is appropriated or dedicated are vested with a right to have the supply continued by whomsoever may be in control thereof, and may enforce such right by a proceeding in *mandamus* against the person in control of the supply and the works by which it is distributed, regardless of the title, to compel the continuance of the distribution, in the usual and proper manner, to those entitled. This rule is applicable, and the remedy by *mandamus* available, whether the person in control of the supply is a municipal or a private corporation, or an individual.

ID.—POWER OF TRANSFEREE TO ACCEPT.
A transfer of property used in a public service, from one corporation to another, although made by a corporation having power to convey, is invalid unless the transferee has the power to accept the property and continue the use to which it has been devoted. If such power is wanting in the transferee, the transfer is not binding on the grantor or lessor.

ID.—CITY OF PASADENA—RIGHT TO ACQUIRE WATER SYSTEM—SUPPLY OF WATER TO ANOTHER CITY.
The city of Pasadena, under the provisions of its charter, (Stats. 1905, p. 1021), and under the act of 1891 (Stats. 1891, p. 102), has the power to accept the transfer of the property, business, and franchises of a water company, engaged in supplying water to certain parts of the cities of Pasadena and South Pasadena, for the use of the respective inhabitants thereof within said territories, and to the said cities, respectively, for sprinkling of streets, and to undertake and perform the public service imposed on such property in the hands of its transferer.

ID.—SUPPLY TO OUTSIDE LIMITS—INCIDENTAL POWERS.

A grant of power to provide and supply water to a city and its inhabitants, authorizes a city to carry on a system and supply water to persons outside its limits, whenever it becomes necessary or convenient to do so in order to accomplish the main purpose of supplying water to those within.

ID.—JUDICIAL NOTICE OF ARIDITY OF REGION.
In construing what powers are necessary, incidental, or fairly to be implied from the powers expressly given to the city of Pasadena by its charter, respecting the acquisition of a water system, it is proper to consider the conditions surrounding the city at the time, and the court will take judicial notice that the two cities are situated in a comparatively arid region, the available waters of which are already applied to valuable public or private use.

ID.—FIXING WATER RATES BY ONE CITY AS AGAINST ANOTHER.
Under the constitution, a municipal corporation has power to fix the rates to be charged for water supplied to its inhabitants and to control the manner of laying and repairing pipes in its streets for that purpose, as against another city engaged in supplying such waters, as well as when an individual or water corporation does so.

ID.—PERFORMANCE OF GOVERNMENTAL FUNCTIONS.
In the carrying on of the water service to the people of South Pasadena, the city of Pasadena will not be acting in its political, public, or governmental capacity as an agent of the sovereign power, equal in all respects to the city within which it operates. In administering a public utility, such as a water system, even within its own limits, a city does not act in its governmental capacity, but in a proprietary and only *quasi*-public capacity.

ID.—SUPPLYING WATER OUTSIDE OF CITY A MUNICIPAL AFFAIR—CHARTER PROVISIONS CONTROL.
The supplying of water by the city of Pasadena to outside territory, being necessarily a matter incidental to the main purpose of supplying water to its own inhabitants, is a "municipal affair" of the city of Pasadena, within the meaning of that phrase in section 6 of article XI of the constitution, and the charter provisions relating thereto prevail over general laws, if inconsistent therewith.

ID.—SALE OF SURPLUS WATER—WATER ALREADY DEDICATED TO A PARTICULAR USE.
Upon the purchase by the city of Pasadena of the property, business, and franchises of a water company, a portion of whose water was appropriated to the use of a part of the city of South Pasadena and its inhabitants, the duty devolves upon it, as a trustee, of continuing to supply such water to the part of the city of South Pasadena and its inhabitants that previously enjoyed the use. As to such water, it cannot be considered as surplus water subject to sale to others, within the meaning of the Act of March 27, 1897, authorizing a city having in the supply more water than is necessary for its inhabitants, to sell the surplus, but providing that contracts for such sales shall not run for a period longer than one year.

ID.—LAYING MAINS IN STREETS OF ANOTHER CITY.
Section 19 of article XI of the constitution, providing that in any city where there are no municipal waterworks for the supply of its inhabitants, "any individual, or any corporation duly incorporated for such purpose," may lay mains in the streets for supplying such water, should be liberally construed, so as to empower a municipal corporation on whom the duty devolves of supplying water to another municipality, to lay its mains in the streets of the latter.

ID.—INJUNCTION—THREAT TO DISCONTINUE SUPPLY—ADEQUACY OF LEGAL REMEDY BY MANDAMUS.
An injunction will not lie to restrain a municipal corporation from acquiring a water system, a part of which is already appropriated to supplying water to another city, upon a mere allegation that it threatens and intends, when it acquires each system, to cut off the supply from the other city and its inhabitants. Should it attempt such unlawful act, the persons injured would have an adequate legal remedy by mandamus.

APPEAL from a judgment of the Superior Court of Los Angeles County. D. K. Trask, Judge.

The facts are stated in the opinion of the court.

***582** John E. Carson, and Lynn Helm, for Appellant. Anderson & Anderson, for Respondent.

SHAW, J.

The defendant is a corporation engaged in supplying water to certain parts of the cities of Pasadena and South Pasadena, respectively, for the use of the respective inhabitants thereof within said territories, and to the said cities, respectively, for sprinkling of streets. The territory thus supplied within South Pasadena embraces from one half to two thirds of its area. This suit is to enjoin the defendant from selling and transferring to the city of Pasadena its water, water-rights, water plant or system and all franchises and property of any and every description heretofore used by the defendant in so supplying said water to the plaintiff and its inhabitants, as aforesaid. It appears that the defendant is about to make such transfer, so far as it has the lawful power to do so. A general demurrer to the complaint was sustained and thereupon judgment was given for the defendant, from which the plaintiff appeals. The record further shows that an answer was filed with the demurrer, that plaintiff demurred to the answer and moved to strike out certain parts thereof, and that this demurrer was overruled and the motion denied. As we have concluded that the demurrer to the complaint was properly sustained, the other orders are immaterial to the disposition of the appeal.

It is proper to say here that two other cases, namely: *Graham v. Pasadena Land and Water Company*, L. A. No. 1957, *post*, p. 596, [93 Pac. 498], and *Orcutt v. Pasadena Land and Water Company and the City of Pasadena*, L. A. No. 1958, *post*, p. 599, [93 Pac. 497], the latter begun by residents of South Pasadena, entitled to water from the defendant water company, and the former by a stockholder of ***583** the defendant herein, to obtain similar relief, were submitted with this case and that, as requested by counsel, the briefs in those cases have been considered in this case, so far as applicable.

The appellant presents for our determination four questions:

First—Has the Pasadena Land and Water Company, while it continues to exist as a going corporation and without the assent of the state, power or authority to transfer its entire property, privileges, and franchises and thereby discharge itself of the duty and deprive itself of the ability to continue the public service of supplying water to the plaintiff and its people?

Second—Has the state consented to such transfer?

Third—Has the city of Pasadena, to which the transfer is to be made, power to accept said property, privileges, and franchises and to perform the duties to the plaintiff and its people hitherto imposed upon and performed by the Pasadena Land and Water Company, and which constitute a charge upon the property to be transferred?

Fourth—If such power is possessed by the respective corporations, as aforesaid, can the subsequent performance of such duties by the city of Pasadena be enforced by the city of South Pasadena and its inhabitants entitled to the water, or only by the grantor, the Pasadena Land and Water Company?

The first, second, and fourth of these propositions will be considered together.

1. The respondent is a *quasi*-public corporation, engaged in supplying water for public use. This is admitted, and it is also conceded that corporations of that character cannot, without legislative sanction, transfer to another the entire property devoted to such service and the business of carrying it on. This appears to be settled by the authorities. (*Visalia Gas etc. Co. v. Sims,* 104 Cal. 326, [43 Am. St. Rep. 105, 37 Pac. 1042]; *Thomas v. Railroad Co.,* 101 U.S. 82; *Central T. Co. v. Pullman P. P. Co.,* 139 U.S. 48, [11 Sup. Ct. 478]; *Oregon Ry. Co. v. Oregonian Ry. Co.,* 130 U.S. 1, [9 Sup. Ct. 409]; *York etc. Ry. Co. v. Winans,* 17 How (U.S.) 30; *Green Bay etc. Co. v. Union S. B. Co.,* 107 U.S. 98, [2 Sup. Ct. 221]; *Cumberland T. and T. Co. v. Evansville,* 127 Fed. 187; Morawetz on Corporations, ***584** secs. 565, 1114, 1115, 1129; 1 Clark & Marshall on Corporations, sec. 162.)

In 1903 the legislature enacted section 361a of the Civil Code, which reads as follows:

"No sale, lease, assignment, transfer or conveyance of the business, franchise and property, as a whole, of any corporation now existing, or hereafter to be formed in this state, shall be valid without the consent of stockholders thereof, holding of record at least two thirds of the issued capital stock of such corporation; such consent to be

either expressed in writing, executed and acknowledged by such stockholders, and attached to such sale, lease, assignment, transfer, or conveyance, or by vote at a stockholders' meeting of such corporation, called for that purpose, but with such assent, so expressed, such sale, lease, assignment, transfer or conveyance shall be valid; *provided, however,* that nothing herein contained shall be construed to limit the power of the directors of such corporation to make sales, leases, assignments, transfers or conveyances of corporate property other than those hereinabove set forth."

This enactment is not, on its face, a mere negative or prohibitive statute, forbidding that which before was permitted. It is both affirmative and negative in its terms. Its affirmative provisions may be paraphrased thus: "With the consent of the stockholders thereof, holding of record at least two thirds of its issued capital stock, (expressed in the prescribed manner), any corporation in this state may make a valid sale, lease, assignment, transfer or conveyance of its business, franchises and property, as a whole." It expresses a consent to such transfer in the manner prescribed, as well as a prohibition against such transfer in any other mode.

In the absence of legislative restrictions, it is the law in this state that an ordinary commercial corporation, not doing a public service business, can alienate its entire property whenever it is necessary or proper to do so for the best interests of its stockholders and creditors. (*Miner's Ditch Co. v. Zellerbach,* 37 Cal. 543, 588-592, [99 Am. Dec. 300].) And it would seem that the stockholders and creditors, alone, would have the right to object to such a transfer by a corporation of that character (*Oakland R. R. v. Oakland etc. R. R. Co.,* 45 Cal. 379, [13 Am. Rep. 181]; ***585** *Illinois Bank v. Pacific Railway Co.,* 117 Cal. 332, [49 Pac. 197]), though we presume the state could maintain an action to forfeit the corporate franchise for nonuser or misuser. In the case first cited, the Miner's Ditch Company, which had transferred its entire property, was, in fact, a water company selling water upon the market to miners for their use. But this was before the constitution of 1879 had declared the use of water for sale, rental, or distribution, to be a public use. The opinion distinctly declares it to be a matter of private concern only, and the decision is expressly based on that fact, distinguishing that class of corporations from *quasi*-public corporations. The effect of this statute is, therefore, twofold. It deprives ordinary private business corporations of the power they previously possessed to dispose of their entire property, franchises, and business, as a whole, at the will of a mere majority of the stockholders, or of less than two thirds of them, and it confers upon *quasi*-public corporations the power to make such dispositions with the consent of two thirds of the stockholders expressed in the mode fixed, a power which such corporations did not have before. The words of the section expressly apply to "any corporation" then existing or thereafter to be formed. It constitutes a part of the code devoted to general provisions concerning all corporations, except those of a public nature, such as cities, counties, school districts and the like. There is nothing in the context of the code which requires, or would justify, an interpretation limiting its meaning so as to exclude *quasi*-public corporations. The words are express, positive, not at all ambiguous in this particular and the intent is clear; there is no occasion for resorting to implication to give them an effect not expressly declared, nor for applying the rules restricting the meaning of ambiguous statutes affecting public interests.

It is suggested that, if taken literally, it would give power to transfer the corporate franchise, the right to be a corporation and do business in that capacity. We do not perceive that this is important in this case, even if it were true, for it is not alleged that the defendant is attempting to transfer any franchise of that character. The legislature doubtless had in mind the fact that there are many *quasi*-public corporations doing business in the state and possessing rights and privileges, properly termed "franchises," which they had ***586** acquired and possessed after they became incorporated, and which they had devoted to the public service in which they were engaged and which, therefore, could not be disposed of without legislative assent, and the word franchise was aptly used to describe this class of property and leaves no doubt as to what was intended. The transfer of all its property would not work a dissolution of the corporation, nor operate as a transfer of the corporate franchise. (*Miner's Ditch Co. v. Zellerbach,* 37. Cal. 590, [99 Am. Dec. 300].)

The defendant company had laid its water pipes in the streets of the cities of Pasadena and South Pasadena, was using those streets as a way through which to transmit water to the users, and had the right to make this use of the streets under the provisions of section 19, of article XI, of the constitution. This right, when made available by actual possession and use, is a species of real property,

appropriately designated as a franchise. (*Stockton etc. Co. v. San Joaquin Co.,* 148 Cal. 313, [83 Pac. 54].) The appellant argues that this right, or franchise, is not in its nature, transmissible, or alienable, unless the precise mode of transfer is fixed by statute and a means provided for the enforcement of the use against the transferee, and that section 361a is inadequate in these respects. In this connection counsel cite section 10 of article XII of the constitution, which is as follows:

"The legislature shall not pass any laws permitting the leasing or alienation of any franchise, so as to relieve the franchise or property held thereunder from the liabilities of the lessor or grantor, lessee or grantee, contracted or incurred in the operation, use, or enjoyment of such franchise, or any of its privileges."

It is urged that the effect of a transfer, such as that here proposed, would relieve the defendant corporation of its duty to continue the service of supplying water, which is imposed upon it by reason of its control of the water and its enjoyment of the constitutional franchise to use the streets for its pipe-lines, and that there would be no corresponding transfer of the duty to the transferee of the property, the city of Pasadena, nor any means of enforcing from said city the performance of that duty. The section does not forbid the transfer of a franchise so as to relieve the previous owner thereof, or the grantee or lessee, personally, from liability incurred ***587** in the operation of the franchise, if such a thing were possible. It merely forbids the transfer of a franchise "so as to relieve the *franchise, or property held thereunder,*" from liabilities so incurred or contracted. The code section (361a) authorizes a transfer of such franchise, or of all the interest the possessor may have in it, but it does not purport to relieve the franchise itself, or any property held under it or for its operation, from any liability or charge imposed, or to be imposed, upon it. If the proposed transfer provided that the property and franchise should be free from any such liability existing against it, or thereafter to arise from its possession and use, or attempted to transfer it so as to free it therefrom in the hands of the transferee, the transaction would be, to that extent, void, and the transferee would take the franchise and property pertaining to it subject to all the burdens of this nature, and, so long as it held it, would be obliged to continue the performance of the public service to which the property and franchise had been dedicated, or to allow others to do so in its behalf. (*Fellows v. Los Angeles,* 151 Cal. 52, [90 Pac. 141].) This is the purpose and effect of the constitutional provision above given. The transfer will have the effect of divesting the defendant company of the property, and as, according to the admitted allegations, there is no other water supply available, it will then have neither the means nor the ability to continue the performance of the public duty of supplying water for public use. It could not directly abnegate this personal duty without the consent of the proper public authority, and, of course, it could not do it indirectly by the device of transferring to another the only means whereby the duty could be performed. The effect of the statute (sec. 361a) is to give this consent, in pursuance whereof the public agent in charge of the use and property will be changed, and the effect of the constitutional provision is that the new agent must continue to devote the property to the same use as before. There does not appear to be anything unlawful, unconstitutional, or improper in a change so made.

The contention that no remedy exists to compel performance by the successor in interest, is without force. In case of the establishment of a water system of this character, all the persons to whose use the water is appropriated or dedicated are ***588** vested with a right to have the supply continued by whomsoever may be in control thereof. (Const., art. XIV, sec. 1; Civ. Code, secs. 549-552; *Crow v. San Joaquin etc. Co.,* 130 Cal. 309, [62 Pac. 562, 1058]; *McCrary v. Beaudry,* 67 Cal. 120, [7 Pac. 264]; *Price v. Riverside etc. Co.,* 56 Cal. 432.) If the water is supplied for use upon land for its benefit, as for irrigation, the right to receive and use it becomes in the nature of an appurtenance to the land. If it is supplied for personal use to all persons within a certain territory or to all of a certain class within the territory, the right to its use is personal to the inhabitants of the territory, or to the members of the class, as the case may be, so long as they remain such. In either case the right may be enforced against the person in control of the supply and the works by which it is distributed, regardless of the title, by means of an action in *mandamus* to compel the continuance of the distribution, in the usual and proper manner, to those entitled. (*Price v. Riverside etc. Co.,* 56 Cal. 434; *Merrill v. South Side Irr. Co.,* 112 Cal. 426, [44 Pac. 720]; *Fellows v. Los Angeles,* 151 Cal. 52, [90 Pac. 141].)

Our conclusion is that all of the objections to the validity of section 361a, and all of the reasons advanced for giving it a meaning different from its literal import, are untenable and that it gives authority to the defendant to make the

transfer of its business, franchises, and property, as a whole, in the manner prescribed and as here proposed. It is admitted that the statutory manner of making the transfer has been and will be followed.

2. It is settled law that a transfer of property used in a public service, from one corporation to another, although made by a corporation having power to convey, is invalid unless the transferee has the power to accept the property and continue the use to which it has been devoted. If such power is wanting in the transferee, the transfer is not binding on the grantor or lessor. (*Central Transportation Co. v. Pullman P. P. Co.,* 139 U. S. 48, [11 Sup. Ct. 478]; *Thomas v. Railroad Co.,* 101 U. S. 82; *Oregon Ry. Co. v. Oregonian Ry. Co.,* 130 U.S. 1, [9 Sup. Ct. 409]; *Pennsylvania R. R. Co. v. St. Louis R. R. Co.,* 118 U. S. 307, [6 Sup. Ct. 1094].) For the purposes of the case we may concede that the plaintiff, or any private party, has sufficient interest to raise this question.

***589** We are of the opinion that the city of Pasadena has the power to accept the transfer in question and to undertake and perform the public service of supplying the water to the cities of Pasadena and South Pasadena and the respective inhabitants thereof, as it has been heretofore supplied, which is the duty attached to the property and imposed upon the possessor thereof.

The statute of 1891 on this subject is broad and comprehensive. It is as follows:

"Any incorporated city in this state may acquire by gift, purchase, or condemnation proceeding under the power of eminent domain, water, water rights, reservoir sites, rights of way for pipes, aqueducts, flumes, or other conduits, and all other property and appliances suitable and proper for supplying such city and its inhabitants with water." (Stats. 1891, p. 102.)

The special charter of the city of Pasadena gives the city power, "To construct and maintain waterworks, pipes, pipelines, acqueducts and hydrants for supplying the city and its inhabitants with water, *and the right to supply water to persons who live without the city* limits." (Subd. 8, sec. 3, art. I, Stats. 1905, p. 1021.)

It further provides for a board of water commissioners of five members, which board is given "control and management of all water and waterworks that now belong, or may hereafter be acquired by the city," and for a "water fund" which may be applied to the "purchase of necessary lands, water-rights and other property" for the improvement of the water system. (Stats. 1905, p. 1019, subd. 2, sec. 6, art. 6 1/2.) Subdivision 4 of section 3 of article 1, gives the city power "to purchase, receive, have, take, hold, lease, use and enjoy property of every kind and description, *both within and without the limits of said city* and control and dispose of the same for the common benefit." By subdivision 16 of the same section power is given to create a bonded debt, equal to fifteen per cent of the assessed value of the property, to pay the cost of public utilities, and under subdivision 23 it may exercise the right of eminent domain to acquire "water, water-rights and waterworks, *within or without the corporate limits,* necessary or convenient for the use of said city and its inhabitants." (Stats. 1901, pp. 888, 890.)

***590** These provisions are ample to confer power to acquire and carry on a water system outside the city so far as it may be necessary or convenient to do so in order to accomplish the main purpose of furnishing water to the city and its inhabitants. Indeed, it is so seldom that a water supply can be obtained within the limits of a city, especially in this state, that a mere grant of power to provide and supply water to the city and its inhabitants would be construed to give power to acquire for that purpose water supplies without the city. The powers of a municipal corporation include not only those expressly named in the grant, but also "the authority to do such subsidiary acts as are incidental and necessary to the exercise of" the powers specifically described. (*Von Schmidt v. Widber,* 105 Cal. 157, [38 Pac. 682].) Or, as stated by Mr. Dillon, they include "those necessarily or fairly implied in or incident to the powers expressly granted." (1 Dillon on Municipal Corporations, 4th ed., sec. 89; *Hammond v. San Leandro,* 135 Cal. 452, [67 Pac. 692.].) Under powers much less comprehensive in terms it has been held that a municipal or public corporation may carry on a system and supply water to persons outside its limits, whenever it becomes necessary or convenient to do so in order to accomplish the main purpose of supplying waters to those within. In *Fellows v. Los Angeles,* in considering a provision merely giving that city power to acquire water and water-rights within or without the city for the use of its inhabitants, it is said: "In the exercise of this power, it would have the right to buy from any corporation or person, engaged in supplying water for public use outside the city, any surplus water

which such person might possess. If it were necessary, in order to obtain such surplus, the city might, under this power, purchase the entire water supply of such person or corporation and the water plant or system used in connection with it, so that, after operating the system and supplying the persons entitled to use the water, it could devote the surplus to the use of the inhabitants of the city." In *Hewitt v. San Jacinto Irr. Dist.,* 124 Cal. 192, [56 Pac. 893], it was held that an irrigation district, under its general power to acquire and hold such water, water-rights and other property as should be necessary to supply water to irrigate the lands within the district, had power to purchase and hold water already in part used on ***591** lands outside the district, to take it subject to such use and to continue to furnish the water to such outside lands as it had been furnished before.

These authorities would seem sufficient to settle the question in favor of the respondent. The ingenuity of counsel for appellant has, however, suggested many objections to the rule stated and difficulties which he fears may arise in its application, and, in view of the importance of the question, we deem it proper to discuss them at more length.

In considering what powers are necessary, incidental, or fairly to be implied from the powers expressly given to the city of Pasadena by the foregoing provisions, it is proper to look to the conditions surrounding the city at the time. The court will take judicial notice that the two cities interested are situated in a comparatively arid region where there is little, if any, water not already applied to some extremely valuable public or private use, and that water sources in that vicinity are in great demand and command a high price where they can be purchased at all. It appears from the complaint that for many years the defendant company has been supplying water to portions of the two cities, precisely as it does now, the area supplied in South Pasadena being about two thirds of its territory, that more than three hundred families are now supplied therein from this source and that if they are now deprived thereof there is no other known source from which it can be replaced and they would be without water for any purpose. It may well be assumed that Pasadena could obtain no sufficient quantity of water for a municipal water system, except by buying or condemning that portion of the water of the defendant company now distributed to its inhabitants, or some other supply already devoted to use outside the city. It would be bad public policy under these conditions to require a city desiring to obtain water for its inhabitants, to take water in use by others for similar purposes outside its limits, where the effect would be to devastate and depopulate such outside territory. To condemn the individual right of each member of the outside community would be impracticable, and even if it could legally be done it would probably prove too costly for the resources of the city. To separate the supply and endeavor to control, manage, and if necessary, develop and increase the supply from time to ***592** time, in concert or partnership with some other corporation, would probably cause many complications and render the successful administration of the municipal system much more difficult and doubtful. In order to accomplish the purpose for which these powers were given, it is reasonably certain that it would be advisable, and it might be necessary, for the city to take over a supply already partly in use outside and continue the service to the outside territory while supplying the remainder to the use of its own people. These probabilities and the conditions we have stated must have been well known to the framers of the charter, to the people of Pasadena, and to the legislature, when the charter was prepared, adopted, and ratified. In view of all the circumstances, we may reasonably believe that the clause adopted in 1905, giving the "right to supply water to persons who live without the city limits," was intended to authorize a plan such as that here under consideration. If not designed to authorize some similar plan it might as well never have been enacted at all.

Under the constitution South Pasadena has power to fix the rates to be charged for water supplied to its inhabitants and to control the manner of laying and repairing pipes in its streets for that purpose. Necessarily it has this power as against another city engaged in supplying such water, as well as when an individual or water corporation does so. It is suggested that the two cities each represent the sovereign power and would have equal authority in all municipal affairs, that a conflict would ensue, and that such consequences cannot be considered as intended, unless the intention is expressly and unmistakably declared. In this connection the rule is invoked that there cannot be two municipalities exercising the same powers at the same time within the same territory. But the two cities would not be of equal authority with respect to the use of water in South Pasadena, in such a case. South Pasadena would have the power above stated, under the constitution, and Pasadena, so far as that service is concerned, would be

subject to those powers, to the same extent as the Pasadena Land and Water Company is now subject thereto. In the carrying on of the water service to the people of South Pasadena the city of Pasadena will not be acting in its political, public, or governmental capacity as an agent of the sovereign power equal in all respects to the city within which it ***593** operates. In administering a public utility, such as a water system, even within its own limits, a city does not act in its governmental capacity, but in a proprietary and only *quasi*-public capacity. (*Davoust v. Alameda,* 149 Cal. 70, [84 Pac. 760]; *Illinois etc. Bank v. Arkansas City,* 76 Fed. 271, [22 C. C. A. 171]; *Esberg Cigar Co. v. Portland,* 34 Or. 282, [75 Am. St. Rep. 651, 55 Pac. 961].) Having taken over the whole system subject to the burden of supplying a part of the water to inhabitants of South Pasadena, the city of Pasadena will have no greater rights or powers, respecting that part of the service, than its grantor previously had. It will be under the same obligation as its grantor to continue the service and supply the water to all persons who may become entitled to it in the future, so long as it retains possession and control of the property so charged. (*Fellows v. Los Angeles,* 151 Cal. 52, [90 Pac. 141].) The powers of the two cities in regard to this water service will be separate and distinct, one will be subordinate to the other, and, hence, there will not be two cities exercising the same powers in the same territory at the same time; South Pasadena, within its own limits, will be the sole representative of sovereignty in the fixing of rates, and in the supervision of the streets; and Pasadena will be subject thereto, as a private person. If, by fixing too low rates, South Pasadena should attempt to compel the service to be made at a loss, Pasadena would have the same remedies, and no greater, in the courts that a *quasi*-public corporation or natural person would have in the same circumstances. The fact that the outside service is within another city does not appear to be a significant factor in the question of the power. If it were in a rural community, the rates charged would be subject to judicial control to make them reasonable. Being in another city, the serving city has a right to demand reasonable rates and may enforce them if not granted. The limitations would not affect the power in one case more than in the other.

The act of March 27, 1897 (Stats. 1897, p. 182), authorizes a city, having in its supply more water than is necessary for its inhabitants, to sell the surplus, but provides that contracts for such sales shall not run for a period longer than one year. It is contended that the service of water to outside communities is not a "municipal affair" within the meaning of that ***594** phrase in section 6, article XI, of the constitution, that it is therefore subject to general laws, and that under the above-mentioned statute the city cannot undertake, as it proposes to do, to render a perpetual water service to the inhabitants of outside territory, which it is claimed, will be equivalent to a contract to sell to them its surplus water for a period longer than one year. There are two answers to this contention. The supplying of water to outside territory, being necessarily a matter incidental to the main purpose of supplying water to its own inhabitants, is as much a municipal affair of Pasadena, as is the main purpose, which is conceded to be such, and therefore the charter provisions relating thereto prevail over general laws, if inconsistent therewith. In truth, however, the city will not be selling its surplus in the sense intended by the statute. The right to the use of the required quantity of this water is now vested in the city of South Pasadena and its inhabitants within the portion of its territory where it is to be served, and the city of Pasadena does not propose to take away this right. It is about to buy only the right of the Pasadena Land and Water Company to the water, which did not include the use. It will be obliged to put it to the same use as fully as that company is now compelled to do. Water which is in this manner dedicated to the use of an outside community cannot be at the same time surplus water subject to sale to others. The sale is already, in effect, accomplished. The city of Pasadena, with respect to this part of the water, will hold title as a mere trustee, bound to apply it to the use of those beneficially interested.

Section 19, of article XI, of the constitution, provides that in any city where there are no municipal waterworks for the supply of its inhabitants "any individual, or any corporation duly incorporated for such purpose," may lay mains in the streets for supplying such water. This grant clearly does not, in terms, extend to a municipal corporation. It is contended that it, in effect, forbids the exercise of such privilege by another city. The provision is intended to further the interest of the public and facilitate the supply of water to the inhabitants of the city, and it should be liberally construed to effect that purpose. When the state gives such power to a city that, as an incident to supplying water to its own people, it may furnish water to the inhabitants of another ***595** city to whose use a part of the water is dedicated, the city having such incidental powers should be considered as a "corporation duly incorporated for such purpose." A city is duly incorporated for all purposes to which its powers

extend. There is nothing incongruous, or particularly unusual in such an arrangement. In other states similar powers have been upheld. (*Mayo v. Dover etc. Co.,* 96 Me. 539, [53 Atl. 62]; *Cooper v. City of Brooklyn,* 42 N. Y. Supp. 762, [11 App. Div. 71]; *Town of West Hartford v. Hartford W. Com.,* 68 Conn. 323, [36 Atl. 786]; *People v. Briggs,* 50 N. Y. 553; *Pittsburgh v. Brace,* 158 Pa. St. 174, [27 Atl. 854].)

It is alleged that the city of Pasadena threatens and intends, when it has acquired the water system of the defendant corporation, to cut off the supply of water to South Pasadena and its inhabitants, that it is acquiring the water for its own inhabitants whose needs will be so great that the entire water supply will be required therefor, that, in order to carry out its purpose, it will be compelled to refuse to continue supplying water to outside persons, and that it will deprive the plaintiff and its inhabitants of water unless the proposed sale is enjoined. It sufficiently appears from what has been said that, if the other allegations of the complaint are true, this could not lawfully be done. We have shown that if it is attempted the persons injured will have a remedy by a suit in *mandamus.* There will therefore be an adequate remedy at law, and a suit in equity to enjoin the threatened transfer cannot be maintained.

The court below properly held that the complaint did not state facts sufficient to constitute a cause of action.

The judgment is affirmed.

Angellotti, J., McFarland, J., Lorigan, J., Henshaw, J., and Beatty, C. J., concurred.

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KeyCite Yellow Flag - Negative Treatment
Distinguished by Regents of University of California v. East Bay Municipal Utility Dist., Cal.App. 1 Dist., July 6, 2005

26 Cal.3d 154, 604 P.2d 566, 161 Cal.Rptr. 172

COUNTY OF INYO, Petitioner,
v.
PUBLIC UTILITIES COMMISSION,
Respondent; LOS ANGELES DEPARTMENT OF WATER AND POWER, Real Party in Interest

S.F. No. 23990.
Supreme Court of California
January 7, 1980.

SUMMARY

The Public Utilities Commission dismissed the complaint of a county for review of water rates charged it by a municipality located outside of the county on the ground it lacked jurisdiction over the water rates. The commission concluded that it had no jurisdiction over municipally owned utilities unless expressly provided by statute, and that the Legislature's failure to include municipally owned public utilities within the classes of regulated public utilities in Pub. Util. Code, divs. 1 and 2, demonstrated that the Legislature had not granted the commission such jurisdiction.

The Supreme Court affirmed the order of the Public Utilities Commission. The court held that although Cal. Const., art. XII, § 3, does not authorize legislation conferring P.U.C. jurisdiction over a municipally owned water company selling beyond municipal boundaries, such legislation could be enacted under Cal. Const., art. XII, § 5, granting the Legislature plenary power, unlimited by the other provisions of the Constitution but consistent with this article, to confer additional authority and jurisdiction upon the commission. However, the court held that the Legislature has never enacted a statute conferring jurisdiction over municipally owned water systems selling to outside customers. (Opinion by Tobriner, J., with Bird, C. J., Mosk and Newman, JJ., and White, J.,* concurring. Separate concurring and dissenting opinion by Manuel, J., with Clark, J., concurring.)

HEADNOTES

Classified to California Digest of Official Reports

(1)
Waters § 187--Water Litigation--Injunctions--Municipality Selling Water--Rates.
A city which acquires the water system of another community incurs an obligation to deal fairly with its customers in that community and to provide them with reasonable service at reasonable rates. Such an acquiring city, as to the water dedicated to the use of the outside community, holds title as a mere trustee, bound to apply it to the use of those beneficiaries interested. Consequently, such outside community can sue to enjoin rates which are themselves unreasonable, unfair, or fraudulently or arbitrarily established, or which discriminate without a reasonable and proper basis.

(2a, 2b)
Public Utilities § 7--Public Utilities Commission--Jurisdiction Over Water Rates Charged in County by Municipality Not Located in County.
Although Cal. Const., art. XII, § 3, providing that private corporations that own or operate a water supply system to or for the public are public utilities subject to control by the Legislature, does not authorize legislation conferring jurisdiction on the Public Utilities Commission over a municipally owned water company selling beyond its municipal boundaries, such legislation could be enacted under Cal. Const., art. XII, § 5, granting the Legislature plenary power to confer additional authority and jurisdiction upon the commission. However the Legislature has not enacted a statute conferring jurisdiction over municipally owned water systems selling to outside customers. Thus, the commission properly dismissed for lack of jurisdiction a complaint brought before it by a county challenging the water rates charged its citizens by a municipally owned water utility located outside the county. (Disapproving *City of Pasadena v. Railroad Commission* (1920) 183 Cal. 526 [192 P. 25, 10 A.L.R. 1425], to the extent it contains any contrary reasoning).

[See **Cal.Jur.3d,** Public Utilities, § 15; **Am.Jur.2d,**Public Utilities, § 240.]

(3)

Public Utilities § 7--Jurisdiction--Regulation of Privately Owned Utilities.
In the absence of legislation otherwise providing, the jurisdiction of the Public Utilities Commission to regulate public utilities extends only to the regulation of privately owned utilities.

COUNSEL
L. H. Gibbons, District Attorney, Antonio Rossmann and Ann Nutt for Petitioner.
Janice E. Kerr, Hector Anninos and Ellen S. LeVine for Respondent.
Burt Pines, City Attorney, Edward C. Farrell, Chief Assistant City Attorney, and Edward A. Schlotman, Deputy City Attorney, for Real Party in Interest.

TOBRINER, J.

Petitioner Inyo County seeks review of Public Utilities Commission (hereafter PUC) ruling No. 89576, holding that the PUC lacks jurisdiction over the water rates charged Inyo County and its residents by the Los Angeles Department of Water and Power (hereafter LADWP), a public utility owned and operated by the City of Los Angeles. The county emphasizes the need for PUC regulation because the county's residents, unable to vote in Los Angeles municipal elections, lack any political leverage to prevent exploitation by LADWP. Devoid of political or judicial remedy, petitioner argues, the county's citizens stand exposed to unreasonable water rates.

We point out that the Legislature has the power under article XII, section 5 of the California Constitution to confer authority and jurisdiction upon the commission to regulate the rates charged nonresidents by a municipally owned water system. As we shall explain, however, the PUC can only regulate rates charged by municipally owned public utilities if a specific statute confers such jurisdiction upon the commission. Yet the Legislature apparently has never granted the PUC authority to regulate water rates charged by municipally owned water corporations either to local residents or to customers beyond municipal limits. Consequently we must conclude that we should affirm the ruling of the PUC that it lacks jurisdiction to adjudicate the county's complaint.

A dramatic chapter in California history lies behind the present controversy. [1] The Owens Valley in Inyo County, situated in the lee of the ***157** Sierra Nevada escarpment, receives little rain or snow. The annual snowmelt in the Sierra, however, sends numerous streams into the valley, which flowed through the Owens River into a large lake at the southern end of the valley. During the last decades of the 19th century and the early years of this century, farmers began to divert streams for irrigation, and the valley developed an agricultural economy.

The City of Los Angeles, however, finding its local water supply inadequate for current needs or future growth, also entered into the competition for Owens Valley water. It began to purchase water rights and, in 1913, completed an aqueduct from the valley to Los Angeles. During the 1920s the city continued to acquire water rights, overcoming intense local opposition from valley residents, who dynamited the aqueduct on several occasions and once forceably seized possession of the aqueduct gates.

As the city acquired virtually complete control of valley water, residents pressed damage claims for loss of business and declining value of property. Responding to those claims, the city began to purchase Inyo County land, eventually acquiring 240,000 acres. The city then constructed a second aqueduct, and extended its water rights north, taking in almost all of the Owens Valley watershed and including part of the Mono Lake Basin. Thus, Los Angeles obtained the water essential to its growth; Inyo County, deprived of its water, was transformed from a rich agricultural region to one dependent on tourism; the Owens River and Owens Lake ran dry.

During its acquisition of Inyo County water rights, the city also purchased the water systems of the Towns of Big Pine, Independence, Laws, and Lone Pine, four unincorporated communities in Inyo County. Acting through LADWP, the city administers these water systems, which do not connect with the aqueducts supplying Los Angeles itself.

The city derives authority to own and operate water systems for other communities from article XI, section 9 of the California Constitution, and section 211 (j) of the Los Angeles City Charter. The charter further directs LADWP to set water rates: "such rates shall be of uniform operation, as near as may be, and shall be fair and reasonable, taking into consideration, among other things, the nature of the use, the quantity supplied and the value of the service; provided, further, that the rates inside the city may be less, but not greater, than the rates outside the city for the same or similar uses." (L. A. City Charter,

§ 220(2).) ***158** Rates, set by LADWP, must be approved by the Los Angeles City Council.

Until 1973, LADWP charged users in the four Inyo communities, including Inyo County itself, on a flat rate basis even though Los Angeles users paid metered rates. From 1973 to 1978, however, LADWP changed its Inyo rates to the metered rates that were charged city residents.[2] Inyo County filed suit in the Fresno County Superior Court to enjoin the increase. When that court denied the county's motion for preliminary injunction, the county filed the present complaint with the PUC.

In a unanimous opinion, the PUC dismissed the complaint for want of jurisdiction. The PUC reasoned that it had no jurisdiction over municipally owned utilities unless expressly provided by statute, and that the Legislature's failure to include municipally owned public utilities within the classes of regulated public utilities in divisions 1 and 2 of the Public Utilities Code[3] demonstrated that the Legislature had not granted the PUC such jurisdiction. The county seeks review of that decision.

The county argues that only regulation by the PUC can prevent abuse of LADWP's monopoly position. The PUC, it observes, was established to "protect the people from the consequences of ... monopoly in the public service industries." (*Sale v. Railroad Commission* (1940) 15 Cal.2d 612, 617 [104 P.2d 38].) PUC regulation of rates charged by municipally owned utilities to municipal residents is not compelled because the residents exert political control over the rates. (Cf. *McDaniels v. Park-Woods Mutual Water Co.* (1971) 72 Cal.P.U.C. 247.) But because "the inhabitants of the outside city ... have no voice as voters or taxpayers in the shaping of the affairs of the municipality engaged in ***159** the business, ... to deny the power of the commission to intervene is apparently to leave these consumers ... at the mercy of the other city." (Comment (1921) 9 Cal.L.Rev. 252, 255; see *City of Lamar v. Town of Wiley* (1926) 80 Colo. 18 [248 P. 1009, 1010].) The county therefore urges that we uphold PUC jurisdiction to prevent municipally owned utilities from charging unfair or discriminatory rates to its nonresident customers.

The county further contends that without PUC review it lacks an adequate remedy to challenge unfair rates. ([1]) Although the county recognizes that it can institute suit in superior court to attack the LADWP rates (see *Elliott v. City of Pacific Grove* (1975) 54 Cal. App.3d 53 [126 Cal.Rptr. 371]; *People* ex rel. *Pub. Util. Com. v. City of Fresno* (1967) 254 Cal.App.2d 76 [62 Cal.Rptr. 79]; *Durant v. City of Beverly Hills* (1940) 39 Cal.App.2d 133 [102 P.2d 759]), it urges the inadequacy of that remedy. The county does not deny that decisions discussing judicial review of rates establish that a city which acquires the water system of another community incurs an obligation to deal fairly with its customers in that community and to provide them with reasonable service at reasonable rates. (See *South Pasadena v. Pasadena Land, etc. Co.* (1908) 152 Cal. 579, 587-588, 594 [93 P. 490].) Such an acquiring city, as to the water dedicated to the use of the outside community, holds "title as a mere trustee, bound to apply it to the use of those beneficially interested." (*Id.*, at p. 594; see *Durant* v. *City of Beverly Hills, supra*, 39 Cal.App.2d 133, 138.) Consequently, the county can sue to enjoin rates which are themselves "unreasonable, unfair, or fraudulently or arbitrarily established" (*Durant v. City of Beverly Hills, supra*, 39 Cal.App.2d 133, 139), or which discriminate without a reasonable and proper basis (*Elliott v. City of Pacific Grove, supra*, 54 Cal.App.3d 53, 59).[4]

Judicial review of rates, however, does not provide protection comparable to PUC proceedings. The PUC maintains an expert, independent staff to investigate rate requests; it renders an independent decision on each record that it examines. A court, in contrast, must limit its review to the rates established by the involved utility and must depend upon ***160** the expert testimony presented by the parties. (See *Sale* v. *Railroad Commission, supra*, 15 Cal.2d 612, 617-618.) Thus while judicial review can protect consumers against plainly unfair rates, that remedy does not offer an opportunity for the detailed analysis and careful structuring of rates possible in a PUC proceeding.

To establish PUC jurisdiction to hear the county's complaint, however, it must do more than present arguments which might persuade the Legislature to confer such jurisdiction. The county must demonstrate both (1) that the California Constitution permits the Legislature to grant the PUC such jurisdiction over municipally owned water corporations and (2) that the Legislature has enacted a statute exercising this authority. We review first the question of constitutional power.

The controlling constitutional provisions, article XII, sections 3 and 5, represent a revision without substantive change of the original 1911 and 1914 amendments. Those

amendments had permitted the Legislature to extend the authority of the Railroad Commission to water companies and other public utilities.[5] Section 3 states in part that "*Private corporations and persons* that own, operate, control, or manage a line, plant, or system for the ... furnishing of ... water ... to or for the public, and common carriers, are public utilities subject to control by the Legislature. The Legislature may prescribe that additional classes of private corporations or other persons are public utilities." (Italics added.) Section 5 grants the Legislature further authority: "plenary power, unlimited by the other provisions of this constitution but consistent with this article, to confer additional authority and jurisdiction upon the commission." ([2a]) The county relies primarily upon its contention that a municipal utility, when selling to customers beyond the municipal boundaries, constitutes a "private corporation or person" within the meaning of section 3. ***161**

To understand fully the county's position, we must begin with the 1908 decision in *South Pasadena v. Pasadena Land etc. Co., supra*, 152 Cal. 579, which expounds the law of utility rate regulation prior to the 1911 constitutional amendments. Plaintiffs in *South Pasadena* sought to enjoin the City of Pasadena from purchasing a private water system serving the neighboring City of South Pasadena on the ground, among others, that the inhabitants of South Pasadena would have no protection against arbitrary imposition of rates or termination of service by Pasadena.

Rejecting that contention, the court stated: "In administering a public utility, such as a water system, even within its own limits, a city does not act in its governmental capacity, but in a proprietary and only *quasi-public* capacity. ... The powers of the two cities in regard to this water service will be separate and distinct ...; South Pasadena, within its own limits, will be the sole representative of sovereignty in the fixing of rates, and in the supervision of the streets; and Pasadena will be subject thereto, as a private person. ..." (152 Cal. at p. 593.)

Based upon this language, the county argues that LADWP, in supplying water to Inyo County and its residents, acts in a private, proprietary capacity. The county therefore contends that the 1911 and 1914 constitutional amendments authorizing Railroad Commission jurisdiction over "private corporations and persons" encompasses jurisdiction over such sales by LADWP. Putting the argument differently, the county maintains that the supplied city (South Pasadena in the cited case) possessed, prior to 1911, the power to regulate the rates charged by the supplying city, and that the 1911 and 1914 amendments transferred that power to the Railroad Commission.[6] ***162**

Later, in 1920, the Railroad Commission itself presented similar arguments to justify its asserted jurisdiction to regulate the electrical rates charged by the City of Pasadena to consumers in South Pasadena. This court unanimously rejected those arguments. We stated that "It is not true that a city is a private corporation when carrying on a municipally owned public utility. ... The phrase 'private corporation' ... should be given its natural and ordinary meaning, and ... does not include municipal corporations." (*City of Pasadena v. Railroad Commission, supra*, 183 Cal. 526, 530.)

Noting that the ballot argument in favor of the 1911 amendment specified that it would "'extend the jurisdiction of the Railroad Commission to every kind of public service excepting that furnished by municipally owned plants"' (p. 531), the court stated that "To hold that under all these circumstances the voters nevertheless were aware of the refined distinction between the governmental powers and the proprietary powers of cities and towns and understood that municipal corporations, so far as they exercise proprietary functions, were to be included in the definition of public utilities and in the term 'private corporations,' seems to be the height of absurdity." (*Id.*) Dismissing the consumers' reliance upon *South Pasadena v. Pasadena Land etc. Co., supra*, 152 Cal. 579, the court declared that this precedent, decided in 1908, could have no bearing on the interpretation of the 1911 amendment.

The county contends that *City of Pasadena* was wrongly decided and should be overruled. It argues that the term "private corporations and persons" in the 1911 amendment confers jurisdiction upon the Railroad Commission over municipally owned utilities to the extent that such utilities were selling beyond municipal limits. The county, however, can point to no language in the constitutional amendments, the ballot arguments presented for or against those amendments, or the legislation enacted pursuant to those amendments which distinguishes a municipally owned utility operating within city limits from that operating outside ***163** such limits.[7] Since the county concedes - as it must, in view of the

history of the 1911 and 1914 amendments and the ballot arguments presented in their behalf - that the amendments do not encompass municipally owned utilities selling within city limits, its failure to find a basis for the distinction in the constitutional language fatally flaws its argument. [8]

The county also asserts that *City of Pasadena v. Railroad Commission, supra*, 183 Cal. 526, was discredited by our decision in *Los Angeles Met. Transit Authority v. Public Util. Com.* (1963) 59 Cal.2d 863 [31 Cal.Rptr. 463]. In the latter case, we upheld the constitutionality of a specific statute granting the PUC authority over safety standards of the Metropolitan Transit Authority. Noting that section 23 authorized PUC authority over "every private corporation ... and every common carrier," we held the section encompassed all common carriers, including those owned by a municipal government. Our opinion expressly disapproved "statements in *City of Pasadena* to the effect that the Legislature is prohibited by the California Constitution from conferring regulatory jurisdiction over municipally owned public utilities." (59 Cal.2d at p. 870.) But *Los Angeles Met. Transit Authority* relies upon, and emphasizes, the explicit language that confers jurisdiction over "every common carrier" and does not involve itself in the question whether the term "private corporations and persons" in section 3 includes a municipally owned utility. The conclusion of *City of Pasadena* that the language of section 3 does not include such a utility is therefore not affected by the *Transit Authority* case.

Although we conclude that section 3 of article XII would not authorize legislation conferring PUC jurisdiction over a municipally owned water company selling beyond municipal boundaries, we note that the county persuasively points out that such legislation could be enacted under section 5 of that article. That section, we noted earlier, grants the ***164** Legislature "plenary power, unlimited by the other provisions of this constitution but consistent with this article, to confer additional authority and jurisdiction upon the commission."

Our decision in *City of Pasadena* discussed section 22 of article XII, the predecessor to current section 5. The section at that time granted the Legislature plenary power "unlimited by any provision of this constitution" and did not require that such power be consistent with article XII. The court observed, however, that such language could not be taken literally, since it would permit the Legislature to vest all powers of government in the commission. The court held that the section must be limited to the subject matter of article XII. Observing that section 22 before the 1911 amendment dealt only with common carriers and transportation companies, the court concluded that the authority conferred by section 22 should be limited to regulation of such enterprises. (183 Cal. at p. 533.)

In our opinion, *City of Pasadena's* construction of section 22 (present § 5) is unduly narrow. Under both the explicit language of current section 5 and the basic reasoning of *City of Pasadena*, that section grants the Legislature the power to confer additional authority and jurisdiction on the PUC consistent with the scope of article XII. Article XII is not limited to common carriers and transportation companies, over which the commission has had jurisdiction since 1879, but deals with public utilities of all forms. [9] Thus possible legislation conferring PUC jurisdiction over municipally owned water companies, selling beyond municipal borders or even within such borders, would fall clearly within the scope of present article XII, section 5. [10]

Our final task must then be to determine whether the Legislature has enacted a statute conferring jurisdiction over municipally owned water systems selling to outside customers. Review of the pertinent legislation reveals no statute that expressly provides for such jurisdiction. We do find statutory references to municipal corporations as *purchasers* of water but absolutely no references to such corporations as *suppliers* of ***165** water. The omission of any reference to municipal corporations as suppliers of water can hardly serve as the basis for inferring legislative intent that such corporations be the subject of PUC regulation. As we shall explain, we have concluded that the Legislature has not exercised its constitutional authority to grant the PUC jurisdiction over municipally owned water companies supplying outside customers.

The Public Utilities Code provides for the regulation of water companies in sections 2701-2712. Section 2701 states the jurisdictional basis for such regulation: "Any person, firm, or corporation ... owning, controlling, operating or managing any water system within this State, who sells, leases, rents, or delivers water to any person, firm, corporation, municipality, or any other political subdivision of the State ... is a public utility ...

subject ... to the jurisdiction, control, and regulation of the commission. ...” Thus the seller, lessor, renter, or deliverer of water to a municipality may be regulated as a public utility but the municipality itself is not. Under this section municipalities may be purchasers from regulated public utilities, but are not themselves regulated utilities.

Nor do the earlier sections that define terms appearing in section 2701 so much as refer to a municipal utility. Section 240 defines “water system” as all facilities used for the storage, distribution, and sale of water. Section 241 states that “water corporation” includes “every corporation or person owning, controlling, operating or managing any water system for compensation ....” [11] The term “corporation” includes “a company, an association, and a joint stock association” (Pub. Util. Code, § 204); “person” includes “an individual, a firm, and a copartnership” (Pub. Util. Code, § 205). None of these sections mention municipal corporations. In contrast, section 207 dealing with recipients of utility service, defines the term “public, or any portion thereof” to include “a person, private corporation, municipality, or other political subdivision.” ***166**

Section 216 does define the broad term “public utility.” Subdivision (c) states that “When a person or corporation performs any service or delivers any commodity to any person, private corporation, municipality or other political subdivision of the state, which in turn ... performs such service or delivers such commodity to or for the public ... such person or corporation is a public utility subject to the jurisdiction, control, and regulation of the commission ....” Here the municipality appears as a middleman in the distribution of utility services; yet it is only the originating “person or corporation,” not the municipality, which is a public utility subject to regulation.

Although none of the foregoing sections mentions municipally owned public utilities, the Legislature has not ignored that subject. Sections 10001 to 10251 expressly regulate municipally owned utilities. Section 10005 specifically authorizes municipally owned utilities to sell outside the corporate limits. No provision, however, grants the PUC jurisdiction to regulate the rates for such sales. [12]

([3]) Established doctrine declares that, “In the absence of legislation otherwise providing, the Commission's jurisdiction to regulate public utilities extends only to the regulation of privately owned utilities.” (*Los Angeles Met. Transit Authority v. Public Utilities Com.* (1959) 52 Cal.2d 655, 661 [343 P.2d 913].) ([2b]) The Court of Appeal noted the same principle in *People* ex rel. *Pub. Util. Com. v. City of Fresno, supra*, 254 Cal.App.2d 76, 81. We reiterated in *Orange County Air Pollution Control Dist. v. Public Util. Com.* (1971) 4 Cal.3d 945, 953 at footnote 7 [95 Cal.Rptr. 17, 484 P.2d 1361], that “The commission has no jurisdiction over municipally owned utilities unless expressly provided by statute.” Significantly, when the Legislature first granted the PUC regulatory authority over the Los Angeles Metropolitan Transit Authority, it enacted such a specific statute (Stats. 1951, ch. 1668, p. 3804), and observed that in so doing it “has made exceptions to a long established policy. ...” (Stats. 1951, ch. 1668, § 13.4.) No comparable enactment grants the PUC jurisdiction in the case at bar.

From the foregoing review of the relevant statutes, it is plain - and the county concedes - that the Legislature has not granted the PUC jurisdiction ***167** over rates charged by municipally owned utilities to municipal residents. Although the county seeks to distinguish regulation of rates charged nonresidents from those charged residents, we can find nothing in the statutes or the cases interpreting them which supports that distinction. However compelling the policy arguments in favor of such a distinction, we must reluctantly conclude that the Legislature has not as yet accepted that distinction as a basis for legislation extending the jurisdiction of the PUC.

Legislative inaction in this instance may stem from the fear that any statute conferring jurisdiction on the PUC would be unconstitutional under the reasoning of *City of Pasadena v. Railroad Commission, supra*, 183 Cal. 526. This opinion should make clear, however, that the Legislature possesses the power, pursuant to article XII, section 5, to grant the PUC regulatory authority over municipally owned utilities selling to outside customers. Although petitioner eloquently describes the inequity of subjecting the residents of Inyo County to the fixing of water rates by the LADWP over whom they have neither control nor check, and although we hold the Constitution enables the Legislature to confer jurisdiction upon the PUC to correct this situation, we can find no present statute or decision which sanctions PUC power to exercise a bifurcated rate regulation leaving the LADWP the power to fix water rates for residents of the city and

delegating to the PUC the power to fix water rates for nonresidents. [13]

The order of the Public Utilities Commission is affirmed.

Bird, C. J., Mosk, J., Newman, J., and White, J.,* concurred. ***168**

MANUEL, J.,

Concurring and Dissenting.

I concur in the judgment affirming the commission's order dismissing the complaint for want of jurisdiction. I do not agree, however, that article XII, section 5 of our Constitution grants the Legislature the power to confer on the commission jurisdiction to regulate municipally owned water companies. The express terms of that section establish that the Legislature's power "to confer additional authority and jurisdiction" must be exercised in a manner "consistent with this article" - i.e., article XII. In my view a municipally owned water company, being neither a "private corporation or person" nor a "common carrier" within the meaning of section 3 of that article, may not be made subject to commission jurisdiction under the present provisions of our Constitution. (See *City of Pasadena* v. *Railroad Commission* (1920) 183 Cal. 526, 532-536 [192 P. 25, 10 A.L.R. 1425]; cf. *Los Angeles Met. Transit Authority v. Pub. Util. Com.* (1963) 59 Cal.2d 863 [31 Cal.Rptr. 463, 382 P.2d 583].)

Clark, J., concurred. ***169**

Footnotes

* Assigned by the Chairperson of the Judicial Council.

1 The historical discussion in this opinion is based upon Nadeau, The Water Seekers (1974) part 1, and Smith (edit.), Deepest Valley (rev. ed. 1978) pages 188-227.

2 Los Angeles City Ordinance No. 150,787. Nonresidents outside of Inyo and Mono Counties, however, are charged at 1.5 times the rates charged city residents. (L. A. Ord. No. 150,359.)
The gist of Inyo's complaint, as we understand it, is not that LADWP charges discriminatory rates to Inyo customers, but that its rates fail to take into account that such customers can be served at much lower cost than Los Angeles customers; the county objects in particular to paying for part of the cost of transporting Owens Valley water to Los Angeles and for part of the cost of furnishing Colorado River water (which is not used in Inyo County) to Los Angeles.

3 Division 1 of the Public Utilities Code provides for regulation of public utilities; division 2 provides for regulation of related businesses such as highway carriers, household goods carriers, and charter carriers.

4 A showing that rates are discriminatory is in itself insufficient to fulfill the complainant's burden of proof (see *Durant v. City of Beverly Hills, supra*, 39 Cal.App.2d 133, 138); a showing, however, that such discrimination rests solely on the nonresident status of the customer, and not on the cost of service or some other reasonable basis, will prove the rate invalid (see *Elliott* v. *City of Pacific Grove, supra*, 54 Cal.App.3d 53, 59).

5 1911 constitutional amendments modified article XII, section 23 to permit the Legislature to grant the Railroad Commission, whose jurisdiction had previously been limited to transportation companies, jurisdiction over many other forms of public utilities including water companies. The amendments also modified section 22 to restate the powers of the Railroad Commission and authorized the Legislature to grant it additional powers.
The 1911 amendments had provided that the voters of a city could choose to retain city control over public utilities and thereby withhold jurisdiction from the Railroad Commission. The 1914 constitutional amendment limited this reserved power to enforcement of "local police, sanitary and other regulations, other than the fixing of rates."
In 1946 the Railroad Commission became the Public Utilities Commission.

6 The court in *City of Pasadena v. Railroad Commission* (1920) 183 Cal. 526, 535 [192 P. 25, 10 A.L.R. 1425], stated that "by reason of the recent amendment of section 19, article XI [authorizing cities to provide services to nonresidents], in the few cases where one city operates a municipal plant for a public service which extends into another city, there may be some doubt which one of the the two cities shall have the right to fix the rates for such outside service. The terms of the amendment are not clear on the question." Our review of the amendment indicates that, rather than being ambiguous on the subject, it does not deal with the issue at all, and thus leaves in effect the prior law, as stated in *South Pasadena*, that the city where the customers reside has priority in establishing rates for service.

For the analogy of the *South Pasadena* case to fit the present controversy, however, Inyo County would be compelled to maintain that a county government under pre-1911 law had authority to regulate the rates charged by public utilities to unincorporated communities within the county, and that the 1911 and 1914 amendments transferred this power to the Railroad Commission. It is not, however, clear that counties, as distinguished from incorporated cities, possessed the power to regulate utility rates. *South Pasadena* referring to sales by a municipally owned utility in another incorporated city, states that "If it were in a rural community, the rates charged would be subject to judicial control to make them reasonable. Being in another city, the serving city has a right to demand reasonable rates and may enforce them if not granted." (152 Cal. 579, 593.)

7 Even the language from *South Pasadena v. Pasadena Land etc. Co., supra*, 152 Cal. 579, on which the county relies, fails to draw this distinction. It states that "[i]n administering ... a water system, even within its own limits, a city [acts] in a proprietary and only *quasi-public* capacity." (152 Cal. at p. 593.) Such language offers no basis for treating a municipally owned utility as a "private corporation or person" only when it sells to outside customers.

8 The county argues that the term "person" can be construed to include a municipal corporation (see *City of Los Angeles v. City of San Fernando* (1975) 14 Cal.3d 199, 277 [123 Cal.Rptr. 1, 537 P.2d 1250]), but does not explain how it can reasonably be construed to include a municipal corporation only to the extent that such corporation is selling to nonresidents.

9 *City of Pasadena's* assertion that a municipally owned utility is not a "public utility" within the meaning of article XII (see 183 Cal. at pp. 530-532), although not expressly disapproved by *Los Angeles Met. Transit Authority v. Public Util. Com., supra*, 59 Cal.2d 863, is clearly inconsistent with the holding in the *Transit Authority* case sustaining PUC jurisdiction over a municipally owned common carrier.

10 Language in *City of Pasadena v. Railroad Commission, supra*, 183 Cal. 526, contrary to the reasoning of this opinion is disapproved.

11 The county notes that in *Los Angeles Met. Transit Authority v. Public Util. Com., supra*, 59 Cal.2d 863, the court relied on the statutory definition of "common carrier" as including "every corporation or person engaged ... in the ownership, control, operation, or management of any passenger stage ...." (59 Cal.2d at p. 868, quoting from Pub. Util. Code, §§ 211, 226.) We held that a publicly owned carrier was still a common carrier within the quoted definition. (59 Cal.2d at p. 869.) The county suggests on similar reasoning that a municipal corporation operating a water system, should be considered a "water corporation" under section 241. The argument is plausible, but offers no basis for distinguishing between sales of that corporation to customers within city limits and sales to outside customers.

12 In similar fashion, sections 11501 to 14509 regulate municipal utility districts. Section 12804 authorizes sales to customers outside the district limits, but no section provides for PUC regulation of such sales.

13 The county relies upon Colorado decisions, in particular *City of Lamar v. Town of Wiley, supra*, 248 P. 1009, which permit the Colorado Public Utilities Commission to regulate rates charged by municipal utilities to nonresident customers. The structure of Colorado constitutional and statutory law on this subject, however, is quite different from ours. Under Colorado statutes, public utilities subject to regulation include municipal utilities. (See Colo. Rev. Stats., § 40-3-103.) Their public utilities commission, however, is forbidden to interfere with the performance of a "municipal function" by the state Constitution (Colo. Const., art. V, § 35), which courts have construed to bar commission regulation of rates charged by a municipal utility to city residents. (See *Town of Holyoke v. Smith* (1924) 75 Colo. 286 [226 P. 158].) California statutes, on the other hand, fail to grant our PUC any authority over municipal utilities other than common carriers; thus the PUC lacks jurisdiction over sales to nonresidents whether or not such sales are considered a municipal function.

* Assigned by the Chairperson of the Judicial Council.

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110 Cal.App.4th 1176
Court of Appeal, Second
District, Division 7, California.

COUNTY OF LOS ANGELES,
Plaintiff and Respondent,
v.
COMMISSION ON STATE MANDATES, Defendant and Appellant;
Department of Finance, Real
Party in Interest and Appellant.

No. B156870.
|
July 28, 2003.

Synopsis

Background: County petitioned for writ of mandate, seeking to vacate decision of the Commission on State Mandates which denied county's test claim for costs associated with statute requiring local law enforcement officers to participate in two hours of domestic violence training. The Superior Court, Los Angeles County, No. BS06497, Dzintra I. Janavs, J., granted the petition. Commission appealed.

[Holding:] The Court of Appeal, Muñoz (Aurelio), J., sitting by assignment, held that statute did not mandate any increased costs and thus Commission was not required to reimburse county for its costs.

Reversed with directions.

Attorneys and Law Firms

****422 *1178** Paul M. Starkey, Camille Shelton, Sacramento, and Katherine Tokarski, for Defendant and Appellant Commission on State Mandates.

Bill Lockyer, Attorney General, Andrea Lynn Hoch, Senior Assistant Attorney General, Louis R. Mauro and Catherine M. Van Aken, Supervising Deputy Attorneys General and Geoffrey L. Graybill, Deputy Attorney General, for Real Party in Interest and Appellant Department of Finance.

Lloyd W. Pellman, County Counsel and Stephen R. Morris, Principal Deputy County Counsel, for Plaintiff and Respondent County of Los Angeles.

Opinion

MU#NOZ (AURELIO), J. *

A 1995 amendment to Penal Code section 13519 [1] requires local law enforcement officers to participate in two hours of domestic violence training. The issue on appeal is whether this amendment resulted in a reimbursable state-mandated program within the meaning of article XIII B, section 6 of the California Constitution for the time spent by local law enforcement officers in such domestic violence training, although such officers were already required to spend 24 hours in continuing education training and the domestic violence training could be included within this total.

This administrative mandamus proceeding was commenced by the County of Los Angeles (County) on a "test claim" filed with and denied by the ***1179** Commission on State Mandates (Commission) for the County's costs incurred pursuant to section 13519. The trial court found that California Constitution article XIII B, section 6 required the state to reimburse the County for domestic violence training because the County's needs and priorities might be detrimentally affected when the state took away two hours of training by mandating that two specific hours of training occur. The trial court remanded the proceedings to the Commission to determine the amount of costs actually incurred by the County. We reverse.

FACTUAL BACKGROUND AND PROCEDURAL HISTORY

Article XIII B, section 6 of the California Constitution provides: "Whenever the Legislature or any state agency mandates a new program or higher level of service on any local government, the state shall provide a subvention of funds to reimburse such local government for the costs of such program or increased level of service...." (Cal. Const., art. XIII B, § 6.) The Commission is charged with hearing and deciding local agency claims of entitlement to reimbursement under article XIII B, section 6. (Gov.Code, § 17551, subd. (a).) Pursuit of such a

claim is the exclusive remedy for this purpose (Gov.Code, § 17552), but the Commission's decisions are subject to review by administrative mandamus, under Code of Civil Procedure section 1094.5. (Gov.Code, § 17559, subd. (b).) A "test claim" is "the first claim, ****423** including claims joined or consolidated with the first claim, filed with the commission alleging that a particular statute or executive order imposes costs mandated by the state." (Gov.Code, § 17521; see also *Kinlaw v. State of California* (1991) 54 Cal.3d 326, 328–329, 331–333, 285 Cal.Rptr. 66, 814 P.2d 1308.)

In 1995, section 13519, subdivision (e) was amended to provide: "(e) Each law enforcement officer below the rank of supervisor who is assigned to patrol duties and would normally respond to domestic violence calls or incidents of domestic violence shall complete, every two years, an updated course of instruction on domestic violence that is developed according to the standards and guidelines developed pursuant to subdivision (d). The instruction required pursuant to this subdivision shall be funded from existing resources available for the training required pursuant to this section. It is the intent of the Legislature not to increase the annual training costs of local government." [2]

***1180** Penal Code section 13510, [3] et seq. requires the State Commission on Peace Officer Standards and Training (POST) to promulgate regulations establishing minimum state standards relating to physical, mental, and moral fitness, and minimum training standards for law enforcement officers. Compliance with POST's requirements is voluntary. (Pen.Code, § 13510 et seq.) POST has a certification program for peace officers specified in sections 13510 and 13522 and for the California Highway Patrol. (Pen.Code, §§ 13510.1, subds. (a)-(c), 13510.3.)

On or about December 26, 1996, the County filed a "test claim" [4] pursuant to Government Code section 17522 with the Commission. [5] The test claim alleged that ****424** neither local police officers nor their agencies were given any choice with respect to compliance with section 13519. However, in order to implement the training, the County was required to redirect its officers from their normal work in order to attend the two-hour domestic violence training. The County alleged this substitution of the work agenda of the state for that of the local government violated California Constitution article XIII B, section 6. Furthermore, the County pointed to language in Penal Code section ***1181** 13519, subdivision (e), providing that, "The instruction required pursuant to this subdivision shall be funded from existing resources available for the training required pursuant to this section. It is the intent of the Legislature not to increase the annual training costs of local government entities."

The test claim alleged that although POST bore the cost of producing two-hour telecourses on domestic violence, POST did not provide for any local law enforcement salary reimbursement for attendance at any type of POST-certified training, including the state-mandated costs for domestic violence training. Adherence to POST standards is voluntary by local law enforcement agencies, but POST requires a minimum of 24 hours of training every two years, to be chosen from a menu of available courses. POST does not dictate the courses that must be taken. POST courses include training in, among other things: interviewing techniques for detectives, defensive weapons, CPR, conflict resolution, bicycle patrol, ritual crime and hate group offenders, vehicle pullover and approach, confessions, courtroom demeanor, electronic vehicle recovery systems, vehicle theft investigation, and cultural awareness.

The POST program gives local law enforcement agencies flexibility in choosing training programs to meet their differing needs. In addition to domestic violence training, certain other programs are legislatively mandated: dealing with the developmentally disabled/mentally ill training (implemented July 1992); high speed vehicle pursuits (implemented November 1994); first aid/CPR (a 21–hour initial course, with a 12–hour refresher course every three years); missing persons (implemented January 1989); racial and cultural diversity (implemented August 1983); sexual harassment (implemented November 1994); and sudden infant death syndrome (implemented July 1990). The time requirements for these other required courses vary. Some elective courses require 40 hours to complete.

However, the County alleged because there were no existing resources available for the domestic violence training, the annual training costs of the County were increased as a result of section 13519. The County Sheriff's Department incurred costs of $170,351.45 for domestic violence training for the fiscal year 1996–1997.

In support of its test claim, the County submitted legislative materials relating to section 13519. These included: A July 5, 1995 memorandum in which the Assembly Committee on Appropriations stated that Senate Bill No. 132, proposing the changes ****425** to 13519, understood the "training requirement could have significant costs to local law enforcement in terms of expense and public safety, as most departments will be forced to backfill for offices while the officers are being trained or will have to forego the ***1182** backfilling and have fewer offices on patrol. Any monetary costs incurred by local law enforcement for the officer backfilling would be state-reimbursable." The Committee noted that, "Although this bill states that the costs of the additional domestic violence training be absorbed by POST within existing resources, the reality is that this bill would create additional non-absorbable costs to POST since POST will be unable to exclude one type of training in favor of the domestic violence training, and instead will have to add this training to their current curriculum. The current curriculum of POST training is just as important to the maintaining of public safety as is the additional domestic violence training."

In addition, the Department of Finance recognized the fiscal impact of section 13519 on local law enforcement agencies, and opposed the adoption of Senate Bill No. 132. Diane M. Cummins, Deputy Director of the State Department of Finance, wrote to Senator Diane Watson on April 20, 1995, that, "This bill also specifies that training required pursuant to this measure 'shall be funded from existing resources', as specified. In so specifying, this bill would also require law enforcement agencies to modify existing training programs by increasing training requirements. Finance believes this bill contains a local mandate without providing necessary funding, thereby being in conflict with the California Constitution, which requires the state to fund local mandate costs. Although there is no specific information available regarding the level of additional costs which would be imposed on law enforcement agencies, the Department of Finance is opposed to legislation which would result in additional General Fund expenditures, given the State's ongoing fiscal constraints." The Department of Finance recognized that, "Adding mandatory domestic violence training requirement would result in an additional unknown cost for specified state and local law enforcement agencies...."

Furthermore, Gretchen Fretter, Chair of the California Academy Directors' Association (an organization of training center directors and police academy managers throughout the state) wrote Senator Watson on March 9, 1995, to express the association's concerns with Senate Bill No. 132. Fretter's analysis indicated that the mandate would incur a $300,000 price tag for each training cycle. The California State Sheriffs' Association also wrote to express concerns about Senate Bill No. 132, including that POST estimated the domestic violence training would add costs to local agencies of at least $750,000 per year. Glen Fine, the Deputy Executive Director of POST, on July 11, 1997, wrote to the Department of Finance to inform it that POST understood that the author of Senate Bill No. 132 was aware of POST's training requirements of 24 hours every two years, and it was "the author's intent ... that domestic violence update training become a statutorily required priority for inclusion within this 24 hours of training every two years."

***1183** POST issued a bulletin in February 1996 advising local law enforcement agencies of the new domestic violence training requirement.

The Department of Finance contended that the Legislature intended the domestic violence continuing education and training to be funded from existing resources. The department also contended that POST, which was charged with developing training ****426** standards for local law enforcement agencies, provided over $21 million in existing state funds for domestic violence training. POST pointed out that the drafter of the statute recognized the 24 hours of continuing education every two years, and intended the domestic violence training to be a priority to be included within this 24–hour requirement.

At the hearing before the Commission on the test claim, representatives of the County testified that POST refused to pay for the programs, putting the burdens on local governments, and POST itself had estimated the annual cost of the program at $750,000. A representative of the Sheriff's Department (Captain Dennis Wilson) testified that of the 24 hours required, any combination of courses could be used to meet the requirement. However, inclusion of the domestic violence training would take away two of those hours of training, resulting in only 22 hours. The Sheriff's Department would conduct domestic violence training even in the absence of the mandate; indeed; the

Sheriff's Department actually conducted about 72 hours of training per officer per year. There was no funding for any of this training. The Sheriff's Department has 8,200 sworn officers, and two hours of training per officer adds up to 16,400 hours, which translates to 10 full-time officers for a year. Without funding for the domestic violence training, the Sheriff's Department therefore would lose the time equivalent of 10 officers for a year. Taking officers off the street impacts upon crime.

Martha Zavala testified on behalf of the County that the domestic violence training could not merely be subsumed within the 24 hours already required. With the training mandates already required by POST which exceed the 24–hour minimum, adding the domestic violence training only further exceeds the minimum 24 hours. There is no room to carve it out. Meeting POST requirements is not really an option. Thus, both the Sheriff's Department and the County agree they are seeking reimbursement of the costs of the training and the cost of replacing the officers on the street while in training.

A representative of POST testified that what POST provides in reimbursement to local law enforcement agencies is a small percentage of the real costs incurred. Where the training involved is through a telecourse, POST provides no reimbursement. There has been no increase in POST's budget since the amendment to section 13519. About 30 of the courses provided by POST are mandated training.

***1184** A representative of the Department of Finance testified that the Department believed section 13519 did not create state-mandated reimbursable program because the legislation indicated it was the Legislature's intent not increase the training costs of local government, and the training could be fit within the existing 24–hour requirements.

The Commission's staff prepared an analysis in advance of the hearing which found against the County. The "Staff Analysis" pointed out that section 13519 was originally added by chapter 1609, Statutes of 1984.[6] Originally, the statute required ****427** that POST develop and implement a basic course of instruction for the training of law enforcement officers in the handling of domestic violence complaints, with local law enforcement agencies encouraged, but not required, to provide updates. These provisions of the 1984 version were the subject of a test claim filed by the City of Pasadena in 1990. That claim was denied because the original statute did not require local agencies to implement or pay for a domestic violence training program, did not increase the minimum basic training course hours or advanced officer training hours, and did not require local agencies to provide domestic violence training pursuant to the POST skills and knowledge standards.

Legally, the Staff Analysis pointed out that in order for a statute to impose a reimbursable state-mandated program, the statutory language must (1) direct or obligate an activity or task upon local government entities, and (2) the required activity or task must be new or it must create an increased or higher level of service over the former required level of service. (See, e.g., *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56, 233 Cal.Rptr. 38, 729 P.2d 202.) The Staff Analysis concluded that section 13519 did impose a new activity or program upon local law enforcement agencies. However, because the language of the statute requiring that the instruction be funded from existing resources, it was an open question whether the program imposed *mandated* costs. Because POST's minimum requirements remained at 24 hours before and after enactment of section 13519, there were no increased training hours and costs associated with the domestic violence training course. Instead, the course should be accommodated or absorbed by ***1185** local law enforcement agencies within their existing resources available for training. Thus, the Staff Analysis recommended denial of the test claim.

After the public hearings were held, the Commission adopted the findings of the Staff Analysis. The Commission issued its own statement of decision which substantially adopted the findings of the Staff Analysis.

Subsequently, the County filed a petition for writ of mandate with the trial court, seeking vacation of the Commission's decision. The County argued that the domestic violence training constituted a state-mandated reimbursable program because it (1) was mandatory, while the POST certification training was optional; and (2) the only way local agencies could avoid the costs of the new program would be to redirect their efforts from the training they were already providing as part of POST training, thereby losing flexibility to design programs to suit their own needs.

The Commission argued that the County's focus on "redirected" manpower costs was misplaced. Instead, the focus should be on whether the local law enforcement agencies actually experience increased expenditure of their tax revenues. (See, e.g., *County of Sonoma v. Commission on State Mandates* (2000) 84 Cal.App.4th 1264, 1283, 101 Cal.Rptr.2d 784.) In *County of Sonoma,* the court stated that California Constitution article XIII B, section 6 was designed to prevent the state from forcing programs on local governments, and such a forced program is one which results in "increased actual expenditures ****428** of limited tax proceeds that are counted against the local government's spending limit. Section 6, located within a measure aimed at limiting expenditures, is expressly concerned with 'costs' incurred by local governments as a result of state-mandated programs, particularly when the costs of compliance with a new program restrict local spending in other areas." (*County of Sonoma,* at p. 1284, 101 Cal.Rptr.2d 784.) Because section 13519 did not require the County to incur "actual increased costs" because the domestic violence training could be subsumed within the 24–hour POST training requirement, no state reimbursement was required.

The Commission also argued the state had not required the County to incur increased training costs for salaries of officers to receive the two-hour training. POST's requirements did not change as a result of section 13519, and indeed, shortly after the enactment of section 13519, POST forwarded a bulletin to local law enforcement agencies suggesting they include domestic violence training within the 24–hour continuing training requirement.

***1186** The trial court heard argument, after which the trial court adopted its tentative statement of decision in which it noted that, "Although it may be reasonable in some or even most cases for a deputy to eliminate an unrequired two-hour elective in favor of the required domestic violence instruction, what about cases where the County's needs and priorities would be affected detrimentally, if two hours of electives were taken away? At what point would additional mandated courses result in increased costs? [¶] The record also shows that, for some deputies, other state-required training already amounts to 24 hours or more per two-year period. For these deputies, the two hours of mandated domestic violence training cannot be accommodated by giving up other training but must be added on, for added cost. It appears that, if domestic violence instruction is to be funded from existing resources on a deputy-by-deputy basis, the County clearly does incur increased costs." The trial court granted the petition, and remanded the matter for consideration of the exact amount of increased costs.

DISCUSSION

I. STANDARD OF REVIEW.

[1] **[2]** **[3]** The determination whether the statute here at issue established a mandate under California Constitution article XIII B, section 6, is a question of law. (*County of San Diego v. State of California* (1997) 15 Cal.4th 68, 109, 61 Cal.Rptr.2d 134, 931 P.2d 312.) Under Government Code section 17559,[7] administrative mandamus is the exclusive means to challenge a decision of the Commission on a subvention claim. (*Redevelopment Agency v. Commission on State Mandates* (1997) 55 Cal.App.4th 976, 980, 64 Cal.Rptr.2d 270.) "Government Code section 17559 governs the proceeding below and requires that the trial court review the decision of the Commission under the substantial evidence standard. Where the substantial evidence test is applied by the trial court, we are generally confined to inquiring whether substantial evidence supports the court's findings and judgment. [Citation.] However, we independently review the superior court's legal ****429** conclusions about the meaning and effect of constitutional and statutory provisions. [Citation.]" (*City of San Jose v. State of California* (1996) 45 Cal.App.4th 1802, 1810, 53 Cal.Rptr.2d 521.)

***1187** II. SECTION 13519'S IMPOSITION OF A DOMESTIC VIOLENCE TRAINING COURT IS NOT A STATE–MANDATED PROGRAM WITHIN THE MEANING OF CONSTITUTION ARTICLE XIII B, SECTION 6 BECAUSE IT DOES NOT CONSTITUTE AN "INCREASED LEVEL OF SERVICE."

[4] The Commission essentially makes two arguments. First, it contends that the County did not incur "increased costs." Reimbursement to the County under Constitution article XIII B, section 6 is not required unless there is a showing of actual increased costs mandated by the state. (See, e.g., *County of Los Angeles v. State of California, supra,* 43 Cal.3d at pp. 54–55, 233 Cal.Rptr. 38, 729 P.2d 202; *City of Sacramento v. State of California* (1990)

50 Cal.3d 51, 66–67, 266 Cal.Rptr. 139, 785 P.2d 522.) In *City of Sacramento,* the court explained that the statutory concept of "costs mandated by the state" and the constitutional concept of article XIII B, section 6, are identical. (*City of Sacramento v. State of California, supra,* 50 Cal.3d at p. 67, fn. 11, 266 Cal.Rptr. 139, 785 P.2d 522.) Because of this limited, rather than broad definition, of "costs mandated by the state," article XIII B, section 6 does not provide reimbursement for every single increased cost. Thus, the trial court's finding that reimbursement was required where a statute results in a "redirection of local effort" or a "detrimental change in a local agency's needs and priorities" is not supported by the law. Rather, it constitutes an inappropriate injection of an equitable standard into the analysis.

Secondly, the Commission argues that no "mandate" exists. To the contrary, substantial evidence supports its finding that section 13519 does not result in *increased* costs because nothing in the statute requires the County, or any other local law enforcement agency, to incur actual increased costs. The total number of hours required (the 24 minimum hours of POST training) did not increase because of the domestic violence training; rather, POST still requires 24 hours and in fact after the passage of section 13519, POST forwarded a bulletin to law enforcement agencies recommending that they include domestic violence training within the 24-hour continuing professional training requirement. Because the POST standards are voluntary, if a local law enforcement agencies adds two hours of domestic violence training to either the POST requirement or its own requirements, it is doing so at its own discretion.

In response, the County points out that the Commission's conclusion is based upon the erroneous premise that local law enforcement agencies could escape increased costs simply by dropping two hours of their existing POST training and substituting the new domestic violence training. However, the evidence in the legislative history indicates that this was not the intent of the Legislature when it was considering section 13519, nor was it the position of ***1188** the Department of Finance. The County also contends that local law enforcement agencies incur costs when they sacrifice their existing training programs for the new domestic violence training. Although POST does not dictate those courses for which a local law enforcement agency must offer training and POST does pay for much of the training material, most of the cost of POST training is borne by the local law enforcement agencies in the form of personnel costs while deputies spend 24 hours of work time receiving ****430** training. Furthermore, if a mere legislative directive to fund a new program with existing resources would let the state off the hook for reimbursement, then the constitutional rule of mandate reimbursement would be a nullity: any new state mandate can be funded by canceling other services. Because California Constitution article XIII B, section 6 was designed to prevent the elimination of the fiscal freedom of local governmental agencies to expend their limited available resources without being straightjacketed by state-mandated programs, the Commission's "within existing resources" rule would circumvent the purposes of article XIII B, section 6.

A. The Purposes of California Constitution Article XIII B, Section 6 Guide Our Analysis.

[5] In 1978, the voters approved Proposition 13, which added article XIII A to the California Constitution. Article XIII A "imposes a limit on the power of state and local governments to adopt and levy taxes. [Citation.]" (*County of Fresno v. State of California* (1991) 53 Cal.3d 482, 486, 280 Cal.Rptr. 92, 808 P.2d 235.) In 1979, Proposition 4 added article XIII B to the Constitution, which imposed a complementary limit on governmental spending. (*San Francisco Taxpayers Assn. v. Board of Supervisors* (1992) 2 Cal.4th 571, 574, 7 Cal.Rptr.2d 245, 828 P.2d 147.) These two constitutional provisions "work in tandem, together restricting California government's power both to levy and to spend for public purposes." (*City of Sacramento v. State of California, supra,* 50 Cal.3d at p. 59, fn. 1, 266 Cal.Rptr. 139, 785 P.2d 522.) Their goal is to protect citizens from excessive taxation and government spending. (*County of Los Angeles v. State of California, supra,* 43 Cal.3d at p. 61, 233 Cal.Rptr. 38, 729 P.2d 202.)

[6] California Constitution article XIII B, section 6, provides in relevant part: "Whenever the Legislature or any state agency mandates a new program or higher level of service on any local government, the state shall provide a subvention of funds to reimburse such local government for the costs of such program or increased level of service." Article XIII B, section 6, prevents the state from shifting financial responsibility for carrying out governmental functions to local agencies, which are "ill equipped" to assume increased financial responsibilities because of the taxing and spending limitations of articles

XIII A and XIII B. (*County of Fresno v. State of California, supra,* 53 Cal.3d at p. 487, 280 Cal.Rptr. 92, 808 P.2d 235.) Section 6 thus requires the state "to pay for any new ***1189** governmental programs, or for higher levels of service under existing programs, that it imposes upon local governmental agencies. [Citation.]" (*Hayes v. Commission on State Mandates* (1992) 11 Cal.App.4th 1564, 1577, 15 Cal.Rptr.2d 547.)

[7] [8] [9] [10] [11] [12] [13] State mandate jurisprudence has established that in general, local agencies are not entitled to reimbursement of all increased costs mandated by state law, but only those resulting from a "new" program or an "increased level of service" imposed upon them by the state. (*Lucia Mar Unified School District v. Honig* (1988) 44 Cal.3d 830, 835, 244 Cal.Rptr. 677, 750 P.2d 318.) A "program" is defined as a program which carries out the "governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state." (*County of Los Angeles v. State of California, supra,* 43 Cal.3d at p. 56, 233 Cal.Rptr. 38, 729 P.2d 202.) A program is "new" if the local governmental entity had not previously been required to ****431** institute it. (*City of San Jose v. State of California, supra,* 45 Cal.App.4th at p. 1812, 53 Cal.Rptr.2d 521.) State mandates are requirements imposed on local governments by legislation or executive orders. (*County of Los Angeles v. State of California, supra,* 43 Cal.3d at p. 50, 233 Cal.Rptr. 38, 729 P.2d 202.) Since the purpose of California Constitution article XIII B, section 6 is to avoid governmental programs from being forced on localities by the state, programs which are not unique to the government do not qualify; the programs must involve the provision of governmental services. (*City of Sacramento v. State of California, supra,* 50 Cal.3d at p. 68, 266 Cal.Rptr. 139, 785 P.2d 522.) Further, in order for a state mandate to be found, the local governmental entity must be required to expend the proceeds of its tax revenues. (*Redevelopment Agency of the City of San Marcos v. Commission on State Mandates, supra,* 55 Cal.App.4th at p. 986, 64 Cal.Rptr.2d 270.) Lastly, there must be compulsion to expend revenue. (*City of Merced v. State of California* (1984) 153 Cal.App.3d 777, 780, 783, 200 Cal.Rptr. 642 [revisions to Code of Civil Procedure required entities exercising the power of eminent domain to compensate businesses for lost goodwill did not create state mandate, because the power of eminent domain was discretionary, and need not be exercised at all]; *Department of Finance v. Commission on State Mandates* (2003) 30 Cal.4th 727, 134 Cal.Rptr.2d 237, 68 P.3d 1203.) In *Lucia Mar,* the court explained article XIII B, section 6. "The intent of the section would plainly be violated if the state could, while retaining administrative control of programs it has supported with state tax money, simply shift the cost of the programs to local government on the theory that the shift does not violate section 6 of article XIIIB because the programs are not 'new.' " (*Lucia Mar Unified School District v. Honig, supra,* 44 Cal.3d at p. 836, 244 Cal.Rptr. 677, 750 P.2d 318.)

However, in spite of all of the above, "increased level of service" is not defined in California Constitution article XIII B, section 6 or in the ballot materials. (***1190** *Long Beach Unified School District v. State of California* (1990) 225 Cal.App.3d 155, 173, 275 Cal.Rptr. 449.) Furthermore, "Although a law is addressed only to local governments and imposes new costs on them, it may still not be a reimbursable state mandate." (*City of Richmond v. Commission on State Mandates* (1998) 64 Cal.App.4th 1190, 1197, 75 Cal.Rptr.2d 754.)

In *City of San Jose v. State of California, supra,* 45 Cal.App.4th 1802, 53 Cal.Rptr.2d 521, Government Code section 29550 authorized counties to charge cities and other local entities for costs of booking into county jails persons who had been arrested by employees of the cities and other entities. (45 Cal.App.4th at p. 1806, 53 Cal.Rptr.2d 521.) The State argued the measure merely reallocated booking costs, no shifting from state to local entities, therefore not within article XIII B, section 6. (45 Cal.App.4th at p. 1806, 53 Cal.Rptr.2d 521.) The city contended counties function as agents of the state, charged with enforcement of state's criminal laws; detaining and booking integral part of this process. (*Id.* at p. 1808, 53 Cal.Rptr.2d 521.) The Commission found maintenance of jails and detention of prisoners, had always been a local matter, and cities and counties were both forms of local government; therefore, there was no shift in costs between *state* and local entities.

Furthermore, the terms of Government Code section 29550 were discretionary, not mandatory. (*City of San Jose v. State of California, supra,* 45 Cal.App.4th at pp. 1808–1809, 53 Cal.Rptr.2d 521.) *City of San Jose* found no cost had been improperly transferred to the local

government **432 entities because the cost of capture, detention and housing of persons charged with crimes had traditionally been borne by the counties. (*Id.* at p. 1813, 53 Cal.Rptr.2d 521.) *City of San Jose* rejected the cities' argument that the county was acting as agent of the state because it was "not supported by recent case authority, nor does it square with definitions particular to subvention analysis." (*Id.* at p. 1814, 53 Cal.Rptr.2d 521.) California Constitution article XIII B treated cities and counties alike; Government Code section 17514 defines "costs mandated by the state" to mean any increased costs that a "local agency" is required to incur. Because both cities and counties were to be treated alike for purposes of subvention analysis, nothing in article XIII B, section 6 prohibits the shifting of costs between local government entities. (*City of San Jose,* at p. 1815, 53 Cal.Rptr.2d 521.)

In *County of Los Angeles v. State of California, supra,* 43 Cal.3d 46, 233 Cal.Rptr. 38, 729 P.2d 202, Labor Code sections 4453, 4453.1 and 4460, increased the maximum weekly wage upon which temporary and permanent disability indemnity was computed from $231 to $262.50 per week. In addition, Labor Code section 4702 increased certain death benefits from $55,000 to $75,000. The trial court held that because the changes did not exceed costs of living changes, they did not create an "increased level of service." (43 Cal.3d at p. 52, 233 Cal.Rptr. 38, 729 P.2d 202.) The County argued the terms of California Constitution article XIII B, section 6, do not contain an exception for increased costs which do not exceed the inflation rate. (43 Cal.3d at p. 53, 233 Cal.Rptr. 38, 729 P.2d 202.) The County relied on certain repealed Revenue and *1191 Taxation Code definitions which had equated any program which imposed "additional costs" as being within the constitutional provision of "increased level of service." (*Id.* at p. 53, 233 Cal.Rptr. 38, 729 P.2d 202.) *County of Los Angeles* rejected this interpretation. "If the Legislature had intended to continue to equate 'increased level of service' with 'additional costs,' then the provision would be circular: 'costs mandated by the state' are defined as 'increased costs' due to an 'increased level of service,' which, in turn, would be defined as 'additional costs.' " (*Id.* at p. 55, 233 Cal.Rptr. 38, 729 P.2d 202.) An examination of the language of California Constitution article XIII B, section 6 shows that "by itself, the term 'higher level of service' is meaningless." *Id.* at p. 56, 233 Cal.Rptr. 38, 729 P.2d 202. Rather, it must be read in conjunction with the phrase " 'new program.' " *Ibid.* "Thus read, it is apparent that the subvention requirement for increased or higher level of service is directed to state mandated increases in the services provided by local agencies in existing 'programs.' " (*Ibid.*) By " 'program,' " the voters meant "programs that carry out the governmental function of providing services to the public, or laws which, to implement a state policy, imposed unique requirements on local governments and do not apply generally to all residents and entities in the state." (*Ibid.*) 233 Cal.Rptr. 38, 729 P.2d 202.) The ballot materials provided that article XIII B, section 6 would "not allow the state government to *force programs* on local governments without the state paying for them." (43 Cal.3d at p. 56, 233 Cal.Rptr. 38, 729 P.2d 202.) "Laws of general application are not passed by the Legislature to 'force' programs on localities." (*Id.* at p. 57, 233 Cal.Rptr. 38, 729 P.2d 202.) In light of this, "[t]he language of section 6 is far too vague to support an inference that it was intended that each time the Legislature passes a law of general application it must discern the likely effect on local governments and provide an appropriation to pay **433 for any incidental increase in local costs.... If the electorate had intended such a far-reaching construction of section 6, the language would have explicitly indicated that the word 'program' was being used in such a unique fashion." (*Id.* at p. 57, 233 Cal.Rptr. 38, 729 P.2d 202.) Therefore, there was no need to pay for increase in worker's compensation, because it is not a program administered by local agencies to provide service to the general public. Local government entities are indistinguishable in this respect from private employers. (*Id.* at pp. 57–58, 233 Cal.Rptr. 38, 729 P.2d 202.)

In *City of Sacramento v. State of California, supra,* 50 Cal.3d 51, 266 Cal.Rptr. 139, 785 P.2d 522, chapter 2 of Statutes of 1978 extended mandatory coverage under the state's unemployment insurance laws to include state and local governments and nonprofit organizations. *City of Sacramento* held there was no obligation on the part of the state to provide funds because there was no "unique" obligation imposed upon local governments, nor was there any requirement of new or increased governmental services. (50 Cal.3d at p. 57, 266 Cal.Rptr. 139, 785 P.2d 522.) As the court stated, the measure was adopted to conform California's system to federal laws. (*Id.* at p. 58, 266 Cal.Rptr. 139, 785 P.2d 522.) Because the measure required local governments to provide unemployment benefits to their own employees, the state had not compelled provision of a new or increased level of service to the public at the local level. Rather, it had

merely required local government to provide the same benefits as private ***1192** employers. (*Id.* at p. 67, 266 Cal.Rptr. 139, 785 P.2d 522.) The purpose of California Constitution article XIII B, section 6 was to avoid governmental programs from being forced on localities by the state: Therefore, programs which are not unique to the government do not qualify. (50 Cal.3d at p. 67, 266 Cal.Rptr. 139, 785 P.2d 522.) The benefits at issue here have nothing to do with the provision of governmental services, and are therefore not within the scope of section 6. (50 Cal.3d at p. 68, 266 Cal.Rptr. 139, 785 P.2d 522.)

In *Lucia Mar Unified School District v. Honig, supra,* 44 Cal.3d 830, 244 Cal.Rptr. 677, 750 P.2d 318, Education Code section 59300 required school districts to contribute part of the cost of educating pupils from the district at state schools for the severely handicapped. *Lucia Mar* held section 59300 constituted a "new" program of higher level of service because cost of program had been shifted from the state to a local entity. "The intent of the section would plainly be violated if the state could, while retaining administrative control of programs it has supported with state tax money, simply shift the cost of the programs to local government on the theory that the shift does not violate section 6 of [California Constitution] article XIIIB because the programs are not 'new.' " (44 Cal.3d at p. 836, 244 Cal.Rptr. 677, 750 P.2d 318.)

On the other hand, in *County of San Diego v. State of California, supra,* 15 Cal.4th 68, 61 Cal.Rptr.2d 134, 931 P.2d 312, pursuant to 1982 legislation, the state withdrew from counties Medi–Cal funding for medically indigent persons (MIP's). (*Id.* at pp. 79–80, 61 Cal.Rptr.2d 134, 931 P.2d 312.) To offset this change in coverage, the state set up an account as a mechanism to transfer state funds to counties to pay for Medi–Cal expenses, and sufficient funds had been available in this account to enable the state to fully fund San Diego County's Medi–Cal costs. (*Id.* at p. 80, 61 Cal.Rptr.2d 134, 931 P.2d 312.) However, in fiscal year 1990–1991, insufficient funds were available. (*Ibid.*) The state argued that no mandate for reimbursement existed because the counties had always borne the responsibility of paying for indigent medical care pursuant to Welfare & Institutions Code section 17000. (*County of San Diego,* at pp. 91–92, 61 Cal.Rptr.2d 134, 931 P.2d 312.) In finding ****434** reimbursement was mandated, the Supreme Court found that at the time California Constitution article XIII B, section 6 was enacted, the state was fully funding Medi–Cal for MIP's and the County bore no responsibility for those costs. (*County of San Diego,* at p. 93, 61 Cal.Rptr.2d 134, 931 P.2d 312.) Thus, in enacting Medi–Cal, the Legislature had shifted the cost of indigent medical care from the counties to the state. (*Id.* at pp. 96–97, 61 Cal.Rptr.2d 134, 931 P.2d 312.) Given this background, the Legislature excluded MIP's from Medi–Cal, knowing full well that it would trigger the counties' obligation to pay for medical care as providers of last resort. (*Id.* at p. 98, 61 Cal.Rptr.2d 134, 931 P.2d 312.) Therefore, the 1982 legislation "mandated a ' "new program" ' on counties by 'compelling them to accept financial responsibility in whole or in part for a program,' i.e., medical care for adult MIP's, 'which was funded entirely by the state before the advent of article XIII B.' " (*County of San Diego v. State of California, supra,* 15 Cal.4th 68 at p. 98, 61 Cal.Rptr.2d 134, 931 P.2d 312, citing *Lucia Mar Unified School District v. Honig, supra,* 44 Cal.3d at p. 836, 244 Cal.Rptr. 677, 750 P.2d 318.) Otherwise, " 'County taxpayers would be forced to accept new taxes or see the county ***1193** forced to cut existing programs further....' " (*County of San Diego v. State of California, supra,* 15 Cal.4th 68 at p. 98, 61 Cal.Rptr.2d 134, 931 P.2d 312.)

The Commission relies heavily on *County of Sonoma v. Commission on State Mandates, supra,* 84 Cal.App.4th 1264, 101 Cal.Rptr.2d 784. In *County of Sonoma,* the challenged legislation added section 97.03 to the Revenue and Taxation Code, and reduced the amount of property tax revenue to be allocated to local government pursuant to a formula, allocating an equal portion to a "Educational Revenue Augmentation Fund (ERAF)" for distribution to school districts. (84 Cal.App.4th at pp. 1269–1270, 1275, 101 Cal.Rptr.2d 784.) The net effect of the legislation was to decrease counties' tax revenues, although school revenues remained stable, and satisfied the constitutional necessity of maintaining a minimum level of funding for schools pursuant to California Constitution article XIV, section 8. (84 Cal.App.4th at p. 1276, 101 Cal.Rptr.2d 784.) In *County of Sonoma,* the County argued that the reallocation of tax revenues constituted a state-mandated cost of a new program. (*Id.* at p. 1276, 101 Cal.Rptr.2d 784.) The court held that section 6 subvention was limited to "increases in actual costs." Because none of the County's tax revenues were expended, the legislation did not come within section 6. "Proposition 4 [the initiative enacting article XIII B] was aimed at controlling and capping government spending, not curbing changes in revenue allocations.

Section 6 is an obvious [complement] to the goal of Proposition 4 in that it prevents the state from forcing extra programs on local governments in a manner that negates their careful budgeting of expenditures. A forced program that would negate such planning is one that results in increased actual expenditures of limited tax proceeds that are counted against the local government's spending limit. Section 6, located within a measure aimed at limiting expenditures, is expressly concerned when 'costs' incurred by local government as a result of state-mandated programs, particularly with the costs of compliance with a new program *restrict local spending in other areas.*" (84 Cal.App.4th at pp. 1283–1284, 101 Cal.Rptr.2d 784 (emphasis added).)

County of Sonoma discerned a further requirement of California Constitution article XIII B, section 6: that the costs incurred must involve programs previously funded exclusively by the state. In imposing this limitation, *County of Sonoma* relied on language in ****435** *County of San Diego v. State of California, supra,* 15 Cal.4th 68, 61 Cal.Rptr.2d 134, 931 P.2d 312 that "section 6 prohibits the state from shifting to counties the costs of state programs for which the state assumed complete financial responsibility before adoption of section 6." (*County of San Diego v. State of California, supra,* 15 Cal.4th 68 at p. 99, fn. 20, 61 Cal.Rptr.2d 134, 931 P.2d 312.) *County of Sonoma* determined that because the statute at issue only involved a reallocation of funds between entities already jointly responsible for providing a service (education), no state-mandated reimbursable program existed. (*County of Sonoma v. Commission on State Mandates, supra,* 84 Cal.App.4th at p. 1289, 101 Cal.Rptr.2d 784.)

[14] [15] [16] ***1194** Based upon the principles discernable from the cases discussed, we find that in the instant case, the legislation does not mandate a "higher level of service." In the case of an existing program, an increase in existing costs does not result in a reimbursement requirement. Indeed, "costs" for purposes of California Constitution article XIII B, section 6, does not equal every increase in a locality's budget resulting from compliance with a new state directive. Rather, the state must be attempting to divest itself of its responsibility to provide fiscal support for a program, or forcing a new program on a locality for which it is ill-equipped to allocate funding.

We agree that POST certification is, for all practical purposes, not a "voluntary" program and therefore the County must, in order to comply with section 13519, add domestic violence training to its curriculum. POST training and certification is ongoing and extensive, and local law enforcement agencies may chose from a menu of course offerings to fulfill the 24–hour requirement. Adding domestic violence training obviously may displace other courses from the menu, or require the adding of courses. Officer downtime will be incurred. However, merely by adding a course requirement to POST's certification, the state has not shifted from itself to the County the burdens of state government. Rather, it has directed local law enforcement agencies to reallocate their training resources in a certain manner by mandating the inclusion of domestic violence training.

Furthermore, the state has not shifted from itself the cost of a program previously administered and funded by the state. Instead, the state is requiring certain courses to be placed within an already existing framework of training. This loss of "flexibility" does not, in and of itself, require the County to expend funds that previously had been expended on the POST program by the state. Instead, "[t]he purpose for which state subvention of funds was created, to protected local agencies from having the state transfer its cost of government from itself to the local level, is therefore not brought into play" by a directive that POST-certified studies include domestic violence training. (*Redevelopment Agency of the City of San Marcos v. Commission on State Mandates, supra,* 55 Cal.App.4th at p. 986, 64 Cal.Rptr.2d 270.) Any increased costs are merely "incidental" to the cost of administering the POST certification.

[17] [18] While we are mindful that legislative disclaimers, findings and budget control language are not determinative to a finding of a state-mandated reimbursable program (*Carmel Valley Fire Protection District v. State of California* (1987) 190 Cal.App.3d 521, 541, 234 Cal.Rptr. 795), our interpretation is supported by the hortatory statutory language that, "The instruction required pursuant to this subdivision shall be funded from existing resources available for the training required pursuant to this section. It is the intent of the Legislature not to increase ****436** the annual training costs of local ***1195** government entities." (§ 13519.) Thus, while the County may lose some flexibility in tailoring its training programs, such loss of flexibility does not rise to the

level of a state-mandated reimbursable program because the loss of flexibility is incidental to the greater goal of providing domestic violence training. Every increase in cost that results from a new state directive does not automatically result in a valid subvention claim where, as here, the directive can be complied with by a minimal reallocation of resources within the entity seeking reimbursement. Thus, while there may be a mandate, there are no increased costs mandated by section 13519.

DISPOSITION

The judgment of the trial court is reversed. The trial court is directed to enter a new and different judgment denying the County's petition for writ of mandate and reinstating the findings of the Commission.

We concur: PERLUSS, P.J., and WOODS, J.

All Citations

110 Cal.App.4th 1176, 2 Cal.Rptr.3d 419, 03 Cal. Daily Op. Serv. 6658, 2003 Daily Journal D.A.R. 8347

Footnotes

* Judge of the Los Angeles Superior Court assigned by the Chief Justice pursuant to article VI, section 6 of the California Constitution.

1 Hereafter section 13519.

2 The currently enacted version of this provision is found at section 13519, subdivision (g), and reads, "Each law enforcement officer below the rank of supervisor who is assigned to patrol duties and would normally respond to domestic violence calls or incidents of domestic violence shall complete, every two years, an updated course of instruction on domestic violence that is developed according to the standards and guidelines developed pursuant to subdivision (d). The instruction required pursuant to this subdivision shall be funded from existing resources available for the training required pursuant to this section. It is the intent of the Legislature not to increase the annual training costs of local government entities." (Stats.1998, ch. 701, § 1, designated the paragraph following subd. (a) as subd. (b) and redesignated the remaining subdivisions accordingly; in redesignated subd. (c), inserted par. (5), listing the signs of domestic violence as an instruction topic, and redesignated pars. (5) to (16) as pars. (6) to (17).)

3 Penal Code section 13510, subdivision (a), provides in relevant part: "For the purpose of raising the level of competence of local law enforcement officers, [POST] shall adopt, and may from time to time amend, rules establishing minimum standards relating to physical, mental, and moral fitness that shall govern the recruitment of any city police officers, peace officer members of a county sheriff's office, marshals or deputy marshals of a municipal court, peace officer members of a county coroner's office...."

4 The test claim also challenged the incident-reporting requirements of Penal Code section 13730, which imposed a new program upon local law enforcement agencies to include in the domestic violence incident report additional information regarding the use of alcohol and controlled substances by the alleged abuser, and any prior domestic violence responses to the same address. The County did not contest the Commission's outcome relating to this portion of the test claim, and therefore this issue is not before us on appeal.

5 In 1984, the Legislature created a statutory procedure for determining whether a statute imposes state-mandated costs on a local agency within the meaning of California Constitution article XII B, section 6. (See Gov.Code, § 17500 et seq.) The local agency files a test claim with the Commission, which holds a public hearing and determines whether the statute mandates a new program or increased level of service. (Gov.Code, §§ 17521, 17551, 17555.) If the Commission finds that a claim is reimbursable, it then determines the amount of reimbursement. (Gov.Code, § 17557.) The local agency then follows statutory procedures to obtain reimbursement. (See Gov.Code, § 17558 et seq.) Where the Commission finds no reimbursable mandate, the local agency can challenge this finding by administrative mandate proceedings under Code of Civil Procedure section 1094.5. (See Gov.Code, § 17552 [these provisions "provide the sole and exclusive procedure by which a local agency ... may claim reimbursement for costs mandated by the state as required by Section 6"].)

6 The history of section 13519 is as follows: Added by Statutes 1984, chapter 1609, section 2, pages 5711–5713. Amended by Statutes 1985, chapter 281, section 1, pages 1305–1306, effective July 26, 1985; Statutes 1989, chapter 850, section 3; Statutes 1991, chapter 912 (Sen. Bill No. 421), section 1, pages 4086–4088; Statutes 1993, chapter 1098 (Assem. Bill No. 1268), section 8, pages 6162–6163; Statutes 1995, chapter 965 (Sen. Bill No. 132), section 1, pages 7377–7380; Statutes 1998, chapter 606 (Sen. Bill No.1880), section 13; Statutes 1998, chapter 701 (Assem. Bill No. 2172), section 1;

Statutes 1999, chapter 659 (Sen. Bill No. 355), section 4. The 1995 amendment, at issue here, rewrote subdivision (e), which prior to amendment read: "(e) Forty thousand dollars ($40,000) is appropriated from the Peace Officers Training Fund [POST] in augmentation of Item 8120–001–268 of the Budget Act of 1984, to support the travel, per diem, and associated costs for convening the necessary experts." (Stats.1993, ch. 1098, § 8, p. 6188.)

7 Government Code section 17559, subd. (b), provides: "A claimant or the state may commence a proceeding in accordance with the provisions of Section 1094.5 of the Code of Civil Procedure to set aside a decision of the commission on the ground that the commission's decision is not supported by substantial evidence. The court may order the commission to hold another hearing regarding the claim and may direct the commission on what basis the claim is to receive a rehearing."

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214 Cal.App.3d 1538, 263 Cal.Rptr. 351, 1990 O.S.H.D. (CCH) P 28,784

COUNTY OF LOS ANGELES,
Plaintiff and Appellant,
v.
DEPARTMENT OF INDUSTRIAL RELATIONS et al., Defendants and Respondents

No. C005023.
Court of Appeal, Third District, California.
Oct 27, 1989.

SUMMARY

After the State Board of Control denied a county's claim for reimbursement of costs incurred in complying with certain elevator safety regulations promulgated by the California Occupational Safety and Health Administration, the county sought mandamus, declaratory, and injunctive relief in the superior court. The court granted the state's motion for summary judgment. (Superior Court of Sacramento County, No. 315287, Darrel W. Lewis, Judge.)

The Court of Appeal affirmed. It held principles of administrative collateral estoppel did not preclude the state from challenging a prior decision of the Board of Control finding such costs were a reimbursable state-mandated program under Cal. Const., art. XIII B, and Rev. & Tax. Code, §§ 2207 and 2231. The court also held that providing elevators equipped with fire and earthquake safety features is not "a governmental function of providing services to the public" such as to make a county's costs of complying with state safety regulations requiring those features in all elevators reimbursable as a state-mandated program. (Opinion by Carr, J., with Puglia, P. J., and DeCristoforo, J., concurring.)

HEADNOTES

Classified to California Digest of Official Reports

(1a, 1b)
State of California § 12--Fiscal Matters--Appropriations--Mandated Costs--Reimbursable Programs.
Costs incurred by local governments in carrying out state-mandated programs are reimbursable under Cal. Const., art. XIII B, only if they are programs that carry out the governmental function of providing services to the public, or laws that, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state.

[See **Cal.Jur.3d,** State of California, § 78.]

(2a, 2b)
Administrative Law § 73--Adjudication--Operation and Effect of Decisions and Orders--Collateral Estoppel--Effects of Supreme Court Decision.
Principles of administrative collateral estoppel did not preclude the state from challenging a prior decision of the State Board of Control, finding that certain state elevator safety regulations were a reimbursable state-mandated program (Cal. Const., art. XIII B; Rev. & Tax. Code, §§ 2207, 2231). Even if all the elements for collateral estoppel were present, the earlier finding predated by eight years the Supreme Court's enunciation of the definitions for such programs, and nothing in the record of the earlier decision suggested the board considered the program criteria later stated by the Supreme Court.

(3)
Judgments § 81--Res Judicata--Collateral Estoppel--Criteria for Application.
Traditionally, collateral estoppel has been applied to bar relitigation of an issue decided in a prior court proceeding. For the doctrine to apply, the issues in the two proceedings must be the same, the prior proceeding must have resulted in a final judgment on the merits, and the same parties or their privies must be involved.

[See **Am.Jur.2d,** Judgments, § 415 et seq.]

(4)
Administrative Law § 73--Adjudication--Operation and Effect of Decisions and Orders--Collateral Estoppel--Requisites.
Collateral estoppel applies to prior administrative adjudications where three requirements are met: (1) the administrative agency acted in a judicial capacity; (2) it resolved disputed issues properly before it; and (3) all

parties were provided with the opportunity to fully and fairly litigate their claims.

(5a, 5b)
Elevators and Escalators § 2--Safety Regulations--County Program as State Mandate.
Providing elevators equipped with fire and earthquake safety features is not "a governmental function of providing services to the public" nor a "unique requirement" imposed on local governments, such as to make a county's costs of complying with safety regulations requiring those features in all elevators in California reimbursable as a state-mandated program under Cal. Const., art. XIII B, and Rev. & Tax. Code, §§ 2207 and 2231.

COUNSEL
De Witt W. Clinton, County Counsel, and Paul T. Hanson, Deputy County Counsel, for Plaintiff and Appellant.
John K. Van de Kamp, Attorney General, Richard M. Frank and Linda A. Cabatic, Deputy Attorneys General, for Defendants and Respondents.

CARR, J.

In this appeal from summary judgment in favor of defendant State Department of Industrial Relations (State), plaintiff County of Los Angeles (County) asserts rights to reimbursement for programs alleged to be state mandated. County filed a complaint and petition for mandate claiming reimbursement from State for costs incurred in complying with new elevator earthquake and fire safety regulations promulgated by the California Occupational Safety and Health Administration (OSHA). The trial court concluded these regulations did not constitute a state-mandated program requiring reimbursement and entered summary judgment for State.

County urges three alternative bases of recovery on appeal: (1) principles of administrative collateral estoppel preclude State from relitigating whether the safety regulations amount to a state-mandated program; (2) even if State is not bound by an earlier administrative decision, the definition of "program" articulated in *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46 [233 Cal.Rptr. 38, 729 P.2d 202] (*Los Angeles*) and relied upon by the trial court is inapplicable to this case; and (3) even if *Los Angeles* applies, the OSHA regulations fit its definition. [1] We disagree with each claim and shall affirm the judgment.

Factual and Procedural Background

In 1975, OSHA added or amended numerous elevator fire and earth-quake safety measures in title 8 of the California Code of Regulations (i.e., §§ 3014, subds. (c), (d), 3015, subd. (c), 3030, subds. (f), (k), 3032, subds. ***1541** (a), (c), 3034, subd. (a), 3041, subds. (c), (d), 3053, subd. (c), and 3111, subd. (c).) [2] These regulations applied to all elevators, whether publicly or privately owned.

At the time relevant herein, reimbursement provisions for expenses incurred in complying with state-mandated local programs were embodied in Revenue and Taxation Code sections 2201 et seq. Revenue and Taxation Code section 2231, subdivision (a) provided in part: "The state shall reimburse each local agency for all 'costs mandated by the state', as defined in Section 2207." (Stats. 1978, ch. 794, § 1.1, p. 2546.) That section stated: "'Costs mandated by the state' means any increased costs which a local agency is required to incur as a result of the following: [¶] (a) Any law enacted after January 1, 1973, which mandates a new program or an increased level of service of an existing program; [¶] (b) Any executive order issued after January 1, 1973, which mandates a new program; [¶] (c) Any executive order issued after January 1, 1973, which (i) implements or interprets a state statute and (ii), by such implementation or interpretation, increases program levels above the levels required prior to January 1, 1973." (Stats. 1977, ch. 1135, § 4, p. 3646.) [3]

In 1979, voters enacted Proposition 4, adding article XIII B to the California Constitution. Section 6 of that article provides: "Whenever the Legislature or any state agency mandates a new program or higher level of service on any local government, the state shall provide a subvention of funds to reimburse such local government for the costs of such program or increased level of service, except that the Legislature may, but need not, provide such subvention of funds for the following mandates: [¶] (a) Legislative mandates requested by the local agency affected; [¶] (b) Legislation defining a new crime or changing an existing definition of a crime; or [¶] (c) Legislative mandates enacted prior to January 1, 1975, or executive orders or regulations initially implementing legislation enacted prior to January 1, 1975." This provision became effective July 1, 1980. (See Cal. Const., art. XIII B, § 10.) ***1542**

These statutory and constitutional provisions granted relief to local governments whose powers to raise property taxes had been curtailed but who were still subject to increased expenses through the imposition of statemandated local programs. (*Lucia Mar Unified School Dist.* v. *Honig* (1988) 44 Cal.3d 830, 835-836 [244 Cal.Rptr. 677, 750 P.2d 318].) The state was now required to reimburse local governments for costs associated with these programs.

In 1979, the City and County of San Francisco sought reimbursement for the costs of complying with the elevator fire and earthquake safety regulations. The State Board of Control (Board) approved the claim, adopted "parameters and guidelines," and also adopted "statewide cost estimates" for these regulations. State did not seek review of the Board's decision although authorized to do so by former Revenue and Taxation Code section 2253.5 (Stats. 1978, ch. 794, § 8, p. 2551).

Despite the Board's decision, the Legislature did not appropriate funds for reimbursement, finding the elevator earthquake safety regulations did not impose reimbursable state-mandated costs. (Stats. 1982, ch. 1586, § 10, p. 6268.) The Legislature further stated it could not determine whether the elevator fire safety regulation imposed a reimbursable state-mandated cost and declared the operation of the regulation suspended "until a court determines whether this provision contains a mandate reimbursable under Section 2231 of the Revenue and Taxation Code." (Stats. 1982, ch. 1586, § 11, p. 6268.)

County subsequently filed a claim with the Board for reimbursement of costs already incurred in complying with the fire safety regulation and those anticipated in complying with the earthquake safety provisions. The Board informed County of the Legislature's decision not to provide subvention of funds for costs incurred in association with these OSHA regulations and denied the claim.

In October 1983, County filed its petition for writ of mandate and a complaint for declaratory and injunctive relief, and trial was eventually set for July 1988. In April 1988, State moved for summary judgment, asserting the elevator safety regulations did not meet the definition of "program" recently articulated in *Los Angeles, supra*, 43 Cal.3d 46. In that case, the Supreme Court considered whether local governments were entitled to reimbursement for costs incurred in complying with legislation increasing workers' compensation benefit payments. ([1a]) The court held programs were reimbursable under article XIII B only if they were "programs that carry out the governmental function of providing services to the public, or ***1543** laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state." (*Id.* at p. 56.) The court concluded article XIII B "has no application to, and the State need not provide subvention for, the costs incurred by local agencies in providing to their employees the same increase in workers' compensation benefits that employees of private individuals or organizations receive." (*Id.* at pp. 57-58, fn. omitted.)

Relying on *Los Angeles*, State asserted the regulations did not constitute a "program" requiring reimbursement for costs incurred because they (1) applied to all elevators, both publicly and privately owned, and (2) did not require County to carry out a governmental function of providing services to the public. County disagreed, urging the *Los Angeles* definition was met and, further, that State was estopped to challenge the Board's earlier finding that the regulations imposed a reimbursable state-mandated cost. The trial court granted State's motion for summary judgment; this appeal followed. We shall affirm.

Discussion

I

([2a]) County asserts principles of administrative collateral estoppel preclude State from challenging the Board's earlier decision finding the elevator safety regulations to be a reimbursable state-mandated program. County errs.

In *Carmel Valley Fire Protection Dist. v. State of California* (1987) 190 Cal.App.3d 521 [234 Cal.Rptr. 795] (*Carmel Valley*), the court considered whether costs incurred in purchasing protective clothing and equipment for firefighters as required by new administrative regulations were state-mandated costs entitling the county to reimbursement. The court found the State was precluded from relitigating the issues of state mandate and amount of reimbursement because the Board had previously decided these issues in ruling on the county's

claim and the State by failing to seek judicial review of the Board's decision waived its right to contest the Board's findings. (*Id.* at p. 534.) In reaching this conclusion, the court relied, inter alia, on principles of administrative collateral estoppel, which the court described as follows:

([3]) "Traditionally, collateral estoppel has been applied to bar relitigation of an issue decided in a prior court proceeding. In order for the doctrine to apply, the issues in the two proceedings must be the same, the prior ***1544** proceeding must have resulted in a final judgment on the merits, and the same parties or their privies must be involved. (*People v. Sims* (1982) 32 Cal.3d 468, 484 [ ].) [¶] The doctrine was extended in *Sims* to apply to a final adjudication of an administrative agency of statutory creation so as to preclude relitigation of the same issues in a subsequent criminal case. ([4]) Our Supreme Court held that collateral estoppel applies to such prior adjudications where three requirements are met: (1) the administrative agency acted in a judicial capacity; (2) resolved disputed issues properly before it; and (3) all parties were provided with the opportunity to fully and fairly litigate their claims. (*Id.* at p. 479.)" (*Carmel Valley, supra*, 190 Cal.App.3d at pp. 534-535.)

Although administrative collateral estoppel precluded the relitigation of certain issues, the *Carmel Valley* court noted the *Los Angeles* decision presented a new issue not previously considered by the Board, whether the regulations constitute the type of "program" requiring subvention of funds under article XIII B, section 6. (*Id.* at p. 537.) The court held, "State is not precluded from raising this new issue on appeal. Questions of law decided by an administrative agency invoke the collateral estoppel doctrine only when a determination of conclusiveness will not work an injustice. Likewise the doctrine of waiver is inapplicable if a litigant has no actual or constructive knowledge of his rights. Since the [*Los Angeles*] rule had not been announced at the time of the Board or trial court proceedings herein, the doctrines of waiver and collateral estoppel are inapplicable to State on this particular issue." (*Id.* at p. 537, fn. 10.)

([2b]) The same principle is applicable in the instant case. Assuming arguendo that all of the elements of administrative collateral estoppel are met, the fact remains that the test claim involving the elevator safety regulations was filed with the Board in 1979, eight years before the *Los Angeles* rule was enunciated by our Supreme Court. Nothing in the record supports any assertion that the Board in 1979 considered if this was a program within the meaning of *Los Angeles*. Indeed the Board would have been preternaturally prescient if it had done so. State was free to raise the "program" question in its motion for summary judgment and we turn now to that issue.

II

([5a]) County asserts the *Los Angeles* decision does not apply to this case or, if it does, that the elevator safety regulations are a "program" as defined by *Los Angeles*. Both contentions are without merit. ***1545**

County attempts to distinguish *Los Angeles* from the case at bar by relying on two differences: (1) in *Los Angeles*, the Board ruled against the local governments but here the Board ruled in County's favor; and (2) in *Los Angeles*, the court's ruling was compelled to avoid finding an implied repeal of the state constitution's provisions relating to worker's compensation; and here no constitutional problems are presented. County provides no further analysis of these distinctions and we find them meaningless. ([1b]) *Los Angeles* clearly established a definition of "program" to be used in determining whether reimbursement must be provided under article XIII B, and we are bound to follow that ruling. (*Auto Equity Sales, Inc. v. Superior Court* (1962) 57 Cal.2d 450, 455 [20 Cal.Rptr. 321, 369 P.2d 937].)

As noted, the *Los Angeles* court established two alternative meanings for the term "programs." Programs are reimbursable under article XIII B if they are "programs that carry out the governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state." (*Los Angeles, supra*, 43 Cal.3d at p. 56.)

([5b]) County acknowledges the elevator safety regulations apply to all elevators, not just those which are publicly owned. [4] As these regulations do not impose a "unique requirement" on local governments, they do not meet the second definition of "program" established by *Los Angeles*.

Nor is the first definition of "program" met. County submitted a declaration by deputy county counsel

providing: "It is my opinion that all of the buildings owned or leased by County are used for 'peculiarly governmental functions' or are used by County for purposes mandated by state law .... [¶] It is my opinion, ... that in all buildings owned or leased by County which have elevators, those elevators are strictly necessary for the purposes [just] described. In other words, without those elevators no peculiarly governmental functions and no purposes mandated on County by State law could be performed in those County buildings. ... It is my opinion that federal and state laws and court decisions about access for handicapped persons require elevators in all public buildings of more than one story." These thoughts had occurred to counsel only shortly before County's opposition to the summary judgment motion was due to be filed.

County asserts this declaration "proves that all passenger elevators in all county buildings are necessary for the performance of *peculiarly governmental* ***1546** *functions* by County including *duties mandated* on County *by State*." (Italics in original.) Even if we were to treat the submitted declaration as something more than mere opinion, County has missed the point. The regulations at issue do not mandate elevator service; they simply establish safety measures. In determining whether these regulations are a program, the critical question is whether the *mandated program* carries out the governmental function of providing services to the public, not whether the elevators can be used to obtain these services. Providing elevators equipped with fire and earthquake safety features simply is not "a governmental function of providing services to the public." [5]

As the regulations in question do not meet the definition of "program" established by *Los Angeles*, County was not entitled to reimbursement for costs incurred in complying with these provisions and the court properly granted State's motion for summary judgment.

Disposition

The judgment is affirmed. State to recover costs.

Puglia, P. J., and DeCristoforo, J., concurred.

Appellant's petition for review by the Supreme Court was denied January 17, 1990. ***1547**

Footnotes

1 The first portion of County's brief is devoted to arguing a nonissue, i.e., why a separation of powers issue is not pertinent to this appeal. As the trial court granted summary judgment in favor of State, it did not decide how to order reimbursement or provide other relief without impinging on the Legislature's authority. County is right - the separation of powers question is irrelevant and we do not consider it.

2 The regulations in question outline various safety measures such as (1) the securing of machinery and equipment, (2) elevator car enclosures, (3) emergency operations, and (4) the installation of guide rails, supports and fastenings.

3 Revenue and Taxation Code section 2231 was repealed in 1986 (Stats. 1986, ch. 879, § 23, p. 3045) and reenacted as Government Code section 17561 (Stats. 1986, ch. 879, § 6, pp. 3041-3042). The definition of "costs mandated by the state" is now embodied in Government Code section 17514 and provides: "'Costs mandated by the state' means any increased costs which a local agency or school district is required to incur after July 1, 1980, as a result of any statute enacted on or after January 1, 1975, or any executive order implementing any statute enacted on or after January 1, 1975, which mandates a new program or higher level of service of an existing program within the meaning of Section 6 of Article XIII B of the California Constitution."

4 An affidavit submitted by State in support of its motion for summary judgment established that 92.1 percent of the elevators subject to these regulations are privately owned, while only 7.9 percent are publicly owned or operated.

5 This case is therefore unlike *Lucia Mar, supra*, 44 Cal.3d 830, in which the court found the education of handicapped children to be a governmental function (44 Cal.3d at p. 835) and *Carmel Valley, supra*, where the court reached a similar conclusion regarding fire protection services. (190 Cal.App.3d at p. 537.)

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43 Cal.3d 46, 729 P.2d 202, 233 Cal.Rptr. 38

COUNTY OF LOS ANGELES
et al., Plaintiffs and Appellants,
v.
THE STATE OF CALIFORNIA et
al., Defendants and Respondents.
CITY OF SONOMA et al., Plaintiffs and Appellants,
v.
THE STATE OF CALIFORNIA et
al., Defendants and Respondents

L.A. No. 32106.
Supreme Court of California
Jan 2, 1987.

SUMMARY

The trial court denied a petition for writ of mandate to compel the State Board of Control to approve reimbursement claims of local government entities, for costs incurred in providing an increased level of service mandated by the state for workers' compensation benefits. The trial court found that Cal. Const., art. XIII B, § 6, requiring reimbursement when the state mandates a new program or a higher level of service, is subject to an implied exception for the rate of inflation. In another action, the trial court, on similar claims, granted partial relief and ordered the board to set aside its ruling denying the claims. The trial court, in this second action, found that reimbursement was not required if the increases in benefits were only cost of living increases not imposing a higher or increased level of service on an existing program. Thus, the second matter was remanded due to insubstantial evidence and legally inadequate findings. (Superior Court of Los Angeles County, Nos. C 424301 and C 464829, Leon Savitch and John L. Cole, Judges.) The Court of Appeal, Second Dist., Div. Five, Nos. B001713 and B003561 affirmed the first action; the second action was reversed and remanded to the State Board of Control for further and adequate findings.

The Supreme Court reversed the judgment of the Court of Appeal, holding that the petitions lacked merit and should have been denied by the trial court without the necessity of further proceedings before the board. The court held that when the voters adopted art. XIII B, § 6, their intent was not to require the state to provide subvention whenever a newly enacted statute results incidentally in some cost to local agencies, but only to require subvention for the expense or increased cost of programs administered locally, and for expenses occasioned by laws that impose unique requirements on local governments and do not apply generally to all state residents or entities. Thus, the court held, reimbursement was not required by art. XIII B, § 6. Finally, the court held that no pro tanto repeal of Cal. Const., art. XIV, § 4 (workers' compensation), was intended or made necessary by the adoption of art. XIII B, § 6. (Opinion by Grodin, J., with Bird, C. J., Broussard, Reynoso, Lucas and Panelli, JJ., concurring. Separate concurring opinion by Mosk, J.)

HEADNOTES

Classified to California Digest of Official Reports

(1)
State of California § 12--Fiscal Matters--Appropriations--Reimbursement to Local Governments--Costs to Be Reimbursed.
When the voters adopted Cal. Const., art. XIII B, § 6 (reimbursement to local agencies for new programs and services), their intent was not to require the state to provide subvention whenever a newly enacted statute resulted incidentally in some cost to local agencies. Rather, the drafters and the electorate had in mind subvention for the expense or increased cost of programs administered locally, and for expenses occasioned by laws that impose unique requirements on local governments and do not apply generally to all state residents or entities.

(2)
Statutes § 18--Repeal--Effect--"Increased Level of Service."
The statutory definition of the phrase "increased level of service," within the meaning of Rev. & Tax. Code, § 2207, subd. (a) (programs resulting in increased costs which local agency is required to incur), did not continue after it was specifically repealed, even though the Legislature, in enacting the statute, explained that the definition was declaratory of existing law. It is ordinarily presumed that the Legislature, by deleting an express provision of a statute, intended a substantial change in the law.

[See **Am.Jur.2d,** Statutes, § 384.]

(3)
Constitutional Law § 13--Construction of Constitutions--Language of Enactment.
In construing the meaning of an initiative constitutional provision, a reviewing court's inquiry is focused on what the voters meant when they adopted the provision. To determine this intent, courts must look to the language of the provision itself.

(4)
Constitutional Law § 13--Construction of Constitutions--Language of Enactment--"Program."
The word "program," as used in Cal. Const., art. XIII B, § 6 (reimbursement to local agencies for new programs and services), refers to programs that carry out the governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state.

(5)
State of California § 12--Fiscal Matters--Appropriations--Reimbursement to Local Governments--Increases in Workers' Compensation Benefits.
The provisions of Cal. Const., art. XIII B, § 6 (reimbursement to local agencies for new programs and services), have no application to, and the state need not provide subvention for, the costs incurred by local agencies in providing to their employees the same increase in workers' compensation benefits that employees of private individuals or organizations receive. Although the state requires that employers provide workers' compensation for nonexempt categories of employees, increases in the cost of providing this employee benefit are not subject to reimbursement as state- mandated programs or higher levels of service within the meaning of art. XIII B, § 6. Accordingly, the State Board of Control properly denied reimbursement to local governmental entities for costs incurred in providing state-mandated increases in workers' compensation benefits. (Disapproving *City of Sacramento v. State of California* (1984) 156 Cal.App.3d 182 [203 Cal.Rptr. 258], to the extent it reached a different conclusion with respect to expenses incurred by local entities as the result of a newly enacted law requiring that all public employees be covered by unemployment insurance.)

[See **Cal.Jur.3d,** State of California, § 78.]

(6)
Constitutional Law § 14--Construction of Constitutions--Reconcilable and Irreconcilable Conflicts.
Controlling principles of construction require that in the absence of irreconcilable conflict among their various parts, constitutional provisions must be harmonized and construed to give effect to all parts.

(7)
Constitutional Law § 14--Construction of Constitutions--Reconcilable and Irreconcilable Conflicts--Pro Tanto Repeal of Constitutional Provision.
The goals of Cal. Const., art. XIII B, § 6 (reimbursement to local agencies for new programs and services), were to protect residents from excessive taxation and government spending, and to preclude a shift of financial responsibility for governmental functions from the state to local agencies. Since these goals can be achieved in the absence of state subvention for the expense of increases in workers' compensation benefit levels for local agency employees, the adoption of art. XIII B, § 6, did not effect a pro tanto repeal of Cal. Const., art. XIV, § 4, which gives the Legislature plenary power over workers' compensation.

COUNSEL
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Clare Bronowski as Amici Curiae on behalf of Defendants and Respondents.

GRODIN, J.

We are asked in this proceeding to determine whether legislation enacted in 1980 and 1982 increasing certain workers' compensation benefit payments is subject to the command of article XIII B of the California Constitution that local government costs mandated by the state must be funded by the state. The County of Los Angeles and the City of Sonoma sought review by this court of a decision of the Court of Appeal which held that state-mandated increases in workers' compensation benefits that do not exceed the rise in the cost of living are not costs which must be borne by the state under article XIII B, an initiative constitutional provision, and legislative implementing statutes.

Although we agree that the State Board of Control properly denied plaintiffs' claims, our conclusion rests on grounds other than those relied upon by the Court of Appeal, and requires that its judgment be reversed. ([1]) We conclude that when the voters adopted article XIII B, section 6, their intent was not to require the state to provide subvention whenever a newly enacted statute resulted incidentally in some cost to local agencies. Rather, the drafters and the electorate had in mind subvention for the expense or ***50** increased cost of programs administered locally and for expenses occasioned by laws that impose unique requirements on local governments and do not apply generally to all state residents or entities. In using the word "programs" they had in mind the commonly understood meaning of the term, programs which carry out the governmental function of providing services to the public. Reimbursement for the cost or increased cost of providing workers' compensation benefits to employees of local agencies is not, therefore, required by section 6.

We recognize also the potential conflict between article XIII B and the grant of plenary power over workers' compensation bestowed upon the Legislature by section 4 of article XIV, but in accord with established rules of construction our construction of article XIII B, section 6, harmonizes these constitutional provisions.

I

On November 6, 1979, the voters approved an initiative measure which added article XIII B to the California Constitution. That article imposed spending limits on the state and local governments and provided in section 6 (hereafter section 6): "Whenever the Legislature or any state agency mandates a new program or higher level of service on any local government, the state shall provide a subvention of funds to reimburse such local government for the costs of such program or increased level of service, except that the Legislature may, but need not, provide such subvention of funds for the following mandates: [¶] (a) Legislative mandates requested by the local agency affected; [¶] (b) Legislation defining a new crime or changing an existing definition of a crime; or [¶] (c) Legislative mandates enacted prior to January 1, 1975, or executive orders or regulations initially implementing legislation enacted prior to January 1, 1975." No definition of the phrase "higher level of service" was included in article XIII B, and the ballot materials did not explain its meaning. [1]

The genesis of this action was the enactment in 1980 and 1982, after article XIII B had been adopted, of laws increasing the amounts which ***51** employers, including local governments, must pay in workers' compensation benefits to injured employees and families of deceased employees.

The first of these statutes, Assembly, Bill No. 2750 (Stats. 1980, ch. 1042, p. 3328), amended several sections of the Labor Code related to workers' compensation. The amendments of Labor Code sections 4453, 4453.1 and 4460 increased the maximum weekly wage upon which temporary and permanent disability indemnity is computed from $231 per week to $262.50 per week. The amendment of section 4702 of the Labor Code increased certain death benefits from $55,000 to $75,000. No appropriation for increased state-mandated costs was made in this legislation. [2]

Test claims seeking reimbursement for the increased expenditure mandated by these changes were filed with the State Board of Control in 1981 by the County of San Bernardino and the City of Los Angeles. The board rejected the claims, after hearing, stating that the increased maximum workers' compensation benefit levels did not change the terms or conditions under which benefits were to be awarded, and therefore did not, by increasing the dollar amount of the benefits, create an increased level

of service. The first of these consolidated actions was then filed by the County of Los Angeles, the County of San Bernardino, and the City of San Diego, seeking a writ of mandate to compel the board to approve the reimbursement claims for costs incurred in providing an increased level of service mandated by the state pursuant to Revenue and Taxation Code section 2207. [3] They also sought a declaration that because the State of California and the board were obliged by article XIII B to reimburse them, they were not obligated to pay the increased benefits until the state provided reimbursement.

The superior court denied relief in that action. The court recognized that although increased benefits reflecting cost of living raises were not expressly ***52** excepted from the requirement of state reimbursement in section 6 the intent of article XIII B to limit governmental expenditures to the prior year's level allowed local governments to make adjustment for changes in the cost of living, by increasing their own appropriations. Because the Assembly Bill No. 2750 changes did not exceed cost of living changes, they did not, in the view of the trial court, create an "increased level of service " in the existing workers' compensation program.

The second piece of legislation (Assem. Bill No. 684), enacted in 1982 (Stats. 1982, ch. 922. p. 3363), again changed the benefit levels for workers' compensation by increasing the maximum weekly wage upon which benefits were to be computed, and made other changes among which were: The bill increased minimum weekly earnings for temporary and permanent total disability from $73.50 to $168, and the maximum from $262.50 to $336. For permanent partial disability the weekly wage was raised from a minimum of $45 to $105, and from a maximum of $105 to $210, in each case for injuries occurring on or after January 1, 1984. (Lab. Code, § 4453.) A $10,000 limit on additional compensation for injuries resulting from serious and willful employer misconduct was removed (Lab. Code, § 4553), and the maximum death benefit was raised from $75,000 to $85,000 for deaths in 1983, and to $95,000 for deaths on or after January 1, 1984. (Lab. Code, § 4702.)

Again the statute included no appropriation and this time the statute expressly acknowledged that the omission was made "[n]otwithstanding section 6 of Article XIIIB of the California Constitution and section 2231 ... of the Revenue and Taxation Code." (Stats. 1982, ch. 922, § 17, p. 3372.) [4]

Once again test claims were presented to the State Board of Control, this time by the City of Sonoma, the County of Los Angeles, and the City of San Diego. Again the claims were denied on grounds that the statute made no change in the terms and conditions under which workers' compensation benefits were to be awarded, and the increased costs incurred as a result of higher benefit levels did not create an increased level of service as defined in Revenue and Taxation Code section 2207, subdivision (a).

The three claimants then filed the second action asking that the board be compelled by writ of mandate to approve the claims and the state to pay them, and that chapter 922 be declared unconstitutional because it was not adopted in conformity with requirements of the Revenue and Taxation Code or ***53** section 6. The trial court granted partial relief and ordered the board to set aside its ruling. The court held that the board's decision was not supported by substantial evidence and legally adequate findings on the presence of a state-mandated cost. The basis for this ruling was the failure of the board to make adequate findings on the possible impact of changes in the burden of proof in some workers' compensation proceedings (Lab. Code, § 3202.5); a limitation on an injured worker's right to sue his employer under the "dual capacity" exception to the exclusive remedy doctrine (Lab. Code, §§ 3601-3602); and changes in death and disability benefits and in liability in serious and wilful misconduct cases. (Lab. Code, § 4551.)

The court also held: "[T]he changes made by chapter 922, Statutes of 1982 may be excluded from state-mandated costs if that change effects a cost of living increase which does not impose a higher or increased level of service on an existing program." The City of Sonoma, the County of Los Angeles, and the City of San Diego appeal from this latter portion of the judgment only.

II

The Court of Appeal consolidated the appeals. The court identified the dispositive issue as whether legislatively mandated increases in workers' compensation benefits constitute a "higher level of service" within the meaning of section 6, or are an "increased level of service" [5] described

in subdivision (a) of Revenue and Taxation Code section 2207. The parties did not question the proposition that higher benefit payments might constitute a higher level of "service." The dispute centered on whether higher benefit payments which do not exceed increases in the cost of living constitute a higher level of service. Appellants maintained that the reimbursement requirement of section 6 is absolute and permits no implied or judicially created exception for increased costs that do not exceed the inflation rate. The Court of Appeal addressed the problem as one of defining "increased level of service."

The court rejected appellants' argument that a definition of "increased level of service" that once had been included in section 2231, subdivision (e) of the Revenue and Taxation Code should be applied. That definition brought any law that imposed "additional costs" within the scope of "increased level of service." The court concluded that the repeal of section 2231 in 1975 (Stats. 1975, ch. 486, § 7, pp. 999-1000) and the failure of the Legislature by statute or the electorate in article XIII B to readopt the ***54** definition must be treated as reflecting an intent to change the law. (*Eu v. Chacon* (1976) 16 Cal.3d 465, 470 [128 Cal.Rptr. 1, 546 P.2d 289].) [6] On that basis the court concluded that increased costs were no longer tantamount to an increased level of service.

The court nonetheless assumed that an increase in costs mandated by the Legislature did constitute an increased level of service if the increase exceeds that in the cost of living. The judgment in the second, or "Sonoma " case was affirmed. The judgment in the first, or "Los Angeles" case, however, was reversed and the matter "remanded" to the board for more adequate findings, with directions. [7]

III

The Court of Appeal did not articulate the basis for its conclusion that costs in excess of the increased cost of living do constitute a reimbursable increased level of service within the meaning of section 6. Our task in ascertaining the meaning of the phrase is aided somewhat by one explanatory reference to this part of section 6 in the ballot materials.

A statutory requirement of state reimbursement was in effect when section 6 was adopted. That provision used the same "increased level of service " phraseology but it also failed to include a definition of "increased level of service," providing only: "Costs mandated by the state' means any increased costs which a local agency is required to incur as a result of the following: [¶] (a) Any law ... which mandates a new program or an increased level of service of an existing program." (Rev. & Tax. Code § 2207.) As noted, however, the definition of that term which had been ***55** included in Revenue and Taxation Code section 2164.3 as part of the Property Tax Relief Act of 1972 (Stats. 1972, ch. 1406, § 14.7, p. 2961), had been repealed in 1975 when Revenue and Taxation Code section 2231, which had replaced section 2164.3 in 1973, was repealed and a new section 2231 enacted. (Stats. 1975. ch. 486, §§ 6 & 7, p. 999.) [8] Prior to repeal, Revenue and Taxation Code section 2164.3, and later section 2231, after providing in subdivision (a) for state reimbursement, explained in subdivision (e) that " "Increased level of service' means any requirement mandated by state law or executive regulation ... which makes necessary expanded or additional costs to a county, city and county, city, or special district." (Stats. 1972, ch. 1406, § 14.7, p. 2963.)

([2]) Appellants contend that despite its repeal, the definition is still valid, relying on the fact that the Legislature, in enacting section 2207, explained that the provision was "declaratory of existing law." (Stats. 1975, ch. 486, § 18.6, p. 1006.) We concur with the Court of Appeal in rejecting this argument. "[I]t is ordinarily to be presumed that the Legislature by deleting an express provision of a statute intended a substantial change in the law." (*Lake Forest Community Assn. v. County of Orange* (1978) 86 Cal.App.3d 394, 402 [150 Cal.Rptr. 286]; see also *Eu* v. *Chacon, supra*, 16 Cal.3d 465, 470.) Here, the revision was not minor: a whole subdivision was deleted. As the Court of Appeal noted, "A change must have been intended; otherwise deletion of the preexisting definition makes no sense."

Acceptance of appellants' argument leads to an unreasonable interpretation of section 2207. If the Legislature had intended to continue to equate "increased level of service" with "additional costs," then the provision would be circular: "costs mandated by the state" are defined as "increased costs" due to an "increased level of service," which, in turn, would be defined as "additional costs." We decline to accept such an interpretation. Under the repealed provision, "additional costs" may have been deemed tantamount to an "increased level of service," but not under the post-1975 statutory scheme. Since that definition has been repealed, an act of which the drafters

of section 6 and the electorate are presumed to have been ***56** aware, we may not conclude that an intent existed to incorporate the repealed definition into section 6.

([3]) In construing the meaning of the constitutional provision, our inquiry is not focussed on what the Legislature intended in adopting the former statutory reimbursement scheme, but rather on what the voters meant when they adopted article XIII B in 1979. To determine this intent, we must look to the language of the provision itself. (*ITT World Communications, Inc. v. City and County of San Francisco* (1985) 37 Cal.3d 859, 866 [210 Cal.Rptr. 226, 693 P.2d 811].) In section 6, the electorate commands that the state reimburse local agencies for the cost of any "new program or higher level of service." Because workers' compensation is not a new program, the parties have focussed on whether providing higher benefit payments constitutes provision of a higher level of service. As we have observed, however, the former statutory definition of that term has been incorporated into neither section 6 nor the current statutory reimbursement scheme.

([4]) Looking at the language of section 6 then, it seems clear that by itself the term "higher level of service" is meaningless. It must be read in conjunction with the predecessor phrase "new program" to give it meaning. Thus read, it is apparent that the subvention requirement for increased or higher level of service is directed to state mandated increases in the services provided by local agencies in existing "programs." But the term "program" itself is not defined in article XIII B. What programs then did the electorate have in mind when section 6 was adopted? We conclude that the drafters and the electorate had in mind the commonly understood meanings of the term - programs that carry out the governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state.

The concern which prompted the inclusion of section 6 in article XIII B was the perceived attempt by the state to enact legislation or adopt administrative orders creating programs to be administered by local agencies, thereby transferring to those agencies the fiscal responsibility for providing services which the state believed should be extended to the public. In their ballot arguments, the proponents of article XIII B explained section 6 to the voters: "Additionally, this measure: (1) Will not allow the state government to *force programs* on local governments without the state paying for them." (Ballot Pamp., Proposed Amend. to Cal. Const. with arguments to voters, Spec. Statewide Elec. (Nov. 6, 1979) p. 18. Italics added.) In this context the phrase "to force programs on local governments" confirms that the intent underlying section 6 was to require reimbursement to local agencies for the costs involved in carrying out functions peculiar to government, not ***57** for expenses incurred by local agencies as an incidental impact of laws that apply generally to all state residents and entities. Laws of general application are not passed by the Legislature to "force" programs on localities.

The language of section 6 is far too vague to support an inference that it was intended that each time the Legislature passes a law of general application it must discern the likely effect on local governments and provide an appropriation to pay for any incidental increase in local costs. We believe that if the electorate had intended such a far-reaching construction of section 6, the language would have explicitly indicated that the word "program" was being used in such a unique fashion. (Cf. *Fuentes v. Workers' Comp. Appeals Bd.* (1976) 16 Cal.3d 1, 7 [128 Cal.Rptr. 673, 547 P.2d 449]; *Big Sur Properties v. Mott* (1976) 63 Cal.App.3d 99, 105 [132 Cal.Rptr. 835].) Nothing in the history of article XIII B that we have discovered, or that has been called to our attention by the parties, suggests that the electorate had in mind either this construction or the additional indirect, but substantial impact it would have on the legislative process.

Were section 6 construed to require state subvention for the incidental cost to local governments of general laws, the result would be far-reaching indeed. Although such laws may be passed by simple majority vote of each house of the Legislature (art. IV, § 8, subd. (b)), the revenue measures necessary to make them effective may not. A bill which will impose costs subject to subvention of local agencies must be accompanied by a revenue measure providing the subvention required by article XIII B. (Rev. & Tax. Code, §§ 2255, subd. (c).) Revenue bills must be passed by two-thirds vote of each house of the Legislature. (Art. IV, § 12, subd. (d).) Thus, were we to construe section 6 as applicable to general legislation whenever it might have an incidental effect on local agency costs, such legislation could become effective only if passed by a supermajority vote.[9] Certainly no such intent is reflected in the language or history of article XIII B or section 6.

([5]) We conclude therefore that section 6 has no application to, and the state need not provide subvention for, the costs incurred by local agencies in providing to their employees the same increase in workers' compensation ***58** benefits that employees of private individuals or organizations receive.[10] Workers' compensation is not a program administered by local agencies to provide service to the public. Although local agencies must provide benefits to their employees either through insurance or direct payment, they are indistinguishable in this respect from private employers. In no sense can employers, public or private, be considered to be administrators of a program of workers' compensation or to be providing services incidental to administration of the program. Workers' compensation is administered by the state through the Division of Industrial Accidents and the Workers' Compensation Appeals Board. (See Lab. Code, § 3201 et seq.) Therefore, although the state requires that employers provide workers' compensation for nonexempt categories of employees, increases in the cost of providing this employee benefit are not subject to reimbursement as state-mandated programs or higher levels of service within the meaning of section 6.

IV

([6]) Our construction of section 6 is further supported by the fact that it comports with controlling principles of construction which "require that in the absence of irreconcilable conflict among their various parts, [constitutional provisions] must be harmonized and construed to give effect to all parts. (*Clean Air Constituency* v. *California State Air Resources Bd.* (1974) 1 Cal.3d 801, 813-814 [114 Cal.Rptr. 577, 523 P.2d 617]; *Serrano v. Priest* (1971) 5 Cal.3d 584, 596 [96 Cal.Rptr. 601, 487 P.2d 1241, 41 A.L.R.3d 1187]; *Select Base Materials v. Board of Equal.* (1959) 51 Cal.2d 640, 645 [335 P.2d 672].)" (*Legislature* v. *Deukmejian* (1983) 34 Cal.3d 658, 676 [194 Cal.Rptr. 781, 669 P.2d 17].)

Our concern over potential conflict arises because article XIV, section 4,[11] gives the Legislature "plenary power, unlimited by any provision of ***59** this Constitution" over workers' compensation. Although seemingly unrelated to workers' compensation, section 6, as we have shown, would have an indirect, but substantial impact on the ability of the Legislature to make future changes in the existing workers' compensation scheme. Any changes in the system which would increase benefit levels, provide new services, or extend current service might also increase local agencies' costs. Therefore, even though workers' compensation is a program which is intended to provide benefits to all injured or deceased employees and their families, because the change might have some incidental impact on local government costs, the change could be made only if it commanded a supermajority vote of two-thirds of the members of each house of the Legislature. The potential conflict between section 6 and the plenary power over workers' compensation granted to the Legislature by article XIV, section 4 is apparent.

The County of Los Angeles, while recognizing the impact of section 6 on the Legislature's power over workers' compensation, argues that the "plenary power" granted by article XIV, section 4, is power over the substance of workers' compensation legislation, and that this power would be unaffected by article XIII B if the latter is construed to compel reimbursement. The subvention requirement, it is argued, is analogous to other procedural ***60** limitations on the Legislature, such as the "single subject rule" (art. IV, § 9), as to which article XIV, section 4, has no application. We do not agree. A constitutional requirement that legislation either exclude employees of local governmental agencies or be adopted by a supermajority vote would do more than simply establish a format or procedure by which legislation is to be enacted. It would place workers' compensation legislation in a special classification of substantive legislation and thereby curtail the power of a majority to enact substantive changes by any procedural means. If section 6 were applicable, therefore, article XIII B would restrict the power of the Legislature over workers' compensation.

The City of Sonoma concedes that so construed article XIII B *would* restrict the plenary power of the Legislature, and reasons that the provision therefore either effected a pro tanto repeal of article XIV, section 4, or must be accepted as a limitation on the power of the Legislature. We need not accept that conclusion, however, because our construction of section 6 permits the constitutional provisions to be reconciled.

Construing a recently enacted constitutional provision such as section 6 to avoid conflict with, and thus pro tanto repeal of, an earlier provision is also consistent

with and reflects the principle applied by this court in *Hustedt v. Workers' Comp. Appeals Bd.* (1981) 30 Cal.3d 329 [178 Cal.Rptr. 801, 636 P.2d 1139]. There, by coincidence, article XIV, section 4, was the later provision. A statute, enacted pursuant to the plenary power of the Legislature over workers' compensation, gave the Workers' Compensation Appeals Board authority to discipline attorneys who appeared before it. If construed to include a transfer of the authority to discipline attorneys from the Supreme Court to the Legislature, or to delegate that power to the board, article XIV, section 4, would have conflicted with the constitutional power of this court over attorney discipline and might have violated the separation of powers doctrine. (Art. III, § 3.) The court was thus called upon to determine whether the adoption of article XIV, section 4, granting the Legislature plenary power over workers' compensation effected a pro tanto repeal of the preexisting, exclusive jurisdiction of the Supreme Court over attorneys.

We concluded that there had been no pro tanto repeal because article XIV, section 4, did not give the Legislature the authority to enact the statute. Article XIV, section 4, did not expressly give the Legislature power over attorney discipline, and that power was not integral to or necessary to the establishment of a complete system of workers' compensation. In those circumstances the presumption against implied repeal controlled. "It is well established that the adoption of article XIV, section 4 'effected a repeal *pro tanto*' of any state constitutional provisions which conflicted with that ***61** amendment. (*Subsequent Etc. Fund. v. Ind. Acc. Com.* (1952) 39 Cal.2d 83, 88 [244 P.2d 889]; *Western Indemnity Co.* v. *Pillsbury* (1915) 170 Cal. 686, 695, [151 P. 398].) A *pro tanto* repeal of conflicting state constitutional provisions removes 'insofar as necessary' any restrictions which would prohibit the realization of the objectives of the new article. (*Methodist Hosp. of Sacramento* v. *Saylor* (1971) 5 Cal.3d 685, 691-692 [97 Cal.Rptr. 1, 488 P.2d 161]; cf. *City and County of San Francisco v. Workers' Comp. Appeals Bd.* (1978) 22 Cal.3d 103, 115-117 [148 Cal.Rptr. 626, 583 P.2d 151].) Thus the question becomes whether the board must have the power to discipline attorneys if the objectives of article XIV, section 4 are to be effectuated. In other words, does the achievement of those objectives compel the modification of a power - the disciplining of attorneys - that otherwise rests exclusively with this court?" (*Hustedt v. Workers' Comp. Appeals Bd., supra*, 30 Cal.3d 329, 343.) We concluded that the ability to discipline attorneys appearing before it was not necessary to the expeditious resolution of workers' claims or the efficient administration of the agency. Thus, the absence of disciplinary power over attorneys would not preclude the board from achieving the objectives of article XIV, section 4, and no pro tanto repeal need be found.

([7]) A similar analysis leads to the conclusion here that no pro tanto repeal of article XIV, section 4, was intended or made necessary here by the adoption of section 6. The goals of article XIII B, of which section 6 is a part, were to protect residents from excessive taxation and government spending. (*Huntington Park Redevelopment Agency* v. *Martin* (1985) 38 Cal.3d 100, 109-110 [211 Cal.Rptr. 133, 695 P.2d 220].) Section 6 had the additional purpose of precluding a shift of financial responsibility for carrying out governmental functions from the state to local agencies which had had their taxing powers restricted by the enactment of article XIII A in the preceding year and were ill equipped to take responsibility for any new programs. Neither of these goals is frustrated by requiring local agencies to provide the same protections to their employees as do private employers. Bearing the costs of salaries, unemployment insurance, and workers' compensation coverage - costs which all employers must bear - neither threatens excessive taxation or governmental spending, nor shifts from the state to a local agency the expense of providing governmental services.

Therefore, since the objectives of article XIII B and section 6 can be achieved in the absence of state subvention for the expense of increases in workers' compensation benefit levels for local agency employees, section 6 did not effect a pro tanto repeal of the Legislature's otherwise plenary power over workers' compensation, a power that does not contemplate that the Legislature rather than the employer must fund the cost or increases in ***62** benefits paid to employees of local agencies, or that a statute affecting those benefits must garner a supermajority vote.

Because we conclude that section 6 has no application to legislation that is applicable to employees generally, whether public or private, and affects local agencies only incidentally as employers, we need not reach the question that was the focus of the decision of the Court of Appeal - whether the state must reimburse localities for state-mandated cost increases which merely reflect adjustments for cost-of-living in existing programs.

V

It follows from our conclusions above, that in each of these cases the plaintiffs' reimbursement claims were properly denied by the State Board of Control. Their petitions for writs of mandate seeking to compel the board to approve the claims lacked merit and should have been denied by the superior court without the necessity of further proceedings before the board.

In B001713, the Los Angeles case, the Court of Appeal reversed the judgment of the superior court denying the petition. In the B003561, the Sonoma case, the superior court granted partial relief, ordering further proceedings before the board, and the Court of Appeal affirmed that judgment.

The judgment of the Court of Appeal is reversed. Each side shall bear its own costs.

Bird, C. J., Broussard, J., Reynoso, J., Lucas, J., and Panelli, J., concurred.

MOSK, J.

I concur in the result reached by the majority, but I prefer the rationale of the Court of Appeal, i.e., that neither article XIII B, section 6, of the Constitution nor Revenue and Taxation Code sections 2207 and 2231 require state subvention for increased workers' compensation benefits provided by chapter 1042, Statutes of 1980, and chapter 922, Statutes of 1982, but only if the increases do not exceed applicable cost-of-living adjustments because such payments do not result in an increased level of service.

Under the majority theory, the state can order unlimited financial burdens on local units of government without providing the funds to meet those burdens. This may have serious implications in the future, and does violence to the requirement of section 2231, subdivision (a), that the state reimburse local government for "all costs mandated by the state."

In this instance it is clear from legislative history that the Legislature did not intend to mandate additional burdens, but merely to provide a cost-of-living ***63** adjustment. I agree with the Court of Appeal that this was permissible.

Appellants' petition for a rehearing was denied February 26, 1987. ***64**

Footnotes

1 The analysis by the Legislative Analyst advised that the state would be required to "reimburse local governments for the cost of complying with 'state mandates.' 'State mandates' are requirements imposed on local governments by legislation or executive orders." Elsewhere the analysis repeats: "[T]he initiative would establish a requirement that the state provide funds to reimburse local agencies for the cost of complying with state mandates. ...
The one ballot argument which made reference to section 6, referred only to the "new program" provision, stating, "Additionally, this measure [¶] (1) will not allow the state government to force programs on local governments without the state paying for them."

2 The bill was approved by the Governor and filed with the Secretary of State on September 22, 1980. Prior to this, the Assembly gave unanimous consent to a request by the bill's author that his letter to the Speaker stating the intent of the Legislation be printed in the Assembly Journal. The letter stated: (1) that the Assembly Ways and Means Committee had recommended approval without appropriation on grounds that the increases were a result of changes in the cost of living that were not reimbursable under either Revenue and Taxation Code section 2231, or article XIII B; (2) the Senate Finance Committee had rejected a motion to add an appropriation and had approved a motion to concur in amendments of the Conference Committee deleting any appropriation.
Legislative history confirms only that the final version of Assembly Bill No. 2750, as amended in the Assembly on April 16, 1986, contained no appropriation. As introduced on March 4, 1980, with a higher minimum salary of $510 on which to base benefits, an unspecified appropriation was included.

3 The superior court consolidated another action by the County of Butte, Novato Fire Protection District, and the Galt Unified School District with that action. Neither those plaintiffs nor the County of San Bernardino are parties to the appeal.

4 The same section ”recognized,“ however, that a local agency ”may pursue any remedies to obtain reimbursement available to it“ under the statutes governing reimbursement for state-mandated costs in chapter 3 of the Revenue and Taxation Code, commencing with section 2201.

5 The court concluded that there was no legal or semantic difference in the meaning of the terms and considered the intent or purpose of the two provisions to be identical.

6 The Court of Appeal also considered the expression of legislative intent reflected in the letter by the author of Assembly Bill No. 2750 (see fn. 2, *ante*). While consideration of that expression of intent may have been proper in construing Assembly Bill No. 2750, we question its relevance to the proper construction of either section 6, adopted by the electorate in the prior year, or of Revenue and Taxation Code section 2207, subdivision (a) enacted in 1975. (Cf. *California Employment Stabilization Co.* v. *Payne* (1947) 31 Cal.2d 210, 213-214 [187 P.2d 702].) There is no assurance that the Assembly understood that its approval of printing a statement of intent as to the later bill was also to be read as a statement of intent regarding the earlier statute, and it was not relevant to the intent of the electorate in adopting section 6.

The Court of Appeal also recognized that the history of Assembly Bill No. 2750 and Statutes 1982, chapter 922, which demonstrated the clear intent of the Legislature to omit any appropriation for reimbursement of local government expenditures to pay the higher benefits precluded reliance on reimbursement provisions included in benefit-increase bills passed in earlier years. (See e.g., Stats. 1973, chs. 1021 and 1023.)

7 We infer that the intent of the Court of Appeal was to reverse the order denying the petition for writ of mandate and to order the superior court to grant the petition and remand the matter to the board with directions to set aside its order and reconsider the claim after making the additional findings. (See Code Civ. Proc. § 1094.5, subd. (f).)

8 Pursuant to the 1972 and successor 1973 property tax relief statutes the Legislature had included appropriations in measures which, in the opinion of the Legislature, mandated new programs or increased levels of service in existing programs (see, e.g., Stats. 1973, ch. 1021, § 4, p. 2026; ch. 1022, § 2, p. 2027; Stats. 1976, ch. 1017, § 9, p. 4597) and reimbursement claims filed with the State Board of Control pursuant to Revenue and Taxation Code sections 2218-2218.54 had been honored. When the Legislature fails to include such appropriations there is no judicially enforceable remedy for the statutory violation notwithstanding the command of Revenue and Taxation Code section 2231, subdivision (a) that “[t]he state shall reimburse each local agency for all 'costs mandated by the state,' as defined in Section 2207” and the additional command of subdivision (b) that any statute imposing such costs “provide an appropriation therefor.” (*County of Orange v. Flournoy* (1974) 42 Cal.App.3d 908, 913 [117 Cal.Rptr. 224].)

9 Whether a constitutional provision which requires a supermajority vote to enact substantive legislation, as opposed to funding the program, may be validly enacted as a Constitutional amendment rather than through revision of the Constitution is an open question. (See *Amador Valley Joint Union High Sch. Dist. v. State Bd. of Equalization* (1978) 22 Cal.3d 208, 228 [149 Cal.Rptr. 239, 583 P.2d 1281].)

10 The Court of Appeal reached a different conclusion in *City of Sacramento v. State of California* (1984) 156 Cal.App.3d 182 [203 Cal.Rptr. 258], with respect to a newly enacted law requiring that all public employees be covered by unemployment insurance. Approaching the question as to whether the expense was a “state mandated cost,” rather than as whether the provision of an employee benefit was a “program or service” within the meaning of the Constitution, the court concluded that reimbursement was required. To the extent that this decision is inconsistent with our conclusion here, it is disapproved.

11 Section 4: “The Legislature is hereby *expressly vested with plenary power, unlimited by any provision of this Constitution*, to create, and enforce a complete system of workers' compensation, by appropriate legislation, and in that behalf to create and enforce a liability on the part of any or all persons to compensate any or all of their workers for injury or disability, and their dependents for death incurred or sustained by the said workers in the course of their employment, irrespective of the fault of any party. A complete system of workers' compensation includes adequate provisions for the comfort, health and safety and general welfare of any and all workers and those dependent upon them for support to the extent of relieving from the consequences of any injury or death incurred or sustained by workers in the course of their employment, irrespective of the fault of any party; also full provision for securing safety in places of employment; full provision for such medical, surgical, hospital and other remedial treatment as is requisite to cure and relieve from the effects of such injury; full provision for adequate insurance coverage against liability to pay or furnish compensation; full provision for regulating such insurance coverage in all its aspects, including the establishment and management of a State compensation insurance fund; full provision for otherwise securing the payment of compensation and full provision for vesting power, authority and jurisdiction in an administrative body with all the requisite governmental functions to determine any dispute or matter arising under such legislation, to the end that the administration of such legislation shall accomplish substantial justice in all cases expeditiously, inexpensively, and without encumbrance of any character; all

of which matters are expressly declared to be the social public policy of this State, binding upon all departments of the State government.

"The Legislature is vested with plenary powers, to provide for the settlement of any disputes arising under such legislation by arbitration, or by an industrial accident commission, by the courts, or by either, any, or all of these agencies, either separately or in combination, and may fix and control the method and manner of trial of any such dispute, the rules of evidence and the manner of review of decisions rendered by the tribunal or tribunals designated by it; provided, that all decisions of any such tribunal shall be subject to review by the appellate courts of this State. The Legislature may combine in one statute all the provisions for a complete system of workers' compensation, as herein defined.

"The Legislature shall have power to provide for the payment of an award to the state in the case of the death, arising out of and in the course of the employment, of an employee without dependents, and such awards may be used for the payment of extra compensation for subsequent injuries beyond the liability of a single employer for awards to employees of the employer.

"Nothing contained herein shall be taken or construed to impair or render ineffectual in any measure the creation and existence of the industrial accident commission of this State or the State compensation insurance fund, the creation and existence of which, with all the functions vested in them, are hereby ratified and confirmed." (Italics added.)

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149 Cal. 69, 84 P. 760

MARTIAL DAVOUST, Appellant,
v.
CITY OF ALAMEDA, Respondent.

Supreme Court of California.
S. F. No. 3390.
March 30, 1906.

MUNICIPAL CORPORATIONS—LIABILITY FOR NEGLIGENCE.
Although municipal corporations are not liable for the negligence of their officers or servants when acting in their governmental, political, or public capacity, in the absence of a statute permitting it, yet, when the injury arises from the exercise of mere proprietary and private rights, they are liable for negligence, like individuals or private corporations.

ID.—NEGLIGENT OPERATION OF ELECTRIC-LIGHT PLANT—LIABILITY OF CITY FOR DEATH.
A city engaged in operating an electric-light plant owned by it for the purpose of lighting the city, and furnishing electric light to its inhabitants for domestic use, is liable for the death of a person caused by its negligent operation.

ID.—AUTHORITY TO BOARD OF TRUSTEES.
It is immaterial to the liability of the city for the negligent operation of such plant that the authority to maintain it was given to the board of trustees of the city, and not in terms to the city.

ID.—PROOF OF NEGLIGENCE—DEATH FROM LIVE WIRE—WAY OVER VACANT LOT—LICENSE.
It appearing that the death was caused by a live wire negligently allowed by the city to remain upon a beaten path four feet wide over a vacant lot, which had for many years been used by residents of the neighborhood in going from their homes to a railroad station, the deceased must be deemed a licensee in crossing such path, and not a trespasser; and that the death was due to the negligence of the city is sufficiently proved.

APPEAL from a judgment of the Superior Court of Alameda County. W. E. Greene, Judge.

The facts are stated in the opinion of the court.

***69** J. C. Campbell, W. H. Metson, Reed & Nusbaumer, J. R. Glascock, and J. M. Poston, for Appellant.
M. W. Simpson, and Chapman & Clift, for Respondent.

***70** MCFARLAND, J.

This action is to recover damages for the death of plaintiff's wife alleged to have been caused by the negligence of defendant, the city of Alameda, in operating an electric-lighting plant owned by defendant, and used for the purpose of lighting said city and furnishing light to its inhabitants for domestic purposes. The trial court granted a nonsuit and gave judgment for defendant, and from this judgment plaintiff appeals. There is a bill of exceptions which presents the evidence and the rulings of the court.

It does not appear upon what ground the nonsuit was granted; but the main point argued by counsel for respondent is that because the defendant is a municipal corporation it is not liable to pay any damages, even though the death of plaintiff's wife was caused by the negligent operation of the electric plant. And in support of this contention respondent relies on *Winbigler v. City of Los Angeles,* 45 Cal. 36; *Denning v. State,* 123 Cal. 316, [55 Pac. 1000]; *Chope v. City of Eureka,* 78 Cal. 588, [21 Pac. Rep. 364, 12 Am. St. Rep. 113], and the cases there cited. These cases undoubtedly establish the rule in this state, although it has been held differently in some other jurisdictions, that a municipal corporation, when exercising governmental functions as an agent of the sovereign power, is not liable for damages caused by the negligence of its employees, unless it is expressly so made liable by statute. But this rule applies to a municipal corporation only when acting in its governmental, political, or public capacity as an instrumentality intrusted by the state with the subordinate control of some public affair. Such a corporation, however, has a double character—governmental, and also proprietary and private—and when acting in the latter capacity its liabilities arising out of either contract or

tort are the same as those of natural persons or private corporations. And while we have been referred to no case in this state where the proposition last stated was directly involved, yet in all the cases from this state cited by respondent the acts complained of were connected with the exercise of what has uniformly been held to be governmental functions, such as maintenance of public streets and roads, protection from fire, etc. However, the distinction has been frequently recognized and stated in the California decisions. In *Touchard v. Touchard,* 5 Cal. 307, the court say: "A corporation, both ***71** by the civil and common law, is a person, an artificial person; and although a municipal corporation has delegated to it certain powers of government, it is only in reference to those delegated powers that it will be regarded as a government. In reference to all other of its transactions, such as affect its ownership of property in buying, selling, or granting, and in reference to all matters of contract, it must be looked upon and treated as a private person, and its contracts construed in the same manner and with like effect as those of natural persons." In *San Francisco Gas Co. v. San Francisco,* 9 Cal. 469, Justice Field says: "The distinction alluded to refers to the double character of a municipal corporation; its public and political character in which it exercises subordinate and legislative powers, and its private character in which it exercises the powers of an individual or private corporation." In *Ukiah v. Ukiah W. and I Co.,* 142 Cal. 179, [75 Pac. 775, 100 Am. St. Rep. 107], this court says: "The distinction between the powers conferred on municipal corporations for public purposes and for the general public good, and those conferred for private corporate purposes, is clearly marked by the decisions." (Citing cases.) In *Denning v. State,* 123 Cal. 316, [55 Pac. Rep. 1000], it was held that the state was not liable for injury caused plaintiff by negligence of a board of harbor commissioners, because the latter were exercising purely governmental powers; but the distinction above mentioned was clearly stated. The court said, among other things, that the plaintiff, when injured, was employed in a distinct branch of the service,—"viz. the protection against or extinguishment of fires, which, even in the case of municipal corporations, is uniformly held to be the exercise of a purely governmental function; and there is certainly as strong ground for distinguishing between the different functions of the board as there can be for distinguishing between the different functions of a municipal corporation, in the exercise of some of which the corporation is liable for negligence, while in others it is not." (See, also, *Holland v. San Francisco*, 7 Cal. 361; *Argenti v. San Francisco*, 16 Cal. 255; *Brown v. Board of Education,* 103 Cal. 531, [37 Pac. 503].)

In other jurisdictions the rule that municipal corporations are liable like individuals and private corporations when the injury arises out of their exercise of mere proprietary and ***72** private rights has been extremely and frequently decided. Indeed, the rule has become text-book law. In Dillon on Municipal Corporations (sec. 66) the author, having said that a municipal corporation "possesses a double character; one governmental, legislative, or public; the other, in a sense, proprietary or private," proceeds as follows: "In its governmental or public character, the corporation is made, by the state, one of its instruments, or the local depositary of certain limited and prescribed political powers, to be exercised for the public good on behalf of the state rather than for itself; … but in its proprietary or private character, the theory is that the powers are supposed not to be conferred, primarily or chiefly, from considerations connected with the government of the state at large, but for the private advantage of the compact community which is incorporated as a distinct legal personality or corporate individual." There are numerous authorities to the general point of the distinction between the governmental and the proprietary character of municipal corporations, but it will be sufficient here, on the general question, to refer to the opinion of the supreme court of Oregon in the case of *Esberg Cigar Co. v. Portland,* 34 Or. 282, [55 Pac. 961, 75 Am. St. Rep. 651], where the authorities are nearly all cited. (See, also, *South Carolina v. United States,* 199 U. S. 437, [26 Sup. Ct. 110, 116].)

And that the respondent, in maintaining and operating its electric plant, was exercising, not its governmental functions, but its proprietary and private rights, is entirely clear. There is obviously no distinction, so far as the law on the subject is concerned, between an electric plant for furnishing light, which is comparatively a new thing, and a gas plant maintained for the same purpose; and it has been directly held that a municipal corporation operating a gas plant is liable for injury caused by its careless management. In Dillon on Municipal Corporations (sec. 954) it is said: "A municipal corporation owning waterworks or gasworks which supply private consumers on the payment of tolls is liable for the negligence of its agents and servants the same as like private proprietors would be"; and ample authority is cited sustaining the text. In *Western S. F. Society v. Philadelphia,* 31 Pa. 183,

[72 Am. Dec. 730], the Supreme Court of Pennsylvania say: "The supply of gaslight is no more a duty of ***73** sovereignty than the supply of water. Both these objects may be accomplished through the agency of individuals or private corporations, and in very many instances they are accomplished by those means. If this power is granted to a borough or a city, it is a special private franchise. … The whole investment is the private property of the city, as much so as the lands and houses belonging to it. … It [the city] stands on the same footing as would any individual or body of persons upon whom the like special franchises had been conferred." In *San Francisco Gas Co. v. San Francisco,* 9 Cal. 469, the court say: "The purchase of gas involves only the exercise of a power of a private corporation; it requires no exercise of any political power. It is as much an act of a private character as if made by a private corporation." In *Esberg Cigar Co. v. Portland,* 34 Or. 282, [55 Pac. 961, 75 Am. St. Rep. 651], the facts were that the city of Portland owned and maintained a system of waterworks, and the plaintiff therein brought the action for damages for injuries caused by the negligent management of the said waterworks; and it was contended for defendant "that the waterworks belonged to the city in its public or governmental capacity, and it therefore is not liable in a common-law action for negligence in constructing or maintaining the same." But the court held otherwise, and, after alluding to the distinction above stated, said: "In accordance with this distinction it is quite universally held that when a municipal corporation voluntarily undertakes to construct and maintain water or gas works in pursuance of statutory authority, for the purpose of supplying the inhabitants thereof with water or gas at rates established by the city, it is liable for an injury in consequence of its acts in constructing and maintaining such works, the same as a private corporation or individual." And surely this principle applies as fully to the maintenance of an electric-lighting plant as to the maintenance of waterworks. In the case at bar, the city of Alameda was merely given the optional privilege of constructing and maintaining an electric-lighting plant; no duty was imposed on it to do so. Our conclusion on the main point above discussed is that the respondent cannot escape liability for the negligence averred in the complaint on the ground that it is a municipal corporation.

There are some points made by respondent upon the theory ***74** that defendant would not have been liable even if it had been a private person or corporation, which we will allude to briefly. We would not be justified in holding that the evidence was not sufficient to show that the death of appellant's wife was caused by negligence in operating the electric plant. Whatever the evidence may be on another trial, that which appears in the present record is sufficient to establish the negligence. The contention that appellant cannot recover because his wife at the time of the accident was a trespasser is not maintainable. There was, and for many years had been, a street-railroad station on Monroe Street, and south of that station, and fronting it, there was a vacant uninclosed level lot owned by a person who is in no way involved in this litigation. Across the vacant lot there was a way, or beaten path, about four feet wide, which had been for many years—more than five years—used by residents in the neighborhood in going from their homes to the said station on Monroe Street. While plaintiff's wife was walking along this path, and when within a few feet from Monroe Street, she came in contact with a live wire of respondent's electric plant, which was negligently allowed to lie across the path, and was killed by the current. It is not necessary to inquire what would have been the liability of the owner of the lot if he had also owned the electric plant and had been guilty of the negligence which caused her death, although even then the allowance of such a deadly trap probably could not have been excused on the ground that the woman was a trespasser, even if she had been. But no such question arises here. She had a right to be where she was, at least as against every one except the owner of the lot; and the respondent, itself a mere trespasser, is in no position to raise the question as to what duty the owner of the land owes to a trespasser; moreover, she was not a mere trespasser, but a licensee.

Respondent contends that the city was not liable because the grant of authority to maintain the electric plant is given to "the board of trustees of such city," and not, in terms, to the city; but we do not see any force in this contention. A "city" is a mere intangible thing, existing only in legal contemplation; it could not itself use the franchise, and can act only through its governing body, the board of trustees. A grant of a franchise, in terms, to the city, would be in ***75** effect a grant to the body having the power to use it. In *Arnold v. San Jose,* 81 Cal. 618, [22 Pac. 877], this court said: "A distinction is made by appellant between cases arising under charters making it the duty of a city, as such, to keep the streets open and in repair, and those which make it the duty of the city council to do so. We are unable to see any merit in the point." And further on in the

opinion it is shown that *Winbigler v. City of Los Angeles,* 45 Cal. 36, does not hold differently.

We do not think that there was a nonjoinder of plaintiffs; and, as to other points, it is sufficient to say that none of them are, in our opinion, tenable or necessary to be specially noticed.

The judgment appealed from is reversed.

Beatty, C. J., Angellotti, J., Henshaw, J., Lorigan, J., and Sloss, J., concurred.

SHAW, J.

I concur. The rule is well established in this state that, in the absence of a statutory provision permitting it, an action will not lie against a municipal corporation for damages caused by the negligence of its officers, agents, and servants in the performance of the public or governmental duties of such corporations. (*Winbigler v. City of Los Angeles,* 45 Cal. 37; *Howard v. San Francisco,* 51 Cal. 52; *Tranter v. City of Sacramento,* 61 Cal. 271; *Stedman v. San Francisco,* 63 Cal. 193; *Chope v. Eureka,* 78 Cal. 589, [21 Pac. 364, 12 Am. St. Rep. 113]; *Arnold v. San Jose,* 81 Cal. 618, [22 Pac. 877]; *Doeg v. Cook,* 126 Cal. 213, [58 Pac. 707, 77 Am. St. Rep. 171]; *Ukiah v. Ukiah etc. Co.,* 142 Cal. 182, [75 Pac. 773, 100 Am. St. Rep. 107]; *Sievers v. San Francisco*, 115 Cal. 654, [47 Pac. 687, 56 Am. St. Rep. 153].) The statement of the rule implies that there are other functions and powers of municipal corporations, for the negligent performance of which by their officers and servants, such corporations are liable. The distinction is clearly stated in the principal opinion. The authorities uniformly hold that the duties arising from the operation of gasworks, electric works, water- works, and such like public utilities, are of the private nature which is required to make municipal corporations liable for damages caused by negligence therein. It is evident, however, ***76** that the division of municipal functions into two classes, one public and governmental, the other private and corporate, is without any real foundation, and is made solely from the supposed necessity of doing so in order to allow a suit to be maintained for such injuries. In its public functions a municipality was said to represent the sovereign power, and as such to be exempt from private action. Hence, with respect to the class of powers here involved, it was considered necessary to designate them as private in character, in order to uphold a suit to recover for these injuries. The only reason given for classifying the power to administer public utilities as private and corporate, is that private persons and corporations frequently engage in such enterprises; that they are carried on by the city for its own profit; and, in a few cases, that the municipality has contracted with the sovereign power to do such things, and is therefore acting in a private capacity. None of these reasons is of any force. Private persons and corporations also frequently undertake to give police protection and fire protection to the inhabitants of cities. Yet these functions, in all cases where they are performed by a city, are always considered to be public and governmental, thus showing that the fact stated constitutes no reason for the distinction. It may be that in former times cities engaged in such enterprises for the sake of the profit to be made thereby. But, under our system, its charges for service are fixed solely for the purpose of covering the operating expenses and providing a sinking fund, and the profit, if any, is merely incidental. The making of contracts with the state by municipalities to supply such public needs is with us utterly unknown. In our form of government and under our constitutional provisions, a city can have no active powers or functions that are not public and governmental in character. (*Low v. Marysville,* 5 Cal. 214.) Its merely passive power to hold and possess property to which it has lawfully acquired title may not differ materially in its effects, with respect to the liability for a misuse of such property, from those of a private corporation or person to hold and possess such property, and after such property has for any reason become no longer necessary for municipal purposes, its continued ownership and possession may have no direct relation to the public ***77** welfare or benefit. But its active powers are all given for the purpose of enabling it the better to administer public affairs so as to subserve the public good and promote the general local public welfare, or, as the agency of the state, affairs of a more general concern, which are primarily committed to the state; and all such active powers, whether of one class or the other, are essentially of a public and governmental character.

It must be conceded that the rule holding cities liable for such injuries is more conducive to justice than would be the contrary. "The rule of law is a general one, that the superior or employer must answer civilly for the negligence or want of skill of his agent or servant in the course or line of his employment, by which another, who is free from contributory fault, is injured. Municipal corporations under the conditions herein stated, fall within the operation of this rule of law." (2 Dillon

on Municipal Corporations, sec. 968.) Our Civil Code declares that "No one should suffer by the act of another" (section 3520), and "For every wrong there is a remedy" (section 3523). The doctrine here applied is indeed the general rule applicable to all cases of tort, and the exemption of cities and other public corporations from liability for negligence in the exercise of some of its public and governmental functions is really in the nature of an exception to that rule. It is against natural justice that it should be made possible by any system of jurisprudence that one should receive an injury at the hands of another who is subject to be sued in every ordinary form of action, and that that other should have immunity from any action for redress by the person injured. Nor is the doctrine unjust or unfair to municipal corporations. Private corporations engaged in enterprises of this character, as is well known, are liable for the neglect of their agents and servants in the line of their duties, and the expenses caused thereby form a part of the necessary operating expenses of the business, and their rates must be fixed with that item in view. When municipal corporations engage in the same business, although they may do so solely for the general public benefit, and not for the profit to be derived therefrom, it is but fair and just that they should be subjected to the same burden. This burden can easily be ***78** shifted to the general public, who should bear it, by adjusting the rates charged for the service so as to cover this additional cost of operation.

The question how far, and in the exercise of what powers, a city should be held liable for such injuries is one of policy exclusively. The legislature has the power to dictate this policy. It has been settled at common law, upon various grounds (for it has not always been based upon this supposed distinction), that municipal corporations are liable for injuries caused in the exercise of certain powers, and are not liable for injuries arising from certain other powers, unless such liability is created by statute. Among the powers for which it is held liable in this manner are the power to carry on for the public use gasworks, electric works, waterworks, and other like public utilities, and this was a well-settled rule of the common law. (*Hill v. Boston,* 122 Mass. 344, [23 Am. Rep. 332]; 1 Dillon on Municipal Corporations, secs. 26, 27, 66, 67; 2 Dillon on Municipal Corporations, secs. 961, 966.) This common law has been carried into our jurisprudence and made the rule of decision in all the courts of this state by section 4468 of the Political Code. So far as the class of powers here involved is concerned, the rule is manifestly in accordance with justice, and is also in accordance with good public policy. It is not good policy that a person who receives an injury by the negligence of public servants engaged in carrying on such public utilities should be made to suffer the injury without recourse upon the public which receives the benefit of the services, and which, by reason of the proposed exemption of the public from such liability, would be enabled to obtain the service at less cost than if it were performed by private persons. This rule, having been established at common law, and being in existence at the time the statute was passed authorizing the creation of cities of the class to which Alameda belongs, must be considered in construing the statutory provision for the creation of such cities. It is provided by the statute (section 750 of the Municipal Corporation Act) that every municipal corporation of the fifth class "may sue and be sued in all courts and places, and in all proceedings whatever." (Deering's Gen. Laws 1897, p. 845.) I think this provision, in connection with section 4468 of the Political ***79** Code, and the established common-law rule, should be construed as a statutory declaration that cities of this class are liable for the negligence of its agents and servants in all cases where such liability was established at common law, and this can be upheld as a statutory provision without the necessity of resorting for its support to a distinction which is wholly fictitious, and which will produce, as such arbitrary distinctions are apt to produce, embarrassing consequences, if recognized as real and applied to other questions.

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Declined to Extend by City of San Diego v. Monsanto Company, S.D.Cal., April 17, 2018

1 Cal.5th 749
Supreme Court of California

DEPARTMENT OF FINANCE et al., Plaintiffs and Respondents,
v.
COMMISSION ON STATE MANDATES, Defendant and Respondent;
County of Los Angeles et al., Real Parties in Interest and Appellants.

S214855
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Filed 8/29/2016
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As Modified on Denial of Rehearing 11/16/2016

Synopsis

Background: Department of Finance, State Water Resources Control Board, and regional water quality control board filed petition for writ of administrative mandamus seeking to overturn decision of Commission on State Mandates that regional board's conditions on permit authorizing local agencies to operate storm drain systems constituted state mandates subject to reimbursement. The Superior Court, Los Angeles County, No. BS130730, Ann I. Jones, J., granted petition. Local agencies appealed. The Court of Appeal, Johnson, J., affirmed. Local agencies petitioned for review. The Supreme Court granted review, superseding the opinion of the Court of Appeal.

Holdings: The Supreme Court, Corrigan, J., held that:

[1] permit itself did not indicate that permit conditions were federal mandates not subject to reimbursement;

[2] Commission was not required to defer to regional board's conclusion that challenged conditions were federally mandated;

[3] condition requiring local agencies to conduct inspections of certain facilities and construction sites was not a federal mandate; and

[4] condition requiring local agencies to install and maintain trash receptacles was not a federal mandate.

Reversed and remanded.

Opinion, 163 Cal.Rptr.3d 439, superseded.

Cuéllar, J., filed separate concurring and dissenting opinion with which Liu and Kruger, JJ., concurred.

****359 ***48** Ct.App. 2/1 B237153, Los Angeles County Super. Ct. No. BS 130730

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No appearance for Defendant and Respondent.

Opinion

Corrigan, J.

****360 *754** Under our state Constitution, if the Legislature or a state agency requires a local government to provide a new program or higher level of service, the local government is entitled to reimbursement from the state for the associated costs. (Cal. Const., art. XIII B, § 6, subd. (a).) There are exceptions, however. Under one of them, if the new program or increased service is mandated by a federal law or regulation, reimbursement is not required. (Gov. Code, § 17556, subd. (c).)

The services in question here are provided by local agencies that operate storm drain systems pursuant to a state-issued permit. Conditions in that permit are designed to maintain the quality of California's water, and to comply with the federal Clean Water Act (33 U.S.C. § 1251 et seq.). The Court of Appeal held that certain permit conditions were federally mandated, and thus not

reimbursable. We reverse, concluding that no federal law or regulation imposed the conditions nor did the federal regulatory system require the state to impose them. Instead, the permit conditions were imposed as a result of the state's discretionary action.

**361 I. BACKGROUND

The Regional Water Quality Control Board, Los Angeles Region (the Regional Board or the Board) is a state agency. It issued a permit authorizing Los Angeles County, the Los Angeles County Flood Control District, and 84 cities (collectively, the Operators) to operate storm drainage systems.[1] ***50 Permit *755 conditions required that the Operators take various steps to reduce the discharge of waste and pollutants into state waters. The conditions included installing and maintaining trash receptacles at transit stops, as well as inspecting certain commercial and industrial facilities and construction sites.

Some Operators sought reimbursement for the cost of satisfying the conditions. The Commission on State Mandates (the Commission) concluded each required condition was a new program or higher level of service, mandated by the state rather than by federal law. However, it found the Operators were only entitled to state reimbursement for the costs of the trash receptacle condition, because they could levy fees to cover the costs of the required inspections. (See discussion, *post*, at p. 761.) The trial court and the Court of Appeal disagreed, finding that all of the requirements were federally mandated.

We granted review. To resolve this issue, it is necessary to consider both the permitting system and the reimbursement obligation in some detail.

A. The Permitting System

The Operators' municipal storm sewer systems discharge both waste and pollutants.[2] State law controls "waste" discharges. (Wat. Code, § 13265.) Federal law regulates discharges of "pollutant[s]." (33 U.S.C. § 1311(a).) Both state and later-enacted federal law require a permit to operate such systems.

California's Porter–Cologne Water Quality Control Act (Porter–Cologne Act or the Act; Wat. Code, § 13000 et seq.) was enacted in 1969. It established the State Water Resources Control Board (State Board), along with nine regional water quality control boards, and gave those agencies "primary responsibility for the coordination and control of water quality." (Wat. Code, § 13001; see *City of Burbank v. State Water Resources Control Bd.* (2005) 35 Cal.4th 613, 619, 26 Cal.Rptr.3d 304, 108 P.3d 862 (*City of Burbank*).) The State Board establishes statewide policy. The regional boards formulate and *756 adopt water quality control plans and issue permits governing the discharge of waste. (*Building Industry Assn. of San Diego County v. State Water Resources Control Bd.* (2004) 124 Cal.App.4th 866, 875, 22 Cal.Rptr.3d 128 (*Building Industry*).)

The Porter–Cologne Act requires any person discharging, or proposing to discharge, waste that could affect the quality of state waters to file a report with the appropriate regional board. (***51 Wat. Code, § 13260, subd. (a)(1).) The regional board then "shall prescribe requirements as to the nature" of the discharge, implementing any applicable water quality control plans. (Wat. Code, § 13263, subd. (a).) The Operators must follow **362 all requirements set by the Regional Board. (Wat. Code, §§ 13264, 13265.)

[1] The federal Clean Water Act (the CWA; 33 U.S.C. § 1251 et seq.) was enacted in 1972, and also established a permitting system. The CWA is a comprehensive water quality statute designed to restore and maintain the chemical, physical, and biological integrity of the nation's waters. (*City of Burbank, supra,* 35 Cal.4th at p. 620, 26 Cal.Rptr.3d 304, 108 P.3d 862.) The CWA prohibits pollutant discharges unless they comply with: (1) a permit (see 33 U.S.C. §§ 1328, 1342, 1344); (2) established effluent limitations or standards (see 33 U.S.C. §§ 1312, 1317); or (3) established national standards of performance (see 33 U.S.C. § 1316). (See 33 U.S.C. § 1311(a).) The CWA allows any state to adopt and enforce its own water quality standards and limitations, so long as those standards and limitations are not "less stringent" than those in effect under the CWA. (33 U.S.C. § 1370.)

The CWA created the National Pollutant Discharge Elimination System (NPDES), authorizing the Environmental Protection Agency (EPA) to issue a permit for any pollutant discharge that will satisfy all requirements established by the CWA or the EPA Administrator. (33 U.S.C. § 1342(a)(1), (a)(2).) The federal

system notwithstanding, a state may administer its own permitting system if authorized by the EPA.[3] If the EPA concludes a state has adequate authority to administer its proposed program, it must grant approval (33 U.S.C. § 1342(b)) and suspend its own issuance of permits (33 U.S.C. § 1342(c)(1)).[4]

[2] ***757** California was the first state authorized to issue its own pollutant discharge permits. (*California ex rel. State Water Resources Control Bd. v. Environmental Pro. Agcy.* (9th Cir. 1975) 511 F.2d 963, 970, fn. 11, revd. on other grounds in *EPA v. State Water Resources Control Board* (1976) 426 U.S. 200 [48 L.Ed.2d 578, 96 S.Ct. 2022].) Shortly after the CWA's enactment, the Legislature amended the Porter–Cologne Act, adding chapter 5.5 (Wat. Code, § 13370 et seq.) to authorize state issuance of permits (Wat. Code, § 13370, subd. (c)). The Legislature explained the amendment was "in the interest of the people of the state, in order to avoid direct regulation by the federal government of persons already subject to regulation under state law pursuant to [the Porter–Cologne Act]." (*Ibid.*) The Legislature provided that Chapter 5.5 be "construed to ensure consistency" with the CWA. (Wat. Code, § 13372, subd. (a).) It directed that state and regional boards issue waste discharge requirements "ensur[ing] compliance with all applicable provisions of the [CWA] ... *together with any more stringent effluent standards or limitations* necessary to implement water quality control plans, or for the protection of beneficial uses, or to prevent nuisance." *****52** (Wat. Code, § 13377, italics added.) To align the state and federal permitting systems, the legislation provided that the term " 'waste discharge requirements' " under the Act was equivalent to the term " 'permits' " under the CWA. (Wat. Code, § 13374.) Accordingly, California's permitting system now regulates discharges under both state and federal law. (*WaterKeepers Northern California v. State Water Resources Control Bd.* (2002) 102 Cal.App.4th 1448, 1452, 126 Cal.Rptr.2d 389; accord *Building Industry, supra,* 124 Cal.App.4th at p. 875, 22 Cal.Rptr.3d 128.)

In 1987, Congress amended the CWA to clarify that a permit is required for any discharge from a municipal storm sewer system serving a population of 100,000 or more. (33 U.S.C. § 1342(p)(2)(C), (D).) Under those amendments, a permit may be issued either on a system- or jurisdiction-wide basis, must effectively prohibit non-stormwater discharges into the storm sewers, and must "require controls to reduce the discharge of ****363** pollutants *to the maximum extent practicable*." (33 U.S.C. § 1342(p)(3)(B), italics added.) The phrase "maximum extent practicable" is not further defined. How that phrase is applied, and by whom, are important aspects of this case.

EPA regulations specify the information to be included in a permit application. (See 40 C.F.R. § 122.26(d)(1)(i)-(vi), (d)(2)(i)-(viii).) Among other things, an applicant must set out a proposed management program that includes management practices; control techniques; and system, design, and engineering methods to reduce the discharge of pollutants to the maximum extent practicable. (40 C.F.R. § 122.26(d)(2)(iv).) The permit-issuing agency has discretion to determine which practices, whether or not proposed by the applicant, will be imposed as conditions. (*Ibid.*)

***758 B. The Permit in Question**

In 2001, Los Angeles County (the County), acting for all Operators, applied for a permit from the Regional Board. The board issued a permit (the Permit), with conditions intended to "reduce the discharge of pollutants in storm water to the Maximum Extent Practicable" in the Operators' jurisdiction. The Permit stated that its conditions implemented *both* the Porter–Cologne Act and the CWA.

Part 4 of the Permit contains the four requirements at issue. Part 4(C) addresses commercial and industrial facilities, and required the Operators to inspect certain facilities twice during the five-year term of the Permit. Inspection requirements were set out in substantial detail.[5] Part 4(E) of the Permit addresses construction sites. It required each Operator to "implement a program to control runoff from construction activity at all construction sites within its jurisdiction," and to inspect each construction *****53** site of one acre or greater at least "once during the wet season."[6] Finally, Part 4(F) of the Permit addresses pollution from public agency activities. Among other things, it directed each Operator not otherwise regulated to "[p]lace trash receptacles at all transit stops within its jurisdiction," and to maintain them as necessary.

C. Local Agency Claims

1. Applicable procedures for seeking reimbursement

As mentioned, when the Legislature or a state agency requires a local government to provide a new program or higher level of service, the state must "reimburse that local government for the costs of the program or increased level of service." (Cal. Const., art. XIII B, § 6, subd. (a) (hereafter, ***759** section 6).)[7] However, reimbursement is not required if "[t]he statute or executive order imposes a requirement that is mandated by a federal law or regulation and results in costs mandated by the federal government, unless the statute or executive order mandates costs that exceed the mandate in that federal law or regulation." (Gov. Code, § 17556, subd. (c).)

****364** The Legislature has enacted comprehensive procedures for the resolution of reimbursement claims (Gov. Code, § 17500 et seq.) and created the Commission to adjudicate them. (Gov. Code, §§ 17525, 17551.) It also established "a test-claim procedure to expeditiously resolve disputes affecting multiple agencies." (*Kinlaw v. State of California* (1991) 54 Cal.3d 326, 331, 285 Cal.Rptr. 66, 814 P.2d 1308 (*Kinlaw*).)

The first reimbursement claim filed with the Commission is called a test claim. (Gov. Code, § 17521.) The Commission must hold a public hearing, at which the Department of Finance (the Department), the claimant, and any other affected department or agency may present evidence. (Gov. Code, §§ 17551, 17553.) The Commission then determines "whether a state mandate exists and, if so, the amount to be reimbursed." (*Kinlaw, supra,* 54 Cal.3d at p. 332, 285 Cal.Rptr. 66, 814 P.2d 1308.) The Commission's decision is reviewable by writ of mandate. (Gov. Code, § 17559.)

2. The test claims

The County and other Operators filed test claims with the Commission, seeking reimbursement for the Permit's inspection and trash receptacle requirements. The Department, State Board, and Regional Board (collectively, the State) responded that the Operators were not entitled to reimbursement because each requirement was federally mandated.

The Department argued that the EPA had delegated its federal permitting authority to the Regional Board, which acted as an administrator for the EPA, ensuring the state's program complied with the CWA. The Department acknowledged the Regional Board had discretion to set detailed permit conditions, but urged that the challenged conditions were required for the Permit to comply with federal law.

*****54** The State and Regional Boards argued somewhat differently. They contended the CWA required the Regional Board to impose specific permit ***760** controls to reduce the discharge of pollutants to the "maximum extent practicable." Thus, when the Regional Board determined the Permit's conditions, those conditions were part of the federal mandate. The State and Regional Boards also argued that the challenged conditions were "animated" by EPA regulations. In support of the trash receptacle requirement, they relied on 40 Code of Federal Regulations part 122.26(d)(2)(iv)(A)(3).[8] In support of the inspection requirements, they relied on 40 Code of Federal Regulations part 122.26(d)(2)(iv)(B)(1),[9] (C)(1),[10] and (D)(3).[11]

****365** The Operators argued the conditions were not mandated by federal law, because nothing in the CWA or in the cited federal regulations required them to install trash receptacles or perform the required site inspections. They also submitted evidence showing that none of the challenged requirements were ***761** contained in their previous permits issued by the Regional Board, nor were they imposed on other municipal storm sewer systems by the EPA.

As to the inspection requirements, the Operators argued that state law required *****55** the *state and regional boards* to regulate discharges of waste. This regulatory authority included the power to inspect facilities and sites. The Regional Board had used the Permit conditions to shift those inspection responsibilities to them. They also presented evidence that the Regional Board was required to inspect industrial facilities and construction sites for compliance with statewide permits issued by the State Board (see *ante*, p. 758, fns. 5, 6). They urged that the Regional Board had shifted that obligation to the Operators as well. Finally, the Operators submitted a declaration from a county employee indicating the Regional Board had offered to pay the County to inspect

industrial facilities *on behalf of* the Regional Board, but revoked that offer after including the inspection requirement in the Permit.

The EPA submitted comments to the Commission indicating that the challenged permit requirements were designed to reduce the discharge of pollutants to the "maximum extent practicable." Thus, the EPA urged the requirements fell "within the scope" of federal regulations and other EPA guidance regarding stormwater management programs. The Bay Area Stormwater Management Agencies Association, the League of California Cities, and the California State Association of Counties submitted comments urging that the challenged requirements were state, rather than federal, mandates.

3. The commission's decision

By a four-to-two vote, the Commission partially approved the test claims, concluding none of the challenged requirements were mandated by federal law. However, the Commission determined the Operators were not entitled to reimbursement for the inspection requirements because they had authority to levy fees to pay for the required inspections. Under Government Code section 17556, subdivision (d), the constitutional reimbursement requirement does not apply if the local government has the authority to levy fees or assessments sufficient to pay for the mandated program or service.

4. Petitions for writ of mandate

The State challenged the Commission's determination that the requirements were state mandates. By cross-petition, the County and certain cities challenged the Commission's finding that they could impose fees to pay for the inspections.

The trial court concluded that, because each requirement fell "within the maximum extent practicable standard," they were federal mandates not ***762** subject to reimbursement. It granted the State's petition and ordered the Commission to issue a new statement of decision. The court did not reach the cross-claims relating to fee authority. Certain Operators appealed. [12] The Court of Appeal affirmed, concluding as a matter of law that the trash receptacle and inspection requirements were federal mandates.

****366 II. DISCUSSION

A. Standard of Review

[3] **[4]** Courts review a decision of the Commission to determine whether it is supported by substantial evidence. (Gov. Code, § 17559.) Ordinarily, when the scope of review in the trial court is whether the administrative decision is supported by substantial evidence, the scope of review on appeal is the same. (*****56** *County of Los Angeles v. Commission on State Mandates* (1995) 32 Cal.App.4th 805, 814, 38 Cal.Rptr.2d 304 (*County of Los Angeles*).) However, the appellate court independently reviews conclusions as to the meaning and effect of constitutional and statutory provisions. (*City of San Jose v. State of California* (1996) 45 Cal.App.4th 1802, 1810, 53 Cal.Rptr.2d 521.) The question whether a statute or executive order imposes a mandate is a question of law. (*Ibid.*) Thus, we review the entire record before the Commission, which includes references to federal and state statutes and regulations, as well as evidence of other permits and the parties' obligations under those permits, and independently determine whether it supports the Commission's conclusion that the conditions here were not federal mandates. (*Ibid.*)

B. Analysis

The parties do not dispute here that each challenged requirement is a new program or higher level of service. The question here is whether the requirements were mandated by a federal law or regulation.

1. The federal mandate exception

[5] Voters added article XIII B to the California Constitution in 1979. Also known as the "Gann limit," it "restricts the amounts state and local governments may appropriate and spend each year from the 'proceeds of taxes.' " (*City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 58–59, 266 Cal.Rptr. 139, 785 P.2d 522 (*City of Sacramento*).) "Article XIII B is to be distinguished from article XIII A, which was adopted as Proposition 13 at ***763** the June 1978 election. Article XIII A imposes a direct constitutional limit on state and local power to

adopt and levy taxes. Articles XIII A and XIII B work in tandem, together restricting California governments' power both to levy and to spend for public purposes." (*Id.* at p. 59, fn. 1, 266 Cal.Rptr. 139, 785 P.2d 522.)

[6] **[7]** The "concern which prompted the inclusion of section 6 in article XIII B was the perceived attempt by the state to enact legislation or adopt administrative orders creating programs to be administered by local agencies, thereby transferring to those agencies the fiscal responsibility for providing services which the state believed should be extended to the public." (*County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56, 233 Cal.Rptr. 38, 729 P.2d 202.) The reimbursement provision in section 6 was included in recognition of the fact "that articles XIII A and XIII B severely restrict the taxing and spending powers of local governments." (*County of San Diego v. State of California* (1997) 15 Cal.4th 68, 81, 61 Cal.Rptr.2d 134, 931 P.2d 312 (*County of San Diego*).) The purpose of section 6 is to prevent "the state from shifting financial responsibility for carrying out governmental functions to local agencies, which are 'ill equipped' to assume increased financial responsibilities because of the taxing and spending limitations that articles XIII A and XIII B impose." (*County of San Diego*, at p. 81, 61 Cal.Rptr.2d 134, 931 P.2d 312.) Thus, with certain exceptions, section 6 "requires the state 'to pay for any new governmental programs, or for higher levels of service under existing programs, that it imposes upon local governmental agencies.' " (*County of San Diego*, at p. 81, 61 Cal.Rptr.2d 134, 931 P.2d 312.)

As noted, reimbursement is not required if the statute or executive order imposes "a requirement that is mandated by a federal law or regulation," unless the state mandate imposes costs that exceed the federal mandate. (Gov. Code, § 17556, subd. (c).) The question here is how to apply that *****57** exception when federal law requires a local agency to obtain a permit, authorizes the state to issue the permit, and provides the state discretion in determining which conditions are necessary to achieve a general standard established by federal law, and when state law allows the imposition of conditions that exceed the federal standard. Previous decisions ****367** of this court and the Courts of Appeal provide guidance.

In *City of Sacramento, supra,* 50 Cal.3d 51, 266 Cal.Rptr. 139, 785 P.2d 522, this court addressed local governments' reimbursement claims for the costs of extending unemployment insurance protection to their employees. (*Id.*, at p. 59, 266 Cal.Rptr. 139, 785 P.2d 522.) Since 1935, the applicable federal law had provided powerful incentives for states to implement their own unemployment insurance programs. Those incentives included federal subsidies and a substantial federal tax credit for all corporations in states with certified federal programs. (*Id.* at p. 58, 266 Cal.Rptr. 139, 785 P.2d 522.) California had implemented such a program. (*Ibid.*) In 1976, Congressional legislation required ***764** that unemployment insurance protection be extended to local government employees. (*Ibid.*) If a state failed to comply with that directive, it "faced [the] loss of the federal tax credit and administrative subsidy." (*Ibid.*) The Legislature passed a law requiring local governments to participate in the state's unemployment insurance program. (*Ibid.*)

Two local governments sought reimbursement for the costs of complying with that requirement. Opposing the claims, the state argued its action was compelled by federal law. This court agreed, reasoning that, if the state had "failed to conform its plan to new federal requirements as they arose, its businesses [would have] faced a new and serious penalty" of double taxation, which would have placed those businesses at a competitive disadvantage against businesses in states complying with federal law. (*City of Sacramento, supra,* 50 Cal.3d at p. 74, 266 Cal.Rptr. 139, 785 P.2d 522.) Under those circumstances, we concluded that the "state simply did what was necessary to avoid certain and severe federal penalties upon its resident businesses." (*Ibid.*) Because "[t]he alternatives were so far beyond the realm of practical reality that they left the state '*without discretion*' to depart from federal standards," we concluded "the state acted in response to a federal 'mandate.' " (*Ibid.* italics added.)

County of Los Angeles, supra, 32 Cal.App.4th 805, 38 Cal.Rptr.2d 304, involved a different kind of federal compulsion. In *Gideon v. Wainwright* (1963) 372 U.S. 335, 83 S.Ct. 792, 9 L.Ed.2d 799, the United States Supreme Court held that states were required by the federal Constitution to provide counsel to indigent criminal defendants. That requirement had been construed to include "the right to the use of any experts that will assist counsel in preparing a defense." (*County of Los Angeles*, at p. 814, 38 Cal.Rptr.2d 304.) The Legislature enacted Penal Code section 987.9, requiring local governments to provide indigent criminal defendants with experts for the

preparation of their defense. (*County of Los Angeles*, at p. 811, fn. 3, 38 Cal.Rptr.2d 304.) Los Angeles County sought reimbursement for the costs of complying with the statute. The state argued the statute's requirements were mandated by federal law.

The state prevailed. The Court of Appeal reasoned that, even without Penal Code section 987.9, the county would have been "responsible for providing ancillary services" under binding Supreme Court precedent. (*County of Los Angeles, supra,* 32 Cal.App.4th at p. 815, 38 Cal.Rptr.2d 304.) Penal Code section 987.9 merely codified an existing federal mandate. (*****58** *County of Los Angeles*, at p. 815, 38 Cal.Rptr.2d 304.)

Hayes v. Commission on State Mandates (1992) 11 Cal.App.4th 1564, 15 Cal.Rptr.2d 547 (*Hayes*) provides a contrary example. *Hayes* involved the former federal Education of the Handicapped Act (EHA; 20 U.S.C. § 1401 et seq.). EHA was a "comprehensive measure designed to provide all handicapped children with basic educational opportunities." (*Hayes*, at p. 1594, 15 Cal.Rptr.2d 547 ***765**) EHA required each state to adopt an implementation plan, and mandated "certain substantive and procedural requirements," but left "primary responsibility for implementation to the state." (*Hayes*, at p. 1594, 15 Cal.Rptr.2d 547.)

Two local governments sought reimbursement for the costs of special education assessment hearings which were required under the state's adopted plan. The state argued the requirements imposed under its plan were federally mandated. The *Hayes* court rejected that argument. Reviewing ****368** the historical development of special education law (*Hayes, supra,* 11 Cal.App.4th at pp. 1582–1592, 15 Cal.Rptr.2d 547), the court concluded that, so far as the state was concerned, the requirements established by the EHA were federally mandated. (*Hayes*, at p. 1592, 15 Cal.Rptr.2d 547.) However, that conclusion "mark[ed] the starting point rather than the end of [its] consideration." (*Ibid.*) The court explained that, in determining whether federal law requires a specified function, like the assessment hearings, the focus of the inquiry is whether the "manner of implementation of the federal program was left to the *true discretion* of the state." (*Id.* at p. 1593, 15 Cal.Rptr.2d 547, italics added.) If the state "has adopted an implementing statute or regulation pursuant to the federal mandate," and had "no 'true choice' " as to the manner of implementation, the local government is not entitled to reimbursement. (*Ibid.*) If, on the other hand, "the manner of implementation of the federal program was left to the true discretion of the state," the local government might be entitled to reimbursement. (*Ibid.*)

According to the *Hayes* court, the essential question is how the costs came to be imposed upon the agency required to bear them. "If the state freely chose to impose the costs upon the local agency as a means of implementing a federal program then the costs are the result of a reimbursable state mandate regardless whether the costs were imposed upon the state by the federal government." (*Hayes, supra,* 11 Cal.App.4th at p. 1594, 15 Cal.Rptr.2d 547.) Applying those principles, the court concluded that, to the extent "the state implemented the [EHA] by freely choosing to impose new programs or higher levels of service upon local school districts, the costs of such programs or higher levels of service are state mandated and subject to" reimbursement. (*Ibid.*)

From *City of Sacramento*, *County of Los Angeles*, and *Hayes*, we distill the following principle: If federal law compels the state to impose, or itself imposes, a requirement, that requirement is a federal mandate. On the other hand, if federal law gives the state discretion whether to impose a particular implementing requirement, and the state exercises its discretion to impose the requirement by virtue of a "true choice," the requirement is not federally mandated.

Division of Occupational Safety & Health v. State Bd. of Control (1987) 189 Cal.App.3d 794, 234 Cal.Rptr. 661 (*Division of Occupational Safety*) is ***766** instructive. The federal Occupational Safety and Health Act of 1970 (Fed. OSHA; 29 U.S.C. § 651 et seq.) preempted states from regulating matters covered by Fed. OSHA unless a *****59** state had adopted its own plan and gained federal approval. (*Division of Occupational Safety*, at p. 803, 234 Cal.Rptr. 661.) No state was obligated to adopt its own plan. But, if a state did so, the plan had to include standards at least as effective as Fed. OSHA's and extend those standards to state and local employees. California adopted its own plan, which was federally approved. The state then issued a regulation that, according to local fire districts, required them to maintain three-person firefighting teams. Previously, they had been permitted to maintain two-person teams. (*Division of Occupational Safety*, at pp. 798–799, 234 Cal.Rptr. 661.) The local fire

districts sought reimbursement for the increased level of service. The state opposed, arguing the requirement was mandated by federal law.

The court agreed with the fire districts. As the court explained, a Fed. OSHA regulation arguably required the maintenance of three-person firefighting teams. (*Division of Occupational Safety, surpra,* 189 Cal.App.3d at p. 802, 234 Cal.Rptr. 661.) However, that federal regulation specifically excluded local fire districts. (*Id.* at p. 803, 234 Cal.Rptr. 661.) Had the state elected to be governed by *Fed. OSHA standards*, that exclusion would have allowed those fire districts to maintain two-person teams. (*Division of Occupational Safety*, at p. 803, 234 Cal.Rptr. 661.) The conditions for approval of the *state's plan* required effective enforcement and coverage of public employees. But those conditions did not make the costs of complying with the state regulation federally mandated. "[T]he initial decision to establish ... a federally approved [local] plan is an option which the state exercises ****369** freely." (*Ibid.*) In other words, the state was not "*compelled* to ... extend jurisdiction over occupational safety to local governmental employers," which would have otherwise fallen under a federal exclusion. (*Ibid.*) Because the state "was not required to promulgate [the state regulation] to comply with federal law, the exemption for federally mandated costs does not apply." (*Id.* at p. 804, 234 Cal.Rptr. 661.) [13]

San Diego Unified School Dist. v. Commission on State Mandates (2004) 33 Cal.4th 859, 16 Cal.Rptr.3d 466, 94 P.3d 589 (*San Diego Unified*) provides another example. In *Goss v. Lopez* (1975) 419 U.S. 565, 95 S.Ct. 729, 42 L.Ed.2d 725, the United States Supreme Court held that if a school principal chose to recommend a student for expulsion, federal due process principles required the school district to give that student a hearing. Education Code section 48918 provided for expulsion hearings. (*San Diego Unified*, at p. 868, 16 Cal.Rptr.3d 466, 94 P.3d 589.) Under Education Code section 48915, a school principal had ***767** *discretion* to recommend expulsion under certain circumstances, but was compelled to recommend expulsion for a student who possessed a firearm. (*San Diego Unified*, at p. 869, 16 Cal.Rptr.3d 466, 94 P.3d 589.) Federal law at the time did not require expulsion for a student who brought a gun to school. (*Id.* at p. 883, 16 Cal.Rptr.3d 466, 94 P.3d 589.)

The school district argued it was entitled to reimbursement of *all* expulsion hearing costs. This court drew a distinction between discretionary and mandatory expulsions. We concluded the costs of hearings for *discretionary* expulsions flowed from a federal mandate. (*****60** *San Diego Unified, supra,* 33 Cal.4th at pp. 884–890, 16 Cal.Rptr.3d 466, 94 P.3d 589.) [14] We declined, however, to extend that rule to the costs related to *mandatory* expulsions. Because it was *state law* that required an expulsion recommendation for firearm possession, all hearing costs triggered by the mandatory expulsion provision were reimbursable state-mandated expenses. (San Diego Unified, at pp. 881–883.) As was the case in *Hayes*, the key factor was how the costs came to be imposed on the entity that was required to bear them. The school principal could avoid the cost of a federally-mandated hearing by choosing not to recommend an expulsion. But, when a state statute *required* an expulsion recommendation, the attendant hearing costs did not flow from a federal mandate. (*San Diego Unified, supra,* 33 Cal.4th at p. 881, 16 Cal.Rptr.3d 466, 94 P.3d 589.)

2. Application

Review of the Commission's decision requires a determination as to whether federal statutory, administrative, or case law imposed, or compelled the Regional Board to impose, the challenged requirements on the Operators.

It is clear federal law did not compel the Regional Board to impose these particular requirements. There was no evidence the state was compelled to administer its *own* permitting system rather than allowing the EPA do so under the CWA. (33 U.S.C. § 1342(a).) In this respect, the case is similar to *Division of Occupational Safety, supra,* 189 Cal.App.3d 794, 234 Cal.Rptr. 661. Here, as in that case, the state chose to administer its own program, finding it was "in the interest of the people of the state, *in order to avoid direct regulation by the federal government* of persons already subject to regulation" under state law. (Wat. Code, § 13370, subd. (c), italics added.) Moreover, the Regional Board was not required by federal law to impose any specific permit conditions. The federal CWA broadly directed the board to issue permits with conditions designed to reduce pollutant discharges to the maximum ****370** extent practicable. But the EPA's regulations gave the board discretion to

determine which ***768** specific controls were necessary to meet that standard. (40 C.F.R. § 122.26(d)(2)(iv).) This case is distinguishable from *City of Sacramento, supra,* 50 Cal.3d 51, 266 Cal.Rptr. 139, 785 P.2d 522, where the state risked the loss of subsidies and tax credits for all its resident businesses if it failed to comply with federal legislation. Here, the State was not compelled by federal law to impose any particular requirement. Instead, as in *Hayes, supra,* 11 Cal.App.4th 1564, 15 Cal.Rptr.2d 547, the Regional Board had discretion to fashion requirements which it determined would meet the CWA's maximum extent practicable standard.

[8] **[9]** The State argues the Commission failed to account for the flexibility in the CWA's regulatory scheme, which conferred discretion on the State and regional boards in deciding what conditions were necessary to comply with the CWA. In exercising that discretion, those agencies were required to rely on their scientific, technical, and experiential knowledge. Thus, the State contends the Permit itself is the best indication of what requirements *would have been imposed* by the EPA if the Regional Board had not done so, and the Commission should have deferred to *****61** the board's determination of what conditions federal law required.

We disagree that the Permit itself demonstrates what conditions would have been imposed had the EPA granted the Permit. In issuing the Permit, the Regional Board was implementing both state and federal law and was authorized to include conditions more exacting than federal law required. (*City of Burbank, supra,* 35 Cal.4th at pp. 627–628, 26 Cal.Rptr.3d 304, 108 P.3d 862.) It is simply not the case that, because a condition was in the Permit, it was, ipso facto, required by federal law.

[10] **[11]** We also disagree that the Commission should have deferred to the Regional Board's conclusion that the challenged requirements were federally mandated. That determination is largely a question of law. Had the Regional Board found, when imposing the disputed permit conditions, that those conditions were the only means by which the maximum extent practicable standard could be implemented, deference to the board's expertise in reaching that finding would be appropriate. The board's legal authority to administer the CWA and its technical experience in water quality control would call on sister agencies as well as courts to defer to that finding. [15] The State, however, provides no authority for the proposition that, absent such a finding, the Commission should defer to a state agency as to whether requirements were state or federally mandated. Certainly, in a trial court action challenging a regional *board's authority* to impose specific permit conditions, the board's findings regarding what conditions satisfied the federal standard would be entitled to deference. (See, e.g., *City of Rancho Cucamonga v. Regional Water Quality Control Bd.* (2006) 135 Cal.App.4th 1377, 1384, 38 Cal.Rptr.3d 450, citing *Fukuda v. City of Angels* (1999) 20 Cal.4th 805, 817–818, 85 Cal.Rptr.2d 696, 977 P.2d 693 ***769**) Resolution of those questions would bring into play the particular technical expertise possessed by members of the regional board. In those circumstances, the party challenging the board's decision would have the burden of demonstrating its findings were not supported by substantial evidence or that the board otherwise abused its discretion. (*Rancho Cucamonga*, at p. 1387, 38 Cal.Rptr.3d 450; *Building Industry, supra,* 124 Cal.App.4th at pp. 888–889, 22 Cal.Rptr.3d 128.)

Reimbursement proceedings before the Commission are different. The question here was not whether the Regional Board had authority to impose the challenged requirements. It did. The narrow question here was who will pay for them. In answering that legal question, the Commission applied California's constitutional, statutory, and common law to the single issue of reimbursement. In the context of these proceedings, the State has the burden to show the challenged conditions were mandated by federal law.

[12] Section 6 establishes a general rule requiring reimbursement of all state-mandated costs. Government Code section 17556, subdivision (c), codifies an exception to that ****371** rule. Typically, the party claiming the applicability of an exception bears the burden of demonstrating that it applies. (See *Simpson Strong–Tie Co., Inc. v. Gore* (2010) 49 Cal.4th 12, 23, 109 Cal.Rptr.3d 329, 230 P.3d 1117; see also, *Long Beach Police Officers Assn. v. City of Long Beach* (2014) 59 Cal.4th 59, 67, 172 Cal.Rptr.3d 56, 325 P.3d 460.) Here, the State must explain why federal law mandated these requirements, rather than forcing the Operators to prove the opposite. The State's proposed rule, requiring the Commission to defer to the Regional Board, would leave the Commission with no role to play on the narrow question of who must pay. Such a result would fail to honor the Legislature's *****62** intent in creating the Commission.

Moreover, the policies supporting article XIII B of the California Constitution and section 6 would be undermined if the Commission were required to defer to the Regional Board on the federal mandate question. The central purpose of article XIII B is to rein in local government spending. (*City of Sacramento, supra,* 50 Cal.3d at pp. 58–59, 266 Cal.Rptr. 139, 785 P.2d 522.) The purpose of section 6 is to protect local governments from state attempts to impose or shift the costs of new programs or increased levels of service by entitling local governments to reimbursement. (*County of San Diego, supra,* 15 Cal.4th at p. 81, 61 Cal.Rptr.2d 134, 931 P.2d 312.) Placing the burden on the state to demonstrate that a requirement is federally mandated, and thus excepted from reimbursement, serves those purposes.

Applying the standard of review described above, we evaluate the entire record and independently review the Commission's determination the challenged conditions were not federal mandates. We conclude the Commission was correct. These permit conditions were not federally mandated.

***770** *a) The inspection requirements*

[13] Neither the CWA's "maximum extent practicable" provision nor the EPA regulations on which the State relies expressly required the Operators to inspect these particular facilities or construction sites. The CWA makes no mention of inspections. (33 U.S.C. § 1342(p)(3)(B)(iii).) The regulations required the Operators to include in their permit application a description of priorities and procedures for inspecting certain industrial facilities and construction sites, but suggested that the Operators would have discretion in selecting which facilities to inspect. (See 40 C.F.R. § 122.26(d)(2)(iv)(C)(1).) The regulations do not mention commercial facility inspections at all.

Further, as the Operators explained, state law made the *Regional Board* responsible for regulating discharges of waste within its jurisdiction. (Wat. Code, §§ 13260, 13263.) This regulatory authority included the power to "inspect the facilities of any person to ascertain whether ... waste discharge requirements are being complied with." (Wat. Code, § 13267, subd. (c).) Thus, state law imposed an overarching mandate that the Regional Board inspect the facilities and sites.

In addition, federal law and practice required the Regional Board to inspect all industrial facilities and construction sites. Under the CWA, the State Board, as an issuer of NPDES permits, was required to issue permits for stormwater discharges "associated with industrial activity." (33 U.S.C. § 1342(p)(3)(A).) The term "industrial activity" includes "construction activity." (40 C.F.R. § 122.26(b)(14)(x).) The Operators submitted evidence that the State Board had satisfied its obligation by issuing a general industrial activity stormwater permit and a general construction activity stormwater permit. Those statewide permits imposed controls designed to reduce pollutant discharges from industrial facilities and construction sites. Under the CWA, those facilities and sites could operate under the statewide permits rather than obtaining site-specific pollutant discharge permits.

The Operators showed that, in those statewide permits, the State Board had placed responsibility for inspecting facilities and sites on the *Regional Board*. The Operators submitted letters from the EPA indicating the State and regional boards were responsible for enforcing the terms of the statewide permits. The Operators also noted the State Board was authorized *****63** to charge a fee to facilities and sites that subscribed to the statewide permits (****372** Wat. Code, § 13260, subd. (d)), and that a portion of that fee was earmarked to pay the Regional Board for "inspection and regulatory compliance issues." (Wat. Code, § 13260, subd. (d)(2)(B)(iii).) Finally, there was evidence the Regional Board offered to pay the County to inspect industrial facilities. There would have been little reason to make that offer if federal law required the County to inspect those facilities.

***771** This record demonstrates that the Regional Board had primary responsibility for inspecting these facilities and sites. It shifted that responsibility to the Operators by imposing these Permit conditions. The reasoning of *Hayes, supra,* 11 Cal.App.4th 1564, 15 Cal.Rptr.2d 547, provides guidance. There, the EHA required the state to provide certain services to special education students, but gave the state discretion in implementing the federal law. (*Hayes*, at p. 1594, 15 Cal.Rptr.2d 547.) The state exercised its "true discretion" by selecting the specific requirements it imposed on local governments. As a result, the *Hayes* court held the costs incurred by the local governments were state-mandated costs. (*Ibid.*) Here, state and federal law required the Regional Board to

conduct inspections. The Regional Board exercised its discretion under the CWA, and shifted that obligation to the Operators. That the Regional Board did so while exercising its permitting authority under the CWA does not change the nature of the Regional Board's action under section 6. Under the reasoning of *Hayes*, the inspection requirements were not federal mandates.

The State argues the inspection requirements were federally mandated because the CWA required the Regional Board to impose permit controls, and the EPA regulations contemplated that some kind of operator inspections would be required. That the EPA regulations contemplated some form of inspections, however, does not mean that federal law required the scope and detail of inspections required by the Permit conditions.[16] As explained, the evidence before the Commission showed the opposite to be true.

b) The trash receptacle requirement

[14] The Commission concluded the trash receptacle requirement was not a federal mandate because neither the CWA nor the regulation cited by the State explicitly required the installation and maintenance of trash receptacles. The State contends the requirement was mandated by the CWA and by the EPA regulation that directed the Operators to include in their application a "description of practices for operating and maintaining public streets, roads and highways and procedures for reducing the impact on receiving waters of discharges from municipal storm sewer systems." (40 C.F.R. § 122.26(d)(2)(iv)(A)(3).)

The Commission's determination was supported by the record. While the Operators were required to include a description of practices and procedures in their permit application, the issuing agency has discretion whether to make ***772** those practices conditions of the permit. (40 C.F.R. § 122.26(d)(2)(iv).) No regulation cited by the State required trash receptacles at *****64** transit stops. In addition, there was evidence that the EPA had issued permits to other municipal storm sewer systems in Anchorage, Boise, Boston, Albuquerque, and Washington, D.C. that did not require trash receptacles at transit stops. The fact the EPA itself had issued permits in other cities, but did not include the trash receptacle condition, undermines the argument that the requirement was federally mandated.

c) Conclusion

Although we have upheld the Commission's determination on the federal mandate question, the State raised other arguments in its writ petition. Further, the issues presented in the Operators' cross-petition were not addressed by either the trial court or the Court of Appeal. We remand the matter so those issues can be addressed in the first instance.

****373 III. DISPOSITION**

We reverse the judgment of the Court of Appeal and remand for further proceedings consistent with our opinion.

Cantil–Sakauye, C.J., Werdegar, J., and Chin, J., concurred.

CONCURRING AND DISSENTING OPINION BY CUÉLLAR, J.

A local government is entitled to reimbursement from the state when the Legislature or a state agency requires it to provide new programs or increased service. (Cal. Const., art. XIII B, § 6, subd. (a).) But one crucial exception coexists with this rule. It applies where the new program or increased service is mandated by a federal statute or regulation. (Gov. Code, § 17556, subd. (c).) We consider in this case whether certain conditions to protect water quality included in a permit from the Regional Water Quality Control Board, Los Angeles Region (Regional Board or Board)—specifically, installation and maintenance of trash receptacles at transit stops, as well as inspections of certain commercial and industrial facilities and construction sites—constitute state mandates subject to reimbursement, or federal mandates within the statutory reimbursement exception.

What the majority concludes is that federal law did not compel imposition of the conditions, and that the local agencies would not necessarily have been required to comply with them had they not been imposed by the

state. In doing so, the majority upholds and treats as correct a decision by the Commission on State Mandates (the Commission) that is flawed in its approach and far too parsimonious in its analysis. This is no small feat: not ***773** only must the majority discount any expertise the Regional Board might bring to bear on the mandate question (see maj. opn., *ante*, at pp. 768–769.), but it must also overlook the Commission's reliance on an overly narrow analytical framework and prop up the Commission's decision with evidence on which the agency *could have relied*, rather than that on which it did (see *id.* at pp. 770–772).

Moreover, when the majority considers whether the permit conditions are indeed federally mandated, it purports to apply de novo review to the Commission's legal determination. (See maj. opn., *ante*, at pp. 762, 768, 770.) What it actually applies seems far more deferential to the Commission's decision—something akin to substantial evidence review—despite the Commission's own failure in affording deference *****65** to the Regional Board and, more generally, its reliance on the wrong decisionmaking framework. (Cf. *People v. Barnwell* (2007) 41 Cal.4th 1038, 1052, 63 Cal.Rptr.3d 82, 162 P.3d 596 ["A substantial evidence inquiry examines the record in the light most favorable to the judgment and upholds it if the record contains reasonable, credible evidence of solid value upon which a reasonable trier of fact *could* have relied in reaching the conclusion in question"].) Indeed, what the majority overlooks is that the Commission itself should have considered the effect of the evidence on which the majority now relies in deciding whether the challenged permit conditions were necessary to comply with federal law. And in doing so, the Commission should have extended a measure of deference to the Regional Board's expertise in administering the statutory scheme. (See *County of Los Angeles v. Cal. State Water Resources Control Bd.* (2006) 143 Cal.App.4th 985, 997, 50 Cal.Rptr.3d 619 (*State Water Board*).)

Because the Commission failed to do so, and because the Commission's interpretation of the federal Clean Water Act (the CWA; 33 U.S.C. § 1251 et seq.) failed to account for the complexities of the statute, I would reverse the Court of Appeal's judgment and remand with instructions for the Commission to reconsider its decision. So I concur in the majority's judgment reversing the Court of Appeal, but dissent from its conclusion upholding the Commission's decision rather than remanding the matter for further proceedings.

I.

To determine whether it is the state rather than local governments that should bear ****374** the entirety of the financial burden associated with a new program or increased service, the Commission must examine the nature of the federal scheme in question. That scheme is the CWA, a statute Congress amended in 1972 to establish the National Pollutant Discharge Elimination System (the NPDES) as a means of achieving and enforcing limitations on ***774** pollutant discharges. (See *EPA v. State Water Resources Control Bd.* (1976) 426 U.S. 200, 203–204, 96 S.Ct. 2022, 48 L.Ed.2d 578.) The role envisioned for the states under the NPDES is a major one, encompassing both the opportunity to assume the primary responsibility for the implementation and enforcement of federal effluent discharge limitations by issuing permits as well as the discretion to enact requirements that are more onerous than the federal standard. (See 33 U.S.C. §§ 1251(b), 1342(b).)

But states undertaking such implementation must do so in a manner that complies with regulations promulgated by the Environmental Protection Agency (the EPA), as well as the CWA's broad provisions (including the "maximum extent practicable" standard (33 U.S.C. § 1342(p)(3)(B)(iii))), and subject to the EPA's continuing revocation authority (see *id.*, § 1342(c)(3)). Despite the breadth of the requirements the statute imposes on states assuming responsibility for permitting enforcement and the expansive nature of the EPA's revocation authority, neither the statute nor its implementing regulations include a safe harbor provision establishing a minimum level of compliance with the federal standard—an absence the majority tacitly acknowledges. (See maj. opn., *ante*, at p. 767 ["the Regional Board was not required by federal law to impose any specific permit conditions"].) Instead, implementation of the federal mandate requires the state agency—here, the Regional Board—to exercise technical judgments about the feasibility of alternative permitting conditions *****66** necessary to achieve compliance with the federal statute.

With no statutory safe harbor that the Regional Board could have relied on to ensure the EPA's approval of the

state permitting process, the Board interpreted the federal standard in light of the statutory text, implementing regulations, and its technical appraisal of potential alternatives. In discharging its own role, the Commission was then bound to afford the Regional Board a measure of "sister-agency" deference. (See *Yamaha Corp. of America v. State Bd. of Equalization* (1998) 19 Cal.4th 1, 7, 78 Cal.Rptr.2d 1, 960 P.2d 1031 [explaining that "the binding power of an agency's *interpretation* of a statute or regulation is contextual: Its power to persuade is both circumstantial and dependent on the presence or absence of factors that support the merit of the interpretation"].) In this case, the Regional Board informed localities that, in its view, the various permit conditions it imposed would satisfy the maximum extent practicable standard. The EPA agreed the requirements were within the scope of the federal standard. The Regional Board's judgment that these conditions will control pollutant discharges to the extent required by federal law is at the core of the agency's institutional expertise. That expertise merits a measure of deference because the Regional Board's ken includes not only its greater familiarity with the CWA (relative to other entities), but also technical knowledge relevant to judgments about the water quality consequences of particular permitting conditions relevant to the provisions of the ***775** CWA. (See, e.g., 33 U.S.C. § 1342(p)(3)(B)(iii) [requiring that permits include "management practices, control techniques and system, design and engineering methods, and such other provisions as ... the State determines appropriate for the control of such pollutants"].) Casting aside the Regional Board's expertise on the issue at hand, the majority nonetheless upholds the Commission's ruling.

Remand to the Commission would have been the more appropriate course for multiple reasons. First, the Commission applied the wrong framework for its analysis. It failed to consider all the evidence relevant to whether the permit conditions were necessary for compliance with federal law. The commission compounded its error by relying on an interpretation of the CWA that misconstrues the federal statutory scheme governing the state permitting process.

****375** In particular, the Commission treated the problem as essentially a simple matter of searching the statutory text and regulations for precisely the same terms used by the Regional Board's permit conditions. Unless the requirement in question is referenced explicitly in a federal statutory or regulatory provision, the Commission's analysis suggests, the requirement cannot be a federal mandate. With respect to trash receptacles, the Commission stated: "Because installing and maintaining trash receptacles at transit stops is not expressly required of cities or counties or municipal separate storm sewer dischargers in the federal statutes or regulations, these are activities that 'mandate costs that exceed the mandate in the federal law or regulation.' " And with respect to industrial facility inspections, the Commission said this: "Inasmuch as the federal regulation (40 CFR § 122.26 (c)) authorizes coverage under a statewide general permit for the inspections of industrial activities, and the federal regulation (40 CFR § 122.26 (d)(2)(iv)(D)) does not expressly require those inspections to be performed by the county or cities (or the 'owner or operator of the discharge') the Commission finds that the state has freely chosen to impose *****67** these activities on the permittees." (Fn. omitted.)

Existing law does not support this method of determining what constitutes a federal mandate. Instead, our past decisions emphasize the need to consider the implications of multiple statutory provisions and broader statutory context when interpreting federal law to determine if a given condition constitutes a federal mandate. (See *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 76, 266 Cal.Rptr. 139, 785 P.2d 522 (*City of Sacramento*); see also *San Diego Unified School Dist. v. Commission on State Mandates* (2004) 33 Cal.4th 859, 890, 16 Cal.Rptr.3d 466, 94 P.3d 589 ["challenged state rules or procedures that are intended to implement an applicable federal law—and whose costs are, *in context*, de minimis—should be treated as part and parcel of the underlying federal mandate" (italics added)].) In contrast, ***776** the Commission's overly narrow approach to determining what constitutes a federal mandate risks creating a standard that will never be met so long as the state retains any shred of discretion to implement a federal program. It cannot be that so long as a federal statute or regulation does not expressly require every permit term issued by a state agency, then the permit is a state, rather than a federal, mandate. But this is precisely how the Commission analyzed the issue—an analysis that, remarkably, the majority does not even question. Instead, the majority combs the record for evidence that could have supported the result the Commission reached. In so doing, the majority implicitly acknowledges that the

Commission's approach to resolving the question at the heart of this case was deficient.

But if the Commission applied the wrong framework for its analysis, the right course is to remand. Doing so would obviate the need to cobble together scattered support for a decision by the Commission that was premised, in the first instance, on the Commission's own misconstrual of the inquiry before it. Instead, we should give the Commission an opportunity to reevaluate its conclusion in light of the entire record and to, where appropriate, solicit further information from the parties to shed light on what permit conditions are necessary for compliance with federal law.

The potential consequences of allowing the Commission to continue on its present path are quite troubling. For if the law were as the Commission suggests, the state would be unduly discouraged from participating in federal programs like the NPDES—even though participation might otherwise be in California's interest—if the state knows ex ante that it will be unable to pass along the expenses to the local areas that experience the most costs and benefits from the mandate at issue. Our law on unfunded mandates does not compel such a result. Nor is there an apparent prudential rationale in support of it.

The Commission's approach also fails to appreciate the EPA's role in implementing (through its interpretation and enforcement of the CWA) statutory requirements that the CWA describes in relatively broad terms. Indeed, what may be "practicable" in Los Angeles ****376** may not be in San Francisco, much less in Kansas City or Detroit. (See *Building Industry Assn. of San Diego County v. State Water Resources Control Bd.* (2004) 124 Cal.App.4th 866, 889, 22 Cal.Rptr.3d 128 (*Building Industry Assn.*) [explaining that "the maximum extent practicable standard is a highly flexible concept that depends on balancing numerous factors, including the particular control's technical feasibility, cost, public acceptance, regulatory compliance, and effectiveness"].) It also suggests a lack of understanding of two interrelated matters on which the Regional *****68** Board likely has expertise: the consequences of the measures included as permit conditions relative to any ***777** alternatives and the interpretation of a complex federal statute governing regulation of the environment.

Second, beyond failing to consider all the relevant evidence bearing on the necessity of the imposed permit conditions, the Commission failed to extend any meaningful deference to the Regional Board's conclusions —even though such deference was warranted given that the nature of the decisions involved in interpreting the CWA included evaluating appropriate alternatives and determining which of those were necessary to satisfy the federal standard. (See *State Water Board, supra,* 143 Cal.App.4th at p. 997, 50 Cal.Rptr.3d 619 ["we defer to the regional board's expertise in construing language which is not clearly defined in statutes involving pollutant discharge into storm drain sewer systems"]; *City of Rancho Cucamonga v. Regional Water Quality Control Bd.* (2006) 135 Cal.App.4th 1377, 1384, 38 Cal.Rptr.3d 450 (*Rancho Cucamonga*) ["consideration [should be] given to the [regional board's] interpretations of its own statutes and regulations"]; *Building Industry Assn., supra,* 124 Cal.App.4th at p. 879, fn. 9, 22 Cal.Rptr.3d 128 ["we do consider and give due deference to the Water Boards' statutory interpretations [of the CWA] in this case"]; see also *Cal. Building Industry Assn. v. Bay Area Air Quality Management Dist.* (2015) 62 Cal.4th 369, 389–390, 196 Cal.Rptr.3d 94, 362 P.3d 792 [explaining that "an agency's expertise and technical knowledge, especially when it pertains to a complex technical statute, is relevant to the court's assessment of the value of an agency interpretation"].) In the direct challenge to the permit at issue here, the local agencies argued that the Regional Board exceeded even those requirements associated with the maximum extent practicable standard, an argument the appellate court rejected in an unpublished section of its opinion. Because of its failure to afford any deference to the Regional Board or to conduct an analysis more consistent with the relevant standard of review, the Commission essentially forces the Board to defend its decision twice: once on direct challenge and a second time before the Commission.

Conditions as prosaic as trash receptacle requirements initially may not seem to implicate the Regional Board's expertise. Yet its unique experience and technical competence matter even with respect to these conditions, because the use of such conditions implicates a decision not to use alternatives that might require greater conventional expert judgment to evaluate. Moreover, the Regional Board is likely to accumulate a distinct and greater degree of knowledge regarding issues such as the reactions of stakeholders to different requirements, and related factors relevant to determining which conditions

are necessary to satisfy the CWA's maximum extent practicable standard.

The Commission acknowledged that the State Water Resources Control Board—as well as the EPA—believed the permit requirements did not exceed ***778** this federal standard. "The comments of the State Water Board and U.S. EPA," the Commission noted, "assert that the permit conditions merely implement a federal mandate under the federal Clean Water Act and its regulations." But the Commission afforded these conclusions no clear deference in determining whether the requirements were state mandates.

Nor is the majority correct in suggesting that the Commission had only a limited responsibility, if it had one at all, to extend any deference to the Regional Board. (See maj. opn., *****69** *ante*, at pp. 768–769.) The Regional Board's judgment as to whether the imposed permit ****377** conditions were necessary to comply with federal law was a prerequisite to the Commission's own task, which was to review the Board's determination in light of all the relevant evidence. To the extent ambiguity exists as to whether the Regional Board's conclusions incorporated any findings that these conditions were necessary to meet the federal standard (see *id.* at pp. 768–769), remand to clarify the Board's position is in order. By instead simply upholding the Commission's conclusion without remand, the majority displaces any meaningful role for the Regional Board's expert judgment.

The majority does so even though courts have routinely emphasized the pivotal role regional boards play in interpreting the CWA's intricate mandate. (See *State Water Board, supra,* 143 Cal.App.4th at p. 997, 50 Cal.Rptr.3d 619; *Rancho Cucamonga, supra,* 135 Cal.App.4th at p. 1384, 38 Cal.Rptr.3d 450.) And for good reason: If the Regional Board's judgment is that the trash receptacle and inspection requirements are necessary to control pollutant discharges to the maximum extent practicable, such a conclusion is well within the purview of its expertise. Unsurprisingly, then, we have never concluded that the technical knowledge relevant to interpreting the requirements of the CWA—a statute that lacks a safe harbor and where discerning what phrases such as maximum extent practicable mean given existing conditions and technology is complex—lies beyond the ambit of the Regional Board's expertise, or otherwise proves distinct from the sort of expertise that merits deference.

Third, the Commission devoted insufficient attention in its analysis to the role of states in implementing the CWA, and to how that role can be harmonized with the significant protections against unfunded mandates that the state Constitution provides. (See Cal. Const., art. XIII B, § 6, subd. (a).) By allowing states to assume such an important role in implementing its provisions, the CWA reflects principles of cooperative federalism. (See 33 U.S.C. §§ 1251(b), 1342(b); see also *Boise Cascade Corp. v. EPA* (9th Cir. 1991) 942 F.2d 1427, 1430 ["The federal-state relationship established by the [Clean Water] Act is ... illustrated in Congress' goal of encouraging states to 'assume the major role in the operation of the NPDES program' "].) In accordance with the CWA's express provisions, California chose to assume ***779** the responsibility for implementation of the NPDES program in the state—a role that requires further specification of permitting conditions. (See 33 U.S.C. § 1342(c)(3) [states must administer permitting programs "in accordance with requirements of this section," including compliance with the maximum extent practicable standard].) In the process, the state must comply with the constitutional protections against unfunded mandates requiring reimbursement of localities if permit conditions exceed what is necessary to comply with the relevant federal mandate. But given the nature of the relevant CWA provisions—and particularly the maximum extent practicable standard—it is wrong to assume that the conditions at issue in this case exceed what is necessary to comply with the CWA simply because neither the statute nor its regulations explicitly mention those conditions. The consequence of that assumption, moreover, risks discouraging the state from assuming cooperative federalism responsibilities—and may even encourage the state to withdraw from administering the NPDES. Indeed, counsel for the state indicated at oral argument that if the Commission's reasoning were upheld—and the state were required to foot the bill for any *****70** conditions not expressly mentioned in the applicable federal statutes or regulations—it might think twice about entering into such arrangements of cooperative federalism.

In light of these concerns with the Commission's approach to this case, it is difficult to see the basis for—or utility of—upholding the Commission's decision, even under

the inscrutable standard of review the majority employs. (See *California Youth Authority v. State Personnel Bd.* (2002) 104 Cal.App.4th 575, 586, 128 Cal.Rptr.2d 514 [substantial evidence review requires that all evidence be considered, including evidence that does not support the agency's decision]; see also *Sierra Club v. U.S. Army Corps of Engineers* (2d Cir. 1983) 701 F.2d 1011, 1030 ["the court may properly be skeptical as to whether an [agency report's] conclusions have a substantial basis in fact if the responsible agency has ****378** apparently ignored the conflicting views of other agencies having pertinent expertise"].) The better course, in my view, would be for us to articulate the appropriate standard for evaluating the question whether these permit conditions are state mandates and then remand for the Commission to apply it in the first instance.

II.

The Commission relied on a narrow approach that only compares the terms of a permit with the text of the CWA and its implementing regulations. Instead, the Commission should have employed a more flexible methodology in determining whether the permit conditions were federally mandated. Such a flexible approach accords with our prior case law. (See *City of Sacramento, supra,* 50 Cal.3d at p. 76, 266 Cal.Rptr. 139, 785 P.2d 522 [whether local government appropriations are ***780** federally mandated and therefore exempt from taxing and spending limitations under § 9, subd. (b), of art. XIII B of the Cal. Const. depends on, inter alia, the nature and purpose of the federal program, whether its design suggests an intent to coerce, when state or local participation began, and the legal and practical consequences of nonparticipation or withdrawal].) Moreover, it would have the added benefit of not discouraging the state from participating in ventures of cooperative federalism.

The majority may be correct that the facts of *City of Sacramento* are distinguishable. (See maj. opn., *ante*, at p. 768.) In that case, the state risked forsaking subsidies and tax credits for its resident businesses if it failed to comply with federal law requiring that unemployment insurance protection be extended to local government employees. (*Id.* at p. 764.) Here, in contrast, the negative consequences of failing to comply with federal law may seem less severe, at least in fiscal terms: the EPA may determine that the state is not in compliance with the CWA and reassert authority over permitting. (See 33 U.S.C. § 1342(c)(3).) But *City of Sacramento* nonetheless remains relevant, even though a precisely comparable level of coercion may not exist here. The flexible approach we articulated in that case remains the best way to ensure that some weight is given to the Regional Board's technical expertise, and the conclusions resulting therefrom, while also taking account of the cooperative federalism arrangements built into the CWA.

So instead of adopting an approach foreign to our precedent, the Commission should have begun its analysis with the statutory and regulatory text—and then it should have considered other relevant materials and record evidence bearing on whether the permit conditions are necessary *****71** to satisfy federal law. Crucially, such evidence includes how the federal regulatory scheme operates in practice. The Commission could have examined, for instance, previous permits issued by the EPA in similarly situated jurisdictions, comparing them to the inspection and trash receptacle requirements the Regional Board imposed here and giving due consideration to the EPA's conclusion that the maximum extent practicable standard is applied in a highly site-specific and flexible manner in order to account for unique local challenges and conditions. (See 64 Fed. Reg. 68722, 68754 (Dec. 8, 1999).) The Commission could also have considered whether, instead of identifying permitting conditions necessary to comply with the CWA, the state shifted onto local governments responsibility to conduct inspections or provide trash receptacles. The majority wisely notes that these are factors the Commission *could* have examined. (See maj. opn., *ante*, at pp. 770–772.) But the Commission mentioned this evidence only briefly, failing to grapple in any meaningful way with its implications for the issue at hand. We should allow the Commission an opportunity to do so in the first instance.

***781** The Commission should have also accorded appropriate deference to the Regional Board's conclusions regarding how best to comply with the federal maximum extent practicable standard. One way to ensure that such deference is given would be to place on the party seeking reimbursement the burden of demonstrating that the challenged permit conditions clearly exceed the federal standard, or that they were otherwise unnecessary ****379** to reduce pollutant discharges to the maximum extent practicable. Doing so would make sense where the state

is implementing a federal program that envisions routine state participation, the federal program does not itself define the minimum degree of compliance required, and the state's implementing agency reasonably determines in its expertise that certain conditions are necessary to comply with the applicable federal standard.

* * *

The Commission's decision—and the approach that produced it—fails to accord with existing law and with the nature of the applicable federal scheme. The state is not responsible for reimbursing localities for permit conditions that are necessary to comply with federal law, a circumstance that renders interpretation of the CWA central to this case. A core principle of the CWA is to facilitate cooperative federalism, by allowing states to take on a critical responsibility in exchange for compliance with a set of demanding standards overseen by a federal agency capable of withdrawing approval for noncompliance. (See *Arkansas v. Oklahoma* (1992) 503 U.S. 91, 101, 112 S.Ct. 1046, 117 L.Ed.2d 239 ["The Clean Water Act anticipates a partnership between the States and the Federal Government, animated by a shared objective: 'to restore and maintain the chemical, physical, and biological integrity of the Nation's waters' "]; *Shell Oil Co. v. Train* (9th Cir. 1978) 585 F.2d 408, 409 ["Shell's complaint must be read against the background of the cooperative federal-state scheme for the control of water pollution"].) The Commission failed to interpret the statute in light of nuances in its text and structure. And it failed to offer even a modicum of deference to the Regional Board's interpretation, despite the Board's clear expertise that the technical nature of the questions necessary to interpret the scope of the CWA demands.

Accordingly, I would remand the matter to the Court of Appeal with directions that it instruct the Commission to reconsider its decision. On reconsideration, the Commission should appropriately defer to the *****72** Regional Board, consider all relevant evidence bearing on the question at hand, and ensure the evidence clearly shows the challenged permit conditions were not necessary to comply with the federal mandate. This is the standard that most ***782** thoroughly reflects our existing law and the nature of the CWA. Any dilution of it exacerbates the risk of undermining the nuanced federal-state arrangement at the heart of the CWA.

Liu, J., and Kruger, J., concurred.

All Citations

1 Cal.5th 749, 378 P.3d 356, 207 Cal.Rptr.3d 44, 16 Cal. Daily Op. Serv. 9501, 2016 Daily Journal D.A.R. 8996, 2016 Daily Journal D.A.R. 11,393

Footnotes

1 The cities involved are the Cities of Agoura Hills, Alhambra, Arcadia, Artesia, Azusa, Baldwin Park, Bell, Bellflower, Bell Gardens, Beverly Hills, Bradbury, Burbank, Calabasas, Carson, Cerritos, Claremont, Commerce, Compton, Covina, Cudahy, Culver City, Diamond Bar, Downey, Duarte, El Monte, El Segundo, Gardena, Glendale, Glendora, Hawaiian Gardens, Hawthorne, Hermosa Beach, Hidden Hills, Huntington Park, Industry, Inglewood, Irwindale, La Cañada Flintridge, La Habra Heights, Lakewood, La Mirada, La Puente, La Verne, Lawndale, Lomita, Los Angeles, Lynwood, Malibu, Manhattan Beach, Maywood, Monrovia, Montebello, Monterey Park, Norwalk, Palos Verdes Estates, Paramount, Pasadena, Pico Rivera, Pomona, Rancho Palos Verdes, Redondo Beach, Rolling Hills, Rolling Hills Estates, Rosemead, San Dimas, San Fernando, San Gabriel, San Marino, Santa Clarita, Santa Fe Springs, Santa Monica, Sierra Madre, Signal Hill, South El Monte, South Gate, South Pasadena, Temple City, Torrance, Vernon, Walnut, West Covina, West Hollywood, Westlake Village, and Whittier.

2 The systems at issue here are "municipal separate storm sewer systems," sometimes referred to by the acronym "MS4." (40 C.F.R. § 122.26(b)(19) (2001).) A "municipal separate storm sewer" is a system owned or operated by a public agency with jurisdiction over disposal of waste and designed or used for collecting or conveying storm water. (40 C.F.R. § 122.26(b)(8) (2001).) Unless otherwise indicated, all further citations to the Code of Federal Regulations are to the 2001 version.

3 For a state to acquire permitting authority, the governor must give the EPA a "description of the program [the state] proposes to establish," and the attorney general must affirm that the laws of the state "provide adequate authority to carry out the described program." (33 U.S.C. § 1342(b).)

4 The EPA may withdraw approval of a state's program (33 U.S.C. § 1342(c)(3)), and also retains some supervisory authority: States must inform the EPA of all permit applications received and of any action related to the consideration of a submitted application (33 U.S.C. § 1342(d)(1)).

5 As to commercial facilities, Part 4(C)(2)(a) required each Operator to inspect each restaurant, automotive service facility, retail gasoline outlet, and automotive dealership within its jurisdiction, and to confirm that the facility employed best management practices in compliance with state law, county and municipal ordinances, a Regional Board resolution, and the Operators' storm water quality management program (SQMP). For each type of facility, the Permit set forth specific inspection tasks.

Part 4(C)(2)(b) addressed industrial facilities, requiring the Operators to inspect them and confirm that each complied with county and municipal ordinances, a Regional Board resolution, and the SQMP. The Operators also were required to inspect industrial facilities for violations of the general industrial activity stormwater permit, a statewide permit issued by the State Board that regulates discharges from industrial facilities. (See discussion, *post*, at pp. 62–63, 378 P.3d at pp. 371–372.)

6 Part 4(E)(4) required inspections for violations of the general construction activity stormwater permit, another statewide permit issued by the State Board. (See discussion, *post*, at pp. 62–63, 378 P.3d at pp. 371–372.)

7 " 'Costs mandated by the state' means any increased costs which a local agency or school district is required to incur ... as a result of any statute enacted on or after January 1, 1975, or any executive order implementing any statute enacted on or after January 1, 1975, which mandates a new program or higher level of service of an existing program within the meaning of Section 6 of Article XIIIB of the California Constitution." (Gov. Code, § 17514.)

8 40 Code of Federal Regulations part 122.26(d)(2)(iv)(A) provides that the proposed management plan in an operator's permit application must be based, in part, on a "description of structural and source control measures to reduce pollutants from runoff from commercial and residential areas that are discharged from the municipal storm sewer system that are to be implemented during the life of the permit, accompanied with an estimate of the expected reduction of pollutant loads and a proposed schedule for implementing such controls," and that, at a minimum, that description shall include, among other things, a "description of practices for operating and maintaining public streets, roads and highways and procedures for reducing the impact on receiving waters of discharges from municipal storm sewer systems, including pollutants discharged as a result of deicing activities." (40 C.F.R. § 122.26(d)(2)(iv)(A), (A)(3).)

9 40 Code of Federal Regulations part 122.26(d)(2)(iv)(B) provides that the proposed management plan in an operator's permit application must be based, in part, on a "description of a program, including a schedule, to detect and remove ... illicit discharges and improper disposal into the storm sewer," and that the proposed program shall include a "description of a program, including inspections, to implement and enforce an ordinance, orders or similar means to prevent illicit discharges to the municipal separate storm sewer system." (40 C.F.R. § 122.26(d)(2)(iv)(B), (B)(1).)

10 40 Code of Federal Regulations part 122.26(d)(2)(iv)(C) provides that the proposed management plan in an operator's permit application must be based, in part, on a "description of a program to monitor and control pollutants in storm water discharges to municipal systems from municipal landfills, hazardous waste treatment, disposal and recovery facilities, industrial facilities that are subject to section 313 of title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA), and industrial facilities that the municipal permit applicant determines are contributing a substantial pollutant loading to the municipal storm sewer system," and that the program shall "[i]dentify priorities and procedures for inspections and establishing and implementing control measures for such discharges." (40 C.F.R. § 122.26(d)(2)(iv)(C), (C)(1).)

11 40 Code of Federal Regulations part 122.26(d)(2)(iv)(D) provides that the proposed management plan in an operator's permit application must be based, in part, on a "description of a program to implement and maintain structural and nonstructural best management practices to reduce pollutants in storm water runoff from construction sites to the municipal storm sewer system," which shall include, a "description of procedures for identifying priorities for inspecting sites and enforcing control measures which consider the nature of the construction activity, topography, and the characteristics of soils and receiving water quality." (40 C.F.R. § 122.26(d)(2)(iv)(D), (D)(3).)

12 The appellants are County and the Cities of Artesia, Azusa, Bellflower, Beverly Hills, Carson, Commerce, Covina, Downey, Monterey Park, Norwalk, Rancho Palo Verdes, Signal Hill, Vernon, and Westlake Village.

13 In the end, the court held that the challenged state regulation did not obligate the local fire district to maintain three-person firefighting teams. Accordingly, the state regulation did not mandate an increase in costs. (*Division of Occupational Safety, supra,* 189 Cal.App.3d at pp. 807–808, 234 Cal.Rptr. 661.)

14 To the extent Education Code section 48918 imposed requirements that went beyond the mandate of federal law, those requirements were merely incidental to the federal mandate, and at most resulted in "a de minimis cost." (*San Diego*

Unified, supra, 33 Cal.4th at p. 890, 16 Cal.Rptr.3d 466, 94 P.3d 589.) The State does not argue here that the costs of the challenged permit conditions were de minimis.

15 Of course, this finding would be case specific, based among other things on local factual circumstances.

16 The State also relied on a 2008 letter from the EPA indicating that the requirements to inspect industrial facilities and construction sites fell within the maximum extent practicable standard under the CWA. That letter, however, does not indicate that federal law required municipal storm sewer system operators to inspect all industrial facilities and construction sites within their jurisdictions.

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Superior Court of California
County of Los Angeles

JUL 09 2018

Sherri R. Carter, Executive Officer/Clerk
By Fernando Becerra, Jr., Deputy

SUPERIOR COURT OF THE STATE OF CALIFORNIA

COUNTY OF LOS ANGELES

STATE OF CALIFORNIA DEPARTMENT OF FINANCE, et al., Petitioners, **v.** **COMMISSION ON STATE MANDATES,** Respondent, **COUNTY OF LOS ANGELES, et al.,** Real Parties in Interest.	Case No. BS130730 [A[redacted]] **JUDGMENT** Dept.: 86 Judge: The Honorable Amy D. Hogue Action Filed: July 20, 2010
COUNTY OF LOS ANGELES, et al., Cross-Petitioners, **v.** **COMMISSION ON STATE MANDATES,** Cross-Respondent, **STATE OF CALIFORNIA DEPARTMENT OF FINANCE, et al.,** Cross-Real Parties in Interest.	

On January 31, 2018, a post-remand hearing was held on the Petition for Writ of Mandate and Cross-Petition for Writ of Mandate in the Superior Court of the State of California, Los Angeles County, Department 86, the Honorable Amy D. Hogue presiding. Nelson R. Richards, Deputy Attorney General, California Department of Justice, Office of the Attorney General, appeared on behalf of Petitioners and Cross-Real Parties in Interest the State of California Department of Finance, State Water Resources Control Board, and California Regional Water Quality Control Board, Los Angeles Region. Howard Gest of Burhenn & Gest LLP appeared on behalf of Real Parties in Interest and Cross-Petitioners County of Los Angeles, and Cities of Bellflower, Carson, Commerce, Downey, and Signal Hill. No appearance was made on behalf of Respondent Commission on State Mandates.

On February 9, 2018, the Court issued a minute order granting the Petition and denying the Cross-Petition. A copy of that order is incorporated herein and attached as Exhibit A. For the reasons set forth in that order, IT IS ORDERED, ADJUDGED, AND DECREED that:

JUDGMENT on the Petition is entered in FAVOR of Petitioners and Cross-Real Parties in Interest the State of California Department of Finance, State Water Resources Control Board, and California Regional Water Quality Control Board, Los Angeles Region, and AGAINST Respondent Commission on State Mandates and Real Parties in Interest and Cross-Petitioners County of Los Angeles, and Cities of Bellflower, Carson, Commerce, Downey, and Signal Hill; the peremptory writ of mandate requested in the Petition is GRANTED; let a writ of mandate issue to Respondent Commission on State Mandates; and,

JUDGMENT on the Cross-Petition is entered in FAVOR of Respondent Commission on State Mandates and Petitioners and Cross-Real Parties in Interest the State of California Department of Finance, State Water Resources Control Board, and California Regional Water Quality Control Board, Los Angeles Region, and AGAINST and Real Parties in Interest and Cross-Petitioners County of Los Angeles, and Cities of Bellflower, Carson, Commerce, Downey, and Signal Hill on the grounds that the Cross-Petition is moot; the peremptory writ of mandate requested in the Cross-Petition is DENIED as moot.

Dated: JUL 0 9 2018

AMY D. HOGUE, JUDGE
The Honorable Amy D. Hogue
Judge of the Los Angeles Superior Court

APPROVED AS TO FORM

Dated: May 17, 2018

BURHENN & GEST LLP

HOWARD GEST
Attorneys for Real Parties in Interest and Cross-Petitioners County of Los Angeles, and Cities of Bellflower, Carson, Commerce, Downey, and Signal Hill

Dated: May 14 2018

CAMILLE SHELTON
CHIEF LEGAL COUNSEL
COMMISSION ON STATE MANDATES
Attorneys for Respondent Commission on State Mandates

EXHIBIT A

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County of Los Angeles

FEB 09 2018

Sherri R. Carter, Executive Officer/Clerk
By Fernando Becerra, Jr., Deputy

SUPERIOR COURT OF THE STATE OF CALIFORNIA

FOR THE COUNTY OF LOS ANGELES

STATE OF CALIFORNIA DEPARTMENT OF FINANCE, et al., Petitioners, vs. COMMISSION ON STATE MANDATES, Respondent, COUNTY OF LOS ANGELES, et al., Real Parties in Interest. AND RELATED CROSS-PETITION.	Case No.: BS130730 ORDER GRANTING PETITION FOR WRIT OF MANDATE (POST-REMAND) AND DENYING CROSS-PETITIONS AS MOOT Hearing Date: January 31, 2018 Dept.: 86

I. Introduction

In December 2001, the Los Angeles Regional Water Quality Control Board ("Regional Board") issued a municipal stormwater permit (the "permit") to the County of Los Angeles, Los

Angeles County Flood Control District, and 84 cities (the "Operators"). (AR 1560-1634.) The permit imposed requirements to regulate discharges from and pollutants entering the Operators' municipal separate storm sewer systems ("MS4s"). Among other provisions, the permit required the permittees to (1) place and maintain trash receptacles at transit stops (AR 1610); and (2) inspect various commercial facilities (AR 1590-92), industrial facilities (AR 1592-93) and construction sites (AR 1604-05).

In 2003, the Operators filed "test claims" with the Commission on State Mandates ("Commission") seeking a subvention of funds under article XIII B, section 6 for these permit requirements. Article XIII B, section 6 provides in part that "[w]henever the Legislature or any state agency mandates a new program or higher level of service on any local government, the State shall provide a subvention of funds to reimburse that local government for the costs of the program or increased level of service . . . ." The Commission originally refused jurisdiction over the claims because Government Code § 17516(c)'s definition of "executive order" excluded permits issued by the Regional Boards. On appeal, the Second District held that exclusion of the Regional Board permits from the definition of "executive order" was unconstitutional.

Thereafter, the Operators re-filed their test claims with the Commission. On July 31, 2009 the Commission issued a Statement of Decision (SOD). (AR 5555 – 5626.) In the SOD, the Commission concluded, as to Issue 1, that the challenged permit conditions were subject to article XIII B, section 6 of the California constitution and made the following findings: (A) the permit is an executive order within the meaning of article XIII B, section 6 of the California constitution and Government Code section 17516 (AR 5574); (B) the challenged sections of the permits were not undertaken at the option or discretion of the claimants (AR 5575); and (C) none of the challenged provisions in the permit (the transit trash receptacle and inspection permit provisions in Parts 4C2a, 4C2b, 4E and 4F5c3) was a federal mandate (AR 5576 – 5603). The Commission's SOD concluded, on Issue 2, that all of the challenged provisions imposed a new program or higher level of service within the meaning of article XIII B, section 6 of the California constitution. (AR 5603.) Addressing Issue 3, the Commission's SOD examined whether the challenged provisions imposed costs mandated by the state within the meaning of Government Code sections 17514 and

17556 or qualified for any exceptions under Government Code section 17556. (AR 5605.) With respect to the provisions requiring inspections, the Commission concluded the exception in Section 17556(d) applied because various statutes give the local authorities discretion to impose fees. (AR 5625.) However, the Commission concluded the permit's requirements (under part 4F5c3) for the placement and maintenance of trash receptacles was a program that qualified as a state mandate subject to subvention. (AR 5625.)

Petitioners Department of Finance, State Water Resources Control Board ("State Board") and Regional Board (collectively "Petitioners" or "State Agencies") filed a petition for writ of mandate to set aside the Commission's decision arguing it was an abuse of discretion to conclude the challenged permit provisions were state mandates subject to article XIII B section 6 and that the SOD was erroneous because (1) the permit terms were required by federal law and thus not state mandates (Petition ¶ 33(a)); (2) the permit terms did not impose a new program or higher level of service (Petition ¶ 34); and (3) the permittees had authority to levy fees to pay for the trash receptacle requirement (Petition ¶ 35). The County and several cities filed a cross-petition seeking to set aside the Commission's determination the inspection costs were not reimbursable because the Operators had the ability to assess fees to cover them.

In August 2011, this Court (Judge Ann I. Jones presiding) issued a decision concluding the challenged permit terms were federal mandates and thus not reimbursable state mandates under Government Code section 17556(c). The Court did not address the cross-petition. On October 16, 2013, the Second District affirmed this ruling. On August 29, 2016, the Supreme Court reversed holding that the permit requirements were not federal mandates. (*Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 772.) The Supreme Court remanded the matter back to this Court to address the "other arguments in [the State's] writ petition" as well as "the issues presented in the Operators' cross-petition." (*Id.* at 772.)

Petitioners and Cross-Petitioners have both filed briefs in support of their additional arguments. Petitioners seek a writ of mandate setting aside the Commission's decision in part arguing (1) the permit terms did not impose a new program or higher level of service and (2) the permittees had fee authority to pay for the trash receptacle. Cross-Petitioners also seek a writ of

mandate setting aside the Commission's decision in part arguing that they did not have authority to levy fees to pay for inspections of commercial, industrial, and construction sites.

II. Statutory Framework

A. The Clean Water Act

The permit at issue in this case was issued pursuant to obligations imposed by the Clean Water Act (CWA) (33 U.S.C. §§ 1251-1387) which was originally enacted as an amendment to the Federal Water Pollution Control Act. Section 1311(a) of the CWA articulates a broad federal prohibition against water pollution ("Except in compliance with this section and [other sections], the discharge of any pollutant by any person shall be unlawful") and imposes criminal penalties against any knowing violation. (33 U.S.C. § 1311(a), § 1319.) The Act's primary means for enforcing effluent limitations and standards is the National Pollution Discharge Elimination System (NPDES). "The NPDES sets out the conditions under which the federal EPA or a state with an [EPA] approved water quality control program can issue permits for the discharge of pollutants in wastewater. (33 U.S.C. § 1342(a) & (b).) In California, wastewater discharge requirements established by [permits issued by the regional boards] are the equivalent of the NPDES permits required under federal law." (*City of Burbank v. State Water Resources Control Bd.* (2005) 35 Cal.4th 613, 621.)

In 1987 amendments, "Congress distinguished between industrial and municipal storm water discharges. With respect to *industrial* storm water discharges, Congress provided that NPDES permits 'shall meet all applicable provisions of this section and section 1311 [requiring the EPA to establish effluent limitations under specific timetables] ....'" (*Building Industry Ass'n of San Diego County v. State Water Resources Control Bd.* (2004) 124 Cal.App.4th 866, 874 [citing 33 U.S.C. § 1342(p)(3)(A)].) "With respect to *municipal* storm water discharges, Congress clarified that the EPA had the authority to fashion NPDES permit requirements to meet water quality standards without specific numerical effluent limits and instead to impose 'controls to

reduce the discharge of pollutants to the maximum extent practicable ....'" (*Ibid* [citing 33 U.S.C. § 1342(p)(3)(B)(iii)].) The law requires permits for municipal stormwater discharge to be prohibitory, stating that such permits "shall include a requirement to effectively prohibit non-stormwater discharges into the storm sewers" and "shall require controls to reduce the discharge of pollutants to the maximum extent practicable . . . ." (33 U.S.C. 1342(p)(3)(B)(ii) and (iii).)

B. *California Porter-Cologne Water Quality Control Act*

In 1969, California enacted the Porter-Cologne Water Quality Control Act. (Wat. Code, § 13000 *et seq.*) The Act established the State Water Resources Control Board, responsible for establishing statewide policy, as well as nine regional water quality control boards, responsible for creating water quality control plans and issuing permits to govern the discharge of waste. (Wat. Code, § 13001; *Building Industry, supra*, 124 Cal.App.4th at 875.) Shortly after Congress enacted the Clean Water Act in 1972, the California Legislature added chapter 5.5 to the Porter-Cologne Act to ensure that it would obtain approval to implement the provisions of the Clean Water Act. (Wat. Code, § 13370(c); *Building Industry, supra*, 124 Cal.App.4th at 875.) In 1973, California obtained approval to issue NPDES permits. (*Environmental Protection Agency v. California ex rel. State Water Resources Control Bd.* (1976) 426 U.S. 200, 209.)

Under chapter 5.5 of the Porter-Cologne Act, the Water Boards issue "waste discharge requirements" which "ensure compliance with all applicable provisions of the [Clean Water Act] . . . together with any more stringent effluent standards or limitations necessary to implement water quality control plans . . . ." (Wat. Code § 13377.) These "wastewater discharge requirements established by the regional boards are the equivalent of the NPDES permits required by federal law." (Wat. Code § 13374; *City of Burbank v. State Water Resources Control Bd.* (2005) 35 Cal.4th 613, 621.)

C. The 2001 Permit

In December 2001, the Regional Board issued to the Operators the municipal stormwater permit at issue in this case. (AR 1560-1634.) The permit imposed requirements to regulate discharges from and pollutants entering the Operators' MS4s. Among other provisions, the permit required the permittees to (1) place and maintain trash receptacles at transit stops (AR 1610); and (2) inspect various commercial facilities (AR 1590-92), industrial facilities (AR 1592-93) and construction sites (AR 1604-05). (See *Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 758.)

III. Standard of Review

Code of Civil Procedure section 1094.5 is the administrative mandamus provision providing the procedure for judicial review of adjudicatory decisions rendered by administrative agencies. (*Topanga Ass'n for a Scenic Community v. County of Los Angeles*, (1974) 11 Cal. 3d 506, 514-15.) Section 1094.5(a) states, in pertinent part, that "[w]here the writ is issued for the purpose of inquiring into the validity of any final administrative order or decision made as the result of a proceeding in which by law a hearing is required to be given, evidence is required to be taken, and discretion in the determination of facts is vested in the inferior tribunal, corporation, board, or officer, the case shall be heard by the court sitting without a jury." Under Section 1094.5(b), the pertinent issues are: (1) whether the respondent has proceeded without jurisdiction; (2) whether there was a fair trial; and (3) whether there was a prejudicial abuse of discretion. An abuse of discretion is established if the respondent has not proceeded in the manner required by law, the decision is not supported by the findings, or the findings are not supported by the evidence. (Code Civ. Proc. § 1094.5(b).)

In general, an agency is presumed to have regularly performed its official duties. (Evid. Code § 664.) Therefore, the petitioner seeking administrative mandamus has the burden of proof. (*Steele v. Los Angeles County Civil Service Commission*, (1958) 166 Cal. App. 2d 129, 137; see

also *Alford v. Pierno* (1972) 27 Cal.App.3d 682, 691 ["[T]he burden of proof falls upon the party attacking the administrative decision to demonstrate wherein the proceedings were unfair, in excess of jurisdiction or showed prejudicial abuse of discretion."].)

In this case, the determination whether the permit is a state-mandated program or higher level of service under article XIII B, section 6 is a question of law that the Court reviews *de novo*. (*County of San Diego v. State*, (1997) 15 Cal.4th 68, 109; *Carmel Valley Fire Protection Dist. v. State of California*, (1987) 190 Cal.App.3d 521, 536.) When reviewing the Commission's determination, the Court reviews the record to determine if substantial evidence supports the decision. (Gov. Code § 17559(b).)

IV. Analysis

A. Petitioners Did Not Waive the Arguments in their Writ Petition

After determining that the permit conditions were not federally mandated, the Supreme Court remanded the matter with the following instructions:

> Although we have upheld the Commission's determination on the federal mandate question, the State raised other arguments in its writ petition. Further, the issues presented in the Operators' cross-petition were not addressed by either the trial court or the Court of Appeal. We remand the matter so those issues can be addressed in the first instance.

(*Department of Finance v. Commission on State Mandates* (2016) 1 Cal.5th 749, 772.) Cross-Petitioners argue that Petitioners waived the arguments they now assert ((1) that the permit requirements did not impose a new program or higher level of service; and (2) that the Operators have fee authority sufficient to pay for the trash receptacle requirement) because they failed to raise those arguments in their original "Memorandum of Points and Authorities in Support of Petition for Writ of Administrative Mandamus" filed on June 10, 2011. However, Petitioners did raise those arguments in their original *writ petition* filed on February 17, 2011. (See Petition ¶ 34,

35.) The Supreme Court's mandate directs this Court to address the State's "other arguments in its writ petition." The Court therefore finds Petitioners may assert them on remand.

B. The Permit Is Not a State Mandated Program or Policy for which the Operators Are Entitled to a Subvention of Funds Under Article XIII B

Article XIII B, section 6 provides in part that "[w]henever the Legislature or any state agency mandates a new program or higher level of service on any local government, the State shall provide a subvention of funds to reimburse that local government for the costs of the program or increased level of service . . . ." In this action, the Operators seek a subvention of funds to pay for the trash receptacle and inspection requirements imposed by the 2001 municipal stormwater permit (the "permit").

The Commission concluded the receptacle and inspection requirements constituted "a program within the meaning of article B, section 6." (AR 5603.) It pointed out the requirements "are limited to local government entities" and "[provide] a service to the public by preventing or abating pollution in waterways and beaches in Los Angeles County." (*Id.*) The Commission also cited page 13 of the permit which states, "The objective of this Order is to protect the beneficial uses of receiving waters in Los Angeles County." (*Id.*)

Petitioners contend that the Operators are not entitled to reimbursement because the Clean Water Act is a law of general applicability that prohibits both public and private entities from discharging pollutants from point sources to waters of the United States without an NPDES permit. In support of this argument, Petitioners cite several cases addressing state legislation: *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, and *City of Richmond v. Commission on State Mandates* (1998) 64 Cal.App.4th 1190.

In *County of Los Angeles*, the County of San Bernardino and City of Los Angeles filed test claims seeking reimbursement for expenditures mandated by newly enacted laws increasing the amounts which employers, including local governments, must pay in workers' compensation

benefits to injured employees and families of deceased employees. (*County of Los Angeles, supra*, 43 Cal.3d at 50-51.) The Supreme Court held that the reimbursement claims were properly denied by the State Board because "the state need not provide subvention for, the costs incurred by local agencies in providing to their employees the same increase in workers' compensation benefits that employees of private individuals or organizations receive." (*Id.* at 57-58.) The Supreme Court explained:

> "[W]hen the voters adopted article XIII B, section 6, their intent was not to require the state to provide subvention whenever a newly enacted statute resulted incidentally in some cost to local agencies. Rather, the drafters and the electorate had in mind subvention for the expense or increased cost of programs administered locally **and for expenses occasioned by laws that impose unique requirements on local governments and do not apply generally to all state residents or entities.**

(*Id.* at 46-50, emphasis added.)

In *City of Sacramento*, the City of Sacramento and County of Los Angeles filed claims with the State Board seeking subvention of the costs imposed on them by statutes which extended mandatory coverage under the state's unemployment insurance law to state and local governments and nonprofit corporations. (*City of Sacramento*, 50 Cal.3d at 59.) The City and County argued that the statutes imposed a unique requirement on them because it applied only to them and compelled costs to which they were not previously subject. (*Id.* at 68.) The Supreme Court held that the statute did not constitute a "new program" or "higher level of service" because "[m]ost private employers in the state already were required to provide unemployment protection to their employees" and thus the statute "merely [made] the local agencies 'indistinguishable in this respect from private employers.' " (*Id.* at 67.)

In *City of Richmond*, the city filed a test claim with the Commission on State Mandates seeking subvention of the costs imposed on it by a statute extending workers' compensation death benefits. (*City of Richmond, supra*, 64 Cal.App.4th at 1193.) The appellate court held that the City was not entitled to reimbursement because "the law ma[de] the workers' compensation death benefit requirements as applicable to local governments as they are to private employers" and thus

"impose[d] no 'unique requirement' on local governments." (*Id.* at 1199.) The court observed that, "while the result of chapter 478 is that local safety members of PERS now are eligible for two death benefits and local governments will have to fund the workers' compensation benefit, chapter 478 does not mandate double death benefits. Instead, it merely eliminates the offset provisions of Labor Code section 4707. In this regard, the law makes the workers' compensation death benefit requirements as applicable to local governments as they are to private employers. It imposes no "unique requirement" on local governments." (*Id.* at 1199.)

Although in each of these cases, the "state mandate" under consideration was legislation of general applicability, whereas in this case, the "state mandate" is the particular NPDES permit ("executive order") challenged in the test cases, this Court does not regard that distinction as making any difference. Under Government Code § 17514, "costs mandated by the state" are defined to include statutes and executive orders. In the first round of appeals in this case, the appellate court in *County of Los Angeles v. Commission on State Mandates* (2007) 150 Cal.App.4th 898 rejected, as unconstitutional, the provision in Section 17516(c), which purported to exempt "any order, plan requirement, rule or regulation" of the State Water Resources Control Board from the definition of an "executive order" potentially subject to subvention. The language in that court's discussion of the matters to be remanded to the Commission specifies that the "state mandate" under consideration is the permit:

> "The Commission urges that should this court conclude Section 17516(c) is unconstitutional, the appropriate remedy is to afford the Commission the opportunity to pass on the merits of the subject test claims on the issues of whether (1) *the subject permit* qualifies as a state-mandated program under article XIII B, section 6; (2) *the permit* amounts to a new program or higher level of services; and (3) *the permit* imposes costs on local entities. (Gov. Code, § § 17514, 17556. We find its position persuasive."

(*Id.* at 905, emphasis added.) The court further noted that the question "[w]hether *the permit* in question . . . governs both public and private pollution dischargers to the same extent present[ed] factual issues not yet resolved." (*Id.* at 919, emphasis added.) Consistent with this language, the Commission concluded "the issue is not whether NPDES permits generally constitute a 'program'

within the meaning of article XIII B, section 6," but "whether the permit in this test claim . . . constitutes a program because this permit is the only one over which the Commission has jurisdiction." (AR 5604.) On remand, the Commission resolved this issue, concluding that the permit applied exclusively to local agencies and therefore constituted a "program" within the meaning of article XIII B, section 6. (AR 5603.) Based on the language in *County of Los Angeles* quoted above, this Court agrees with the Commission that the question before this Court is whether the Operators' permit includes one or more state mandates subject to subvention. As explained below, this Court concludes it does not.

In *County of Los Angeles, supra,* the Supreme Court provided two alternative definitions for "program" under article XIII B, section 6, explaining they could either be "programs that carry out the governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state." (*County of Los Angeles, supra,* 43 Cal.3d at 56.) The Supreme Court based these definitions on the intent behind constitutional amendment as evidenced by the Ballot Pamphlet presented to the voters. The court focused on language in the Pamphlet emphasizing the measure would "not allow the state government to force programs on local governments without the state paying for them." (*Id.*) Based on this language, the Supreme Court concluded "the intent underlying section 6 was to require reimbursement to local agencies for the costs involved in carrying out functions peculiar to government, not for expenses incurred by local agencies as an incidental impact of laws that apply generally to all state residents and entities." From the Supreme Court's point of view, "[l]aws of general application are not passed by the Legislature to 'force' programs on localities." (*Id.* at 57.) The Supreme Court concluded "the intent underlying section 6 was to require reimbursement to local agencies for the costs involved in carrying out functions peculiar to government, not for expenses incurred by local agencies as an incidental impact of laws that apply generally to all state residents and entities." (*Id.* at 56-57.)

As noted above, the Commission concluded the receptacle and permitting requirements in the permit constituted "programs" subject to subvention apparently referencing the first alternative definition of "program" in *County of Los Angeles.* This Court is not, however, persuaded the

receptacle and inspection requirements are "programs that carry out the governmental function of providing services to the public." Unlike the executive order establishing minimum clothing and equipment requirements for firefighters addressed in *Carmel Valley Fire Protection District v. State of California* (1987) 190 Cal.App.3d 521, 537, an NPDES permit enforcing a prohibition against polluting is not a government program in the usual sense of the word. Indeed, a ban on contaminated discharges is more akin to a criminal law than a program delivering a service to the public at the taxpayers' expense. It is noteworthy that Section 17556(g) exempts from subvention costs mandated by statutes creating new crimes "for that portion of the crime relating directly to the enforcement of the crime ...." By analogy, costs incurred to enforce the anti-pollution laws should not be treated as state mandated programs entitled to reimbursement by the state.

The Court also disagrees with the Operators' contention "the collection of trash and the enforcement of statutes and regulations intended to prevent pollution" constitute "programs" for purposes of subvention. (Opp. p. 9.) As noted above, these conditions enforce a prohibition rather than initiate or upgrade "classic" or "peculiarly governmental functions[s]" like the firefighting services affected by the executive order in *Carmel Valley*. (*Id.*) Because the requirements were implemented to prevent pollution (enforce a ban on pollution) rather than to provide a service to the public, it is difficult to regard them as "programs that carry out the governmental function of providing services to the public."

Addressing *County of Los Angeles'* second alternative definition of "programs," it is a closer question whether the permit's receptacle and inspection requirements are "laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state." (*County of Los Angeles, supra*, 43 Cal.3d at 56.) There is no doubt the permit (which only applies to local governments) "uniquely" imposes the receptacle and inspection requirements on local governments. However, the relevant "state policy" implemented by the permit is the federal and state law prohibition against unlawful discharges. That policy "appl[ies] generally to all residents and entities in the state." In contrast with the upgrade in firefighter clothing and equipment mandated by the executive order in *Carmel*

Valley, this is not the type of policy the voters intended to embrace in the ballot measure giving rise to section 6.

The NPDES policy implemented by the permit effectuates laws of general application that prohibit both public and private entities from discharging contaminants into the waterways except as specified in an NPDES permit. By its terms, the Operators' NPDES permit is the means by which the state ensures that public entities abide by the same prohibitions against contaminated discharges that the law imposes on private parties. Although it is true that, like the workers compensation statute at issue in *County of Los Angeles*, the NPDES permit is "administered by the state," that does not necessarily mean the state has forced the expense of its program or policy onto the local governments. (*Id.* at 58.)

Moreover, just because the requirements are "unique" to the local governments and cause them to incur costs does not mean the local entities are necessarily entitled to reimbursement from the state. Whereas a private industrial discharger has considerable power to control its operations and employees to prevent contaminated discharges, municipalities cannot prevent contaminated discharges without inducing or policing the public to refrain from harmful conduct. It is therefore inevitable that the Operators' NPDES permit includes measures "unique" to local governments such as the receptacle and inspection requirements at issue here. Indeed, because the anti-pollution laws, the permit and the policies behind them implement a ban on unlawful discharges that applies to both public and private entities, the state must, as a practical matter, impose "unique" requirements on local governments to ensure that their required compliance is "indistinguishable . . . from private employers." (*Id.*)

Given that the "state policy" advanced by the permit is to enforce a ban of general application rather than to initiate or expand waste collection and/or inspection services, it is not reasonable to interpret the receptacle and inspection requirements as a policy (or program) initiated by the State Water Board "to 'force' [trash collection and inspection] programs on localities." (*Id.*) As noted in *County of Los Angeles*, "the intent underlying section 6 was to require reimbursement to local agencies for the costs involved in carrying out functions peculiar to government, *not for*

expenses incurred by local agencies as an incidental impact of laws that apply generally to all state residents and entities." (*Id.* at 56-57, emphasis added.)

In this case, the costs incurred by the local governments are an "incidental impact of laws [and policies] that apply generally to all state residents and entities" rather than the result of a state mandate shifting the costs of a state initiated program to the local governments. (*County of Los Angeles,* 43 Cal.3d at 57.) This Court finds the receptacle and inspection requirements are not state mandated programs subject to subvention and grants the petition for writ of mandate.

C. Petitioners' and Cross-Petitioners' Remaining Arguments Are Moot

Because the Court has determined the Operators are not entitled to reimbursement for the costs of complying with the permit's receptacle or inspection requirements, the parties' remaining arguments (as to whether the Operators had fee authority to levy service charges to pay for the trash receptacle requirement and inspection requirement) are moot.

V. Conclusion

For the reasons stated above, the Court GRANTS the Petition for Writ of Mandate and remands this matter to the Commission on State Mandates for proceedings consistent with this decision.

Dated: FEB 0 9 2018

AMY D. HOGUE, JUDGE

JUDGE OF THE SUPERIOR COURT

SUPERIOR COURT OF CALIFORNIA, COUNTY OF LOS ANGELES

DATE: 02/09/18	DEPT. 86
HONORABLE AMY D. HOGUE JUDGE	F. BECERRA DEPUTY CLERK
HONORABLE JUDGE PRO TEM	ELECTRONIC RECORDING MONITOR
Deputy Sheriff	Reporter

BS130730

STATE OF CA DEPT OF FINANCE ET

VS

COMMISSION ON STATE MANDATES

PETITION GRANTED POST REMAND

Plaintiff Counsel: NO APPEARANCES

Defendant Counsel:

NATURE OF PROCEEDINGS:

RULING ON SUBMITTED MATTER
- HEARING ON PETITION FOR WRIT OF MANDATE(POST REMAND)
- HEARING ON CROSS-PETITION FOR WRIT OF MANDATE

The Court, having previously taken the matter under submission on 01/31/18, issues its ruling in accordance with the "ORDER GRANTING PETITION FOR WRIT OF MANDATE (POST-REMAND) AND DENYING CROSS-PETITIONS AS MOOT" consisting of 14 pages, filed this date and incorporated herein by reference to the Court file.

Summary of the court's Ruling:

The petition for writ of mandate is granted. Cross-petitions are denied as moot.

Petitioner's exhibit 1 is ordered returned forthwith to the party who lodged it, to be preserved unaltered until a final judgment is rendered in this case and is to be forwarded to the court of appeal in the event of an appeal.

Administrative record to be picked up directly from Department 86 within 10 days from this order.

Counsel for petitioner is to prepare, serve, and lodge the proposed judgment within ten days. The Court will hold the proposed judgment at least ten days for objections.

MINUTES ENTERED
02/09/18
COUNTY CLERK

SUPERIOR COURT OF CALIFORNIA, COUNTY OF LOS ANGELES

DATE: 02/09/18	DEPT. 86
HONORABLE AMY D. HOGUE JUDGE	F. BECERRA DEPUTY CLERK
HONORABLE JUDGE PRO TEM	ELECTRONIC RECORDING MONITOR
Deputy Sheriff	Reporter

BS130730

STATE OF CA DEPT OF FINANCE ET

VS

COMMISSION ON STATE MANDATES

PETITION GRANTED POST REMAND

Plaintiff Counsel: NO APPEARANCES

Defendant Counsel:

NATURE OF PROCEEDINGS:

CLERK'S CERTIFICATE OF MAILING

I, the below-named Executive Officer/Clerk of the above-entitled court, do hereby certify that I am not a party to the cause herein, and that on this date I served the above dated minute order and ORDER GRANTING PETITION FOR WRIT OF MANDATE (POST-REMAND) AND DENYING CROSS-PETITIONS AS MOOT upon each party or counsel named below by placing the document for collection and mailing so as to cause it to be deposited in the United States mail at the courthouse in Los Angeles, California, one copy of the original filed/entered herein in a separate sealed envelope to each address as shown below with the postage thereon fully prepaid, in accordance with standard court practices.

Dated: February 9, 2018

Sherri R. Carter, Executive Officer/Clerk

By: F. Becerra, Deputy

Nelson Richard
Office of the Attorney General
2550 Mariposa Mall, Room 5090
Fresno, CA 93721

MINUTES ENTERED
02/09/18
COUNTY CLERK

SUPERIOR COURT OF CALIFORNIA, COUNTY OF LOS ANGELES

DATE: 02/09/18	DEPT. 86
HONORABLE AMY D. HOGUE JUDGE	F. BECERRA DEPUTY CLERK
HONORABLE JUDGE PRO TEM	ELECTRONIC RECORDING MONITOR
Deputy Sheriff	Reporter

BS130730

STATE OF CA DEPT OF FINANCE ET

VS

COMMISSION ON STATE MANDATES

PETITION GRANTED POST REMAND

Plaintiff Counsel: NO APPEARANCES

Defendant Counsel:

NATURE OF PROCEEDINGS:

Howard Gest
Burhenn & Gest LLP
624 South Grand Avenue, Ste 2200
Los Angeles, CA 90017

MINUTES ENTERED
02/09/18
COUNTY CLERK

DECLARATION OF SERVICE BY U.S. MAIL

Case Name: *Department of Finance, et al. v. Commission on State Mandates*
No.: **BS130730**

I declare:

I am employed in the Office of the Attorney General, which is the office of a member of the California State Bar, at which member's direction this service is made. I am 18 years of age or older and not a party to this matter. I am familiar with the business practice at the Office of the Attorney General for collection and processing of correspondence for mailing with the United States Postal Service. In accordance with that practice, correspondence placed in the internal mail collection system at the Office of the Attorney General is deposited with the United States Postal Service with postage thereon fully prepaid that same day in the ordinary course of business.

On May 16, 2018, I served the attached **AMENDED PROPOSED JUDGMENT** by placing a true copy thereof enclosed in a sealed envelope in the internal mail collection system at the Office of the Attorney General at 2550 Mariposa Mall, Room 5090, Fresno, CA 93721, addressed as follows:

Los Angeles County Counsel's Office
Andrea Sheridan Ordin, County Counsel
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Laurie E. Dods, Deputy County Counsel
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I declare under penalty of perjury under the laws of the State of California the foregoing is true and correct and that this declaration was executed on May 16, 2018, at Fresno, California.

Lynda Gonzales	Lynda Gonzales
Declarant	Signature

SA2010101245
95258154

KeyCite Yellow Flag - Negative Treatment
Distinguished by Mullins v. Henderson, Cal.App. 1 Dist., June 26, 1946

196 Cal. 43, 235 P. 1004

In the Matter of the Issuance of the Bonds of OROSI PUBLIC UTILITY DISTRICT, in the County of Tulare, State of California. OROSI PUBLIC UTILITY DISTRICT, Respondent,
v.
J. F. MCCUAIG, Appellant.

Supreme Court of California.
Sac. No. 3682.
April 15, 1925.

[1]
PUBLIC UTILITY DISTRICTS—PUBLIC IMPROVEMENTS—BOUNDARIES—BENEFITS—RIGHT TO HEARING.
The legislature itself may create a district to be assessed for the benefit of a public improvement, and determine its boundaries, either by describing them or by laying down a fixed rule by which they may be determined. If it does so, the property owners are not entitled to a hearing on the question of benefits to the land included within the district, for they are conclusively presumed to have been heard through their representatives in the legislature.

[2]
ID.—FORMATION OF DISTRICTS—GENERAL PLAN—DETERMINATION OF BOUNDARIES—HEARING ON BENEFITS.
Instead of creating a district to be assessed for public improvements by a special act, the legislature may, by a general law, provide for its formation, and may delegate to some board, commission, or tribunal the determination of what lands shall be included within its boundaries. In the event that the district be formed under such an act, the inquiry becomes judicial in its nature to such an extent that property owners are entitled to a hearing, or an opportunity to be heard, on the question of benefits before their lands are included, as to whether their lands should be assessed at all and as to the amount of the tax to be assessed against them.

[3]
ID.—SPECIAL ASSESSMENTS—RIGHT OF TAXPAYER TO NOTICE.
Somewhere during the process of arriving at the amount of any special assessments which may be levied on property the taxpayer must have an opportunity to be heard as to the validity and extent of the tax, and notice and opportunity must be provided as an essential part of the statutory provision.

[4]
ID.—ASSESSMENT DISTRICTS—QUASI-MUNICIPAL CORPORATIONS—DIFFERENCE IN.
There is an obvious distinction to be drawn between an act providing for the formation of an assessment district, which practically authorizes property owners without notice to place burdens on the property of others for the sole purpose of improving their own property, and an act providing for the formation of a *quasi*-municipal corporation or a municipality.

[5]
ID.—SPECIAL ASSESSMENT DISTRICTS.
Districts such as those formed for the purpose of draining, irrigating, reclaiming, or otherwise directly benefiting the lands affected thereby are created for the purpose generally of some special local improvement, and may exercise only such powers as may be conferred by the legislature in the line of the object of their creation, and the exactions which they may enforce are in the nature of assessments, or taxes for local benefits, to be spread on the property in the districts in proportion to the peculiar advantage accruing to each parcel from the improvement; and such districts are not municipal corporations in the contemplation of the constitution.

[6]
ID.—MUNICIPAL CORPORATIONS—ARTICLE XI, SECTION 6, CONSTITUTION.
The provision in article XI, section 6 of the constitution that "corporations for municipal purposes shall not be created by special laws" does not imply that the legislature must, by any general law, provide a plan in which shall be prescribed a mode under which all municipal corporations must be organized and the powers they can exercise.

[7]

ID.—AMENDMENT OF 1911 TO ARTICLE XI OF CONSTITUTION.

The amendment of 1911 to article XI of the constitution (Const., art. XI, sec. 19), providing that any municipal corporation may establish and operate public works for supplying its inhabitants with light, water, power, heat, transportation, telephone service, or other means of communication, definitely settled and removed all doubt as to the right of cities and towns to own and operate the kind of public utilities therein designated.

[8]

ID.—PUBLIC UTILITY DISTRICTS IN UNINCORPORATED TERITORY—ACT OF 1921—PURPOSE OF.

The intention of the legislature in passing the act of 1921 (Stats. 1921, p. 906), providing for the organization of public utility districts in unincorporated territory, was to make provision whereby the inhabitants of the state living outside the limits of cities and towns may serve their own purposes through the operation of the same kind of utilities, as the constitution provides that municipalities may establish for themselves, and it was the intention to provide for the creation of public corporations of a *quasi*-municipal character, with power to carry on the particular functions committed to them.

[9]

ID.—OROSI PUBLIC UTILITY DISTRICT—POWERS.

It is not necessary that a district like the Orosi Public Utility District shall exercise all the powers of local self-government which usually pertain to municipal corporations. All that was required was that the legislature should vest them, when properly organized, with such governmental powers as in its judgment were necessary to be exercised and appropriate to carry out the purposes for which the districts may have been organized. And it may enlarge or restrict their powers, direct the mode and manner of their exercise, and define what acts they may or may not perform.

[10]

ID.—MUNICIPAL CORPORATIONS—OBJECT OF.

The creation of municipal corporations does not have for its sole object the formation of political subdivisions of the state for governmental purposes, but there is also the association of the members of the particular community for the administration of their local business and affairs in matters largely outside of the sphere of government as such; and it is apparent that the legislature had in view such association of the people living in the outlying districts when it enacted the statute for the formation of public utility districts in the unincorporated territory of the state, and it thereby provided for the creation of public agencies or *quasi*-municipal corporations, the declared purpose of the act being to extend to the inhabitants of such districts, when properly organized, advantages in the use and benefit of certain utilities which they might not be able to obtain in any other way, and which tend to promote the general welfare of the people of the state, and the power of the legislature so to do cannot be denied.

[11]

ID.—MUNICIPALITIES—FUNCTIONS—TAXATION.

While a municipality, which undertakes to supply those of its inhabitants who will pay therefor with utilities and facilities of urban life, is performing a function not governmental, but more often committed to private corporations or persons with whom it may come into competition, it is, in fact, engaging in business upon municipal capital, and for municipal purposes; and any tax thereafter levied and collected for the purpose of supplying such municipal capital is not a tax or assessment on property directly benefited by the construction of some local improvement, but is a general tax levied just as, and for the same purpose that, any general municipal tax is imposed for carrying on the governmental functions and utilitarian objects of duly incorporated cities or towns.

[12]

ID.—ACT OF 1921—CONSTITUTIONALITY OF.

As the act of 1921, providing for the incorporation of public utility districts in unincorporated territory (Stats. 1921, p. 906), provides for the formation of a public or *quasi*-municipal corporation, inhabitants and property owners of which are subject to tax by the district for municipal purposes only, the act is not unconstitutional.

[13]

ID.—FORMATION OF PUBLIC UTILITY DISTRICTS—DUE PROCESS—NOTICE AND HEARING FOR LAND OWNER.

The requirement as to due process of law does not give a property owner an absolute right to notice and hearing

before his property may be included within the limits of a municipality or *quasi*-municipal corporation, by reason of the creation of which his property will be subjected only to the burden of a general tax for the purposes for which the district was formed, in contradistinction to a tax or assessment for some local benefit; and a property owner is not entitled to a notice and opportunity to be heard on the question of benefits to his land before it can be included within the boundaries of a public utility district created under the act of 1921 (Stats. 1921, p. 906).

APPEAL from a judgment of the Superior Court of Tulare County. W.B. Wallace, Judge. Affirmed.

The facts are stated in the opinion of the court.

***46** Walter C. Haight for Appellant.
Fred C. Scott and Leroy McCormick for Respondent.
Edward F. Treadwell, *Amicus Curiae.*

WASTE, J.

The Orosi Public Utility District was organized under the provisions of an act providing for the incorporation ***47** of public utility districts in unincorporated territory. (Stats. 1921, p. 906.) The board of directors of the district brought an action in the superior court of the county of Tulare to determine the validity of an $18,000 bond issue voted by the people of the district for the purpose of raising money for developing, pumping, storing, and distributing water. John F. McCuaig, a resident freeholder and taxpayer, answered the petition, alleging that all proceedings in relation to the issuance of the bonds were null and void for the reason that the utility district was not duly organized and incorporated, because the act of the legislature under which it was formed was unconstitutional. The trial court determined all issues in favor of the due organization and incorporation of the district, and the legality of the bonds, and entered its decree affirming their validity. The taxpayer has appealed on the judgment-roll alone.

The act providing for the incorporation of public untility districts in unincorporated territory states that whenever electors equal in number to fifteen per cent of all the votes cast for all candidates for Governor within such unincorporated territory at the last preceding general election, at which a Governor was elected, desire to organize such a district, they shall sign a petition setting forth the boundaries of the proposed district, and present same to the board of supervisors of the county in which the unincorporated territory is situated. The board of supervisors shall, within fifteen days after the presentation of the petition, publish a copy thereof, together with a statement that the proposition involved therein, which shall be briefly specified, will be submitted by it to the qualified electors of the unincorporated territory at a special election, after publication of the required notice. Within five days after the result of the election is ascertained, if it appears that a majority of the votes cast is in favor of the incorporation of the district, the board of supervisors shall so declare, and shall in a proper order state the name and boundaries of the district, and that such utility district is formed under the provisions of the act (*supra*). After the date of the filing of certain certificates with the Secretary of State, the territory described in the petition shall be deemed incorporated as a public utility district, under the provisions of the statute, with all the rights, privileges, and powers set forth therein.

***48** Under the provisions of the act, any public utility district so formed shall have power to have perpetual succession, to sue and be sued, to adopt and alter a seal, to acquire, hold, and dispose of real and personal property necessary to the full and continued exercise of its power, to acquire, construct, own, operate, control, or use works for supplying the inhabitants of the district with light, water, power, heat, transportation, telephone service, or other means of communication, or means for the disposition of garbage, sewage, or refuse matter, and to do all things necessary or convenient to the full exercise of the powers granted by the act. Whenever there is a surplus of water, light, heat or power above that which may be required by the inhabitants or municipalities within the district, the district may sell or otherwise dispose of the surplus outside of the district. It also may exercise the right of eminent domain for the condemnation of private property for public use, and may construct its works across or along any street or highway, or over the lands and property of the state, and in that connection is given the same rights and privileges as are granted to municipalities. It may borrow money and issue bonds or other evidence of indebtedness within certain limitations, levy and collect, or cause to be levied or collected, taxes for the purpose of carrying on its operations and paying its obligations, and may make contracts, employ labor, and do all acts necessary or convenient for the full exercise of the powers granted to it, which are to be exercised by a board of

directors elected by the voters in the district, which board may act by ordinance or resolution signed by its president and attested by the secretary. The act further provides (section 39) that if from any cause the revenues of the district shall be inadequate to pay the principal or interest on any bonded debt as it becomes due, or if funds are needed to carry out the objects and purposes of the district, which cannot be provided for out of the revenues of the district, the board of directors may levy a tax for that purpose on the taxable property situated in the district. It may by ordinance, the provisions of which shall be conformable to the general law, provide the mode and manner of assessing, correcting or equalizing assessments, and the levying and collecting of taxes which may be by actions or legal proceedings; or it may elect to avail itself of the assessment ***49** made by the county assessor of the county in which the district is situated. All taxes levied under the provisions of the act are a lien on the property on which they are levied, and the enforcement of the collection of the taxes may be had in the same manner and by the same means as provided by law for the enforcement of liens for state and county taxes.

The act of 1921, as originally enacted, and as it stood when the respondent district was formed, did not provide for any notice of the hearing of the petition for the formation of the district. The property owners within the proposed district were not given an opportunity to protest against having their property included within its boundaries, nor were they accorded an opportunity to be heard as to whether their property was or could be benefited by being included within such boundaries. For that reason, the appellant takes the position that the act is unconstitutional and in contravention of the fourteenth amendment of the federal constitution, and contrary to similar provisions in the constitution of the state, in that it provides for a taking of his property without due process of law. It follows, he argues, that all proceedings taken for the organization of the district, and the subsequent proceedings relating to the issue of the bonds, which are dependent upon the validity of the organization of the district, are null and void, and, as a necessary consequence, the bonds sought to be validated by this proceeding are invalid. After the proceedings involved in this case were had, the act was amended (Stats. 1923, p. 299) to provide for a notice and a hearing by the board of supervisors of the petition for the formation of a utility district. It is now provided that the board must hear all competent and relevant testimony offered in support of, or in opposition to, the petition. It shall make such changes as it may deem advisable in, and shall define and establish the proposed boundaries. At the time the proceedings for the formation of the Orosi District were taken no discretionary power whatever was vested in any legislative body. Upon presentation of the petition therefor, the board of supervisors was compelled to immediately submit the question of the formation of the district to the voters residing within the described limits. The question whether or not the exact territory described in the petition should be included in, and constitute the utility district, was made to depend solely ***50** upon an affirmative vote of the body of the electorate residing therein. Appellant contends that to permit a district, formed under such a statute, to levy a tax on property for nonpayment of which the property may be sold, is to subject the property owner to deprivation of his property without due process of law.

It is not contended that any of the steps leading to the formal declaration by the board of supervisors of Tulare County that the respondent district was in fact created were omitted, or that they were not properly taken. The sole question to be determined on appeal relates to the constitutionality of the act under which the district was created. Our first consideration is, therefore, directed to the nature of the district which may be formed under its provisions. If it be one formed for the primary purpose of assessing upon the lands within its boundaries benefits to be derived by the lands from some public improvement for which purpose the district is created, we must hold with appellant, and declare the act unconstitutional as violating the "due process clause" of the federal constitution. Such districts can be legally created in but two ways, neither of which was followed in this case.

(1) The legislature itself may create a district to be assessed for the benefit of a public improvement, and determine its boundaries, either by describing them or by laying down a fixed rule by which they may be determined. If it does so, the property owners are not entitled to a hearing on the question of benefits to the land included within the district, for they are conclusively presumed to have been heard through their representatives in the legislature. (*Tarpey v. McClure,* 190 Cal. 593, 604 [213 Pac. 983]; *Miller & Lux, Inc., v. Drainage Dist.,* 182 Cal. 252, 265 [187 Pac. 1041]; *Fallbrook Irr. Dist. v. Bradley,* 164 U.S. 112, 174 [41 L. Ed. 369, 17 Sup. Ct. Rep. 56, see, also, Rose's U. S. Notes].)

(2) Instead of creating the district by special act, the legislature may, by a general law, provide for its formation, and may delegate to some board, commission or tribunal the determination of what lands shall be included within its boundaries. In the event that the district be formed under such an act, the inquiry becomes judicial in its nature to such an extent that property owners are entitled to a hearing, or an opportunity to be heard, on the question of benefits before their lands are included. ***51** If the district be formed under this method of delegated power, it is essential that the property owners whose property is to be included shall be given a hearing upon the question whether their lands should be assessed at all, that is to say, whether or not such lands would be benefited by the proposed improvement, and also a hearing upon the amount of the tax to be assessed against the property. (*Spencer v. Merchant,* 125 U. S. 345, 356 [31 L. Ed. 763, 8 Sup. Ct. Rep. 921, see, also, Rose's U. S. Notes]; *Fallbrook Irr. Dist. v. Bradley, supra,* p. 174; *Brookes v. City of Oakland,* 160 Cal. 423, 431 [117 Pac. 433]; *Miller & Lux v. Board of Supervisors,* 189 Cal. 254, 261 [208 Pac. 304].)

(3) Somewhere during the process of arriving at the amount of any special assessments which may be levied on property the taxpayer must have an opportunity to be heard as to the validity and extent of the tax, and that notice and opportunity must be provided as an essential part of the statutory provision. (*Security Trust Co. v. Lexington,* 203 U. S. 323, 333 [51 L. Ed. 204, 27 Sup. Ct. Rep. 87, see, also, Rose's U. S. Notes]; *Central of Georgia By. v. Wright,* 207 U. S. 127, 138 [12 Ann. Cas. 463, 52 L. Ed. 134, 28 Sup. Ct. Rep. 47].) The respondent district was not created by the legislature itself, and the act providing for its formation makes no provision for the submission of the question, as to what lands should be included within its boundaries, to any tribunal before which the property owners, whose lands were included in the petition, might have a hearing.

(4) The rule laid down in *Fallbrook Irr. Dist. v. Bradley, supra,* which has been so constantly adhered to by this court in its application to assessment districts formed for the purpose of assessing upon private lands the benefits to accrue from the particular public improvement for the construction of which the district was formed (*Miller & Lux v. Board of Supervisors,* 189 Cal. 254, 267 [208 Pac. 304]), does not apply to every kind of public or *quasi*-public corporation. There is an obvious distinction to be drawn between an act providing for the formation of an assessment district, and which practically authorizes property owners, without notice, to place burdens on the property of others for the sole purpose of improving their own property, and an act providing for the formation of a *quasi*-municipal corporation or a municipality. (***52** *People v. Ontario,* 148 Cal. 625, 632 [84 Pac. 205]; *Wilcox v. Engebretsen,* 160 Cal. 288, 293 [116 Pac. 750].) That distinction, it was pointed out in the latter case, is to be made between the proceedings of a board, acting in pursuance of some delegated legislative authority in creating a political subdivision of the state, as a county or a city, a proceeding which does not directly affect private property, and proceedings which do directly charge or affect such property. The respondent takes the position that it is a public corporation, and that any burden, by way of taxation, to be laid on the inhabitants residing within its boundaries is but a tax for municipal purposes. In view of the distinction, pointed out by this court (*supra*), between the acts providing for the formation, on the one hand, of public or *quasi*-public corporations, in the nature of taxing districts, and of municipal corporations, on the other, and in view of the contention of the respondent, the problem which confronts us lies in determining whether or not the act under which the respondent district was created provides for the organization of a district which is in its nature a public corporation, the inhabitants and property owners of which are subject to taxation for municipal purposes without any hearing as to the benefits to be derived from the creation and conduct of such a corporation, or is an assessment district created for the primary purpose of assessing upon private lands the benefits to be derived thereby from the public improvements for which purpose the district is formed. (*Miller & Lux v. Board of Supervisors, supra,* p. 267.)

(5) The purposes for which the Orosi District was formed, the appellant contends, are not municipal, and a district formed for such purposes does not possess the essential characteristics of a municipal corporation. If the authorities cited by him were strictly in point, there would be an end to the controversy; but they are not. They deal with questions arising in connection with districts formed for the purpose of draining, irrigating, reclaiming, or otherwise directly benefiting the lands affected thereby. (*People v. Reclamation Dist. No. 551,* 117 Cal. 114, 121 [48 Pac. 1016]; *People v. Levee Dist. No. 6,* 31 Cal. 30, 34 [63 Pac. 676]; *People v. Sacramento Drainage Dist.,* 155 Cal. 373, 382 [103 Pac. 207]; *Pixley v. Saunders,* 168 Cal. 152,

160 [141 Pac. 815]; *In re Werner,* 129 Cal. 567, 572 [62 Pac. 97].) When ***53** related to that class of districts, the cases cited are clearly in point. The improvements contemplated by the acts under which they were formed cannot be considered "municipal purposes." (*In re Madera Irr. Dist.,* 92 Cal. 296, 344 [27 Am. St. Rep. 106, 14 L. R. A. 755, 28 Pac. 675] [on rehearing].) One of the distinguishing features of such districts is that they are created for the purpose, generally, of some special local improvement, and may exercise only such powers as may be conferred by the legislature in the line of the object of their creation. They are merely special state organizations for state purposes, created to perform certain work which the policy of the state requires or permits to be done, and to which the state has given a certain degree of discretion in making the improvements contemplated. The other distinguishing feature is that the exactions which such districts may enforce in order to carry out their purposes are in the nature of assessments or taxes for local benefits, to be spread on the property in the districts in proportion to the peculiar advantage accruing to each parcel from the improvement. (*Pasadena Park Imp. Co. v. Lelande,* 175 Cal. 511, 512 [166 Pac. 341].) Such an exaction is generally in the form of a special assessment, but even if it is in the form of a tax it is nevertheless an assessment for local benefits. (*City of San Diego v. Linda Vista Irr. Dist.,* 108 Cal. 189, 199 [41 Pac. 291].)

Districts of the nature just discussed are not municipal corporations in the contemplation of the constitution. (*People v. Sacramento Drainage Dist., supra,* p. 382; *Reclamation Dist. No. 551 v. County of Sacramento,* 134 Cal. 477, 478 [66 Pac. 668].)

(6) But the provision in article XI, section 6, that "corporations for municipal purposes shall not be created by special laws" does not imply that the legislature must, by any general law, provide a plan in which shall be prescribed the mode under which all municipal corporations must be organized and the powers they can exercise. Of interest in this connection is the language of the court in *In re Madera Irr. Dist.,* 92 Cal. 296 [27 Am. St. Rep. 106, 14 L. R. A. 755, 28 Pac. 272], where, at page 317, it says: "Such corporations are but the agents or representatives of the state in the particular locality in which they exist. They are organized for the purpose of carrying out the purposes of the legislature in its desire to provide ***54** for the general welfare of the state, and in the accomplishment of which legislative convenience or constitutional requirements have made them essential. Although in this state the legislature is required to provide such agencies under general laws, it is authorized, under its general power of legislation, to invest such corporations, when created, with the same powers which, without such restriction, it could itself have exercised; and in providing for such organizations it need confer upon them only such powers as, in its judgment, are proper to be exercised by them in the discharge of the particular functions of government which may be conferred upon them. Being the representatives of the legislature in the various localities of the state, the requirements for organization, as well as the powers to be exercised, vary with the character of the purpose for which they may be created. Hence the general laws which the legislature may enact for the organization of public corporations may be as numerous as the objects for which such corporations may be created. For each of these objects the law is the same, but there would be a manifest impropriety in requiring that the organization of a levee district or an irrigation district should be conducted in the same manner as the organization of a corporation for the management of a public park or the control of the school department. Whether the districts to which such general laws are applicable, or in which the people thereof may avail themselves of the privilege conferred, be many or few, is immaterial. Even if there be but a single district to which the law is applicable, at the time of its enactment, the legislature would be justified, under its legislative power, to pass general laws in making such provision for that district. Whenever a special district of the state requires special legislation therefor, it is competent for the legislature, by general law, to authorize the organization of such district into a public corporation, with such powers of government as it may choose to confer upon it. It is not necessary that such public corporation should be vested with all governmental powers, but the legislature may clothe it with such as, in its judgment, are proper to be exercised within and for the benefit of such district. Being created for the purpose of discharging only one public purpose, it is not requisite that it have power not necessary therefor, or which would be appropriate to a ***55** corporation organized for some other purpose. Neither is it requisite that such corporation should have legislative or judicial powers conferred upon it. It may be organized for the mere purpose of exercising executive and administrative functions, with the added power of making such prudential rules and regulations as may be necessary for the exercise of the particular functions entrusted to its charge."

(7) With this power of the legislature understood, the nature of the districts contemplated by the act under which the Orosi Public Utility District was created is more clearly discerned. In 1911 the constitution of California was amended to provide that "any municipal corporation may establish and operate public works for supplying its inhabitants with light, water, power, heat, transportation, telephone service, or other means of communication. Such works may be acquired by original construction, or by the purchase of existing works, including their franchises, or both." (Const., art XI, sec. 19.) The amended section is radically different from the one it replaced. In the statement of legislative reasons for the adoption of the amendment, printed and transmitted to the voters by the Secretary of State, it is stated that the conditions which prevailed in this state with regard to the operation of public utilities in cities at the time of the adoption of the new constitution of 1879 had materially changed, and an entirely new situation existed regarding the subject to which the section related. "The proposed amendment," the statement continues, "is designed to provide for conditions as they now are, and as they will doubtless continue to be in the future." After a discussion of the situation arising during the period following 1879, and a declaration that the result "has been a distinct disappointment, like many other attempts to remedy economic conditions by force of statutes, … the true remedy, so far as any substantial benefit to the people is concerned," the statement declares, "is to encourage the furnishing of these public necessities by municipal corporations themselves." The adoption of the amendment definitely settled and removed all doubt from the question of the right of cities and towns to own and operate the kind of public utilities designated by the constitution.

(8) In enacting the statute here in question, the legislature has made provision whereby the inhabitants of the state living outside the limits of cities and ***56** towns may serve their own purposes through the operation of the same kind of utilities, when organized for that purpose.

That such was the intention of the legislature may be gleaned from a reading of the provision declaring the purposes for which public utility districts may be created in unincorporated territory. They are the acquisition, construction, and use of works for supplying the inhabitants of the district with light, water, power, heat, transportation, telephone service, or other means of communication, or means for the disposition of garbage, sewage, or refuse matter. It has the power to do all things necessary or convenient to the full exercise of the powers granted by the act. It is significant that, when the legislature came to pass the act extending to the inhabitants outside of incorporated cities and towns the privileges in regard to the acquisition and use of their own public utilities that are granted by the state constitution to municipalities, it should have followed so closely the language of the constitutional amendment of 1911 in the statement of the purposes for which the districts may be created. We are convinced that it was its intention to provide for the creation of public corporations of a *quasi*-municipal character, with power to carry on the particular functions committed to them.

"A city or purely municipal corporation is perhaps the highest type of corporation created for municipal purposes, because it is a miniature government, having legislative, executive and judicial powers, but there is another class of corporation, such as counties, school districts, road districts, etc., which, though varying in application and peculiar features, are but so many agencies or instrumentalities of the state to promote the convenience of the public at large, and are, in the broadest use of the term, for municipal purposes." (*Cook v. Port of Portland,* 20 Or. 580, 583 [13 L. R. A. 533, 27 Pac. 263].)

(9) It is not necessary, therefore, that a district like the Orosi Public Utility District shall exercise all the powers of local self-government which usually pertain to municipal corporations. All that was required was that the legislature should vest them, when properly organized, with such governmental powers as in its judgment were necessary to be exercised and appropriate to carry out the purposes for which the districts may have ***57** been organized. (*In re Madera Irr. Dist., supra.*) It may enlarge or restrict their powers, direct the mode and manner of their exercise, and define what acts they may or may not perform. (*San Francisco v. Canavan,* 42 Cal. 541, 552.)

(10) The creation of municipal corporations does not have for its sole object the formation of political subdivisions of the state for governmental purposes, but there is also the association of the members of the particular community for the administration of their local business and affairs in matters largely outside of the sphere of government as such. (*Union Stone Co. v. Board of Freeholders of*

Hudson Co., 71 N. J. Eq. 657, 664 [65 Atl. 466, 469]. See, also, *Wilson v. Board of Trustees,* 133 Ill. 443, 464 [27 N. E. 203].) It is quite apparent to us that the legislature had in view such association of the people living in the outlying districts, when it enacted the statute providing for the formation of public utility districts in the unincorporated territory of the state. It thereby provided for the creation of public agencies or *quasi*-municipal corporations, the declared purpose of the act being to extend to the inhabitants of such districts, when properly organized, advantages in the use and benefit of certain utilities which they might not be able to obtain in any other way, and which, from common experience, we know tend to promote the general welfare of the people of the state. That it had the power to do so cannot be denied. While the proposed constitutional amendment was pending in 1911, this court held that there was no provision in the state constitution which either expressly or by implication forbade the acquisition, ownership, or operation of public utilities by a municipality, or which prohibited the legislature from granting a municipality the power to acquire, own, and operate them. (*Clark v. Los Angeles,* 160 Cal. 30, 46 [116 Pac. 722].) Activities, once regarded as being of a strictly private nature, are now considered municipal affairs, e. g., the sale and distribution of electrical energy manufactured by a city, the supplying of water to its own inhabitants or to outside territory, the construction of a reservoir by a city on its own land and to be used for the benefit of its inhabitants, and the establishment and operation of transportation service. (*Los Angeles G. & E. Corp. v. Los Angeles,* 188 Cal. 307, 317 [205 Pac. 125]; *Heilbron v. Sumner,* 186 Cal. 648, 651 [200 Pac. 409]; ***58** *South Pasadena v. Pasadena Land & Water Co.,* 152 Cal. 579, 594 [93 Pac. 490]; *Williams v. City of Vallejo,* 36 Cal. App. 133, 139 [171 Pac. 834]; *United Railroads v. San Francisco,* 249 U. S. 517, 520 [63 L. Ed. 739, 39 Sup. Ct. Rep. 361, see, also, Rose's U. S. Notes Supp.].) The people of the state, by the amendment to the constitution, placed other public utilities in the same category.

(11) We take it to be now a generally accepted proposition that, while a municipality, which undertakes to supply those of its inhabitants who will pay therefor with utilities and facilities of urban life, is performing a function not governmental, but more often committed to private corporations or persons with whom it may come into competition, it is, in fact, engaging in business upon municipal capital, and for municipal purposes. (28 Cyc. 125.) Any tax, therefore, levied and collected for the purpose of supplying such municipal capital is not a tax or assessment on property directly benefited by the construction of some local improvement, but is a general tax levied just as, and for the same purpose that, any general municipal tax is imposed for carrying on the governmental functions and utilitarian objects of duly incorporated cities or towns.

The conclusion we have reached, on the general consideration of the act under which the respondent district was formed, is confirmed by an examination of the provision of the statute relating to the necessary revenue for conducting the affairs of such public corporations. It is provided (section 38) that only revenue-producing utilities shall be acquired, owned, or operated, "the intention being … that each public utility owned and operated by the district shall be self-sustaining." To that end, it is provided that, so far as possible, the board of directors shall fix such charges for commodities or service furnished by its revenue-producing utilities as will pay the administrative expenses of the government of the district, the operating cost of the utilities, the interest on any bonded indebtedness, and, in addition, provide a sinking fund for the retirement of the principal of the debt, and an appropriate fund for repairs, replacements and betterments. These provisions clearly establish the contention that the essential purpose of the act is to form a *quasi*-municipal corporation which may acquire and operate public utilities and pay for their operation from ***59** rates to be paid by those enjoying the service. When the cost of any public utility to be acquired, completed, or constructed can be paid out of the revenues of the district derived from the operation of its public utilities, in addition to the other necessary expenses of the district, the board of directors must determine the cost of such utility, the method and manner of payment therefor, and submit the question of its acquisition upon such terms to the electors. If the cost cannot be met in that way, a district bonded indebtedness may be incurred in the manner provided by the act. It is only when the revenues of the district shall be inadequate to pay the principal or interest of any bonded debt, as it becomes due, that the board of directors must, or, when funds are needed to carry out the objects and purposes of the district which cannot be provided for out of its revenues, that the board of directors may levy a tax for such purposes (section 39). These provisions make it clear that the "primary purpose" of the act (*Miller & Lux v. Board of Supervisors, supra*) was

not that of assessing upon private lands the benefits to be derived from the acquisition of public utilities.

(12) From our conclusion that the act, under which the respondent district was created, provides for the formation of a public or *quasi*-municipal corporation, the inhabitants and property owners of which are subject to tax by the district for municipal purposes only, it follows that the attack here made on the constitutionality of the act must fail. The public utility districts provided for by its terms have as their sole purpose the welfare and prosperity of the people of the state—matters which rest within the will of the people themselves. In *People v. Town of Ontario,* 148 Cal. 625 [84 Pac. 205], this court considered the constitutionality of the act providing for the annexation of territory to incorporated towns and cities. (Stats. 1889, p. 358.) By the terms of the act, upon receipt of a proper petition, signed by the requisite number of electors of the municipality and exactly describing the territory desired to be annexed, the legislative body of the municipality is compelled to submit the question of annexation to the electors of the town, and also to those of the outside territory. No notice, or opportunity to be heard on the question, is afforded residents or property owners of either the town or the territory ***60** which it is proposed to annex, and the legislative body has no power to change or fix the boundaries. The sole question whether or not the exact territory described in the petition shall be annexed and thereby subjected to the burden of taxation for municipal purposes is made to depend entirely upon an affirmative vote of the electors at the election called for the purpose. That is the exact situation as to the boundaries of public utility districts in unincorporated territory, created under the act as it was when the respondent district was formed. The court pointed out the "obvious distinction" between those acts practically authorizing property owners, without notice, to place burdens upon the property of others for the sole purpose of improving their own property, and one providing for the formation of municipalities. It held that, as the legislature cannot itself declare the precise boundaries of a municipality, for it can act in such matter only by general laws, it might, in the absence of any constitutional inhibition, confer that power on the electors of the district to be affected, such declaration to be made at an election held after due notice. (See, also, *People ex rel. Rhodes v. Fleming,* 10 Colo. 553 [16 Pac. 298]; *Ford v. North Des Moines,* 80 Iowa, 626 [45 N. W. 1031].) The constitution does not attempt to limit the power of the legislature in providing for the determination of the question as to what shall constitute municipal territory. Consequently, in the matter of forming cities or towns, questions as to population, extent, and character of territory to be included are matters left entirely with the legislative department. (*People ex rel. Russell v. Town of Loyalton,* 147 Cal. 774, 778 [82 Pac. 620].)

(13) In the instant case the district has been formed within the strict letter of the law, and in the manner provided by the legislative enactment. We have been cited to no authorities which hold that the requirement as to due process of law gives a property owner an absolute right to notice and hearing before his property may be included within the limits of a municipality or a *quasi*-municipal corporation, by reason of the creation of which his property will be subjected only to the burden of a general tax for the purposes for which the district was formed, in contradistinction to a tax or assessment for some local benefit. Appellant was not, therefore, entitled to notice and opportunity to be ***61** heard on the question of benefits to his land before it could be included within the boundaries of the respondent district. The act under which it was formed directs that in the event it becomes necessary to levy a tax for carrying out the objects and purposes of the district, the board of directors may, by ordinance, provide the manner and mode of assessing, and of correcting and equalizing assessments upon, the taxable property situated within the district, and may provide for the collection of delinquent taxes by actions or legal proceedings, *provided* that the provisions of such ordinance shall be conformable to general law, or it may accept the assessment for district purposes made by the county assessor (section 39). Whatever may be the method of assessment that shall be adopted, if provision be made for the correction of errors committed by the assessor, through a board of revision or equalization, with power to hear, after notice, complaints respecting the justice of the assessment, the proceeding by which the valuation is determined, though it may be followed, if the tax is not paid, by a sale of the delinquent's property, is due process of law. (*Hagar v. Reclamation Dist. No. 108,* 111 U. S. 701, 710 [28 L. Ed. 569, 4 Sup. Ct. Rep. 663, see, also, Rose's U. S. Notes]; *Fallbrook Irr. Dist. v. Bradley, supra,* at p. 175; *People v. Town of Ontario, supra,* at p. 633.)

We deem it unnecessary to further discuss the decisions of this court and those of other jurisdictions so strongly relied on by appellant. Many of them have already been

referred to and their distinguishing features pointed out. We have carefully examined every one of them, and many others, and have not found one that is exactly in point. The reason for the dearth of precise judicial decision on the important question we have been called on to decide in this case is that public utility districts are new to the law of California, and the furnishing of what may be called public utility service is an extension of municipal functions of comparatively recent times. After a critical study of the authorities, we have found nothing that destroys our confidence in the conclusion we have reached in this case. The case cited by appellant, and which, on first reading, seems nearest in point to the question here involved (*People ex rel. Amestoy Estate Co. v. Van Nuys Lighting Dist.,* 173 Cal. 792 [Ann. Cas. ***62** 1918D, 255, 162 Pac. 97]), is readily distinguishable on the facts given by the court as the foundation for its decision.

The judgment of the lower court is affirmed.

Myers, C. J., Seawell, J., Richards, J., Shenk, J., Lawlor, J., and Lennon, J., concurred.

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44 Cal.3d 830, 750 P.2d 318, 244 Cal.Rptr. 677, 45 Ed. Law Rep. 321

LUCIA MAR UNIFIED SCHOOL DISTRICT et al., Plaintiffs and Appellants,
v.
BILL HONIG, as Superintendent, etc., et al., Defendants and Respondents

No. S000064.
Supreme Court of California
Mar 14, 1988.

SUMMARY

School districts filed a test claim with the Commission on State Mandates to determine whether Ed. Code, § 59300 (requiring school districts to contribute part of the cost of educating pupils from the district at state schools for the severely handicapped), imposed on them a state-mandated "new program or higher level of service" for which the state must provide reimbursement under Cal. Const., art. XIIIB, § 6. The commission found that § 59300 did not impose a new program or higher level of service. The districts filed a petition for writ of mandate, declaratory relief, and restitution against the commission, the State Superintendent of Public Instruction, and the Department of Education. The trial court affirmed the commission's decision. (Superior Court of San Luis Obispo County, No. 60152, Walter W. Charamza, Judge.[*]) The Court of Appeal, Sixth Dist., No. B019083, affirmed the trial court's judgment.

The Supreme Court reversed the judgment of the Court of Appeal. It held that § 59300 does impose a new program or higher level of service but that remand to the commission was necessary to determine whether the provision was state-mandated. However, the court held, the superintendent and the department did not act in excess of their authority in deducting the amounts owed by the districts from funds appropriated by the state for their support after the districts refused to pay invoices submitted to them pursuant to § 59300.

HEADNOTES

Classified to California Digest of Official Reports

(1a, 1b)
Schools § 4--School Districts; Financing; Funds--State Reimbursement for New Programs and Higher Levels of Service--Cost of Educating Severely Handicapped at State Schools.
Ed. Code, § 59300 (requiring school districts to contribute part of the cost of educating pupils from the district at state schools for the severely handicapped), imposes on school districts a "new program" within the meaning of Cal. Const., art. XIIIB, § 6 (providing reimbursement to local agencies for state-mandated new programs or higher levels of service). Thus, in a test claim filed by school districts, the Commission on State Mandates erred in finding to the contrary; however, remand to the commission was necessary to determine whether § 59300 was a state mandate.

(2)
State of California § 11--Fiscal Matters--Reimbursement of Local Agencies for State-mandated New Programs or Higher Levels of Service.
The intent of Cal. Const., art. XIIIB, § 6, was to preclude the state from shifting to local agencies the financial responsibility for providing public services, in view of restrictions imposed on the taxing and spending power of local entities by Cal. Const., art. XIIIA.

[See **Cal.Jur.3d,** Municipalities, § 361; **Am.Jur.2d,** Municipal Corporations, Counties, and Other Political Subdivisions, § 582.]

(3)
State of California § 11--Fiscal Matters--Deduction From School Appropriations of Amounts Owed State.
Where, following enactment of Ed. Code, § 59300 (requiring school districts to contribute part of cost of educating pupils from district at state schools for severely handicapped), school district refuse to pay invoices sent them by the state pursuant to § 59300, the State Superintendent of Public Instruction and the Department of Education did not act in excess of their authority in deducting the amounts owed by the districts from funds appropriated by the state for their support. Under the circumstances the method of collection was left to the

reasonable discretion of the department, and, in view of the fact that no test claim had been filed when the school districts failed to pay the invoices, the method of collection the department chose was not unreasonable.

COUNSEL

Frank J. Fekete, Peter C. Carton, Joanne A. Velman, Stephen L. Hartsell, Dwaine L. Chambers and Roger R. Grass for Plaintiffs and Appellants.

Joseph R. Symkowick, Roger D. Wolfertz, Joanne Lowe, John K. Van de Kamp, Attorney General, N. Eugene Hill, Assistant Attorney General, and Henry G. Ullerich, Deputy Attorney General, for Defendants and Respondents.

MOSK, J.

Section 59300 of the Education Code requires a school district to contribute part of the cost of educating pupils from the district at state schools for the severely handicapped. We must determine if that section imposes on a district a state-mandated "new program or higher level of service" for which the state must provide reimbursement under section 6 of article XIIIB of the California Constitution.[1] The constitutional provision, adopted by initiative in 1979, declares, with exceptions not relevant here, that "[w]henever the Legislature ... mandates a new program or higher level of service on any local government, the state shall provide a subvention of funds to reimburse such local government for the costs of such program or increased level of service. ..."

The resolution of the question before us turns on whether the contributions made by a district pursuant to section 59300 are used to fund "a new program or higher level of service" and, if so, whether the statute "mandates" that a district make the contribution set forth therein. We conclude that the contribution required by section 59300 is utilized to fund a "new program" as defined in the constitutional provision, but that it is not clear from the record whether districts are "mandated" to pay these costs. The matter will therefore be remanded to the Commission on State Mandates to make that determination.

The State Department of Education (department) operates schools for severely handicapped students, including schools for the deaf (§ 59000 et seq.), the blind (§ 59100 et seq.), and the neurologically handicapped (§ 59200 et seq.). Although prior to 1979, school districts were required by statute to contribute to the education of pupils from the districts at the state ***833** schools (former §§ 59021, 59121, 59221), these provisions were repealed in that year and on July 12, 1979, the state assumed the responsibility for full funding. (Stats. 1979, ch. 237, § 3, p. 493.) This responsibility existed when article XIIIB became effective on July 1, 1980 (art. XIIIB, § 10), and continued until section 59300 became effective on June 28, 1981. (Stats. 1981, ch. 102, § 17, p. 703.)

Section 59300 represents an attempt by the state to compel school districts to share in these costs. The section provides, "Notwithstanding any provision of this part to the contrary, the district of residence of the parent or guardian of any pupil attending a state-operated school pursuant to this part, excluding day pupils, shall pay the school of attendance for each pupil an amount equal to 10 percent of the excess annual cost of education of pupils attending a state-operated school pursuant to this part."[2]

Starting in 1981, the department attempted to collect the contributions called for in the section by sending invoices to the school district superintendents. When the invoices were not paid, their amount was deducted from the appropriations made by the state to the districts for the support of the schools.

The Government Code sets forth a procedure to determine whether a statute imposes state-mandated costs on a school district or other local agency under article XIIIB. (Gov. Code, § 17500 et seq.). The district must file a test claim with the Commission on State Mandates (commission) which, after a hearing, decides whether the statute mandates a "new program or increased level of service." (*Id.*, §§ 17521, 17551, 17556.) If a claim is found to be reimbursable, the commission must determine the amount to be reimbursed. (*Id.*, § 17557.) The code specifies the procedure to be followed by a local agency to obtain reimbursement if the commission has determined that reimbursement is due. (*Id.*, § 17558 et seq.) If the Legislature refuses to appropriate money to satisfy a mandate found to be reimbursable by the commission, a claimant may bring an action for declaratory relief to enjoin enforcement of the mandate. (*Id.*, § 17612, subd. (b).)[3] In the event the commission finds against the local agency, it may bring a proceeding in administrative mandate under section 1094.5 of the Code of Civil Procedure to challenge the commission's determination. (***834** Gov. Code, § 17559.) The procedure provided in

the code is the exclusive means by which a local agency may claim reimbursement for mandated costs. (*Id.*, § 17552.)

In 1984 plaintiff Lucia Mar Unified School District and other school districts (plaintiffs) filed a test claim before the commission,[4] asserting that section 59300 requires them to make payments for a "new program or increased level of service," and that they are entitled to reimbursement pursuant to section 6 of article XIIIB. The commission denied the claim, finding no reimbursable mandate because, although section 59300 increased plaintiffs' costs for educating students at state-operated schools, it did not impose on the districts a new program or higher level of service.

Plaintiffs then filed a petition for writ of mandate, declaratory relief, and restitution against the commission, the State Superintendent of Public Instruction (superintendent), and the department. They sought a declaration that section 59300 violates section 6 of article XIIIB, and prayed for orders to compel the commission to reverse its determination, and the superintendent and the department to reimburse them for the amounts withheld under the authority of section 59300. The trial court affirmed the commission's decision. It, too, held that section 59300 does not mandate a new program or higher level of service, finding that the section only calls for an "adjustment of costs."[5]

The court held, further, that it had no jurisdiction to issue orders to the superintendent to refund the sums withheld from plaintiffs because the commission's decisions may only be challenged by a proceeding in administrative mandate under section 1094.5 of the Code of Civil Procedure. (Gov. Code, §§ 17552, 17559.) Plaintiffs appealed. The Court of Appeal affirmed the judgment, reasoning that a shift in the funding of an existing program is not a new program or a higher level of service. It declined to rule whether restitution from the superintendent was an appropriate remedy.

([1a]) The commission argues before this court, as it did below, that section 59300 does not mandate a new program or a higher level of service. The superintendent and the department express no opinion as to the merits of plaintiffs' assertions, but argue that if we should find a reimbursable mandate, plaintiffs' remedy is to seek an appropriation from the Legislature rather than reimbursement from the department. ***835**

We recognize that, as is made indisputably clear from the language of the constitutional provision, local entities are not entitled to reimbursement for all increased costs mandated by state law, but only those costs resulting from a new program or an increased level of service imposed upon them by the state. In keeping with this principle, we recently held in *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46 [233 Cal.Rptr. 38, 729 P.2d 202] that legislation requiring local governments and other employers to increase certain workers' compensation benefits did not invoke the subvention requirement because the state mandate did not provide for a "program." We reasoned that the additional expense to the local agency mandated by the legislation arose as an incidental impact of a law which applied generally to all state residents and entities, and this type of expense was not what the voters had in mind when they adopted section 6 of article XIIIB. (See also *City of Anaheim v. State of California* (1987) 189 Cal.App.3d 1478, 1484 [235 Cal.Rptr. 101].)

We defined a "program" as used in article XIIIB as one that carries out the "governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state." (*County of Los Angeles, supra*, 43 Cal.3d at p. 56.) Unquestionably the contributions called for in section 59300 are used to fund a "program" within this definition, for the education of handicapped children is clearly a governmental function providing a service to the public, and the section imposes requirements on school districts not imposed on all the state's residents. Nor can there be any doubt that although the schools for the handicapped have been operated by the state for many years, the program was new insofar as plaintiffs are concerned, since at the time section 59300 became effective they were not required to contribute to the education of students from their districts at such schools.

The fact that the impact of the section is to require plaintiffs to contribute funds to operate the state schools for the handicapped rather than to themselves administer the program does not detract from our conclusion that it calls for the establishment of a new program within the meaning of the constitutional provision. To hold, under

the circumstances of this case, that a shift in funding of an existing program from the state to a local entity is not a new program as to the local agency would, we think, violate the intent underlying section 6 of article XIIIB. That article imposed spending limits on state and local governments, and it followed by one year the adoption by initiative of article XIIIA, which severely limited the taxing power of local governments. ([2]) Section 6 was intended to preclude the state from shifting to local agencies the financial responsibility for providing public services ***836** in view of these restrictions on the taxing and spending power of the local entities. (See *County of Los Angeles, supra*, 43 Cal.3d at p. 61.) [6]

([1b]) The intent of the section would plainly be violated if the state could, while retaining administrative control of programs it has supported with state tax money, simply shift the cost of the programs to local government on the theory that the shift does not violate section 6 of article XIIIB because the programs are not "new." Whether the shifting of costs is accomplished by compelling local governments to pay the cost of entirely new programs created by the state, or by compelling them to accept financial responsibility in whole or in part for a program which was funded entirely by the state before the advent of article XIIIB, the result seems equally violative of the fundamental purpose underlying section 6 of that article. [7] We conclude, therefore, that because section 59300 shifts partial financial responsibility for the support of students in the state-operated schools from the state to school districts - an obligation the school districts did not have at the time article XIIIB was adopted - it calls for plaintiffs to support a "new program" within the meaning of section 6. [8]

The question remains whether school districts are "mandated" by section 59300 to make the contributions called for therein. The commission claims that plaintiffs are not compelled to contribute to the education of handicapped children at the state schools because they possess other options to educate such students. In 1980, the Legislature passed a law codified in the Education Code, which requires local education agencies to assess the needs ***837** of handicapped pupils residing in their districts, and to formulate an appropriate plan to educate them. (§ 56000 et seq.)

The commission asserts that a local agency has the option under section 56361 to provide a local program for handicapped children, to send them to private schools, or to refer them to the state-operated schools. At the hearing before the commission, the Department of Finance recommended that the commission find that section 59300 does not impose a state mandate because plaintiffs were not required to send students from their districts to the state schools but had the additional options described in section 56361. The commission staff recommended against adoption of this position on the ground that the plaintiffs "had no other reasonable alternative than to utilize the services of the state-operated schools, as they are the least expensive alternative in educating handicapped children." [9]

The commission did not and was not required to decide whether section 59300 constitutes a state mandate since it concluded that plaintiffs were not entitled to reimbursement in any event because the section does not provide for a new program or increased level of service. The issue is for the commission to determine, as it is charged by section 17551 of the Government Code with the duty to decide in the first instance whether a local agency is entitled to reimbursement under section 6 of article XIIIB.

In view of our conclusion that the question whether section 59300 amounts to a state mandate must be remanded to the commission, we do not decide whether, as the superintendent and the department argue, plaintiffs' sole remedy, in the event a reimbursable mandate is ultimately found, is to seek relief under the procedure set forth in section 17500 et seq. of the Government Code.

([3]) The final question is whether the superintendent and the department acted in excess of their authority in deducting the amount of the contributions required of plaintiffs by section 59300 from the funds appropriated by the state to them for the support of the districts' schools. Plaintiffs cite no authority for the proposition that such conduct was improper. Section 59300 does not specify the method by which the contributions of the school districts to the state schools shall be paid. We agree with the Court of Appeal that in these circumstances the method of collection is left to the reasonable discretion of the department, and in view of the fact no test claim had been filed when the school districts failed to pay the invoices, the ***838** method of collection the Department chose was

not unreasonable. (See, e.g., *Carmel Valley Fire Protection Dist.* v. *State of California, supra*, 190 Cal.App.3d 521, 550.)

The judgment of the Court of Appeal is reversed, and the court is directed to remand the matter to the commission for further proceedings consistent with this opinion.

Lucas, C. J., Broussard, J., Panelli, J., Arguelles, J., Eagleson, J., and Kaufman, J., concurred.

The petition of respondent Commission on State Mandates for a rehearing was denied April 27, 1988. ***839**

Footnotes

* Retired judge of the superior court sitting under assignment by the Chairperson of the Judicial Council.(Opinion by Mosk, J., with Lucas, C. J., Broussard, Panelli, Arguelles, Eagleson and Kaufman, JJ., concurring.) ***831**

1 Hereafter all statutory references are to the Education Code unless otherwise noted, and all references to articles are to the California Constitution.

2 "Excess annual cost" means the total cost of educating a pupil in a state-operated school less a school district's annual base revenue limit, multiplied by the estimated average daily attendance of the state-operated school.

3 In *Carmel Valley Fire Protection Dist.* v. *State of California* (1987) 190 Cal.App.3d 521, 549 [234 Cal.Rptr. 795], the court observed that this remedy would afford relief only prospectively, and not as to funds previously paid out by a local agency to satisfy a state mandate.

4 The claim was originally filed with the State Board of Control, which preceded the commission; when the commission was created in 1984, the claim was transferred to it for determination.

5 The court found that this "adjustment" was "precipitated" by the Special Education Program, enacted in 1980 (Stats. 1980, ch. 797, § 9, p. 2411 et seq.), discussed in a later part of this opinion, which afforded local governments certain options to educate the handicapped.

6 The Revenue and Taxation Code also contains provisions requiring reimbursement of local agencies for state-mandated costs. (Rev. & Tax Code, § 2201 et seq.) These provisions were enacted before the adoption of article XIIIB (Stats. 1973, ch. 358, § 3, p. 780), but the principle of reimbursement was enshrined in the Constitution in 1979 with the adoption of section 6 of article XIIIB to provide local entities with the assurance that state mandates would not place additional burdens on their increasingly limited revenue resources.

7 There is a statement in *County of Los Angeles, supra*, that a concern prompting the adoption of section 6 in article XIIIB "was the perceived attempt by the state to enact legislation or adopt administrative orders creating programs to be administered by local agencies, thereby transferring to those agencies the fiscal responsibility for providing services which the state believed should be extended to the public." (43 Cal.3d at p. 56.) We do not read the phrase "administered by local agencies" to mean that the electorate intended that only locally administered programs require state reimbursement. The underlying premise of the sentence is that reimbursement is required if the state transfers fiscal responsibility to a local agency for a program the state deems desirable.

8 An opinion of the Attorney General, relied on by the commission, is inapposite. It suggests that a law increasing the number of judges in a municipal court district does not constitute a higher level of service under section 6 of article XIIIB because the district has a constitutional obligation to provide for an adequate number of judges. (63 Ops.Cal.Atty.Gen. 700, 702. (1980)) In the present case, the issue is whether section 59300 involves a new program rather than a higher level of service, and it is clear that at the time the section was enacted, plaintiffs did not have an obligation to contribute to the support of the students from their districts at the state schools for the severely handicapped.

9 According to the Department of Finance, in 1979-1980, the average cost to educate a student in a local program was $5,527, for private school the cost was $9,527, and for the least expensive state school $15,556. The local agency is required to pay 30 percent of the cost for students placed in private schools.

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KeyCite Red Flag - Severe Negative Treatment
Superseded by Statute as Stated in North Bay Construction, Inc. v. City of Petaluma, Cal.App. 1 Dist., September 28, 2006

49 Cal.App. 78, 193 P. 294

MARIN WATER AND POWER COMPANY (a Corporation), Appellant,
v.
TOWN OF SAUSALITO (a Municipal Corporation), Respondent.

Civ. No. 3395.
District Court of Appeal, First District, Division 1, California.
August 26, 1920.

HEADNOTES

(1)
MUNICIPAL CORPORATIONS--OWNERSHIP OF WATERWORKS AND SYSTEM--LIABILITY TO EXECUTION.
--A municipal corporation owning and operating its own waterworks and system for supplying itself and its inhabitants with water under the powers conferred upon it by the constitution and by the Municipal Corporations Act, under which it is organized, cannot have its waterworks and system seized and taken from it under a writ of execution, at the instance of a judgment creditor, and be thus deprived of the right which it thus possesses and exercises to supply its inhabitants with water.

(2)
ID.--RIGHT TO DISTRIBUTE WATER--SALE AS FRANCHISE.
--The right which a municipal corporation possesses to distribute the water derived from its waterworks by means of its distributing system to its customers, the water users of said town and its vicinity, and to make charges therefor, does not constitute a franchise, such as may be seized and sold under sections 388 and 389 of the Civil Code.

(3)
ID.--STATUS OF MUNICIPALITY.
--A city is never other than a public corporation, whether exercising its governmental powers or other powers, in the operation of public utilities, or acting in the quiescent state of a property owner. (Opinion of supreme court on denial of hearing.)

(4)
ID.--OWNERSHIP OF PROPERTY--WHEN SUBJECT TO EXECUTION.
--The property which a municipal corporation holds for the purpose of exercising its governmental powers or for the purpose of exercising its constitutional power to operate waterworks to supply its inhabitants with water or other like public purposes is not subject to execution; but property which it holds merely as a proprietor, devoting it to no use of a public character, such as lands acquired or held for other than public purposes and not in trust for public use, are subject to execution unless some statutory or constitutional provision forbids it. (Opinion of supreme court on denial of hearing.)

SUMMARY

APPEAL from an order of the Superior Court of Marin County recalling and quashing certain writs of execution and the levies made thereunder. Edgar T. Zook Judge, Affirmed.

The facts are stated in the opinion of the court.

COUNSEL
Lilienthal, McKinstry & Raymond for Appellant.
O. F. Meldon for Respondent.

RICHARDS, J.

This is an appeal from an order of the trial court recalling and quashing certain writs of execution and the levies made thereunder which had been caused to be issued by the plaintiff upon a money judgment obtained by it against the town of Sausalito, a municipal corporation, and which under the plaintiff's direction the sheriff had undertaken to levy upon the plant and waterworks owned and operated by the defendant as such municipal corporation for the purpose of supplying water to the town and people of Sausalito, and also upon the so-called franchise of the said defendant to use the streets and highways of such town for such purpose, and to sell such water to the inhabitants of Sausalito and its vicinity and to charge and collect tolls therefor.

The sole question presented upon the hearing of this matter in the trial court and upon this appeal is as to whether the municipally owned waterworks of said defendant and its so-called franchise for supplying water to its people can be made the subject of levy and sale upon execution issued on a money judgment obtained against said municipality. The trial court determined this contention adversely to the plaintiff, and we are asked to reverse its order made in that regard upon this appeal.

In support of its contention the appellant urges that in undertaking to acquire and operate a municipal waterworks system the town of Sausalito is undertaking to act not in a governmental but in a proprietary capacity; and that since it is so engaged in acting it stands in respect to its liability for its debts, and also in respect to the means for the enforcement of such liability, in the same position as a private corporation would stand if engaged in a similar enterprise. In making this contention the appellant strongly relies on the cases of *Davoust v. City of Alameda*, 149 Cal. 70, [9 Ann. Cas. 847, 5 L. R. A. (N. S.) 536, 84 Pac. 760], *South Pasadena v. Pasadena Land Co.*, 152 Cal. 593, [93 Pac. 490], and ***80** *Marin Water & Power Co. v. Town of Sausalito*, 168 Cal. 587, [143 Pac. 767]. It may not be denied that in each of these cases and in respect to the questions presented for determination therein the supreme court has committed itself to the proposition that in administering such a public utility as a water system a municipality is engaged in the exercise of proprietary rather than governmental powers, and, hence, that it may become liable in damages, for example, for injuries caused through the negligence of its servants in the operation of such a utility, when it would not otherwise be responsible for the acts of its servants while occupied in the administration of governmental powers. We are constrained, therefore, to accept the distinction which the supreme court has thus made between the governmental and proprietary functions of municipalities; although in doing so we are disposed to give our approval to that portion of the concurring opinion of Mr. Justice Shaw in the case of *Davoust v. City of Alameda, supra*, in which such a distinction is declared to be wholly fictitious, and apt to produce embarrassing consequences if extended and applied to other cases than those then before that court. We also desire to approve and adopt the language of Mr. Justice Shaw in the case of *City of Pasadena v. Railroad Commission*, 183 Cal. 526, [10 A. L. R. 1425, 192 Pac. 25], wherein the learned justice says: "It is not true that a city is a private corporation when carrying on a municipally owned public utility. No decision so holds. All the decisions on the subject recognize the fact that a city does not change its character by engaging in such enterprises. The entire course of reasoning in the opinions is founded on the postulate that such city retains its character as a municipal corporation, and the burden of the arguments consists of efforts to find reasons for holding it liable to the same extent as a private corporation engaged in the same service, notwithstanding the fact that the city carries on the business as a municipal corporation. They all assume that such city is as much a municipal corporation with respect to such business functions as it is with regard to the exercise of its purely governmental powers. The distinction does not go to its character as a corporation, but to its liabilities when exercising one class of its powers, as compared to its liabilities in the exercise of its functions as a local governmental agency." ***81**

We think the foregoing language may be given pertinent application to the questions presented upon this appeal, since the effect thereof is to determine that a municipality operating a municipally owned water system is not the less a public corporation while engaged in the exercise of its powers. **[1]** This being true, we are confronted with the question as to whether or not a strictly public or municipal corporation owning and operating its own waterworks and system for supplying itself and its inhabitants with water under the powers conferred upon it by the constitution and by the Municipal Corporations Act (Laws 1883, p. 93), under which it is organized, can have its said waterworks and system seized and taken from it under a writ of execution, and be thus deprived of the right which it thus possesses and exercises to supply its inhabitants with water. We are of the opinion that this cannot be done; that the sections of the code giving creditors of corporations the right to enforce their judgments by means of writs of execution have reference to private and not public corporations, and that a public corporation does not become a private corporation when it undertakes to exercise such proprietary functions as the establishment and operation of such public utilities as waterworks or light works or other activities of a like character. In the case of *People v. San Joaquin AgriculturalAssn.*, 151 Cal. 797, [91 Pac. 740], it was held that the property of a district agricultural association, while engaged in carrying on the public functions and activities for which it was organized under the laws of the state, could not be taken by means of a writ of execution in the absence of an express statute authorizing such a levy.

In the case of *Tulare Irr. Dist. v. Collins*, 154 Cal. 440, [97 Pac. 1124], it was held that an irrigation district organized under the statutes authorizing the formation and conduct of such districts was a public corporation holding and using its property as such for a public use, and that its said property, while so devoted to such use, could not be made the subject of such levy and sale upon execution at the instance of a private creditor.

To like effect is *Denicke v. Santa Clara Agr. Assn.*, 9 Cal. App. 228, [98 Pac. 687].

We are satisfied that a like reasoning is to be applied to the facts of the case at bar. The town of Sausalito, as a ***82** public corporation, is engaged through its waterworks and system in administering a public use under the express authority of the constitution and of the Municipal Corporations Act under which it was organized. To permit a private creditor of such public corporation to levy an execution upon its said property while so devoted to public use would be in effect to permit such private creditor by such means to nullify the provisions of the constitution which invest it with such powers, and terms of the Municipal Corporations Act by virtue of which it is undertaking to exercise the same.

[2] It is further contended by the appellant herein that the right which the defendant as a municipal corporation possesses to distribute the water derived from its waterworks by means of its distributing system to its customers, the water users of said town and its vicinity, and to make charges therefor, is a franchise, which may be seized and sold under execution under sections 388 and 389 of the Civil Code. While it may be conceded that the grant to a private corporation of the right to exercise such functions as that of supplying water to a body of customers for a consideration in the way of tolls would be a franchise under the accepted definition of that term, we do not think such definition is to be extended to similar powers and activities when the same are being exercised by a public corporation by virtue of the powers possessed by it under the constitution and laws of the state. It is true that in one of the cases from which excerpts were quoted in the case of *Davoust v. City of Alameda*, 149 Cal. 70, [9 Ann. Cas. 847, 5 L. R. A. (N. S.) 536, 84 Pac. 760], similar proprietary functions of a municipality were referred to as a franchise; but we do not understand that the supreme court of this state became thus committed to such an extended definition of that term. Nor do we think it can be rightly extended to such powers and functions when exercised by a public corporation within the domain of its sovereignty and under the authority and powers with which it is invested as such public corporation by the constitution and laws of the state. Neither do we think that sections 388 and 389 of the Civil Code can be held to have application to such public uses, for the reason that to permit the right of a city or town to deliver water or light, or any like commodity to its inhabitants, ***83** to be made the subject of sale under execution at the instance of a private creditor would be to not only interfere and destroy its exercise of this public use, but would amount to its transfer through such sale to private persons, contrary to the constitution and legislative intent by which such corporations were invested with the powers to establish municipal waterworks and similar public utilities and to serve their people with these commodities. It seems clear that these rights of the municipality, whether properly designated as a franchise or not, cannot be made the subject of a sale.

For the foregoing reasons we are of the opinion that the order should be affirmed, and it is so ordered.

Waste, P. J., and Welch, J., *pro tem.*, concurred.
A petition to have the cause heard in the supreme court, after judgment in the district court of appeal, was denied by the supreme court on October 25, 1920, and the following opinion then rendered thereon:

THE COURT

.--In denying a rehearing in this case we think it proper to say that we do not entirely approve the reasoning of the opinion of the district court. **[3]** A city is never other than a public corporation, whether exercising its governmental powers or other powers, in the operation of public utilities, or acting in the quiescent state of a property owner. The fact that it is a public corporation does not determine the question whether or not its property is subject to execution. **[4]** The true rule is that the property which it holds for the purpose of exercising its governmental powers or for the purpose of exercising its constitutional power to operate waterworks to supply its inhabitants with water or other like public purposes is not subject to execution, the reason being that to subject it to sale

would interfere with the exercise by the city of some of the powers for which it was organized. On the other hand, property which it holds merely as a proprietor, devoting it to no use of a public character, such as lands acquired or held for other than public purposes and not in trust for public use, are subject to execution unless some statutory or constitutional provision forbids it. (***84** *Holladay v. Frisbie*, 15 Cal. 630; *Wheeler v. Miller*, 16 Cal. 124.) The property here proposed to be taken in execution was used for public purposes and was necessary therefor, and hence it comes within the classes first described.

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KeyCite Red Flag - Severe Negative Treatment
Superseded by Statute as Stated in State Dept. of State Hospitals v. Superior Court, Cal., June 1, 2015

55 Cal.2d 211, 359 P.2d 457, 11 Cal.Rptr. 89

LOUISA C. MUSKOPF et al., Appellants,
v.
CORNING HOSPITAL DISTRICT, Respondent.

Sac. No. 7229.
Supreme Court of California
Jan. 27, 1961.

HEADNOTES

(1)
State of California § 57--Liability.
The rule of governmental immunity from tort liability must be discarded as mistaken and unjust.

See **Cal.Jur.2d,** State of California, § 155 et seq.; **Am.Jur.,** States, Territories and Dependencies, § 73.

(2)
Hospitals § 8--Tort Liability.
A hospital is not protected from tort liability by the rule of charitable immunity, this doctrine having been abolished.

(3)
State of California § 57--Liability.
The state, like a municipality, can act in a proprietary capacity.

(4)
Hospitals § 15--Actions Against.
A suit against a county hospital or hospital district is against an entity legally and financially capable of satisfying a judgment.

See **Cal.Jur.2d,** Hospitals and Asylums, § 18; **Am.Jur.,** Hospitals and Asylums, § 18.

(5)
State of California § 57--Liability.
The rule of governmental immunity for tort is an anachronism, without rational support, and has existed only by the force of inertia. It does not actually exist, but has become riddled with exceptions both legislative and judicial, and the exceptions operate so illogically as to cause serious inequality.

(6)
Hospitals § 15--Actions Against.
Since the Legislature has by virtue of Health & Saf. Code, § 32121, subd. (b), set forth the manner [all actions and proceedings] and the courts [all courts] in which suits against a hospital district may be brought, in such suits judgment may be entered against the hospital district.

(7)
State of California § 67--Actions Against.
Const., art. XX, § 6, providing that suits may be brought against the state in such manner and in such courts as shall be directed by law, should not be interpreted as establishing the rule of immunity; it provides merely for a legislative consent to suit.

(8)
State of California § 67--Actions AgainstHospitals--Actions Against.
Although Gov. Code, § 641, allowing the state to "sue or be sued," and Health & Saf. Code, § 32121, subd. (b), permitting a hospital district "to sue and be sued," have been judicially construed as providing only a waiver from suit and not a waiver of substantive immunity, their continuous reenactment indicates a clear legislative purpose to remove all procedural obstacles when the state is liable.

(9)
State of California § 57--Liability.
Statutes removing governmental immunity from liability in certain areas should be interpreted as meaning only what they say: that in the areas indicated there shall be no governmental immunity; they leave to the court whether it should adhere to its own rule of immunity in other areas.

(10)
State of California § 57--Liability.
From the inception of the "rule" of governmental immunity from liability there has been constant judicial restriction going hand in hand with accompanying legislative restriction, the concept of proprietary acts has been extended to the state and its agencies, and there

is governmental liability for nuisances even when they involve governmental activity.

(11)
State of California § 57--Liability.
In formulating "rules" and "exceptions" relating to governmental immunity from liability, it should be borne in mind that when there is negligence the rule is liability, immunity is the exception.

(12)
State of California § 57--Liability.
Abrogation of governmental immunity from liability does not mean that the state is liable for all harms that result from its activities. Both the state and individuals are free to engage in many activities that result in harm to others so long as such activities are not tortious.

(13)
State of California § 58--Liability.
Although it "is not a tort for Government to govern" and basic policy decisions of government within constitutional limitations are therefore necessarily nontortious, it does not follow that the state is immune from liability for torts of its agents. Once it is determined that the state through its agents has committed a tort, it must meet its obligations therefor.

(14)
Hospitals § 8--Tort Liability.
The employees of a hospital district are not immune from liability for their negligence in caring for and treating a paying patient in a hospital operated by the district.

(15)
Public Officers § 61--Civil Liability.
Governmental officials are liable for the negligent performance of their ministerial duties, but are not liable for their discretionary acts within the scope of their authority, even if it is alleged that they acted maliciously. Such immunity is not designed to protect the guilty, but rests on the ground that it is impossible to know whether the claim is well founded until the case has been tried and that it would be better to leave unredressed the wrongs done by dishonest officers than to subject those who try to do their duty to the constant dread of retaliation.

See **Cal.Jur.2d,** Public Officers, § 144 et seq.; **Am.Jur.,** Public Officers, §§ 289.5, 303 et seq.

SUMMARY

APPEAL from a judgment of the Superior Court of Tehama County. Curtiss E. Wetter, Judge. Reversed.

Action for damages for injuries sustained by a paying patient in a hospital operated by defendant hospital district. Judgment for defendant after general demurrer to complaint was sustained and plaintiff refused to amend, reversed.

COUNSEL
P. M. Barceloux, Burton J. Goldstein, Goldstein, Barceloux & Goldstein and Reginald M. Watt for Appellants.
Glenn D. Newton and William W. Coshow for Respondent.
Stanley Mosk, Attorney General, Charles A. Barrett, Assistant Attorney General, and Frederick G. Girard, Deputy Attorney General, Dion R. Holm, City Attorney (San Francisco), William F. Bourne and Beatrice Challiss, Deputy City Attorneys, Jennings, Engstrand & Henrikson and Paul D. Engstrand, Jr., as Amici Curiae on behalf of Respondent.

TRAYNOR, J.

Plaintiff Louisa C. Muskopf was a paying patient in the Corning Memorial Hospital. She and her husband allege that because of the negligence of the hospital staff she fell and further injured the broken hip for which she was being treated. Defendant demurred on the ground that the Corning Hospital District is immune from liability for tort under the rule of *Talley v. Northern San Diego County Hospital District,* 41 Cal.2d 33 [257 P.2d 22], which held that a hospital district was a state agency exercising a governmental function and as such was immune from tort liability. Defendant's demurrer was sustained, and upon plaintiffs' refusal to amend the court entered judgment for defendant. Plaintiffs appeal.

Plaintiffs contend that operating a hospital is a proprietary function of government and that in any event the rule of governmental immunity should be discarded.

([1]) After a reevaluation of the rule of governmental immunity from tort liability we have concluded that it must be discarded as mistaken and unjust.

The rule of hospital district tort immunity was based on ***214** cases upholding county hospital immunity. (*Sherbourne v. Yuba County,* 21 Cal. 113, 114-115 [81 Am.Dec. 151]; *Calkins v. Newton,* 36 Cal.App.2d 262, 264-268 [97 P.2d 523]; *Griffin v. County of Colusa,* 44 Cal.App.2d 915, 919-922 [113 P.2d 270.) These cases rest on the grounds that a county, like the state, can act only in governmental capacity and that a hospital is protected by the rule of charitable immunity. ([2], [3]) The latter doctrine has been abolished in this state. (*Silva v. Providence Hospital,* 14 Cal.2d 762, 764-776 [97 P.2d 798]; *Malloy v. Fong,* 37 Cal.2d 356, 364-367 [232 P.2d 241]), and it is now settled that the state, like a municipality, can act in a proprietary capacity. (*People v. Superior Court,* 29 Cal.2d 754, 761-762 [178 P.2d 1, 40 A.L.R.2d 919].) Subsequent to the Talley case, other decisions of this court have expanded the area of the state's proprietary activities. (*Guidi v. State,* 41 Cal.2d 623, 626-628 [262 P.2d 3]; *Pianka v. State,* 46 Cal.2d 208, 210 [293 P.2d 458].)

The shifting fortune of the rule of governmental immunity as applied to hospitals is illustrative of the history of the rule itself. From the beginning there has been misstatement, confusion, and retraction. At the earliest common law the doctrine of "sovereign immunity" did not produce the harsh results it does today. It was a rule that allowed substantial relief. It began as the personal prerogative of the king, gained impetus from sixteenth century metaphysical concepts, may have been based on the misreading of an ancient maxim, and only rarely had the effect of completely denying compensation. [1] How it became in the United States the basis for a rule that the federal and state governments did not have to answer for their torts has been called "one of the mysteries ***215** of legal evolution." (Borchard, *Governmental Responsibility in Tort,* 34 Yale L.J., 1, 4.)

The rule of county or local district immunity did not originate with the concept of sovereign immunity. The first case to hold that local government units were not liable for tort was *Russell v. Men of Devon,* 100 Eng.Rep. 359. The case involved an action in tort against an unincorporated county. The action was disallowed on two grounds: since the group was unincorporated there was no fund out of which ***216** the judgment could be paid; and "it is better that an individual should sustain an injury than that the public should suffer an inconvenience." (100 Eng. Rep. 359, 362.) The rule of the Russell case was first brought into this country by *Mower v. Leicester,* 9 Mass. 247, 249 [6 Am.Dec. 63]. There the county was incorporated, could sue and be sued, and there was a corporate fund out of which a judgment could be satisfied. Ignoring these differences, the Massachusetts court adopted the rule of the Russell case, which became the general American rule.

If the reasons for *Russell v. Men of Devon* and the rule of county or local district immunity ever had any substance they have none today. ([4]) Public convenience does not outweigh individual compensation, and a suit against a county hospital or hospital district is against an entity legally and financially capable of satisfying a judgment. Thus, it was judicially recognized in England over half a century ago that a public hospital is liable for its torts. (*Hillyer v. St. Bartholomew's Hospital* (1909), 2 K.B. 820, 825.)

([5]) The rule of governmental immunity for tort is an anachronism, without rational basis, and has existed only by the force of inertia. (See Borchard, *Governmental Responsibility for Tort,* 34 Yale L.J. 129, 229; Casner and Fuller, *Municipal Tort Liability in Operation,* 54 Harv. L. Rev. 437; Repko, *Commentary on Municipal Tort Liability,* 9 Law & Cont. Prob. 214.) It has been judicially abolished in other jurisdictions. (*Molitor v. Kaneland Community Unit District No. 302,* 18 Ill.2d 11 [163 N.E.2d 89, 90-96]; *Colorado Racing Com. v. Brush Racing Assn.,* 136 Colo. 279 [316 P.2d 582, 585-586]; *Hargrove v. Town of Cocoa Beach* (Fla.), 96 So.2d 130, 132-134 [60 A.L.R.2d 1193].)

None of the reasons for its continuance can withstand analysis. No one defends total governmental immunity. In fact, it does not exist. It has become riddled with exceptions, both legislative (Gov. Code, §§ 50140, 53051; Ed. Code, § 903; Veh. Code, § 17001) and judicial (*Chafor v. City of Long Beach,* 174 Cal. 478, 481-483 [163 P. 70, Ann.Cas. 1918D 106, L.R.A. 1917E 685]; *People v. Superior Court,* 29 Cal.2d 754, 761-762 [178 P.2d 1, 40 A.L.R.2d 919]), and the exceptions operate so illogically as to cause serious inequality. Some who are injured by governmental agencies can recover, others cannot: one injured while attending a community theater in a public park may recover (*Rhodes v. City of Palo Alto,*

100 Cal.App.2d 336, 341-342 [223 P.2d 639]), but one ***217** injured in a children's playground may not (*Farrell v. City of Long Beach,* 132 Cal.App.2d 818, 819-820 [283 P.2d 296]); for torts committed in the course of a "governmental function" there is no liability, unless the tort be classified as a nuisance (*Phillips v. City of Pasadena,* 27 Cal.2d 104, 106 [162 P.2d 625]). The illogical and inequitable extreme is reached in this case: we are asked to affirm a rule that denies recovery to one injured in a county or hospital district hospital, although recovery may be had by one injured in a city and county hospital. (*Beard v. City & County of San Francisco,* 79 Cal.App.2d 753, 755-768 [180 P.2d 744].)

Article XX, section 6 of the California Constitution provides: "Suits may be brought against the State in such manner and in such courts as shall be directed by law." ([6]) Health and Safety Code, section 32121, subdivision (b), provides that a hospital district shall have the power "To sue and be sued in all courts and places and in all actions and proceedings whatever." Since the Legislature has set forth the manner [all actions and proceedings] and the courts [all courts] in which suits against a hospital district may be brought it would seem to follow that in such suits judgment may be entered against the hospital district.

Previous cases, however, have differentiated between the state's consenting to be sued and its substantive liability, and have held that the language used in section 32121, subdivision (b), and in article XX, section 6, gives only the state's consent to be sued and does not waive any defenses or immunities. Thus, an 1893 statute (Stats. 1893, p. 57, now Gov. Code, § 641) providing that those having claims for negligence against the state were authorized "to bring suit thereon ..." was held not to waive the state's sovereign immunity but only to give its consent to be sued when it was otherwise liable. (*Denning v. State,* 123 Cal. 316, 319 [55 P. 1000], citing *Chapman v. State,* 104 Cal. 690, 693 [38 P. 457, 43 Am.St. Rep. 158]; *Melvin v. State,* 121 Cal. 16, 23 [53 P. 416].)

([7]) It is contended, however, that article XX, section 6, should be interpreted as also having substantive significance and establishing the rule of immunity. Such an interpretation would be contrary to *People v. Superior Court,* 29 Cal.2d 754, 761-762 [178 P.2d 1, 40 A.L.R.2d 919], *Guidi v. State,* 41 Cal.2d 623, 626-628 [262 P.2d 3], and *Pianka v. State,* 46 Cal.2d 208, 210 [293 P.2d 458], which extended the state's liability to its proprietary activities. If the section has any substantive significance it would appear to be a waiver of immunity. ***218** On its face it seems to say that the state may be held liable when suits are brought against it in accordance with a legislatively prescribed procedure. Consistent, however, with our previous construction of essentially identical statutory language, we hold that article XX, section 6, provides merely for a legislative consent to suit.

It is strenuously urged, however, that it is for the Legislature and not the courts to remove the existing governmental immunities. Two basic arguments are made to deny the court's power: first, that by enacting various statutes affecting immunity the Legislature has determined that no further change is to be made by the court; and second, that by the force of *stare decisis* the rule has become so firmly entrenched that only the Legislature can change it. Neither argument is persuasive.

The doctrine of governmental immunity was originally court made. ([8]) The Legislature early adopted a statute allowing the state to "sue or be sued" (Gov. Code, § 641) and a similar statute applies to hospital districts (Health & Saf. Code, § 32121, subd. (b)). Although those statutes have been construed as providing only a waiver from suit and not a waiver of substantive immunity (*Melvin v. State,* 121 Cal. 16, 23 [53 P. 416]), their continuous reenactment indicates a clear legislative purpose to remove all procedural obstacles when the state is liable.

The state has also enacted various statutes waiving substantive immunity in certain areas. (Gov. Code, § 53051 [dangerous or defective condition of public property]; Gov. Code, § 50140 [damage by mobs or riots]; Ed. Code, § 903 [liability of school district]; Veh. Code, § 17001 [public agency liability for negligent operation of motor vehicle].) Defendant contends that by removing immunity in these areas the Legislature has retained it in all others.

We are not here faced with a situation in which the Legislature has adopted an established judicial interpretation by repeated reenactment of a statute. (*Richfield Oil Corp. v. Public Utility Com.,* 54 Cal.2d 419, 430 [6 Cal.Rptr. 548, 354 P.2d 4].) Nor are we faced with a comprehensive legislative enactment designed to cover a field. What is before us is a series of sporadic statutes, each operating on a separate area of governmental immunity

where its evil was felt most. ([9]) Defendant would have us say that because the Legislature has removed governmental immunity in these areas we are powerless to remove it in others. We read the statutes as meaning only what they say: that in the areas indicated ***219** there shall be no governmental immunity. They leave to the court whether it should adhere to its own rule of immunity in other areas.

([10]) Defendant also urges that even if the Legislature has not adopted the rule of governmental immunity in the areas in which it has not expressly abolished it, the rule has existed for so long that only the Legislature has the power to change it. The "rule" of governmental immunity, however, has not existed with the force that its repetition would imply. From its inception there has been constant judicial restriction, going hand in hand with accompanying legislative restriction. Municipal corporations were first held subject to the court's equitable jurisdiction (*Spring Valley Water Works v. City & County of San Francisco,* 82 Cal. 286, 307- 311 [22 P. 910, 16 Am.St.Rep. 116, 6 L.R.A. 756]). They were then held liable for their proprietary acts (*Chafor v. City of Long Beach,* 174 Cal. 478, 481-483 [163 P. 70, Ann.Cas. 1918D 106, L.R.A. 1917E 685]), which have been constantly expanded. Thus, a community theater in a public park (*Rhodes v. City of Palo Alto,* 100 Cal.App.2d 336, 341-342 [223 P.2d 639]); a public golf course (*Plaza v. City of San Mateo,* 123 Cal.App.2d 103, 106-112 [266 P.2d 523]); an electric lighting plant (*Davoust v. City of Alameda,* 149 Cal. 69, 72-74 [84 P. 760, 9 Ann. Cas. 847, 5 L.R.A. N.S. 536]); and the furnishing of impure water (*Ritterbusch v. City of Pittsburg,* 205 Cal. 84, 86-88 [269 P. 930, 61 A.L.R. 448]), have all furnished the basis for municipal liability. Moreover, the concept of proprietary acts has been extended to the state and its agencies (*People v. Superior Court,* 29 Cal.2d 754, 761-762 [178 P.2d 1, 40 A.L.R. 2d 919]), and the liability of the state under that concept is increasing. (*Guidi v. State,* 41 Cal.2d 623,, 626-628 [262 P.2d 3]; *Pianka v. State,* 46 Cal.2d 208, 210 [293 P.2d 458].) Finally, there is governmental liability for nuisances even when they involve governmental activity. (*Phillips v. City of Pasadena,* 27 Cal.2d 104, 106 [162 P.2d 625].)

([11]) In formulating "rules" and "exceptions" we are apt to forget that when there is negligence, the rule is liability, immunity is the exception. This court implemented that policy when it overruled the doctrine of charitable immunity. (*Silva v. Providence Hospital,* 14 Cal.2d 762, 764-776 [97 P.2d 798]; *Malloy v. Fong,* 37 Cal.2d 356, 364-367 [232 P.2d 241]), an immunity that was also claimed to be so firmly imbedded that only the Legislature could change it.

([12]) Abrogation of governmental immunity does not ***220** mean that the state is liable for all harms that result from its activities. Both the state and individuals are free to engage in many activities that result in harm to others so long as such activities are not tortious. Thus the harm resulting from free competition among individuals is not actionable, nor is the harm resulting from the diversion of business by the state's relocation of a highway. (*People v. Symons,* 54 Cal.2d 855, 859 [9 Cal.Rptr. 363, 357 P.2d 451]; *Holloway v. Purcell,* 35 Cal.2d 220, 230 [217 P.2d 665].) It does not follow, however, that torts may not be committed in carrying on such activities. A competitor may be liable for the harm resulting from his violation of traffic laws in getting his product to market, just as the state may be liable for the harm caused by its agents' violation of such laws. ([13]) Although it "is not a tort for Government to govern" (Jackson, J., dissenting in *Dalehite v. United States,* 346 U.S. 15, 57 [73 S.Ct. 956, 97 L.Ed. 1427]), and basic policy decisions of government within constitutional limitations are therefore necessarily nontortious, it does not follow that the state is immune from liability for the torts of its agents. These considerations are relevant to the question whether in any given case the state through its agents has committed a tort (see 3 Davis, Administrative Law (1958), § 25.11, p. 482; § 25.13, p. 489), but once it is determined that it has, it must meet its obligation therefor.

Nor does our decision herein affect the settled rules of immunity of government officials for acts within the scope of their authority. ([14]) Moreover, since defendant's employees are not immune from liability for their negligence in caring for and treating plaintiff, the question of the extent to which the state should be immune when its officers are is not involved in this case. (See *Lipman v. Brisbane Elementary School Dist., post,* p. 224 [11 Cal.Rptr. 97, 359 P.2d 465].)

([15]) Government officials are liable for the negligent performance of their ministerial duties (*Mock v. Santa Rosa,* 126 Cal. 330, 334 [58 P. 826]; *Payne v. Baehr,* 153 Cal. 441, 444 [95 P. 895] but are not liable for their discretionary acts within the scope of their authority

(*Downer v. Lent,* 6 Cal. 94, 95 [95 Am.Dec. 489]; *Newport Wharf & Lbr. Co. v. Drew,* 141 Cal. 103, 107-108 [74 P. 697]; *Oppenheimer v. Arnold,* 99 Cal.App.2d 872, 874 [222 P.2d 940]; *Martelli v. Pollock,* 162 Cal.App.2d 655, 659-660 [328 P.2d 795]), even if it is alleged that they acted maliciously (*White v. Towers,* 37 Cal.2d 727, 730-732 [235 P.2d 209, 28 A.L.R.2d 636]; *Coverstone v. Davies,* 38 Cal.2d 315, 322 [239 P.2d 876]; ***221** *Hardy v. Vial,* 48 Cal.2d 577, 582-584 [311 P.2d 494]). Such immunity is not designed to protect the guilty, for "if it were possible in practice to confine such complaints to the guilty, it would be monstrous to deny recovery. The justification for doing so is that it is impossible to know whether the claim is well founded until the case has been tried, and that to submit all officials, the innocent as well as the guilty, to the burden of a trial and to the inevitable danger of its outcome, would dampen the ardor of all but the most resolute, or the most irresponsible, in the unflinching discharge of their duties. ... In this instance it has been thought in the end better to leave unredressed the wrongs done by dishonest officers than to subject those who try to do their duty to the constant dread of retaliation." (Learned Hand, J., in *Gregoire v. Biddle,* 177 F.2d 579, 581; see also *Hardy v. Vial,* 48 Cal.2d 577, 582-583 [311 P.2d 494].) Thus this immunity rests on grounds entirely independent of those that have been advanced to justify the immunity of the state from liability for torts for which its agents are admittedly liable.

Only the vestigial remains of such governmental immunity have survived; its requiem has long been foreshadowed. For years the process of erosion of governmental immunity has gone on unabated. The Legislature has contributed mightily to that erosion. The courts, by distinction and extension, have removed much of the force of the rule. Thus, in holding that the doctrine of governmental immunity for torts for which its agents are liable has no place in our law we make no startling break with the past but merely take the final step that carries to its conclusion an established legislative and judicial trend.

The judgment is reversed.

Gibson, C. J., Peters, J., White, J., and Dooling, J., concurred.

SCHAUER, J.,

Dissenting.

As recently as 1958 this court, in *Vater v. County of Glenn,* 49 Cal.2d 815, 820 [4] [323 P.2d 85] (*per* Chief Justice Gibson, with only Justice Carter dissenting), although it expressly recognized that there has been much learned criticism of the principle of governmental immunity, held that "abrogation or restriction of this doctrine is primarily a legislative matter." And *Talley v. Northern San Diego County Hospital Dist.* (1953), 41 Cal.2d 33, 41 [15] [257 P.2d 22] (*per* Justice Shenk, with only Justice ***222** Carter dissenting), upon facts materially identical with those of the present case, held that "Whether the doctrine of sovereign immunity should be modified in this state is a legislative question." Also this court, in denying petitions for hearing after decisions of the District Courts of Appeal, has during the last decade frequently adhered to this view. [1] But today's majority, apparently impatient with the Legislature's failure to act as speedily and comprehensively as they believe it should, usurp the legislative function, refuse reasonable respect for the doctrine of *stare decisis,* and sweepingly announce (*ante,* p. 213) that "After a reevaluation of the rule of governmental immunity from tort liability we have concluded that it must be discarded as mistaken and unjust." [2]

Our state Constitution, the instrument which rules (or should rule) our decisions, provides (art. III, § 1), "The powers of the government of the State of California shall be divided into three separate departments-the legislative, executive, and judicial; and no person charged with the exercise of powers properly belonging to one of these departments shall exercise any functions appertaining to either of the others, except as in this Constitution expressly directed or permitted."

It appears that the Legislature specifically intended that a governmental unit such as the one sued here-a hospital district-should not be liable for the torts of its employes under the principle of *respondeat superior.* Since this court held in the Talley case (1953), *supra,* 41 Cal.2d 33, 40 [14], that substantive immunity was not abolished by subdivision (b) of section 32121 of the Health and Safety Code (which provides that hospital districts have power "To sue and be sued in all courts and places and in all actions and proceedings ***223** whatever"), four amendments of section 32121 have become effective (Stats. 1949, ch. 964; Stats. 1951, ch. 536; Stats. 1953,

ch. 1208; Stats. 1957, ch. 641) and several other sections concerning the powers of hospital districts have been amended or added, but the Legislature has refrained from providing for their tort liability in a situation such as that in Talley and the present case. (An even more direct example of legislative recognition of, and failure to abolish, governmental immunity is found in the Water Code sections considered in the Vater case (1958), *supra,* 49 Cal.2d 815, 818-819 [3].)

While this court was repeatedly holding that abolishment of governmental immunity was a legislative question, the Legislature enacted various statutes which reduced such immunity in certain fields but did not abolish it, and enacted and reenacted statutes which dealt with the related problem of suability of the government; therefore, it should be concluded that the Legislature agreed with this court that the questions should be resolved by statute rather than judicial decision. (See *Richfield Oil Corp. v. Public Util. Com.* (1960), 54 Cal.2d 419, 430 [2] [6 Cal.Rptr. 548, 354 P.2d 4].)

" '[I]n adopting legislation the Legislature is presumed to have had knowledge of existing domestic judicial decisions and to have enacted and amended statutes in the light of such decisions as have a direct bearing upon them.' [*Buckley v. Chadwick* (1955), 45 Cal.2d 183, 200 [14] (288 P.2d 12, 289 P.2d 242).] The failure of the Legislature to change the law in a particular respect when the subject is generally before it and changes in other respects are made is indicative of an intent to leave the law as it stands in the aspects not amended." (*Cole v. Rush* (1955), 45 Cal.2d 345, 355 [8, 9] [289 P.2d 450, 54 A.L.R.2d 1137].) Yet the majority refuse to apply the just quoted rules and say instead that the "continuous reenactment" of section 32121 (subd. (b)) indicates only "a clear legislative purpose to remove all procedural obstacles when the state is liable." (*Ante,* p. 218.) An informed refusal to respect either the doctrine of *stare decisis* or the constitutional division of powers seems manifest.

One of the grounds upon which the majority seek to justify their invasion of the legislative province is that statutory and judicial exceptions to the governmental immunity doctrine "operate so illogically as to cause serious inequality." (*Ante,* p. 216.) I had thought that the Legislature could abolish immunity in some areas and modify it in others, as it has ***224** done, without judicial interference with its efforts, so long as the unevenness of the legislation was not so great as to be unconstitutional.

Furthermore, I am impelled to comment that it is unfortunate that a court's reversal of itself on a point of law which it has recently and repeatedly considered should appear to depend upon a change of personnel. A change of court personnel is not, in my concept of judicial duty (under our historic form of government), properly to be regarded as *carte blanche* for the judiciary to effectuate either a constitutional amendment or legislative enactment. Such power, I think, should be exercised only by the People or by representatives directly responsible to them.

Because I believe that the question of abolishing governmental immunity is for the Legislature, I would affirm the judgment.

McComb, J., concurred.

Respondent's petition for a rehearing was denied February 21, 1961. Schauer, J., and McComb, J., were of the opinion that the petition should be granted.

Footnotes

1 Sovereign immunity began with the personal prerogatives of the King of England. In the feudal structure the lord of the manor was not subject to suit in his own courts. (1 Pollock and Maitland, The History of English Law [1909 ed.] 518.) The king, the highest feudal lord, enjoyed the same protection: no court was above him. (1 Pollock and Maitland, The History of English Law, *supra,* at pp. 512-517; 3 Holdsworth, History of English Law [1922 ed.] 462.) Before the sixteenth century this right of the king was purely personal. (Watkins, The State as a Party Litigant 12 [Johns Hopkins University Studies in History and Political Science, Series XLV, No. 1 (1927)].) Only out of sixteenth century metaphysical concepts of the nature of the state did the king's personal prerogative become the sovereign immunity of the state. (Watkins, The State as a Party Litigant, *supra,* at p. 11; see 4 Holdsworth, The History of English Law, *supra,* at pp. 190-197.) There is some evidence that the original meaning of the pre-sixteenth century maxim-that the king can do no wrong-was merely

that the king was not privileged to do wrong. (Borchard, *Governmental Responsibility in Tort,* 34 Yale L.J. 1, 2; Ehrlich, Proceedings Against the Crown (1216-1377) at pp. 42, 127 [Oxford Studies in Social and Legal History, vol. VI (1921)].)

The immunity operated more as a lack of jurisdiction in the king's courts than as a denial of total relief. There was jurisdiction, however, in the Court of Exchequer for equitable relief against the crown. "... the party ought in this case to be relieved against the King, because the King is the fountain and head of justice and equity; and it shall not be presumed, that he will be defective in either. And it would derogate from the King's honour to imagine, that what is equity against a common person should not be equity against him." (*Per* Atkyns, B., *Pawlett v. Attorney General* (1668), Hadres 465, 468, 145 Eng.Rep. 550, 552; *Dyson v. Attorney-General* (1912), 1 K. B. 410, 415.)

The method for obtaining legal relief against the crown was the petition of right. The action could not be brought in the king's courts because of their lack of jurisdiction to hear claims against him. The petition of right stated a claim against the king, which was barred only by his prerogative. To the petition "there must always be a reply: 'Let right be done,' " (Holdsworth, *The History of Remedies Against The Crown,* 38 L.Quar.Rev. 141, 149) and "... it is clear that the petition has assumed the character of a definite legal remedy against the Crown." (*Id.* at p. 150.) There were procedural difficulties with the petition, but alternate remedies existed in large part. (*Id.* at pp. 156-161.)

The main use of the petition of right in the early common law was in real actions, which then covered a wide field. (Holdsworth, *Remedies Against The Crown, supra,* at p. 152.) The basic principle was that the petition was proper "whenever the subject could show a legal right to redress." (*Id.* at p. 156.)

The early precedents may even be read as allowing a petition of right against the king for the torts of his servants. (See the cases of Robert (1325) and Gervais (1349) de Clifton, discussed in Ehrlich, Proceedings Against The Crown, *supra,* at pp. 123-126; Watkins, The State as a Party Litigant, *supra,* at pp. 20 n. 36.) In *Tobin v. The Queen* (1864), 16 C.B.N.S. 309, 111 Eng. Com. Law Rep. 309, however, the court refused to so read the precedents, and held that the crown was not liable for the torts of its servants. This decision arose because of the formalistic and mistaken idea that concepts of vicarious liability did not apply to the crown. (See Holdsworth, *Remedies Against The Crown, supra,* at pp. 294-296; Watkins, The State as a Party Litigant, *supra,* at p. 25.) Under the Crown Proceedings Act, 1947, however, the crown is today liable for the torts of its servants to the same extent as private persons. (Hals. Laws of England, vol. XXXII, §§ 253 A, B [Cum. Sup. 1953].)

One other protection was afforded the subject injured by the king's servants. Many of the king's officers were liable for the wrongs committed, and from the earliest times those officers had to have a sufficient financial standing to make those remedies against them meaningful. (See Ehrlich, Proceedings Against The Crown, *supra,* at pp. 200, 214.)

1 *County of Butte v. Superior Court* (1960), 178 Cal.App.2d 310, 311 [2 Cal.Rptr. 913] (hearing denied); *Ingram v. County of Glenn* (1960), 177 Cal.App.2d 649, 650 [1, 2] [2 Cal.Rptr. 304]; *Durst v. County of Colusa* (1958), 166 Cal.App.2d 623, 625 [1] [333 P.2d 789] (hearing denied); *Madison v. City & County of San Francisco* (1951), 106 Cal.App.2d 232, 244-245 [234 P.2d 995, 236 P.2d 141] (hearing denied); *Latham v. Santa Clara County Hospital* (1951), 104 Cal.App.2d 336, 337 [1] [231 P.2d 513] (hearing denied).

2 The scope of this pronouncement is defined by the further statement (*ante,* p. 220) that "Nor does our decision herein affect the settled rules of immunity of government officials for acts within the scope of their authority. Moreover, since defendant's employees are not immune from liability for their negligence in caring for and treating plaintiff, the question of the extent to which the state should be immune when its officers are is not involved in this case. (See *Lipman v. Brisbane Elementary School Dist., post,* p. 224 [11 Cal.Rptr. 97, 359 P.2d 465].)"

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Declined to Follow by City and County of San Francisco v. Western Air Lines, Inc., Cal.App. 1 Dist., May 28, 1962

25 Cal.App. 384, 143 P. 801

CHARLES O. NOURSE, Appellant,
v.
CITY OF LOS ANGELES (a Municipal Corporation), et al., Respondents.

Civ. No. 1575.
Court of Appeal, Second District, California.
September 8, 1914.

MUNICIPAL CORPORATION--OPERATION OF WATER SYSTEM--PROPRIETARY OR SOVEREIGN CAPACITY.
Where a municipal corporation assumes, under its charter, the duty of operating a water system for the purpose of supplying its inhabitants with water, it acts, not in its sovereign capacity, but in the capacity of a private corporation engaged in like business.

ID.--SUPPLY OF WATER--DUTY TO FURNISH WITHOUT DISCRIMINATION.
In such case it is the duty of the city, like a private corporation, to furnish without discrimination to all its inhabitants who apply therefor a supply of water upon their compliance with such reasonable rules and regulations as it may lawfully establish for the conduct of the business.

ID.--RULES AND REGULATIONS--PAYMENT OF ARREARAGE OF FORMER OCCUPANT AS CONDITION PRECEDENT TO FURNISHING WATER.
A rule adopted by the city that all water rates shall be charged against the property on which it is furnished, and against the owner thereof, and in case of delinquency the water shall be cut off and not turned on until the payment of the delinquency, irrespective of any change in the ownership or occupancy of the property, is unreasonable and discriminatory as against an occupant of property whose predecessors are in default but who has himself complied with all the regulations established as conditions precedent to the furnishing of water; there being no statute or charter provision conferring authority on the city to adopt such a regulation.

ID.--MANDAMUS--WHEN LIES TO COMPEL CITY TO FURNISH WATER.
In such circumstances the applicant for water is entitled to a peremptory writ of *mandamus* to compel the city to supply him.

APPEAL from a judgment of the Superior Court of Los Angeles County. John W. Shenk, Judge.

The facts are stated in the opinion of the court.

***384** Paul Nourse, and John Beman, for Appellant.
Albert Lee Stephens, City Attorney, and Charles S. Burnell, Assistant City Attorney, for Respondents.

SHAW, J.

This is an appeal from a judgment of the trial court denying an application for a peremptory writ of mandate ***385** commanding the board of public service commissioners of the city of Los Angeles to furnish petitioner a supply of water for use at the premises designated as No. 147 West Avenue 31 in the city of Los Angeles.

At all the times in question the city of Los Angeles owned and operated a water system by means of which water was supplied to said city and its inhabitants, and with the pipes and mains of which system the said premises of petitioner were connected. Among other rules and regulations established by ordinance for the supplying of water to the inhabitants of the city, was a provision as follows:

"All water rates shall be charged against the property on which it is furnished, and against the owner thereof, and if for any cause any sums owing therefor become delinquent, the water shall be cut off, and in no case shall it be turned on to the same property until all such delinquencies shall have been paid in full. No change of ownership or occupation shall affect the application of this section."

On October 27, 1913, petitioner made demand upon respondents for a supply of water for use upon said premises, to be delivered through the pipes connecting same with the said water system, and in making the

demand he complied with all the rules and regulations established therefor, save and except that he refused to pay respondents the sum of $1.50, conceded to be due for water theretofore supplied for use upon said premises by a former occupant thereof. The sole question here involved is the validity of the provision above set forth by reason of which respondents seek to exact payment of this arrearage due for water used upon the premises by the former occupant thereof as a condition of furnishing petitioner the supply of water so demanded.

Under its charter the city has assumed the duty of operating a water system for the purpose of supplying water to its inhabitants. In the performance of this duty it acts, not in its sovereign capacity, but in the capacity of a private corporation engaged in like business. (*Appeal of Brumm,* (Pa.) 12 Atl. 855; *Linne v. Bredes,* 43 Wash. 540, [117 Am. St. Rep. 1068, 6 L. R. A. (N. S.) 707, 86 Pac. 858]; 1 Wyman on Public Service Corporations, p. 187.) Like a private corporation, it is the duty of the city to furnish without discrimination to all its inhabitants who apply therefor a supply of water upon such applicants complying with such reasonable ***386** rules and regulations as it may lawfully establish for the conduct of the business. The question is whether or not the provision upon the authority of which respondents base their refusal to supply the water is, in the absence of any statute authorizing the same, a reasonable regulation. Respondents have directed our attention to a number of cases wherein provisions similar to the one under discussion have been upheld. From an examination thereof it appears that in all the cases cited there existed a statute upon the authority of which the provision was enacted. (See *Howe v. City of Orange,* 70 N. J. Eq. 648, [62 Atl. 777]; *Appeal of Brumm,* (Pa.) [12 Atl. 855]; *City of Atlanta v. Burton,* 90 Ga. 486, [16 S. E. 214].) Where such right is conferred by statute or the organic law of the city, it can of course be asserted and enforced by ordinance embodying such rules and regulations. The city charter contains nothing touching the subject, and the general statutes of the state are silent in conferring such power. This being the case, the authority to enact the provision under discussion, if it exists at all, is by virtue of the general incidental power of the municipality. The provisions of ordinances enacted under such implied power must be reasonably necessary to carry out the express powers conferred and not inconsistent with the laws or policy of the state. (*Ex parte Green,* 94 Cal. 387, [29 Pac. 783]; *Egan v. City of San Francisco,* 165 Cal. 576, [133 Pac. 294].) The ordinance fixing the rules and regulations provides that "all rates, except meter rates, are due and payable in advance, and meter rates are due and payable at the end of the month, excepting that a deposit may be required thereon in an amount not exceeding the estimated quantity of water consumed." It appears the water was supplied to the former occupant of the premises in question by meter, and therefore the rates were not due until the expiration of the month. But under the provision just quoted the city could have exacted a deposit in an amount equal to the estimated value of the quantity of water to be supplied, thus fully protecting itself against loss. It is therefore an unnecessary regulation and as applied to petitioner, unreasonable in that, while he is not in arrears for any water furnished to him or supplied to another upon his order, it is nevertheless insisted that he pay the debt of another as a prerequisite condition to the city performing its duty to supply water to all its inhabitants without discrimination, ***387** and for a like reason is discriminatory against petitioner. While respondents do not seek directly to enforce payment of the charge against the property, they do, in withholding a legal right and by thus destroying the use of the property as a habitation, indirectly seek to compel petitioner to pay such charge. In addition to the authorities cited by respondents wherein the validity of the provision here attacked was upheld by reason of statutory authority, they have cited the cases of *Jones v. Mayor,* 109 Tenn. 550, [72 S. W. 985], and *Sheward v. Citizens' Water Co.,* 90 Cal. 635, [27 Pac. 439]. These cases are clearly distinguished from that at bar by reason of the fact that the applicant for water was himself in arrears and had made default in payment for water which had been theretofore supplied to him. Our conclusion is that the regulation in question is unreasonable in that, without statutory authority therefor, it makes one person liable for the debts of another and contravenes the duty assumed by the city to serve all its inhabitants without discrimination. This view is sustained by overwhelming authority. (See *Chicago v. Northwestern Mut. Life Ins. Co.,* 218 Ill. 40, [1 L. R. A. (N. S.) 770, 75 N. E. 803]; *Turner v. Revere Water Co.,* 171 Mass. 329, [68 Am. St. Rep. 432, 40 L. R. A. 657, 50 N. E. 634]; *Linne v. Bredes,* 43 Wash. 540, [[[[117 Am. St. Rep. 1068, 6 L. R. A. (N. S.) 707, 86 Pac. 858]; *City of Houston v. Lockwood Inv. Co.,* (Tex. Civ. App.) 144 S. W. 685; *Harbison v. Knoxville Water Co.,* (Tenn.) 53 S. W. 995.)

The judgment is reversed and the trial court instructed to render judgment awarding petitioner a peremptory writ of mandate as prayed for.

A petition to have the cause heard in the supreme court, after judgment in the district court of appeal, was denied by the supreme court on November 7, 1914.

Conrey, P. J., and James, J., concurred.

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KeyCite Yellow Flag - Negative Treatment
Distinguished by Akers v. City of Palo Alto, Cal.App. 1 Dist., July 24, 1961

123 Cal.App.2d 103, 266 P.2d 523

LEAH PLAZA, Appellant,
v.
THE CITY OF SAN MATEO et al., Respondents.

Civ. No. 15672.
District Court of Appeal, First District, Division 1, California.
Feb. 8, 1954.

HEADNOTES

(1)
Municipal Corporations § 97--General Powers--Governmental and Proprietary Powers.
Powers of a municipal corporation are denominated, on one hand, governmental, legislative or public, and on the other, proprietary or private.

(2)
Municipal Corporations § 439--Torts--Acts in Proprietary Capacity.
When operating a facility in a proprietary capacity, a municipality, like a private operator, owes invitees the duty of exercising ordinary care for their safety.

See **Cal.Jur.,** Municipal Corporations, § 343 et seq.; **Am.Jur.,** Municipal Corporations, § 572 et seq.

(3)
Municipal Corporations § 439--Torts--Acts in Governmental Capacity.
It is only where statutes give a right of action that an action can be maintained against a municipality to recover for damage inflicted by municipality in exercise of its governmental functions.

(4)
Municipal Corporations § 439--Torts--Acts in Governmental Capacity.
Liability of a municipality acting in its governmental capacity is confined to those instances set forth in Gov. Code, § 53051, and liability of officers and employees is governed by §§ 1953-2002 of that code.

(5)
Municipal Corporations § 441--Torts--What Are Proprietary Functions.
It is nature of municipal activity, not its location, nor by what department it is carried on, nor fact that facility may also be used for governmental purposes, that determines its proprietary character.

(6)
Municipal Corporations § 441--Torts--What Are Proprietary Functions.
Charging a fee for use of facility provided by municipality does not establish operation of facility as a proprietary function.

(7)
Municipal Corporations § 440, 441--Torts--What Are Governmental and Proprietary Functions.
Public education, training for self-preservation and good citizenship, and fostering and safeguarding of public health are governmental functions, whereas providing mere amusement or entertainment is not.

(8)
Municipal Corporations § 439--Torts--Acts in Proprietary Capacity.
Since primary purpose served by operation of a public golf course is pleasure or amusement, a city acts in its proprietary capacity in operating a municipal golf course; it therefore owes its invitees the duty of exercising ordinary care for their safety, and may be liable for injury suffered by an invitee when struck by a golf ball if injury proximately resulted from city's negligence.

(9)
Pleading § 103(1)--Demurrer--Amendment After Demurrer Sustained.
Unless it is clear that a complaint does not state a cause of action and cannot be so amended as to obviate objections thereto, it is error to refuse permission to amend.

SUMMARY

APPEAL from a judgment of the Superior Court of San Mateo County. Aylett R. Cotton, Judge. Reversed with directions.

Action for damages for personal injuries. Judgment for defendants after sustaining demurrer to complaint without leave to amend, reversed with directions.

COUNSEL
Saul N. Ross for Appellant.
Clark & Heafey, Edwin A. Heafey, Schofield & Hannegan and Gerald P. Martin for Respondents. ***105**

FINLEY, J. pro tem. *

This appeal is from a judgment entered in favor of respondents city of San Mateo and Matt Thiltgen after their demurrer to appellant's complaint was sustained without leave to amend.

It is alleged in the complaint that the city of San Mateo is a municipal corporation; that it operated the San Mateo Municipal Golf Course to which the public was invited; that at the time of appellant's injury defendant Tom Fry was employed by the city as a golf professional and respondent Matt Thiltgen as recreational director; that on May 24, 1952, after paying the required admission fee and completing a round of golf, appellant, while at or near her car in the parking lot provided by the city, was struck in the mouth and injured by a golf ball driven from the golf course by defendant Patsy Yeakey.

It is claimed by appellant that the city of San Mateo, Tom Fry and Matt Thiltgen are liable in damages because of their negligence in managing the golf course and in failing to provide proper protection and proper facilities for the protection of paying patrons. It is claimed in particular "that they permitted a dangerous and defective condition to prevail in failing to provide a fence of sufficient height to protect persons using the parking area and clubhouse from golf balls driven by persons using the golf course proper." (C.T. 6.) It is further alleged that for a long time prior to appellant's injury the claimed dangerous and defective condition existed and was known to employees and officers of the city of San Mateo, who possessed the authority to remedy the dangerous and defective condition but that they failed to do so. It is also alleged that appellant presented her claim against the city of San Mateo, Matt Thiltgen and Tom Fry, which claim was rejected.

The complaint is in two counts. In the first Patsy Yeakey is charged with negligence in driving the golf ball which struck appellant. She defaulted. The other defendants are all charged in the second cause of action. Tom Fry, the golf professional, filed his answer.

In sustaining the demurrer of the city of San Mateo and Matt Thiltgen without leave to amend the court ruled in effect that no cause of action founded upon negligence or upon violation of the public liability statutes could be stated against these defendants on account of injury sustained by a ***106** paying patron who had been struck by a golf ball driven by a third party. The question before us is not whether appellant's present complaint is demurrable, but whether in view of the facts alleged there could possibly be a cause of action stated against the demurring parties.

([1]) The powers of a municipal corporation are denominated, on the one hand, governmental, legislative or public; and on the other proprietary or private. (*Chafor v. City of Long Beach,* 174 Cal. 478 [163 P. 670, Ann.Cas. 1918D 106, L.R.A. 1917E 685]; *Rhodes v. City of Palo Alto,* 100 Cal.App.2d 336 [223 P.2d 639].)

Whether appellant could state a cause of action outside the scope of the public liability statutes against the city of San Mateo depends upon whether it is acting in its governmental capacity or in its proprietary capacity in operating a public golf course and in charging for the privilege of using its facilities. ([2]) The significance of this is founded on the well- settled rule that, "When operating a facility in a proprietary capacity, a city, as does a private operator, owes its invitees the duty of exercising ordinary care for their safety." (*Rhodes v. City of Palo Alto,* 100 Cal.App.2d 336, 341 [223 P.2d 639]; *Sanders v. City of Long Beach,* 54 Cal.App.2d 651 [129 P.2d 511].)

([3]) "It is only where statutes give a right of action that an action can be maintained [against a municipality] to recover damages inflicted by a city in the exercise of its governmental functions." (*Pittam v. City of Riverside,* 128 Cal.App. 57, at p. 61 [16 P.2d 768]; *Kellar v. City of Los Angeles,* 179 Cal. 605 [178 P. 505]; *Miller v. City of Palo Alto,* 208 Cal. 74 [280 P. 108].) ([4]) In acting in its governmental capacity its liability is confined to those specific instances set forth in section 53051 of the Government Code, and liability of officers and

employees is governed by sections 1953-2002 of that code. Accordingly, there would be liability only for a dangerous or defective condition of public property, and then only if those authorized to remedy the condition had knowledge or notice and failed within a reasonable time to take action to remedy it, or to take action reasonably necessary to protect the public against the condition. If all of the required elements are present, liability would attach, regardless of whether the use to which it is being put is governmental or proprietary in nature. Respondents urge that the complaint does not and cannot state a cause of action against these defendants under ***107** Government Code, sections 1953 and 53051. One point urged is that it contains no allegation that the San Mateo Municipal Golf Course is public property owned by the city of San Mateo. It is admitted in respondents' brief, however (page 7), that "Some time subsequent to the adoption and filing of its Charter with the Secretary of State, the City of San Mateo became the owner and operator of the San Mateo Municipal Golf Course." Thus it is obvious that the complaint could have been amended to cure the defect complained of.

Respondents also urge that the only dangerous or defective condition relied upon by appellant to bring the cause of action under the Public Liability Acts is the height of the fence between the golf course proper and the parking lot. This is a specific allegation. It is, however, preceded by more general allegations, and in light of the decision in *Bauman v. San Francisco,* 42 Cal.App.2d 144 [108 P.2d 989], we cannot agree that the height of the fence is the only dangerous or defective condition complained of which could fall within the provisions of the Public Liability Acts.

In *Bauman v. San Francisco, supra,* 42 Cal.App.2d 144, action was brought under the Public Liability Act on behalf of a 5-year-old child who was struck on the head by a baseball while playing in a sand box in an area set aside for small children on a public playground. The balance of the playground was in lawn and there was no fence or other protection between the area set aside for the small children and the balance of the playground. The baseball was batted by one of a group of boys playing ball on the portion outside the small children's area.

In discussion the court used the following language, at page 152: "There can be no doubt that, under the terms of the Public Liability Act, the liability of the appellant, if any, must be predicated upon a showing that the playground was dangerous or defective." And further on: (p. 153) "It has frequently been stated that no hard-and-fast rule can be laid down as to what constitutes a dangerous or defective condition, but that each case must depend upon its own state of facts. [Citing cases.] It is also well-settled that as a general rule it is a question of fact for the jury to determine whether a given set of facts or circumstances creates a dangerous or defective condition. [Citing cases.]"

And further on in the opinion (p. 153): "The jury was justified in finding that the playground was dangerous and defective for any of the following reasons: That the playground ***108** was rendered dangerous or defective by the negligence of appellant in permitting the playing of hard baseball in dangerous proximity to the sand box; that under the circumstances here existing it was the duty of appellant, if hard baseball was to be permitted to be played in the north end of the field, to erect some barrier for the protection of those playing in the small children's section; or the appellant negligently failed to properly supervise the playground by either failing to prevent the boys from playing hard baseball in dangerous proximity to the small children's section or in negligently failing to keep the small children away from the sand box while hard baseball was being played nearby. There can be no doubt that a dangerous or defective condition can be created by the use or general plan of operation of government operated property, as well as by a structural defect." (Citing *Huff v. Compton City Grammar Sch. Dist.,* 92 Cal.App. 44 [267 P. 918].)

In *Fackrell v. City of San Diego,* 26 Cal.2d 196 [157 P.2d 625, 158 A.L.R. 625], the court in discussing the question of inherent danger in connection with the layout of a city street had this to say, at page 204: "If the improvement is designed to be used without inspection and maintenance and under varying conditions which are normally to be anticipated then it should be made reasonably safe for ordinary use under all of those conditions and if, under any one or more of them, it is, or naturally will become, unsafe for such use because of its planned design then it is inherently dangerous." (See, also, *Moore v. Burton,* 75 Cal.App. 395 [242 P. 902]; *Mulder v. City of Los Angeles,* 110 Cal.App. 663 [294 P. 485]; *George v. City of Los Angeles,* 11 Cal.2d 303 [79 P.2d 723]; *Sandstoe v. Atchison, T. & S. F. Ry. Co.,* 28 Cal.App.2d 215 [82 P.2d 216]; *Bigelow v. Ontario,* 37 Cal.App.2d 198 [99 P.2d 298].)

On the question of whether liability attaches under the Public Liability Act where the act of a third person is partially responsible for injury, such as the act here of Patsy Yeakey in driving the golf ball, the court in *Bauman v. San Francisco, supra,* 42 Cal.App.2d 144, at page 154, has this to say: "The cases are legion that the question of proximate cause is primarily one of fact for the jury. The negligence of the defendant need not be the sole cause of the injury-as long as it is one of the proximate causes, the mere fact that such negligence concurs with that of an independent actor does not break the chain of causation. [Citing cases.] That this doctrine applies where the negligent act of a third person ***109** concurs with a dangerous or defective condition created by a city in causing an injury, so as to impose liability on the city under the Public Liability Act, was expressly held in *Bosqui v. City of San Bernardino,* 2 Cal.2d 747 [43 P.2d 547]." In the present case we have in substance an almost identical situation as in *Bauman v. San Francisco, supra,* 42 Cal.App.2d 144, excepting that a golf course instead of a children's playground is here involved.

It becomes obvious upon reading the complaint that it is vulnerable in its present form to special demurrer in not separately stating different causes of action. Assuming that the city was acting in its governmental capacity, it is also subject to general demurrer under the provisions of Government Code, section 53051, in not alleging or stating facts to show that the San Mateo Golf Course is public property, and further, in not alleging that the dangerous or defective condition complained of was a proximate cause of appellant's injury. There is nothing in the facts alleged, however, to warrant the trial court in sustaining the demurrer without leave to amend.

Turning now to the question of the city's liability for alleged negligence on the part of its agents, officers and employees, there seems to be no positive rule by which it can be determined whether certain functions performed by municipalities are governmental or proprietary in nature. It would not be liable for such negligence unless in operating the golf course it was acting in its proprietary capacity.

Among the activities engaged in by municipalities in California which were held to be proprietary in nature are: A community theater, together with the parking lot used in connection therewith (*Rhodes v. City of Palo Alto,* 100 Cal.App.2d 336 [223 P.2d 639]; a municipal auditorium, *Chafor v. City of Long Beach,* 174 Cal. 478 [163 P. 670, Ann.Cas. 1918D 106, L.R.A. 1917E 685]; the operation of a housing project, *Muses v. Housing Authority,* 83 Cal.App.2d 489 [189 P.2d 305]; a hospital, *Beard v. City & County of San Francisco,* 79 Cal.App.2d 753 [180 P.2d 744]).

Activities conducted by California municipalities which were held to be governmental in nature are: A public playground, (*Schmidt v. City of Vallejo,* 122 Cal.App. 5 [10 P.2d 107]; and *Kellar v. City of Los Angeles,* 179 Cal. 605 [178 P. 505]); the operation of a miniature train in a public park, (*Meyer v. San Francisco,* 9 Cal.App.2d 361 [49 P.2d 893]); the operation of a swimming pool, (***110** *Crone v. City of El Cajon,* 133 Cal.App. 624 [24 P.2d 846]); the maintenance and operation of a boys' summer camp in the mountains, (*Kellar v. City of Los Angeles,* 179 Cal. 605 [178 P. 505]); the operation of a drawbridge, (*Bettencourt v. State of California, ante,* p. 60 [266 P.2d 201].)

([5]) As stated in *Rhodes v. City of Palo Alto,* 100 Cal.App.2d 336, page 341 [223 P.2d 639], and approved in *Guidi v. State of California,* 41 Cal.2d 623 [262 P.2d 3]: "It is the nature of the activity, not its location, nor by what department carried on, nor the fact that the facility may also be used for governmental purposes, that determines its proprietary character."

Suffice it to say, without reproducing all of the reasoning that has gone into the subject, that no rule of thumb has been evolved which can be applied with certainty as each case arises. For the present at least, each new activity claiming the courts' attention must be decided on its own peculiar facts. The operation of public parks and playgrounds has been held to be governmental in nature because they promote the public health and partake in no degree of the nature of a private enterprise, (*Schmidt v. City of Vallejo, supra,* 122 Cal.App. 5, and *Kellar v. City of Los Angeles, supra,* 179 Cal. 605). In the Kellar case the principle was extended to cover a boys' summer camp, not in a public park or playground, but in the mountains, and maintained by the city, at which a weekly fee was charged for board, lodging and care. In *Crone v. City of El Cajon, supra,* 133 Cal.App. 624, it may perhaps be said that it was further extended to cover a swimming pool maintained by the city during the summer months "for the *pleasure* of its citizens." (Italics added.) (P. 626.) Small fees were charged but these were not enough to pay the cost of operation.

([6]) Thus we see that the charging of a fee for use is not the determining factor nor, in view of the Crone case, is physical health alone the distinguishing factor, for it is stated in that case that the swimming pool was maintained "for the *pleasure* of its citizens." (Italics added.) It cannot be denied, however, that swimming is one of the more general and healthful of physical activities.

It would seem, too, that pleasure or amusement and not health would be the principal consideration in an instance such as in *Meyer v. San Francisco, supra,* 9 Cal.App.2d 361, where the city was held to be acting in its governmental capacity in operating a miniature train in one of the city parks. In ***111** principle we can see but little difference between the operation of a miniature train in a public park for the pleasure or entertainment of children and their parents and the operation by a city of a community theater with its accompanying parking lot, both situate in a public park, as in *Rhodes v. City of Palo Alto, supra,* 100 Cal.App.2d 336, or in the operation by the city of a municipal auditorium, as in *Chafor v. City of Long Beach, supra,* 174 Cal. 478. In each case the facility is operated primarily for the business, pleasure or entertainment of the public. Physical exercise or recreation is not involved in either. The only difference is that the miniature train is operated out in the open air while theater and auditorium activities take place inside. This might be considered a public health factor but it has not been so mentioned in the decisions.

It may be said that there is more similarity between the operation of a golf course and a swimming pool or boys' summer camp than there is between the operation of a golf course and a theater or auditorium. But what is the primary purpose behind each of them? ([7]) If any general conclusion is to be drawn from a consideration of the cases, it is that public education, training for self preservation and good citizenship, and the fostering and safeguarding of public health are governmental functions, while the providing of mere amusement or entertainment is not. (*Guidi v. State of California,* 41 Cal.2d 623 [262 P.2d 3].) It must be conceded that time spent by a boy in a summer camp is to a degree educational, and if nothing more, training in cooperation and good citizenship. It is a matter of self preservation that all who are physically able should learn to swim for who can tell when it may be a factor in saving not only the life of the swimmer, but also the lives of others.

The underlying purpose behind the playing of a game of golf, however, is undoubtedly pleasure or amusement. True, it provides some exercise and gets the player out into the fresh air and sunshine, but a walk in the park would serve the same purpose. Golf is a game of skill and rivalry, with a decided social aspect, and it is doubtful that most people who play consider health benefits to be the primary objective. Some even ride between shots in small vehicles designed for this purpose, and have caddies to carry their clubs and equipment, which indicates that exercise is for them not the foremost consideration. A golf course does not serve the public generally but only those who play the game. It is designed ***112** for a single purpose, while a public park is devoted to no specific use and serves many purposes for the public in general. Many private golf courses are maintained, some for profit, and others as an adjunct to private clubs or associations. It is true that a public golf course undoubtedly makes the sport available to a segment of our population to which private courses would not be accessible, but this alone does not constitute it a governmental function. It is actually in competition with other courses, and in its clubhouse commercial enterprises usually are carried on where commercial rates are charged for commodities and services.

([8]) We are satisfied, therefore, that the primary purpose served by the operation of a public golf course is pleasure or amusement, and that in the present case the city of San Mateo was acting in its proprietary capacity and therefore owed its invitees the duty of exercising ordinary care for their safety.

Nothing appears in the complaint to indicate that it cannot be amended, either as to the city of San Mateo or as to Matt Thiltgen. If essential facts are not alleged, and it is not obvious from the complaint that they cannot be supplied, or if distinct causes of action are not separately stated, these deficiencies can be corrected by amendment. (*Coleman v. City of Oakland,* 110 Cal.App. 715 [295 P. 59].) ([9]) Unless it is clear that a complaint does not state a cause of action and cannot be so amended as to obviate the objections thereto, it is error to refuse permission to amend. (*Hillman v. Hillman Land Co.,* 81 Cal.App.2d 174 [183 P.2d 730].)

The judgment is therefore reversed with instructions to the trial court to permit appellant to amend her complaint.

Respondents' petition for a hearing by the Supreme Court was denied March 31, 1954. ***113**

Peters, P. J., and Bray, J., concurred.

Footnotes

* Assigned by Chairman of Judicial Council.

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55 Cal.App.4th 976, 64 Cal.Rptr.2d 270, 97 Cal. Daily Op. Serv. 4510, 97 Daily Journal D.A.R. 7464

REDEVELOPMENT AGENCY OF THE CITY OF SAN MARCOS, Plaintiff and Appellant,
v.
CALIFORNIA COMMISSION ON STATE MANDATES, Defendant and Respondent;
CALIFORNIA DEPARTMENT OF FINANCE, Intervener and Respondent.

No. D026195.
Court of Appeal, Fourth District, Division 1, California.
May 30, 1997.

SUMMARY

The trial court denied a petition for a writ of administrative mandate brought by a city's redevelopment agency that challenged the California Commission on State Mandates' denial of the agency's test claim under Gov. Code, § 17550 et seq. (reimbursement of costs mandated by the state). In its claim, the agency sought a determination that the State of California should reimburse the agency for moneys transferred into its lowand moderate-income housing fund pursuant to Health & Saf. Code, §§ 33334.2 and 33334.3, of the Community Redevelopment Law. Those statutes require a 20 percent deposit of the particular form of financing received by the agency (tax increment financing generated from its project areas) for purposes of improving the supply of affordable housing. The agency claimed that this tax increment financing should not be subject to state control of the allocations made to various funds and that such control constituted a state-mandated new program or higher level of service for which reimbursement or subvention was required under Cal. Const., art. XIII B, § 6. The trial court found that the source of funds used by the agency was exempt, under Health & Saf. Code, § 33678, from the scope of Cal. Const., art. XIII B, § 6. (Superior Court of San Diego County, No. 686818, Sheridan E. Reed and Herbert B. Hoffman, Judges.)

The Court of Appeal affirmed. It held that under Health & Saf. Code, § 33678, which provides that tax increment financing is not deemed to be the "proceeds of taxes," the source of funds used by the agency was exempt from the scope of Cal. Const., art. XIII B, § 6. Although Cal. Const., art. XIII B, § 6, does not expressly discuss the source of funds used by an agency to fund a program, the historical and contextual context of this provision demonstrates that it applies only to costs recovered solely from tax revenues. Because of the nature of the financing they receive (i.e., tax increment financing), redevelopment agencies are not subject to appropriations limitations or spending caps, they do not expend any proceeds of taxes, and they do not raise general revenues for the local entity. Also, the state is not transferring any program for which it was formerly responsible. Therefore, the purposes of state subvention laws are not furthered by requiring reimbursement when redevelopment agencies are required to allocate their tax increment financing in a particular manner, as in the operation of Health & Saf. Code, §§ 33334.2 and 33334.3. (Opinion by Huffman, J., with Work, Acting P. J., and McIntyre, J., concurring.)

HEADNOTES

Classified to California Digest of Official Reports

(1)
State of California § 11--Fiscal Matters--Subvention:Words, Phrases, and Maxims--Subvention.
"Subvention" generally means a grant of financial aid or assistance, or a subsidy.

(2)
State of California § 11--Fiscal Matters--Subvention--Judicial Rules.
Under Gov. Code, § 17559, review by administrative mandamus is the exclusive method of challenging a decision of the California Commission on State Mandates to deny a subvention claim. The determination whether the statutes at issue established a mandate under Cal. Const., art. XIII B, § 6, is a question of law. On appellate review, the following standards apply: Gov. Code, § 17559, governs the proceeding below and requires that the trial court review the decision of the commission under the substantial evidence standard. Where the substantial evidence test is applied by the trial court, the appellate court is generally confined to inquiring whether substantial evidence supports the trial court's findings and judgment. However, the appellate court independently reviews the trial court's legal conclusions

about the meaning and effect of constitutional and statutory provisions.

(3a, 3b)
State of California § 11--Fiscal Matters--Subvention--State-mandated Costs--Statutory Set-aside Requirement for Local Redevelopment Agency's Tax Increment Financing.
The California Commission on State Mandates properly denied a test claim brought by a city's redevelopment agency seeking a determination that the state should reimburse the agency for moneys transferred into its lowand moderate-income housing fund pursuant to Health & Saf. Code, §§ 33334.2 and 33334.3, which require a 20 percent deposit of the particular form of financing received by the agency, i.e., tax increment financing generated from its project areas. Under Health & Saf. Code, § 33678, which provides that tax increment financing is not deemed to be the "proceeds of taxes," the source of funds used by the agency was exempt from the scope of Cal. Const., art. XIII B, § 6 (subvention). Although Cal. Const., art. XIII B, § 6, does not expressly discuss the source of funds used by an agency to fund a program, the historical and contextual context of this provision demonstrates that it applies only to costs recovered solely from tax revenues. Because of the nature of the financing they receive (i.e., tax increment financing), redevelopment agencies are not subject to appropriations limitations or spending caps, they do not expend any proceeds of taxes, and they do not raise general revenues for the local entity. Also, the state is not transferring any program for which it was formerly responsible. Therefore, the purposes of state subvention laws are not furthered by requiring reimbursement when redevelopment agencies are required to allocate their tax increment financing in a particular manner, as in the operation of Health & Saf. Code, §§ 33334.2 and 33334.3.

[See 9 Witkin, Summary of Cal. Law (9th ed. 1989) Taxation, § 123.]

(4)
Constitutional Law § 10--Construction of Constitutional Provisions-- Limitations on Legislative Powers.
The rules of constitutional interpretation require a strict construction of a constitutional provision that contains limitations and restrictions on legislative powers, because such limitations and restrictions are not to be extended to include matters not covered by the language used.

(5)
State of California § 11--Fiscal Matters--Subvention--Purpose of Constitutional Provisions.
The goal of Cal. Const., arts. XIII A and XIII B, is to protect California residents from excessive taxation and government spending. A central purpose of Cal. Const., art. XIII B, § 6 (reimbursement to local government of state-mandated costs), is to prevent the state's transfer of the cost of government from itself to the local level.

COUNSEL
Higgs, Fletcher & Mack and John Morris for Plaintiff and Appellant.
Gary D. Hori for Defendant and Respondent. ***979**
Daniel E. Lungren, Attorney General, Robert L. Mukai, Chief Assistant Attorney General, Linda A. Cabatic and Daniel G. Stone, Deputy Attorneys General, for Intervener and Respondent.

HUFFMAN, J.

The California Commission on State Mandates (the Commission) denied a test claim by the Redevelopment Agency of the City of San Marcos (the Agency) (Gov. Code, § 17550 et seq.), which sought a determination that the State of California should reimburse the Agency for moneys transferred into its Low and Moderate Income Housing Fund (the Housing Fund) pursuant to Health and Safety Code [1] sections 33334.2 and 33334.3. Those sections require a 20 percent deposit of the particular form of financing received by the Agency, tax increment financing generated from its project areas, for purposes of improving the supply of affordable housing. ([1])**(See fn. 2)**The Agency claimed that this tax increment financing should not be subject to state control of the allocations made to various funds and that such control constituted a state-mandated new program or higher level of service for which reimbursement or subvention was required under article XIII B of the California Constitution, section 6 (hereafter section 6; all further references to articles are to the California Constitution). [2] (Cal. Const., art. XVI, § 16; § 33670.)

The Agency brought a petition for writ of administrative mandamus to challenge the decision of the Commission. (Code Civ. Proc., § 1094.5; Gov. Code, § 17559.) The

superior court denied the petition, ruling that the source of funds used by the Agency for redevelopment, tax increment financing, was exempt pursuant to section 33678 from the scope of section 6, as not constituting "proceeds of taxes" which are governed by that section. The superior court did not rule upon the alternative grounds of decision stated by the Commission, i.e., the 20 percent set-aside requirement for lowand moderate-income housing did not impose a new program or higher level of service in an existing program within the meaning of section 6, and, further, there were no costs subject to reimbursement related to the Housing Fund because there was no net increase in the aggregate program responsibilities of the Agency.

The Agency appeals the judgment denying its petition for writ of mandate. For the reasons set forth below, we affirm. ***980**

I. Procedural Context

This test claim was litigated before the Commission pursuant to statutory procedures for determining whether a statute imposes state-mandated costs upon a local agency which must be reimbursed, through a subvention of funds, under section 6. (Gov. Code, § 17500 et seq.)[3] The Commission hearing consisted of oral argument on the points and authorities presented.

([2]) Under Government Code section 17559, review by administrative mandamus is the exclusive method of challenging a Commission decision denying a subvention claim. "The determination whether the statutes here at issue established a mandate under section 6 is a question of law. [Citation.]" (*County of San Diego v. State of California* (1997) 15 Cal.4th 68, 109 [61 Cal.Rptr.2d 134, 931 P.2d 312].) On appellate review, we apply these standards: "Government Code section 17559 governs the proceeding below and requires that the trial court review the decision of the Commission under the substantial evidence standard. Where the substantial evidence test is applied by the trial court, we are generally confined to inquiring whether substantial evidence supports the court's findings and judgment. [Citation.] However, we independently review the superior court's legal conclusions about the meaning and effect of constitutional and statutory provisions. [Citation.]" (*City of San Jose v. State of California* (1996) 45 Cal.App.4th 1802, 1810 [53 Cal.Rptr.2d 521].)

II. Statutory Schemes

Before we outline the statutory provisions setting up tax increment financing for redevelopment agencies, we first set forth the Supreme Court's recent summary of the history and substance of the law applicable to state mandates, such as the Agency claims exist here: "Through adoption of Proposition 13 in 1978, the voters added article XIII A to the California Constitution, which 'imposes a limit on the power of state and local governments to ***981** adopt and levy taxes. [Citation.]' [Citation.] The next year, the voters added article XIII B to the Constitution, which 'impose[s] a complementary limit on the rate of growth in governmental spending.' [Citation.] These two constitutional articles 'work in tandem, together restricting California governments' power both to levy and to spend for public purposes.' [Citation.] Their goals are 'to protect residents from excessive taxation and government spending. [Citation.]' [Citation.]" (*County of San Diego v. State of California*, *supra*, 15 Cal.4th at pp. 80-81.)

Section 6, part of article XIII B and the provision here at issue, requires that whenever the Legislature or any state agency mandates a "new program or higher level of service" on any local government, " 'the state shall provide a subvention of funds to reimburse such local government for *the costs of such program* or increased level of service ....' " (*County of San Diego v. State of California*, *supra*, 15 Cal.4th at p. 81, italics added.) Certain exceptions are then stated, none of which is relevant here.[4]

In *County of San Diego v. State of California*, *supra*, 15 Cal.4th at page 81, the Supreme Court explained that section 6 represents a recognition that together articles XIII A and XIII B severely restrict the taxing and spending powers of local agencies. The purpose of the section is to preclude the state from shifting financial responsibility for governmental functions to local agencies, which are ill equipped to undertake increased financial responsibilities because they are subject to taxing and spending limitations under articles XIII A and XIII B. (*County of San Diego v. State of California*, *supra*, at p. 81.)

To evaluate the Agency's argument that the provisions of sections 33334.2 and 33334.3, requiring a deposit into the housing fund of 20 percent of the tax increment

financing received by the Agency, impose this type of reimbursable governmental program or a higher level of service under an existing program, we first review the provisions establishing financing for redevelopment agencies. Such agencies have no independent powers of taxation (***982** *Huntington Park Redevelopment Agency v. Martin* (1985) 38 Cal.3d 100, 106 [211 Cal.Rptr. 133, 695 P.2d 220]), but receive a portion of tax revenues collected by other local agencies from property within a redevelopment project area, which may result from the following scheme: "Redevelopment agencies finance real property improvements in blighted areas. Pursuant to article XVI, section 16 of the Constitution, these agencies are authorized to use tax increment revenues for redevelopment projects. The constitutional mandate has been implemented through the Community Redevelopment Law (Health & Saf. Code, § 33000 et seq.). [¶] The Community Redevelopment Law authorizes several methods of financing; one is the issuance of tax allocation bonds. Tax increment revenue, the increase in annual property taxes attributable to redevelopment improvements, provides the security for tax allocation bonds. Tax increment revenues are computed as follows: The real property within a redevelopment project area is assessed in the year the redevelopment plan is adopted. Typically, after redevelopment, property values in the project area increase. The taxing agencies (e.g., city, county, school or special district) keep the tax revenues attributable to the original assessed value and pass the portion of the assessed property value which exceeds the original assessment on to the redevelopment agency. (Health & Saf. Code, §§ 33640, 33641, 33670, 33675). In short, tax increment financing permits a redevelopment agency to take advantage of increased property tax revenues in the project areas without an increase in the tax rate. This scheme for redevelopment financing has been a part of the California Constitution since 1952. (Cal. Const., art. XVI, § 16.)" (*Brown v. Community Redevelopment Agency* (1985) 168 Cal.App.3d 1014, 1016-1017 [214 Cal.Rptr. 626].) [5]

In *Brown v. Community Redevelopment Agency*, *supra*, 168 Cal.App.3d at pages 1016-1018, the court determined that by enacting section 33678, the Legislature interpreted article XIII B of the Constitution as not broad enough in reach to cover the raising or spending of tax increment revenues by redevelopment agencies. Specifically, the court decided the funds a redevelopment agency receives from tax increment financing do not constitute "proceeds of taxes" subject to article XIII B appropriations limits. (*Brown v. Community Redevelopment Agency*, *supra*, at p. 1019). [6] This ruling was based on section 33678, providing in pertinent part: "This section implements and fulfills the intent ... of Article XIII B and ***983** Section 16 of Article XVI of the California Constitution. *The allocation and payment to an agency of the portion of taxes specified in subdivision (b) of Section 33670 for the purpose of paying principal of, or interest on ... indebtedness incurred for redevelopment activity ... shall not be deemed the receipt by an agency of proceeds of taxes levied by or on behalf of the agency within the meaning of or for the purposes of Article XIII B ... nor shall such portion of taxes be deemed receipt of proceeds of taxes by, or an appropriation subject to limitation of, any other public body within the meaning or for purposes of Article XIII B* ... or any statutory provision enacted in implementation of Article XIII B. *The allocation and payment to an agency of this portion of taxes shall not be deemed the appropriation by a redevelopment agency of proceeds of taxes levied by or on behalf of a redevelopment agency within the meaning or for purposes of Article XIII B of the California Constitution*." (Italics added.)

In *County of Placer v. Corin* (1980) 113 Cal.App.3d 443, 451 [170 Cal.Rptr. 232], the court defined "proceeds of taxes" in this way: "Under article XIII B, with the exception of state subventions, the items that make up the scope of ' "proceeds of taxes" ' concern charges levied to raise *general revenues* for the local entity. ' "Proceeds of taxes," ' in addition to 'all tax revenues' includes 'proceeds ... from ... regulatory licenses, user charges, and user fees [*only*] *to the extent that such proceeds exceed the costs reasonably borne by such entity in providing the regulation, product or service*....' (§ 8, subd. (c).) (Italics added.) Such 'excess' regulatory or user fees are but *taxes* for the raising of general revenue for the entity. [Citations.] Moreover, to the extent that an assessment results in revenue above the cost of the improvement or is of general public benefit, it is no longer a special assessment but a tax. [Citation.] *We conclude 'proceeds of taxes' generally contemplates only those impositions which raise general tax revenues for the entity.*" (Italics added.) [7]

([3a]) In light of these interrelated sections and concepts, our task is to determine whether the 20 percent Housing Fund set-aside requirement of a redevelopment agency's tax increment financing qualifies under section 6 as a "cost" of a program. As will be explained, we agree with

the trial court that the resolution of this issue is sufficient to dispose of the entire matter, and ***984** accordingly we need not discuss the alternate grounds of decision stated by the Commission. [8]

III. Housing Fund Allocations: Reimbursable Costs?

1. *Arguments*

The Agency takes the position that the language of section 33678 is simply inapplicable to its claim for subvention of funds required to be deposited into the Housing Fund. It points out that section 6 expressly lists three exceptions to the requirement for subvention of funds to cover the costs of state-mandated programs: (a) Legislative mandates requested by the local agency affected; (b) legislation defining or changing a definition of a crime; or (c) pre-1975 legislative mandates or implementing regulations or orders. (See fn. 4, *ante*.) None of these exceptions refers to the source of the funding originally used by the agency to pay the costs incurred for which reimbursement is now being sought. Thus, the agency argues it is immaterial that under section 33678, *for purposes of appropriations limitations*, tax increment financing is not deemed to be the "proceeds of taxes." (*Brown v. Community Redevelopment Agency*, *supra*, 168 Cal.App.3d at pp. 1017-1020.) The Agency would apply a "plain meaning" rule to section 6 (see, e.g., *Davis v. City of* Berkeley (1990) 51 Cal.3d 227, 234 [272 Cal.Rptr. 139, 794 P.2d 897]) and conclude that the source of the funds used to pay the program costs up front, before any subvention, is not stated in the section and thus is not relevant.

As an illustration of its argument that the source of its funds is irrelevant under section 6, the Agency cites to Government Code section 17556. That section is a legislative interpretation of section 6, creating several classes of state-mandated programs for which no state reimbursement of local agencies for costs incurred is required. In *County of Fresno v. State of California* (1991) 53 Cal.3d 482, 487 [280 Cal.Rptr. 92, 808 P.2d 235], the Supreme Court upheld the facial constitutionality of Government Code section 17556, subdivision (d), which disallows state subvention of funds where the local government is authorized to collect service charges or fees in connection with a mandated program. The court explained that section 6 "was designed to protect the tax revenues of local governments from state mandates that ***985** would require expenditure of such revenues." (*County of Fresno v. State of California*, *supra*, at p. 487.) Based on the language and history of the measure, the court stated, "Article XIII B of the Constitution, however, was not intended to reach beyond taxation." (*Ibid.*) The court therefore concluded that in view of its textual and historical context, section 6 "requires subvention only when the costs in question can be recovered *solely from tax revenues*." (*Ibid.*, original italics.) Interpreting section 6, the court stated: "Considered within its context, the section effectively construes the term 'costs' in the constitutional provision as excluding expenses that are recoverable from sources other than taxes." (*Ibid.*) No subvention was required where the local authority could recover its expenses through fees or assessments, not taxes.

2. *Interpretation of Section 6*

Here, the Agency contends the authority of *County of Fresno v. State of California*, *supra*, *53* Cal.3d 482, should be narrowly read to cover only self-financing programs, and the Supreme Court's broad statements defining "costs" in this context read as mere dicta. It also continues to argue for a "plain meaning" reading of section 6, which it reiterates does not expressly discuss the source of funds used by an agency to pay the costs of a program before any reimbursement is sought. We disagree with both of these arguments. The correct approach is to read section 6 in light of its historical and textual context. ([4]) The rules of constitutional interpretation require a strict construction of section 6, because constitutional limitations and restrictions on legislative powers are not to be extended to include matters not covered by the language used. (*City of San Jose v. State of California*, *supra*, 45 Cal.App.4th at pp. 1816-1817.)

([5]) The goals of articles XIII A and XIII B are to protect California residents from excessive taxation and government spending. (*County of Los Angeles v. State of California*, *supra*, 15 Cal.4th at p. 81.) A central purpose of section 6 is to prevent the state's transfer of the cost of government from itself to the local level. (*City of Sacramento v. State of California*, *supra*, 50 Cal.3d at p. 68.) ([3b]) The related goals of these enactments require us to read the term "costs" in section 6 in light of the enactment as a whole. The "costs" for which the Agency is seeking reimbursement are its deposits of tax increment financing proceeds into the Housing Fund. Those tax increment financing proceeds are normally received pursuant to the Community Redevelopment Law

(§ 33000 et seq.) when, after redevelopment, the taxing agencies collect and keep the tax revenues attributable to the original assessed value and pass on to the redevelopment agency the portion of the ***986** assessed property value which exceeds the original assessment. (*Brown v. Community Redevelopment Agency*, *supra*, 168 Cal.App.3d at pp. 1016-1017.) Is this the type of expenditure of tax revenues of local governments, upon state mandates which require use of such revenues, against which section 6 was designed to protect? (*County of Fresno v. State of California*, *supra*, 53 Cal.3d at p. 487.)

3. *Relationship of Appropriations Limitations and Subvention*

We may find assistance in answering this question by looking to the type of appropriations limitations imposed by article XIII B. In *County of Placer v. Corin*, *supra*, 113 Cal.App.3d at page 447, the court described the discipline imposed by article XIII B in this way: "[A]rticle XIIIB does not limit the ability to expend government funds collected from all sources. Rather, the appropriations limit is based on 'appropriations subject to limitation,' which consists primarily of the authorization to expend during a fiscal year the 'proceeds of taxes.' (§ 8, subd. (a).) As to local governments, limits are placed only on the authorization to expend the proceeds of taxes levied by that entity, in addition to proceeds of state subventions (§ 8, subd. (c)); no limitation is placed on the expenditure of those revenues that do not constitute 'proceeds of taxes.' " [9]

Because of the nature of the financing they receive, tax increment financing, redevelopment agencies are not subject to this type of appropriations limitations or spending caps; they do not expend any "proceeds of taxes." Nor do they raise, through tax increment financing, "*general revenues* for the local entity." (*County of Placer v. Corin*, *supra*, 113 Cal.App.3d at p. 451, original italics.) The purpose for which state subvention of funds was created, to protect local agencies from having the state transfer its cost of government from itself to the local level, is therefore not brought into play when redevelopment agencies are required to allocate their tax increment financing in a particular manner, as in the operation of sections 33334.2 and 33334.3. (See *City of Sacramento v. State of California*, *supra*, 50 Cal.3d at p. 68.) The state is not transferring to the Agency the operation and administration of a program for which it was formerly legally and financially ***987** responsible. (*County of Los Angeles v. Commission on State Mandates* (1995) 32 Cal.App.4th 805, 817 [38 Cal.Rptr.2d 304].) [10]

For all these reasons, we conclude the same policies which support exempting tax increment revenues from article XIII B appropriations limits also support denying reimbursement under section 6 for this particular allocation of those revenues to the Housing Fund. Tax increment financing is not within the scope of article XIII B. (*Brown v. Community Redevelopment Agency*, *supra*, 168 Cal.App.3d at pp. 1016-1020.) Section 6 "requires subvention only when the costs in question can be recovered *solely from tax revenues*." (*County of Fresno v. State of California*, *supra*, 53 Cal.3d at p. 487, original italics.) No state duty of subvention is triggered where the local agency is not required to expend its proceeds of taxes. Here, these costs of depositing tax increment revenues in the Housing Fund are attributable not directly to tax revenues, but to the benefit received by the Agency from the tax increment financing scheme, which is one step removed from other local agencies' collection of tax revenues. (§ 33000 et seq.) Therefore, in light of the above authorities, this use of tax increment financing is not a reimbursable "cost" under section 6. We therefore need not interpret any remaining portions of section 6.

Disposition

The judgment is affirmed.

Work, Acting P. J., and McIntyre, J., concurred.

Appellant's petition for review by the Supreme Court was denied September 3, 1997.

Footnotes

1 All further statutory references are to the Health and Safety Code unless otherwise noted.

2 " 'Subvention' generally means a grant of financial aid or assistance, or a subsidy. [Citation.]" (*Hayes v. Commission on State Mandates* (1992) 11 Cal.App.4th 1564, 1577 [15 Cal.Rptr.2d 547].)

3 In our prior opinion issued in this case, we determined the trial court erred when it denied the California Department of Finance (DOF) leave to intervene as an indispensable party and a real party in interest in the mandamus proceeding. (*Redevelopment Agency v. Commission on State Mandates* (1996) 43 Cal.App.4th 1188, 1194-1199 [51 Cal.Rptr.2d 100].) Thus, DOF is now a respondent on this appeal, as is the Commission (sometimes collectively referred to as respondents). However, our decision in that case was a collateral matter and does not assist us on the merits of this proceeding.

4 Section 6 lists the following exclusions to the requirement for subvention of funds: "(a) Legislative mandates requested by the local agency affected; [¶] (b) Legislation defining a new crime or changing an existing definition of a crime; or [¶] (c) Legislative mandates enacted prior to January 1, 1975, or executive orders or regulations initially implementing legislation enacted prior to January 1, 1975." In *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 69 [266 Cal.Rptr. 139, 785 P.2d 522], the Supreme Court identified these items as exclusions of otherwise reimbursable programs from the scope of section 6. (See also Gov. Code, § 17514, definition of "costs mandated by the state," using the same "new program or higher level of service" language of section 6.)

5 Section 33071 in the Community Redevelopment Law provides that a fundamental purpose of redevelopment is to expand the supply of lowand moderate-income housing, as well as expanding employment opportunities and improving the social environment.

6 The term of art, "proceeds of taxes," is defined in article XIII B, section 8, as follows: (c) " *'Proceeds of taxes' shall include, but not be restricted to, all tax revenues* and the proceeds to an entity of government, from (1) regulatory licenses, user charges, and user fees to the extent that those proceeds exceed the costs reasonably borne by that entity in providing the regulation, product, or service, and (2) the investment of tax revenues. With respect to any local government, 'proceeds of taxes' shall include subventions received from the state, other than pursuant to Section 6, and, with respect to the state, proceeds of taxes shall exclude such subventions." (Italics added.)

7 The issues before the court in *County of Placer v. Corin*, *supra*, 113 Cal.App.3d 443 were whether special assessments and federal grants should be considered proceeds of taxes; the court held they should not. Section 6 is not discussed; the court's analysis of other concepts found in article XIII B is nevertheless instructive.

8 The alternate grounds of the Commission's decision were that there were no costs subject to reimbursement related to the Housing Fund because there was no net increase in the aggregate program responsibilities of the Agency, and that the set-aside requirement did not constitute a mandated "new program or higher level of service" under this section.

9 The term of art, "appropriations subject to limitation," is defined in article XIII B, section 8, as follows: [¶] (b) " 'Appropriations subject to limitation' of an entity of local government means any authorization to expend during a fiscal year *the proceeds of taxes levied by or for that entity* and the proceeds of state subventions to that entity (other than subventions made pursuant to Section 6) exclusive of refunds of taxes." (Italics added.)

10 We disagree with respondents that the legislative history of sections 33334.2 and 33334.3 is of assistance here, specifically, that section 23 of the bill creating these sections provided that no appropriations were made by the act, nor was any obligation for reimbursements of local agencies created for any costs incurred in carrying out the programs created by the act. (Stats. 1976, ch. 1337, § 23, pp. 6070-6071.) As stated in *City of San Jose v. State of California*, *supra*, 45 Cal.App.4th at pages 1817-1818, legislative findings regarding mandate are irrelevant to the issue to be decided by the Commission, whether a state mandate exists.

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33 Cal.4th 859
Supreme Court of California

SAN DIEGO UNIFIED SCHOOL DISTRICT, Plaintiff and Respondent,
v.
COMMISSION ON STATE MANDATES, Defendant and Appellant;
California Department of Finance, Real Party in Interest and Appellant.

No. S109125.
|
Aug. 2, 2004.

Synopsis

Background: School district petitioned for writ of administrative mandate to require the Commission on State Mandates to approve test claim for costs of mandatory and discretionary expulsion of students. The Superior Court, San Diego County, No. GIC737638, Linda B. Quinn, J., granted the petition. Commission and Department of Finance appealed. The Court of Appeal affirmed. Review was granted, superseding opinion of Court of Appeal.

Holdings: The Supreme Court, George, C.J., held that:

[1] all hearing costs incurred by district as result of mandatory actions related to expulsions for student's possession of firearm, at time relevant to this proceeding, constituted "higher level of service" within meaning of state constitutional provision, and thus were fully reimbursable, and

[2] hearing costs incurred by district as result of actions related to discretionary expulsions did not constitute "new program or higher level of service," and, in any event, did not trigger right to reimbursement, as costs of procedures exceeding federal due process requirements were de minimis.

Affirmed in part and reversed in part.

Opinion, 122 Cal.Rptr.2d 614, superseded.

Attorneys and Law Firms

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***866** Steven M. Woodside, County Counsel (Sonoma) as Amicus Curiae on behalf of Plaintiff and Respondent.

Opinion

****591** GEORGE, C.J.

Article XIII B, section 6, of the California Constitution provides: "Whenever the Legislature or any state agency mandates a new program or higher level of service on any local government, the State shall provide a subvention of funds to reimburse such local government for the costs of such program or increased level of service...." [1] (Hereafter article XIII B, section 6.)

Plaintiff San Diego Unified School District (District), like all other public school districts in the state, is, and was at the time relevant in this proceeding, governed by statutes that regulate the expulsion of students. (Ed.Code, § 48900 et seq.) Whenever an expulsion recommendation is made (and before a student may be expelled), the District is required by Education Code section 48918 to afford the student a hearing with various procedural protections—including notice of the hearing and the right to representation by *****468** counsel, preparation of findings of fact, notices related to any expulsion and the right of appeal, and preparation of a hearing

record. Providing these procedural protections requires the District to expend funds, for which the District asserts a right to reimbursement from the state pursuant to article XIII B, section 6, and implementing legislation, Government Code section 17500 et seq.

We granted review to consider two questions: (1) Are the hearing costs incurred as a result of the *mandatory* actions related to expulsions that are compelled by Education Code section 48915 fully reimbursable—or are those hearing costs reimbursable only to the extent such costs are attributable to hearing procedures that exceed the procedures required by federal law? (2) Are any hearing costs incurred in carrying out expulsions that are *discretionary* under Education Code section 48915 reimbursable? After we granted review and filed our decision in *Department of Finance v. Commission on State Mandates* (*Kern High School Dist.*) (2003) 30 Cal.4th 727, 134 Cal.Rptr.2d 237, 68 P.3d 1203 (*Kern High School Dist.*), we added the following preliminary question to be addressed: Do the Education Code ***867** statutes cited above establish a "new program" or "higher level of service" under article XIII B, section 6? Finally, we also asked the parties to brief the effect of the decision in *Kern High School Dist., supra,* 30 Cal.4th 727, 134 Cal.Rptr.2d 237, 68 P.3d 1203, on the present case.

We conclude that Education Code section 48915, insofar as it compels suspension and mandates a recommendation of expulsion for certain offenses, constitutes a "higher level of service" under article XIII B, section 6, and imposes a reimbursable state mandate for *all* resulting hearing costs—even those costs attributable to procedures required by federal law. In this respect, we shall affirm the judgment of the Court of Appeal.

We also conclude that *no* hearing costs incurred in carrying out those expulsions that are *discretionary* under Education Code section 48915—including costs related to hearing procedures claimed to exceed the requirements of federal law—are reimbursable. As we shall explain, to the extent that statute makes expulsions discretionary, it does not reflect a new program or a higher level of service related to an existing program. Moreover, even if the hearing *procedures* set forth in Education Code section *48918* constitute a new program or higher level of service, we conclude that *this* statute does not trigger any right to reimbursement, because the hearing provisions that assertedly exceed federal requirements are merely incidental to fundamental federal due process requirements and the added costs of such procedures are de minimis. For these reasons, we conclude such hearing provisions should be treated, for purposes of ruling upon a request for reimbursement, as part of the nonreimbursable underlying *federal* mandate and not as a state mandate. Accordingly, we shall reverse the judgment of the Court of Appeal insofar as it compels reimbursement ****592** of any costs incurred pursuant to discretionary expulsions.

I

A. *Education Code sections 48918 and 48915*

We first describe the relevant provisions of two statutes —Education Code sections 48918 and 48915—pertaining to the expulsion of students from public schools.

Education Code section 48918 specifies the right of a student to an expulsion hearing and sets forth procedures that a school district must ***868** follow when conducting *****469** such a hearing. (Stats.1990, ch. 1231, § 2, pp. 5136–5139.) [2]

In identifying the right to a hearing, subdivision (a) of this statute declares that a student is "entitled" to an expulsion hearing within 30 days after the school principal determines that the student has committed an act warranting expulsion. [3] *In practical effect, this means that whenever a school principal makes such a determination and recommends to the school board that a student be expelled, an expulsion hearing is mandated.* [4]

In specifying the substantive and procedural requirements for such an expulsion hearing, Education Code section 48918 sets forth rules and procedures, some of which, the parties agree, codify requirements of federal due process and some of which may exceed those requirements. [5] These rules and procedures govern, among other things, notice of a hearing and the right to representation by counsel, preparation of findings of fact, notices related to the expulsion and the right of appeal, and preparation of a hearing record. (See § 48918, subds. (a) through former subd. (j) (currently subd. (k).)

***869** The second statute at issue in this matter is Education Code section 48915. Discrete subdivisions of

this statute address circumstances in which a principal *must* recommend to the school board that a student be expelled, and circumstances in which a principal *may* recommend that a student be expelled.

First, there is what the parties characterize as the "mandatory expulsion provision," Education Code section 48915, former subdivision (b). As it read during the time relevant in this proceeding (mid–1993 *****470** through mid–1994), this subdivision (1) compelled a school principal to *immediately suspend* any ****593** student found to be in possession of a firearm at school or at a school activity off school grounds, and (2) mandated a *recommendation* to the school district governing board that the student be *expelled.* The provision further required the governing board, upon confirmation of the student's knowing possession of a firearm, either to expel the student or "refer" him or her to an alternative education program housed at a separate school site. [6] (Compare this former provision with *current* Ed.Code, § 48915, subds. (c) and (d).) [7]

*****471** ***870** This provision, as it read at the time relevant here, did not mandate expulsion per se [8]—but it *did* require immediate suspension followed by a mandatory expulsion recommendation (and it provided that a student found by the governing board to have possessed ****594** a firearm would be removed from the school site by limiting disposition to either expulsion or "referral" to an alternative school). Moreover, as noted above, whenever expulsion is recommended a student has a right to an expulsion hearing. Accordingly, it is appropriate to characterize the former provision as *mandating* immediate suspension, a recommendation of expulsion, *and hence, an expulsion hearing.* For convenience, we accept the parties' description of this aspect of Education Code section 48915 as constituting a "mandatory expulsion provision."

The second aspect of Education Code section 48915 relevant here consists of what we shall call the "discretionary expulsion provision." (*Id.,* former subd. (c), subsequently subd. (d), currently subd. (e).) During the period relevant in this proceeding (as well as currently), this subdivision of Education Code section 48915 recognized that a principal possesses *discretion* to recommend that a student be expelled for specified conduct other than firearm possession (conduct such as damaging or stealing school property or private property, using or selling illicit drugs, receiving stolen property, possessing tobacco or drug paraphernalia, or engaging in disruptive behavior). The former provision (like the current provision) further specified that the school district governing board "may" order a student expelled upon finding that the ***871** student, while at school or at a school activity off school grounds, engaged in such conduct. [9]

*****472** ***872** ****595** B. *Proceedings under Government Code section 17500 et seq.*

Procedures governing the constitutional requirement of reimbursement under article XIII B, section 6, are set forth in Government Code section 17500 et seq. The Commission on State Mandates (Commission) (Gov.Code, § 17525) is charged with the responsibility of hearing and deciding, subject to judicial review by an administrative writ of mandate, claims for reimbursement made by local governments or school districts. (Gov.Code, § 17551.) Government Code section 17561, subdivision (a), provides that the "state shall reimburse each ... school district for all 'costs mandated by the state,' as defined in section 17514." Government Code section 17514, in turn, defines "costs mandated by the state" to mean, in relevant part, "any increased costs which a ... school district is required to incur ... as a result of any statute ... which mandates a new program or higher level of service of an existing program within the meaning of Section 6 of Article XIII B of the California Constitution." Finally, Government Code section 17556 sets forth circumstances in which there shall be no reimbursement, including, under subdivision (c), circumstances in which "[t]he statute or executive order implemented a federal law or regulation and resulted in costs mandated by the federal government, unless the statute or *****473** executive order mandates costs which exceed the mandate in that federal law or regulation."

In March 1994, the District filed a "test claim" with the Commission, asserting entitlement to reimbursement for the costs of hearings provided with respect to both categories of cases described above—that is, those hearings triggered by mandatory expulsion recommendations, and those hearings resulting from discretionary expulsion recommendations. (See Gov.Code, § 17521; *Kinlaw v. State of California* (1991) 54

Cal.3d 326, 331–333, 285 Cal.Rptr. 66, 814 P.2d 1308.) [10] The District sought reimbursement for costs incurred between July 1, 1993, and June 30, 1994, under statutes effective through the latter date.

In August 1998, after holding hearings on the District's claim (as amended in April 1995, to reflect legislation that became effective in 1994), the Commission issued a "Corrected Statement of Decision" in which it determined that Education Code section 48915's requirement of suspension and a ***873** mandatory recommendation of expulsion for firearm possession constituted a "new program or higher level of service," and found that because costs related to some of the resulting hearing provisions set forth in Education Code section 48918 (primarily various notice, right of inspection, and recording provisions) exceeded the requirements of federal due process, those additional hearing costs constituted reimbursable state-mandated costs. [11] As to the vast majority of the remaining ****596** hearing procedures triggered by Education Code section 48915's requirement of suspension and a mandatory recommendation of expulsion for firearm possession—for example, procedures governing such matters as the hearing itself and the board's decision; a statement of facts and charges; notice of the right to representation by counsel; written findings; recording of the hearing; and the making of a record of the expulsion—the Commission found that those procedures were enacted to comply with federal due process requirements, and hence fell within the exception set forth in Government Code section 17556, subdivision (c), and *****474** did not impose a reimbursable state mandate. The Commission further found that with respect to Education Code section 48915's *discretionary* expulsions, there was no right to reimbursement for costs incurred in holding expulsion hearings, because such expulsions do not constitute a new program or higher level of service, and in any event such expulsions are not *mandated* by the state, but instead represent a choice by the principal and the school board.

In October 1999, the District brought this proceeding for an administrative writ of mandate challenging the Commission's decision. The trial court issued a writ commanding the Commission to render a new decision finding (i) all costs associated with hearings triggered by compulsory suspensions and mandatory expulsion recommendations are reimbursable, and (ii) hearing costs associated with discretionary expulsions are reimbursable to the limited ***874** extent that required hearing procedures exceed federal due process mandates. The Commission (defendant) and the Department of Finance (real party in interest, hereafter Department) appealed, and the Court of Appeal affirmed the judgment rendered by the trial court.

II

A. *Costs associated with hearings triggered by compulsory suspensions and mandatory expulsion recommendations*

1. *"New program or higher level of service"?*

We address first the issue that we asked the parties to brief: Does Education Code section 48915, former subdivision (b) (current subds. (c) & (d)), which mandated suspension and an expulsion recommendation for those students who possess a firearm at school or at a school activity off school grounds, and which also required a school board, if it found the charge proved, either to expel or to "refer" such a student to an alternative educational program housed at a separate school site, constitute a "new program or higher level of service" under article XIII B, section 6 of the state Constitution, and under Government Code section 17514?

We addressed the meaning of the Constitution's phrase "new program or higher level of service" in *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 233 Cal.Rptr. 38, 729 P.2d 202 (*County of Los Angeles*). That case concerned whether local governments are entitled to reimbursement for costs incurred in complying with legislation that required local agencies to provide the same increased level of workers' compensation benefits for their employees as private individuals or organizations were required to provide for their employees. We stated:

"Looking at the language of [article XIII B, section 6] then, it seems clear that by itself the term 'higher level of service' is meaningless. It must be read in conjunction with the predecessor phrase 'new program' to give it meaning. Thus read, it is apparent that the subvention requirement for increased or higher level of service is directed to state mandated increases in the services provided by local agencies in existing 'programs.' But the term 'program' itself is not defined in article XIII B. What programs ****597** then did the electorate have in mind when section 6 was adopted? We conclude that the drafters and the electorate had in mind the commonly understood

meanings of the term—[(1)] programs that carry out the governmental function of providing services to the public, or [(2)] laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents *****475** and entities in the state." (*County of Los Angeles, supra,* 43 Cal.3d 46, 56, 233 Cal.Rptr. 38, 729 P.2d 202.)

***875** We continued in *County of Los Angeles:* "The concern which prompted the inclusion of section 6 in article XIII B was the perceived attempt by the state to enact legislation or adopt administrative orders creating programs to be administered by local agencies, thereby transferring to those agencies the fiscal responsibility for providing services which the state believed should be extended to the public. In their ballot arguments, the proponents of article XIII B explained section 6 to the voters: 'Additionally, this measure: (1) Will not allow the state government to *force programs* on local governments without the state paying for them.' (Ballot Pamp., Proposed Amend. to Cal. Const. with arguments to voters, Spec. Statewide Elec. (Nov. 6, 1979) p. 18. Italics added.) In this context the phrase 'to force programs on local governments' confirms that *the intent underlying section 6 was to require reimbursement to local agencies for the costs involved in carrying out functions peculiar to government, not for expenses incurred by local agencies as an incidental impact of laws that apply generally to all state residents and entities.*" (*County of Los Angeles, supra,* 43 Cal.3d 46, 56–57, 233 Cal.Rptr. 38, 729 P.2d 202, italics added.)

It was clear in *County of Los Angeles, supra,* 43 Cal.3d 46, 233 Cal.Rptr. 38, 729 P.2d 202, that the law at issue did not meet the second test for a "program or higher level of service"—it did not implement a state policy by imposing unique requirements upon local governments, but instead applied workers' compensation contribution rules generally to all employers in the state. Nor, we held, did the law requiring local agencies to shoulder a general increase in workers' compensation benefits amount to a reimbursable "program or higher level of service" under the first test described above. (*Id.,* at pp. 57–58, 233 Cal.Rptr. 38, 729 P.2d 202.) The law increased the cost of employing public servants, but it did not in any tangible manner increase the level of service provided by those employees to the public.

We reaffirmed and applied the test set out in *County of Los Angeles, supra,* 43 Cal.3d 46, 233 Cal.Rptr. 38, 729 P.2d 202, in *Lucia Mar Unified School District v. Honig* (1988) 44 Cal.3d 830, 244 Cal.Rptr. 677, 750 P.2d 318 (*Lucia Mar*). The state law at issue in *Lucia Mar* required local school districts to pay a portion of the cost of educating pupils in *state* schools for the severely handicapped—costs that the state previously had paid in full.

We determined that the contributions called for under the law were used to fund a "program" within both definitions of that term set forth in *County of Los Angeles.* (*Lucia Mar, supra,* 44 Cal.3d 830, 835, 244 Cal.Rptr. 677, 750 P.2d 318.) We stated: "[T]he education of handicapped children is clearly a governmental function providing a service to the public, and the [state law] imposes requirements on school districts not imposed on all the states residents. Nor can there be any doubt that although the schools for the handicapped have been operated by the state for many years, the program was new insofar as plaintiffs are ***876** concerned, since at the time [the state law] became effective they were not required to contribute to the education of students from their districts at such schools. [ ] ... To hold, under the circumstances of this case, that a shift in funding of an existing program from the state to a local entity is not a new program as to the local agency would, we think, violate the intent underlying section 6 of article XIII B.... Section 6 was intended to preclude the state from shifting to local *****476** agencies the financial responsibility for providing public services in view of ... restrictions on the taxing and spending power of the local entities." (*Lucia Mar, supra,* 44 Cal.3d 830, 835–836, 244 Cal.Rptr. 677, 750 P.2d 318; see also ****598** *County of San Diego v. State of California* (1997) 15 Cal.4th 68, 98, 61 Cal.Rptr.2d 134, 931 P.2d 312 [legislation excluding indigents from Medi–Cal coverage transferred obligation for such costs from state to counties, and constituted a reimbursable "new program or higher level of service"].)

We again applied the alternative tests set forth in *County of Los Angeles, supra,* 43 Cal.3d 46, 233 Cal.Rptr. 38, 729 P.2d 202, in *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 266 Cal.Rptr. 139, 785 P.2d 522 (*City of Sacramento*). In that case we considered whether a state law implementing federal "incentives" that encouraged states to extend unemployment insurance coverage to all public employees constituted a program or higher level of service under article XIII B, section 6. We concluded

that it did not because, as in *County of Los Angeles,* (1) providing unemployment compensation protection to a city's own employees was not a service to the public; and (2) the statute did not apply uniquely to local governments—indeed, the same requirements previously had been applied to most employers, and extension of the requirement (by eliminating a prior exemption for local governments) merely placed local government employers on the same footing as most private employers. (*City of Sacramento, supra,* 50 Cal.3d at pp. 67–68, 266 Cal.Rptr. 139, 785 P.2d 522.)

Subsequently, the Court of Appeal in *City of Richmond v. Commission on State Mandates* (1998) 64 Cal.App.4th 1190, 75 Cal.Rptr.2d 754 (*City of Richmond*), following *County of Los Angeles, supra,* 43 Cal.3d 46, 233 Cal.Rptr. 38, 729 P.2d 202, and *City of Sacramento, supra,* 50 Cal.3d 51, 266 Cal.Rptr. 139, 785 P.2d 522, concluded that requiring local governments to provide death benefits to local safety officers, under both the Public Employees Retirement System and the workers' compensation system, did not constitute a higher level of service to the public. The Court of Appeal arrived at that determination even though—as might also have been argued in *County of Los Angeles* and *City of Sacramento*—such benefits may "generate a higher quality of local safety officers" and thereby, in a general and indirect sense, provide the public with a "higher level of service" by its employees. (*City of Richmond, supra,* 64 Cal.App.4th 1190, 1195, 75 Cal.Rptr.2d 754.)

Viewed together, these cases (*County of Los Angeles, supra,* 43 Cal.3d 46, 233 Cal.Rptr. 38, 729 P.2d 202, *City of Sacramento, supra,* 50 Cal.3d 51, 266 Cal.Rptr. 139, 785 P.2d 522, and *City of Richmond,* ***877** *supra,* 64 Cal.App.4th 1190, 75 Cal.Rptr.2d 754) illustrate the circumstance that simply because a state law or order may *increase the costs* borne by local government *in providing services,* this does not necessarily establish that the law or order constitutes an *increased or higher level* of the resulting "service to the public" under article XIII B, section 6, and Government Code section 17514. [12]

*****477** By contrast, Courts of Appeal have found a reimbursable "higher level of service" concerning an existing "program" when a state law or executive order mandates not merely some change that increases the cost of providing services, but an increase in the actual level or quality of governmental services provided. In *Carmel Valley Fire Protection Dist. v. State of California* (1987) 190 Cal.App.3d 521, 537–538, 234 Cal.Rptr. 795 (*Carmel Valley*), for example, an executive order required that county firefighters be provided with protective clothing and safety equipment. Because this increased safety equipment apparently was designed to result in more effective fire protection, the mandate evidently was intended to produce a higher level of service to the public, thereby satisfying the first alternative test set out in *County of Los Angeles, supra,* 43 Cal.3d 46, 56, 233 Cal.Rptr. 38, 729 P.2d 202. Similarly, in ****599** *Long Beach Unified School District v. State of California* (1990) 225 Cal.App.3d 155, 173, 275 Cal.Rptr. 449 (*Long Beach*), an executive order required school districts to take specific steps to measure and address racial segregation in local public schools. The appellate court held that this constituted a "higher level of service" to the extent the order's requirements exceeded federal constitutional and case law requirements by mandating school districts to undertake defined remedial actions and measures that were merely advisory under prior governing law.

[1] The District and the Commission assert that the "mandatory" aspect of Education Code section 48915, insofar as it compels suspension and mandates an expulsion recommendation for firearm possession (and thereafter restricts the board's options to expulsion or referral to an off-site alternative school), carries out a governmental function of providing services to the public and hence constitutes an increased or higher level of service concerning an existing program under the first alternative test of *County of Los Angeles, supra,* 43 Cal.3d 46, 56, 233 Cal.Rptr. 38, 729 P.2d 202. They argue, in essence, that the present matter is more analogous to the latter cases ***878** (*Carmel Valley, supra,* 190 Cal.App.3d 521, 234 Cal.Rptr. 795, and *Long Beach, supra,* 225 Cal.App.3d 155, 275 Cal.Rptr. 449)—both of which involved measures designed to increase the level of governmental service provided to the public—than to the former cases (*County of Los Angeles, supra,* 43 Cal.3d 46, 233 Cal.Rptr. 38, 729 P.2d 202, *City of Sacramento, supra,* 50 Cal.3d 51, 266 Cal.Rptr. 139, 785 P.2d 522, and *City of Richmond, supra,* 64 Cal.App.4th 1190, 75 Cal.Rptr.2d 754)—in which the cost of employment was increased but the resulting governmental services themselves were not directly enhanced or increased. As we shall explain, we agree with the District and the Commission.

The statutory requirements here at issue—immediate suspension and mandatory recommendation of expulsion for students who possess a firearm, and the limitation upon the ensuing options of the school board (expulsion or referral)—reasonably are viewed as providing a "higher level of service" to the public under the commonly understood sense of that term: (i) the requirements are new in comparison with the preexisting scheme in view of the circumstance that they did not exist prior to the enactment of Statutes of 1993, chapters 1255 (Assem. Bill No. 342 (1993–1994 Reg. Sess.) (Assembly Bill No. 342)) and 1256 (Senate Bill *****478** No. 1198 (1993–1994 Reg. Sess.) (Senate Bill No. 1198)); and (ii) the requirements were intended to provide an enhanced service to the public —*safer schools for the vast majority of students* (that is, those who are not expelled or referred to other school sites). In other words, the legislation was premised upon the idea that by removing potentially violent students from the general school population, the safety of those students who remain thereby is increased. (See, e.g., Stats.1993, ch. 1255, § 4, pp. 7285–7286 ["In order to ensure public safety on school campuses ... it is necessary that this act take effect immediately"]; Sen. Com. on Ed. (Apr. 28, 1993), Analysis of Assem. Bill No. 342, p. 2 [noting legislative purpose to enhance public safety]; see also Assem. Com. on Ed. (July 14, 1993), Analysis of Sen. Bill No. 1198, p. 1 [noting legislative purpose to remove those who possess firearms from the general school population by increasing the frequency of expulsion for such conduct].)

In challenging this conclusion, the Department relies upon *County of Los Angeles v. Department of Industrial Relations* (1989) 214 Cal.App.3d 1538, 263 Cal.Rptr. 351 (*Department of Industrial Relations*). In that case, the state enacted enhanced statewide safety regulations that governed all public and private elevators, and thereafter the County of Los Angeles sought reimbursement for the costs of complying with the new regulations. The Court of Appeal found that the regulations constituted neither a new program nor a higher level of service concerning an existing program under either of the two alternative tests set out in *County of Los Angeles, supra,* 43 Cal.3d 46, 56, 233 Cal.Rptr. 38, 729 P.2d 202. The court concluded that the elevator regulations did not meet the first alternative test, because the regulations did not carry out a governmental function of providing services to the public; the court found instead that ***879** "[p]roviding elevators equipped with fire and earthquake ****600** safety features simply is not a 'government function of providing services to the public.' " (*Department of Industrial Relations, supra,* 214 Cal.App.3d at p. 1546, 263 Cal.Rptr. 351.) Moreover, the court found, the second ("uniqueness") test was not met—the regulation applied to all elevators, not only those owned or operated by local governments.

The Department asserts that *Department of Industrial Relations, supra,* 214 Cal.App.3d 1538, 263 Cal.Rptr. 351, is analogous, and argues that the "service" afforded by mandatory suspensions followed by a required expulsion recommendation, etc., is "not qualitatively different from the safety regulations at issue in [*Department of Industrial Relations*]. School districts carrying out such expulsions are not providing a service to the public...." We disagree. Providing public schooling clearly constitutes a governmental function, and enhancing the safety of those who attend such schools constitutes a service to the public. Moreover, here, unlike the situation in *Department of Industrial Relations,* the law implementing this state policy applies uniquely to local public schools. We conclude that *Department of Industrial Relations* does not conflict with the conclusion that the mandatory suspension and expulsion recommendation requirements, together with restrictions placed upon a district's resolution of such a case, constitute an increased or higher level of service to the public under the constitutional provision and the implementing statutes.

Of course, even if, as we have concluded above, a statute effectuates an increased or higher level of governmental service to the public concerning an existing program, this "does not necessarily lead to the conclusion that the program is a *state* mandate *****479** under California Constitution, article XIII B, section 6." (*County of Los Angeles v. Commission on State Mandates* (1995) 32 Cal.App.4th 805, 818, 38 Cal.Rptr.2d 304, italics added (*County of Los Angeles II*).) We turn to the question whether the hearing costs at issue, flowing from compulsory suspensions and mandatory expulsion recommendations, are mandated by the state.

2. *Are the hearing costs state mandated?*

As noted above, a compulsory suspension and a mandatory recommendation of expulsion under Education Code section 48915 in turn trigger a mandatory expulsion hearing. All parties agree that any such resulting expulsion hearing must comply with basic federal due process requirements, such as notice of charges, a right to

representation by counsel, an explanation of the evidence supporting the charges, and an opportunity to call and cross-examine witnesses and to present evidence. (See *ante,* fn. 5.) But as also noted above, article XIII B, section 6, and the implementing statutes ***880** (Gov.Code, § 17500 et seq.), by their terms, provide for reimbursement only of *state*-mandated costs, not *federally* mandated costs. The Commission and the Department assert that this circumstance raises the question: Do all or some of a district's costs in complying with the mandatory expulsion provision of Education Code section 48915 constitute a nonreimbursable *federal* mandate?

In the absence of the operation of Education Code section 48915's mandatory provision (specifically, compulsory immediate suspension and a mandatory expulsion recommendation), a school district would not automatically incur the due process hearing costs that are mandated by federal law pursuant to *Goss, supra,* 419 U.S. 565, 95 S.Ct. 729, 42 L.Ed.2d 725, and related cases, and codified in Education Code section 48918. Instead, a district would incur such hearing costs only if a school principal first were to exercise discretion to recommend expulsion. Accordingly, in its mandatory aspect, Education Code section 48915 appears to constitute a state mandate, in that it establishes conditions under which the state, rather than local officials, has made the decision requiring a school district to incur the costs of an expulsion hearing.

The Department and the Commission agree to a point, but argue that a district's costs incurred in complying with this state mandate are reimbursable only if, and to the extent that, hearing procedures set forth in Education Code section 48918 exceed the requirements of federal due process. In support, they rely upon ****601** Government Code section 17556, which—in setting forth circumstances in which the Commission shall *not* find costs to be mandated by the state—provides that "[t]he commission shall not find costs mandated by the state, as defined in Section 17514, in any claim submitted by a local agency or school district, if, after a hearing, the commission finds that: ... (c) The statute or executive order implemented a federal law or regulation and resulted in costs mandated by the federal government, unless the statute or executive order mandates costs which exceed the mandate in that federal law or regulation." [13]

*****480** ***881** We agree with the District and the Court of Appeal below that, as applied to the present case, it cannot be said that Education Code section 48915's mandatory expulsion provision "*implemented a federal law or regulation.*" (Italics added.) Education Code section 48915, at the time relevant here, did not implement any federal law; as explained below, federal law did not *then* mandate an expulsion recommendation—or expulsion—for firearm possession. [14] Moreover, although the Department argues that in this context Government Code section 17556, subdivision (c)'s phrase "the statute" should be viewed as referring not to Education Code section 48915's mandatory expulsion recommendation requirement, but instead to the mandatory due process hearing under Education Code section 48918 that is triggered by such an expulsion recommendation, it still cannot be said that section 48918 itself required the District to incur any costs. As noted above, Education Code section 48918 sets out requirements for expulsion hearings that must be held when a district seeks to expel a student—but neither section 48918 nor federal law requires that any such expulsion recommendation be made in the first place, and hence section 48918 does not implement any federal mandate that school districts hold such hearings and incur such costs whenever a student is found in possession of a firearm. Accordingly, we conclude that the so-called exception to reimbursement described in Government Code section 17556, subdivision (c), is inapplicable in this context.

Because it is state law (Education Code section 48915's mandatory expulsion provision), and not federal due process law, that requires the District to take steps that in turn require it to incur hearing costs, it follows, contrary to the view of the Commission and the Department, that we cannot characterize *any* of the hearing costs incurred by the District, triggered by the mandatory provision of Education Code section 48915, as constituting a federal mandate (and hence being nonreimbursable). We conclude ****602** that under the statutes existing at the time of the test claim in this case (state legislation in effect through *****481** mid–1994), *all* such hearing costs—those designed to satisfy the minimum requirements of federal due process, and those that may exceed ***882** those requirements—are, with respect to the mandatory expulsion provision of section 48915, state mandated costs, fully reimbursable by the state. [15]

Against this conclusion, the Department, in its supplemental briefing, offers a wholly new theory, not advanced in any of the proceedings below, in support of its belated claim that *all* hearing costs triggered by Education Code section 48915's mandatory expulsion provision are in fact nonreimbursable *federal* mandates, and not, as we have concluded above, reimbursable state mandates. As we shall explain, we reject the Department's contention, as applied to the test case here at issue (involving state statutes in effect through mid–1994).

The Department cites 20 United States Code section 7151, part of the federal No Child Left Behind Act of 2001, which provides, as relevant here: "Each State receiving Federal funds under any subchapter of this chapter shall have in effect a State law requiring local educational agencies to expel from school for a period of not less than 1 year a student who is determined to have brought a firearm to a school, or to have possessed a firearm at a school, under the jurisdiction of local educational agencies in that State, except that such State law shall allow the chief administering officer of a local educational agency to modify such expulsion requirement for a student on a case-by-case basis if such modification is in writing." [16]

The Department further asserts that more than $2.8 billion in federal funds under the No Child Left Behind Act are included "for local use" in the 2003–04 state budget. (Cal. State Budget, 2003–04, Budget Highlights, p. 4.) The Department argues that in light of the requirements set forth in 20 United States Code section 7151, and the amount of federal program funds at issue under the No Child Left Behind Act, the financial consequences to the state and to the school districts of failing to comply with 20 United States Code section 7151 are such that as a practical matter, ***883** Education Code section 48915's mandatory expulsion provision in reality constitutes an implementation of federal law, and hence resulting costs are nonreimbursable except to the extent they exceed the requirements of federal law. (See Govt.Code, § 17556, subd. (c); see also *Kern High School Dist., supra,* 30 Cal.4th 727, 749–751, 134 Cal.Rptr.2d 237, 68 P.3d 1203; *City of Sacramento, supra,* 50 Cal.3d 51, 70–76, 266 Cal.Rptr. 139, 785 P.2d 522.) Moreover, the Department asserts, to the extent school districts are *****482** compelled by federal law, through Education Code section 48915's mandatory expulsion provision, to hold hearings pursuant to section 48918 in cases of firearm possession on school grounds, under 20 United States Code section 7164 (defining prohibited uses of program funds), *all* costs of such hearings properly may be paid out of federal program funds, and hence we should "view the ... provision of program funding as satisfying, in advance, any reimbursement requirement." (*Kern High School Dist., supra,* 30 Cal.4th 727, 747, 134 Cal.Rptr.2d 237, 68 P.3d 1203.)

****603** Although the Department asserts that this federal law and program existed at the time relevant in this matter (that is, through mid–1994), our review of the statutes and relevant history suggests otherwise. Title 20 of the United States Code, section 7151, and the remainder of the No Child Left Behind Act, became effective on January 8, 2002. The predecessor legislation cited by the Department—the Gun–Free Schools Act of 1994 (former 20 U.S.C. § 8921(a)), although containing a substantially identical mandatory expulsion provision (*id.,* § 8921(b)(1)) [17] —was not effective until July 1, 1995 (108 Stat. 3518, § 3). In turn, the predecessor legislation to *that* Act cited by the Department, the Elementary and Secondary Education Act of 1965 (former 20 U.S.C. § 6301 et seq.)—as it existed at the time relevant here (July 1, 1993, through June 30, 1994)—contained no such mandatory expulsion provision. Accordingly, it appears that despite the Department's late discovery of 20 United States Code section 7151, at the time relevant here (regarding legislation in effect through mid–1994), neither 20 United States Code section 7151, nor either of its predecessors, compelled states to enact a law such as Education Code section 48915's mandatory expulsion provision. Therefore, we reject the Department's assertion that, during the time period at issue in this case, Education Code section 48915's mandatory expulsion provision constituted an implementation of a federal, rather than a state, mandate.

Although we conclude that all hearing costs triggered by Education Code section 48915's mandatory expulsion provision constitute reimbursable state-mandated expenses under the statutes as they existed during the period ***884** covered by the District's present test claim, we do not foreclose the possibility that 20 United States Code section 7151 or its predecessor, 20 United States Code section 8921, may lead to a different conclusion when applied to versions of Education Code section 48915 effective in years 1995 and thereafter. Indeed, we note that at least one subsequent test claim that

has been filed with the Commission may raise the federal statutory issue advanced by the Department. [18]

B. *Costs associated with hearings triggered by discretionary expulsion recommendations*

[2] We next consider whether reimbursement is required for the costs associated *****483** with hearings triggered under discretionary expulsion provisions. Again, we address first the issue that we asked the parties to brief: Does the discretionary expulsion provision of Education Code section 48915 (former subd. (c), thereafter subd. (d), currently subd. (e)), which, as noted above, recognized that a principal possesses *discretion* to recommend that a student be expelled for specified conduct other than firearm possession (conduct such as damaging or stealing property, using or selling illicit drugs, possessing tobacco or drug paraphernalia, etc.), and further specified that the school district governing board "may" order a student expelled upon finding that the student, while at school or at a school activity off school grounds, engaged in such conduct, constitute a "new program or higher level of service" under article XIII B, section 6 of the state Constitution, and under Government Code section 17514?

We answer this question in the negative. The discretionary expulsion provision of Education Code section 48915 does not constitute a "new" program or higher level of service, because provisions recognizing discretion to suspend or expel were set forth in statutes predating 1975. (See Educ.Code, former ****604** § 10601, Stats.1959, ch. 2, § 3, p. 860 [providing that a student may be suspended for good cause]; *id.,* former § 10602 (Stats.1970, ch. 102, § 102, p. 159 (defining "good cause"); *id.,* former section 10601.6 (Stats.1972, ch. 164, § 2, p. 384 (further defining "good cause").))) [19] Accordingly, the discretionary expulsion provision of Education Code section 48915 is not a "new" program under article XIII B, section 6, and the implementing statutes, ***885** nor does it reflect a higher level of service related to an existing program. (*County of Los Angeles, supra,* 43 Cal.3d 46, 56, 233 Cal.Rptr. 38, 729 P.2d 202.)

The District maintains, nevertheless, that once it elects to pursue expulsion, it is obligated to abide by the procedural hearing requirements of Education Code section 48918 and accordingly is mandated by that section to incur costs associated with such compliance. The District asserts that in this respect, *section 48918* constitutes a "new program or higher level of service" related to an existing program under article XIII B, section 6 and under Government Code section 17514. We shall assume for analysis that this is so. [20]

The District recognizes, of course, that under Government Code, section 17556, subdivision (c), it is not entitled to reimbursement to the extent Education Code section 48918 merely implements federal due process law, but the District argues that it has a right to reimbursement for its costs of complying with section 48918 *to* *****484** *the extent* those costs are attributable to hearing procedures that *exceed* federal due process requirements. (See Govt.Code, § 17556, subd. (c).) The District asserts that its costs in complying with various notice, right of inspection, and recording requirements (see *ante,* fn. 11) fall into this category and are reimbursable.

The Department and the Commission argue in response that any right to reimbursement for hearing costs triggered by discretionary expulsions—even costs limited to those procedures that assertedly exceed federal due process hearing requirements—is foreclosed by virtue of the circumstance that when a school pursues a discretionary expulsion, it is not acting under compulsion of any law but instead is exercising a choice. In support, the Department and the Commission rely upon *Kern High School Dist., supra,* 30 Cal.4th 727, 134 Cal.Rptr.2d 237, 68 P.3d 1203, and *City of Merced v. State of California* (1984) 153 Cal.App.3d 777, 200 Cal.Rptr. 642 (*City of Merced*).

In *Kern High School Dist., supra,* 30 Cal.4th 727, 134 Cal.Rptr.2d 237, 68 P.3d 1203, school districts asserted that costs incurred in complying with statutory notice and agenda requirements for committee meetings concerning various state and federally funded educational programs constituted a reimbursable state mandate, because once ***886** school districts *elected* to participate in the underlying state and federal programs, the districts had no option but to hold program-related committee meetings and abide by the challenged notice and agenda requirements. (*Id.,* at p. 742, 134 Cal.Rptr.2d 237, 68 P.3d 1203.) We rejected the school districts' position, reasoning in part that because the districts' participation in the underlying programs was voluntary, the notice and agenda costs incurred as a result of that voluntary participation were not the product of legal compulsion and did not constitute a reimbursable state mandate on

that basis. **605 (*Id.,* at p. 745, 134 Cal.Rptr.2d 237, 68 P.3d 1203.) [21]

In reaching that conclusion in *Kern High School Dist., supra,* 30 Cal.4th 727, 134 Cal.Rptr.2d 237, 68 P.3d 1203, we discussed *City of Merced, supra,* 153 Cal.App.3d 777, 200 Cal.Rptr. 642. In that case, the city wished either to purchase or to condemn, pursuant to its eminent domain authority, certain privately owned real property. The city elected to proceed by eminent domain, under which it was required by then recent legislation (Code Civ. Proc., § 1263.510) to compensate the property owner for loss of "business goodwill." The city so compensated the property owner and then sought reimbursement from the state, arguing that the new statutory requirement that it compensate for business goodwill amounted to a reimbursable state mandate. (*City of Merced, supra,* 153 Cal.App.3d at p. 780, 200 Cal.Rptr. 642.) The Court of Appeal concluded that the city's increased costs flowing from its election to condemn the property did not constitute a reimbursable state mandate. (*Id.,* at pp. 781–783, 200 Cal.Rptr. 642.) The court reasoned: "[W]hether a city or county decides to exercise eminent domain is, essentially, an option of the city or county, rather than a mandate of the state. *The fundamental concept is that the city or county is not required to exercise eminent domain. If, however, the power of eminent domain is* ***485 *exercised, then the city will be required to pay for loss of goodwill. Thus, payment for loss of goodwill is not a state-mandated cost.*" (*Id.,* at p. 783, 200 Cal.Rptr. 642, italics added.)

Summarizing this aspect of *City of Merced, supra,* 153 Cal.App.3d 777, 200 Cal.Rptr. 642, in *Kern High School Dist., supra,* 30 Cal.4th 727, 134 Cal.Rptr.2d 237, 68 P.3d 1203, we stated: "[T]he core point articulated by the court in *City of Merced* is that *activities undertaken at the option or discretion of a local government entity* (that is, actions undertaken without any legal compulsion or threat of penalty for nonparticipation) *do not trigger a state mandate and hence do not require reimbursement of funds—even if the local entity is obliged to incur costs as a result of its discretionary decision to participate in a particular program or practice.*" (*Kern High School Dist.,* at p. 742, 134 Cal.Rptr.2d 237, 68 P.3d 1203, italics added.)

The Department and the Commission argue that in the present case the District, like the claimants in *Kern High School Dist.,* errs by focusing upon *887 the final result—a school district's legal obligation to comply with statutory hearing procedures—rather than focusing upon whether the school district has been *compelled* to put itself in the position in which such a hearing (with resulting costs) is required.

The District and amici curiae on its behalf (consistently with the opinion of the Court of Appeal below) argue that the holding of *City of Merced, supra,* 153 Cal.App.3d 777, 200 Cal.Rptr. 642, should not be extended to apply to situations beyond the context presented in that case and in *Kern High School Dist., supra,* 30 Cal.4th 727, 134 Cal.Rptr.2d 237, 68 P.3d 1203. The District and amici curiae note that although any particular expulsion recommendation may be discretionary, as a practical matter it is inevitable that some school expulsions will occur in the administration of any public school program. [22]

**606 Upon reflection, we agree with the District and amici curiae that there is reason to question an extension of the holding of *City of Merced* so as to preclude reimbursement ***486 under *888 article XIII B, section 6 of the state Constitution and Government Code section 17514, whenever an entity makes an initial discretionary decision that in turn triggers mandated costs. Indeed, it would appear that under a strict application of the language in *City of Merced,* public entities would be denied reimbursement for state-mandated costs in apparent contravention of the intent underlying article XIII B, section 6 of the state Constitution and Government Code section 17514 [23] and contrary to past decisions in which it has been established that reimbursement was in fact proper. For example, as explained above, in *Carmel Valley, supra,* 190 Cal.App.3d 521, 234 Cal.Rptr. 795, an executive order requiring that county firefighters be provided with protective clothing and safety equipment was found to create a reimbursable state mandate for the added costs of such clothing and equipment. (*Id.,* at pp. 537–538, 234 Cal.Rptr. 795.) The court in *Carmel Valley* apparently did not contemplate that reimbursement would be foreclosed in that setting merely because a local agency possessed discretion concerning how many firefighters it would employ—and hence, in that sense, could control or perhaps even avoid the extra costs to which it would be subjected. Yet, under a strict application of the rule gleaned from *City of Merced, supra,* 153 Cal.App.3d 777, 200 Cal.Rptr. 642, such costs would not be reimbursable

for the simple reason that the local agency's decision to employ firefighters involves an exercise of discretion concerning, for example, how many firefighters are needed to be employed, etc. We find it doubtful that the voters who enacted article XIII B, section 6, or the Legislature that adopted Government Code section 17514, intended that result, and hence we are reluctant to endorse, in this case, an application of the rule of *City of Merced* that might lead to such a result.

In any event, we have determined that we need not address in this case the problems posed by such an application of the rule articulated in *City of Merced,* because this aspect of the present case can be resolved on an alternative basis. As we shall explain, we conclude, regarding the reimbursement claim that we face presently, that *all* hearing procedures set forth in Education Code section 48918 properly should be considered to have been adopted to implement a federal due process mandate, and hence that all such hearing costs are nonreimbursable under article XIII B, section 6, and Government Code section 17557, subdivision (c).

In this regard, we find the decision in *County of Los Angeles II, supra,* 32 Cal.App.4th 805, 38 Cal.Rptr.2d 304, to be instructive. That case concerned Penal Code section 987.9, which requires counties to provide indigent criminal defendants with defense funds for ancillary investigation services related to capital trials and certain other trials, and further provides related procedural protections—namely, the confidentiality of a request for funds, the right to have the request ruled upon by a judge other than the trial judge, and the right to an in camera hearing on the request. The county in that case asserted that funds expended under the statute constituted reimbursable ****607** state mandates. The Court of Appeal disagreed, finding instead that the Penal Code section merely implements the requirements of federal constitutional law, and that "even in the ***889** absence of *****487** [Penal Code] section 987.9, ... counties would be responsible for providing ancillary services under the constitutional guarantees of due process ... and under the Sixth Amendment...." (32 Cal.App.4th at p. 815, 38 Cal.Rptr.2d 304.) Moreover, the Court of Appeal concluded, the procedural protections that the Legislature had built into the statute—requirements of confidentiality of a request for funds, the right to have the request ruled upon by a judge other than the trial judge, and the right to an in camera hearing on the request—were merely incidental to the federal rights codified by the statute, and their "financial impact" was de minimis. (*Id.,* at p. 817, fn. 7, 38 Cal.Rptr.2d 304.) Accordingly, the Court of Appeal concluded, the Penal Code section, in its entirety—that is, *even those incidental aspects of the statute that articulated specific procedures, not expressly set forth in federal law, for the filing and resolution of requests for funds*—constituted an implementation of federal law, and hence those costs were nonreimbursable under article XIII B, section 6.

We conclude that the same reasoning applies in the present setting, concerning the District's request for reimbursement for procedural hearing costs triggered by its discretionary decision to seek expulsion. As in *County of Los Angeles II, supra,* 32 Cal.App.4th 805, 38 Cal.Rptr.2d 304, the initial discretionary decision (in the former case, to file charges and prosecute a crime; in the present case, to seek expulsion) in turn triggers a federal constitutional mandate (in the former case, to provide ancillary defense services; in the present case, to provide an expulsion hearing). In both circumstances, the Legislature, in adopting specific statutory procedures to comply with the general federal mandate, reasonably articulated various incidental procedural protections. These protections are designed to make the underlying federal right enforceable and to set forth procedural details that were not expressly articulated in the case law establishing the respective rights; viewed singly or cumulatively, they did not significantly increase the cost of compliance with the federal mandate. The Court of Appeal in *County of Los Angeles II* concluded that, for purposes of ruling upon a claim for reimbursement, such incidental procedural requirements, producing at most de minimis added cost, should be viewed as part and parcel of the underlying federal mandate, and hence nonreimbursable under Government Code, section 17556, subdivision (c). We reach the same conclusion here.

Indeed, to proceed otherwise in the context of a reimbursement claim would produce impractical and detrimental consequences. The present case demonstrates the point. The record reveals that in the extended proceedings before the Commission, the parties spent numerous hours producing voluminous pages of analysis directed toward determining whether various provisions of Education Code section 48918 exceeded federal due process requirements. That task below was complicated by the circumstance that this area of federal due process law is not well developed. The Commission, which is not

a judicial body, did as best it could and concluded that in certain ***890** respects the various provisions (as observed *ante,* footnote 11, predominantly concerning notice, right of inspection, and recording requirements) "exceeded" the requirements of federal due process.

Even for an appellate court, it would be difficult and problematic in this setting to categorize the various notice, right of inspection, and recording requirements here at issue as falling either within or without the general federal due process mandate. The difficulty results not only from the circumstance that, as noted, the case law *****488** in the area of due process procedures concerning expulsion matters is relatively undeveloped, but also from the circumstance that when such an issue is raised in an action for reimbursement, as opposed to its being raised in litigation challenging an actual expulsion on the ground of allegedly inadequate hearing procedures, the issue inevitably is presented in the abstract, without any factual context that might help frame the legal issue. In such circumstances, courts are—and should be— ****608** wary of venturing pronouncements (especially concerning matters of constitutional law).

In light of these considerations, we agree with the conclusion reached by the Court of Appeal in *County of Los Angeles II, supra,* 32 Cal.App.4th 805, 38 Cal.Rptr.2d 304: for purposes of ruling upon a request for reimbursement, challenged state rules or procedures that are intended to implement an applicable federal law—and whose costs are, in context, de minimis—should be treated as part and parcel of the underlying federal mandate.

Applying that approach to the case now before us, we conclude there can be no doubt that the assertedly "excessive due process" aspects of Education Code section 48918 for which the District seeks reimbursement in connection with hearings triggered by discretionary expulsions (see *ante,* footnote 11—primarily, as noted, various notice, right of inspection, and recording rules) fall within the category of matters that are merely incidental to the underlying federal mandate, and that produce at most a de minimis cost. Accordingly, for purposes of the District's reimbursement claim, all hearing costs incurred under Education Code section 48918, triggered by the District's exercise of discretion to seek expulsion, should be treated as having been incurred pursuant to a mandate of federal law, and hence all such costs are nonreimbursable under Government Code section 17556, subdivision (c). [24]

***891 III**

The judgment of the Court of Appeal is affirmed insofar as it provides for full reimbursement of all costs related to hearings triggered by the mandatory expulsion provision of Education Code section 48915. The judgment of the Court of Appeal is reversed insofar as it provides for reimbursement of any costs related to hearings triggered by the discretionary provision of section 48915. All parties shall bear their own costs on appeal.

WE CONCUR: KENNARD, BAXTER, WERDEGAR, CHIN, BROWN, and MORENO, JJ.

All Citations

33 Cal.4th 859, 94 P.3d 589, 16 Cal.Rptr.3d 466, 190 Ed. Law Rep. 636, 04 Cal. Daily Op. Serv. 6945, 2004 Daily Journal D.A.R. 9404

Footnotes

1 The provision continues: "except that the Legislature may, but need not, provide such subvention of funds for the following mandates: [¶] (a) Legislative mandates requested by the local agency affected; [¶] (b) Legislation defining a new crime or changing an existing definition of a crime; or [¶] (c) Legislative mandates enacted prior to January 1, 1975, or executive orders or regulations initially implementing legislation enacted prior to January 1, 1975." (Cal. Const., art. XIII B, § 6.)

2 For purposes of our present inquiry, section 48918, at the time relevant here (mid–1993 through mid–1994) read essentially as it had for the prior decade, and as it has in the ensuing decade. That provision first was enacted in 1975 (see Stats.1975, ch. 1253, § 4, pp. 3277–3278) as Education Code, former section 10608. (This enactment apparently was a response to the United States Supreme Court's decision in *Goss v. Lopez* (1975) 419 U.S. 565, 581, 95 S.Ct. 729, 42 L.Ed.2d 725 (*Goss*) [recognizing due process requirements applicable to public school students who are suspended for more than 10 days].) The statute was renumbered as Education Code, former section 48914 in 1976 (Stats.1976, ch. 1010, § 2, pp. 3589–3590) and was substantially augmented in 1977 (Stats.1977, ch. 965, § 24, pp. 2924–2926). After

relatively minor amendments in 1978 and 1982, the section in 1983 was substantially restated, further augmented, and renumbered as Education Code section 48918 (Stats.1983, ch. 498, § 91, p. 2118). Amendments adopted in 1984 and 1988 made relatively minor changes, and further similar modifications were made in 1990, reflecting the version of the statute here at issue. Subsequent amendments in 1995, 1996, 1998, and 1999 made further changes that are irrelevant to the issue presented in the case now before us.

3 The provision reads: "The pupil shall be entitled to a hearing to determine whether the pupil should be expelled. An expulsion hearing shall be held within 30 schooldays after the date the principal or the superintendent of schools determines that the pupil has committed any of the acts enumerated in Section 48900...." (Ed.Code, § 48918, subd. (a). (Subdivision (b) of § 48900 presently includes—as it did at the time relevant here—the offense of possession of a firearm.)

4 Of course, if a student does not invoke his or her entitlement to such a hearing, and instead waives the right to such a hearing, the hearing need not be held.

5 See *Goss, supra,* 419 U.S. 565, 581, 95 S.Ct. 729, 42 L.Ed.2d 725; *Gonzales v. McEuen* (C.D.Cal.1977) 435 F.Supp. 460, 466–467 (concluding that former Education Code section 10608 [current § 48918] met federal due process requirements pertaining to expulsions from public schools); 7 Witkin, Summary of California Law (9th ed.1988), Constitutional Law, § 549, p. 754 (noting that Education Code section 48918 and related legislation were enacted in response to the decision in *Goss*).

6 An earlier and similar, albeit broader, version of the provision—extending not only to possession of firearms but also to possession of explosives and certain knives—existed briefly and was effective for approximately two and one-half months in late 1993. That initial statute, former section 48915, subdivision (b) (as amended Stats.1993, ch. 1255, § 2, pp. 7284–7285), which was effective only from October 11, 1993 through December 31, 1993, provided: "The principal or the superintendent of schools shall immediately suspend pursuant to Section 48911, and shall recommend to the governing board the expulsion of, any pupil found to be in possession of a firearm, knife of no reasonable use to the pupil, or explosive at school or at a school activity off school grounds. The governing board shall expel that pupil or, as an alternative, refer that pupil to an alternative education program, whenever the principal or the superintendent of schools and the governing board confirm that: [¶] (1) The pupil was in knowing possession of the firearm, knife, or explosive. [¶] (2) Possession of the firearm, knife of no reasonable use to the pupil, or explosive was verified by an employee of the school district. [¶] (3) There was no reasonable cause for the pupil to be in possession of the firearm, knife, or explosive."

As subsequently amended by Statutes 1993, chapter 1256, section 2, pages 7286–7287, effective January 1, 1994, Education Code section 48915, former subdivision (b), read: "The principal or the superintendent of schools shall immediately suspend, pursuant to Section 48911, any pupil found to be in possession of a firearm at school or at a school activity off school grounds and shall recommend expulsion of that pupil to the governing board. The governing board shall expel that pupil or refer that pupil to a program of study that is appropriately prepared to accommodate students who exhibit discipline problems and is not provided at a comprehensive middle, junior, or senior high school or housed at the schoolsite attended by the pupil at the time the expulsion was recommended to the school board, whenever the principal or superintendent of schools and the governing board confirm the following: [¶] (1) The pupil was in knowing possession of the firearm. [¶] (2) An employee of the school district verifies the pupil's possession of the firearm."

7 The current subdivisions of Education Code section 48915 set forth a list of mandatory expulsion conduct broader than that set forth in former subdivision (b), and require a school board both to *expel and refer* to other institutions all students found to have committed such conduct. The present subdivisions read: "(c) The principal or superintendent of schools shall immediately suspend, pursuant to Section 48911, and shall recommend expulsion of a pupil that he or she determines has committed any of the following acts at school or at a school activity off school grounds: [¶] (1) Possessing, selling, or otherwise furnishing a firearm. This subdivision does not apply to an act of possessing a firearm if the pupil had obtained prior written permission to possess the firearm from a certificated school employee, which is concurred in by the principal or the designee of the principal. This subdivision applies to an act of possessing a firearm only if the possession is verified by an employee of a school district. [¶] (2) Brandishing a knife at another person. [¶] (3) Unlawfully selling a controlled substance listed in Chapter 2 (commencing with Section 11053) of Division 10 of the Health and Safety Code. [¶] (4) Committing or attempting to commit a sexual assault as defined in subdivision (n) of Section 48900 or committing a sexual battery as defined in subdivision (n) of Section 48900.[¶] (5) Possession of an explosive. [¶] (d) The governing board shall order a pupil expelled upon finding that the pupil committed an act listed in subdivision (c), and shall refer that pupil to a program of study that meets all of the following conditions: [¶] (1) Is appropriately prepared to accommodate pupils who exhibit discipline problems. [¶] (2) Is not provided at a comprehensive middle, junior, or

senior high school, or at any elementary school. [¶] (3) Is not housed at the schoolsite attended by the pupil at the time of suspension." (Stats.2001, ch. 116, § 1.)

8 As the Department of Finance observed in an August 22, 1994, communication to the Commission in this matter, "nothing in [Education Code section 48915] ... requires a district governing board or a county board of education to expel a pupil," and even "unauthorized and knowing possession of a firearm, does not result in mandated expulsion. Section 48915 subdivision (b) provides for the choice of the governing board to either expel the pupil in possession of a firearm, or refer the pupil to an alternative program of study...."

9 Education Code, section 48915, former subdivision (c) (as amended Stats.1992, ch. 909, § 3, p. 4226; amended and redesignated as former subd. (d) by Stats.1993, ch. 1255, § 2, pp. 7284–7285; further amended Stats.1993, ch. 1256, § 2, p. 7287, and Stats.1994, ch. 1198, § 7, p. 7271) provided, at the time relevant here: "Upon recommendation by the principal, superintendent of schools, or by a hearing officer or administrative panel appointed pursuant to subdivision (d) of Section 48918, the governing board *may* order a pupil expelled upon finding that the pupil violated subdivision (f), (g), (h), (i), (j), (k), or (*l*) of Section 48900, or Section 48900.2 or 48900.3, and either of the following: [¶] (1) That other means of correction are not feasible or have repeatedly failed to bring about proper conduct. [¶] (2) That due to the nature of the violation, the presence of the pupil causes a continuing danger to the physical safety of the pupil or others." (Italics added.)

At the time relevant here, subdivisions (f) through (*l*) of section 48900 (as amended Stats.1992, ch. 909, § 1, pp. 4224–4225; Stats.1994, ch. 1198, § 5, pp. 7269–5270) provided: "A pupil shall *not* be suspended from school or recommended for expulsion *unless* the superintendent or the principal of the school in which the pupil is enrolled determines that the pupil has: [¶] ... [¶] (f) Caused or attempted to cause damage to school property or private property. [¶] (g) Stolen or attempted to steal school property or private property. [¶] (h) Possessed or used tobacco, or any products containing tobacco or nicotine products.... However, this section does not prohibit use or possession by a pupil of his or her own prescription products. [¶] (i) Committed an obscene act or engaged in habitual profanity or vulgarity. [¶] (j) Had unlawful possession of, or unlawfully offered, arranged, or negotiated to sell any drug paraphernalia, as defined in Section 11014.5 of the Health and Safety Code. [¶] (k) Disrupted school activities or otherwise willfully defied the valid authority of supervisors, teachers, administrators, school officials, or other school personnel engaged in the performance of their duties. [¶] (*l*) Knowingly received stolen school property or private property." (Italics added.)

At the time relevant here, section 48900.2 (Stats.1992, ch. 909, § 2, p. 4225) provided: "In addition to the reasons specified in Section 48900, a pupil may be suspended from school or recommended for expulsion if the superintendent or the principal of the school in which the pupil is enrolled determines that the pupil has committed sexual harassment as defined in Section 212.5.[¶] For the purposes of this chapter, the conduct described in Section 212.5 must be considered by a reasonable person of the same gender as the victim to be sufficiently severe or pervasive to have a negative impact upon the individual's academic performance or to create an intimidating, hostile, or offensive educational environment. This section shall not apply to pupils enrolled in kindergarten and grades 1 to 3, inclusive."

Section 48900.3 (Stats.1994, ch. 1198, § 6, p. 7270), at the time relevant here, provided: "In addition to the reasons specified in Sections 48900 and 48900.2, a pupil in any of grades 4 to 12, inclusive, may be suspended from school or recommended for expulsion if the superintendent or the principal of the school in which the pupil is enrolled determines that the pupil has caused, attempted to cause, threatened to cause, or participated in an act of, hate violence, as defined in subdivision (e) of [former] Section 33032.5 [current section 233]."

In addition, section 48900.4 (Stats.1994, ch. 1017, § 1, p. 6196) provided, at the time relevant here: "In addition to the grounds specified in Sections 48900 and 48900.2, a pupil enrolled in any of grades 4 to 12, inclusive, may be suspended from school or recommended for expulsion if the superintendent or the principal of the school in which the pupil is enrolled determines that the pupil has intentionally engaged in harassment, threats, or intimidation, directed against a pupil or group of pupils, that is sufficiently severe or pervasive to have the actual and reasonably expected effect of materially disrupting classwork, creating substantial disorder, and invading the rights of that pupil or group of pupils by creating an intimidating or hostile educational environment."

(All of these current provisions—sections 48915, subdivision (e), 48900, 48900.2, 48900.3, and 48900.4—read today substantially the same as they did at the time relevant in the present case.)

10 As observed by amicus curiae California School Boards Association, a "test claim is like a class action—the Commission's decision applies to all school districts in the state. If the district is successful, the Commission goes to the Legislature to fund the statewide costs of the mandate for that year and annually thereafter as long as the statute is in effect."

11 The Commission concluded that the costs incurred in providing the following state-mandated procedures under Education Code section 48918 exceeded federal due process requirements, and were reimbursable: (i) adoption of rules and regulations pertaining to pupil expulsions (§ 48918, first par. & *passim*); (ii) inclusion in the notice of hearing of (a) a

copy of the disciplinary rules of the District, (b) a notice of the parents' obligation to notify a new school district, upon enrollment, of the pupil's expulsion, and (c) a notice of the opportunity to inspect and obtain copies of all documents to be used at the hearing (§ 48918, subd. (b)); (iii) allowing, upon request, the pupil or parent to inspect and obtain copies of the documents to be used at the hearing (§ 48918, subd. (b)); (iv) sending of written notice concerning (a) any decision to expel or suspend the enforcement of an expulsion order during a period of probation, (b) the right to appeal the expulsion to the county board of education, and (c) the obligation of the parent to notify a new school district, upon enrollment, of the pupil's expulsion (§ 48918, former subd. (i), currently subd. (j); (v) maintenance of a record of each expulsion, including the cause thereof (§ 48918, former subd. (j), currently subd. (k); and (vi) the recording of expulsion orders and the causes thereof in the pupil's mandatory interim record (and, upon request, the forwarding of this record to any school in which the pupil subsequently enrolls) (§ 48918, former subd. (j), currently subd. (k)).

12 Indeed, as the court in *City of Richmond, supra,* 64 Cal.App.4th 1190, 75 Cal.Rptr.2d 754, observed: "Increasing the cost of providing services cannot be equated with requiring an increased level of service under [article XIII B,] section 6.... A higher cost to the local government for compensating its employees is not the same as a higher cost of providing [an increased level of] services to the public." (*Id.,* at p. 1196, 75 Cal.Rptr.2d 754; accord, *City of Anaheim v. State of California* (1987) 189 Cal.App.3d 1478, 1484, 235 Cal.Rptr. 101 [temporary increase in PERS benefit to retired employees, resulting in higher contribution rate by local government, does not constitute a higher level of service to the public].)

13 Government Code section 17556 reads in full: "The commission shall not find costs mandated by the state, as defined in Section 17514, in any claim submitted by a local agency or school district, if, after a hearing, the commission finds that: [¶] (a) The claim is submitted by a local agency or school district which requested legislative authority for that local agency or school district to implement the program specified in the statute, and that statute imposes costs upon that local agency or school district requesting the legislative authority. A resolution from the governing body or a letter from a delegated representative of the governing body of a local agency or school district which requests authorization for that local agency or school district to implement a given program shall constitute a request within the meaning of this paragraph. [¶] (b) The statute or executive order affirmed for the state that which had been declared existing law or regulation by action of the courts. [¶] (c) The statute or executive order implemented a federal law or regulation and resulted in costs mandated by the federal government, unless the statute or executive order mandates costs which exceed the mandate in that federal law or regulation. [¶] (d) The local agency or school district has the authority to levy service charges, fees, or assessments sufficient to pay for the mandated program or increased level of service. [¶] (e) The statute or executive order provides for offsetting savings to local agencies or school districts which result in no net costs to the local agencies or school districts, or includes additional revenue that was specifically intended to fund the costs of the state mandate in an amount sufficient to fund the cost of the state mandate. [¶] (f) The statute or executive order imposed duties which were expressly included in a ballot measure approved by the voters in a statewide election. [¶] (g) The statute created a new crime or infraction, eliminated a crime or infraction, or changed the penalty for a crime or infraction, but only for that portion of the statute relating directly to the enforcement of the crime or infraction."

14 Subsequent amendments to federal law may alter this conclusion with regard to future test claims concerning Education Code section 48915's mandatory expulsion provision—see *post,* 16 Cal.Rptr.3d pages 481–482, 94 P.3d pages 602–603.

15 In Exhibit No. 1 to its claim, the District presented the declaration of a San Diego Unified School District official, estimating that in order to process "350 proposed expulsions" during the period spanning July 1, 1993, to June 30, 1994, the District would incur approximately $94,200 "in staffing and other costs"—yielding an average estimated cost of approximately $270 per hearing during the relevant period. It is unclear from the record how many of these 350 hearings would be triggered by Education Code section 48915's mandatory expulsion provision (and constitute state-mandated costs subject to reimbursement under article XIII B, section 6), and how many of these 350 hearings would be triggered by Education Code section 48915's discretionary provision (and, as explained *post,* in part II.B, constitute a nonreimbursable *federal* mandate).

We note that in the proceedings below, the Commission did not confine reimbursement only to those matters as to which the district on its own initiative would not have sought expulsion in the absence of the statutory requirement that it seek expulsion—and the Department has not raised that point in the trial court or on appeal.

16 "Firearm," as defined in 18 United States Code section 921, includes guns and explosives.

17 The prior law stated: "Except as provided in paragraph (3), each State receiving Federal funds under this chapter shall have in effect a State law requiring local educational agencies to expel from school for a period of not less than one year a student who is determined to have brought a weapon to a school under the jurisdiction of local educational agencies in that State, except that such State law shall allow the chief administering officer of such local educational agency to

modify such expulsion requirement for a student on a case-by-case basis." (Pub.L. No. 103–382, § 14601(b)(1) (Oct. 20, 1994) 108 Stat. 3518.)

18 See Pupil Expulsions II (4th Amendment), CSM No. 01–TC–18 (filed June 3, 2002). This claim, filed by the San Juan Unified School District, asserts reimbursable state mandates with respect to, among numerous other statutes, Education Code section 48915, as amended effective in 2002.

19 As the Commission observed in its Corrected Statement of Decision in this matter: "The authorization for governing boards to expel pupils from school for inappropriate behaviors has been in existence since before 1975. The behaviors defined as inappropriate under current law, subdivisions (a) though (*l*) of section 48900, 48900.2, and 48900.3, meet prior laws' definitions of 'good cause' and 'misconduct' as reasons for expulsion." (Italics deleted.)

20 The requirements of Education Code section 48918 would appear to be "new" for purposes of the reimbursement provisions, in that they did not exist prior to 1975 and were enacted in that year and subsequently. (See *ante,* fn. 2.) The requirements also would appear to meet both alternative tests set forth in *County of Los Angeles, supra,* 43 Cal.3d 46, 56, 233 Cal.Rptr. 38, 729 P.2d 202—that is, by implementing procedures that direct and guide the process of expulsion from public school, the statute appears to carry out a governmental function of providing services to public school students who face expulsion; or, it would seem, section 48918 constitutes a law that, to implement state policy, imposes unique requirements on local governments.

21 We also proceeded to hold that in any event, because the school districts were free to use program funds to pay for the challenged increased costs, the districts had, in practical effect, already been given funds by the Legislature to cover the challenged costs. (*Kern High School Dist., supra,* 30 Cal.4th at pp. 748–754, 134 Cal.Rptr.2d 237, 68 P.3d 1203.)

22 Indeed, the Court of Appeal below suggested that the present case is distinguishable from *City of Merced, supra,* 153 Cal.App.3d 777, 200 Cal.Rptr. 642, in light of article I, section 28, subdivision (c), of the state Constitution. That constitutional subdivision, part of Proposition 8 (known as the Victims' Bill of Rights initiative, adopted by the voters at the Primary Election in June 1982), states: "All students and staff of public primary, elementary, junior high and senior high schools have the inalienable right to attend campuses which are safe, secure and peaceful." The Court of Appeal below concluded: "In light of a school district's constitutional obligation to provide a safe educational environment ..., the incurring of [hearing] costs [under Education Code section 48918] cannot properly be viewed as a nonreimbursable 'downstream' consequence of a decision to [seek to] expel a student under [Education Code section 48915's discretionary provision] for damaging or stealing school or private property, using or selling illicit drugs, receiving stolen property, engaging in sexual harassment or hate violence, or committing other specified acts of misconduct ... that warrant such expulsion."

Building upon this theme, amicus curiae on behalf of the District, California School Boards Association, argues that based upon article I, section 28, subdivision (c), of the state Constitution, together with Education Code section 48200 et seq. and article IX, section 5 of the state Constitution (establishing and implementing a right of public education), *no* expulsion recommendation is "truly discretionary." Indeed, amicus curiae argues, school districts may not, "either as a matter of law or policy, realistically choose to [forgo] expelling [a] student [who commits one of the acts, other than firearm possession, referenced in Education Code section 48915's discretionary provision], because doing so would fail to meet that school district's legal obligations to provide a safe, secure and peaceful learning environment for the other students."

23 As we observed in *Kern High School Dist., supra,* 30 Cal.4th 727, 751–752, 134 Cal.Rptr.2d 237, 68 P.3d 1203, "article XIII B, section 6's 'purpose is to preclude the state from shifting financial responsibility for carrying out governmental functions to local agencies, which are "ill equipped" to assume increased financial responsibilities.' "

24 We do not foreclose the possibility that a local government might, under appropriate facts, demonstrate that a state law, though codifying federal requirements in part, also imposes more than "incidental" or "de minimis" expenses in excess of those demanded by federal law, and thus gives rise to a reimbursable state mandate to that extent.

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61 Cal.4th 339
Supreme Court of California

STATE DEPARTMENT OF STATE HOSPITALS et al., Petitioners,
v.
The SUPERIOR COURT of Los Angeles County, Respondent;
Elaina Novoa, Individually and as Personal Representative, etc., Real Party in Interest.

No. S215132.
|
June 1, 2015.

Synopsis
Background: Sister of rape and murder victim killed by parolee four days after release from prison brought action against State Department of Mental Health and its acting directors, alleging that they breached mandatory duties under the Sexually Violent Predators Act (SVPA) and committed negligence, and seeking a writ of mandamus to compel them to perform their duties. The Superior Court, Los Angeles County, No. BC487936, John L. Segal, J., overruled defendants' demurrers, and defendants petitioned for writ of mandate. The Court of Appeal granted petition in part and denied it in part.

Holdings: The Supreme Court, Corrigan, J., held that:

[1] SVPA requirement that the Department designate two psychiatrists or psychologists to conduct evaluations was a non-discretionary mandatory duty;

[2] Department did not have any mandatory duty to conduct an in-person evaluation;

[3] the harm to the public caused by parolee's release was the kind of risk the mandatory duty to designate two evaluators was designed to forestall; but

[4] Department's breach of its duty to designate a second evaluator was not a proximate cause of rape and murder committed by parolee.

Affirmed.

Opinion, 163 Cal.Rptr.3d 770, superseded.

Werdegar, J., filed concurring opinion, in which Liu and Kruger, JJ., joined.

Attorneys and Law Firms

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Opinion

CORRIGAN, J.

***343** ****1015** In 2007, Gilton Pitre was paroled from state prison. Before his release, the State Department of Mental Health (DMH) assessed ***344** whether he should be civilly committed under the Sexually Violent Predators Act (SVPA). (Welf. & Inst.Code, § 6600 et seq.) Ultimately, the Director of Mental Health did not request a petition for commitment and Pitre left prison. Four days later, he raped and murdered plaintiff Elaina Novoa's 15–year–old sister, Alyssa Gomez.

Plaintiff sued DMH and two of its acting directors, claiming the death was caused by defendants' failure to discharge mandatory duties imposed by the SVPA. The superior court overruled a demurrer. Defendants petitioned for a writ of mandate. The Court of Appeal issued an order to show cause, and concluded that while the SVPA imposed a mandatory duty on defendants, the alleged ****1016** breach was not the proximate cause of Gomez's death. We affirm.

I. BACKGROUND

A. *The SVPA*

[1] The SVPA authorizes the involuntary civil commitment of a person who has *****313** completed a prison term but is found to be a sexually violent predator (SVP). (*Reilly v. Superior Court* (2013) 57 Cal.4th 641, 646, 160 Cal.Rptr.3d 410, 304 P.3d 1071 (*Reilly*); *People v. McKee* (2010) 47 Cal.4th 1172, 1185, 104 Cal.Rptr.3d 427, 223 P.3d 566 (*McKee*).) The SVPA's purposes are " 'to protect the public from dangerous felony offenders with mental disorders and to provide mental health treatment for their disorders.' " (*McKee,* at p. 1203, 104 Cal.Rptr.3d 427, 223 P.3d 566.) The Welfare and Institutions Code sets forth the relevant procedures. (Welf. & Inst.Code, § 6600 et seq.) [1]

Section 6600, subdivision (a)(1) defines an SVP as "a person who has been convicted of a sexually violent offense against one or more victims and who has a diagnosed mental disorder that makes the person a danger to the health and safety of others in that it is likely that he or she will engage in sexually violent criminal behavior." [2] "Whenever the Director of Corrections determines that an individual who is in custody ... may be [an SVP], the director shall ... refer the person for evaluation...." (Former § 6601, subd. (a)(1).) [3] The statutory scheme establishes a multiple-level review for inmates who may be SVPs. An inmate who is referred by the Director of Corrections is then "screened by the Department of Corrections ... based on whether the ***345** person has committed a sexually violent predatory offense and on a review of the person's social, criminal, and institutional history. This screening shall be conducted in accordance with a structured screening instrument developed and updated by [DMH] in consultation with the Department of Corrections. If as a result of this screening it is determined that the person is likely to be [an SVP], the Department of Corrections shall refer the person to [DMH] for a full evaluation of whether the person [is an SVP]." [4] (Former § 6601, subd. (b).)

If an inmate is referred for full evaluation, "[DMH] shall evaluate the person in accordance with a standardized assessment protocol, developed and updated by [DMH], to determine whether the person is [an SVP]...." (§ 6601, subd. (c).) The scope of the evaluation is codified in some detail. "The standardized assessment protocol shall require assessment of diagnosable mental disorders, as well as various factors known to be associated with the risk of reoffense among sex offenders. Risk factors to be considered shall include criminal and psychosexual history, type, degree, and duration of sexual deviance, and severity of mental disorder." (*Ibid.*) Moreover, "the person shall be evaluated by two practicing psychiatrists or psychologists, or one practicing psychiatrist and one practicing psychologist, designated by the Director of Mental Health. If both evaluators concur that the person has a diagnosed mental disorder so that he or she is likely to engage in acts of sexual violence without appropriate treatment *****314** and custody, the Director of Mental Health shall forward a request for a petition for commitment" to the designated counsel of the county in which the inmate was convicted. [5] (Former § 6601, subd. (d).)

****1017** If the evaluators disagree about whether the person meets the criteria, "the Director of Mental Health shall arrange for further examination of the person by two independent professionals...." (§ 6601, subd. (e).) "[A] petition to request commitment ... shall only be filed if both independent professionals ... concur that the person meets the criteria for commitment...." (§ 6601, subd. (f).) When that requirement is met, "the Director of Mental Health shall forward a request for a petition to be filed for commitment" to the designated counsel of the county. (Former § 6601, subd. (h).) If counsel concurs with the recommendation, "a petition for commitment shall be filed in ... superior court...." (§ 6601, subd. (i).) The court thereafter "shall review the petition and shall determine whether there is probable cause to believe that the individual ... is likely to engage in ***346** sexually violent predatory criminal behavior upon his or her release." (§ 6602, subd. (a).) The court must order a trial if there is probable cause, and it must dismiss the petition if there is not. (*Ibid.*)

The inmate is "entitled to a trial by jury, to the assistance of counsel, to the right to retain experts or professional persons to perform an examination on his or her behalf, and to have access to all relevant medical and psychological records and reports." (§ 6603, subd. (a).) There can be no civil commitment under the SVPA unless the trier of fact determines beyond a reasonable doubt that the person is an SVP. (§ 6604.) A person found to be an SVP "shall be committed for an indeterminate

term to the custody of [DMH] for appropriate treatment and confinement in a secure facility....” (*Ibid.*) Annual examinations are conducted to assess whether the person is still likely to engage in sexually violent criminal behavior if discharged. (§ 6605, subd. (a).)

B. *Factual and Procedural History*

[2] On demurrer review, we accept the truth of material facts properly pleaded, but not contentions, deductions, or conclusions of fact or law. We may also consider matters subject to judicial notice. (*Evans v. City of Berkeley* (2006) 38 Cal.4th 1, 6, 40 Cal.Rptr.3d 205, 129 P.3d 394.) In 1996, Pitre raped his female roommate. He was convicted and sentenced to a determinate term in state prison. In 2007, he was scheduled for parole. DOC determined that Pitre was likely to be an SVP, and referred him to DMH for evaluation. DMH, however, did not conduct a full evaluation by two psychologists or psychiatrists, or one of each, as required by statute. Instead, a single evaluator reviewed records received from DOC, and on that limited basis determined that Pitre was suitable for release. The complaint describes this limited evaluation by a single evaluator as a “Level II” screening under DMH regulations in effect at the time. After reviewing a person's records, a “Level II” evaluator could either close a case or refer it for a full “Level III” assessment by two evaluators. Because the Director of Mental Health did not forward a request for a petition for commitment, Pitre was paroled. Four days later, he raped and murdered Gomez. [6]

*****315** Plaintiff sued, asserting claims for breach of mandatory duty (Gov.Code, § 815.6), negligence, and negligence per se. She also sought a writ of mandate requiring defendants to comply with SVPA evaluation procedures (Code Civ. Proc., § 1085). She claimed that if defendants had conducted the full evaluation required by statute, “any two competent, ethical evaluators would have determined [Pitre] met the criteria for civil commitment,” based ***347** on “the circumstances of his 1996 offense, as detailed in the records,” which “clearly and unequivocally demonstrate the sadistic nature of his crime.” She alleged that the single evaluator who reviewed Pitre's case stated that if he had had access to all the records and considered the sadistic nature of Pitre's 1996 crime, he would have concluded that Pitre was an SVP. Plaintiff further alleged that most sexual predators who reoffend exhibit “tell-tale signs,” and that a full evaluation would likely have detected such signs in Pitre.

****1018** Had there been two positive findings on Pitre's SVP status, DMH was obligated to submit a request for a civil commitment to designated counsel. Plaintiff claimed that a petition has been filed in every case referred by DMH following two positive evaluations. Had a petition been filed, Pitre's case would have gone to trial, the complaint alleged, and “he would have been civilly committed.”

Defendants demurred, arguing that plaintiff failed to state a cause of action and that they were immune from liability. [7] The superior court overruled the demurrer. On writ review, the Court of Appeal concluded that defendants were not immune from suit. It held that the SVPA imposes a mandatory duty to use two evaluators. However, the court also ruled that plaintiff could not, as a matter of law, establish the breach of that duty as the proximate cause of Gomez's death. The court further held that plaintiff failed to show she could amend her complaint to cure the defect as to proximate cause. Accordingly, it directed the superior court to sustain defendants' demurrer to the first and second causes of action. The writ proceeding in the trial court requiring defendants to discharge their mandatory duties under the SVPA was allowed to go forward.

II. DISCUSSION

A. *Sovereign Immunity and Duty*

Traditionally, the doctrine of sovereign immunity shielded states from both suit and liability. (*Franchise Tax Bd. v. Superior Court* (2011) 51 Cal.4th 1006, 1012, 125 Cal.Rptr.3d 158, 252 P.3d 450; 5 Witkin, Summary of Cal. Law (10th ed. 2005) Torts, § 203, p. 344.) Under the doctrine, a state is immune except to the extent it consents to suit. (See Prosser & Keeton, Torts (5th ed.1984) § 131, p. 1033.) In *Muskopf v. Corning Hospital Dist.* (1961) 55 Cal.2d 211, 221, 11 Cal.Rptr. 89, 359 P.2d 457, this court abolished the rule of government immunity from tort liability.

***348** **[3]** The Legislature responded by temporarily reinstating former law, then replacing it in 1963 with the Government Claims Act (Gov.Code, § 810 et seq.), which sets out a comprehensive scheme of governmental

liability and immunity statutes. (***316 *Thomas v. City of Richmond* (1995) 9 Cal.4th 1154, 1157, 40 Cal.Rptr.2d 442, 892 P.2d 1185; 5 Witkin, Summary of Cal. Law, *supra,* Torts, § 216, p. 366.) Under the act, a public entity is not liable "[e]xcept as otherwise provided by statute." (Gov.Code, § 815; see *Hoff v. Vacaville Unified School Dist.* (1998) 19 Cal.4th 925, 932, 80 Cal.Rptr.2d 811, 968 P.2d 522.) One such statute is Government Code section 815.6, which provides, "Where a public entity is under a mandatory duty imposed by an enactment that is designed to protect against the risk of a particular kind of injury, the public entity is liable for an injury of that kind proximately caused by its failure to discharge the duty unless the public entity establishes that it exercised reasonable diligence to discharge the duty." (Gov.Code, § 815.6.) Thus, the government may be liable when (1) a mandatory duty is imposed by enactment, (2) the duty was designed to protect against the kind of injury allegedly suffered, and (3) breach of the duty proximately caused injury.

Even when a duty exists, California has enacted specific immunity statutes that, if applicable, prevail over liability provisions. (*Creason v. Department of Health Services* (1998) 18 Cal.4th 623, 635, 76 Cal.Rptr.2d 489, 957 P.2d 1323 (*Creason*); 5 Witkin, Summary of Cal. Law, *supra,* Torts, § 226, p. 375.) However, the first question is whether the plaintiff has alleged the breach of a mandatory duty. (*Creason,* at p. 630, 76 Cal.Rptr.2d 489, 957 P.2d 1323.) If there is no actionable duty, the question of immunity does not arise. (*Ibid.; Caldwell v. Montoya* (1995) 10 Cal.4th 972, 985, 42 Cal.Rptr.2d 842, 897 P.2d 1320; 5 Witkin, Summary of Cal. Law, *supra,* Torts, § 225, p. 374.)

[4] **[5]** Courts have delineated what is necessary to establish a mandatory duty. "First and foremost, ... the enactment at issue [must] be *obligatory,* rather than merely discretionary or permissive, in its directions to **1019 the public entity; it must *require,* rather than merely authorize or permit, that a particular action be taken or not taken." (*Haggis v. City of Los Angeles* (2000) 22 Cal.4th 490, 498, 93 Cal.Rptr.2d 327, 993 P.2d 983 (*Haggis*).) "It is not enough, moreover, that the public entity or officer have been under an obligation to perform a function *if the function itself involves the exercise of discretion.*" (*Ibid.,* italics added.) Moreover, "[c]ourts have ... [found] a mandatory duty only if the enactment 'affirmatively imposes the duty and provides implementing guidelines.' " (*Guzman v. County of Monterey* (2009) 46 Cal.4th 887, 898, 95 Cal.Rptr.3d 183, 209 P.3d 89 (*Guzman*).) " ' "[T]he mandatory nature of the duty must be phrased in explicit and forceful language." [Citation.] "It is not enough that some statute contains mandatory language. *349 In order to recover plaintiffs have to show that there is some *specific* statutory mandate that was violated by the [public entity]." ' [Citations.]" (*Id.* at pp. 910–911, 95 Cal.Rptr.3d 183, 209 P.3d 89.)

[6] **[7]** **[8]** Whether an enactment imposes "a mandatory duty, rather than a mere obligation to perform a discretionary function, is a question of statutory interpretation for the courts." (*Creason, supra,* 18 Cal.4th at p. 631, 76 Cal.Rptr.2d 489, 957 P.2d 1323.) The enactment's "language 'is, of course, a most important guide in determining legislative intent, [but] there are unquestionably instances in which other factors will indicate that apparent obligatory language was not intended to foreclose a governmental entity's or officer's exercise of discretion.' " (*Haggis, supra,* 22 Cal.4th at p. 499, 93 Cal.Rptr.2d 327, 993 P.2d 983.) For example, the word "shall" is "mandatory" for purposes of the Welfare and Institutions Code. (§ 15; see Gov.Code, § 14 [same].) "However, as we have emphasized, this term's inclusion in ***317 an enactment does not necessarily create a mandatory duty" within the meaning of Government Code section 815.6. (*Guzman, supra,* 46 Cal.4th at p. 899, 95 Cal.Rptr.3d 183, 209 P.3d 89.)

[9] We have recognized that while the "exercise of discretion may often mark the dividing line between a duty that is mandatory and one that is not [citation], that line is sometimes difficult to draw." (*Guzman, supra,* 46 Cal.4th at p. 899, 95 Cal.Rptr.3d 183, 209 P.3d 89.) "[I]n cases not involving a public entity's ' "quasi-legislative policy-making" ' [citation], the inquiry should focus on whether the entity must 'render a considered decision' [citation], one requiring its expertise and judgment [citations]." (*Ibid.*) *Creason* is illustrative. Sierra Creason and her parents sued the Department of Health Services (DHS) after neonatal testing failed to disclose that Sierra was born without a functioning thyroid gland. (*Creason, supra,* 18 Cal.4th at pp. 626–627, 76 Cal.Rptr.2d 489, 957 P.2d 1323.) The complaint alleged that the test DHS designated was deficient, resulting in failure to diagnose Sierra's congenital hypothyroidism, which in turn led to a significant delay in treatment and

irreversible injury. (*Id.* at p. 627, 76 Cal.Rptr.2d 489, 957 P.2d 1323.)

The applicable statutory scheme, the Hereditary Disorders Act (Health & Saf.Code, § 124975 et seq.), provided: "[DHS] shall establish a genetic disease unit," and "[t]he unit shall promote a statewide program of ... testing ... and shall have the responsibility of designating tests and regulations to be used in executing this program. [¶] The ... tests ... shall be in accordance with accepted medical practices and shall be administered to each child born in California once the department has established appropriate regulations and testing methods." (*Id.,* § 125000, subd. (a).) DHS thus had a mandatory duty to establish a neonatal testing program. However, the particular standards for testing and the protocol for reporting were left to its discretion and judgment.

***350** Had DHS taken no action at all, it would have failed to discharge its mandatory duty to designate the tests to be used. But DHS discharged that duty, and the plaintiffs did not allege otherwise. Instead, they argued that the way DHS exercised its judgment in designating tests and implementing procedures caused Sierra's injury. (*Creason, supra,* 18 Cal.4th at pp. 627–628, 76 Cal.Rptr.2d 489, 957 P.2d 1323.) The *Creason* court concluded that a demurrer was properly granted. Although DHS's duty to designate tests was mandatory, its formulation of those tests ****1020** and related reporting standards was discretionary and could not give rise to liability. (*Id.* at pp. 629, 635, 76 Cal.Rptr.2d 489, 957 P.2d 1323.)

[10] *Creason* and similar cases illustrate the following distinction. A mandatory duty is created only when an enactment requires an act that is clearly defined and not left to the public entity's discretion or judgment. (*County of Los Angeles v. Superior Court* (2012) 209 Cal.App.4th 543, 550–551, 147 Cal.Rptr.3d 33 (*Faten*).) Such an act is mandated only to the extent of the enactment's precise formulation. When the enactment leaves implementation to an exercise of discretion, "lend[ing] itself to a normative or qualitative debate over whether [the duty] was adequately fulfilled," an alleged failure in implementation will not give rise to liability. (*de Villers v. County of San Diego* (2007) 156 Cal.App.4th 238, 260, 67 Cal.Rptr.3d 253.)

[11] Applying these principles here, we hold that the complaint sufficiently alleges a breach of DMH's mandatory duty to conduct an evaluation with two evaluators. The SVPA specifies that an inmate referred *****318** by DOC "*shall be evaluated* by *two* practicing psychiatrists or psychologists, or one practicing psychiatrist and one practicing psychologist, designated by the Director of Mental Health." (Former § 6601, subd. (d), italics added.) This language is clear, conferring no discretion as to the number of evaluators. (*Haggis, supra,* 22 Cal.4th at p. 502, 93 Cal.Rptr.2d 327, 993 P.2d 983; *Faten, supra,* 209 Cal.App.4th at p. 551, 147 Cal.Rptr.3d 33.) Moreover, the use of *two* evaluators is critical to the SVPA process. A petition for commitment cannot be requested unless both evaluators agree that a person meets the criteria for SVP status. (§ 6601, subd. (d).) If they disagree, the Director of Mental Health must arrange for two independent evaluators to conduct a further examination. Both must concur that the inmate meets the criteria before a commitment petition can be requested. (§ 6601, subds. (e) & (f).) In sum, the enactment's language, taken together with the design of the SVPA process, makes it clear that the Legislature " 'intended to foreclose ... [the] exercise of discretion' " with regard to how many evaluators must be designated to assess persons referred by DOC. (*Haggis,* at p. 499, 93 Cal.Rptr.2d 327, 993 P.2d 983.)

Defendants concede they are obliged to "designate two mental health professionals to conduct the 'full evaluation.' " Citing the discretion woven throughout the SVPA process, however, they argue that the obligation does not amount to a mandatory duty. Defendants note, for example, that the ***351** Director of Corrections first has discretion to determine whether someone might be an SVP, that DOC's subsequent screening is discretionary, and that the evaluators designated by DMH have discretion to determine whether a person meets the SVP criteria. Defendants conclude from this that the *entire* SVPA screening process, including their duty to designate two evaluators, should be considered discretionary. The argument fails. Whatever discretion may be afforded by other provisions, the statute requiring the Director of Mental Health to designate two evaluators affords none.

[12] The only other mandatory duty identified in the complaint is an alleged obligation on the part of DMH to conduct *in-person* examinations of all referred inmates. The Court of Appeal properly rejected this claim. The SVPA states that after an inmate is referred for a full evaluation, DMH "*shall evaluate* the person

in accordance with a standardized assessment protocol" including specific risk factors. (§ 6601, subd. (c), italics added.) However, nowhere does the statute impose a *specific* requirement for in-person examination of referred inmates. As *Guzman* explained, a mandatory duty must be based on an enactment phrased in explicit and forceful language. (*Guzman, supra,* 46 Cal.4th at pp. 910–911, 95 Cal.Rptr.3d 183, 209 P.3d 89.) Noncodified details of the SVP evaluation protocol are left to DMH's judgment and discretion.[8] (§ 6601, subd. (c).) ****1021** Without any specific statutory command, DMH is not subject to a mandatory duty to conduct in-person evaluations of all referred inmates. (*Guzman,* at p. 910, 95 Cal.Rptr.3d 183, 209 P.3d 89.)[9]

*****319** **[13]** As to the second element of Government Code section 815.6, there is no dispute that harm to the public caused by an SVP's release is the kind of risk the SVPA was designed to forestall.[10] The particular mandatory duty at issue here requires the designation of two evaluators. This element of ***352** redundancy built into the review process serves the interest of the inmate as well as the governmental interest in protecting public safety. However, the potential dual benefit does not defeat plaintiff's showing. We have recognized that public safety is a particularly powerful purpose of the SVPA evaluation process. (*Moore v. Superior Court* (2010) 50 Cal.4th 802, 825, 114 Cal.Rptr.3d 199, 237 P.3d 530; *People v. Superior Court (Ghilotti)* (2002) 27 Cal.4th 888, 912, 119 Cal.Rptr.2d 1, 44 P.3d 949.) It is clear that the requirement of two evaluators was designed, in part, to guard against the risk that an SVP might be released.

B. *Proximate Causation*

[14] **[15]** If the first two elements set out in Government Code section 815.6 are satisfied, "the next question is whether the breach ... was a proximate cause of the plaintiff's injury." (*Guzman, supra,* 46 Cal.4th at p. 898, 95 Cal.Rptr.3d 183, 209 P.3d 89; see *Haggis, supra,* 22 Cal.4th at p. 499, 93 Cal.Rptr.2d 327, 993 P.2d 983.)[11] We have recognized that proximate cause has two aspects. " 'One is *cause in fact.* An act is a cause in fact if it is a necessary antecedent of an event.' " (*Ferguson v. Lieff, Cabraser, Heimann & Bernstein* (2003) 30 Cal.4th 1037, 1045, 135 Cal.Rptr.2d 46, 69 P.3d 965 (*Ferguson*).) This is sometimes referred to as "but-for" causation. (E.g., *Cabral v. Ralphs Grocery* *****320** *Co.* (2011) 51 Cal.4th 764, 784, 122 Cal.Rptr.3d 313, 248 P.3d 1170.)[12]

***353** ****1022** **[16]** The second aspect of proximate cause " focuses on public policy considerations. Because the purported [factual] causes of an event may be traced back to the dawn of humanity, the law has imposed additional 'limitations on liability other than simple causality.' [Citation.] 'These additional limitations are related not only to the degree of connection between the conduct and the injury, but also with public policy.' [Citation.] Thus, 'proximate cause "is ordinarily concerned, not with the fact of causation, but with the various considerations of policy that limit an actor's responsibility for the consequences of his conduct." ' [Citation.]" (*Ferguson, supra,* 30 Cal.4th at p. 1045, 135 Cal.Rptr.2d 46, 69 P.3d 965.) As Witkin puts it, "[t]he doctrine of proximate cause limits liability; i.e., in certain situations where the defendant's conduct is an actual cause of the harm, the defendant will nevertheless be absolved because of the manner in which the injury occurred.... Rules of legal cause ... operate to relieve the defendant whose conduct is a cause in fact of the injury, where it would be considered unjust to hold him or her legally responsible." (6 Witkin, Summary of Cal. Law, *supra,* Torts, § 1186, p. 553.)

[17] "Ordinarily, proximate cause is a question of fact which cannot be decided as a matter of law from the allegations of a complaint.... Nevertheless, where the facts are such that the only reasonable conclusion is an absence of causation, the question is one of law, not of fact." (*Weissich v. County of Marin* (1990) 224 Cal.App.3d 1069, 1084, 274 Cal.Rptr. 342; see 6 Witkin, Summary of Cal. Law, *supra,* Torts, § 1184, pp. 551–552; Van Alstyne et al., Cal. Government Tort Liability Practice (Cont.Ed.Bar 2015) § 9.38, pp. 530–530.2.)

The Court of Appeal below relied on a line of cases decided at the pleading stage. All held that proximate cause was not established when a governmental defendant's failure to act allegedly caused injury, but the chain of causation included discretionary determinations for which no liability could be imposed. First in this line is *Whitcombe v. County of Yolo* (1977) 73 Cal.App.3d 698, 141 Cal.Rptr. 189 (*Whitcombe*). There, a probationer with severe mental disorders was arrested but released on bail. Thereafter, he assaulted and severely injured the plaintiffs. They sued the county, its probation department, and

probation officers, claiming the defendants had breached a mandatory duty to investigate the incident leading to the arrest and report the probation violation to the court. (*Id.* at pp. 702–703, 141 Cal.Rptr. 189.) A demurrer was sustained for failure to state a cause of action. (*Id.* at p. 702, 141 Cal.Rptr. 189.) The Court of Appeal affirmed, concluding the plaintiffs could not establish that the alleged breaches were the proximate cause of their injuries. (*Id.* at p. 707, 141 Cal.Rptr. 189.)

***354** The *Whitcombe* court noted that the grant or revocation of probation was left to the discretion of the trial court, which was not bound by a probation officer's report or recommendation, or by any particular fact in the record. "Rather, '[i]t must be guided by considerations pertaining to psychology, sociology and penology, or, in the words of the code, to "the ends of justice"; *****321** by general rules of policy which have not been and in the nature of the case should not be crystallized into positive or definite rules of law.' [Citation.]" (*Whitcombe, supra,* 73 Cal.App.3d at p. 708, 141 Cal.Rptr. 189.) "In view of the latitude accorded the trial court," the claim that the failure to investigate and report the assailant's violations proximately caused the plaintiff's injuries was "specious." (*Ibid.*) Whether or not the trial court reviewed the probation reports, "the proximate cause of [the plaintiffs'] injuries would, at best, be the court's considered decision; manifestly an act immunized from liability under Government Code section 845.8, subdivision (a)." [13] (*Ibid.*)

In *State of California v. Superior Court* (1984) 150 Cal.App.3d 848, 197 Cal.Rptr. 914 (*Perry*), the plaintiffs alleged they were defrauded by a property manager licensed by the Department of Real Estate. They sued, ****1023** claiming the Real Estate Commissioner breached his mandatory duty to investigate a prior fraud complaint against the manager. (*Id.* at p. 852, 197 Cal.Rptr. 914.) The Court of Appeal agreed with the plaintiffs that the commissioner had a mandatory duty to investigate complaints, and that their injury was the kind the statutory mandate was intended to protect against. (*Id.* at pp. 855–856, 197 Cal.Rptr. 914.) However, relying on *Whitcombe,* the court held the plaintiffs could not establish that the alleged breach was the proximate cause of their loss. "[E]ven had the commissioner used due care to investigate the ... complaint, and had discovered ... wrongdoing, there is no reasonable assurance that sanctions would have been imposed that would have prevented plaintiffs' subsequent losses." (*Id.* at p. 857, 197 Cal.Rptr. 914.) "The commissioner's mandatory statutory duty to 'investigate' the ... complaint may not reasonably be read as imposing a mandatory duty ... to *take action* in the event the ... investigation disclose[d] evidence of wrongdoing. Indeed, the Business and Professions Code specifically allows the commissioner discretion as to what action, if any, he deems appropriate to deal with transgressing licensees." (*Id.* at p. 858, 197 Cal.Rptr. 914.)

"Moreover, he cannot act unilaterally to suspend or revoke a license; rather, suspension or revocation can occur only following a formal adjudicatory process at which accusations have to be proved by the Department of Real Estate.... [Citation.] In addition, had the accusations been sustained, ***355** and had the commissioner exercised his discretionary power to impose discipline [citation], that discipline could have been in the form of a license suspension for as little as 15 days [citation]—a penalty that would not have had any obvious effect on plaintiffs' losses. [¶] In short, several procedural steps lie between an initial investigation that discloses evidence of wrongdoing and any eventual imposition of effective sanctions against an offending real estate agent. The causal link is thus tenuous at best." (*Perry, supra,* 150 Cal.App.3d at pp. 858–859, 197 Cal.Rptr. 914, fn. omitted.) The *Perry* court further noted that "plaintiffs' proximate cause argument leads them inexorably into immunities that insulate the commissioner from liability," because the commissioner's discretionary enforcement alternatives were statutorily immunized. (*Id.* at p. 859, fn. 8, 197 Cal.Rptr. 914.)

The third case in this line of authority is *Fleming v. State of California* (1995) 34 Cal.App.4th 1378, 41 Cal.Rptr.2d 63 (*Fleming* *****322**). There, a parolee committed murder. The victim's family alleged that the killer's parole officer had breached a mandatory duty to arrest him for a parole violation. The trial court sustained a demurrer. (*Id.* at pp. 1381–1382, 41 Cal.Rptr.2d 63.) The Court of Appeal affirmed. It reasoned in part that "the failure to arrest [the parolee] was not in itself a cause of the injury, [because] arrest without a period of incarceration would not necessarily have prevented the crime. Incarceration, however, would have involved procedural steps involving the exercise of discretion and thus have broken the causal chain." (*Id.* at p. 1384, 41 Cal.Rptr.2d 63, citing *Perry.*)

[18] After reviewing these cases, the Court of Appeal below concluded that "the distance between defendant's

alleged breach of a mandatory duty and plaintiff's injuries is too [great] to support a Government Code section 815.6 action." Even if DMH had conducted a full evaluation by appointing a second evaluator, the second evaluation would have had to disagree with the first and conclude that Pitre was an SVP; two independent evaluators would then have had to agree that he was an SVP; the designated counsel would have had to make a discretionary decision to file a civil commitment petition; and the trial court would have to have made a discretionary probable cause determination. Ultimately, the trier of fact would have had discretion to deny the petition. We agree with the court below that under the facts pleaded here, proximate cause is absent as a matter of law.

[19] The only mandatory duty established by the complaint's allegations is the duty to use two evaluators; the details of the *manner* in which each evaluator conducts the review are discretionary, so long as they include the statutory criteria. Thus, no actionable breach of duty can be found in the ****1024** single evaluator's failure to conclude that Pitre was an SVP. Nor can plaintiff hypothesize a positive finding by that evaluator as a link in the chain of proximate causation. Instead, she must posit a subsequent unbroken series of ***356** discretionary findings contradicting the first evaluator's conclusion and leading to civil commitment. And as in *Perry,* none of these intermediate findings could individually have determined the outcome. (*Perry, supra,* 150 Cal.App.3d at pp. 858–859, 197 Cal.Rptr. 914.) Pitre's commitment could only have occurred after a multiple-stage review process culminating in a trial and a verdict reached beyond a reasonable doubt. Plaintiff's showing of "but for" causation is weak, because with each step in the review process the results become more speculative. As explained in *Viner v. Sweet, supra,* 30 Cal.4th at page 1241, 135 Cal.Rptr.2d 629, 70 P.3d 1046, the purpose of the "but for" requirement is to safeguard against speculative and conjectural claims.

The policy considerations bearing on the question of proximate cause are also a considerable obstacle to plaintiff's claim. It can always be argued that governmental discretion could only have reasonably been exercised in one way. Yet such arguments turn on questions of degree, and indeed are in tension with the very idea of discretion. We do not hold that the intervention of *any* discretionary decision between breach of a mandatory duty and a subsequent injury will always foreclose a finding of proximate cause.[14] Nor do we hold that *****323** proximate cause can never be established if a mandatory duty imposed by the SVPA is breached. For instance, if DMH failed to evaluate an inmate at all, or neglected to forward a request for a civil commitment after two evaluators found an inmate to be an SVP, a cause of action would not necessarily be barred simply because subsequent discretionary decisions would have been required to prevent the inmate's release.

However, the breach of duty in this case did not result in the absence of any evaluation, or the failure to act on evaluations as required by law. Plaintiff's claim, while premised on the breach of a mandatory duty, is in effect a complaint about *how the evaluation of Pitre was performed.* We note that if the review conducted by the single DMH evaluator had been performed by DOC at the previous stage of the review process, Pitre would have been released without any referral to DMH, and no cause of action would lie. Under these circumstances, as a policy matter, DMH's failure to appoint a second evaluator cannot properly be considered a proximate cause of Pitre's ***357** heinous crime. (See 6 Witkin, Summary of Cal. Law, *supra,* Torts, § 1186, p. 553; *Ferguson, supra,* 30 Cal.4th at p. 1045, 135 Cal.Rptr.2d 46, 69 P.3d 965.)[15]

Accordingly, we conclude that plaintiff's showing fails under both aspects of the proximate cause determination. As a matter of cause in fact it is conjectural, depending on a long series of determinations that would have been required after DMH's breach in order for the injury to have been prevented. As a matter of policy it is problematic, because it trenches closely upon the discretionary functions of the evaluation process established by the SVPA.

Plaintiff argues that *Whitcombe, Perry*, and *Fleming* are distinguishable because none of those cases involved breach of a ****1025** mandatory duty. The assertion is unsupported. The *Perry* court acknowledged a mandatory duty. (*Perry, supra,* 150 Cal.App.3d at p. 855, 197 Cal.Rptr. 914.) The *Whitcombe* and *Fleming* courts necessarily presumed mandatory duties for purposes of their proximate cause analyses. (*Whitcombe, supra,* 73 Cal.App.3d at pp. 707–708, 141 Cal.Rptr. 189; *Fleming, supra,* 34 Cal.App.4th at p. 1384, 41 Cal.Rptr.2d 63.) In any event, we decide the proximate cause issue against plaintiff not because the *Whitcombe* line of cases is controlling, but because the facts pleaded in this complaint

are legally insufficient to connect the breach of mandatory duty with the injury. [16]

***324 III. CONCLUSION

We affirm the Court of Appeal's conclusions. The SVPA imposed a mandatory duty upon defendants to designate two evaluators to assess all persons referred by the DOC. However, plaintiff could not establish that the alleged breach of this duty was a proximate cause of Gomez's death. As the Court of Appeal concluded, plaintiff is free to pursue a writ of mandate requiring defendants to comply with their mandatory duties under the SVPA.

WE CONCUR: CANTIL–SAKAUYE, C.J., CHIN, and CUÉLLAR, JJ.

Concurring Opinion by WERDEGAR, J.

I concur in the court's decision affirming the Court of Appeal's judgment ordering the superior court to sustain ***358** defendants' demurrers to plaintiff's first and second causes of action. I do so, however, on narrower grounds than the majority. The majority holds plaintiff's allegations of proximate cause are both legally insufficient as to cause in fact and in contravention of public policies involving discretionary governmental decisions. (Maj. opn., *ante,* 188 Cal.Rptr.3d at pp. 321–324, 349 P.3d at pp. 1023–1025.) I agree with the first conclusion but not the second.

I

In a typical personal injury action, where the causal relationship between the breach of duty and the injury is relatively plain, "it suffices to plead causation succinctly and generally." (*Bockrath v. Aldrich Chemical Co.* (1999) 21 Cal.4th 71, 78, 86 Cal.Rptr.2d 846, 980 P.2d 398.) "But when, by contrast, ' "the pleaded facts of negligence and injury do not naturally give rise to an inference of causation[,] the plaintiff must plead specific facts affording an inference the one caused the others." ' [Citation.] That is, the plaintiff must allege facts, albeit as succinctly as possible, explaining how the conduct caused or contributed to the injury." (*Ibid.*)

In the present case, the causal connection between the State Department of State Hospitals's failure to employ two mental health professionals to evaluate Gilton Pitre as a potential sexually violent predator (SVP), and Pitre's subsequent rape and murder of plaintiff's sister, is by no means plainly apparent. Both for this reason and because plaintiff's cause of action under Government Code section 815.6 is a statutory one requiring every material fact to be pleaded with particularity (*Bockrath v. Aldrich Chemical Co., supra,* 21 Cal.4th at p. 78, 86 Cal.Rptr.2d 846, 980 P.2d 398; *Lopez v. Southern Cal. Rapid Transit Dist.* (1985) 40 Cal.3d 780, 795, 221 Cal.Rptr. 840, 710 P.2d 907), plaintiff bore the burden of pleading with particularity each fact necessary to show how the agency's alleged breach caused her injury. The rule that a demurrer admits only properly pleaded material facts, not contentions, deductions or conclusions (*Evans v. City of Berkeley* (2006) 38 Cal.4th 1, 6, 40 Cal.Rptr.3d 205, 129 P.3d 394), should be applied here with plaintiff's burden of particularity in mind: to the extent the complaint included only conclusory or inferential claims of factual ****1026** causation, rather than particularized allegations of fact, it was subject to demurrer.

Viewing the complaint in this light, I agree with the majority its allegations of cause in fact were overly speculative and conjectural. (Maj. opn., *****325** *ante,* 188 Cal.Rptr.3d at pp. 321–322, 349 P.3d at pp. 1023–1024.) Plaintiff alleges in a conclusory manner that had the agency employed two clinicians to perform a "full evaluation," rather than a single professional to do a "paper screen[ing]," the two evaluators, on reviewing Pitre's criminal record and seeing the sadistic nature of his prior sex offense, would have determined he qualified as an SVP. But the complaint fails to ***359** include any specific facts as to what part of Pitre's criminal record the single evaluator failed to review or what facts of the prior crime were therefore not before him. For the crucial first step in her hypothetical causative chain, therefore, plaintiff provides only a conclusion, and a rather speculative one at that.

To the extent plaintiff was unable to learn, before filing her complaint, what criminal records were and were not reviewed by the sole evaluator, but had reason to believe identifiable critical information was omitted from his screening that would have been before the required two evaluators pursuant to the agency's "standardized assessment protocol" (Welf. & Inst.Code, § 6601, subd.

(c)), she could have alleged such particular critical omissions on information and belief. (See 4 Witkin, Cal. Procedure (5th ed.2008) Pleading, § 398, pp. 537–538.) If plaintiff had no information and belief with regard to particular critical omissions from the screening materials, as indeed may have been the case, she lacked an adequate basis for claiming the agency's choice of a "screen[ing]" by one professional, instead of an "evaluation" by two, factually caused the agency's failure to refer Pitre to the designated county attorney for an SVP petition. (See Welf. & Inst.Code, § 6601, subd. (d).)

The complaint's deficiencies regarding the hypothetical causative chain's first step, the lack of an evaluation by two mental health professionals, are compounded by its treatment of the final step, Pitre's hypothetical commitment as an SVP. The allegation that Pitre "would have been civilly committed" is entirely conclusory, accompanied by no particularized facts to show that a unanimous jury would have determined, beyond a reasonable doubt, that Pitre was an SVP. (See Welf. & Inst.Code §§ 6603, subd. (f), 6604.)

The complaint may be read to claim that even the *filing* of a commitment petition would have prevented the injury because most such petitions allegedly go to trial and, had a petition been filed and Pitre held for trial past his scheduled release date, "he would not have had the opportunity to murder Alyssa only four days later." But this type of coincidental causation—an allegation that some breach created an opportunity for an injury to occur, without increasing the risk of that injury occurring—is insufficient. (See Rest.3d Torts, Liability for Physical and Emotional Harm, § 30 ["An actor is not liable for harm when the tortious aspect of the actor's conduct was of a type that does not generally increase the risk of that harm."]; *Royal Indem. Co. v. Factory Mut. Ins. Co.* (Iowa 2010) 786 N.W.2d 839, 852["[E]ven where an act may be a factual cause, 'we are convinced that an act which merely places persons in the position where they sustain injury from an unrelated event is not for that reason a legal cause of the injury.' "]; *Berry v. Sugar Notch Borough* (1899) 191 Pa. 345, 348–349, 43 A. 240 [rejecting as ***360** "sophistical" argument that streetcar motorman's speeding was the cause of his injuries when tree fell on his streetcar as it passed: although "it was the particular speed at which he was running [the streetcar] which brought the car to the place of the accident at the moment when the tree blew down[,] ... [t]he same thing might as readily have happened to a car running slowly, or it might have been that a high *****326** speed alone would have carried him beyond the tree to a place of safety."].) [17] The risk of Pitre reoffending was no greater because he was released without a trial than ****1027** had he been released after a trial ending without commitment—the exact timing of his release did not increase the public safety risk he posed. Plaintiff thus cannot establish legal cause merely by showing that absent the agency's breach of duty Pitre would not have been released in time to meet and attack the victim; she must show that absent the breach he would have been committed as an SVP. As just discussed, the complaint lacks particularized, nonconclusory factual allegations to that effect.

A plaintiff could plead factual causation in this context by alleging, on information and belief or otherwise, that through a breach of its mandatory evaluation duty the State Department of State Hospitals overlooked specific available facts regarding the potential SVP, facts so strongly indicative of mental illness and repetitive sexual predation that any decision maker would likely find the person to be an SVP. The allegations of the present complaint do not rise to that necessary level.

II

I concur in the court's judgment on the grounds explained above. I do not, however, agree with the majority that a finding of liability in this case would contravene "policy considerations bearing on the question of proximate cause" (maj. opn., *ante,* 188 Cal.Rptr.3d at p. 322, 349 P.3d at p. 1024) because the hypothetical causative chain on which the agency's liability depends—that two evaluators would have found Pitre to be an SVP, resulting in a referral to the designated county attorney, who would have filed a petition for commitment on which Pitre would have been held beyond his hypothetical release date and ultimately committed—involves discretionary decisions.

The majority cites no public policy stating the outcome of a discretionary decision may not form part of the chain of events a tort complaint hypothesizes as what would have happened but for the defendant's breach of duty. *Actual* discretionary acts by public employees are protected under a public ***361** policy of preventing discretionary governmental decisions from interference or distortion through fear of liability, a policy codified

in the immunity provisions of Government Code section 820.2. But we are concerned here only with discretionary decisions that allegedly *would have* been made, not with actual decisions. As discussed later in this opinion, the protective policy has no logical application to merely hypothetical decisions.

The majority observes vaguely that proving causation through the outcome of discretionary decisions that would have occurred but for the defendant's breach is "in tension with the very idea of discretion." (Maj. opn., *ante,* 188 Cal.Rptr.3d at p. 322, 349 P.3d at p. 1024.) To be sure, the existence of decisional discretion increases the plaintiff's burden on causation, a burden I agree plaintiff here has not met even at the pleading stage. (See pt. I, *ante.*) But the majority cites no principle of law or public policy barring the attempt, and draws no germane factual distinction between this case and those in which such causative proof has been approved, such as *Landeros v. Flood* (1976) 17 Cal.3d 399, 131 Cal.Rptr. 69, 551 P.2d 389, *Henderson* *****327** *v. Newport–Mesa Unified School Dist.* (2013) 214 Cal.App.4th 478, 154 Cal.Rptr.3d 222, and *Alejo v. City of Alhambra* (1999) 75 Cal.App.4th 1180, 89 Cal.Rptr.2d 768. To the extent the majority means to distinguish these cases on the ground that there the but-for chain involved only a single discretionary decision, while here a "series" of such decisions is hypothesized (maj. opn., *ante,* at pp. 323–324, fn. 16, 349 P.3d at p. 1025, fn. 16), the distinction appears merely quantitative and factual, not a matter of public policy. If public policy allows a discretionary decision to form a link in the causative chain, a plaintiff with a sufficiently strong factual case—again, a case absent here—could presumably show that each link in the hypothetical chain was met.

There may be some discretionary governmental decisions so unrestricted by statutory or constitutional rules that one can say, as a matter of law, that their hypothetical outcomes could never be proven. Legislative budgeting decisions, certain sentencing choices and some conditional release determinations come to mind. But the majority makes no attempt to show the decisions involved in finding a person to be an SVP ****1028** belong in this category. Indeed, the majority acknowledges these decisions are constrained by statutory factors and procedures. (Maj. opn., *ante,* 188 Cal.Rptr.3d at pp. 322–323, fn. 14, 349 P.3d at p. 1024, fn. 14.) One might also note that the initial determination whether a person may be an SVP, and should be referred to the designated county attorney for a commitment petition, is made by mental health professionals using a protocol designed by and for such professionals. These are not the types of decisions whose outcomes can never be predicted.

While the majority refrains from expressly relying on the fact that the discretionary governmental decisions necessary for an SVP commitment ***362** would have enjoyed immunity under Government Code section 820.2 (discretionary acts of public employees) or section 845.8, subdivision (a) (parole release determinations), the majority opinion recites with apparent approval the reasoning of two Court of Appeal decisions that employed this rationale. (Maj. opn., *ante,* 188 Cal.Rptr.3d at pp. 321–322, 349 P.3d at pp. 1022–1023; see *State of California v. Superior Court* (1984) 150 Cal.App.3d 848, 859, fn. 8, 197 Cal.Rptr. 914; *Whitcombe v. County of Yolo* (1977) 73 Cal.App.3d 698, 708, 141 Cal.Rptr. 189.) Neither court discussed the point in depth, however, and neither explained how a statutory immunity, or the protective policy that motivates it, can logically apply to a decision that never occurred, so as to preclude liability for breach of a mandatory duty.

How allowing causation to be traced through hypothetical decisions that did not occur would inhibit or distort real decisionmaking when it does occur is entirely unclear. To take an example from the present facts, as long as the designated county attorney knows that the decision not to seek a commitment against a potential SVP is immunized from liability, the attorney cannot be inhibited by the possibility that, in some other case that is never presented for prosecution because the State Department of State Hospitals does not make a referral, an injured plaintiff may allege the attorney *would* have sought a commitment had the decision been presented.

Neither the majority opinion nor the lower court decisions on which it relies put forward a logical ground for concluding the proof of causation in circumstances like those presented here would violate an established public policy.

*****328 III**

For the reasons given above, I concur in the result and in part of the majority's reasoning, but not in the majority's

conclusion that policy considerations negate proximate cause as a matter of law.

We Concur: LIU, and KRUGER, JJ.

All Citations

61 Cal.4th 339, 349 P.3d 1013, 188 Cal.Rptr.3d 309, 15 Cal. Daily Op. Serv. 5466, 2015 Daily Journal D.A.R. 5939

Footnotes

1 Unspecified statutory references are to the Welfare and Institutions Code.

2 "Sexually violent offense" is defined in section 6600, subdivision (b).

3 Citations to former SVPA sections are to the law as it existed in 2007, as amended by Proposition 83, approved by the voters on November 7, 2006. (73D West's Ann. Welf. & Inst.Code (2007) p. 107 et seq.; see *McKee, supra,* 47 Cal.4th at p. 1186, 104 Cal.Rptr.3d 427, 223 P.3d 566.) Although the SVPA has subsequently been further amended, none of the changes are material for purposes of our analysis.

4 DMH is now petitioner and defendant State Department of State Hospitals, and DOC is now the Department of Corrections and Rehabilitation. Here we use the state entities' former names as set out in the applicable 2007 version of the SVPA.

5 Each county's board of supervisors is required to designate either the district attorney or the county counsel to pursue SVPA civil commitment action s. (§ 6601, subd. (i).)

6 On our own motion, we take judicial notice of the fact that Pitre was convicted in 2010 for the rape and murder of Gomez. (Evid.Code, § 452.) He received consecutive terms of 75 years to life and 25 years to life, consecutive to 10 years for two prior conviction enhancements.

7 Defendants invoked Government Code section 845.8, subdivision (a), which provides that a public entity or employee is not liable for "[a]ny injury resulting from determining whether to parole or release a prisoner...."

8 Plaintiff contends that permitting DMH to merely review available records would duplicate the DOC screening mandated by section 6601, subdivision (b). Not so. Unlike the DOC screening, DMH's evaluation must be conducted by practicing psychologists and/or psychiatrists and must consider the factors identified in section 6601, subdivision (c).

9 The complaint relies on an uncodified statute enacted in 2008, in which the Legislature stated, "The [SVP] civil commitment program requires *clinical evaluations* of potential [SVPs] for possible commitment...." (Stats.2008, ch. 601, § 1, subd. (b), pp. 4293–4294, italics added.) Even assuming that a mandatory duty could arise from an uncodified legislative declaration, and even if the 2008 legislation were relevant to our construction of the 2007 version of the SVPA, the reference to "clinical evaluations" is ambiguous. It is not clear whether the phrase refers to in-person assessments, or merely evaluations by practicing clinicians.

10 An uncodified statement accompanying the SVPA's enactment in 1996 declared: "The Legislature finds and declares that a small but extremely dangerous group of sexually violent predators that have diagnosable mental disorders can be identified while they are incarcerated. These persons are not safe to be at large and if released represent a danger to the health and safety of others in that they are likely to engage in acts of sexual violence. The Legislature further finds and declares that it is in the interest of society to identify these individuals prior to the expiration of their terms of imprisonment. It is the intent of the Legislature that once identified, these individuals, if found to be likely to commit acts of sexually violent criminal behavior beyond a reasonable doubt, be confined and treated until such time that it can be determined that they no longer present a threat to society.

"The Legislature further finds and declares that while these individuals have been duly punished for their criminal acts, they are, if adjudicated sexually violent predators, a continuing threat to society. The continuing danger posed by these individuals and the continuing basis for their judicial commitment is a currently diagnosed mental disorder which predisposes them to engage in sexually violent criminal behavior. It is the intent of the Legislature that these individuals be committed and treated for their disorders only as long as the disorders persist and not for any punitive purposes." (Stats.1995, ch. 763, § 1, p. 5921; see *Hubbart v. Superior Court* (1999) 19 Cal.4th 1138, 1144, fn. 5, 81 Cal.Rptr.2d 492, 969 P.2d 584.)

The 2006 SVPA amendments reflect enhanced concern with protection of the public from sexually violent predators. (See *McKee, supra,* 47 Cal.4th at p. 1186, 104 Cal.Rptr.3d 427, 223 P.3d 566.)

11 Proximate cause is also a necessary element of plaintiff's negligence claims. (6 Witkin, Summary of Cal. Law, *supra,* Torts, § 1181 et seq.; Evid.Code, § 669, subd. (a)(2) [negligence per se].)

12 In cases where concurrent independent causes contribute to an injury, we apply the "substantial factor" test of the Restatement Second of Torts, section 423, which subsumes traditional "but for" causation. This case does not involve concurrent independent causes, so the "but for" test governs questions of factual causation. (*Viner v. Sweet* (2003) 30 Cal.4th 1232, 1239–1241, 135 Cal.Rptr.2d 629, 70 P.3d 1046.)

13 As noted above, Government Code section 845.8, subdivision (a), immunizes public employees from liability for "[a]ny injury resulting from determining whether to parole or release a prisoner...."

14 The degree of discretion conferred by the governing statutes may be a relevant factor. We note that the discretion possessed by the courts in *Whitcombe, supra,* 73 Cal.App.3d 698, 141 Cal.Rptr. 189, and *Fleming, supra,* 34 Cal.App.4th 1378, 41 Cal.Rptr.2d 63, as to whether to release a probationer was considerably broader than the discretion exercised by an SVP evaluator. The Real Estate Commissioner in *Perry* also exercised a greater degree of discretion over the handling of a fraud complaint than do the various actors under the SVPA evaluation scheme. The determination whether an inmate meets the SVP criteria is guided by statutory factors and constrained by statutory procedures. Nevertheless, the SVPA review scheme clearly contemplates the possibility that evaluators may disagree, and here the only DMH evaluator to review Pitre's case found that he was *not* an SVP. Thus, the discretion in question was not so constrained as to provide support for plaintiff's claim that *any* reasonable evaluator would have found Pitre to be an SVP.

15 Because of our conclusion on the proximate cause issue, we do not reach the question whether the immunity conferred by Government Code section 845.8, subdivision (a) would extend to DMH's failure to employ two evaluators.

16 Plaintiff's reliance on cases such as *Landeros v. Flood* (1976) 17 Cal.3d 399, 131 Cal.Rptr. 69, 551 P.2d 389, *Henderson v. Newport–Mesa Unified School Dist.* (2013) 214 Cal.App.4th 478, 154 Cal.Rptr.3d 222, *Alejo v. City of Alhambra* (1999) 75 Cal.App.4th 1180, 89 Cal.Rptr.2d 768, and *Braman v. State of California* (1994) 28 Cal.App.4th 344, 33 Cal.Rptr.2d 608, is unavailing. Plaintiff cites no case, and we have found none, in which a showing of proximate cause was founded on a series of discretionary determinations comparable to the scenario set out in her complaint.

17 The Restatement Third categorizes this rule as one limiting "scope of liability," otherwise known as proximate cause, but acknowledges it can also be considered an instance of the lack of factual cause. (Rest.3d Torts, Liability for Physical and Emotional Harm, § 30, com. a, p. 542; see *id.,* ch. 6, Special Note on Proximate Cause, pp. 492–493.)

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Agency At-A-Glance

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Regulating Agency	Total Water Systems	Total Population	Total Service Connections
DISTRICT 01 - KLAMATH	75	173,359	61,282
DISTRICT 02 - LASSEN	76	509,495	176,788
DISTRICT 03 - MENDOCINO	54	226,045	70,295
DISTRICT 04 - SAN FRANCISCO	50	3,836,477	987,724
DISTRICT 05 - MONTEREY	29	357,170	92,152
DISTRICT 06 - SANTA BARBARA	65	1,265,926	339,471
DISTRICT 07 - HOLLYWOOD	23	1,206,228	259,502
DISTRICT 08 - SANTA ANA	36	5,274,972	762,668
DISTRICT 09 - SACRAMENTO	43	1,644,292	499,470
DISTRICT 10 - STOCKTON	70	1,121,155	311,822
DISTRICT 11 - MERCED	74	868,460	224,842
DISTRICT 12 - VISALIA	38	637,536	166,675
DISTRICT 13 - SAN BERNARDINO	62	1,701,262	466,810
DISTRICT 14 - SAN DIEGO	34	3,053,812	676,902
DISTRICT 15 - METROPOLITAN	23	5,014,404	860,746
DISTRICT 16 - CENTRAL	31	1,070,998	234,350
DISTRICT 17 - SANTA CLARA	55	1,180,663	291,426
DISTRICT 18 - SONOMA	70	650,823	203,731
DISTRICT 19 - TEHACHAPI	32	121,999	31,637
DISTRICT 20 - RIVERSIDE	40	2,317,098	652,595
DISTRICT 21 - VALLEY	49	255,193	73,810
DISTRICT 22 - ANGELES	19	733,632	160,774
DISTRICT 23 - FRESNO	85	196,513	40,872
DISTRICT 24 - TULARE	60	237,658	57,569
LPA32 - ALPINE COUNTY	2	50	16
LPA33 - AMADOR COUNTY	2	260	98
LPA34 - BUTTE COUNTY	15	2,160	397
LPA37 - CONTRA COSTA COUNTY	17	3,155	365
LPA39 - EL DORADO COUNTY	13	3,612	86
LPA43 - IMPERIAL COUNTY	14	5,667	541
LPA44 - INYO COUNTY	18	2,446	126
LPA46 - KINGS COUNTY	9	2,808	59
LPA49 - LA COUNTY	11	12,628	121
LPA50 - MADERA COUNTY	40	10,780	1,159
LPA56 - MONO COUNTY	17	1,530	412
LPA57 - MONTEREY COUNTY	21	5,233	39
LPA58 - NAPA COUNTY	9	1,083	187
LPA59 - NEVADA COUNTY	9	1,315	119
LPA61 - PLACER COUNTY	4	450	140
LPA62 - PLUMAS COUNTY	19	1,204	503
LPA63 - RIVERSIDE COUNTY	15	3,935	890
LPA64 - SACRAMENTO COUNTY	23	23,835	877
LPA66 - SAN BERNARDINO COUNTY	25	19,333	921
LPA67 - SAN DIEGO COUNTY	28	6,955	630
LPA69 - SAN JOAQUIN COUNTY	51	9,518	1,267
LPA70 - SAN LUIS OBISPO COUNTY	10	2,742	23
LPA72 - SANTA BARBARA COUNTY	7	3,578	146
LPA74 - SANTA CRUZ COUNTY	8	9,057	24
LPA75 - SHASTA COUNTY	16	4,232	122
LPA80 - STANISLAUS COUNTY	30	7,984	683
LPA82 - TEHAMA COUNTY	19	3,024	110
LPA87 - YOLO COUNTY	9	3,562	293
LPA88 - YUBA COUNTY	2	300	156
See All	1656	33,807,606	7,714,423

Agency At-A-Glance

This report allows users to view key information for mulitiple Regulating Agencies on one screen. Clicking on the Regulating Agency name will generate a detailed report of the associated Water Systems. If you would like to see all Water Systems from your search criteria click on "See All" located at the bottom of the results table.

Regulating Agency	Total Water Systems	Total Population	Total Service Connections
DISTRICT 01 - KLAMATH	121	29,082	6,976
DISTRICT 02 - LASSEN	56	17,973	11,094
DISTRICT 03 - MENDOCINO	148	47,363	14,685
DISTRICT 04 - SAN FRANCISCO	52	99,444	26,915
DISTRICT 05 - MONTEREY	78	313,757	90,539
DISTRICT 06 - SANTA BARBARA	77	281,507	90,742
DISTRICT 07 - HOLLYWOOD	21	622,982	157,702
DISTRICT 08 - SANTA ANA	15	170,557	43,091
DISTRICT 09 - SACRAMENTO	21	534,426	100,291
DISTRICT 10 - STOCKTON	10	183,594	46,776
DISTRICT 11 - MERCED	215	80,768	22,302
DISTRICT 12 - VISALIA	140	593,914	154,974
DISTRICT 13 - SAN BERNARDINO	40	399,731	102,069
DISTRICT 14 - SAN DIEGO	14	148,697	32,781
DISTRICT 15 - METROPOLITAN	14	681,156	59,499
DISTRICT 16 - CENTRAL	13	371,345	74,336
DISTRICT 17 - SANTA CLARA	115	1,398,867	342,827
DISTRICT 18 - SONOMA	369	60,546	17,601
DISTRICT 19 - TEHACHAPI	143	52,335	17,853
DISTRICT 20 - RIVERSIDE	12	47,423	13,896
DISTRICT 21 - VALLEY	81	167,464	45,799
DISTRICT 22 - ANGELES	22	957,551	220,235
DISTRICT 23 - FRESNO	235	44,482	5,625
DISTRICT 24 - TULARE	194	31,665	4,645
LPA32 - ALPINE COUNTY	22	1,222	450
LPA33 - AMADOR COUNTY	49	4,076	722
LPA34 - BUTTE COUNTY	65	10,868	2,056
LPA35 - CALAVERAS COUNTY	35	3,733	555
LPA37 - CONTRA COSTA COUNTY	76	8,040	2,074
LPA39 - EL DORADO COUNTY	96	11,909	1,741
LPA43 - IMPERIAL COUNTY	44	6,510	1,130
LPA44 - INYO COUNTY	65	6,532	1,907
LPA46 - KINGS COUNTY	19	1,824	220
LPA49 - LA COUNTY	95	20,297	4,059
LPA50 - MADERA COUNTY	36	3,595	1,540
LPA54 - MERCED COUNTY	18	352	150
LPA56 - MONO COUNTY	47	7,418	1,002
LPA57 - MONTEREY COUNTY	292	25,172	6,310
LPA58 - NAPA COUNTY	176	12,960	890
LPA59 - NEVADA COUNTY	54	9,068	1,077
LPA61 - PLACER COUNTY	87	20,443	1,525
LPA62 - PLUMAS COUNTY	110	7,673	1,088
LPA63 - RIVERSIDE COUNTY	215	22,029	8,231
LPA64 - SACRAMENTO COUNTY	122	20,895	3,749
LPA66 - SAN BERNARDINO COUNTY	221	59,194	6,599
LPA67 - SAN DIEGO COUNTY	114	16,620	5,910
LPA69 - SAN JOAQUIN COUNTY	235	24,447	2,810
LPA70 - SAN LUIS OBISPO COUNTY	118	12,311	2,473
LPA72 - SANTA BARBARA COUNTY	112	16,516	1,984
LPA74 - SANTA CRUZ COUNTY	88	10,451	2,320
LPA75 - SHASTA COUNTY	117	14,029	3,624
LPA80 - STANISLAUS COUNTY	172	16,236	2,518
LPA82 - TEHAMA COUNTY	77	7,318	2,431
LPA87 - YOLO COUNTY	73	11,323	1,180
LPA88 - YUBA COUNTY	58	22,416	1,408
See All	5314	7,752,106	1,776,986

Region	District or LPA #	System Number	System Name	OWNER_TYPE_CODE	D_PWS_FED_TYPE_CD	PWS_ST_TYPE_CD	Date permit issued	Submitted inventory?	PWS Contact Info (from SDWIS)	Other Contact Info (SDWIS)				
3	23	1010800	CAL FIRE - MIRAMONTE CONSERVATION CAMP	S	C	C	1/17/2017	no schools	Louis.Mendoza@fire.ca.gov	jose.robledo@waterboards.ca.gov				
1	1	1210017	Manila CSD	S	C	C	1/18/2017	x	Manilacsd1@sbcglobal.net					
4	22	1910022	California State Polytechnical Univ - Pomona	S	C	C	1/17/2017	x	jimwats1@msn.com					
4	15	1910801	Fenner Canyon Youth Conservation Camp	S	C	C	1/17/2017	no schools	RON.DRAGOO@FIRE.CA.GOV	Juan.Arriola@waterboards.ca.gov				
2	5	2710705	CAMP ROBERTS - CALIFORNIA NATIONAL GUARD	S	NTNC	NTNC	1/17/2017		#N/A	#N/A				
2	5	2710850	CORRECTIONAL TRAINING FACILITY - SOLEDAD	S	C	C	1/17/2017	no schools	Refugio.Jimenez@cdcr.ca.gov					
2	5	2710851	SALINAS VALLEY STATE PRISON	S	C	C	1/17/2017	no schools	samuel.ochoajr@cdcr.ca.gov					
5	13	3610114	CLAWA	S	C	C	1/17/2017	x	CLAWA1@VERIZON.NET					
5	14	3710802	LA CIMA FIRE CENTER	S	C	C	1/18/2017	no schools	Sandra.Mckovich@fire.ca.gov					
2	17	4310028	San Jose State University	S	C	C	1/17/2017	no schools	adam.salvadalena@sjsu.edu					
2	5	4410301	CSP - BIG BASIN STATE PARK	S	C	C	1/17/2017		Kelley.howard@parks.ca.gov					
2	18	4910027	SONOMA STATE UNIVERSITY	S	C	C	1/17/2017	x	patricia.simmons@sonoma.edu	marianne.watada@waterboards.ca.gov				
3	24	5410801	PORTERVILLE DEVELOPMENTAL CENTER	S	C	C	1/17/2017	no schools	Frank.Chandler@pdc.dds.ca.gov	travis.young@waterboards.ca.gov				

Company	CSD, District, PUD, MUD, Community	City, Town, County
Lukins Brothers Water Company	Gasquet CSD	City of Crescent City
DORABELLE MUTUAL WATER COMPANY	Riverside CSD	Georgetown Divide PUD
EASTON ESTATES WATER COMPANY	Phillipsville CSD	City of Arcata
Highlands Mutual Water Company	Weott CSD	City of Blue Lake
Mt. Konocti Mutual Water Company	Briceland CSD	City of Eureka
Howell Mountain Mutual Water Company	Orleans CSD	Town of Scotia LLC
GOLDEN STATE WATER COMPANY - BAY POINT	Humboldt CSD	City of Rio Dell
CAL AM WATER COMPANY - CHUALAR	Redway CSD	City of Trinidad
CAL AM WATER COMPANY - BISHOP	McKinleyville CSD	City of Alturas
CAL AM WATER COMPANY - MONTEREY	Jacoby Creek CSD	City of Dorris
CAL AM WATER COMPANY - AMBLER PARK	Loleta CSD	City of Dunsmuir
GOLDEN STATE WATER COMPANY - LOS OSOS	Westhaven CSD	Town of Fort Jones
GOLDEN STATE WATER COMPANY - NIPOMO	McCloud CSD	City of Etna
GOLDEN STATE WATER COMPANY - EDNA	Happy Camp CSD	City of Mt. Shasta
GOLDEN STATE WATER COMPANY-CYPRESS RIDGE	Lewiston CSD	City of Weed
SAN VICENTE WATER COMPANY	Weaverville CSD	City of Tulelake
GOLDEN STATE WATER COMPANY - ORCUTT	IVCSD - Greenville	City of Yreka
GOLDEN STATE WATER COMPANY - TANGLEWOOD	Quincy CSD	City of Susanville
GOLDEN STATE WATER COMPANY - LAKE MARIE	Fall River Valley CSD	City of Roseville
YERBA BUENA WATER COMPANY	Centerville CSD	City of Anderson
GOLDEN STATE WATER COMPANY - OJAI	Clear Creek CSD - Anderson	City of Redding
GOLDEN STATE WATER COMPANY - SIMI VALLEY	Clearlake Oaks County Water District	Lakeport, City Of
Bellflower - Somerset Mutual Water Company	Konocti County Water District	City Of 10,000 Buddhas
Tract 180 Mutual Water Company	Kelseyville Co Waterworks District 3	Fort Bragg, City Of
Tract 349 Mutual Water Company	Upper Lake County Water District	Ukiah, City Of
Valley View Mutual Water Company	Lower Lake County Water District	Willits, City Of
Walnut Park Mutual Water Company	Cobb Area County Water District	Calistoga, City Of
Charles Brown Water Company	Callayomi County Water District	Napa, City Of
Orange Vale Water Company	Hidden Valley Lake Community Services District	St. Helena, City Of
Fruitridge Vista Water Company	Elk County Water District	American Canyon, City Of
LAKE ALPINE WATER COMPANY	Westport County Water District	Town Of Yountville
Averydale Mutual Water Company	Willow County Water District	CITY OF HAYWARD
BASS LAKE WATER COMPANY	Millview County Water District	CITY OF PLEASANTON
MADERA VALLEY WATER COMPANY	Redwood Valley County Water District	CITY OF LIVERMORE
SIERRA PARK WATER COMPANY, INC.	Hopland Public Utility District	SFPUC-TOWN OF SUNOL
SONORA WATER COMPANY INC	Laytonville County Water District	CITY OF ANTIOCH
Bakman Water Company	ALAMEDA COUNTY WATER DISTRICT	CITY OF BRENTWOOD
Oildale Mutual Water Company	DUBLIN SAN RAMON SERVICES DISTRICT	CITY OF MARTINEZ
Vaughn Water Company, Inc.	CONTRA COSTA WATER DISTRICT	CITY OF PITTSBURG
Lynwood Park Mutual Water Company	DIABLO WATER DISTRICT	TOWN OF DISCOVERY BAY
Havasu Water Company	RURAL NORTH VACAVILLE WATER DISTRICT	SFPUC-CITY DISTRIBUTION DIVISION
Fallsvale Service Company	MARINA COAST WATER DISTRICT	CITY OF BENICIA
Montebello Land And Water Company	PAJARO COMMUNITY SERVICES DISTRICT	CITY OF FAIRFIELD
Ontario Municipal Utilties Company	PANOCHE WATER DISTRICT	CITY OF RIO VISTA
Western Heights Water Company	SUNNYSLOPE COUNTY WATER DISTRICT	CITY OF VALLEJO
Riverside Highland Water Company	SCOTTS VALLEY WATER DISTRICT	CITY OF VACAVILLE
San Antonio Water Company	SAN LORENZO VALLEY WATER DISTRICT	CITY OF DIXON
Valencia Heights Water Company	SOQUEL CREEK WATER DISTRICT	CITY OF VALLEJO-LAKES SYSTEM
Sheep Creek Water Company	AVILA BEACH COMMUNITY SERVICES DISTRICT	CITY OF GONZALES
Devore Water Company	SAN SIMEON CSD	CWSC KING CITY
PINE HILLS MUTUAL WATER COMPANY	SAN MIGUEL COMMUNITY SERVICES DISTRICT	FCSA #34/ MILLERTON NEW TOWN
El Dorado Mutual Water Company	HERITAGE RANCH CSD	CITY OF WATSONVILLE
Sunny Slope Water Company	LOS OSOS COMMUNITY SERVICES DISTRICT	LOMPOC-CITY WATER UTILITY DIV
Valley Water Company	TEMPLETON CSD	CITY OF SANTA BARBARA WATER DEPARTMENT
Valencia Water Company	CUYAMA COMMUNITY SERVICES DISTRICT	COALINGA-CITY
Southern CA Edison Company - Santa Catalina	MISSION HILLS CSD	KINGSBURG, CITY OF
Bellflower Home Gardens Water Company	SIERRA CEDARS CSD	SATICOY COUNTRY CLUB-CITY OF VENTURA
Las Flores Water Company	Artois CSD	Butte City CSD
Lincoln Avenue Water Company	VENTURA RIVER WATER DISTRICT	City of Orland
Maywood Mutual Water Company #1	Elk Creek CSD	Pico Rivera - City, Water Department
Maywood Mutual Water Company #2	CHANNEL ISLANDS BEACH CSD	Glendora - City, Water Department
Maywood Mutual Water Company #3	CAMROSA WATER DISTRICT	Long Beach - City, Water Department
NORMCO WATER COMPANY	Butte City CSD	Lomita - City, Water Department
Mesa Crest Water Company	Kinneloa Irrigation District	Monterey Park - City, Water Department
LITTLE BEAR WATER COMPANY	Littlerock Creek Irrigation District	Paramount - City, Water Department
CAL AM WATER COMPANY - TORO	Orchard Dale Water District	Covina - City, Water Department
CAL AM WATER COMPANY - HIDDEN HILLS	Palmdale Water District	Sierra Madre - City, Water Department
TASCO SPRECKELS WATER COMPANY	Pico Water District	Signal Hill - City, Water Department
San Jose Water Company	San Gabriel County Water District	Whittier - City, Water Department
Great Oaks Water Company, Inc.	Orick CSD	Burbank - City, Water Department
CAZADERO WATER COMPANY, INC.	Palmer Creek CSD	Lakewood - City, Water Department
BRANGER MUTUAL WATER COMPANY, INC.	Mesa Water District	City of Fortuna
PENNGROVE WATER COMPANY (PUC)	Laguna Beach County Water District	Anaheim, City of
KENWOOD VILLAGE WATER COMPANY (PUC)	Moulton Niguel Water District	Brea, City of
Erskine Creek Water Company	El Toro Water District	Buena Park, City of
Mil Potrero Mutual Water Company	Serrano Water District	Fullerton, City of
Mountain Mesa Water Company	Irvine Ranch Water District	La Habra, City of
NUEVO WATER COMPANY	Willow Creek CSD	Newport Beach, City of
SANTA ANA RIVER WATER COMPANY	Trabuco Canyon Water District	Orange, City of
Hynes Estates Mutual Water Company	Manila CSD	San Juan Capistrano, City of
Page Avenue Mutual Water Company	Santa Margarita Water District	San Clemente, City of
East Pasadena Water Company	El Dorado Irrigation District - Main	Yorba Linda, City of

MCMAHON ROAD MUTUAL WATER COMPANY	South Tahoe Public Utilities District	Santa Ana, City of
RANCHO SAN JOAQUIN MUTUAL WATER COMPANY	Fieldbrook Glendale CSD	Seal Beach, City of
BEST ROAD MUTUAL WATER COMPANY	Sacramento Suburban Water District	Tustin, City of
Terrace Water Company	Carmichael Water District	Huntington Beach, city of
NACIMIENTO WATER COMPANY	Citrus Heights Water District	Garden Grove, City of
O'Connor Tract Co-Operative Water Company	Del Paso Manor Water District	Westminster, City of
Palo Alto Park Mutual Water Company	Fair Oaks Water District	La Palma, City of
BIG BASIN WATER COMPANY	San Juan Water District	Oceanside, City of
FOREST LAKES MUTUAL WATER COMPANY	Florin County Water District	City of Placerville - Main
HARRIS FEEDING COMPANY	Westwood CSD	City of Grass Valley
RANDAL'S RANCHETTE MUTUAL WATER COMPANY	Leavitt Lake CSD	City of Nevada City
CASITAS MUTUAL WATER COMPANY	UNION PUBLIC UTILITY DISTRICT	City Folsom - Main
KINGS RIVER ESTATES MUTUAL WATER COMPANY	LINDEN COUNTY WATER DISTRICT	City of Sacramento
SOUTH KAWEAH MUTUAL WATER COMPANY	DENAIR COMMUNITY SERVICES DISTRICT	City of Folsom - Ashland
DIXON WATER COMPANY	BALLICO CSD	City of Davis
Farmington Water Company (Private)	PLANADA CSD	City of West Sacramento
DORABELLE MUTUAL WATER COMPANY	HILMAR COUNTY WATER DISTRICT	City of Woodland
LAS DELTAS MUTUAL WATER SYSTEM	SANTA NELLA COUNTY WATER DISTRICT	CITY OF JACKSON
MUSICK HEIGHTS MUTUAL	TWAIN HARTE COMMUNITY SERVICES DISTRICT	PLYMOUTH, CITY OF
Highlands Mutual Water Company	LAKE DON PEDRO CSD	ANGELS, CITY OF
Mt. Konocti Mutual Water Company	Pinedale County Water District	ESCALON, CITY OF
Howell Mountain Mutual Water Company	Malaga County Water District	LODI, CITY OF
ATASCADERO MUTUAL WATER CO	Arvin Community Services District	MANTECA, CITY OF
MORRO ROCK MUTUAL WATER CO	East Niles Community Services District	RIPON, CITY OF
LA CUMBRE MUTUAL WATER CO	Buttonwillow County Water District	TRACY, CITY OF
MIDDLE ROAD MUTUAL WATER CO	Lamont Public Utility District	CITY OF STOCKTON
SAN CAYETANO MUTUAL WATER CO	West Kern Water District	CITY OF LATHROP
SENIOR CANYON MUTUAL WATER CO	Greenfield County Water District	CITY OF MODESTO, SALIDA
SIETE ROBLES MUTUAL WATER CO	Lost Hills Utility District	CITY OF WATERFORD
SISAR MUTUAL WATER CO	Armona Community Services District	HUGHSON, CITY OF
TICO MUTUAL WATER CO	Stratford Public Utility District	MODESTO, CITY OF
COMMUNITY MUTUAL WATER CO	Home Garden Community Services District	CITY OF NEWMAN-WATER DEPARTMENT
SOUTH MOUNTAIN MUTUAL WATER CO	Kettleman City Community Services District	OAKDALE, CITY OF
CYPRESS MUTUAL WATER CO INC	Del Oro Traver District	PATTERSON, CITY OF
DEL NORTE MUTUAL WATER CO.	Pixley Public Utility District	RIVERBANK, CITY OF
SAVIERS ROAD MUTUAL WATER CO	Springville Public Utility District	TURLOCK, CITY OF
SOLANO VERDE MUTUAL WATER CO	Strathmore Public Utility District	CERES, CITY OF
PLEASANT VALLEY MUTUAL WATER CO	Tipton Community Services District	CITY OF FRESNO
RIO MANOR MUTUAL WATER CO	Richgrove Community Services District	CHOWCHILLA CITY WATER DEPT
CRESTVIEW MUTUAL WATER CO	Woodville Public Utility District	CITY OF MADERA
CLOVERDALE MUTUAL WATER CO.	Poplar Community Services District	CITY OF ATWATER
Bellflower - Somerset Mutual Water Company	Terra Bella Irrigation District	CITY OF DOS PALOS
Tract 180 Mutual Water Company	Alpaugh Community Services District	CITY OF GUSTINE
Tract 349 Mutual Water Company	Sierra Highland CSD	CITY OF LIVINGSTON
Valley View Mutual Water Company	Indian Creek CSD	CITY OF LOS BANOS
Walnut Park Mutual Water Company	Big Pine CSD	CITY OF MERCED
Averydale Mutual Water Company	West Valley Water District	TUD - SONORA/JAMESTOWN WATER SYSTEM
SONORA MEADOWS MUTUAL WTR CO	lake Arrowhead CSD	City of Clovis
Oildale Mutual Water Company	Big Bear City CSD	City of Delano
Meadow Creek Mutual Water Co.	Cucamonga Valley Water District	City of McFarland
Lynwood Park Mutual Water Company	Hesperia Water District	City of Shafter
PINE HILLS MUTUAL WATER COMPANY	Joshua Basin Water District	City of Wasco
RANCHO PAUMA MUTUAL WC	LACSD - Rimforest	City of Bakersfield
PINE VALLEY MUTUAL WC	Quartz Hill Water District	City of Avenal
El Dorado Mutual Water Company	Twentynine Palms Water District	City of Hanford
Maywood Mutual Water Company #1	Victorville Water District	City of Corcoran
Maywood Mutual Water Company #2	Yucaipa Valley Water District	City of Lemoore
Maywood Mutual Water Company #3	East Valley Water District	Kettleman City Community Services District
BRANGER MUTUAL WATER COMPANY, INC.	Hi Desert Water District	City of Bishop
Lake of the Woods Mutual Water Co.	Phelan Pinon Hills CSD	City of Adelanto
Mil Potrero Mutual Water Company	HEBER PUBLIC UTILITY DISTRICT	Big Bear City CSD
BOX SPRINGS MUTUAL WC	JULIAN COMMUNITY SERVICES DISTRICT	City of Chino
Hynes Estates Mutual Water Company	YUIMA MUNICIPAL WATER DISTRICT IDA	City of Loma Linda
Page Avenue Mutual Water Company	YUIMA MUNICIPAL WATER DISTRICT	City of Colton
South Midway City Mutual Water	DESCANSO COMMUNITY SERVICES DISTRICT	City of Needles
Midway City Mutual	HELIX WATER DISTRICT	City of Chino Hills
MCMAHON ROAD MUTUAL WATER COMPANY	VISTA IRRIGATION DISTRICT	City of Redlands MUD Water Division
AROMAS HILLS MUTUAL WATER ASSOCIATION	OTAY WATER DISTRICT	City of Rialto
RANCHO SAN JOAQUIN MUTUAL WATER COMPANY	Valley County Water District	City of San Bernardino
BEST ROAD MUTUAL WATER COMPANY	Crescenta Valley Water District	City of Upland
Palo Alto Park Mutual Water Company	Newhall County Water District - Newhall	BRAWLEY, CITY OF
FOREST LAKES MUTUAL WATER COMPANY	Green Valley County Water District	CALEXICO, CITY OF
RANDAL'S RANCHETTE MUTUAL WATER COMPANY	Newhall County Water District - Castaic	EL CENTRO, CITY OF
CASITAS MUTUAL WATER COMPANY	Newhall County Water District - Pinetree	HOLTVILLE, CITY OF
GARDEN ACRES MUTUAL WATER CO	Newhall County Water District -Tesoro Del Valle	IMPERIAL, CITY OF
NYELAND ACRES MUTUAL WATER CO	California Pines CSD	WESTMORLAND, CITY OF
DEMPSEY ROAD MUTUAL WATER CO	La Canada Irrigation District	DEL MAR, CITY OF
NO KAWEAH MUTUAL WATER CO	La Puente Valley County Water District	ESCONDIDO, CITY OF
KINGS RIVER ESTATES MUTUAL WATER COMPANY	Palm Ranch Irrigation District	POWAY, CITY OF
RIVER RETREAT MUTUAL	Walnut Valley Water District	SAN DIEGO, CITY OF
TOOLEVILLE MUTUAL NON PROFIT WATER ASSOC	Mid-Peninsula Water District	Golden State Water Co - Culver City
YOKOHL MUTUAL WATER CO	Guadalupe Valley Municipal Improvement District	El Segundo - City, Water Department
BEVERLY GRAND MUTUAL WATER	Coastside County Water District	Glendale - City, Water Department
CENTRAL MUTUAL WATER CO	CASTROVILLE COMMUNITY SERVICES DISTRICT	Inglewood - City, Water Department
TRIPLE R MUTUAL WATER CO	MARIN MUNICIPAL WATER DISTRICT	La Verne - City, Water Department
WILLIAMS MUTUAL WATER CO	NORTH MARIN WATER DISTRICT	Los Angeles - City, Dept. Of Water & Power

GRIER MUTUAL WATER CO
EAST THREE RIVERS MUTUAL
SOUTH KAWEAH MUTUAL WATER COMPANY
SOULTS MUTUAL WATER CO
BEDEL MUTUAL WATER CO
SUNRISE MUTUAL WATER CO.
DEER MEADOW MUTUAL
FAIRWAY MUTUAL WATER CO
SIERRA MUTUAL WATER CO
SOUTH FORK ESTATES MUTUAL WATER CO
ALI MUTUAL WATER CO
LAKE FOREST MUTUAL W.C.
CAL AMERICAN WATER CO
CAL AMERICAN WC - LAS POSAS ESTATES
Lucerne Water Co. - Cal Water Service
CALIFORNIA WATER SERVICE - LIVERMORE
CALIFORNIA WATER SERVICE CO. - DIXON
ALCO WATER SERVICE
CALIFORNIA WATER SERVICE CO - WESTLAKE
WARRING WATER SERVICE INC
OAK PARK WATER SERVICE
GSWC - Arden Water Service
Elk Grove Water Service
CALIFORNIA WATER SERVICE - STOCKTON
California Water Service - Bear Gulch
California Water Service - San Carlos
California Water Service - San Mateo
California Water Service - South San Francisco
California Water Service - Los Altos Suburban
Cal-Water Service Co- Chico
Cal-Water Service Co - Oroville
Cal-Water Service Co - Hamilton City
Cal-Water Service Co - Willows
Cal-Water Service Co - Marysville
California Water Service Co - Dominguez
California Water Service Co - East Los Angeles
California Water Service Co - Palos Verdes
California Water Service Co - Hermosa/Redondo
California Water Service Co - Leona Valley
ARMSTRONG VALLEY-CAL WATER SERVICE (PUC)

VALLEY OF THE MOON WATER DISTRICT
FORESTVILLE COUNTY WATER DISTRICT
BODEGA BAY PUBLIC UTILITY DISTRICT
Washington Water District
Boron Community Services District
Frazier Park Public Utilities District
Mojave Public Utilities District
Rand Communities Water District
Indian Wells Valley Water District
Rosamond Community Services District
Stallion Springs Community Services District
Desert Lake Community Services District
Inyokern Community Services District
Bear Valley Community Services District
Golden Hills Community Services District
Lebec County Water District
North Edwards Water District
IDYLLWILD WATER DISTRICT
RANCHO CALIFORNIA WATER DISTRICT
CABAZON WATER DISTRICT
TEMESCAL VALLEY WATER DISTRICT
Durham Irrigation District
Paradise Irrigation District
Thermalito Water & Sewer District
Sutter CSD
Gerber Las Flores CSD
Los Molinos CSD
South Montebello Irrigation District
Rowland Water District
Las Virgenes Municipal Water District
IVCSD - Crescent Mills
DEL ORO WATER CO - METROPOLITAN DISTRICT
AROMAS WATER DISTRICT
Montara Water and Sanitary District
Estero Municipal Improvement District
North Coast County Water District
Westborough County Water District
CARPINTERIA VALLEY WATER DISTRICT
San Martin County Water District
Purissima Hills Water District
DAVENPORT COUNTY SANITATION DISTRICT
CENTRAL WATER DISTRICT
Shasta CSD
Hornbrook CSD
Lake Shastina CSD
LATON COMMUNITY SERVICES DISTRICT
RIVERDALE PUBLIC UTILITY DISTRICT
TRANQUILLITY IRRIGATION DISTRICT
DUCOR CSD
ALLENSWORTH CSD
TEVISTON CSD
SULTANA CSD
TRACT 92 CSD
PONDEROSA CSD
EAST OROSI CSD
PATTERSON TRACT CSD
OROSI PUBLIC UTILITY DISTRICT
Knights Landing Services District
Esparto CSD
Crows Landing CSD
Knights Ferry CSD
Madison Service District
Cacheville Service District
BIG LAGOON CSD
CASMALIA COMMUNITY SERVICES DISTRICT
Georgetown Divide PUD
Chester PUD
EAST BAY MUD
Truckee-Donner PUD - Main
Herlong PUD
CALAVERAS PUD
VALLEY SPRINGS PUD
June Lake PUD - Village
Bridgeport PUD
City of Redlands MUD Water Division
FALLBROOK PUD
June Lake PUD - Down Canyon
Lee Vining PUD
BOLINAS COMMUNITY PUD
Arbuckle PUD
Maxwell PUD
Olivehurst PUD
North Tahoe PUD - Main
Foresthill PUD
Tahoe City PUD - Main
Sierraville PUD
Downieville PUD
CUTLER PUD
EARLIMART PUD
SUNSET WEST COMMUNITY LLC

Pasadena - City, Water Department
Pomona - City, Water Department
Vernon - City, Water Department
Norwalk - City, Water Department
Alhambra - City, Water Department
Cerritos - City, Water Department
Downey - City, Water Department
El Monte - City, Water Department
Manhattan Beach - City, Water Department
San Fernando - City, Water Department
Santa Monica - City, Water Division
South Pasadena - City, Water Department
City of Brisbane
City of Burlingame
City of Daly City
City of Menlo Park
City of Millbrae
CITY OF GREENFIELD
City of Redwood City
City of San Bruno
City of East Palo Alto
CITY OF SOLEDAD
City of Gilroy
City of Morgan Hill
City of Mountain View
City of Palo Alto
City of Santa Clara
City of Sunnyvale
City of Cupertino
City of San Jose - North San Jose/Alviso
City of San Jose - Evergreen/Edenvale/Coyote
CLOVERDALE, CITY OF
HEALDSBURG, CITY OF
PETALUMA, CITY OF
SANTA ROSA, CITY OF
SEBASTOPOL, CITY OF
SONOMA, CITY OF
ROHNERT PARK, CITY OF
COTATI, CITY OF
WINDSOR, TOWN OF
City of Tehachapi
City of California City
BLYTHE - CITY OF
BANNING, CITY OF
HEMET, CITY OF
NORCO, CITY OF
PERRIS, CITY OF
RIVERSIDE, CITY OF
SAN JACINTO, CITY OF
CORONA, CITY OF
City of Biggs
City of Gridley
City of Colusa
City of Williams
South Midway City Mutual Water
Cal-Water Service Co - Hamilton City
City of Live Oak
City of Yuba City
City of Tehama
City of Corning
City of Red Bluff
City of Wheatland
Arcadia - City, Water Division
Compton - City, Water Department
Hawthorne - City, Water Department
Huntington Park - City, Water Department
Commerce - City, Water Department
Lynwood - City, Water Department
Monrovia - City, Water Department
Montebello - City, Water Department
South Gate - City, Water Department
Beverly Hills - City, Water Department
Torrance - City, Water Department
Santa Fe Springs - City
Midway City Mutual
City of Lincoln
Tahoe City PUD - Main
City of Portola
City of Galt
CITY OF HOLLISTER
CITY OF SAN JUAN BAUTISTA
City of Milpitas
FCSA #43/RAISIN CITY
City of Shasta Lake
City of Loyalton
City of Montague
FIREBAUGH CITY
CITY OF FOWLER
KERMAN, CITY OF
MENDOTA, CITY OF

LOS ALAMOS COMMUNITY SER DIST
COMMUNITY MUTUAL WATER CO
BIOLA COMMUNITY SERVICES DIST
LOCKEFORD COMMUNITY SERV. DIST.
MOUNTAIN HOUSE COMMUNITY SERVICES DIST.
KEYES COMMUNITY SERVICES DIST.
VOLTA COMMUNITY SD
GROVELAND COMMUNITY SERV DIST
Helendale Community SD
JACUMBA COMMUNITY SD
MAJESTIC PINES COMMUNITY SD
Lake Isabella Community Services Dist.
COACHELLA VWD: COVE COMMUNITY JURUPA COMMUNITY SD RUBIDOUX COMMUNITY SD LANARE COMMUNITY SERVICES DIST
DEL REY COMMUNITY SERV DIST
CAMPTONVILLE COMMUNITY SERV DIST
Colusa Co WWD #2 - Princeton
Humboldt Bay MWD
Hydesville Co WD Cedarville CWD
Callahan WD
FCWWD #37/MILE HIGH
FCWWD #38/SKY HARBOUR
FCWWD #40/SHAVER SPRINGS
Lassen CWD #1
Burney WD
FCWWD #42/ALLUVIAL & FANCHER
Bella Vista WD
SLVWD - FELTON WATER SYSTEM
SLO CWWD NO. 23 - SANTA MARGARITA
FCWWD #41/SHAVER LAKE
FCWWD #18/FRIANT
FCWWD #18/MIRA BELLA
VENTURA CWWD NO. 17 - BELL CANYON
MEINERS OAKS CWD
VENTURA CWWD NO. 19 - SOMIS
VENTURA CWWD NO. 1 - MOORPARK
VENTURA WWD NO. 8 - SIMI VALLEY
VENTURA CWWD NO. 38 - LAKE SHERWOOD
South Coast WD-Capo Beach
Rio Linda Elverta CWD
CCWD - WEST POINT
CCWD - JENNY LIND
CCWD - EBBETTS PASS
CCWD - COPPER COVE
MPWD-COULTERVILLE CSA 1
DELHI CWD
Los Angeles CWWD 21 - Kagel Canyon
Inyo County PWD - Independence
Inyo County PWD - Line Pine
Apple Valley Foothill CWD
Apple Valley Heights CWD
Juniper Riviera CWD
Thunderbird CWD
Crestline Village CWD
Monte Vista CWD
Mariana Ranchos CWD
Running Springs WD
Arrowbear Park CWD
SEELEY CWD
VALLECITOS WD
CARLSBAD MWD
LAKESIDE WD
RAINBOW MUNICIPAL WD
RINCON DEL DIABLO MWD (ID-1)
RAMONA MUNICIPAL WD
SAN DIEGUITO WD
VALLEY CENTER MWD
OLIVENHAIN MWD
BORREGO WD
PADRE DAM MWD
RINCON DEL DIABLO MWD (ID-A)
Los Angeles CWWD 40 R38 - Lake Los Angeles
Los Angeles CWWD 40 R39 - Rock Creek
Los Angeles CWWD 40 R35 - Northeast LA
Los Angeles CWWD 40 R4 - Lancaster & R34 - Desert View Highlands
San Lucas WD
Los Angeles CWWD 36 - Val Verde
LA CWWD 40 R24 - Pearblossom, R27 - Little Rock, R33 - Sun Village
Los Angeles CWWD 29 & 80 - Malibu & Marina Del Rey Los Angeles CWWD 37 - Acton
NORTH MARIN WD - PT. REYES
SWEETWATER SPRINGS CWD - GUERNEVILLE
SWEETWATER SPRINGS CWD - MONTE RIO
COACHELLA VWD: I.D. NO. 11
BEAUMONT CHERRY VALLEY WD

CITY OF ORANGE COVE
CITY OF PARLIER
REEDLEY, CITY OF
CITY OF SANGER
SAN JOAQUIN, CITY OF
HURON, CITY OF
DINUBA, CITY OF
EXETER, CITY OF
FARMERSVILLE, CITY OF
LINDSAY, CITY OF
PORTERVILLE, CITY OF
TULARE, CITY OF
WOODLAKE, CITY OF
City of Winters
Alderpoint County Water
SAN JOAQUIN COUNTY - COLONIAL HEIGHTS
SAN JOAQUIN COUNTY - THORNTON
SAN JOAQUIN COUNTY - LINCOLN VILLAGE
SAN JOAQUIN COUNTY - WILKINSON MANOR
Inyo County PWD - Independence
Inyo County PWD - Line Pine
CAMPO HILLS-COUNTY PUBLIC WORKS WASTEWTR
County Service Area 11
STINSON BEACH COUNTY WTR DIST
HOME GARDENS COUNTY WD
San Joaquin County Water Works #2
NAVAL BASE VENTURA COUNTY, POINT MUGU
NAVAL BASE VENTURA COUNTY, PORT HUENEME

MISSION SPRINGS WD
EASTERN MUNICIPAL WD
ELSINORE VALLEY MWD
HOME GARDENS COUNTY WD
LAKE HEMET MWD
WESTERN MWD - MURRIETA DIVISION
COACHELLA VWD: I.D. NO. 8
WESTERN MWD
WESTERN MWD (ID A - RAINBOW)
Colusa Co WWD #1 - Grimes
Sutter Co WWD #1 (Robbins)
Mineral CWD
Rio Alto WD
Linda CWD
North Yuba WD
Meadow Vista CWD
TRES PINOS CWD
SLVWD-LOMPICO
Cottonwood CWD
San Ardo WD
TEJON-CASTAIC WD- I5 & LAVAL RD

System Classifications

Local	
0105008	CASTLEWOOD DOMESTIC WATER SYSTEM
0110001	ALAMEDA COUNTY WATER DISTRICT
0110005	EAST BAY MUD
0110006	CITY OF HAYWARD
0110008	CITY OF PLEASANTON
0110009	DUBLIN SAN RAMON SERVICES DISTRICT
0110011	CITY OF LIVERMORE
0110012	SFPUC-TOWN OF SUNOL
0110016	ALAMEDA POINT
0310001	CITY OF JACKSON
0310002	AWA, IONE
0310003	AWA, SUTTER CREEK
0310004	PLYMOUTH, CITY OF
0310005	PINE GROVE COMM SERV DIST
0310012	AWA, Buckhorn
0410001	City of Biggs
0410003	Durham Irrigation District
0410004	City of Gridley
0410006	SFWP - Miners Ranch
0410007	Paradise Irrigation District
0410008	Thermalito Water & Sewer District
0410012	SFWP - Bangor
0510001	UNION PUBLIC UTILITY DISTRICT
0510002	CALAVERAS PUD
0510003	ANGELS, CITY OF
0510005	CCWD - WEST POINT
0510006	CCWD - JENNY LIND
0510010	VALLEY SPRINGS PUD
0510016	CCWD - EBBETTS PASS
0510017	CCWD - COPPER COVE
0600005	Colusa Co Service Area #2 - Stonyford
0600008	Colusa Co WWD #1 - Grimes
0600013	Colusa Co WWD #2 - Princeton
0610001	Arbuckle PUD
0610002	City of Colusa
0610003	Maxwell PUD
0610004	City of Williams
0710001	CITY OF ANTIOCH
0710003	CONTRA COSTA WATER DISTRICT
0710004	CITY OF BRENTWOOD
0710006	CITY OF MARTINEZ
0710007	DIABLO WATER DISTRICT
0710008	CITY OF PITTSBURG
0710009	TOWN OF DISCOVERY BAY
0800555	Gasquet CSD
0810001	City of Crescent City
0910001	El Dorado Irrigation District - Main
0910002	South Tahoe Public Utilities District
0910003	City of Placerville - Main
0910013	Georgetown Divide PUD
1000005	BIG CREEK COMMUNITY SERV DIST
1000019	FCSA #30/EL PORVENIR
1000021	FCSA #05/WILDWOOD ISLAND
1000023	FCSA #14/BELMONT MANOR
1000039	FCSA #10/CUMORAH KNOLLS
1000040	FCWWD #37/MILE HIGH
1000042	FCWWD #40/SHAVER SPRINGS
1000078	FCWWD #42/ALLUVIAL & FANCHER
1000186	HELM SCHOOL
1000345	PANOCHE WATER DISTRICT
1000359	FCSA #32/CANTUA CREEK
1000471	FCSA #39 A&B
1000484	FCSA #34/ MILLERTON NEW TOWN
1000546	FCSA #49/ FIVE POINTS
1000550	FCSA #44D/MONTE VERDI
1000551	FCSA #43/RAISIN CITY
1000554	FCSA #10A/MANSIONETTE ESTATES
1000555	FCSA #44C/RIVERVIEW ESTATES
1000570	JUVENILE JUSTICE CAMPUS
101000	City of Clovis
1010004	COALINGA-CITY
1010005	FIREBAUGH CITY
1010006	CITY OF FOWLER
1010007	CITY OF FRESNO
1010017	FCWWD #41/SHAVER LAKE
1010018	KERMAN, CITY OF
1010019	KINGSBURG, CITY OF
1010020	LATON COMMUNITY SERVICES DISTRICT
1010021	MENDOTA, CITY OF
1010023	CITY OF ORANGE COVE
1010025	CITY OF PARLIER
101002	Pinedale County Water District
1010027	REEDLEY, CITY OF
1010028	RIVERDALE PUBLIC UTILITY DISTRICT
1010029	CITY OF SANGER
1010030	TRANQUILLITY IRRIGATION DISTRICT
1010034	SAN JOAQUIN, CITY OF
1010035	DEL REY COMMUNITY SERV DIST
1010039	CARUTHERS COMM SERV DIST
101004	Malaga County Water District
1010044	HURON, CITY OF
1010049	BIOLA COMMUNITY SERVICES DIST
1010051	FCWWD #18/FRIANT
1010052	SIERRA CEDARS CSD
1010055	FCSA #47/QUAIL LAKE ESTATES
1010062	FCWWD #18/MIRA BELLA
1100203	Artois CSD
1100616	Elk Creek CSD
1100711	Butte City CSD
1110001	City of Orland
1200501	Alderpoint County Water
1200518	Riverside CSD
1200553	Weott CSD
1200587	Briceland CSD
1200701	Orick CSD
1200729	Orleans CSD
1206004	Palmer Creek CSD
1210001	City of Arcata
1210002	City of Blue Lake
1210004	City of Eureka
1210006	City of Fortuna
1210009	Humboldt CSD
1210011	Redway CSD
1210012	City of Rio Dell
1210015	Willow Creek CSD
1210016	McKinleyville CSD
1210018	City of Trinidad
1210019	Hydesville Co WD
1210020	Fieldbrook Glendale CSD
1210021	Jacoby Creek CSD
1210022	Resort Imprvmt Dist #1
1210023	Loleta CSD
1210024	Westhaven CSD
1310001	BRAWLEY, CITY OF
1310002	CALEXICO, CITY OF
1310004	EL CENTRO, CITY OF
1310005	HOLTVILLE, CITY OF
1310006	IMPERIAL, CITY OF
1310008	WESTMORLAND, CITY OF
1310011	COACHELLA VWD: I.D. NO. 11
1310011	COACHELLA VWD: I.D. NO. 11
1310013	SEELEY CWD
1400007	Sierra Highland CSD
1410001	City of Bishop
1410005	Indian Creek CSD
1410006	Big Pine CSD
1410008	Inyo County PWD - Independence
1410009	Inyo County PWD - Line Pine
1503270	Lake Isabella Community Services Dist.
1503341	TEJON-CASTAIC WD- I5 & LAVAL RD
151000	Arvin Community Services District
1510002	Boron Community Services District
151000	City of Delano
151000	East Niles Community Services District
1510007	Frazier Park Public Utilities District
151001	Buttonwillow County Water District
151001	Lamont Public Utility District
151001	City of McFarland
1510014	Mojave Public Utilities District
1510016	Rand Communities Water District
1510017	Indian Wells Valley Water District
1510018	Rosamond Community Services District
151001	City of Shafter
1510020	City of Tehachapi
151002	City of Wasco
151002	West Kern Water District

Federal	
1010501	NPS-GRANT GROVE
1310700	NAF EL CENTRO
1510701	Edwards AFB - Main Base
1510703	China Lake Naval Air Weapons Station
1610700	Lemoore Naval Air Station
271070	FORT HUNTER LIGGETT
3610703	USMC - 29 Palms
3610705	US Army Fort Irwin
3710700	Camp pendleton-North
3710702	Camp Pendleton-South
3710707	USN SAN CLEMENTE ISLAND
3710750	NAS NORTH ISLAND & NAB CORONADO
3810700	PRESIDIO OF SAN FRANCISCO
3810702	TREASURE ISLAND
4300997	Nasa Ames Research Center
4810701	TRAVIS AIR FORCE BASE - DISTRIBUTION
4910701	U.S. COAST GUARD TRAINING CENTER
5210503	Lassen VNP - Headquarters
5610700	NAVAL BASE VENTURA COUNTY, POINT MUGU
5610701	NAVAL BASE VENTURA COUNTY, PORT HUENEME
5810700	Beale Air Force Base

Mixed	
1000041	FCWWD #38/SKY HARBOUR
1000069	SHAVER LAKE HEIGHTS PROP ASSN
2400167	BALLICO CSD
2400201	VOLTA COMMUNITY SD
4000650	MESA DUNES MOBILE HOME ESTATES
5400529	SHADY GROVE MHP
5400600	GOLDEN KEY APARTMENTS
5400604	MOUNTAIN VIEW DUPLEXES
5602140	SATICOY COUNTRY CLUB-CITY OF VENTURA

Private	
4910018	ARMSTRONG VALLEY-CAL WATER SERVICE (PUC)
0110003	CALIFORNIA WATER SERVICE - LIVERMORE
0210001	LAKE ALPINE WATER COMPANY
0300062	Hope Foundation
0410002	Cal-Water Service Co- Chico
0410005	Cal-Water Service Co - Oroville
0410009	Del Oro Water Co - Magalia
0410011	Del Oro Water Co - Paradise Pines
0410018	Del Oro Water Co - Stirling Bluffs
0710002	GOLDEN STATE WATER COMPANY - BAY POINT
0910007	Lukins Brothers Water Company
1000001	ALDER SPRINGS
1000004	BELMONT WATER CORPORATION
1000016	DORABELLE MUTUAL WATER COMPANY
1000018	EASTON ESTATES WATER COMPANY
1000053	LANARE COMMUNITY SERVICES DIST
1000054	LAS DELTAS MUTUAL WATER SYSTEM
1000056	MEADOW LAKES CLUB
1000057	DEL ORO WATER CO - METROPOLITAN DISTRICT
1000058	MUSICK CREEK TRACT ASSOCIATION
1000059	MUSICK HEIGHTS MUTUAL
1000060	MUSICK MEADOWS #1
1000061	MUSICK MEADOWS #2
1000063	NEW AUBERRY WATER ASSOCIATION
1000071	LAKEVIEW IMPROVEMENT ASSOICATION #1
1000072	SHAVER LAKE POINT #2
1000075	TRACT 1199 WATER SYSTEM
1000199	ALICE MANOR
1000200	RUBYS VALLEY CARE HOME
1000213	HARRIS FARMS/HORSE BARN
1000229	GREEN ACRES MOBILE HOME ESTATE
1000238	CAMDEN TRAILER PARK
1000244	SHADY LAKES MOBILE HOME PARK
1000247	SHERWOOD FOREST MHP
1000248	DOUBLE L MOBILE RANCH PARK
1000257	MT ARARAT MOBILE HOME PARK
1000259	NEW HORIZONS MOBILE/RV PARK
1000260	SANDY CREEK VILLAGE MHP
1000265	MARY LOU MOBILE HOME PARK
1000267	KINGS CANYON MOBILE HOME PARK
1000277	ELM COURT
1000295	KINGS PARK APARTMENTS
1000298	WOODWARD BLUFFS MHP
1000299	THREE PALMS MOBILEHOME PARK
1000324	MANNING GARDENS CARE CENTER INC
1000366	SUNNYSIDE CONVALESCENT HOSP
1000369	ZONNEVELD DAIRY - CEDAR
1000377	ST NICHOLAS RANCH & RETREAT
1000378	SUNSET WEST COMMUNITY LLC
1000405	PIEDRA PARK ASSOCIATION
1000407	GEORGE COX WATER SYSTEM
1000426	RIVERBEND MOBILE HOME & RV PARK
1000430	COUNTRY VIEW ALZHEIMER CENTER
1000445	LINDA VISTA FARMS
1000472	PG&E HELMS SUPPORT FACILITY
1000585	MURRIETA/HERNANDEZ FARMS
1000622	ZONNEVELD DAIRY - CERINI
1009006	PAPPAS & CO (COALINGA)
1009020	FIVE POINTS RANCH
1009023	BRITZ/COLUSA
1009027	HARRIS FARMS HEADQUARTERS
1009028	HARRIS FARMS SOUTH #101-144
1009039	PAPPAS & CO (MENDOTA)
1009051	CANTUA CREEK VINEYARDS, IV, LLC.
1009078	HARRIS FEEDING COMPANY
1009111	SCE/BIG CREEK POWERHOUSE #1
1009120	RAU DAIRY
1009147	FARMING D
1009172	VAQUERO FARMS
1009179	BRITZ/FIVE POINT SYSTEM
1009214	WESTSIDE HARVESTING
1009222	TERRA LINDA FARMS
1009232	SUMNER PECK RANCH
1009258	SAN ANDREAS FARMS
1009281	HAMMONDS RANCH
101000	Bakman Water Company
1010013	HUME LAKE CHRISTIAN CAMPS, INC
101002	CWS - Selma
1010053	SHAVER LAKE HEIGHTS MWC
1110002	Cal-Water Service Co - Hamilton City
1110003	Cal-Water Service Co - Willows
1200541	Phillipsville CSD
1200566	Orleans MWC
1200592	BIG LAGOON CSD
1200715	California Redwood Co - Korbel
1210007	Del Oro WC - Ferndale
1210008	Garberville SD
1210010	Town of Scotia LLC
1210013	Humboldt Bay MWD
1310003	GSWC - CALIPATRIA
1310007	HEBER PUBLIC UTILITY DISTRICT
1400004	Charles Brown Water Company
1400010	Rolling Green Utilities
1400111	Meadow Creek Mutual Water Co.
1410007	Highland Mobile Home Park
150049	Aera Energy-LLC
1503536	Linns Valley School
151000	CWS - Bakersfield
151000	Casa Loma Water Co, Inc.
1510009	Erskine Creek Water Company
151001	Oildale Mutual Water Company
1510023	Lake of the Woods Mutual Water Co.
1510028	Mil Potrero Mutual Water Company
151002	Vaughn Water Company, Inc.
1510032	City of California City
1510033	CWS-Kernville System
1510039	CWS-Southlake Squirrel Valley System
1510042	Mountain Mesa Water Company
1510043	CWS-Onyx System
151004	Lost Hills Utility District
1510049	CWS-Lakeland System
151005	CWS- North Garden
1510056	CWS-Lower Bodfish System
1710002	Golden State Water Co.-Clearlake System
1710003	Highlands Mutual Water Company
1710005	Lucerne Water Co. - Cal Water Service
1800511	LAKE FOREST MUTUAL W.C.
1900803	El Dorado Mutual Water Company
1910004	Golden State Water Co - Artesia
1910006	Southern CA Edison Company - Santa Catalina
1910011	Golden State Water Co - Bell, Bell Garden
1910012	Bellflower Home Gardens Water Company
1910013	Bellflower - Somerset Mutual Water Company
1910020	East Pasadena Water Company
1910021	Liberty Utilities - Compton
1910023	Averydale Mutual Water Company
1910024	Golden State Water Co - Claremont
1910030	Golden State Water Co - Culver City
1910033	California Water Service Co - Dominguez
1910036	California Water Service Co - East Los Angeles
1910039	San Gabriel Valley WC - El Monte
1910046	Suburban Water Systems - Glendora
1910052	California American Water Co - Baldwin Hills
1910059	Suburban Water Systems - La Mirada
1910061	Las Flores Water Company
1910063	Lincoln Avenue Water Company
1910072	Golden State Water Co - Willowbrook
1910077	Golden State Water Co - Florence/Graham
1910084	Maywood Mutual Water Company #1
1910085	Maywood Mutual Water Company #2
1910086	Maywood Mutual Water Company #3
1910091	Montebello Land And Water Company
1910098	Golden State Water Co - Norwalk
1910104	California Water Service Co - Palos Verdes
1910134	California Water Service Co - Hermosa/Redondo
1910139	California American Water Co - San Marino
1910140	Rubio Canon Land And Water Association
1910142	Golden State Water Co - San Dimas
1910155	Golden State Water Co - Southwest
1910157	Sunny Slope Water Company
1910159	Tract 180 Mutual Water Company
1910160	Tract 349 Mutual Water Company
1910161	Liberty Utilities - Lynwood
1910163	Valencia Heights Water Company
1910165	Valley View Mutual Water Company
1910166	Valley Water Company

State Govt	
1010800	CAL FIRE - MIRAMONTE CONSERVATION CAMP
1210017	Manila CSD
1910022	California State Polytechnical Univ - Pomona
1910801	Fenner Canyon Youth Conservation Camp
2710705	CAMP ROBERTS - CALIFORNIA NATIONAL GUARD
2710850	CORRECTIONAL TRAINING FACILITY - SOLEDAD
2710851	SALINAS VALLEY STATE PRISON
3610114	CLAWA
3710802	LA CIMA FIRE CENTER
4310028	San Jose State University
4410301	CSP - BIG BASIN STATE PARK
4910027	SONOMA STATE UNIVERSITY
5410801	PORTERVILLE DEVELOPMENTAL CENTER

151002	Greenfield County Water District
1510025	Stallion Springs Community Services District
1510027	Desert Lake Community Services District
151003	City of Bakersfield
1510036	Inyokern Community Services District
1510038	Bear Valley Community Services District
1510045	Golden Hills Community Services District
1510051	Lebec County Water District
1510052	North Edwards Water District
161000	Armona Community Services District
161000	City of Avenal
161000	City of Hanford
161000	City of Corcoran
161000	City of Lemoore
161000	Stratford Public Utility District
161000	Home Garden Community Services District
161000	Kettleman City Community Services District
1710001	Clearlake Oaks County Water District
1710004	Lakeport, City Of
1710006	Konocti County Water District
1710007	Kelseyville Co Waterworks District 3
1710009	Upper Lake County Water District
1710010	Lower Lake County Water District
1710012	Cobb Area County Water District
1710013	Callayomi County Water District
1710014	Mt. Konocti Mutual Water Company
1710015	Hidden Valley Lake Community Services District
1805007	Herlong PUD
1810001	City of Susanville
1810002	Westwood CSD
1810003	Lassen CWD #1
1810004	Leavitt Lake CSD
1910001	Alhambra - City, Water Department
1910003	Arcadia - City, Water Division
1910005	Los Angeles CWWD 40 R38 - Lake Los Angeles
1910007	Azusa Light And Water
1910009	Valley County Water District
1910017	Santa Clarita Water Div. - Div. of Castaic Lake Water Agency
1910019	Cerritos - City, Water Department
1910025	Los Angeles CWWD 40 R39 - Rock Creek
1910026	Compton - City, Water Department
1910027	Los Angeles CWWD 40 R35 - Northeast LA
1910028	Crescenta Valley Water District
1910029	Industry Public Utilities
1910034	Downey - City, Water Department
1910035	Kinnelon Irrigation District
1910038	El Monte - City, Water Department
1910040	El Segundo - City, Water Department
1910042	Pico Rivera - City, Water Department
1910043	Glendale - City, Water Department
1910044	Glendora - City, Water Department
1910047	Hawthorne - City, Water Department
1910049	Huntington Park - City, Water Department
1910050	Commerce - City, Water Department
1910051	Inglewood - City, Water Department
1910054	La Canada Irrigation District
1910060	La Puente Valley County Water District
1910062	La Verne - City, Water Department
1910064	Littlerock Creek Irrigation District
1910065	Long Beach - City, Water Department
1910067	Los Angeles - City, Dept. Of Water & Power
1910070	Los Angeles CWWD 40 R4 - Lancaster & R34 - Desert View Highlands
1910073	Lomita - City, Water Department
1910075	Los Angeles CWWD 21 - Kagel Canyon
1910079	Lynwood - City, Water Department
1910081	Lynwood Park Mutual Water Company
1910083	Manhattan Beach - City, Water Department
1910090	Monrovia - City, Water Department
1910092	Monterey Park - City, Water Department
1910096	Newhall County Water District - Newhall
1910101	Orchard Dale Water District
1910102	Palmdale Water District
1910103	Palm Ranch Irrigation District
1910105	Paramount - City, Water Department
1910108	Liberty Utilities - Bell Gardens
1910117	Montebello - City, Water Department
1910124	Pasadena - City, Water Department
1910125	Pico Water District
1910126	Pomona - City, Water Department
1910127	Covina - City, Water Department
1910130	Quartz Hill Water District
1910143	San Fernando - City, Water Department
1910144	San Gabriel County Water District
1910146	Santa Monica - City, Water Division
1910148	Sierra Madre - City, Water Department
1910149	Signal Hill - City, Water Department
1910152	South Gate - City, Water Department
1910153	South Montebello Irrigation District
1910154	South Pasadena - City, Water Department
1910156	Beverly Hills - City, Water Department
1910167	Vernon - City, Water Department
1910173	Whittier - City, Water Department
1910179	Burbank - City, Water Department
1910185	Los Angeles CWWD 36 - Val Verde
1910191	Norwalk - City, Water Department
1910194	Rowland Water District
1910203	LA CWWD 40 R24 - Pearblossom, R27 - Little Rock, R33 - Sun Village
1910204	Los Angeles CWWD 29 & 80 - Malibu & Marina Del Rey
1910213	Torrance - City, Water Department
1910225	Las Virgenes Municipal Water District
1910234	Walnut Valley Water District
1910239	Lakewood - City, Water Department
1910244	Green Valley County Water District
1910245	Santa Fe Springs - City
1910247	Newhall County Water District - Castaic
1910248	Los Angeles CWWD 37 - Acton
1910250	Newhall County Water District - Pinetree
1910255	Newhall County Water District -Tesoro Del Valle
2000554	MD #33 Fairmead Dist
2000727	MD #36 Eastin Arcola
2010001	CHOWCHILLA CITY WATER DEPT
2010002	CITY OF MADERA
2010006	MADERA CO SAI 3 PARKSDALE
2010008	MADERA CO MD #10A - MADERA RANCHOS
2110001	INVERNESS PUBLIC UTILITY DIST
2110002	MARIN MUNICIPAL WATER DISTRICT
2110003	NORTH MARIN WATER DISTRICT
2110004	STINSON BEACH COUNTY WTR DIST
2110005	BOLINAS COMMUNITY PUD
2110006	NORTH MARIN WD - PT. REYES
2210001	MARIPOSA PUBLIC UTILITY DIST
2210901	MPWD-COULTERVILLE CSA 1
2300514	Elk County Water District
2310001	Fort Bragg, City Of
2310003	Ukiah, City Of
2310004	Willits, City Of
2310005	Willow County Water District
2310006	Millview County Water District
2310008	Redwood Valley County Water District
2310010	Hopland Public Utility District
2310011	Laytonville County Water District
2410001	CITY OF ATWATER
2410002	CITY OF DOS PALOS
2410003	CITY OF GUSTINE
2410004	CITY OF LIVINGSTON
2410005	CITY OF LOS BANOS
2410006	DELHI CWD
2410007	PLANADA CSD
2410009	CITY OF MERCED
2410010	WINTON WATER & SANITARY DIST
2410011	LE GRAND COMM SERVICES DIST
2410012	HILMAR COUNTY WATER DISTRICT
2410018	SANTA NELLA COUNTY WATER DISTRICT
2410700	CASTLE AIRPORT
2500503	California Pines CSD
2510001	City of Alturas
2510002	Cedarville CWD
2610001	Mammoth Lakes
2610002	June Lake PUD - Village
2610003	Bridgeport PUD
2610004	June Lake PUD - Down Canyon
270077	SUNNY MESA WATER SYSTEM
271000	CASTROVILLE COMMUNITY SERVICES DISTRICT
271000	CITY OF GONZALES
271000	CITY OF GREENFIELD
271001	CITY OF SOLEDAD
271001	MARINA COAST WATER DISTRICT
271001	SEASIDE MUNICIPAL WATER SYSTEM
271002	PAJARO COMMUNITY SERVICES DISTRICT
2810002	Calistoga, City Of

1910169	Walnut Park Mutual Water Company
1910174	Suburban Water Systems - Whittier
1910186	California American Water Co - Duarte
1910189	San Gabriel Valley WC - Montebello
1910195	Golden State Water Co - Hollydale
1910200	Suburban Water Systems - Covina Knolls
1910205	Suburban Water Systems - San Jose
1910211	Liberty Utilities- Bellflower/Norwalk
1910212	Golden State Water Co - South Arcadia
1910223	Golden State Water Co - South San Gabriel
1910240	Valencia Water Company
1910241	Mesa Crest Water Company
1910243	California Water Service Co - Leona Valley
2010003	BASS LAKE WATER COMPANY
2010007	HILLVIEW WC-OAKHURST/SIERRA LAKES
2010010	MADERA VALLEY WATER COMPANY
2010012	HILLVIEW WATER CO-RAYMOND
2300708	Ridgewood Water System
2300730	Westport County Water District
2300731	City Of 10,000 Buddhas
2310013	Point Arena Water Works
2410008	MEADOWBROOK WC
2500911	I'SOT Well #3 & #15
2600620	Mountain Meadows MWC
2610005	Lee Vining PUD
270051	NORMCO WATER COMPANY
2700728	San Ardo WD
270120	CAL AM WATER COMPANY - CHUALAR
2701676	San Lucas WD
270188	CAL AM WATER COMPANY - BISHOP
270252	SANTA LUCIA PRESERVE
270258	CANADA WOODS WC
271000	ALCO WATER SERVICE
271000	CAL AM WATER COMPANY - MONTEREY
271000	CAL AM WATER COMPANY - AMBLER PARK
271000	CWSC KING CITY
271001	CWSC SALINAS
271001 2	CWSC SALINAS HILLS
271001	CWSC LAS LOMAS
271001	LITTLE BEAR WATER COMPANY
271001	CWSC OAK HILLS
271002	CAL AM WATER COMPANY - TORO
271002	CAL AM WATER COMPANY - HIDDEN HILLS
271002	TASCO SPRECKELS WATER COMPANY
2800625	St. Helena Hospital
2810001	Howell Mountain Mutual Water Company
2810012	Pacific Union College
2900532	Washington Water District
2900541	Christian Encounters Ministries
2900546	Sierra Friends Center
2900562	Ananda Village
3000519	Hynes Estates Mutual Water Company
3000585	Page Avenue Mutual Water Company
3000618	Liberty Park Water Association
3000825	South Midway City Mutual Water
3000852	Rancho Mission Viejo
3010008	Eastside Water Association
3010022	Golden state WC-W. Orange
3010035	Golden state WC-Placentia
3010047	Golden state WC-Cowan Heights
3010070	Golden state WC-Yorba linda
3010097	Midway City Mutual
3110035	Weimar WC
3110150	CalAM - West Placer
3110150	CALAM - WEST PLACER
3310004	BOX SPRINGS MUTUAL WC
3310017	SOUTH MESA WC
3310026	NUEVO WATER COMPANY
3310033	SANTA ANA RIVER WATER COMPANY
3310082	NORTH PERRIS WATER SYSTEM
3410003	GSWC - Arden Water Service
3410008	Elk Grove Water Service
3410010	CalAM - Suburban
3410012	CalAM - Ispilton
3410013	CalAM - Lincoln Oaks
3410015	GSWC - Cordova
3410016	Orange Vale Water Company
3410017	CalAM - Parkway
3410023	Fruitridge Vista Water Company
3410031	CalAM - Antelope
3410045	CalAM - Arden
350051	MCMAHON ROAD MUTUAL WATER COMPANY
350057	SPRINGWOOD ESTATES MWC
350057	AROMAS HILLS MUTUAL WATER ASSOCIATION
350058	RANCHO SAN JOAQUIN MUTUAL WATER COMPANY
350082	BEST ROAD MUTUAL WATER COMPANY
351000	SUNNYSLOPE COUNTY WATER DISTRICT
351000	AROMAS WATER DISTRICT
351000	MISSION OAKS MOBILE HOME PARK
3610002	Alpine Water Users Association
3610003	Apple Valley Ranchos WC
3610011	Cedar pines Park MWC
3610016	Glen Martin MWC
3610017	Havasu Water Company
3610021	Fallsvale Service Company
3610023	Green Valley MWC
3610028	Marygold MWC
3610031	Muscoy MWC No. 1
3610033	Mt. Baldy HOA
3610041	San Gabriel Valley WC - Fontana
3610043	GSWC - Barstow
3610046	Valley View Park MWC
3610047	GSWC - Wrightwood
3610048	Terrace Water Company
3610051	Valley of Enchantment MWC
3610053	Western Heights Water Company
3610057	Riverside Highland Water Company
3610063	GSWC - Morongo Del Sur
3610082	San Antonio Canyon MSC
3610085	San Antonio Water Company
3610105	GSWC - Apple Valley North
3610107	GSWC - Apple Valley South
3610108	GSWC - Lucerne
3610109	Sheep Creek Water Company
3610117	Devore Water Company
3610118	Apple Valley Ranchos Water - Yermo
3610854	Searles Valley Minerals Operations
3700905	PINE HILLS MUTUAL WATER COMPANY
3700923	LAKE MORENA OAK SHORES MW CO.
3700938	YUIMA MUNICIPAL WATER DISTRICT IDA
3702354	WARNER SPRINGS ESTATES
3710001	CAL-AM WATER CORONADO
3710011	JACUMBA COMMUNITY SD
3710012	RANCHO PAUMA MUTUAL WC
3710013	LAKESIDE WD
3710039	PINE VALLEY MUTUAL WC
3910001	CALIFORNIA WATER SERVICE - STOCKTON
4010002	ATASCADERO MUTUAL WATER CO
4010003	SAN MIGUELITO MWC
4010015	MORRO ROCK MUTUAL WATER CO
4010017	GOLDEN STATE WATER COMPANY - LOS OSOS
4010018	GOLDEN STATE WATER COMPANY - NIPOMO
4010023	GOLDEN STATE WATER COMPANY - EDNA
4010027	NACIMIENTO WATER COMPANY
4010040	GOLDEN STATE WATER COMPANY-CYPRESS RIDGE
4010081	WOODLANDS DEVELOPMENT
4110006	California Water Service - Bear Gulch
4110007	California Water Service - San Carlos
4110008	California Water Service - San Mateo
4110009	California Water Service - South San Francisco
4110012	Cuesta La Honda Guild, Inc.
4110019	O'Connor Tract Co-Operative Water Company
4110020	Palo Alto Park Mutual Water Company
4200560	Sisquoc
4200618	Midland School
4200870	#REF!
4210005	SAN VICENTE WATER COMPANY
4210016	GOLDEN STATE WATER COMPANY - ORCUTT
4210021	GOLDEN STATE WATER COMPANY - TANGLEWOOD
4210022	GOLDEN STATE WATER COMPANY - LAKE MARIE
4210024	LA CUMBRE MUTUAL WATER CO
4210700	AMERICAN WATER OPS & MAINTENANCE - VAFB
4300543	West San Martin Water Works, Inc.
4310001	California Water Service - Los Altos Suburban
4310011	San Jose Water Company
4310013	Stanford University
4310022	Great Oaks Water Company, Inc.
441000	BIG BASIN WATER COMPANY
441000	SLVWD - FELTON WATER SYSTEM
441000	MT. HERMON ASSOCIATION, INC.

2810003	Napa, City Of
2810004	St. Helena, City Of
2810005	American Canyon, City Of
2810007	Town Of Yountville
2910001	City of Grass Valley
2910002	City of Nevada City
2910003	Truckee-Donner PUD - Main
2910004	NID - E. George, Banner Mountain
2910006	NID - Loma Rica
2910014	NID - Lake of Pines
2910023	NID - Lake Wildwood
3010001	Anaheim, City of
3010002	Brea, City of
3010003	Buena Park. City of
3010004	Mesa Water District
3010010	Fullerton, City of
3010017	Laguna Beach County Water District
3010018	La Habra, City of
3010023	Newport Beach. City of
3010027	Orange, City of
3010030	San Juan Capistrano, City of
3010036	San Clemente, City of
3010037	Yorba Linda, City of
3010038	Santa Ana. City of
3010041	Seal Beach, City of
3010046	Tustin, City of
3010053	Huntington Beach, city of
3010055	South Coast WD-Capo Beach
3010062	Garden Grove. City of
3010064	Westminster, City of
3010068	East OC-RZ
3010069	Fountain Valley, Cit of
3010071	Joint Regional Water Supply
3010073	Moulton Niguel Water District
3010079	El Toro Water District
3010082	Serrano Water District
3010092	Irvine Ranch Water District
3010093	East OC-WZ
3010094	Trabuco Canyon Water District
3010100	La Palma, City of
3010101	Santa Margarita Water District
30101.20	San Juan Basin Authority
3110001	North Tahoe PUD - Main
3110003	Foresthill PUD
3110004	City of Lincoln
3110005	Placer CWA - Auburn/Bowman
3110006	Placer CWA - Colfax
3110008	City of Roseville
3110009	Meadow Vista CWD
3110010	Tahoe City PUD - Main
3110020	Squaw Valley PSD
3110024	Placer CWA - Alta
3110025	Placer CWA - Foothill
3110026	NID - North Auburn
3110048	Placer CSA - Sheridan
32005.10	IVCSD - Crescent Mills
3210001	IVCSD - Greenville
3210003	City of Portola
3210004	Quincy CSD
3210008	East Quincy SD
3210009	Chester PUD
3310001	COACHELLA VWD: COVE COMMUNITY
3310002	BEAUMONT CHERRY VALLEY WD
3310003	BLYTHE - CITY OF
3310005	DESERT WATER AGENCY
3310006	BANNING, CITY OF
3310007	COACHELLA WATER AUTHORITY
3310008	MISSION SPRINGS WD
3310009	EASTERN MUNICIPAL WD
3310012	ELSINORE VALLEY MWD
3310016	HEMET, CITY OF
3310018	HOME GARDENS COUNTY WD
3310019	IDYLLWILD WATER DISTRICT
3310020	INDIO WATER AUTHORITY
3310021	JURUPA COMMUNITY SD
3310022	LAKE HEMET MWD
3310025	NORCO. CITY OF
3310029	PERRIS, CITY OF
3310031	RIVERSIDE, CITY OF
3310032	SAN JACINTO, CITY OF
3310036	WESTERN MWD - MURRIETA DIVISION
3310037	CORONA. CITY OF
3310038	RANCHO CALIFORNIA WATER DISTRICT
3310044	RUBIDOUX COMMUNITY SD
3310047	CABAZON WATER DISTRICT
3310048	COACHELLA VWD: I.D. NO. 8
3310049	WESTERN MWD
3310074	TEMESCAL VALLEY WATER DISTRICT
3310076	WESTERN MWD (ID A - RAINBOW)
3410001	Sacramento Suburban Water District
3410002	SCWA - Arden Park Vista
3410004	Carmichael Water District
3410006	Citrus Heights Water District
3410007	Del Paso Manor Water District
3410009	Fair Oaks Water District
3410011	City of Galt
3410014	City Folsom - Main
3410018	Rio Linda Elverta CWD
3410020	City of Sacramento
3410021	San Juan Water District
3410029	SCWA - Laguna / Vineyard
3410030	City of Folsom - Ashland
3410033	Florin County Water District
3410704	SCWA - Mather / Sunrise
350000	CSA NO. 31 STONEGATE WS
350050	TRES PINOS CWD
350091	DUNNEVILLE ESTATES CSA #50
351000	CITY OF HOLLISTER
351000	CITY OF SAN JUAN BAUTISTA
3600008	Apple Valley Foothill CWD
3600009	Apple Valley Heights CWD
3600222	Juniper Riviera CWD
3600306	Thunderbird CWD
3610001	City of Adelanto
3610004	West Valley Water District
3610005	lake Arrowhead CSD
3610008	Big Bear City CSD
3610009	Bighorn - Desert View Water Agency
3610012	City of Chino
3610013	City of Loma Linda
3610014	City of Colton
3610015	Crestline Village CWD
3610018	Cucamonga Valley Water District
3610022	Big Bear DWP - Fawnskin
3610024	Hesperia Water District
3610025	Joshua Basin Water District
3610026	SBDNO CSA 70 Cedar Glen
3610029	Monte Vista CWD
3610030	Mariana Ranchos CWD
3610032	City of Needles
3610034	Ontario Municipal Utilities Compoanv
3610036	City of Chino Hills
3610037	City of Redlands MUD Water Division
3610038	City of Rialto
3610039	City of San Bernardino
3610044	Big Bear Lake/Moonridge
3610045	LACSD - Rimforest
3610049	Twentynine Palms Water District
3610050	City of Upland
3610052	Victorville Water District
3610055	Yucaipa Valley Water District
3610060	BDYWA - Goat Mountain ID
3610061	DWP - Sugarloaf/Erwin Lake
3610062	Running Springs WD
3610064	East Valley Water District
3610073	Hi Desert Water District
3610093	Arrowhead Villas MSC
3610110	Arrowbear Park CWD
3610112	Helendale Community SD
3610120	Phelan Pinon Hills CSD
3610121	SBDNO CSA 64
3610125	SBNDO CSA 70J
3700909	JULIAN COMMUNITY SERVICES DISTRICT
3700968	San Pasqual Academy
3701408	YUIMA MUNICIPAL WATER DISTRICT
3710002	VALLECITOS WD
3710004	DEL MAR, CITY OF
3710005	CARLSBAD MWD
3710006	ESCONDIDO, CITY OF
3710008	FALLBROOK PUD
3710009	DESCANSO COMMUNITY SERVICES DISTRICT
3710010	HELIX WATER DISTRICT
3710014	Oceanside, City of
3710015	POWAY, CITY OF

441001	FOREST LAKES MUTUAL WATER COMPANY
4700523	Grenada SD
4700549	Lake Siskiyou MWC
4700551	Cooco Lake MWC
4700880	Siskiyou Lake Highlands MWC
4710013	Lake Shastina CSD
4810002	CALIFORNIA WATER SERVICE CO. - DIXON
4900508	CAZADERO WATER COMPANY, INC.
4900545	BRANGER MUTUAL WATER COMPANY. INC.
4900577	RIO LINDO ADVENTIST ACADEMY
4900599	RANDAL'S RANCHETTE MUTUAL WATER COMPANY
4910002	CLOVERDALE, CITY OF
4910003	PENNGROVE WATER COMPANY (PUC)
4910023	CALIFORNIA-AMERICAN LARKFIELD (PUC)
4910024	GEYSERVILLE WATER WORKS (PUC)
4910025	KENWOOD VILLAGE WATER COMPANY (PUC)
5200503	Mineral CWD
5210002	Gerber Las Flores CSD
5210003	Los Molinos CSD
5301002	Lewiston CSD
5301003	Lewiston Park MWC
5310003	Trinity Center MWC
5400504	A & A MHP
5400506	NO KAWEAH MUTUAL WATER CO
5400523	EL MONTE VILLAGE MHP
5400536	KINGS RIVER ESTATES MUTUAL WATER COMPANY
5400542	DUCOR CSD
5400550	SEVILLE WATER CO
540055	Del Oro Traver District
5400556	RIVER RETREAT MUTUAL
5400567	TOOLEVILLE MUTUAL NON PROFIT WATER ASSOC
5400570	CHINOWTH APARTMENTS
5400602	EAGLE'S NEST RESORT
5400631	LINNELL FARM LABOR CENTER
5400647	YOKOHL MUTUAL WATER CO
5400651	BEVERLY GRAND MUTUAL WATER
5400655	CENTRAL MUTUAL WATER CO
5400660	LAKE SUCCESS MOBILE LODGE
5400670	TRIPLE R MUTUAL WATER CO
5400710	BADGER HILL ESTATES
5400718	WILLIAMS MUTUAL WATER CO
5400728	GRIER MUTUAL WATER CO
5400732	PIERPOINT SPRINGS WATER CO.
5400735	RODRIGUEZ LABOR CAMP
5400744	EAST THREE RIVERS MUTUAL
5400754	SOUTH KAWEAH MUTUAL WATER COMPANY
5400769	FOOTHILL APARTMENTS
5400792	WOODVILLE FARM LABOR CENTER
5400805	SOULTS MUTUAL WATER CO
5400816	BEDEL MUTUAL WATER CO
5400819	MOUNTAIN VIEW MHP
5400875	DIXON WATER COMPANY
5400880	THE LAKES ASSOCIATION
5400881	SUNRISE MUTUAL WATER CO.
5400903	TRACT 92 CSD
5400940	SIERRA KING HOMEOWNERS ASSN
5400964	SIERRA VISTA ASSN
5400966	WESTLAKE VILLAGE MHP
5401026	DEER MEADOW MUTUAL
5401038	AKIN WATER CO
5402038	PATTERSON TRACT CSD
5402047	GLEANINGS FOR THE HUNGRY
5403038	SPRINGVILLE WATER CO
5403084	FAIRWAY MUTUAL WATER CO
5403110	SIERRA MUTUAL WATER CO
5403113	SOUTH FORK ESTATES MUTUAL WATER CO
5403144	ALI MUTUAL WATER CO
5403149	RANCHO LOPEZ
5403202	SALLY TRACH WATER SYSTEM
541001	CWS - Visalia
5500040	BLUEBELL VALLEY MWC
5500057	LONG BARN PROPERTY OWNERS
5500242	SIERRA WALDORF SCHOOL
5510004	PINECREST PERMITTEES ASSN
5510006	MI-WUK VILLAGE MUT WTR CO
5510008	LAKE DON PEDRO CSD
5510009	GROVELAND COMMUNITY SERV DIST
5510011	COLD SPRINGS WATER CO
5510016	SIERRA PARK WATER COMPANY, INC.
5510023	SONORA MEADOWS MUTUAL WTR CO
5510024	SONORA WATER COMPANY INC
5510026	PHOENIX LAKE ESTATES CC MWC
5601104	CASITAS MUTUAL WATER COMPANY
5601105	FILLMORE IRRIGATION CO
5601110	MIDDLE ROAD MUTUAL WATER CO
5601116	SAN CAYETANO MUTUAL WATER CO
5601117	SENIOR CANYON MUTUAL WATER CO
5601119	SIETE ROBLES MUTUAL WATER CO
5601120	SISAR MUTUAL WATER CO
5601122	TICO MUTUAL WATER CO
5601125	COMMUNITY MUTUAL WATER CO
5601134	ELKINS RANCH
5601141	SOUTH MOUNTAIN MUTUAL WATER CO
5601144	RANCHO SESPE WORKERS IMP ASSOC
5601201	LIMONEIRA RANCH #1
5601206	LIMONEIRA CO. - MCKEVETT
5601401	KROTONA INSTITUTE
5602103	CYPRESS MUTUAL WATER CO INC
5602104	DEL NORTE MUTUAL WATER CO.
5602108	GARDEN ACRES MUTUAL WATER CO
5602111	NYELAND ACRES MUTUAL WATER CO
5602115	SAVIERS ROAD MUTUAL WATER CO
5602117	STRICKLAND ACRES
5602130	SOLANO VERDE MUTUAL WATER CO
5602132	WATERS ROAD DOMESTIC USERS GROUP
5610001	DEMPSEY ROAD MUTUAL WATER CO
5610006	YERBA BUENA WATER COMPANY
5610008	PLEASANT VALLEY MUTUAL WATER CO
5610010	RIO PLAZA WATER CO INC
5610014	GOLDEN STATE WATER COMPANY - OJAI
5610016	CALIFORNIA WATER SERVICE CO - WESTLAKE
5610021	WARRING WATER SERVICE INC
5610029	VINEYARD AVENUE ACRES MWC
5610035	RIO MANOR MUTUAL WATER CO
5610040	CAL AMERICAN WATER CO
5610043	OAK PARK WATER SERVICE
5610056	VINEYARD AVE ESTATES MWC
5610058	CRESTVIEW MUTUAL WATER CO
5610059	GOLDEN STATE WATER COMPANY - SIMI VALLEY
5610068	CLOVERDALE MUTUAL WATER CO.
5610081	CAL AMERICAN WC - LAS POSAS ESTATES
5700700	Cachevilla Service District
5800924	CAMPTONVILLE COMMUNITY SERV DIST
5810001	Cal-Water Service Co - Marysville

3710016	RAINBOW MUNICIPAL WD
3710018	RINCON DEL DIABLO MWD (ID-1)
3710019	RAMONA MUNICIPAL WD
3710020	SAN DIEGO. CITY OF
3710021	SAN DIEGUITO WD
3710023	SANTA FE I.D.
3710025	SWEETWATER AUTHORITY
3710026	VALLEY CENTER MWD
3710027	VISTA IRRIGATION DISTRICT
3710029	OLIVENHAIN MWD
3710034	OTAY WATER DISTRICT
3710036	BORREGO WD
3710037	PADRE DAM MWD
3710041	MAJESTIC PINES COMMUNITY SD
3710044	RINCON DEL DIABLO MWD (ID-A)
3710047	CAMPO HILLS-COUNTY PUBLIC WORKS WASTEWTR
3810011	SFPUC-CITY DISTRIBUTION DIVISION
3900504	Clements Water Works CSA #43
3900505	Farmington Water Company (Private)
3901092	San Joaquin County Water Works #2
390121	Santos Ranch CSA 35 Los Ranchos
3901322	Manteca Industrial Park CSA 30
3910002	SAN JOAQUIN COUNTY - COLONIAL HEIGHTS
3910003	ESCALON. CITY OF
3910004	LODI, CITY OF
3910005	MANTECA, CITY OF
3910007	RIPON, CITY OF
3910008	LOCKEFORD COMMUNITY SERV. DIST.
3910009	SAN JOAQUIN COUNTY - THORNTON
3910010	SAN JOAQUIN COUNTY - LINCOLN VILLAGE
3910011	TRACY, CITY OF
3910012	CITY OF STOCKTON
3910015	CITY OF LATHROP
3910019	LINDEN COUNTY WATER DISTRICT
3910024	SAN JOAQUIN COUNTY - WILKINSON MANOR
3910027	MOUNTAIN HOUSE COMMUNITY SERVICES DIST.
4000222	AVILA BEACH COMMUNITY SERVICES DISTRICT
4000568	SAN SIMEON CSD
4010001	ARROYO GRANDE WATER DEPARTMENT
4010004	GROVER BEACH WATER DEPARTMENT
4010005	OCEANO COMM SERVICES DIST
4010006	PASO ROBLES BEACH WATER ASSN
4010007	PASO ROBLES WATER DEPARTMENT
4010008	PISMO BEACH WATER DEPARTMENT
4010009	SAN LUIS OBISPO WATER DEPARTMENT
4010010	SAN MIGUEL COMMUNITY SERVICES DISTRICT
4010011	MORRO BAY PW DEPT - WATER DIVISION
4010012	HERITAGE RANCH CSD
4010014	CAMBRIA COMM SERVICES DIST
4010016	LOS OSOS COMMUNITY SERVICES DISTRICT
4010019	TEMPLETON CSD
4010024	SLO CWWD NO. 23 - SANTA MARGARITA
4010026	NIPOMO COMM SERVICES DIST
4010028	SLO CSA NO. 16 - SHANDON
4010901	SLOCSA #10A - CAYUCOS
4100582	County Service Area 11
4110001	Mid-Peninsula Water District
4110002	City of Brisbane
4110003	City of Burlingame
4110005	Guadalupe Valley Municipal Improvement District
4110010	Montara Water and Sanitary District
4110011	Coastside County Water District
4110013	City of Daly City
4110016	Hillsborough Water Department
4110017	City of Menlo Park
4110018	City of Millbrae
4110021	Estero Municipal Improvement District
4110022	City of Redwood City
4110023	City of San Bruno
4110024	City of East Palo Alto
4110025	North Coast County Water District
4110027	Westborough County Water District
4210001	CARPINTERIA VALLEY WATER DISTRICT
4210002	LOS ALAMOS COMMUNITY SER DIST
4210003	GUADALUPE WATER DEPARTMENT
4210004	GOLETA WATER DISRICT
4210006	LOMPOC-CITY WATER UTILITY DIV
4210007	MONTECITO WATER DIST
4210009	CUYAMA COMMUNITY SERVICES DISTRICT
4210010	CITY OF SANTA BARBARA WATER DEPARTMENT
4210011	SANTA MARIA WATER DEPARTMENT
4210013	SOLVANG WATER DIVISION
4210017	VANDENBERG VILLAGE COMM. SERV. DIST.
4210018	BUELLTON WATER DEPARTMENT
4210019	MISSION HILLS CSD
4210020	SANTA YNEZ RIVER WATER CONS. DIST. ID#1
4300542	San Martin County Water District
4310004	City of Gilroy
4310005	City of Milpitas
4310006	City of Morgan Hill
4310007	City of Mountain View
4310009	City of Palo Alto
4310012	City of Santa Clara
4310014	City of Sunnyvale
4310018	City of Cupertino
4310019	City of San Jose - North San Jose/Alviso
4310020	City of San Jose - Evergreen/Edenvale/Covote
4310021	Purissima Hills Water District
440057	DAVENPORT COUNTY SANITATION DISTRICT
441001	SANTA CRUZ WATER DEPARTMENT
441001	CITY OF WATSONVILLE
441001	SCOTTS VALLEY WATER DISTRICT
441001	SAN LORENZO VALLEY WATER DISTRICT
441001	SLVWD-LOMPICO
441001	SOQUEL CREEK WATER DISTRICT
441001	CENTRAL WATER DISTRICT
4500015	Shasta CSA - Castella #3
4500317	Shasta CSA - French Gulch #11
4510001	City of Anderson
4510003	Burney WD
4510005	City of Redding
4510006	City of Shasta Lake
4510007	Cottonwood CWD
4510008	Fall River Valley CSD
4510011	Centerville CSD
4510013	Shasta CSD
4510014	Bella Vista WD
4510016	Clear Creek CSD - Anderson
4600018	Sierraville PUD
4610001	City of Loyalton
4610002	Downieville PUD
4700503	Callahan WD
4700513	Hornbrook CSD
4700521	Siskiyou Co SA #5/Carrick
4710001	City of Dorris
4710002	City of Dunsmuir
4710003	Town of Fort Jones
4710004	City of Etna
4710006	McCloud CSD
4710007	City of Montague
4710008	City of Mt. Shasta
4710009	City of Weed
4710010	City of Tulelake
4710011	City of Yreka
4710012	Happy Camp CSD
4810001	CITY OF BENICIA
4810003	CITY OF FAIRFIELD
4810004	CITY OF RIO VISTA
4810005	SUISUN-SOLANO WATER AUTHORITY
4810007	CITY OF VALLEJO
4810008	CITY OF VACAVILLE
4810009	CITY OF DIXON
4810010	SID - GIBSON CANYON
4810011	SID - ELMIRA
4810013	RURAL NORTH VACAVILLE WATER DISTRICT
4810021	CITY OF VALLEJO-LAKES SYSTEM
4910004	SWEETWATER SPRINGS CWD - GUERNEVILLE
4910005	HEALDSBURG, CITY OF
4910006	PETALUMA, CITY OF
4910009	SANTA ROSA, CITY OF
4910011	SEBASTOPOL, CITY OF
4910012	SONOMA, CITY OF
4910013	VALLEY OF THE MOON WATER DISTRICT
4910014	ROHNERT PARK, CITY OF
4910016	COTATI, CITY OF
4910017	WINDSOR, TOWN OF
4910019	FORESTVILLE COUNTY WATER DISTRICT
4910021	BODEGA BAY PUBLIC UTILITY DISTRICT
4910028	SWEETWATER SPRINGS CWD - MONTE RIO
5000005	Crows Landing CSD
5000008	Knights Ferry CSD
5000010	TID/La Grange
5010005	CITY OF MODESTO, SALIDA
5010006	CITY OF WATERFORD

5010007	HILLSVIEW HOMES
5010008	HUGHSON, CITY OF
5010009	KEYES COMMUNITY SERVICES DIST.
5010010	MODESTO. CITY OF
5010013	CITY OF NEWMAN-WATER DEPARTMENT
5010014	OAKDALE, CITY OF
5010017	PATTERSON, CITY OF
5010018	RIVERBANK, CITY OF
5010019	TURLOCK. CITY OF
5010021	DENAIR COMMUNITY SERVICES DISTRICT
5010026	WATERFORD - HICKMAN
5010028	CERES, CITY OF
5100107	Sutter Co WWD #1 (Robbins)
5110001	City of Live Oak
5110002	City of Yuba City
5110007	Sutter CSD
5200504	City of Tehama
5210001	City of Corning
5210004	City of Red Bluff
5210005	Rio Alto WD
5310001	Weaverville CSD
5310002	Trinity Co WW Dist #1
5400544	ALLENSWORTH CSD
5400616	LEMON COVE WATER CO
5400641	TEVISTON CSD
5400824	SULTANA CSD
5400934	PONDEROSA CSD
5400968	IMPROVEMENT DIST #1
5401003	EAST OROSI CSD
5403023	DELFT COLONY WATER
5403043	YETTEM WATER SYSTEM
5410001	CUTLER PUD
5410002	DINUBA, CITY OF
5410003	EXETER, CITY OF
5410004	FARMERSVILLE, CITY OF
5410006	LINDSAY. CITY OF
5410008	OROSI PUBLIC UTILITY DISTRICT
541000	Pixley Public Utility District
5410010	PORTERVILLE, CITY OF
541001	Springville Public Utility District
541001	Strathmore Public Utility District
541001	Tipton Community Services District
5410015	TULARE. CITY OF
5410019	IVANHOE PUBLIC UTILITY DIST
5410020	WOODLAKE, CITY OF
5410021	EARLIMART PUD
541002	Richgrove Community Services District
541002	Woodville Public Utility District
541002	Poplar Community Services District
541003	Terra Bella Irrigation District
5410048	PORTERVILLE-JONES CORNER
541005	Alpaugh Community Services District
5510001	TUD - SONORA/JAMESTOWN WATER SYSTEM
5510003	TUD - TUOLUMNE WATER SYSTEM
5510005	TWAIN HARTE COMMUNITY SERVICES DISTRICT
5510012	TUD - UPPER BASIN WATER SYSTEM
5510013	TUD - COLUMBIA WATER SYSTEM
5610002	FILLMORE WATER DEPT
5610003	VENTURA CWWD NO. 17 - BELL CANYON
5610005	MEINERS OAKS CWD
5610007	OXNARD WATER DEPT
5610009	PORT HUENEME WATER DEPT
5610011	SANTA PAULA WATER SYSTEM
5610015	VENTURA CWWD NO. 19 - SOMIS
5610017	VENTURA WATER DEPARTMENT
5610018	VENTURA CWWD NO. 1 - MOORPARK
5610019	CAMARILLO WATER DEPT
5610020	THOUSAND OAKS WATER DEPT
5610022	VENTURA RIVER WATER DISTRICT
5610023	VENTURA WWD NO. 8 - SIMI VALLEY
5610024	CASITAS MUNICIPAL WATER DIST
5610039	CHANNEL ISLANDS BEACH CSD
5610046	UNITED WTR CONS DIST
5610050	CALLEGUAS MUNICIPAL WATER DIST
5610063	CAMROSA WATER DISTRICT
5610069	VENTURA CWWD NO. 38 - LAKE SHERWOOD
5610080	PORT HUENEME WATER AGENCY
5700571	Madison Service District
5710001	City of Davis
5710003	City of West Sacramento
5710004	Knights Landing Services District
5710005	City of Winters
5710006	City of Woodland
5710007	Esparto CSD
5805001	Plumas Lake
5810002	Linda CWD
5810003	Olivehurst PUD
5810004	City of Wheatland
5810006	North Yuba WD

System Number	System Name	
0800555	Gasquet CSD	CA0800555
0810001	City of Crescent City	CA0810001
1200501	Alderpoint County Water	CA1200501
1200518	Riverside CSD	CA1200518
1200541	Phillipsville CSD	CA1200541
1200553	Weott CSD	CA1200553
0600005	Colusa Co Service Area #2 - Stonyford	CA0600005
1200587	Briceland CSD	CA1200587
0600013	Colusa Co WWD #2 - Princeton	CA0600013
0910007	Lukins Brothers Water Company	CA0910007
1200729	Orleans CSD	CA1200729
0910013	Georgetown Divide PUD	CA0910013
1210001	City of Arcata	CA1210001
1210002	City of Blue Lake	CA1210002
1210004	City of Eureka	CA1210004
1000004	BELMONT WATER CORPORATION	CA1000004
1210007	Del Oro WC - Ferndale	CA1210007
1000005	BIG CREEK COMMUNITY SERV DIST	CA1000005
1210009	Humboldt CSD	CA1210009
1210010	Town of Scotia LLC	CA1210010
1210011	Redway CSD	CA1210011
1210012	City of Rio Dell	CA1210012
1210013	Humboldt Bay MWD	CA1210013
1000016	DORABELLE MUTUAL WATER COMPANY	CA1000016
1210016	McKinleyville CSD	CA1210016
1000018	EASTON ESTATES WATER COMPANY	CA1000018
1210018	City of Trinidad	CA1210018
1210019	Hydesville Co WD	CA1210019
1000019	FCSA #30/EL PORVENIR	CA1000019
1210021	Jacoby Creek CSD	CA1210021
1210022	Resort Imprvmt Dist #1	CA1210022
1210023	Loleta CSD	CA1210023
1210024	Westhaven CSD	CA1210024
1000021	FCSA #05/WILDWOOD ISLAND	CA1000021
2500911	I'SOT Well #3 & #15	CA2500911
2510001	City of Alturas	CA2510001
2510002	Cedarville CWD	CA2510002
4700503	Callahan WD	CA4700503
1000023	FCSA #14/BELMONT MANOR	CA1000023
4700521	Siskiyou Co SA #5/Carrick	CA4700521
4700523	Grenada SD	CA4700523
4700549	Lake Siskiyou MWC	CA4700549
4700551	Copco Lake MWC	CA4700551
4700880	Siskiyou Lake Highlands MWC	CA4700880
4710001	City of Dorris	CA4710001
4710002	City of Dunsmuir	CA4710002

4710003	Town of Fort Jones	CA4710003
4710004	City of Etna	CA4710004
4710006	McCloud CSD	CA4710006
1000039	FCSA #10/CUMORAH KNOLLS	CA1000039
4710008	City of Mt. Shasta	CA4710008
4710009	City of Weed	CA4710009
4710010	City of Tulelake	CA4710010
4710011	City of Yreka	CA4710011
4710012	Happy Camp CSD	CA4710012
1000040	FCWWD #37/MILE HIGH	CA1000040
5301002	Lewiston CSD	CA5301002
5301003	Lewiston Park MWC	CA5301003
5310001	Weaverville CSD	CA5310001
5310002	Trinity Co WW Dist #1	CA5310002
5310003	Trinity Center MWC	CA5310003
1000041	FCWWD #38/SKY HARBOUR	CA1000041
1810001	City of Susanville	CA1810001
1000042	FCWWD #40/SHAVER SPRINGS	CA1000042
1810003	Lassen CWD #1	CA1810003
1000054	LAS DELTAS MUTUAL WATER SYSTEM	CA1000054
1000056	MEADOW LAKES CLUB	CA1000056
1000058	MUSICK CREEK TRACT ASSOCIATION	CA1000058
1000059	MUSICK HEIGHTS MUTUAL	CA1000059
3110005	Placer CWA - Auburn/Bowman	CA3110005
3110006	Placer CWA - Colfax	CA3110006
3110008	City of Roseville	CA3110008
1000060	MUSICK MEADOWS #1	CA1000060
1000061	MUSICK MEADOWS #2	CA1000061
3110020	Squaw Valley PSD	CA3110020
3110024	Placer CWA - Alta	CA3110024
3110025	Placer CWA - Foothill	CA3110025
3110035	Weimar WC	CA3110035
3110048	Placer CSA - Sheridan	CA3110048
1000063	NEW AUBERRY WATER ASSOCIATION	CA1000063
3210001	IVCSD - Greenville	CA3210001
1000069	SHAVER LAKE HEIGHTS PROP ASSN	CA1000069
3210004	Quincy CSD	CA3210004
3210008	East Quincy SD	CA3210008
3210009	Chester PUD	CA3210009
1000071	LAKEVIEW IMPROVEMENT ASSOICATION #1	CA1000071
1000072	SHAVER LAKE POINT #2	CA1000072
4510001	City of Anderson	CA4510001
4510003	Burney WD	CA4510003
4510005	City of Redding	CA4510005
1000075	TRACT 1199 WATER SYSTEM	CA1000075
1000078	FCWWD #42/ALLUVIAL & FANCHER	CA1000078
4510008	Fall River Valley CSD	CA4510008

4510011	Centerville CSD	CA4510011
1000199	ALICE MANOR	CA1000199
4510014	Bella Vista WD	CA4510014
4510016	Clear Creek CSD - Anderson	CA4510016
1000229	GREEN ACRES MOBILE HOME ESTATE	CA1000229
1000238	CAMDEN TRAILER PARK	CA1000238
1000244	SHADY LAKES MOBILE HOME PARK	CA1000244
1710001	Clearlake Oaks County Water District	CA1710001
1710002	Golden State Water Co.-Clearlake System	CA1710002
1710003	Highlands Mutual Water Company	CA1710003
1710004	Lakeport, City Of	CA1710004
1710005	Lucerne Water Co. - Cal Water Service	CA1710005
1710006	Konocti County Water District	CA1710006
1710007	Kelseyville Co Waterworks District 3	CA1710007
1710009	Upper Lake County Water District	CA1710009
1710010	Lower Lake County Water District	CA1710010
1710012	Cobb Area County Water District	CA1710012
1710013	Callayomi County Water District	CA1710013
1710014	Mt. Konocti Mutual Water Company	CA1710014
1710015	Hidden Valley Lake Community Services District	CA1710015
2300514	Elk County Water District	CA2300514
2300708	Ridgewood Water System	CA2300708
2300730	Westport County Water District	CA2300730
2300731	City Of 10,000 Buddhas	CA2300731
2310001	Fort Bragg, City Of	CA2310001
2310003	Ukiah, City Of	CA2310003
2310004	Willits, City Of	CA2310004
2310005	Willow County Water District	CA2310005
2310006	Millview County Water District	CA2310006
2310008	Redwood Valley County Water District	CA2310008
2310010	Hopland Public Utility District	CA2310010
2310011	Laytonville County Water District	CA2310011
2310013	Point Arena Water Works	CA2310013
2800625	St. Helena Hospital	CA2800625
2810001	Howell Mountain Mutual Water Company	CA2810001
2810002	Calistoga, City Of	CA2810002
2810003	Napa, City Of	CA2810003
2810004	St. Helena, City Of	CA2810004
2810005	American Canyon, City Of	CA2810005
2810007	Town Of Yountville	CA2810007
2810012	Pacific Union College	CA2810012
0105008	CASTLEWOOD DOMESTIC WATER SYSTEM	CA0105008
0110001	ALAMEDA COUNTY WATER DISTRICT	CA0110001
0110003	CALIFORNIA WATER SERVICE - LIVERMORE	CA0110003
0110005	EAST BAY MUD	CA0110005
0110006	CITY OF HAYWARD	CA0110006
0110008	CITY OF PLEASANTON	CA0110008

0110009	DUBLIN SAN RAMON SERVICES DISTRICT	CA0110009
0110011	CITY OF LIVERMORE	CA0110011
0110012	SFPUC-TOWN OF SUNOL	CA0110012
0110016	ALAMEDA POINT	CA0110016
0710001	CITY OF ANTIOCH	CA0710001
0710002	GOLDEN STATE WATER COMPANY - BAY POINT	CA0710002
0710003	CONTRA COSTA WATER DISTRICT	CA0710003
0710004	CITY OF BRENTWOOD	CA0710004
0710006	CITY OF MARTINEZ	CA0710006
0710007	DIABLO WATER DISTRICT	CA0710007
0710008	CITY OF PITTSBURG	CA0710008
0710009	TOWN OF DISCOVERY BAY	CA0710009
3810011	SFPUC-CITY DISTRIBUTION DIVISION	CA3810011
3810700	PRESIDIO OF SAN FRANCISCO	CA3810700
3810702	TREASURE ISLAND	CA3810702
4810001	CITY OF BENICIA	CA4810001
4810002	CALIFORNIA WATER SERVICE CO. - DIXON	CA4810002
4810003	CITY OF FAIRFIELD	CA4810003
4810004	CITY OF RIO VISTA	CA4810004
4810005	SUISUN-SOLANO WATER AUTHORITY	CA4810005
4810007	CITY OF VALLEJO	CA4810007
4810008	CITY OF VACAVILLE	CA4810008
4810009	CITY OF DIXON	CA4810009
4810010	SID - GIBSON CANYON	CA4810010
4810011	SID - ELMIRA	CA4810011
4810013	RURAL NORTH VACAVILLE WATER DISTRICT	CA4810013
4810021	CITY OF VALLEJO-LAKES SYSTEM	CA4810021
1000248	DOUBLE L MOBILE RANCH PARK	CA1000248
1000257	MT ARARAT MOBILE HOME PARK	CA1000257
2700773	SUNNY MESA WATER SYSTEM	CA2700773
2701202	CAL AM WATER COMPANY - CHUALAR	CA2701202
2701882	CAL AM WATER COMPANY - BISHOP	CA2701882
1000259	NEW HORIZONS MOBILE/RV PARK	CA1000259
1000260	SANDY CREEK VILLAGE MHP	CA1000260
2710001	ALCO WATER SERVICE	CA2710001
2710004	CAL AM WATER COMPANY - MONTEREY	CA2710004
1000265	MARY LOU MOBILE HOME PARK	CA1000265
2710006	CAL AM WATER COMPANY - AMBLER PARK	CA2710006
2710007	CITY OF GONZALES	CA2710007
1000267	KINGS CANYON MOBILE HOME PARK	CA1000267
2710009	CWSC KING CITY	CA2710009
2710010	CWSC SALINAS	CA2710010
1000277	ELM COURT	CA1000277
2710012	CWSC SALINAS HILLS	CA2710012
2710013	CWSC LAS LOMAS	CA2710013
1000295	KINGS PARK APARTMENTS	CA1000295
2710017	MARINA COAST WATER DISTRICT	CA2710017

2710018	SEASIDE MUNICIPAL WATER SYSTEM	CA2710018
2710019	CWSC OAK HILLS	CA2710019
2710020	PAJARO COMMUNITY SERVICES DISTRICT	CA2710020
1000298	WOODWARD BLUFFS MHP	CA1000298
1000299	THREE PALMS MOBILEHOME PARK	CA1000299
1000324	MANNING GARDENS CARE CENTER INC	CA1000324
1000345	PANOCHE WATER DISTRICT	CA1000345
1000366	SUNNYSIDE CONVALESCENT HOSP	CA1000366
1000369	ZONNEVELD DAIRY - CEDAR	CA1000369
1000377	ST NICHOLAS RANCH & RETREAT	CA1000377
1000378	SUNSET WEST COMMUNITY LLC	CA1000378
1000405	PIEDRA PARK ASSOICATION	CA1000405
1000407	GEORGE COX WATER SYSTEM	CA1000407
1000426	RIVERBEND MOBILE HOME & RV PARK	CA1000426
1000430	COUNTRY VIEW ALZHEIMER CENTER	CA1000430
1000472	PG&E HELMS SUPPORT FACILITY	CA1000472
1000484	FCSA #34/ MILLERTON NEW TOWN	CA1000484
1000550	FCSA #44D/MONTE VERDI	CA1000550
1000554	FCSA #10A/MANSIONETTE ESTATES	CA1000554
1000555	FCSA #44C/RIVERVIEW ESTATES	CA1000555
3510003	SUNNYSLOPE COUNTY WATER DISTRICT	CA3510003
1000570	JUVENILE JUSTICE CAMPUS	CA1000570
1000585	MURRIETA/HERNANDEZ FARMS	CA1000585
1000627	ZONNEVELD DAIRY - CERINI	CA1000627
1009020	FIVE POINTS RANCH	CA1009020
4410002	SLVWD - FELTON WATER SYSTEM	CA4410002
1009023	BRITZ/COLUSA	CA1009023
4410010	SANTA CRUZ WATER DEPARTMENT	CA4410010
4410011	CITY OF WATSONVILLE	CA4410011
4410013	SCOTTS VALLEY WATER DISTRICT	CA4410013
4410014	SAN LORENZO VALLEY WATER DISTRICT	CA4410014
1009051	CANTUA CREEK VINEYARDS, IV, LLC.	CA1009051
1009111	SCE/BIG CREEK POWERHOUSE #1	CA1009111
4410017	SOQUEL CREEK WATER DISTRICT	CA4410017
1009120	RAU DAIRY	CA1009120
1009147	FARMING D	CA1009147
4000222	AVILA BEACH COMMUNITY SERVICES DISTRICT	CA4000222
4000568	SAN SIMEON CSD	CA4000568
1009172	VAQUERO FARMS	CA1009172
4010001	ARROYO GRANDE WATER DEPARTMENT	CA4010001
4010002	ATASCADERO MUTUAL WATER CO	CA4010002
4010003	SAN MIGUELITO MWC	CA4010003
1009179	BRITZ/FIVE POINT SYSTEM	CA1009179
4010005	OCEANO COMM SERVICES DIST.	CA4010005
1009214	WESTSIDE HARVESTING	CA1009214
4010007	PASO ROBLES WATER DEPARTMENT	CA4010007
4010008	PISMO BEACH WATER DEPARTMENT	CA4010008

4010009	SAN LUIS OBISPO WATER DEPARTMENT	CA4010009
4010010	SAN MIGUEL COMMUNITY SERVICES DISTRICT	CA4010010
4010011	MORRO BAY PW DEPT - WATER DIVISION	CA4010011
4010012	HERITAGE RANCH CSD	CA4010012
4010014	CAMBRIA COMM SERVICES DIST	CA4010014
4010015	MORRO ROCK MUTUAL WATER CO	CA4010015
4010016	LOS OSOS COMMUNITY SERVICES DISTRICT	CA4010016
4010017	GOLDEN STATE WATER COMPANY - LOS OSOS	CA4010017
4010018	GOLDEN STATE WATER COMPANY - NIPOMO	CA4010018
4010019	TEMPLETON CSD	CA4010019
4010023	GOLDEN STATE WATER COMPANY - EDNA	CA4010023
4010024	SLO CWWD NO. 23 - SANTA MARGARITA	CA4010024
4010026	NIPOMO COMM SERVICES DIST	CA4010026
1009222	TERRA LINDA FARMS	CA1009222
4010028	SLO CSA NO. 16 - SHANDON	CA4010028
4010040	GOLDEN STATE WATER COMPANY-CYPRESS RIDGE	CA4010040
4010081	WOODLANDS DEVELOPMENT	CA4010081
4010901	SLOCSA #10A - CAYUCOS	CA4010901
1009232	SUMNER PECK RANCH	CA1009232
4210002	LOS ALAMOS COMMUNITY SER DIST	CA4210002
4210003	GUADALUPE WATER DEPARTMENT	CA4210003
4210004	GOLETA WATER DISRICT	CA4210004
4210005	SAN VICENTE WATER COMPANY	CA4210005
4210006	LOMPOC-CITY WATER UTILITY DIV	CA4210006
4210007	MONTECITO WATER DIST	CA4210007
4210009	CUYAMA COMMUNITY SERVICES DISTRICT	CA4210009
4210010	CITY OF SANTA BARBARA WATER DEPARTMENT	CA4210010
4210011	SANTA MARIA WATER DEPARTMENT	CA4210011
4210013	SOLVANG WATER DIVISION	CA4210013
4210016	GOLDEN STATE WATER COMPANY - ORCUTT	CA4210016
4210017	VANDENBERG VILLAGE COMM. SERV. DIST.	CA4210017
4210018	BUELLTON WATER DEPARTMENT	CA4210018
4210019	MISSION HILLS CSD	CA4210019
4210020	SANTA YNEZ RIVER WATER CONS. DIST. ID#1	CA4210020
4210021	GOLDEN STATE WATER COMPANY - TANGLEWOOD	CA4210021
4210022	GOLDEN STATE WATER COMPANY - LAKE MARIE	CA4210022
4210024	LA CUMBRE MUTUAL WATER CO	CA4210024
4210700	AMERICAN WATER OPS & MAINTENANCE - VAFB	CA4210700
1009258	SAN ANDREAS FARMS	CA1009258
1009281	HAMMONDS RANCH	CA1009281
5601110	MIDDLE ROAD MUTUAL WATER CO	CA5601110
5601116	SAN CAYETANO MUTUAL WATER CO	CA5601116
5601117	SENIOR CANYON MUTUAL WATER CO	CA5601117
5601119	SIETE ROBLES MUTUAL WATER CO	CA5601119
5601120	SISAR MUTUAL WATER CO	CA5601120
5601122	TICO MUTUAL WATER CO	CA5601122
5601125	COMMUNITY MUTUAL WATER CO	CA5601125

1010004	COALINGA-CITY	CA1010004
5601141	SOUTH MOUNTAIN MUTUAL WATER CO	CA5601141
1010017	FCWWD #41/SHAVER LAKE	CA1010017
5601201	LIMONEIRA RANCH #1	CA5601201
1010019	KINGSBURG, CITY OF	CA1010019
5601401	KROTONA INSTITUTE	CA5601401
5602103	CYPRESS MUTUAL WATER CO INC	CA5602103
5602104	DEL NORTE MUTUAL WATER CO.	CA5602104
1010049	BIOLA COMMUNITY SERVICES DIST	CA1010049
1010051	FCWWD #18/FRIANT	CA1010051
5602115	SAVIERS ROAD MUTUAL WATER CO	CA5602115
1010052	SIERRA CEDARS CSD	CA1010052
5602130	SOLANO VERDE MUTUAL WATER CO	CA5602130
1010053	SHAVER LAKE HEIGHTS MWC	CA1010053
5602140	SATICOY COUNTRY CLUB-CITY OF VENTURA	CA5602140
1010062	FCWWD #18/MIRA BELLA	CA1010062
1010501	NPS-GRANT GROVE	CA1010501
5610003	VENTURA CWWD NO. 17 - BELL CANYON	CA5610003
5610005	MEINERS OAKS CWD	CA5610005
5610006	YERBA BUENA WATER COMPANY	CA5610006
5610007	OXNARD WATER DEPT	CA5610007
5610008	PLEASANT VALLEY MUTUAL WATER CO	CA5610008
1010800	CAL FIRE - MIRAMONTE CONSERVATION CAMP	CA1010800
1100203	Artois CSD	CA1100203
5610011	SANTA PAULA WATER SYSTEM	CA5610011
5610014	GOLDEN STATE WATER COMPANY - OJAI	CA5610014
5610015	VENTURA CWWD NO. 19 - SOMIS	CA5610015
5610016	CALIFORNIA WATER SERVICE CO - WESTLAKE	CA5610016
5610017	VENTURA WATER DEPARTMENT	CA5610017
5610018	VENTURA CWWD NO. 1 - MOORPARK	CA5610018
5610019	CAMARILLO WATER DEPT	CA5610019
5610020	THOUSAND OAKS WATER DEPT	CA5610020
5610021	WARRING WATER SERVICE INC	CA5610021
5610022	VENTURA RIVER WATER DISTRICT	CA5610022
5610023	VENTURA WWD NO. 8 - SIMI VALLEY	CA5610023
5610024	CASITAS MUNICIPAL WATER DIST	CA5610024
1100616	Elk Creek CSD	CA1100616
5610035	RIO MANOR MUTUAL WATER CO	CA5610035
5610039	CHANNEL ISLANDS BEACH CSD	CA5610039
5610040	CAL AMERICAN WATER CO	CA5610040
5610043	OAK PARK WATER SERVICE	CA5610043
5610046	UNITED WTR CONS DIST	CA5610046
5610050	CALLEGUAS MUNICIPAL WATER DIST	CA5610050
5610056	VINEYARD AVE ESTATES MWC	CA5610056
5610058	CRESTVIEW MUTUAL WATER CO	CA5610058
5610059	GOLDEN STATE WATER COMPANY - SIMI VALLEY	CA5610059
5610063	CAMROSA WATER DISTRICT	CA5610063

5610068	CLOVERDALE MUTUAL WATER CO.	CA5610068
5610069	VENTURA CWWD NO. 38 - LAKE SHERWOOD	CA5610069
5610080	PORT HUENEME WATER AGENCY	CA5610080
1100711	Butte City CSD	CA1100711
1110001	City of Orland	CA1110001
1200566	Orleans MWC	CA1200566
1910013	Bellflower - Somerset Mutual Water Company	CA1910013
1910024	Golden State Water Co - Claremont	CA1910024
1910029	Industry Public Utilities	CA1910029
1910035	Kinneloa Irrigation District	CA1910035
1910042	Pico Rivera - City, Water Department	CA1910042
1910044	Glendora - City, Water Department	CA1910044
1910046	Suburban Water Systems - Glendora	CA1910046
1910052	California American Water Co - Baldwin Hills	CA1910052
1910059	Suburban Water Systems - La Mirada	CA1910059
1910064	Littlerock Creek Irrigation District	CA1910064
1910065	Long Beach - City, Water Department	CA1910065
1910073	Lomita - City, Water Department	CA1910073
1910092	Monterey Park - City, Water Department	CA1910092
1910101	Orchard Dale Water District	CA1910101
1910102	Palmdale Water District	CA1910102
1910105	Paramount - City, Water Department	CA1910105
1910125	Pico Water District	CA1910125
1910127	Covina - City, Water Department	CA1910127
1910139	California American Water Co - San Marino	CA1910139
1910142	Golden State Water Co - San Dimas	CA1910142
1910144	San Gabriel County Water District	CA1910144
1910148	Sierra Madre - City, Water Department	CA1910148
1910149	Signal Hill - City, Water Department	CA1910149
1910159	Tract 180 Mutual Water Company	CA1910159
1910160	Tract 349 Mutual Water Company	CA1910160
1910165	Valley View Mutual Water Company	CA1910165
1910169	Walnut Park Mutual Water Company	CA1910169
1910173	Whittier - City, Water Department	CA1910173
1910174	Suburban Water Systems - Whittier	CA1910174
1910179	Burbank - City, Water Department	CA1910179
1910186	California American Water Co - Duarte	CA1910186
1910200	Suburban Water Systems - Covina Knolls	CA1910200
1910205	Suburban Water Systems - San Jose	CA1910205
1910212	Golden State Water Co - South Arcadia	CA1910212
1910223	Golden State Water Co - South San Gabriel	CA1910223
1910239	Lakewood - City, Water Department	CA1910239
1200701	Orick CSD	CA1200701
1200715	California Redwood Co - Korbel	CA1200715
1206004	Palmer Creek CSD	CA1206004
1210006	City of Fortuna	CA1210006
3000852	Rancho Mission Viejo	CA3000852

3010001	Anaheim, City of	CA3010001
3010002	Brea, City of	CA3010002
3010003	Buena Park, City of	CA3010003
3010004	Mesa Water District	CA3010004
1210008	Garberville SD	CA1210008
3010010	Fullerton, City of	CA3010010
3010017	Laguna Beach County Water District	CA3010017
3010018	La Habra, City of	CA3010018
3010022	Golden state WC-W. Orange	CA3010022
3010023	Newport Beach, City of	CA3010023
3010027	Orange, City of	CA3010027
3010030	San Juan Capistrano, City of	CA3010030
3010035	Golden state WC-Placentia	CA3010035
3010036	San Clemente, City of	CA3010036
3010037	Yorba Linda, City of	CA3010037
3010038	Santa Ana, City of	CA3010038
3010041	Seal Beach, City of	CA3010041
3010046	Tustin, City of	CA3010046
3010047	Golden state WC-Cowan Heights	CA3010047
3010053	Huntington Beach, city of	CA3010053
3010055	South Coast WD-Capo Beach	CA3010055
3010062	Garden Grove, City of	CA3010062
3010064	Westminster, City of	CA3010064
3010068	East OC-RZ	CA3010068
3010069	Fountain Valley, Cit of	CA3010069
3010070	Golden state WC-Yorba linda	CA3010070
3010071	Joint Regional Water Supply	CA3010071
3010073	Moulton Niguel Water District	CA3010073
3010079	El Toro Water District	CA3010079
3010082	Serrano Water District	CA3010082
3010092	Irvine Ranch Water District	CA3010092
1210015	Willow Creek CSD	CA1210015
3010094	Trabuco Canyon Water District	CA3010094
1210017	Manila CSD	CA1210017
3010100	La Palma, City of	CA3010100
3010101	Santa Margarita Water District	CA3010101
3010120	San Juan Basin Authority	CA3010120
3710014	Oceanside, City of	CA3710014
3710700	Camp pendleton-North	CA3710700
3710702	Camp Pendleton-South	CA3710702
0910001	El Dorado Irrigation District - Main	CA0910001
0910002	South Tahoe Public Utilities District	CA0910002
0910003	City of Placerville - Main	CA0910003
1210020	Fieldbrook Glendale CSD	CA1210020
1400004	Charles Brown Water Company	CA1400004
2910001	City of Grass Valley	CA2910001
2910002	City of Nevada City	CA2910002

2910003	Truckee-Donner PUD - Main	CA2910003
2910004	NID - E. George, Banner Mountain	CA2910004
2910006	NID - Loma Rica	CA2910006
2910014	NID - Lake of Pines	CA2910014
2910023	NID - Lake Wildwood	CA2910023
3110026	NID - North Auburn	CA3110026
3110150	CalAM - West Placer	CA3110150
3410001	Sacramento Suburban Water District	CA3410001
3410002	SCWA - Arden Park Vista	CA3410002
3410003	GSWC - Arden Water Service	CA3410003
3410004	Carmichael Water District	CA3410004
3410006	Citrus Heights Water District	CA3410006
3410007	Del Paso Manor Water District	CA3410007
3410008	Elk Grove Water Service	CA3410008
3410009	Fair Oaks Water District	CA3410009
3410010	CalAM - Suburban	CA3410010
1410007	Highland Mobile Home Park	CA1410007
3410012	CalAM - Iselton	CA3410012
3410013	CalAM - Lincoln Oaks	CA3410013
3410014	City Folsom - Main	CA3410014
3410015	GSWC - Cordova	CA3410015
3410016	Orange Vale Water Company	CA3410016
3410017	CalAM - Parkway	CA3410017
3410018	Rio Linda Elverta CWD	CA3410018
3410020	City of Sacramento	CA3410020
3410021	San Juan Water District	CA3410021
3410023	Fruitridge Vista Water Company	CA3410023
3410029	SCWA - Laguna / Vineyard	CA3410029
3410030	City of Folsom - Ashland	CA3410030
3410031	CalAM - Antelope	CA3410031
3410033	Florin County Water District	CA3410033
3410045	CalAM - Arden	CA3410045
3410704	SCWA - Mather / Sunrise	CA3410704
5710001	City of Davis	CA5710001
5710003	City of West Sacramento	CA5710003
1805007	Herlong PUD	CA1805007
1810002	Westwood CSD	CA1810002
5710006	City of Woodland	CA5710006
1810004	Leavitt Lake CSD	CA1810004
0210001	LAKE ALPINE WATER COMPANY	CA0210001
0310001	CITY OF JACKSON	CA0310001
0310002	AWA, IONE	CA0310002
0310003	AWA, SUTTER CREEK	CA0310003
0310004	PLYMOUTH, CITY OF	CA0310004
0310005	PINE GROVE COMM SERV DIST	CA0310005
0310012	AWA, Buckhorn	CA0310012
0510001	UNION PUBLIC UTILITY DISTRICT	CA0510001

0510002	CALAVERAS PUD	CA0510002
0510003	ANGELS, CITY OF	CA0510003
0510005	CCWD - WEST POINT	CA0510005
0510006	CCWD - JENNY LIND	CA0510006
0510010	VALLEY SPRINGS PUD	CA0510010
0510016	CCWD - EBBETTS PASS	CA0510016
0510017	CCWD - COPPER COVE	CA0510017
3910001	CALIFORNIA WATER SERVICE - STOCKTON	CA3910001
3910002	SAN JOAQUIN COUNTY - COLONIAL HEIGHTS	CA3910002
3910003	ESCALON, CITY OF	CA3910003
3910004	LODI, CITY OF	CA3910004
3910005	MANTECA, CITY OF	CA3910005
3910007	RIPON, CITY OF	CA3910007
3910008	LOCKEFORD COMMUNITY SERV. DIST.	CA3910008
3910009	SAN JOAQUIN COUNTY - THORNTON	CA3910009
3910010	SAN JOAQUIN COUNTY - LINCOLN VILLAGE	CA3910010
3910011	TRACY, CITY OF	CA3910011
3910012	CITY OF STOCKTON	CA3910012
3910015	CITY OF LATHROP	CA3910015
3910019	LINDEN COUNTY WATER DISTRICT	CA3910019
3910024	SAN JOAQUIN COUNTY - WILKINSON MANOR	CA3910024
3910027	MOUNTAIN HOUSE COMMUNITY SERVICES DIST.	CA3910027
5010005	CITY OF MODESTO, SALIDA	CA5010005
5010006	CITY OF WATERFORD	CA5010006
1910023	Averydale Mutual Water Company	CA1910023
5010008	HUGHSON, CITY OF	CA5010008
5010009	KEYES COMMUNITY SERVICES DIST.	CA5010009
5010010	MODESTO, CITY OF	CA5010010
5010013	CITY OF NEWMAN-WATER DEPARTMENT	CA5010013
5010014	OAKDALE, CITY OF	CA5010014
5010017	PATTERSON, CITY OF	CA5010017
5010018	RIVERBANK, CITY OF	CA5010018
5010019	TURLOCK, CITY OF	CA5010019
5010021	DENAIR COMMUNITY SERVICES DISTRICT	CA5010021
5010026	WATERFORD - HICKMAN	CA5010026
5010028	CERES, CITY OF	CA5010028
1010007	CITY OF FRESNO	CA1010007
2010001	CHOWCHILLA CITY WATER DEPT	CA2010001
2010002	CITY OF MADERA	CA2010002
2010003	BASS LAKE WATER COMPANY	CA2010003
2010006	MADERA CO SA# 3 PARKSDALE	CA2010006
2010007	HILLVIEW WC-OAKHURST/SIERRA LAKES	CA2010007
2010008	MADERA CO MD #10A - MADERA RANCHOS	CA2010008
2010010	MADERA VALLEY WATER COMPANY	CA2010010
2010012	HILLVIEW WATER CO-RAYMOND	CA2010012
2210001	MARIPOSA PUBLIC UTILITY DIST	CA2210001
2210901	MPWD-COULTERVILLE CSA 1	CA2210901

2400167	BALLICO CSD	CA2400167
2400201	VOLTA COMMUNITY SD	CA2400201
2410001	CITY OF ATWATER	CA2410001
2410002	CITY OF DOS PALOS	CA2410002
2410003	CITY OF GUSTINE	CA2410003
2410004	CITY OF LIVINGSTON	CA2410004
2410005	CITY OF LOS BANOS	CA2410005
2410006	DELHI CWD	CA2410006
2410007	PLANADA CSD	CA2410007
2410008	MEADOWBROOK WC	CA2410008
2410009	CITY OF MERCED	CA2410009
2410010	WINTON WATER & SANITARY DIST	CA2410010
2410011	LE GRAND COMM SERVICES DIST	CA2410011
2410012	HILMAR COUNTY WATER DISTRICT	CA2410012
2410018	SANTA NELLA COUNTY WATER DISTRICT	CA2410018
2410700	CASTLE AIRPORT	CA2410700
5500040	BLUEBELL VALLEY MWC	CA5500040
5500057	LONG BARN PROPERTY OWNERS	CA5500057
5510001	TUD - SONORA/JAMESTOWN WATER SYSTEM	CA5510001
5510003	TUD - TUOLUMNE WATER SYSTEM	CA5510003
5510004	PINECREST PERMITTEES ASSN	CA5510004
5510005	TWAIN HARTE COMMUNITY SERVICES DISTRICT	CA5510005
5510006	MI-WUK VILLAGE MUT WTR CO	CA5510006
5510008	LAKE DON PEDRO CSD	CA5510008
5510009	GROVELAND COMMUNITY SERV DIST	CA5510009
5510011	COLD SPRINGS WATER CO	CA5510011
5510012	TUD - UPPER BASIN WATER SYSTEM	CA5510012
5510013	TUD - COLUMBIA WATER SYSTEM	CA5510013
5510016	SIERRA PARK WATER COMPANY, INC.	CA5510016
5510023	SONORA MEADOWS MUTUAL WTR CO	CA5510023
5510024	SONORA WATER COMPANY INC	CA5510024
5510026	PHOENIX LAKE ESTATES CC MWC	CA5510026
1010001	Bakman Water Company	CA1010001
1010003	City of Clovis	CA1010003
1010024	CWS - Selma	CA1010024
1010026	Pinedale County Water District	CA1010026
1010042	Malaga County Water District	CA1010042
1500495	Aera Energy-LLC	CA1500495
1510001	Arvin Community Services District	CA1510001
1510003	CWS - Bakersfield	CA1510003
1510004	Casa Loma Water Co, Inc.	CA1510004
1510005	City of Delano	CA1510005
1510006	East Niles Community Services District	CA1510006
1510011	Buttonwillow County Water District	CA1510011
1510012	Lamont Public Utility District	CA1510012
1510013	City of McFarland	CA1510013
1510015	Oildale Mutual Water Company	CA1510015

1510019	City of Shafter	CA1510019
1510021	City of Wasco	CA1510021
1510022	West Kern Water District	CA1510022
1510024	Greenfield County Water District	CA1510024
1510029	Vaughn Water Company, Inc.	CA1510029
1510031	City of Bakersfield	CA1510031
1510046	Lost Hills Utility District	CA1510046
1510055	CWS- North Garden	CA1510055
1610001	Armona Community Services District	CA1610001
1610002	City of Avenal	CA1610002
1610003	City of Hanford	CA1610003
1610004	City of Corcoran	CA1610004
1610005	City of Lemoore	CA1610005
1610006	Stratford Public Utility District	CA1610006
1610007	Home Garden Community Services District	CA1610007
1610009	Kettleman City Community Services District	CA1610009
1610700	Lemoore Naval Air Station	CA1610700
5400553	Del Oro Traver District	CA5400553
5410009	Pixley Public Utility District	CA5410009
5410011	Springville Public Utility District	CA5410011
5410012	Strathmore Public Utility District	CA5410012
5410014	Tipton Community Services District	CA5410014
5410016	CWS - Visalia	CA5410016
5410024	Richgrove Community Services District	CA5410024
5410025	Woodville Public Utility District	CA5410025
5410026	Poplar Community Services District	CA5410026
5410038	Terra Bella Irrigation District	CA5410038
5410050	Alpaugh Community Services District	CA5410050
1400007	Sierra Highland CSD	CA1400007
1400010	Rolling Green Utilities	CA1400010
1400111	Meadow Creek Mutual Water Co.	CA1400111
1410001	City of Bishop	CA1410001
1410005	Indian Creek CSD	CA1410005
1410006	Big Pine CSD	CA1410006
1910075	Los Angeles CWWD 21 - Kagel Canyon	CA1910075
1410008	Inyo County PWD - Independence	CA1410008
1410009	Inyo County PWD - Line Pine	CA1410009
2610001	Mammoth Lakes	CA2610001
2610002	June Lake PUD - Village	CA2610002
2610003	Bridgeport PUD	CA2610003
1910081	Lynwood Park Mutual Water Company	CA1910081
3600008	Apple Valley Foothill CWD	CA3600008
3600009	Apple Valley Heights CWD	CA3600009
3600222	Juniper Riviera CWD	CA3600222
3600306	Thunderbird CWD	CA3600306
3610001	City of Adelanto	CA3610001
3610002	Alpine Water Users Association	CA3610002

3610003	Apple Valley Ranchos WC	CA3610003
3610004	West Valley Water District	CA3610004
3610005	lake Arrowhead CSD	CA3610005
3610008	Big Bear City CSD	CA3610008
3610009	Bighorn - Desert View Water Agency	CA3610009
3610011	Cedar pines Park MWC	CA3610011
3610012	City of Chino	CA3610012
3610013	City of Loma Linda	CA3610013
3610014	City of Colton	CA3610014
3610015	Crestline Village CWD	CA3610015
3610016	Glen Martin MWC	CA3610016
3610017	Havasu Water Company	CA3610017
3610018	Cucamonga Valley Water District	CA3610018
3610021	Fallsvale Service Company	CA3610021
3610022	Big Bear DWP - Fawnskin	CA3610022
3610023	Green Valley MWC	CA3610023
3610024	Hesperia Water District	CA3610024
3610025	Joshua Basin Water District	CA3610025
1910091	Montebello Land And Water Company	CA1910091
3610028	Marygold MWC	CA3610028
3610029	Monte Vista CWD	CA3610029
3610030	Mariana Ranchos CWD	CA3610030
3610031	Muscoy MWC No. 1	CA3610031
3610032	City of Needles	CA3610032
3610033	Mt. Baldy HOA	CA3610033
3610034	Ontario Municipal Utilties Company	CA3610034
3610036	City of Chino Hills	CA3610036
3610037	City of Redlands MUD Water Division	CA3610037
3610038	City of Rialto	CA3610038
3610039	City of San Bernardino	CA3610039
3610041	San Gabriel Valley WC - Fontana	CA3610041
3610043	GSWC - Barstow	CA3610043
3610044	Big Bear Lake/Moonridge	CA3610044
3610045	LACSD - Rimforest	CA3610045
3610046	Valley View Park MWC	CA3610046
3610047	GSWC - Wrightwood	CA3610047
1910130	Quartz Hill Water District	CA1910130
3610049	Twentynine Palms Water District	CA3610049
3610050	City of Upland	CA3610050
3610051	Valley of Enchantment MWC	CA3610051
3610052	Victorville Water District	CA3610052
3610053	Western Heights Water Company	CA3610053
3610055	Yucaipa Valley Water District	CA3610055
3610057	Riverside Highland Water Company	CA3610057
3610060	BDVWA - Goat Mountain ID	CA3610060
3610061	DWP - Sugarloaf/Erwin Lake	CA3610061
3610062	Running Springs WD	CA3610062

3610063	GSWC - Morongo Del Sur	CA3610063
3610064	East Valley Water District	CA3610064
3610073	Hi Desert Water District	CA3610073
3610082	San Antonio Canyon MSC	CA3610082
3610085	San Antonio Water Company	CA3610085
1910163	Valencia Heights Water Company	CA1910163
3610105	GSWC - Apple Valley North	CA3610105
3610107	GSWC - Apple Valley South	CA3610107
3610108	GSWC - Lucerne	CA3610108
3610109	Sheep Creek Water Company	CA3610109
3610110	Arrowbear Park CWD	CA3610110
3610112	Helendale Community SD	CA3610112
3610114	CLAWA	CA3610114
3610117	Devore Water Company	CA3610117
3610118	Apple Valley Ranchos Water - Yermo	CA3610118
3610120	Phelan Pinon Hills CSD	CA3610120
3610121	SBDNO CSA 64	CA3610121
3610125	SBNDO CSA 70J	CA3610125
3610703	USMC - 29 Palms	CA3610703
3610705	US Army Fort Irwin	CA3610705
3610854	Searles Valley Minerals Operations	CA3610854
1310001	BRAWLEY, CITY OF	CA1310001
1310002	CALEXICO, CITY OF	CA1310002
1310003	GSWC - CALIPATRIA	CA1310003
1310004	EL CENTRO, CITY OF	CA1310004
1310005	HOLTVILLE, CITY OF	CA1310005
1310006	IMPERIAL, CITY OF	CA1310006
1310007	HEBER PUBLIC UTILITY DISTRICT	CA1310007
1310008	WESTMORLAND, CITY OF	CA1310008
1310013	SEELEY CWD	CA1310013
1310700	NAF EL CENTRO	CA1310700
3700905	PINE HILLS MUTUAL WATER COMPANY	CA3700905
3700909	JULIAN COMMUNITY SERVICES DISTRICT	CA3700909
3700923	LAKE MORENA OAK SHORES MW CO.	CA3700923
3700938	YUIMA MUNICIPAL WATER DISTRICT IDA	CA3700938
3701408	YUIMA MUNICIPAL WATER DISTRICT	CA3701408
3702354	WARNER SPRINGS ESTATES	CA3702354
3710001	CAL-AM WATER CORONADO	CA3710001
3710002	VALLECITOS WD	CA3710002
3710004	DEL MAR, CITY OF	CA3710004
3710005	CARLSBAD MWD	CA3710005
3710006	ESCONDIDO, CITY OF	CA3710006
3710008	FALLBROOK PUD	CA3710008
3710009	DESCANSO COMMUNITY SERVICES DISTRICT	CA3710009
3710010	HELIX WATER DISTRICT	CA3710010
3710011	JACUMBA COMMUNITY SD	CA3710011
3710012	RANCHO PAUMA MUTUAL WC	CA3710012

3710013	LAKESIDE WD	CA3710013
3710015	POWAY, CITY OF	CA3710015
3710016	RAINBOW MUNICIPAL WD	CA3710016
3710018	RINCON DEL DIABLO MWD (ID-1)	CA3710018
3710019	RAMONA MUNICIPAL WD	CA3710019
3710020	SAN DIEGO, CITY OF	CA3710020
3710021	SAN DIEGUITO WD	CA3710021
3710023	SANTA FE I.D.	CA3710023
3710025	SWEETWATER AUTHORITY	CA3710025
3710026	VALLEY CENTER MWD	CA3710026
3710027	VISTA IRRIGATION DISTRICT	CA3710027
3710029	OLIVENHAIN MWD	CA3710029
3710034	OTAY WATER DISTRICT	CA3710034
3710036	BORREGO WD	CA3710036
3710037	PADRE DAM MWD	CA3710037
3710039	PINE VALLEY MUTUAL WC	CA3710039
3710041	MAJESTIC PINES COMMUNITY SD	CA3710041
3710044	RINCON DEL DIABLO MWD (ID-A)	CA3710044
3710047	CAMPO HILLS-COUNTY PUBLIC WORKS WASTEWTR	CA3710047
3710707	USN SAN CLEMENTE ISLAND	CA3710707
3710750	NAS NORTH ISLAND & NAB CORONADO	CA3710750
3710802	LA CIMA FIRE CENTER	CA3710802
1900803	El Dorado Mutual Water Company	CA1900803
1910004	Golden State Water Co - Artesia	CA1910004
1910009	Valley County Water District	CA1910009
1910011	Golden State Water Co - Bell, Bell Garden	CA1910011
1910028	Crescenta Valley Water District	CA1910028
1910030	Golden State Water Co - Culver City	CA1910030
1910040	El Segundo - City, Water Department	CA1910040
1910043	Glendale - City, Water Department	CA1910043
1910051	Inglewood - City, Water Department	CA1910051
1910062	La Verne - City, Water Department	CA1910062
1910067	Los Angeles - City, Dept. Of Water & Power	CA1910067
1910072	Golden State Water Co - Willowbrook	CA1910072
1910077	Golden State Water Co - Florence/Graham	CA1910077
1910096	Newhall County Water District - Newhall	CA1910096
1910098	Golden State Water Co - Norwalk	CA1910098
1910108	Liberty Utilities - Bell Gardens	CA1910108
1910124	Pasadena - City, Water Department	CA1910124
1910126	Pomona - City, Water Department	CA1910126
1910157	Sunny Slope Water Company	CA1910157
1910166	Valley Water Company	CA1910166
1910167	Vernon - City, Water Department	CA1910167
1910191	Norwalk - City, Water Department	CA1910191
1910195	Golden State Water Co - Hollydale	CA1910195
1910240	Valencia Water Company	CA1910240
1910244	Green Valley County Water District	CA1910244

1910247	Newhall County Water District - Castaic	CA1910247
1910250	Newhall County Water District - Pinetree	CA1910250
1910255	Newhall County Water District -Tesoro Del Valle	CA1910255
1910801	Fenner Canyon Youth Conservation Camp	CA1910801
1910001	Alhambra - City, Water Department	CA1910001
1910005	Los Angeles CWWD 40 R38 - Lake Los Angeles	CA1910005
1910006	Southern CA Edison Company - Santa Catalina	CA1910006
1910007	Azusa Light And Water	CA1910007
1910012	Bellflower Home Gardens Water Company	CA1910012
1910019	Cerritos - City, Water Department	CA1910019
2500503	California Pines CSD	CA2500503
1910025	Los Angeles CWWD 40 R39 - Rock Creek	CA1910025
1910027	Los Angeles CWWD 40 R35 - Northeast LA	CA1910027
1910034	Downey - City, Water Department	CA1910034
1910038	El Monte - City, Water Department	CA1910038
1910054	La Canada Irrigation District	CA1910054
1910060	La Puente Valley County Water District	CA1910060
1910061	Las Flores Water Company	CA1910061
1910063	Lincoln Avenue Water Company	CA1910063
1910070	Los Angeles CWWD 40 R4 - Lancaster & R34 - Desert View Highlands	CA1910070
2600620	Mountain Meadows MWC	CA2600620
2610004	June Lake PUD - Down Canyon	CA2610004
1910083	Manhattan Beach - City, Water Department	CA1910083
1910084	Maywood Mutual Water Company #1	CA1910084
1910085	Maywood Mutual Water Company #2	CA1910085
1910086	Maywood Mutual Water Company #3	CA1910086
2610005	Lee Vining PUD	CA2610005
1910103	Palm Ranch Irrigation District	CA1910103
2700511	NORMCO WATER COMPANY	CA2700511
1910140	Rubio Canon Land And Water Association	CA1910140
1910143	San Fernando - City, Water Department	CA1910143
1910146	Santa Monica - City, Water Division	CA1910146
1910154	South Pasadena - City, Water Department	CA1910154
1910155	Golden State Water Co - Southwest	CA1910155
2701676	San Lucas WD	CA2701676
1910185	Los Angeles CWWD 36 - Val Verde	CA1910185
1910203	LA CWWD 40 R24 - Pearblossom, R27 - Little Rock, R33 - Sun Village	CA1910203
1910204	Los Angeles CWWD 29 & 80 - Malibu & Marina Del Rey	CA1910204
1910234	Walnut Valley Water District	CA1910234
1910241	Mesa Crest Water Company	CA1910241
1910248	Los Angeles CWWD 37 - Acton	CA1910248
4100582	County Service Area 11	CA4100582
4110001	Mid-Peninsula Water District	CA4110001
4110002	City of Brisbane	CA4110002

4110003	City of Burlingame	CA4110003
4110005	Guadalupe Valley Municipal Improvement District	CA4110005
4110006	California Water Service - Bear Gulch	CA4110006
4110007	California Water Service - San Carlos	CA4110007
4110008	California Water Service - San Mateo	CA4110008
4110009	California Water Service - South San Francisco	CA4110009
2702521	SANTA LUCIA PRESERVE	CA2702521
4110011	Coastside County Water District	CA4110011
4110012	Cuesta La Honda Guild, Inc.	CA4110012
4110013	City of Daly City	CA4110013
4110016	Hillsborough Water Department	CA4110016
4110017	City of Menlo Park	CA4110017
4110018	City of Millbrae	CA4110018
2702588	CANADA WOODS WC	CA2702588
2710005	CASTROVILLE COMMUNITY SERVICES DISTRICT	CA2710005
2710008	CITY OF GREENFIELD	CA2710008
4110022	City of Redwood City	CA4110022
4110023	City of San Bruno	CA4110023
4110024	City of East Palo Alto	CA4110024
2710011	CITY OF SOLEDAD	CA2710011
2710016	LITTLE BEAR WATER COMPANY	CA2710016
2710021	CAL AM WATER COMPANY - TORO	CA2710021
2710022	CAL AM WATER COMPANY - HIDDEN HILLS	CA2710022
2710023	TASCO SPRECKELS WATER COMPANY	CA2710023
4310001	California Water Service - Los Altos Suburban	CA4310001
4310004	City of Gilroy	CA4310004
2710702	FORT HUNTER LIGGETT	CA2710702
4310006	City of Morgan Hill	CA4310006
4310007	City of Mountain View	CA4310007
4310009	City of Palo Alto	CA4310009
4310011	San Jose Water Company	CA4310011
4310012	City of Santa Clara	CA4310012
4310013	Stanford University	CA4310013
4310014	City of Sunnyvale	CA4310014
4310018	City of Cupertino	CA4310018
4310019	City of San Jose - North San Jose/Alviso	CA4310019
4310020	City of San Jose - Evergreen/Edenvale/Coyote	CA4310020
2710705	CAMP ROBERTS - CALIFORNIA NATIONAL GUARD	CA2710705
4310022	Great Oaks Water Company, Inc.	CA4310022
2710850	CORRECTIONAL TRAINING FACILITY - SOLEDAD	CA2710850
2110001	INVERNESS PUBLIC UTILITY DIST	CA2110001
2110002	MARIN MUNICIPAL WATER DISTRICT	CA2110002
2110003	NORTH MARIN WATER DISTRICT	CA2110003
2110004	STINSON BEACH COUNTY WTR DIST	CA2110004
2110005	BOLINAS COMMUNITY PUD	CA2110005
2110006	NORTH MARIN WD - PT. REYES	CA2110006
4900508	CAZADERO WATER COMPANY, INC.	CA4900508

4900545	BRANGER MUTUAL WATER COMPANY, INC.	CA4900545
4900577	RIO LINDO ADVENTIST ACADEMY	CA4900577
2710851	SALINAS VALLEY STATE PRISON	CA2710851
4910002	CLOVERDALE, CITY OF	CA4910002
4910003	PENNGROVE WATER COMPANY (PUC)	CA4910003
4910004	SWEETWATER SPRINGS CWD - GUERNEVILLE	CA4910004
4910005	HEALDSBURG, CITY OF	CA4910005
4910006	PETALUMA, CITY OF	CA4910006
4910009	SANTA ROSA, CITY OF	CA4910009
4910011	SEBASTOPOL, CITY OF	CA4910011
4910012	SONOMA, CITY OF	CA4910012
4910013	VALLEY OF THE MOON WATER DISTRICT	CA4910013
4910014	ROHNERT PARK, CITY OF	CA4910014
4910016	COTATI, CITY OF	CA4910016
4910017	WINDSOR, TOWN OF	CA4910017
4910019	FORESTVILLE COUNTY WATER DISTRICT	CA4910019
4910021	BODEGA BAY PUBLIC UTILITY DISTRICT	CA4910021
4910023	CALIFORNIA-AMERICAN LARKFIELD (PUC)	CA4910023
4910024	GEYSERVILLE WATER WORKS (PUC)	CA4910024
4910025	KENWOOD VILLAGE WATER COMPANY (PUC)	CA4910025
4910027	SONOMA STATE UNIVERSITY	CA4910027
4910028	SWEETWATER SPRINGS CWD - MONTE RIO	CA4910028
2900532	Washington Water District	CA2900532
1503270	Lake Isabella Community Services Dist.	CA1503270
1503536	Linns Valley School	CA1503536
1510002	Boron Community Services District	CA1510002
1510007	Frazier Park Public Utilities District	CA1510007
1510009	Erskine Creek Water Company	CA1510009
1510014	Mojave Public Utilities District	CA1510014
1510016	Rand Communities Water District	CA1510016
1510017	Indian Wells Valley Water District	CA1510017
1510018	Rosamond Community Services District	CA1510018
1510020	City of Tehachapi	CA1510020
1510023	Lake of the Woods Mutual Water Co.	CA1510023
1510025	Stallion Springs Community Services District	CA1510025
1510027	Desert Lake Community Services District	CA1510027
1510028	Mil Potrero Mutual Water Company	CA1510028
1510032	City of California City	CA1510032
1510033	CWS-Kernville System	CA1510033
1510036	Inyokern Community Services District	CA1510036
1510038	Bear Valley Community Services District	CA1510038
1510039	CWS-Southlake Squirrel Valley System	CA1510039
1510042	Mountain Mesa Water Company	CA1510042
1510043	CWS-Onyx System	CA1510043
1510045	Golden Hills Community Services District	CA1510045
1510049	CWS-Lakeland System	CA1510049
1510051	Lebec County Water District	CA1510051

1510052	North Edwards Water District	CA1510052
1510056	CWS-Lower Bodfish System	CA1510056
1510701	Edwards AFB - Main Base	CA1510701
1510703	China Lake Naval Air Weapons Station	CA1510703
1310011	COACHELLA VWD: I.D. NO. 11	CA1310011
3310001	COACHELLA VWD: COVE COMMUNITY	CA3310001
3310002	BEAUMONT CHERRY VALLEY WD	CA3310002
3310003	BLYTHE - CITY OF	CA3310003
3310004	BOX SPRINGS MUTUAL WC	CA3310004
3310005	DESERT WATER AGENCY	CA3310005
3310006	BANNING, CITY OF	CA3310006
3310007	COACHELLA WATER AUTHORITY	CA3310007
3310008	MISSION SPRINGS WD	CA3310008
3310009	EASTERN MUNICIPAL WD	CA3310009
3310012	ELSINORE VALLEY MWD	CA3310012
3310016	HEMET, CITY OF	CA3310016
3310017	SOUTH MESA WC	CA3310017
3310018	HOME GARDENS COUNTY WD	CA3310018
3310019	IDYLLWILD WATER DISTRICT	CA3310019
3310020	INDIO WATER AUTHORITY	CA3310020
3310021	JURUPA COMMUNITY SD	CA3310021
3310022	LAKE HEMET MWD	CA3310022
3310025	NORCO, CITY OF	CA3310025
3310026	NUEVO WATER COMPANY	CA3310026
3310029	PERRIS, CITY OF	CA3310029
3310031	RIVERSIDE, CITY OF	CA3310031
3310032	SAN JACINTO, CITY OF	CA3310032
3310033	SANTA ANA RIVER WATER COMPANY	CA3310033
3310036	WESTERN MWD - MURRIETA DIVISION	CA3310036
3310037	CORONA, CITY OF	CA3310037
3310038	RANCHO CALIFORNIA WATER DISTRICT	CA3310038
3310044	RUBIDOUX COMMUNITY SD	CA3310044
3310047	CABAZON WATER DISTRICT	CA3310047
3310048	COACHELLA VWD: I.D. NO. 8	CA3310048
3310049	WESTERN MWD	CA3310049
3310074	TEMESCAL VALLEY WATER DISTRICT	CA3310074
3310076	WESTERN MWD (ID A - RAINBOW)	CA3310076
3310082	NORTH PERRIS WATER SYSTEM	CA3310082
0410001	City of Biggs	CA0410001
0410002	Cal-Water Service Co- Chico	CA0410002
0410003	Durham Irrigation District	CA0410003
0410004	City of Gridley	CA0410004
0410005	Cal-Water Service Co - Oroville	CA0410005
0410006	SFWP - Miners Ranch	CA0410006
0410007	Paradise Irrigation District	CA0410007
0410008	Thermalito Water & Sewer District	CA0410008
0410009	Del Oro Water Co - Magalia	CA0410009

0410011	Del Oro Water Co - Paradise Pines	CA0410011
0410012	SFWP - Bangor	CA0410012
0410018	Del Oro Water Co - Stirling Bluffs	CA0410018
2900541	Christian Encounters Ministries	CA2900541
0600008	Colusa Co WWD #1 - Grimes	CA0600008
2900546	Sierra Friends Center	CA2900546
0610001	Arbuckle PUD	CA0610001
0610002	City of Colusa	CA0610002
0610003	Maxwell PUD	CA0610003
0610004	City of Williams	CA0610004
3000519	Hynes Estates Mutual Water Company	CA3000519
3000585	Page Avenue Mutual Water Company	CA3000585
3000618	Liberty Park Water Association	CA3000618
3000825	South Midway City Mutual Water	CA3000825
1110002	Cal-Water Service Co - Hamilton City	CA1110002
1110003	Cal-Water Service Co - Willows	CA1110003
5100107	Sutter Co WWD #1 (Robbins)	CA5100107
5110001	City of Live Oak	CA5110001
5110002	City of Yuba City	CA5110002
5110007	Sutter CSD	CA5110007
5200503	Mineral CWD	CA5200503
5200504	City of Tehama	CA5200504
5210001	City of Corning	CA5210001
5210002	Gerber Las Flores CSD	CA5210002
5210003	Los Molinos CSD	CA5210003
5210004	City of Red Bluff	CA5210004
5210005	Rio Alto WD	CA5210005
5210503	Lassen VNP - Headquarters	CA5210503
5805001	Plumas Lake	CA5805001
5810001	Cal-Water Service Co - Marysville	CA5810001
5810002	Linda CWD	CA5810002
5810003	Olivehurst PUD	CA5810003
5810004	City of Wheatland	CA5810004
5810006	North Yuba WD	CA5810006
5810700	Beale Air Force Base	CA5810700
1910003	Arcadia - City, Water Division	CA1910003
1910017	Santa Clarita Water Div. - Div. of Castaic Lake Water Agency	CA1910017
1910020	East Pasadena Water Company	CA1910020
1910021	Liberty Utilities - Compton	CA1910021
1910022	California State Polytechnical Univ - Pomona	CA1910022
1910026	Compton - City, Water Department	CA1910026
1910033	California Water Service Co - Dominguez	CA1910033
1910036	California Water Service Co - East Los Angeles	CA1910036
1910039	San Gabriel Valley WC - El Monte	CA1910039
1910047	Hawthorne - City, Water Department	CA1910047
1910049	Huntington Park - City, Water Department	CA1910049

1910050	Commerce - City, Water Department	CA1910050
1910079	Lynwood - City, Water Department	CA1910079
1910090	Monrovia - City, Water Department	CA1910090
1910104	California Water Service Co - Palos Verdes	CA1910104
1910117	Montebello - City, Water Department	CA1910117
1910134	California Water Service Co - Hermosa/Redondo	CA1910134
1910152	South Gate - City, Water Department	CA1910152
1910153	South Montebello Irrigation District	CA1910153
1910156	Beverly Hills - City, Water Department	CA1910156
1910161	Liberty Utilites - Lynwood	CA1910161
1910189	San Gabriel Valley WC - Montebello	CA1910189
1910194	Rowland Water District	CA1910194
1910211	Liberty Utilities- Bellflower/Norwalk	CA1910211
1910213	Torrance - City, Water Department	CA1910213
1910225	Las Virgenes Municipal Water District	CA1910225
1910243	California Water Service Co - Leona Valley	CA1910243
1910245	Santa Fe Springs - City	CA1910245
1000001	ALDER SPRINGS	CA1000001
3010008	Eastside Water Association	CA3010008
3010093	East OC-WZ	CA3010093
3010097	Midway City Mutual	CA3010097
3110001	North Tahoe PUD - Main	CA3110001
3110003	Foresthill PUD	CA3110003
3110004	City of Lincoln	CA3110004
3110009	Meadow Vista CWD	CA3110009
3110010	Tahoe City PUD - Main	CA3110010
3200510	IVCSD - Crescent Mills	CA3200510
3210003	City of Portola	CA3210003
3410011	City of Galt	CA3410011
1000053	LANARE COMMUNITY SERVICES DIST	CA1000053
3500006	CSA NO. 31 STONEGATE WS	CA3500006
3500509	TRES PINOS CWD	CA3500509
1000057	DEL ORO WATER CO - METROPOLITAN DISTRICT	CA1000057
3500510	MCMAHON ROAD MUTUAL WATER COMPANY	CA3500510
3500575	SPRINGWOOD ESTATES MWC	CA3500575
3500576	AROMAS HILLS MUTUAL WATER ASSOCIATION	CA3500576
3500581	RANCHO SAN JOAQUIN MUTUAL WATER COMPANY	CA3500581
3500823	BEST ROAD MUTUAL WATER COMPANY	CA3500823
3500910	DUNNEVILLE ESTATES CSA #50	CA3500910
3510001	CITY OF HOLLISTER	CA3510001
3510002	CITY OF SAN JUAN BAUTISTA	CA3510002
3510004	AROMAS WATER DISTRICT	CA3510004
3510006	MISSION OAKS MOBILE HOME PARK	CA3510006
1000186	HELM SCHOOL	CA1000186
3610026	SBDNO CSA 70 Cedar Glen	CA3610026
1000200	RUBYS VALLEY CARE HOME	CA1000200
1000213	HARRIS FARMS/HORSE BARN	CA1000213

3610048	Terrace Water Company	CA3610048
3610093	Arrowhead Villas MSC	CA3610093
3700968	San Pasqual Academy	CA3700968
1000247	SHERWOOD FOREST MHP	CA1000247
3900504	Clements Water Works CSA #43	CA3900504
4000650	MESA DUNES MOBILE HOME ESTATES	CA4000650
4010004	GROVER BEACH WATER DEPARTMENT	CA4010004
4010006	PASO ROBLES BEACH WATER ASSN	CA4010006
4010027	NACIMIENTO WATER COMPANY	CA4010027
4110010	Montara Water and Sanitary District	CA4110010
4110019	O'Connor Tract Co-Operative Water Company	CA4110019
4110020	Palo Alto Park Mutual Water Company	CA4110020
4110021	Estero Municipal Improvement District	CA4110021
4110025	North Coast County Water District	CA4110025
4110027	Westborough County Water District	CA4110027
4210001	CARPINTERIA VALLEY WATER DISTRICT	CA4210001
1000359	FCSA #32/CANTUA CREEK	CA1000359
4300542	San Martin County Water District	CA4300542
4300543	West San Martin Water Works, Inc.	CA4300543
4300997	Nasa Ames Research Center	CA4300997
4310005	City of Milpitas	CA4310005
4310021	Purissima Hills Water District	CA4310021
4310028	San Jose State University	CA4310028
4400571	DAVENPORT COUNTY SANITATION DISTRICT	CA4400571
4410001	BIG BASIN WATER COMPANY	CA4410001
1000445	LINDA VISTA FARMS	CA1000445
1000471	FCSA #39 A&B	CA1000471
4410008	MT. HERMON ASSOCIATION, INC.	CA4410008
4410015	SLVWD-LOMPICO	CA4410015
1000546	FCSA #49/ FIVE POINTS	CA1000546
4410016	FOREST LAKES MUTUAL WATER COMPANY	CA4410016
1000551	FCSA #43/RAISIN CITY	CA1000551
4410018	CENTRAL WATER DISTRICT	CA4410018
4410301	CSP - BIG BASIN STATE PARK	CA4410301
4500015	Shasta CSA - Castella #3	CA4500015
4500317	Shasta CSA - French Gulch #11	CA4500317
4510006	City of Shasta Lake	CA4510006
1009006	PAPPAS & CO (COALINGA)	CA1009006
4510007	Cottonwood CWD	CA4510007
4510013	Shasta CSD	CA4510013
1009027	HARRIS FARMS HEADQUARTERS	CA1009027
1009028	HARRIS FARMS SOUTH #101-144	CA1009028
1009039	PAPPAS & CO (MENDOTA)	CA1009039
4600018	Sierraville PUD	CA4600018
1009078	HARRIS FEEDING COMPANY	CA1009078
4610001	City of Loyalton	CA4610001
4610002	Downieville PUD	CA4610002

4700513	Hornbrook CSD	CA4700513
4710007	City of Montague	CA4710007
4710013	Lake Shastina CSD	CA4710013
4810701	TRAVIS AIR FORCE BASE - DISTRIBUTION	CA4810701
4900599	RANDAL'S RANCHETTE MUTUAL WATER COMPANY	CA4900599
4910701	U.S. COAST GUARD TRAINING CENTER	CA4910701
5010007	HILLSVIEW HOMES	CA5010007
5601104	CASITAS MUTUAL WATER COMPANY	CA5601104
5601105	FILLMORE IRRIGATION CO	CA5601105
1010005	FIREBAUGH CITY	CA1010005
1010006	CITY OF FOWLER	CA1010006
1010013	HUME LAKE CHRISTIAN CAMPS, INC	CA1010013
5601134	ELKINS RANCH	CA5601134
1010018	KERMAN, CITY OF	CA1010018
5601144	RANCHO SESPE WORKERS IMP ASSOC	CA5601144
1010020	LATON COMMUNITY SERVICES DISTRICT	CA1010020
1010021	MENDOTA, CITY OF	CA1010021
1010023	CITY OF ORANGE COVE	CA1010023
1010025	CITY OF PARLIER	CA1010025
1010027	REEDLEY, CITY OF	CA1010027
1010028	RIVERDALE PUBLIC UTILITY DISTRICT	CA1010028
1010029	CITY OF SANGER	CA1010029
1010030	TRANQUILLITY IRRIGATION DISTRICT	CA1010030
1010034	SAN JOAQUIN, CITY OF	CA1010034
1010035	DEL REY COMMUNITY SERV DIST	CA1010035
1010039	CARUTHERS COMM SERV DIST	CA1010039
1010044	HURON, CITY OF	CA1010044
5601206	LIMONEIRA CO. - MCKEVETT	CA5601206
5602108	GARDEN ACRES MUTUAL WATER CO	CA5602108
5602111	NYELAND ACRES MUTUAL WATER CO	CA5602111
5602117	STRICKLAND ACRES	CA5602117
1010055	FCSA #47/QUAIL LAKE ESTATES	CA1010055
5602132	WATERS ROAD DOMESTIC USERS GROUP	CA5602132
5610001	DEMPSEY ROAD MUTUAL WATER CO	CA5610001
5610002	FILLMORE WATER DEPT	CA5610002
5400504	A & A MHP	CA5400504
5400506	NO KAWEAH MUTUAL WATER CO	CA5400506
5400523	EL MONTE VILLAGE MHP	CA5400523
5400529	SHADY GROVE MHP	CA5400529
5400536	KINGS RIVER ESTATES MUTUAL WATER COMPANY	CA5400536
5400542	DUCOR CSD	CA5400542
5400544	ALLENSWORTH CSD	CA5400544
5400550	SEVILLE WATER CO	CA5400550
5400556	RIVER RETREAT MUTUAL	CA5400556
5400567	TOOLEVILLE MUTUAL NON PROFIT WATER ASSOC	CA5400567
5400570	CHINOWTH APARTMENTS	CA5400570
5400600	GOLDEN KEY APARTMENTS	CA5400600

5400602	EAGLE'S NEST RESORT	CA5400602
5400604	MOUNTAIN VIEW DUPLEXES	CA5400604
5400616	LEMON COVE WATER CO	CA5400616
5400631	LINNELL FARM LABOR CENTER	CA5400631
5400641	TEVISTON CSD	CA5400641
5400647	YOKOHL MUTUAL WATER CO	CA5400647
5400651	BEVERLY GRAND MUTUAL WATER	CA5400651
5400655	CENTRAL MUTUAL WATER CO	CA5400655
5400660	LAKE SUCCESS MOBILE LODGE	CA5400660
5400670	TRIPLE R MUTUAL WATER CO	CA5400670
5400710	BADGER HILL ESTATES	CA5400710
5400718	WILLIAMS MUTUAL WATER CO	CA5400718
5400728	GRIER MUTUAL WATER CO	CA5400728
5400732	PIERPOINT SPRINGS WATER CO.	CA5400732
5400735	RODRIGUEZ LABOR CAMP	CA5400735
5400744	EAST THREE RIVERS MUTUAL	CA5400744
5400754	SOUTH KAWEAH MUTUAL WATER COMPANY	CA5400754
5400769	FOOTHILL APARTMENTS	CA5400769
5400792	WOODVILLE FARM LABOR CENTER	CA5400792
5400805	SOULTS MUTUAL WATER CO	CA5400805
5400816	BEDEL MUTUAL WATER CO	CA5400816
5400819	MOUNTAIN VIEW MHP	CA5400819
5400824	SULTANA CSD	CA5400824
5400875	DIXON WATER COMPANY	CA5400875
5400880	THE LAKES ASSOCIATION	CA5400880
5400881	SUNRISE MUTUAL WATER CO.	CA5400881
5400903	TRACT 92 CSD	CA5400903
5400934	PONDEROSA CSD	CA5400934
5400940	SIERRA KING HOMEOWNERS ASSN	CA5400940
5400964	SIERRA VISTA ASSN	CA5400964
5400966	WESTLAKE VILLAGE MHP	CA5400966
5400968	IMPROVEMENT DIST #1	CA5400968
5401003	EAST OROSI CSD	CA5401003
5401026	DEER MEADOW MUTUAL	CA5401026
5401038	AKIN WATER CO	CA5401038
5402038	PATTERSON TRACT CSD	CA5402038
5402047	GLEANINGS FOR THE HUNGRY	CA5402047
5403023	DELFT COLONY WATER	CA5403023
5403038	SPRINGVILLE WATER CO	CA5403038
5403043	YETTEM WATER SYSTEM	CA5403043
5403084	FAIRWAY MUTUAL WATER CO	CA5403084
5403110	SIERRA MUTUAL WATER CO	CA5403110
5403113	SOUTH FORK ESTATES MUTUAL WATER CO	CA5403113
5403144	ALI MUTUAL WATER CO	CA5403144
5403149	RANCHO LOPEZ	CA5403149
5403202	SALLY TRACH WATER SYSTEM	CA5403202
5410001	CUTLER PUD	CA5410001

5410002	DINUBA, CITY OF	CA5410002
5410003	EXETER, CITY OF	CA5410003
5410004	FARMERSVILLE, CITY OF	CA5410004
5410006	LINDSAY, CITY OF	CA5410006
5410008	OROSI PUBLIC UTILITY DISTRICT	CA5410008
5410010	PORTERVILLE, CITY OF	CA5410010
5410015	TULARE, CITY OF	CA5410015
5410019	IVANHOE PUBLIC UTILITY DIST	CA5410019
5410020	WOODLAKE, CITY OF	CA5410020
5410021	EARLIMART PUD	CA5410021
5410048	PORTERVILLE-JONES CORNER	CA5410048
5410801	PORTERVILLE DEVELOPMENTAL CENTER	CA5410801
0300062	Hope Foundation	CA0300062
5610009	PORT HUENEME WATER DEPT	CA5610009
3900505	Farmington Water Company (Private)	CA3900505
3901092	San Joaquin County Water Works #2	CA3901092
3901216	Santos Ranch CSA 35 Los Ranchos	CA3901216
3901322	Manteca Industrial Park CSA 30	CA3901322
5610010	RIO PLAZA WATER CO INC	CA5610010
2000554	MD #33 Fairmead Dist	CA2000554
2000727	MD #36 Eastin Arcola	CA2000727
5610029	VINEYARD AVENUE ACRES MWC	CA5610029
5610081	CAL AMERICAN WC - LAS POSAS ESTATES	CA5610081
2700728	San Ardo WD	CA2700728
5610700	NAVAL BASE VENTURA COUNTY, POINT MUGU	CA5610700
5610701	NAVAL BASE VENTURA COUNTY, PORT HUENEME	CA5610701
5710004	Knights Landing Services District	CA5710004
5710005	City of Winters	CA5710005
2900562	Ananda Village	CA2900562
5710007	Esparto CSD	CA5710007
4200560	Sisquoc	CA4200560
4200618	Midland School	CA4200618
5000005	Crows Landing CSD	CA5000005
5000008	Knights Ferry CSD	CA5000008
5000010	TID/La Grange	CA5000010
5700571	Madison Service District	CA5700571
5700700	Cacheville Service District	CA5700700
1200592	BIG LAGOON CSD	CA1200592
1310011	COACHELLA VWD: I.D. NO. 11	CA1310011
1503341	TEJON-CASTAIC WD- I5 & LAVAL RD	CA1503341
1800511	LAKE FOREST MUTUAL W.C.	CA1800511
3110150	CALAM - WEST PLACER	CA3110150
5500242	SIERRA WALDORF SCHOOL	CA5500242
5800924	CAMPTONVILLE COMMUNITY SERV DIST	CA5800924
4910018	ARMSTRONG VALLEY-CAL WATER SERVICE (PUC)	CA4910018
4200870	#NAME?	CA4200870

DECISION TREE FOR CLASSIFICATION OF WATER SYSTEMS

"**PUBLIC WATER SYSTEM**" MEANS A SYSTEM FOR THE PROVISION OF WATER FOR HUMAN CONSUMPTION THROUGH PIPES OR OTHER CONSTRUCTED CONVEYANCES THAT HAS 15 OR MORE SERVICE CONNECTIONS OR REGULARLY SERVES AT LEAST 25 INDIVIDUALS DAILY AT LEAST 60 DAYS OUT OF THE YEAR.

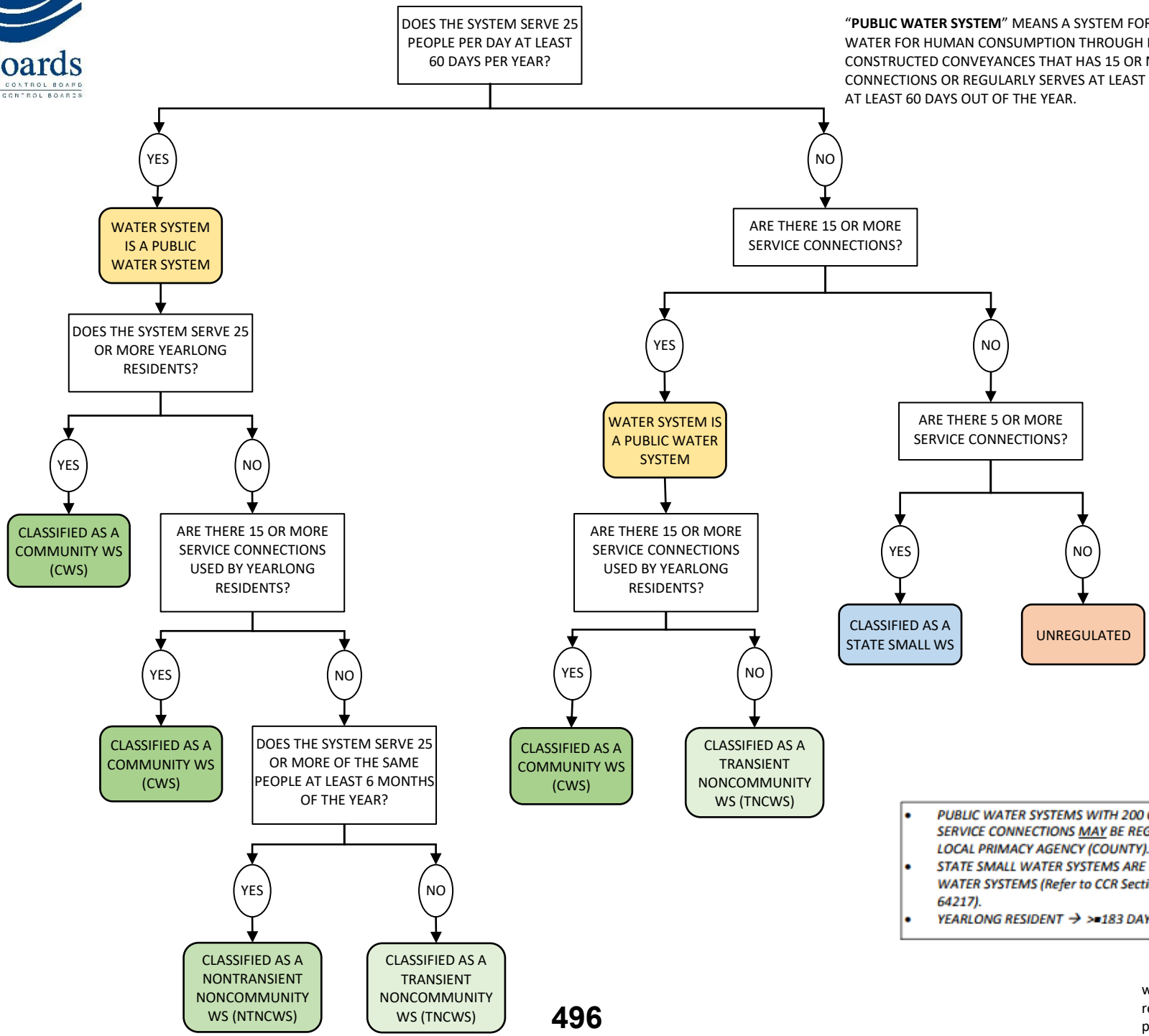

- *PUBLIC WATER SYSTEMS WITH 200 OR LESS SERVICE CONNECTIONS MAY BE REGULATED BY A LOCAL PRIMACY AGENCY (COUNTY).*
- *STATE SMALL WATER SYSTEMS ARE NOT PUBLIC WATER SYSTEMS (Refer to CCR Sections 64211-64217).*
- *YEARLONG RESIDENT → >=183 DAYS/YEAR*

California Health and Safety Code §116275

(e) “Human consumption” means the use of water for drinking, bathing or showering, hand washing, oral hygiene, or cooking, including, but not limited to, preparing food and washing dishes.

(h) “Public water system” means a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year. A public water system includes the following:

> (1) Any collection, treatment, storage, and distribution facilities under control of the operator of the system that are used primarily in connection with the system.
>
> (2) Any collection or pretreatment storage facilities not under the control of the operator that are used primarily in connection with the system.
>
> (3) Any water system that treats water on behalf of one or more public water systems for the purpose of rendering it safe for human consumption.

(i) “Community water system” means a public water system that serves at least 15 service connections used by yearlong residents or regularly serves at least 25 yearlong residents of the area served by the system.

(j) “Noncommunity water system” means a public water system that is not a community water system.

(k) “Nontransient noncommunity water system” means a public water system that is not a community water system and that regularly serves at least 25 of the same persons over six months per year.

(n) “State small water system” means a system for the provision of piped water to the public for human consumption that serves at least five, but not more than 14, service connections and does not regularly serve drinking water to more than an average of 25 individuals daily for more than 60 days out of the year.

(o) “Transient noncommunity water system” means a noncommunity water system that does not regularly serve at least 25 of the same persons over six months per year.

(s) “Service connection” means the point of connection between the customer’s piping or constructed conveyance, and the water system’s meter, service pipe, or constructed conveyance.

http://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=HSC&sectionNum=116275

STATE OF CALIFORNIA

STATE WATER RESOURCES CONTROL BOARD

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Sacramento CA 95814

Edmund G. Brown Jr.
Governor

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- Section I - Richard Hinrichs (Redding)
- Section II - Stefan Cajina (Richmond)

Southern California FOB
KURT SOUZA - (Carpinteria)
- Section III - Carl Carlucci (Fresno)
- Section IV - Jeff O'Keefe (Los Angeles)
- Section V - Sean McCarthy (San Bernardino)

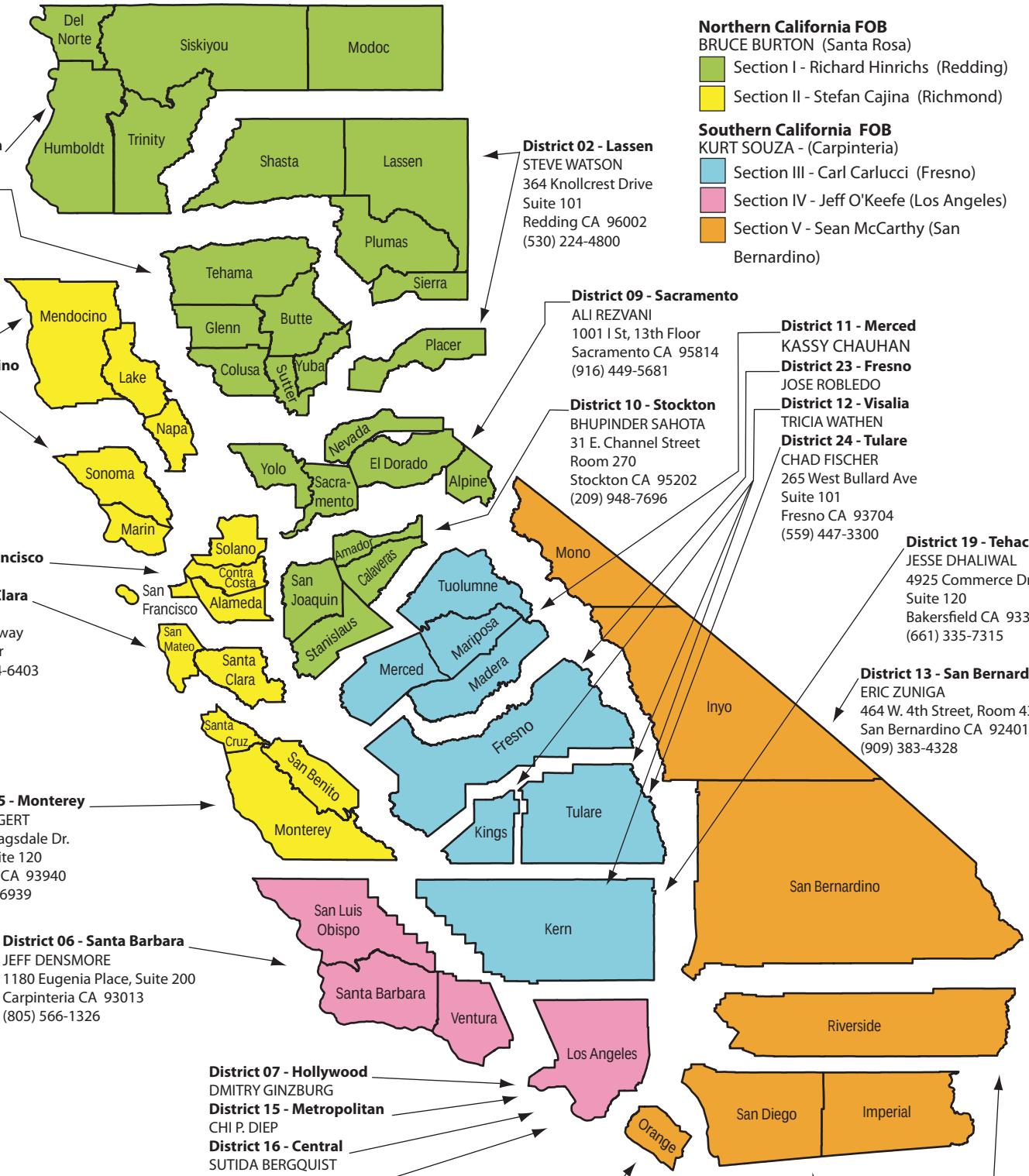

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AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY

CASE STUDIES IN ENVIRONMENTAL MEDICINE (CSEM)

Lead Toxicity

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Key Concepts	• Lead poisoning is a completely preventable disease. • No safe blood lead level (BLL) threshold for children has been identified. • Blood lead levels once considered safe are now demonstrated to be hazardous. • Children of all races and ethnic origins are at risk of lead toxicity throughout the United States. • Lead may cause irreversible neurological damage as well as renal disease, cardiovascular effects, and reproductive toxicity. • Lead is one of the most commonly found hazards at Superfund sites. • This case study is focused on lead exposure in the United States; exposures globally may vary. • Primary prevention of lead exposure is the most important and significant strategy to protect children and adults from lead exposures. • Families, service providers, advocates, and public officials need to be educated on primary prevention of lead exposure in homes and other facilities occupied by children so that lead hazards are eliminated before exposure occurs.
About This and Other ATSDR Case Studies in Environmental Medicine	This educational case study document is one in a series of self-instructional modules designed to increase the primary health care provider's knowledge of hazardous substances in the environment and to promote medical practices that aid in the prevention, evaluation and care of potentially exposed patients. The complete series of

ATSDR Case Studies in Environmental Medicine is located on the ATSDR Web site at URL: http://www.atsdr.cdc.gov/csem/csem.html. In addition, the downloadable PDF version https://www.atsdr.cdc.gov/csem/lead/docs/csem-lead_toxicity_508.pdf of this educational series and other environmental medicine materials provides content in an electronic, printable format, especially for those who may lack adequate Internet service.

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Environmental Medicine Branch

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How to Use This Course

Introduction	The goal of the ATSDR *Case Studies in Environmental Medicine* (CSEM) series is to increase the primary health care provider's knowledge of hazardous substances in the environment and to promote medical practices that aid in the prevention, evaluation and care of potentially exposed patients. This CSEM focuses on lead toxicity.
Availability	Two versions of the Lead Toxicity CSEM are available. • The HTML version https://www.atsdr.cdc.gov/csem/csem.asp?csem=34&po=0 provides content through the Internet. • The downloadable PDF version https://www.atsdr.cdc.gov/csem/lead/docs/csem-lead_toxicity_508.pdf provides content in an electronic, printable format, especially for those who may lack adequate Internet service. • The HTML version offers interactive exercises and prescriptive feedback to the user.
Instructions	To make the most effective use of this course, • Take the Initial Check to assess your current knowledge about lead toxicity. • Read the title, learning objectives, text, and key points in each section.

	• Complete the progress check exercises at the end of each section and check your answers. • Complete and submit your assessment and posttest response online if you wish to obtain continuing education credit. Continuing education certificates can be printed immediately upon completion. There is no charge for continuing education credits.
Instructional Format	This course is designed to help you learn efficiently. Topics are clearly labeled so that you can skip sections or quickly scan sections you are already familiar with. This labeling will also allow you to use this training material as a handy reference. To help you identify and absorb important content quickly, each section is structured as follows:

Section Element	**Purpose**
Title	Serves as a "focus question" that you should be able to answer after completing the section.
Learning Objectives	Describes specific content addressed in each section and focuses your attention on important points.
Text	Provides the information you need to answer the progress check question(s) and achieve the learning objectives.
Key Points	Highlights important issues and helps you review.
Progress Check exercises	Enables you to test yourself to determine whether you have mastered the learning objectives.
Progress Check Answers	Provide feedback to ensure you understand the content and can locate information in the text.

Learning Objectives	Upon completion of the Lead Toxicity CSEM, you will be able to:

Section Title	**Learning Objectives**
What Is Lead?	• Explain what lead is.
Where Is Lead	• Describe potential sources of lead exposure in the

Found?	United States today.
What Are Routes of Exposure to Lead?	• Identify the most common routes of exposure to lead in the United States today.
Who Is at Risk of Lead Exposure?	• Identify the populations most heavily exposed to lead.
What Are U.S. Standards for Lead Levels?	• Describe the Centers for Disease Control and Prevention's (CDC) reference value for lead in children's blood, • Describe the U.S. Occupational Safety and Health Administration's (OSHA) Permissible Exposure Limit (PEL) for lead in workplace air, • Describe the U.S. Environmental Protection Agency's (EPA) drinking water regulation for lead, and • Describe the Consumer Product Safety Commission's (CPSC) regulatory limit value for lead in paint.
What Is the Biological Fate of Lead in the Body?	• Describe how lead is absorbed, • Describe how lead is distributed in the body, and • Identify the half-life of lead in the blood.
What are Possible Health Effects from Lead Exposure?	• Describe how lead affects adults and children, • Describe what is the most sensitive organ system for lead exposure in children, and • Specify that there is no identified threshold or safe level of lead in blood.
Clinical Assessment – Exposure History	• Describe how to take a screening exposure history for lead exposure, and • Identify lead exposure-related questions to ask during a child visit.
Clinical Assessment – Signs and Symptoms	• Name typical signs and symptoms consistent with lead toxicity, • Describe how lead exposure dose and symptoms can vary, and

	• Describe key features of the physical examination for patients exposed to lead.
Clinical Assessment – Diagnostic Tests and Imaging	• Describe guidelines for blood lead screening and confirmatory diagnostic testing on patients at risk of recent or ongoing lead exposure, and • Describe imaging and other clinical modalities that may assist in the diagnosis of current or past lead exposed patients.
How Should Patients Exposed to Lead Be Treated and Managed?	• Describe a management strategy for children whose blood lead levels are equal to or greater than the current CDC reference value of 5µg/dL.
What Instructions Should Be Given to Patients?	• Describe instructions to parents and patients to prevent or reduce lead exposure, • Describe instructions for patients exposed to lead, and • Describe communication strategies that health care providers can use to best deliver clinical information to their lead exposed or potentially exposed patients.

Initial Check

Instructions	This Initial Check will help you assess your current knowledge about lead toxicity. To take the Initial Check, read the case below, and then answer the questions that follow.

Case Study

A father brings his 2-year-old boy into a pediatrician's office for a routine well-child visit. The boys lives with his parents and an older sister in a rented apartment.

The pediatrician examines the boy and finds no abnormalities. The boy's growth and development indicators are within normal limits for his age.

Three years later, concerned that her child is hyperactive, the mother brings the same child, now 5 years old, to your office (his previous pediatrician recently retired).

At a parent-teacher conference last week, the kindergarten teacher said that the boy seems impulsive and has trouble concentrating. They recommended evaluation by a physician as well as by the school psychologist. The mother states that her son has always seemed restless and easily distracted, but that these first 6 months in kindergarten have been especially difficult.

He has also complained recently of frequent intermittent abdominal pains and constipation. The mother gave him acetaminophen for stomach pains with little change. She has also been giving him a fiber laxative, which has reduced the frequency and severity of constipation. She wonders if the change to attending kindergarten has played a role in his increased complaints.

Family history reveals that the boy's parents are divorced. He lives with his older sister, mother, and maternal grandparents in an older suburb of your community. The parents divorced when the boy was three years old. The father works in retail at a local shopping center. The child visits with his father one weekend a month, which is working out fine. However, he seems to be fighting more with his sister, who has been diagnosed with attention deficit hyperactivity disorder (ADHD) and is repeating first grade. Since the mother moved in with her parents after her divorce 2 years ago, she has worked with the grandfather in an automobile radiator repair shop, where her children often come to play after school. She has recently been

laid off and has expressed worry about increasing financial dependence on her parents as the children grow older. She also worries that the grandfather, who has gout and complains increasingly of abdominal pain, may become even more irritable when he learns that she is pregnant from the father of her son. Her third child is due in 6½ months. The father has no lead exposure risk factors.

When you inquire about the home, she explains that it was built in the 1960s. Her father bought it 30 years ago at a good price, as it is on a busy street close to the center of town. She has no idea of the type of pipes they have or the source of drinking water. They don't use any kind of water filtration system. The yard is bare. She doesn't see her father doing any improvements to the house due to his economic situation.

You ask about smoking habits and learn that the mother smokes up to a pack of cigarettes a day, sometimes in front of the children at home. The grandfather also smokes, but seldom in front of the children.

On chart review, you see that the previous pediatrician examined the boy for his preschool physical 1 year ago. A note describes a very active 4 year old who could dress himself without help but could not correctly name the primary colors. His vision was normal, but hearing acuity was below normal according to a hearing test administered for his preschool physical. The previous doctor noted that the boy's speech and language abilities were slightly delayed. Immunizations are up to date.

Further history on last year's visit indicated adequate diet, with no pica behavior. Hemoglobin 10 g/dL and low ferritin. Hematocrit was diminished at 30%. Peripheral blood smear showed hypochromia and microcytosis. There was no evidence of blood loss, and stool examination was negative for occult blood. The diagnosis was "mild iron deficiency anemia," and elemental iron 5 milligrams/kilograms (mg/kg) per 24 hours (divided 3 times daily without food) was prescribed. The family failed to keep several follow-up

appointments, but the child did apparently complete the prescribed 3-month course of iron supplements. He received no medications and had no known allergies. No psychological studies, learning, speech or behavioral evaluations were performed.

On physical examination today, you note that the boy is in the bottom 10th percentile for height and weight. The previous year he was plotted at the 20th percentile. His attention span is very short, making him appear restless. He has difficulty following simple instructions. Except for hearing acuity below normal, slightly delayed language, and social skills, the boy has reached most important developmental milestones.

Initial Check

1. What information (if taken at his age 2 well child visit) would have assisted with prevention and early identification of lead exposure risks?

   A. Smoking status of parents.
   B. Age and condition of boy's primary residence.
   C. Occupations of family members.
   D. Drinking water source and delivery system.
   E. B and D.
   F. All of the above.

2. What should be included in this boy's problem list?

   A. Delayed language ability, slightly impaired hearing.
   B. Short stature, history of hypochromic, microcytic anemia (treated with iron supplementation), abdominal pain, constipation.
   C. Possible attention deficit hyperactivity disorder, school and family stressors, lead exposure risk.
   D. A and C.
   E. All of the above.

3. What test would you order to confirm or rule out your diagnosis?

   A. Capillary blood lead level (finger stick).
   B. Abdominal radiograph.
   C. Venous blood lead level (BLL).

D. Erythrocyte protoporphyrin (EP)/zinc protoporphyrin (ZPP) level.

4. Which other family member is most vulnerable for effects of lead exposure at this time?

A. The mother.
B. The older sister.
C. The unborn baby.
D. The grandfather.

Initial Check Answers

1. What information (if taken at his age 2 well child visit) would have assisted with prevention and early identification of exposure risks?

The best choice is Answer F. All of the above.

Two of the obvious sources of lead suggested in the case study are leaded paint at home (paint flakes, household dust, and soil) and fumes and dust from solder at the radiator repair shop. However, smoke from cigarettes is also a source of lead that can be an important exposure (first, second or third-hand) to children. He or she could have explained the need to quit smoking not only in front of the children, but in the home, as tobacco and its toxins adhere to the furniture, clothing and walls (third hand smoking). Other information that would have assisted with prevention and early identification of lead exposure risks is the drinking water source and delivery system, as well as the occupations of the mother and father.

You can ask questions about the age of the family's house, when it was most recently painted, and the condition of the paint to get a preliminary sense of the potential extent of this exposure pathway. If the house was built before 1978, the child may be exposed to higher lead content paint chips, lead-contaminated soil, or lead in dust in the home.

Additionally, you should determine if the boy ever had pica (a compulsive eating of non-food items, to be distinguished from normal hand-to-mouth

behavior of children). Pica is more common in children ages 2 to 5, so it is likely that this is a present behavior. You can also ask about the length, type, and precise location of the boy's play at the radiator shop.

More information for this answer can be found in the "Clinical Assessment – Exposure History" section.

2. What should be included in this boy's problem list?

The best choice is Answer E: All of the above.

History suggests

- Delayed language ability,
- Slightly impaired hearing,
- Short stature,
- Possible attention deficit disorder,
- Anemia, and
- Abdominal pain.

The child is also experiencing passive exposure to his mother's cigarette smoke and family disruption and possible stress related to his parents' divorce, or possibly to attending kindergarten.

More information for this answer can be found in the "Clinical Assessment – Signs and Symptoms" section.

3. What test would you order to confirm or rule out your diagnosis?

The best choice is Answer B. Venous blood lead level (BLL).

To confirm lead poisoning, the best test is a venous BLL. Capillary blood draws (finger-sticks) are not considered reliable for diagnosis purposes. A venous or a screening capillary BLL is usually the first test drawn, instead of the EP/ZPP. Erythrocyte protoporphyrin (EP), commonly assayed as zinc

protoporphyrin (ZPP), is not sufficiently sensitive at lower BLLs and therefore is not as useful a screening test for lead exposure in children.

If the BLL is below 25 µg/dL, then a serum ferritin level and other iron studies can be used to determine if iron deficiency anemia exists.

More information for this answer can be found in the "Clinical Assessment – Diagnostic Tests and Imaging" section.

4. Which other family member is most vulnerable for effects of lead exposure at this time?

The best choice is Answer C. The unborn baby.

While the mother may be at risk, the unborn baby has the highest risk of neurodevelopmental problems. The mother has recently been laid off, ending the ongoing occupational exposure for her and her unborn child. However, her lead body burden can continue to expose the unborn child because the bone lead from all sources is mobilized during pregnancy and passed to the fetus through the mother's blood. The unborn baby is also at risk if the mother currently smokes or has smoked in the past. In addition, the baby will be at risk to potential home-based sources when he or she begins to move around and mouth objects. Prenatal exposure and exposure at a very young age to lead can damage development of the brain.

Additional sources of exposure for the children include possibly playing at the radiator repair shop after school, and, since the grandfather still works there, take-home exposure if he brings contaminated clothes or shoes into the house. This is especially important for the pregnant mother, whose occupational exposure has ended but who may still be exposed by the take-home exposure from her father's clothes/shoes. The person

handling these clothes and doing the laundry may also be exposed.

The grandfather may be exposed, as he shows irritability and abdominal pain. If this source is removed (using “lead safe” practices or switching jobs) he should recover. You should, however, suggest that he should be tested and talk to his physician about it. The older sister might be at risk from exposure in the home or radiator repair shop, although because she is older she will probably ingest less lead through hand-to-mouth behavior at this time. However, her history also suggests she may have been exposed as a younger child as well.

More information for this answer can be found in the “Who Is at Risk of Lead Exposure?” “What Are U.S. Standards for Lead Levels” and “What Are Possible Health Effects from Lead Exposure?” sections.

What Is Lead?

Learning Objectives	Upon completion of this section, you will be able to • Explain what lead is.
Introduction	Lead is a soft, blue-gray metal, usually found as lead compounds, combined with other elements. Much of its presence in the environment stems from • Its historic use in paint and gasoline in the United States, • Recycling operations, • Ongoing or historic mining/smelting, • Commercial operations, and • Lead contaminated consumer products.
Forms of Lead	**Elemental lead.** The chemical symbol for lead is Pb (from the Latin name plumbum). Lead has an atomic number of 82 and

an atomic weight of 207.2. It is a bluish-grey metal that tarnishes easily in air to a dark grey. The density of lead is 11.34 g/cm3. It has a low melting point of 327.46 °C or 621.43 °F. Naturally occurring lead ores comprise 0.002% (15g/t) of the earth's crust.

Inorganic lead.

This is the form of lead found in higher lead content paint, soil, dust and various consumer products. The color varies, depending on the chemical form, and the most common forms are white lead (a lead carbonate compound), yellow lead (lead chromate, lead monoxide) or red lead (lead tetraoxide). Lead acetate has a sweetish taste.

Organic lead.

Tetraethyl and tetramethyl lead is the form of lead used in leaded gasoline to increase octane rating. The combustion of organic lead –when it is added to gasoline as a fuel additive– results in the release of lead into the atmosphere. However, their use was phased out in the United States starting in the early 1970's, and banned for use in gasoline for motor vehicles beginning January 1, 1996.

Organic forms of lead are extremely dangerous, as they are absorbed through the skin and are highly toxic to the brain and central nervous system, much more so than inorganic lead.

Exposure to organic lead is generally limited to an occupational context [EPA 1996]. Potential exposures to organic lead should be taken very seriously. The symptoms and treatment are different from those of inorganic lead.

The main focus of this course is on inorganic lead toxicity.

Properties

Lead is a

- Very soft,
- Dense, and
- Ductile (moldable) metal.

Lead is very stable and resistant to corrosion, although acidic water may leach lead out of

- Pipes,
- Fittings, and
- Solder (metal joints).

Lead is a poor conductor of electricity and an effective shield against radiation.

Because of these properties, and because it is relatively easy to mine and recycle, lead has been used for many purposes for thousands of years. Ancient Romans used lead for plumbing, among other uses. In modern times, lead was added to paint and gasoline to improve performance. In the United States, lead was phased out of gasoline starting in the late 1970's, and banned for use in gasoline for motor vehicles beginning January 1, 1996, due to health concerns. Current uses of lead are discussed further in the next section.

Lead accumulation in the body is the result of anthropogenic (human) use, which has concentrated lead throughout the environment. Because lead is spread so widely throughout the environment, it can be found in everyone's body today. The main exposure route is oral, especially in small children, as they have hand-to-mouth behaviors that increase their risks. The respiratory route allows exposure to lead-containing dust, especially in occupational settings and during home renovations. Some authors suggest that because environmental lead accumulation and levels found today, which can result in adverse health effects, many people are exposed to levels of lead that are “orders of magnitude” greater than that of pre-industrial levels [Jusko et al. 2008; Flegal and Smith 1995; Budd et al. 1998].

Key Points	• Lead is a naturally occurring, very soft, dense, and ductile (moldable) metal. • Lead is still used in some commercial products made or imported into the United States. • Lead is very stable and accumulates in the environment. • Lead is resistant to corrosion, although acidic water may leach lead out of pipes, fittings, and solder (metal joints). • The body absorbs organic lead (as was used in leaded gasoline for "on-road" vehicles in the past in the United States, and is used in some occupational settings today) faster than inorganic lead. And, unlike inorganic lead compounds, organic lead can be readily absorbed through the skin. • Most lead encountered in the environment today is inorganic.
Progress Check	1. Which of the following statements regarding environmental lead is correct? A. Lead is a naturally occurring metal that is very soft, dense and ductile. B. Lead is very stable and accumulates in the environment. C. Lead can be found in some consumer products, old house paint, contaminated dust or drinking water. D. Most lead encountered in the environment today is inorganic. E. All of the above. *To review relevant content, see "Properties"* and *"Forms of Lead" in this section.*

Where Is Lead Found?

Learning Objectives	Upon completion of this section, you will be able to • Describe potential sources of lead exposure in the United States today.

Introduction

"An exposure pathway must, by definition, have five components:

1) a source of contamination (such as deteriorating lead-based paint on the walls, doors and windows of a home; used car batteries; open burning of waste);

2) an environmental medium and transport mechanism (such as lead contaminated dust on the floor of a home, lead smoke from open burning, or lead exhaust from leaded gasoline);

3) a point of exposure (such as children's hands, the floor, or children's toys);

4) a route of exposure (such as eating the dust through hand-to-mouth behavior); and

5) an exposed population (such as children in the home environment or pregnant women in polluted environments or workplaces).

When all five components are present, the exposure pathway is termed a complete exposure pathway" [WHO 2010].

The distribution of lead in the environment varies from place to place. Each of the following sources of lead is discussed further in this section.

- Lead-contaminated house dust is the major source of exposure for children in the United States, resulting from higher lead content paint that remains in older buildings.
- Lead occurs in drinking water through leaching from lead-containing pipes, faucets, and solder frequently found in the plumbing of older buildings.
- Lead in lead-glazed food containers may contaminate water, food, and beverages without being seen, tasted, or smelled.
- Lead may be found in and around workplaces where lead is used as well as in waste materials from production processes.

- Lead may still be found in

  - Some commercial products,
  - Some imported jewelry and candies,
  - Children's toys,
  - Cosmetics, and
  - Folk, traditional or home remedies.

- Lead concentrations in soil, air, and water can be especially high near the sites of historic or ongoing mining operations or smelters.
- Lead concentrations in inner city soil can be especially high from accumulation that occurred before the elimination of lead from gasoline in the United States (early phase down/phase out efforts starting in the late 1970s with continuation into the 1990s).
- Lead from exposure to cigarette smoke (including second and third hand tobacco smoke exposures [SHS & THS]) may contribute to increased blood lead levels (BLLs) in children.
- While BLLs over time are consistently declining in the United States, it is still a serious health problem for many people, particularly children in urban areas.

Economic Costs of Childhood Lead Poisoning	"Blood lead concentrations have decreased dramatically in U.S. children over the past 4 decades, but too many children still live in housing with deteriorated high content lead-based paint and are at risk for lead exposure with resulting lead-associated cognitive impairment and behavioral problems" [AAP 2016]. Landrigan et al. 2002a estimated that the U.S. economy incurs $43.4 billion annually in the costs of all pediatric environmental disease. Childhood lead poisoning alone accounts for the vast majority of these costs, which includes • Medical costs, • Disability, • Education, and • Parental lost work time. A more recent study described the loss of economic productivity resulting from reduced cognitive potential and from preventable childhood lead exposure to range from $44.8–$60.6 billion in 2008 [Trasande and Liu 2011]. Evidence continues to accrue that commonly encountered blood lead concentrations, even those below 5 µg/dL (50 ppb), impair cognition; there is no identified threshold or safe level of lead in blood [AAP 2016]. Evidence-based guidance is available for managing increased lead exposure in children, and reducing sources of lead in the environment, including lead in housing, soil, water, and consumer products, and has been shown to be cost-beneficial [AAP 2016]. Primary prevention should be the focus of policy on childhood lead toxicity.
Lead-based Paint in Homes and Buildings	Lead-contaminated household dust is considered the major high-dose source of lead for children in the United States today [AAP 2016; Lanphear et al. 2002]. Much of this is due to the degradation of interior paint, especially in housing built before 1978.

In 1977 the Consumer Product Safety Commission (CPSC) limited the lead in most paints to 0.06% (600 ppm by dry weight) [CPSC 1977]. In 2009 CPSC further limited lead content in household paint and similar surface coatings in children's products, and some furniture, for adult and children, to a concentration of lead not greater than 0.009 percent (90 parts per million) [CPSC 2009]. “Many of the steel bridges in the highway system are still coated with paint that contains up to 50% lead by weight” [DOT 2016a].

Most literature refers to “Lead-based paint,” or “Lead Paint” to paint manufactured before 1978, which used to contain higher amounts of lead. Household paint manufactured today may still contain very small amounts of lead.

In addition to degradation of interior paint, lead may be tracked into homes in significant quantities from exterior soil contaminated by historical use of lead in

- Paint (exterior sources),
- Gasoline, or
- Industries (old smelters).

A secondary source of lead exposure for workers' families can take place if workers bring home lead-contaminated dust on their

- Skin,
- Hair,
- Clothes,
- Shoes, or
- Tools.
- Lead may be released through past or ongoing home renovation.
- Even though leaded paint may be covered with non-leaded paint, lead dust may still be released into the home environment by

    - Chalking,
    - Chipping,
    - Friction,
    - Impact, or

- Peeling.

Lead-based paint is present in one-third of the nation's dwellings [ACCLPP 2012].

- Between 83% and 86% of all homes built before 1978 in the United States have lead-based paint in them [CDC 1997a]. A high percentage of these homes are rental properties, a major risk factor for elevated BLLs [ACCLPP 2012]. Rental homes are likely to have less frequent improvements and poor maintenance, thus allowing older lead-containing paint to peel and flake.
- The older the house, the more likely it is to:
  - Contain lead-based paint,
  - Have a higher concentration of lead in the paint, and
  - Have paint that is deteriorated.
- Before 1955, a significant amount of white house paint sold and used was 50% lead and 50% linseed oil. In 1955, manufacturers adopted a voluntary house paint lead-content standard of 1%, but house paint with higher levels of lead continued to be manufactured [Rabin 1989 as cited in AAP 1993].
- The amount of lead allowable in paint was lowered by federal law to 1.0 % in 1971 and then to 0.06% in 1977.

The number of existing U.S. housing units built before 1950, when paint had high lead content, decreased from 27.5 million in 1990 to 25.8 million in 2000 [CDC 2003], and 23.2 million in 2006 [HUD 2011]. Despite the gradual decline in the number of houses containing higher lead content paint, however, it still poses a risk to the millions of children living in these homes.

Lead in Drinking Water	Lead occurs in drinking water through leaching from lead-containing pipes, faucets, and solder frequently found in the plumbing of older buildings. • Homes built before 1986 are more likely to have lead pipes, fixtures, and solder, although newer homes may also be at risk if they are built in older neighborhoods (see below). • "Lead service lines" (the water service pipes that connect the water main in the street or "public water main" to the household plumbing system can be made of lead) in the water supply systems of older neighborhoods can leach lead. Therefore, even if household pipes are replaced, there is still the possibility of receiving lead from "lead service lines". • "Approximately 7 percent of the homes connected to community water systems [in the United States] have a lead service line." "There are about 15 to 22 million Americans nationally served by lead lines" [AWWA 2016]. • If "lead service lines" are replaced, but the household plumbing remains as galvanized iron pipes, there can still be ongoing lead exposure in drinking water. • Corrosion build up on the inside of galvanized pipes can create the potential for lead to accumulate over time. Acidic water can contribute to the leaching of lead from pipes into the drinking water supply. • Having a drinking water filtration system (filtered tap water/filtration pitchers) certified by an independent testing organization such as the National Sanitation Foundation (NSF) to remove lead can be a safe drinking water option when instructions on how to use, maintain, and/or replace filters are followed. • Boiling water will not eliminate lead. Other potential sources of lead contamination include [EPA 2016a; Mushak et al. 1989, as cited in AAP 1993] • Brass fixtures (brass faucets or fittings), • Copper pipes with lead solder for drinking water, and

	• Older drinking water coolers and coffee urns. EPA recommends replacing lead service lines, galvanized pipes or pipes that were soldered using lead, brass faucets/fittings, and the use of filtration systems for tap water [EPA 2016a]. Lead in water has not been identified as the major problem with lead in the United States. However, some areas of the country may have a serious problem with lead contamination in the drinking water distribution system.
Foods and Beverages Contaminated with Lead	Even when lead is not intentionally used in a product, it may contaminate items such as food, water, or alcoholic drinks, such as moonshine whiskey [CDC 1992; Warren and Vaughan 1922]. Lead may contaminate food during • Production, • Processing, • Packaging, and • Storage. *Production* Production sources may include • Leaf and root vegetable uptake of lead from soil, • Deposits of atmospheric lead onto leafy vegetables [Levin et al. 2008; Mushak et al. 1989 as cited in AAP 1993], and • Grinding or cutting equipment used during processing that may be contaminated with lead. *Packaging* Lead in packaging may contaminate food. • Bright red and yellow paints and print on bread bags and candy food wrappers from other countries, particularly Mexico, have been found to contain lead [FDA 2014; Levin et al. 2008; Mushak et al. 1989 as cited in AAP 1993].

	• Although lead was phased out of cans containing food or drinks in the United States in the 1980's, some imported food or drink cans may still contain lead in the solder. *Storage* Food or beverages may be stored in lead-containing vessels that contaminate the product. • Even "safe" pottery and ceramic-ware (especially imported) can become harmful if the protective glaze wears off and exposes people to the lead-containing pigments. • Lead-glazed pottery, particularly if it is imported, is often overlooked as a potential source of lead exposure. • Wine and homemade alcohol distilled and/or stored in leaded containers may become contaminated. • Wine or other alcoholic drinks stored in leaded-crystal glassware may become contaminated. *Other* Other sources of food contamination include • Certain “natural” calcium supplements. • Food grown in lead contaminated soil from historic use of lead-containing pesticides in the United States (such as lead arsenate used as an insecticide or fungicide in orchards).
Commercial Products	While lead is prohibited from many products in the United States, imported or pre-regulation products may still pose a risk. Lead is still used in commercial products [CDC 2013b; CDC 2013d; CDC 2013e; Levin et al. 2008] and may be found in products such as • Artificial turf, • Artificial Christmas trees • Automotive batteries, • Bridge paint, • Computers, • Curtain weights,

	• Fishing tackle, • Jewelry, • Pewter, • Pool cue chalk, • Some ceramic glazes, • Toys (especially antique or imported), • Leaded wick candles, • Vinyl lunch boxes, and • Vinyl miniblinds (made before 1997).
"Traditional" or "Folk" Imported Home Remedies and Cosmetics	Some people can be exposed to lead using certain imported home remedies or cosmetics [CDC 2013c]. Several examples are listed below. The Mexican folk remedies *azarcon* and *greta* used to treat the colic-like illness "empacho" contain lead. These remedies are also known as • Alarcon, • Coral, • Liga, • Maria Luisa, and • Rueda. Lead-containing remedies used by some Asian communities include • Ba-baw-san, • Bali goli, • Chuifong, • Ghasard, • Kandu, and • Tokuwan. Middle Eastern remedies and cosmetics that contain lead include • Alkohl, • Cebagin, and • Saoott. Saper et al. 2004 discussed heavy metal content of Ayurvedic herbal medicine products.

	For more information on these products, see the Centers for Disease Control and Prevention's web site, especially Appendix 1 of the document "Managing Elevated Blood Lead Levels Among Young Children" [CDC 2002] at https://www.cdc.gov/nceh/lead/CaseManagement/caseManage_main.htm or https://www.cdc.gov/nceh/lead/tips/folkmedicine.htm
Environmental and Industrial Sources	Lead is ubiquitous in the environment because of widespread human use. Environmental background levels vary depending on historic and ongoing uses in the area. • Abandoned industrial lead sites, such as old mines or lead smelters, may continue to pose a potential public health hazard. • Industrial sources range in size from large mines and hazardous waste sites (e.g., Superfund sites) to small auto repair facilities. • Industries such as mining and lead smelting contribute to high levels of lead in the environment around such facilities. • People living near hazardous waste sites, incinerators, landfills may be exposed to lead and chemicals that contain lead by breathing air, drinking water, eating foods, or swallowing dust or dirt that contains lead. • Local community members may be exposed to lead from these sources through ingestion (or inhalation) of lead-contaminated dust or soils. • Higher lead content paint may also contaminate soil, especially in areas immediately adjacent to houses built before 1978, and bridges. • People may be exposed to lead in soils directly or by eating foods grown in lead-contaminated soils, and old orchards. The past use of lead in gasoline has contaminated soils, especially along roadways. Tetraethyl lead (TEL) was phased out of gasoline for "on-road" use in the United States between 1973 and 1996.

Smoking and Second and Third-hand Smoke	Active and passive smoking (second-hand smoke) is associated with increased BLLs in U.S. adults [Mannino et al. 2005] and children [CDC 2013a]. Third-hand smoke (surface residue from tobacco cigarette smoke) is a new health concern [Ferrante et al. 2013]. Second hand smoke (SHS) is generally considered passive or involuntary inhalation exposure to cigarette smoke by persons other than the intended “active” smoker. It may also be referred to as “Environmental Tobacco Smoke” (ETS). Sometimes ETS is broken down into “mainstream smoke” which is exhaled by the smoker and “side stream smoke” which comes from the end of a lit tobacco cigarette, cigar, or pipe. SHS may contribute to increased BLLs in U.S. children, independent of lead dust concentrations [CDC 2013a; USDA 2009 as cited in CDC 2013a; NHLBI 2007; PHS 2006]. There is no risk-free level of secondhand smoke exposure; even brief exposure can be harmful to health. Lead dust concentrations, usually ingested during hand to mouth activity, do not appear to mediate this association, suggesting inhalation as a major pathway of exposure from SHS [Apostolou et al. 2012] Second-hand smoke is associated with increased blood lead levels in U.S. children aged 4-16 years. A representative sample of 5,592 U.S. children, age 4–16 years, who participated in the Third National Health and Nutrition Examination Survey (1988–1994) showed that the geometric mean blood lead levels were 38% higher in children with high cotinine levels compared with children who had low cotinine levels. The logistic regression models showed that children with high cotinine levels were more likely to have blood lead levels ≥10 µg/dL than were children with low cotinine levels [Mannino 2003]. Third-hand smoke (THS) is the residue from tobacco smoke, which remains on just about every surface exposed to that smoke and may build up over time. This residue poses an additional exposure risk, especially in infants and children, that may impact BLLs. Children and infants have an increased exposure risk to tobacco THS

	than adults because they typically spend more time indoors and have age-specific behaviors (such as mouthing). This increased exposure risk may increase their risk of potential health hazards from exposure to THS [Ferrante et al. 2013]. However, more studies are needed to support an association between third-hand smoke exposure and increased BLLs in children.
Occupational Exposures	The major exposure pathways for workers are inhalation and ingestion of lead-bearing dust and fumes. Workers in the lead smelting, refining, and manufacturing industries experience the highest and most prolonged occupational exposures to lead [ATSDR 2010]. Increased risk for occupational lead exposure occurs among workers in • Battery manufacturing, • Automobile brake repair, • Companies that work with lead solder, • Bridge maintenance and repair, • Construction, especially renovation/rehabilitation, • Municipal waste incineration, • Other manufacturing industries, • Pottery/ceramics companies and studios, • Radiator repair, • Rubber products and plastics industries, and • Steel welding/cutting operations. Workers renovating highway overpasses and bridges are frequently exposed to higher lead content paint applied to these structures over many years [OSHA 2005].

”Para-Occupational”, “Take Home”, or “Secondary” Exposure	Para-occupational exposure is defined as exposure which occurs in households who live with an occupationally exposed worker, but who are not themselves occupationally exposed. It is important to note that occupational exposures can result in secondary exposure for workers' families if workers bring home lead-contaminated dust on their • Skin, • Hair, • Clothes, • Shoes, or • Tools. Children may also be exposed to occupational lead sources if parents work in these industries and allow their children to visit them at work, or if lead dust from workers’ • Clothing, • Hair, • Body, • Shoes, or • Tools contaminates the interior of vehicles that children also ride in. Many small businesses and cottage industries are actually located in the home. Some examples include • Battery recycling, • Jewelry making, and • Production of leaded glass and pottery. Household contamination can result in “bystander” exposure levels similar to those found in industrial settings. Secondary exposures (also called domestic, take home, second hand, etc.) can be prevented by workers **showering and/or changing clothing and shoes before returning home** or after finishing their work that involves lead at home.

Historical Use of Leaded Gasoline	The past use of lead in gasoline has contaminated soils, particularly in inner cities, and especially along roadways. “The deadliness of tetraethyl lead was sadly confirmed in the summer of 1924, when workers engaged in producing the additive fell sick and died at several refineries in New Jersey and Ohio. Banner headlines greeted each new fatality until a total of 15 workers had lost their lives -and their minds” [EPA 1985]. Lead has been blended with gasoline, as an additive primarily to boost octane levels, since the early 1920s. In addition to increasing the octane of gasoline, leaded gasoline also protected exhaust valve seats (in vehicles designed to operate on leaded gasoline) from excessive wear. Both of these objectives are now accomplished without the use of leaded gasoline [EPA 1985]. The use of TEL in gasoline paved the way for the development of the high power, high-compression internal combustion engines that were to win WWII and dominate the U.S. automobile industry until the 1970s. The first reduction standards for Tetraethyl lead (TEL) came out in the early 1970s. Effective January 1, 1996, the Clean Air Act banned the sale of leaded fuel for use in on-road vehicles. However, EPA allowed fuel containing TEL to continue to be sold for off-road uses, including aircraft, racing cars, farm equipment, and marine engines [EPA 1996]. As of January 2015, only Algeria, Yemen and Iraq continue to use leaded gasoline –in addition to unleaded gasoline [UNEP 2015].

Historical Use of Lead Arsenate

Lead arsenate (PbHAsO4) was first used in the U.S. apple orchards in 1892 as an insecticide spray. It was the most heavily used arsenical throughout the United States and worldwide [Schooley et al. 2008; Peryea 1998].

Lead arsenate was used in the United States as an insect growth regulator, insecticide, herbicide and fungicide [EPA 1986]. This insecticide was very popular among farmers because of its effectiveness, low cost, ease of use, and persistence. Over the next 60 years the frequency and amount of lead arsenate applications increased, leading to pesticide resistance. Growers eventually switched to more viable alternates –at the time- such as DDT.

Widespread use of lead arsenate and frequent applications at increasing rates over time contributed to lead and arsenic to accumulate in topsoil, contaminating thousands of acres across the United States" [Schooley et al. 2008; Peryea 1998].

Lead Sources and Contaminated Media

Table 1. Where is Lead Found?

Lead Source	**Contaminated Media**
Gasoline (leaded)*	Soil
Lead solder/pipes	Drinking water
Mining and smelting	Outdoor air, dust, soil
Packaging or storage containers (including lead soldered cans)	Food, beverages
Paint (pre-1978)**	Household dust and soil
Production sources	Imported foods, remedies, consumer products including cosmetics, jewelry, toys, candy, glassware, table and cookware.

	Tobacco	Cigarettes, cigars, and other tobacco products when smoked (and second-hand smoke). Clothes, furniture, draperies, walls, hair, skin (from third-hand smoke).	
	Workplaces that involve use of lead	Outdoor and indoor air, and dust	

* Past use of TEL in the United States

** Leaded paint for residential use (higher than 0.06% Pb content) was banned in 1977 [CPSC 1977]. In 2008, the lead content in paint was lowered to 0.009% by CPSC [CPSC 2009]. Many of the steel bridges in the highway system are still coated with paint that contains up to 50% lead by weight [DOT 2016a].

Likely Global Sources of Lead	Countries with different regulations, standards and practices than the United States, may have lead exposure from • Backyard smelters, • Candles (leaded wick), • Candy (and packaging/wrappers because of the ink used to print the labels), • Canned products, • Cottage industries, • Jewelry, • Leaded glassware, • Stained glass paintings and supplies, • Moonshine alcohol (may be a risk in some countries), • Poor quality lead glazes, • Toys, • Traditional or folk remedies, etc.
Key Points	• Prior to the 1950s, higher lead content paint was widely used. • Residential use of higher lead content paint was banned in 1978 in the United States, with the establishment of a 0.06% allowable lead content in house paint in 1977.

- The allowable 1977 amount was further reduced in 2008 to 0.009% lead content.
- In the United States higher lead content paint is a primary source of environmental exposure to lead. Lead may be released from higher lead content paint in home environments if the paint is

  - Disturbed (e.g., during renovation),
  - Deteriorated (peeling, chipping, and chalking), or,
  - Subject to friction or impact (doors, windows, porches, etc.).

- The past use of lead in gasoline and higher lead content in paint can result in high lead levels in soil and house dust.
- Some commercial products still contain lead (and some imported products that aren't regulated as they would be if made in the United States).
- Contaminated

  - Drinking water,
  - Food,
  - Alcohol, and
  - Home remedies are some sources of environmental exposure to lead.

- Workers in many industries (with potential for secondary exposure to their families) can have occupational exposure to lead.
- Historic or ongoing lead-related industries (including mining and smelting) can result in high lead levels in surrounding soil.
- Tobacco smoking is associated with increased BLLs in adults.
- Second-hand smoke can increase BLLs in children.
- Third-hand smoke is a more recent health concern. More studies are needed to support an association between third-hand smoke exposure and increased BLLs in children.

Progress Check	2. In the United States today, all of the following are potential exposure sources for lead, **EXCEPT**: A. Gasoline for on-road vehicles. B. House paint (produced pre 1978). C. Lead or galvanized home water pipes. D. Imported food storage containers, home remedies, and cosmetics. E. Tobacco smoking and second-hand smoke. *To review relevant content, see "Lead-Based Paint in Homes and Buildings", Foods and Beverages Contaminated with Lead", "Traditional or 'Folk' Imported Home Remedies and Cosmetics", "Smoking and Second and Third hand Smoke", "Historical use of Leaded Gasoline", and "Likely Global Sources of Lead" in this section.*

What Are Routes of Exposure to Lead?

Learning Objectives	Upon completion of this section, you will be able to • Identify the most common routes of exposure to lead in the United States today.

Introduction	Today almost everyone is exposed to environmental lead. Exposure to lead and lead chemicals can occur through inhalation, ingestion, dermal absorption, absorption from retained or embedded leaded foreign body, and trans-placental (endogenous) routes. • Most human exposure to lead occurs through ingestion or inhalation. • In the United States, the public is not as likely to encounter lead that readily enters the human body through the skin (dermal exposure), especially now that leaded gasoline is banned for on-road vehicles. • Retained shrapnel, bullets or other embedded leaded foreign bodies can be a source of ongoing lead exposure. • Inhalation may be the major contributor for workers in lead-related occupations and "do-it-yourself" home renovators and persons with hobbies (stained glass making/soldering, etc.). Lead exposure is a global issue. Lead mining and lead smelting are common in many countries, where children and adults can receive substantial lead exposure from often unregulated sources at high levels that are uncommon today in the United States [Kaul et al. 1999; Litvak et al. 1999; Wasserman et al. 1997; López-Carrillo et al. 1996; Rothenberg et al. 1994]. Most countries have discontinued or are in the process of phasing out the use of leaded gasoline for all uses [UNEP 2011].
Ingestion	Lead exposure in the general population (including children) occurs primarily through ingestion, making it the route that most commonly leads to elevated BLLs. This includes swallowing a foreign body containing lead (i.e., jewelry, etc.). From 20% to 70% of ingested lead is absorbed into the body, (with children generally absorbing a higher percentage than adults) [ATSDR 2010] (see the *"What are Possible Health Effects from Lead Exposure?"* section).

	• Lead paint is the major source of higher lead level exposures in children in the United States [ATSDR 2010; AAP 1993]. As higher lead content paint o Deteriorates, o Peels, o Chips, o Is removed (e.g., during renovation), o Or crumbles due to friction (e.g., in windowsills, steps, and doors), house dust and surrounding soil may become contaminated. Lead then enters the body through normal hand-to-mouth activity [Sayre et al. 1974, as cited in AAP 1993]. • Ingestion of contaminated o Food, o Water, or o Alcohol may be significant for some populations. In addition, ingesting certain traditional, folk or home remedy medicines may expose people to lead or lead compounds (see the *"Where is Lead Found?"* section). • When fine particulate lead is inhaled, it can be absorbed directly through the lungs or could also be carried by the mucociliary tree to the throat where it can be swallowed and absorbed via the GI system.
Inhalation	Inhalation is the second major pathway of exposure for the general population in the United States. The amount absorbed from the respiratory system depends on particle size, respiratory volume, amount of deposition, and the mucociliary clearance of the inhaled lead. • Almost all inhaled lead is absorbed into the body (with children generally absorbing a higher percentage than adults, as they have a higher respiratory frequency) [ATSDR 2010] (see the *"What are Possible Health Effects from Lead Exposure?"* section).

	• Since leaded gasoline additives were phased out beginning in the 1970s and control measures were implemented in industries to reduce air emissions, inhalation from these sources is no longer the major exposure pathway to lead for the general population in the United States. • Leaded gasoline is still used in only a handful of countries, but the resulting emissions pose a major public health threat. • Inhalation may be the primary route of exposure for some workers in industries that involve lead. • Inhalation may be the primary route of exposure for adults involved in home renovation activities, and hobbies like lead glass making, stained glass making/soldering. • Lead is a component of tobacco and tobacco smoke, and smokers have higher blood lead levels (BLLs) than do nonsmokers [Mannino et al. 2005; Mannino et al. 2003]. • Second hand smoke may contribute to increased BLLs in U.S. children. Lead dust concentrations, usually ingested during hand to mouth activity, do not appear to mediate this association, suggesting inhalation of second hand smoke is a major pathway of exposure [Apostolou et al. 2012]. • Eliminating second hand smoke exposure may reduce lead exposure in children [Apostolou et al. 2012].
Dermal	Dermal exposure plays a role for exposure to organic lead among workers, but is not considered a significant pathway for the general population. • Organic lead may be absorbed directly through the skin. • Organic lead (tetraethyl lead) is more likely to be absorbed through the skin than inorganic lead. • Dermal exposure is most likely among people who work with lead or materials that contain lead.
Endogenous Exposure	Endogenous exposure to lead may contribute significantly to an individual's current BLL. Numerous reports document lead poisoning resulting from retained bullet or shrapnel fragments; thus, a history of military

	or other penetrating trauma may be important [Kathuria 2014]. If in a pregnant woman, this poses a particular risk to the developing fetus (See the *"What are Possible Health Effects from Lead Exposure?"* section). Trans-placental exposure to the unborn child can happen if the mother is exposed to lead. • Once absorbed into the body, lead may be stored for long periods in mineralizing tissue (*e.g.,* teeth and bones). • The stored lead may be released again into the bloodstream, especially in times of calcium stress (*e.g.*, pregnancy, lactation, osteoporosis) or calcium deficiency.
Key Points	• Ingestion is the most common route of exposure to lead for children, and the route that most commonly leads to elevated BLLs. • Inhalation can be a significant exposure pathway, particularly for workers in lead industries, "do-it-yourself" home renovators, persons with hobbies (stained glass making/soldering), smokers and children exposed to second hand smoke. • Embedded or retained leaded foreign bodies can be a source of ongoing lead exposure. • Trans-placental exposure to the unborn child can happen if the mother is exposed to lead.
Progress Check	3. The two primary routes of exposure to lead in U.S. children are A. Ingestion and inhalation. B. Inhalation and dermal. C. Dermal and endogenous. D. Endogenous and inhalation. *To review relevant content, see "Ingestion" in this section.*

Who Is at Risk of Lead Exposure?

Learning Objectives	Upon completion of this section, you will be able to

- Identify the populations most heavily exposed to lead.

Introduction

"In the late 1700s, Ben Franklin described various environmental and occupational effects which he attributed to lead, affecting trades, such as printers, plumbers, and painters. In the early 1900s, detailed information on the hazards began to appear. First, a study in Britain linked exposures to lead with high rates of infertility, stillbirths, and first year infant deaths. About the same time, an Australian study observed lead poisoning among children and identified household dust and paint as the sources of the lead. Childhood activities, such as nail-biting, thumb-sucking, and eating with fingers contaminated with lead are the ways lead was introduced into the body" [DOT 2016b].

Both children and adults are susceptible to health effects from lead exposure, although the typical exposure pathways and effects can be somewhat different.

- Children who reside in pre-1978 housing (and especially those in inner cities, where a large number of older rental homes exist, or homes built before 1950) are at greatest risk for exposure, because older housing may contain paint with higher lead content.
- "Childhood lead exposure has a significant and persistent impact on brain reorganization associated with language function" [Yuan et al. 2006].
- Adults who work in jobs involving lead are occupationally exposed.
- Developing fetuses are also at risk for adverse health outcomes (less than 1% of the mothers have levels greater than or equal to 5 micrograms per deciliter, or µg/dL), as levels that present risk to the fetus may not present risk to the mother.
- Smokers and their relatives (if exposed to second-hand smoke) are at a high risk for exposure due to the lead in tobacco smoke.

Children	While children's blood lead levels (BLLs) have steadily declined in recent decades, there are still an estimated 535,000 U.S. children ages 1-5 years with BLLs at or above the upper reference source range value of 5 µg/dL [CDC 2013g]. This was calculated using the 2007-2010 National Health and Nutrition Examination Survey [NHANES] cycle that showed 2.6% of children in this age group, with levels above 5 mcg/dL, based on the U.S. Census Bureau 2010 count [CDC 2013g]. • In particular, children who live in older housing are more likely to have elevated BLLs than U.S. children as a whole. • No economic or racial/ethnic subgroup of children is free from the risk of adverse health effects due to high BLLs. • Of the 434,000 children reported with confirmed elevated BLLs (≥10 µg/dL) between 1997 and 2001 (2.2% of children aged 1-5 years), approximately o 17% were non-Hispanic whites, o 60% were non-Hispanic African-Americans, o 16% were Hispanic, and o 7% were of other races or ethnicities [CDC 2003]. • The children affected are more likely to be poor and from racial/ethnic minority groups living in substandard housing. African-American children remain at increased risk for higher blood lead concentration after adjusting for environmental lead exposures and dietary intake [Lanphear et al. 2002]. Because of their behavior and physiology, children are more affected by exposure to lead than adults. • Children absorb more ingested lead than do adults. • Children generally ingest lead-contaminated soil and house dust at higher rates than adults because of mouthing and hand-to-mouth behaviors. • Children who exhibit pica, a compulsive hand-to-mouth behavior and repeated eating of non-food

items –not considered pathologic in infants and toddlers up to 2 years of age-, are at greatest risk.

- Children have a higher breathing rate than adults, breathing in a greater volume of air per pound.
- Being shorter than adults, children are more likely to breathe lead-contaminated dust and soil as well as lead-containing fumes close to the ground.
- The percent of lead absorbed in the gut, especially in an empty stomach, is estimated to be as much as 5 to 10 times greater in infants and young children than in adults [Ziegler et al. 1978 as cited in ATSDR 1999; James et al. 1985; Chamberlain et al. 1978; Alexander et al. 1974].
- Gastrointestinal absorption of lead in children is increased by deficiencies in

    - Ascorbate,
    - Calcium,
    - Iron, and
    - Zinc [Mahaffey 1990, as cited in AAP 1993].

Lead in dust and water can contribute up to 35% and 20% respectively to lead exposure in children's Blood Lead Levels (Figure 1).

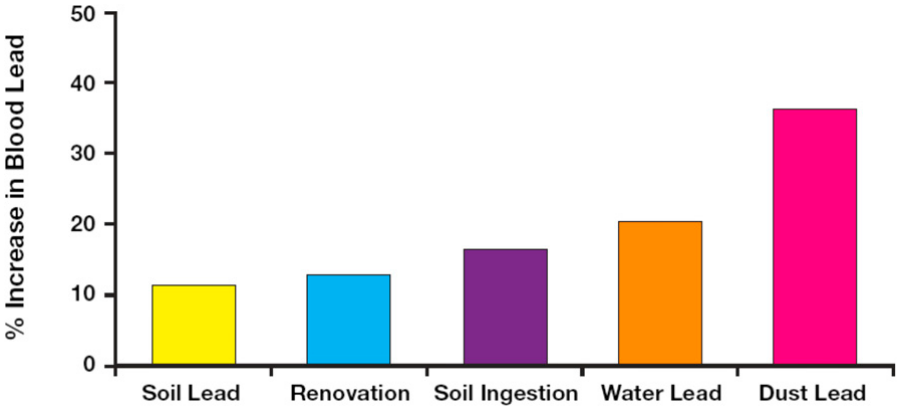

Figure 1. Sources of Contribution of Lead Exposure to Children's Blood Lead Concentrations [AAP 2016, adapted from Lanphear et al. 2012, and Spanier et al. 2013]

Children are more sensitive than adults to elevated BLLs. Children's developing brains, nervous system, and other organ systems are very sensitive to lead.

Differences between the adult blood brain barrier and that of fetuses and very young children, increases the risk of lead's entry into the developing central nervous system of the latter two. This can result in prolonged or permanent neurobehavioral disorders.

- Childhood lead exposure is inversely associated with

  - Brain reorganization associated with language function [Yuan et al. 2006],
  - Intellectual abilities [Lanphear et al. 2005],
  - Academic achievement,
  - Psychomotor development [Lanphear et al. 2005],
  - High school attendance,
  - Reaction times,
  - Class rank,
  - Hand and-eye coordination, and
  - Vocabulary and grammatical reasoning scores [AAP 1993].

- ”Blood lead concentrations <5 µg/dL are associated with intellectual deficits (lower IQ score), academic disabilities, attention-related behaviors, and problem behaviors” [Landrigan and Etzel 2014].
- Lanphear et al. [2005] report a deficit of approximately 2 IQ points for the Blood Lead variable of 10-20 µg/dL. The decrements in IQ associated with lead were found to be proportionately greater at the lowest blood lead levels [Landrigan and Etzel 2014; Bellinger 2008]. “At lower concentrations of lead in the blood – below 10 µg/dL - children tested for IQ at ages three and five, showed a greater decline in IQ for a rise in blood lead from 1 to 10 µg/dL, than those whose blood lead level went from 10 to 20 µg/dL” [Canfield et al. 2003].
- “The blood lead concentration was inversely and significantly associated with IQ. In the linear model, each increase of 10 µg per deciliter in the lifetime average blood lead concentration was associated with a 4.6-point decrease in IQ (P=0.004), whereas for the subsample of 101 children whose maximal

lead concentrations remained below 10 µg per deciliter, the change in IQ associated with a given change in lead concentration was greater. When estimated in a nonlinear model with the full sample, IQ declined by 7.4 points as lifetime average blood lead concentrations increased from 1 to 10 µg per deciliter" [Canfield et al. 2003].

- "Early childhood lead exposure is associated with poorer achievement on standardized reading and math tests in the third grade, even at very low B-Pbs" [Evens et al. 2015].
- "Children with moderate lead poisoning in early childhood performed significantly lower on all components of elementary school end-of-grade examinations compared with unexposed children" [Magzamen et al. 2013].
- Even low-level lead exposure can negatively impact a wide range of cognitive functions, such as attention, language, memory, cognitive flexibility, and visual-motor integration based on various types of neuropsychological and neurobehavioral testing [Canfield et al. 2004; Canfield et al. 2003].
- "For every 1 µg/dL increase in blood lead concentration, there was a 0.7-point decrement in mean arithmetic scores, an approximately 1-point decrement in mean reading scores, a 0.1-point decrement in mean scores on a measure of nonverbal reasoning, and a 0.5-point decrement in mean scores on a measure of short-term memory. An inverse relationship between blood lead concentration and arithmetic and reading scores was observed for children with blood lead concentrations lower than 5.0 µg/dL" [Lanphear et al. 2000].
- Children's renal, endocrine, and hematological systems may also be adversely affected by lead exposure.

Children are also exposed to lead through second-hand tobacco smoke [Apostolou et al. 2012; Mannino et al. 2005; Mannino et al. 2003].

There is no known threshold exposure level (as indicated by BLL) for many of these effects. No blood

	lead threshold for adverse health effects has been identified in children, however, more severe effects occur at higher levels and more subtle effects, some not clinically recognizable, at very low levels. Preventing lead exposure in early childhood is critical to improving school performance [Evens et al. 2015; Lanphear et al. 2005]. “The consequences of exposure to many other chemicals or mixtures of chemicals, such as insecticides —chemicals oftentimes specifically designed to be toxic— are largely unknown. Many of these chemicals or their metabolites are routinely found in the blood and body fluids of pregnant women and children” [Lanphear et al. 2005].
Adults	Although children are at greater risk from lead exposure, adult exposures can also result in harmful health effects. • Most adult exposures are occupational and occur in lead-related industries such as [CDC 2016] o Manufacturing, o Construction, o Services, and o Mining. • One frequent source of lead exposure to adults is home renovation that involves o Scraping, o Remodeling, or o Otherwise disturbing lead-based paint. Renovation involving lead based paint should only be undertaken after proper training, or with the use of certified personnel (see EPA’s Safe Renovation brochure at http://www2.epa.gov/lead/lead-safe-certified-guide-renovate-right.

- Adults can also be exposed during certain hobbies and activities where lead is used [CDC 2011a]. Some of the more common examples include

  - Artistic painting,
  - Car repair,
  - Electronics soldering,
  - Glazed pottery making,
  - Metal soldering,
  - Molding of bullets, slugs, or fishing sinkers,
  - Stained-glass making, and
  - Shooting firearms.

- Tobacco smoke is a source of lead [Apostolou et al. 2012; Mannino et al. 2005; Mannino et al. 2003].
- Mine workers may inhale lead dust and lead oxide fumes if they

  - Eat,
  - Drink, and
  - Smoke in or near contaminated areas, thereby increasing their probability of lead ingestion.

- If showers and changes of clothing are not provided, workers can contaminate their homes and/or vehicles with lead dust on their

  - Hair,
  - Skin,
  - Shoes,
  - Clothing, and
  - Tools

  thus inadvertently exposing family members.

- People who use the following items also increase their lead exposure risk:

  - Paints, pigments,
  - Facial makeup, or
  - Hair coloring with lead or lead acetate.

- Cosmetics containing lead include

- Surma,
- Sindhoor and
- Kohl,

popular in certain Asian countries.

- Other than the developmental effects unique to young children, the health effects experienced by adults from adult exposures are similar to those experienced by children, although the thresholds are generally higher.

Table 2. Populations at Risk of Exposure to Lead in the Workplace	
• Auto repairers	• Lead refining workers
• Battery manufacturers and recycling	• Lead smelter workers
• Bridge reconstruction workers	• Plastic manufacturers
• Construction workers	• Plumbers, pipe fitters
• Firing range instructors	• Police officers
• Glass manufacturers	• Printers
• Lead manufacturing industry employees	• Rubber product manufacturers
• Lead mining workers	• Shipbuilders
• Workers in recycling plants for electronics, computers, etc.	• Steel welders or cutters

Pregnant Women, Lactating Women and Developing Fetuses	The mother's BLL is an important indication of risk to the fetus and neurological problems in newborns. In addition, mothers who had exposure to lead in the past may store lead in their bones. Lead may be released from bones during times of calcium stress such as pregnancy and lactation. Pregnant women with elevated BLLs may have an increased chance of • Preterm labor, • Miscarriage, • Neurological effects and intrauterine growth restriction (IUGR), • Spontaneous abortion or stillbirth, and/or • Low birth weight. See the *"What are Possible Health Effects from Lead Exposure?"* section for more information.

Table 3. Risk Factors for Lead Exposure in Pregnant and Lactating Women [CDC 2012]
• Recent immigration from or residency in areas where ambient lead contamination is high, e.g., from countries where leaded gasoline is still being used (or was recently phased out), or where industrial emissions are not well-controlled. • Living near a source of lead, such as lead mines, smelters, or battery recycling plants (even if the establishment is closed). • Working with lead or living with someone who does (take-home exposures). • Cooking, storing, or serving food in lead-glazed ceramic pottery made in a traditional process and usually imported by individuals outside the normal regulatory commercial channels. • Eating or mouthing non-food items (pica) that may be contaminated with lead (such as soil, clay, or lead-glazed ceramic pottery). • Using alternative or complementary medicines, herbs, or therapies for home remedies or certain traditional herbs that may be contaminated with lead.

	• Using imported cosmetics, such as kohl or surma, or certain imported foods or spices that may be contaminated with lead. • Engaging in certain high-risk hobbies or recreational activities, like leaded glass, hunting, or jewelry making (if using leaded products), and those who have family members who do. • Renovating or remodeling older homes without using safe lead work practices. • Disturbing higher lead content paint and/or creating lead dust, or spending time in such a home environment. • Consuming lead-contaminated drinking water from homes with leaded pipes or source lines with lead. • Having a history of previous lead exposure or evidence of elevated body burden of lead from past exposures, particularly with a deficiency in certain key nutrients (e.g., calcium, iron). • Living with someone identified with an elevated BLL. • Having exposures in common with a child, close friend, or other relative living in the same environment.
Key Points	• Today, children who live in pre-1978 housing are the population generally at greatest risk for lead poisoning. • Adults who work with lead or have hobbies involving lead may also be significantly exposed. • Developing fetuses exposed to lead are also at risk for adverse health outcomes. • Children may also be exposed to lead through second-hand tobacco smoke.
Progress Check	4. Which population group is likely to be the most heavily exposed to lead in the United States? A. Pregnant women living near industrial sites. B. Children who live in older housing, especially those in inner cities. C. African-American teenagers of single households with no high school completion.

D. Older adults in nursing homes that were built before 1978.

To review relevant content, see "Introduction" and Children" in this section.

5. In general, all of the following occupations entail significant exposure to lead **EXCEPT**

A. Automobile mechanics.
B. Construction workers.
C. Plumbers.
D. Electricians.

To review relevant content, see "Adults" in this section.

What Are U.S. Standards for Lead Levels?

Learning Objectives

Upon completion of this section, you will be able to

- Describe the Centers for Disease Control and Prevention's (CDC) reference value for lead in children's blood,
- Describe the U.S. Occupational Safety and Health Administration's (OSHA) Permissible Exposure Limit (PEL) for lead in workplace air,
- Describe the U.S. Environmental Protection Agency's (EPA) drinking water regulation for lead, and
- Describe the Consumer Product Safety Commission's (CPSC) regulatory limit value for lead in paint.

Introduction

Because lead causes significant public health problems, a number of federal agencies have issued advisory standards or enforceable regulations that set lead levels in different media. Table 4: Standards and Regulations for Lead, below summarizes these standards and regulations [ACCLPP 2012]; see subsequent sections for further explanation.

Although reductions in lead exposure for the U.S. population have resulted in lower blood lead levels (BLLs) over time, epidemiological studies continue to provide evidence of health effects at increasingly lower BLLs [AAP 2016, NTP 2012].

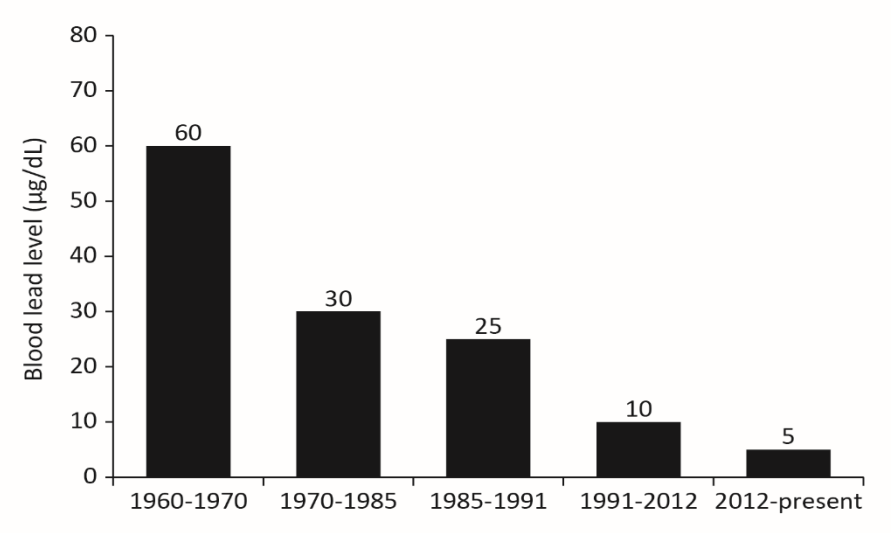

Figure 2. Lowering of BLLs Considered Elevated by CDC Over Time

The National Toxicology Program [2012] concludes that there is sufficient evidence for adverse health effects in children and adults at BLL <5 µg/dL [CDC 2012].

Biologic Guidelines	As new information has emerged about the • Neurological, • Reproductive, and • Possible hypertensive toxicity of lead, and as parameters that are more sensitive are developed, BLLs previously thought to be "safe" have been demonstrated to cause adverse health outcomes. Five micrograms per deciliter (µg/dL) was adopted by CDC in 2012 as the upper reference range value for BLLs in children as an advisory level for environmental and educational intervention [ACCLPP 2012]. • Primary prevention strategies should be designed to keep children's BLLs below 5 µg/dL [ACCLPP 2012]. • Children receiving Medicaid are required to be screened. • No blood lead threshold for adverse health effects has been identified in children, and no BLL above zero is free of all risk. • At lower concentrations of lead in the blood – below 10 µg/dL - children tested for IQ at ages three and five, showed a greater decline in IQ for a rise in blood lead from 1 to 10 µg/dL, than those whose blood lead level went from 10 to 20 µg/dL [Canfield et al. 2003]. Experts now use an upper reference level value of 97.5% of the population distribution for children's blood lead, based on the National Health and Nutrition Examination Survey (NHANES) estimate of the distribution of BLLs in children ages 1-5 years. In 2012-2015, the value to identify children with blood lead levels that are much higher than most children have, is 5 micrograms per deciliter (5 µg/dL) [ACCLPP 2012]. The National Toxicology Program [2012] concludes that there is sufficient evidence for adverse health effects in children and adults at BLL <5 µg/dL [CDC 2012]. The American Conference of Industrial Hygienists (ACGIH) develops Biological Exposure Indices (BEI) as

	guidance values for assessing biological monitoring results in occupational settings by individuals trained in the discipline of industrial hygiene to assist in the control of potential workplace health hazards and for no other use. These values are not fine lines between safe and dangerous concentrations and should not be used by individuals without training in the discipline of industrial hygiene.
Physician Reporting Require-ments	Most states ask or require primary care physicians and/or laboratories to report all BLLs to the appropriate health agency. This is to ensure • Abatement (removal) of the lead source, • Education of the patient, parent/family, • Remediation (corrective) steps are taken, and • Targeting public health activities to areas with highest risk. Physicians should strongly consider consulting a health agency, such as the local health department, or poison control center, in cases of lead toxicity.
Workplace Air	The OSHA Lead Standard applies to all workers in general industries, shipyards, and in construction industries where an employee may be occupationally exposed to lead [OSHA 2012a OSHA 2012b OSHA 2012c]. Action level means employee exposure, without regard to the use of respirators, to an airborne concentration of lead of 30 micrograms per cubic meter of air (30 $\mu g/m^3$) calculated as an 8-hour time-weighted average (TWA). • OSHA set a Permissible Exposure Limit (PEL) for lead in workplace air of 50 $\mu g/m^3$ (8-hour time weighted average). • OSHA mandates periodic determination of BLL for those exposed to air concentrations at or above the action level of 30 $\mu g/m^3$ for more than 30 days per year. • The worker must be notified in writing within 15 days after the receipt of the results or any monitoring performed, and provided with a medical

examination if a BLL is found to be greater than 40 µg/dL.

- The employer is obligated to remove the employee from excessive exposure, with maintenance of seniority and pay, until the employee's BLL falls below 40 µg/dL if a worker's one-time BLL reaches 60 µg/dL (or averages 50 µg/dL or more on three or more tests) in general industries or shipyards, or 50 µg/dL in construction.

The current Code of Federal Regulations standards for lead may be accessed at: http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10030.

https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10641.

https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10318. States can have more protective standards than federal OSHA, e.g., California.

The National Institute of Occupational Safety and Health (NIOSH) at CDC has set a Recommended Exposure Limit (REL) of 50 µg/m^3 for a Time Weighted Average (TWA) of 8 hours to be maintained so that worker blood lead remains <60 µg/dL of whole blood. The REL can be accessed at: https://www.cdc.gov/niosh/npg/npgd0368.html.

ACGIH has set a threshold limit value for a time-weighted average (TLV/TWA) of 50 µg/m^3 for lead in workplace air (except for lead arsenate). This can be accessed at: http://www.acgih.org/

ACGIH has set a Biological Exposure Indices (BEI) for blood lead at 30 µg/dL.

As previously mentioned, ACGIH's BEI and TLV values are intended for use in the practice of industrial hygiene as guidelines or recommendations to assist in the control of potential workplace health hazards and for no other use. These values are not fine lines between safe and dangerous concentrations and should not be used by

	individuals without training in the discipline of industrial hygiene. CDC [2010] recommends a precautionary approach, noting that a BLL ≥5 µg/dL in a pregnant woman indicates that she has or has had exposure to lead well above that for most women of child bearing age in the United States. For occupationally exposed pregnant women, the recommendation is to keep BLLs as low as possible and to remove pregnant women from lead-exposed work areas if BLLs are ≥10 µg/dL [CDC 2010]. CDC/NIOSH reference BLL for adults is 5 µg/dL [CDC 2013h].
Soil	Lead-contaminated soil can pose a risk through direct ingestion, uptake in vegetable gardens, or tracking into homes. • Soil contains lead concentrations less than 50 parts per million (ppm), but soil lead levels in many urban areas exceed 200 ppm [AAP 1993]. • The EPA's standard for lead in bare soil in play areas is 400 ppm by weight and 1200 ppm for non-play areas [EPA 2000a]. This regulation applies to cleanup projects using federal funds. The soil screening level (SSL) for lead represents a conservative estimate for a level that would be protective of public health in residential soils based on an analysis of the direct ingestion pathway for children. This value is for guidance only and is not enforceable.

Drinking Water

The Lead and Copper Rule (also referred to as the LCR) is an EPA regulation to control lead and copper in drinking water. Lead and copper enter drinking water primarily through plumbing materials. Exposure to lead and copper may cause health problems ranging from stomach distress to brain damage.

The LCR was established in 1991, and has undergone various revisions. It has four basic requirements:

1) Require water suppliers to optimize their treatment system to control corrosion in customer's plumbing;
2) Determine tap water levels of lead and copper for customers who have lead service lines or lead-based solder in their plumbing system;
3) Rule out the source water as a source of significant lead levels; and,
4) If lead action levels are exceeded, require the suppliers to educate their customers about lead and suggest actions they can take to reduce their exposure to lead through public notices and public education programs.

The EPA Lead and Copper Rule has set drinking water standards with two levels of protection [EPA 1991; EPA 2000b].

- Action levels for lead of 15 ppb and copper of 1.3 ppm in more than 10% of customer taps sampled. An action level is the level for enforcement.
- The maximum contaminant level goal (MCLG) is zero. This is the level determined to be safe according to toxicological and biomedical considerations, independent of feasibility.

"If a water system, after installing and optimizing corrosion control treatment, continues to fail to meet the lead action level, it must begin replacing the lead service lines under its ownership" [EPA 2007].

Exceeding the action level alone is not a violation of the regulation. Public water systems are assigned a violation when they fail to perform actions required by the

	regulations. This happens after the action level is exceeded [EPA 2000b; EPA 2016b]. The use of lead solder and other lead-containing materials in connecting household plumbing to public water supplies was banned by EPA in June of 1988. • Many older structures, however, still have lead pipe or lead-soldered plumbing internally, which may substantially increase the lead content of water at the tap. • Regulations controlling the lead content of drinking water coolers in schools went into effect in 1989. Residents can buy inexpensive drinking water lead screening kits or hire professionals to test their water. For further information, call the EPA Safe Drinking Water Hotline toll-free at 1-800-426-4791 or visit https://www.epa.gov/safewater/. The U.S. Food and Drug Administration (FDA) level for bottled water is 5 ppb [FDA 2009].
Food	The FDA has set a number of action levels (enforceable) and levels of concern for lead in various food items. These levels are based on FDA calculations of the amount of lead a person can consume without ill affect [FDA 2014, 1995, and 1994]. For example, FDA has set an action level of 0.5 µg/dL for lead in in food products intended for use by infants and children and has banned the use of lead-soldered food cans [FDA 1994].
Paint	White house paint contained up to 50% lead before 1955. Federal law lowered the amount of lead allowable in paint to 1% in 1971. In 1977, the Consumer Products Safety Commission limited the lead in most paints to 0.06% (600 ppm by dry weight). Since 2009, the lead allowable in most paints is now 0.009%. Paint for bridges and marine use may contain greater amounts of lead.

Table 4: Standards and Regulations for Lead [ACCLPP 2012]				
Agency	**Media**			**Level**
ACGIH	Air (workplace)	150 µg/m^3 50 µg/m^3	TLV/TWA guideline for lead arsenate TLV/TWA guideline for other forms of lead	
ACGIH	Blood	30 µg/dL	Advisory; indicates exposure at TLV*	
CDC	Blood	5 µg/dL	Reference range upper value for children's BLL and reference BLL for adults (NIOSH).	
CPSC	Paint	90 ppm (0.009%)	Regulation; by dry weight. New standard for lead in household paint and similar surface coatings in children's products, and some furniture, for adult and children, children's toys, jewelry, etc.	
EPA	Air (ambient)	0.15 µg/m^3	Regulation; NAAQS; 3-month average	
EPA	Soil (residential)	400 ppm (play areas) 1200 ppm (non-play areas)	Soil screening guidance level; requirement for federally funded projects only (40 CFR Part 745, 2001]	
EPA	Water (drinking)	15 µg/L 0 µg/L	Action level for public supplies Non-enforceable goal; MCLG	
FDA	Food	Various	Action levels for various foods; example: lead-soldered food cans now banned	
FDA	Drinking water	5 ppb	Bottled water	

NIOSH	Air (workplace)	50 µg/m^3	REL (non-enforceable)
OSHA	Air (workplace)	50 µg/m^3 30 µg/m^3	Regulation; PEL (8-hour time weighted average) (general industry) Action level (averaged over an 8-hour period)
OSHA	Blood	40 µg/dL 50 µg/dL and 60 µg/dL	Regulation; cause for written notification and medical exam, and return to work after removal Regulation; cause for medical removal from exposure

ACGIH – American Council of Government and Industrial Hygienists
CDC – Centers for Disease Control and Prevention
CPSC – Consumer Products Safety Commission
EPA – Environmental Protection Agency
NIOSH – National Institute of Occupational Safety and Health
OSHA – Occupational Safety and Health Administration
BLL – Blood Lead Levels
MCLG – Maximum Contaminant Level Goal
NAAQS – National Ambient Air Quality Standards
PEL – Permissible Exposure Level
ppm – parts per million
REL – Recommended Exposure Limit
TLV/TWA – Threshold Limit Value/Time Weighted Average
µg/dL – micrograms per deciliter

* Note: BEI and TLV values are intended for use in the practice of industrial hygiene as guidelines or recommendations to assist in the control of potential workplace health hazards and for no other use. These values are not fine lines between safe and dangerous concentrations and should not be used by anyone untrained in the discipline of industrial hygiene.

Key Points	• In 2012, CDC established a reference range upper value of 5 µg/dL for children's BLLs based on the NHANES estimate of 97.5% of the distribution. • Most states have reporting systems for BLLs. • OSHA has set required standards for an action level at 30 µg/m^3 averaged over an 8-hour workday. • EPA has set a standard for lead in the ambient air of 0.15 µg/m^3 averaged over a calendar quarter. • EPA has established 400 ppm for lead in bare soils in play areas and 1,200 ppm for non-play areas for federally funded projects. • EPA's action level for lead in water delivered to users of public drinking water systems is 15 µg/L. • FDA has set various action levels regarding lead in food items, cosmetics and bottled water. • Use of lead-soldered food cans is now banned in the U.S • CPSC has limited the lead content in paint intended for residential use and similar surface coatings in children's products, toys and jewelry to 0.009%.
Progress Check	6. The CDC's reference range upper value of 5 µg/dL for children's blood is A. The BLL below which no effects have been found. B. Also used by OSHA as a level of concern in workers. C. An advisory level for environmental and educational intervention. D. A regulatory level at which children must be immediately removed from any pre-1978 residences. *To review relevant content, see "Biologic Guidelines" in this section.* 7. What is EPA's action level for lead in water delivered to users of public drinking water systems in the United States? A. 0 µg/L.

B. 5 µg/L.
C. 10 µg/L.
D. 15 µg/L.

To review relevant content, see "Biologic Guidelines", "Workplace Air", "Drinking Water", "Food", and "Paint" in this section.

8. What are the OSHA Standards for Lead Levels?

A. Permissible exposure limit (PEL) of lead in the workplace.
B. The frequency and extent of medical monitoring triggered by the action level.
C. Other responsibilities of the employer.
D. All of the above.

To review relevant content, see "Workplace Air" in this section.

9. Which of the following is true regarding U.S. standards and regulations of lead levels?

A. CDC adopted a reference value for lead in children's blood.
B. OSHA set Permissible Exposure Limit (PEL) for lead in workplace air.
C. EPA established drinking water regulation for lead.
D. CPSC set a regulatory limit value for lead in paint.
E. All of the above.
F. None of the above.

To review relevant content, see "Biologic Guidelines", "Workplace Air", "Drinking Water", and "Paint" in this section.

What Is the Biological Fate of Lead in the Body?

Learning Objectives

Upon completion of this section, you will be able to

- Describe how lead is absorbed,
- Describe how lead is distributed in the body, and

	• Identify the half-life of lead in the blood.
Introduction	The absorption and biological fate of lead once it enters the human body depends on a variety of factors. The blood carries only a small fraction of total lead body burden, and serves as the initial receptacle of absorbed lead, distributing it throughout the body, making it available to other tissues. Absorbed lead that is not excreted is exchanged primarily among three compartments: 1. Blood, 2. Mineralizing tissues (bones and teeth), which typically contain the vast majority of the lead body burden, and 3. Soft tissue (liver, kidneys, lungs, brain, spleen, muscles, and heart). These compartments, and the dynamics of the exchange between them, are discussed below.
Lead Absorption	Lead absorption depends on a variety of factors, including particulate size, route of exposure, nutritional status, health, and age of the individual. • Lead absorption can be impacted by route of exposure and is inversely proportional to the exposure particle size. For example, exposure to lead dust (respiratory route) may result in higher absorption than exposure to the equivalent amount of lead from chips (digestive route) of higher lead content paint. • Adults typically absorb up to 20% of ingested inorganic lead after a meal and up to 60-80% on an empty stomach [ATSDR 2010]. • Children absorb about 50% of ingested lead after a meal [ATSDR 2010] and up to 100% on an empty stomach. • Most inhaled lead in the lower respiratory tract is absorbed.

- Most of the lead that enters the body is excreted in urine or through biliary clearance (ultimately, in the feces).

The chemical form of lead or lead compounds entering the body is also a factor for the absorption and biological fate of lead.

- Inorganic lead, the most common form of lead, is not metabolized in the liver.
- Nearly all organic lead that is ingested is absorbed.
- Organic lead compounds (those found in leaded gasoline and additives sold in the United States in the past) are metabolized in the liver.

Lead in the Blood	Although the blood generally carries only a small fraction of total lead body burden, it does serve as the initial receptacle of absorbed lead and distributes lead throughout the body, making it available to other tissues (or for excretion). • The half-life of lead in adult human blood has been estimated as 28 days [Griffin et al. 1975, as cited in ATSDR 2010] to 36 days [Rabinowitz et al. 1976, as cited in ATSDR 2010]. • Approximately 99% of the lead in blood is associated with red blood cells; the remaining 1% resides in blood plasma [Everson and Patterson 1980 as cited in ATSDR 1999; EPA 1986b; DeSilva 1981]. • The higher the lead concentration in the blood, the higher the percentage partitioned to plasma. This relationship is curvilinear — as blood lead levels (BLLs) increase, the high-end plasma level increases more. • On average, it requires slightly more than 1 year for children enrolled in case management with BLLs ≥10 micrograms per deciliter (µg/dL) to decline to <10 µg/dL [Dignam et al. 2008]. The Blood Lead Level is the most widely used measure of lead exposure. These tests, however, do not measure total body burden of lead—they tend to be more reflective of recent or ongoing exposures (see "*Clinical Assessment–Diagnostic Tests and Imaging*" section).
Lead in Mineralizing Tissues (Bones and Teeth)	The bones and teeth of adults contain about 94% of their total lead body burden; in children, that figure is approximately 73% [Barry 1975, as cited in ATSDR 2010]. • Lead in mineralizing tissues is not uniformly distributed. It tends to accumulate in bone regions undergoing the most active calcification at the time of exposure.

- Known calcification rates of bones in childhood and adulthood suggest that lead accumulation will occur predominately in trabecular bone during childhood, and in both cortical and trabecular bone in adulthood [Auf der Heide and Wittmets 1992 as cited in ATSDR 2010].

Two physiological compartments appear to exist for lead in cortical and trabecular bone [ATSDR 2010]:

- Inert component stores lead for decades, and
- Labile component readily exchanges bone lead with the blood.

Under certain circumstances, however, this apparently inert lead will leave the bones and reenter the blood and soft tissue organs.

- Bone-to-blood lead mobilization increases during periods of

  - Advanced age,
  - Broken bones,
  - Chronic disease,
  - Hyperthyroidism,
  - Immobilization (bedridden, etc.),
  - Kidney disease,
  - Lactation [Landrigan et al. 2002b],
  - Menopause,
  - Physiologic stress, and
  - Pregnancy.

  Calcium deficiency exacerbates, or worsens, bone-to-blood lead mobilization in all of the above instances.

- Consequently, the normally inert pool poses a special risk because it is a potential endogenous source of lead that can maintain BLLs long after exposure has ended.

Implications of Biological Fate	Symptoms or health effects can also appear in the absence of significant current exposure because lead

	from past exposures can accumulate in the bones (endogenous source). • In most cases, toxic BLLs reflect a mixture of current exposure to lead and endogenous contribution from previous exposure. • An acute high exposure to lead can lead to high short-term BLLs and cause symptoms of acute lead poisoning. It is important that primary care physicians: • Evaluate a patient with potential lead poisoning, • Examine potential current and past lead exposures, • Look for other factors that affect the biokinetics of lead (such as pregnancy or poor nutrition), and • Rule out lead poisoning in cases of unexplained seizures or coma.
Key Points	• Children absorb a higher percentage of ingested lead than adults. • Once in the bloodstream, lead is primarily distributed among three compartments —blood, mineralizing tissue, and soft tissues. The bones and teeth of adults contain more than 95% of total lead in the body. • In times of stress (particularly pregnancy and lactation), the body can mobilize lead stores, thereby increasing the level of lead in the blood. • The half-life of lead in adult human blood has been estimated as 28 days. • The body accumulates lead over a lifetime and normally releases it very slowly. • Both past and current elevated exposures to lead increase patient risks for adverse health effects from lead.
Progress Check	10. Lead absorption depends on a variety of factors, including: A. Particulate size, route of exposure, and income and age of the parents. B. Nutritional and health status, educational level, and age of the individual.

C. Place of residence, educational level, and income the parents.
D. Particulate size, route of exposure, nutritional status, health, and age of the individual.

To review relevant content, see "Lead in the Blood" in this section.

11. Which of the following answer choices best describes where lead is distributed once it enters the body?

A. Blood, sweat, and tears.
B. Soft tissues and bones only.
C. Blood, mineralizing tissue, and soft tissues.
D. Teeth and long bones only.

To review relevant content, see "Introduction" "Lead in the Blood" and *"Lead in Mineralizing Tissue (Bones and Teeth)" in this section.*

12. What is the approximate half-life of lead in the blood of an adult?

A. Seven days.
B. Twenty-eight days.
C. Three to six months.
D. One year.

To review relevant content, see "Lead in the Blood" in this section.

What Are Possible Health Effects from Lead Exposure?

Learning Objectives

Upon completion of this section, you will be able to

- Describe how lead affects adults and children,
- Describe what is the most sensitive organ system for lead exposure in children, and
- Specify that there is no identified threshold or safe level of lead in blood.

Introduction

Blood lead concentrations have decreased dramatically in U.S. children over the past 4 decades. However, too many children still live in housing with deteriorated lead-based paint and are at risk for lead exposure with resulting lead-associated cognitive impairment and behavioral problems [AAP 2016; ACCLPP 2012].

The Exposure-Disease Model

No matter how toxic, no chemical can harm a person (child, adult, or both) unless *exposure* occurs. After a sufficient level of exposure (dose) to the chemical, biologic uptake, target organ contact, and biologic change can occur, all of which can lead to disease or other effects [ATSDR 2012; ATSDR 2013].

Steps that must occur for an environmental toxicant to cause disease.

- Environmental contamination (potential exposure): the exposure source and how the contaminant disperses in the environment.
- Exposure: For a toxicant to cause disease, exposure must occur. Exposure occurs through an *exposure pathway* between the contaminant in the physical environment and the exposed person.
- Biologic uptake: the process by which the transfer of substances from the environment to plants, animals, and humans occurs.
- Absorbed dose: how much of a toxicant is absorbed after an exposure occurs.
- Biologic changes: the chemical changes causing damage to tissues following a toxic exposure and an absorbed dose.
- Target organ: the organ or organs affected by an exposure to the toxicant. The "critical organ" is the most sensitive organ.
- Clinical disease: physical signs and symptoms resulting from a sufficiently absorbed toxicant dose.

Exposure Pathway

For a toxicant to cause disease, exposure must occur. Exposure occurs through an *exposure pathway* between

the contaminant in the physical environment and the exposed person.

An exposure pathway has five parts.

1. A source of contamination, such as an abandoned mine or industrial emissions.
2. An environmental medium and transport mechanism, such as water or movement through a groundwater aquifer.
3. A point of exposure, such as a private well.
4. A route of exposure, such as
    - eating,
    - drinking,
    - breathing,
    - touching,
    - transplacental exposure, and/or
    - intravenous exposure.
5. A receptor population, such as people potentially or actually exposed.

When all five parts are present, the exposure pathway is termed "a completed exposure pathway" [ATSDR 2005].

Lead serves no useful purpose in the human body. Its presence in the body can lead to toxic effects, regardless of age, gender, or exposure pathway.

The nervous system is the most sensitive organ system for lead exposure in children.

- Lead toxicity can affect every organ system.
- On a molecular level, proposed mechanisms for toxicity involve fundamental biochemical processes. These include lead's ability to inhibit or mimic the actions of calcium (which can affect calcium-dependent or related processes) and to interact with proteins (including those with sulfhydryl, amine, phosphate, and carboxyl groups) [ATSDR 2010].
- Lead's high affinity for sulfhydryl groups makes it particularly toxic to multiple enzyme systems including heme biosynthesis.
- The National Toxicology Program [NTP 2012], and the American Academy of Pediatrics [AAP 2016]

	have concluded that there is sufficient evidence for adverse health effects in children and adults at blood lead levels (BLLs) <5 micrograms per deciliter (µg/dL). • "There is no identified threshold or safe level of lead in blood" [AAP 2016]. • It is important to control or eliminate all sources of lead in children's environments to prevent exposure. The sections below describe specific health effects for population groups and major organ systems and functions. Some of the information in the population group is repeated in the organ system specific sections.
Children	From 2007 to 2010, approximately 2.6% of preschool children in the United States had a blood lead concentration 5 µg/dL (≥ 50 ppb), which represents about 535,000 U.S. children 1 to 5 years of age [AAP 2016]. • In children, there is no identified threshold or "safe" blood lead level below which no risk of poor developmental or intellectual function is expected. Data from the NTP [2012] showed that the effect of concurrent BLLs on IQ may be greater than currently believed. Lead inhibits the bodies of growing children from absorbing iron, zinc and calcium, minerals essential to proper brain and nerve development. • Children often show no signs of lead toxicity until they are in school, even as late as middle school, as expectations for academic achievement increase. • The practicing health care provider can distinguish overt clinical symptoms and health effects that come with high exposure levels on an individual basis. • However, lack of overt symptoms does not mean "no adverse impact." • Lower levels of exposure have been shown to have many subtle adverse health effects.

- Medical research has established a connection between early childhood lead exposure and future criminal activity, especially of a violent nature [Wright et al. 2008; Needleman et al. 2002; Needleman et al. 1996]. Numerous studies link elevated bone or blood lead levels with aggression, destructive and delinquent behavior, attention deficit hyperactivity disorder and criminal behavior [Wright et al. 2008; Braun et al. 2006; Needleman et al. 2004; Needleman et al. 2002; Nevin 2000; Bellinger et al. 1994].
- Acute exposure to very high levels of lead may produce encephalopathy in children.

While the immediate health effect of concern in children is typically neurological, it is important to remember that childhood lead poisoning can lead to health effects later in life, including

- ADHD, delayed learning, and lower IQ (which will impact school performance),
- Developmental problems with their offspring,
- Hypertension,
- Renal effects, and
- Reproductive problems.

Adverse health effects occur in children at BLLs <5 µg/dL [AAP 2016; NTP 2012]. The most common include

- Attention-related behavioral problems,
- Decreased cognitive performance, and
- Greater incidence of problem behaviors.

In pregnant women, there is sufficient evidence that maternal BLLs <5 µg/dL are associated with reduced fetal growth or lower birth weight. BLLs <10 µg/dL are associated with decreased postnatal growth, and concurrent BLLs <10 µg/dL in children are associated with

- Reduced head circumference,
- Height, or

	• Other indicators of growth and delayed puberty [NTP 2012]. There is inadequate evidence for an association between BLLs <10 µg/dL and cardiovascular effects in children of any age, or renal function in children <12 years of age [NTP 2012]. BLLs in this range may not predict poor outcomes for individual children, but are important predictors at the population level. It must be emphasized that **there is no known blood lead level for children** without some level of risk for some of the adverse neurological effects of lead in children.
Adults	The neurological effects in an adult exposed to lead as an adult can be neuropathy, and may be different from those of an adult exposed to lead as a child when the brain was developing (more information for adults in following sections). • Childhood neurological effects, including attention deficit hyperactivity disorder (ADHD), may persist into adulthood. • Lead-exposed adults may also experience many of the neurological symptoms experienced by children, but shown at higher blood lead levels. Other effects are reduced sperm count and hypertension [NTP 2012]. However, sufficient evidence shows that BLLs <5 µg/dL are associated with decreased renal function and that BLLs <10 µg/dL are associated with increased blood pressure and hypertension [NTP 2012].

Pregnant Women	Sufficient evidence shows that maternal BLLs <5 µg/dL are associated with reduced fetal growth or lower birth weight [NTP 2012]. Pregnant women who were lead-exposed as adults may also experience many of the neurological symptoms experienced by children, although at higher blood lead levels. Some women may develop eclampsia and pre-eclampsia with pregnancy. Maternal blood lead levels may be important predictors of the risk of developing eclampsia and pre-eclampsia [NTP 2012]. There is sufficient evidence showing that BLLs <5 µg/dL are associated with decreased renal function and that BLLs <10 µg/dL are associated with increased blood pressure and hypertension [NTP 2012].

Neurological Effects	Lead exposure has been linked with various types of brain damage. These include • Problems with thinking (cognition); • Difficulties with organizing actions, decisions, and behaviors (executive functions); • Abnormal social behavior (including aggression); and • Difficulties in coordinating fine movements, such as picking up small objects (fine motor control) [Cecil et al. 2008]. Sufficient evidence in children shows that BLLs <5 µg/dL are associated with increased diagnosis of attention-related behavioral problems, greater incidence of problem behaviors, and decreased cognitive performance. This is indicated by • Decreased IQ, • Lower academic achievement, and • Reductions in specific cognitive measures [NTP 2012]. Lead causes activation of protein kinase C (PKC) and binds to PKC more avidly than calcium (its physiologic activator). This creates problems with neurotransmitter release. Alteration of PKC function also affects second-messenger systems within the cell which may lead to future changes in gene expression and protein synthesis. A large body of evidence associates a reduction in IQ performance and other neuropsychological defects with BLLs <10 µg/dL, including reduced hearing [Landrigan and Etzel 2014; NTP 2012; ATSDR 2010; Lanphear et al. 2005]. • Neurological adverse effects of lead in children have been documented at exposure levels once thought to cause no harmful effects, including those <10 µg/dL [Canfield 2003; CDC 1997a] and <5 µg/dL [NTP 2012; Lanphear et al. 2005]. • Low doses of lead can cause a broad range of functional problems such as loss of self-control, shortened attention span and a host of learning

disorders that often cause lead-exposed children to perform poorly in school and ultimately to drop out [Bellinger 2008a; Bellinger 2008b; Chen et al. 2007; Wilson et al. 2006; Lanphear et al. 2005].
- Because otherwise asymptomatic individuals may experience neurological effects from lead exposure, clinicians should have a high index of suspicion for lead exposure, especially in the case of children with developmental delays.

Children suffer neurological effects from lead at much lower blood lead levels than adults.

- Subclinical neurological effects may occur at lower BLLs — at or below the regulatory standard of 10 µg/dL, in some cases — and it may not be possible to detect them on clinical examination at the time of the exposure or peak BLLs. Children often show no signs of lead toxicity until they are in school, even as late as middle school, when expectations for academic achievement increase.
- Some studies have found, for example, that for every 10 µg/dL increase in BLLs, children's IQ was found to be lowered by 4 to 7 points [Winneke et al. 1990 as cited in AAP 1993; Fulton et al. 1987; Landsdown et al. 1986; Hawk et al. 1986; Schroeder et al. 1985; Yule et al. 1981].
- Evidence shows that ADHD and hearing impairment in children increase with increasing BLLs, and that lead exposure may disrupt balance and impair peripheral nerve function [ATSDR 2010].

In children, acute exposures leading to very high blood lead levels (> 70 µg/dL), may produce encephalopathy and other accompanying signs of

- Ataxia,
- Coma,
- Convulsions,
- Death,
- Hyperirritability, and
- Stupor.

The BLLs associated with encephalopathy in children vary from study to study, but BLLs of 70-80 µg/dL or greater appear to indicate a serious risk. Even without encephalopathy symptoms, these levels are associated with increased incidences of lasting neurological and behavioral damage [ATSDR 2010].

In adults, lead encephalopathy may occur at extremely high BLLs, *e.g.*, 460 µg/dL [Kehoe 1961 as cited in ATSDR 2010].

- Precursors of encephalopathy may occur at lower BLLs, such as
    - Dullness,
    - Irritability,
    - Loss of memory,
    - Muscular tremor, and
    - Poor attention span.

Less severe neurological and behavioral effects have been documented in lead-exposed workers with BLLs ranging from 40 to 120 µg/dL [ATSDR 2010]. These effects include

- Decreased libido,
- Depression/mood changes,
- Diminished cognitive performance,
- Diminished hand dexterity,
- Diminished reaction time,
- Diminished visual motor performance,
- Dizziness,
- Fatigue,
- Forgetfulness,
- Headache,
- Impaired concentration,
- Impotence,
- Increased nervousness,
- Irritability,
- Lethargy,
- Malaise,
- Paresthesia,
- Reduced IQ scores, and

- Weakness.

Late signs of lead intoxication such as slowed nerve conduction and forearm extensor weakness (wrist drop) are more typical signs in workers chronically exposed to high lead levels.

Childhood lead exposure is associated with region-specific reductions in adult gray matter volume. Affected regions include the portions of the prefrontal cortex and anterior cingulate cortex (ACC) responsible for executive functions, mood regulation, and decision-making [Cecil et al. 2008]. These neuroanatomical findings were more pronounced for males, suggesting that lead-related atrophic changes have a disparate impact across sexes. This analysis suggests that adverse cognitive and behavioral outcomes may be related to lead's effect on brain development producing persistent alterations in structure. Using a simple model, Cecil et al. [2008] found that blood lead concentration mediates brain volume and fine motor function. As shown in Figure 3 (model uses composite data to represent areas of significant volume loss overlaid with mean childhood blood lead concentrations), lead exposure appears to have a larger effect on brain volume loss in men than in women, which might help to explain the higher incidence of antisocial behaviors among men than women. Overall, these findings may explain why children and adults who have a history of lead exposure have behavioral and other problems, and support ongoing efforts to reduce childhood lead exposure in the United States and other countries. More research is needed to support and expand upon these findings.

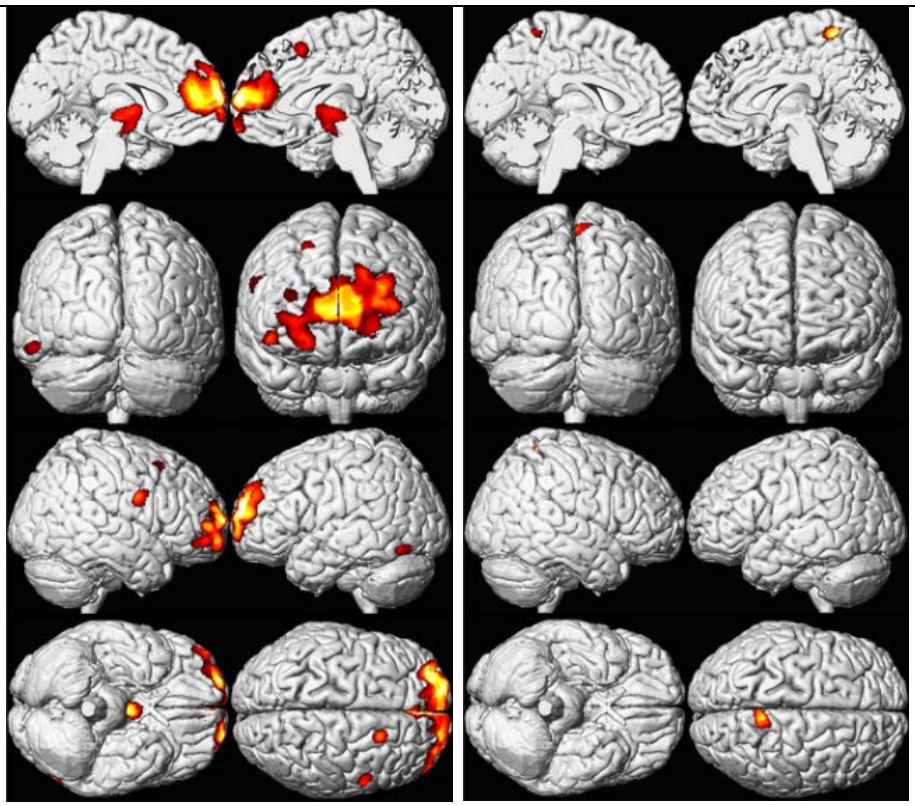

Figure 3. Sex Influences Brain Volume Loss Associated with Lead Exposure (Males left and Females right) [Cecil et al 2008].

A composite representation of regions with significant volume loss for Cincinnati Lead Study (CLS) participants associated with mean childhood blood lead concentrations is shown in red and yellow overlaid upon a standard brain template for males (n=83) and females (n=74). The model is adjusted for age at time of scanning and birth weight, using a cluster threshold of 700 voxels and unadjusted; $\leq$0.001 [Cecil et al 2008].

Renal Effects

The lowest blood lead level at which lead has an adverse effect on the kidney remains unknown.

Many studies show a strong association between lead exposure and renal effects [NTP 2012; ATSDR 2010]. Latent effects of childhood lead exposure include chronic advanced renal disease or a reduction in renal function in adulthood.

Impaired renal function and kidney disease are reported at high levels of lead exposure, as estimated mainly through concentrations of serum creatinine (SCr) and rates of creatinine clearance from the body. However, a change in the serum creatinine is not sensitive for an early diagnosis of acute kidney injury [Han et al. 2008].

Urinary levels of matrix metalloproteinase-9 (MMP-9), *N*-acetyl-β-D-glucosaminidase (NAG), and kidney injury molecule-1 (KIM-1) have been used as biomarkers for the detection of acute kidney injury [Han et al. 2008].

- "Combining all three biomarkers achieved a perfect score diagnosing acute kidney injury" [Han et al 2008].
- Urinary biomarkers allow diagnosis of acute kidney injury earlier than a rise in serum creatinine.

BLLs of 1.5 µg/dL due to chronic low-level lead exposure reduces kidney function in adolescents. Doubling the blood lead level was associated with significant reduction in the glomerular filtration rate. "Chronic, low-level lead exposure is an important risk factor for chronic renal failure" [Landrigan and Etzel 2014].

Some population-based studies show accelerated increases in serum creatinine or reductions in creatinine clearance at BLLs below 60 µg/dL [Tsaih et al. 2004; Kim et al. 1996; Hu et al. 1994; Staessen et al. 1992].

- There is sufficient evidence that blood BLLs <5 µg/dL are associated with adverse effects on kidney function in adults (increased risk of chronic kidney disease, and decreases in the estimated glomerular filtration rate and creatinine clearance, markers of kidney function) [NTP 2012].
- At <10 µg/dL there is increased blood pressure and increased risk of hypertension in adults [NTP 2012]. However, continued or repetitive exposures can cause toxic stress on the kidney that, if unrelieved, may develop into chronic and often irreversible lead nephropathy (*e.g.*, chronic interstitial nephritis).
- Lead nephrotoxicity is characterized by

- Proximal tubular nephropathy,
- Glomerular sclerosis, and
- Interstitial fibrosis [Zalups and Diamond 2004; Goyer 1985; Loghman-Adham 1997].

- Most documented renal effects for occupational workers have been observed in acute high-dose exposures and high-to-moderate chronic exposures (BLL >60 µg/dL).

Some patients show Fanconi-like syndrome [Landrigan and Etzel 2014] (Fanconi syndrome consists of multiple defects in renal proximal tubular reabsorption, causing glucosuria, phosphaturia, generalized aminoaciduria, and bicarbonate wasting).

This nephropathy is most commonly reported in children, and even though it is reversible, should be treated to prevent further kidney damage. Treatment of acute lead nephropathy in children appears to prevent the progression to chronic interstitial nephritis [Weeden et al. 1986].

It should be noted that lead-induced end-stage renal disease is a relatively rare occurrence in the U.S. population today.

- Renal disease can be asymptomatic until the late stages and may not be detected unless appropriate tests are performed.
- Because past or ongoing excessive lead exposure may also be a causative agent in kidney disease associated with essential hypertension [ATSDR 2010], primary care providers should closely follow the renal function of patients with hypertension and a history of lead exposure (See the "*Hypertension Effects"* section).

In patients with lead nephropathy, uric acid excretion is substantially lower than would be expected on the basis of their glomerular filtration rate (GFR). Studies have suggested enhanced reabsorption and reduced secretion of uric acid, explaining a high prevalence of gout [Kathuria et al. 2016]. In one study, more than 50% of

	patients suffering from lead nephropathy also suffered from gout [Bennett 1985 as cited in ATSDR 2010].
Hematological Effects	Lead inhibits the body's ability to make hemoglobin by interfering with several enzymatic steps in the heme synthesis pathway. • Specifically, lead decreases heme biosynthesis by inhibiting *d*-aminolevulinic acid dehydratase (ALAD) and ferrochelatase (FECH) activity. • Ferrochelatase, which catalyzes the insertion of iron into protoporphyrin IX, is quite sensitive to lead. • A decrease in the activity of this enzyme results in an increase of the substrate erythrocyte protoporphyrin (EP) in the red blood cells (also found in the form of ZPP—bound to zinc rather than to iron). • Also associated with lead exposure is an increase in blood and plasma d-aminolevulinic acid (ALA) and free erythrocyte protoporphyrins (FEP) [EPA 1986, as cited in ATSDR 2010]. EPA estimated the threshold BLL for a decrease in hemoglobin to be 50 µg/dL for occupationally exposed adults and approximately 40 µg/dL for children, although other studies have indicated a lower threshold (*e.g.*, 25 µg/dL) for children [EPA 1986 as cited in ATSDR 2010]. Lead induced anemia in adults is not a common occurrence. Recent data indicate that the EP level, which has been used in the past to screen for lead toxicity, is not sufficiently sensitive at lower levels of blood lead and is therefore not as useful as a screening test as previously thought (see "*Blood Lead Levels (BLLs)*" in the "*Clinical Assessment—Diagnostic Tests and Imaging*" section for further discussion of EP testing.). Lead can induce 2 types of anemia, often accompanied by basophilic stippling of the erythrocytes [ATSDR 2010].

- Acute high-level lead exposure has been associated with hemolytic anemia.
- Frank anemia is not an early manifestation of lead exposure, and is evident only when the BLL is significantly elevated for prolonged periods.
- In chronic lead exposure, lead induces anemia by both interfering with heme biosynthesis and by diminishing red blood cell survival.
- The anemia of lead intoxication is hypochromic and normo - or microcytic with associated reticulocytosis.

The heme synthesis pathway, on which lead has an effect, is involved in many other processes in the body, including

- Endocrine,
- Hepatic,
- Neural, and
- Renal.

The impact of biochemical and enzyme changes (and their possible sequelae) that may exist at lower blood lead levels remains unclear.

Endocrine Effects	Studies of children with high lead exposure have found that a strong inverse correlation exists between BLLs and vitamin D levels. • Lead impedes vitamin D conversion into its hormonal form, 1, 25-dihydroxyvitamin D, which is largely responsible for the maintenance of extra- and intra-cellular calcium homeostasis. • Diminished 1, 25-dihydroxyvitamin D, in turn, may impair cell growth, maturation, and tooth and bone development. • In general, these adverse effects seem to be restricted to children with chronically high BLLs (most striking in children with BLLs >62 µg/dL) and chronic nutritional deficiency, especially with regard to calcium, phosphorous, and vitamin D [Koo et al. 1991 as cited in ATSDR 2010]. Lead appears to have a minimal, if any, effect on thyroid function.
Gastrointes-tinal Effects	In severe cases of lead poisoning, children or adults may present with severe cramping abdominal pain (colic-like pain), which may be mistaken for an acute abdomen or appendicitis. Lead colic is a symptom of chronic lead poisoning and is associated with obstinate constipation.

Cardiovascular Effects	A few population studies have shown a possible connection between lead exposure and other cardiovascular disorders including • Ischemic coronary heart disease, • Cerebrovascular accidents, and • Peripheral vascular disease [Vaziri and Gonick, 2008]. Several epidemiological and clinical studies have found a link between chronic lead exposure and elevated blood pressure [Vaziri and Gonick, 2008]. Hypertension is a complex condition with many different causes and risk factors, including family history, age, weight, diet, and exercise habits. • Lead exposure is one factor of many that may contribute to the onset and development of hypertension. • Although low to moderate lead level exposures (BLLs <30 µg/dL) show only a low degree of association with hypertension, higher exposures (primarily seen in occupational settings) increase the risk for hypertensive heart disease and cerebrovascular disease as latent effects. • One study found that adults who experienced lead poisoning as children had a significantly higher risk of hypertension 50 years later (relative to control adults without childhood lead exposure) [Hu 1991 as cited in ATSDR 2010]. The association has been shown in population-based studies with BLLs below 10 µg/dL. Data supports an association between lead exposure and elevations in blood pressure [Schwartz 1995 as cited in ATSDR 2010; Hu et al. 1996; Korrick et al. 1999; Victery et al. 1988].

Reproductive Effects	Reproductive effects examined in the literature include • Sperm count, • Fertility, and • Pregnancy outcomes. While several studies have implicated lead as contributing to reproductive and developmental effects, these effects have not been well-established at low exposure levels. *Male Reproductive Effects* Recent reproductive function studies in humans suggest that current occupational exposures may decrease sperm count totals and increase abnormal sperm frequencies [NTP 2012]. • In men, there is sufficient evidence that BLLs ≥15 µg/dL are associated with adverse effects on sperm or semen. • It is unclear how long these effects may last in humans after lead exposure ceases. *Fertility* There is sufficient evidence that BLLs <10 µg/dL show adverse health effects on reproduction in adult women, and BLLs ≥20 µg/dL are associated with delayed conception time [NTP 2012]. *Pregnancy Outcomes* Prenatal lead exposure has known influences on maternal health and infant birth and neurodevelopmental outcomes [CDC 2010]. Recent National Health and Nutrition Examination Survey (NHANES) estimates suggest that almost 1% of women of childbearing age (15-44 years) have BLLs greater than or equal to 5 µg/dL [CDC 2010]. As documented in the CDC guidelines for the identification and management of lead exposure in pregnant and lactating women

(https://www.cdc.gov/nceh/lead/publications/LeadandPregnancy2010.pdf), there is evidence that maternal lead exposure during pregnancy can cause fetal lead exposure and can adversely affect both maternal and child health across a wide range of maternal exposure levels.

There is consistent evidence that the risk for spontaneous abortion is increased by maternal exposure to high levels of lead (*e.g.,* occupational exposures) [Hertz-Picciotto 2000].

Borja-Aburto [1999] showed a statistically significant dose-response relationship between maternal BLLs and risk for spontaneous abortion at lower levels of exposure (0 to 30 µg/dL).

The previous lack of evidence for an association at these low-to-moderate BLLs may be due to methodologic deficiencies in these studies, such as small sample sizes, lack of control for confounding, problems in case ascertainment, and/or limitations in exposure assessment [Hertz-Piccioto 2000].

- The strongest evidence to date is a prospective study of pregnant women in Mexico City.
- This study addressed most of the deficiencies of the prior studies and demonstrated a statistically significant dose-response relationship between maternal BLLs (average 11.0 µg/dL) and risk for spontaneous abortion [Borja-Aburto et al. 1999].

There is also limited evidence that maternal BLLs <10 µg/dL are associated with preterm birth and spontaneous abortion [NTP 2012].

Developmental Effects	Developmental effects examined in the literature include pregnancy outcomes (*e.g.*, premature births and low birth weights), congenital abnormalities, and post-birth effects on growth or neurological development. • Increasing evidence indicates that lead, which readily crosses the placenta, adversely affects fetal viability as well as fetal and early childhood development. • Prenatal exposure to low lead levels (*e.g.*, maternal BLLs of 14 µg/dL) may increase the risk of reduced birth weight and premature birth [ATSDR 2010]. • Lead is an animal teratogen, but the available data are inadequate to establish the presence or absence of an association between maternal lead exposure and major congenital anomalies [CDC 2010]. In a retrospective study, a higher proportion of learning disabilities were found among school-aged children with biological parents who had lead poisoning as children 50 years previously [Hu 1991].

Other Potential Effects	*Lower Bone Mineral Density (BMD)* Lead has been linked to problems with the development and health of bones. At high levels, lead can result in slowed growth in children. There is a growing body of scientific literature that supports a role of lead exposure in the development of osteoporosis. Rat studies have found that lead exposure is associated with decreased bone mineral density (BMD). However, human studies are limited. Lead-exposed animals had decreased bone mass that resulted in bones that were more susceptible to fracture. Lead decreased osteoblastic cell numbers leading to a depression of bone formation. Accompanying this, lead exposure elevated sclerostin protein levels in the skeleton, and correspondingly reduced levels of β-catenin and Runx2 in stromal precursor cells. Lead also increased skeletal expression of peroxisome proliferator-activated receptor-γ (PPAR-γ). These results indicate a shift in mesenchymal differentiation wherein lead promoted enhanced adipogenesis and decreased osteoblastogenesis. Substantial differences in bone marrow composition were observed, highlighted by an increase in adipocytes [Beier et al. 2013]. Human studies have shown both positive associations between BMD and blood lead levels in children (i.e., the higher the BMD, the higher the blood lead level) [Campbell et al. 2004] and negative [associations] in adults [Campbell and Auinger 2007; Nash et al. 2004], but these results have not allowed inferences about the likely causal direction of this relation [Theppeang et al. 2008]. Children with high lead exposure (mean, 23.6 µg/dL BLL), had a significantly higher BMD than did children with low lead exposure (mean, 6.5 µg/dL BLL). This may reflect a true phenomenon because lead exposure has been reported to accelerate bony maturation by inhibiting the effects of parathyroid hormone–related peptide. Accelerated maturation of bone may ultimately

result in a lower peak BMD being achieved in young adulthood, thus predisposing to osteoporosis in later life.

Future studies need to investigate this proposed model [Campbell et al. 2004].

"There could be potential effect modification by BMD on the relations between blood and bone lead levels, an analysis directly relevant to hypotheses regarding BMD and release of lead from bone. A growing literature suggests that genetic polymorphisms may modify the toxicokinetics of lead in bone and blood" (i.e., VDR, APOE) [Theppeang et al. 2008].

Analysis of NHANES III data showed a significant inverse association between lead exposure and BMD, but because of NHANES's cross sectional design, caution should be taken in drawing conclusions from these findings alone.

Dental Health

Researchers are currently investigating the impacts of lead on dental health. One study found pre- and perinatal exposure to lead increased prevalence of caries in rat pups by almost 40% [Watson et al. 1997].

Cancer

EPA has classified elemental lead and inorganic lead compounds as Group 2B: probable human carcinogens, revised in 2011 [EPA 2013b]. This classification is based in part on animal studies, which have been criticized because the doses of lead administered were extremely high.

The NTP [2004] classified lead and lead compounds as "reasonably anticipated to be a carcinogen".

Key Points

- Adverse health effects may occur in children and adults at BLLs <5 µg/dL.
- In children, health effects generally occur at lower BLLs than in adults.

- There is no identified threshold or safe level of lead in blood.
- The nervous system is the most sensitive organ system for lead exposure in children.
- The developing nervous system of a child can be affected adversely at BLLs of $\leq$5 µg/dL. Subclinical effects may be present, but may not be detectable during clinical examination.
- There is a wide range of neurological effects associated with lead exposure, some of which may be irreversible.
- Lead exposure can lead to renal effects such as Fanconi-like syndromes, chronic nephropathy, and gout.
- Most lead-associated renal effects or diseases result from ongoing chronic exposure, present high acute exposure, or as latent effects from past chronic lead exposure.
- Lead inhibits several enzymes critical to the synthesis of heme, causing a decrease in blood hemoglobin.
- Lead interferes with a hormonal form of vitamin D which affects multiple processes in the body, including cell maturation and skeletal growth.
- Lead exposure may lead to increased risk for hypertension and its sequelae.
- Evidence suggests an association between lead exposure and certain reproductive and developmental outcomes.
- Maternal blood lead, from exogenous and endogenous sources, can cross the placenta and pose a risk to the fetus.
- Other potential health effects of lead are currently being studied.

Progress Check

13. How do lead's effects **DIFFER** between children and adults?

    A. Effects in children are more likely to be reversible.
    B. Adults suffer more neurological damage.
    C. Children are less likely to become anemic.

D. Children suffer neurological effects from lead at much lower blood lead levels than adults.

To review relevant content, see "Children", "Adults" "Neurological Effects", "Hematological Effects" and "Other Potential Effects" in this section.

14. Lead toxicity can affect

A. The kidneys.
B. IQ and neurological development in children.
C. Sperm count.
D. All of the above.

To review relevant content, see "Neurological Effects," "Children," "Renal Effects," and "Reproductive Effects" in this section.

15. What is the most sensitive organ system for lead exposure in children?

A. Skeletal system (Long bones and teeth).
B. Respiratory system.
C. Nervous system.
D. Renal system.

To review relevant content, see "Introduction", "Children", "Adults" and "Neurological System" in this section.

16. What is the identified threshold or safe level of lead in blood?

A. 15 µg/dL.
B. 10 µg/dL.
C. 5 µg/dL.
D. There is no identified threshold or safe level of lead in blood.

To review relevant content, see "Introduction" and "Children" and "Neurological Effects" in this section.

Clinical Assessment – Exposure History

Learning Objectives	Upon completion of this section, you will be able to • Describe how to take a screening exposure history for lead exposure, and • Identify lead exposure-related questions to ask during a child visit.
Introduction	Most environmental and occupational diseases either manifest as common medical problems or have nonspecific symptoms. Unfortunately, hazardous exposures rarely enter into the clinician's differential diagnosis. As a result, clinicians may miss the opportunity to make correct diagnoses that might influence the course of disease. A correct diagnosis may help stop exposure and might prevent disease in others by avoiding exposure [ATSDR 2015]. What can a clinician do to improve recognition of disease related to current or past exposures? • First, one must be suspicious and think about the possibility of environmental and occupational factors of disease. • Next, one needs to incorporate an exposure history questionnaire into clinical practice. *ATSDR Case Study in Environmental Medicine: Taking an Exposure History* https://www.atsdr.cdc.gov/csem/csem.asp?csem=33&po=0 illustrates the principles and practices involved in the development of a differential diagnosis that includes possible hazardous exposure related etiologies. Taking an exposure history may enable physicians to • Make more accurate diagnoses, • Influence the course of disease by stopping current exposure,

- Prevent disease in others by avoiding future exposure, and
- Prompt workplace evaluations and the protection of workers.

In the past, the Centers for Disease Control and Prevention (CDC) emphasized primary prevention, but also recommended screening blood lead levels (BLLs) in children to alert policymakers and others of potential lead contamination in communities.

Generally, sources of lead exposure were only identified and remediated after a child was identified with an elevated BLL, which is now a practice considered ineffective [ACCLPP 2012].

The strategy of identifying lead poisoning or elevated blood lead levels (BLLs) relied on detection in the child, relegating the child to the function of the proverbial 'canary in the coal mine' for

- Poor/contaminated housing,
- Contaminated water, and/or
- Tainted consumer products.

This strategy, which relies on identifying extant elevated BLLs, does not prevent the damage already incurred. Chelating agents can be used to treat overt lead poisoning, and possibly reduce the case fatality rate and other severe effects. However, chelating agents are not benign and can cause adverse health effects, especially when used by someone without expertise and experience treating lead poisoned patients. These agents have been demonstrated not to improve IQ or behavioral consequences of lead exposure [ACCLPP 2012]. Therefore, primary prevention is the most important and significant strategy [ACCLPP 2012].

The first step in evaluating a possibly lead-related health concern in a child is to take an environmental pediatric exposure history.

Screen all immigrant, refugee, and internationally-adopted children when they arrive in the United States,

	and for children <6 years old again 6 months after resettlement.
Screening Questions	The clinical setting allows little time for an extensive environmental pediatric exposure history. However, initial and subsequent well-child visits offer opportunities to provide parents and caregivers with educational materials on preventing exposures and actions to take if an exposure occurs. CDC [2012] recommends using screening questions. Written checklists completed by parents may be used to facilitate obtaining an exposure history. Examples of these checklists are the National Environmental Education Foundation's [NEEF] Pediatric Environmental History (0-18 Years of Age). *The Screening Environmental History*, and *Additional Categories and Questions to Supplement The Screening Environmental History*, 2005. Also available in Spanish. https://www.neefusa.org/resource/pediatric-environmental-history *ATSDR Case Study in Environmental History: Taking a Pediatric Exposure History* https://www.atsdr.cdc.gov/csem/csem.asp?csem=26&po=0 For a sick child whose illness might be environmentally related, the physician should consider an environmental agent as potentially related to the child's current illness, particularly when the illness does not follow a usual pattern or when more than one family member or a schoolmate is affected. Physicians should take two environmental medicine actions for every well-child who presents to an office or a clinic. 1. A routine screening history for potential environmental exposures.

2. Age-appropriate risk-based screening for lead poisoning, using the CDC's lead poisoning prevention guidelines [CDC 2012].

Table 5. Screening Questions for Children's Lead Exposure History
[modified from ATSDR 2013]

Any Age - First Visit	Where does your child live and spend most of his/her time? • Home, day care, school, and, • For working adolescents, the job setting may have unique environmental hazards. What is the age and condition of your home? • If the home was built prior to 1978, discuss risks of lead exposure from higher lead content paint. • If parents are unsure of the age, they can test paint with an instant lead paint tester from a hardware store. Are renovations planned or in progress? • If a parent is planning renovation, advise how to avoid higher lead content paint exposure. • If paint is old, peeling, or in poor repair, the parent should consider using a certified contractor. Does anyone in the family smoke? Is there exposure to second hand or third hand (residual tobacco) smoke (SHS & THS)? What are the occupations and hobbies of adults in the household? Is there an occupational exposure that could affect children's health? Is there a chance of take-home contamination from work-related toxicants on

	• Clothing, • Hair, • Skin, or • Shoes? Do you have concerns about environmental hazards in your home or in the surrounding neighborhood? • Lead in drinking water (check source of drinking water). • Lead in the ground or play areas. • Exposure to hazardous waste sites. Do you take herbal remedies or Ayurvedic (a system of health care native to the Indian subcontinent) medications? If so, which ones? Do you give any of these to your children? Do you use skin creams that could contain paints, pigments, or heavy metals? Do you use any of these on your children? Some folk remedy creams or cosmetics may contain lead. Other questions of interest: • Condition of household pets. • Past living conditions (international background is important). • Siblings or playmates diagnosed with lead poisoning. • Use of imported or glazed ceramics. Assess the nutritional status, diet, and dietary behaviors of young children.

Well Baby Visits	Are you breastfeeding? • If no, are you using water to mix with the formula? • If using water to mix with the formula, what water will you be using (tap water, bottled water, well water, etc.)? • If tap water, is it from the municipal water system? What type of water service delivery and home plumbing pipes are used (galvanized, etc.)? If well water, have you had it tested for the presence of contaminants, such as bacteria, lead, and nitrates?
Well Toddler and Young School-age Child Visit	Have there been any changes in your home surroundings or jobs? Where does the child spend most of his/her time?
Well Adolescent Visit	Does the adolescent work? If yes, what is the type of work? Does the work expose the adolescent to toxic chemicals, fumes, or dust, or does it involve excessive musculoskeletal stress or work with slicing machines? Is use of heavy or industrial machinery involved in the work? Is the adolescent involved in hobbies that involve lead (leaded glass, fishing gear (weights), home reloading of shotgun cartridges)? Does the adolescent consume illicit drugs or used them in the past? Examples: “huffing” (with intent to alter mood) of products that may contain or be contaminated with lead? Alcohol use (ask about source and storage of alcohol). Does the adolescent smoke or vape? Is there exposure to second hand smoke (SHS)?

Sick Child Visit - Temporal Relationship	In order to establish that lead exposure is the cause of an illness, it is necessary to ask if the exposure to the substance of concern occurred before the onset of the health condition. Timing and duration of exposure can be important in determining whether a negative health effect may result. If the exposure is known, it is important to ask how long and how often the child was exposed to lead (daily, weekly, monthly, etc.). It is also important to ask about the amount or concentration (how much).
Sick Child Visit - Are Others Affected?	Others similarly affected can point to a possible lead exposure-related cause at home, at child care, at school, or the workplace. For public health reporting purposes, the appropriate authorities must be notified if an illness is found to be related to a lead environmental exposure.
Sick Child Visit - Linking Exposure to Illness	After completing the screening exposure history and asking more specific exposure-related questions, the physician should then answer these questions to determine whether the illness might be lead exposure-related. • What is the child's specific health condition? • Is lead known to cause this type of health problem? • If so, what is the weight of scientific evidence linking that health condition to lead? • Did any other exposures occur that might be related to the identified signs and symptoms? If the answers to these questions, previous questions and the physical and laboratory findings point to a link between an illness and an exposure, the physician can consult with a specialist in pediatric environmental medicine as needed (see http://www.pehsu.net/).
Key Points	• Clinicians must be suspicious and think about the possibility of environmental and occupational factors of disease. • Clinicians need to incorporate an exposure history questionnaire into clinical practice. • The initial well-child visit presents an excellent opportunity to ask basic screening questions about

		common environmental hazards, including lead exposure. • For a sick child, the physician should consider an environmental agent as potentially related to the child's current illness, particularly when the illness does not follow a usual pattern or when more than one family member or a schoolmate is affected. • It is important to incorporate age-appropriate questions about lead hazards during other routine office visits. • Screen all immigrant, refugee, and internationally-adopted children when they arrive in the United States, and for children <6 years old again 6 months after resettlement. • Assess the nutritional status, diet, and dietary behaviors of young children.
Progress Check	17.	Which of the following statement(s) about taking screening exposure histories for children is/are true? A. It is necessary to ask all the screening questions at every visit. B. The physician should perform age-appropriate risk-based screening for lead poisoning during an initial well-child visit. C. There is no need to ask age-specific screening questions because all children are exposed equally. D. All of the above. *To review relevant content, see "Introduction", "Screening Questions", "Sick Child Visit-Temporal Relationship", "Sick Child Visit-Are Others Affected?" and "Sick Child Visit-Linking Exposure to Illness" in this section.*
	18.	As part of the exposure history, you should explore A. Possible lead exposure at parent's work. B. Household members' hobbies that might involve lead. C. Household use of imported home remedies and cosmetics.

D. All of the above.

To review relevant content, see "Introduction", "Screening Questions", "Sick Child Visit-Temporal Relationship", "Sick Child Visit-Are Others Affected?" and "Sick Child Visit-Linking Exposure to Illness" in this section.

Clinical Assessment - Signs and Symptoms

Learning Objectives

Upon completion of this section, you will be able to

- Name typical signs and symptoms consistent with lead toxicity,
- Describe how lead exposure dose and symptoms can vary, and
- Describe key features of the physical examination for patients exposed to lead.

Introduction

The patient assessment should include a review of systems for symptoms and signs as well as a complete physical examination of patients with potential exposure to lead, in addition to the environmental exposure history.

Primary health care providers can use the history, review of systems, and physical examination to establish a problem list. Then initial laboratory tests/imaging can be requested to systematically work through the differential diagnoses to come up with a diagnosis. This will be discussed in more detail in the next section.

Because children may have adverse health effects that may be subclinical or without overt clinical symptoms, as may occur with low blood lead levels, it is vital that primary care providers adopt a preventive approach to determine which of their patients may be at risk.

For the child with a history of a known lead exposure, with or without symptoms, concerned parents may visit their child's pediatrician or physician with worries that their child may become sick in the future. The parents

	may inquire about signs and symptoms associated with exposures.
Continuum of Signs and Symptoms	Typically, a sign is something the health care provider "sees" or "finds" during a physical exam. A symptom is experienced and reported by the patient. A review of systems is an inventory of specific body systems performed by the health care provider during the process of taking a medical history from the patient. It is designed to bring out clinical symptoms the patient may have overlooked, forgotten, or may not have realized were important enough to mention to the physician, but may, in fact, be key toward making an accurate diagnosis. Many patients who suffer from lead poisoning may be asymptomatic, hence the importance of exposure assessment and screening. A *continuum of signs and symptoms* can be seen depending on level (amount), frequency, and duration of lead exposure. However, this is not a clear-cut picture of how the cases present, but a guide to understanding how the different levels of exposure reflect in the presentation. Keep in mind that categorizing the signs and symptoms by exposure dose from "lowest to high" is somewhat artificial — the signs and symptoms generally become more noticeable as BLLs increase, and no specific BLL numbers can be assigned to exposure levels in the continuum, as symptoms may vary by individual. **Table 6. Continuum of Signs and Symptoms of Ongoing Lead Exposure** [ATSDR 2010]

Lowest Exposure Dose Signs and Symptoms: Impaired Cognitive Abilities/Subclinical Neuro/Psychoneuro/Neurobehavioral Findings (patient may appear asymptomatic)

- Decreased learning and memory
- Decreased verbal ability
- Early signs of hyperactivity or ADHD
- Impaired speech and hearing functions
- Lowered IQ

Low Exposure Dose Signs and Symptoms

- Irritability
- Lethargy
- Mild fatigue
- Myalgia or paresthesia
- Occasional abdominal discomfort

Moderate Exposure Dose Signs and Symptoms

- Arthralgia
- Constipation
- Difficulty concentrating/Muscular exhaustibility
- Diffuse abdominal pain
- General fatigue
- Headache
- Tremor
- Vomiting
- Weight loss

High Exposure Dose Signs and Symptoms

- Colic (intermittent, severe abdominal cramps)
- Encephalopathy—may abruptly lead to seizure, change in consciousness, coma, and death
- Paresis or paralysis

In interpreting this table, it is important to remember that some of the hematological abnormalities of lead poisoning are similar to those of other diseases or conditions.

- For example, in the differential diagnosis of microcytic anemia, lead poisoning can usually be ruled out by obtaining a venous blood lead

	concentration; if the BLL is less than 25 micrograms per deciliter (µg/dL), the anemia usually reflects iron deficiency or hemoglobinopathy [Hegazy et al. 2010]. • Other examples are the two rare diseases, acute intermittent porphyria and coproporphyria, that result in hematological abnormalities similar to those of lead poisoning. Children may appear to be asymptomatic at a low level lead exposure dose, but these levels may still impact the health of children and adults. With increasing exposure dose, the likelihood and severity of symptoms can be expected to increase. • Because of differences in individual susceptibility, symptoms of lead exposure and their onset may vary. • Impaired abilities may occur at BLLs ranging from 10 to 25 µg/dL and no threshold for these effects has been identified, whereas in symptomatic lead intoxication, BLLs generally range from 35 to 50 µg/dL in children and 40 to 60 µg/dL in adults [ATSDR 2010]. • Severe toxicity (high exposure dose) is frequently found in association with BLLs of 70 µg/dL or more in children and 100 µg/dL or more in adults. The importance for the clinician is to recognize ongoing lead exposure, interrupt that exposure, and treat the patient as appropriate. Only through an increased suspicion of lead exposure as the etiology of many nonspecific signs, symptoms, and common health conditions, can a diagnosis be made early so that preventive actions can take place.
Delayed or Misdiagnosis	It is important to keep in mind, that even a complete physical examination may not identify subtle neurological effects that may be associated with low-level lead exposure in children. The first signs of lead poisoning in children are often subtle neurobehavioral problems that adversely affect classroom behavior and social interaction.

	Failing to identify signs and symptoms of lead toxicity has led to misguided medical treatments. • Patients exhibiting neurological signs due to lead exposure may have been treated only for peripheral neuropathy or carpal tunnel syndrome, further delaying treatment for lead intoxication. • Failure to correctly diagnose lead-induced gastrointestinal distress has led to inappropriate abdominal surgery. • Current health effects (*e.g.,* neurological/developmental) resulting from past exposure, even without current exposure, may also need intervention (*e.g.* special education may be needed, finding and mitigating sources of exposure for the patient and others at risk for exposure may still be needed, etc.).
Physical Examination	The physical examination should include special attention to the following systems: • Cardiovascular, • Gastrointestinal, • Hematological, • Neurological, and • Renal systems. Health care providers should remember to • Carefully evaluate the nervous system, including behavioral changes, • Check blood pressure to evaluate whether the patient is hypertensive, and pay special attention to the renal system in those who are positive for hypertension, and • Check for a purplish line on the gums (lead line). This is rarely seen today, but if present, usually indicates severe and prolonged lead poisoning.

Figure 4. Lead lines on gingiva (Public domain)

With regard to children potentially exposed to lead, health care providers should be mindful that

- Hearing, speech, and other developmental milestones should be carefully evaluated and documented, and
- Nutritional status, diet, and dietary behaviors of young children should be assessed, since iron and calcium deficiencies are known to enhance the absorption of lead and to aggravate pica behavior.

Establish a Problem List

The problem list details the patient's most important medical information, which includes diagnoses, family history, and past tests and procedures. It will assist in the identification of an environmentally related condition. In other situations, the initial problem list may include only

- Signs,
- Symptoms, and
- Laboratory test results.

The physician who has experience with environmental toxicants may quickly suspect that a disease or syndrome (e.g. acute lead toxicity) is associated with a hazardous environmental exposure. The problem list should still be used, however, to keep the differential diagnosis broad in the beginning. Any and all specific exposures identified by the child's parents or caregiver(s) or suspected by a pediatrician should be listed.

Key Points

- Patients who suffer from lead poisoning may appear to be asymptomatic.

- Symptoms of lead toxicity and their onset may vary due to differences in individual susceptibility
- The first signs of lead poisoning in children are often subtle neurobehavioral problems that adversely affect classroom behavior and social interaction. Hearing, speech, and other developmental milestones should be carefully evaluated and documented.
- The physical examination alone will not always reveal when a patient is at risk for adverse health effects from elevated lead exposure
- A *continuum of signs and symptoms* can be seen depending on the level (amount), duration and frequency of lead exposure.
- Carefully evaluate the nervous system for subtle changes, including behavioral changes.
- Check blood pressure to evaluate whether the patient is hypertensive and pay special attention to the renal system in those who are hypertensive.
- Some of the health effects of lead exposure on the various organ systems are permanent and/or latent, and may appear after exposure has ceased.

Progress Check

19. Which of the following is not a typical sign or symptom of lead toxicity?

    A. Impaired speech and hearing functions.
    B. Decreased verbal ability.
    C. Respiratory distress.
    D. Decreased learning and memory.

    To review relevant content, see "Continuum of Signs and Symptoms" in this section.

20. Which of the following statements is true regarding the signs and symptoms of lead toxicity?

    A. Signs and symptoms will always be more noticeable with increasing BLLs.
    B. All children with low dose level exposure, will be asymptomatic.
    C. Categorizing the signs and symptoms by BLL from lowest to highest is very accurate.
    D. Symptoms of lead exposure and their onset may vary.

    To review relevant content, see "Introduction" in this section.

21. Which of the following statements regarding the physical examination and review of systems is true?

    A. Carefully evaluate the nervous system for subtle changes, including behavioral changes.
    B. Check blood pressure to evaluate whether the patient is hypertensive and pay special attention to the renal system in those who are hypertensive.
    C. Hearing, speech, and other developmental milestones must be carefully evaluated and documented.
    D. All of the above.

    To review relevant content, see "Physical Examination" in this section.

Clinical Assessment – Diagnostic Tests and Imaging

Learning Objectives	Upon completion of this section, you will be able to • Describe guidelines for blood lead screening and confirmatory diagnostic testing on patients at risk of recent or ongoing lead exposure, and • Describe imaging and other clinical modalities that may assist in the diagnosis of current or past lead exposed patients.
Introduction	If lead exposure is suspected, a blood lead level (BLL) test should be performed. Oftentimes, recognition of lead exposure doesn't occur until the initial reporting of high blood lead levels (BLLs) by primary care providers. In 1991, CDC recommended universal blood lead level (BLL) testing for all children, in the absence of a statewide or local plan. Over the past 40 years, there has been a dramatic decline in the United States in BLLs. Findings from the most recent National Health and Nutrition Examination Survey (NHANES), 2007 – 2010, indicate that BLLs are continuing to decrease across all age and racial/ethnic groups in the United States. Despite progress in reducing BLLs among children overall, differences between the geometric mean (GM) BLLs of different racial/ethnic and income groups still persist. Based on the prevalence of elevated BLLs, local health departments or other relevant agencies may implement different testing guidelines, such as screening more frequently or at different ages. The Advisory Committee On Childhood Lead Poisoning Prevention [ACCLPP 2012] recommends that health care providers: • Follow local and state lead screening guidelines, • Screen children coming from other countries when they arrive in the United States, and

	• Screen neonates and infants born to women with lead exposure during pregnancy and lactation per earlier CDC guidance. Some communities may provide screening outside of the child's medical home (such as through the Women, Infants, and Children (WIC) program). It is not necessary for the clinician to duplicate those efforts, but he/she should verify that the screening was performed elsewhere before testing is deferred during the office visit. Evidence continues to accrue that commonly encountered blood lead concentrations, even those below 5 µg/dL (50 ppb), impair cognition [AAP 2016]. There is no identified threshold or safe level of lead in blood [AAP 2016, ACCLPP 2012]. Over the past several decades there has been a remarkable reduction in environmental sources of lead, improved protection from occupational lead exposure, and an overall decreasing trend in the prevalence of elevated BLLs in U.S. adults. As a result, the U.S. national BLL geometric mean among adults was 1.2 µg/dL during 2009-2010 [CDC 2013i]. The OSHA lead standard allows blood lead levels higher than what is currently recommended by CDC/NIOSH. Therefore, some workers may continue to experience elevated blood lead levels.
Blood Lead Screening for children	A 2005 guidance statement from the American Academy of Pediatrics [AAP 2005] summarized the history of lead screening and suggested that pediatricians screen according to local and state guidelines where they apply. Additionally, pediatricians should screen: • All non-Medicaid children in the absence of local and state guidelines, and • All immigrant, refugee, and internationally-adopted children when they arrive in the United States (regardless of age), due to their increased risk, as they may have been exposed to lead in their country of origin.

	In 2009 the Centers for Medicare and Medicaid Services (CMS) and the CDC recommended that local officials have the flexibility to develop lead screening strategies that reflect local risk for high blood lead levels. In 2013 CMS published guidelines for states interested in transitioning to targeted blood lead screening for Medicare/Medicaid eligible children. In addition to a national surveillance program, clinical testing for lead exposure must continue for the foreseeable future in order to identify those children for whom primary prevention measures have failed [ACCLPP 2012]. • BLL testing is currently required at 12 and 24 months for all Medicaid-enrolled children, unless the state has a Centers for Disease Control and Prevention and the Centers for Medicare and Medicaid Services (CDC/CMS) waiver indicating that children enrolled in Medicaid are not at higher risk for high BLLs than other children. • Testing will often occur during routine well-child care as recommended by the American Academy of Family Physicians (AAFP) and the American Academy of Pediatricians (AAP). • Children ≤72 months that missed recommended screening at a younger age should be screened at presentation. • Screening at 12 and 24 months satisfies the Healthcare Effectiveness Data and Information Set (HEDIS) measures. The CDC [2010] also recommends initial and follow-up screening of pregnant and lactating women, as well as for neonates and infants of women with BLLs ≥5 micrograms per deciliter (µg/dL).
Blood Lead Levels (BLLs)	Different tests have been used in the past to evaluate lead exposure and/or to gauge the effects of lead exposure. • Venous BLL testing is the most useful screening and diagnostic test for recent or ongoing lead exposure [ACCLPP 2012], and requires a phlebotomist trained in the specific methods and

techniques involved with proper collection and processing of a specimen for blood lead level testing (to avoid lead contamination of the puncture site or the sample).

- Direct measurement of lead in capillary blood samples are easier to collect, but have a high potential for lead contamination [CDC 1997a]. For this reason, this method is not recommended unless the collection method used, close attention to hand washing, and other strategies to reduce lead contamination are strictly followed. Confirmatory testing using a venous blood lead sample for all capillary and venous BLL results greater than or equal to the reference value should be performed [ACCLPP 2012].
- BLLs respond relatively rapidly to abrupt or intermittent changes in lead intake (for example, ingestion of higher lead content paint chips by children) and, for relatively short exposure periods, bear a linear relationship to those intake levels.
- For individuals with high or chronic past exposure, however, BLLs often under-represent the total body burden because most lead is stored in the bone. Individuals can therefore have high body burden of lead with “normal” levels in the blood.
- One exception is patients with a high body burden under physiological stressful circumstances whose BLLs may be elevated from the release of lead stored in bones.
- Erythrocyte protoporphyrin (EP), commonly assayed as zinc protoporphyrin (ZPP), was previously considered the best test for screening asymptomatic children for lead exposure. However, it is not sufficiently sensitive at lower BLLs and therefore not as useful for screening as previously believed.
- Hemoglobin (Hgb) screening was recommended in the past; however, if performed alone it is only sufficient to diagnose anemia (by definition), and does not specifically rule out iron deficiency

BLLs are continuing to decrease across all age and racial/ethnic groups in the United States.

- The average BLL for children 1-5 years of age was 1.9 µg/dL in 2002, down from 15.0 µg/dL in 1976-1980 (before leaded gasoline was banned for use in “on road” vehicles) [CDC 2005].
- The average BLL for adults 18-74 years of age was 14.2 µg/dL from 1976-80; in 1988-1991, the average BLL for adults was 3.0 µg/dL [CDC 1997b]; and the BLL geometric mean among adults was 1.2 µg/dL during 2009-2010 [CDC 2014].
- The difference between the geometric mean (GM) BLL of non-Hispanic black children (1.8 µg/dL) remains significant ($p<0.01$) compared with either non-Hispanic white (1.3 µg/dL) or Mexican American (1.3 µg/dL) children [CDC 2013h].
- Children belonging to families with a poverty income ratio (PIR) <1.3 have a significant GM BLL difference (1.6 µg/dL versus 1.2 µg/dL [$p<0.01$]), compared to families with a PIR ≥1.3. This also applies to those enrolled in Medicaid [CDC 2013h].

Current research continues to find that BLLs previously considered harmless can have harmful effects in adults, such as decreased renal function and increased risk for hypertension and essential tremor at BLLs <10 µg/dL.

In 2015, NIOSH designated 5 µg/dL (five micrograms per deciliter) of whole blood, in a venous blood sample, as the reference blood lead level for adults [CDC 2013h]. An elevated BLL is defined as a BLL ≥5 µg/dL. This case definition is used by the CDC's Adult Blood Lead Epidemiology and Surveillance program (ABLES tracks elevated BLLs among adults in the United States), the Council of State and Territorial Epidemiologists (CSTE), and CDC’s National Notifiable Diseases Surveillance System (NNDSS). Previously (i.e., from 2009 until November 2015), the case definition for an elevated BLL was a BLL ≥10 µg/dL. The U.S. Department of Health and Human Services recommends that BLLs among all adults be reduced to <10 µg/dL.

	During 2002-2011, ABLES identified 11,536 adults with very high BLLs (≥40 µg/dL). A very high BLL measured in >1 calendar year was defined as a persistent very high BLL. Among these adults, 2,210 (19%) had persistent very high BLLs, 1,487 (13%) had BLLs ≥60 µg/dL, and 96 had BLLs ≥60 µg/dL in >1 calendar year. Occupational exposures accounted for 7,076 adults with very high BLLs (91% of adults with known exposure source) and 1,496 adults with persistent very high BLLs [CDC 2013h]. In contrast to the CDC reference level, prevailing Occupational Safety and Health Administration (OSHA) lead standards allow workers removed from lead exposure to return to lead work when their BLL falls below 40 µg/dL. However, NIOSH recommends that the most current guidelines for management of lead exposed adults be implemented by the medical community at the current CDC/NIOSH reference BLL of 5 µg/dL [CDC 2013h]. The finding that many workers may have harmful BLLs, some that are present for >1 calendar year, is of grave concern. Adverse health effects associated with very high BLLs underscore the need for increased efforts to prevent lead exposure at workplaces and in communities [CDC 2013i]. An attempt should be made to identify and minimize lead exposures when BLLs indicate that they are occurring at any blood lead level above background population levels. If an adult has a BLL of 20 µg/dL, e.g., an unusual exposure is likely occurring and should be interrupted, if possible. This is especially important for fertile and pregnant females.
Confirmatory Testing of Children with BLLs Above the Reference Value	Given the uncertainty of individual blood lead test results, it is important to do confirmatory testing, especially for capillary blood samples that might be elevated due to residual lead on the skin at the puncture site. Collection tubes need to be confirmed “lead free”. The recommended schedule for confirmatory testing is summarized in Table 7 and includes

- All capillary and venous BLL results greater than or equal to the reference value must be confirmed within 1-3 months, and
- Children with BLLs ≥45 µg/dL or with symptoms of lead poisoning should have an immediate (within 48 hours) confirmatory test.

Table 7. Recommended Schedule for Obtaining a Confirmatory Venous Sample

Blood Lead µg/dL	Time to Confirmation Testing
≤ Reference value of 5*	1-3 months
6-44**	1 week–1 month
45-59	48 hours
60-69	24 hours
≥70	Urgently as emergency test

* ACCLPP 2012
** The higher the BLL on the screening test, the more urgent the need for confirmatory testing.

Adapted and updated from: *Screening Young Children for Lead Poisoning: Guidance for State and Local Public Health Officials* [CDC 1997a].

Response actions should be initiated only after elevated BLLs are confirmed.

Imaging and Other Clinical Modalities

There are different clinical modalities available to further evaluate patients with elevated BLLs.

- Complete blood count (CBC) may be useful for patients with extensive lead exposure. In lead-exposed patients, the hematocrit and hemoglobin values may be slightly to moderately low in the CBC, and the peripheral smear may be either normochromic and normocytic or hypochromic and microcytic.

- There may be **basophilic stippling** in patients who have been significantly poisoned for a prolonged period.
- However, because these results are not specific to lead exposure, the CBC test is not as valuable for detecting lead exposure as the BLL and EP assays.

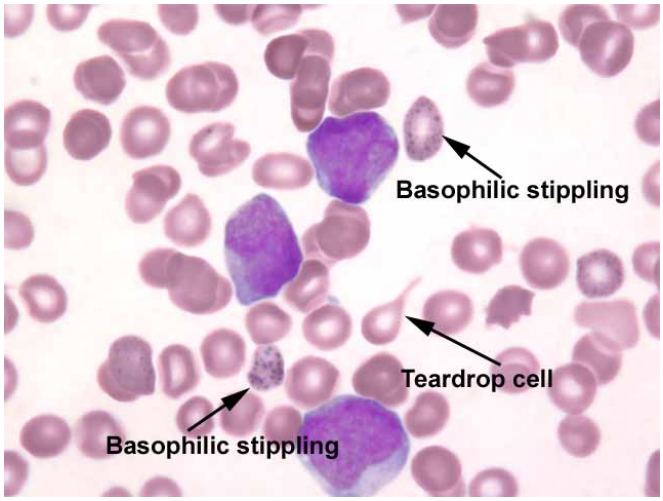

Figure 5. Basophilic stippling -Venous blood smear with basophilic stippling (Provided courtesy of ©Wadsworth Center, New York State Department of Health)

- A hypochromic, microcytic anemia should be appropriately differentiated from other causes, especially iron-deficiency anemia by the use of testing for iron, iron binding capacity, and ferritin.

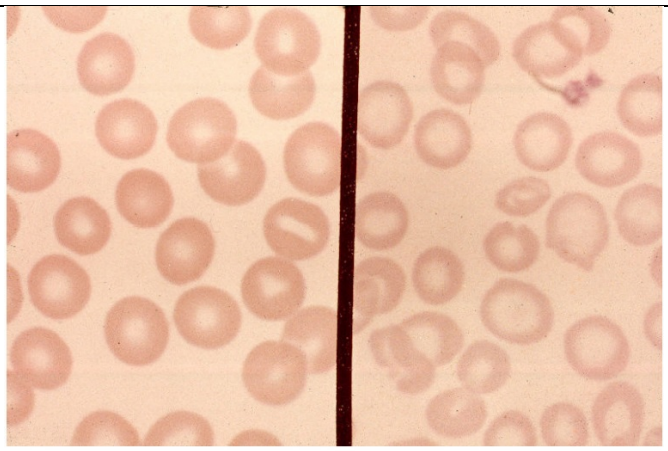

Normal red blood cells Microcytic anemia

Figure 6. Microcytic hypochromic anemia can be associated with lead poisoning (Public domain)

- Abdominal radiographs may show the presence of radiodense lead foreign bodies in the gastrointestinal tract. These are helpful in cases of acute ingestion (e.g., of lead sinkers, curtain weights, jewelry, or paint chips) or unusual persistence of high blood lead values. Shrapnel or bullet fragments within tissues can also be observed.
- Long bone radiographs can show “lead lines”. These are lines of increased density on the metaphysis (growth plate) of the bone, showing radiological growth retardation. This is not a routine procedure to identify lead poisoning, but a radiological finding of chronic exposure. See Figure 6 and Figure 7.
- Long bone radiographs are not recommended for diagnosing lead exposure [CDC 2002], however, they are useful to determine growth retardation.
- Because hair and fingernails are subject to external environmental contamination, assaying their lead content is an uncertain estimate of body burden and is not recommended [AAP 1993; CDC 2002].
- Second tier tests (such as neurobehavioral/psychological evaluation for children with indicative findings on exam) should be considered, as appropriate.

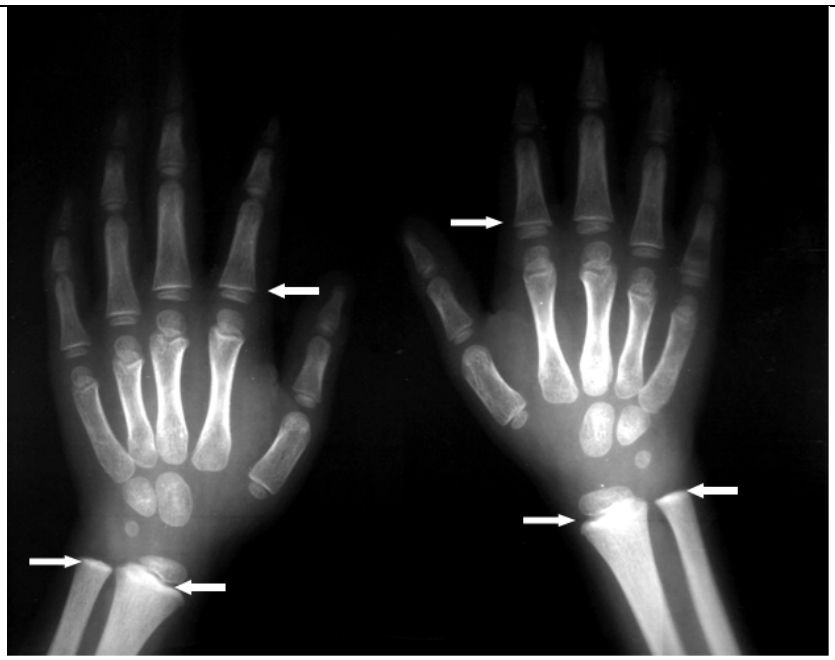

Figure 7. **Long Bone Radiograph of Hands** — "lead lines" shown as increased density on the metaphysis (growth plate) of the proximal segments of phalanges and distal segments of ulna and radius in a 5-year-old male with radiological growth retardation and BLL of 37.7 µg/dL (Photo courtesy of Dr. Celsa López, Clinical Epidemiologic Research Unit, IMSS, Torreón, México).

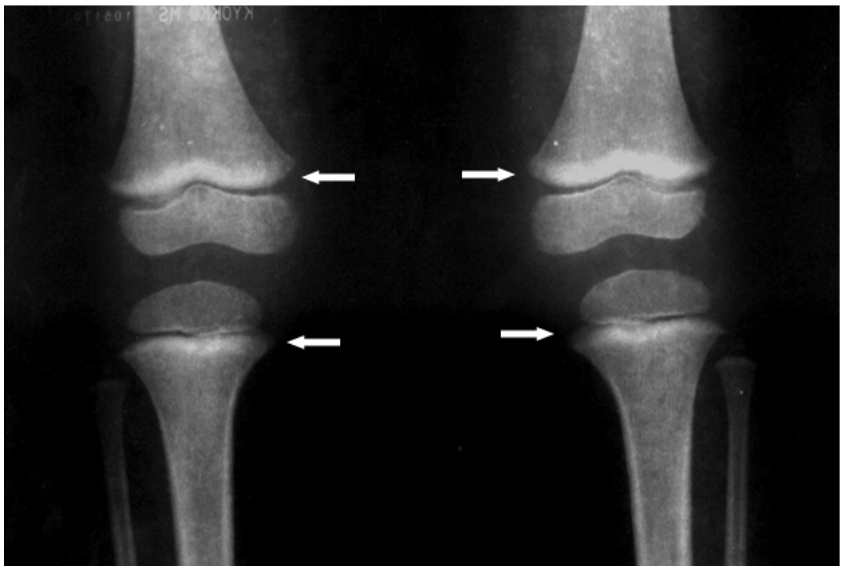

Figure 8. **Long Bone Radiograph of Knees** - "lead lines" in three-year old girl with BLL of 0.6 µg/dL. Notice the increased density on the metaphysis growth plate of

	the knee, especially in the femur (Photo courtesy of Dr. Celsa López, Clinical Epidemiologic Research Unit, IMSS, Torreón, México).
Key Points	• The best screening and confirmatory diagnostic tool for evaluating recent or ongoing lead exposure is the venous BLL test. • Pediatricians should screen for lead in all non-Medicaid children in the absence of local and state guidelines. • All immigrant, refugee, and internationally-adopted children should be screened for lead when they arrive in the United States. • Pregnant and lactating women should be screened for lead. • The CDC (2012) has updated the blood lead reference value to 5 µg/dL. • Using an EP or ZPP assay to screen children for lead exposure is not as useful as once believed, and not recommended. • Other tests may be appropriate for specific situations, such as abdominal radiographs to detect swallowed objects. • Secondary testing/imaging for signs of other health effects may also be useful.

Progress Check

22. What is the best screening and confirmatory diagnostic tool for evaluating recent or ongoing lead exposure in a child?

    A. EP/ZPP.
    B. Capillary BLL (finger stick).
    C. Venous BLL.
    D. Abdominal radiograph.

    To review relevant content, see "Blood Lead Levels" in this section.

23. In addition to screening according to local and state guidelines where they apply, pediatricians/primary health care providers should also screen which of the following populations?

    A. All non-Medicaid children in the absence of local and state guidelines.
    B. All immigrant, refugee, and internationally-adopted children when they arrive in the United States.
    C. Pregnant and lactating women.
    D. All of the above.

    To review relevant content, see "Blood Lead Screening" in this section.

24. What imaging and other clinical modalities may assist in the diagnosis of current or past lead exposed patients?

    A. Abdominal radiographs.
    B. Long bone radiographs.
    C. Hair assay.
    D. All of the above.
    E. None of the above.

    To review relevant content, see "Imaging and Other Clinical Modalities" in this section.

How Should Patients Exposed to Lead Be Treated and Managed?

Learning Objectives

Upon completion of this section, you will be able to

- Describe a management strategy for children whose blood lead levels are equal to or greater-than the current CDC reference value of 5µg/dL.

Introduction

"Preconception and prenatal counseling sessions present opportunities to prevent lead exposures that could lead to possibly devastating and lifelong effects."

Office of Surgeon General 2008

With the move away from a designated "level of concern," a new algorithm is needed to provide clinicians with guidance on responding appropriately to the lower range of BLLs. No blood lead threshold for adverse health effects has been identified in children.

Treatment and management strategies for children whose blood levels are equal to or greater than the reference value include nutritional education and intervention (as indicated), lead educational intervention, ongoing monitoring, and coordination with other organizations.

Chelation therapy is considered a mainstay in the medical management of children with BLLs > 45 µg/dL, but should be used with caution. Consultation with a physician with expertise and experience in treating children with lead toxicity is recommended.

Therefore, prior to suggesting or prescribing chelation agents, it would be prudent to consult with a

- Local or state lead poisoning prevention program, a
- Local poison control center, and/or a
- Regional Pediatric Environmental Health Specialty Unit (PEHSU).

Evaluation and Intervention Strategies for Children with BLLs at or Above the Reference Value

When the neurological exam, milestones, or behavior suggest it, further neurobehavioral testing or evaluation for Attention Deficit Hyperactivity Disorder (ADHD) may be indicated.

Table 8 shows ACCLPP Recommended Actions Based on BLLs. It is important to mention the increased urgency of these interventions as BLLs increase to reduce the damage to the persons exposed, especially children.

A BLL of ≥45 µg/dL is not a threshold for chelation, but a guideline. Professional judgment should guide the decision to chelate a child or adult, based on their individual clinical considerations. In some instances, a patient may need to be chelated at somewhat lower BLLs.

Table 8: ACCLPP Recommended Actions Based on BLL [ACCLPP 2012]

<Reference Value	**≥Reference Value of 5-≤45 µg/dL**	**≥45 - ≤69 µg/dL**
Lead education -Dietary -Environmental Environmental assessment* for pre-1978 housing	Lead education -Dietary -Environmental Follow-up blood lead monitoring Complete history and physical exam Lab work: - Iron status Consider Hemoglobin or hematocrit	Lead education -Dietary -Environmental Follow-up blood lead monitoring Complete history and physical exam Lab work: - Iron status - Free erythrocyte protoporphyrin Environmental investigation

	Environmental investigation Lead hazard reduction Neurodevelopmen-tal monitoring - Abdominal X-ray (if particulate lead ingestion is suspected) with bowel decontamination if indicated	Lead hazard reduction Neurodevelopment al monitoring Abdominal X-ray with bowel decontamination if indicated Oral chelation therapy Consider hospitalization if lead-safe environment cannot be assured	actions fo µg/dL

*The scope of an "environmental assessment" will vary based on local resources and site conditions. However, at a minimum this would include a visual assessment of paint and housing conditions, but may also include testing of paint, soil, dust, and water and other lead sources [Levin et al. 2008]. This may also include looking for exposure from imported cosmetics, folk remedies, pottery, food, toys, etc. which may be more important in low-level lead exposure [ACCLPP 2012].

Coordination of care with local authorities and organizations, including local Childhood Lead Poisoning Prevention programs, is essential to

- Initiate prompt investigation for the source of lead exposure, and
- Plan a response strategy.

Although these services are typically outside of the clinician’s role, medical and environmental interventions

should be implemented simultaneously to best protect the child.

In addition, families with children whose BLLs are above the reference value should be given access to services that provide education about:

- Existing codes or ordinances,
- Lead-safe housing rules,
- Disclosure requirements,
- Landlord responsibilities,
- Risk factors for lead exposure in the home and at work, and
- Steps for maintaining a lead safe home (lead hazard identification and repair, lead dust testing, EPA and state Renovation, Repair and Painting (RRP) requirements, and do-it-yourself precautions).

Home visits by CLPPP staff, community health workers, Maternal and Child Health home visiting programs, and other systems to assess the home should:

- Advise occupants of lead hazards,
- Make referrals in response to identified lead hazards, and
- Report observations and lead test results.

Assistance and guidance is available regarding:

- Housing codes, including legal services for egregious situations like evictions and serial offender property owners and referrals to code enforcement,
- Landlord violations of RRP, and
- Other lead rules.

"Low health literacy is a threat to the health and wellbeing of Americans. And low health literacy crosses all sectors of our society. All ages, races, incomes, and education levels are challenged by low health literacy."

Rear Admiral Kenneth P. Moritsugu, MD, MPH
Acting United States Surgeon General, December 2006

Health Literacy is the capacity to obtain, process and understand basic health information and services needed to make appropriate health decisions.

Approximately one-half of the adult population may lack the needed health literacy skills to best utilize the U.S. healthcare system. Low health literacy has been linked to poor health outcomes such as higher rates of hospitalization and less frequent use of preventive services [CDC 2013f].

CDC Healthy Homes and Lead Poisoning Prevention Program addresses health literacy. It created several resources to help communicate about childhood lead poisoning.
https://www.cdc.gov/nceh/lead/tools/LeadLiteracy.htm

Recommendations on Medical Management of Childhood Lead Exposure and Poisoning

No level of lead in the blood is safe. In 2012, the CDC established a new "reference range upper value" for BLLs (5 µg/dL), thereby lowering the level at which evaluation and intervention are recommended.

Effective screening policies and practices should ensure that the children of high-risk families (e.g., families on Medicaid) are screened, and that lead-exposed children or children with elevated BLLs receive key environmental interventions and case management services [ACCLPP 2012].

Table 9. Clinical Recommendations Based on Blood Lead Levels (BLLs) [PEHSU 2013]

Blood Lead Level	Recommendation
<5 µg/dL	1. Review lab results with family. For reference, the geometric mean BLL for children 1-5 years old is less than 2 µg/dL.

		2. Repeat the BLL test in 6-12 months if the child is at high risk or risk changes during the timeframe. Ensure levels are done at 1 and 2 years of age. 3. For children screened at age <12 months, consider retesting in 3-6 months, as lead exposure may increase as mobility increases. 4. Perform routine health maintenance, including assessment of nutrition, physical and mental development, and iron deficiency risk factors. 5. Provide anticipatory guidance on common sources of environmental lead exposure: paint in homes built prior to 1978, soil near roadways or other sources of lead, take-home exposures related to adult occupations, imported products such as spices, cosmetics, home remedies, and cookware.
	5-14 µg/dL	1. Perform steps as described above for levels <5 µg/dL. 2. Re-test venous BLL within 1 month to ensure the lead level is not rising. If it is stable or decreasing, retest the BLL in 3 months. Refer patient to local health authorities if such resources are available. Most states require elevated BLLs be reported to the state health department. Contact the CDC at 800-CDC-INFO (800-232-4636) or the National Lead Information Center at 800-424-LEAD (800-424-5323) for resources regarding lead poisoning prevention and local childhood lead poisoning prevention programs. 3. Take a careful environmental history to identify potential sources of exposures (see #5 above) and provide preliminary advice about reducing/eliminating exposures. Take care to consider other children who may be exposed.

		4. Provide nutritional counseling related to calcium and iron. In addition, recommend the child eat a fruit or vegetable high in vitamin C (e.g., citrus fruits and leafy greens) at every meal, as iron absorption quadruples when taken with vitamin C-containing foods. Encourage the consumption of iron-enriched foods (e.g., cereals, meats). Some children may be eligible for Special Supplemental Nutrition Program for Women, Infants and Child (WIC) or other nutritional counseling. 5. Ensure iron sufficiency with adequate laboratory testing (CBC, Ferritin, CRP) and treatment per AAP guidelines. Consider starting a multivitamin with iron. 6. Perform structured developmental screening evaluations at child health maintenance visits, as the effect of lead on development may manifest over years.
	15-44 µg/dL	1. Perform steps as described above for levels 5-14 µg/dL. 2. Confirm the BLL with repeat venous sample within 1 to 4 weeks. 3. Additional, specific evaluations of the child, such as an abdominal x-ray should be considered based on the environmental investigation and history (e.g., pica for paint chips, mouthing behaviors). Gut decontamination may be considered if leaded foreign bodies are visualized on x-ray. Any treatment for BLLs in this range should be done in consultation with an expert. Contact local PEHSU or PCC for guidance; see “Sources of Additional Information” section for contact information.

	>44 µg/dL	1. Follow guidance for BLL 15-44 µg/dL as listed above. 2. Confirm the BLL with repeat venous sample within 48 hours. 3. Consider hospitalization and/or chelation therapy (managed with the assistance of an experienced provider). Safety of the home with respect to lead hazards, isolation of the lead source, family social situation, and chronicity of the exposure are factors that may influence management. Contact your regional PEHSU or PCC for assistance.

Given the challenges involved in measuring BLLs as low as 5 µg/dL, quality assurance practices will need to be updated with the goal of improving accuracy and repeatability of BLL testing results.

Management of Children with BLLs Above 45 µg/dL	Chelation therapy is considered a mainstay in the medical management of children with BLLs > 45 µg/dL. However, this level is a guideline, not a threshold for hospitalization and/or chelation, and should be used with caution. Professional judgment should drive determinations of when to chelate. In some instances, a patient may need to be chelated at somewhat lower BLLs. Therefore, prior to suggesting or prescribing chelation agents, primary care providers should consult with their local or state lead poisoning prevention program, local poison control center, or regional Pediatric Environmental Health Specialty Unit (PEHSU) for the names of accessible physicians that have both expertise and experience with chelation for lead toxicity. A child with an elevated BLL and signs or symptoms consistent with encephalopathy should be chelated in a center capable of providing appropriate intensive care services [ACCLPP 2012].

Physicians who suspect an unusual environmental cause for an illness will often find it useful to contact an expert in pediatric environmental medicine.

- The Pediatric Environmental Health Specialty Units (PEHSU), located in the ten Federal Regions of the United States and in Canada, can provide information, assistance, and referral for clinical evaluation and treatment if environmental exposures are verified (for additional information regarding the PEHSU, visit: http://www.pehsu.net/
- Regional poison control contact information is available at: http://npic.orst.edu/health/poison.htm.
- CDC's Lead Poisoning Branch is an information resource available to clinicians at: https://www.cdc.gov/nceh/lead/about/program.htm

Because there are potential side effects associated with each chelating drug, and because treatment protocols differ for each, it is vital that physicians with experience in chelation therapy be consulted before any chelation therapy is begun [AAP 1995].

An accredited regional poison control center, a university medical center, or a state or local health department can help identify an experienced physician.

Note also that the $CaNa_2EDTA$ (i.e., edetate calcium disodium, Calcium EDTA) mobilization (challenge) test is no longer recommended because of its difficulty, expense, and potential for increasing lead toxicity [ACMT 2013; AAP 1995].

The utility of provoked urine tests for the diagnosis of metal poisoning has been addressed previously by the American College of Medical Toxicology [ACMT 2010]. It published a position statement recommending against the use of this test. Similarly, authors from the ATSDR and CDC have detailed the problems with provoked urine tests and have concluded that they should not be used as diagnostic tools [Risher and Amler 2005]. Yet despite these recommendations against the use of provoked

urine testing by respected organizations, the test is still commonly used and recommended by some practitioners [Ruha 2014].

Potential Medical Error

There are several commercial drugs with the active ingredient EDTA. Only $CaNa_2EDTA$ (also known as calcium disodium versenate or edetate calcium disodium) is appropriate for chelation. **Na_2EDTA** (disodium ethylenediaminetetraacetic acid) **is not appropriate for chelation.**

Please write your script carefully and legibly to avoid mistakes with chelating agents.

Ongoing Monitoring For Lead-Exposed Children

For the child identified with BLL results greater than or equal to the reference value, ongoing monitoring of BLL is indicated during and after appropriate medical, educational, and environmental interventions (See Table 9).

BLLs that increase may be indicative of

- An unrecognized source of exposure,
- Inappropriate abatement activities,
- Failure to mitigate the identified hazard, or
- The redistribution of lead stores within the child's body.

For the child with an increasing BLL, additional medical and environmental evaluation and interventions may be necessary, along with ongoing coordination of care with the local Childhood Lead Poisoning Prevention Program (CLPPP).

This monitoring is essential to identify a given source of lead, help determine if there is any ongoing exposure, and to verify the decline in BLL after lead sources have been reduced or eliminated. Ongoing monitoring is also essential for children undergoing chelation [AAP 1995, CDC 2002].

Table 10. Ongoing Monitoring for Lead-Exposed Children[a]

Venous BLL µg/dL	**Early Follow-up Testing** (2-4 Tests after Identification)	**Later Follow-up Testing After BLL Decline** (5 µg/dL)
≥Reference value 5-9	3 months*	6-9 months
10-19	1-3 months*	3-6 months
20-24	1-3 months*	1-3 months
25-44	2 weeks-1 month	1 month
≥45	As soon as possible	As soon as possible

[a]Seasonal variation of BLLs exist and may be more apparent in colder climate areas. Greater exposure in the summer months may necessitate more frequent follow-up.

*Some case managers or PCPs may choose to repeat blood lead tests on all new patients within one month to ensure that their BLL is not increasing more quickly than anticipated [ACCLPP 2012].

Key Points

- Management strategies for children whose BLLs are equal to or greater than the reference value include ongoing monitoring during and after appropriate medical, nutritional, educational, and environmental interventions, and coordination with other organizations.
- BLLs that increase may indicate an unrecognized source of exposure, inappropriate abatement activities, failure to mitigate the identified hazard, or the redistribution of lead stores within the child's body.
- Consultation and/or referral to a health care provider with expertise and experience in treating and managing patients with lead toxicity is highly recommended, especially for children with BLLs ≥

	45 µg/dL or other appropriate individual children at somewhat lower BLLs. • Chelation challenge to detect or monitor for lead toxicity is not recommended and may be harmful to the patient. • Chelation is not risk free. The possible complications need to be considered and weighed against with the possible benefits.
Progress Check	25. Treatment and management strategies for children whose BLLs are equal to or greater than the CDC reference value include which of the following? A. Nutritional education and intervention. B. Educational intervention and ongoing monitoring. C. Coordination with other organizations. D. Chelation. E. All of the above. *To review relevant content, see "Evaluation and Intervention Strategies for Children with BLLs Above the Reference Value" in this section.* 26. When is ongoing monitoring of BLLs indicated? A. When a child is identified with BLL results greater than or equal to the CDC reference value (≥5 µg/dl). B. When a child has a venous BLL <5 µg/dl. C. When any child presents with hypertension and neurological symptoms. D. When there is more than one child living in a pre-1978 home. *To review relevant content, see "Ongoing Monitoring For Lead-Exposed Children" in this section.* 27. BLLs that increase may indicate which of the following? A. An unrecognized source of exposure.

B. Inappropriate abatement activities and failure to mitigate the identified hazard.
C. The redistribution of lead stores within the child's body post-chelation.
D. All of the above.

To review relevant content, see "Ongoing Monitoring For Lead-Exposed Children" in this section.

What Instructions Should Be Given to Patients?

Learning Objectives

Upon completion of this section, you will be able to

- Describe instructions to parents and patients to prevent or reduce lead exposure,
- Describe instructions for patients exposed to lead, and
- Describe communication strategies that health care providers can use to best deliver clinical information to their lead exposed or potentially exposed patients.

Introduction

"Clinicians should be a consistent and reliable source of information, and take a primary role in educating families about the risks of lead-exposure. If appropriately educated, all families will be better equipped to make sound housing decisions based on an understanding of the risks associated with lead hazards" [ACCLPP 2012].

The primary instruction to patients and parents of children exposed to lead should be to eliminate or control sources of all lead exposure. These recommendations will depend on lead exposure source type and setting (e.g., home or workplace).

Guidance for parents should cover a number of lead risk topics, including

- In-home exposures,
- Potential lead-exposures associated with parental occupations and hobbies, and

- Unsafe renovation practices.

This section focuses on instructions the health care provider can give to parents and patients regarding steps they can take to prevent, reduce, or mitigate lead exposure from the home, workplace, and environment.

Also discussed are risk communication and education strategies that health care providers can use to best explain lab results, deliver instructions on clinical follow-up, and impart preventive messages to their lead exposed or potentially exposed patients.

Communication with Parents and At Risk Populations	Parents should be provided with information on identifying lead hazards and safe/reliable methods to minimize exposures, as well as contact information for additional local lead-related resources. This information should be provided in appropriate cultural formats and reading level for the target audience. In addition, the clinician has a role in recognizing risks for potential lead exposures specific to • Immigrant communities, • Refugees, and • Children adopted from foreign countries, whose previous and/or ongoing lead exposure may include • Ceramic ware, • Cosmetics, • Folk /home remedies, • Food, • Medications, • Toys, and • Other less common items (like automobile batteries). The health care provider should ensure there is time available to carefully listen to expressed concerns and questions and provide empathetic responses with voiced understanding by the parent or patient. Information may need to be repeated. This is especially important during high risk/emotionally charged situations when the ability to receive and process information may be decreased.
Blood Lead Level Risk Communication and Education Strategies	Effective screening policies and practices should ensure that the children of high-risk families (e.g., families on Medicaid) are screened, and that lead-exposed children or children with elevated BLLs receive key environmental interventions and case management services [ACCLPP 2012]. • Interactions with affected families must be performed in a culturally-sensitive, same-language,

	and streamlined manner (see Lead Health Literacy Initiative at: https://www.cdc.gov/nceh/lead/tools/LeadLiteracy.html. • The medical home, laboratory, and other providers should offer simple information about the meaning of elevated BLL test results, and relevant, culturally-sensitive messages about their impact should be conveyed. • Specialized terms such as “detectable level” or “elevated BLL” should be defined. • Pediatricians and other providers shall integrate BLL test results into the “basic” report of indicators like weight, height, and developmental percentiles. • Pediatricians commonly present data in the form of percentiles, and a similar convention could help physicians explain elevated BLLs to parents (see [CDC 2011b] for patient handouts). • Test results should not be difficult to obtain; parents should have continuous access to BLL test results via internet and telephone retrieval systems until the child reaches the age of twelve. • Physicians should explain the uncertainty of all quantitative medical tests and BLL testing.
Communicating Instructions to Prevent, Lower, or Mitigate Domestic Lead Exposure	For children (and adults) with domestic exposures, there may be multiple sources. Therefore, it is important to identify and encourage patients and parents to address all potential sources of lead and to continue blood lead monitoring to help confirm that the source(s) has(have) been effectively eliminated. It would be important to explain to parents and patients that domestic exposure to lead can come from a variety of sources, including • Deteriorated paint, • Contaminated soil, • Water (i.e., lead solder in pipes), or • Other products. Patients or parents should be advised to • Eliminate source(s) of lead exposure,

- Flush standing water from the lines and faucet for several minutes before use, and use cold water for drinking (if they have older homes with galvanized lead or lead soldered pipes and/or lead service lines),
- Maintain a low-fat diet high in calcium, zinc, vitamin C and iron, and
- Continue to monitor BLLs (if applicable).

It may be difficult for low-income patients and their families to permanently address all lead hazards in their homes, due in part to costs and/or landlord accountability (if they rent).

Patients or parents should be informed of the following:

- There are federal disclosure laws for potential renters/buyers that require landlords and sellers to disclose any known lead hazard.
- State and/or local ordinances require property owners to address higher lead content paint hazards, and in many communities, grants are available to help with lead hazard control.
- Additionally, there are many low-cost ways to temporarily reduce lead hazards in homes. The *"Sources of Additional Information"* section provides several helpful resources.

Since lead poisoning from old or peeling paint continues to be a serious health risk to American children, the U.S. Environmental Protection Agency (EPA) wants to remind parents and contractors and increase the awareness of health care workers of the importance of lead-safe practices during renovation of homes built before 1978. See: https://www3.epa.gov/region9/lead/index.html

Covering bare soil contaminated with lead in the yard with grass or other type of covering may reduce exposures. Guidelines are available from governmental and nongovernmental organizations to help health care providers instruct their patients in reducing home lead hazards [ACCLPP 2012]. It is also important that residents mop the floors and use a wet rag for cleaning the window sills regularly, as children's BLLs have been

	found to be directly correlated with levels of lead in dust in their homes [Lanphear et al. 1998].
OSHA's Lead and Hazard Communication Standards	Health care providers need to be aware of OSHA regulations for workplace lead exposure prevention and surveillance. They should also be aware of the OSHA Hazardous Communication standard. Inform workers that they have a right to a safe workplace. The Occupational Safety and Health Act of 1970 (OSH Act) was passed to prevent workers from being killed or seriously harmed at work. The Act created the Occupational Safety and Health Administration (OSHA), which sets and enforces protective workplace safety and health standards. The law requires employers to provide their employees with working conditions that are free of known dangers [OSHA 2014]. It is important that workers understand what these regulations and controls mean and the proper use of personal protective equipment to avoid exposures. OSHA requires employers to establish hazard communication programs to transmit information on the hazards of chemicals to their employees by means of labels on containers, material safety data sheets, and training programs. Implementation of these hazard communication programs will ensure all employees have the "right-to-know" about the hazards and identities of the chemicals they work with, and will reduce the incidence of chemically - related occupational illnesses and injuries [OSHA 2014b]. Communicate with workers that as part of OSHA's lead standard, BLLs are monitored. If workers have elevated BLLs, they need to understand and comply with work site controls to lower these levels and their responsibilities to prevent future exposures. Inform workers in environments with lead that they can take lead home on their skin, hair, shoes, tools, and clothing. That is why it is important to change clothing and shower after work before going home to avoid taking lead home. Clothing contaminated with lead can

	be placed in a plastic bag and washed separately from other clothing to avoid contamination. Some workplaces provide work clothing and/or laundering service for their employees. Advise workers that it is a violation of the Act for an employer to fire, demote, transfer or discriminate in any way against a worker for filing a complaint or using other OSHA rights. OSHA can help answer questions or concerns from employers and workers. To reach a regional or area OSHA office, go to OSHA's Regional & Area Offices webpage or call 1-800-321-OSHA (6742). Employee rights under OSHA [OSHA 2014b]: https://www.osha.gov/Publications/osha3021.pdf.
Clinical Follow Up Instructions to Patients	Patients need to understand when and why they should call their physician for further medical attention. This will depend on several factors including their blood lead level results, signs and symptoms, exposure risk and exposure status, comorbid health conditions, and past and current health status. In particular, they should know that they may need their blood lead monitored on an ongoing basis to confirm removal from the source of exposure and/or response to clinical modalities including chelation therapy. ATSDR's Lead Toxicity Patient Education Sheet https://www.atsdr.cdc.gov/csem/csem.asp?csem=7&po=19 provides a job aid to facilitate patient education and clinical care follow-up instructions.
Key Points	• Health care providers should communicate and share accurate, up to date, relevant information and resources with parents and patients exposed or potentially exposed to lead from the workplace, home, and the environment. • The primary instruction to patients and parents of children exposed to lead should be to eliminate or control sources of all lead exposure. • Health care providers should be aware of relevant OSHA and CDC guidelines that govern screening

and clinical management of lead exposed or potentially exposed patients.

- Health care providers should use effective communication strategies when explaining how their patients can take steps to reduce exposure to lead in the workplace, home, and environment.

Progress Check

28. Examples of instructions that health care providers can communicate to patients who have been exposed to lead in their pre-1978 home include which of the following?

    A. Make sure all paint is in good condition.
    B. Mop and dust regularly.
    C. Follow lead safe work practices for remodeling.
    D. Cover bare soil in the yard.
    E. All of the above.

    To review relevant content, see "Identifying Domestic Exposures to Lead" in this section.

29. Communication strategies that health care providers can use to best deliver clinical information to their lead exposed or potentially exposed patients include all of the following, **EXCEPT**:

    A. Interactions with affected families performed in a culturally-sensitive, same-language, and streamlined manner.
    B. Providing simple information about the meaning of elevated BLL test results, and relevant, culturally-sensitive messages about their impact.
    C. Physicians explain the uncertainty of all quantitative medical tests and BLL testing.
    D. Speak using scientific language and statistics to increase the credibility of information to the patient.

    To review relevant content, see "Blood lead level risk communication and education strategies" in this section.

30. When explaining patients or parents that domestic exposure to lead can come from a variety of sources, it is important to advise to:

A. Eliminate source(s) of lead exposure.
B. Flush standing water from the lines and faucet for several minutes before use, and use cold water for drinking (if they have older homes with galvanized lead or lead soldered pipes and/or lead service lines).
C. Maintain a low-fat diet high in calcium, zinc, vitamin C and iron.
D. Continue to monitor BLLs (if applicable).
E. All of the above.

To review relevant content, see "Communicating Instructions to Prevent, Lower, or Mitigate Domestic Lead Exposure" in this section.

Sources of Additional Information

Lead-Specific Information

Please refer to the following online resources for more information on the adverse effects of lead, the treatment of lead-associated diseases, and management of persons exposed to lead.

- Agency for Toxic Substances and Disease Registry (ATSDR): https://www.atsdr.cdc.gov
  - For chemical, emergency situations:
    - CDC Emergency Response: 770-488-7100 and request the ATSDR Duty Officer.
  - For chemical, non-emergency situations:
    - CDC-INFO https://www.cdc.gov/cdc-info/
    - 800-CDC-INFO (800-232-4636) TTY 888-232-6348 – 24 Hours/Day
    - E-mail: cdcinfo@cdc.gov

PLEASE NOTE: ATSDR cannot respond to questions about individual medical cases, provide second opinions or make specific recommendations regarding therapy.

- Toxicological Profile for Lead: https://www.atsdr.cdc.gov/toxprofiles/TP.asp?id=96&tid=22
- ATSDR's ToxFAQs and ToxFAQs-Chemical Agent Briefing Sheet (ToxFAQs-CABS) answer the most frequently asked health questions about lead: https://www.atsdr.cdc.gov/toxfaqs/tf.asp?id=93&tid=22
- TOXFAQs – Plomo (Lead in Spanish): https://www.atsdr.cdc.gov/es/toxfaqs/es_tfacts13.html

- Centers for Disease Control and Prevention (CDC)

  - CDC Lead portal: https://www.cdc.gov/nceh/lead/
  - CDC Childhood Lead Poisoning Prevention Program https://www.cdc.gov/nceh/lead/about/program.htm?
  - National Institute of Safety and Health (NIOSH) Workplace Safety and Health Topics – Lead: https://www.cdc.gov/niosh/topics/lead/

- U.S. Environmental Protection Agency

  - EPA Lead Home at: https://www2.epa.gov/lead
  - Lead Awareness Program provides information about lead in paint, dust, and soil and how to protect children from lead poisoning at: https://www.epa.gov/lead/
  - EPA's Water on Tap, what you need to know. https://water.epa.gov/drink/guide/upload/book_waterontap_full.pdf
  - Learn About Lead, Protect Your Family, and Renovate Right https://www.epa.gov/lead/pubs/renovation.htm

	o Protect Your Family From Lead In Your Home https://www2.epa.gov/lead/protect-your-family-lead-your-home o Let's Wipe Out Lead Poisoning: Renovate Right https://www2.epa.gov/lead/lead-safe-certified-guide-renovate-right o Safe Water Drinking Act. https://water.epa.gov/lawsregs/rulesregs/sdwa/index.cfm o Safe Drinking Water Hotline 1-800-426-4791. • The National Lead Information Center (NLIC), funded by EPA, the CDC and the Department of Housing and Urban Development (HUD), provides the general public and professionals with information about lead hazards and their prevention: http://www2.epa.gov/lead/forms/lead-hotline-national-lead-information-center, or call 800-424-LEAD (800-424-5323) Information is available in Spanish with the use of a translator. • Occupational Safety and Health Administration (OSHA) Safety and Health Topics – Lead: https://www.osha.gov/SLTC/lead/ • U.S. Department of Housing and Urban Development. The Renovation, Repair and Painting Rule. Renovation Training and resources https://portal.hud.gov/hudportal/HUD?src=/program_offices/healthy_homes/training/rrp/rrp • National Poison Control Center 1-800-222-1222 • Health departments and other agencies may have additional materials that may be useful to patients with environmental lead exposures.
General Environmental Health Information	Please refer to the following online resources for general information on environmental health. • Agency for Toxic Substances and Disease Registry: https://www.atsdr.cdc.gov

- Case Studies in Environmental Medicine (CSEM) – Taking a Pediatric Exposure History: https://www.atsdr.cdc.gov/csem/csem.asp?csem=26&po=0
- Case Studies in Environmental Medicine (CSEM) – Taking an Exposure History: https://www.atsdr.cdc.gov/csem/csem.asp?csem=33&po=0
- Complete library of CSEMs: https://www.atsdr.cdc.gov/csem/csem.html
- Exposure History Worksheet [Adult] (pdf): https://www.atsdr.cdc.gov/csem/exphistory/docs/CSEMExposHist-26-29.pdf
- ATSDR Division of Regional Operations:
  - Through the working relationships they have established with EPA, other federal and state agencies, individual citizens, and community groups, regional representatives are able to maintain current and historic knowledge of the sites and issues in their regions.
    - ATSDR's Regional Offices, the states and territories they cover, and corresponding contact information can be found at: https://www.atsdr.cdc.gov/dro/index.html
- ATSDR State Cooperative Agreement Program: https://www.atsdr.cdc.gov/states/index.html
  - The Cooperative Agreement Program provides essential support in communities nationwide to fulfill the mission of ATSDR.
  - The program funds 30 states and one tribal government to develop and strengthen their abilities to evaluate and respond to environmental public health issues.

- Centers for Disease Control and Prevention (CDC): https://www.cdc.gov/
  - The CDC works to protect public health and safety by providing information to enhance health decisions, and promotes health through

partnerships with state health departments and other organizations.
  - The CDC focuses national attention on developing and applying disease prevention and control (especially infectious diseases), environmental health, occupational safety and health, health promotion, prevention, and education activities designed to improve the health of the people of the United States.

- National Center for Environmental Health (NCEH): https://www.cdc.gov/nceh/

  - NCEH works to prevent illness, disability, and death from interactions between people and the environment. It is especially committed to safeguarding the health of populations that are particularly vulnerable to certain environmental hazards — children, the elderly, and people with disabilities.
  - NCEH seeks to achieve its mission through science, service, and leadership.

- Environmental Protection Agency (EPA): https://www.epa.gov/

  - EPA is a government agency concerned with the American environment and its impact on human health.

- National Institutes of Health (NIH): https://www.nih.gov/

  - Part of the U.S. Department of Health and Human Services (HHS), NIH is the primary federal agency that conducts and supports medical research.

- National Institute of Occupational Safety and Health (NIOSH): https://www.cdc.gov/niosh/

  - Part of HHS, NIOSH helps to assure safe and healthy working conditions for working men and women by providing research, information,

education, and training in occupational safety and health.

- Children's Environmental Health Network. Training Manual on Pediatric Environmental Health: Putting it into Practice (CEHN) http://www.nchh.org/Portals/0/Contents/Training_manual_lead.pdf

- The U.S. National Library of Medicine's Toxicology and Environmental Health Information Program (TEHIP): https://sis.nlm.nih.gov/enviro.html

  - TEHIP maintains a comprehensive toxicology and environmental health web site that includes access to resources produced by TEHIP and by other government agencies and organizations.
  - This web site includes links to databases, bibliographies, tutorials, and other scientific and consumer-oriented resources.
  - TEHIP also is responsible for the Toxicology Data Network (TOXNET®), an integrated system of free toxicology and environmental health available at: https://toxnet.nlm.nih.gov/

Clinical Resources (Publically Available)

Please refer to the following online resources for more information on the clinical treatment of lead-associated diseases, and management of persons exposed to lead.

- American Association of Poison Control Centers (AAPCC): http://www.aapcc.org or 800-222-1222

  - The AAPCC can be contacted for questions about poisons and poisonings. The web site provides information about poison centers and poison prevention.
  - The AAPCC does not provide information about treatment or diagnosis of poisoning or research information for student papers.

- American College of Medical Toxicologists (ACMT): http://www.acmt.net

- ACMT is a professional, nonprofit association of physicians with recognized expertise in medical toxicology.
- ACMT is dedicated to advancing the science and practice of medical toxicology through a variety of activities.

- American College of Occupational and Environmental Medicine (ACOEM) http://www.acoem.org/

  - ACOEM is the nation's largest medical society dedicated to promoting the health of workers through preventive medicine, clinical care, research, and education.
  - Its members are a dynamic group of physicians encompassing specialists in a variety of medical practices who develop positions and policies on vital issues relevant to the practice of preventive medicine, both within and outside of the workplace.

- American College of Preventive Medicine (ACPM) http://www.acpm.org

  - ACPM is the national professional society for physicians committed to disease prevention and health promotion.
  - ACPM's 2,000 members are engaged in preventive medicine practice, teaching, and research.

- Association of Occupational and Environmental Clinics (AOEC): http://aoec.org

  - AOEC is a network of more than 60 clinics and more than 250 individuals committed to improving the practice of occupational and environmental medicine through information sharing and collaborative research.
  - Medical Management Guidelines for Lead-Exposed Adults. Revised 04/24/2007. CSTE Medical Management Guidelines Added October 2013 See Pages 16-17.

http://www.aoec.org/documents/positions/mmg_revision_with_cste_2013.pdf

- Pediatric Environmental Health Specialty Units (PEHSUs): http://www.PEHSU.net
  - Based at an academic center, each PEHSU is a collaboration between the pediatric clinic and the occupational and environmental clinic at each site.
  - The PEHSUs were developed to provide education and consultation for health care providers, public health professionals, and others about the topic of children's environmental health.
  - The PEHSU staff is available for consultation about potential pediatric environmental health concerns affecting both the child and the family. Health care professionals may contact their regional PEHSU site for clinical advice

Posttest

Posttest *Please select the one best answer choice.*

1. Lead is a

   A. Soft, heavy, blue-gray metal
   B. Naturally occurring substance
   C. Commercially used substance
   D. All of the above.

2. Which of the following is true about organic lead in the United States?

   A. It is more commonly found in home environments today than is inorganic lead.
   B. It is the most available source of exposure through natural processes.
   C. It was a common source of lead exposure in the United States when leaded gasoline was used in “on road” vehicles.

D. Cannot enter the body through dermal exposure.

3. In the U.S., the majority of children exposed to lead are exposed from

   A. Contaminated drinking water.
   B. Lead-contaminated dust, soil, and deteriorated lead-based paint.
   C. Imported food, home remedies, and cosmetics.
   D. Commercial products containing lead.

4. Which of the following is **NOT** considered a potential source of lead exposure?

   A. Jewelry.
   B. Unfinished treated lumber.
   C. Imported cosmetics and home remedies.
   D. Glazed ceramics.

5. Which of the following statements about sources of lead in the environment is true?

   A. Lead dust exposure can raise children's BLLs above the reference value.
   B. Lead is heavy, so it does not travel far in the air from smelters or industries.
   C. Lead is only a problem in urban areas with pre-1978 housing.
   D. Children who eat paint chips make up the majority of those with BLLs above 5 µg/dL.

6. The most common route of exposure to lead in U.S. children is?

   A. Ingestion.
   B. Inhalation.
   C. Dermal contact.
   D. All are equally common.

7. Which is the U.S. population most susceptible to adverse health effects from lead exposure? Of the following, the U.S. population most at risk for exposure to lead today is

A. People who work in lead mining and smelting.
B. Adult household contacts of workers engaged in the manufacture of lead-containing products who remove contaminated clothing and take showers before going home.
C. Children living in pre-1978 buildings with deteriorated paint.
D. Construction workers.

8. CDC's upper reference level value of 97.5% based on 2012-2015 population distributions of children's blood lead is which of the following?

A. 3 µg/dL.
B. 5 µg/dL.
C. 10 µg/dL.
D. 25 µg/dL.

9. What does the CDC's reference value for children's blood lead indicate?

A. The BLL below which no effects have been found.
B. The level OSHA uses as a level of concern in workers.
C. An advisory level for environmental and educational intervention.
D. A regulatory level at which children must be immediately removed from any pre-1978 residences.

10. What are the OSHA standards for Lead Levels?

A. Permissible exposure limit (PEL) of lead in the workplace.
B. The frequency and extent of medical monitoring triggered by the action level.
C. Other responsibilities of the employer.
D. All of the above.

11. What is the U.S. EPA drinking water action level for lead?

A. 15 ppb in more than 10% of customer taps sampled.
B. The frequency and extent of medical monitoring for a BLL of 10 µg/dL.
C. 5 ppm in tap water.
D. All of the above.

12. What is the CPSC regulatory limit value for lead in paint?

A. 5 ppb.
B. 5 µg/L.
C. 10 µg/L.
D. 15 µg/L.
E. 90 ppm (0.009%).

13. What is the percentage of ingested inorganic lead a child will absorb after a meal and on an empty stomach

A. 10 and 40%.
B. 25 and 60%.
C. 40 and 80%.
D. 50 and 100%.

14. Which of the following answer choices best describes where lead is distributed once it enters the body?

A. Blood, sweat and tears.
B. Stomach, liver and bones.
C. Blood, mineralizing tissues and soft tissue.
D. Blood, cerebrospinal fluid and brain.

15. What is the approximate half-life of lead in the blood of an adult?

A. Seven days.
B. Twenty-eight days.
C. Three to six months.
D. One year.

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16. Why would a patient's BLL drop only gradually, even with complete removal from the source of exposure?

    A. Lead's half-life in the blood is almost one year.
    B. Everyone is exposed to high background levels of lead.
    C. Lead stored in the bones and soft tissues may be released over time.
    D. None of the above.

17. The most commonly reported adverse health effects in children at BLLs <5µg/dL include all of the following **EXCEPT**

    A. Endocrine effects.
    B. Attention-related behavioral problems.
    C. Decreased IQ and cognitive performance.
    D. Greater incidence of problem behaviors.

18. Some researchers have suggested that lead exposure in the U.S. continues to contribute significantly to

    A. Socio-behavioral problems such as juvenile delinquency and violent crime.
    B. Kidney disease.
    C. Decreased IQ and cognitive performance.
    D. All of the above.

19. What is the most sensitive organ system for lead exposure in children?

    A. Endocrine system.
    B. Nervous system.
    C. Immunologic system.
    D. Renal system.

20. What is the identified threshold or safe level of lead in blood for children?

    A. 5 µg/dL.
    B. 10 µg/dL
    C. 15 µg/dL.

D. There is no identified threshold or safe level of lead in blood.

21. Which of the following statement(s) about taking screening exposure histories for children is/are true?

A. It is necessary to ask all the screening questions at every visit.
B. The physician should perform age-appropriate risk-based screening for lead poisoning during an initial well-child visit.
C. There is no need to ask age-specific screening questions because all children are exposed equally.
D. All of the above.

22. As part of the exposure history, you should explore

A. Possible lead exposure at parent's work.
B. Household members' hobbies that might involve lead.
C. Household use of imported home remedies and cosmetics.
D. All of the above.

23. Which of the following statements regarding the clinical assessment of a lead exposed patient is/are true?

A. Carefully evaluate the nervous system for subtle changes, including behavioral changes.
B. Check blood pressure to evaluate whether the patient is hypertensive and pay special attention to the renal system in those who are hypertensive.
C. Hearing, speech, and other developmental milestones must be carefully evaluated and documented.
D. Assess the nutritional status, diet, and dietary behaviors of young children.

E. All of the above.

24. Which of the following statements is true regarding the signs and symptoms of lead toxicity?

A. Signs and symptoms will always be more noticeable with increasing BLLs.
B. All children with low dose level exposure, will be asymptomatic.
C. Symptoms of lead exposure and their onset may vary.
D. Categorizing the signs and symptoms by BLL from lowest to highest is very accurate.

25. What is the best screening and confirmatory diagnostic test for evaluating recent or ongoing lead exposure in a child?

A. EP/ZPP.
B. Capillary BLL (fingerstick).
C. Venous BLL.
D. Abdominal radiograph.

26. Blood lead level (BLL) testing is recommended for all of the following at risk groups **EXCEPT**

A. Neonates and infants of women with BLLs ≥5µg/dL.
B. Children ≤72 months that missed recommended screening at a younger age.
C. All immigrant, refugee, and internationally-adopted children when they arrive in the U.S.
D. All children when they start school.

27. What imaging and other clinical modalities may assist in the diagnosis of current or past lead exposed patients?

A. Abdominal radiographs.
B. Long bone radiographs.
C. Hair assay.
D. All of the above.
E. None of the above.

28. Management strategies for children whose blood levels are equal to or greater than the reference value include of the following:

    A. Nutritional education and intervention.
    B. Educational intervention and ongoing monitoring.
    C. Coordination with other organizations.
    D. All of the above.

29. When is ongoing monitoring of BLLs indicated?

    A. When a child is identified with BLL results greater than or equal to the CDC reference value (≥5 µg/dL).
    B. When a child has a venous BLL <5 µg/dL.
    C. When any child presents with hypertension and neurological symptoms.
    D. When there is more than one child living in a pre-1978 home.

30. BLLs that increase after interventions to mitigate lead exposure may indicate which of the following?

    A. An unrecognized source of exposure.
    B. Inappropriate abatement activities and failure to mitigate the identified hazard.
    C. The redistribution of lead stores within the child's body post-chelation.
    D. All of the above.

31. What should you tell patients who are concerned about lead in their drinking water, but there is no confirmation of lead contamination from the Department of Health?
    A. As long as they don't have well water, their water is safe.
    B. Until they can get their water tested, boil their drinking water.
    C. Drinking water is non-acidic and will not leach lead out of old pipes, fixtures, or solder.
    D. Until they can get their water tested, they can drink bottled water, or run cold water for 1 to 2 minutes before use. They can contact their

water provider for recent lead level test results (large water suppliers).

32. When explaining patients or parents that domestic exposure to lead can come from a variety of sources, it is important to advise to:

    A. Eliminate source(s) of lead exposure.
    B. Flush standing water from the lines and faucet for several minutes before use, and use cold water for drinking (if they have older homes with galvanized lead or lead soldered pipes and/or lead service lines).
    C. Maintain a low-fat diet high in calcium, zinc, vitamin C and iron.
    D. Continue to monitor BLLs (if applicable).
    E. All of the above.

33. What effective doctor/patient communication strategies can you use?

    A. Offer simple information about the meaning of elevated BLL test results, and relevant, culturally-sensitive messages about their impact.
    B. Allow interactions with affected families performed in a culturally-sensitive, same-language, and streamlined manner.
    C. Define specialized terms such as “detectable level” or “elevated BLL”.
    D. All of the above.

Relevant Content

Question	Location of Relevant Content
1.	What Is Lead? • Explain what lead is.
2.	Where is Lead Found?

- Describe potential sources of lead exposure in the United States today.

3. Where Is Lead Found?

- Describe potential sources of lead exposure in the United States today.

5. Where Is Lead Found?

- Describe potential sources of lead exposure in the United States today.

6. Where Is Lead Found?

- Identify the most common routes of exposure to lead in the United States today.

7. Who Is At Risk of Lead Exposure?

- Identify the populations most heavily exposed to lead.

8. What Are U.S. Standards for Lead Levels?

- Describe the Centers for Disease Control and Prevention's (CDC) reference value for lead in children's blood.

9. What Are U.S. Standards for Lead Levels?

- Describe the Centers for Disease Control and Prevention's (CDC) reference value for lead in children's blood.

10. What Are the U.S. Standards for Lead Levels?

- Describe the U.S. Occupational Safety and Health Administration's (OSHA) Permissible Exposure Limit (PEL) for lead in workplace air.

11. What Are U.S. Standards for Lead Levels?

- Describe the U.S. Environmental Protection Agency's (EPA) drinking water regulation for lead.

12. What Are U.S. Standards for Lead Levels?

- Describe the Consumer Product Safety Commission's (CPSC) regulatory limit value for lead in paint.

13. What Is the Biological Fate of Lead in the Body?

- Describe how lead is absorbed.

14. What Is the Biological Fate of Lead in the Body?

- Describe how lead is distributed in the body.

15. What Is the Biological Fate of Lead in the Body?

- Identify the half-life of lead in the blood.

16. What Is the Biological Fate of Lead in the Body?

- Describe how lead is distributed in the body.

17. What are Possible Health Effects from Lead Exposure?

- Describe how lead affects adults and children.

18. What are Possible Health Effects from Lead Exposure?

- Describe how lead affects adults and children.

19. What Are Possible Health Effects from Lead Exposure?

- Describe what is the most sensitive organ system for lead exposure in children.

20. What Are Possible Health Effects from Lead Exposure?

- Specify that there is no identified threshold or safe level of lead in blood.

21. Clinical Assessment –Exposure History

- Describe how to take a screening exposure history for lead exposure.

22. Clinical Assessment –Exposure History

- Identify lead exposure-related questions to ask during a child visit.

23. Clinical Assessment – Signs and Symptoms

- Name typical signs and symptoms consistent with lead toxicity.

24. Clinical Assessment – Signs and Symptoms

- Describe key features of the physical examination for patients exposed to lead.

25. Clinical Assessment – Diagnostic Tests and Imaging

- Describe guidelines for blood lead screening and confirmatory diagnostic testing on patients at risk of recent or ongoing lead exposure.

26. Clinical Assessment – Diagnostic Tests and Imaging

- Describe guidelines for blood lead screening and confirmatory diagnostic testing on patients at risk of recent or ongoing lead exposure.

27. Clinical Assessment – Diagnostic Tests and Imaging

- Describe imaging and other clinical modalities that may assist in the diagnosis of current or past lead exposed patients.

28. How Should Patients Exposed to Lead be Treated and Managed?

- Describe a management strategy for children whose blood lead levels are equal to or greater than the current CDC reference value of 5 µg/dL.

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- Describe a management strategy for children whose blood lead levels are equal to or greater than the current CDC reference value of 5 µg/dL.

31. What Instructions Should be Given to Patients?

- Describe instructions to parents and patients to prevent or reduce lead exposure.

32. What Instructions Should be Given to Patients?

- Describe instructions for patients exposed to lead

33. What Instructions Should be Given to Patients?

- Describe communication strategies that health care providers can use to best deliver clinical information to their lead exposed or potentially exposed patients.

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Blood Lead Levels and children's Behavioral and Emotional Problems: A Cohort Study

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Abstract

Importance—The association between lead exposure and children's IQ has been well studied, but few studies have examined the effects of blood lead on children's behavior.

Objective—This study examined the association between blood lead concentrations and behavioral problems in a community sample of Chinese preschool children with a mean blood lead level <10 μg/dL.

Design—Prospective cohort study.

Setting—Four elementary schools in Jintan City, Jiangsu Province of China.

Participants—Participants were 1341 children at ages 3–5 years.

Main Outcome Measures—Blood lead concentration was measured at ages 3–5 years. Behavioral problems were assessed using Chinese versions of the Child Behavior Checklist and Teacher Report Form when children at age 6 years.

Results—Mean blood lead concentration was 6.4 μg/dL (SD=2.6), with 75th and 90th percentiles being 7.7 and 9.4 μg/dL respectively. General linear modeling showed significant associations between blood lead concentrations and increased scores for teacher reported behavioral problems. One μg/dL increase of blood lead concentration resulted in a 0.32, 0.25 and 0.30 increase of behavior scores on emotional reactivity, anxiety/depressed and pervasive developmental problems,

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respectively (p <0.05), while adjusting for parental and child variables,. Spline modeling showed that teacher-reported behavior scores increased with blood lead concentration, particular for older girls.

Conclusions and Relevance—Blood lead concentrations, even at mean levels of 6.4 μg/dL, were associated with increased risk of behavioral problems in Chinese preschool children, including internalizing and pervasive developmental problems. This association showed different patterns depending on age and gender.

Keywords

behavior; blood lead concentration; CBCL; TRF; emotion; low lead exposure; pervasive developmental disorders

INTRODUCTION

Lead is now accepted to lower children's IQ at commonly encountered exposures, and no threshold has been determined for this effect. Accordingly, in May 2012 the US Centers for Disease Control and Prevention eliminated the terminology "level of concern," which was previously defined as a blood lead level concentration of 10 μg/dL.[1] Rather, children with elevated blood lead concentrations will be identified using a reference value based on the 97.5th percentile of the NHANES-generated blood lead concentration distribution in children aged 1–5 years old; currently, this value is 5 μg/dL.[1]

Blood lead concentrations >10 μg/dL are also linked to behavior problems in children,[2–6] delinquency in adolescents,[7–9] and criminal behaviors in adults.[10–11] Nevertheless, lead's effect on children's behavior is less understood compared to its impact on IQ. Few studies have been done at levels of exposure <10 μg/dL,[12–14] and almost all have focused on attention-related problems. Lead exposure is particularly concerning in developing countries where children have higher blood lead concentrations than in the US or Europe.[15–17] The present study examined the association between blood lead concentration (mean = 6.4 μg/dL) and behavioral problems using data from a community sample of Chinese preschool children.

METHODS

Subjects

Data comes from an ongoing longitudinal project, the China Jintan Child Cohort Study, which includes 1656 3–5-year-old children in Jintan city, Jiangsu province, China. Participants were drawn from four preschools chosen to represent the entire city's geographical, social, and economic profiles between from Fall 2004 to Spring 2005. Detailed information on the Jintan cohort is reported elsewhere.[18–19] The current study used a sample of 1341 children (603 girls, 738 boys) with blood lead data (81% of our original cohort). There were no significant differences in family residence, parental education or occupation, or marital status of parents between children with and without blood lead data.[18–19] Institutional Review Board approval was obtained from the University of

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Pennsylvania and the ethical committee for research at Jintan Hospital in China. Written informed consent was obtained from parents.

Measures

Blood lead concentrations—Blood lead concentration was tested once for each child, at age 3, 4, or 5 years, between November 2004 and March 2005. Collection was done by nurses using a standard protocol to avoid lead contamination. Each specimen was analyzed twice for blood lead using a graphite furnace atomic absorption spectrophotometer,[20–21] and Kaulson Laboratories in New Jersey provided blood lead reference materials for quality control. Limit of detection (LOD) was 1.8 μg/dL; half of LOD was imputed for 3 (0.2%) samples under the LOD. More details for this process are provided in Liu et al.[22]

Behavioral Problems—Children's behavioral problems were assessed in their last month of preschool, at age 6 years. Parents and teachers assessed the children with Chinese versions of the Child Behavior Checklist (CBCL/1.5–5) and Caregiver-Teacher Report Form (C-TRF/1.5–5) separately. The CBCL and C-TRF are widely used for assessing behavioral and emotional problems in children[23–25]; each consists of 99 items dealing with a child's behavior within the past twelve months. Items are rated on a 3-point scale (0-Not True, 1-Sometimes True, or 2-Often True).[26]

The CBCL/C-TRF scores are summarized in 3 ways: Two broadband problems (internalizing and externalizing) and Total *Problems*; seven *Syndromes* (anxiety/depression, emotional reaction, withdrawn, somatic complaints, sleep problems, attention problems, and aggression); and Five Diagnostic and Statistical Manual (DSM)-oriented *Scales* (affective, anxiety, attention deficit/hyperactivity, oppositional defiant, and pervasive developmental).[27] The problem structure (internalizing and externalizing) is still valid when used in Chinese children. Detailed descriptions of the setting and procedures of CBCL/C-TRF assessment and factor structures are provided in Liu et al.[28] We calculated normalized T scores (the ratio of behavior score's deviation from the population mean to its standard deviation) from raw scores relative to the scores of a Chinese normative sample of peers.[26,28] Children with a T score ≥60 (83rd percentile of Chinese norm group) are more likely to present behavior problems in the borderline/clinical range.[26]

Cognitive performance—Children's cognitive performance was assessed during their last year of preschool, at ages 5–6 years, using the Chinese version of the Wechsler Preschool and Primary Scale of Intelligence – Revised (WPPSI–R).Constructed by Wechsler[29] to assess the intelligence of children aged 3–7 years, the WPPSI-R was standardized in China in 1988 and is reliable in Chinese children.[30–31] Details are provided in Liu & Lynn[32] and Liu et al.[33]

Sociodemographic variables—Parents completed a questionnaire on the child's sex, age at blood lead test, siblings (yes/no), parental education, parental occupation, marital status, and residence (city, suburb, or rural).

Statistical Analysis—Sample characteristics were summarized by descriptive statistics. Student's t test and ANOVA were used to examine gender and age differences in blood lead

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concentrations, respectively. We used linear regression to examine the relationship between blood lead concentration (μg/dL) and behavior T scores while controlling for child and family characteristics (gender, residence, parental education, father's occupation, single child status, marital status of parents, and IQ). We treated blood lead concentration as a continuous linear term with units of μg/dl. Age in months at time of blood test was included in the above analysis, while age at time of behavior assessment was not included since all children were tested at 6 years. The demographic variables were selected based on past studies[22,34] and/or our preliminary analyses indicating these variables were associated with either or both blood lead concentration and behavioral problems. Behavior T scores that were not normally distributed were log transformed.

Since the internalizing and externalizing behavior scores differ by gender in this sample[28] and associations between blood lead concentration and behavior assessments may vary with age at blood lead test,[35] we tested several interactions of age by gender. Logistic regression analysis did not find any age by gender interaction ($p>0.05$) on the risk of behavior problem, adjusted by squared lead concentration. We regressed behavior problem scores on spline modeled blood lead concentration,[36] while adjusting for child and family characteristics; we further tested two sets of interaction of Blood Lead Concentration by gender, and by 3 age groups (3, 4, and 5 years) separately. Given the significant interaction of Blood Lead Concentration by gender for internalizing problems ($p=0.008$), we separated the data into six strata by gender and age to examine the relationship between Blood Lead Concentration and behavioral problems.

We finally performed logistic regression analyses to examine the association between blood lead concentration and odds of clinical-level behavioral problems. A p-value<.05 was considered significant. We analyzed data using R, Version 2.15.2 (R Development Core Team, GNU General Public License) for spline modeling and IBM SPSS Statistics, Version 17 (SPSS Inc., Chicago, IL, USA) for all other analysis.

RESULTS

Of the 1341 children with blood lead concentrations available, 1025 children had complete data. Compared with those without complete data, We found no group difference on gender, age group, and residence location. Characteristics of the children and their families, are summarized in Table 1. Mean blood lead concentration was 6.4 μg/dL (SD=2.6). Distribution was as follows: 25% were ≤4.7 μg/dL, 50 % were ≤6.2 μg/dL, 75% were ≤7.7 μg/dL and 90% were ≤9.4 μg/dL. As shown in Table 2, mean concentration was higher in boys than in girls and increased with age at blood lead test for both boys and girls.

Blood lead concentration and behavior scores

Our linear regression model indicated that all teacher-reported behavior scales scores increased with blood lead concentration after adjusting for children and family factors (Table 3). Blood lead concentration had statistically significant harmful associations with scores on emotional, anxiety and pervasive developmental problems. One μg/dL increase of blood lead concentration resulted in a 0.32, 0.25 and 0.30 increase of behavior scores on emotional reactivity, anxiety/depressed and pervasive developmental problems, respectively

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(p <0.05). No parent-reported behavioral scales were significantly correlated with blood lead concentration.

We used spline modeling to examine the relationships between blood lead concentration and two broadband problems (internalizing and externalizing) [26] in each of the six strata by gender and age groups (3, 4 and 5 years).

Behavior scores for internalizing problems increased with blood lead concentration for girls at age 5 years (p=0.04) and age 4 years (p=0.048) (Figure 1). Behavior scores slightly increased with blood lead concentration for boys at age 5 years and slightly decreased for boys at age 4 years.

Behavior scores for externalizing problems increased with blood lead for boys at age 5 (Figure 2). In the group with blood lead measurements at age 3 years, no clear relationship was observed for either gender (Data available upon request).

Blood lead concentration and clinical-level behavioral problems

Logistic regression was conducted to examine the association between blood lead concentrations) and clinical level behavioral problems (ie., T-score ≥ 60). Odds ratio was used to present the strength of the association. In the unadjusted logistic regression analysis, blood lead concentration was significantly associated with increased odds for attention, internalizing and total problems, as well as for DSM-oriented pervasive developmental and attention deficit/hyperactivity. After adjusting for child and family characteristics, blood lead concentration was still significantly associated with increased odds for emotionally reactive (OR=1.10, 95%CI=1.02 – 1.19), anxious/depressed (OR=1.12, 95%CI=1.03 – 1.23), total internalizing problems (OR= 1.10, 95%CI= (1.03 – 1.18),as well as DSM-oriented anxiety (OR=1.10, 95%CI= 1.01 – 1.19) and pervasive developmental problems (OR=1.16, 95%CI=1.07 – 1.25) (Table 4). For example, a 1 μg/dL increment in blood lead concentration was associated with a 16% increased likelihood of having pervasive developmental problems.

We did not find any significant associations between blood lead concentration and parent-reported clinical-level behavioral problems (p>0.05) (Data available upon request)

DISCUSSION

Key findings

In these 1341 children from the China Jintan Child Cohort Study, we found that blood lead concentration at mean levels of 6.4 μg/dL, when children were at ages 3–5 years, was significantly associated with increased behavioral problem scores at age 6 years. The findings are consistent with previous studies.[2,5,7–8,14,35,37] We also found that the risk of clinical-level behavioral problems increased with blood lead concentration, including total internalizing problems and DSM-oriented anxiety and pervasive developmental problems. This association showed different patterns depending on age and gender. The results held after adjusting for potential child and family cofounders.

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Age, blood lead concentrations, and behavior

Blood lead concentration increased with age in children before school age (Table 2), which is consistent with past studies in China.[38–41] The blood lead concentration and age association in China are different from those in the US, where blood lead concentration increases with age in children up to ages 2–3 years and then declines.[42] This may be due to different sources of lead exposure in these two countries,[22] as well as China's phasing out of leaded petroleum beginning in 1997 and completed around 2000.[43–44] This transition suggests that our cohort (born between 1999–2001) might have less lead exposure than those born earlier.

The blood lead concentration and behavior association also varied with the age of the child at the time of blood lead measurement. In our stratified analysis by age at the time of blood lead measurement, we found that there was an increased risk for behavioral problems with increased blood lead concentration in older children (5 and 4 years old) but not in 3-year-old children (Figure 1–2). Our findings are consistent with patterns reported by Chen et al.[35] where blood lead concentrations at 7 years had a direct effect on concurrent behavioral problems, while blood lead concentration at 2 years was not associated with behavior at age 7 years. Similar effects were reported by Hornung et al.[42]: blood lead concentrations at age 6 years were more strongly associated with cognitive and behavioral development than those measured in early childhood. Adult gray matter brain volume reduction is also more highly associated with blood lead concentrations at 5 and 6 years compared to those measured at earlier ages.[45] Taken together, these findings suggest that relatively high blood lead concentrations beyond infancy and toddlerhood can have detrimental effects on behavior.

Gender, blood lead concentrations, and behavior

Though males in this study had higher mean blood lead concentrations than females (Table 2), the association with behavior was more consistent in females when taking into account the time that had elapsed since blood lead measurement (Figures 1 and 2). Separate logistic regression analyses by gender also showed stronger associations between blood lead concentration and increased risk for behavioral problems for girls (Table 4). Results of other studies examining cognitive and behavioral effects of lead exposure between genders have been mixed.[7,14,45–48] Nevertheless, few studies have specifically examined the effects of blood lead concentration on behavior by age and gender or they have treated sex/gender only as a covariate. Our findings could partially reflect biological and sociological differences between genders, such as different sensitivities to lead and its effects on the development of particular brain areas.[49–50] For instance, animal models suggest that whereas lead exposure may alter hippocampal glial metabolism and induce behavioral alterations of hyperactivity in male rats,[51] female rats exposed to lead may have attenuated hippocampus potentiation[52] and express depressive-like behavior not seen in male counterparts.[53] More studies on susceptibility to environmental toxicants between genders are warranted.

Blood lead levels and internalizing behavior problems

Previous research has reported associations between blood lead concentration and externalizing problems in children and adolescents, including attention-related[3,6,12,54] and

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conduct problems.[7–9,37] Our spline model also indicate that increased blood lead concentration is associated with increased risk for externalizing behavior score in boys at age 5 years (Figure 2). Our logistic regression analysis, however, show significant relationships between blood lead concentration and the internalizing problems of anxiety and depression. Our findings extend those from Liu et al.[55] that in young Chinese children, adverse outcomes of child temperament, including withdrawal and mood, were associated with lead exposure from electronic waste recycling. Our findings also support past findings of significant problems with anxiety, emotion regulation, and frustration tolerance in lead-exposed toddlers,[5] as well as anxiety and emotional problems in young children.[14,56] Indeed, recent experimental animal studies suggest that lead exposure may induce anxiety and withdrawal by altering the hypothalamic-pituitary axis and neurotransmitter systems.[57–58]

In this study, increased blood lead concentration was associated with an increased risk of DSM-oriented pervasive developmental problems as measured by 13 items like *Avoids eye contact*, *Can't stand things out of place*, *Shows little affection*, *Speech problem*, and *Withdrawn*[26] for both genders, though the association was stronger for girls. Pervasive developmental conditions are associated with the development of clinical psychiatric disorders such as autism, [59–60] and degrees of severity in autism spectrum disorder are reportedly well-correlated with elevations in lead, mercury, and copper concentrations.[61] However, our results should be interpreted with caution as we used only a relatively non-specific CBCL subscale rather than gold standard clinical diagnostic scales. In addition, we cannot conclude whether or not the difference in findings for internalizing compared to externalizing behavior can be contributed to cultural underpinnings.

Because behavior may be influenced the setting in which it occurs, such as the home or school, the use of multiple informants is valuable in assessing children's behavioral and emotional problems.[28] For example, caregivers may be better at detecting disruptive problems, while teachers have been found to be better informants on hyperactivity/inattentiveness[62] and internalizing problems in preschool children.[63] In the present study, we found blood lead concentration was significantly associated with teacher-reported behavioral problems, especially in internalizing and developmental problems, but not with parent-reported problems.One possible explanation is that teachers are exposed to relatively large groups of same-aged children and may be more sensitive to behavioral deviations than parents. This may be particularly relevant in China, where most parents' understanding of child behavior is limited to their only child due to the single-child policy. It is also possible that teachers' perceptions of child behavior may be less susceptible to the influence of their own psychopathology and levels of stress, whereas this is not necessarily true for parents.[64]

Limitations

Several limitations of this study should be acknowledged. First, because we measured blood lead concentration once from 3–5 years of age, it is unclear if problems seen at 6 years of age reflect lead exposure at measurement, during the prenatal period, or during the first 2 years of life. Second, we measured behavior using teacher and parent reports rather than clinical diagnosis. Third, although we adjusted for parental education, work, and residence,

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there may be other cofounders we did not control for that affected teacher report of behavioral problems. Finally, we did not assess behavioral problems at the time blood lead concentrations were measured: it is thus possible that behaviors associated with developmental disorders (e.g. pica) contribute to elevated blood lead concentrations.[61,65]

Conclusion and implications

Childhood lead poisoning is well documented and persists as a major, yet preventable, global public health problem. Lead-related health problems cost $43.4 billion annually in the United States.[66] Lead exposure remains common in Chinese children,[67–68] and nearly one-quarter of children in China have blood lead concentrations >10 μg/dL, with a relatively high mean of 8.1 μg/dL.[69] The comparatively low mean blood lead concentration (6 μg/dL) in our sample, which is from the small city of Jintan, may be due to better environmental conditions in China's smaller cities than in its larger metropolises.[70]

Our findings show that frequently encountered blood lead concentrations in preschool children are associated with increased behavioral problems, especially internalizing problems in children at 6 years. To our knowledge this is one of the first studies to comprehensively examine the relationship between blood lead concentrations and behavioral problems in a large sample of young, Chinese children. This study contributes further evidence that blood lead concentrations even below the CDC's previously defined level of concern, <10 μg/dL, are harmful[71–72] and that exposures now commonly encountered in China may have implications for children's behavioral developments. As such, continued monitoring of blood lead levels as well as clinical assessments of mental behavior during regular pediatric visits may be warranted. Further examination is needed to more clearly delineate the biological effects of environmental lead exposure and resulting behavioral impairments among children and to assess the long-term clinical significance of these findings.

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Abbreviations

CBCL	Child behavior checklist
CI	Confidence Interval
C-TRF	Caregiver-Teacher Report Form
DSM	Diagnostic and Statistical Manual
IQ	Intelligence Quotient
OR	Odds ratio

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WPPSI-R Wechsler Preschool and Primary Scale of Intelligence-Revised

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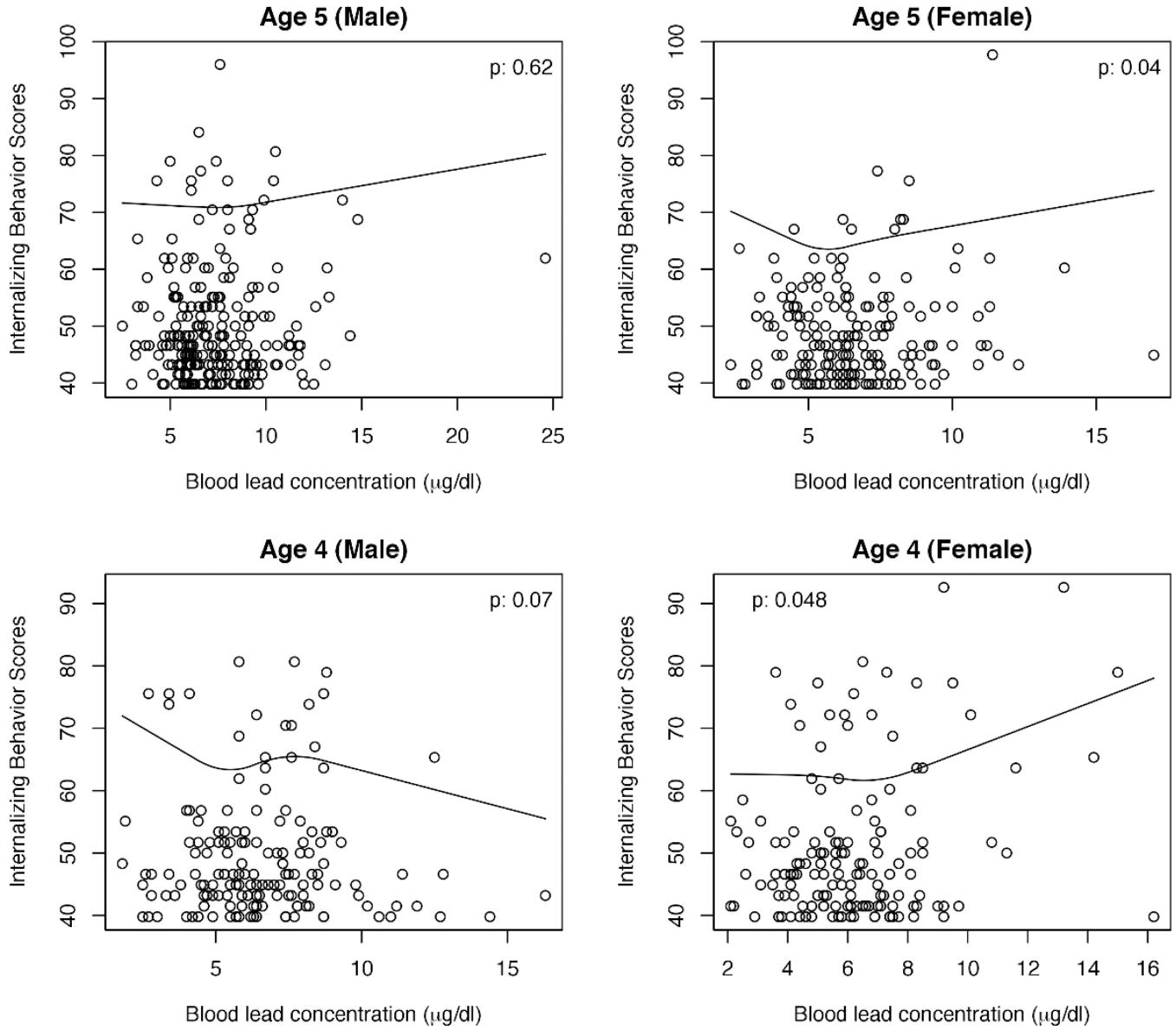

Figure 1.

Teacher-reported internalizing problem scales scores among children whose blood lead was measured at age 4 and 5 years. Solid lines are the fitted spline curves. P values of testing significance (F test) are shown in the upper corners of each plot.

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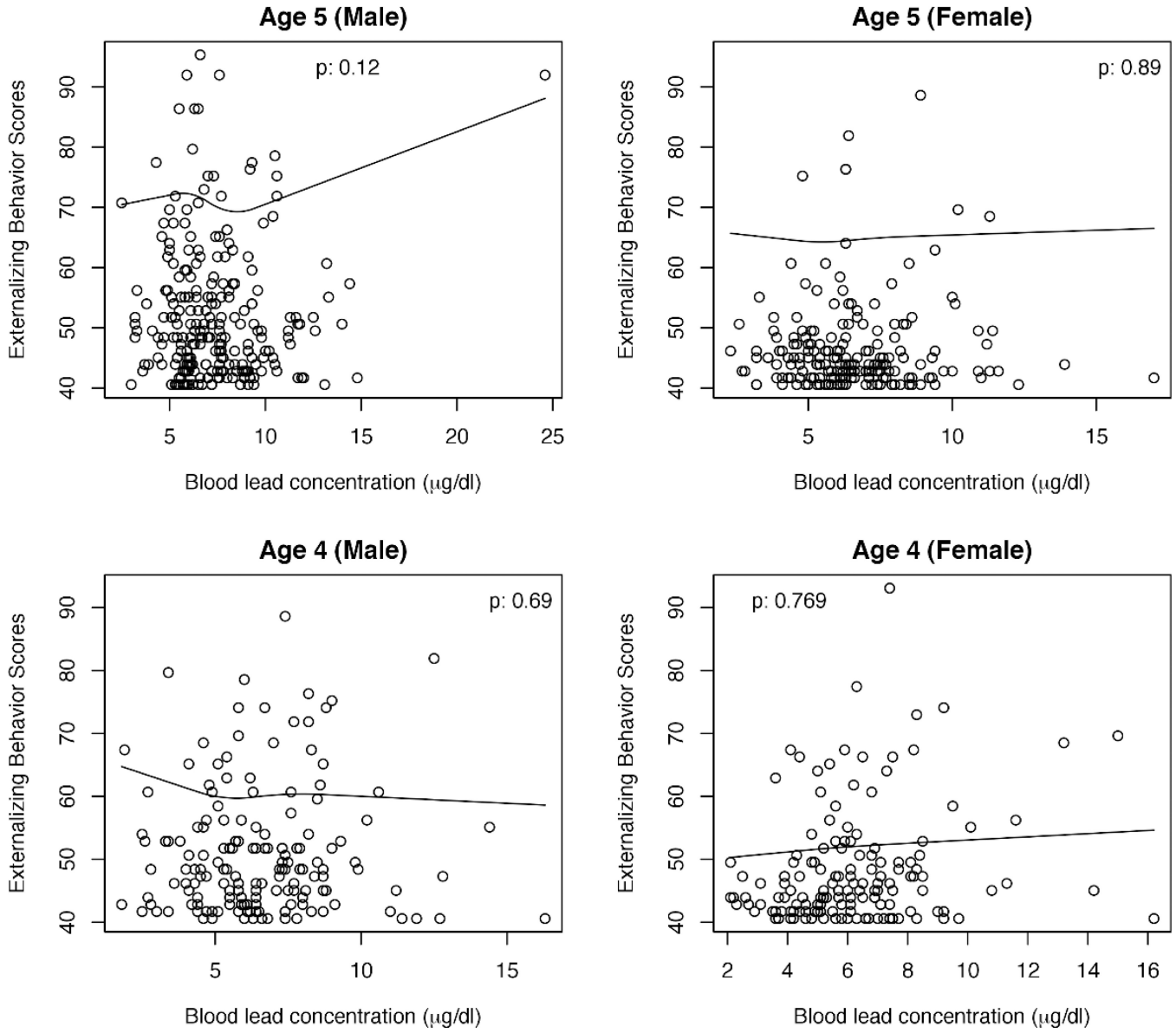

Figure 2.

Teacher-reported externalizing problem scales scores among children whose blood lead was measured at age 4 and 5 years. Solid lines are the fitted spline curves. P values of testing significance (F test) are shown in the upper corners of each plot.

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Table 1

Frequency and percentage of baseline characteristics of study population (n=1341) by blood lead categories.

			Blood lead concentration[a] category			
			(1.8, 4.7]	(4.7,6.2]	(6.1,7.7]	(7.7,32]
	N	Mean	n (%)	n (%)	n (%)	n(%)
Sex						
Male	737	6.75	161 (48.06%)	185 (52.71%)	184 (54.76%)	207 (65.51%)
Female	601	6.03	174 (51.94%)	166 (47.29%)	152 (45.24%)	109 (34.49%)
Age at blood lead test (years)						
3	314	5.17	158 (47.16%)	61 (17.38%)	55 (16.37%)	40 (12.66%)
4	414	6.46	102 (30.45%)	111 (31.62%)	105 (31.25%)	96 (30.38%)
5	610	7.05	75 (22.39%)	179 (51%)	176 (52.38%)	180 (56.96%)
Residence						
City	518	6.33	150 (44.78%)	125 (35.61%)	114 (33.93%)	129 (40.82%)
Suburban	538	6.27	144 (42.99%)	140 (39.89%)	143 (42.56%)	111 (35.13%)
Rural	282	6.91	41 (12.24%)	86 (24.5%)	79 (23.51%)	76 (24.05%)
Father's Education						
≤Middle school	486	6.72	100 (31.06%)	123 (38.8%)	119 (37.9%)	144 (45.57%)
High School	408	6.4	113 (35.09%)	95 (29.97%)	103 (32.8%)	97 (30.7%)
College or Higher	375	5.99	109 (33.85%)	99 (31.23%)	92 (29.3%)	75 (23.73%)
Father’s occupation						
Unemployed	50	6.22	13 (4.18%)	12 (3.92%)	13 (4.05%)	12 (4.17%)
Physical worker	692	6.46	167 (53.7%)	164 (53.59%)	197 (61.37%)	164 (56.94%)
Professional worker	484	6.37	131 (42.12%)	130 (42.48%)	111 (34.58%)	112 (38.89%)
Mother’s education						
≤Middle school	638	6.71	137 (42.41%)	156 (49.37%)	157 (50%)	188 (59.31%)
High School	376	6.08	114 (35.29%)	89 (28.16%)	95 (30.25%)	78 (24.61%)
College or Higher	256	6.08	72 (22.29%)	71 (22.47%)	62 (19.75%)	51 (16.09%)
Marital status of parents						

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			Blood lead concentration[a] category			
			(1.8, 4.7]	**(4.7,6.2]**	**(6.1,7.7]**	**(7.7,32]**
	N	**Mean**	**n (%)**	**n (%)**	**n (%)**	**n(%)**
Married	1123	6.34	280 (95.89%)	294 (95.15%)	276 (95.83%)	273 (95.12%)
Divorced	53	6.44	12 (4.11%)	15 (4.85%)	12 (4.17%)	14 (4.88%)
Only Child						
Yes	943	6.3	254 (85.52%)	240 (83.92%)	244 (80.26%)	205 (75.09%)
No	217	6.87	43 (14.48%)	46 (16.08%)	60 (19.74%)	68 (24.91%)

[‡]Number of children differs across sample characteristics due to missing values.

[a]Blood lead concentration is treated as a continuous linear term in units of μg/dl.

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Table 2

Distribution of blood lead concentrations[a] by age and gender

Age	Male					Female					p
	N	Mean	Median	SD	(Min.,Max.)	N	Mean	Median	SD	(Min.,Max.)	
3 years	174	5.51	5.1	2.47	(2.1,17)	142	4.76	4.4	2.11	(1.8,12.6)	.005
4 years	217	6.72	6.4	3.28	(1.8,32)	198	6.18	6.0	2.28	(1.9,16.2)	.051
5 years	347	7.39	7.0	2.48	(2.5,24.6)	263	6.61	6.3	2.24	(2.3,18.1)	<.0001
Total	748	6.75	6.4	2.83	(1.8,32)	603	6.03	5.9	2.34	(1.8,18.1)	<.0001

[a]Blood lead concentration is treated as a continuous linear term in units of μg/dl.

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Table 3

Adjusted regression coefficients (95%CI) of blood lead concentration[a] on behavioral problems[‡]

Behavioral Problems	Parent-reported behavior (CBCL) (n=1026)	Teacher-reported behavior (C-TRF) (n=1025)
Syndrome		
Internalizing Problems	−0.029 (−0.28, 0.222)	0.223 (−0.037, 0.484)
Emotionally Reactive	−0.117 (−0.365, 0.131)	0.322 (0.058, 0.587)*
Anxious/Depressed[T]	0.101 (−0.151, 0.354)	0.001 (−0.001, 0.003)
Somatic Complaints[T]	−0.171 (−0.436, 0.094)	0.001 (−0.003, 0.001)
Withdrawn	0.096 (−0.158, 0.349)	0.001 (−0.001, 0.003)
Sleep Problems	0.016 (−0.241, 0.273)	NA
Externalizing Problems[T]	0.011 (−0.243, 0.265)	0.001 (−0.001, 0.003)
Attention Problems[P]	0.001(−0.002, 0.002)	0.136 (−0.115, 0.386)
Aggressive Behavior[T]	−0.018 (−0.264, 0.229)	0.001 (−0.001, 0.003)
Total Problems	0.016 (−0.231, 0.263)	0.202 (−0.051, 0.455)
DSM-oriented problems		
Affective Problems[T]	0.019 (−0.234, 0.272)	0.001 (−0.001, 0.003)
Anxiety Problems	0.044 (−0.212, 0.299)	0.253 (0.016, 0.500)*
Pervasive Developmental problems	0.093 (−0.159, 0.345)	0.303 (0.046, 0.560)*
Attention deficit/hyperactivity problems[P]	0.001 (−0.002, 0.002)	0.073 (−0.177, 0.322)
Oppositional Defiant[T]	−0.030 (−0.279, 0.220)	0.223 (−0.037, 0.484)

[‡]Adjusting for age at blood lead test, sex, residence, father's education, mother's education, father's occupation, parents' marital status, single child, and IQ

[T]Teacher-reported scale score was log transformed for normal distribution

[P]Parent-reported scale score was log transformed for normal distribution

*p<.05

[a]Blood lead concentration is treated as a continuous linear term in units of μg/dl.

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Table 4

Adjusted odds ratios (OR, 95%CI) of blood lead concentration[a] on Teacher-Reported behavioral problems (C-TRF).

	Total (n=1021)	Boys (n=557)	Girls (n=464)
Internalizing problems	1.10 (1.03 – 1.18)**	1.09 (1.00–1.19)	1.12(1.00–1.26)*
Emotionally Reactive	1.10 (1.02 – 1.19)*	1.04 (0.94–1.16)	1.17 (1.03–1.34)*
Anxious/Depressed	1.12 (1.03 – 1.23)*	1.11 (0.98–1.24)	1.14 (0.98–1.32)
Somatic Complaints	1.01 (0.90 – 1.13)	1.08 (0.94–1.24)	0.91 (0.75–1.09)
Withdrawn	1.02 (0.93 – 1.12)	0.98 (0.87–1.11)	1.09 (0.94–1.26)
Externalizing problems	1.02 (0.95 – 1.10)	0.99 (0.91–1.08)	1.08 (0.93–1.25)
Attention Problems	1.07 (0.98 – 1.16)	1.05 (0.95–1.16)	1.09 (0.93–1.27)
Aggressive Behavior	1.07 (0.98 – 1.17)	1.03 (0.93–1.14)	1.21 (0.99–1.47)
Total Problems	1.06 (0.99–1.12)	1.02 (0.95–1.10)	1.11 (0.99–1.23)
DSM-oriented problems			
Affective problems	1.04 (0.96 – 1.13)	1.06 (0.96–1.18)	1.03 (0.90–1.18)
Anxiety problems	1.10 (1.01 – 1.19)*	1.05 (0.94–1.17)	1.17 (1.03–1.34)*
Pervasive Developmental problems	1.16 (1.07 – 1.25)***	1.11 (1.00–1.23)*	1.22 (1.07–1.40)**
Attention deficit/hyperactivity problems	1.08 (0.99 – 1.18)	1.04 (0.94–1.16)	1.15 (0.98–1.35)
Oppositional Defiant problems	1.06 (0.98 – 1.15)	1.02 (0.92–1.13)	1.12 (0.97–1.29)

‡Adjusting for age at blood lead test, sex, preschool residence, father's education, mother's education, father's occupation, parent married status, single child, and IQ

*p<.05,

**p<.01,

***p<.001

[a]Blood lead concentration is treated as a continuous linear term in units of μg/dl.

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LEAD POISONING

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■ **Abstract** Understanding of lead toxicity has advanced substantially over the past three decades, and focus has shifted from high-dose effects in clinically symptomatic individuals to the consequences of exposure at lower doses that cause no symptoms, particularly in children and fetuses. The availability of more sensitive analytic methods has made it possible to measure lead at much lower concentrations. This advance, along with more refined epidemiological techniques and better outcome measures, has lowered the least observable effect level until it approaches zero. As a consequence, the segment of the population who are diagnosed with exposure to toxic levels has expanded. At the same time, environmental efforts, most importantly the removal of lead from gasoline, have dramatically reduced the amount of lead in the biosphere. The remaining major source of lead is older housing stock. Although the cost of lead paint abatement is measured in billions of dollars, the monetized benefits of such a Herculean task have been shown to far outweigh the costs.

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INTRODUCTION

In recent years, the focus in lead poisoning has shifted away from adults exposed to high doses in industrial settings to the larger population of asymptomatic children with lesser exposures. This chapter surveys the past three decades of lead research and reviews the evolving knowledge of the distribution, toxicology, and remediation of lead toxicity.

EARLY HISTORY

Warnings of lead's poisonous properties extend at least as far back as the second century B.C., when Nikander, a Greek physician, described the colic and paralysis that followed lead ingestion. The early victims of lead toxicity were mainly lead workers and wine drinkers. Lead's sweet flavor made it useful in winemaking, to counteract the astringent flavor of tannic acid in grapes. Lead-sweetened wine, containing as much as 20 mg of lead per liter, was an important part of the diet of upper-class Romans. The synchronous decrease in fertility and increase in psychosis among the Roman aristocracy has raised speculation implicating lead poisoning in the fall of Rome (1).

Widespread outbreaks of lead colic continued in Europe until as late as the sixteenth century, when Eberhard Gockel, a German physician, traced a colic epidemic to lead-adulterated wine. Duke Ludwig of Würrtemberg, upon learning of an epidemic of lead colic in his duchy, banned its use in winemaking, imposing the death penalty for violators.

Workers in the metals trades remain an important risk group; lead exposure remains one of the leading causes of workplace illness. In the United States, more than 320,000 American workers were occupationally exposed to lead in 1998.

DISCOVERY OF CHILDHOOD LEAD POISONING

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It was only a century ago that childhood lead poisoning was recognized. The rapid growth of scientific understanding can be divided into four stages. The first reports of lead-poisoned children in Brisbane, Australia, in 1892 were greeted with widespread disbelief that lead toxicity could afflict children (2). Although the disease had reached epidemic proportions, there was considerable doubt that lead was the cause. Many of the homes in Brisbane were raised on piles, with large wooden-enclosed verandas that served as play areas for children. The rails were painted with white lead, which chalked and powdered in the hot Brisbane sun. The cause of the epidemic, lead-containing paint, was established in 1904, and lead paint was banned for household use in Brisbane in 1920.

Childhood lead poisoning was first described in the United States in 1914 (3). The prevailing belief in the second stage of knowledge was that acute poisoning had only two outcomes: death or complete recovery without any residua. This misconception was discarded in 1943 with the first follow-up of children who had recovered from acute toxicity. Nineteen of 20 surviviors had significant deficits: behavioral disorders, learning difficulties, and school failure (4). In this third stage, it was generally accepted that lead toxicity caused long-term deficits, but these deficits were thought to occur only in those children who had displayed clinical signs of encephalopathy during the acute episode. The fourth stage began in the 1970s, when studies of children with no clinical signs of toxicity showed deficits in IQ scores, attention, and language (see below).

TOXICOLOGY OF LEAD

Lead is a divalent cation, and it binds strongly to sulfhydryl groups on proteins. Of the many organs affected by lead, the most important is the central nervous system (CNS). Much of lead's toxicity can be attributed to distortion of enzymes and structural proteins, but this versatile toxicant has many other targets. Lead interferes with the development of the endogenous opiate system (5). It efficiently cleaves the ribophosphate backbone of tRNA catalytically at specific sites, with no evidence of a threshold (6). Many of lead's toxic properties are due to its ability to mimic or compete with calcium. At picomolar concentrations, lead competes

successfully with calcium for binding sites on cerebellar phosphokinase C and thereby affects neuronal signaling (7). It inhibits calcium entry into cells (8). Lead is picked up by mitochondria and produces swelling and distortion of mitochondrial cristae. Uncoupled energy metabolism, inhibited cellular respiration, and altered calcium kinetics follow (9). Lead has a binary impact on neurotransmitter release: Spontaneous neurotransmitter release is enhanced, whereas stimulated release is inhibited (10).

Attention has also focused on the heme synthetic pathway, where many sites for lead activity are found. Delta aminolevulinic acid dehydratase is extremely sensitive to lead. Inhibition of this enzyme results in increased circulating aminolevulinic acid (ALA). ALA is a weak gamma-aminobutyric acid (GABA) agonist that decreases GABA release by presynaptic inhibition. Increased circulating ALA may account for some of the behavioral disorders seen in patients with porphyria and perhaps in lead toxicity.

Lead has diverse impacts on the CNS. Immature astrocytes are sensitive to lead, and lead interferes with myelin formation and the integrity of the blood-brain barrier (11). Lead interferes with the synthesis of collagen and affects vascular permeability. At high enough doses, this results in brain edema and hemorrhage (12). At lower doses, lead given to lactating rats interferes with synaptogenesis in their pups (13). Lead's interference with brain development has been demonstrated using the rodent barrel field cortex as a model (14).

Behavioral alterations secondary to lead exposure in rodents and primates are analogous to changes in humans. In one study, monkeys received lead acetate in their food from birth to 200 days of age and achieved blood lead levels ranging from 3 μg/dl to 25 μg/dl. At 7 to 8 years, they were given a delayed alternation test, in which the critical positive stimulus was alternated. Treated monkeys showed impaired ability to learn, particularly at longer intervals of delay (15). Lead-exposed primates also demonstrate impaired social function (16). Rodents given lead show deficits in learning mediated by dopaminergic and glutamatergic systems (17). In one interesting report, untreated rats found 15% solutions of alcohol aversive in a free-choice situation, but when their blood lead levels were raised to 61 μg/dl, they increased their alcohol intake in both free- and forced-choice paradigms (18). The author speculated that lead increased the irritability of the rats and that they sought alcohol as a tranquilizer.

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CLINICAL ASPECTS OF TOXICITY

Although adult lead poisoning is mainly of occupational origin, cases of acute lead poisoning from leaded dishware, bootlegged moonshine liquor, certain cosmetics, and folk remedies continue to be reported. Lead is still mined and smelted, although this has declined with the removal of lead from gasoline.

Lead poisoning in adults can affect the peripheral and central nervous systems, the kidneys, and blood pressure. Classical descriptions of occupational toxicity

depict peripheral neuropathy with wrist or foot drop. At lesser exposures, slowed peripheral nerve conduction has been reported (19). Patients with high blood lead levels may present with severe, intractable colic, motor clumsiness, clouded consciousness, weakness, and paralysis. Lead has adverse effects on both male and female reproduction. The fetotoxic properties of lead were known to British factory inspectors at the end of the nineteenth century; they found a high incidence of stillbirths (60%), neonatal deaths, and a decreased fertility rate in women employed in the ceramic industry (20). Males may manifest decreased sperm counts and teratospermia (21).

Hypertension has been associated with acute lead poisoning, along with renal failure. At lesser exposures, both experimental and epidemiological evidence of interference with renal function and elevations in blood pressure have been reported. Using data from the third National Health and Nutrition Examination Survey (NHANES III), a recent reevaluation of blood pressure in relation to contemporary blood lead levels found that black men and women had higher blood lead levels (5.4 μg/dl, 3.4 μg/dl) than their white counterparts (4.4 μg/dl, 3.0 μg/dl). Black subjects, both men and women, had a statistically significant association of blood lead with blood pressure after covariate adjustment. The association was not seen in whites (22).

In its alkyl form, lead is a powerful neurotoxin. When tetraethyl lead (TEL) was first produced for use as a motor fuel additive in 1925, workers at all three operating plants began to die. After a brief moratorium imposed by the Surgeon General, production resumed and continued until the 1980s. TEL is fat-soluble; absorption through the skin and uptake by the brain is rapid. Because of growing evidence of neurotoxic effects at low doses, TEL was removed from gasoline in stepwise fashion beginning in 1978.

Lead has been classified as an animal carcinogen, but the data on human carcinogenesis are considered inadequate. Some recent studies of cancer rates in lead trade workers (e.g., smelters, painters, body and fender repairmen) have shown an increase in standard mortality rates, but others have not (23).

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CHILDHOOD LEAD TOXICITY

Children are more sensitive to lead than adults for several reasons: Their exposure is increased by their universal hand-to-mouth activity; their gut absorbs lead more readily than an adult's; and the developing CNS is more vulnerable to toxicants than the mature CNS.

At high doses, generally blood lead levels >60 μg/dl, clinical symptoms become visible in children. Abdominal pain and arthralgia are common early complaints. Clumsiness and staggering may be seen, followed by headache and behavioral changes, which are signs of early encephalopathy. This may progress to alterations of consciousness, stupor, and convulsions. Encephalopathy, fortunately, has become rare in the United States. A high percentage of those children who recover

from clinical encephalopathy have severe cognitive, attentional, and behavioral impairments.

ASYMPTOMATIC LEAD TOXICITY

In the 1960s, the accepted toxic threshold for lead in children was 60 μg/dl. Screening studies in eastern U.S. cities found that 10%–20% of inner-city children had blood lead levels over 40 μg/dl. This finding raised the conjecture, first made by Byers & Lord in 1943, that a proportion of school failure and behavioral disorder resulted from unrecognized lead toxicity. Five studies of lead levels and behavior in children without signs or symptoms of classical lead toxicity were undertaken in the early 1970s. Three reported an association between lead and IQ (24–26); two did not (27, 28). These early studies were constrained by design flaws: The number of subjects in each study was small, and each relied on blood lead levels to rank exposure. Blood lead, a short-term marker, may misclassify earlier exposure. Lead in blood has a half-life of 35 days. Exposure peaks at two years, then drops. Most studies enrolled children at about age 6 or later. There are no data on the validity of blood lead measurements four years after exposure has ended. Some studies used relatively insensitive outcome measures, such as group or screening tests. Control of confounders and statistical procedures was limited. Some investigators studied clinic samples and their data may thus have suffered selection bias.

In 1979, we conducted a study that attempted to address these design issues. Lead concentration in deciduous teeth was selected as the marker of exposure. The sample comprised asymptomatic primary school students from the public schools of Chelsea and Somerville, Massachusetts. Subjects were classified on a large number of covariates, and these were controlled in the analysis by Analysis of Covariance (ANCOVA). Excluded were children with a history of lead exposure or toxicity. Children with elevated lead levels (in the ninetieth percentile for lead concentration) in their teeth were found, after covariate control, to be significantly impaired on the Wechsler Intelligence Scale for Children—Revised (WISC-R) IQ test, on language processing, and on reaction time under varying conditions of delay, a measure of attention. When teachers' ratings of 2146 children on an 11-item forced-choice scale were classified by dentine lead level, we found a dose-dependent increase in bad classroom behavior in direct relation to tooth lead level (Figure 1) (29).

In the 1980s, following the removal of lead from gasoline, the blood lead levels in the referent group dropped. This enabled well-designed studies, employing larger samples, better measures of outcome and lead burden, and more sophisticated statistical analyses, to discover effects of lower blood lead levels (30–33). Three meta-analyses confirmed that low-level lead exposure was associated with IQ deficits (34–36). In response to the new data, in 1991, the Centers for Disease Control revised its limit of acceptable blood lead level downward in steps, from 60 μg/dl in the 1970s to its current status of 10 μg/dl.

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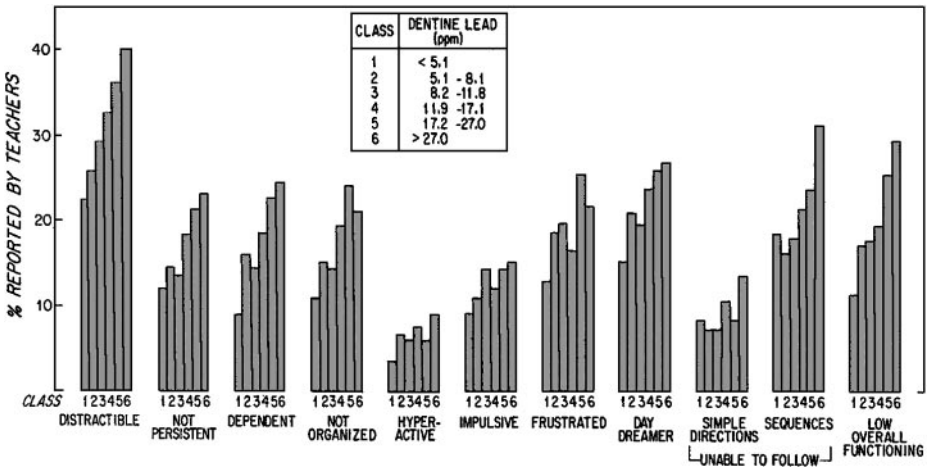

Figure 1 Distribution of negative teachers' ratings in relation to dentine lead concentrations.

In 2002 and 2003, two new studies found effects at levels below 10 μg/dl, further lowering the observed threshold for effect. Lanphear et al. examined psychological performance and blood lead levels in 4853 children who were NHANES III subjects. The mean blood lead in this sample was 1.9 μg/dl; 2.1% of the sample had blood lead levels in excess of 10 μg/dl. After adjustment for covariates, significant inverse relationships between blood lead and math and reading subtests and the Block Design and Digit Span of the WISC-III were reported down to 2.5 μg/dl (37). Canfield et al. (38) studied 166 36-month-old children whose mean blood lead level was 7.9 μg/dl. Seventy-three percent of the subjects had blood lead levels under 10 μg/dl. Significant inverse relationships were found between IQ scores and lead after covariate adjustment. The slope of the effect was greater at the lower blood levels of lead (38). The import of the recent studies is that a threshold for lead and neurobehavioral function has not yet been demonstrated.

FOLLOW-UP STUDIES OF CHILDREN

The late effects of early-childhood lead exposure have been examined by several investigators, who found persistence of deficits over time. Our subjects, first examined in 1979, were seen again 12 years later at mean age of 18.7 years. Subjects whose dentine lead levels were in the high-lead group (ninetieth percentile) had more school failure, reading disabilities, lower class standing in their final year of high school, and disturbances in fine motor function (39) (Figure 2).

Fergusson et al. followed a sample of New Zealand children into their eighteenth year and reported that elevated lead levels were associated with poorer reading

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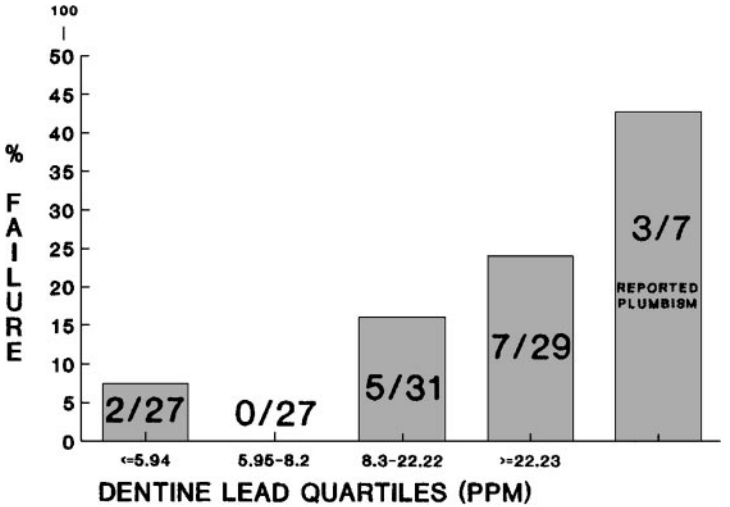

Figure 2 Rate of failure to graduate from high school in relation to dentine lead levels.

scores, more failure to graduate from high school, and poorer examination scores (40).

FORWARD STUDIES OF PRENATAL AND INFANT LEAD EXPOSURE

Bellinger et al. found significant associations between umbilical blood lead levels and neurodevelopmental scores at 2 years of age (41). At later ages, the association between umbilical cord blood lead and outcome was attenuated. The 2-year blood lead concentrations, however, were significantly related to scores at 10 years of age. Exposure at 2 years had no observable threshold, demonstrating neurotoxic effects at blood lead levels below 10 μg/dl.

Dietrich et al. followed a group of 253 children from birth until 6 years of age. Blood lead levels at age 6 were associated with deficits in performance scores of the WISC, after covariate adjustment, and in motor function (42).

LEAD AND BEHAVIOR

Cognitive function, measured by psychometric IQ tests, has been the major focus of most studies of lead exposure in childhood. There are persuasive reasons to believe that cognitive dysfunction may not be the most important effect of lead, and that we may be entering a fifth stage of understanding of lead's effects, in which lead is recognized to adversely affect social behavior.

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This is not an entirely new notion. Parents have frequently reported that after recovery from an episode of acute lead poisoning, their child's behavior changed dramatically, and they became restless, inattentive, and aggressive. In 1943, Byers & Lord reported attentional dysfunction and aggression in a sample of lead-poisoned children on follow-up (4).

We studied 301 primary-school students and found that children with elevated bone lead levels scored higher on the attention deficit, aggression, and delinquency clusters of the Child Behavior Checklist after adjustment of covariates (43). Dietrich et al. found that prenatal lead exposure was associated with parents' reports of delinquency and aggression, and postnatal lead exposure was associated with self reports of delinquent acts (44). A recent case-control study of 195 arrested and convicted delinquent youths found an increased risk of delinquency associated with bone lead concentrations measured by X-ray fluorescence. The covariate-adjusted odds ratio was 4 (95% CL 1.4–11.1). The population-attributable risk for delinquency due to lead exposure ranged from 11% to 38% in this sample (45).

A number of recent ecological investigations correlating leaded gasoline sales or ambient lead levels with crime rates support an association between lead exposure and crime. Stretesky & Lynch compared homicide rates in 3311 counties in the United States (46) After adjustment for 15 covariates, they reported a fourfold increase in homicide rates in those counties with the highest air lead levels compared to controls. Nevin correlated sales of leaded gasoline with violent crime rates and, adjusting for unemployment and percent of population in the high-crime age group, found a statistically significant association (47). It has been speculated that one of the reasons for the recent decline in crime rates is decreased exposure to lead.

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LEAD EFFECTS IN OLDER SUBJECTS

The greatest storage pool for lead is in bone, and the question of lead's fate in older subjects when bone demineralizes has attracted considerable speculation. It is estimated that 50% of trabecular bone in women is lost over a lifetime. Lead is mobilized when bone resorption begins; significantly higher blood lead levels have been measured in postmenopausal women than in premenopausal women (48). Elevated lead appears to adversely affect cognitive function in elderly subjects as well. Older women (mean age 70.5 years) with blood lead levels >8 μg/dl had poorer performance on cognitive measures and slower reaction times than women with blood lead levels <3 μg/dl after covariate adjustment (49).

Results of a large-cohort study of former TEL workers support a causal association between lead and dementia (50). The subjects ($n = 535$) were studied a mean of 16 years after their workplace exposure. The investigators report elevated bone lead levels and dose-related deficits in verbal and visual memory, executive ability, and manual dexterity. TEL workers exhibited a greater decline in function measured at yearly intervals than controls. The same investigators examined the interaction between APOE genotypes with bone lead levels. An interaction effect for bone lead $\times$ APOE genotype was found for 19 of 20 regression models, indicating that the toxic effect of lead is greater in subjects with at least one APOE allele (51).

Lead has induced apoptosis in a number of experimental systems, including rat midbrain (52), rat testis (53), rat fibroblasts (54), rodent lung (55), and rodent retinal rod cells (56, 57). These findings, and similarities in the distribution of lead exposure and the rates of Alzheimer's, make the topic of lead-related dementia worthy of further study.

Lead exposure may also decrease lifespan. This is borne out by a recent study of subjects from the second NHANES study (1976–1980), who were followed up in 1992. The mortality of 4292 subjects with blood lead levels of 20–29 μg/dl was compared to those with levels <10 μg/dl. Subjects with higher lead levels had a 46% increased all-cause mortality, 39% increased cardiovascular mortality, and 68% increased cancer mortality (58).

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DIAGNOSIS AND MANAGEMENT OF CLINICAL LEAD POISONING

In adults, lead toxicity should be considered in the differential diagnosis of abdominal pain, arthralgia, hypertension, severe headache, increased intracranial pressure, CNS dysfunction, anemia, and renal dysfunction. An occupational history and an inventory of possible sources of exposure are useful. A blood lead level >10 μg/dl should be considered elevated, even though clinical symptoms are rarely seen below 60 μg/dl.

Any child with growth failure, abdominal pain, behavior change, hyperactivity, language delay, or anemia should have a blood lead test to rule out lead toxicity.

The cornerstone of lead toxicity management is the termination of exposure. For children, this means inspection of the home, and if this does not reveal lead, a survey of other possible sources. For lead levels >40 μg/dl, chelation therapy is effective in lowering the blood lead level. Calcium disodium edathamil (EDTA) was the preferred method until recently, when dimercaptosuccinic acid (succimer), an oral agent, was found to have equal efficacy. Both agents will reduce an elevated blood lead level to 40%–50% of its baseline. After treatment is concluded (5 days for EDTA, 19 days for succimer), body pools tend to equilibrate, and blood lead levels begin to rise, often requiring repeated courses.

EDTA has drastically reduced the mortality rate from encephalopathy, but its efficacy at lower exposures has never been systematically studied. As a result, whether it conveys any benefit to children without encephalopathy remains unknown.

After succimer had been in use for a few years, a multicenter study evaluated its efficacy in children with moderate elevations of lead (25–44 μg/dl). Blood lead levels in the treatment group were reduced to significantly lower levels than controls at the completion of treatment, but two years later, there were no differences between the two groups. At the conclusion of the study, no significant differences were found between treatment subjects and controls in cognitive, behavioral, or neuropsychological function (59). The only remedy at this time for low-level lead exposure is therefore primary prevention.

PRIMARY PREVENTION

In the early 1970s, the question of silent lead toxicity became the focus of intense controversy because of its regulatory implications. In 1973, when the Environmental Protection Agency began examining the health effects of TEL, industrial representatives claimed that the associations between lead and IQ were spurious, and that removing lead from gasoline would have no impact on body lead burdens. In 1977, after review of the health effects, the Environmental Protection Agency established an air lead standard of 1.5 μg/M^3. The stepwise removal of lead from gasoline, based on the new air standard, began in the late 1970s. Figure 3 shows the effect of removing lead from gasoline on blood lead levels in the United States between 1975 and 1980.

With the removal of lead from gasoline, a single major source remains for American children: leaded paint. Although it has been banned in household paint since 1971, 80% of the houses built before 1950, or 23,000,000 units, contain leaded paint. A cost-benefit analysis by the Public Health Service estimated the cost of abatement in these houses over a 30-year period at $33.7 billion in 1991. The estimated benefit from avoided health care costs and increased income due to raised IQ was $61.7 billion. This cost analysis may be conservative; it does not include avoided delinquency and cardiovascular disease, both demonstrated effects of lead exposure, among the health effects (60).

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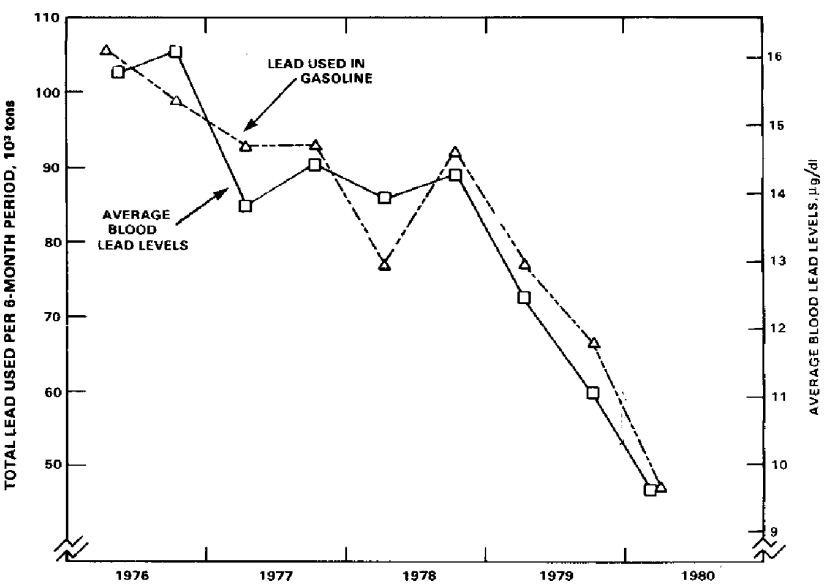

Figure 3 Parallel decreases in blood lead values observed in the NHANES II study and amounts of lead used in gasoline during 1976–1980.

Current analyses also demonstrate that primary prevention yields large economic benefits. Grosse et al. calculated that each present-day preschool child's IQ was increased by 2.2–4.7 points over what it would have been had the reduction in leaded gasoline and blood lead not taken place (61). From this, they calculated the IQ-related increase in income and estimated the economic benefit for each year's birth cohort of 3.8 million children. The benefit range for the 1998 birth cohort was between $110 billion and $319 billion (61). Landrigan et al., assuming no threshold for the lead-IQ association, estimated the loss of future earnings for the one-year cohort of children aged 5 in 1997 at $43.4 billion (62).

The evidence that lead toxicity extends down to the lowest measurable levels, that pharmacological therapies are ineffective at preventing sequelae in those with low levels, and that reduction of exposure yields huge economic as well as health benefits are strong warrants for a systematic program of abatement of lead from the single remaining major source: lead in older homes.

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Flint Water Crisis Caused By Interrupted Corrosion Control: Investigating "Ground Zero" Home

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Supporting Information

ABSTRACT: Flint, Michigan switched to the Flint River as a temporary drinking water source without implementing corrosion control in April 2014. Ten months later, water samples collected from a Flint residence revealed progressively rising water lead levels (104, 397, and 707 μg/L) coinciding with increasing water discoloration. An intensive follow-up monitoring event at this home investigated patterns of lead release by flow rate—all water samples contained lead above 15 μg/L and several exceeded hazardous waste levels (>5000 μg/L). Forensic evaluation of exhumed service line pipes compared to water contamination "fingerprint" analysis of trace elements, revealed that the immediate cause of the high water lead levels was the destabilization of lead-bearing corrosion rust layers that accumulated over decades on a galvanized iron pipe downstream of a lead pipe. After analysis of blood lead data revealed spiking lead in blood of Flint children in September 2015, a state of emergency was declared and public health interventions (distribution of filters and bottled water) likely averted an even worse exposure event due to rising water lead levels.

1. INTRODUCTION

As sources of lead exposure are steadily reduced and attention turns to eliminating all cases of children with elevated blood lead levels (BLLs), exposure to lead in potable water is of increasing concern.[1−6] The existing regulation controlling waterborne lead exposure is the U.S. Environmental Protection Agency (EPA) Lead and Copper Rule (LCR), which allows up to 10% of first draw samples (i.e., samples collected after 6+ hours of stagnation) from high-risk households to exceed the lead action level of 15 μg/L.[7] Water utilities typically implement and maintain corrosion control strategies (e.g., pH/alkalinity adjustments or corrosion inhibitors) to achieve LCR compliance. One popular strategy is dosing orthophosphate (PO_4^{3-}) inhibitors to promote formation of insoluble corrosion scales on pipe walls that reduce lead release (Figure 1a).[8−12]

Several studies have shown that the destabilization of corrosion scales can cause lead and iron problems if deposits begin to dissolve or detach into the water (Figure 1b).[1,4,13−15] For instance, in November 2000, the District of Columbia Water and Sewer Authority changed secondary disinfection chemicals from free chlorine to chloramine in order to comply with new disinfection byproduct regulations.[13] This change in disinfectants destabilized insoluble lead scale layers on pipe surfaces and increased the incidence of dissolved and particulate lead.[13,16,17] Likewise, Providence Water reduced the pH of their finished water in November 2005 from 10.3 to 9.7 in an attempt to minimize lead solubility, but this chemistry modification resulted in the breakdown of lead-bearing iron rust layers and increased total lead and iron in the drinking water, even though it likely decreased soluble lead as

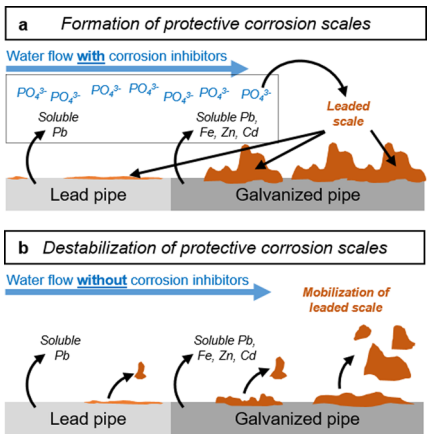

Figure 1. Formation and destabilization of protective scales: (a) corrosion inhibitors (e.g., PO_4^{3-}) control the release of metals from plumbing through the formation of protective scales and (b) without corrosion inhibitors previously formed protective scales can become unstable and deteriorate resulting in high lead and iron in water. Pb = lead; Fe = iron; Zn = zinc; and Cd = cadmium.[14,20]

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planned.[14,18] As a result, the municipality failed to meet the LCR and experienced high levels of red water complaints.[14,19] Thus, changes in water chemistry that once seemed innocuous, can greatly disrupt and impact lead and iron scale, and increase the likelihood of iron and lead particulates in water.

1.1. Source Water Change in Flint, Michigan. On April 25, 2014, Flint, Michigan discontinued purchase of treated water from the Detroit Water and Sewer Department (DWSD) in preparation for the switch to Karegnondi Water Authority in 2016.[21,22] In the interim two-year period before the pipeline was completed, water from an existing treatment plant treating Flint River water was used. Although research and engineering studies were conducted,[22] the water utility did not implement corrosion control (e.g., continue orthophosphate dosing) to meet the provisions of the LCR (Table 1).[7] In addition, to control total trihalomethanes, the utility used ferric chloride ($FeCl_3$) as a coagulant,[21] further increasing the chloride-to-sulfate mass ratio (CSMR) which is a measure of water corrosivity for galvanic connections (e.g., partial lead service lines and lead solder.)[23−25] Since the LCR monitoring pool in Flint did not have 50%+ homes with lead service lines (LSLs) as required and other sampling methods known to reduce the detection of lead in water were used, officials claimed that the city was in compliance with the LCR throughout 2014 and 2015.[21,26−28] After a proper sampling pool and protocol without preflushing was implemented, Flint was acknowledged to have exceeded the action level at least through June 2016.[29−31]

Table 1. CSMR and Corrosion Inhibitors Levels in Flint, Michigan before and after April 25, 2014

parameter	before[32] 2014	after[33] Dec. 2014
phosphate (mg/L as P)	1.07 (0.67−1.69)	absent[21]
chloride (mg/L)	11.4 (4.2−39.8)	80 (74−87)
sulfate (mg/L)	25.2 (11.9−33.9)	39.2 (24.3−45.0)[b]
CSMR[c]	0.45	2.04

[a]Average (minimum-maximum) concentrations reported. [b]Sulfate measured in January 2015 reported in this study (Table SI-2). [c]CSMR calculated using average chloride and sulfate values. CSMR > 0.5 indicates high corrosion potential.[23,24]

A Flint resident whose child was having health problems participated in the 2015 LCR water testing and subsequent follow-up tests, revealing first draw lead concentrations of 104 (February), 397 (March), and 707 μg/L (April; Figure 2) suggesting steadily worsening conditions.[21,27,34] However, samples from this home were excluded from LCR reporting.[31] Immediately after a city official instructed the resident to not use the water for drinking or cooking, one of two twin children living in the home had an elevated BLL (6.5 μg/dL), and an EPA inspection revealed no other lead sources in the home.[21,35] On the basis of the consumers experience and revelation that there was no corrosion control plan, Virginia Tech conducted an intensive follow-up monitoring effort to assess the nature of metal release in the home of this resident (referred to as "Resident Zero") including:[34] (1) 3-D lead profiling as a function of flow volume and flow rate;[15] (2) forensic evaluation of lead leaching from plumbing and destabilization of leaded scales; and (3) association between high lead and other constituents of pipe scale exhumed from the property.

2. METHODS

2.1. Water Samples Collected in January 2015. Resident Zero collected six discolored water samples under normal water use conditions between January 15−30, 2015, to demonstrate to city and state officials that the aesthetic characteristics of the drinking water were deteriorating since the switch to treated Flint River water (Figure 2). The resident later sent these samples stored in 500 mL plastic bottles to Virginia Tech. For each of these samples, a 10 mL aliquot was collected for analysis after thoroughly shaking the bottles (Supporting Information, SI, Section SI-1). Aliquots were acidified with 2% nitric acid and 2% hydroxylamine, and heated at 50 °C for a minimum of 24 h. Metals were analyzed using Inductively Coupled Plasma−Mass Spectrometry (ICP-MS) per method 3125 B.[36]

2.2. 3-D Lead Profiling Protocol. The water supply to the home of Resident Zero was shut off by city officials on April 3, 2015 due to the high lead in water (Figure 2).[21,34,35] As a result, water had remained stagnant for more than 3 weeks (not uncommon in Flint due to high rates of vacancy and water shut-offs) before flow was restored for the sampling effort on April 28, 2015. The night before sampling, the tap was

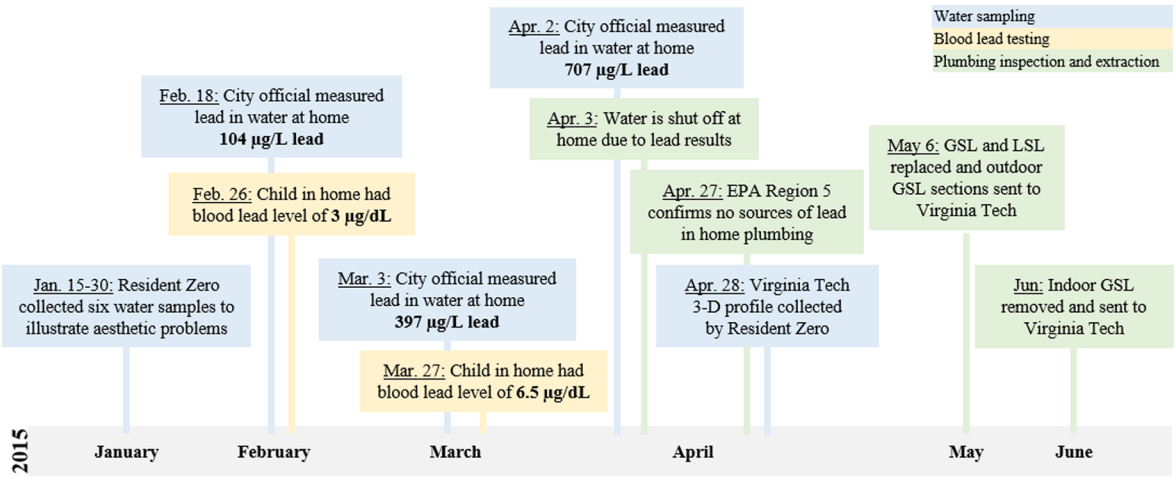

Figure 2. Chronology of water sampling (blue), child BLL testing (yellow), and plumbing system characterization (green) at the home of Flint Resident Zero between January and June 2015. GSL = galvanized iron service line; LSL = lead service line.[21,34,35]

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preflushed and precleaned for 25 min to bring fresh water into the system and to ensure that all soluble lead was displaced from the line. The 3-D lead profiling used in this study (Figure SI-1) was a modified version of the protocol developed in Clark et al. (2014),[15] which collected 1 L sequential samples and 250 mL flushed samples from the kitchen cold-water tap at low (1.3 L/min), moderate (4.2 L/min), and high flow rates (7.5 L/min). Specifically, after a 6 h stagnation period, seven 1 L sequential samples were collected at low flow (1.3 L/min) followed by three 250 mL flushed samples collected at 2 min intervals. Immediately afterward and with no stagnation, the flow rate was adjusted to moderate flow (4.2 L/min), and the sample collection was repeated. The water was then turned off and the aerator removed for a final sequence of sampling. At high flow (7.5 L/min), six 1 L sequential samples were collected, and six 250 mL flushed samples were collected at 1 min intervals.

Upon express mail delivery to Virginia Tech, samples were visually inspected to assess water clarity, cloudiness, and color. To quantify the relative fraction of particulate lead in water after shipment to the lab (lead may have adhered to the container walls and/or particulate lead may have dissolved), a 10 mL aliquot was collected from the fifth bottle of each flow rate (bottles 5, 15, and 25) and filtered (0.45 μm). All samples were acidified with 2% nitric acid and 2% hydroxylamine in bottle, and heated at 50 °C for a minimum of 24 h before analysis on the ICP-MS.[36]

2.3. Characterization of Service Line and Leaded Scale. The EPA Region 5 Ground Water and Drinking Water Branch determined that the lead contamination was not associated with the interior household plumbing as it was primarily plastic plumbing with several "lead-free" fittings and fixtures.[21] On May 6, 2015, two 0.6−0.9 m (2−3 ft.) outdoor sections of the 58.5 m (192 ft.) galvanized iron service line (GSL; iron pipe with a protective "galvanized" surface coating composed of zinc, lead, and cadmium) were exhumed by a representative of EPA Region 5 and sent to Virginia Tech for analysis (Figures 2 and 3, #1−2). In June 2015, Resident Zero

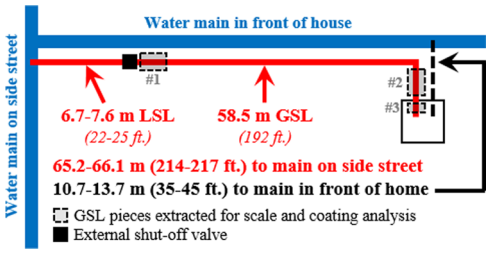

Figure 3. Schematic of galvanized iron service line (GSL) and lead service line (LSL) at home of Resident Zero. Data derived was provided by EPA Region 5.[21,37]

extracted a 1.5 cm (6 in.) section of the indoor GSL for analysis of the original galvanized coating content as revealed by the uncorroded outer surface of the pipe (Figure 3, #3). Scrapings of corrosion rust scales from the outdoor and indoor GSLs and galvanized coating of the indoor GSL were dissolved in 100 mL of water and digested as previously described for analysis via ICP-MS. The pipe surface of the indoor GSL was also analyzed via X-ray fluorescence spectrometry (XRF; Innov-X Alpha Series). In addition, depth profiles of corrosion scales were performed using an environmental scanning electron microscope with an attached X-ray energy dispersive system (ESEM/EDS). Scale formed along the inner surfaces of GSL #1 and #3 were analyzed at various depths (6 depths of GSL #1 and 5 for GSL #3), with each depth examined in triplicate. The EPA later confirmed the presence of a 6.7−7.6 m (22−25 ft.) LSL between the water main and external shut-off valve (i.e., before the GSL; Figure 3);[37] however, this pipe was not recovered during the service line replacement.

2.4. Statistical Analysis. Nonparametric statistics were used in this study due to the non-normal distribution of the lead data (Shapiro-Wilk; $p < 0.05$). Spearman's rank correlation (ρ) was used to evaluate the associations between lead and other water quality parameters (e.g., copper and zinc). The Kruskal−Wallis test was used to compare lead and iron concentrations based on flow rate during the profiling effort.

3. RESULTS

3.1. 3-D Lead and Iron Profiling. On April 28, 2015, 32 water samples were collected from the kitchen cold-water tap as a function of time and flow rate at a home with known lead in water problems. All 32 samples contained lead above the EPA action level of 15 μg/L, with a minimum concentration of 217 μg/L (Figure 4; Table SI-1). The average and median lead concentrations were 2393 and 1747 μg/L, respectively. A sample collected after more than 20 min of flushing (>50 L) contained 13 200 μg/L lead, which was almost three times the EPA's hazardous waste threshold of 5000 μg/L.[38] In total, four of the 32 samples contained lead above 5000 μg/L, occurring sporadically throughout the profile. Furthermore, lead levels increased in the last five samples of this profiling effort, indicating that lead concentrations were not subsiding. Thus, flushing would not protect the occupants from high lead in water, even after following instructions of city officials to flush the line for 25 min before water use.[39]

3.1.1. Lead Release As a Function of Flow Rate. Although low "pencil-thin" flow rates (~1 L/min) are known to underestimate lead in water concentrations during typical flow because the mobilization of particulate lead is greatly reduced,[15,40−42] there was no significant difference in median lead concentrations based on flow rate (Kruskal−Wallis Test, $p = 0.30$; Figure 4) from these samples collected at progressively higher flow rate. Specifically, average and median lead concentrations were 2384 and 2014 μg/L at low flow (1.3 L/min), 1687 and 1119 μg/L at moderate flow (4.3 L/min), and 2988 and 1747 μg/L at high flow (7.5 L/min). This consistent presence of elevated lead in water at all flow rates was attributed to the mobilization of particulate lead (Figure 4, photos A−C). Three filtered aliquots (0.45 μm) collected from sample bottles 5, 15, and 25 indicated that ≥99% of the lead was in the particulate form after receipt at the laboratory.

With continued water use at low flow, there appeared to be a downward trend in lead concentrations, indicating that long flushing times did progressively "clean" the pipes by flushing the lead built up during the overnight stagnation. When the tap was adjusted to moderate flow, two large spikes in lead (3655 and 6048 μg/L) were observed during the sequential sampling, which was attributed to the sporadic mobilization of lead bearing sediment from the pipe at an increased flow rate, but lead levels again decreased somewhat. When the aerator was removed and water was set to high flow, lead levels became highly sporadic. The first sample contained 5702 μg/L, which was 20 times higher than the previous sample of 292 μg/L. Lead concentrations decreased in the next four sequential

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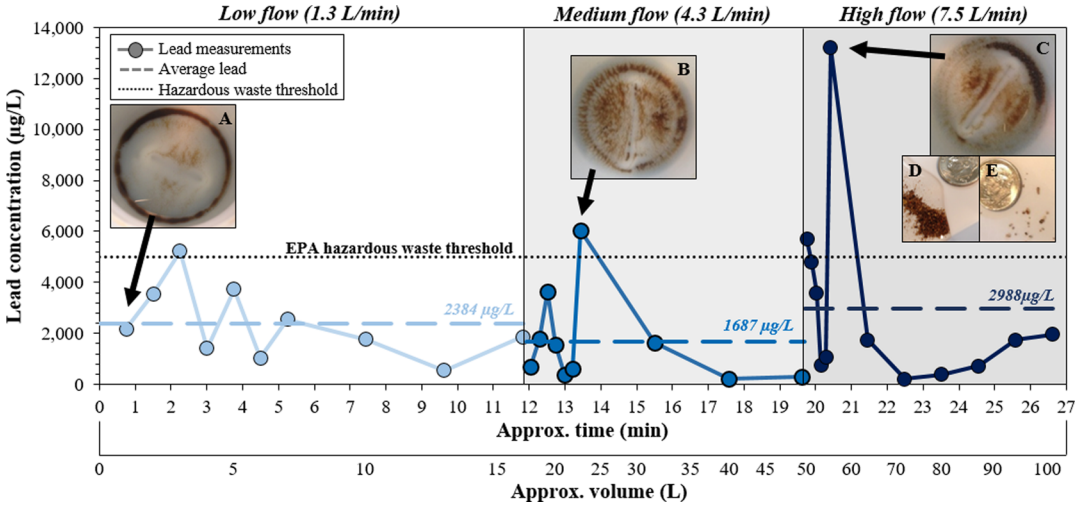

Figure 4. Lead in water concentrations collected at low, moderate, and high flow. The dashed blue lines indicate the average lead measured at each flow rate, and the dotted black line is the EPA hazardous waste threshold of 5000 μg/L. Photos A–C were taken after the water samples settled in their bottles overnight. Photos D and E illustrate the size of the particles shown in photo C.

Table 2. Average Ratios of Metals (± Standard Deviation) in GSL Coating and Water Samples

		indoor GSL surface coating				water samples			
ratio	units	XRF analysis (n = 6)		ICP-MS analysis (n = 6)		ICP-MS January sample (n = 6)		ICM-MS April profile (n = 32)	
Cd:Sn[a]	μg/L:μg/L			1.0	<±0.1	1.1	< ± 0.1	0.9	±0.1
Cd:Zn[a]	μg/L:mg/L			2.6	±0.2	3.0	±0.1	2.6	±0.3
Fe:Pb	mg/L:mg/L	1.4	±0.3	NS[b]	NS[b]	39	±11	1.7	±0.7
Fe:PO_4	mg/L:mg/L			NS[b]	NS[b]	4.1	±0.6	1.3	±0.3
Pb:Cd[a]	μg/L:μg/L			7.0	±0.9	336	±37	744	±283
Pb:Zn	μg/L:mg/L	17.1	±5.4	18.2	±1.4	989	±134	1824	±747
PO_4:Pb	mg/L:mg/L			1.0	<±0.1	9.4	±1.7	1.2	±0.3

[a]Sample sizes varied due to nondetectable Cd and Sn concentrations: January (n = 5) and April (n = 30). [b]NS: no sample. Iron concentrations were not consistent with ASTM standards, indicating scrapings of the underlying iron pipe influenced the analysis.

samples, but the sixth sample contained 13 200 μg/L. Lead concentrations in the last five water samples (i.e., flushing interval) continued to increase, indicating that water from the kitchen tap was still not safe for consumption despite flushing the line for more than 26 min (>100 L).

3.1.2. Iron Release As a Function of Flow Rate. All 32 water samples collected during the profile contained iron concentrations above the EPA secondary maximum contamination level (SMCL) of 0.3 mg/L (Figure SI-2; Table SI-1). Concentrations ranged from 0.7 to 6.5 mg/L, with average and median concentrations of 2.7 and 2.8 mg/L. There was no significant difference in iron concentrations based on flow rate during this effort (Kruskal–Wallis Test, p = 0.50). Specifically, average and median iron concentrations were 2.8 and 3.1 mg/L at low flow, 2.2 and 1.9 mg/L at moderate flow, and 3.1 and 3.1 mg/L at high flow. As iron in water concentrations were strongly correlated (Spearman's, $p < 0.05$) with lead (ρ = 0.91) and phosphate (ρ = 0.94), it appeared that the high lead and iron levels were a result of the destabilization of lead-bearing corrosion rust layers.

3.2. Sources of Lead in Water at Home of Resident Zero. *3.2.1. Destabilization of Leaded Corrosion Scale.* Drinking water supplied by the DWSD contained approximately 1.07 mg/L of orthophosphate as P,[32] which would be expected to form insoluble phosphate scales with soluble metals in water on the inside pipe surfaces over decades of water use (Figure 1a). When Flint switched to the Flint River as a water source, the practice of adding orthophosphate inhibitors was discontinued,[21,27] and phosphate corrosion scales began deteriorating (Figure 1b). This was evident during the profiling effort as all 32 samples contained phosphate (0.4–9.9 mg/L as P; Figure SI-1), even though the distributed water had undetectable phosphate for 11 months by this time.[21] The average and median phosphate concentrations were 2.4 and 2.1 mg/L as P, and concentrations were strongly correlated with lead (ρ = 0.98), demonstrating that the scales previously formed in DWSD water were deteriorating and falling into the water supply at high levels. In addition, two short-term laboratory experiments conducted at Virginia Tech demonstrated that addition of orthophosphate inhibitors to the Flint River water would have markedly reduced iron and lead release rates (Figure SI-3).[43−45] Although the increase in water corrosivity due to higher CSMR promoted corrosion at galvanic connections (e.g., partial LSL and lead–copper soldered joints), the continuation of orthophosphate corrosion control would have reduced the breakdown of the lead-bearing and other corrosion scales. Scrapings of the interior scale from the outdoor and indoor GSLs (Figure 3, #1–3) were dissolved in water for analysis via ICP-MS. The composition varied considerably based on the section of scale analyzed, as the scales contained 2–47% iron (Fe), 3–11% zinc (Zn), 0.11–

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0.37% Pb, 0.005−0.02% tin (Sn), 0.005−0.02% cadmium (Cd), and 0.6−4% phosphate as P (PO_4^{3-}).

3.2.2. Lead Content in Corrosion Scales. One 1.5 cm (6 in.) section of indoor GSL was extracted and sent to Virginia Tech (Figure 3, #3). The outer surface of this GSL, which had been relatively uncorroded by the decades of use, contained 94.2 ± 1.2% Zn, 2.2 ± 0.4% Fe, and 1.6 ± 0.5% Pb as identified by XRF, which was consistent with galvanized iron pipe composition.[20] To detect trace metals, scrapings of the coating were digested and analyzed via ICP-MS, and were found to contain 92.0 ± 0.6% Zn, 1.7 ± 0.1% Pb, 0.2 ± 0.02% Cd, and 0.2 ± 0.02% Sn. When evaluating metals in the tap water during the profiling effort, lead was strongly correlated with Cd (ρ = 0.98), Zn (ρ = 0.95), and Sn (ρ = 0.95). This indicated that zinc, lead, cadmium, and tin likely accumulated in the GSL scale and released when the pipe of this home was exposed to the corrosive Flint River water without corrosion inhibitors.

To attempt to evaluate the lead contribution from the GSL versus the pure LSL, cadmium was used as a GSL fingerprint, since it is in the GSL coating and is rarely present in other plumbing.[20] The average ratio of Cd:Zn in the original relatively uncorroded coating of the indoor GSL pipe wall was 2.6 (±0.2; μg/L:mg/L; Table 2), consistent with the average ratio observed in water samples during all of the profiles (2.6 ± 0.3). Thus, the presence of zinc and cadmium released to water was almost certainly due to the disrupted GSL scale, and the zinc could also be used as a fingerprint for GSL lead release for this home with all PVC interior pipe (minimal influence of brass corrosion). The average ratio of Pb:Zn in the original GSL coating as determined by ICP-MS was 18.2 (±1.4; μg/L:mg/L). However, the average ratio observed during the profiling effort was 1824 (±747; μg/L:mg/L), two magnitudes higher than that observed in the original coating. We hypothesize that this indicates that lead had previously leached from the upstream LSL and sorbed to the iron rust layers forming on the GSL when the home was supplied by DWSD, and that this lead enriched scale was being released due to the change in source water (Figure 1). This is problematic given that the lead enriched iron rust layers present on the GSL can serve as a large lead in water source, even after the original LSLs are removed.[14,20,46]

The breakdown of these lead-rich iron rust layers was also evident during the January sampling effort. The Cd:Zn ratio (3.0 ± 0.1) in water samples was consistent with the original GSL coating composition, and the Pb:Zn ratio was higher (989 ± 134) than the coating ratio. However, there was a large difference in the Fe:Pb ratio between the January sampling (39 ± 11) and April profile (1.7 ± 0.7). We speculate that different types of scale containing iron and phosphate were disrupted during periods of water use (Figure 3, #1−3). Specifically, the average iron content in the interior scale was 5.1 ± 4.6% for GSL #1, 17.9 ± 2.3% for GSL #2, and 42.3 ± 4.8% for GSL #3, while the average lead content in the GSL scales remained relatively consistent (0.2−0.3%).

Scale depth profiles were performed to verify that lead-rich iron rust layers formed on the GSL, and scale compositions were nonuniform along the 58.5 m (192 ft.) GSL. A simple visual inspection and ESEM/EDS analysis confirmed that scales formed on GSL #1 (adjacent to the LSL) and GSL #3 (inside home) varied considerably (Figures 3 and SI-4). White scales approximately 3.6 mm thick formed on GSL #1 while brown scale approximately 1.8 mm thick formed on GSL #3. The composition of GSL #1 scales was relatively homogeneous with depth, as there was an average fluctuation of 39−48% in oxygen (O), 41−54% in Fe, and 0.07−0.12% in phosphorus (P). The highest lead percentage was in the layers closest to the pipe surface (average 0.43−0.53%) and decreased in layers closer to the water (average 0.06−0.10%). In contrast, GSL #3 scale was heterogeneous, as the percent of O and Fe varied with depth. Layers closer to the pipe surface contained higher average Fe levels (25−41%) compared to the outermost layers with higher average O (55−57%) and P (2.4%). The percent of lead within the scale was sporadic ranging from 0.0 to 0.8%. Thus, with nonuniform composition of the GSL scales in different pipe segments and the semirandom nature of scale detachment, variations in ratios of metals between sampling efforts as the interruption to corrosion control continued, were not unexpected.

3.3. Water Quality in January 2015 Samples.

3.3.1. High Lead and Red Water Complaints. After the switch to treated Flint River water, there was an increase in "red/rusty water" complaints, which was most likely further exacerbated by additional disruptions to the iron water mains through hydrant flushing.[27,47] While red and rusty water complaints were caused by an increase in iron,[14,46] they were also associated with elevated lead in water levels in this home as there was a strong correlation between lead and iron levels in the January samples (ρ = 1, p < 0.05; Table SI-2). The first water sample collected on January 15 had the least discoloration and had a lead and iron content of 360 μg/L and 9.0 mg/L, respectively (Figure 5). In contrast, the first water sample collected on January 21 was highly discolored and had a lead and iron content of 3585 μg/L and 168 mg/L. Water discoloration was predictive of high lead in water in this home with a lead service line, with the average iron-to-lead ratio of 1 mg/L iron to 28 μg/L lead. Thus, statements by authorities that water with red/rusty characteristics was safe for consumption was inaccurate in this instance.[27] However, it is important to note that while water discoloration was strongly associated with high lead in water in the January samples, the lack of discoloration was not an indicator of safe water lead levels, as illustrated by the lack of discoloration observed in the April profiling samples (i.e., samples with no aesthetic issues but Pb ≥ 217 μg/L).

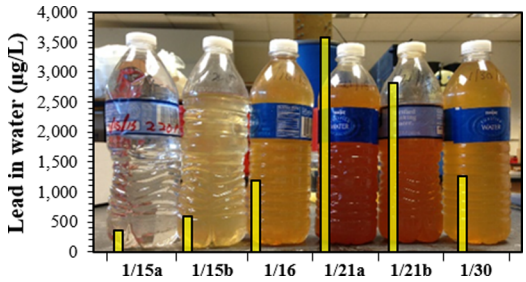

Figure 5. Association between water discoloration and lead concentrations for water samples collected in January 2015. A photo of the original sample bottles is overlaid with a bar chart of lead in water concentrations.

3.3.2. Deficiencies in the LCR Sampling. Lead levels in the January 2015 samples highlighted instructions in the LCR protocol that artificially reduced lead in water during sampling. Specifically, instructions to preflush the night before sample collection and low-flow rates imposed by small bottle openings, are known to minimize particulate lead and produced levels of

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104, 397, and 707 μg/L in February, March, and April.[21] These LCR levels were much lower than the average lead level (1635 μg/L) collected by this resident in January during normal water use, which is disconcerting given that the goal of LCR sampling is to detect "worst case" lead. Furthermore, of the 100 LCR samples originally required, officials only collected 71, and all of the high LCR lead results from this home were excluded "conveniently and without adequate investigation".[31] The net result was an "official" 90th percentile lead result below the action level.

4. IMPLICATIONS

While purchasing water from DWSD, Flint's 2013 Consumer Confidence Report documented a 90th percentile lead value of <2 μg/L,[48] indicating reasonable corrosion control. In April 2014, with the disruption of corrosion control, Flint residents started reporting aesthetic water quality issues and the city issued boil water advisories.[31] But the lead in water problem would have likely gone undetected indefinitely without the scientific and investigative work of Resident Zero. The high lead and iron levels observed were consistent with destabilization of lead-rich corrosion rust layers,[1,4,13−15] the nature of which varied considerably with time, and with distance from the LSL. Although this case study might very well be among the worst-cases for lead in Flint, as the service line to this property was unusually long at 65.2−66.1 m (214−217 ft.; Figure 3), the relative increase in lead hints at the likely magnitude of problems that could have occurred in other Flint homes.

Even incidental exposure to drinking water with high lead observed at Ground Zero poses serious health concerns. For chronic, long-term exposure, the EPA estimates a child's BLL will increase by 1 μg Pb/deciliter blood for every 5 μg/L lead in water increase.[49] A single 250 mL drink of water containing even the lowest concentrations observed (217 μg/L) at this home, is estimated to raise the average child's BLL to 0.4 μg/dL.[5,50] Moreover, 250 mLs of water containing 2500 μg/L Pb is predicted capable of raising a child's blood lead from 0 to 5 μg/dL (the Centers for Disease Control and Prevention's BLL of concern),[5] and roughly one-third of samples collected (10 of 32) during the profiling effort exceeded this threshold. At the highest observed lead level of 13 200 μg/L at this home, a child's BLL can be elevated from 0 to >5 μg/dL via consumption of a single swallow of water (50 mLs).[21]

Assuming a uniform lead content of 0.15% by weight, the 58.5 m (192 ft.) GSL would contain an estimated 10.4 g of lead within its corrosion scales. As a person in the U.S. typically uses between 80 and 100 gallons of water per day,[51] the continued breakdown and mobilization of the leaded GSL scales could have contaminated every drop of water used by this family of five to 15 μg/L for 12−15 months if this lead were all released uniformly. The kinetics of lead release are more complex, but this calculation illustrates that there can be significant long-term problems associated with lead sorbed to galvanized iron, as noted by others.[14,20,46] This is particularly problematic for the estimated 50% of homes with full or partial lead piping.[52,53]

On the basis of the absence of corrosion control treatment and related observations of Resident Zero,[21,27] a system-wide sampling effort was initiated by our team in August 2015 in direct collaboration with Flint residents which revealed a city wide problem.[54] Preliminary results indicated that the 90th percentile was 25 μg/L, based on 252 randomly sampled homes throughout the city. After an analysis of blood lead data revealed spiking lead in blood of Flint children city wide in late September 2015,[55] a state of emergency was declared by local, state, and federal health officials which included distribution of filters and bottled water to avert additional health harm.

■ ASSOCIATED CONTENT

Supporting Information

The Supporting Information is available free of charge on the ACS Publications website at DOI: 10.1021/acs.est.6b04034.

Additional water quality measurements and figures collected during the profile and January sampling efforts and information regarding the 3-D lead profiling protocol(PDF)

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Notes

The authors declare no competing financial interest.

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Flint Water Crisis: What Happened and Why?

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THE FLINT RIVER IS A VARIABLE WATER SOURCE AND THUS A CHALLENGE TO TREAT; OVERSIGHTS AND MISSTEPS COMBINED WITH INHERENT CHEMICAL CONDITIONS SET THE STAGE FOR THE HISTORIC WATER CRISIS IN FLINT, MICH.

There has been much in the news about the water crisis that began in 2014 in Flint, Mich., and the length of time it took for government officials to react. The elevated levels of lead found in the drinking water of residences in Flint have had a profound effect on the level of trust within the community and the state, the economy of the region, and the health and well-being of the residents of Flint and the surrounding communities. As Eric P. Rothstein so aptly stated, “Flint matters because the water utility industry can do better. The crisis, tragic in so many respects, also presents an opportunity for lasting benefit-benefit from recognizing that we are Flint” (Rothstein 2016). We have investigated the chemistry and engineering behind what happened to Flint’s water, why it was corrosive, and the extent to which the system appears to be recovering. This analysis is based on an extensive review of the monthly operating reports (MORs) and other reported documents from the water treatment facilities, and from personal communications with plant operators and managers.

HISTORICAL PERSPECTIVE

The first water distribution system in Flint was privately owned and incorporated as the Flint Water Works Company in 1883 (Dunbar & May 1995). On July 8, 1897, the City of Flint passed an ordinance requiring lead pipes: “all connections with any water mains shall be made with lead pipe” (Anon. 1897).

The City of Flint purchased the Flint Water Company in 1912. By 1930, Flint River water was being treated using alum coagulation before sand filtration, with the plant rated at 28

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mgd (Hardin 1932). Construction on a new treatment plant for the City of Flint began in 1952 and was completed in 1954. At that point, treatment of the Flint River included prechlorination, coagulation with alum, lime-soda ash softening, recarbonation, filtration, the addition of polyphosphate for corrosion control, and postchlorination. Taste-and-odor-causing compounds were removed using activated carbon, along with the addition of ammonia and sodium chlorite. The plant was rated at a capacity of 59 mgd, with a maximum overload capacity of 86 mgd. The 50th percentile pH, color, and turbidity of the finished (tap) water were 10.3, 2, and 0.1 ppm (silica scale; approximately equivalent to 0.02 Jtu), respectively. The total and noncarbonate hardness were 86 and 49 mg/Las $CaC0_3$ (calcium carbonate), respectively (Wiitala 1963).

In 1967, Flint began purchasing wholesale treated water from the Detroit Water and Sewage Department (DWSD). While the water quality of the Flint River was poor as a result of unregulated discharges by industries and municipalities (Leonardi & Gruhn 2001), the principal reason for the switch was to ensure a sufficient quantity of water for the growing population (Carmody 2016). After 1967, the Flint Water Service Center (FWSC) was maintained as a backup water treatment facility, treating Flint River water two to four times a year for periods of only a few days. The National Pollutant Discharge Elimination System permit allows the treated water to be discharged back into the Flint River. In 2012, the Board of Water Commissioners for the City of Detroit approved a resolution that would allow the DWSD director to enter into contractual arrangement to allow blending of treated Flint River water with that purchased from DWSD as a cost-saving measure (City of Detroit 2012). While DWSD and the City of Flint never entered into a contractual agreement, it is unclear whether blending of these two different waters actually occurred.

With the goal of reducing the costs for treated water (Felton 2016), Flint officials decided in 2013 to join the newly formed Karegnondi Water Authority (KWA), which was constructing its own pipeline to transmit raw water from Lake Huron. In the interim, the City of Flint had the option to continue to purchase treated water from DWSD (whose source was Lake Huron) or treat Flint River water at its own facility. After failing to come to an agreement on a short-term contract with DWSD, Flint decided to use water from the Flint River and treat it at the FWSC.

Many warnings and concerns were voiced regarding the use of the Flint River as a community water source. For example, Brian Larkin, then associate director of the (Michigan) Governor's Office of Urban and Metropolitan Initiatives, foretold the crisis in a Mar. 14, 2014, e-mail message to several others in the governor's office: "The expedited time-frame is less than ideal and could lead to some big potential disasters down the road." Mike Glasgow, laboratory and water quality supervisor at the plant, warned in an Apr. 25, 2014, e-mail to the State of Michigan Department of Environmental Quality (MDEQ), "I do not anticipate giving the OK to begin sending water out anytime soon. If water is distributed from this plant in the next couple weeks, it will be against my direction." Despite concerns, the FWSC switched from purchasing and distributing water from DWSD to treating water at its facility in Flint. In doing this, the source water changed from Lake Huron to the Flint River.

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Within a few weeks of the switch, residents started complaining about the color, taste, and odor of their drinking water. In May 2014, they informed officials that the water was causing rashes, especially in children (MDEQ e-mail records). During this time, red water and discoloration were observed throughout the distribution system (Veolia North America 2015, Felton 2014), and there was an unusually large number of water main breaks (Fonger 2015). General Motors Corporation complained about the corrosiveness of the water on its engine parts and in October 2014 switched to using water from Flint Township instead of from Flint.

Starting in summer 2014, a number of violations occurred. *Escherichia coli (E. coli)* and total coliform violations resulted in the issuance of three boil-water alerts within a 22-day period during summer 2014 (Emery 2016; Fonger 2014a, 2014b). As shown in Table 1, total trihalomethane (TTHM) concentrations at several sampling locations exceeded the 80 μg/L regulatory limit during May and August 2014 (Lockwood, Andrews, & Newman 2015). As a result, the MDEQ requested a preemptive operational evaluation in September 2014 and notified Flint of an initial quarterly violation of the Safe Drinking Water Act (SDWA) Disinfection/Disinfection Byproducts (D/DBP) Rule in December 2014 (Flint Water Advisory Task Force 2016; Table 1).

In February 2015, the City of Flint sampled Flint resident Lee Ann Walters' home and found lead in her water at a concentration of 104 μg/L (e-mail correspondence between US Environmental Protection Agency [USEPA] Region 5 and MDEQ dated Feb. 26, 2015; Flint Water Advisory Task Force 2016). By Aug. 31, 2015, Marc Edwards, a professor at Virginia Polytechnic Institute and State University, had analyzed 120 samples from Flint homes. He found that 20% of the samples had lead levels that exceeded the 15 μg/L action level and that the 90th percentile was 30 μg/L (Roy 2015a). In September, a team led by a local pediatrician, Mona Hanna-Attisha, published data showing that blood lead levels (BLLs) in children increased significantly after the switch to the Flint River as a water source (Hanna-Attisha et al. 2016; Kennedy et al. 2016). In the area of Flint that had the highest lead levels in the watei; the BLLs in children who were tested increased by a factor of about 2.5.

The city was required by the SDWA Lead and Copper Rule to conduct sampling for lead and copper in Tier 1 premise plumbing over six-month periods. Although not all of the homes sampled were Tier 1 sites (City of Flint 2016), the first round of sampling revealed that the 90th percentile lead concentration was greater than that observed during the previous five rounds of testing (Figure 1); by the end of the second six-month sampling period, the 90th percentile lead level was almost three times greater than that observed in the previous 15 years (Figure 1).

After much publicity regarding the lead problem, on Oct. 16, 2015, the source water for the City of Flint was switched back to treated Lake Huron water supplied by DWSD, with approximately 1 mg/L phosphorus to inhibit corrosion. Because the lead levels measured in the water remained high in some houses, on Dec. 9, 2015, the concentration of the phosphate corrosion inhibitor was increased by adding an additional ~2.5 mg/L phosphoric acid (P) at the FWSC.

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Finally, in February 2016, information on the increase in the number of cases of Legionellosis that occurred in Flint in the summers of 2014 and 2015 was released. Ninety-one cases and 12 deaths have been confirmed in the Flint area, up from six to 13 cases a year before the switch to Flint River water (Anderson 2016). The source of the outbreak has not been definitively determined or directly connected to the Flint water system, but as noted by Anderson (2016), the illnesses began after Flint changed its water supply. Given the low residual disinfectant levels (chlorine in this case) and the presence of iron in the water in the distribution system (Veolia North America 2015, Felton 2014), along with high concentrations of assimiliable organic carbon that would have likely formed during the ozonation of the high total organic carbon (TOC) Flint River water, conditions could have been conducive to biological growth and the propagation of *Legionella* in the distribution network.

WATER TREATMENT AT THE FLINT WATER TREATMENT PLANT

During the period from April 2014 to October 2015, the turbidity of the raw Flint River water at the FWSC plant ranged from 1.5 to 45.2 ntu (according to the MORs). The chloride level in the raw water ranged from 3 8 to 82 mg/L, with the monthly average values ranging from 38 to 54 mg/L. The TOC of the Flint River was reported to be 10.3 mg/L on May 22, 2014 (Lockwood, Andrews, & Newman 2014). The FWSC raw water intake is upstream of most development in Flint, but there is still some concern about industrial contaminants and sewage (Fonger 2014c).

Although numerous changes were made to the treatment process over the course of the 1.5 years of treatment, as of November 2014, when the draft Operational Evaluation Report (OER) was published, the treatment train was as shown in Figure 2 (Lockwood, Andrews, & Newman 2014). Water was drawn from the Flint River through raw water screens, then pumped into the ozonation basin. Sodium bisulfate was added in the last cell of the ozone contactor to destroy any residual ozone left in the water. The water then flowed into a rapid mix tank, where ferric chloride was added. From there, the water entered a three-stage flocculation unit followed by plate settlers. From the settling unit, water flowed into an upflow clarifier, where lime and anionic and cationic polymers were added. Fluoride was added at the outlet of the clarifier. From there, water moved into the recarbonation unit, where carbon dioxide was added to lower the pH. Chlorine was added just before dual media (sand/anthracite) filtration and again before flowing into a 3-mil-gal clearwell (Figure 2).

Before the switch to Flint River water, Laboratory and Water Quality Supervisor Mike Glasgow sent MD EQ staff engineers an e-mail message on Apr. 17, 2014, stating, “I do not anticipate giving the OK to begin sending out water anytime soon.” While the message sounded the alarm that staffing and monitoring plans were inadequate, it has not been reported how poorly equipped the plant was. It is clear from the MOR that the plant was woefully unprepared for full-time operation on Apr. 25, 2014. The May 2014 MOR reveals that the plant had only four to five days of polymer available to “use as a trial on two different occasions.” Supervisory control and data acquisition (SCADA) upgrades were incomplete and out for bid. Filter headloss meters were not operational on the SCADA system. Also, chlorine residual monitoring equipment at the point of entry into the

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distribution system had not been installed, so chlorine levels would have had to have been measured by taking grab samples from the clearwell as well as from a tap in the laboratory. It appears that, on the basis of the MORs, chlorination after filtration was not used until May 17, 2014. Fluoridation was not implemented until July 2, 2014. The water utility did not have a corrosion-control plan, and it had not installed corrosion control equipment when the water was switched back to DWSD on Oct. 16, 2015. On the basis of the comments in the MORs, the filter headloss meters were never made operational.

Figures 3 and 4 illustrate the variability in the chemical dosages that were used during the treatment process. Bench-scale jar testing for trihalomethane (THM) removal was not completed until sometime between January and August 2015 (City of Flint 2015). Without any treatability studies on which to determine chemical dosages until late August 2015 (City of Flint 2015), it appears that plant personnel were left to attempt to address the plethora of complex water quality issues and complaints by trial and error. Significant changes were made to chemical dosages, and the reasons for these changes were often not apparent. For example, the dosage of the anionic polymer (P-142PWG) added to the lime softening process to enhance settling was initially 0.05 mg/L; the anionic polymer dosage was later increased significantly, with concentrations approaching or exceeding the maximum dosage of 1. 0 mg/L as recommended byNSF International (2016). The OER issued in August 2015 (Lockwood, Andrews, & Newman 2015) states that “feeding coagulation/flocculation polymer aids” do not have “a meaningful benefit.” However, while there was a slight decrease in polymer use in March 2015, both anionic and cationic polymers were used continuously until the plant was shut down in October 2015. The reasons for the increase in the lime dosage in November 2014 and then the decrease in February and March 2015 are unknown.

It is unclear what ozone dosage was used over the majority of the treatment period because it was not recorded in the MORs until March 2015. The OER (Lockwood, Andrews, & Newman 2015) states that the ozone system was not feeding optimally until “corrective modifications” were made in January 2015. The corrective modifications appear to have been “repairs to gauges and programming” to produce “proper ozone under manual operation.” Repairs were planned for the first quarter of 2015 to “allow automatic operation,” but it is unclear if those were made.

Bromate is a disinfection by-product formed by the reaction of bromide ion with ozone. Monthly bromate monitoring for the first year of operation was required by the D/DBP Rule and were ordered by MDEQ staff on Sept. 11, 2014. The first bromate sample was to be taken by the end of that month. The 2014 consumer confidence report (City of Flint 2014) states that the bromate levels varied from 0 to 23 μg/L, and that no violation occurred. However, as the reporting limit for bromate was 5 μg/L (Stark 2016), the bromate levels actually varied between <5 and 23 μg/L.

The maximum contaminant level (MCL) for bromate is 10 μg/L, as a running annual average (RAA), determined at the point of entry. No data for bromate concentrations are provided in the 2015 consumer confidence report (City of Flint 2016); however, e-mail correspondence on Apr. 6, 2015, between MDEQ staff members indicate that the RAA was “hovering just

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above the MCL of 10 ppb." E-mail correspondence between FWSC staff and MD EQ staff indicates that bromate results were not reported for five of the 13 months after September 2014, even though ozone was used continuously at the plant.

Disinfection was accomplished using gaseous chlorine which, as shown in Figure 2, was to be added both before and after filtration. The total chlorine dosage varied from ~5 mg/L in the winter months to > 7 mg/L in the summer months (Figure 5). Not surprisingly, the chlorine demand, calculated by subtracting the chlorine residual leaving the treatment plant from the applied chlorine dosage, increased during the summer and decreased during the winter. The location of chlorine application varied significantly during the treatment period, with no post-filtration chlorination until May 17, 2015, and then no prefilter chlorination after Aug. 3, 2015. No justification for these changes was documented in the MORs. The softening bypass stream had been reduced to no greater than 20% in November 2014 in an attempt to reduce chlorine demand. The minutes of the Nov. 7, 2014, TTHM Response Planning Meeting (MDEQ e-mail correspondence) state that the bypass was discontinued "and it appears that the chlorine demand has dropped by 0.5–1.0 mg/L." However, as shown in Figure 5, this drop appears to be a part of a downward trend that occurred before this change. In summer 2015, the chlorine demand was somewhat lower than in summer 2014, but it is not clear whether this is due to eliminating the softening bypass stream or to other causes.

Difficulties were encountered in maintaining chlorine residuals throughout the distribution system throughout the 1.5 years of treatment and continues to be problematic, even after the change back to DWSD water. As shown in Figure 6, chlorine residuals in the treated Flint River water were low during the first few months of operation. In response to this and the detection of *E. coli*, the post-filtration chlorine dosages were increased from 0.0 to 2.9 mg/L in June 2014 and then to ~3.8 mg/L in July–October 2014, resulting in a decrease in the number of distribution system samples with no detectable chlorine residual. However, as shown in Table 1, increasing the chlorine dose resulted in increased concentrations of TTHMs. Although the FWSC reported increases in chlorine residuals after Oct. 2014, Marc Edwards reported that in August 2015, 41 % of the samples his group collected had no detectable chlorine (Roy 2015b). This team's sampling and analysis in late October 2015 revealed that 16 of the 30 samples collected had chlorine residuals less than 0.2 mg/L and 10 had chlorine levels less than 0.1 mg/L. The US Environmental Protection Agency (USEPA) Safe Drinking Water Task Force remains concerned about chlorine residual levels in Flint's water (Emery 2016).

The 24-month source water sampling for *Cryptosporidium, E. coli*, and turbidity to determine bin placement required by the SDWA Long-Term 2 Enhanced Surface Water Treatment Rule was not done before the switch to Flint River water, apparently because MDEQ staff believed the Flint River was only a temporary source (MDEQ e-mail conversations), despite the fact that construction on the 80-mi KWA pipeline had not even begun in April 2014.

Attempts to address the TTHM exceedances included first eliminating the softening bypass stream in an attempt to increase TOC removal (Lockwood, Andrews, & Newman 2014).

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However, TTHM exceedances continued, so the anthracite media in the filters was replaced with granular activated carbon, and the ozonation system was repaired in summer 2015 (MDEQ Construction Permit W151055). TTHM levels were finally reduced, and in August 2015, only one of the eight samples taken exceeded the 80 μg/L TTHM limit (Table 1).

QUALITY OF TREATED FLINT RIVER WATER

In attempting to understand what happened in Flint, it is necessary to look not only at specific contaminants but also the general quality of the treated water. As shown in Figure 7, the pH and alkalinity of the finished water varied significantly over the 1.5 years of treatment, and for much of the time, both were quite low, especially in summer 2015. The decreases in alkalinity from June to July 2014 and over the course of the period from March to May 2015, both correspond to increases in the lime dosage (Figure 3). The reason for the change in alkalinity and pH after June 2015 is unknown, as the lime and ferric chloride dosages were fairly constant during this period. The carbon dioxide dosage may have changed during recarbonation, but the carbon dioxide dosages were not provided in the MORs.

Treatment for softening and turbidity removal, along with disinfection, reduced the alkalinity by as much as 204 mg/L as $CaC0_3$ and the pH by up to one log unit. The Langelier saturation index (LSI) is a measure of calcium carbonate solubility described as

$$LSI = pH + log\left(\frac{K_a \cdot \gamma_{Ca}2+ \cdot \left[Ca^{2+}\right] \cdot \gamma HCO_{3-} \cdot \left[HCO_{3-}\right]}{\gamma_{\mathrm{H}+} \cdot \left[K_{sp}\right]}\right)$$

where K_a is the acid dissociation constant for bicarbonate, γ is the activity coefficient, [] denotes the molar concentration, and K_{sp} is the solubility product of $CaC0_3$. An LSI value greater than zero indicates that the solution is supersaturated and the precipitation of calcium carbonate is favored and that corrosion is less likely. An LSI value less than zero indicates that the solution is undersaturated and calcium carbonate dissolution is favored, and that the water could be corrosive if no other measures were taken to control corrosion. As a result of reductions in pH, alkalinity, and hardness during treatment, the finished water was undersaturated with respect to calcium carbonate (Figure 8). As the temperature of the water is likely to change in the distribution system (warms during winter, cools during summer), the LSI is also likely to change, suggesting that the water became more under-saturated during summer and less undersaturated during winter. The LSI would have approached −1.5 during August 2015, when the water temperature was predicted to be 15°C in the distribution system.

As shown in Table 2, the chloride content of the treated water ranged from 62 to 95 mg/L (median of 83 mg/L). The chloride level in the treated water was significantly higher than in the river water, predominantly due to the addition of ferric chloride as a coagulant. Calculations using dosing data show that the chloride levels in the treated water increased by 28–100 % as a result of the addition of ferric chloride.

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The turbidity of the raw Flint River water varied seasonally (Figure 9). The turbidity of the finished water did not vary greatly (0.08–0.16 ntu), demonstrating that the filters were operating successfully. However, it can be observed that the turbidity of the water applied to the filters varied greatly, indicating the challenges plant opera tors had in achieving consistent performance in the upflow clarifiers. The changes in lime and polymer dosages, shown in Figures 3 and 4, likely reflect attempts to optimize the removal of turbidity.

CORROSIVE INDEXES

Although a number of indexes have been developed to provide an indication of the likelihood that corrosion or deposition will occur, none are able to predict the rate at which corrosion might occur. Nevertheless, they can be used to assess the potential effects of water quality changes on the likelihood of corrosion.

The Larson-Skold index was developed to evaluate the potential for the corrosion of cast-iron pipes transporting water from the Great Lakes (Roberge 2006). It can be used to determine the effect of chloride, sulfate, and bicarbonate/carbonate ions on the corrosivity of the treated water toward iron pipes in the distribution system. The Larson-Skold index is calculated as

$$LSI = \frac{(Cl-) + \left(SO_4^{2-}\right)}{(HCO_{3^-}) + \left(CO_3^{2-}\right)}$$

where the concentrations are given in units of equivalents per liter. A Larson-Skold index of (1) less than 0.8 suggests that chloride and sulfate levels are unlikely to cause corrosion, (2) between 0.8 and 1.2 suggests higher than desired corrosion rates may occur, and (3) greater than 1.2 is indicative of high corrosion rates (Roberge 2006).

Unfortunately, as the sulfate concentrations were determined on only six occasions, the Larson-Skold index can be calculated only for those six days (Table 2). Of those six days, the Larson-Skold index suggests that high (sometimes very high) rates of iron corrosion should have been expected. While the number of dates are limited, the sulfate concentration was fairly constant over the 1.5 years; therefore, the values of the Larson-Skold index shown in Table 2 are likely to be indicative of the treated water during the time when the Flint River supplied the FWSC plant.

The chloride-to-sulfate mass ratio (CSMR) has been shown to be an effective tool to identify where corrosion is likely (Hill & Cantor 2011). An extensive survey of water utilities showed that 100% of utilities with a CSMR <0.58 met USEPA action limit for lead (15 μg/L) (Edwards 1999). On the contrary, only 3 6 % of utilities with a CSMR >0.58 met the USEPA action limit (15 μg/L). If the alkalinity is less than 50 mg/L as $CaC0_3$, then Nguyen et al. (2010) suggested that the goal should be to achieve a CSMR in the finished water of less than 0.2. Table 2 shows that the CSMR for the treatment period was very high in all six samples. The high values of the CSMR and Larson-Skold indexes of water entering the Flint distribution system should have raised serious concerns about the possibility of corrosion,

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especially given prior experience by water utilities. For example, in Columbus, Ohio, the 90th percentile lead levels in the water increased by almost 360% after a change in coagulant from alum to ferric chloride, which resulted in an increase in the CSMR by up to 170% (Hill & Cantor 2011).

SO WHAT WENT WRONG IN FLINT?

The previous discussion demonstrates the complexity of treating a variable water source. Flint River water was considered to be a challenge to treat, with "high bacteria and high carbon concentrations" that "fluxuate [sic] depending on rain events" (Mar. 20, 2012, meeting minutes, MDEQ meeting on KWA water issues). The only pilot testing that appears to have been completed before the switch was in 2002—a treatability study by Alvord, Burdick, and Howson LCC (AB&H)—and is mentioned in the OER (Lockwood, Andrews, & Newman 2015). The author of the study describes the water source as "particularly difficult to treat with seasonal variation between high organic load and high magnesium hardness" (Lawrence 2012). The treatment train recommended in the AB&H report differs significantly from that used at the Flint water treatment plant, which meant that in 2014 the plant operators lacked important information about the treatability of the water that was necessary for proper plant operation.

AWWA (Muylwyk et al. 2014) recommends that "if a municipality is considering changing how its source water is treated, the potential effects on the corrosivity of the treated water and the need for corrosion control should be evaluated." However, sufficient pilot testing and corrosion studies were not commissioned and completed before the April 2014 switch of source waters. Furthermore, since the Flint plant had not been fully operational in almost 50 years, was understaffed, and some of the staff were undertrained, it is not surprising that it was difficult to achieve effective treatment.

Muylwyk et al. (2014) warn that any of the following treatment changes could affect corrosion or corrosion control in the distribution system:

- Process changes that result in pH or alkalinity changes
- Process changes that affect the CSMR
- Change in coagulant (the Lake Huron plant uses alum)
- Introduction of a new acid to the process (the Lake Huron plant does not use recarbonation; the Flint plant did)
- Introduction of a new base (the Lake Huron plant does not use lime; the Flint plant did)

These changes were made when Flint switched to treating the Flint River water; however, as mentioned previously, corrosion control was not used at the plant, and there was no plan for corrosion control.

As shown in Figure 7, the monthly average pH and alkalinity of the treated water were highly variable. Not shown in the figure are the changes on a daily basis. The daily pH measurements varied from 7.00 to 8.46 over the first three months of treatment. Daily

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fluctuations often varied between ±0.2 to 0.3 pH units, and as high as 1.1 log units in late April 2014. By contrast, the pH of the DWSD water varied no more than 0.34 log units over the course of a month. Changes in pH more than 0.2 units per week are not recommended (Hill & Cantor 2011), as such rapid changes in water chemistry (as experienced in the Flint system) may adversely affect system equilibrium and the passivation layer and scales on the insides of the pipes.

The red color of the water observed by Flint residents is evidence of the corrosion of iron distribution pipes. While FWSC flushed the mains by opening fire hydrants, it never seemed to address the root cause of the colored water, namely the corrosion of the iron pipes. Changes in pH and alkalinity can result in the softening of iron tubercles and therefore result in increased iron corrosion (Hill & Cantor 2011). As discussed previously, in all six samples, the Larson–Skold index was close to or greater than 1.2, indicating potentially high iron corrosion rates should have been expected. On the basis of this and the fact that no corrosion inhibitor was used, it is not surprising that significant iron corrosion was observed. In addition, bacteria are known to contribute to the corrosion of iron pipes, so it is possible that the corrosion problem was exacerbated by bacterial regrowth as a result of low chlorine residual and the likely presence of low molecular weight/easily metabolized compounds formed from the reaction of ozone with naturally occurring organic matter.

Commonly used indexes could have predicted that the treated Flint River water would likely corrode lead pipes. For example, the decision tool shown in Figure 10 uses the CSMR to predict the corrosivity of water toward lead piping. As shown in Figure 7, before July 2015, when the alkalinity of the water was greater than 50 mg/L as $CaC0_3$, the CSMR values of the treated Flint River water exceeded the 0.5 cutoff, so the corrosivity of water would have been a significant concern. After this time, the alkalinity of the water was less than 5 0 mg/L and the CSMR greatly exceeded 0.2, indicating that lead corrosion was an even more serious concern than earlier. The addition of phosphate as an inhibitor to prevent lead corrosion is commonly used in the industry (Hill & Cantor 2011), and while the possible use of phosphate as a corrosion inhibitor was suggested (WadeTrim 2009), the reason corrosion control was not implemented is still unknown. No preliminary corrosion estimates using simple indexes appear in any of the engineering reports, and they do not appear to have been considered during the design process. Journalistic reports of the Flint disaster have often stated that the failure to add phosphate was the primary cause of the lead corrosion problem. However, it should be recognized that the CSMR of the treated Flint River water was so high that, even with the addition of phosphate, the water may have been so corrosive that lead levels in the system might have still exceeded the action level. The failure to recognize the corrosivity of the water and to add a corrosion inhibitor had devastating effects.

In the wake of the lead exposure, the MDEQ finally conducted extensive sampling and analysis of the Flint water. As of June 28, 2016, a total of 23,119 samples have been collected and analyzed for lead since September 2015. The highest lead levels measured exceeded 23, 100 μg/L. On the basis of the Sentinel samples and this more extensive data set collected by the MD EQ, it appears that a significant number of premises still have high lead levels in their water (Figure 11). It has been suggested that in many cases, the high lead levels now seen in homes are due to the presence of particulate lead (USEPA 2016). This

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may be the case, although at this time there appears to be limited publicly available evidence to support this supposition.

There are plans to replace all lead pipes in the Flint system. As of July 2016, lead pipes have been replaced in about 30 premises (Thomas 2016). In the case of Madison, Wis., the utility and homeowners worked together for several years to fully replace the lead service lines in every home in their service area (Corley 2016). High lead levels were found in a number of samples four years after all of the lead pipes were replaced in Madison, Wis. (Cantor 2006), suggesting that even after all the lead pipes are replaced, it may take years for the lead levels in Flint to reach a point at which the concentrations of all samples are below the action level. Clearly there is much to be done before the water crisis in Flint is over.

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Biography

Susan J. Masten has 35 years' experience in water treatment and 27 years at Michigan State University. She holds a patent on a hybrid ceramic membrane filtration system and has conducted extensive research on the use of this technology for the control of disinfection by-products, nanoparticles, bromate, and pharmaceuticals in drinking water. Masten earned a BS degree in biochemistry from Fairleigh Dickinson University, Teaneck, N.J.; an MSE degree in environmental engineering from West Virginia University in Morgantown, W.V.; and a PhD degree in environmental engineering from Harvard University, Cambridge, Mass.

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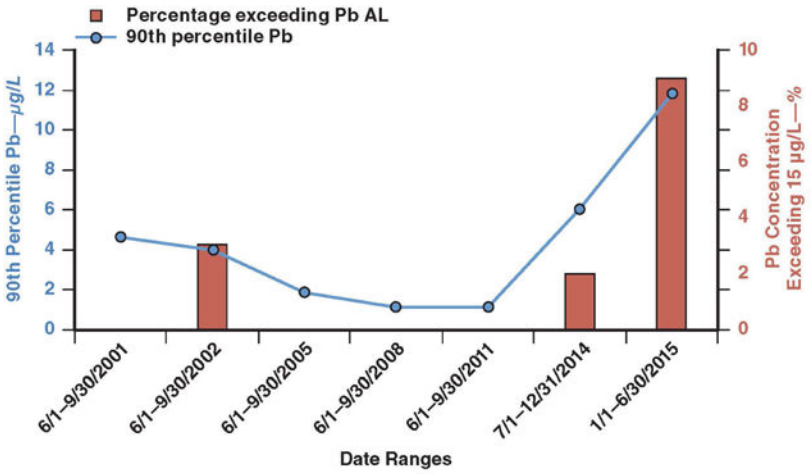

Sampling and analyses were required for compliance with the Lead and Copper Rule.

AL—action level, Pb—lead

FIGURE 1.

Historical data for lead concentrations in the Flint distribution system

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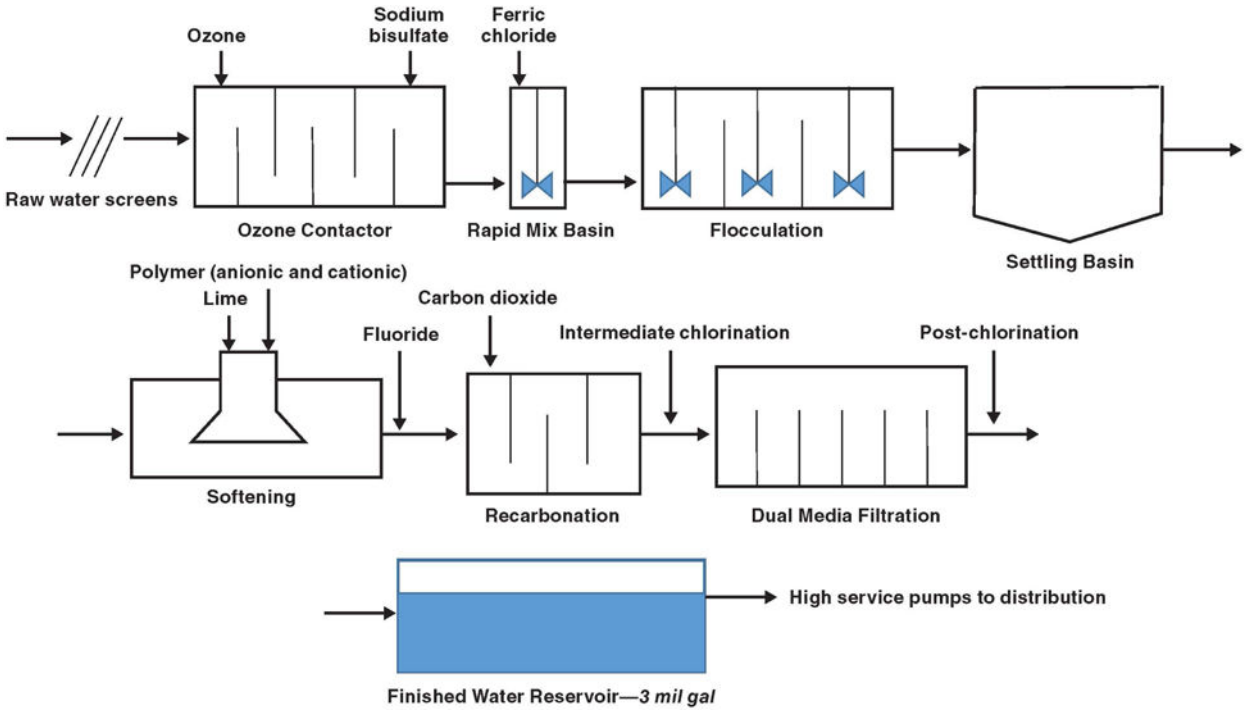

FIGURE 2.
Schematic of the Flint Water Treatment Plant

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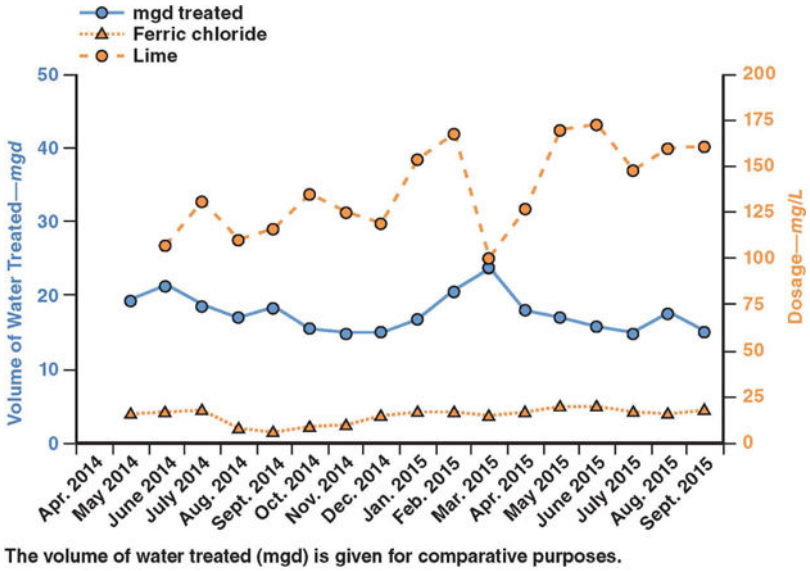

FIGURE 3.

Variability in the monthly average ferric chloride (as Fe^{3}+) and lime dosages used at the Flint water treatment plant for 1.5 years

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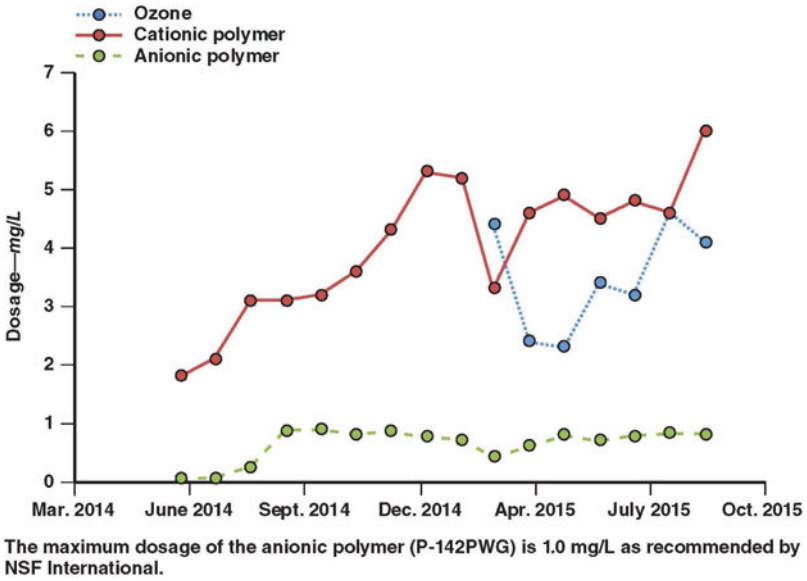

FIGURE 4.

Variability in the monthly average ozone and polymer dosages used at the Flint water treatment plant for 1.5 years

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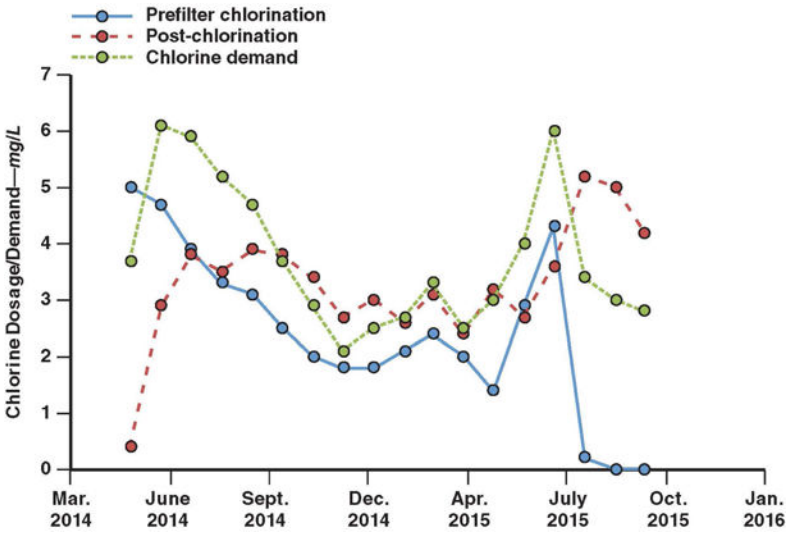

FIGURE 5.
Applied chlorine dosages and chlorine demand of treated Flint River water

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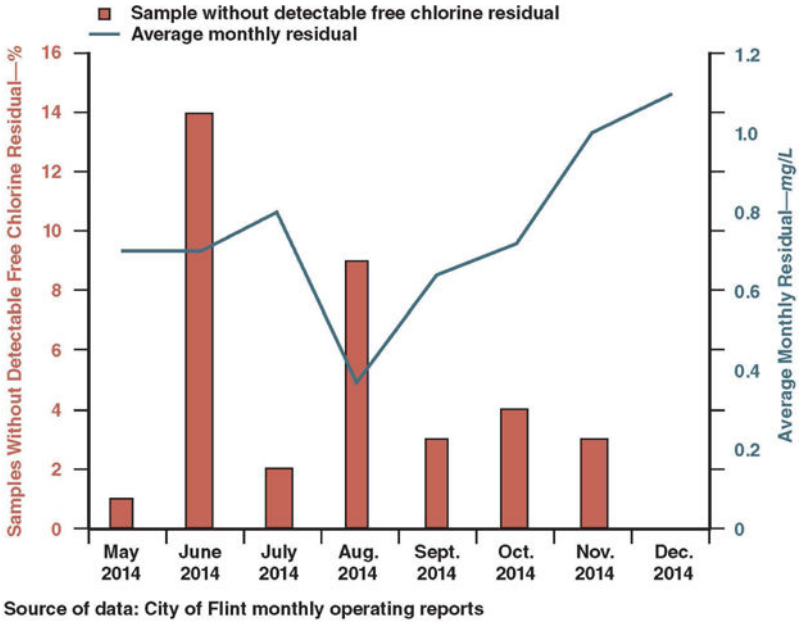

FIGURE 6.
Chlorine residuals at monitoring sites in the Flint distribution system

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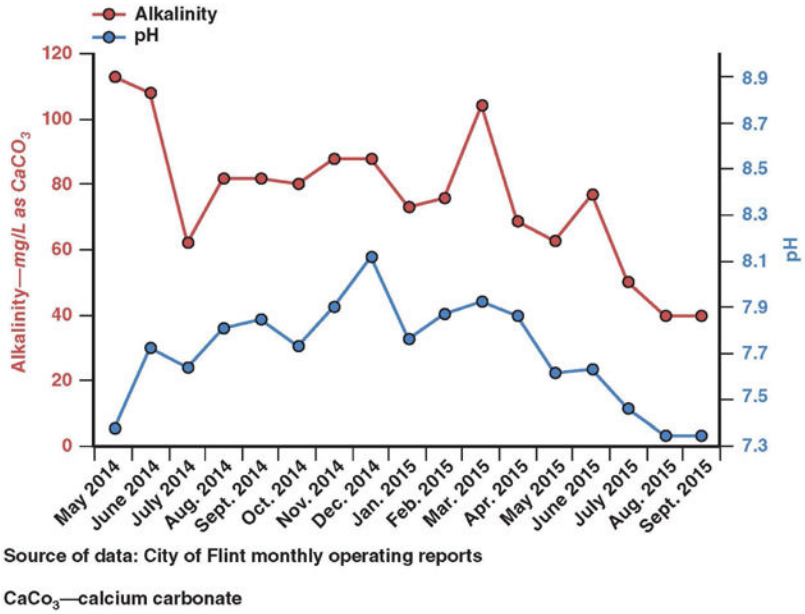

FIGURE 7.
Monthly average pH and alkalinity in the treated Flint River water

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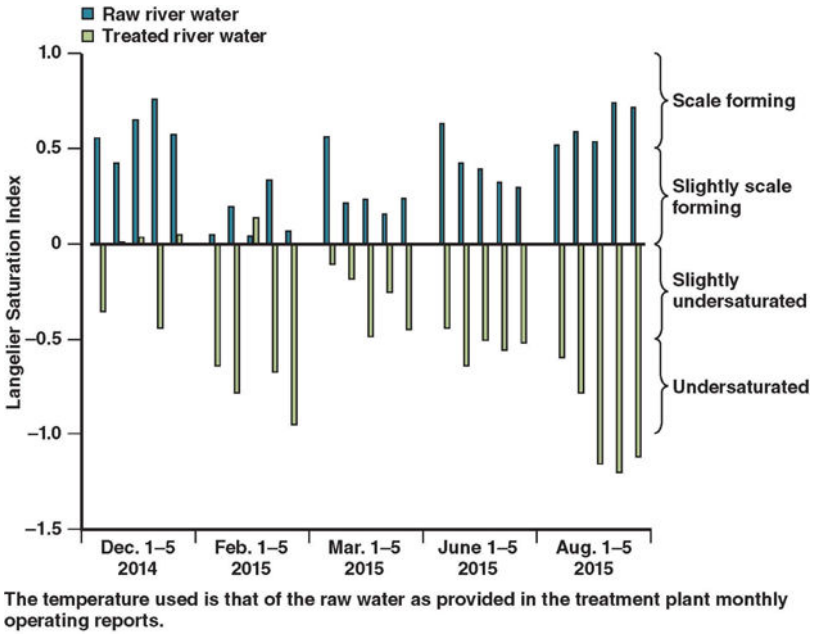

FIGURE 8.

Langelier saturation index of the treated Flint River water at various times during the treatment period

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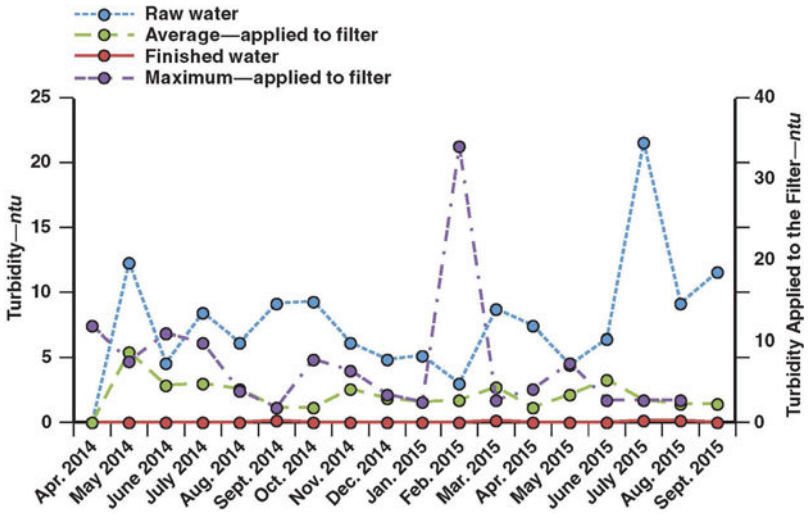

FIGURE 9.
Variability in turbidity within the Flint water treatment plant

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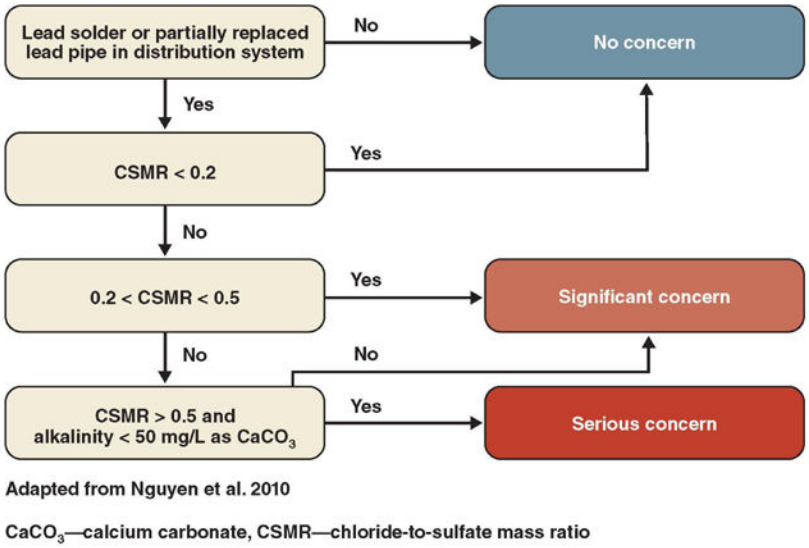

FIGURE 10.
Decision tool to assess corrosion potential based on CSMR

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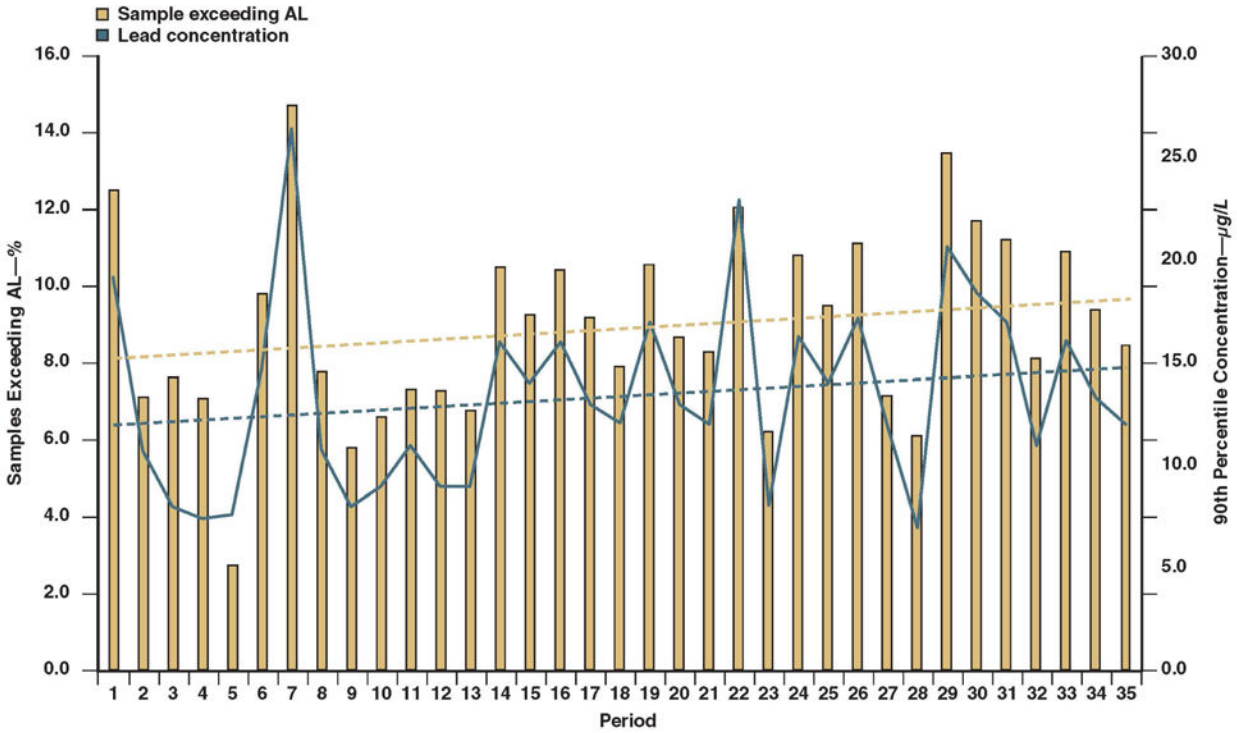

AL—action level

[a]Determined from the Michigan Department of Environmental Quality sampling efforts from Sept. 1, 2015, through July 23, 2016

Period	Date
	2015
1	September
2	Oct. 1–15
3	Oct. 16–31
4	November
5	Dec. 1–10
6	Dec. 11–31
	2016
7	Jan. 3–9
8	Jan. 10–16

Period	Date
9	Jan. 17–23
10	Jan. 24–30
11	Jan. 31–Feb. 6
12	Feb. 7–13
13	Feb. 14–20
14	Feb. 21–27
15	Feb 28–Mar. 5
16	Mar. 6–12
17	Mar. 13–19
18	Mar. 20–26

Period	Date
19	Mar. 27–Apr. 2
20	Apr. 3–9
21	Apr. 10–16
22	Apr. 17–23
23	Apr. 24–30
24	May 1–7
25	May 8–14
26	May 15–21
27	May 22–28
28	May 29–June 4

Period	Date
29	June 5–11
30	June 12–18
31	June 19–25
32	June 26–July 2
33	July 3–9
34	July 10–16
35	July 17–23

FIGURE 11.

Percentage of samples exceeding the lead AL of 15 μg/L and the 90th percentile lead concentration[a]

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TABLE 1

Total trihalomethane (TTHM) concentrations in the Flint distribution system

Location	TTHM concentration *μg/L*			
	May 21, 2014	Aug. 21, 2014	Nov. 21, 2014	Aug. 18, 2015
1	162.4	145.3	58.6	67.9
2	75.1	112	36.2	53.6
3	111.6	127.2	33.3	60.2
4	79.2	181.3	33.9	72.0
5	106.4	196.2	93.6	93.5
6	82.2	112.4	50.1	65.9
7	88.2	144.4	53.6	69.4
8	96.5	118.3	41.1	54.9

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TABLE 2

Parameter concentrations used to characterize the likelihood of corrosion and associated CSMR and Larson-Skold indexes in the treated Flint River water

Sample Date	Concentration *mg/L*		Concentration *mg/Las CaCO$_3$*	CSMR	Larson-Skold Index
	Cl^-	SO_4^{2-}	Alkalinity		
May 22, 2014	85	25	118	3.8	1.24
Aug. 6, 2014	65	23	60	2.8	2.31
Oct. 28, 2014	62	22	76	2.8	1.45
Feb. 16, 2015	95	25	47	3.8	3.40
May 12, 2015	90	31	56	2.9	2.84
Aug. 11, 2015	81	21	36	3.8	3.78

$CaCO_3$—calcium carbonate, Cl^-—chloride, CSMR—chloride-to-sulfate mass ratio, SO_4^{2-}—sulfate

STATE OF CALIFORNIA
AUTHENTICATED
ELECTRONIC LEGAL MATERIAL

Assembly Bill No. 746

CHAPTER 746

An act to add and repeal Section 116277 of the Health and Safety Code, relating to public health.

[Approved by Governor October 13, 2017. Filed with Secretary of State October 13, 2017.]

LEGISLATIVE COUNSEL'S DIGEST

AB 746, Gonzalez Fletcher. Public health: potable water systems: lead testing: schoolsites.

Existing law, the California Safe Drinking Water Act, requires the State Water Resources Control Board to administer provisions relating to the regulation of drinking water to protect public health, including, but not limited to, conducting research, studies, and demonstration programs relating to the provision of a dependable, safe supply of drinking water, enforcing the federal Safe Drinking Water Act, adopting implementing regulations, and conducting studies and investigations to assess the quality of water in private domestic water supplies. The act requires the state board to establish a grant program, in consultation with the State Department of Education, to award grants to local educational agencies for the purposes of improving access to, and the quality of, drinking water in public schools serving kindergarten or any of grades 1 to 12, inclusive, and preschools and child day care facilities located on public school property.

This bill would require a community water system that serves a schoolsite of a local educational agency with a building constructed before January 1, 2010, to test for lead in the potable water system of the schoolsite before January 1, 2019. The bill would require the community water system to report its findings to the schoolsite, as specified, and, if the schoolsite's lead level exceeds a certain level, to test a water sample from the point at which the schoolsite connects to the community water system's supply network. The bill would require the local educational agency, if the lead level exceeds the specified level at a schoolsite, to notify the parents and guardians of the pupils who attend the schoolsite or preschool. The bill would require the local educational agency to take immediate steps to make inoperable and shut down from use all fountains and faucets where the excess lead levels may exist and would require the local educational agency to work with the school site to ensure that a potable source of drinking water is provided for students. The bill would require a community water system to prepare a sampling plan for each schoolsite where lead sampling is required under these provisions. By imposing additional duties on local educational agencies, this bill would impose a state-mandated local program.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that, if the Commission on State Mandates determines that the bill contains costs mandated by the state, reimbursement for those costs shall be made pursuant to the statutory provisions noted above.

The people of the State of California do enact as follows:

SECTION 1. Section 116277 is added to the Health and Safety Code, to read:

116277. (a) (1) A community water system that serves a schoolsite of a local educational agency with a building constructed before January 1, 2010, on that schoolsite shall test for lead in the potable water system of the schoolsite on or before July 1, 2019.

(2) The community water system shall report its findings to the schoolsite within 10 business days after the community water system receives the results from the testing laboratory or within two business days if it is found that the schoolsite's lead level exceeds 15 parts per billion.

(3) If the lead level exceeds 15 parts per billion, the community water system shall also test a water sample from the point in which the schoolsite connects to the community water system's supply network to determine the lead level of the water entering the schoolsite from the community water system's water supply network.

(b) (1) A local educational agency shall allow the community water system access to each of the local educational agency's schoolsites that are subject to subdivision (a) to conduct testing.

(2) If the lead level exceeds 15 parts per billion, the local educational agency shall notify the parents and guardians of the pupils who attend the schoolsite or preschool where the elevated lead levels are found.

(c) (1) If lead levels exceed 15 parts per billion, the local educational agency shall take immediate steps to make inoperable and shut down from use all fountains and faucets where the excess lead levels may exist. Additional testing may be required to determine if all or just some of the school's fountains and faucets are required to be shut down.

(2) Each local educational agency shall work with the schoolsites within its service area to ensure that a potable source of drinking water is provided for students at each schoolsite where fountains or faucets have been shut down due to elevated lead levels. Providing a potable source of drinking water may include, but is not limited to, replacing any pipes or fixtures that are contributing to the elevated lead levels, providing onsite water filtration, or providing bottled water as a short-term remedy.

(d) Each community water system, in cooperation with the appropriate corresponding local educational agency, shall prepare a sampling plan for each schoolsite where lead sampling is required under subdivision (a). The

community water system and the local educational agency may request assistance from the state board or any local health agency responsible for regulating community water systems in developing the plan.

(e) This section shall not apply to a schoolsite that is subject to any of the following:

(1) The schoolsite was constructed or modernized after January 1, 2010.

(2) The local educational agency of the schoolsite is currently permitted as a public water system and is currently required to test for lead in the potable water system.

(3) The local educational agency completed lead testing of the potable water system after January 1, 2009, and posts information about the lead testing on the local educational agency's public Internet Web site, including, at a minimum, identifying any schoolsite where the level of lead in drinking water exceeds 15 parts per billion.

(4) The local educational agency has requested testing from its community water system consistent with the requirements of this section.

(f) For purposes of this section, the following definitions apply:

(1) "Local educational agency" means a school district, county office of education, or charter school located in a public facility.

(2) "Potable water system" means water fountains and faucets used for drinking or preparing food.

(g) This section shall become inoperative on July 1, 2019, and, as of January 1, 2020, is repealed.

SEC. 2. If the Commission on State Mandates determines that this act contains costs mandated by the state, reimbursement to local agencies and school districts for those costs shall be made pursuant to Part 7 (commencing with Section 17500) of Division 4 of Title 2 of the Government Code.

O

OFFICE OF THE GOVERNOR

OCT 9 2015

To the Members of the California State Senate:

I am returning Senate Bill 334 without my signature.

This bill requires a school district that has a drinking water source that does not meet the Environmental Protection Agency's drinking water standards to provide alternative drinking water to their students.

I agree that all California students should have access to safe drinking water but this bill creates a state mandate of uncertain but possibly very large magnitude.

As our first order of business, local schools should understand the nature of their water quality problem, if there is one. Accordingly, I am directing the State Water Resources Control Board to work with school districts and local public water systems to incorporate water quality testing in schools as part of their lead and copper rule. School districts should utilize this information to ensure all students are provided safe water.

Sincerely,

Edmund G. Brown Jr.

GOVERNOR EDMUND G. BROWN JR. • SACRAMENTO, CALIFORNIA 95814 • (916) 445-2841

Senate Bill No. 334

Passed the Senate September 10, 2015

_____

Secretary of the Senate

Passed the Assembly September 8, 2015

_____

Chief Clerk of the Assembly

This bill was received by the Governor this _____ day of _____, 2015, at _____ o'clock ____M.

_____

Private Secretary of the Governor

CHAPTER _____

An act to amend Sections 32242 and 38086 of, to add Sections 32241.5, 32246, and 32249 to, and to add Article 13 (commencing with Section 49580) to Chapter 9 of Part 27 of Division 4 of Title 2 of, the Education Code, relating to pupil health.

LEGISLATIVE COUNSEL'S DIGEST

SB 334, Leyva. Pupil health: drinking water.

(1) Existing law requires a school district to provide access to free, fresh drinking water during meal times in school food service areas, unless the governing board of a school district adopts a resolution stating that it is unable to comply with this requirement and demonstrating the reasons why it is unable to comply due to fiscal constraints or health and safety concerns. Existing law requires the resolution to be publicly noticed on at least 2 consecutive meeting agendas and approved by at least a majority of the governing board of the school district.

This bill would delete the provision authorizing a school district to adopt a resolution stating that it is unable to provide access to free, fresh drinking water during meal times. The bill would instead specify that a school district shall provide access to free, fresh, and clean drinking water during meal times through the use of drinking water access points, as defined. By imposing additional duties on school districts, this bill would impose a state-mandated local program.

This bill would require a school district that has drinking water sources with drinking water that does not meet the United States Environmental Protection Agency drinking water standards for lead or any other contaminant to close access to those drinking water sources, to provide alternative drinking water sources, as specified, and to notify specified persons if the school district is required to provide those alternative drinking water sources. By imposing additional duties on pupil schools and school districts, this bill would impose a state-mandated local program.

(2) Under existing law, known as the Lead-Safe Schools Protection Act, the State Department of Public Health is required to perform various activities related to reducing the risk of exposure

to lead hazards in public schools, including, among other activities, working with the State Department of Education to develop voluntary guidelines to ensure that lead hazards are minimized in the course of school repair and maintenance programs and abatement procedures.

This bill would repeal the requirement that the State Department of Public Health develop voluntary guidelines. The bill would instead require the State Department of Education to make information available to school districts about the United States Environmental Protection Agency's technical guidance for reducing lead in drinking water in schools. The bill would prohibit drinking water that does not meet the United States Environmental Protection Agency drinking water standards for lead from being provided at a school facility. The bill would require a public school that has lead-containing plumbing components to flush all drinking water sources at the beginning of each schoolday, except as provided. By imposing additional duties on public schools and school districts, this bill would impose a state-mandated local program.

(3) The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that, if the Commission on State Mandates determines that the bill contains costs mandated by the state, reimbursement for those costs shall be made pursuant to these statutory provisions.

The people of the State of California do enact as follows:

SECTION 1. Section 32241.5 is added to the Education Code, to read:

32241.5. The department shall make information available to school districts, by posting on its Internet Web site or through any other means for distributing information it deems effective, about the United States Environmental Protection Agency's technical guidance for reducing lead in drinking water in schools.

SEC. 2. Section 32242 of the Education Code is amended to read:

32242. The State Department of Public Health shall do all of the following:

(a) Design and implement a strategy for identifying the characteristics of high-risk schools and provide a basis for statewide estimates of the presence of lead in schools attended by young children.

(b) Conduct a sample survey, as described in Section 32241, to determine the likely extent and distribution of lead exposure to children from paint on the school, soil in play areas at the school, drinking water at the tap, and other potential sources identified by the State Department of Public Health for this purpose. To the maximum extent possible, limited sample testing shall be used to validate survey results. The State Department of Public Health shall compile and summarize the results of that survey and report those results to the Legislature and the department.

(c) Within 60 days of the completion of testing a schoolsite, the State Department of Public Health shall notify the principal of the school or director of the schoolsite of the survey results. Within 45 days of receiving the survey results, the principal or director, as the case may be, shall notify the teachers and other school personnel and parents of the survey results.

(d) Make recommendations to the Legislature and the department, based on the survey results and consideration of appropriate federal and state standards, on the feasibility and necessity of conducting statewide lead testing and any additional action needed relating to lead contamination in the schools.

(e) As deemed necessary and appropriate in view of the survey results, develop environmental lead testing methods and standards to ensure the scientific integrity of results, for use by schools and contractors designated by schools for that purpose.

(f) Evaluate the most current cost-effective lead abatement technologies.

SEC. 3. Section 32246 is added to the Education Code, to read:

32246. Drinking water that does not meet the United States Environmental Protection Agency drinking water standards for lead shall not be provided at a school facility.

SEC. 4. Section 32249 is added to the Education Code, to read:

32249. A school that has lead-containing plumbing components shall flush all drinking water sources at the beginning of each schoolday, consistent with protocols recommended by the United

States Environmental Protection Agency. A school is not required to flush drinking water sources that have been shut off or have been certified as meeting the United States Environmental Protection Agency's drinking water standards for lead.

SEC. 5. Section 38086 of the Education Code is amended to read:

38086. (a) A school district shall provide access to free, fresh, and clean drinking water during meal times in the food service areas of the schools under its jurisdiction, including, but not necessarily limited to, areas where reimbursable meals under the federal National School Lunch Program or the federal School Breakfast Program are served or consumed. A school district may comply with this section by, among other means, providing cups and containers of water or soliciting or receiving donated bottled water.

(b) A school district shall comply with this section through the use of drinking water access points.

(c) For purposes of this section, "drinking water access point" is defined as a station, plumbed or unplumbed, where pupils can access free, fresh, and clean drinking water. An unplumbed access point may include water bottles and portable water dispensers.

SEC. 6. Article 13 (commencing with Section 49580) is added to Chapter 9 of Part 27 of Division 4 of Title 2 of the Education Code, to read:

Article 13. Drinking Water

49580. (a) A school district that has drinking water sources with drinking water that does not meet the United States Environmental Protection Agency drinking water standards for lead or any other contaminant shall close access to those drinking water sources immediately upon receipt of test results or notification from the public water system.

(b) (1) If, as a result of closing access to a drinking water source pursuant to subdivision (a), a schoolsite within a school district no longer has the minimum number of drinking fountains required pursuant to Chapter 4 (commencing with Section 401.0) of the California Plumbing Code (Part 5 of Title 24 of the California Code of Regulations), the school district shall provide alternative drinking water sources at that schoolsite.

(2) An alternative drinking water source provided pursuant to this subdivision while the source of contamination is being mitigated may be from plumbed or unplumbed sources. Unplumbed sources may include, but are not limited to, portable water sources and bottled water.

(c) A school district shall notify parents or legal guardians, pupils, teachers, and other school personnel of drinking water test results, immediately upon receipt of those test results, if the school district is required to provide alternative drinking water sources.

SEC. 7. If the Commission on State Mandates determines that this act contains costs mandated by the state, reimbursement to local agencies and school districts for those costs shall be made pursuant to Part 7 (commencing with Section 17500) of Division 4 of Title 2 of the Government Code.

Approved _____, 2015

_____

Governor

The Washington Post

Real Estate

School quality is tied home prices in new study. But other factors may affect values.

By Kenneth R. Harney Real Estate Columnist October 4, 2013 Email the author

It's a key question for many home buyers who have or plan to have young children: We want a house in an area with good schools, but what sort of price premium — if any — will we have to pay?

Academic research studies in recent decades generally have found that, all other factors being held equal, you pay somewhat more for houses in highly rated school districts compared with homes in neighborhoods where the schools have lower ratings and test results.

Now a national realty brokerage, Redfin, has come out with a study that purports to put hard numbers on the pricing differential. Using a huge database of about 407,000 home sales and nearly 11,000 elementary school districts in 57 metropolitan markets, the study concluded that, on average, buyers pay $50 more per square foot for homes in top-rated school districts compared with homes served by average-rated schools. The study's data came from multiple listing services plus school characteristics and test scores provided by the research firms GreatSchools and Onboard Informatics.

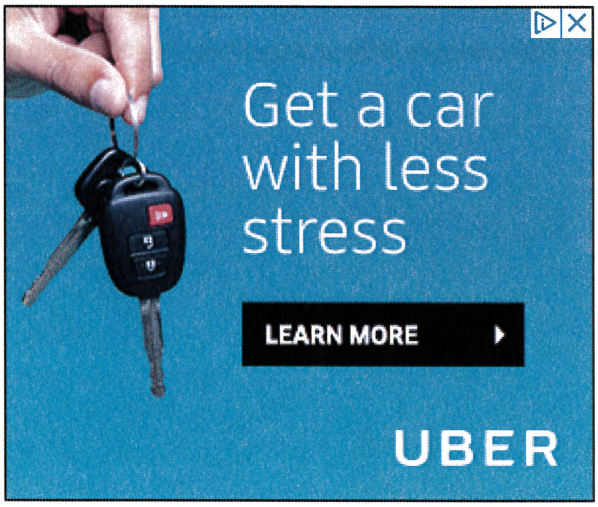

The net result, according to Redfin, is that the price differential for similar homes — same square footage, number of bedrooms and baths — that are located near each other but served by different school districts can range from tens of thousands to hundreds of thousands of dollars. In some expensive areas, such as coastal California, "homes in the highest ranking school zones" come with cost differentials ranging from $300,000 to nearly $500,000.

Even when similar homes are separated from each other by just a school boundary line — half a mile to three-quarters of a mile apart — the price gaps can be significant.

To illustrate the point, the study focused on five pairs of recent home sales. One case in Alexandria involved what Redfin termed "nearly identical" homes — both with four bedrooms, three baths and 3,000 square feet of living space — located three-quarters of a mile apart. For one house, the local school ratings were high. For the other, lower. The price premium: $130,000, or 16 percent.

The study offered parallel examples in San Diego, Seattle, Gilbert, Ariz., and Beaverton, Ore. Researchers found large pricing differences between home sales in highly rated school districts compared with average-ranked districts in major metropolitan areas from coast to coast, including Los Angeles, Boston, Miami, Washington, Charlotte, Chicago, Seattle, San Diego, San Antonio and Las Vegas, among others. The study defined top-rated schools as those with test scores in the 90th percentile and above in their respective states, and average schools as those in 40th to 60th percentiles.

But hold on. Could these apparently large pricing differences be attributable solely to school quality? Are test scores from elementary schools really so powerful that they can add such hefty premiums onto the prices of "identical" houses that are simply on different sides of a district school line?

Take another look at the Redfin study. Unlike academic studies that employ sophisticated statistical techniques to separate out multiple other variables that may be influencing the pricing disparities, Redfin did no regression analyses on its data.

Tommy Unger, the principal researcher for the study, conceded to me in an interview that "we wanted to tell the high-level story" for the home buyer and therefore did not analyze the data with the sort of statistical rigor that would be necessaryto prove a point scientifically — in this case, how much more buyers pay for top schools.

Also, although the study said the houses it used for comparison were "identical," there was no attempt at creating true "comparables" as in an appraisal report detailing interior condition, improvements, neighborhood facilities and amenities, views and other locational pluses and minuses, all of which can affect pricing. The homes highlighted in the study were similar in number of bedrooms, baths and interior square footage. Potentially, that leaves out a lot.

For example, in the pair of Alexandria houses selected to show a $130,000 price disparity across school lines, local real estate agents said there were important differences that the Redfin analysis missed: a community pool open to all residents in the higher-priced neighborhood, a strong sense of community involvement and "walkability" designed into the neighborhood's physical layout — all of which increase value.

"All the boxes are checked" to make that neighborhood more attractive and in demand, said Sue Goodhart, a broker with the McEnearney Associates, a firm that specializes in the area.

"It's just not all about the schools."

***Ken Harney**'s e-mail address is kenharney@earthlink.net.*

5 Comments

The Washington Post

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Survey: Buyers Will Pay More for Good Schools

July 30, 2013

Feedback

More than 44 percent of home buyers who plan to buy a home within the next two years said they would be willing to go over their budget by up to 10 percent in order to buy in their preferred school boundaries, according to a new survey by realtor.com®.

Three out of five home buyers surveyed said that school boundaries greatly impact their home purchasing decision. Nearly 9 percent of buyers indicated that they'd be willing to pay 11 to 20 percent above their budget to get a home in a desirable school district, the survey found. About 17 percent of buyers said they want to live within a mile of a school so their children can walk there.

Some home buyers said they'd even be willing to trade certain home amenities for good schools: About 62 percent said they'd give up a pool or spa, 50 percent would give up accessibility to shopping, and nearly 44 percent would pass on a bonus room.

"Our survey demonstrates the large impact school boundaries have on those looking to purchase a home," says Barbara O'Connor, chief marketing officer at Move Inc.

Metropolitan Policy Program
at BROOKINGS

Housing Costs, Zoning, and Access to High-Scoring Schools

Jonathan Rothwell

"Limiting the development of inexpensive housing in affluent neighborhoods and jurisdictions fuels economic and racial segregation and contributes to significant differences in school performance across the metropolitan landscape."

Findings

An analysis of national and metropolitan data on public school populations and state standardized test scores for 84,077 schools in 2010 and 2011 reveals that:

- **Nationwide, the average low-income student attends a school that scores at the 42nd percentile on state exams, while the average middle/high-income student attends a school that scores at the 61st percentile on state exams.** This *school* test-score gap is even wider between black and Latino students and white students. There is increasingly strong evidence—from this report and other studies—that low-income students benefit from attending higher-scoring schools.

- **Northeastern metro areas with relatively high levels of economic segregation exhibit the highest school test-score gaps between low-income students and other students.** Controlling for regional factors such as size, income inequality, and racial/ethnic diversity associated with school test-score gaps, Southern metro areas such as Washington and Raleigh, and Western metros like Portland and Seattle, stand out for having smaller-than-expected test-score gaps between schools attended by low-income and middle/high-income students.

- **Across the 100 largest metropolitan areas, housing costs an average of 2.4 times as much, or nearly $11,000 more per year, near a high-scoring public school than near a low-scoring public school.** This *housing cost gap* reflects that home values are $205,000 higher on average in the neighborhoods of high-scoring versus low-scoring schools. Near high-scoring schools, typical homes have 1.5 additional rooms and the share of housing units that are rented is roughly 30 percentage points lower than in neighborhoods near low-scoring schools.

- **Large metro areas with the least restrictive zoning have housing cost gaps that are 40 to 63 percentage points lower than metro areas with the most exclusionary zoning.** Eliminating exclusionary zoning in a metro area would, by reducing its housing cost gap, lower its school test-score gap by an estimated 4 to 7 percentiles—a significant share of the observed gap between schools serving the average low-income versus middle/higher-income student.

As the nation grapples with the growing gap between rich and poor and an economy increasingly reliant on formal education, public policies should address housing market regulations that prohibit all but the very affluent from enrolling their children in high-scoring public schools in order to promote individual social mobility and broader economic security.

Introduction

Education is enormously important to human welfare. At the individual level, education leads to higher incomes, better labor market performance, higher social status, increased participation in civil society, and better health.[1] These benefits cannot be reduced to genetic advantages. Given a set of identical twins, the twin that acquires more education earns significantly higher income.[2] Likewise, people that accidentally receive more education—because of the timing of their birth or proximity to educational institutions—also earn higher wages, and the wage premium for education is roughly equal across racial groups.[3]

Education is also increasingly recognized as a key contributor to regional and national prosperity. Researchers find that human capital—measured by education—is the cause of historic economic development, higher living standards over any period, and a more vibrant and trustworthy civil society.[4]

Despite its importance, huge inequalities in educational attainment persist across income and racial/ethnic groups. Blacks aged 25 and older are twice as likely, and Hispanics four times as likely, as whites to have not completed high school.[5] Post-secondary degree attainment rates are also much higher for whites than these groups. At the same time, the academic achievement gap between rich and poor is growing.[6] The majority of high school dropouts—60 percent—come from the bottom 20 percent of families by income.[7] Moreover, only 5 percent of students enrolled in the most competitive universities come from the bottom quintile of parental socio-economic status, while 70 percent come from the top quintile.[8]

These statistics are troubling enough in terms of what they imply about equality of opportunity in the United States, but they also signal immense damage to the nation's economic vibrancy. When large numbers of students are not educated up to their potential, it drains the pool of potential inventors, researchers, civic leaders, and skilled laborers that would otherwise nurture innovation and economic prosperity.

With these challenges in mind, policy leaders have taken a number of steps over the past few decades to expand access to high-quality education for disadvantaged groups. These reforms have included efforts to equalize school funding, largely by increasing the share of financing provided by federal and state governments. In big cities, an increasing number of reform-oriented mayors are wresting control of school administration from school boards and unions. Charter schools and vouchers programs have proliferated in some states with the goal of providing children with alternatives to the poor-performing neighborhood schools to which they would be otherwise assigned. Several policies and programs like merit pay and Teach for America aim to improve low-performing schools by attracting more talented teachers to those environments.

While all of these efforts deserve careful consideration, none directly addresses one of the central issues that limit educational opportunity for low-income and minority children: their disproportionate concentration in low-performing schools. In particular, limiting the development of inexpensive housing in affluent neighborhoods and jurisdictions fuels economic and racial segregation and contributes to significant differences in school performance across the metropolitan landscape.

While the connections between the real estate market and school performance have been widely studied, this is the first nationwide report to estimate the actual costs associated with living near a given public school. Likewise, while zoning has been studied intensely, this is the first national report to link zoning data with school test score data.

This paper proceeds as follows. The first section surveys academic research on educational achievement with an emphasis on the relative effects of schools and families in shaping educational outcomes. A methodology section provides a summary of data sources and defines the main variables measured. The paper then examines differences in school test score performance among different racial/ethnic/income groups, how these differences vary across metropolitan areas, and implications for educational outcomes. Subsequent findings explore potential explanations for school inequality, including large gaps in housing costs, which are correlated with exclusionary zoning laws. The paper concludes with a brief discussion of public policy implications.

Background

The importance of high-quality schools in the context of family socioeconomic status

Empirical research on intergroup disparities in test score performance rejects simple genetic explanations and points to large differences in environmental quality.[9] These environmental differences could take many forms, with access to high quality education being just one important factor. For example, much of a child's education takes place outside the classroom through interactions with family members and neighbors. The social science literature has not reached a consensus as to the relative importance of factors such as school quality, family, or other non-genetic variables on educational achievement.

Some education scholars find that schools only make a small difference to observable outcomes like test scores and differences in socio-economic status are more important in explaining performance gaps.[10] This was a major finding from the 1966 Coleman report, although the importance of schools was entirely rejected.[11] More recently, one study estimates that 75 percent of the early childhood black-white test score gap is the result of measurable differences in family background—such as socio-economic status and the number of books in the home.[12] One important channel may be parental educational investments: Mothers with a college education spend an average of 4.5 hours more per week with their children than mothers with no college education.[13] More educated parents are also more likely to discuss school related matters with their children and attend meetings—all of which is associated with higher student achievement.[14] Moreover, the quality of learning tends to be greater for children of more educated parents, who are exposed to thousands more unique words per hour of interaction than children of less educated parents.[15] Further evidence shows that poor children aged five and under receive less emotional support and cognitive stimulation from their mothers, who are also far more likely to exhibit symptoms of depression.[16]

Other research finds that the quality of schooling is enormously important to both test scores and future economic success. Across a large number of empirical studies economists have found that student exposure to high quality schools—measured by test scores, peer effects, and teacher quality—substantially increases the probability of economic success later in life.[17] Many studies also find that disadvantaged students do better when randomly assigned to charter schools or private schools (after winning a lottery) compared to similar students who attend traditional public schools.[18] Yet, other scholars find that attending higher-scoring schools does not itself affect test scores.[19]

Turning more specifically to racial differences, scholars have found very large and positive effects on blacks as a result of school integration.[20] Studies by Guryan and Johnson, for example, find that school desegregation policies produce large-scale generational effects in educational attainment. Along similar lines, scholars have found that some, and even all, of the racial test score gap can be eliminated when blacks attend high quality schools.[21] Likewise, in important recent work from the economists Hastings and Weinstein suggests that desegregation would have large and significant effects on student achievement.[22] Using data from Charlotte, they find that students who win admission via lottery to higher-scoring schools perform significantly better.[23]

And yet, on average, blacks and other disadvantaged groups still attend schools with the lowest test scores. In a recent report with 2004 data, John Logan finds that students from disadvantaged racial backgrounds—blacks, Hispanics, and Native Americans—attend schools that perform far worse than those attended by whites and Asians, and that residentially segregated large metropolitan areas—often in the Northeast and Midwest—tend to exhibit the most unequal schooling quality between races.[24]

Another strand in the literature explicitly links educational opportunity and success to metropolitan and neighborhood housing characteristics.[25] Card and Rothstein find that somewhere between 25 percent and 60 percent of the SAT test score gap between blacks and whites can be explained by residential segregation at the metropolitan scale.[26] Cutler and Glaeser find that segregation can account for 100 percent of the black-white gap in educational outcomes among young adults.[27] Massey finds that black and Hispanic students admitted into selective college performed much better if they grew up in racially integrated neighborhoods and concludes that segregation causes environmental stress and inadequate preparation that weakens college performance.[28]

Debate on the Experimental Evidence of Neighborhood Effects

One criticism of studies that compare minorities living in more or less integrated settings is that they might overstate the effects of neighborhood circumstances by failing to fully capture less tangible family effects—like time spent reading books to children—or personal motivation that might sort more capable families into better neighborhoods.[29]

To estimate experimental effects of neighborhoods, researchers have taken advantage of two public housing market interventions that were designed to improve living conditions for the poor. One in Chicago, called the Gautreaux program, allowed public housing residents and applicants to go on a waiting list from which they would receive a voucher to pay their rent in a suburban neighborhood that was at least 70 percent white, or a typical urban housing unit, depending on assignment from the Chicago Housing Authority.[30] Black children who grew up in families that were given the voucher for suburban, integrated, neighborhoods were far more likely to attend better schools, make friends with whites, and go on to four-year colleges.[31] The program operated from 1976 to 1998.

Other experimental research has yielded less encouraging results that nonetheless remain contested. The Moving to Opportunity (MTO) program was operated in a few cities by the Department of Housing and Urban Development in the 1990s. The approach randomly assigned public housing participants to three categories: no housing assistance, normal Section 8 voucher assistance with no geographic stipulations, and experimental housing assistance for those who move to a neighborhood with poverty rates of 10 percent or lower.

The experimental voucher group did move to neighborhoods with lower poverty rates than the control group, but researchers found no significant benefit to male youth after an average of five years and conclude by casting doubt on the importance of "neighborhood effects."[32] This interpretation has been criticized, however, because the voucher intervention resulted in only very small differences in neighborhood quality, as measured by access to high-scoring schools, exposure to middle-class families, and racial integration.[33] The MTO scholars have responded to these criticisms by looking more explicitly at the effects of neighborhood exposure to poverty over time (for five years on average) on adult incomes.[34] Other scholars found no benefits from the experimental voucher program on student test score performance, but they too found that the vouchers did little to improve the school environment.[35] Meanwhile, Wodtke and colleagues find evidence that growing up in poor neighborhoods leads to cumulative long-term harm that is unlikely to be overcome by a short-period of living in an affluent neighborhood—much less a segregated working-class neighborhood with low-scoring schools, as was the case in the MTO experiment.[36]

The relationship between schools and housing costs

Economists have found that parents are willing to pay more to live near higher-scoring schools, but there have been just a few studies that link housing costs and school opportunity to zoning or housing policies.[37] After examining data on low-income families randomly selected to live in various affordable housing projects in Montgomery County Maryland, Schwartz concludes that county government inclusionary zoning policies raise the test scores of disadvantaged students living in public housing by allowing them to live in affluent neighborhoods with higher-scoring schools.[38] A recent quasi-experimental study of a small group of low-income families living in an affluent suburban affordable housing project in New Jersey found that children spent more time reading outside of school compared to a control group, which indirectly boosted their grades.[39] In theoretical work, Hanushek and Yilmaz find that exclusionary zoning policies are likely to exacerbate inequalities in educational attainment across income groups.[40]

Finally, it is well documented that zoning increases housing prices.[41] Yet, there are no explicit studies of the effects of zoning on access to high quality education. Because of difficulties in gathering and quantifying information on zoning—which is the province of local governments—most academic work analyzes zoning data for small regions.[42] Yet, recent research has taken advantage of new survey data on zoning and concludes that anti-density zoning—restrictions that forbid or deter more affordable multi-family housing—exacerbate the segregation of households into different neighborhoods according to income and race.[43] The results of these studies suggest that changing zoning laws from the most exclusionary metropolitan areas to the least would reduce black-white residential segregation by at least 35 percent and economic segregation by over 40 percent.[44]

A Brief History of Zoning

In the decades after the Civil War, U.S. cities had almost no regulations on where housing and commercial properties could be located and how they could be used.[45] As it happens, there was also very little segregation by class, according to urban historians, and segregation by race was much lower in 1890 than in any time thereafter (even though the rights of blacks were highly restricted economically and socially).[46] In the late 19th century, regulations on housing began as a way to guard against exploitative and unhealthy tenement conditions and to protect people things like industrial pollution and noise.[47] Zoning ordinances that explicitly prohibited blacks from white neighborhoods also became common, until struck down by the Supreme Court in 1917.[48]

Meanwhile, in the late 19th and early 20th Centuries, major demographic changes were occurring in U.S. metropolitan areas. As immigrants moved into cities, affluent professionals moved into suburbs and began to set up zoning laws in the 1920s.[49] In the wake of a Supreme Court decision in favor of zoning, the number of municipalities with zoning legislation went from 368 to over 1,000 from 1925 to 1930.[50] The growth in regulation continued in subsequent decades, even as Civil Rights legislation otherwise improved housing accessibility for middle-class minorities. By 1968, 5,200 jurisdictions in metropolitan areas had zoning ordinances, and as many as 10,000 governments in total possessed land use power.[51]

Despite all this, a strong movement developed in opposition to "exclusionary" zoning. Federal court cases stuck down zoning ordinances that denied the construction of multi-family or low-income housing on dubious grounds—arguing that the discriminatory effect of these laws against blacks and the poor required that they pass strict scrutiny.[52] Scholars like Robert Babcock in 1966 and Anthony Downs in 1973 published influential and highly critical books against exclusionary zoning. Around the same time, Robert Linowes and Don Allensworth wrote a book criticizing zoning's damage to the economic opportunity of the poor.[53] Most aptly, they argued: "Because of zoning, the 1954 Supreme Court integration decision has become impossible to implement in that it cannot be carried out short of busing students all over town."[54]

With this strong intellectual foundation, opponents of economic segregation won a major victory in the New Jersey Supreme Court in 1975.[55] Municipalities were directed by the court to provide their "fair share" of affordable housing. A 1977 Pennsylvania Supreme Court case also ruled against exclusionary zoning, and created the standard that towns must provide their fair share of land uses so as not to violate the property rights of developers, (though it mandated nothing about allowing affordable housing under the zoning laws).[56]

Yet, in the early 1970s, court mandates to integrate schools through busing were received by many whites with intense opposition, and following a 1974 Supreme Court decision that effectively shielded outer suburbs from this policy the migration of whites to these places increased considerably.[57] The tide in favor of integration seemed to be turning and was dealt a major blow in 1977 when the U.S. Supreme Court case upheld the zoning policies in suburban Chicago against a non-profit development corporation that aimed to construct multi-family units for racially integrated low-income residents at the behest of the land owner, a Catholic religious order.[58]

After this decision, the zoning reform movement ground to a halt. As one scholar put it, "As we approach the 21st century, African-Americans' ability to challenge exclusionary zoning as a violation of constitutional rights is virtually nonexistent."[59] Even in New Jersey, the apparent victory achieved at the judicial level was dramatically undermined by the state legislature through the passage of the 1985 New Jersey Fair Housing Act. This bill allowed exclusive municipal governments to effectively pay more urban jurisdictions for the right to remain exclusionary.[60] This policy was eventually eliminated in 2008, but the current governor of New Jersey has effectively stopped enforcing the requirement to provide fair housing.[61] Meanwhile, the federal government has never passed legislation addressing exclusionary zoning, and it is entirely absent as an issue in Presidential campaigns.

In some places battles over zoning and affordable housing have continued, slowly, at the local level. For example, in New York, the Westchester County government was sued for misleading HUD about plans to build racially integrated housing with federal money, but even a court settlement in 2009 has not yet spurred significant action to redress the problem.[62]

Methods

Data for this report come from a variety of sources. This section offers a brief description of the sources and methods, while the external appendix on the Brookings website (http://www.brookings.edu/papers/2012/0419_school_inequality_rothwell.aspx) provides greater detail.

School Data

Public school test score data are provided by GreatSchools, which compiles state-mandated test score results for every public school in the country for which data is available (84,077 schools). The scores are reported as the share of students who score at or above proficiency, in a given subject for a given grade. Since states write the exams, administer them, and implement their own standard for proficiency, state averages are subtracted from school scores for each subject, grade, and year to calculate a single **state-adjusted score** for each school. For each school, the most recent year's test score data are used, with over 90 percent coming from 2010 and 2011.[63]

Student enrollment data for 2009-2010, the latest available at the time of writing, come from the National Center for Educational Statistics (NCES) Common Core of Data. Enrollment data are provided by race and for the number of students eligible for the free or reduced price lunch program. Students are eligible for the free lunch program if family income is less than or equal to 1.3 times the poverty line and for reduced price lunch if less than or equal to 1.85 times the poverty line.[64] In this report, these groups are referred to as "poor" and "low-income," respectively. NCES data from 1997-1998, the earliest available online, are used to examine trends in exposure of students to different groups.

The **school test-score gap** is one of this report's key measures. It is defined as the difference in percentile ranking (on a scale of 1-100) for the average school attended by two different groups of students. The percentile ranking for each school is based on the state-adjusted score described above. Each school's state-adjusted score is ranked against all other schools in the country when presenting national results. In other words, the highest-rated school in the country is the one that most exceeds its state average. For metropolitan area results, however, the state-adjusted score is ranked only against schools in the same metropolitan area (which, for some metros, includes schools in adjacent states). So the metro test score gap ranks schools (by state adjusted test scores) only against schools in the same metropolitan area.

For each group, the average test score is calculated using a weighted average based on the enrollment of that group. Unless otherwise noted, findings report the difference between low-income students (those who are deemed eligible for the free or reduced lunch program—meaning incomes are less than 1.85 times the federal poverty line) and those who are middle/high-income (meaning students ineligible for free or reduced price lunches), but the school test-score gap is also reported between whites and minority racial groups.[65]

For national and metropolitan summary data, the school test score gap is reported using data on all public schools. For parts of the analysis that compare the test score gap to housing costs, the test score gap is calculated only for the 48,008 schools in which a majority of students are enrolled in elementary grades (i.e., kindergarten to fifth grade).

Location and housing costs

School districts around the country create "attendance zones" to decide which addresses within the district are allowed to attend which schools. Typically, districts assign students to a nearby school, and in most cases, students live within two miles of their school; indeed roughly one third of elementary and middle school students live within a mile of their school, according to national survey data.[66] Unfortunately, data on school attendance zones are not widely available. Therefore, researchers must come up with a proxy to measure characteristics of its attendees and their families. One can use NCES data on the longitude and latitude of every public school to assign census tracts, but those tracts are typically too small (average population of 4,000) to represent attendance zones.[67]

To deal with this problem, this study creates a **hypothetical attendance zone** surrounding each school using both ArcGIS software and census tract data from the American Community Survey

(ACS) 2005-2009 5-year estimates. Attendance zones are typically wider (and therefore less tied to nearby residence) for secondary schools since they serve a smaller metropolitan age cohort (9th grade through 12th) compared to primary schools (grades kindergarten through 5th) and thus pull in students from around the metropolitan area into larger individual schools. To maximize the probability that proximity is important to attendance, this study calculates housing costs only for schools in which a majority of students are enrolled in elementary grades (i.e., kindergarten to fifth grade). Census tracts within 10 miles of these schools are ranked by distance from the school to the center of the tract. Each tract is given a weight equal to the number of students enrolled in school from kindergarten to fifth grade as reported on the ACS. Schools are "assigned" to the nearest census tract until enrollment equals the cumulative population of enrolled students.

Housing cost data for census tracts come from the ACS as well. Median monthly housing costs associated with renting or owning were used to calculate a weighted average of neighborhood housing costs, using the share renting and share owning in the tract as weights. The housing costs for a given school are therefore a weighted average of tract housing costs, using tract enrollment shares as the weight.

The **housing-cost gap** is defined for a given metropolitan area as the average costs of living near schools in the top 20th percentile on test scores divided by the average costs of living near schools in the bottom 20th percentile on test scores. This ratio indicates the relative costs of moving from a neighborhood with a low-scoring school to a neighborhood with a high-scoring school.

Zoning

Comparable national data on zoning or land use regulations is very rare, since they are not collected by state and federal governments. A handful of economists and social scientists have conducted their own surveys in recent years or focused their analysis on regional case studies. This report pulls together four different sources of information on zoning. The methods appendix discuses them in detail.

➤ *Pendall survey:* In 2003, Rolf Pendall conducted a representative survey of the 50 largest metropolitan areas (now 49 due to a statistical merger). The results were analyzed and reported in a Brookings report co-authored by Robert Puentes in 2006.[68] The main survey question used here is: "What is the maximum number of units allowed in the jurisdiction per acre of land?" This is available for 1,677 local governments in 50 of the largest metropolitan areas in the United States, as of 2000. The local measures are aggregated to metropolitan areas, since the survey sample was designed to be representative of local governments in those areas. The index can be interpreted as a measure of anti-density or exclusionary zoning in the metropolitan area.

➤ *Zoning law firm index*: To overcome the limitations of a small sample size of metros, the report introduces a zoning law firm index for the state of each school. States with a disproportionate number of law firms that specialize in zoning or land use law are likely to have a disproportionate number of disputes over land use because of restrictive zoning laws. To implement this, a search was conducted of lawyers.com, a Lexis Nexis website that advertises legal services across the United States.[69] The website allows one to search for firms by area of law and includes "zoning, planning, and land use" as a category. To adjust for the size of the state and any differences in propensity to advertise on lawyers.com, the number of law firms with zoning specialties is divided by the total number of law firms. The state values are assigned to schools based on state location, and then averaged across all schools in the metropolitan area. For metros that are entirely in one state, the metro average equals the state value. The metropolitan index is highly correlated with the Pendall measure for the 49 metropolitan areas in which they overlapped (correlation coefficient of 0.57). Overall, older states with a high volume of low density housing tend to have more law firms specializing in zoning; this is consistent with the pattern of urbanization and zoning described in the literature on zoning.

➤ *Wharton School survey index:* Aggregated measures of zoning policy lose some of the local detail and introduce error. To provide that detail, two other surveys are used. One is a nationally representative survey of local governments conducted by scholars at the Wharton School at the University of Pennsylvania.[70] It is referred to here as the "Wharton Index." It is not representative at the metropolitan scale, so only the local observations are used. 922 observations are successfully matched to metropolitan areas and local governments with public school test score data. To measure exclusionary zoning with these data, three survey questions are quantified and turned into an equally weighted

index that varies from zero to 100. Two of those questions asked local officials to rate the importance of regulating density on single family and multi-family units on a one to five scale. The third asked for the jurisdiction's minimum lot size requirement—that is the size of the lots in acres required for a unit of housing.

➤ *Eastern Massachusetts zoning index:* Finally, for a comprehensive look at a particular region, regulatory data is used from a 2004 study of housing regulations in Massachusetts by the Pioneer Institute and Rappaport Institute.[71] Researchers there collected data from a variety of public and private resources to put together a database of regulations for 187 local governments, which encompasses all local governments in Massachusetts that are within 50 miles of Boston. Four variables are used in the report that are considered especially relevant to restrictions on dense or inexpensive housing: Minimum lot size, whether multi-family housing is allowed only be special permit, the longest length of frontage requirements in the town, and the percentage of zoning districts in the town that require large frontage requirements. These variables are individually scaled to percentiles and then averaged and re-scaled to a single comprehensive percentile index, ranging from one to 100.[72]

A note on empirical methods

The quantitative findings below that identify correlations and possible causal relations here are supported by more detailed statistical analysis. The data sources and regression methods used as the basis of these findings are discussed and shown in the external appendix found here.

Website

These main variables—including the school test-score gap and the housing cost gap—are available for all metros on the Brookings website, which also includes profiles for the 100 largest metropolitan areas and mapping tools (http://www.brookings.edu/info/schools/school_access_interactive.aspx).

Findings

A. Nationwide, the average low-income student attends a school that scores at the 42nd percentile on state exams, while the average middle/high-income student attends a school that scores at the 61st percentile on state exams.

The Background section discusses evidence that children benefit from attending higher-scoring schools. One possible explanation for why children from disadvantaged groups lag on measures of educational achievement is that they lack access to high-scoring schools.

Nationwide data point to significant test-score gaps between the schools that low-income and black/Hispanic children attend, and the schools that other children attend. As Figure 1 illustrates, the average low-income student enrolled in public schools attends a school that scores at just the 42nd percentile of all schools in its state on standardized exams, compared to the 61st percentile for the average middle/high-income student. The average poor student (family income below 130 percent of poverty) attends an even slightly lower-scoring school (40th percentile).

Blacks and Hispanics also disproportionately attend low-scoring schools. The average black student and the average Hispanic student are enrolled in schools that score at the 37th and 41st percentiles, respectively. Meanwhile, the average white and Asian students are enrolled in schools that score at the 60th and 63rd percentiles, respectively.

The school test-score gap between groups is quite similar to the test-score achievement gap between groups at the student level. National mathematics test score data for 12th grade students show that the average black student scores 0.85 standard deviations below the average white student; for both Hispanics and low-income students, the gap is 0.68 standard deviations.[73] The data analyzed here on school test scores show that the average black student attends a school ranked 0.85 standard deviations below that which the average white student attends; for Hispanics and low-income students the difference is 0.63 standard deviations.[74]

If all racial, ethnic, and income groups were distributed evenly across schools, then the school test-score gap would be zero, even if achievement gaps persisted among different groups. However, disadvantaged groups tend to be highly segregated, based on Brookings analysis of NCES data for

Figure 1. Percentile Rank on State Exams of School Attended, Average U.S. Public School Student by Group, 2010-2011

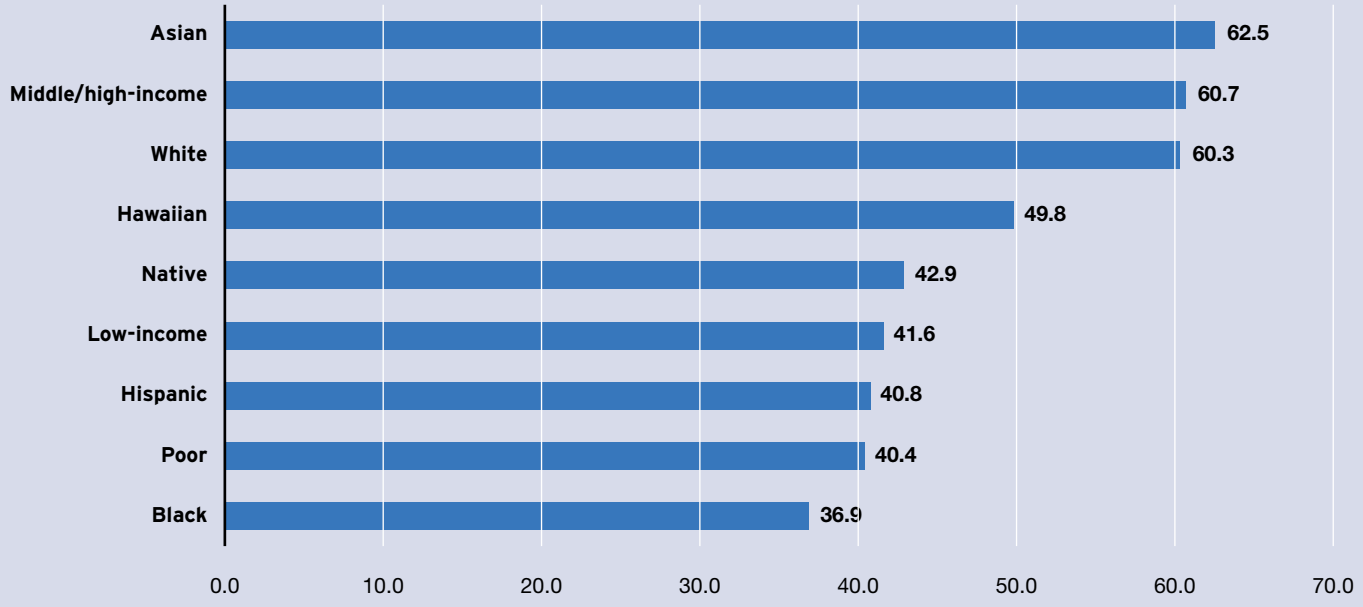

Source: Brookings analysis of data from GreatSchools and NCES. X-axis adjusts for state mean for test's grade, subject, and test year (when year varies). Averages are weighted by group share of student enrollment. Low-income refers to students eligible for the free or reduced price lunch program, meaning family income is less than 1.85 times the poverty line. Poor refers to students eligible for the free lunch, meaning family income is less than 1.3 times the poverty line. Middle/ high-income refers to students who are not eligible for free or reduced priced lunch.

84,077 public schools in the database. The average black student, for example, attends a school that is 50 percent black (and 29 percent white), whereas blacks only comprise 16 percent of all public school enrollment (and whites 54 percent). The average Hispanic student attends a school that is 55 percent Hispanic, even though Hispanics account for only 22 percent of all U.S. students. The average low-income student attends a school where 64 percent of fellow students are low-income, though they represent only 48 percent of all U.S. public school students. Moreover, poor students have become more concentrated in schools with other poor students since 1998.[75]

Only a small fraction of the nation's public schools could be described as truly integrated by income. If one defines a school as economically integrated if its share of low-income (free or reduced lunch eligible) students falls within five percentage points—plus or minus—of the metropolitan average, then only 5 percent of public schools in the 100 largest metropolitan areas meet that standard. The percentage of integrated schools is as high as 11 percent in smaller, more homogenous metropolitan areas, but for all metro areas combined, it is still under 7 percent.

Do low-income students do better in higher-scoring schools?

There is compelling evidence from studies based on lottery-based assignment or other random administrative mechanisms that poor and minority students succeed at higher rates in better-performing schools—measured by test scores or future adult outcomes.[76] Likewise, related studies show important benefits from attending classes with higher scoring students and higher "value-added" teachers.[77] In addition to those factors, teacher experience is strongly related to student outcomes but experienced

teachers are less likely to teach disadvantaged students.[78] Furthermore, teacher experience is highly correlated with school test scores, even adjusting for other factors, and the average black, Hispanic, or low income student attends a school with significantly less experienced teachers than white and Asian students.[79]

School test-score gaps thus reflect the combination of two well-recognized phenomena: achievement gaps that persist by race, ethnicity, and income; and school segregation by these same factors. As described in the Background section, however, those gaps may ultimately have more pernicious effects, to the extent they prevent disadvantaged students from accessing higher-quality learning environments (e.g., with higher-scoring peers or better teachers).

Unfortunately, the data here are not refined enough to permit a strong conclusion about how school test scores affect student performance. However, they do show that low-income students in higher-scoring schools perform better on exams than their peers elsewhere.

The results in Table 1 below show that the test scores of low-income students are highly correlated with the scores of their middle/higher-income schoolmates. In other words, low-income students perform better when their non-low-income schoolmates perform better. Low-income students who attend schools with the lowest-scoring middle/high-income students score 18.5 percentage points below the state average for their subject/grade, but those who attend schools with top-scoring middle/high-income peers score 2 percentage points above state averages. Further regression analysis finds that the proficiency rates of low-income students increase by 0.7 percentage points for every 1 percentage point increase in the proficiency rates of middle/high-income students in the same school, controlling for factors such as the school's racial diversity, enrollment, share of low-income students, pupil-teacher ratio, and location.[80]

This analysis does not reveal why low-income students who are enrolled with higher-scoring middle/high-income peers do better on state exams. It may be that teachers, parent volunteers, and/or other higher-scoring students improve the learning environment for low-income children. It may also be that parents of the low-income students enrolled in higher-scoring schools confer subtle advantages to their children that are not captured in the available data. Nonetheless, these data align with previous research finding that higher-quality school environments may improve student performance among disadvantaged groups.

Average Test Scores for Low-Income Students by Performance of Middle/High-Income Students in Same School

School quintile by middle/ high-income student performance	Average proficiency rate of low-income students relative to state mean	Average proficiency rate of middle/high-income students relative to state mean
Top quintile	2.1	23.0
Fourth quintile	-2.2	13.8
Middle quintile	-4.0	9.3
Second quintile	-7.8	4.3
Bottom quintile	-18.5	-9.7

Source: Brookings analysis of NCES and GreatSchools test score data from 51,613 schools in 35 states plus the District of Columbia. Averages weighted by NCES enrollment data.

B. Northeastern metro areas with relatively high levels of economic segregation exhibit the highest school test-score gaps between low-income students and other students.

School test-score gaps vary considerably across the country, reflecting a highly uneven landscape of racial and economic diversity, segregation, and achievement gaps among and within the nation's major

Figure 2. The School Test Score Gap in the 100 Largest Metropolitan Areas

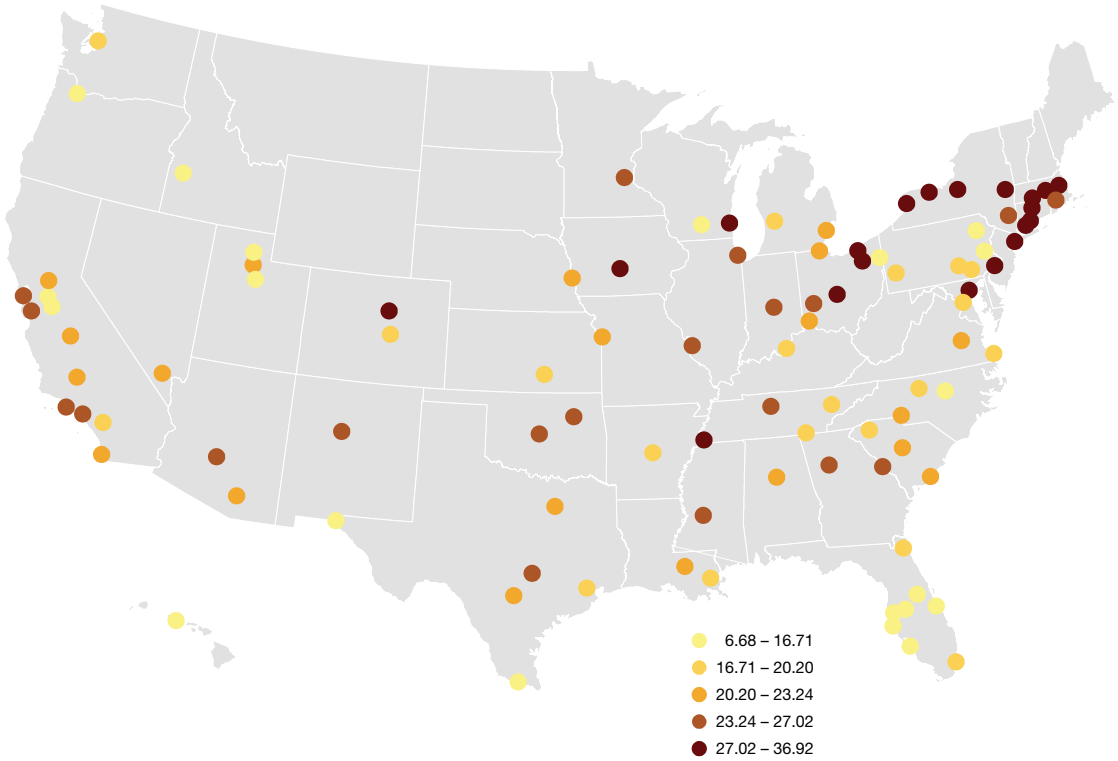

Source: Brookings analysis of data from GreatSchools and the NCES. The test score gap refers to the dierence in test score performance (on a 1-100 scale) between the average school attended by low-income students and the average school attended by middle/high income students.

metropolitan areas.

In many metropolitan areas, low-income students attend schools with far lower test scores than their middle- and high-income counterparts (Table 2). Northeastern metro areas have particularly large gaps. Indeed, six of the 10 metro areas with the highest test score gaps are in the Northeast, including Bridgeport, Hartford, New Haven, Buffalo, Rochester, and Philadelphia. At least 30 percentile points separate the school ranking of the average low-income student from the average middle/high income student. Three Midwestern metro areas—Milwaukee, Akron, and Cleveland—also rank among the 10 with the largest gaps (Figure 2).

In other metro areas, particularly those in the South and West, school test scores do not differ greatly between the average low-income and middle/high-income students. Figure 2 shows that metro areas with the smallest school test-score gaps include five in Florida (Cape Coral, North Port, Orlando, Lakeland, Palm Bay), one in Texas (El Paso), and two in the Intermountain West (Boise and Provo). Scranton and Modesto round out the list.

Not surprisingly, metropolitan school test-score gaps relate strongly to patterns of metropolitan economic segregation. Table 2 also shows a "dissimilarity index" for each metro area. That index measures the percentage of low-income students that would have to switch schools with middle/high-income students in another ZIP code in order to attain an equal distribution of enrollment by income across all ZIP codes within a metropolitan area. The index is much higher in metro areas with the highest school test-score gaps than in metro areas with the lowest such gaps.[81]

Table 2. Highest and Lowest School Test-Score Gaps and Economic Segregation Levels, 100 Largest Metro Areas, 2010–2011

	School test-score gap	Zip code segregation in student enrollment—low-income from middle/high-income
Highest school test-score gaps		
Bridgeport-Stamford-Norwalk, CT	36.9	0.61
Hartford-West Hartford-East Hartford, CT	34.5	0.54
Milwaukee-Waukesha-West Allis, WI	32.8	0.55
New Haven-Milford, CT	32.5	0.53
Buffalo-Niagara Falls, NY	31.1	0.47
Baltimore-Towson, MD	31.1	0.50
Rochester, NY	31.0	0.47
Akron, OH	30.9	0.48
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	30.8	0.53
Cleveland-Elyria-Mentor, OH	30.3	0.49
Lowest school test-score gaps		
Palm Bay-Melbourne-Titusville, FL	13.5	0.24
North Port-Bradenton-Sarasota, FL	13.0	0.26
Scranton—Wilkes-Barre, PA	12.5	0.32
Boise City-Nampa, ID	12.4	0.31
Modesto, CA	12.4	0.27
Orlando-Kissimmee-Sanford, FL	11.2	0.28
Provo-Orem, UT	9.8	0.24
Lakeland-Winter Haven, FL	8.2	0.19
Cape Coral-Fort Myers, FL	8.2	0.27
El Paso, TX	6.7	0.28
Unweighted Average for 100 Largest MSAs	**22.0**	**0.39**

Source: Brookings analysis of data from GreatSchools and the National Center for Education Statistics. Low-income students defined here as those eligible for either free or reduced price lunch. Schools are ranked by state-adjusted test scores against all other schools in the same metro.

Variation in metropolitan income inequality and demographic diversity contributes to the variation in school test-score gaps across metro areas. Metro areas with high income inequality and high median incomes tend to have significantly larger test-score gaps, while metro areas with large retirement-age populations tend to have lower test-score gaps.

Yet some metropolitan areas exhibit relatively small or large school test-score gaps in light of their underlying demographic and economic profiles. Metro characteristics including household income inequality (measured using the Gini coefficient), black and Hispanic population shares, median household income, the share of the population aged 65 and older, and the median age of the population account for about half of the variation in metro-level school test-score gaps between middle/high-income and low-income students. Table 3 compares the actual school test-score gap shown in Table 2 to the predicted test-score gap, based on the metro area's demographic and economic characteristics.

Large metro areas in the Northeast had the largest school test score gaps relative to their levels of income inequality and demographic characteristics. In particular, Buffalo, Hartford, Rochester, New Haven, and Springfield exhibit much greater school test-score disparities than one would expect based on metro characteristics alone. At the same time, four metro areas in the Midwest—Milwaukee, Des Moines, Cleveland, and Akron—have larger gaps than predicted.

On the other hand, Raleigh exceeded expectations by the largest margin. Its test score gap of 14.7 is over 10 percentage points lower than its predicted test score gap of 25.5. One possible explanation is that Wake County has a history of aggressive district-wide socioeconomic integration policies.[82]

Washington, D.C., Orlando, El Paso, Jacksonville, and Cape Coral are other Southern metro areas that maintain lower than expected test score gaps. In the West, Seattle, Portland, and Boise surpass expectations. Scranton and Madison also make the list.

As Table 2 above showed, economic segregation is associated with larger test-score gaps. That remains true after controlling for the broad economic and demographic factors listed above. As Table 3 shows, several more economically integrated metro areas provide more equitable schooling across income groups, even when their overall economic and demographic profiles would suggest otherwise.

Table 3. Metropolitan Areas with the Largest and Smallest Differences in School Test Score Gaps after Adjusting for Economic and Demographic Characteristics

MSA	Predicted gap in school test scores	Actual gap in school test scores	Percentile rank on income inequality	Zip-code enrollment segregation
MSAs with 10 largest school performance gaps compared to expectations				
Milwaukee-Waukesha-West Allis, WI	22.3	32.8	62	0.55
Hartford-West Hartford-East Hartford, CT	24.8	34.5	56	0.54
Buffalo-Niagara Falls, NY	21.9	31.1	59	0.47
New Haven-Milford, CT	23.4	32.5	69	0.53
Rochester, NY	21.9	31.0	42	0.47
Akron, OH	23.3	30.9	59	0.48
Springfield, MA	21.7	28.5	52	0.49
Des Moines-West Des Moines, IA	21.6	28.3	21	0.46
Cleveland-Elyria-Mentor, OH	23.8	30.3	81	0.49
Baltimore-Towson, MD	24.8	31.1	52	0.50
Average for group	**23.0**	**31.1**	**55**	**0.50**
MSAs with 10 smallest school performance gaps compared to expectations				
Cape Coral-Fort Myers, FL	14.8	8.2	85	0.27
Jacksonville, FL	23.8	17.0	58	0.30
Madison, WI	23.6	16.7	35	0.28
Boise City-Nampa, ID	19.4	12.4	24	0.31
Washington-Arlington-Alexandria, DC-VA-MD-WV	27.0	19.4	32	0.39
Seattle-Tacoma-Bellevue, WA	26.4	18.8	39	0.36
Portland-Vancouver-Hillsboro, OR-WA	24.2	16.6	39	0.28
Scranton—Wilkes-Barre, PA	20.1	12.5	56	0.32
Orlando-Kissimmee-Sanford, FL	19.5	11.2	54	0.28
Raleigh-Cary, NC	25.8	14.7	43	0.24
Average for group	**22.4**	**14.8**	**47**	**0.30**
Unweighted Average for 100 largest metros	**21.3**	**21.3**	**57**	**0.38**

Source: Brookings analysis of GreatSchools, National Center for Education Statistics, and the U.S. Census Bureau's 2005-2009 American Community Survey. The predicted gap is based on the average effects of metro variables such as income inequality, median income, median age, share of population over 65 years old, and the black and Hispanic share of the population.

Data for young black and Latino adults suggest that school test-score gaps may not only limit student achievement, but also matter for later outcomes like employment, enrollment, and earnings, even controlling for family income. Individual black or Latino young adults living in metropolitan areas with high-scoring schools for their groups have higher average incomes, are more likely to be enrolled or employed, and, for blacks, are more likely to have attended post-secondary school. (Table 4; see external Appendix for full results). For a young black adult, living in a metro area where blacks attend high-scoring schools is associated with $3,000 in extra income compared to a young black adult living in a metro where blacks attend low-scoring schools. This difference is highly significant. Likewise, blacks living in metros with high test scores have a 9 percentage point higher probability of having

Table 4. Effect on Income, Educational Attainment, and Employment/Enrollment, Blacks and Hispanics Aged 18 to 25, Metro Areas with High- versus Low-Scoring Public Schools for Average Black and Hispanic Students

	Income		Attained some college or higher education		Employed or in school	
	Blacks	Hispanic	Blacks	Hispanic	Blacks	Hispanic
Metro with high average test scores compared to metro with low average test score	$3,040	$3,619	9%	6%*	9%	12%

*The numbers displayed are the estimated marginal effect of living in a metro with test scores at the 88th percentile relative to test scores at the 38th percentile (37th percentile for Latinos), for the group in question. This difference reflects the range across the 100 largest metros for each group. These results are calculated from a regression analysis shown in the methods appendix (available on Brookings website), which controls for a number of individual and metro level variables. Source: Brookings analysis of data from GreatSchools, the Bureau of Labor Statistics, and the 2010 American Community Survey, accessed via IPUMS. *There is no significant correlation between test scores and post-secondary attainment for Latinos. Others results are significant below 0.05 level. Results are potentially biased, since young adults are not randomly assigned to metropolitan areas.*

attained a post-secondary education or being employed or enrolled. The results are similar for Latinos, except the effect on post-secondary attainment is not statistically significant. These findings suggest potentially large economic benefits for metros that improve minority access to high-scoring schools, but must be interpreted with caution, given the methodological limitations.[83]

C. Across the 100 largest metropolitan areas, housing costs an average of 2.4 times as much, or nearly $11,000 more per year, near a high-scoring public school than near a low-scoring public school.

The above sections demonstrate that access to high-scoring schools is vastly unequal across income and racial/ethnic groups, and across metropolitan areas due to differing demographic and economic characteristics and levels of segregation. At the same time, recent research supports the idea that higher-scoring schools benefit disadvantaged children, boosting their academic achievement and future labor market success. Parents intuitively understand this. Experimental evidence shows that the parents of disadvantaged students will try to enroll their children in higher-scoring schools—measured by test scores—when given salient information, especially when they live closer.[84] As this section and the next show, however, many local governments have laws that effectively block low-income students and their families from living near or attending these schools.

The effective price difference between housing in neighborhoods with high-scoring versus low-scoring schools provides initial evidence of these barriers. The *housing cost gap* measures the difference in median housing costs (rental or mortgage payments) between neighborhoods with the highest-scoring elementary schools and those with the lowest-scoring elementary schools on statewide exams. Across all 100 metropolitan areas, housing near the highest-scoring schools is 2.4 times as expensive as near the lowest-scoring schools; in dollar terms, that difference is $10,707. On average, median home values are $205,000 higher in the neighborhood near high-scoring schools.

Likewise, the size of homes and availability of rental units differ significantly in these neighborhoods. The median home near top-scoring schools has 1.5 additional rooms and the share of rental units is roughly 30 percentage points lower, compared to homes in the neighborhoods of low-scoring schools.

To put the average cost gap of nearly $11,000 in perspective, it can be compared to tuition at the average private school. According to the National Center for Education Statistics, during the 2007-2008 school year (the most recently available data) average private school tuition for elementary and secondary students was $8,549 nationwide, and for Catholic schools, average tuition was just over

Figure 3. Average Test Score Gap for Elementary Schools by Housing Cost Gap in the 100 Largest Metropolitan Areas

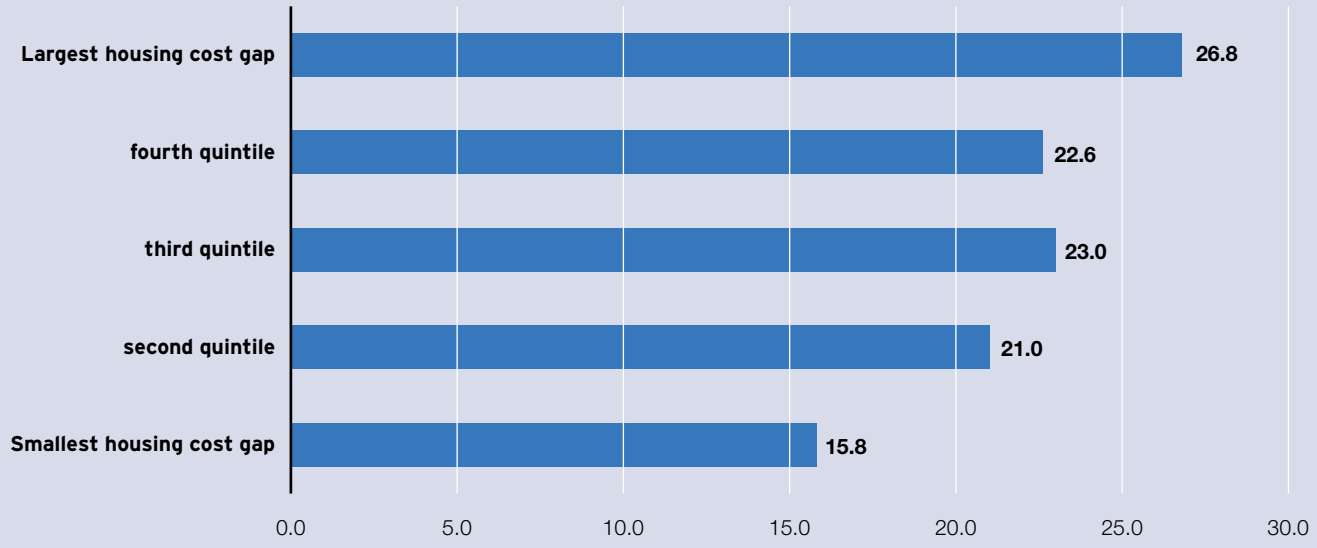

Source: Brookings analysis of data from GreatSchools, the National Center for Education Statistics, and the U.S. Census Bureau 2005-2009 American Community Survey. Data include the 100 largest metropolitan areas. X-axis is the school test-score gap between low-income and middle/high-income students (on a 1-100 scale). The housing cost gap, on the Y-axis, refers to the average housing costs in tracts of top-quintile scoring schools, divided by bottom-quintile scoring schools.

$6,000.[85] Moreover, in 78 out of 91 large metro areas for which data were available from the National Catholic Education Association, elementary Catholic school tuition for non-Catholic children was cheaper than the public school premium for high-scoring elementary schools (tuition is sometimes less expensive for Catholics or parish members).[86] In effect, housing costs may make high-scoring public schools as elusive to disadvantaged groups as typical private schools.

Regardless of the relative value of public versus private education, the housing-cost premium for top-scoring schools is strongly associated with the school test-score gap itself. In metro areas with the largest housing-cost gaps, low-income students attend schools that rank an average of 27 percentile points lower on test score performance than middle/high-income students (Figure 3). That compares to 16 percentile points in metro areas with the smallest housing-cost gaps.

Metro areas in the Northeast tend to have the highest housing-cost gaps and those in the South and West tend to have the smallest. Metropolitan Bridgeport, Philadelphia, New York City, Buffalo, and Hartford are among the ten metro areas with the largest housing cost gaps, and each of the ten has a larger-than-average elementary school test score gap between low-income and middle/high-income students (Table 5). In Bridgeport, the most extreme case, it is 3.5 times more expensive to live near a high-scoring school as a low-scoring school; would-be movers would have to spend about $25,000 more per year on housing to make that jump. In all nine metro areas for which data are available, as many as two children from a family living near a low-scoring school could attend the average Catholic school for less than the additional housing costs the family would bear in moving to a neighborhood near a high-scoring school. By contrast, in metro areas such as Boise, Little Rock, Lakeland, Madison, Modesto, and Provo, there are fairly low housing-cost gaps, and all are roughly equal to or lower than

Table 5. Largest and Smallest Housing-Cost Gap, and Corresponding Elementary School Test-Score Gap, 100 Largest Metropolitan Areas

	Housing cost gap	Housing cost difference	Elementary School test- score gap	Average Catholic school tuition
Large metropolitan areas with largest housing cost gap				
Bridgeport-Stamford-Norwalk, CT	3.5	$25,038	37.6	$7,434
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	3.5	$14,285	32.9	$4,448
Columbus, OH	3.3	$12,847	27.3	$4,997
Fresno, CA	3.2	$11,331	28.6	
New York-Northern New Jersey-Long Island, NY-NJ-PA	3.1	$15,696	28.9	$5,109
Baltimore-Towson, MD	3.0	$13,181	33.2	$6,082
Buffalo-Niagara Falls, NY	2.9	$8,172	33.2	$3,823
Cleveland-Elyria-Mentor, OH	2.9	$9,596	32.0	$3,454
Los Angeles-Long Beach-Santa Ana, CA	2.8	$15,641	33.3	$4,510
Hartford-West Hartford-East Hartford, CT	2.8	$12,375	37.8	$4,391
Large metropolitan areas with smallest housing cost gap				
Ogden-Clearfield, UT	1.6	$5,684	18.6	$5,434
Palm Bay-Melbourne-Titusville, FL	1.5	$4,505	23.8	$6,332
Lakeland-Winter Haven, FL	1.5	$3,253	19.1	$6,000
Honolulu, HI	1.5	$5,253	19.8	$6,260
Salt Lake City, UT	1.5	$4,921	26.2	$6,250
Provo-Orem, UT	1.4	$4,241	14.1	
Little Rock-North Little Rock-Conway, AR	1.4	$2,241	23.1	$4,816
Madison, WI	1.3	$3,770	18.8	$4,400
Modesto, CA	1.3	$3,070	19.3	
Boise City-Nampa, ID	1.3	$2,327	15.1	$4,390
Unweighted average of largest 100 MSAs	**2.2**	**$8,410**	**26.0**	**$5,446**

Source: Brookings analysis of data from the U.S. Census Bureau's 2005-2009 American Community Survey, GreatSchools, Texas Education Agency, National Center for Education Statistics, and the National Catholic Education Association. The housing cost gap and test score gap are for elementary schools.

Catholic school tuition. Finally, the school test-score gaps are roughly at or below average for all ten.

D. Large metro areas with the least restrictive zoning have housing cost gaps that are 40 to 63 percentage points lower than metro areas with the most exclusionary zoning. Affluent residents of major metropolitan areas often live in municipal jurisdictions or zoning districts (homogenously zoned areas within a jurisdiction) that discourage or directly prevent the development of inexpensive housing units. While this may allow for lower tax rates and more stable housing prices, it sets up a major barrier to entry for low-income residents who might wish to send their children to schools in that area.[87]

Data from the Wharton survey indicate that 84 percent of jurisdictions impose minimum lot size requirements of some kind (the average jurisdiction with zoning power has a minimum lot size of 0.4 acres), and 22 percent of jurisdictions have laws forbidding housing units on lots smaller than one acre.[88] Data from the 2009 American Housing Survey show that the median single-family housing unit nationwide sits on 0.26 acres, and only 29 percent of housing units are on lots larger than one acre.[89] In other words, zoning laws, on average, prohibit even today's typical single-family home from being built.

Metropolitan data

Zoning regimes contribute to the cost gap within metro areas between housing in neighborhoods with high- versus low-scoring schools. Comparing the top and bottom quartiles of regulation, more restrictive zoning is associated with a nearly 40 percentage point increase in the metropolitan housing-cost gap. This result holds using either data from the Pendall survey of 49 large metropolitan areas or the zoning law firm index for all of the 100 largest metro areas (Figure 4).

Figure 4. The Housing Cost Gap by Prevalence of Zoning Laws in the 100 Largest Metropolitan Areas

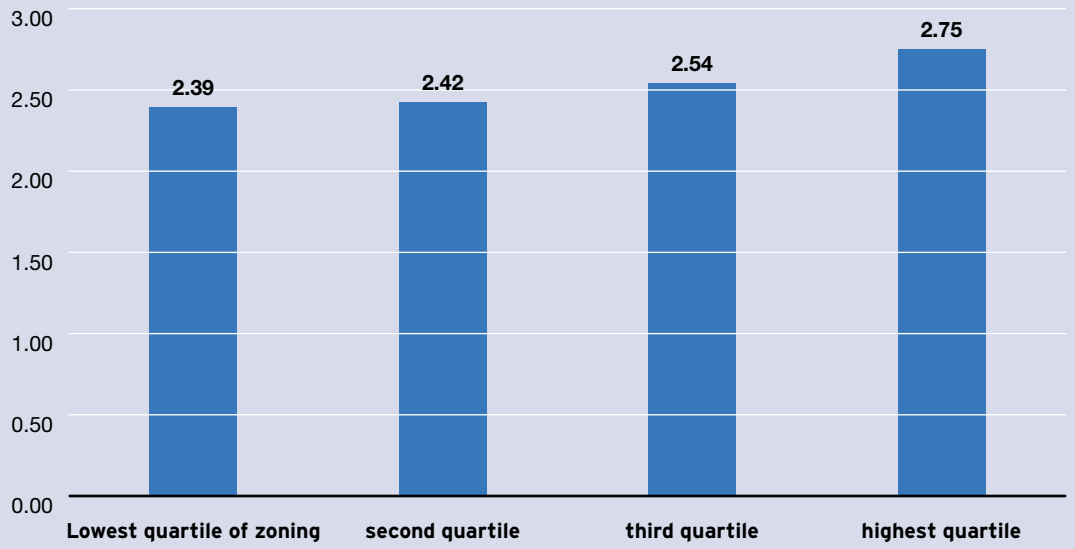

Source: Brookings analysis of data from the U.S. Census Bureau's 2005-09 American Community Survey, GreatSchools, National Center for Education Statistics, and Lawyers.com. MSAs are weighted by 2010 population in calculating averages.

At the metropolitan level, school test-score gaps, housing-cost gaps, and restrictive zoning all relate to one another. In the 100 largest metro areas, those metro areas with the largest housing-cost gaps exhibit school test-score gaps that are 12.7 percentage points higher, on average, than in metro areas with the smallest housing-cost gaps (Table 6). In turn, zoning is significantly more restrictive in the high housing-cost gap metro areas–by 17 percentile points in the state-based zoning law-firm index and a larger margin using the Pendall survey of anti-density zoning (where data is available). While zoning clearly does not explain all of the variation in the housing-cost gap across metro areas—the California metros, for example—the relationship is strong and statistically significant, and thus deserves greater attention as a source of inequality in access to high-scoring schools.[90]

Table 6. Housing Cost Gap, Elementary Test Score Gap, and Zoning in the 100 Largest Metropolitan Areas

Metropolitan Area	Housing Cost Gap	School test-score gap	Zoning law firm index (1-100)	Anti-density zoning restrictions (1-100)
Large metros with the largest housing price premium near top-quintile schools				
Bridgeport-Stamford-Norwalk, CT	3.5	37.6	98	
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	3.5	32.9	93	76
Columbus, OH	3.3	27.3	67	86
Fresno, CA	3.2	28.6	10	
New York-Northern New Jersey-Long Island, NY-NJ-PA	3.1	28.9	84	74
Baltimore-Towson, MD	3.0	33.2	63	
Buffalo-Niagara Falls, NY	2.9	33.2	75	98
Cleveland-Elyria-Mentor, OH	2.9	32.0	66	80
Los Angeles-Long Beach-Santa Ana, CA	2.8	33.3	9	11
Hartford-West Hartford-East Hartford, CT	2.8	37.8	98	94
Average for group	**3.1**	**32.5**	**66**	**74**
Large metros with the smallest housing price premium near top-quintile schools				
Ogden-Clearfield, UT	1.6	18.6	59	
Palm Bay-Melbourne-Titusville, FL	1.5	23.8	34	
Lakeland-Winter Haven, FL	1.5	19.1	34	
Honolulu, HI	1.5	19.8	79	
Salt Lake City, UT	1.5	26.2	59	27
Provo-Orem, UT	1.4	14.1	58	
Little Rock-North Little Rock-Conway, AR	1.4	23.1	6	
Madison, WI	1.3	18.8	62	
Modesto, CA	1.3	19.3	10	
Boise City-Nampa, ID	1.3	15.1	95	
Average for group	**1.4**	**19.8**	**50**	**27**
Unweighted average for 100 largest metros	**2.2**	**26.0**	**49**	**49**

Source: Brookings analysis of data from GreatSchools, the U.S. Census Bureau, the NCES, lawyers.com, and Pendall zoning database. Anti-density zoning index is only available for the 49 metros surveyed by the Pendall database. The zoning law firm index is measured for the metro area's state.

These data point to a significant "price" that restrictive zoning imposes in terms of housing costs and limiting access to high-scoring schools. If a metro area with extremely high scores on the Pendall anti-density zoning index like Buffalo or Boston had years ago adopted the more relaxed zoning laws of metro areas like San Diego or Portland, their estimated housing-cost gaps could be 63 percentage points lower today (which is more than one standard deviation). The estimate is similar but slightly smaller using the state zoning law firm index in a sample of all 100 metro areas, at 40 percentage points. That magnitude reduction in the housing-cost gap is associated with a 7.4 percentile-point narrowing of the school test-score gap between low-income and middle/high-income students for all schools, or 3.6 percentile points for elementary schools.[91]

To be sure, these hypothetical changes in zoning would not lead to an immediate boom in high-density, affordable housing in affluent neighborhoods. The association between zoning and housing has developed over decades. One can imagine new high-priced condos being built soon after a zoning change in a high-income neighborhood, but it often takes decades for housing to age long enough to become affordable for the poor.[92] In addition, these results do not take into account the potential for whites (or affluent people from any race) to move away in response to integration; recent research does imply that whites have responded negatively to school integration (by moving) when forced

through busing.[93] Yet Easterly finds that the share of whites living in neighborhoods stabilizes at moderate levels of diversity, suggesting that zoning changes could give disadvantaged groups longer-run access to higher-scoring schools than previous research may have suggested.[94]

Local level data

Recent surveys of land use regulation have established what the previous literature from the 1970s argued but rarely could prove nationally with adequate data. Exclusionary zoning laws work, in so far as they are designed to keep housing costs high, and the jurisdictions that use them the most aggressively have the following characteristics: 1) They have residents with relatively high incomes; 2) They have low population densities, implying that there is open space for potential development; 3) They have high home ownership rates, implying that there are fewer rental units available.[95]

These local zoning laws have implications for low-income and minority student access to high-scoring elementary schools. Table 7 reports the characteristics of 925 local jurisdictions in the Wharton land use survey, classified by the restrictiveness of their zoning. In the least regulated jurisdictions, relative to metropolitan averages, test scores and the shares of students that are low-income and black/Hispanics are similar, and annual housing costs are slightly cheaper. By contrast, in the most exclusionary jurisdictions, public elementary schools are ranked 16 percentage points higher on standardized state test scores than the metropolitan average; annual costs of renting a home or paying a mortgage are almost $4,000 higher; and disadvantaged students—whether low-income, black, or Hispanic—are under-represented by 17 or 18 percentage points.

Table 7. Housing and School Indicators by Level of Local Government Zoning Restrictions, 925 Jurisdictions in 100 Largest Metropolitan Areas

	Neighborhood housing costs in town relative to MSA	Town's elementary school test scores percentile relative to MSA	Percentage of elementary school students in poverty relative to MSA	Percentage of elementary school students who are black or Hispanic relative to MSA
Least exclusionary quintile of zoning	-$189	-0.1	0%	-4%
second quintile	$527	3.7	-4%	-9%
third quintile	$1,698	9.6	-10%	-12%
fourth quintile	$1,680	9.3	-9%	-13%
Most exclusionary quintile of zoning	$3,749	16.4	-17%	-18%

Source: Brookings analysis of data from Wharton zoning survey, GreatSchools, and U.S. Census Bureau. School test scores refer to the share of students at or above proficiency. Zoning is based on 925 local government observations in the 100 largest metropolitan areas. The zoning components analyzed include minimum lot size (in acres), and planner-reported answers to the question: how important are density restrictions on single and multi-family housing on a 1-5 scale. Poverty is defined as eligibility for free or reduced price lunch.

Table 8. Housing and Elementary School Characteristics, Towns with Most and Least Restrictive Zoning in Eastern Massachusetts

Town	County	Zoning restrictions on inexpensive housing (1-100 scale)	Percentile rank of average elementary school	Annual housing costs near schools	Low income share of elementary students	Black or Hispanic share of elementary students
Towns with most restrictions on inexpensive housing						
Sherborn	Middlesex County (MA)	100	94.0	$33,642	3%	3%
Lancaster	Worcester County (MA)	100	55.0	$17,758	16%	6%
Groton	Middlesex County (MA)	100	66.0	$25,523	2%	2%
Sudbury	Middlesex County (MA)	99	97.1	$31,060	3%	3%
Weston	Middlesex County (MA)	99	76.3	$33,918	5%	10%
Upton	Worcester County (MA)	98	51.0	$25,246	5%	3%
Bolton	Worcester County (MA)	98	92.0	$27,668	3%	2%
Tyngsborough	Middlesex County (MA)	98	52.0	$22,176	7%	4%
Dracut	Middlesex County (MA)	96	37.5	$13,543	16%	9%
Middleborough	Plymouth County (MA)	96	28.0	$13,988	27%	6%
Norfolk	Norfolk County (MA)	96	86.0	$24,924	4%	1%
Stow	Middlesex County (MA)	96	86.6	$26,295	3%	3%
Townsend	Middlesex County (MA)	96	33.0	$17,242	17%	3%
Group Average		**98**	**65.7**	**$24,076**	**9%**	**4%**
Towns with least restrictions on inexpensive housing						
Waltham	Middlesex County (MA)	16	31.9	$12,899	28%	38%
Hull	Plymouth County (MA)	15	46.0	$16,220	26%	1%
Revere	Suffolk County (MA)	9	30.4	$11,965	72%	45%
Worcester	Worcester County (MA)	9	18.2	$9,373	70%	52%
Lynn	Essex County (MA)	7	18.0	$11,666	79%	62%
Lawrence	Essex County (MA)	4	16.9	$7,023	88%	92%
Chelsea	Suffolk County (MA)	3	16.3	$8,320	94%	90%
Malden	Middlesex County (MA)	1	29.0	$12,984	51%	35%
Medford	Middlesex County (MA)	1	27.4	$12,784	31%	25%
Everett	Middlesex County (MA)	1	15.8	$10,187	72%	47%
Group Average		**7**	**25.0**	**$11,342**	**61%**	**49%**
Average for all towns in Eastern Massachusetts		**58**	**58.8**	**$19,443**	**17%**	**10%**

Source: Brookings analysis of data from GreatSchools, the National Center for Education Statistics, the U.S. Census Bureau, and the Massachusetts Housing Regulation Database. Housing costs refer to the average median housing costs in the census tracts near elementary schools, and may differ from broader measure of costs for the town. For 177 towns with complete data. Schools are ranked against all schools in the sample.

Many of the jurisdictions in the Wharton survey with highly exclusionary zoning have extremely expensive housing relative to the metropolitan average. These include: Wrightstown and Chads Ford in the Philadelphia suburbs; Ardsley in Westchester County, NY; Oakland in the Detroit suburbs; Fairfield in the Bridgeport region; Fairport east of Rochester, NY; Pearland outside of Houston; Lakeland near Memphis; and Solon outside of Cleveland. The shares of disadvantaged students enrolled in their schools are much lower, and school test scores much higher, than metropolitan averages. In many respects, these jurisdictions are the mirror image of their nearby central cities, which bear disproportionate burden for housing their regions' poor families and educating their children.

Data from the Boston region, described in the Methodology section, provide further evidence on the strong relationship between municipal zoning regulations, housing costs, and access to high-scoring schools. Massive differences exist in test scores, housing costs, and demographics between Eastern

Massachusetts towns that practice exclusionary zoning and those that do not (Table 8). On average, elementary school test scores are at the 66th percentile in the most restrictive group of jurisdictions, and at the 25th percentile in the least restrictive group of jurisdictions. Student populations are also radically different. Just 9 percent of elementary school students in the average highly restrictive town are low-income, compared to 61 percent in the least restrictive areas, and housing costs are almost $13,000 more per year where zoning is more restrictive.[96] Thus, it would be much more expensive to move from the jurisdictions in the bottom panel to those in the top panel than to pay tuition at the average Catholic school in the Boston metro area, which is just $4,477 per year for non-Catholics.[97]

More rigorous regression analysis confirms that these differences are statistically significant in the full sample, even controlling for the town's metropolitan location (centered on Boston, Providence, or Worcester). Higher priced areas have better test scores and fewer disadvantaged students, and these associations remain significant when zoning is used to predict housing prices.[98]

Discussion and Conclusion

This analysis documents that the average schools attended by low-income students, black students, and Hispanic students register much lower scores on state standardized exams than average schools attended by middle/high-income and white students. In light of mounting evidence that disadvantaged students perform better when they attend school with higher-performing peers, and that young minority adults do better in labor markets with more integrated schools, the school test-score gap may very well represent a serious obstacle to boosting student achievement and promoting economic security.

Access to high-scoring schools is unequal by income and race because that access is constrained by housing availability and cost. The housing-cost gaps between neighborhoods with high-scoring and low-scoring schools revealed here confirm that it is financially impossible for many working-poor families to access high-scoring schools in the absence of lottery systems or other aggressive district efforts to integrate schools. For many families, it would be cheaper to send a child to a parochial or even more expensive private school than to move into the attendance zone of a high-scoring school.

This report also looks behind the housing-cost gap to examine why neighborhoods remain segregated by race and income and how that impedes broader access to good schools. Discriminatory zoning that forbids the construction or use of inexpensive housing in affluent neighborhoods is still widespread in metropolitan America. Just as explicitly race-based policies like covenants and discriminatory lending and real estate standards contravened market forces to keep blacks out of white neighborhoods, zoning today keeps poor people out of rich neighborhoods, and accounts for a significant portion of the school test-score gap between low-income and other children.

The issue of school inequality is linked, of course, to overall economic inequality. Children of less-educated parents miss out on important familial advantages and they are less likely to attend high-scoring public schools because their parents cannot afford to live near high-scoring public schools or pay private school tuition. Public policies that foster the growth of jobs that are disproportionately available to less educated workers and pay decent wages—like in production, construction, installation, and transportation—could erase some of this educational disadvantage.[99]

There are also more direct ways to promote school integration by income and race. States and school districts across the country are experimenting with a number of different strategies. For a thorough review of policies designed to explicitly promote integration see Richard Kahlenberg's recent paper on efforts to promote integration through "controlled choice."[100] Take one promising plan in which the Cambridge, MA school district treats every school as a magnet school. Parents then list their top school choices for their children, and the district creates an assignment formula that maximizes parental choice while insuring that schools are at least somewhat balanced in terms of their distribution of low-income students.[101]

Other approaches seek to expand school choice for low-income students through charter schools, school vouchers, or the elimination of attendance boundaries. The National Alliance for Public Charter Schools reports that over 2 million students were enrolled in charter schools as of the 2010-2011 school year, and only nine state have no laws authorizing charter schools.[102] Some recent research

finds that increasing school attendance options for middle/high income students through charters can lead to increased racial or economic segregation.[103]

As many as 27 private voucher programs are run by philanthropic organizations around the country paying tuition for an estimated 210,000 disadvantaged students.[104] In Louisville, for example, School Choice Scholarships pays for a few hundred poor students to attend private schools.[105] Likewise, the public sector also provides vouchers to attend private schools in some states, like Wisconsin, through the Milwaukee Parental Choice Program, and the federal government provides scholarships to poor DC residents, through the Opportunity Scholarships Program.[106]

A more sweeping proposal has been put forth recently to combine the above reforms with increased choice within the traditional public school system. Led by the federal government, school funding could be linked to individual children rather than schools, such that a child could apply to multiple public schools in his or her area.[107]

Another set of reform ideas focus on administrative issues like mayoral control of school systems or teacher incentives. In some areas like Washington, DC and New Haven, CT, union leaders have worked with reformers to link teacher pay, promotion, and retention decisions with objective performance measures, with the goal of improving the quality of under-performing schools.

All of these reform strategies have one thing in common: They try to improve disadvantaged students' access to high-performing schools through education policy. These reform ideas certainly have merit and should be carefully evaluated and considered, but they do not address one very important mechanism that sorts poor students into the lowest-scoring schools: housing policy. Housing and education policies should work together to promote access to improved school environments for low-income and minority children.[108]

The most ambitious and consequential policy reform along these lines would be to eliminate exclusionary zoning altogether. In an ideal world, the federal government or states would forbid local governments from discriminating based on housing type (e.g. single-family attached or multi-family) or size (lot, floor, or frontage size). They could even agree to compensate jurisdictions for any disproportionate increases in local expenditures that resulted from higher density or lower-income development. Eliminating exclusionary zoning laws could produce large educational and economic benefits for low-income and minority children and families, and the U.S. economy as a whole. Unfortunately, the likelihood of such a reform, however market-oriented it may be, seems low at this time.

In the absence of aggressive federal or state action of that kind, modest but meaningful policy options exist to promote disadvantaged families' access to better neighborhoods and schools. One policy mechanism to increase residential, and thereby school, integration is expanded portability of housing vouchers. Recent research from Brookings has shown that vouchers help poor families live in less poor and more job-rich neighborhoods.[109] Yet, as the MTO experiment showed, vouchers often fall short of promoting economic and racial integration, especially in an otherwise segregated metropolitan area where many affluent suburbs do not even allow rental housing. This report's results indicate that in many metro areas, vouchers would have to be very generous to cover the large price premium for living in neighborhoods near top-performing schools.

State and local governments are also experimenting with several tools to increase economic integration through housing and land use policies. The Center for Housing Policy provides many examples. One is to create enforceable "rights" to develop affordable housing in towns that are not providing their fair share.[110] As used by New Jersey, Massachusetts, and New Hampshire, this allows developers to challenge denials in court in an expedited manner. California obligates municipalities to include planning for affordable housing in their zoning laws. At the local level, cities or towns can mandate that new construction include a certain share of affordable units or, as in New York, developers can be rewarded with a "density bonus," if they include more affordable units.[111]

Unfortunately, inclusionary zoning and various other pro-affordable housing policies must co-exist with more powerful and sweeping laws that block affordable housing (or even future inexpensive housing) where it is most needed. So long as homeowners living in affluent suburbs can continue to benefit from the density of cities (where they often work or find business relations), without accepting the higher costs of public services to support it, they will continue to block the construction of inexpensive housing in their jurisdictions.

At the regional scale, improved zoning coordination could be used to promote higher density where it makes sense. That is, for some metros, currently low-dense areas may be conveniently located near job centers or existing public transit routes, and thus, the region would benefit by allowing more people to live there. Portland, Oregon has taken such a regional approach to planning by limiting developments in outer suburbs. This is one of the reasons why segregation has fallen in Portland, according to a recent study, and may partly account for its low test score gap observed here.[112] However, there is no evidence that Portland's specific "containment" regulations yield better results than simply allowing market forces to allocate high-density development.

To conclude, across the private, non-profit, and public sectors, there are many compelling efforts to improve the quality of education available to low-income children. In documenting the tight link between housing costs and access to high-scoring schools, this report illustrates the scale of the challenge, and yet, it also shows that reforms to housing and land use policy could have potentially large benefits to the nation's future by making educational opportunity more equal.

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74. For each school, the share of students who score at or above grade level was subtracted from the state average for that subject, year, and grade level. This adjusted difference was then averaged for each school across grades and subjects. The average enrollment-weighted black student attends schools that are 7.5 percentage points below the state mean; Hispanics attend schools 4.3 percentage points below; free and reduced lunch eligible students attend schools 4.2 points below the state mean, and for whites, it is 4.9 points above the mean. The standard deviation, weighted by school enrollment, is 14.5.

75. Data from 1998 (the earliest available on the NCES website) to 2010 show that even as black students became slightly less racially, their exposure to poor students increased from 44 percent to 53 percent. In fact, all groups of students except Asians saw an increase in exposure to the poor, including poor (free lunch eligible students).

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80. Indeed, even adding the cost of living near the school and the size of the average house near the school does not significantly change the result, though doing so reduces the implied effect to 0.5 percentage points. Results are available upon request. The analysis uses roughly 38,000 schools where data were available. The author thanks Matthew Chingos for suggesting that housing costs be added to the regression to proxy for parental advantage.

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91. The standard deviation across all metros on the test score gap is 7.7 (for both elementary and all schools), so the zoning effect is equal to roughly one half to one standard deviation. This part of the analysis uses zoning as an instrumental variable for the housing premium for top-performing schools to estimate the premium's "causal" effect on school inequality. For this to be valid, zoning must significantly predict the housing premium and have no effect on school inequality except through the housing premium—that is through housing segregation. The methods appendix describes the analysis conducted for these results in more detail. These results do not prove that zoning causes prices changes, and that these changes cause larger gaps in school quality. To do that, one would need a natural experiment, in which towns were randomly assigned zoning laws. To simulate such an experiment with limited data is very difficult, but as the appendix relates, year of statehood and the degree to which the metropolitan area has rural settlements are both factors that are highly correlated with zoning. In so far as using these measures to assign zoning to metropolitan areas is random with respect to home prices, the analysis suggests a causal link. See appendix for discussion.

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96. A regression analysis of zoning on housing costs was performed using the full database and controlling for metropolitan area effects, every decide of zoning adds $800 in housing costs. The correlation is highly significant.

97. Cite NCEA here.

98. An analysis performed with these data finds that housing strongly predicts the share of disadvantaged students in the town, when mediated by zoning, which was used as an instrumental variable. Results are available from the author upon request. Historical analyses of these data by economists suggest that zoning is the cause of higher prices, not the other way around. Glaeser and Ward, "The causes and consequences of land use regulation."

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Prevention of Childhood Lead Toxicity

COUNCIL ON ENVIRONMENTAL HEALTH

abstract

Blood lead concentrations have decreased dramatically in US children over the past 4 decades, but too many children still live in housing with deteriorated lead-based paint and are at risk for lead exposure with resulting lead-associated cognitive impairment and behavioral problems. Evidence continues to accrue that commonly encountered blood lead concentrations, even those below 5 μg/dL (50 ppb), impair cognition; there is no identified threshold or safe level of lead in blood. From 2007 to 2010, approximately 2.6% of preschool children in the United States had a blood lead concentration ≥5 μg/dL (≥50 ppb), which represents about 535 000 US children 1 to 5 years of age. Evidence-based guidance is available for managing increased lead exposure in children, and reducing sources of lead in the environment, including lead in housing, soil, water, and consumer products, has been shown to be cost-beneficial. Primary prevention should be the focus of policy on childhood lead toxicity.

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OVERVIEW AND INTRODUCTION

Primary prevention, reducing or eliminating the myriad sources of lead in the environment of children before exposure occurs, is the most reliable and cost-effective measure to protect children from lead toxicity. Very high blood lead concentrations (eg, >100 μg/dL) can cause significant overt symptoms, such as protracted vomiting and encephalopathy, and even death. Low-level lead exposure, even at blood lead concentrations below 5 μg/dL (50 ppb), is a causal risk factor for diminished intellectual and academic abilities, higher rates of neurobehavioral disorders such as hyperactivity and attention deficits, and lower birth weight in children. No effective treatments ameliorate the permanent developmental effects of lead toxicity. Reducing lead exposure from residential lead hazards, industrial sources, contaminated foods or water, and other consumer products is an effective way to prevent or control childhood lead exposure. Lead poisoning prevention education directed at hand-washing or dust control fails to reduce children's blood lead concentrations. However, pediatricians and parents should be aware of measures to reduce the toxic effects of lead on children, including the promulgation of regulations to screen or test older housing units for lead hazards

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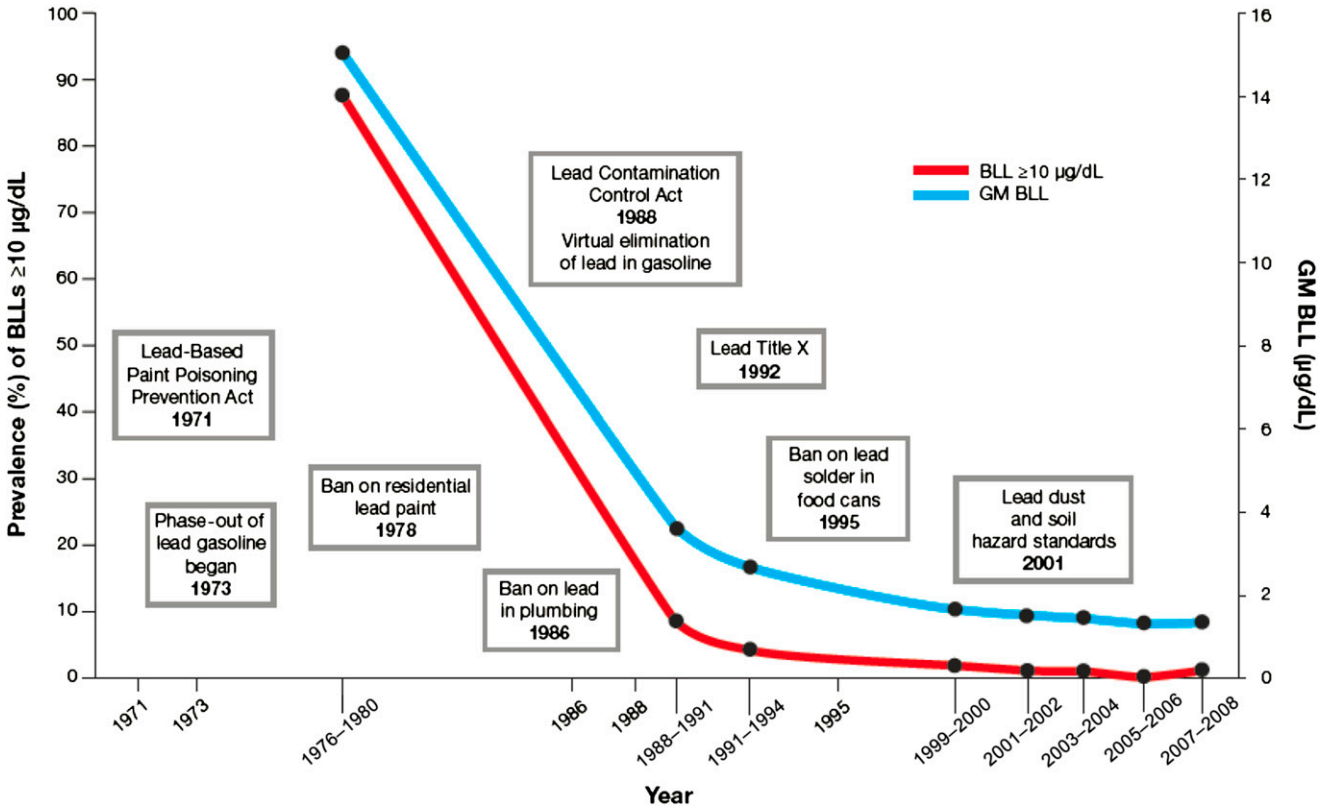

FIGURE 1
Timeline of lead poisoning prevention policies and blood lead levels in children aged 1–5 years, by year—NHANES, United States, 1971–2008. BLL, blood lead level; GM BLL, geometric mean blood lead level. Adapted from Brown et al.[1]

before occupancy and after major renovation and abatement; revision of federal standards to reduce allowable levels of lead in settled house dust, water, soil, cosmetics, and other consumer products; and enhanced protection for children who live in lead-contaminated communities or near lead-emitting industries.

SCOPE OF THE PROBLEM

Over the past 4 decades, blood lead concentrations among US children have declined dramatically since the elimination of lead from gasoline, paints, and other consumer products[1] (Fig 1, Table 1). From 1976 to 1980, blood lead concentrations among US children declined more sharply than anticipated after the phase-out of leaded gasoline.[2] In 1978, the US Consumer Product Safety Commission (CPSC) restricted the allowable content of lead in residential paint to 0.06% (600 ppm); in 2008, it was lowered to 0.009% (90 ppm).[3,4] There have also been significant reductions in tap water lead concentrations since the US Environmental Protection Agency (EPA) promulgated the Lead and Copper Rule.[5,6] Finally, use of lead solder in canned foods and other consumer products was banned. It is difficult to accurately apportion the decline in blood lead concentrations to specific sources, but the combined effect of these regulations clearly led to the dramatic reductions in children's blood lead concentrations.[1] The key to preventing lead toxicity in children is to reduce or eliminate persistent sources of lead exposure in their environment.

Prevention of low-level lead toxicity has historically focused on anticipatory guidance, screening children's blood for lead after exposure, and iron or calcium supplementation to reduce lead absorption.[7] Unfortunately, studies that evaluated the efficacy of parent education or provision of cleaning equipment to families failed to show significant reductions in children's blood lead concentrations.[8] Similarly, calcium and iron supplementation have not consistently been shown to be efficacious in reducing blood lead concentrations of children.[9,10] Collectively, these studies indicate that the focus of prevention should be on reducing the sources of childhood lead exposures rather than identifying children who have already been unduly exposed or attempting to ameliorate the toxic effects of lead exposure.

In 2005, the American Academy of Pediatrics (AAP) recognized that blood lead concentrations below 10 µg/dL (100 ppb) may impair cognition; no threshold for the

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toxic effects of lead was identified.[7] The AAP adopted a blood lead concentration >10 μg/dL (>100 ppb) as the "level of concern" recommended by the Centers for Disease Control and Prevention (CDC), which indicated the need for closer medical and public health management.[7] Extensive and compelling evidence now indicates that lead-associated cognitive deficits and behavioral problems can occur at blood lead concentrations below 5 μg/dL (50 ppb). In 2012, the US National Toxicology Program of the National Institutes of Health reported that, after other risk factors are accounted for, blood lead concentrations <5 μg/dL (<50 ppb) are strongly associated with intellectual deficits, diminished academic abilities, attention deficits, and problem behaviors (Table 2).[11] In that same year, the Advisory Committee on Childhood Lead Poisoning Prevention of the CDC concluded that there is no safe level of lead exposure and adopted the use of a reference value of ≥5 μg/dL (≥50 ppb) (based on the 97.5th percentile of blood lead concentrations from the National Health and Nutrition Examination Survey [NHANES]) to be used as a trigger to guide clinical and public health interventions.[12]

Low-level elevations in children's blood lead concentrations, even at concentrations below 5 μg/dL (50 ppb), can result in decrements in cognitive functions, as measured by IQ scores and academic performance.[13,14] For a given level of exposure, lead-associated IQ decrements are proportionately greater at the lowest blood lead concentrations. The IQ decrement associated with an increase in blood lead concentration from <1 μg/dL (<10 ppb) to 30 μg/dL (300 ppb) was 9.2 IQ points, but the decrement associated with an increase in blood lead concentration from <1 μg/dL (<10 ppb) to 10 μg/dL (100 ppb) was 6.2 IQ points.[14] The population impact of lead on intellectual abilities is substantial. Despite the dramatic reductions in blood lead levels, lead toxicity accounts for an estimated total loss of 23 million IQ points among a 6-year cohort of contemporary US children.[15]

Focusing efforts on children who have blood lead concentrations ≥5 μg/dL (≥50 ppb) is efficient but will fail to preserve the majority of lost IQ points in US children. The *prevention paradox* refers to the concept that most disease or disability occurs in low- to moderate-risk groups. Children who have blood lead concentrations ≥5 μg/dL (≥50 ppb) will, on average, experience

TABLE 1 Federal Lead Poisoning Prevention Policies

Policy or Legislation	Year	Comment
Lead Based Paint Poisoning Prevention Act	1971	First major lead-based paint legislation; addressed lead-based paint in federal housing.
Phase Out Lead in Gasoline	1973	US EPA regulated a phase-out of lead in gasoline.
Ban on Residential Paint	1978	CPSC banned lead paint in residential properties.
Safe Drinking Water Act	1986	US EPA banned use of lead pipes and lead solder in plumbing.
Housing and Community Development Act	1987	Highlighted the danger to children of lead-contaminated dust.
Lead Contamination Control Act	1988	Authorized CDC to make grants to state and local programs to screen children and to provide for education about lead poisoning.
Residential Lead-Based Paint Hazard Reduction Act, Title X	1992	Established primary prevention of lead poisoning as a national strategy.
Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing	1995, 2012	HUD established guidelines for evaluating and controlling residential lead-based paint hazards.
Ban Lead Solder in Food Cans	1995	FDA amended food additive regulations to ban lead solder from food cans.
Lead Safe Housing Rule	1999, 2012	Regulation issued by HUD setting forth new requirements for lead-based paint notification, evaluation, and remediation.
Hazard Standards for Lead in Paint, Dust and Soil	2001	US EPA established a definition of a lead-based paint hazard and standards for paint, dust, and soil in children's play areas.
Consumer Product Safety Improvement Act	2008	CPSC lowered the cap on lead in paint from 0.06% to 0.0009% and incorporated the Lead-Free Toy Act, setting limit on lead content in toys.
Lead Renovation, Repair and Paint Rule	2010	US EPA required contractors working on homes built before 1978 to be certified and follow lead safe guidelines.

TABLE 2 Effects of Low-Level Lead Exposure on Academic and Intellectual Abilities, Puberty, Kidney Function, Postnatal Growth, Hearing, and Other Health Endpoints

Blood Lead Concentration	Evidence Level	Health Effect
<5 μg/dL	Sufficient	Decreased academic achievement
		Lower IQ scores
		Attention-related behavior problems
		Antisocial behaviors
	Limited	Delayed puberty
		Decreased kidney function in children ≥12 y of age
<10 μg/dL	Sufficient	Delayed puberty
		Reduced postnatal growth
		Decreased hearing
	Limited	Hypersensitivity by skin prick test
	Inadequate	Asthma and eczema
		Cardiovascular effects
		Kidney function <12 y of age

From the US Department of Health and Human Services, National Institute of Environmental Health Sciences, 2012.

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a lead-associated IQ deficit of 6.1 points, an IQ deficit much larger than that of children who have lower blood lead concentrations (Fig 2). Still, if the focus is only on reducing exposures for children who have a blood lead concentration ≥5 μg/dL (≥50 ppb), we will fail to preserve more than 20 million (>80% of total) of the 23 million IQ points lost among US children with lower lead exposure because there are so many more children who have low to moderate blood lead concentrations (Fig 2). No therapeutic interventions currently exist for low blood lead concentrations; therefore, prevention of exposure is paramount. For these reasons, this statement focuses heavily on how pediatricians can help *prevent* lead exposure in children.

Elevated blood lead concentrations can result in the development of behavioral problems in children, including inattention, impulsivity, aggression, and hyperactivity.[16–18] In a nationally representative study of 8- to 15-year-old US children, Froehlich et al[17] found that having a blood lead concentration >1.3 μg/dL (>13 ppb) was associated with an elevated risk for attention-deficit/hyperactivity disorder (ADHD). Children with a blood lead concentration in the lowest tertile (<0.7 μg/dL, or <7 ppb) exhibited, on average, 1 symptom of ADHD, whereas children with a blood lead concentration in the highest tertile (>1.3 μg/dL, or >13 ppb) exhibited 3 symptoms. Some critics have argued that these "subtle" shifts in behavioral symptoms are inconsequential, but this shift in the population distribution of ADHD symptoms led to an increase in the percentage of children who met criteria for ADHD from 5% to 13%. Approximately 1 in 5 cases of ADHD among US children have been attributed to lead exposure.[17]

Antisocial behaviors, including conduct disorder, delinquency, and criminal behaviors, can result from

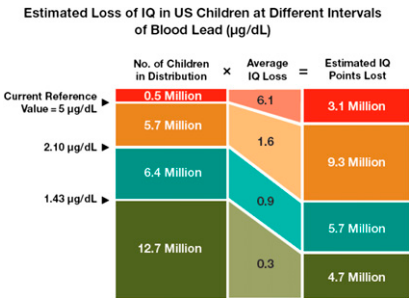

FIGURE 2
Prevention paradox. The majority of IQ points lost due to lead exposure occur in children who have low to moderate blood lead levels. Using the current reference value of 5 μg/dL, we will protect only 3.1 million IQ points (about 13% of the total). Adapted from Bellinger.[15]

a variety of risk factors, but there is substantial evidence that lead toxicity is 1 of the major risk factors for their development.[16,19–22] Needleman et al[16] found that adolescents who had higher bone lead concentrations had higher scores for delinquency and aggression. In a meta-analysis of 16 studies, Marcus et al[22] concluded that lead exposure, measured via blood lead or bone lead concentrations, was a risk factor for conduct disorder. In 2 prospective longitudinal studies, higher childhood blood lead or tooth lead concentrations resulted in higher rates of self-reported delinquent behaviors and arrests or convictions.[20,21] Reyes[23] concluded that the reduction in population mean blood lead concentrations was the major risk factor associated with the decline in severe violent behaviors over the past 3 decades.

Limited evidence implicates lead exposure in diminished kidney function in adolescents at low levels of exposure.[11] Using the NHANES, Fadrowski et al[24] found that, among 769 adolescents with a median blood lead concentration of 1.5 μg/dL (15 ppb), a doubling of the concentration led to a significant reduction in the glomerular filtration rate. It is not clear whether chronic, low-level lead exposure in childhood or adolescence is sufficient to result in chronic renal failure or whether it is the cumulative effect of a variety of risk factors that ultimately results in the development of chronic renal failure. Still, this study is consistent with others linking lead exposure with chronic renal failure in adults.[11]

Lead can cause spontaneous abortion, low birth weight, and reduced growth in children. In a case–control study of pregnant women in Mexico City with blood lead concentrations that ranged from 1.3 μg/dL (13 ppb) to 29 (290 ppb) μg/dL, the odds for spontaneous abortion increased by 1.8 for every 5-μg/dL (50-ppb) increase in maternal blood lead concentration.[25] Early studies that examined the association of prenatal lead exposure and low birth weight or preterm birth, measured via either maternal or cord blood lead concentrations, found inconsistent results. However, in a large cohort involving more than 34 000 live births, investigators found that a 5-μg/dL (50-ppb) increase in blood lead concentrations was associated with a 61-g decrement in birth weight.[26] The National Toxicology Program concluded that maternal blood lead concentrations <5 μg/dL (<50 ppb) are associated with lower birth weight.

PREVENTING LEAD TOXICITY

Despite historical reductions in children's blood lead concentrations, preventing childhood lead toxicity remains a major public health priority in the United States. Many children who live in older, poorly maintained housing or older housing that undergoes renovation are at high risk for lead exposure. In the NHANES conducted from 2007 to 2010, approximately 2.6% of preschool children in the United States had a blood lead concentration ≥5 μg/dL (≥50 ppb), which represents about 535 000 US children 1 to 5 years of age.[12] Children who lived in older housing units experienced an increased risk

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for having a blood lead concentration in excess of 5 μg/dL (50 ppb); 15% of US children who lived in housing units built before 1950 had a blood lead concentration ≥5 μg/dL (≥50 ppb), whereas 4.2% of children who lived in housing built between 1950 and 1978 had a blood lead concentration ≥5 μg/dL (≥50 ppb), compared with 2.1% of children who lived in housing units built after 1978.[27] No treatments have been shown to be effective in ameliorating the permanent developmental effects of lead toxicity.[28] Finally, the economic costs of childhood lead toxicity are substantial. Despite the historical reductions in blood lead concentrations, it has been estimated that the annual cost of childhood lead exposure in the United States is $50 billion.[29] For every $1 invested to reduce lead hazards in housing units, society would benefit by an estimated $17 to $221, a cost–benefit ratio that is comparable with the cost–benefit ratio for childhood vaccines.[30]

The key to preventing lead toxicity in children is identification and elimination of the major sources of lead exposure. Primary prevention of lead exposure is now widely recognized as the optimal strategy because of the irreversible effects of low-level lead toxicity.[7,12] The primary prevention approach contrasts with practices and policies that too often have relied predominantly on detection of lead exposure only after children develop elevated blood lead concentrations.

SOURCES AND VARIABILITY OF LEAD EXPOSURE

Lead ingestion and absorption are dynamic during the first 2 years of life. Blood lead concentrations of children who live in lead-contaminated environments typically increase rapidly between 6 and 12 months of age, peak between 18 and 36 months of age, and then gradually decrease.[31] The peak in children's blood lead concentrations stems from the confluence of normal mouthing behaviors and increasing mobility.[31] Younger children also absorb lead more efficiently than older children and adults.[32] Iron deficiency can also increase the absorption of lead.[33]

A large number of housing units in the United States contain lead-based paint. In a national survey of housing conducted in 2011, it was estimated that 37 million (35%) of 106 million housing units contain lead-based paint.[34] Lead-based paint is the most common, highly concentrated source of lead exposure for children who live in older housing.[35] Paint that was used on both the interior and exterior of houses through the 1950s contained higher concentrations of lead than that of houses built in later years.[34,35] The lead concentration in paint and other media can be measured by using a hand-held instrument called the x-ray fluorescence (XRF) spectrum analyzer or by chemically analyzing paint chips.

The US Department of Housing and Urban Development (HUD) defines lead-based paint as an XRF reading ≥1 μg/cm^2 or 5000 ppm of lead in a paint chip.[36] The presence of *lead*-based *paint* is not as predictive of childhood lead exposure as a *lead paint hazard*. A lead paint hazard is defined by the EPA as "any condition that causes exposure to lead from contaminated dust, lead-contaminated soil, or lead-contaminated paint that is deteriorated, or the presence of accessible (or chewable) surfaces, friction surfaces or impact surfaces that would result in adverse human health effects."[37]

Age of the housing is a major determinant of lead paint hazards. For housing built from 1978 to 1998, 2.7% contained one or more lead paint hazards, whereas the prevalence of residential hazards increased to 11.4% of housing built from 1960 to 1977, 39% of housing built from 1940 to 1959, and 67% of housing units built before 1940.[34] Federal regulations for defining a lead paint hazard in house dust are obsolete. Federal agencies have set environmental lead standards to protect children from having a blood lead concentration ≥10 μg/dL (≥100 ppb), but it is now recognized that there is no safe level of lead exposure. Therefore, because the current standards for lead in house dust, water, and soil remain too high to protect children,[31,38] the percentage of housing that contains one or more lead paint hazards described above is an underestimate.

Lead-based paint is the major source of lead, but ingestions of lead-contaminated house dust and residential soil are the major pathways for exposure (Fig 3).[35–42] House dust, which can be contaminated by small particles of lead-based paint or track-in of lead-contaminated soil, is a major pathway of lead exposure for children who live in older, poorly maintained housing.[40] Ingestions of lead-contaminated house dust and soil are also the primary pathways of exposure for children who live in homes that were recently abated or renovated.[43–45]

Sampling house dust for lead hazards involves using a special wipe to sample a specified area, such as the floor, which is readily accessible to a child, or a window sill or window trough.[36] Windows are often more heavily contaminated than floors because exterior paints often contained higher concentrations of lead, and window troughs can act as reservoirs. Sampling house dust for lead is used to screen older housing units that may contain lead hazards at the time of purchase or rental and before occupancy; to conduct a full risk assessment that involves extensive sampling of settled dust in housing units that failed a lead hazard screen or where there is a high probability of a lead hazard;

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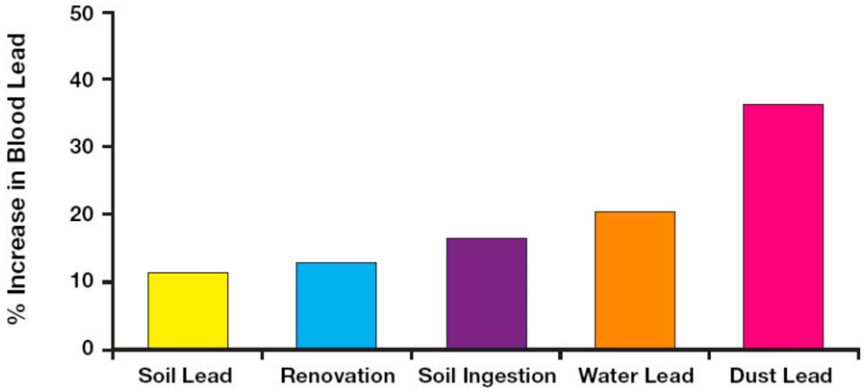

FIGURE 3
Contribution of lead exposure to children's blood lead concentrations. Adapted from Lanphear et al[31] and Spanier et al.[45]

TABLE 3 Common Sources of Lead Exposure

Source	Comment
House paint used before 1978 but especially before 1960	Deteriorated paint releases fine lead dust during home renovation.
Toys and furniture painted before 1976	
Painted toys made outside the United States	
Lead bullets, fishing sinkers, certain weights	Exposures often occur during practice in firing ranges.
Plumbing, pipes, and faucets	Lead leaches into drinking water when the pipes are connected with lead solder.
Soil contaminated by lead	Often in soil near highways and in yard of houses with exterior lead paint.
Hobbies involving soldering such as stained glass, jewelry making, pottery glazing, and miniature lead figures	Always check the labels.
Children's paint sets and art supplies	Always check the labels.
Pewter pitchers and ceramic dinner ware	
Storage batteries	
Parental occupation	Auto repair, mining, battery manufacture, pipe fitting and plumbing, welding, firing range use, ship building, painting, construction.
Folk remedies	Greta and Azarcon, Hispanic traditional medicines; Ghasard, an Indian folk medicine; and Ba-baw-saw, a Chinese herbal remedy, contain lead.
Cosmetics	Examples include Swad brand Sindoor, a cosmetic product used by traditional Hindus; Tiro, an eye cosmetic from Nigeria.
Candy from Mexico	Ingredient tamarind may contain lead.
Toy jewelry	A child died in 2006 after swallowing a metal heart charm that came with a purchase of shoes made by Reebok.

and to conduct clearance testing after repair or renovation of painted surfaces and after lead abatement, to verify that the housing unit is safe for occupancy (Table 3).[38]

Lead-contaminated soil is an important source of lead intake for children.[40,41] Lead-contaminated soil can directly contribute to children's blood lead concentrations via soil ingestion and indirectly from soil tracked indoors on shoes, which then contaminates house dust (Fig 3). Former mine and smelter communities present a particular risk to children for the ingestion of lead-contaminated soil, but lead in urban soil also is often heavily contaminated from the past use of leaded gasoline and paints. Other sources of lead in soil include weathering of lead-based exterior paint and nearby renovation or demolition activity. Soil testing is usually performed in areas where children play and the foundation perimeter. The EPA standards are 400 μg of lead per gram of soil for play areas and 1200 μg/g for the foundation perimeter.[37] Children's blood lead concentrations increase by approximately 3.8 μg/dL (38 ppb) for every 1000-ppm increase in soil lead concentration.[40]

Water is an important but often overlooked source of exposure for children, especially for infants who are formula fed.[5,46,47] Water typically contributes to approximately 20% of a child's blood lead concentrations if the water lead concentration exceeds 5 ppb (Fig 3).[31] The contribution of lead from water can be much higher for some children, especially for infants who ingest large quantities of tap water.[5,46,47] Children who reside in communities with lead service lines and inadequate anticorrosion control are also at increased risk for elevated blood lead concentrations.[48]

Phasing out leaded gasoline and creating stricter national air lead standards led to large reductions in the contribution of airborne lead to children's blood lead concentrations. Still, in some communities, such as those surrounding regional airports, airborne lead is an important source of lead exposure. Airborne lead is ingested primarily after it settles in house dust and soil where children play. Current sources of airborne lead include lead battery recycling operations, piston engine aircraft, and incinerators.[49] The contributions of airborne lead to children's blood lead concentrations are proportionately greater at the lower levels of exposure than at higher levels.[49]

Other sources of lead intake for children have been identified, such as nutritional supplements and folk medicines, ceramic dishware, and cosmetics[50–52] (Table 3).

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Lead brought into the home from a worksite by a parent can also be a major source of exposure for some children.[53] Consumer products such as children's toys, lunch boxes, crayons, and lipstick that are contaminated with lead have received a great deal of attention. These products constitute a small source of lead intake for most children, but they can be the major source for an individual child. Moreover, because lead exposure is cumulative and there is no apparent threshold for the adverse effects of lead exposure, all sources of lead exposure should be eliminated. It is the responsibility of the relevant federal agencies, such as the CPSC and the Food and Drug Administration (FDA), to promulgate and enforce standards that will protect children from lead-contaminated consumer products.

TABLE 4 Federal Standards for Lead in House Paint, House Dust, Soil, Water, Air, and Candy

Source	Standard
1. Lead-based paint (XRF)	1 μg/cm^2
2. Paint containing lead applied after August 14, 2009	90 ppm by wt
3. Testing (full risk assessment) for dust lead hazards (by wipe sampling)	
a. Floors	40 μg/ft^2
b. Interior window sills	200 μg/ft^2
4. Screening test for dust levels (by wipe sampling) to determine whether a full risk assessment is indicated	
a. Floors	25 μg/ft^2
b. Interior window sills	125 μg/ft^2
5. Dust lead clearance levels after abatement (by wipe sampling)	
a. Floors	40 μg/ft^2
b. Interior window sills	250 μg/ft^2
6. Bare residential soil	
a. Children's playground area	400 μg/g
b. Yard other than play area	1200 μg/g
7. Drinking water systems	
Exceeded if lead is above this concentration in >10% of a drinking water system's tap water samples	15 ppb (0.015 mg/L)
8. Candy likely to be consumed by small children	0.1 ppb
9. National Ambient Air Quality Standards: http://www.epa.gov/ttn/naaqs/standards/pb/s_pb_history.html	0.15 μg/m^3

Other state or local standards may vary, and the most protective standard applies. FDA has not set a standard for lead in cosmetics.
1–7, adapted from HUD.[36]
8, from FDA Guidance for Industry, November 2006.

RESIDENTIAL STANDARDS FOR LEAD IN PAINT, DUST, AND WATER

Lead in Paint and Dust

Under section 403 of Title X, the US Congress mandated the EPA to promulgate residential health-based lead standards that are designed to protect children from lead toxicity.[37] Standards are necessary to identify lead hazards before a child is unduly exposed and to identify the source of lead exposure for children who have blood lead concentrations ≥5 μg/dL (≥50 ppb).[31] Unless performed carefully, attempts to reduce lead exposure, such as abatement, repair, or renovation, can result in increased contamination and elevation in a child's blood lead concentration.[43–45] Dust clearance tests, which involve collecting dust from floors or windows of a home by using a lead-free material that resembles a baby wipe, should be conducted after extensive repair, renovation, or abatement of older housing units to determine whether the housing intervention was sufficient to protect children from lead hazards, especially in housing units built before 1960.[27,34] Property owners are required to disclose possible presence of lead-based paint in properties built before 1978 and are required to provide the blue pamphlet from the EPA, HUD, and Consumer Product Safety Commission titled "Protect Your Family From Lead in Your Home" at the time of rental or sale.

Most existing lead standards fail to protect children (Table 4). In 1978, the CPSC set the maximum paint lead concentration at 0.06% (600 ppm), because there was evidence that paint could be manufactured with this lower level of contamination.[3] Similarly, the EPA's action level of 15 ppb of lead in water, which is used to regulate water systems in the United States, is routinely (but erroneously) used as a health-based standard; it was not intended as a health-based standard, nor does it adequately protect children or pregnant women from adverse effects of lead exposure.[5,31] In 1988, the HUD established a postabatement floor dust standard of 200 μg/ft^2 because there was evidence that it was feasible to attain, not because it was demonstrated to be safe or protective. In 2001, the EPA promulgated residential lead standards of 40 μg/ft^2 for floors and 250 μg/ft^2 for window sills.[37] Unfortunately, these standards, which failed to protect children from having a blood lead concentration ≥10 μg/dL (≥100 ppb) when they were first promulgated, dictate the levels of lead contamination considered "normal" or "low," and they provide an illusion of safety.[38,40] At a floor standard of 40 μg/ft^2, the current EPA standard for floors, 50% of children were estimated to have a blood lead concentration ≥5 μg/dL (≥50 ppb); 5% of children have a blood lead concentration ≥5 μg/dL (≥50 ppb) at a median floor dust lead level of 1.5 μg/ft^2 (Fig 4).[42]

Scraping, sanding, or construction during painting, repair, renovation, or abatement of older housing can result in lead contamination of a child's environment.[41,43–45,54] In a controlled study of children with baseline blood lead concentrations

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<22 μg/dL (<220 ppb), Aschengrau et al[41] reported a 6.5-μg/dL (65-ppb) *increase* in blood lead concentrations for children whose homes had undergone paint abatement. Clark et al[44] reported that 6-month-old infants were 11 times more likely to have a ≥5 μg/dL (≥50 ppb) increase in blood lead concentrations after abatement compared with older children. Spanier et al[45] reported that routine renovation of older housing was associated with a 12% higher mean blood lead concentration. These studies indicate that the levels of lead-contaminated dust generated by lead hazard control work or housing renovations can result in excessive lead exposure and absorption for children unless there is sufficient cleanup and clearance testing after the work is completed. The HUD has published technical guidelines and regulations for workers involved in lead-based paint abatement or remediation of housing.[36]

In 1992, the US Congress mandated the EPA to promulgate regulations to protect children from lead exposure resulting from housing repairs and renovation.[37] In 2011, the EPA finalized recommendations for the Lead Renovation, Repair and Painting Rule.[54] Unfortunately, the EPA failed to recommend the validated wipe-sampling method for clearance testing. Instead, it used an unvalidated cloth test, which should not be confused with the validated wipe sampling test. The white cloth test assumes that if dust is visible on a white cloth (ie, the "white glove test"), it contains a lead hazard; conversely, if there is no visible dust, it does not contain a lead hazard.[54] Although it would be valuable to have a quick test to identify the presence of a lead hazard, the white cloth test is not a validated tool and is not a reliable way to quantify the presence of a lead hazard.

Lead hazard control work can result in sizable reductions in the magnitude of dust lead loading when proper procedures are followed and cleanup and postwork clearance testing are performed. In 1 study, dust lead levels (measured as micrograms of lead per area) immediately after professional abatement were 8.5 μg/ft^2, 8.0 μg/ft^2, and 21 μg/ft^2 for floors, interior window sills, and window troughs, respectively, representing reductions of more than 80% compared with preabatement levels.[55] In another study of more than 2600 housing units, postabatement dust lead levels were 12 μg/ft^2, 31 μg/ft^2, and 32 μg/ft^2 for floors, window sills and window troughs, respectively.[56] These levels were achieved with dust clearance testing set at 100 μg/ft^2 or higher, but floor dust lead levels below 5 μg/ft^2 can be achieved by following a specific protocol. In 1 unpublished study of more than 160 housing units built before 1978, 1 group found that it is possible to routinely meet floor lead levels below 5 μg/ft^2 after housing renovations costing an average of $5600 (B. Lanphear, MD, MPH, Simon Fraser University, unpublished data).

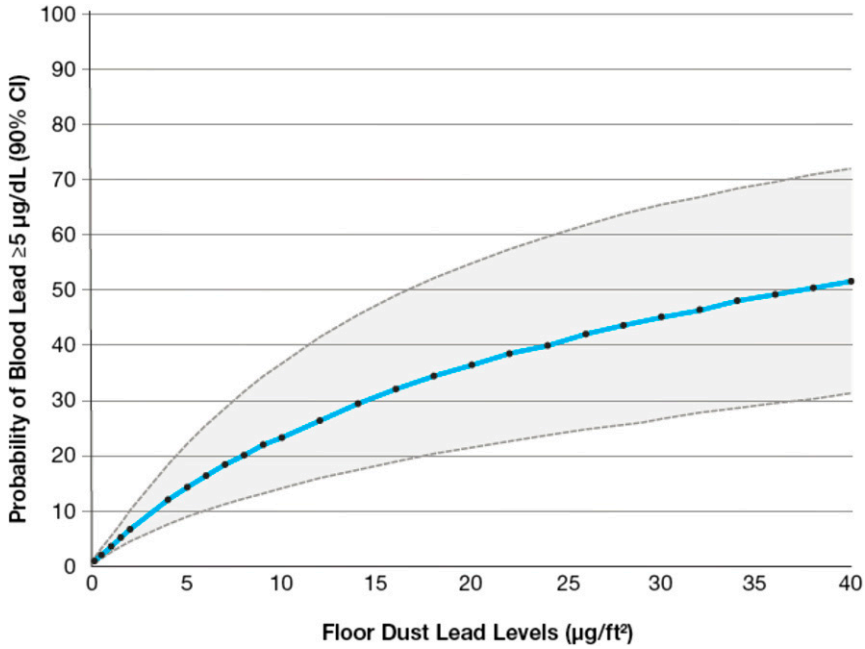

FIGURE 4
Estimated probability of blood lead concentrations ≥5 μg/dL for children living in pre-1978 housing by floor dust lead level, NHANES, 1999–2004. CI, confidence interval. Adapted from Dixon et al.[42]

Lead in Water

The primary sources of lead in water, which can be dissolved or particulate, consist of lead service lines, lead solder, and brass fittings that contain high concentrations of lead.[5] Plumbing installed before 1986, the year a federal ban was issued on using lead pipe and lead solder and a maximum lead content of 8% by weight for brass plumbing was established, is more likely to contain higher concentrations of lead.[5] Lead services lines that are being replaced, are undergoing maintenance, or are damaged can release particles of lead that can be ingested.[57] Partial service line replacement, which is sometimes performed to minimize the cost of service line repair by water authorities, fails to reduce lead exposure.[57] Proper maintenance and ultimately full replacement of water service lines will be necessary to eliminate lead intake from water, but it must be performed with proper precautions. In the interim,

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water filters that are certified by the National Sanitation Foundation for lead removal can effectively reduce water lead concentrations. The EPA recommends running the cold water of residential units for up to 2 minutes to flush the lead leached from pipes out of the plumbing system, but flushing is useful only in housing units without lead service lines.[58–61] In housing units without lead service lines, and where the primary source is brass fittings or lead-soldered joints, a 1-minute flush may be sufficient, depending on the length of plumbing; for housing units with lead service lines, flushing may *increase* lead exposure, again depending on the length of the lead service lines.[58–61]

Drinking fountains in older schools can be an important source of lead exposure.[5] Unfortunately, there are no regulations for evaluating lead contamination of school drinking fountains in most states.

Implementation of the Lead and Copper Rule has significantly reduced tap water lead levels. In 1991, the US EPA set an action level for lead in water of 15 μg/L or (15 ppb).[6] Communities in which >10% of water samples taken from various taps throughout the system exceed 15 ppb are considered to be out of compliance and are required by the EPA to take action to reduce lead levels using corrosion control methods or replacement of lead service lines. The action level is used as an administrative tool to evaluate community-level exposure; it is not a health-based standard. The maximum contaminant level goal, the value the EPA deems acceptable for health, is 0.

Testing Asymptomatic Children for Elevated Blood Lead Concentrations

In the primary care office, primary prevention begins with education and counseling. Ideally, environmental assessments, such as screening older housing units, occurs before a child is born so that parents can identify and hire trained workers to abate environmental lead exposure hazards.[12] It is especially important to conduct an environmental assessment for lead if a family resides in a housing unit built before 1960 that has undergone recent renovation, repair, or painting or if it is poorly maintained.

Screening questionnaires frequently used in the primary care setting fail to identify children who have elevated blood lead concentrations,[62] but they may be useful as a tool to identify lead hazards in children who have a blood lead concentration ≥5 μg/dL (≥50 ppb). In addition, public health agencies often use other methods of targeting children who should be screened with a blood lead test on the basis of community and residential characteristics, such as older housing. Blood lead surveillance data can be used to identify cities, communities, or housing units at higher than typical risk for lead poisoning. Technologies using geographic information system–based analyses and surveillance from electronic medical records are important tools to identify at-risk children who should have their blood lead concentration measured.

In 1991, the CDC recommended universal blood lead testing for all children.[63] In 2005, the AAP recommended that states and cities formulate their own lead screening recommendations on the basis of local data because of the wide variation in lead exposure.[7] The AAP, consistent with the CDC, recommended universal screening of children's blood for lead if they lived in communities with more than 27% of housing built before 1950 or a prevalence of blood lead concentrations ≥10 μg/dL in children 12 to 36 months old of 12% or greater.[7,12,63,64] Screening is not efficient after 36 months of age unless specific high-risk factors are identified; the likelihood of a child having a blood lead concentration >10 μg/dL after 36 months of age is low.[65] These recommendations now need to be updated to conform to with our new understanding of lead toxicity.[11,12]

A detailed evaluation and follow-up of children who have blood lead concentrations <10 μg/dL (<100 ppb) is now indicated. Current federal regulations for clinical laboratory testing through the Clinical Laboratory Improvement Amendments of 1988[66] permit an allowable laboratory error in blood lead proficiency testing programs of ±4 μg/dL (±40 ppb) for blood lead concentrations ≤20 μg/dL (≤200 ppb). This range of error can result in children being misclassified and cause additional anxiety or false comfort when blood lead concentrations within the margin of error erroneously are interpreted as going up or down. The majority of laboratories analyzing blood lead reference materials routinely achieved laboratory error of ±2 μg/dL (±20 ppb) at blood lead concentrations ≤20 μg/dL (≤200 ppb).[67] Changing the allowable laboratory error to tighter performance requirements, such as ±2 μg/dL (±20 ppb), could decrease misclassification of children and lead to better allocation of health care resources.

Case Management of Children With a Blood Lead Concentration at or Above Reference Value

The AAP is adopting the current reference value of ≥5 μg/dL (≥50 ppb) for case management.[12] The CDC recommended that the 97.5th percentile of blood lead concentrations derived from the combination of the 2 most recent cycles of NHANES data be used to identify children who have unacceptably high exposure and to set public health goals.[12] The CDC will reconsider the reference value for children's blood lead concentrations every 4 years.[12]

After confirmatory testing, it is important to monitor children who have blood lead concentrations

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TABLE 5 AAP Recommendations on Management of Childhood Lead Exposure and Poisoning

Lead Level	Recommendation
<5 μg/dL (<50 ppb)	1. Review laboratory results with family. For reference, the geometric mean blood lead concentration for US children 1–5 y old is <2 μg/dL (<20 ppb); 2.5% have a blood lead concentration ≥5 μg/dL (≥50 ppb). 2. Repeat the blood lead concentration in 6–12 mo if the child is at high risk for lead exposure or if risk profile increases. Follow all local and state lead screening recommendations. 3. For children initially screened before 12 mo of age, consider retesting in 3–6 mo for children at high risk; lead exposure may increase as mobility increases. 4. Perform routine assessment of nutrition and physical and mental development and assess risk factors for iron deficiency. 5. Provide anticipatory guidance about common sources of environmental lead exposure: paint in homes or child care facilities built before 1960, soil near roadways, take-home exposures related to adult occupations, and imported spices, cosmetics, folk remedies, and cookware.
5–14 μg/dL (50–140 ppb)	1. Perform steps as described above for blood lead concentrations <5 μg/dL (<50 ppb). 2. Retest venous blood lead concentration within 1–3 mo to verify that the lead concentration is not rising. If it is stable or decreasing, retest the blood lead concentration in 3 mo. Refer patient to local health authorities if such resources are available. Most states require elevated blood lead concentrations be reported to the state health department. Contact the CDC at 800-CDC-INFO (800-232-4636) or www.cdc.gov/nceh/lead or the National Lead Information Center at 800-424-LEAD (5323) for resources regarding lead poisoning prevention and local childhood lead poisoning prevention programs. 3. Take a careful environmental history to identify potential sources of exposures (see #5 above) and provide preliminary advice about reducing or eliminating exposures. Take care to consider other children who may be exposed. 4. Provide nutritional counseling related to calcium and iron. Encourage the consumption of iron-enriched foods (eg, cereals, meats). Encourage families to sign up for the Special Supplemental Nutrition Program for Women, Infants, and Children, if eligible. 5. Screen for iron sufficiency with adequate laboratory testing (complete blood cell count, ferritin, C-reactive protein) and provide treatment per AAP guidelines. Consider starting a multivitamin with iron. 6. Perform structured developmental screening evaluations at child health maintenance visits, because lead's effect on development may manifest over years.
15–44 μg/dL (150–440 ppb)	1. Perform steps as described above for blood lead concentrations 5–14 μg/dL (50–140 ppb). 2. Confirm the blood lead concentration with repeat venous sample within 1–4 wk. 3. Abdominal radiography should be considered for children who have a history of pica for paint chips or excessive mouthing behaviors. Gut decontamination may be considered if leaded foreign bodies are visualized on radiography. Any treatment of blood lead concentrations in this range should be provided in consultation with an expert. Contact local pediatric environmental health specialty unit (www.pehsu.net or 888-347-2632) or local or regional Poison Control Center (www.aapcc.org or 800-222-1222) for guidance.
>44 μg/dL (>440 ppb)	1. Follow guidance for blood lead level 15–44 μg/dL (150–440 ppb) as listed above. 2. Confirm the blood lead concentration with repeat venous lead level within 48 h. 3. Consider hospitalization or chelation therapy (managed with the assistance of an experienced provider). Safety of the home or child care facility with respect to lead hazards, isolation of the lead source, family social situation, and chronicity of the exposure are factors that may influence management. Contact your regional pediatric environmental health specialty unit or Poison Control Center or the CDC for assistance.

Modified from Pediatric Environmental Health Specialty Unit. Medical Management of Childhood Lead Exposure and Poisoning (http://www.pehsu.net/_Library/facts/medical-mgmnt-childhood-lead-exposure-June-2013.pdf).

≥5 μg/dL (≥50 ppb). The pediatrician should inform the local or state health department and request an inspection of the child's house to identify and remediate any lead hazards (Table 4). Screening children for iron deficiency and insufficient dietary calcium intake is also important.[7] A detailed description of the diagnosis and treatment of significant lead toxicity (ie, ≥45 μg/dL [≥450 ppb]) is beyond the scope of this policy statement, but guidance is available in an earlier publication of the AAP[7] and through the Pediatric Environmental Health Specialty Units Web site (www.pehsu.net) (Table 5). Children who have elevated blood lead concentrations need to be monitored until environmental investigations and remediation are complete and blood lead concentrations decline.[12]

The AAP recognizes that environmental investigations will typically be conducted by local or state health or environmental departments to identify sources of lead exposure for a child who has a blood lead concentration ≥5 μg/dL (≥50 ppb). In many cases, however, the pediatrician can provide clues about possible sources of lead intake by taking a careful history.

Case management involves a thorough investigation of potential sources of lead poisoning in a child's environment, including paint, house dust, water, and soil. Case management also includes a questionnaire and visual inspection for other potential sources of lead exposure, including antique furniture, toys, ethnic folk remedies, and consumer products such as imported food, cosmetics, and ceramics.[12,50–52] It can include testing deteriorated paint on furniture, such as

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a crib, taking dust samples from child care settings or a family member's house, and taking soil samples from a child's play area.

SUMMARY AND RECOMMENDATIONS

Lead toxicity results in substantial, population-level effects on children's intellectual abilities, academic abilities, problem behaviors, and birth weight. Pediatricians may be well equipped to advocate for more stringent regulations to reduce sources of lead exposure and prevent childhood lead exposure. The AAP recognizes the importance of a variety of educational, enforcement, and environmental actions to reduce the number of children who are exposed to lead hazards and concur with recent detailed recommendations for prioritization of primary prevention of lead toxicity.[7,12,68–70] The AAP offers the following recommendations for government as well as pediatricians, other health care providers, and public health officials.

Recommendations for Government

1. The federal government should expand the resources currently offered by the HUD to local and state governments for lead hazard control work.

2. The federal government should provide both financial and nonfinancial resources and technical guidance through the CDC, the EPA, and the HUD to state and local public health agencies as well as environmental and housing agencies engaged in childhood lead poisoning prevention efforts.

3. The US EPA and HUD should review their protocols for identifying and mitigating residential lead hazards (eg, lead-based paint, dust, and soil) and lead-contaminated water from lead service lines or lead solder and revise downward the allowable levels of lead in house dust, soil, paint, and water to conform with the recognition that there are no safe levels of lead.

4. The federal government should resume and expand its vital role in providing federal public health leadership in childhood lead poisoning prevention work through the CDC. Allocation of additional resources would be necessary to accomplish this goal.

5. The Centers for Medicare & Medicaid Services, which is responsible for regulating clinical laboratory testing through the Clinical Laboratory Improvement Amendments of 1988,[69] should expeditiously revise current regulations for allowable laboratory error permitted in blood lead proficiency testing programs from ±4 μg/dL (±40 ppb) to ±2 μg/dL (±20 ppb) for blood lead concentrations ≤20 μg/dL (≤200 ppb).[12] In the future, when feasible, allowable laboratory error permitted in blood lead proficiency testing programs should be reduced even more, to ±1 μg/dL (±10 ppb) for blood lead concentrations ≤20 μg/dL (≤200 ppb).

6. The federal government should continue to conduct the NHANES and provide national data on trends in blood lead concentrations. These newer data should be used by the CDC to periodically formulate a new reference value and guide clinical and public health interventions.

7. The federal government should continue to regularly survey children and adolescents in the NHANES for ADHD and conduct disorder by using validated diagnostic surveys from the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* to examine the association of lower blood lead concentrations with these conditions.

8. Local or state governments, in consultation with pediatricians, should develop policies and regulations requiring the remediation of lead-contaminated housing and child care facilities, including the elimination of lead hazards during transfer of rental units or renovation or demolition of older housing.

9. State and local governments should collect, analyze, and publish blood lead test results performed in their jurisdictions and should regularly publish reports of age of housing and other risk factors for children having blood lead concentrations ≥5 μg/dL (≥50 ppb). These reports should be readily available to pediatricians, health care providers, and the public.

10. Federal, state, and local governments should provide resources for environmental evaluations and case management of children who have blood lead concentrations ≥5 μg/dL (≥50 ppb), in conjunction with the child's primary care provider.

11. State and local governments should take steps to ensure that water fountains in schools do not exceed water lead concentrations of 1 ppb.

Recommendations for Pediatricians, Health Care Providers, and Public Health Officials

1. Pediatricians are in a unique position to work with public health officials to conduct surveys of blood lead concentrations among a randomly selected,

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representative sample of children in their states or communities at regular intervals to identify trends in blood lead concentrations. These periodic surveys are especially important for children who live in highly contaminated communities, such as smelter communities or regions with a historically high prevalence of lead exposure.

2. Pediatricians, heath care providers, and public health officials should routinely recommend individual environmental assessments of older housing,[12] particularly if a family resides in a housing unit built before 1960 that has undergone recent renovation, repair, or painting or that has been poorly maintained.

3. Pediatricians and public health officials should advocate for the promulgation and enforcement of strict legal standards based on empirical data that regulate allowable levels of lead in air, water, soil, house dust, and consumer products. These standards should address the major sources of lead exposure, including industrial emissions, lead paint in older housing, lead-contaminated soil, water service lines, and consumer products.

4. Pediatricians should be familiar with collection and interpretation of reports of lead hazards found in house dust, soil, paint, and water, or they should be able to refer families to a pediatrician, health care provider, or specialist who is familiar with these tools.

5. Pediatricians, women's health care providers, and public health officials should be familiar with federal, state, local, and professional recommendations or requirements for screening children and pregnant women for lead poisoning.[12,68,69]

6. Pediatricians and other primary care providers should test asymptomatic children for elevated blood lead concentrations according to federal, local, and state requirements. Immigrant, refugee, and internationally adopted children also should be tested for blood lead concentrations when they arrive in the United States because of their increased risk.[71,72] Blood lead tests do not need to be duplicated, but the pediatrician or other primary care provider should attempt to verify that screening was performed elsewhere and determine the result before testing is deferred during the office visit.

7. Pediatricians and other primary care health providers should conduct targeted screening of children for elevated blood lead concentrations if they are 12 to 24 months of age and live in communities or census block groups with ≥25% of housing built before 1960 or a prevalence of children's blood lead concentrations ≥5 μg/dL (≥50 ppb) of ≥5%.

8. Pediatricians and other primary care providers should test children for elevated blood lead concentrations if they live in or visit a home or child care facility with an identified lead hazard or a home built before 1960 that is in poor repair or was renovated in the past 6 months.[7,12]

9. Pediatricians and primary care providers should work with their federal, state, and local governments to ensure that a comprehensive environmental inspection is conducted in the housing units of children who have blood lead concentrations ≥5 μg/dL (≥50 ppb) and that they receive appropriate case management.

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ABBREVIATIONS

AAP: American Academy of Pediatrics
ADHD: attention-deficit/hyperactivity disorder
CDC: Centers for Disease Control and Prevention
CPSC: Consumer Product Safety Commission
EPA: Environmental Protection Agency
FDA: US Food and Drug Administration
HUD: Department of Housing and Urban Development
NHANES: National Health and Nutrition Examination Survey
XRF: x-ray fluorescence

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January 17, 2017

PJ Mikolajewski
A & A MHP, System No. 5400504
P.O. Box 8305
Rancho Santa Fe, CA 92067

Dear: PJ Mikolajewski

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the A & A MHP water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

A & A MHP
(Public Water System No. 5400504)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Mike Brown, Process Supervisor
Aera Energy-LLC, System No. 1500495
59231 Main Camp Road
McKittrick, CA 93251

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Mike Brown:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Aera Energy-LLC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Aera Energy-LLC
(Public Water System No. *1500495*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jim Akin
Owner
Akin Water Co., System No. 5401038
642 E. Henderson Avenue
Porterville, CA 93257

Dear: Jim Akin

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Akin Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Akin Water Co.
(Public Water System No. 5401038)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA0110016

Eileen White
Manager of Operations
EBMUD - Alameda Point
375 Eleventh Street
Oakland, CA 94607-4246

Dear Eileen White:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Alameda Point water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Alameda County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Alameda Point
(Public Water System No. *CA0110016*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA0110001

Robert Shaver
General Manager
Alameda County Water District
43885 S Grimmer Blvd
Fremont, CA 94538-6348

Dear Robert Shaver:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Alameda County Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Alameda County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Alameda County Water District
(Public Water System No. *CA0110001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Thomas Adcock, President
Alco Water Service, System No. 2710001
249 Williams Road
Salinas, CA. 93905

Dear Mr. Adcock:

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REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

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for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

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(Public Water System No. *2710001*)

By The

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6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Mohammed Alsahybi
Ali Mutual Water Co., System No. 5403144
14036 Avenue 232
Tulare, CA 93274

Dear: Mohammed Alsahybi

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Ali Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Ali Mutual Water Co.
(Public Water System No. 5403144)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

ALICE MANOR
Public Water System No. *1000199*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_028**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 6/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

Sherry Hunter
Board President
Allensworth CSD, System No. 5400544
P.O. Box 11966
Earlimart, CA 93219

Dear: Sherry Hunter

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Allensworth CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Allensworth CSD
(Public Water System No. 5400544)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Board of Directors
Alpaugh Community Services District, System No. 5410050
P. O. Box 262
Alpaugh, CA 93201

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Board of Directors:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Alpaugh Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

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If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Alpaugh Community Services District
(Public Water System No. *5410050*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Ricardo Castillo, Field Manager
Alpine Water Users Association
System No. 3610002
P.O. Box 122
Twin Peaks, CA 92391

Dear: Ricardo Castillo,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Alpine Water Users Association water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Alpine Water Users Association
(Public Water System No. *3610002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/27/17

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

MICHAEL (RORY) MUNNS
GENERAL MANAGER
AMERICAN WATER OPS & MAINTENANCE - VAFB, System No. 4210700
VANDENBERG AIR FORCE BASE 30 CES/CER 1172 ICELAND AVENUE
VANDENBERG AFB, CA 93437

Dear: MICHAEL (RORY) MUNNS

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the AMERICAN WATER OPS & MAINTENANCE - VAFB water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

AMERICAN WATER OPS & MAINTENANCE - VAFB

(Public Water System No. *4210700*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

385. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

386. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

387. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

388. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

389. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

390. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

391. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

392. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

433. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

434. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

435. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

436. The water system may stop lead sampling at a school if:

kkkkkkkk. All initial samples are less than or equal to 15 ppb; or

llllllll. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xcvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xcviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

mmmmmmmm. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

nnnnnnnn. If requested in writing by the school's authorized school representative.

437. The water system is responsible for the following costs:

ssss. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

tttt. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

438. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

439. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

440. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

gggggggggg. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

hhhhhhhhhh. The date of the request;

iiiiiiiiii. The date of the initial meeting;

jjjjjjjjjj. The date of the sampling plan along with a copy of each sampling plan; and

kkkkkkkkkk. The date of initial lead sampling and all repeat samples.

441. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

Sean Powers
Community Development Agency Director

Amy Irani, REHS
Director of Environmental Health

COUNTY OF NEVADA
COMMUNITY DEVELOPMENT AGENCY
ENVIRONMENTAL HEALTH DEPARTMENT

950 MAIDU AVENUE, SUITE 170, NEVADA CITY, CA 95959-8617
(530) 265-1222 FAX (530) 265-9853 www.mynevadacounty.com

January 20, 2017

Peter Goering
Village Manager
Ananda Village Water System, System No. 2900562
14618 Tyler Foote Crossing Road
Nevada City, CA. 95959

Dear: Mr. Goering

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-562

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has requested the issuance of a permit amendment to the Ananda Village water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Catrie Levenson, REHS, PHM
Environmental Health Specialist
Consumer Protection Division
Catrie.levenson@co.nevada.ca.us
530.265.1753 FAX 530.265.9853

Enclosure: 2017PA_Schools; Appendix A – Sampling Guidance

cc: State Water Resources Control Board (email)
Division of Drinking Water

Ken Atwell (email)
Ananda Village Water Operator

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Ananda Church of Self-Realization
for
Ananda Village Water System
(Public Water System No.2900562)

By

Nevada County Department of Environmental Health

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-562** EFFECTIVE DATE**: January 20, 2017**

WHEREAS:

1. *The Department through, its Primacy Delegation Agreement with the State Water Resources Control Board Division of Drinking Water (SWRCB)* "may renew, reissue, revise, or amend any domestic water supply permit whenever the Department (or SWRCB) deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The Department hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR Nevada County Department of Environmental Health

Catrie Levenson, REHS, PHM
Environmental Specialist III

Dated: January 20th, 2017

January 17, 2017

Daniel Smith, Administrative Ops
Apple Valley Foothill CWD
System No. 3600008
22545 Del Oro Road
Apple Valley, CA 92308

Dear: Daniel Smith,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Apple Valley Foothill CWD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Apple Valley Foothill CWD
(Public Water System No. *3600008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Gail Hunter, General Manager
Apple Valley Heights CWD
System No. 3600009
9429 Cerra Vista
Apple Valley, CA 92308

Dear: Gail Hunter,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Apple Valley Heights CWD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

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Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Apple Valley Heights CWD
(Public Water System No. *3600009*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Antonio D. Penna, General Manager
Apple Valley Ranchos WC
System No. 3610003
P.O. Box 7005
Apple Valley, CA 92307

Dear: Antonio D. Penna,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Apple Valley Ranchos WC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Apple Valley Ranchos WC
(Public Water System No. *3610003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Adam Ambrose, Production Supervisor
Apple Valley Ranchos Water Co - Yermo
System No. 3610118
P.O. Box 7005
Apple Valley, CA 92307

Dear: Adam Ambrose,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Apple Valley Ranchos Water Co - Yermo water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Apple Valley Ranchos Water Co - Yermo
(Public Water System No. *3610118*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

James Scheimer
Manager
ARBUCKLE PUBLIC UTILITY DISTRICT, System No. 610001
PO BOX 207
ARBUCKLE, CA 95912

Dear : James Scheimer

ISSUANCE OF PERMIT AMENDMENT 73-022A3

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the ARBUCKLE PUBLIC UTILITY DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

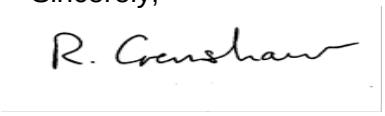

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 73-022A3

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

ARBUCKLE PUBLIC UTILITY DISTRICT
(Public Water System No. *610001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***73-022A3***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

Jim Maciel, Board President
Armona Community Services District, System No. 1610001
P.O. Box 486
Armona, CA 93202

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Jim Maciel:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Armona Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Armona Community Services District
(Public Water System No. *1610001*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 5, 2018 System No. 4910018

Sophie James, Director of Water Quality
Armstrong Valley-Cal Water Service (PUC)
1720 North First Street
San Jose, CA 95112

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910018

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Sophie James:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Armstrong Valley-Cal Water Service (PUC) (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at: http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

The Division understands that the System has been complying with this amended permit.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910018

cc: Darin McCosker, Local Manager, P.O. Box 1133, Lucerne, CA 95458
Loni Lind, Water Quality PM, 2222 Dr. Martin Luther King Jr. Parkway, Chico, CA 95928
Sonoma County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Armstrong Valley-Cal Water Service (PUC)
(Public Water System No. 4910018)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 5, 2018

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Manuel Quaresma, President
Aromas Hills Mutual Water Association, System No. 3500576
c/o A.H.M.W.A PO Box 740
Aromas, CA. 95004

Dear Mr. Quaresma:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Aromas Hills Mutual Water Association water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

AROMAS HILLS
MUTUAL WATER ASSOCIATION
(Public Water System No. *3500576*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Vicki Morris, General Manager
Aromas Water District, System No. 3510004
PO Box 388
Aromas, CA. 95004

Dear Ms. Morris:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Aromas Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

AROMAS WATER DISTRICT
(Public Water System No. *3510004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Norman Huff, General Manager
Arrowbear Park CWD
System No. 3610110
P.O. Box 4045
Arrowbear Lake, CA 92382

Dear: Norman Huff,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Arrowbear Park CWD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Arrowbear Park CWD
(Public Water System No. *3610110*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Ronald W. Fussell Jr., Water Distribution Operator
Arrowhead Villas Mutual Service Company
System No. 3610093
P.O. Box 77
Sky Forest, CA 92385

Dear: Ronald W. Fussell Jr.,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Arrowhead Villas Mutual Service Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Arrowhead Villas Mutual Service Company
(Public Water System No. *3610093*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

SHANE TAYLOR
PUBLIC WORKS SUPERVISOR
ARROYO GRANDE WATER DEPARTMENT, System No. 4010001
300 EAST BRANCH STREET
ARROYO GRANDE, CA 93420

Dear: SHANE TAYLOR

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the ARROYO GRANDE WATER DEPARTMENT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

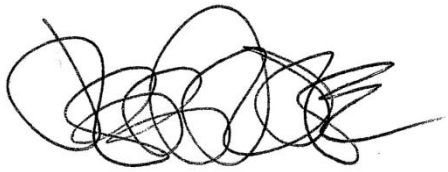

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

ARROYO GRANDE WATER DEPARTMENT
(Public Water System No. *4010001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

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28. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

29. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

30. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

31. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

32. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

28. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

29. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

30. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

31. The water system may stop lead sampling at a school if:

m. All initial samples are less than or equal to 15 ppb; or

n. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

vii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

viii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

o. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

p. If requested in writing by the school's authorized school representative.

32. The water system is responsible for the following costs:

g. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

h. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

33. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

34. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

35. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    p. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    q. The date of the request;

    r. The date of the initial meeting;

    s. The date of the sampling plan along with a copy of each sampling plan; and

    t. The date of initial lead sampling and all repeat samples.

36. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jack Cavier
President
ARTOIS COMMUNITY S.D., System No. 1100203
P.O. Box 130
ARTOIS, CA 95913

Dear : Jack Cavier

ISSUANCE OF PERMIT AMENDMENT 010293P11021A2

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the ARTOIS COMMUNITY S.D. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

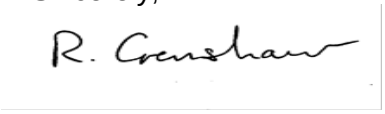

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 010293P11021A2

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

ARTOIS COMMUNITY S.D.
(Public Water System No. *1100203*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***010293P11021A2***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

Raul Barraza, General Manager
Arvin Community Services District, System No. 1510001
309 Campus Drive
Arvin, CA 93203

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Raul Barraza:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Arvin Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Arvin Community Services District
(Public Water System No. *1510001*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

JOHN NEIL
GENERAL MANAGER
ATASCADERO MUTUAL WATER CO, System No. 4010002
P.O. BOX 6075
ATASCADERO, CA 93423

Dear: JOHN NEIL

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the ATASCADERO MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

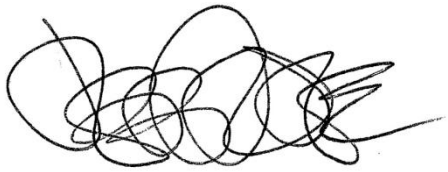

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

ATASCADERO MUTUAL WATER CO
(Public Water System No. *4010002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

33. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

34. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

35. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

36. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

37. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

38. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

39. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

40. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

37. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

38. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

39. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

40. The water system may stop lead sampling at a school if:

q. All initial samples are less than or equal to 15 ppb; or

r. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

ix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

x. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

s. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

t. If requested in writing by the school's authorized school representative.

41. The water system is responsible for the following costs:

i. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

j. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

42. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

43. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

44. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    u. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    v. The date of the request;

    w. The date of the initial meeting;

    x. The date of the sampling plan along with a copy of each sampling plan; and

    y. The date of initial lead sampling and all repeat samples.

45. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Deborah Wolfe
President
Averydale Mutual Water Company
3659 E. Avenue H-4
Lancaster, CA 93535

Dear: Deborah Wolfe

System No: 1910023 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Averydale Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910023 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910023 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Averydale Mutual Water Company
Public Water System No. *1910023*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

BRAD HAGEMANN
GENERAL MANAGER
AVILA BEACH COMMUNITY SERVICES DISTRICT, System No. 4000222
191 San Miguel Street
AVILA BEACH, CA 93424

Dear: BRAD HAGEMANN

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the AVILA BEACH COMMUNITY SERVICES DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

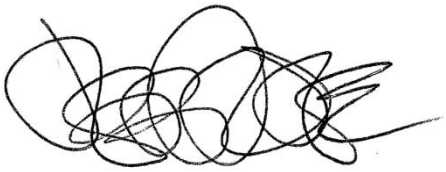

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

AVILA BEACH COMMUNITY SERVICES DISTRICT

(Public Water System No. *4000222*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Gene Mancebo, General Manager
Amador Water Agency - Buckhorn, System No. 0310012
12800 Ridge Road
Sutter Creek, CA 95685

Dear Mr. Mancebo,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Amador Water Agency - Buckhorn water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Amador Water Agency – Buckhorn
(Public Water System No. 0310012)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs *"3Ts for Reducing Lead in Drinking Water in Schools"* as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Gene Mancebo, General Manager
Amador Water Agency - Ione, System No. 0310002
12800 Ridge Road
Sutter Creek, CA 95685

Dear Mr. Mancebo,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Amador Water Agency - Ione water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Amador Water Agency – Ione
(Public Water System No. 0310002)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017.** The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Gene Mancebo, General Manager
Amador Water Agency – Sutter Creek, (System No. 0310003)
12800 Ridge Road
Sutter Creek, CA 95685

Dear Mr. Mancebo,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Amador Water Agency – Sutter Creek water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Amador Water Agency – Sutter Creek
(Public Water System No. 0310003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jared Macias
Assistant Director - Water Operations
Azusa Light and Water
729 N. Azusa Avenue
Azusa, CA 91702

Dear: Jared Macias

System No: 1910007 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Azusa Light and Water water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910007 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910007 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Azusa Light and Water
Public Water System No. *1910007*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Kent McNiece
Badger Hill Estates, System No. 5400710
1 High Sierra Drive
Exeter, CA 93221

Dear: Kent McNiece

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Badger Hill Estates water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Badger Hill Estates
(Public Water System No. 5400710)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

February 24, 2017

Jacob Overson
Baker Community Services District
LPA ID: 3600022
P O Box 590
Baker, CA 92309

Dear Mr. Overson,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The San Bernardino County Division of Environmental Health Services (DEHS) has issued a permit amendment to the Baker Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance . Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the DEHS for reconsideration of the decision to issue the permit amendment. Petitions must be received by the DEHS within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the State Water Resources Control Board's (SWRCB) school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact DEHS at (800) 442- 2280 or email your question to joy.chakma@dph.sbcounty.gov.

Sincerely,

Joy Chakma
Environmental Health Services
Land Use Protection Program
385 N. Arrowhead Ave., 2nd Floor
San Bernardino, CA 92415

Enclosure: 1. 2017PA_Schools
2. Appendix A Sampling Guidance

cc: SWRCB by email at dwpdist13@waterboards.ca.gov

STATE OF *CALIFORNIA*

DOMESTIC WATER SUPPLY PERMIT

Issued To

Baker Community Services District

System No. 3600022

By

San Bernardino County Department of Public Health
Division of Environmental Health Services

PERMIT AMENDMENT NO: **2017PA-SCHOOLS** EFFECTIVE DATE: **February 24, 2017**

WHEREAS:

1. The Department of Environmental Health Services (DEHS) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [DEHS] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 {d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The

SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB and DEHS oversee public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the DEHS to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The San Bernardino County Division of Environmental Health Services hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to November 1, 2019, as provided for in Provision 3.

2. Each water system shall submit to the DEHS a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by July 1, 2017. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school,

governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DOW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "3Ts for Reducing Lead in Drinking Water in Schools" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DEHS.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in Appendix A (Sampling Guidance) which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website at http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml .

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DEHS, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

FOR THE DIVISION OF ENVIRONMENTAL HEALTH SERVICES

Signature: J. Chakma _____ **Dated:** **February 24, 2017**

Joy Chakma
Environmental Health Services
Land Use Protection Program
385 N. Arrowhead Ave., 2nd Floor

San Bernardino, CA 92415

APPENDIX A SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<SchoolID>-<Sample ID> i.e. 36xxxxx-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and

Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.

7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.
8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead

concentration at the drinking water outlet.

5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the

Action Level and additional corrective actions should be implemented at the drinking water outlet.

6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DOW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents,

however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Tim Bakman, President
Bakman Water Company, System No. 1010001
P.O. Box 7965
Fresno, CA 93747

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Tim Bakman:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Bakman Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Bakman Water Company
(Public Water System No. *1010001*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2400167
January 17, 2017

MANUEL JIMENEZ, PRESIDENT
BALLICO CSD
P.O. BOX 255
BALLICO, CA 95303

Dear MANUEL JIMENEZ,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the BALLICO CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Merced Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

BALLICO CSD
(Public Water System No.: *2400167*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

89. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

90. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

91. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

92. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

93. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

94. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

95. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

96. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

100. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

101. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

102. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

103. The water system may stop lead sampling at a school if:

ss. All initial samples are less than or equal to 15 ppb; or

tt. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxiii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxiv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

uu. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

vv. If requested in writing by the school's authorized school representative.

104. The water system is responsible for the following costs:

w. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

x. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

105. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

106. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

107. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

ddd. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

eee. The date of the request;

fff. The date of the initial meeting;

ggg. The date of the sampling plan along with a copy of each sampling plan; and

hhh. The date of initial lead sampling and all repeat samples.

108. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

177. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
178. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
179. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
180. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
181. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
182. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
183. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

184. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
185. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
186. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
187. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
188. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
189. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
190. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
191. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
192. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

78. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
79. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
80. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

81. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
82. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
83. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
84. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

56. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
57. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
58. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
59. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
60. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
38. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
39. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

40. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

78. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
79. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
80. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
81. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
82. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
83. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
84. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2010003
January 17, 2017

SHAWN ROOPE, SUPERINTENDENT
BASS LAKE WATER COMPANY
P.O. BOX 113
BASS LAKE, CA 93604

Dear SHAWN ROOPE,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the BASS LAKE WATER COMPANY water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Madera Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

BASS LAKE WATER COMPANY
(Public Water System No.: *2010003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

25. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

26. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

27. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

28. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

29. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

30. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

31. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

32. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

28. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

29. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

30. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

31. The water system may stop lead sampling at a school if:

m. All initial samples are less than or equal to 15 ppb; or

n. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

vii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

viii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

o. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

p. If requested in writing by the school's authorized school representative.

32. The water system is responsible for the following costs:

g. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

h. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

33. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

34. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

35. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    p. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    q. The date of the request;

    r. The date of the initial meeting;

    s. The date of the sampling plan along with a copy of each sampling plan; and

    t. The date of initial lead sampling and all repeat samples.

36. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

49. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
50. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
51. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
52. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
53. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
54. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
55. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

56. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
57. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
58. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
59. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
60. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
61. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
62. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
63. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
64. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

22. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
23. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
24. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

25. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
26. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
27. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
28. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

16. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
17. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
18. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
19. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
20. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
14. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
15. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

16. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

22. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
23. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
24. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
25. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
26. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
27. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
28. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Mr. Calvin Hendrix
Deputy Base Civ Eng
BEALE AIR FORCE BASE, System No. 5810700
6601 B Street
BEALE AFB, CA 95903

Dear : Mr. Calvin Hendrix

ISSUANCE OF PERMIT AMENDMENT 012101P58001A4

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the BEALE AIR FORCE BASE water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

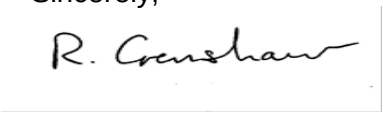

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 012101P58001A4

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

BEALE AIR FORCE BASE
(Public Water System No. *5810700*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***012101P58001A4***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD
OPERATIONS BRANCH

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

David Edmonds, General Manager
Bear Valley Community Services District
28999 S. Lower Valley Road
Tehachapi, CA 93561

Dear Mr. Edmonds:

ISSUANCE OF PERMIT AMENDMENT: 1510038-2017PA_SCHOOLS (System No. 1510038)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Bear Valley Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510038-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Bear Valley Community Services District
(Public Water System No. 1510038)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510038-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S. Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Tony Lara
Assistant General Manager
Beaumont Cherry Valley WD, System No. 3310002
560 Magnolia Ave.
Beaumont, CA 92223

Dear Tony Lara:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Beaumont Cherry Valley Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Beaumont Cherry Valley Water District
(Public Water System No. 3310002)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Glen Lublin
President
Bedel Mutual Water Co., System No. 5400816
2536 East College Avenue
Visalia, CA 93292

Dear: Glen Lublin

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Bedel Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Bedel Mutual Water Co.
(Public Water System No. 5400816)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Bella Vista Water District
(Public Water System No. 4510014)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically

found at the highest levels on “first draw” samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these “first draw” samples.

8 In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer’s tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school’s lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school’s water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs “*3Ts for Reducing Lead in Drinking Water in Schools*” as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

January 17, 2017

Lee Muchow
Secretary
Bellflower Home Gardens Water Company
17447 Lakewood Boulevard
Bellflower, CA 90706

Dear: Lee Muchow

System No: 1910012 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Bellflower Home Gardens Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910012 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910012 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Bellflower Home Gardens Water Company
Public Water System No. *1910012*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

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3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

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c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

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   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

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5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

December 20, 2016

Len Gorecki
Director of Public Works
Bellflower Municipal Water System
16600 Civic Center Drive
Bellflower, CA 90706

Dear Len Gorecki:

System No. 1910018 - ISSUANCE OF PERMIT AMENDMENT 2016PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Bellflower Municipal Water System water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central District

Enclosure: Permit Amendment 2016PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit – 1910018 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910018 Permit No: 2016PA_SCHOOLS 20161220

ENCLOSURE

PERMIT AMENDMENT 2016PA_SCHOOLS

Bellflower Municipal Water System

Los Angeles County
System No. 1910018

December 20, 2016

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Bellflower Municipal Water System
Public Water System No. *1910018*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2016PA-SCHOOLS** EFFECTIVE DATE**: December 20, 2016**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

And WHEREAS:

1. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

2. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

3. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

4. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

5. If any school that is a customer of the water system submits a written request for assistance from the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school, to the water system, the water system is required by this permit amendment to meet with the school staff, develop a lead sampling plan, collect up to five samples from regularly used faucets at the school, submit the samples to a laboratory certified by the SWRCB's Environmental Laboratory Accreditation Program (ELAP) to analyze lead, and require the laboratory to submit the results to the SWRCB electronically and to provide a copy to the requesting school.

Within 10 business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, the water system shall resample at that sample site. If the resample shows a result less than or equal to 15 ppb, the water system shall then collect a second repeat sample within 10 business days of the first resample.

The water system shall collect at least one additional lead sample at each sample site where the school has completed some corrective action following an initial lead sample greater than 15 ppb. If the additional lead sample collected after completing some corrective action is at or below 15 ppb, the water system may discontinue lead sampling at the sample site. (Examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.) The water system is responsible for the cost of the samples, but not for any maintenance or corrective actions needed at the school.

6. The water system shall not release school lead sampling results to the public until at least 60 days after receipt of the results of the initial round of lead sampling and only after the water system has first discussed the results with the school. The water system is required to discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory. Following the 60-day period, the water system may post the school lead sampling results on their website.

   The water system shall include a statement to summarize the lead sampling at all schools served by the public water system within the annual Consumer Confidence Report to customers. The statement shall include the number of schools sampled and a link to the DDW Lead Sampling in California Schools website, which contains the results of the school lead sampling. All state regulations applicable to the content and distribution of the Consumer Confidence Report remain the same.

7. The authorized school representative may only request the lead sampling assistance outlined in this permit amendment one-time for each school. For each requested school, the water system is not obligated to continue to provide lead sampling assistance after the conditions of this permit amendment are satisfied.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Condition 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Condition 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Condition 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Condition 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Condition 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the conditions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: ***12/20/2016***

Sutida Bergquist
Central District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, or Thursday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.
8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.

9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results and prepare a corrective action plan within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.

6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3T recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3T recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3T recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in

reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

The school should prepare a Corrective Action Plan in coordination with the water system within 10 days of receiving the initial sample test results. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3T references listed in the SWRCB *Frequently Asked Questions about Lead Testing of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3T documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3T Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Recording date and time of sample; Location map for sites selected for testing; Documentation of routine, interim, and permanent actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Ken Deck
Executive Director
Bellflower - Somerset MWC
10016 Flower St.
Bellflower, CA 90706

Dear Ken Deck:

System No: 1910013 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Bellflower - Somerset MWC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910013 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910013 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Bellflower - Somerset MWC

Los Angeles County
System No. 1910013

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Bellflower - Somerset MWC
Public Water System No. *1910013*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

BELMONT WATER CORPORATION
Public Water System No. *1000004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_002**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Garry Solmonson, President
Best Road Mutual Water Company, System No. 3500823
550 Heatherwood Estates Drive
Hollister, CA. 95023

Dear Mr. Solmonson:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Best Road Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

BEST ROAD MUTUAL WATER COMPANY
(Public Water System No. *3500823*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Donald Slayton
President
Beverly Grand Mutual Water, System No. 5400651
1301 Poplar Street
Arroyo Grande, CA 93420

Dear: Donald Slayton

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Beverly Grand Mutual Water water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Beverly Grand Mutual Water
(Public Water System No. 5400651)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Trish Rhay
Assistant Director
Beverly Hills-City, Water Dept.
345 Foothill Road
Beverly Hills, CA 90210

Dear Trish Rhay:

System No. 1910156- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Beverly Hills-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Beverly Hills-City, Water Dept.
Public Water System No. *1910156*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Jim Moore, Manager
Big Basin Water Company, System No. 4410001
PO Box 197
Boulder Creek, CA. 95006

Dear Mr. Moore:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Big Basin Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

BIG BASIN WATER COMPANY
(Public Water System No. *4410001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Scott Heule, General Manager
Big Bear City CSD
System No. 3610008
139 E. Big Bear Blvd.
Big Bear City, CA 92314

Dear: Scott Heule,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Big Bear City CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Big Bear City CSD
(Public Water System No. *3610008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Reginald Lamson, General Manager
DWP - Fawnskin
System No. 3610022
P. O. Box 1929
Big Bear Lake, CA 92315

Dear: Reginald Lamson,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the DWP - Fawnskin water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

DWP - Fawnskin
(Public Water System No. *3610022*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Reginald Lamson, General Manager
DWP - Big Bear Lake/Moonridge
System No. 3610044
P. O. Box 1929
Big Bear Lake, CA 92315

Dear: Reginald Lamson,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the DWP - Big Bear Lake/Moonridge water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

DWP - Big Bear Lake/Moonridge
(Public Water System No. *3610044*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Reginald Lamson, General Manager
DWP - Sugarloaf/Erwin Lake
System No. 3610061
P. O. Box 1929
Big Bear Lake, CA 92315

Dear: Reginald Lamson,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the DWP - Sugarloaf/Erwin Lake water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

DWP - Sugarloaf/Erwin Lake
(Public Water System No. *3610061*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

BIG CREEK COMMUNITY SERV DIST
Public Water System No. *1000005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_003**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Bryanna Vaughan, Board President
Big Pine CSD
System No. 1410006
P.O. Box 639
Big Pine, CA 93513

Dear: Bryanna Vaughan,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Big Pine CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Big Pine CSD
(Public Water System No. *1410006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Marina D. West, General Manager
BDVWA - Goat Mountain Id
System No. 3610060
622 S. Jemez Trail
Yucca Valley, CA 92284

Dear: Marina D. West,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the BDVWA - Goat Mountain Id water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

BDVWA - Goat Mountain Id
(Public Water System No. *3610060*)

By The

State Water Resources Control Board

Division of Drinking Water

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THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Marina D. West, General Manager
Bighorn - Desert View Water Agency
System No. 3610009
622 S. Jemez Trail
Yucca Valley, CA 92284

Dear: Marina D. West,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Bighorn - Desert View Water Agency water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Bighorn - Desert View Water Agency
(Public Water System No. *3610009*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

BIOLA COMMUNITY SERVICES DIST
Public Water System No. *1010049*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_105**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 4910021

Felix Hernandez, Manager
Bodega Bay Public Utility District
P.O. Box 70
Bodega Bay, CA 94923

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910021

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Felix Hernandez:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Bodega Bay Public Utility District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910021

cc: Sonoma County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Bodega Bay Public Utility District
(Public Water System No. 4910021)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ.
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2110005

Jennifer Blackman, General Manager
Bolinas Community PUD
P.O. Box 390
Bolinas, CA 94924

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2110005

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Jennifer Blackman:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Bolinas Community PUD (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2110005

cc: Belle Wood, Administrative Assistant, P.O. Box 390, Bolinas, CA 94924
Marin County Environmental Health Department (email)

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   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

2110005/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Peter Lopez, General Manager
Boron Community Services District
P.O. Box 1060
Boron, CA 93516

Dear Mr. Lopez:

ISSUANCE OF PERMIT AMENDMENT: 1510002-2017PA_SCHOOLS (System No. 1510002)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Boron Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510002-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Natalie Dadey, Boron CSD (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Boron Community Services District
(Public Water System No. 1510002)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510002-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S. Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Jerry Rolwing
General Manager
Borrego Water District, System No. 3710036
PO BOX 1870
Borrego Springs, CA 92004

Dear Jerry Rolwing:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Borrego Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Borrego Water District
(Public Water System No. *3710036*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Ronald Marks
Acting Board President
Box Springs Mutual Water Company, System No. 3310004
21740 Dracaea Ave.
Moreno Valley, CA 92553

Dear Ronald Marks:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Box Springs Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Box Springs Mutual Water Company
(Public Water System No. 3310004)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

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SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 4900545

Ivan Lukrich, President
Branger Mutual Water Company, Inc.
P.O. Box 2354
Santa Rosa, CA 95405

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4900545

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Ivan Lukrich:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Branger Mutual Water Company, Inc. (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4900545

cc: Sonoma County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Branger Mutual Water Company, Inc.
(Public Water System No. 4900545)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4900545/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Rosanna Moore
Interim Public Works Director
City of Brawley, System No. 1310001
180 South Western Avenue
Brawley, CA 92227

Dear Rosanna Moore:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Brawley water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Jeff Lamoure, Deputy Director - Division of Environmental Health, Imperial County Public Health Department (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Brawley
(Public Water System No. *1310001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Renn Nolan, Manager
Bridgeport PUD
System No. 2610003
P. O. Box 473
Bridgeport, CA 93517

Dear: Renn Nolan,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Bridgeport PUD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Bridgeport PUD
(Public Water System No. *2610003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

BRITZ/COLUSA
Public Water System No. *1009023*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_070**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

BRITZ/FIVE POINT SYSTEM
Public Water System No. *1009179*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_080**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

ROSE HESS
PUBLIC WORKS DIRECTOR
BUELLTON WATER DEPARTMENT, System No. 4210018
PO Box 1819
BUELLTON, CA 93427

Dear: ROSE HESS

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the BUELLTON WATER DEPARTMENT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

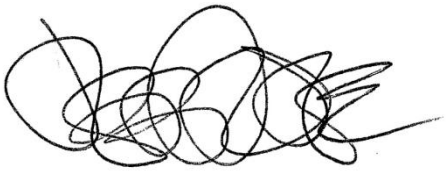

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

BUELLTON WATER DEPARTMENT
(Public Water System No. *4210018*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

337. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

338. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

339. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

340. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

341. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

342. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

343. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

344. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

379. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

380. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

381. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

382. The water system may stop lead sampling at a school if:

mmmmmmm. All initial samples are less than or equal to 15 ppb; or

nnnnnnn. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxxxv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxxxvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ooooooo. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ppppppp. If requested in writing by the school's authorized school representative.

383. The water system is responsible for the following costs:

gggg. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

hhhh. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

384. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

385. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

386. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

ccccccccc. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

ddddddddd. The date of the request;

eeeeeeeee. The date of the initial meeting;

fffffffff. The date of the sampling plan along with a copy of each sampling plan; and

ggggggggg. The date of initial lead sampling and all repeat samples.

387. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Burney Water District
(Public Water System No. 4510003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Condition 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

January 17, 2017

Jesus Campos
President
BUTTE CITY COMMUNITY S.D., System No. 1100711
P.O. Box 124
BUTTE CITY, CA 95920

Dear : Jesus Campos

ISSUANCE OF PERMIT AMENDMENT 010293P11043A3

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the BUTTE CITY COMMUNITY S.D. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

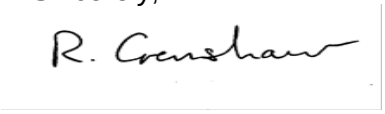

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 010293P11043A3

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

BUTTE CITY COMMUNITY S.D.
(Public Water System No. *1100711*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***010293P11043A3***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

Board of Directors
Buttonwillow County Water District, System No. 1510011
P.O. Box 274
Buttonwillow, CA 93206

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Board of Directors:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Buttonwillow County Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Buttonwillow County Water District
(Public Water System No. *1510011*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Calvin Louie
General Manager
Cabazon Water District, System No. 3310047
14618 Broadway St.
Cabazon, CA 92230

Dear Calvin Louie:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Cabazon Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Cabazon Water District
(Public Water System No. 3310047)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 20, 2017

Art Castillo
Water System Operator
CACHEVILLE SERVICE DIST, System No. 5700700
P O BOX 268
YOLO CA 95697

Dear : Mr. Castillo,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The Yolo County Environmental Health Divison, delegated by the State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Cacheville Service District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chelsea Brown
Environmental Health Specialist
Yolo County Environmental Health Division

Enclosure: 2017PA_Schools

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Cacheville Service District
(Public Water System No. 5700700)

By The

Yolo County Environmental Health Division

Delegated By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jianmin Huang, REHS
Supervising Environmental Health Specialist

Chelsea Brown, EHS
Environmental Health Specialist I

Dated: 1/17/2017

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Eric Sabolsice, Director of Operations
Cal Am Water Company - Ambler Park, System No. 2710006
PO Box 951
Monterey, CA. 93942

Dear Mr. Sabolsice:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Cal Am Water Company - Ambler Park water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAL AM WATER COMPANY - AMBLER PARK
(Public Water System No. *2710006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Eric Sabolsice, Director of Operations
Cal Am Water Company - Bishop, System No. 2701882
PO Box 951
Monterey, CA. 93942

Dear Mr. Sabolsice:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Cal Am Water Company - Bishop water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAL AM WATER COMPANY - BISHOP
(Public Water System No. *2701882*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Eric Sabolsice, Director of Operations
Cal Am Water Company - Chualar, System No. 2701202
PO Box 951
Monterey, CA. 93942

Dear Mr. Sabolsice:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Cal Am Water Company - Chualar water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAL AM WATER COMPANY - CHUALAR
(Public Water System No. *2701202*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Eric Sabolsice, Director of Operations
Cal Am Water Company - Hidden Hills, System No. 2710022
PO Box 951
Monterey, CA. 93942

Dear Mr. Sabolsice:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Cal Am Water Company - Hidden Hills water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAL AM WATER COMPANY - HIDDEN HILLS
(Public Water System No. *2710022*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Eric Sabolsice, Director of Operations
Cal Am Water Company - Monterey, System No. 2710004
PO Box 951
Monterey, CA. 93942

Dear Mr. Sabolsice:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Cal Am Water Company - Monterey water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAL AM WATER COMPANY - MONTEREY
(Public Water System No. *2710004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Eric Sabolsice, Director of Operations
Cal Am Water Company - Toro, System No. 2710021
PO Box 951
Monterey, CA. 93942

Dear Mr. Sabolsice:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Cal Am Water Company - Toro water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAL AM WATER COMPANY - TORO
(Public Water System No. *2710021*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

RICHARD SALDIVAR
OPERATIONS MANAGER
CAL AMERICAN WATER CO, System No. 5610040
2439 West Hillcrest Drive
NEWBURY PARK, CA 91320

Dear: RICHARD SALDIVAR

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CAL AMERICAN WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

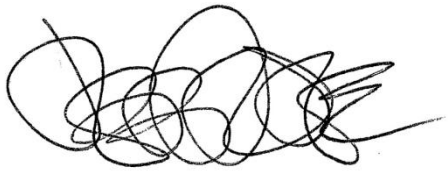

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAL AMERICAN WATER CO
(Public Water System No. *5610040*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

777. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

778. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

779. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

780. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

781. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

782. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

783. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

784. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

874. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

875. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

876. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

877. The water system may stop lead sampling at a school if:

yyyyyyyyyyyyyy. All initial samples are less than or equal to 15 ppb; or

zzzzzzzzzzzzzzz. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxcv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxcvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

aaaaaaaaaaaaaaaa. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

bbbbbbbbbbbbbbbb. If requested in writing by the school's authorized school representative.

878. The water system is responsible for the following costs:

mmmmmmmm. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

nnnnnnnn. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

879. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

880. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

881. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

rrrrrrrrrrrrrrrrrr. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

ssssssssssssssssss. The date of the request;

tttttttttttttttttt. The date of the initial meeting;

uuuuuuuuuuuuuuuuuu. The date of the sampling plan along with a copy of each sampling plan; and

vvvvvvvvvvvvvvvvvv. The date of initial lead sampling and all repeat samples.

882. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

RICHARD SALDIVAR
OPERATIONS MANAGER
CAL AMERICAN WC - LAS POSAS ESTATES, System No. 5610081
2439 West Hillcrest Drive
NEWBURY PARK, CA 91320

Dear: RICHARD SALDIVAR

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CAL AMERICAN WC - LAS POSAS ESTATES water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

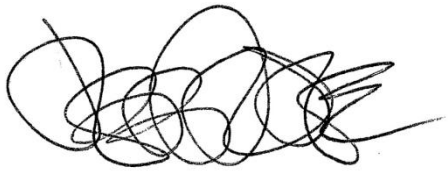

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAL AMERICAN WC - LAS POSAS ESTATES
(Public Water System No. *5610081*)

By The

State Water Resources Control Board

Division of Drinking Water

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Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

872. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

973. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

974. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

975. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

976. The water system may stop lead sampling at a school if:

qqqqqqqqqqqqqqqqq. All initial samples are less than or equal to 15 ppb; or

rrrrrrrrrrrrrrrrr. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

ccxvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ccxviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ssssssssssssssssss. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

tttttttttttttttttt. If requested in writing by the school's authorized school representative.

977. The water system is responsible for the following costs:

iiiiiiiii. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

jjjjjjjjj. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

978. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

979. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

980. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

uuuuuuuuuuuuuuuuuuuuu. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

vvvvvvvvvvvvvvvvvvvv. The date of the request;

wwwwwwwwwwwwwwwwwwwwww. The date of the initial meeting;

xxxxxxxxxxxxxxxxxxxxx. The date of the sampling plan along with a copy of each sampling plan; and

yyyyyyyyyyyyyyyyyyyyy. The date of initial lead sampling and all repeat samples.

981. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAL FIRE-MIRAMONTE CONSERVATION CAMP
Public Water System No. *1010800*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_112**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Sophie James, Director of Water Quality
CWSC King City, System No. 2710009
1720 North First Street
San Jose, CA. 95112

Dear Ms. James:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CWSC King City water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CWSC KING CITY
(Public Water System No. *2710009*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Sophie James, Director of Water Quality
CWSC Las Lomas, System No. 2710013
1720 North First Street
San Jose, CA. 95112

Dear Ms. James:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CWSC Las Lomas water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CWSC LAS LOMAS
(Public Water System No. *2710013*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Sophie James, Director of Water Quality
CWSC Oak Hills, System No. 2710019
1720 North First Street
San Jose, CA. 95112

Dear Ms. James:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CWSC Oak Hills water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

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Please visit the Division's school lead sampling webpage at:

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for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CWSC OAK HILLS
(Public Water System No. *2710019*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

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3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Sophie James, Director of Water Quality
CWSC Salinas Hills, System No. 2710012
1720 North First Street
San Jose, CA. 95112

Dear Ms. James:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CWSC Salinas Hills water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CWSC SALINAS HILLS
(Public Water System No. *2710012*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Sophie James, Director of Water Quality
CWSC Salinas, System No. 2710010
1720 North First Street
San Jose, CA. 95112

Dear Ms. James:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CWSC Salinas water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CWSC SALINAS
(Public Water System No. *2710010*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Sophie James
Director of Water Quality
California Water Service Company – Stockton, System No. 3910001
1720 North 1st St.
San Jose, CA 95112

Dear Ms. James,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California Water Service Company – Stockton water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California Water Service Company – Stockton
(Public Water System No. 3910001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Chris Mattis
Operations Manager
California American Water - Coronado, System No. 3710001
1025 Palm Avenue
Imperial Beach, CA 91932

Dear Chris Mattis:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California American Water - Coronado water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California American Water - Coronado
(Public Water System No. *3710001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 4910023

Margaret Digenova, Oper Superintendent
California-American Larkfield (PUC)
4787 Old Redwood Highway
Santa Rosa, CA 95403

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910023

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Margaret Digenova:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the California-American Larkfield (PUC) (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910023

cc: Audie Foster, General Manager, 4701 Beloit Drive, Sacramento, CA 95838
Sonoma County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California-American Larkfield (PUC)
(Public Water System No. 4910023)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910023/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Garry Hofer
Director Of Operations
Cal/Am Water Company - Baldwin Hills
8657 Grand Avenue
Rosemead, CA 91770

Dear Garry Hofer:

System No: 1910052 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Cal/Am Water Company - Baldwin Hills water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910052 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910052 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Cal/Am Water Company - Baldwin Hills

Los Angeles County
System No. 1910052

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Cal/Am Water Company - Baldwin Hills
Public Water System No. *1910052*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Garry Hofer
Director Of Operations
Cal-Am Water Company - Duarte
8657 Grand Avenue
Rosemead, CA 91770

Dear Garry Hofer:

System No: 1910186 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Cal-Am Water Company - Duarte water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910186 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910186 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Cal-Am Water Company - Duarte

Los Angeles County
System No. 1910186

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Cal-Am Water Company - Duarte
Public Water System No. *1910186*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Garry Hofer
Director Of Operations
Cal/Am Water Company - San Marino
8657 Grand Avenue
Rosemead, CA 91770

Dear Garry Hofer:

System No: 1910139 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Cal/Am Water Company - San Marino water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910139 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910139 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Cal/Am Water Company - San Marino

Los Angeles County
System No. 1910139

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Cal/Am Water Company - San Marino
Public Water System No. *1910139*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Jesse Hampton
Plant Operations Manager
CCWD – Copper Cove, System No. 0510017
P.O. Box 846
San Andreas, CA 95249

Dear : Mr. Hampton

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CCWD – Copper Cove water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Calaveras County Water District – Copper Cove
(Public Water System No. 0510017)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples
for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Jesse Hampton
Plant Operations Manager
CCWD – Ebbetts Pass, System No. 0510016
P.O. Box 846
San Andreas, CA 95249

Dear : Mr. Hampton

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CCWD – Ebbetts Pass water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

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If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

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STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Calaveras County Water District – Ebbetts Pass
(Public Water System No. 0510016)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Jesse Hampton
Plant Operations Manager
CCWD – Jenny Lind, System No. 0510006
P.O. Box 846
San Andreas, CA 95249

Dear : Mr. Hampton

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CCWD – Jenny Lind water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Calaveras County Water District – Jenny Lind
(Public Water System No. 0510006)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Jesse Hampton
Plant Operations Manager
CCWD – West Point, System No. 0510005
P.O. Box 846
San Andreas, CA 95249

Dear : Mr. Hampton

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CCWD – West Point water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Calaveras County Water District – West Point
(Public Water System No. 0510005)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Donna Leatherman
District Manager
Calaveras Public Utility District, System No. 0510002
P.O. Box 666
San Andreas, CA 95249

Dear: Ms. Leatherman,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Calaveras Public Utility District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Calaveras Public Utility District
(Public Water System No. 0510002)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Nick Finley
Acting City Manager
City of Calexico, System No. 1310002
608 Heber Avenue
Calexico, CA 92231

Dear Nick Finley:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Calexico water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Jeff Lamoure, Deputy Director - Division of Environmental Health, Imperial County Public Health Department (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Calexico
(Public Water System No. *1310002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Mark R. Miller
Director Facilities
Calif State Polytechnical Univ - Pomona
3801 West Temple Avenue Facilities Management
Pomona, CA 91768

Dear Mark R. Miller:

System No. 1910022- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Calif State Polytechnical Univ - Pomona water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

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for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Calif State Polytechnical Univ - Pomona
Public Water System No. *1910022*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ms. Sophie James
California Water Service - Bear Gulch, System No. 4110006
1720 North First Street
San Jose, CA 95112

Dear Ms. James:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California Water Service - Bear Gulch water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California Water Service - Bear Gulch
(Public Water System No. *4110006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Sophie James
Director Of WQ
California Water Service Co. - Dominguez
1720 North First Street
San Jose, CA 95112

Dear Sophie James:

System No. 1910033- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California Water Service Co. - Dominguez water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California Water Service Co. - Dominguez
Public Water System No. *1910033*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Sophie James
Director Of WQ
California Water Service Co. - ELA
1720 North First Street
San Jose, CA 95112

Dear Sophie James:

System No. 1910036- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California Water Service Co. - ELA water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California Water Service Co. - ELA
Public Water System No. *1910036*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Sophie James
Director Of WQ
California Water Service Co. - Herm/Redo
1720 North First Street
San Jose, CA 95112

Dear Sophie James:

System No. 1910134- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California Water Service Co. - Herm/Redo water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California Water Service Co. - Herm/Redo
Public Water System No. *1910134*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Sophie James
Director Of WQ
California Water Service Co. - Palos Verdes
1720 North First Street
San Jose, CA 95112

Dear Sophie James:

System No. 1910104- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California Water Service Co. - Palos Verdes water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California Water Service Co. - Palos Verdes
Public Water System No. *1910104*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Sophie James
Director Of WQ
California Water Service Co-Leona Valley
1720 North First Street
San Jose, CA 95112

Dear Sophie James:

System No. 1910243- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California Water Service Co-Leona Valley water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California Water Service Co-Leona Valley
Public Water System No. *1910243*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

SOPHIE JAMES
DIRECTOR OF WQ
CALIFORNIA WATER SERVICE CO - WESTLAKE, System No. 5610016
1720 NORTH FIRST STREET
SAN JOSE, CA 95112

Dear: SOPHIE JAMES

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CALIFORNIA WATER SERVICE CO - WESTLAKE water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

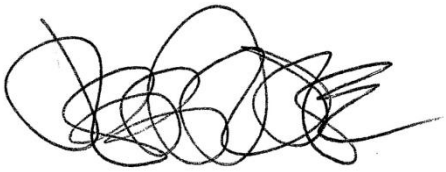

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CALIFORNIA WATER SERVICE CO - WESTLAKE
(Public Water System No. *5610016*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

681. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

682. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

683. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

684. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

685. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

686. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

687. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

688. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

766. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

767. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

768. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

769. The water system may stop lead sampling at a school if:

cccccccccccccc. All initial samples are less than or equal to 15 ppb; or

ddddddddddddd. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clxxi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clxxii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

eeeeeeeeeeeeee. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

fffffffffffff. If requested in writing by the school's authorized school representative.

770. The water system is responsible for the following costs:

ooooooo. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

pppppppp. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

771. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

772. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

773. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

jjjjjjjjjjjjjjj. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

kkkkkkkkkkkkkkkkk. The date of the request;

lllllllllllllllll. The date of the initial meeting;

mmmmmmmmmmmmmmmmm. The date of the sampling plan along with a copy of each sampling plan; and

nnnnnnnnnnnnnnnnn. The date of initial lead sampling and all repeat samples.

774. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

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SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ms. Sophie James
California Water Service - Los Altos Suburban, System No. 4310001
1720 North First Street
San Jose, CA 95112

Dear Ms. James:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California Water Service - Los Altos Suburban water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California Water Service - Los Altos Suburban
(Public Water System No. *4310001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet; check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

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SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ms. Sophie James
California Water Service - San Carlos, System No. 4110007
1720 North First Street
San Jose, CA 95112

Dear Ms. James:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California Water Service - San Carlos water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ms. Sophie James
California Water Service - San Mateo, System No. 4110008
1720 North First Street
San Jose, CA 95112

Dear Ms. James:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California Water Service - San Mateo water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California Water Service - San Mateo
(Public Water System No. *4110008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ms. Sophie James
California Water Service - South San Francisco, System No. 4110009
1720 North First Street
San Jose, CA 95112

Dear Ms. James:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California Water Service - South San Francisco water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California Water Service - South San Francisco
(Public Water System No. *4110009*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 19, 2017 PWS No. 3410031

Audie Foster
General Manager
California-American Water Company – Antelope, System No. 3410031
4701 Beloit Drive
Sacramento, CA 95838

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410031

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California-American Water Company - Antelope public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410031

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California-American Water Company - Antelope
Public Water System
(Public Water System No. 3410031)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410031**
EFFECTIVE DATE**: January 19, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 19, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 19, 2017 PWS No. 3410045

Audie Foster
General Manager
California-American Water Company – Arden, System No. 3410045
4701 Beloit Drive
Sacramento, CA 95838

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410045

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California-American Water Company - Arden public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410045

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California-American Water Company - Arden
Public Water System
(Public Water System No. 3410045)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410045**
EFFECTIVE DATE**: January 19, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 19, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 19, 2017 PWS No. 3410012

Audie Foster
General Manager
California-American Water Company – Isleton, System No. 3410012
4701 Beloit Drive
Sacramento, CA 95838

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410012

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California-American Water Company - Isleton public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410012

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California-American Water Company - Isleton
Public Water System
(Public Water System No. 3410012)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410012**
EFFECTIVE DATE**: January 19, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 19, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 19, 2017 PWS No. 3410013

Audie Foster
General Manager
California-American Water Company – Lincoln Oaks, System No. 3410013
4701 Beloit Drive
Sacramento, CA 95838

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410013

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

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If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410013

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California-American Water Company – Lincoln Oaks
Public Water System
(Public Water System No. 3410013)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410013**
EFFECTIVE DATE**: January 19, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 19, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 19, 2017 PWS No. 3410017

Audie Foster
General Manager
California-American Water Company – Parkway, System No. 3410017
4701 Beloit Drive
Sacramento, CA 95838

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410017

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California-American Water Company - Parkway public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410017

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

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THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 19, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. 3410010

Audie Foster
General Manager
California-American Water Company – Suburban, System No. 3410010
4701 Beloit Drive
Sacramento, CA 95838

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410010

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California-American Water Company – Suburban public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410010

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California-American Water Company - Rosemont
Public Water System
(Public Water System No. 3410010)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410010**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017 PWS No. 3110150

Audie Foster
General Manager
California American Water Company – West Placer, System No. 3110150
4701 Beloit Drive
Sacramento, CA 95838

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3110150

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California American Water Company – West Placer public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3110150

cc: Placer County Environmental Health (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California American Water Company – West Placer
Public Water System
(Public Water System No. 3110150)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3110150**
EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 18, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

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SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 1710013

John Hamner, General Manager
Callayomi County Water District
P.O. Box 623
Middletown, CA 95461

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_1710013

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear John Hamner:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Callayomi County Water District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_1710013

cc: Lake County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Callayomi County Water District
(Public Water System No. 1710013)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

1710013/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
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This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

SUSAN MULLIGAN
GENERAL MANAGER
CALLEGUAS MUNICIPAL WATER DIST, System No. 5610050
2100 OLSEN ROAD
THOUSAND OAKS, CA 91360

Dear: SUSAN MULLIGAN

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CALLEGUAS MUNICIPAL WATER DIST water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

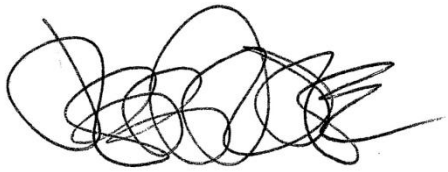

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CALLEGUAS MUNICIPAL WATER DIST
(Public Water System No. *5610050*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

801. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

802. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

803. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

804. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

805. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

806. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

807. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

808. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

901. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

902. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

903. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

904. The water system may stop lead sampling at a school if:

kkkkkkkkkkkkkkkk. All initial samples are less than or equal to 15 ppb; or

llllllllllllllll. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cci. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ccii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

mmmmmmmmmmmmmmmm. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

nnnnnnnnnnnnnnnn. If requested in writing by the school's authorized school representative.

905. The water system is responsible for the following costs:

sssssssss. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ttttttttt. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

906. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

907. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

908. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

gggggggggggggggggggg. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

hhhhhhhhhhhhhhhhhhhh. The date of the request;

iiiiiiiiiiiiiiiiiii. The date of the initial meeting;

jjjjjjjjjjjjjjjjjj. The date of the sampling plan along with a copy of each sampling plan; and

kkkkkkkkkkkkkkkkkkkkk. The date of initial lead sampling and all repeat samples.

909. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Sophie James
Director of WQ
CAL-WATER SERVICE CO.-CHICO, System No. 410002
1720 NORTH FIRST STREET
SAN JOSE, CA 95112

Dear : Sophie James

ISSUANCE OF PERMIT AMENDMENT 66-5A21

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CAL-WATER SERVICE CO.-CHICO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

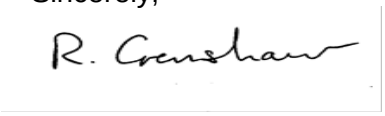

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 66-5A21

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAL-WATER SERVICE CO.-CHICO
(Public Water System No. *410002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***66-5A21***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

Sophie James
Director of WQ
CAL-WATER SERVICE CO.-HAMILTON CITY, System No. 1110002
1720 NORTH FIRST STREET
SAN JOSE, CA 95112

Dear : Sophie James

ISSUANCE OF PERMIT AMENDMENT 77-039A2

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CAL-WATER SERVICE CO.-HAMILTON CITY water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

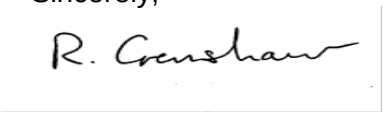

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 77-039A2

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAL-WATER SERVICE CO.-HAMILTON CITY
(Public Water System No. *1110002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***77-039A2***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

Sophie James
Director of WQ
CAL-WATER SERVICE CO.-MARYSVILLE, System No. 5810001
1720 NORTH FIRST STREET
SAN JOSE, CA 95112

Dear : Sophie James

ISSUANCE OF PERMIT AMENDMENT 67-31A10

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CAL-WATER SERVICE CO.-MARYSVILLE water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

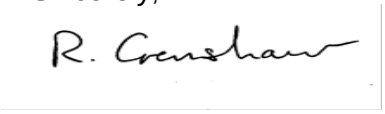

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 67-31A10

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAL-WATER SERVICE CO.-MARYSVILLE
(Public Water System No. *5810001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***67-31A10***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

Sophie James
Director of WQ
CAL-WATER SERVICE CO.-OROVILLE, System No. 410005
1720 NORTH FIRST STREET
SAN JOSE, CA 95112

Dear : Sophie James

ISSUANCE OF PERMIT AMENDMENT 75-012A2

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CAL-WATER SERVICE CO.-OROVILLE water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

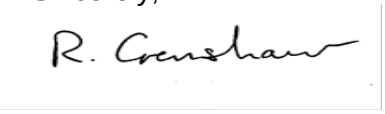

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 75-012A2

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAL-WATER SERVICE CO.-OROVILLE
(Public Water System No. *410005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***75-012A2***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

Sophie James
Director of WQ
CAL-WATER SERVICE CO.-WILLOWS, System No. 1110003
1720 NORTH FIRST STREET
SAN JOSE, CA 95112

Dear : Sophie James

ISSUANCE OF PERMIT AMENDMENT 65-137A5

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CAL-WATER SERVICE CO.-WILLOWS water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

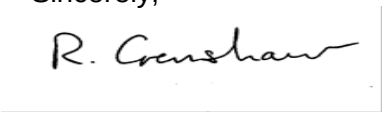

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 65-137A5

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAL-WATER SERVICE CO.-WILLOWS
(Public Water System No. *1110003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***65-137A5***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

RICK DIERKSEN
WATER SUPERINTENDENT
CAMARILLO WATER DEPT, System No. 5610019
601 CARMEN DRIVE
CAMARILLO, CA 93010

Dear: RICK DIERKSEN

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CAMARILLO WATER DEPT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

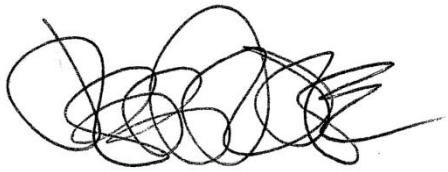

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAMARILLO WATER DEPT
(Public Water System No. *5610019*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

705. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

706. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

707. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

708. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

709. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

710. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

711. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

712. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

793. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

794. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

795. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

796. The water system may stop lead sampling at a school if:

oooooooooooooo. All initial samples are less than or equal to 15 ppb; or

pppppppppppppp. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clxxvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clxxviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

qqqqqqqqqqqqqq. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

rrrrrrrrrrrrrr. If requested in writing by the school's authorized school representative.

797. The water system is responsible for the following costs:

uuuuuuu. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

vvvvvvv. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

798. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

799. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

800. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

yyyyyyyyyyyyyyyyy. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

zzzzzzzzzzzzzzzzz. The date of the request;

aaaaaaaaaaaaaaaaa. The date of the initial meeting;

bbbbbbbbbbbbbbbbb. The date of the sampling plan along with a copy of each sampling plan; and

ccccccccccccccccc. The date of initial lead sampling and all repeat samples.

801. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

JERRY GRUBER
GENERAL MANAGER
CAMBRIA COMM SERVICES DIST, System No. 4010014
P.O. Box 65
CAMBRIA, CA 93428

Dear: JERRY GRUBER

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CAMBRIA COMM SERVICES DIST water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

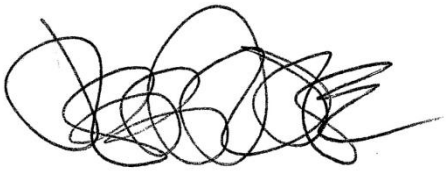

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAMBRIA COMM SERVICES DIST
(Public Water System No. *4010014*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

121. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

122. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

123. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

124. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

125. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

126. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

127. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

128. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

136. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

137. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

138. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

139. The water system may stop lead sampling at a school if:

iii. All initial samples are less than or equal to 15 ppb; or

jjj. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxxi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxxii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

kkk. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

lll. If requested in writing by the school's authorized school representative.

140. The water system is responsible for the following costs:

ee. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ff. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

141. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

142. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

143. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

xxx. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

yyy. The date of the request;

zzz. The date of the initial meeting;

aaaa. The date of the sampling plan along with a copy of each sampling plan; and

bbbb. The date of initial lead sampling and all repeat samples.

144. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAMDEN TRAILER PARK
Public Water System No. *1000238*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_032**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/17/17

Betsy S. Licuti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 18, 2017

Ms. Erika Marx
Drinking Water Section Head
Camp Pendleton (North), System No. 3710700
MCIWEST-Marine Corps Base (Bldg. 22165) Box 555008
Camp Pendleton, CA 92055

Dear Ms. Marx:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Camp Pendleton (North) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Camp Pendleton (North)
(Public Water System No. 3710700)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Ms. Erika Marx
Drinking Water Section Head
Camp Pendleton (South), System No. 3710702
MCIWEST-Marine Corps Base (Bldg. 22165) Box 555008
Camp Pendleton, CA 92055

Dear Ms. Marx:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Camp Pendleton (South) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Camp Pendleton (South)
(Public Water System No. 3710702)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Daniel Brogadir
Manager
Campo Hills Water System, System No. 3710047
5500 Overland Ave., Suite 315
San Diego, CA 92123

Dear Daniel Brogadir:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Campo Hills Water System water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Campo Hills Water System
(Public Water System No. *3710047*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAMPTONVILLE COMMUNITY SERVICE DISTRICT
(Public Water System No. 5800924)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017-01-5800924** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 19, 2017

Clark Allen Pickell, REHS
Yuba County Environmental Health Dept.
Director Environmental Health

January 17, 2017

TONY STAFFORD
GENERAL MANAGER
CAMROSA WATER DISTRICT, System No. 5610063
7385 SANTA ROSA ROAD
CAMARILLO, CA 93012

Dear: TONY STAFFORD

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CAMROSA WATER DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

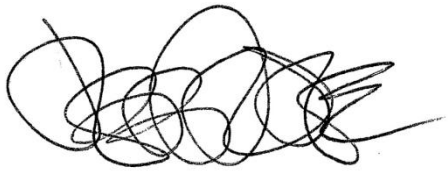

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CAMROSA WATER DISTRICT
(Public Water System No. *5610063*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

833. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

834. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

835. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

836. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

837. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

838. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

839. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

840. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

937. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

938. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

939. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

940. The water system may stop lead sampling at a school if:

aaaaaaaaaaaaaaaaa. All initial samples are less than or equal to 15 ppb; or

bbbbbbbbbbbbbbbbb. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

ccix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ccx. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

cccccccccccccccccc. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

dddddddddddddddddd. If requested in writing by the school's authorized school representative.

941. The water system is responsible for the following costs:

aaaaaaaaa. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

bbbbbbbbb. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

942. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

943. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

944. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

aaaaaaaaaaaaaaaaaaaa. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

bbbbbbbbbbbbbbbbbbbb. The date of the request;

cccccccccccccccccccc. The date of the initial meeting;

ddddddddddddddddddddd. The date of the sampling plan along with a copy of each sampling plan; and

eeeeeeeeeeeeeeeeeeee. The date of initial lead sampling and all repeat samples.

945. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Michael Waxer, Vice President
Canada Woods WC, System No. 2702588
PO BOX 450
Carmel, CA. 93921

Dear Mr. Waxer:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Canada Woods WC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CANADA WOODS WATER COMPANY
(Public Water System No. *2702588*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CANTUA CREEK VINEYARDS, IV, LLC.
Public Water System No. *1009051*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_074**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/07

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 18, 2017

Wendy Chambers
General Manager
Carlsbad Municipal Water District, System No. 3710005
5950 El Camino Real
Carlsbad, CA 92008

Dear Wendy Chambers:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Carlsbad Municipal Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Carlsbad Municipal Water District
(Public Water System No. *3710005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017 PWS No. 3410004

Steve Nugent
General Manager
Carmichael Water District, System No. 3410004
7837 Fair Oaks Blvd.
Carmichael, CA 95608

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410004

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Carmichael Water District public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410004

cc: Sacramento County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Carmichael Water District
Public Water System
(Public Water System No. 3410004)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410004**
EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 18, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

ROBERT MCDONALD
GENERAL MANAGER
CARPINTERIA VALLEY WATER DISTRICT, System No. 4210001
1301 Santa Ynez Avenue
CARPINTERIA, CA 93013

Dear: ROBERT MCDONALD

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CARPINTERIA VALLEY WATER DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

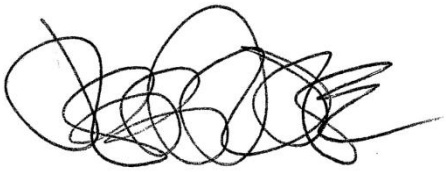

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CARPINTERIA VALLEY WATER DISTRICT
(Public Water System No. *4210001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

233. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

234. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

235. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

236. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

237. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

238. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

239. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

240. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

262. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

263. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

264. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

265. The water system may stop lead sampling at a school if:

mmmmm. All initial samples are less than or equal to 15 ppb; or

nnnnn. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lx. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ooooo. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ppppp. If requested in writing by the school's authorized school representative.

266. The water system is responsible for the following costs:

ggg. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

hhh. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

267. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

268. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

269. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

pppppp. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

qqqqqq. The date of the request;

rrrrrr. The date of the initial meeting;

ssssss. The date of the sampling plan along with a copy of each sampling plan; and

tttttt. The date of initial lead sampling and all repeat samples.

270. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CARUTHERS COMM SERV DIST
Public Water System No. *1010039*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_103**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

Board of Directors
Casa Loma Water Co, Inc., System No. 1510004
1016 Lomita Drive
Bakersfield, CA 93307

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Board of Directors:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Casa Loma Water Co, Inc. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Casa Loma Water Co, Inc.
(Public Water System No. *1510004*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

STEVE WICKSTRUM
GENERAL MANAGER
CASITAS MUNICIPAL WATER DIST, System No. 5610024
1055 VENTURA AVENUE
OAKVIEW, CA 93022

Dear: STEVE WICKSTRUM

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CASITAS MUNICIPAL WATER DIST water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

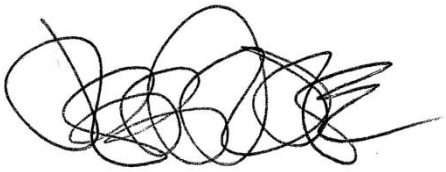

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CASITAS MUNICIPAL WATER DIST
(Public Water System No. *5610024*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

745. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

746. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

747. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

748. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

749. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

750. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

751. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

752. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

838. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

839. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

840. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

841. The water system may stop lead sampling at a school if:

iiiiiiiiiiiiiii. All initial samples are less than or equal to 15 ppb; or

jjjjjjjjjjjjjjj. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clxxxvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clxxxviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

kkkkkkkkkkkkkkkk. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

llllllllllllllll. If requested in writing by the school's authorized school representative.

842. The water system is responsible for the following costs:

eeeeeeee. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ffffffff. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

843. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

844. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

845. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

xxxxxxxxxxxxxxxxxx. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

yyyyyyyyyyyyyyyyy. The date of the request;

zzzzzzzzzzzzzzzzzz. The date of the initial meeting;

aaaaaaaaaaaaaaaaaa. The date of the sampling plan along with a copy of each sampling plan; and

bbbbbbbbbbbbbbbbbb. The date of initial lead sampling and all repeat samples.

846. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAVE BURCH
PRESIDENT
CASITAS MUTUAL WATER COMPANY, System No. 5601104
PO Box 415
OAK VIEW, CA 93022

Dear: DAVE BURCH

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CASITAS MUTUAL WATER COMPANY water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

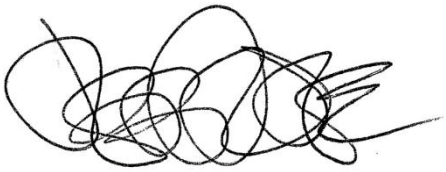

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CASITAS MUTUAL WATER COMPANY
(Public Water System No. *5601104*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

393. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

394. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

395. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

396. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

397. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

398. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

399. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

400. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

442. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

443. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

444. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

445. The water system may stop lead sampling at a school if:

oooooooo. All initial samples are less than or equal to 15 ppb; or

pppppppp. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xcix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

c. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

qqqqqqqq. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

rrrrrrrr. If requested in writing by the school's authorized school representative.

446. The water system is responsible for the following costs:

uuuu. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

vvvv. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

447. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

448. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

449. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

lllllllll. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

mmmmmmmmmm. The date of the request;

nnnnnnnnnn. The date of the initial meeting;

oooooooooo. The date of the sampling plan along with a copy of each sampling plan; and

pppppppppp. The date of initial lead sampling and all repeat samples.

450. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Casmalia Community Services District
(Public Water System No. 4200870)

By

Santa Barbara County

Environmental Health Services Division

PERMIT AMENDMENT NO. **2018PA-SCHOOLS** EFFECTIVE DATE**: February 22, 2018**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website. (This permit was issued to the water system after this deadline, so this requirement must be met by March 31, 2018 instead).

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD AND THE COUNTY OF SANTA BARBARA

Dated: 2/22/2018

Deanna Talerico
Senior Environmental Health Specialist
Santa Barbara County
Environmental Health Services Division

cc: Jeff Densmore, SWRCB Division of Drinking Water

System No.: 2410700
January 17, 2017

SCOTT MALTA, MANAGER
CASTLE AIRPORT
1900 Airdrome Entry
ATWATER, CA 95301

Dear SCOTT MALTA,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CASTLE AIRPORT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Merced Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CASTLE AIRPORT
(Public Water System No.: *2410700*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

209. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

210. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

211. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

212. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

213. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

214. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

215. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

216. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

235. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

236. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

237. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

238. The water system may stop lead sampling at a school if:

aaaaa. All initial samples are less than or equal to 15 ppb; or

bbbbb. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

liii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

liv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ccccc. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ddddd. If requested in writing by the school's authorized school representative.

239. The water system is responsible for the following costs:

aaa. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

bbb. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

240. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

241. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

242. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

aaaaaa. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

bbbbbb. The date of the request;

cccccc. The date of the initial meeting;

dddddd. The date of the sampling plan along with a copy of each sampling plan; and

eeeeee. The date of initial lead sampling and all repeat samples.

243. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

417. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
418. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
419. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
420. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
421. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
422. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
423. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

424. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
425. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
426. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
427. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
428. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
429. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
430. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
431. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
432. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

183. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
184. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
185. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

186. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
187. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
188. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
189. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

131. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
132. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
133. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
134. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
135. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
83. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
84. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

85. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

183. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
184. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
185. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
186. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
187. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
188. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
189. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA0105008

Dan Martin
Utilities Superintendent
Castlewood Domestic Water System
PO Box 520
Pleasanton, CA 94566-0802

Dear Dan Martin:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Castlewood Domestic Water System water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Alameda County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Castlewood Domestic Water System
(Public Water System No. *CA0105008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Eric Tynan, General Manager
Castroville Community Services District, System No. 2710005
11499 Geil Street
Castroville, CA. 95012

Dear Mr. Tynan:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Castroville Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CASTROVILLE COMMUNITY SERVICES DISTRICT
(Public Water System No. *2710005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 4900508

Jim Berry, President
Cazadero Water Company, Inc.
P.O. Box 423 6500 Cazadero Highway
Cazadero, CA 95421

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4900508

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Jim Berry:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Cazadero Water Company, Inc. (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4900508

cc: Jana Edmondson, P.O. Box 423, Cazadero, CA 95421
Sonoma County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Cazadero Water Company, Inc.
(Public Water System No. 4900508)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4900508/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

David Mcclellan, General Manager
Cedarpines Park MWC
System No. 3610011
P.O. Box 9259
Cedarpines Park, CA 92322

Dear: David Mcclellan,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Cedarpines Park MWC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Cedarpines Park MWC
(Public Water System No. *3610011*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Centerville C.S.D.
(Public Water System No. 4510011)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

January 17, 2017

Paulette Carpenter
Secretary
Central Mutual Water Co., System No. 5400655
P.O. Box 1431
Porterville, CA 93258

Dear: Paulette Carpenter

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Central Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Central Mutual Water Co.
(Public Water System No. 5400655)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ralph Bracamonte, District Manager
Central Water District, System No. 4410018
PO Box 1869
Aptos, CA. 95001

Dear Mr. Bracamonte:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Central Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CENTRAL WATER DISTRICT
(Public Water System No. *4410018*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

JARED BOUCHARD
GENERAL MANAGER
CHANNEL ISLANDS BEACH CSD, System No. 5610039
353 SANTA MONICA DRIVE
CHANNEL ISLAND BEACH, CA 93035

Dear: JARED BOUCHARD

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CHANNEL ISLANDS BEACH CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

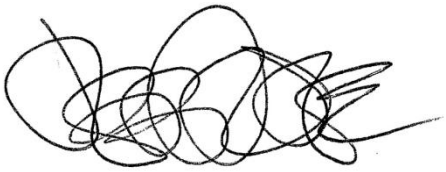

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CHANNEL ISLANDS BEACH CSD
(Public Water System No. *5610039*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

769. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

770. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

771. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

772. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

773. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

774. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

775. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

776. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

865. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

866. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

867. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

868. The water system may stop lead sampling at a school if:

uuuuuuuuuuuuuuu. All initial samples are less than or equal to 15 ppb; or

vvvvvvvvvvvvvvv. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxciii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxciv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

wwwwwwwwwwwwwwww. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

xxxxxxxxxxxxxxx. If requested in writing by the school's authorized school representative.

869. The water system is responsible for the following costs:

kkkkkkkk. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

llllllll. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

870. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

871. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

872. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

mmmmmmmmmmmmmmmmmmmm. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

nnnnnnnnnnnnnnnnnnn. The date of the request;

oooooooooooooooooooo. The date of the initial meeting;

pppppppppppppppppppp. The date of the sampling plan along with a copy of each sampling plan; and

qqqqqqqqqqqqqqqqqqq. The date of initial lead sampling and all repeat samples.

873. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

Marvin Moskowitz, R.E.H.S.
Director

TEL (760) 878-0238
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COUNTY OF INYO

DEPARTMENT OF ENVIRONMENTAL HEALTH SERVICES
P.O. BOX 427, INDEPENDENCE, CALIFORNIA 93526

February 6, 2017

Susan Sorrells
Charles Brown Water Company System No. 1400004
P O Box 67
Shoshone, CA 92384

Dear Susan Sorrells:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The Inyo County Environmental Health for the State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Charles Brown Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kathe Barton

Kathe Barton, REHS
Inyo County Environmental Health
Local Primacy Agency

Enclosure: 2017PA_Schools

cc: DDW San Bernardino District Office

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CHARLES BROWN WATER COMPANY
(Public Water System No. 1400004)

By The

Inyo County Environmental Health

For The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **February 6, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 2/6/17

Kathe Barton

Kathe Barton, REHS
Inyo County Environmental Health
Local Primacy Agency

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Chester Public U.D.
(Public Water System No. 3210009)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Condition 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Michael Bizon, Operator
China Lake Naval Air Weapons Station
429 E. Bowen Road Stop 4007, PR2325
China Lake, CA 93555-6108

Dear Mr. Bizon:

ISSUANCE OF PERMIT AMENDMENT: 1510703-2017PA_SCHOOLS (System No. 1510703)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the China Lake Naval Air Weapons Station water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510703-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

China Lake Naval Air Weapons Station
(Public Water System No. 1510703)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510703-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S. Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2010001
January 17, 2017

CRAIG LOCKE, CITY ENGINEER
CHOWCHILLA CITY WATER DEPT
130 S. Second Street
CHOWCHILLA, CA 93610

Dear CRAIG LOCKE,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CHOWCHILLA CITY WATER DEPT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Madera Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CHOWCHILLA CITY WATER DEPT
(Public Water System No.: *2010001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

9. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

10. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

11. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

12. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

13. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

14. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

15. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

16. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

10. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

11. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

12. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

13. The water system may stop lead sampling at a school if:

e. All initial samples are less than or equal to 15 ppb; or

f. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

iii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

iv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

g. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

h. If requested in writing by the school's authorized school representative.

14. The water system is responsible for the following costs:

c. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

d. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

15. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

16. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

17. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    f. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    g. The date of the request;

    h. The date of the initial meeting;

    i. The date of the sampling plan along with a copy of each sampling plan; and

    j. The date of initial lead sampling and all repeat samples.

18. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

17. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
18. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
19. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
20. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
21. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
22. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
23. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

24. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
25. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
26. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
27. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
28. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
29. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
30. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
31. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
32. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

8. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
9. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
10. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

11. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
12. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
13. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
14. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

6. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
7. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
8. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
9. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
10. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
8. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
9. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

10. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

8. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
9. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
10. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
11. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
12. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
13. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
14. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

Sean Powers
Community Development Agency Director

Amy Irani, REHS
Director of Environmental Health

COUNTY OF NEVADA
COMMUNITY DEVELOPMENT AGENCY
ENVIRONMENTAL HEALTH DEPARTMENT
950 MAIDU AVENUE, SUITE 170, NEVADA CITY, CA 95959-8617
(530) 265-1222 FAX (530) 265-9853 www.mynevadacounty.com

January 20, 2017

Jeff Farrow
Christian Encounters Ministries Water System, System No. 2900541
P.O. Box 1022
Grass Valley, CA. 95945

Dear: Mr. Farrow

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-541

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has requested the issuance of a permit amendment to the Christian Encounter Ministries water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Catrie Levenson, REHS, PHM
Environmental Health Specialist
Consumer Protection Division
Catrie.levenson@co.nevada.ca.us
530.265.1753 FAX 530.265.9853

Enclosure: 2017PA_Schools; Appendix A – Sampling Guidance

cc: State Water Resources Control Board (email)
Division of Drinking Water

Daniel Ellestad (email)
Cranmer Engineering Inc.

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Christian Encounter Ministries
for
Christian Encounter Ministries Water System
(Public Water System No.2900541)

By

Nevada County Department of Environmental Health

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-541** EFFECTIVE DATE**: January 20, 2017**

WHEREAS:

1. *The Department through, its Primacy Delegation Agreement with the State Water Resources Control Board Division of Drinking Water (SWRCB)* "may renew, reissue, revise, or amend any domestic water supply permit whenever the Department (or SWRCB) deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The Department hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR Nevada County Department of Environmental Health

Catrie Levenson, REHS, PHM
Environmental Specialist III

Dated: January 20th 2017

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017 PWS No. 3410006

Robert Churchill
General Manager
Citrus Heights Water District, System No. 3410006
6230 Sylvan Road
Citrus Heights, CA 95610

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410006

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Citrus Heights Water District public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410006

cc: Sacramento County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Citrus Heights Water District
Public Water System
(Public Water System No. 3410006)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410006**
EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 18, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2300731

Craig Cassin, Water System Operator
City Of 10,000 Buddhas
P.O. Box 217
Talmage, CA 95481

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2300731

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Craig Cassin:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the City Of 10,000 Buddhas (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2300731

cc: Mendocino County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City Of 10,000 Buddhas
(Public Water System No. 2300731)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2300731/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Wilson So, P.E.
City of Adelanto,
System No. 3610001
11600 Air Expressway
Adelanto, CA 92301

Dear: Wilson So,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Adelanto water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Adelanto
(Public Water System No. *3610001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Dennis Ahlen
Deputy Director of Utilities
City of Alhambra
111 S. First St.
Alhambra, CA 91801

Dear: Dennis Ahlen

System No: 1910001 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Alhambra water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910001 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910001 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Alhambra
Public Water System No. *1910001*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2810005

Steve Moore, Water Systems Manager
American Canyon, City Of
205 Wetlands Edge Road
American Canyon, CA 94503

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2810005

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Steve Moore:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the American Canyon, City Of (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2810005

cc: Napa County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

American Canyon, City Of
(Public Water System No. 2810005)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2810005/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Mr. Michael Moore
Asistant General Manager
City of Anaheim, System No. 3010001
201 S. Anaheim Blvd. Suite 601
Anaheim, CA 92805

Dear Mr. Moore:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Anaheim water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Anaheim
(Public Water System No. 3010001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Anderson
(Public Water System No. 4510001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

   i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

   ii. If the sample location remains in service, and

      a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

      b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Dave Myers
Public Works Director
City of Angels, System No. 0510003
P.O. Box 667
Angels Camp, CA 95222

Dear Mr. Myers,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Angels water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Angels
(Public Water System No. 0510003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA0710001

Duane Anderson
Water Treatment Superintendent
City of Antioch
Po Box 5007
Antioch, CA 94531-5007

Dear Duane Anderson:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Antioch water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Contra Costa County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Antioch
(Public Water System No. *CA0710001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Paul Cranmer
Deputy Director
City Of Arcadia
11800 Goldring Road
Arcadia, CA 91006

Dear Paul Cranmer:

System No. 1910003- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City Of Arcadia water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City Of Arcadia
Public Water System No. *1910003*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2410001
January 17, 2017

BRIAN SHAW, CHIEF OPERATOR
CITY OF ATWATER
470 Aviator Drive
ATWATER, CA 95301

Dear BRIAN SHAW,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF ATWATER water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Merced Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF ATWATER
(Public Water System No.: *2410001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

105. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

106. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

107. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

108. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

109. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

110. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

111. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

112. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

118. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

119. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

120. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

121. The water system may stop lead sampling at a school if:

aaa. All initial samples are less than or equal to 15 ppb; or

bbb. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ccc. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ddd. If requested in writing by the school's authorized school representative.

122. The water system is responsible for the following costs:

aa. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

bb. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

123. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

124. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

125. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

nnn. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

ooo. The date of the request;

ppp. The date of the initial meeting;

qqq. The date of the sampling plan along with a copy of each sampling plan; and

rrr. The date of initial lead sampling and all repeat samples.

126. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

209. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
210. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
211. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
212. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
213. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
214. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
215. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

216. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
217. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
218. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
219. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
220. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
221. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
222. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
223. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
224. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

92. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
93. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
94. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

95. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
96. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
97. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
98. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

66. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
67. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
68. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
69. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
70. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
44. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
45. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

46. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

92. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
93. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
94. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
95. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
96. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
97. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
98. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Ron Brumley, Utility Supervisor
City of Avenal, System No. 1610002
919 Skyline Boulevard
Avenal, CA 93204

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Ron Brumley:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Avenal water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Avenal
(Public Water System No. *1610002*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Art Chianello, Water Resources Manager
City of Bakersfield, System No. 1510031
1000 Buena Vista Road
Bakersfield, CA 93311

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Art Chianello:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Bakersfield water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Bakersfield
(Public Water System No. *1510031*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Perry Gerdes
Water/ Wastewater Superintendent
City of Banning, System No. 3310006
P.O. Box 998
176 E. Lincoln St.
Banning, CA 92220

Dear Perry Gerdes:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Banning water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Banning
(Public Water System No. 3310006)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jim Elliott
Division Chief Engineer
Liberty Utilities - Bell Gardens
9750 Washburn Road
Downey, CA 90241

Dear Jim Elliott:

System No: 1910108 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Liberty Utilities - Bell Gardens water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910108 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910108 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Liberty Utilities - Bell Gardens

Los Angeles County
System No. 1910108

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Liberty Utilities - Bell Gardens
Public Water System No. *1910108*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA4810001

Christian Di Renzo
Asst. Public Works Director
City of Benicia
250 East L Street
Benicia, CA 94510-3239

Dear Christian Di Renzo:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Benicia water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Solano County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Benicia
(Public Water System No. *CA4810001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Hayden Wasser
Plant Operator
CITY OF BIGGS, System No. 410001
P.O. BOX 307
BIGGS, CA 95917

Dear : Hayden Wasser

ISSUANCE OF PERMIT AMENDMENT 70-028A5

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF BIGGS water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

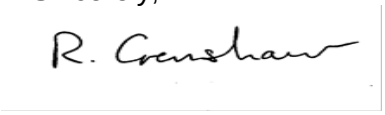

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 70-028A5

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF BIGGS
(Public Water System No. *410001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***70-028A5***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

David Grah, Public Works Director
City of Bishop
System No. 1410001
P.O. Box 1236
Bishop, CA 93515

Dear: David Grah,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Bishop water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Bishop
(Public Water System No. *1410001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Armando Baldizzone
Director of Public Works
City of Blythe, System No. 3310003
440 South Main St.
Blythe, CA 92225

Dear Armando Baldizzone:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Blythe water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Blythe
(Public Water System No. 3310003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Mr. Rudy Correa
Water Supervisor
City of Brea, System No. 3010002
One Civic Center Circle
Brea, CA 92821

Dear Mr. Correa:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Brea water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Brea
(Public Water System No. 3010002)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA0710004

Eric Brennan
Water Operations Manager
City of Brentwood
2201 Elkins Way
Brentwood, CA 94513-7344

Dear Eric Brennan:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Brentwood water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Contra Costa County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Brentwood
(Public Water System No. *CA0710004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Randy Breault
City of Brisbane, System No. 4110002
50 Park Place
Brisbane, CA 94005

Dear Mr. Breault:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Brisbane water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Brisbane
(Public Water System No. *4110002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Mr. Mike Grisso
Utilities Manager
City of Buena Park, System No. 3010003
6650 Beach Blvd. P.O. Box 5009
Buena Park, CA 90621

Dear Mr. Grisso:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Buena Park water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Buena Park
(Public Water System No. 3010003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

William Mace
Assistant GM
Burbank-City, Water Dept.
P.O. Box 631
Burbank, CA 91503

Dear William Mace:

System No: 1910179 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Burbank-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910179 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910179 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Burbank-City, Water Dept.

Los Angeles County
System No. 1910179

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Burbank-City, Water Dept.
Public Water System No. *1910179*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

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MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Rob Mallick
City of Burlingame, System No. 4110003
501 Primrose Road
Burlingame, CA 94010

Dear Mr. Mallick:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Burlingame water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Burlingame
(Public Water System No. *4110003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Craig Platt, Public Works Director
City of California City
7800 Moss Avenue
California City, CA 93505

Dear CraigPlatt:

ISSUANCE OF PERMIT AMENDMENT: 1510032-2017PA_SCHOOLS (System No. 1510032)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of California City water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510032-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Art Van Dang, City of California City (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of California City
(Public Water System No. 1510032)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510032-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2810002

Mike Kirn, PW Director
Calistoga, City Of
1232 Washington Street
Calistoga, CA 94515

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2810002

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Mike Kirn:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Calistoga, City Of (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2810002

cc: Derek Rayner, City Engineer, 414 Washington Street, Calistoga, CA 94515
Richard Spitler, City Manager, 1232 Washington Street, Calistoga, CA 94515
Napa County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Calistoga, City Of
(Public Water System No. 2810002)

By The

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   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2810002/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Jeremy Damas
Director of Public Works
City of Ceres, System No. 5010028
2220 Magnolia Street
Ceres, CA 95307

Dear Mr. Damas,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Ceres water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Ceres
(Public Water System No. 5010028)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples
for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Charles Emig
Water Superintendent
Cerritos - City, Water Dept.
18125 Bloomfield Avenue
Cerritos, CA 90703

Dear: Charles Emig

System No: 1910019 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Cerritos - City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910019 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910019 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Cerritos - City, Water Dept.
Public Water System No. *1910019*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Mark Wiley, Water/Sewer Manager
City of Chino Hills
System No. 3610036
14000 City Center Drive
Chino Hills, CA 91709

Dear: Mark Wiley,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Chino Hills water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Chino Hills
(Public Water System No. *3610036*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

David Crosley, Manager
City of Chino,
System No. 3610012
P.O. Box 667
Chino, CA 91708

Dear: David Crosley,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Chino water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Chino
(Public Water System No. *3610012*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 4910002

Paul Cayler, City Manager
Cloverdale, City Of
124 North Cloverdale Boulevard
Cloverdale, CA 95425

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910002

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Paul Cayler:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Cloverdale, City Of (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910002

cc: Sonoma County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Cloverdale, City Of
(Public Water System No. 4910002)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910002/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Lisa Koehn, Assistant Public Utility
City of Clovis, System No. 1010003
155 N. Sunnyside Avenue
Clovis, CA 93611

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Lisa Koehn:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Clovis water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Clovis
(Public Water System No. *1010003*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF COALINGA
Public Water System No. *1010004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_086**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

James Garcia, Water Utility Supervisor
City of Colton,
System No. 3610014
160 S. 10th St.
Colton, CA 92324

Dear: James Garcia,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Colton water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Colton
(Public Water System No. *3610014*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jesse Cain
Pubworks/Util. Admin
CITY OF COLUSA, System No. 610002
425 Webster St.
COLUSA, CA 95932

Dear : Jesse Cain

ISSUANCE OF PERMIT AMENDMENT 65-20A3

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF COLUSA water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

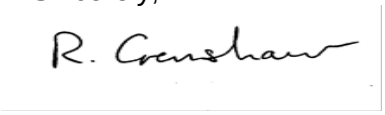

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 65-20A3

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF COLUSA
(Public Water System No. *610002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***65-20A3***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

Joe Faulkner, Public Works Director
City of Corcoran, System No. 1610004
832 Whitley
Corcoran, CA 93212

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Joe Faulkner:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Corcoran water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Corcoran
(Public Water System No. *1610004*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Dawn Grine
PW Director
CITY OF CORNING, System No. 5210001
794 Third Street
CORNING, CA 96021

Dear : Dawn Grine

ISSUANCE OF PERMIT AMENDMENT 73-045A7

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF CORNING water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

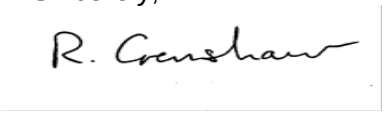

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 73-045A7

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF CORNING
(Public Water System No. *5210001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***73-045A7***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Tom Moody
Assistant General Manager
City of Corona, System No. 3310037
755 Public Safety Way
Corona, CA 92880

Dear Tom Moody:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Corona water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Corona
(Public Water System No. 3310037)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-17-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

System No. 4910016

Craig Scott, Public Works Director
Cotati, City Of
201 West Sierra Avenue
Cotati, CA 94931

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910016

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Craig Scott:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Cotati, City Of (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910016

cc: Sonoma County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Cotati, City Of
(Public Water System No. 4910016)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910016/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Siobhan Foster
Director Of Public Works
Covina-City, Water Dept.
534 N. Barranca Avenue
Covina, CA 91723

Dear Siobhan Foster:

System No: 1910127 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Covina-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

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Please visit the Division's school lead sampling webpage at:
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for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910127 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910127 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Covina-City, Water Dept.

Los Angeles County
System No. 1910127

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Covina-City, Water Dept.
Public Water System No. *1910127*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Francois Rodigari
City of Cupertino/San Jose Water Company, System No. 4310018
1221 A South Bascom Avenue
San Jose, CA 95128

Dear Mr. Rodigari:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Cupertino water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Cupertino/San Jose Water Company
(Public Water System No. *4310018*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs *"3Ts for Reducing Lead in Drinking Water in Schools"* as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet; check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Patrick Sweetland
City of Daly City, System No. 4110013
153 Lake Merced Blvd
Daly City, CA 94015

Dear Mr. Sweetland:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Daly City water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Daly City
(Public Water System No. *4110013*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. 5710001

Dianna Jensen
Principal Engineer
City of Davis, System No. 5710001
23 Russell Blvd.
Davis, CA 95616

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-5710001

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Davis public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-5710001

cc: Yolo County Environmental Health Services (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Davis
Public Water System
(Public Water System No. 5710001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-5710001**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

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Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Roman Dowling, Public Works Director
City of Delano, System No. 1510005
725 S. Lexington Street
Delano, CA 93215

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Roman Dowling:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Delano water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Delano
(Public Water System No. *1510005*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Blanca Beltran
Public Works Dir.
Dinuba, City of, System No. 5410002
405 E. El Monte Way
Dinuba, CA 93618

Dear: Blanca Beltran

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Dinuba, City of water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Dinuba, City of
(Public Water System No. 5410002)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA4810009

Jim Lindley
City Manager
City of Dixon
600 East A St.
Dixon, CA 95620-3697

Dear Jim Lindley:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Dixon water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Solano County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Dixon
(Public Water System No. *CA4810009*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2410002
January 17, 2017

DARRELL FONSECA, CITY MANAGER
CITY OF DOS PALOS
2174 BLOSSOM STREET
DOS PALOS, CA 93620

Dear DARRELL FONSECA,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF DOS PALOS water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Merced Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF DOS PALOS
(Public Water System No.: *2410002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

113. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

114. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

115. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

116. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

117. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

118. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

119. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

120. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

127. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

128. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

129. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

130. The water system may stop lead sampling at a school if:

eee. All initial samples are less than or equal to 15 ppb; or

fff. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxx. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ggg. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

hhh. If requested in writing by the school's authorized school representative.

131. The water system is responsible for the following costs:

cc. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

dd. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

132. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

133. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

134. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

sss. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

ttt. The date of the request;

uuu. The date of the initial meeting;

vvv. The date of the sampling plan along with a copy of each sampling plan; and

www. The date of initial lead sampling and all repeat samples.

135. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

225. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
226. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
227. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
228. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
229. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
230. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
231. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

232. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
233. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
234. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
235. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
236. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
237. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
238. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
239. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
240. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

99. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
100. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
101. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

102. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
103. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
104. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
105. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

71. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
72. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
73. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
74. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
75. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
47. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
48. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

49. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

99. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
100. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
101. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
102. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
103. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
104. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
105. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Dan Mueller
Utilities Manager
Downey - City, Water Department
11111 Brookshire Ave.
Downey, CA 90241

Dear: Dan Mueller

System No: 1910034 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Downey - City, Water Department water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910034 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910034 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Downey - City, Water Department
Public Water System No. *1910034*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Joseph Blake
City of East Palo Alto, System No. 4110024
American Water Enterprises
2415 University Avenue, 2nd Floor
East Palo Alto, CA 94303

Dear Mr. Blake:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of East Palo Alto water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

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Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of East Palo Alto
(Public Water System No. *4110024*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

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2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Richard Ruyle
Utility Manager
El Monte-City, Water Department
11333 Valley Blvd
El Monte, CA 91731

Dear: Richard Ruyle

System No: 1910038 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the El Monte-City, Water Department water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

El Monte-City, Water Department
Public Water System No. *1910038*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Stephanie Katsouleas
Director of Public Works
El Segundo-City, Water Dept.
350 Main Street
El Segundo, CA 90245

Dear Stephanie Katsouleas:

System No: 1910040 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the El Segundo-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910040 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910040 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

El Segundo-City, Water Dept.

Los Angeles County
System No. 1910040

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

El Segundo-City, Water Dept.
Public Water System No. *1910040*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated:_____1/17/2017_____

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Matt Morgan
Chief Operator
City of Escalon, System No. 3910003
2060 McHenry Avenue
Escalon, CA 95320

Dear : Mr. Morgan

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Escalon water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Escalon
(Public Water System No. 3910003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and/lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Daymon Qualls
Public Works Dir.
Exeter, City of, System No. 5410003
P.O. Box 237
Exeter, CA 93221

Dear: Daymon Qualls

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Exeter, City of water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Exeter, City of
(Public Water System No. 5410003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA4810003

Scott Leland
Water Treatment Manager
City of Fairfield
2900 Vista Grande
Fairfield, CA 94534

Dear Scott Leland:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Fairfield water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Solano County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Fairfield
(Public Water System No. *CA4810003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jeff Dowlen
Adm. Analyst
Farmersville, City of, System No. 5410004
909 West Visalia Road
Farmersville, CA 93223

Dear: Jeff Dowlen

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Farmersville, City of water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Farmersville, City of
(Public Water System No. 5410004)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF FIREBAUGH
Public Water System No. *1010005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_087**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 PWS No. 3410030

Kyle Ericson
System Manager
City of Folsom - Ashland, System No. 3410030
50 Natoma Street
Folsom, CA 95630

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410030

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Folsom - Ashland public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410030

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Folsom - Ashland
Public Water System
(Public Water System No. 3410030)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410030**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 PWS No. 3410014

Kyle Ericson
System Manager
City of Folsom - Main, System No. 3410014
50 Natoma Street
Folsom, CA 95630

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410014

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Folsom - Main public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410014

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Folsom - Main
Public Water System
(Public Water System No. 3410014)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410014**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2310001

Tom Varga, Public Works Director
Fort Bragg, City Of
416 N. Franklin Street
Fort Bragg, CA 95437

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2310001

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Tom Varga:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Fort Bragg, City Of (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2310001

cc: Heath Daniels, 416 North Franklin Street, Fort Bragg, CA 95437
Mendocino County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Fort Bragg, City Of
(Public Water System No. 2310001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2310001/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Mr. Mark Sprague
Utilities Manager
City of Fountain Valley, System No. 3010069
17300 Mt. Herrmann Street
Fountain Valley, CA 92708

Dear Mr. Sprague:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Fountain Valley water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Fountain Valley
(Public Water System No. 3010069)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF FOWLER
Public Water System No. *1010006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_088**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

System No.: 1010007
January 17, 2017

BUD TICKEL, ACTING WS MANAGER
CITY OF FRESNO
1910 EAST UNIVERSITY AVE.
FRESNO, CA 93703

Dear BUD TICKEL,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF FRESNO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Fresno Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF FRESNO
(Public Water System No.: *1010007*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Mr. Hye Jin Lee
Water System Manager
City of Fullerton, System No. 3010010
303 W. Commonwealth Avenue
Fullerton, CA 92832

Dear Mr. Lee:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Fullerton water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Fullerton
(Public Water System No. 3010010)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 19, 2017 PWS No. 3410011

Dennis Longhofer
Superintendent
City of Galt, System No. 3410011
495 Industrial Drive
Galt, CA 95632

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410011

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Galt public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410011

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Galt
Public Water System
(Public Water System No. 3410011)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410011**
EFFECTIVE DATE**: January 19, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 19, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Mr. William E Murray
Water Services Manager
City of Garden Grove, System No. 3010062
13802 Newhope St.
Garden Grove, CA 92843

Dear Mr. Murray:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Garden Grove water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Garden Grove
(Public Water System No. 3010062)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Dan Aldridge
City of Gilroy, System No. 4310004
7351 Rosanna Street
Gilroy, CA 95020

Dear Mr. Aldridge:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Gilroy water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Gilroy
(Public Water System No. *4310004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

James Saenz
Water Quality Manager
Glendale-City, Water Dept.
141 N. Glendale Ave. Level 4
Glendale, CA 91206

Dear James Saenz:

System No: 1910043 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Glendale-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910043 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910043 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Glendale-City, Water Dept.

Los Angeles County
System No. 1910043

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Glendale-City, Water Dept.
Public Water System No. *1910043*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Steve Patton
Water Division Manager
Glendora-City, Water Dept.
116 East Foothill Blvd.
Glendora, CA 91741

Dear Steve Patton:

System No: 1910044 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Glendora-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910044 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910044 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Glendora-City, Water Dept.

Los Angeles County
System No. 1910044

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Glendora-City, Water Dept.
Public Water System No. *1910044*

By The

State Water Resources Control Board

Division of Drinking Water

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   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Harold Wolgamott, Public Works Director
City of Gonzales, System No. 2710007
P.O. Box 647
Gonzales, CA. 93926

Dear Mr. Wolgamott:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Gonzales water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF GONZALES
(Public Water System No. *2710007*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. 2910001

Tim Kiser
Director of Public Works
City of Grass Valley, System No. 2910001
125 E. Main Street
Grass Valley, CA 95945

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-2910001

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Grass Valley public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-2910001

cc: Nevada County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Grass Valley
Public Water System
(Public Water System No. 2910001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-2910001**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

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SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Arturo Felix, Utilities Manager
City of Greenfield, System No. 2710008
PO Box 127
Greenfield, CA. 93927

Dear Mr. Felix:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Greenfield water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF GREENFIELD
(Public Water System No. *2710008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

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This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jerry Cox
Operator
CITY OF GRIDLEY, System No. 410004
685 KENTUCKY STREET
GRIDLEY, CA 95948

Dear : Jerry Cox

ISSUANCE OF PERMIT AMENDMENT 02-05-1965 A7

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF GRIDLEY water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

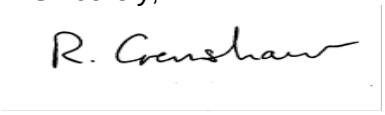

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 02-05-1965 A7

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF GRIDLEY
(Public Water System No. *410004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***02-05-1965 A7***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD
OPERATIONS BRANCH

System No.: 2410003
January 17, 2017

KATHRYN REYES, PW DIRECTOR
CITY OF GUSTINE
P.O. BOX 16
GUSTINE, CA 95322

Dear KATHRYN REYES,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF GUSTINE water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Merced Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF GUSTINE
(Public Water System No.: *2410003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

121. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

122. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

123. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

124. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

125. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

126. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

127. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

128. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

136. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

137. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

138. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

139. The water system may stop lead sampling at a school if:

iii. All initial samples are less than or equal to 15 ppb; or

jjj. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxxi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxxii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

kkk. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

lll. If requested in writing by the school's authorized school representative.

140. The water system is responsible for the following costs:

ee. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ff. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

141. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

142. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

143. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

xxx. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

yyy. The date of the request;

zzz. The date of the initial meeting;

aaaa. The date of the sampling plan along with a copy of each sampling plan; and

bbbb. The date of initial lead sampling and all repeat samples.

144. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

241. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
242. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
243. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
244. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
245. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
246. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
247. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

248. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
249. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
250. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
251. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
252. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
253. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
254. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
255. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
256. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

106. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
107. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
108. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

109. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
110. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
111. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
112. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

76. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
77. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
78. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
79. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
80. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
50. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
51. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

52. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

106. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
107. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
108. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
109. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
110. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
111. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
112. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Lou Camara, Public Works Director
City of Hanford, System No. 1610003
900 S. 10th Avenue
Hanford, CA 93230

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Lou Camara:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Hanford water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Hanford
(Public Water System No. *1610003*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA0110006

Robert Gerena
Utilities Maintenance Supervisor
City of Hayward
24499 Soto Road
Hayward, CA 94544-1430

Dear Robert Gerena:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Hayward water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Alameda County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Hayward
(Public Water System No. *CA0110006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

System No. 4910005

Terry Crowley, Utility Dept Director
Healdsburg, City Of
401 Grove Street
Healdsburg, CA 95448

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910005

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Terry Crowley:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Healdsburg, City Of (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910005

cc: Sonoma County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Healdsburg, City Of
(Public Water System No. 4910005)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910005/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Ron Proze
Water Superintendent
City of Hemet, System No. 3310016
3777 Industrial Ave.
Hemet, CA 92545

Dear Ron Proze:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Hemet water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Hemet
(Public Water System No. 3310016)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Danny Hillstock, Utility Engineer
City of Hollister, System No. 3510001
375 Fifth Street
Hollister, CA. 95023

Dear Mr. Hillstock:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Hollister water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF HOLLISTER
(Public Water System No. *3510001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Jaylen French
Public Works Director
City of Hughson, System No. 5010008
7018 Pine Street, P.O. Box 9
Hughson, CA 95326

Dear Mr. French,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Hughson water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Hughson
(Public Water System No. 5010008)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Mr. Brian Ragland
Utilities Manager
City of Huntington Beach, System No. 3010053
P.O. Box 190
Huntington Beach, CA 92648

Dear Mr. Ragland:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Huntington Beach water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Huntington Beach
(Public Water System No. 3010053)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF HURON
Public Water System No. *1010044*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_104**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/07

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

Greg Galindo
General Manager
City Of Industry Waterworks Systems
112. North First Street
La Puente, CA 91744

Dear Greg Galindo:

System No: 1910029 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City Of Industry Waterworks Systems water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910029 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910029 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

City Of Industry Waterworks Systems

Los Angeles County
System No. 1910029

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City Of Industry Waterworks Systems
Public Water System No. *1910029*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Ismael Perez
Water Treatment Plant Supervisor
Inglewood- City, Water Dept.
One W. Manchester Blvd, P.O. Box 6500 Public Works Dept. 3rd Flr
Inglewood, CA 90301

Dear Ismael Perez:

System No: 1910051 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Inglewood- City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910051 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910051 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Inglewood- City, Water Dept.

Los Angeles County
System No. 1910051

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Inglewood- City, Water Dept.
Public Water System No. *1910051*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Michael Daly, City Manager
City of Jackson, System No. 0310001
33 Broadway
Jackson, CA 95642

Dear Mr. Daly,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Jackson water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Jackson
(Public Water System No. 0310001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF KERMAN
Public Water System No. *1010018*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_091**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF KINGSBURG
Public Water System No. *1010019*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_092**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

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6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

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   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

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9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

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FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/07

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 18, 2017

Mr. Elias Saykali
Public Works Director
City of La Habra, System No. 3010018
621 W. Lambert Rd
La Habra, CA 90631

Dear Mr. Saykali:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of La Habra water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of La Habra
(Public Water System No. 3010018)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

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g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

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FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Mr. Carlo Nafarrete
Maintenance Supervisor
City of La Palma, System No. 3010100
7822 Walker Street
La Palma, CA 90623

Dear Mr. Nafarrete:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of La Palma water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of La Palma
(Public Water System No. 3010100)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Daniel Keesey
Director of Public Works
La Verne, City Wd
3660 D Street
La Verne, CA 91750

Dear Daniel Keesey:

System No: 1910062 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the La Verne, City Wd water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910062 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910062 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

La Verne, City Wd

Los Angeles County
System No. 1910062

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

La Verne, City Wd
Public Water System No. *1910062*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 1710004

Paul Harris, Utilities Superintendent
Lakeport, City Of
591 Martin Street
Lakeport, CA 95453

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_1710004

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Paul Harris:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Lakeport, City Of (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_1710004

cc: Doug Grider, PW Director, 591 Martin Street, Lakeport, CA
Lake County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lakeport, City Of
(Public Water System No. 1710004)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

1710004/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jason Wen
Director Of Water Resources
Lakewood - City, Water Dept.
5050 N. Clark Avenue
Lakewood, CA 90712

Dear Jason Wen:

System No: 1910239 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lakewood - City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910239 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910239 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Lakewood - City, Water Dept.

Los Angeles County
System No. 1910239

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lakewood - City, Water Dept.
Public Water System No. *1910239*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Stephen Salvatore
Deputy City Manager
City of Lathrop, System No. 3910015
390 Towne Centre Drive
Lathrop, CA 95330

Dear : Mr. Salvatore

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Lathrop water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Lathrop
(Public Water System No. 3910015)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Nathan Olson, Public Works Director
City of Lemoore, System No. 1610005
711 W. Cinnamon Drive
Lemoore, CA 93245

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Nathan Olson:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Lemoore water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Lemoore
(Public Water System No. *1610005*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Lincoln
(Public Water System No. 3110004)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

January 17, 2017

Mike Camarena
Dir. of City Services
Lindsay, City of, System No. 5410006
P.O. Box 369
Lindsay, CA 93247

Dear: Mike Camarena

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lindsay, City of water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lindsay, City of
(Public Water System No. 5410006)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Mr. Jim Goodwin
City Manager
CITY OF LIVE OAK, System No. 5110001
9955 Live Oak Blvd.
LIVE OAK, CA 95953

Dear : Mr. Jim Goodwin

ISSUANCE OF PERMIT AMENDMENT 010298P51001A2

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF LIVE OAK water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

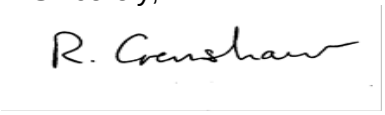

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 010298P51001A2

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF LIVE OAK
(Public Water System No. *5110001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***010298P51001A2***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017 PWS No. CA0110011

Helen Ling
Water Resources Manager
City of Livermore
101 W Jack London Blvd
Livermore, CA 94551-7632

Dear Helen Ling:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Livermore water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Alameda County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Livermore
(Public Water System No. *CA0110011*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2410004
January 17, 2017

TONY AVINA, SUPERINTENDENT
CITY OF LIVINGSTON
1416 C Street
LIVINGSTON, CA 95334

Dear TONY AVINA,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF LIVINGSTON water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Merced Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF LIVINGSTON
(Public Water System No.: *2410004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

129. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

130. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

131. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

132. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

133. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

134. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

135. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

136. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

145. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

146. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

147. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

148. The water system may stop lead sampling at a school if:

mmm. All initial samples are less than or equal to 15 ppb; or

nnn. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxxiii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxxiv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ooo. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ppp. If requested in writing by the school's authorized school representative.

149. The water system is responsible for the following costs:

gg. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

hh. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

150. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

151. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

152. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

cccc. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

dddd. The date of the request;

eeee. The date of the initial meeting;

ffff. The date of the sampling plan along with a copy of each sampling plan; and

gggg. The date of initial lead sampling and all repeat samples.

153. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

257. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
258. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
259. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
260. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
261. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
262. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
263. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

264. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
265. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
266. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
267. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
268. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
269. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
270. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
271. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
272. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

113. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
114. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
115. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

116. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
117. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
118. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
119. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

81. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
82. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
83. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
84. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
85. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
53. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
54. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

55. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

113. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
114. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
115. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
116. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
117. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
118. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
119. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Andrew Richle
Water Treatment Superintendent
City of Lodi, System No. 3910004
1331 S. Ham Lane
Lodi, CA 95242

Dear : Mr. Richle

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Lodi water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Lodi
(Public Water System No. 3910004)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples
for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Jarb Thaipjer, Public Works Director
City of Loma Linda,
System No. 3610013
25541 Barton Road
Loma Linda, CA 92354

Dear: Jarb Thaipjer,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Loma Linda water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Loma Linda
(Public Water System No. *3610013*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Mark Mcavoy
Public Works Director
Lomita-City, Water Dept.
24300 Narbonne Avenue
Lomita, CA 90717

Dear Mark Mcavoy:

System No: 1910073 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lomita-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910073 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910073 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Lomita-City, Water Dept.

Los Angeles County
System No. 1910073

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lomita-City, Water Dept.
Public Water System No. *1910073*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Christopher Garner
General Manager
Long Beach-City, Water Dept.
1800 East Wardlow Road
Long Beach, CA 90807

Dear Christopher Garner:

System No: 1910065 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Long Beach-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910065 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910065 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Long Beach-City, Water Dept.

Los Angeles County
System No. 1910065

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Long Beach-City, Water Dept.
Public Water System No. *1910065*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Albert Gastelum
Director of Water Quality
Los Angeles-City, Dept. Of Water & Power
P.O. Box 51111 Rm 1213
Los Angeles, CA 90051

Dear Albert Gastelum:

System No: 1910067 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Los Angeles-City, Dept. Of Water & Power water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910067 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910067 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Los Angeles-City, Dept. Of Water & Power

Los Angeles County
System No. 1910067

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Los Angeles-City, Dept. Of Water & Power
Public Water System No. *1910067*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated:_____1/17/2017_____

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2410005
January 17, 2017

MARK FACHIN, PUBLIC WORKS DIRECTOR
CITY OF LOS BANOS
411 MADISON AVENUE
LOS BANOS, CA 93635

Dear MARK FACHIN,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF LOS BANOS water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Merced Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF LOS BANOS
(Public Water System No.: *2410005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

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141. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

142. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

143. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

144. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

154. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

155. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

156. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

157. The water system may stop lead sampling at a school if:

qqq. All initial samples are less than or equal to 15 ppb; or

rrr. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxxv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxxvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

sss. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ttt. If requested in writing by the school's authorized school representative.

158. The water system is responsible for the following costs:

ii. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

jj. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

159. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

160. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

161. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

hhhh. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

iiii. The date of the request;

jjjj. The date of the initial meeting;

kkkk. The date of the sampling plan along with a copy of each sampling plan; and

llll. The date of initial lead sampling and all repeat samples.

162. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

273. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
274. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
275. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
276. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
277. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
278. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
279. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

280. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
281. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
282. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
283. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
284. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
285. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
286. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
287. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
288. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

120. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
121. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
122. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

123. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
124. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
125. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
126. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

86. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
87. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
88. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
89. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
90. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
56. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
57. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

58. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

120. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
121. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
122. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
123. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
124. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
125. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
126. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Loyalton
(Public Water System No. 4610001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

System No.: 2010002
January 17, 2017

DAVID RANDALL, PW DIRECTOR
CITY OF MADERA
1030 SOUTH GATEWAY DRIVE
MADERA, CA 93637

Dear DAVID RANDALL,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF MADERA water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Madera Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF MADERA
(Public Water System No.: *2010002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

17. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

18. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

19. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

20. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

21. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

22. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

23. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

24. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

19. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

20. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

21. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

22. The water system may stop lead sampling at a school if:

i. All initial samples are less than or equal to 15 ppb; or

j. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

v. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

vi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

k. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

l. If requested in writing by the school's authorized school representative.

23. The water system is responsible for the following costs:

e. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

f. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

24. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

25. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

26. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    k. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    l. The date of the request;

    m. The date of the initial meeting;

    n. The date of the sampling plan along with a copy of each sampling plan; and

    o. The date of initial lead sampling and all repeat samples.

27. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

33. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
34. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
35. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
36. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
37. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
38. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
39. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

40. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
41. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
42. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
43. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
44. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
45. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
46. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
47. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
48. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

15. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
16. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
17. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

18. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
19. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
20. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
21. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

11. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
12. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
13. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
14. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
15. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
11. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
12. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

13. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

15. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
16. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
17. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
18. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
19. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
20. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
21. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Shawn Igoe
Acting Utilities Manager
Manhattan Beach – City, Water Department
3621 Bell Avenue
Manhattan Beach, CA 90266

Dear: Shawn Igoe

System No: 1910083 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Manhattan Beach - City Water Department water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 83 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910083 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Manhattan Beach-City, Water Department
Public Water System No. *1910083*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. George Montross
Water System Superintendent
City of Manteca, System No. 3910005
1001 W Center Street
Manteca, CA 95337

Dear : Mr. Montross

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Manteca water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Manteca
(Public Water System No. 3910005)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples
for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA0710006

Thomas Campbell
Wtp Superintendent
City of Martinez
525 Henrietta Street
Martinez, CA 94553

Dear Thomas Campbell:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Martinez water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Contra Costa County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Martinez
(Public Water System No. *CA0710006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Mario Gonzales, Public Works Director
City of McFarland, System No. 1510013
401 West Kern Avenue
McFarland, CA 93250

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Mario Gonzales:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of McFarland water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of McFarland
(Public Water System No. *1510013*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF MENDOTA
Public Water System No. *1010021*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_094**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ms. Pam Lowe
City of Menlo Park, System No. 4110017
701 Laurel Street
Menlo Park, CA 94025

Dear Ms. Lowe:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Menlo Park water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Menlo Park
(Public Water System No. *4110017*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2410009
January 17, 2017

KEN ELWIN, PW DIRECTOR
CITY OF MERCED
1776 Grogan Avenue
MERCED, CA 95341

Dear KEN ELWIN,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF MERCED water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Merced Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF MERCED
(Public Water System No.: *2410009*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

169. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

170. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

171. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

172. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

173. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

174. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

175. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

176. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

190. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

191. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

192. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

193. The water system may stop lead sampling at a school if:

gggg. All initial samples are less than or equal to 15 ppb; or

hhhh. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xliii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xliv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

iiii. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

jjjj. If requested in writing by the school's authorized school representative.

194. The water system is responsible for the following costs:

qq. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

rr. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

195. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

196. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

197. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

bbbbb. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

ccccc. The date of the request;

ddddd. The date of the initial meeting;

eeeee. The date of the sampling plan along with a copy of each sampling plan; and

fffff. The date of initial lead sampling and all repeat samples.

198. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

337. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
338. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
339. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
340. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
341. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
342. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
343. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

344. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
345. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
346. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
347. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
348. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
349. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
350. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
351. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
352. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

148. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
149. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
150. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

151. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
152. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
153. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
154. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

106. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
107. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
108. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
109. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
110. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
68. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
69. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

70. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

148. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
149. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
150. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
151. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
152. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
153. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
154. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Craig Centis
City of Millbrae, System No. 4110018
621 Magnolia Avenue
Millbrae, CA 94030

Dear Mr. Centis:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Millbrae water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Millbrae
(Public Water System No. *4110018*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet; check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ms. Nina Hawk
City of Milpitas, System No. 4310005
1265 N. Milpitas Boulevard
Milpitas, CA 95035

Dear Ms. Hawk:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Milpitas water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Milpitas
(Public Water System No. *4310005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

David Savidge
Water Systems Manager
City of Modesto, System No. 5010010
P.O. Box 642
Modesto, CA 95353

Dear Mr. Savidge,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Modesto water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Modesto
(Public Water System No. 5010010)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples
for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

David Savidge
Water Systems Manager
City of Modesto - Salida, System No. 5010005
P.O. Box 642
Modesto, CA 95353

Dear Mr. Savidge,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Modesto - Salida water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Modesto – Salida
(Public Water System No. 5010005)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

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THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples
for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Frank Heldman
Water Utility Manager
Monterey Park-City, Water Dept.
320 Newmark Avenue
Monterey Park, CA 91754

Dear Frank Heldman:

System No: 1910092 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Monterey Park-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910092 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910092 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Monterey Park-City, Water Dept.

Los Angeles County
System No. 1910092

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Monterey Park-City, Water Dept.
Public Water System No. *1910092*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Dan Repp
City of Morgan Hill, System No. 4310006
100 Edes Court
Morgan Hill, CA 95037

Dear Mr. Repp:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Morgan Hill water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Morgan Hill
(Public Water System No. *4310006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Gregg Hosfeldt
City of Mountain View, System No. 4310007
231 North Whisman Road
Mountain View, CA 94043

Dear Mr. Hosfeldt:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Mountain View water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Mountain View
(Public Water System No. *4310007*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2810003

Erin Kebbas, Water Quality Manager
Napa, City Of
P.O. Box 660
Napa, CA 94559

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2810003

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Erin Kebbas:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Napa, City Of (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2810003

cc: Napa County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Napa, City Of
(Public Water System No. 2810003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2810003/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Jerry Porter, Chief Operator
City of Needles,
System No. 3610032
817 Third Street
Needles, CA 92363

Dear: Jerry P.O.rter,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Needles water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Needles
(Public Water System No. *3610032*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 PWS No. 2910002

Mark Prestwich
City Manager
City of Nevada City, System No. 2910002
317 Broad Street
Nevada City, CA 95959

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-2910002

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Nevada City public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-2910002

cc: Nevada County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Nevada City
Public Water System
(Public Water System No. 2910002)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-2910002**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Kim Koosun
Public Works Director
City of Newman, System No. 5010013
P.O. Box 787
Newman, CA 95360

Dear : Mr. Koosun

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Newman water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Newman
(Public Water System No. 5010013)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Mr. George Murdoch
General Manager
City of Newport Beach, System No. 3010023
P.O. Box 1768
Newport Beach, CA 92658

Dear Mr. Murdoch:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Newport Beach water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Newport Beach
(Public Water System No. 3010023)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Chad Blais
Director of Public Works
City of Norco, System No. 3310025
2870 Clark Ave.
Norco, CA 92860

Dear Chad Blais:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Norco water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Norco
(Public Water System No. 3310025)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Gary Dicorpo
DIRECTOR OF PUBLIC S
Norwalk - City, Water Dept.
12700 Norwalk Blvd.
Norwalk, CA 90650

Dear Gary Dicorpo:

System No: 1910191 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Norwalk - City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910191 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910191 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Norwalk - City, Water Dept.

Los Angeles County
System No. 1910191

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Norwalk - City, Water Dept.
Public Water System No. *1910191*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated:_____1/17/2017_____

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

David Black
Interim Public Services Manager
City of Oakdale, System No. 5010014
455 South Fifth Avenue
Oakdale, CA 95361

Dear Mr. Black,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Oakdale water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Oakdale
(Public Water System No. 5010014)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples
for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Ms. Lori Rigby
Compliance Officer
City of Oceanside, System No. 3710014
300 N. Coast Hwy.
Oceanside, CA 92054

Dear Ms. Rigby:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Oceanside water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Oceanside
(Public Water System No. 3710014)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF ORANGE COVE
Public Water System No. *1010023*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_095**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 18, 2017

Mr. Robert Baehner
Principal Engineer
City of Orange, System No. 3010027
189 S. Water Street
Orange, CA 92866

Dear Mr. Baehner:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Orange water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Orange
(Public Water System No. 3010027)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Ed Vonasek
Pub Wrks Supervisor
CITY OF ORLAND, System No. 1110001
815 4TH STREET
ORLAND, CA 95963

Dear : Ed Vonasek

ISSUANCE OF PERMIT AMENDMENT 71-031A5

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF ORLAND water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

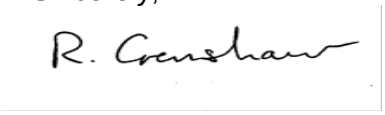

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 71-031A5

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF ORLAND
(Public Water System No. *1110001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***71-031A5***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Dean Batchelor
City of Palo Alto, System No. 4310009
P.O. Box 10250
Palo Alto, CA 94303

Dear Mr. Batchelor:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Palo Alto water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Palo Alto
(Public Water System No. *4310009*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet; check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Christopher Cash
Director Of Public Works
Paramount - City, Water Dept.
16400 Colorado Ave.
Paramount, CA 90723

Dear Christopher Cash:

System No: 1910105 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Paramount - City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910105 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910105 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Paramount - City, Water Dept.

Los Angeles County
System No. 1910105

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Paramount - City, Water Dept.
Public Water System No. *1910105*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF PARLIER
Public Water System No. *1010025*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_096**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

Shan Kwan
Assistant General Manager
Pasadena-City, Water Dept.
150 S. Los Robles Ave, Suite 200
Pasadena, CA 91101

Dear Shan Kwan:

System No: 1910124 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Pasadena-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910124 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910124 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Pasadena-City, Water Dept.

Los Angeles County
System No. 1910124

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Pasadena-City, Water Dept.
Public Water System No. *1910124*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated:_____1/17/2017_____

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Robert Andrade
Public Works Deputy Director
City of Patterson, System No. 5010017
1 Plaza
Patterson, CA 95363

Dear : Mr. Andrade

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Patterson water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Patterson
(Public Water System No. 5010017)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Ron Carr
Assistant General Manager
City of Perris, System No. 3310029
101 North D St.
Perris, CA 92570

Dear Ron Carr:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Perris water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Perris
(Public Water System No. 3310029)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

System No. 4910006

Patrick Dirrane, Utility Supervisor
Petaluma, City Of
202 North McDowell Boulevard
Petaluma, CA 94953

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910006

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Patrick Dirrane:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Petaluma, City Of (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910006

cc: Sonoma County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Petaluma, City Of
(Public Water System No. 4910006)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910006/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

James Enriquez
Director/ Public Works
Pico Rivera - City, Water Dept.
6615 Passons Blvd.
Pico Rivera, CA 90660

Dear James Enriquez:

System No: 1910042 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Pico Rivera - City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910042 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910042 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Pico Rivera - City, Water Dept.

Los Angeles County
System No. 1910042

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Pico Rivera - City, Water Dept.
Public Water System No. *1910042*

By The

State Water Resources Control Board

Division of Drinking Water

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   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA0710008

Fritz Mckinley
Public Works Director
City of Pittsburg
65 Civic Ave
Pittsburg, CA 94565-3814

Dear Fritz McKinley:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Pittsburg water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Contra Costa County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Pittsburg
(Public Water System No. *CA0710008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 PWS No. 0910003

Nathan Strong
Engineer
City of Placerville - Main, System No. 0910003
3101 Center Street
Placerville, CA 95667

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-0910003

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Placerville - Main public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-0910003

cc: County of El Dorado Environmental Management, Community Development Agency (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Placerville - Main
Public Water System
(Public Water System No. 0910003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-0910003**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
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STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

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SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA0110008

Dan Martin
Utilities Superintendent
City of Pleasanton
PO Box 520
Pleasanton, CA 94566-0802

Dear Dan Martin:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Pleasanton water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Alameda County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Pleasanton
(Public Water System No. *CA0110008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

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This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Jeff Gardner
City Manager
City of Plymouth, System No. 0310004
P.O. Box 429
Plymouth, CA 95669

Dear : Mr. Gardner

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Plymouth water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Plymouth
(Public Water System No. 0310004)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples
for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Darron Poulsen
Operations Manager
Pomona - City, Water Dept.
148 N. Huntington Street
Pomona, CA 91768

Dear Darron Poulsen:

System No: 1910126 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Pomona - City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910126 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910126 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Pomona - City, Water Dept.

Los Angeles County
System No. 1910126

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Pomona - City, Water Dept.
Public Water System No. *1910126*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated:_____1/17/2017_____

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Bryan Styles
Field Services Mgr.
Porterville, City of, System No. 5410010
291 North Main Street
Porterville, CA 93257

Dear: Bryan Styles

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Porterville, City of water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Porterville, City of
(Public Water System No. 5410010)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Portola
(Public Water System No. 3210003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Condition 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

January 17, 2017

Anita Rice
Admin
CITY OF RED BLUFF, System No. 5210004
555 Washington St.
RED BLUFF, CA 96080

Dear : Anita Rice

ISSUANCE OF PERMIT AMENDMENT 71-016E

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF RED BLUFF water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

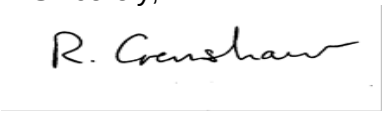

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 71-016E

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF RED BLUFF
(Public Water System No. *5210004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***71-016E***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD
OPERATIONS BRANCH

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Redding
(Public Water System No. 4510005)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

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   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

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   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

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1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

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   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

   i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

   ii. If the sample location remains in service, and

      a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

      b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Terence Kyaw
City of Redwood City, System No. 4110022
1400 Broadway
Redwood City, CA 94063

Dear Mr. Kyaw:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Redwood City water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Redwood City
(Public Water System No. *4110022*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet; check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF REEDLEY
Public Water System No. *1010027*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_097**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Clarence Mansell, General Manager
City of Rialto,
System No. 3610038
437 N. Riverside Ave.
Rialto, CA 92376

Dear: Clarence Mansell,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Rialto water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Rialto
(Public Water System No. *3610038*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA4810004

David Melilli
Public Works Director
City of Rio Vista
1 Main Street
Rio Vista, CA 94571-1842

Dear David Melilli:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Rio Vista water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Solano County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Rio Vista
(Public Water System No. *CA4810004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ted Johnston
Public Works Director
City of Ripon, System No. 3910007
259 N. Wilma Avenue
Ripon, CA 95366

Dear: Mr. Johnston,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Ripon water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Ripon
(Public Water System No. 3910007)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Michael Riddell
Public Works Superintendent
City of Riverbank, System No. 5010018
6707 Third Street
Riverbank, CA 95367

Dear Mr. Riddell,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Riverbank water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Riverbank
(Public Water System No. 5010018)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples
for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Todd Jorgensen, P.E.
Assistant General Manager - Water
City of Riverside, System No. 3310031
3rd Floor
3750 University Ave.
Riverside, CA 92504

Dear Todd Jorgenson:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Riverside water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Riverside
(Public Water System No. 3310031)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-17-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 4910014

John Mcarthur, Director of PW & CS
Rohnert Park, City Of
600 Enterprise Drive
Rohnert Park, CA 94928

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910014

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear John Mcarthur:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Rohnert Park, City Of (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910014

cc: Mark Hendersen, 600 Enterprise Drive, Rohnert Park, CA 94928
Sonoma County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Rohnert Park, City Of
(Public Water System No. 4910014)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910014/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Roseville
(Public Water System No. 3110008)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 PWS No. 3410020

Pravani Vandeyar
Water Quality Superintendent
City of Sacramento, System No. 3410020
7501 College Town Drive
Sacramento, CA 95826

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410020

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Sacramento public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410020

cc: Sacramento County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Sacramento
Public Water System
(Public Water System No. 3410020)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410020**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Stacey Aldstadt, General Manager
San Bernardino City
System No. 3610039
P.O. Box 710
San Bernardino, CA 92402

Dear: Stacey Aldstadt,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Bernardino City water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Bernardino City
(Public Water System No. *3610039*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Jimmy Tan
City of San Bruno, System No. 4110023
567 El Camino Real
San Bruno, CA 94066

Dear Mr. Tan:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of San Bruno water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of San Bruno
(Public Water System No. *4110023*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Mr. Kevin Lussier
Utilities Operation Supervisor
City of San Clemente, System No. 3010036
380 Avenida Pico Bldg. N
San Clemente, CA 92672

Dear Mr. Lussier:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of San Clemente water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of San Clemente
(Public Water System No. 3010036)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Halla Razak
Public Utilities Director
City of San Diego, System No. 3710020
9192 Topaz Way
San Diego, CA 92123

Dear Halla Razak:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of San Diego water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of San Diego
(Public Water System No. *3710020*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Tony Salazar
Power Superintendent
San Fernando-City, Water Dept.
117 Macneil Street
San Fernando, CA 91340

Dear: Tony Salazar

System No: 1910143 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Fernando-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910143 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910143 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Fernando-City, Water Dept.
Public Water System No. *1910143*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA3810011

Andrew DeGraca
Water Quality Division Director
SFPUC- City Distribution Division
1657 Rollins Road
Burlingame, CA 94010

Dear Andrew DeGraca:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SFPUC-City Distribution Division water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Francisco County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SFPUC - City Distribution Division
(Public Water System No. *CA3810011*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Dan Mudrovich
Water Utilities Superintendent
City of San Jacinto, System No. 3310032
270 Bissell Place
San Jacinto, CA 92583

Dear Dan Mudrovich:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

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for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of San Jacinto
(Public Water System No. 3310032)

By The

State Water Resources Control Board

Division of Drinking Water

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6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SAN JOAQUIN, CITY OF
Public Water System No. *1010034*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_101**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Jeff Provenzano
City of San Jose - Evergreen/Edenvale/Coyote, System No. 4310020
3025 Tuers Road
San Jose, CA 95121

Dear Mr. Provenzano:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of San Jose - Evergreen/Edenvale/Coyote water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of San Jose - Evergreen/Edenvale/Coyote
(Public Water System No. *4310020*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Jeff Provenzano
City of San Jose - North San Jose/Alviso, System No. 4310019
3025 Tuers Road
San Jose, CA 95121

Dear Mr. Provenzano:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of San Jose - North San Jose/Alviso water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of San Jose - North San Jose/Alviso
(Public Water System No. *4310019*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Roger Grimsley, City Manager
City of San Juan Bautista, System No. 3510002
PO Box 1420
San Juan Bautista, CA. 95045

Dear Mr. Grimsley:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

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for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF SAN JUAN BAUTISTA
(Public Water System No. *3510002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Mr. Glenn R. Garrett
Chief Plant Operator
City of San Juan Capistrano, System No. 3010030
32450 Paseo Adelanto
San Juan Capistrano, CA 92675

Dear Mr. Garrett:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of San Juan Capistrano water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of San Juan Capistrano
(Public Water System No. 3010030)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF SANGER
Public Water System No. *1010029*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_099**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 18, 2017

Mr. Nabil Saba
Water Resources Manager
City of Santa Ana, System No. 3010038
220 South Daisy Ave. Bldg A
Santa Ana, CA 92703

Dear Mr. Saba:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Santa Ana water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Santa Ana
(Public Water System No. 3010038)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

REBECCA BJORK
PUBLIC WORKS DIRECTOR
CITY OF SANTA BARBARA WATER DEPARTMENT, System No. 4210010
PO BOX 1990
SANTA BARBARA, CA 93102

Dear: REBECCA BJORK

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

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If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

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If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

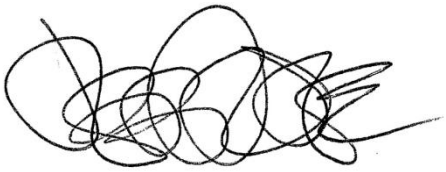

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF SANTA BARBARA WATER DEPARTMENT

(Public Water System No. *4210010*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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301. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

302. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

303. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

304. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

334. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

335. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

336. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

337. The water system may stop lead sampling at a school if:

ssssss. All initial samples are less than or equal to 15 ppb; or

tttttt. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxxv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxxvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

uuuuuu. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

vvvvvv. If requested in writing by the school's authorized school representative.

338. The water system is responsible for the following costs:

www. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

xxx. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

339. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

340. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

341. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

dddddddd. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

eeeeeeee. The date of the request;

ffffffff. The date of the initial meeting;

gggggggg. The date of the sampling plan along with a copy of each sampling plan; and

hhhhhhhh. The date of initial lead sampling and all repeat samples.

342. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Gary Welling
City of Santa Clara, System No. 4310012
1500 Warburton Avenue
Santa Clara, CA 95050

Dear Mr. Welling:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Santa Clara water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Santa Clara
(Public Water System No. *4310012*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Gilbert Borboa
Water Resources Manager
Santa Monica-City, Water Division
1212 5Th Street
Santa Monica, CA 90401

Dear: Gilbert Borboa

System No: 1910146 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Santa Monica-City, Water Division water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910146 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910146 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Santa Monica-City, Water Division
Public Water System No. *1910146*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 4910009

Peter Fulkerson, Water Quality Superv
Santa Rosa, City Of
35 Stony Point Road
Santa Rosa, CA 95401

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910009

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Peter Fulkerson:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Santa Rosa, City Of (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910009

cc: Sonoma County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Santa Rosa, City Of
(Public Water System No. 4910009)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910009/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Mr. Jims Basham
Interim Public Work Director
City of Seal Beach, System No. 3010041
211 8th Street
Seal Beach, CA 90740

Dear Mr. Basham:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Seal Beach water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Seal Beach
(Public Water System No. 3010041)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 4910011

Richard Emig, Public Works Superintendent
Sebastopol, City Of
714 Johnson Street
Sebastopol, CA 95472

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910011

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Richard Emig:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Sebastopol, City Of (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910011

cc: Henry Mikus, Engineering Manager, 714 Johnson Street, Sebastopol, CA 95472
Sonoma County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sebastopol, City Of
(Public Water System No. 4910011)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910011/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Michael James, Public Works Director
City of Shafter, System No. 1510019
336 Pacific Avenue
Shafter, CA 93263

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Michael James:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Shafter water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Shafter
(Public Water System No. *1510019*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Shasta Lake
(Public Water System No. 4510006)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday and Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

January 17, 2017

Bruce Inman
Director Of Public Works
Sierra Madre-City, Water Dept.
232 W. Sierra Madre Blvd.
Sierra Madre, CA 91024

Dear Bruce Inman:

System No: 1910148 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Sierra Madre-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910148 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910148 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Sierra Madre-City, Water Dept.

Los Angeles County
System No. 1910148

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sierra Madre-City, Water Dept.
Public Water System No. *1910148*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Grissel Chavez
Public Works Deputy Director
Signal Hill - City, Water Dept.
2175 E. 28Th Street
Signal Hill, CA 90755

Dear Grissel Chavez:

System No: 1910149 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Signal Hill - City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910149 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910149 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Signal Hill - City, Water Dept.

Los Angeles County
System No. 1910149

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Signal Hill - City, Water Dept.
Public Water System No. *1910149*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Donald Wilcox, Public Works Director
City of Soledad, System No. 2710011
PO Box 156
Soledad, CA. 93960

Dear Mr. Wilcox:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Soledad water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF SOLEDAD
(Public Water System No. *2710011*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

System No. 4910012

Dan Takasugi, Public Works Dir
Sonoma, City Of
No. 1 The Plaza
Sonoma, CA 95476

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910012

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Dan Takasugi:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Sonoma, City Of (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910012

cc: Sonoma County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sonoma, City Of
(Public Water System No. 4910012)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910012/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Anteneh Tesfaye
Water Operations Manager
City Of South Pasadena
825 Mission Street
South Pasadena, CA 91030

Dear: Anteneh Tesfaye

System No: 1910154 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City Of South Pasadena water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910154 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910154 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City Of South Pasadena
Public Water System No. *1910154*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

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SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2810004

Steven Palmer, Public Works Director
St. Helena, City Of
1480 Main Street
St. Helena, CA 94574

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2810004

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Steven Palmer:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the St. Helena, City Of (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2810004

cc: David Hassell, Chief Dist Operator, 1480 Main Street, St. Helena, CA 94574
Napa County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

St. Helena, City Of
(Public Water System No. 2810004)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2810004/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Eric Houston
Chief Plant Operator
City of Stockton, System No. 3910012
11373 N. Lower Sacramento Road
Lodi, CA 95242

Dear Mr. Houston,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Stockton water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Stockton
(Public Water System No. 3910012)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples
for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Mansour Nasser
City of Sunnyvale, System No. 4310014
P.O. Box 3707
Sunnyvale, CA 94088

Dear Mr. Nasser:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Sunnyvale water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Sunnyvale
(Public Water System No. *4310014*)

By The

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Division of Drinking Water

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THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet; check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Susanville
(Public Water System No. 1810001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Tyler Napier, Utilities Supervisor
City of Tehachapi
115 South Robinson Street
Tehachapi, CA 93561

Dear Mr. Napier:

ISSUANCE OF PERMIT AMENDMENT: 1510020-2017PA_SCHOOLS (System No. 1510020)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Tehachapi water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510020-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Tehachapi
(Public Water System No. 1510020)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510020-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S. Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Carolyn Steffan
City Clerk/Admin
CITY OF TEHAMA, System No. 5200504
P.O. BOX 70
TEHAMA, CA 96090

Dear : Carolyn Steffan

ISSUANCE OF PERMIT AMENDMENT 010293P52024A2

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF TEHAMA water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

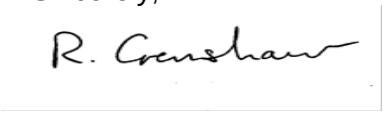

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 010293P52024A2

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF TEHAMA
(Public Water System No. *5200504*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***010293P52024A2***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD
OPERATIONS BRANCH

January 17, 2017

Alan Berndt
Water Superintendent
Torrance-City, Water Dept.
20500 Madrona Avenue
Torrance, CA 90503

Dear Alan Berndt:

System No. 1910213- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Torrance-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910213 Permit File
Region 4 email

Email addresses - Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910213 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Torrance-City, Water Dept.
Public Water System No. *1910213*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Kuldeep Sharma
Utilities Director
City of Tracy, System No. 3910011
520 Tracy Blvd.
Tracy, CA 95376

Dear Mr. Sharma,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Tracy water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Tracy
(Public Water System No. 3910011)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples
for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Tim Doyle
Utility Supervisor
Tulare, City of, System No. 5410015
3981 South K Street
Tulare, CA 93274

Dear: Tim Doyle

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Tulare, City of water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Tulare, City of
(Public Water System No. 5410015)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Michael Cooke
Municipal Services Director
City of Turlock, System No. 5010019
156 South Broadway, Suite 270
Turlock, CA 95380

Dear : Mr. Cooke

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Turlock water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Turlock
(Public Water System No. 5010019)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Mr. Arturo Valenzuela
Water Services Manager
City of Tustin, System No. 3010046
P.O. Box 466
Tustin, CA 92781

Dear Mr. Valenzuela:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Tustin water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Tustin
(Public Water System No. 3010046)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2310003

Sean White, Director of Water & Sewer
Ukiah, City Of
300 Seminary Avenue
Ukiah, CA 95482

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2310003

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Sean White:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Ukiah, City Of (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2310003

cc: Jarod Thiele, 300 Seminary Avenue, Ukiah, CA 95482
Lyle Valador, Designated Operator, 869 Lake Mendocino Drive, Ukiah, CA 95482
Mendocino County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Ukiah, City Of
(Public Water System No. 2310003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2310003/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Rosemary Hoerning, Public Works Dir
City of Upland,
System No. 3610050
1370 N. Benson Ave.
Upland, CA 92867

Dear: Rosemary Hoerning,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Upland water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Upland
(Public Water System No. *3610050*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 PWS No. CA4810008

Royce Cunningham
Asst. Utilities Director
City of Vacaville
Po Box 220
Elmira, CA 95625-0220

Dear Royce Cunningham:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Vacaville water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Solano County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Vacaville
(Public Water System No. *CA4810008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 PWS No. CA4810007

Martin Querin
Asst. Public Works Director
City of Vallejo
202 Fleming Hill Road
Vallejo, CA 94589-2237

Dear Martin Querin:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Vallejo water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Solano County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Vallejo
(Public Water System No. *CA4810007*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA4810021

Martin Querin
Asst. Public Works Director
City of Vallejo-Lakes System
202 Fleming Hill Road
Vallejo, CA 94589-2237

Dear Martin Querin:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Vallejo-Lakes System water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Solano County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Vallejo - Lakes System
(Public Water System No. *CA4810021*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Derek Wieske
Director of Public Works
Vernon-City, Water Dept.
4305 Santa Fe Avenue
Vernon, CA 90058

Dear Derek Wieske:

System No: 1910167 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Vernon-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910167 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910167 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Vernon-City, Water Dept.

Los Angeles County
System No. 1910167

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Vernon-City, Water Dept.
Public Water System No. *1910167*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

J. Paul Paris, City Manager
City of Wasco, System No. 1510021
746 8th Street
Wasco, CA 93280

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear J. Paul Paris:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Wasco water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Wasco
(Public Water System No. *1510021*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Karen Morgan
Water and Wastewater Supervisor
City of Waterford, System No. 5010006
P.O. Box 199
Waterford, CA 95386

Dear Ms. Morgan,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Waterford water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Waterford
(Public Water System No. 5010006)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Beau Kayser, Water Operations Sup.
City of Watsonville, System No. 4410011
500 Clearwater Lane
Watsonville, CA. 95076

Dear Mr. Kayser:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Watsonville water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF WATSONVILLE
(Public Water System No. *4410011*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 PWS No. 5710003

Christopher Kania
Water Superintendent
City of West Sacramento, System No. 5710003
400 N. Harbor Blvd.
West Sacramento, CA 95601

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-5710003

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of West Sacramento public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-5710003

cc: Yolo County Environmental Health Services (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of West Sacramento
Public Water System
(Public Water System No. 5710003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-5710003**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Mr. Scott Miller
Water Superintendent
City of Westminster, System No. 3010064
14381 Olive Street
Westminster, CA 92683

Dear Mr. Miller:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Westminster water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Westminster
(Public Water System No. 3010064)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

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5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

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THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Don Scott
Public Works Supervisor
CITY OF WHEATLAND, System No. 5810004
111 C STREET
WHEATLAND, CA 95692

Dear : Don Scott

ISSUANCE OF PERMIT AMENDMENT 10-18-962A6

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF WHEATLAND water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

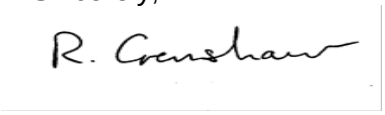

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD
OPERATIONS BRANCH

Enclosure: 10-18-962A6

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF WHEATLAND
(Public Water System No. *5810004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***10-18-962A6***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD
OPERATIONS BRANCH

January 17, 2017

David Schickling
Director Of Public Works
Whittier-City, Water Dept.
13230 Penn Street
Whittier, CA 90602

Dear David Schickling:

System No: 1910173 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Whittier-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910173 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910173 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Whittier-City, Water Dept.

Los Angeles County
System No. 1910173

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Whittier-City, Water Dept.
Public Water System No. *1910173*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Michael Mitchell
Water Department Sup.
CITY OF WILLIAMS, System No. 610004
P.O. Box 310
WILLIAMS, CA 95987

Dear : Michael Mitchell

ISSUANCE OF PERMIT AMENDMENT 78-072A6

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF WILLIAMS water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

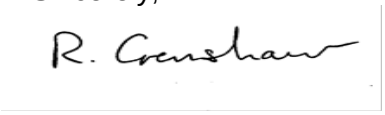

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 78-072A6

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF WILLIAMS
(Public Water System No. *610004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***78-072A6***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD
OPERATIONS BRANCH

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

System No. 2310004

Adrienne Moore, City Manager
Willits, City Of
111 East Commercial Street
Willits, CA 95490

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2310004

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Adrienne Moore:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Willits, City Of (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2310004

cc: Rod Wilburn, Public Works Director, 1111 East Commercial Street, Willits, CA 95490
Mendocino County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Willits, City Of
(Public Water System No. 2310004)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2310004/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 19, 2017 PWS No. 5710005

John Donlevy
Director of Public Works
City of Winters, System No. 5710005
318 First Street
Winters, CA 95694

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-5710005

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Winters public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-5710005

cc: Yolo County Environmental Health Services (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Winters
Public Water System
(Public Water System No. 5710005)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-5710005**
EFFECTIVE DATE**: January 19, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 19, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Ramon Lara
Woodlake, City of, System No. 5410020
350 N. Valencia
Woodlake, CA 93286

Dear: Ramon Lara

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Woodlake, City of water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Woodlake, City of
(Public Water System No. 5410020)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. 5710006

Sherry Kimura
Engineering Tech. III
City of Woodland, System No. 5710006
300 First Street
Woodland, CA 95695

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-5710006

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Woodland public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-5710006

cc: Yolo County Environmental Health Services (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Woodland
Public Water System
(Public Water System No. 5710006)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-5710006**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

John Westhouse
WTP Supervisor
CITY OF YUBA CITY, System No. 5110002
701 Northgate Drive
YUBA CITY, CA 95991

Dear : John Westhouse

ISSUANCE OF PERMIT AMENDMENT 68-26A9

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CITY OF YUBA CITY water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

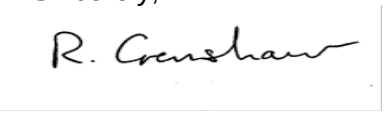

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 68-26A9

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CITY OF YUBA CITY
(Public Water System No. *5110002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***68-26A9***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD
OPERATIONS BRANCH

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Roxanne Holmes, General Manager
CLAWA
System No. 3610114
P. O. Box 3880
Crestline, CA 92325

Dear: Roxanne Holmes,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CLAWA water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CLAWA
(Public Water System No. *3610114*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Clear Creek CSD - Anderson
(Public Water System No. 4510016)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 1710001

Alan Gardner, General Manager
Clearlake Oaks County Water District
P.O. Box 709
Clearlake Oaks, CA 95423

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_1710001

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Alan Gardner:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Clearlake Oaks County Water District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Clearlake Oaks County Water District
(Public Water System No. 1710001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

1710001/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

ROBERT ERANIO
GENERAL MANAGER
CLOVERDALE MUTUAL WATER CO., System No. 5610068
135 West Magnolia Avenue, Suite 12
OXNARD, CA 93030

Dear: ROBERT ERANIO

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CLOVERDALE MUTUAL WATER CO. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CLOVERDALE MUTUAL WATER CO.
(Public Water System No. *5610068*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

841. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

842. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

843. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

844. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

845. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

846. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

847. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

848. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

946. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

947. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

948. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

949. The water system may stop lead sampling at a school if:

eeeeeeeeeeeeeeeee. All initial samples are less than or equal to 15 ppb; or

fffffffffffffffff. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

ccxi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ccxii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

gggggggggggggggg. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

hhhhhhhhhhhhhhhh. If requested in writing by the school's authorized school representative.

950. The water system is responsible for the following costs:

cccccccccc. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ddddddddd. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

951. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

952. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

953. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

ffffffffffffffffffffff. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

gggggggggggggggggggggg. The date of the request;

hhhhhhhhhhhhhhhhhhhhh. The date of the initial meeting;

iiiiiiiiiiiiiiiiiiiii. The date of the sampling plan along with a copy of each sampling plan; and

jjjjjjjjjjjjjjjjjjjj. The date of initial lead sampling and all repeat samples.

954. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

James Barrett
General Manager
Coachella Valley Water District, System No. 3310001
P.O. Box 1058
75-515 Hovley Lane East
Palm Desert, CA 92211

Dear James Barrett:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Coachella Valley Water District – Cove Community water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Coachella Valley Water District – Cove Community
(Public Water System No. 3310001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-17-2017

J. Steven Williams, P.E.
Riverside District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

James Barrett
General Manager
Coachella Valley WD I.D. No. 11, System No. 1310011
P.O. Box 1058
75-515 Hovley Lane East
Palm Desert, CA 92211

Dear James Barrett:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Coachella Valley Water District – I.D. No. 11 water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Coachella Valley WD – I.D. No. 11
(Public Water System No. 1310011)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

James Barrett
General Manager
Coachella Valley WD I.D. No. 8, System No. 3310048
P.O. Box 1058
75-515 Hovley Lane East
Palm Desert, CA 92211

Dear James Barrett:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Coachella Valley Water District – I.D. No. 8 water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Coachella Valley WD – I.D. No. 8
(Public Water System No. 3310048)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
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MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Scott Rogers
Utilities General Manager
Coachella Water Authority, System No. 3310007
53462 Enterprise Way
Coachella, CA 92236

Dear Scott Rogers:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Coachella Water Authority water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Coachella Water Authority
(Public Water System No. 3310007)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

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MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Dave Dickson
Coastside County Water District, System No. 4110011
766 Main Street
Half Moon Bay, CA 94019

Dear Mr. Dickson:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Coastside County Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Coastside County Water District
(Public Water System No. *4110011*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet; check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 1710012

Benjamin Murphy, System Operator
Cobb Area County Water District
P.O. Box 284
Cobb, CA 95426

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_1710012

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Benjamin Murphy:

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If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

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Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_1710012

cc: Lake County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Cobb Area County Water District
(Public Water System No. 1710012)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

1710012/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Michael Azevedo
COLUSA CO. SERVICE AREA #2-STONYFORD, System No. 600005
1215 Market Street
COLUSA, CA 95932

Dear : Michael Azevedo

ISSUANCE OF PERMIT AMENDMENT 01-02-94P06004A3

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the COLUSA CO. SERVICE AREA #2-STONYFORD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

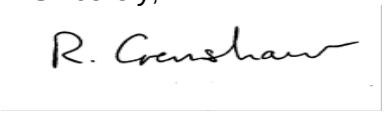

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 01-02-94P06004A3

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

COLUSA CO. SERVICE AREA #2-STONYFORD
(Public Water System No. *600005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***01-02-94P06004A3***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD
OPERATIONS BRANCH

January 17, 2017

Stuart Angerer
Director
COLUSA CO. WWD #1 - GRIMES, System No. 600008
P. O. BOX 131
GRIMES, CA 95950

Dear : Stuart Angerer

ISSUANCE OF PERMIT AMENDMENT 010294P06007A2

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the COLUSA CO. WWD #1 - GRIMES water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

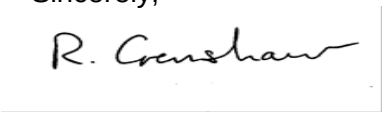

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 010294P06007A2

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

COLUSA CO. WWD #1 - GRIMES
(Public Water System No. *600008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***010294P06007A2***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD
OPERATIONS BRANCH

January 17, 2017

Andy Ferendelli
President
COLUSA CO. WWD #2 - PRINCETON, System No. 600013
P.O. BOX 224
PRINCETON, CA 95970

Dear : Andy Ferendelli

ISSUANCE OF PERMIT AMENDMENT 010294P06011A2

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the COLUSA CO. WWD #2 - PRINCETON water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

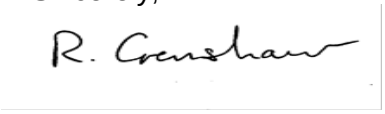

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 010294P06011A2

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

COLUSA CO. WWD #2 - PRINCETON
(Public Water System No. *600013*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***010294P06011A2***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD
OPERATIONS BRANCH

January 17, 2017

Sophie James
Director Of WQ
Commerce-City, Water Dept.
1720 North First Street
San Jose, CA 95112

Dear Sophie James:

System No. 1910050- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Commerce-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Commerce-City, Water Dept.
Public Water System No. *1910050*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

RICHARD GALLIMORE
PRESIDENT
COMMUNITY MUTUAL WATER CO, System No. 5601125
133 North 10th Street
SANTA PAULA, CA 93060

Dear: RICHARD GALLIMORE

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the COMMUNITY MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

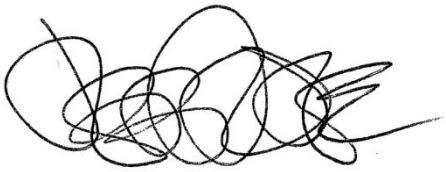

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

COMMUNITY MUTUAL WATER CO
(Public Water System No. *5601125*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

457. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

458. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

459. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

460. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

461. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

462. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

463. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

464. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

514. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

515. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

516. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

517. The water system may stop lead sampling at a school if:

uuuuuuuuu. All initial samples are less than or equal to 15 ppb; or

vvvvvvvvv. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

wwwwwwwww. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

xxxxxxxxx. If requested in writing by the school's authorized school representative.

518. The water system is responsible for the following costs:

kkkkk. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

llll. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

519. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

520. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

521. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

zzzzzzzzzzz. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

aaaaaaaaaaa. The date of the request;

bbbbbbbbbbb. The date of the initial meeting;

ccccccccccc. The date of the sampling plan along with a copy of each sampling plan; and

dddddddddddd. The date of initial lead sampling and all repeat samples.

522. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Kenneth Holcomb
Chief Operator
Compton-City, Water Dept.
205 S Willowbrook Ave.
Compton, CA 90220

Dear Kenneth Holcomb:

System No. 1910026- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Compton-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Compton-City, Water Dept.
Public Water System No. *1910026*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

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THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA0710003

Dave Huey
Operations Manager
Contra Costa Water District
PO Box H20
Concord, CA 94524

Dear Dave Huey:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Contra Costa Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Contra Costa County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Contra Costa Water District
(Public Water System No. *CA0710003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Cottonwood County Water District
(Public Water System No. 4510007)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

COUNTRY VIEW ALZHEIMER CENTER
Public Water System No. *1000430*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_055**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ms. Ann Stillman
County Service Area 11, System No. 4100582
555 County Center, 5th Floor
Redwood City, CA 94063

Dear Ms. Stillman:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the County Service Area 11 water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

County Service Area 11
(Public Water System No. *4100582*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet; check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

David Gould
District Engineer
Crescenta Valley Cwd
2700 Foothill Blvd.
La Crescenta, CA 91214

Dear David Gould:

System No: 1910028 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Crescenta Valley Cwd water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910028 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910028 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Crescenta Valley Cwd

Los Angeles County
System No. 1910028

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Crescenta Valley Cwd
Public Water System No. *1910028*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Karl B. Drew, General Manager
Crestline Village CWD - Division 10
System No. 3610015
P. O. Box 3347
Crestline, CA 92325

Dear: Karl B. Drew,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Crestline Village CWD - Division 10 water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Crestline Village CWD - Division 10
(Public Water System No. *3610015*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

ROBERT ERANIO
GENERAL MANAGER
CRESTVIEW MUTUAL WATER CO, System No. 5610058
328 VALLEY VISTA DRIVE
CAMARILLO, CA 93010

Dear: ROBERT ERANIO

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

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If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

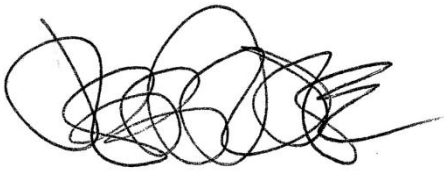

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CRESTVIEW MUTUAL WATER CO
(Public Water System No. *5610058*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

817. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

818. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

819. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

820. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

821. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

822. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

823. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

824. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

919. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

920. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

921. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

922. The water system may stop lead sampling at a school if:

ssssssssssssssss. All initial samples are less than or equal to 15 ppb; or

ttttttttttttttt. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

ccv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ccvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

uuuuuuuuuuuuuuuu. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

vvvvvvvvvvvvvvvv. If requested in writing by the school's authorized school representative.

923. The water system is responsible for the following costs:

wwwwwwww. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

xxxxxxxx. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

924. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

925. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

926. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

qqqqqqqqqqqqqqqqqqqq. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

rrrrrrrrrrrrrrrrrrr. The date of the request;

ssssssssssssssssssss. The date of the initial meeting;

tttttttttttttttttttt. The date of the sampling plan along with a copy of each sampling plan; and

uuuuuuuuuuuuuuuuuuuu. The date of initial lead sampling and all repeat samples.

927. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Arman Nazemi, Asst. Public Works Director
CSA No. 31 Stonegate WS, System No. 3500006
2301 Technology Parkway
Hollister, CA. 95023

Dear Mr. Nazemi:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CSA No. 31 Stonegate WS water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CSA NO. 31 STONEGATE WS
(Public Water System No. *3500006*)

By The

State Water Resources Control Board

Division of Drinking Water

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   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

February 24, 2017

Steve Samaras
CSA 42 Oro Grande
LPA ID: 3600220
County of San Bernardino
P O Box 5004
Victorville, CA 92393

Dear Mr. Samaras,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The San Bernardino County Division of Environmental Health Services (DEHS) has issued a permit amendment to the CSA 42 Oro Grande water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance . Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the DEHS for reconsideration of the decision to issue the permit amendment. Petitions must be received by the DEHS within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the State Water Resources Control Board's (SWRCB) school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact DEHS at (800) 442- 2280 or email your question to joy.chakma@dph.sbcounty.gov.

Sincerely,

Joy Chakma
Environmental Health Services
Land Use Protection Program
385 N. Arrowhead Ave., 2nd Floor
San Bernardino, CA 92415

Enclosure: 1. 2017PA_Schools
2. Appendix A Sampling Guidance

cc: SWRCB by email at dwpdist13@waterboards.ca.gov

STATE OF *CALIFORNIA*

DOMESTIC WATER SUPPLY PERMIT

Issued To

CSA 42 Oro Grande

System No. 3600220

By

San Bernardino County Department of Public Health
Division of Environmental Health Services

PERMIT AMENDMENT NO: **2017PA-SCHOOLS** EFFECTIVE DATE: **February 24, 2017**

WHEREAS:

1. The Department of Environmental Health Services (DEHS) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [DEHS] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 {d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB and DEHS oversee public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the DEHS to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The San Bernardino County Division of Environmental Health Services hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to November 1, 2019, as provided for in Provision 3.

2. Each water system shall submit to the DEHS a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by July 1, 2017. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school,

governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DOW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "3Ts for Reducing Lead in Drinking Water in Schools" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DEHS.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in Appendix A (Sampling Guidance) which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website at http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml .

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DEHS, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

FOR THE DIVISION OF ENVIRONMENTAL HEALTH SERVICES

Signature: J. Chakma _____ **Dated:** **February 24, 2017**

Joy Chakma
Environmental Health Services
Land Use Protection Program
385 N. Arrowhead Ave., 2nd Floor

San Bernardino, CA 92415

APPENDIX A SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<SchoolID>-<Sample ID> i.e. 36xxxxx-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and

Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.

7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.
8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead

concentration at the drinking water outlet.

5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the

Action Level and additional corrective actions should be implemented at the drinking water outlet.

6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DOW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents,

however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Arman Nazemi, Asst. Public Works Director
Dunneville Estates CSA #50, System No. 3500910
2301 Technology Parkway
Hollister, CA. 95023

Dear Mr. Nazemi:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Dunneville Estates CSA #50 water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

DUNNEVILLE ESTATES CSA #50
(Public Water System No. *3500910*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Rachel Arias, MS Maint. Chief II
CSP - Big Basin State Park, System No. 4410301
303 Big Trees Park Rd.
Felton, CA. 95018

Dear Ms. Arias:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CSP - Big Basin State Park water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CSP - BIG BASIN STATE PARK
(Public Water System No. *4410301*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Bill Homsany, Plant Manager II
Correctional Training Facility - Soledad, System No. 2710850
PO Box 686
Soledad, CA. 93960

Dear Mr. Homsany:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Correctional Training Facility - Soledad water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CORRECTIONAL TRAINING FACILITY
SOLEDAD
(Public Water System No. *2710850*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

John Bosler, Director
Cucamonga Valley Water District
System No. 3610018
P. O. Box 638
Rancho Cucamonga, CA 91730

Dear: John Bosler,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Cucamonga Valley Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Cucamonga Valley Water District
(Public Water System No. *3610018*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. David Ehrhardt
Cuesta La Honda Guild, Inc., System No. 4110012
P.O. Box 21
La Honda, CA 94020

Dear Mr. Ehrhardt:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Cuesta La Honda Guild, Inc. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Cuesta La Honda Guild, Inc.
(Public Water System No. *4110012*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Dionicio Rodriguez
Superintendent
Cutler PUD, System No. 5410001
40526 Orosi Drive
Cutler, CA 93615

Dear: Dionicio Rodriguez

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Cutler PUD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Cutler PUD
(Public Water System No. 5410001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

SANDRA BARNSTEAD
CHIEF OPERATOR
CUYAMA COMMUNITY SERVICES DISTRICT, System No. 4210009
P.O. Box 368
NEW CUYAMA, CA 93254

Dear: SANDRA BARNSTEAD

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CUYAMA COMMUNITY SERVICES DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

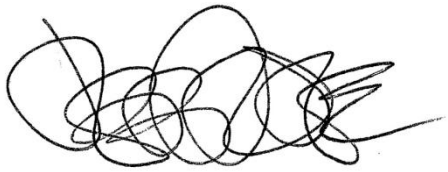

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CUYAMA COMMUNITY SERVICES DISTRICT
(Public Water System No. *4210009*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

289. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

290. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

291. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

292. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

293. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

294. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

295. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

296. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

325. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

326. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

327. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

328. The water system may stop lead sampling at a school if:

oooooo. All initial samples are less than or equal to 15 ppb; or

pppppp. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxxiii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxxiv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

qqqqqq. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

rrrrrr. If requested in writing by the school's authorized school representative.

329. The water system is responsible for the following costs:

uuu. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

vvv. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

330. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

331. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

332. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

yyyyyyy. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

zzzzzzz. The date of the request;

aaaaaaaa. The date of the initial meeting;

bbbbbbbb. The date of the sampling plan along with a copy of each sampling plan; and

ccccccc. The date of initial lead sampling and all repeat samples.

333. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Sophie James, Director of Water Quality
CWS - Bakersfield, System No. 1510003
1720 North First Street
San Jose, CA 95112

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Sophie James:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CWS - Bakersfield water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CWS - Bakersfield
(Public Water System No. *1510003*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Sophie James, Director of Water Quality
CWS-Kernville System
1720 North First Street
San Jose, CA 95112

Dear Ms. James:

ISSUANCE OF PERMIT AMENDMENT: 1510033-2017PA_SCHOOLS (System No. 1510033)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CWS-Kernville System water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510033-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Eric Furtado, California Water Service Co. (via email)
Rami Kahlon, CPUC (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CWS-Kernville System
(Public Water System No. 1510033)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510033-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

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THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S. Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Sophie James, Director of Water Quality
CWS-Lakeland System
1720 North First Street
San Jose, CA 95112

Dear Ms. James:

ISSUANCE OF PERMIT AMENDMENT: 1510049-2017PA_SCHOOLS (System No. 1510049)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CWS-Lakeland System water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510049-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Eric Furtado, California Water Service Co. (via email)
Rami Kahlon, CPUC (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CWS-Lakeland System
(Public Water System No. 1510049)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510049-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S. Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Sophie James, Director of Water Quality
CWS-Lower Bodfish System
1720 North First Street
San Jose, CA 95112

Dear Ms. James:

ISSUANCE OF PERMIT AMENDMENT: 1510056-2017PA_SCHOOLS (System No. 1510056)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CWS-Lower Bodfish System water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510056-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Eric Furtado, California Water Service Co. (via email)
Rami Kahlon, CPUC (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CWS-Lower Bodfish System
(Public Water System No. 1510056)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510056-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S. Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Sophie James, Director of Water Quality
CWS- North Garden, System No. 1510055
1720 North First Street
San Jose, CA 95112

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Sophie James:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CWS- North Garden water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CWS- North Garden
(Public Water System No. *1510055*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Sophie James, Director of Water Quality
CWS-Onyx System
1720 North First Street
San Jose, CA 95112

Dear Ms. James:

ISSUANCE OF PERMIT AMENDMENT: 1510043-2017PA_SCHOOLS (System No. 1510043)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CWS-Onyx System water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510043-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Eric Furtado, California Water Service Co. (via email)
Rami Kahlon, CPUC (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CWS-Onyx System
(Public Water System No. 1510043)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510043-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Sophie James, Director of Water Quality
CWS - Selma, System No. 1010024
1720 North First Street
San Jose, CA 95112

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Sophie James:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CWS - Selma water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CWS - Selma
(Public Water System No. *1010024*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Sophie James, Director of Water Quality
CWS-Southlake Squirrel Valley System
1720 North First Street
San Jose, CA 95112

Dear Ms. James:

ISSUANCE OF PERMIT AMENDMENT: 1510039-2017PA_SCHOOLS (System No. 1510039)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CWS-Southlake Squirrel Valley System water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510039-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Eric Furtado, California Water Service Co. (via email)
Rami Kahlon, CPUC (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CWS-Southlake Squirrel Valley System
(Public Water System No. 1510039)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510039-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Sophie James, Director of Water Quality
CWS - Visalia, System No. 5410016
1720 North First Street
San Jose, CA 95112

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Sophie James:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CWS - Visalia water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CWS - Visalia
(Public Water System No. *5410016*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA4810002

Sophie James
Director of Water Quality
California Water Service Co. - Dixon
1720 North First Street
San Jose, CA 95112

Dear Sophie James:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the California Water Service Co. - Dixon water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Solano County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California Water Service Co. - Dixon
(Public Water System No. *CA4810002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 PWS No. CA0110003

Phillip Sipat
Superintendent
California Water Service - Livermore
195 S N St
Livermore, CA 94550-4350

Dear Phillip Sipat:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

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If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

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If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Alameda County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

California Water Service - Livermore
(Public Water System No. *CA0110003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

PAMELA ROMICH
BOOKKEEPER
CYPRESS MUTUAL WATER CO INC, System No. 5602103
135 West Magnolia Avenue, Suite 12
OXNARD, CA 93030

Dear: PAMELA ROMICH

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the CYPRESS MUTUAL WATER CO INC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

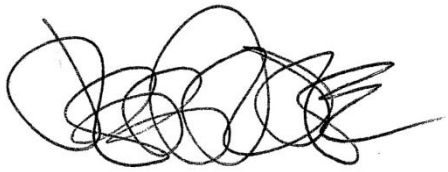

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

CYPRESS MUTUAL WATER CO INC
(Public Water System No. *5602103*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

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Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

520. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

577. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

578. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

579. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

580. The water system may stop lead sampling at a school if:

wwwwwwwwww. All initial samples are less than or equal to 15 ppb; or

xxxxxxxxxx. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxxix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxxx. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

yyyyyyyyyy. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

zzzzzzzzzz. If requested in writing by the school's authorized school representative.

581. The water system is responsible for the following costs:

yyyyy. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

zzzzz. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

582. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

583. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

584. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

iiiiiiiiiiiii. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

jjjjjjjjjjjj. The date of the request;

kkkkkkkkkkkkk. The date of the initial meeting;

lllllllllllll. The date of the sampling plan along with a copy of each sampling plan; and

mmmmmmmmmmmmm. The date of initial lead sampling and all repeat samples.

585. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

February 24, 2017

Dave Newman
Daggett Community Services District
LPA ID: 3600086
P O Box 308
Daggett, CA 92327

Dear Mr. Newman,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The San Bernardino County Division of Environmental Health Services (DEHS) has issued a permit amendment to the Daggett Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance . Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the DEHS for reconsideration of the decision to issue the permit amendment. Petitions must be received by the DEHS within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the State Water Resources Control Board's (SWRCB) school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact DEHS at (800) 442- 2280 or email your question to [joy.chakma@dph.sbcounty.gov].

Sincerely,

Joy Chakma
Environmental Health Services
Land Use Protection Program
385 N. Arrowhead Ave., 2nd Floor
San Bernardino, CA 92415

Enclosure: 1. 2017PA_Schools
2. Appendix A Sampling Guidance

cc: SWRCB by email at dwpdist13@waterboards.ca.gov

STATE OF *CALIFORNIA*

DOMESTIC WATER SUPPLY PERMIT

Issued To

Daggett Community Services District

System No. 3600086

By

San Bernardino County Department of Public Health
Division of Environmental Health Services

PERMIT AMENDMENT NO: **2017PA-SCHOOLS** EFFECTIVE DATE: **February 24, 2017**

WHEREAS:

1. The Department of Environmental Health Services (DEHS) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [DEHS] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 {d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The

SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB and DEHS oversee public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the DEHS to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The San Bernardino County Division of Environmental Health Services hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to November 1, 2019, as provided for in Provision 3.

2. Each water system shall submit to the DEHS a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by July 1, 2017. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school,

governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DOW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "3Ts for Reducing Lead in Drinking Water in Schools" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DEHS.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in Appendix A (Sampling Guidance) which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website at http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml .

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DEHS, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

FOR THE DIVISION OF ENVIRONMENTAL HEALTH SERVICES

Signature: J. Chakma _____ **Dated:** **February 24, 2017**

Joy Chakma
Environmental Health Services
Land Use Protection Program
385 N. Arrowhead Ave., 2nd Floor

San Bernardino, CA 92415

APPENDIX A SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<SchoolID>-<Sample ID> i.e. 36xxxxx-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and

Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.

7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.
8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead

concentration at the drinking water outlet.

5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the

Action Level and additional corrective actions should be implemented at the drinking water outlet.

6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DOW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents,

however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Beatrice Barranco
Davenport County Sanitation District, System No. 4400571
2750 Lode St.
Santa Cruz, CA. 95062

Dear Ms. Barranco:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Davenport County Sanitation District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

DAVENPORT COUNTY SANITATION DISTRICT
(Public Water System No. 4400571)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Ken Elias
President
Deer Meadow Mutual, System No. 5401026
P.O. Box 804
Three Rivers, CA 93271

Dear: Ken Elias

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Deer Meadow Mutual water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Deer Meadow Mutual
(Public Water System No. 5401026)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Eric Minicilli
Public Works Director
City of Del Mar, System No. 3710004
1050 Camino Del Mar
Del Mar, CA 92014

Dear Eric Minicilli:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Del Mar water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Del Mar
(Public Water System No. *3710004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAVID VANONI
MANAGER
DEL NORTE MUTUAL WATER CO., System No. 5602104
10814 TELEPHONE ROAD
VENTURA, CA 93004

Dear: DAVID VANONI

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the DEL NORTE MUTUAL WATER CO. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

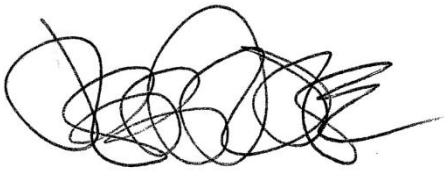

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

DEL NORTE MUTUAL WATER CO.
(Public Water System No. *5602104*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

521. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

522. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

523. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

524. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

525. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

526. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

527. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

528. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

586. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

587. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

588. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

589. The water system may stop lead sampling at a school if:

aaaaaaaaaaa. All initial samples are less than or equal to 15 ppb; or

bbbbbbbbbbb. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxxxi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxxxii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

cccccccccccc. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

dddddddddddd. If requested in writing by the school's authorized school representative.

590. The water system is responsible for the following costs:

aaaaaa. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

bbbbbb. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

591. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

592. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

593. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

nnnnnnnnnnnnn. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

oooooooooooooo. The date of the request;

pppppppppppppp. The date of the initial meeting;

qqqqqqqqqqqqq. The date of the sampling plan along with a copy of each sampling plan; and

rrrrrrrrrrrrr. The date of initial lead sampling and all repeat samples.

594. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Robert Fortino, CEO
Del Oro Traver District, System No. 5400553
Drawer 5172
Chico, CA 95927

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Robert Fortino:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Del Oro Traver District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Del Oro Traver District
(Public Water System No. *5400553*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Robert Fortino
Chief Exec. Officer
DEL ORO WATER CO.-MAGALIA, System No. 410009
DRAWER 5172
CHICO, CA 95927

Dear : Robert Fortino

ISSUANCE OF PERMIT AMENDMENT 012103P04001A2

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the DEL ORO WATER CO.-MAGALIA water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

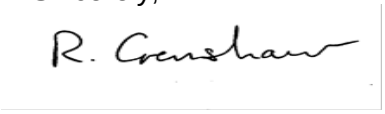

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 012103P04001A2

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

DEL ORO WATER CO.-MAGALIA
(Public Water System No. *410009*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***012103P04001A2***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

Robert Fortino
Chief Exec. Officer
DEL ORO WATER CO.-PARADISE PINES, System No. 410011
DRAWER 5172
CHICO, CA 95927

Dear : Robert Fortino

ISSUANCE OF PERMIT AMENDMENT 77-032A4

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the DEL ORO WATER CO.-PARADISE PINES water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

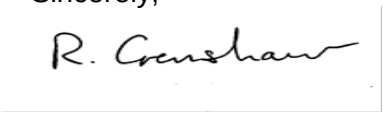

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 77-032A4

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

DEL ORO WATER CO.-PARADISE PINES
(Public Water System No. *410011*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***77-032A4***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD
OPERATIONS BRANCH

January 17, 2017

Robert Fortino
Chief Exec. Officer
DEL ORO WATER CO.-STIRLING BLUFFS, System No. 410018
DRAWER 5172
CHICO, CA 95927

Dear : Robert Fortino

ISSUANCE OF PERMIT AMENDMENT 01-02-97P04002

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the DEL ORO WATER CO.-STIRLING BLUFFS water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

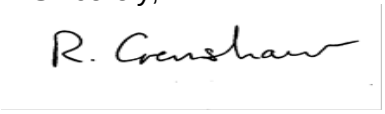

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 01-02-97P04002

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

DEL ORO WATER CO.-STIRLING BLUFFS
(Public Water System No. *410018*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***01-02-97P04002***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD
OPERATIONS BRANCH

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

DEL ORO WATER CO - METROPOLITAN DIST
Public Water System No. *1000057*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_016**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017 PWS No. 3410007

Debra Sedwick
General Manager
Del Paso Manor Water District, System No. 3410007
4268 Lusk Drive
Sacramento, CA 95864

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410007

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Del Paso Manor Water District public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410007

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Del Paso Manor Water District
Public Water System
(Public Water System No. 3410007)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410007**
EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 18, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

DEL REY COMMUNITY SERV DIST
Public Water System No. *1010035*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_102**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/7/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

Benjamin Ruiz
Interim Director
Delft Colony Water, System No. 5403023
5961 South Mooney Boulevard
Visalia, CA 93277

Dear: Benjamin Ruiz

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Delft Colony Water water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Delft Colony Water
(Public Water System No. 5403023)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2410006
January 17, 2017

STAN FEATHERS, GENERAL MANAGER
DELHI CWD
P.O. Box 639
DELHI, CA 95315

Dear STAN FEATHERS,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the DELHI CWD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Merced Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

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(Public Water System No.: *2410006*)

By The

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THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

163. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

164. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

165. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

166. The water system may stop lead sampling at a school if:

uuu. All initial samples are less than or equal to 15 ppb; or

vvv. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxxvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxxviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

www. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

xxx. If requested in writing by the school's authorized school representative.

167. The water system is responsible for the following costs:

kk. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ll. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

168. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

169. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

170. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

mmmm. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

nnnn. The date of the request;

oooo. The date of the initial meeting;

pppp. The date of the sampling plan along with a copy of each sampling plan; and

qqqq. The date of initial lead sampling and all repeat samples.

171. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

289. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
290. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
291. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
292. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
293. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
294. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
295. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

296. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
297. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
298. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
299. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
300. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
301. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
302. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
303. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
304. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

127. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
128. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
129. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

130. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
131. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
132. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
133. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

91. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
92. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
93. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
94. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
95. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
59. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
60. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

61. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

127. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
128. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
129. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
130. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
131. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
132. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
133. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

ROSA TELLEZ
PRESIDENT
DEMPSEY ROAD MUTUAL WATER CO, System No. 5610001
2265 Samuel Avenue
OXNARD, CA 93033

Dear: ROSA TELLEZ

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the DEMPSEY ROAD MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

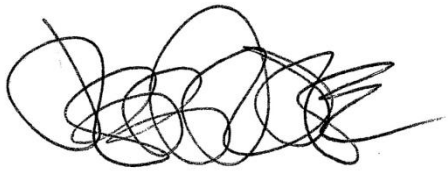

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

DEMPSEY ROAD MUTUAL WATER CO
(Public Water System No. *5610001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

585. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

586. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

587. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

588. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

589. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

590. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

591. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

592. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

658. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

659. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

660. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

661. The water system may stop lead sampling at a school if:

gggggggggggg. All initial samples are less than or equal to 15 ppb; or

hhhhhhhhhhhh. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxlvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxlviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

iiiiiiiiiiiii. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

jjjjjjjjjjjj. If requested in writing by the school's authorized school representative.

662. The water system is responsible for the following costs:

qqqqqq. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

rrrrrr. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

663. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

664. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

665. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

bbbbbbbbbbbbbbb. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

ccccccccccccccc. The date of the request;

ddddddddddddddd. The date of the initial meeting;

eeeeeeeeeeeeeee. The date of the sampling plan along with a copy of each sampling plan; and

fffffffffffffff. The date of initial lead sampling and all repeat samples.

666. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

David Odom
General Manager
Denair Community Services District, System No. 5010021
P.O. Box 217
Denair, CA 95316

Dear: Mr. Odom,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Denair Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Denair Community Services District
(Public Water System No. 5010021)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Dan Demoss
General Manager
Descanso Community Services District, System No. 3710009
4131 Northgate Blvd
Sacramento, CA 95834

Dear Dan Demoss:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Descanso Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Descanso Community Services District
(Public Water System No. *3710009*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Natalie Dadey, General Manager
Desert Lake Community Services District
12200 Del Oro Street
Boron, CA 93516

Dear Ms. Dadey:

ISSUANCE OF PERMIT AMENDMENT: 1510027-2017PA_SCHOOLS (System No. 1510027)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Desert Lake Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510027-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Desert Lake Community Services District
(Public Water System No. 1510027)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510027-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S. Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Mark Krause, P.E.
General Manager
Desert Water Agency, System No. 3310005
P.O. Box 1710
Palm Springs, CA 92263

Dear Mark Krause:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Desert Water Agency water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Desert Water Agency
(Public Water System No. 3310005)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

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5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

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THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mark Slobom, President
Devore WC
System No. 3610117
18185 Kenwood Ave,
San Bernardino, CA 92407

Dear: Mark Slobom,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Devore WC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Devore WC
(Public Water System No. *3610117*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA0710007

Mike Yeraka
General Manager
Diablo Water District
Po Box 127
Oakley, CA 94561-0127

Dear Mike Yeraka:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Diablo Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Contra Costa County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Diablo Water District
(Public Water System No. *CA0710007*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

DORABELLE MUTUAL WATER COMPANY
Public Water System No. *1000016*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_004**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

DOUBLE L MOBILE RANCH PARK
Public Water System No. *1000248*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_035**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

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and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Downieville Public U.D.
(Public Water System No. 4610002)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

January 17, 2017 PWS No. CA0110009

Clint Byrum
Field Operations Supervisor
Dublin San Ramon Services District
7051 Dublin Blvd
Dublin, CA 94568-3018

Dear Clint Byrum:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Dublin San Ramon Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Alameda County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Dublin San Ramon Services District
(Public Water System No. *CA0110009*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Robert Fortino
CEO
Ducor CSD, System No. 5400542
Drawer 5172
Chico, CA 95927

Dear: Robert Fortino

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Ducor CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Ducor CSD
(Public Water System No. 5400542)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Raymond Cooper
Board President
DURHAM IRRIGATION DISTRICT, System No. 410003
9418 MIDWAY UNIT #C
DURHAM, CA 95938

Dear : Raymond Cooper

ISSUANCE OF PERMIT AMENDMENT 77-046A4

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the DURHAM IRRIGATION DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

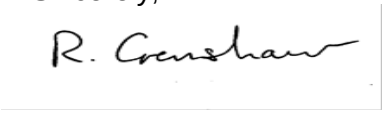

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 77-046A4

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

DURHAM IRRIGATION DISTRICT
(Public Water System No. *410003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***77-046A4***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

Valarie Bowker
Eagle's Nest Resort, System No. 5400602
27798 Highway 190
Porterville, CA 93257

Dear: Valarie Bowker

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Eagle's Nest Resort water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Eagle's Nest Resort
(Public Water System No. 5400602)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Rachel Garcia
General Manager
Earlimart PUD, System No. 5410021
P.O. Box 10148
Earlimart, CA 93219

Dear: Rachel Garcia

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Earlimart PUD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Earlimart PUD
(Public Water System No. 5410021)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

9. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
10. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
11. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Tim Ruiz, General Manager
East Niles Community Services District, System No. 1510006
P.O. Box 6038
Bakersfield, CA 93386

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Tim Ruiz:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the East Niles Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

East Niles Community Services District
(Public Water System No. *1510006*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Ms. Lisa Ohlund
General Manager
East Orange County Water District - RZ, System No. 3010068
185 North Mcpherson Road
Orange, CA 92869

Dear Ms. Ohlund:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the East Orange County Water District - RZ water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

East Orange County Water District - RZ
(Public Water System No. 3010068)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Ms. Lisa Ohlund
General Manager
East Orange County Water District - WZ, System No. 3010093
185 North Mcpherson Road
Orange, CA 92869

Dear Ms. Ohlund:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the East Orange County Water District - WZ water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

East Orange County Water District - WZ
(Public Water System No. 3010093)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Lucy Rodriguez
East Orosi CSD, System No. 5401003
P.O. Box 213
Orosi, CA 93647

Dear: Lucy Rodriguez

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the East Orosi CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

East Orosi CSD
(Public Water System No. 5401003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Lawrence Morales
VP & General Manager
East Pasadena Water Co.
3725 Mountain View Avenue
Pasadena, CA 91107

Dear Lawrence Morales:

System No. 1910020- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the East Pasadena Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

East Pasadena Water Co.
Public Water System No. *1910020*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

East Quincy Services District
(Public Water System No. 3210008)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

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3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

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THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

January 17, 2017

Melanie Clark
President
East Three Rivers Mutual, System No. 5400744
P.O. Box 161
Three Rivers, CA 93271

Dear: Melanie Clark

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the East Three Rivers Mutual water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

East Three Rivers Mutual
(Public Water System No. 5400744)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

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SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

John Mura, General Manager
East Valley Water District
System No. 3610064
31111 GreensP.O.t Road
Highland, CA 92346

Dear: John Mura,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the East Valley Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

East Valley Water District
(Public Water System No. *3610064*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Paul Jones
General Manager
Eastern Municipal Water District, System No. 3310009
P.O. Box 8300
2270 Trumble Rd.
Perris, CA 92572

Dear Paul Jones:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Eastern Municipal Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Eastern Municipal Water District
(Public Water System No. 3310009)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-17-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

EASTON ESTATES WATER COMPANY
Public Water System No. *1000018*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_005**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 18, 2017

Mr. Tom Post
Board Member
Eastside Water Association, System No. 3010008
P.O. Box 81
Midway City, CA 92655

Dear Mr. Post:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Eastside Water Association water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Eastside Water Association
(Public Water System No. 3010008)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

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SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 PWS No. CA0110005

Eileen White
Manager of Operations
East Bay MUD
375 Eleventh Street
Oakland, CA 94607-4246

Dear Eileen White:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the EBMUD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Alameda County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

East Bay Municipal Utilities District
(Public Water System No. *CA0110005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mark R. Edwards, 412 CES/CEOIU Civil Engineering
Edwards AFB - Main Base
225 N. Rosamond Blvd
Edwards AFB, CA 93524

Dear Mr. Edwards:

ISSUANCE OF PERMIT AMENDMENT: 1510701-2017PA_SCHOOLS (System No. 1510701)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Edwards AFB - Main Base water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510701-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Philicia Geiser, Edwards AFB (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Edwards AFB - Main Base
(Public Water System No. 1510701)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510701-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Terry Hagen
Director of Public Works
City of El Centro, System No. 1310004
307 West Brighton Avenue
El Centro, CA 92243

Dear Terry Hagen:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of El Centro water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

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Please visit the Division's school lead sampling webpage at:
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for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Jeff Lamoure, Deputy Director - Division of Environmental Health, Imperial County Public Health Department (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of El Centro
(Public Water System No. *1310004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

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2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 PWS No. 0910001

Jim Abercrombie
Manager
El Dorado Irrigation District – Mane, Public Water System No. 0910001
2890 Mosquito Road
Placerville, CA 95667

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-0910001

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the El Dorado Irrigation District – Mane public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-0910001

cc: County of El Dorado Environmental Management, Community Development Agency (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

El Dorado Irrigation District - Main
Public Water System
(Public Water System No. 0910001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-0910001**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Murry Sprunger
President, Board of Directors
El Dorado Mutual Water Co.
P.O. Box 900519
Palmdale, CA 93590

Dear Murry Sprunger:

System No: 1900803 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the El Dorado Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910801 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910801 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

El Dorado Mutual Water Co.

Los Angeles County
System No. 1900803

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

El Dorado Mutual Water Co.
Public Water System No. *1900803*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated:_____1/17/2017_____

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jason McDougall
El Monte Village MHP, System No. 5400523
3511 Del Paso Road, Suite 160-240
Sacramento, CA 95835

Dear: Jason McDougall

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the El Monte Village MHP water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

El Monte Village MHP
(Public Water System No. 5400523)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Mr. Robert Hill
General Manager
El Toro Water District, System No. 3010079
24251 Los Alisos Blvd.
Lake Forest, CA 92630

Dear Mr. Hill:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the El Toro Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

El Toro Water District
(Public Water System No. 3010079)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2300514

Norman De Vall, Board Member
Elk County Water District
P.O. Box 3
Elk, CA 95432

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2300514

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Norman De Vall:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Elk County Water District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2300514

cc: Charles Acker (ECWD), Manager, P.O. Box 54, Elk, CA 95432
Mendocino County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Elk County Water District
(Public Water System No. 2300514)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2300514/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Stan Drummond
President
ELK CREEK COMMUNITY S.D., System No. 1100616
P.O. Box 189
ELK CREEK, CA 95939

Dear : Stan Drummond

ISSUANCE OF PERMIT AMENDMENT 010299P11001A2

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the ELK CREEK COMMUNITY S.D. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

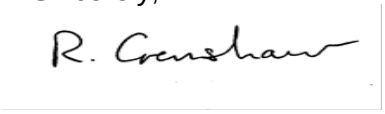

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 010299P11001A2

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

ELK CREEK COMMUNITY S.D.
(Public Water System No. *1100616*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***010299P11001A2***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD
OPERATIONS BRANCH

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 19, 2017 PWS No. 3410008

Mark Madison
General Manager
Elk Grove Water Service, System No. 3410008
9257 Elk Grove Blvd.
Elk Grove, CA 95624

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410008

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Elk Grove Water Service public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410008

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Elk Grove Water Service
Public Water System
(Public Water System No. 3410008)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410008**
EFFECTIVE DATE**: January 19, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 19, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

JEFF NAAS
GOLF COURSE SUPT
ELKINS RANCH, System No. 5601134
PO Box 695
FILLMORE, CA 93015

Dear: JEFF NAAS

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the ELKINS RANCH water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

ELKINS RANCH
(Public Water System No. *5601134*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

465. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

466. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

467. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

468. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

469. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

470. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

471. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

472. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

523. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

524. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

525. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

526. The water system may stop lead sampling at a school if:

yyyyyyyyy. All initial samples are less than or equal to 15 ppb; or

zzzzzzzzz. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

aaaaaaaaaa. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

bbbbbbbbbb. If requested in writing by the school's authorized school representative.

527. The water system is responsible for the following costs:

mmmmm. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

nnnnn. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

528. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

529. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

530. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

eeeeeeeeeeee. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

fffffffffff. The date of the request;

gggggggggggg. The date of the initial meeting;

hhhhhhhhhhh. The date of the sampling plan along with a copy of each sampling plan; and

iiiiiiiiiii. The date of initial lead sampling and all repeat samples.

531. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

ELM COURT
Public Water System No. *1000277*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_041**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

John Vega
General Manager
Elsinore Valley Municipal Water District, System No. 3310012
P.O. Box 3000
31315 Chaney St.
Lake Elsinore, CA 92530

Dear John Vega:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Elsinore Valley Municipal Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Elsinore Valley Municipal Water District
(Public Water System No. 3310012)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Debbie Loseth, Office Manager
Erskine Creek Water Company
P.O. Box 647
Lake Isabella, CA 93240

Dear Ms. Loseth:

ISSUANCE OF PERMIT AMENDMENT: 1510009-2017PA_SCHOOLS (System No. 1510009)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Erskine Creek Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510009-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
McMor Chlorination, Inc. (via email)
Rami Kahlon, CPUC (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Erskine Creek Water Company
(Public Water System No. 1510009)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510009-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S. Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Christopher Mckinney
Director of Utilities
City of Escondido, System No. 3710006
201 North Broadway
Escondido, CA 92025

Dear Christopher Mckinney:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Escondido water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Escondido
(Public Water System No. *3710006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 19, 2017 PWS No. 5710007

Jason Findley
Utility Systems Operator
Esparto Community Services District, System No. 5710007
P.O. Box 349
Esparto, CA 95627

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-5710007

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Esparto Community Services District public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-5710007

Cc: Yolo County Environmental Health Services (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Esparto Community Services District
Public Water System
(Public Water System No. 5710007)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-5710007**
EFFECTIVE DATE**: January 19, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 19, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

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Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Jeff Moneda
Estero Municipal Improvement District, System No. 4110021
610 Foster City Boulevard
Foster City, CA 94404

Dear Mr. Moneda:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Estero Municipal Improvement District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Estero Municipal Improvement District
(Public Water System No. *4110021*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 19, 2017 PWS No. 3410009

Tom Gray
General Manager
Fair Oaks Water District, System No. 3410009
10326 Fair Oaks Blvd.
Sacramento, CA 95628

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410009

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Fair Oaks Water District public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410009

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Fair Oaks Water District
Public Water System
(Public Water System No. 3410009)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410009**
EFFECTIVE DATE**: January 19, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 19, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Daniel Cowherd
President
Fairway Mutual Water Co., System No. 5403084
3152 Fairway
Kingsburg, CA 93631

Dear: Daniel Cowherd

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Fairway Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Fairway Mutual Water Co.
(Public Water System No. 5403084)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Fall River Valley CSD
(Public Water System No. 4510008)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Brian Brady
General Manager
Fallbrook Public Utilities District, System No. 3710008
P.O. Box 2290
Fallbrook, CA 92088

Dear Brian Brady:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Fallbrook Public Utilities District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Fallbrook Public Utilities District
(Public Water System No. *3710008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Joaquin Baeza, Superintendent
Fallsvale Service Company
System No. 3610021
P.O. Box 23
Forest Falls, CA 92339

Dear: Joaquin Baeza,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Fallsvale Service Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Fallsvale Service Company
(Public Water System No. *3610021*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FARMING D
Public Water System No. *1009147*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_078**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCSA #05/WILDWOOD ISLAND
Public Water System No. *1000021*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_007**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCSA #10A/MANSIONETTE ESTATES
Public Water System No. *1000554*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_063**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCSA #10/CUMORAH KNOLLS
Public Water System No. *1000039*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_009**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCSA #14/BELMONT MANOR
Public Water System No. *1000023*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_008**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCSA #30/EL PORVENIR
Public Water System No. *1000019*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_006**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCSA #32/CANTUA CREEK
Public Water System No. *1000359*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_047**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCSA #34/ MILLERTON NEW TOWN
Public Water System No. *1000484*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_059**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCSA #39 A&B
Public Water System No. *1000471*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_057**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCSA #43/RAISIN CITY
Public Water System No. *1000551*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_062**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCSA #44D/MONTE VERDI
Public Water System No. *1000550*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_061**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCSA #47/QUAIL LAKE ESTATES
Public Water System No. *1010055*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_109**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCSA #49/ FIVE POINTS
Public Water System No. *1000546*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_060**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCSA #44C/RIVERVIEW ESTATES
Public Water System No. *1000555*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_064**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCWWD #18/FRIANT
Public Water System No. *1010051*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_106**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCWWD #18/MIRA BELLA
Public Water System No. *1010062*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_110**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCWWD #37/MILE HIGH
Public Water System No. *1000040*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_010**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCWWD #38/SKY HARBOUR
Public Water System No. *1000041*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_011**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCWWD #40/SHAVER SPRINGS
Public Water System No. *1000042*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_012**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCWWD #41/SHAVER LAKE
Public Water System No. *1010017*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_090**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

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3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

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ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

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a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

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   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

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FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FCWWD #42/ALLUVIAL & FANCHER
Public Water System No. *1000078*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_026**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

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b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

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Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

Matt Edmiston
Captain
Fenner Canyon Youth Conservation Camp
P.O. Box 7
Valyermo, CA 93563

Dear Matt Edmiston:

System No: 1910801 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Fenner Canyon Youth Conservation Camp water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910801 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910801 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Fenner Canyon Youth Conservation Camp

Los Angeles County
System No. 1910801

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Fenner Canyon Youth Conservation Camp
Public Water System No. *1910801*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

CHRIS WOODARD
WATER SUPERINTENDENT
FILLMORE IRRIGATION CO, System No. 5601105
540 Sespe Avenue #4
FILLMORE, CA 93015

Dear: CHRIS WOODARD

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the FILLMORE IRRIGATION CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

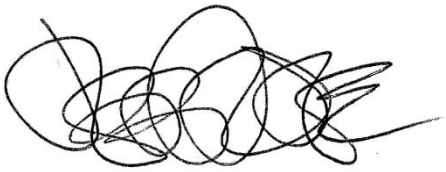

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FILLMORE IRRIGATION CO
(Public Water System No. *5601105*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

401. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

402. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

403. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

404. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

405. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

406. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

407. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

408. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

451. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

452. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

453. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

454. The water system may stop lead sampling at a school if:

ssssssss. All initial samples are less than or equal to 15 ppb; or

tttttttt. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

ci. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

uuuuuuuu. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

vvvvvvvv. If requested in writing by the school's authorized school representative.

455. The water system is responsible for the following costs:

wwww. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

xxxx. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

456. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

457. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

458. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

qqqqqqqqqq. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

rrrrrrrrrr. The date of the request;

sssssssss. The date of the initial meeting;

tttttttttt. The date of the sampling plan along with a copy of each sampling plan; and

uuuuuuuuuu. The date of initial lead sampling and all repeat samples.

459. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAVID SMALLWOOD
PUBLIC WORKS SUPV
FILLMORE WATER DEPT, System No. 5610002
250 Central Avenue Central Park Plaza
FILLMORE, CA 93015

Dear: DAVID SMALLWOOD

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the FILLMORE WATER DEPT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FILLMORE WATER DEPT
(Public Water System No. *5610002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

593. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

594. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

595. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

596. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

597. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

598. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

599. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

600. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

667. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

668. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

669. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

670. The water system may stop lead sampling at a school if:

kkkkkkkkkkkk. All initial samples are less than or equal to 15 ppb; or

lllllllllll. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxlix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cl. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

mmmmmmmmmmmm. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

nnnnnnnnnnnn. If requested in writing by the school's authorized school representative.

671. The water system is responsible for the following costs:

ssssss. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

tttttt. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

672. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

673. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

674. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

gggggggggggggg. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

hhhhhhhhhhhhhh. The date of the request;

iiiiiiiiiiiiii. The date of the initial meeting;

jjjjjjjjjjjjjj. The date of the sampling plan along with a copy of each sampling plan; and

kkkkkkkkkkkkkkk. The date of initial lead sampling and all repeat samples.

675. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FIVE POINTS RANCH
Public Water System No. *1009020*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_069**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 19, 2017 PWS No. 3410033

Rick Bedal
General Manager
Florin County Water District, System No. 3410033
P.O. Box 292055
Sacramento, CA 95829

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410033

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Florin County Water District public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410033

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Florin County Water District
Public Water System
(Public Water System No. 3410033)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410033**
EFFECTIVE DATE**: January 19, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 19, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Tony Gonzalez
Foothill Apartments, System No. 5400769
507 E. Scranton Avenue
Porterville, CA 93257

Dear: Tony Gonzalez

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

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If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

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If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Foothill Apartments
(Public Water System No. 5400769)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Dawana Cortez, Office Manager
Forest Lakes Mutual Water Company, System No. 4410016
910 Fern Avenue
Felton, CA. 95018

Dear Ms. Cortez:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Forest Lakes Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FOREST LAKES MUTUAL WATER COMPANY
(Public Water System No. *4410016*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Foresthill Public Utility District
(Public Water System No. 3110003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 4910019

Matthew Froneberger, General Manager
Forestville County Water District
P.O. Box 261
Forestville, CA 95436

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910019

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Matthew Froneberger:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Forestville County Water District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910019

cc: Sonoma County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Forestville County Water District
(Public Water System No. 4910019)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910019/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Michael Moeller, Comp. & IRP Manager
Fort Hunter Liggett, System No. 2710702
P.O. Box 7090
USAG Fort Hunter Liggett, CA. 93928-7090

Dear Mr. Moeller:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Fort Hunter Liggett water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

FORT HUNTER LIGGETT
(Public Water System No. *2710702*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Jonnie E. Allison, General Manager
Frazier Park Public Utilities District
P.O. Box 1525
Frazier Park, CA 93225

Dear Mr. Allison:

ISSUANCE OF PERMIT AMENDMENT: 1510007-2017PA_SCHOOLS (System No. 1510007)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Frazier Park Public Utilities District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510007-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Frazier Park Public Utilities District
(Public Water System No. 1510007)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510007-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

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5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

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   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

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THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 19, 2017 PWS No. 3410023

Robert Cook
General Manager
Fruitridge Vista Water Company, System No. 3410023
1108 2nd Street
Sacramento, CA 95814

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410023

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Fruitridge Vista Water Company public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410023

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Fruitridge Vista Water Company
Public Water System
(Public Water System No. 3410023)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410023**
EFFECTIVE DATE**: January 19, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 19, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

JEANNIE GARCIA
SECRETARY
GARDEN ACRES MUTUAL WATER CO, System No. 5602108
2838 Fredrich Road
OXNARD, CA 93036

Dear: JEANNIE GARCIA

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GARDEN ACRES MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

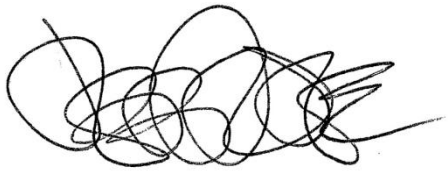

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GARDEN ACRES MUTUAL WATER CO
(Public Water System No. *5602108*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

529. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

530. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

531. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

532. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

533. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

534. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

535. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

536. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

595. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

596. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

597. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

598. The water system may stop lead sampling at a school if:

eeeeeeeeeee. All initial samples are less than or equal to 15 ppb; or

fffffffffff. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxxxiii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxxxiv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

gggggggggg. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

hhhhhhhhhh. If requested in writing by the school's authorized school representative.

599. The water system is responsible for the following costs:

cccccc. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

dddddd. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

600. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

601. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

602. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

sssssssssssss. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

tttttttttttt. The date of the request;

uuuuuuuuuuuu. The date of the initial meeting;

vvvvvvvvvvvv. The date of the sampling plan along with a copy of each sampling plan; and

wwwwwwwwwwwww. The date of initial lead sampling and all repeat samples.

603. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GEORGE COX WATER SYSTEM
Public Water System No. *1000407*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_053**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 PWS No. 0910013

Henry White
General Manager
Georgetown Divide Public Utility District, System No. 0910013
6425 Main Street
Georgetown, CA 95634

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-0910013

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Georgetown Divide Public Utility District public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-0910013

cc: County of El Dorado Environmental Management, Community Development Agency (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Georgetown Divide Public Utility District
Public Water System
(Public Water System No. 0910013)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-0910013**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Mike Murphy
Business Manager
GERBER LAS FLORES CSD, System No. 5210002
331 San Benito Avenue
GERBER, CA 96035

Dear : Mike Murphy

ISSUANCE OF PERMIT AMENDMENT 012102P52002A2

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GERBER LAS FLORES CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

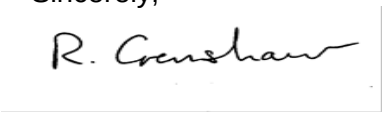

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 012102P52002A2

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GERBER LAS FLORES CSD
(Public Water System No. *5210002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***012102P52002A2***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD
OPERATIONS BRANCH

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

System No. 4910024

Margaret Digenova, Oper Superintendent
Geyserville Water Works (PUC)
4787 Old Redwood Highway
Santa Rosa, CA 95403

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910024

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Margaret Digenova:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Geyserville Water Works (PUC) (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910024

cc: Sonoma County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Geyserville Water Works (PUC)
(Public Water System No. 4910024)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910024/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Fritz Meier
Gleanings for the Hungry, System No. 5402047
P.O. Box 309
Sultana, CA 93666

Dear: Fritz Meier

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Gleanings for the Hungry water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Gleanings for the Hungry
(Public Water System No. 5402047)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Frank Haahr, General Manager
Glen Martin MWC
System No. 3610016
P.O. Box 2
Angelus Oaks, CA 92305

Dear: Frank Haahr,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Glen Martin MWC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Glen Martin MWC
(Public Water System No. *3610016*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/12

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

May 15, 2017

Brett Rogers, President
Glennville Mutual Water Company
P.O. Box 931
Glennville, CA 93226

Dear Mr. Rogers:

ISSUANCE OF PERMIT AMENDMENT: 1503536-2017PA_SCHOOLS (System No. 1503536)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Glennville Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

Glennville Mutual Water Company is receiving this permit amendment since it recently started serving Linns Valley School. If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

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for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5646 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1503536-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
McMor Chlorination Inc. (Email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Glennville Mutual Water Company
(Public Water System No.1503536)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1503536-2017PA-SCHOOLS**

EFFECTIVE DATE: **May 15, 2017**

WHEREAS:

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5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: May 15, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

William Fisher, General Manager
Golden Hills Community Services District
P.O. Box 637
Tehachapi, CA 93581

Dear Mr. Fisher:

ISSUANCE OF PERMIT AMENDMENT: 1510045-2017PA_SCHOOLS (System No. 1510045)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Golden Hills Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510045-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Mike Sides, Golden Hills CSD (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Golden Hills Community Services District
(Public Water System No. 1510045)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510045-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 1710002

Paul Schubert, District Manager
Golden State Water Co.-Clearlake System
3005 Gold Canal Drive
Rancho Cordova, CA 95670-6129

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_1710002

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Paul Schubert:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Golden State Water Co.-Clearlake System (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_1710002

cc:

Lake County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Golden State Water Co.-Clearlake System
(Public Water System No. 1710002)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

1710002/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Dave Schultise
Water Quality Engineer
GSWC - Southwest
14401 South Chadron Avenue
Hawthorne, CA 90250

Dear: Dave Schultise

System No: 1910155 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GSWC - Southwest water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910155 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910155 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GSWC - Southwest
Public Water System No. *1910155*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017 PWS No. 3410003

Paul Schubert
District Manager
Golden State Water Company – Arden Water Service, System No. 3410003
3005 Gold Canal Drive
Sacramento, CA 95670

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410003

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Golden State Water Company – Arden Water Service public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410003

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Golden State Water Company – Arden Water Service
Public Water System
(Public Water System No. 3410003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410003**
EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 18, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 PWS No. 3410015

Paul Schubert
District Manager
Golden State Water Company - Cordova, System No. 3410015
3005 Gold Canal Drive
Rancho Cordova, CA 95670

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410015

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Golden State Water Company - Cordova public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410015

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Golden State Water Company - Cordova
Public Water System
(Public Water System No. 3410015)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410015**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Perry Dahlstrom, District Manager
Golden State Water Co - Apple Valley North
System No. 3610105
13608 Hitt Road
Apple Valley, CA 92308

Dear: Perry Dahlstrom,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Golden State Water Co - Apple Valley North water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Golden State Water Co - Apple Valley North
(Public Water System No. *3610105*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

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1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Perry Dahlstrom, District Manager
Golden State Water Co - Apple Valley South
System No. 3610107
13608 Hitt Road
Apple Valley, CA 92308

Dear: Perry Dahlstrom,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Golden State Water Co - Apple Valley South water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Golden State Water Co - Apple Valley South
(Public Water System No. *3610107*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Perry Dahlstrom, District Manager
Golden State Water Co - Barstow
System No. 3610043
13608 Hitt Road
Apple Valley, CA 92308

Dear: Perry Dahlstrom,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Golden State Water Co - Barstow water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Golden State Water Co - Barstow
(Public Water System No. *3610043*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Perry Dahlstrom, District Manager
Golden State Water Co - Lucerne
System No. 3610108
13608 Hitt Road
Apple Valley, CA 92308

Dear: Perry Dahlstrom,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Golden State Water Co - Lucerne water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Golden State Water Co - Lucerne
(Public Water System No. *3610108*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs *"3Ts for Reducing Lead in Drinking Water in Schools"* as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Perry Dahlstrom, District Manager
Golden State Water Co - Morongo Del Sur
System No. 3610063
13608 Hitt Road
Apple Valley, CA 92308

Dear: Perry Dahlstrom,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Golden State Water Co - Morongo Del Sur water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Golden State Water Co - Morongo Del Sur
(Public Water System No. *3610063*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/12

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Perry Dahlstrom, District Manager
Golden State Water Co - Wrightwood
System No. 3610047
13608 Hitt Road
Apple Valley, CA 92308

Dear: Perry Dahlstrom,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Golden State Water Co - Wrightwood water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Golden State Water Co - Wrightwood
(Public Water System No. *3610047*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Ms. Samantha Chen
Water Quality Engineer
Golden State Water Company - Cowan Heights, System No. 3010047
1920 W. Corporate Way
Anaheim, CA 92801

Dear Ms. Chen:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Golden State Water Company - Cowan Heights water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Golden State Water Company - Cowan Heights
(Public Water System No. 3010047)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Ms. Samantha Chen
Water Quality Engineer
Golden State Water Company - Placentia, System No. 3010035
1920 W. Corporate Way
Anaheim, CA 92801

Dear Ms. Chen:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Golden State Water Company - Placentia water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Golden State Water Company - Placentia
(Public Water System No. 3010035)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Ms. Samantha Chen
Water Quality Engineer
Golden State Water Company - West Orange, System No. 3010022
1920 W. Corporate Way
Anaheim, CA 92801

Dear Ms. Chen:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Golden State Water Company - West Orange water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Golden State Water Company - West Orange
(Public Water System No. 3010022)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Ms. Samantha Chen
Water Quality Engineer
Golden State Water Company - Yorba Linda, System No. 3010070
1920 W. Corporate Way
Anaheim, CA 92801

Dear Ms. Chen:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

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If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

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(Public Water System No. 3010070)

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1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

JOHN MCINNES
GENERAL MANAGER
GOLETA WATER DISRICT, System No. 4210004
4699 Hollister Avenue
GOLETA, CA 93110

Dear: JOHN MCINNES

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GOLETA WATER DISRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

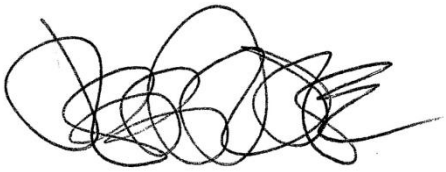

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GOLETA WATER DISRICT
(Public Water System No. *4210004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

257. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

258. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

259. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

260. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

261. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

262. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

263. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

264. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

289. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

290. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

291. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

292. The water system may stop lead sampling at a school if:

yyyyy. All initial samples are less than or equal to 15 ppb; or

zzzzz. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

aaaaaa. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

bbbbbb. If requested in writing by the school's authorized school representative.

293. The water system is responsible for the following costs:

mmm. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

nnn. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

294. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

295. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

296. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

eeeeeee. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

fffffff. The date of the request;

ggggggg. The date of the initial meeting;

hhhhhhh. The date of the sampling plan along with a copy of each sampling plan; and

iiiiiii. The date of initial lead sampling and all repeat samples.

297. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. John Roeder
Great Oaks Water Company, Inc., System No. 4310022
20 Great Oaks Blvd. Suite 120
San Jose, CA 95119

Dear Mr. Roeder:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Great Oaks Water Company, Inc. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Great Oaks Water Company, Inc.
(Public Water System No. *4310022*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet; check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GREEN ACRES MOBILE HOME ESTATES
Public Water System No. *1000229*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_031**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

Kevin Francis
General Manager
Green Valley Cwd
39520 Calle Cascada
Green Valley, CA 91390

Dear Kevin Francis:

System No: 1910244 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Green Valley Cwd water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910244 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910244 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Green Valley Cwd

Los Angeles County
System No. 1910244

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Green Valley Cwd
Public Water System No. *1910244*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated:_____1/17/2017_____

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Richard Mull, Manager
Green Valley MWC
System No. 3610023
P. O. Box 8300
Green Valley Lake, CA 92341

Dear: Richard Mull,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Green Valley MWC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Green Valley MWC
(Public Water System No. *3610023*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

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3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

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   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Mel Johnson, General Manager
Greenfield County Water District, System No. 1510024
551 Taft Highway
Bakersfield, CA 93307

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Mel Johnson:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Greenfield County Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Greenfield County Water District
(Public Water System No. *1510024*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Helen Erb
Board Secretary
Grier Mutual Water Co., System No. 5400728
P.O. Box 73
Camp Nelson, CA 93208

Dear: Helen Erb

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Grier Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Grier Mutual Water Co.
(Public Water System No. 5400728)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 5510009
January 17, 2017

JOHN STERLING, OPERATIONS MANAGER
GROVELAND COMMUNITY SERV DIST
18966 FERRETTI ROAD P.O. BOX 350
GROVELAND, CA 95321

Dear JOHN STERLING,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GROVELAND COMMUNITY SERV DIST water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tuolumne Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GROVELAND COMMUNITY SERV DIST
(Public Water System No.: *5510009*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

281. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

282. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

283. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

284. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

285. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

286. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

287. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

288. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

316. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

317. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

318. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

319. The water system may stop lead sampling at a school if:

kkkkkk. All initial samples are less than or equal to 15 ppb; or

llllll. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxxi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxxii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

mmmmmm. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

nnnnnn. If requested in writing by the school's authorized school representative.

320. The water system is responsible for the following costs:

sss. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ttt. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

321. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

322. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

323. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

tttttt. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

uuuuuuu. The date of the request;

vvvvvvv. The date of the initial meeting;

wwwwwwww. The date of the sampling plan along with a copy of each sampling plan; and

xxxxxxx. The date of initial lead sampling and all repeat samples.

324. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

561. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
562. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
563. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
564. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
565. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
566. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
567. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

568. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
569. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
570. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
571. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
572. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
573. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
574. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
575. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
576. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

246. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
247. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
248. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

249. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
250. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
251. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
252. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

176. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
177. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
178. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
179. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
180. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
110. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
111. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

112. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

246. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
247. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
248. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
249. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
250. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
251. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
252. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

GREG RAY
PW DIRECTOR
GROVER BEACH WATER DEPARTMENT, System No. 4010004
154 South 8th Street
GROVER BEACH, CA 93483

Dear: GREG RAY

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GROVER BEACH WATER DEPARTMENT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

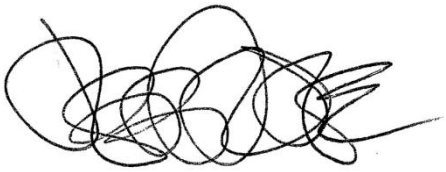

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GROVER BEACH WATER DEPARTMENT
(Public Water System No. *4010004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

49. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

50. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

51. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

52. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

53. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

54. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

55. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

56. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

55. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

56. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

57. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

58. The water system may stop lead sampling at a school if:

y. All initial samples are less than or equal to 15 ppb; or

z. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xiii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xiv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

aa. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

bb. If requested in writing by the school's authorized school representative.

59. The water system is responsible for the following costs:

m. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

n. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

60. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

61. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

62. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    ee. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    ff. The date of the request;

    gg. The date of the initial meeting;

    hh. The date of the sampling plan along with a copy of each sampling plan; and

    ii. The date of initial lead sampling and all repeat samples.

63. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Perry Dahlstrom
District Manager
Golden State Water Company - Calipatria, System No. 1310003
13608 Hitt Road
Apple Valley, CA 92308

Dear Perry Dahlstrom:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Golden State Water Company - Calipatria water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Jeff Lamoure, Deputy Director - Division of Environmental Health, Imperial County Public Health Department (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Golden State Water Company - Calipatria
(Public Water System No. *1310003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAWN WHITE
WATER QUALITY MANAGER
GOLDEN STATE WATER COMPANY - EDNA, System No. 4010023
401 S. San Dimas Canyon Road
SAN DIMAS, CA 91773

Dear: DAWN WHITE

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GOLDEN STATE WATER COMPANY - EDNA water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

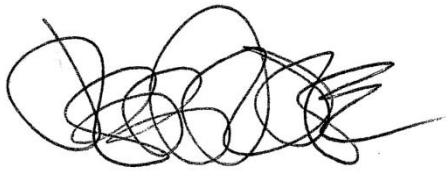

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GOLDEN STATE WATER COMPANY - EDNA
(Public Water System No. *4010023*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

169. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

170. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

171. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

172. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

173. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

174. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

175. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

176. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

190. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

191. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

192. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

193. The water system may stop lead sampling at a school if:

gggg. All initial samples are less than or equal to 15 ppb; or

hhhh. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xliii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xliv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

iiii. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

jjjj. If requested in writing by the school's authorized school representative.

194. The water system is responsible for the following costs:

qq. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

rr. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

195. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

196. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

197. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

bbbbb. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

ccccc. The date of the request;

ddddd. The date of the initial meeting;

eeeee. The date of the sampling plan along with a copy of each sampling plan; and

fffff. The date of initial lead sampling and all repeat samples.

198. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAWN WHITE
WATER QUALITY MANAGER
GOLDEN STATE WATER COMPANY - LAKE MARIE, System No. 4210022
401 S. San Dimas Canyon Road
SAN DIMAS, CA 91773

Dear: DAWN WHITE

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GOLDEN STATE WATER COMPANY - LAKE MARIE water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

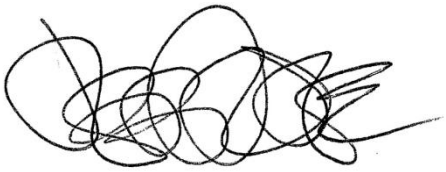

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GOLDEN STATE WATER COMPANY - LAKE MARIE

(Public Water System No. *4210022*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

369. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

370. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

371. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

372. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

373. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

374. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

375. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

376. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

415. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

416. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

417. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

418. The water system may stop lead sampling at a school if:

cccccccc. All initial samples are less than or equal to 15 ppb; or

ddddddd. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xciii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xciv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

eeeeeeee. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ffffffff. If requested in writing by the school's authorized school representative.

419. The water system is responsible for the following costs:

oooo. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

pppp. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

420. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

421. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

422. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

wwwwwwwww. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

xxxxxxxxx. The date of the request;

yyyyyyyyy. The date of the initial meeting;

zzzzzzzzz. The date of the sampling plan along with a copy of each sampling plan; and

aaaaaaaaaa. The date of initial lead sampling and all repeat samples.

423. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Lisa Miller
Water Quality Engineer
Gswc - Artesia
12035 Burke Street, Suite 1
Santa Fe Springs, CA 90670

Dear Lisa Miller:

System No: 1910004 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Gswc - Artesia water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910250 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910250 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Gswc - Artesia

Los Angeles County
System No. 1910004

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Gswc - Artesia
Public Water System No. *1910004*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA0710002

Paul Schubert
District Manager
Golden State Water Company - Bay Point
3005 Gold Canal Dr
Rancho Cordova, CA 95670-6129

Dear Paul Schubert:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Golden State Water Company - Bay Point water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Contra Costa County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Golden State Water Company - Bay Point
(Public Water System No. *CA0710002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Lisa Miller
Water Quality Engineer
Gswc - Bell, Bell Gardens
12035 Burke Street, Suite 1
Santa Fe Springs, CA 90670

Dear Lisa Miller:

System No: 1910011 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Gswc - Bell, Bell Gardens water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910011 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910011 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Gswc - Bell, Bell Gardens

Los Angeles County
System No. 1910011

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Gswc - Bell, Bell Gardens
Public Water System No. *1910011*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Alex Chakmak
Water Quality Engineer
GSWC - Claremont
401 S. San Dimas Canyon Rd.
San Dimas, CA 91773

Dear Alex Chakmak:

System No: 1910024 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GSWC - Claremont water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910024 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910024 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

GSWC - Claremont

Los Angeles County
System No. 1910024

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GSWC - Claremont
Public Water System No. *1910024*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Lisa Miller
Water Quality Engineer
Gswc - Culver City
12035 Burke Street, Suite 1
Santa Fe Springs, CA 90670

Dear Lisa Miller:

System No: 1910030 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Gswc - Culver City water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910030 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910030 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Gswc - Culver City

Los Angeles County
System No. 1910030

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Gswc - Culver City
Public Water System No. *1910030*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAWN WHITE
WATER QUALITY MANAGER
GOLDEN STATE WATER COMPANY-CYPRESS RIDGE, System No. 4010040
401 S. San Dimas Canyon Road
SAN DIMAS, CA 91773

Dear: DAWN WHITE

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GOLDEN STATE WATER COMPANY-CYPRESS RIDGE water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

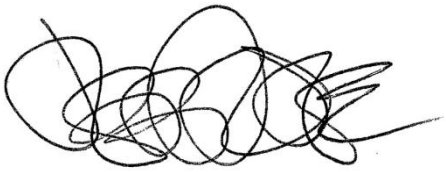

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GOLDEN STATE WATER COMPANY-CYPRESS RIDGE
(Public Water System No. *4010040*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

209. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

210. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

211. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

212. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

213. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

214. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

215. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

216. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

235. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

236. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

237. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

238. The water system may stop lead sampling at a school if:

aaaaa. All initial samples are less than or equal to 15 ppb; or

bbbbb. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

liii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

liv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ccccc. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ddddd. If requested in writing by the school's authorized school representative.

239. The water system is responsible for the following costs:

aaa. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

bbb. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

240. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

241. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

242. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

aaaaaa. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

bbbbbb. The date of the request;

cccccc. The date of the initial meeting;

dddddd. The date of the sampling plan along with a copy of each sampling plan; and

eeeeee. The date of initial lead sampling and all repeat samples.

243. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Lisa Miller
Water Quality Engineer
Gswc - Florence/Graham
12035 Burke Street, Suite 1
Santa Fe Springs, CA 90670

Dear Lisa Miller:

System No: 1910077 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Gswc - Florence/Graham water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910077 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910077 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Gswc - Florence/Graham

Los Angeles County
System No. 1910077

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Gswc - Florence/Graham
Public Water System No. *1910077*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Lisa Miller
Water Quality Engineer
Gswc - Hollydale
12035 Burke Street, Suite 1
Santa Fe Springs, CA 90670

Dear Lisa Miller:

System No: 1910195 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Gswc - Hollydale water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910195 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910195 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Gswc - Hollydale

Los Angeles County
System No. 1910195

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Gswc - Hollydale
Public Water System No. *1910195*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated:_____1/17/2017_____

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAWN WHITE
WATER QUALITY MANAGER
GOLDEN STATE WATER COMPANY - LOS OSOS, System No. 4010017
401 S. San Dimas Canyon Road
SAN DIMAS, CA 91773

Dear: DAWN WHITE

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GOLDEN STATE WATER COMPANY - LOS OSOS water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

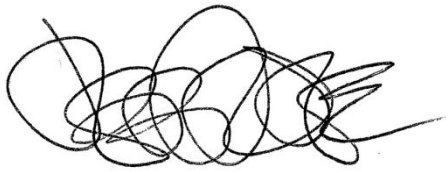

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GOLDEN STATE WATER COMPANY - LOS OSOS

(Public Water System No. *4010017*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

145. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

146. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

147. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

148. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

149. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

150. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

151. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

152. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

163. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

164. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

165. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

166. The water system may stop lead sampling at a school if:

uuu. All initial samples are less than or equal to 15 ppb; or

vvv. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxxvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxxviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

www. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

xxx. If requested in writing by the school's authorized school representative.

167. The water system is responsible for the following costs:

kk. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ll. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

168. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

169. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

170. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

mmmm. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

nnnn. The date of the request;

oooo. The date of the initial meeting;

pppp. The date of the sampling plan along with a copy of each sampling plan; and

qqqq. The date of initial lead sampling and all repeat samples.

171. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAWN WHITE
WATER QUALITY MANAGER
GOLDEN STATE WATER COMPANY - NIPOMO, System No. 4010018
401 S. San Dimas Canyon Road
SAN DIMAS, CA 91773

Dear: DAWN WHITE

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GOLDEN STATE WATER COMPANY - NIPOMO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

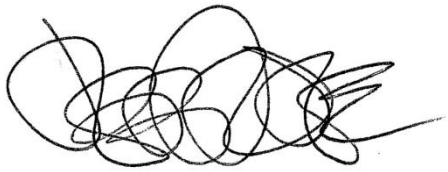

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GOLDEN STATE WATER COMPANY - NIPOMO
(Public Water System No. *4010018*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

153. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

154. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

155. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

156. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

157. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

158. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

159. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

160. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

172. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

173. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

174. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

175. The water system may stop lead sampling at a school if:

yyy. All initial samples are less than or equal to 15 ppb; or

zzz. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxxix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xl. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

aaaa. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

bbbb. If requested in writing by the school's authorized school representative.

176. The water system is responsible for the following costs:

mm. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

nn. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

177. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

178. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

179. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

rrrr. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

ssss. The date of the request;

tttt. The date of the initial meeting;

uuuu. The date of the sampling plan along with a copy of each sampling plan; and

vvvv. The date of initial lead sampling and all repeat samples.

180. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Lisa Miller
Water Quality Engineer
Gswc - Norwalk
12035 Burke Street, Suite 1
Santa Fe Springs, CA 90670

Dear Lisa Miller:

System No: 1910098 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Gswc - Norwalk water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910098 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910098 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Gswc - Norwalk

Los Angeles County
System No. 1910098

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Gswc - Norwalk
Public Water System No. *1910098*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated:_____1/17/2017_____

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAWN WHITE
WATER QUALITY MANAGER
GOLDEN STATE WATER COMPANY - OJAI, System No. 5610014
401 S. San Dimas Canyon Road
SAN DIMAS, CA 91773

Dear: DAWN WHITE

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GOLDEN STATE WATER COMPANY - OJAI water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

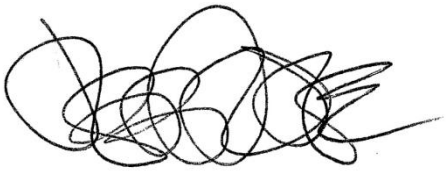

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GOLDEN STATE WATER COMPANY - OJAI
(Public Water System No. *5610014*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

665. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

666. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

667. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

668. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

669. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

670. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

671. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

672. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

748. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

749. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

750. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

751. The water system may stop lead sampling at a school if:

uuuuuuuuuuuuu. All initial samples are less than or equal to 15 ppb; or

vvvvvvvvvvvvv. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clxvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clxviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

wwwwwwwwwwwwww. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

xxxxxxxxxxxxx. If requested in writing by the school's authorized school representative.

752. The water system is responsible for the following costs:

kkkkkkk. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

llllll. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

753. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

754. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

755. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

zzzzzzzzzzzzzzzz. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

aaaaaaaaaaaaaaaa. The date of the request;

bbbbbbbbbbbbbbbb. The date of the initial meeting;

ccccccccccccccccc. The date of the sampling plan along with a copy of each sampling plan; and

ddddddddddddddddd. The date of initial lead sampling and all repeat samples.

756. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAWN WHITE
WATER QUALITY MANAGER
GOLDEN STATE WATER COMPANY - ORCUTT, System No. 4210016
401 S. San Dimas Canyon Road
SAN DIMAS, CA 91773

Dear: DAWN WHITE

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

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If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

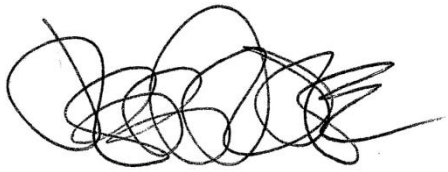

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GOLDEN STATE WATER COMPANY - ORCUTT
(Public Water System No. *4210016*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

321. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

322. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

323. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

324. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

325. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

326. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

327. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

328. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

361. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

362. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

363. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

364. The water system may stop lead sampling at a school if:

eeeeeee. All initial samples are less than or equal to 15 ppb; or

fffffff. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxxxi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxxxii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

gggggg. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

hhhhhhh. If requested in writing by the school's authorized school representative.

365. The water system is responsible for the following costs:

cccc. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

dddd. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

366. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

367. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

368. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

ssssssss. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

tttttttt. The date of the request;

uuuuuuuu. The date of the initial meeting;

vvvvvvvv. The date of the sampling plan along with a copy of each sampling plan; and

wwwwwwww. The date of initial lead sampling and all repeat samples.

369. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Alex Chakmak
Water Quality Engineer
GSWC-San Dimas
401 S. San Dimas Canyon Rd.
San Dimas, CA 91773

Dear Alex Chakmak:

System No: 1910142 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GSWC-San Dimas water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910142 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910142 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

GSWC-San Dimas

Los Angeles County
System No. 1910142

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GSWC-San Dimas
Public Water System No. *1910142*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAWN WHITE
WATER QUALITY MANAGER
GOLDEN STATE WATER COMPANY - SIMI VALLEY, System No. 5610059
401 S. San Dimas Canyon Road
SAN DIMAS, CA 91773

Dear: DAWN WHITE

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GOLDEN STATE WATER COMPANY - SIMI VALLEY water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

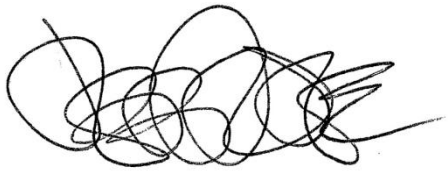

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GOLDEN STATE WATER COMPANY - SIMI VALLEY
(Public Water System No. *5610059*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

825. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

826. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

827. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

828. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

829. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

830. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

831. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

832. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

928. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

929. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

930. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

931. The water system may stop lead sampling at a school if:

wwwwwwwwwwwwwwwww. All initial samples are less than or equal to 15 ppb; or

xxxxxxxxxxxxxxxx. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

ccvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ccviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

yyyyyyyyyyyyyyyy. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

zzzzzzzzzzzzzzzz. If requested in writing by the school's authorized school representative.

932. The water system is responsible for the following costs:

yyyyyyyy. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

zzzzzzzz. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

933. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

934. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

935. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

vvvvvvvvvvvvvvvvvvvv. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

wwwwwwwwwwwwwwwwwwwww. The date of the request;

xxxxxxxxxxxxxxxxxxxx. The date of the initial meeting;

yyyyyyyyyyyyyyyyyyyy. The date of the sampling plan along with a copy of each sampling plan; and

zzzzzzzzzzzzzzzzzzzz. The date of initial lead sampling and all repeat samples.

936. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Alex Chakmak
Water Quality Engineer
GSWC-South Arcadia
401 S. San Dimas Canyon Rd.
San Dimas, CA 91773

Dear Alex Chakmak:

System No: 1910212 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GSWC-South Arcadia water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910212 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910212 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

GSWC-South Arcadia

Los Angeles County
System No. 1910212

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GSWC-South Arcadia
Public Water System No. *1910212*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Alex Chakmak
Water Quality Engineer
GSWC-South San Gabriel
401 S. San Dimas Canyon Rd.
San Dimas, CA 91773

Dear Alex Chakmak:

System No: 1910223 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GSWC-South San Gabriel water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910223 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910223 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

GSWC-South San Gabriel

Los Angeles County
System No. 1910223

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GSWC-South San Gabriel
Public Water System No. *1910223*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Lisa Miller
Water Quality Engineer
Gswc - Willowbrook
12035 Burke Street, Suite 1
Santa Fe Springs, CA 90670

Dear Lisa Miller:

System No: 1910072 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Gswc - Willowbrook water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910072 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910072 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Gswc - Willowbrook

Los Angeles County
System No. 1910072

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Gswc - Willowbrook
Public Water System No. *1910072*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

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Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Randy Breault
Guadalupe Valley Municipal Improvement District, System No. 4110005
50 Park Place
Brisbane, CA 94005

Dear Mr. Breault:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Guadalupe Valley Municipal Improvement District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Guadalupe Valley Municipal Improvement District
(Public Water System No. *4110005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

MICHAEL PENA
PW SUPERVISOR
GUADALUPE WATER DEPARTMENT, System No. 4210003
918 OBISPO STREET
GUADALUPE, CA 93434

Dear: MICHAEL PENA

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GUADALUPE WATER DEPARTMENT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

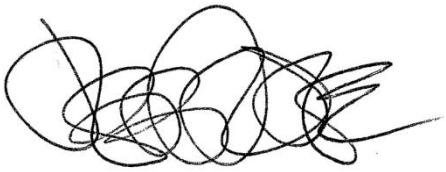

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GUADALUPE WATER DEPARTMENT
(Public Water System No. *4210003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

249. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

250. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

251. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

252. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

253. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

254. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

255. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

256. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

280. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

281. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

282. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

283. The water system may stop lead sampling at a school if:

uuuuu. All initial samples are less than or equal to 15 ppb; or

vvvvv. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxiii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxiv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

wwwww. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

xxxxx. If requested in writing by the school's authorized school representative.

284. The water system is responsible for the following costs:

kkk. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

lll. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

285. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

286. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

287. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

zzzzzz. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

aaaaaaa. The date of the request;

bbbbbbb. The date of the initial meeting;

ccccccc. The date of the sampling plan along with a copy of each sampling plan; and

dddddd. The date of initial lead sampling and all repeat samples.

288. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

HAMMONDS RANCH
Public Water System No. *1009281*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_085**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

HARRIS FARMS HEADQUARTERS
Public Water System No. *1009027*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_071**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

HARRIS FARMS SOUTH #101-144
Public Water System No. *1009028*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_072**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

HARRIS FARMS/HORSE BARN
Public Water System No. *1000213*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_030**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

HARRIS FEEDING COMPANY
Public Water System No. *1009078*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_075**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Jennifer Hodges, Admin & Financial
Havasu WC
System No. 3610017
P.O. Box 1690
Havasu Lake, CA 92363

Dear: Jennifer Hodges,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Havasu WC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Havasu WC
(Public Water System No. *3610017*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Sophie James
Director Of WQ
Hawthorne-City Water Dept.
1720 North First Street
San Jose, CA 95112

Dear Sophie James:

System No. 1910047- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Hawthorne-City Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Hawthorne-City Water Dept.
Public Water System No. *1910047*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Laura Fischer
General Manager
Heber Public Utility District, System No. 1310007
1078 Dogwood Rd. #103
Heber, CA 92249

Dear Laura Fischer:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Heber Public Utility District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Jeff Lamoure, Deputy Director - Division of Environmental Health, Imperial County Public Health Department (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Heber Public Utility District
(Public Water System No. *1310007*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Kimberly Cox, General Manager
Helendale Community Service District
System No. 3610112
P.O. Box 359
Helendale, CA 92342

Dear: Kimberly Cox,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Helendale Community Service District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Helendale Community Service District
(Public Water System No. *3610112*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Carlos Lugo
General Manager
Helix Water District, System No. 3710010
7811 University Ave.
La Mesa, CA 91941

Dear Carlos Lugo:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Helix Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Helix Water District
(Public Water System No. *3710010*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

HELM SCHOOL
Public Water System No. *1000186*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_027**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

JOHN DORNELLAS
GENERAL MANAGER
HERITAGE RANCH CSD, System No. 4010012
4870 HERITAGE ROAD
PASO ROBLES, CA 93446

Dear: JOHN DORNELLAS

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the HERITAGE RANCH CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

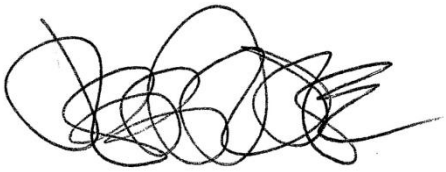

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

HERITAGE RANCH CSD
(Public Water System No. *4010012*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

113. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

114. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

115. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

116. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

117. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

118. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

119. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

120. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

127. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

128. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

129. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

130. The water system may stop lead sampling at a school if:

eee. All initial samples are less than or equal to 15 ppb; or

fff. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxx. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ggg. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

hhh. If requested in writing by the school's authorized school representative.

131. The water system is responsible for the following costs:

cc. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

dd. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

132. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

133. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

134. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

sss. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

ttt. The date of the request;

uuu. The date of the initial meeting;

vvv. The date of the sampling plan along with a copy of each sampling plan; and

www. The date of initial lead sampling and all repeat samples.

135. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Herlong Public Utility District
(Public Water System No. 1805007)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mark Faherty, Acting Pw Director
Hesperia WD
System No. 3610024
9700 Seventh Ave
Hesperia, CA 92345

Dear: Mark Faherty,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Hesperia WD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Hesperia WD
(Public Water System No. *3610024*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ed Muzik, General Manager
Hi Desert WD
System No. 3610073
55439 29 Palms Hwy.
Yucca Valley, CA 92284

Dear: Ed Muzik,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Hi Desert WD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Hi Desert WD
(Public Water System No. *3610073*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 1710015

Kirk Cloyd, General Manager
Hidden Valley Lake Community Services District
19400 Hartmann Road
Hidden Valley Lake, CA 95467-8371

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_1710015

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Kirk Cloyd:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Hidden Valley Lake Community Services District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_1710015

cc:

Lake County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Hidden Valley Lake Community Services District
(Public Water System No. 1710015)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

1710015/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Lu Marcos, Owner
Highland Mobile Home Park
System No. 1410007
1440 Mac Gregor
Bishop, CA 93514

Dear: Lu Marcos,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Highland Mobile Home Park water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Highland Mobile Home Park
(Public Water System No. *1410007*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 1710003

Jeff Davis, General Manager
Highlands Mutual Water Company
14580 Lakeshore Drive
Clearlake, CA 95422

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_1710003

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Jeff Davis:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Highlands Mutual Water Company (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_1710003

cc:

Lake County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Highlands Mutual Water Company
(Public Water System No. 1710003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

1710003/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Paul Willis
Hillsborough Water Department, System No. 4110016
1600 Floribunda Avenue
Hillsborough, CA 94010

Dear Mr. Willis:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Hillsborough Water Department water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Hillsborough Water Department
(Public Water System No. *4110016*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Scott Fitzgerald
Director of Asset Management
Hillsview Homes, System No. 5010007
P.O. Box 581918
Modesto, CA 95352

Dear : Mr. Fitzgerald

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Hillsview Homes water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Hillsview Homes
(Public Water System No. 5010007)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2010012
January 17, 2017

JAMES FOSTER, MANAGER
HILLVIEW WATER CO-RAYMOND
PO BOX 2269
OAKHURST, CA 93644

Dear JAMES FOSTER,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the HILLVIEW WATER CO-RAYMOND water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Madera Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

HILLVIEW WATER CO-RAYMOND
(Public Water System No.: *2010012*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

65. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

66. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

67. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

68. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

69. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

70. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

71. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

72. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

73. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

74. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

75. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

76. The water system may stop lead sampling at a school if:

gg. All initial samples are less than or equal to 15 ppb; or

hh. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ii. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

jj. If requested in writing by the school's authorized school representative.

77. The water system is responsible for the following costs:

q. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

r. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

78. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

79. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

80. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    oo. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    pp. The date of the request;

    qq. The date of the initial meeting;

    rr. The date of the sampling plan along with a copy of each sampling plan; and

    ss. The date of initial lead sampling and all repeat samples.

81. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

129. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
130. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
131. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
132. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
133. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
134. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
135. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

136. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
137. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
138. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
139. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
140. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
141. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
142. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
143. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
144. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

57. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
58. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
59. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

60. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
61. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
62. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
63. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

41. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
42. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
43. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
44. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
45. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
29. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
30. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

31. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

57. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
58. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
59. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
60. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
61. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
62. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
63. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2010007
January 17, 2017

JAMES FOSTER, MANAGER
HILLVIEW WC-OAKHURST/SIERRA LAKES
PO BOX 2269
OAKHURST, CA 93644

Dear JAMES FOSTER,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the HILLVIEW WC-OAKHURST/SIERRA LAKES water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Madera Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

HILLVIEW WC-OAKHURST/SIERRA LAKES
(Public Water System No.: *2010007*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

41. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

42. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

43. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

44. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

45. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

46. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

47. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

48. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

46. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

47. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

48. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

49. The water system may stop lead sampling at a school if:

u. All initial samples are less than or equal to 15 ppb; or

v. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

w. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

x. If requested in writing by the school's authorized school representative.

50. The water system is responsible for the following costs:

k. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

l. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

51. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

52. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

53. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    z. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    aa. The date of the request;

    bb. The date of the initial meeting;

    cc. The date of the sampling plan along with a copy of each sampling plan; and

    dd. The date of initial lead sampling and all repeat samples.

54. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

81. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
82. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
83. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
84. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
85. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
86. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
87. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

88. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
89. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
90. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
91. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
92. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
93. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
94. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
95. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
96. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

36. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
37. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
38. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

39. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
40. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
41. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
42. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

26. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
27. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
28. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
29. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
30. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
20. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
21. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

22. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

36. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
37. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
38. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
39. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
40. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
41. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
42. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2410012
January 17, 2017

CURTIS JORRITSMA, GENERAL MANAGER
HILMAR COUNTY WATER DISTRICT
P.O. Box 1060
HILMAR, CA 95324

Dear CURTIS JORRITSMA,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the HILMAR COUNTY WATER DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Merced Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

HILMAR COUNTY WATER DISTRICT
(Public Water System No.: *2410012*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

193. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

194. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

195. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

196. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

197. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

198. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

199. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

200. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

217. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

218. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

219. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

220. The water system may stop lead sampling at a school if:

ssss. All initial samples are less than or equal to 15 ppb; or

tttt. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xlix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

l. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

uuuu. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

vvvv. If requested in writing by the school's authorized school representative.

221. The water system is responsible for the following costs:

ww. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

xx. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

222. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

223. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

224. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

qqqqq. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

rrrrr. The date of the request;

sssss. The date of the initial meeting;

ttttt. The date of the sampling plan along with a copy of each sampling plan; and

uuuuu. The date of initial lead sampling and all repeat samples.

225. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

385. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
386. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
387. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
388. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
389. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
390. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
391. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

392. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
393. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
394. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
395. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
396. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
397. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
398. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
399. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
400. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

169. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
170. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
171. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

172. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
173. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
174. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
175. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

121. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
122. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
123. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
124. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
125. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
77. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
78. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

79. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

169. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
170. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
171. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
172. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
173. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
174. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
175. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Alex Chavez
Interim Public Works Director
City of Holtville, System No. 1310005
121 W. 5TH ST.
Holtville, CA 92250

Dear Alex Chavez:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Holtville water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Jeff Lamoure, Deputy Director - Division of Environmental Health, Imperial County Public Health Department (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Holtville
(Public Water System No. *1310005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Board of Directors
Home Garden Community Services District, System No. 1610007
11677 2nd Place
Hanford, CA 93230

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Board of Directors:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Home Garden Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Home Garden Community Services District
(Public Water System No. *1610007*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

David Vigil
General Manager
Home Gardens County Water District, System No. 3310018
3832 N. Grant St.
Corona, CA 92879

Dear David Vigil:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Home Gardens County Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Home Gardens County Water District
(Public Water System No. 3310018)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

AMADOR COUNTY COMMUNITY DEVELOPMENT AGENCY
ENVIRONMENTAL HEALTH DEPARTMENT

PHONE: (209) 223-6439
FAX: (209) 223-6228
WEBSITE: www.amadorgov.org
EMAIL: ACEH@amadorgov.org

COUNTY ADMINISTRATION CENTER • 810 COURT STREET • JACKSON, CA 95642-2132

January 18, 2017

MR. DAVID ZIC, PRESIDENT
HOPE FOUNDATION
P.O. BOX 930
RANCHO MURIETA, CA 95683

Dear Mr. Zic:

ISSUANCE OF PERMIT AMENDMENT 0300062PA-2017-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Hope Foundation water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Michelle Opalenik

Michelle Opalenik
WATER SYSTEM PROGRAM COORDINATOR
LOCAL PRIMACY AGENCY

Enclosure: 0300062PA-2017-SCHOOLS

cc: District Engineer, Stockton Branch (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

HOPE FOUNDATION
(Public Water System No. 0300062)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **0300062PA-2017-SCHOOLS**
EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and

mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Director, Amador County Environmental Health Department
Local Primacy Agency

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2310010

David Redding, General Manager, Operator
Hopland Public Utility District
151 Laws Avenue
Ukiah, CA 95482

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2310010

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear David Redding:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Hopland Public Utility District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2310010

cc: Mendocino County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Hopland Public Utility District
(Public Water System No. 2310010)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2310010/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2810001

Karl Fernandez, Operator
Howell Mountain Mutual Water Company
P.O. Box 9
Angwin, CA 94508

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2810001

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Karl Fernandez:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Howell Mountain Mutual Water Company (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

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Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2810001

cc: Napa County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Howell Mountain Mutual Water Company
(Public Water System No. 2810001)

By The

State Water Resources Control Board

Division of Drinking Water

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5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2810001/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

HUME LAKE CHRISTIAN CAMPS, INC
Public Water System No. *1010013*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_089**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

Michael Ackerman
City Engineer
Huntington Park-City, Water Dept.
6550 Miles Ave
Huntington Park, CA 90255

Dear Michael Ackerman:

System No. 1910049- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Huntington Park-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Huntington Park-City, Water Dept.
Public Water System No. *1910049*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Ms. Carol Warren
Board Member
Hynes Estates Mutual Water Company, System No. 3000519
11732 Court Lane
Anaheim, CA 92804

Dear Ms. Warren:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Hynes Estates Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Hynes Estates Mutual Water Company
(Public Water System No. 3000519)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

John Hoagland
Interim General Manager
Idyllwild Water District, System No. 3310019
25945 State Highway 243
Idyllwild, CA 92549

Dear John Hoagland:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

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If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

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(Public Water System No. 3310019)

By The

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6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Jackie Loper
Public Services Director
City of Imperial, System No. 1310006
420 South Imperial Ave.
Imperial, CA 92251

Dear Jackie Loper:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Imperial water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Jeff Lamoure, Deputy Director - Division of Environmental Health, Imperial County Public Health Department (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Imperial
(Public Water System No. *1310006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Board of Directors
Improvement District #1, System No. 5400968
P.O. Box 482
Three Rivers, CA 93271

Dear: Board of Directors

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Improvement District #1 water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Improvement District #1
(Public Water System No. 5400968)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Terry Tye, General Manager
Indian Creek CSD
System No. 1410005
P.O. Box 952
Bishop, CA 92315

Dear: Terry Tye,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Indian Creek CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Indian Creek CSD
(Public Water System No. *1410005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

IVCSD Crescent Mills
(Public Water System No. 3200510)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

IVCSD-Greenville
(Public Water System No. 3210001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Don Zdeba, General Manager
Indian Wells Valley Water District
P. O. Box 1329
Ridgecrest, CA 93556

Dear Mr. Zdeba:

ISSUANCE OF PERMIT AMENDMENT: 1510017-2017PA_SCHOOLS (System No. 1510017)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Indian Wells Valley Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510017-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Renee Morquecho, Indian Wells VWD (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Indian Wells Valley Water District
(Public Water System No. 1510017)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510017-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S. Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Brian Macy
General Manager
Indio Water Authority, System No. 3310020
83-101 Avenue 45
Indio, CA 92201

Dear Brian Macy:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Indio Water Authority water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Indio Water Authority
(Public Water System No. 3310020)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2110001

Ken Eichstaedt, General Manager
Inverness Public Utility District
P.O. Box 469
Inverness, CA 94937

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2110001

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Ken Eichstaedt:

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If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2110001

cc: Jonathan Van Bourg, P.O. Box 469, Inverness, CA 94937
Marin County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Inverness Public Utility District
(Public Water System No. 2110001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

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5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

2110001/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Shannon Williams, Deputy Dir Pub Works
Inyo County PWD - Independence
System No. 1410008
P.O. Drawer Q
Independence, CA 93526

Dear: Shannon Williams,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Inyo County PWD - Independence water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Inyo County PWD - Independence
(Public Water System No. *1410008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Shannon Williams, Deputy Dir Pub Works
Inyo County PWD - Lone Pine
System No. 1410009
P.O. Drawer Q
Independence, CA 93526

Dear: Shannon Williams,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Inyo County PWD - Lone Pine water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Inyo County PWD - Lone Pine
(Public Water System No. *1410009*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Hollis Elmquist, GM/Secretary
Inyokern Community Services District
P.O. Box 1418
Inyokern, CA 93527

Dear Mr. Elmquist:

ISSUANCE OF PERMIT AMENDMENT: 1510036-2017PA_SCHOOLS (System No. 1510036)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Inyokern Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510036-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Carl Dorey, Inyokern CSD (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Inyokern Community Services District
(Public Water System No. 1510036)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510036-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

February 24, 2017

Andrew Pust
Ironwood Campground
LPA ID: 3601015
49191 Cherokee Rd
Newberry Springs, CA 92365

Dear Mr. Pust,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The San Bernardino County Division of Environmental Health Services (DEHS) has issued a permit amendment to the Ironwood Campground water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance . Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the DEHS for reconsideration of the decision to issue the permit amendment. Petitions must be received by the DEHS within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the State Water Resources Control Board's (SWRCB) school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact DEHS at (800) 442- 2280 or email your question to joy.chakma@dph.sbcounty.gov.

Sincerely,

Joy Chakma
Environmental Health Services
Land Use Protection Program
385 N. Arrowhead Ave., 2nd Floor
San Bernardino, CA 92415

Enclosure: 1. 2017PA_Schools
2. Appendix A Sampling Guidance

cc: SWRCB by email at dwpdist13@waterboards.ca.gov

STATE OF *CALIFORNIA*

DOMESTIC WATER SUPPLY PERMIT

Issued To

Ironwood Campground

System No. 3601015

By

San Bernardino County Department of Public Health
Division of Environmental Health Services

PERMIT AMENDMENT NO: **2017PA-SCHOOLS** EFFECTIVE DATE: **February 24, 2017**

WHEREAS:

1. The Department of Environmental Health Services (DEHS) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [DEHS] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 {d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The

SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB and DEHS oversee public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the DEHS to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The San Bernardino County Division of Environmental Health Services hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to November 1, 2019, as provided for in Provision 3.

2. Each water system shall submit to the DEHS a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by July 1, 2017. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school,

governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DOW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "3Ts for Reducing Lead in Drinking Water in Schools" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DEHS.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in Appendix A (Sampling Guidance) which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website at http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml .

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DEHS, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

FOR THE DIVISION OF ENVIRONMENTAL HEALTH SERVICES

Signature: J. Chakma _____ **Dated:** **February 24, 2017**

Joy Chakma
Environmental Health Services
Land Use Protection Program
385 N. Arrowhead Ave., 2nd Floor

San Bernardino, CA 92415

APPENDIX A SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<SchoolID>-<Sample ID> i.e. 36xxxxx-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and

Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.

7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.
8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead

concentration at the drinking water outlet.

5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the

Action Level and additional corrective actions should be implemented at the drinking water outlet.

6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DOW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents,

however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Mr. Rodolfo Perez
Regulatory Compliance Senior Scientist
Irvine Ranch Water District, System No. 3010092
P.O. Box 57000
Irvine, CA 92619

Dear Mr. Perez:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Irvine Ranch Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Irvine Ranch Water District
(Public Water System No. 3010092)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Board of Directors
Ivanhoe Public Utility Dist., System No. 5410019
P.O. Box A
Ivanhoe, CA 93235

Dear: Board of Directors

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Ivanhoe Public Utility District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Ivanhoe Public Utility District
(Public Water System No. 5410019)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Richard Alcorn
Board Chairman
Jacumba Community Sanitation District, System No. 3710011
P.O. Box 425
Jacumba, CA 91934

Dear Richard Alcorn:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Jacumba Community Sanitation District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Jacumba Community Sanitation District
(Public Water System No. *3710011*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Mr. Andrew Brunhart
General Manager
Joint Regional Water Supply System, System No. 3010071
31592 West Street
Laguna Beach, CA 92651

Dear Mr. Brunhart:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Joint Regional Water Supply System water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Joint Regional Water Supply System
(Public Water System No. 3010071)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Curt Sauer, General Manager
Joshua Basin Water District
System No. 3610025
P.O. Box 675
Joshua Tree, CA 92252

Dear: Curt Sauer,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Joshua Basin Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Joshua Basin Water District
(Public Water System No. *3610025*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Harry Seifert
General Manager
Julian Community Services District, System No. 3700909
P.O. Box 681
Julian, CA 92036

Dear Harry Seifert:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Julian Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Julian Community Services District
(Public Water System No. *3700909*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Paula Welch, General Manager
June Lake PUD - Down Canyon
System No. 2610004
P.O. Box 99
June Lake, CA 93529

Dear: Paula Welch,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the June Lake PUD - Down Canyon water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

June Lake PUD - Down Canyon
(Public Water System No. *2610004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/12

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Paula Welch, General Manager
June Lake PUD Village
System No. 2610002
P.O. Box 99
June Lake, CA 93529

Dear: Paula Welch,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the June Lake PUD Village water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

June Lake PUD Village
(Public Water System No. *2610002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Denise Johnson, General Manager
Juniper Riviera CWD
System No. 3600222
P.O. Box 386
Apple Valley, CA 92307

Dear: Denise Johnson,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Juniper Riviera CWD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Juniper Riviera CWD
(Public Water System No. *3600222*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Todd Corbin
General Manager
Jurupa Community Services District, System No. 3310021
11201 Harrel St.
Jurupa Valley, CA 91752

Dear Todd Corbin:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Jurupa Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Jurupa Community Services District
(Public Water System No. 3310021)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

JUVENILE JUSTICE CAMPUS
Public Water System No. *1000570*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_065**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/07

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 1710007

Tracy Cline, Compliance Coordinator
Kelseyville Co Waterworks District 3
230 N. Main Street
Lakeport, CA 95453

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_1710007

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Tracy Cline:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Kelseyville Co Waterworks District 3 (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_1710007

cc: Lynn Prescott, 230 N. Main Street, Lakeport, CA 95453
Lake County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Kelseyville Co Waterworks District 3
(Public Water System No. 1710007)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

1710007/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 4910025

Karen Ball, General Manager
Kenwood Village Water Company (PUC)
4982 Sonoma Highway
Santa Rosa, CA 95409

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910025

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Karen Ball:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Kenwood Village Water Company (PUC) (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910025

cc: Sonoma County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Kenwood Village Water Company (PUC)
(Public Water System No. 4910025)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017 Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910025/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Rosa Maldonado, Manager
Kettleman City Community Services District, System No. 1610009
P.O. Box 179
Kettleman City, CA 93239

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Rosa Maldonado:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Kettleman City Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Kettleman City Community Services District
(Public Water System No. *1610009*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Ernie Garza
General Manager
Keyes CSD, System No. 5010009
P.O. Box 699
Keyes, CA 95328

Dear : Mr. Garza

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Keyes CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Keyes Community Services District
(Public Water System No. 5010009)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples
for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

KINGS CANYON MOBILE HOME PARK
Public Water System No. *1000267*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_040**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

KINGS PARK APARTMENTS
Public Water System No. *1000295*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_042**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

Royetta Brandt
Kings River Estates Mutual Water Co., System No. 5400536
3069 Bonander Avenue
Kingsburg, CA 93631

Dear: Royetta Brandt

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Kings River Estates Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Kings River Estates Mutual Water Co.
(Public Water System No. 5400536)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Melvin Matthews
General Manager
Kinneloa Irrigation Dist.
1999 Kinclair Drive
Pasadena, CA 91107

Dear Melvin Matthews:

System No: 1910035 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Kinneloa Irrigation Dist. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910035 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910035 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Kinneloa Irrigation Dist.

Los Angeles County
System No. 1910035

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

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Kinneloa Irrigation Dist.
Public Water System No. *1910035*

By The

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Division of Drinking Water

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   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 19, 2017 PWS No. 5710004

Todd Tommeraason
District Engineer
Knights Landing Services District, System No. 5710004
608 Court Street
Woodland, CA 95695

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-5710004

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Knights Landing Services District public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-5710004

cc: Yolo County Environmental Health Services (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Knights Landing Services District
Public Water System
(Public Water System No. 5710004)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-5710004**
EFFECTIVE DATE**: January 19, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 19, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 1710006

Ray Carmen, Vice President
Konocti County Water District
15844 35th Avenue
Clearlake, CA 95422

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_1710006

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Ray Carmen:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Konocti County Water District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_1710006

cc: Frank Costner, General Manager, 15844 35th Avenue, Clearlake, CA 95422
Tom Parks, Lead Operator, 15844 35th Avenue, Clearlake, CA 95422
Lake County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Konocti County Water District
(Public Water System No. 1710006)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

1710006/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

STEVE WALKER
WATER MANAGER
KROTONA INSTITUTE, System No. 5601401
60 Krotona Street
OJAI, CA 93023

Dear: STEVE WALKER

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the KROTONA INSTITUTE water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

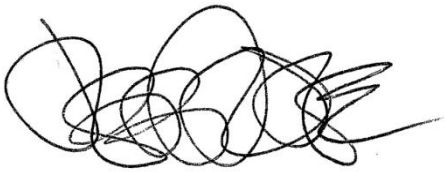

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

KROTONA INSTITUTE
(Public Water System No. *5601401*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

505. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

506. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

507. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

508. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

509. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

510. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

511. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

512. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

568. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

569. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

570. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

571. The water system may stop lead sampling at a school if:

sssssssssss. All initial samples are less than or equal to 15 ppb; or

ttttttttttt. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxxvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxxviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

uuuuuuuuuuu. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

vvvvvvvvvvv. If requested in writing by the school's authorized school representative.

572. The water system is responsible for the following costs:

wwwww. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

xxxxx. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

573. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

574. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

575. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

dddddddddddd. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

eeeeeeeeeeeee. The date of the request;

fffffffffffff. The date of the initial meeting;

gggggggggggg. The date of the sampling plan along with a copy of each sampling plan; and

hhhhhhhhhhhh. The date of initial lead sampling and all repeat samples.

576. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Douglas Caister
Manager/Secretary
La Canada Irrigation District
P.O. Box 39
La Canada, CA 91012

Dear: Douglas Caister

System No: 1910054 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the La Canada Irrigation District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910054 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910054 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

La Canada Irrigation District
Public Water System No. *1910054*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Seferino Holguin
Chief Plant Operator
La Cima Fire Center, System No. 3710802
15108 Sunrise Hwy.
Julian, CA 92036

Dear Seferino Holguin:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the La Cima Fire Center water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

La Cima Fire Center
(Public Water System No. *3710802*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

MIKE ALVARADO
GENERAL MANAGER
LA CUMBRE MUTUAL WATER CO, System No. 4210024
695 VIA TRANQUILA
SANTA BARBARA, CA 93110

Dear: MIKE ALVARADO

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the LA CUMBRE MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

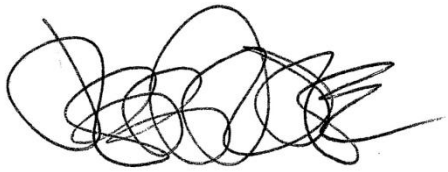

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LA CUMBRE MUTUAL WATER CO
(Public Water System No. *4210024*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

377. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

378. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

379. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

380. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

381. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

382. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

383. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

384. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

424. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

425. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

426. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

427. The water system may stop lead sampling at a school if:

ggggggg. All initial samples are less than or equal to 15 ppb; or

hhhhhhhh. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xcv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xcvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

iiiiiiii. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

jjjjjjjj. If requested in writing by the school's authorized school representative.

428. The water system is responsible for the following costs:

qqqq. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

rrrr. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

429. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

430. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

431. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

bbbbbbbbbb. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

cccccccccc. The date of the request;

dddddddddd. The date of the initial meeting;

eeeeeeeeee. The date of the sampling plan along with a copy of each sampling plan; and

ffffffffff. The date of initial lead sampling and all repeat samples.

432. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Greg Galindo
General Manager
La Puente Valley County Water District
112 N. First Street
La Puente, CA 91744

Dear: Greg Galindo

System No: 1910060 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the La Puente Valley County Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910060 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910060 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

La Puente Valley County Water District
Public Water System No. *1910060*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

La Puente Valley County Water District
Public Water System No. *1910060*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

January 17, 2017

Adam Ariki
Assistant Deputy Director
Los Angeles Co Ww Dist 21-Kagel Canyon
P.O. Box 1460
Alhambra, CA 91802

Dear: Adam Ariki

System No: 1910075 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Los Angeles Co Ww Dist 21-Kagel Canyon water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910075 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910075 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Los Angeles Co Ww Dist 21-Kagel Canyon
Public Water System No. *1910075*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Adam Ariki
Assistant Deputy Director
Los Angeles Co WW District 29 & 80-Malib
P.O. Box 1460
Alhambra, CA 91802

Dear: Adam Ariki

System No: 1910204 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Los Angeles Co WW District 29 & 80-Malib water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910204 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910204 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Los Angeles Co WW District 29 & 80-Malib
Public Water System No. *1910204*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Adam Ariki
Assistant Deputy Director
Los Angeles Co WW Dist 36-Val Verde
P.O. Box 1460
Alhambra, CA 91802

Dear: Adam Ariki

System No: 1910185 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Los Angeles Co WW Dist 36-Val Verde water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910185 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910185 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Los Angeles Co WW Dist 36-Val Verde
Public Water System No. *1910185*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Adam Ariki
Assistant Deputy Director
Los Angeles Co Ww Dist 37-Acton
P.O. Box 1460
Alhambra, CA 91802

Dear: Adam Ariki

System No: 1910248 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Los Angeles Co Ww Dist 37-Acton water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910248 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910248 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Los Angeles Co Ww Dist 37-Acton
Public Water System No. *1910248*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

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SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Adam Ariki
Assistant Deputy Director
Los Angeles Co Ww Dist 4 & 34-Lancaster
P.O. Box 1460
Alhambra, CA 91802

Dear: Adam Ariki

System No: 1910070 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Los Angeles Co Ww Dist 4 & 34-Lancaster water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910070 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910070 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Los Angeles Co Ww Dist 4 & 34-Lancaster
Public Water System No. *1910070*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Adam Ariki
Assistant Deputy Director
Los Angeles CWWD 40, R24, 27,33-Pearblsm
P.O. Box 1460
Alhambra, CA 91802

Dear: Adam Ariki

System No: 1910203 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Los Angeles CWWD 40, R24, 27,33-Pearblsm water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910203 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910203 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Los Angeles CWWD 40, R24, 27,33-Pearblsm
Public Water System No. *1910203*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Adam Ariki
Assistant Deputy Director
Los Angeles Cwwd 40 Reg. 35 - N.E. L.A.
P.O. Box 1460
Alhambra, CA 91802

Dear: Adam Ariki

System No: 1910027 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Los Angeles Cwwd 40 Reg. 35 - N.E. L.A. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910027 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910027 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Los Angeles Cwwd 40 Reg. 35 - N.E. L.A.
Public Water System No. *1910027*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Adam Ariki
Assistant Deputy Director
Los Angeles Co Ww Dist 40 Reg 38 Lake La
P.O. Box 1460
Alhambra, CA 91802

Dear: Adam Ariki

System No: 1910005 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Los Angeles Co Ww Dist 40 Reg 38 Lake La water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910005 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910005 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Los Angeles Co Ww Dist 40 Reg 38 Lake La
Public Water System No. *1910005*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Adam Ariki
Assistant Deputy Director
Los Angeles Cwwd 40 Reg. 39-Rock Creek
P.O. Box 1460
Alhambra, CA 91802

Dear: Adam Ariki

System No: 1910025 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Los Angeles Cwwd 40 Reg. 39-Rock Creek water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910025 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910025 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Los Angeles Cwwd 40 Reg. 39-Rock Creek
Public Water System No. *1910025*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Ms. Renae Hinchey
General Manager
Laguna Beach County Water District, System No. 3010017
P.O. Box 987
Laguna Beach, CA 92652

Dear Ms. Hinchey:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Laguna Beach County Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Laguna Beach County Water District
(Public Water System No. 3010017)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Kimi Johnson
General Manager
Lake Alpine Water Company, System No. 0210001
P.O. Box 5013
Bear Valley, CA 95223

Dear: Ms. Johnson,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lake Alpine Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lake Alpine Water Company
(Public Water System No. 0210001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Leo Havener, General Manager
LACSD - Rimforest
System No. 3610045
P.O. Box 700
Lake Arrowhead, CA 92352

Dear: Leo Havener,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the LACSD - Rimforest water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LACSD - Rimforest
(Public Water System No. *3610045*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

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   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

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1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

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c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

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   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

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5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Catherine Cerri, General Manager
Lake Arrowhead CSD
System No. 3610005
P.O. Box 700
Lake Arrowhead, CA 92352

Dear: Catherine Cerri,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lake Arrowhead CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lake Arrowhead CSD
(Public Water System No. *3610005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 5510008
January 17, 2017

PETE KAMPA, GENERAL MANAGER
LAKE DON PEDRO CSD
9751 Merced Falls Road
LA GRANGE, CA 95329

Dear PETE KAMPA,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the LAKE DON PEDRO CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tuolumne Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LAKE DON PEDRO CSD
(Public Water System No.: *5510008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

273. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

274. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

275. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

276. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

277. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

278. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

279. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

280. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

307. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

308. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

309. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

310. The water system may stop lead sampling at a school if:

ggggg. All initial samples are less than or equal to 15 ppb; or

hhhhhh. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxx. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

iiiiii. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

jjjjjj. If requested in writing by the school's authorized school representative.

311. The water system is responsible for the following costs:

qqq. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

rrr. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

312. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

313. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

314. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

ooooooo. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

ppppppp. The date of the request;

qqqqqqq. The date of the initial meeting;

rrrrrrr. The date of the sampling plan along with a copy of each sampling plan; and

sssssss. The date of initial lead sampling and all repeat samples.

315. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

545. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
546. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
547. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
548. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
549. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
550. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
551. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

552. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
553. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
554. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
555. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
556. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
557. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
558. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
559. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
560. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

239. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
240. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
241. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

242. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
243. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
244. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
245. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

171. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
172. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
173. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
174. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
175. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
107. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
108. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

109. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

239. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
240. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
241. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
242. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
243. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
244. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
245. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Thomas Wagoner
General Manager
Lake Hemet Municipal Water District, System No. 3310022
P.O. Box 5039
26385 Fairview Ave.
Hemet, CA 92544

Dear Thomas Wagoner:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lake Hemet Municipal Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lake Hemet Municipal Water District
(Public Water System No. 3310022)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Debbie Loseth, Office Manager
Lake Isabella Community Services Dist.
P.O. Box 647
Lake Isabella, CA 93240

Dear Ms. Loseth:

ISSUANCE OF PERMIT AMENDMENT: 1503270-2017PA_SCHOOLS (System No. 1503270)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lake Isabella Community Services Dist. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1503270-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Justin Slinkard, Erskine Creek WC (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lake Isabella Community Services Dist.
(Public Water System No. 1503270)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1503270-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S. Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Karen Russell
Operations Manager
Lake Morena Oak Shores Mutual Water Company, System No. 3700923
PO Box 315
Campo, CA 91906

Dear Karen Russell:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lake Morena Oak Shores Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lake Morena Oak Shores Mutual Water Company
(Public Water System No. *3700923*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

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   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Pam Jarecki, Office Manager
Lake of the Woods Mutual Water Co.
7025 Cuddy Valley Rd. Unit F
Frazier Park, CA 93225

Dear Ms. Jarecki:

ISSUANCE OF PERMIT AMENDMENT: 1510023-2017PA_SCHOOLS (System No. 1510023)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lake of the Woods Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510023-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Jude Urueta, Lake of the Woods MWC (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lake of the Woods Mutual Water Co.
(Public Water System No. 1510023)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510023-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S. Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Sam Parham
Owner
Lake Success Mobile Lodge, System No. 5400660
30464 Highway 190, Space #1A
Porterville, CA 93257

Dear: Sam Parham

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lake Success Mobile Lodge water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lake Success Mobile Lodge
(Public Water System No. 5400660)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Brett Sanders
General Manager
Lakeside Water District, System No. 3710013
10375 Vine Street
Lakeside, CA 92040

Dear Brett Sanders:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lakeside Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lakeside Water District
(Public Water System No. *3710013*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC; Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LAKEVIEW IMPROVEMENT ASSOCIATION #1
Public Water System No. *1000071*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_023**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

Rolando Marquez, Chief Operator
Lamont Public Utility District, System No. 1510012
8624 Segrue Road
Lamont, CA 93241

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Rolando Marquez:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lamont Public Utility District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lamont Public Utility District
(Public Water System No. *1510012*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LANARE COMMUNITY SERVICES DIST
Public Water System No. *1000053*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_013**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LAS DELTAS MUTUAL WATER SYSTEM
Public Water System No. *1000054*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_014**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

William Kimberling
General Manager
Las Flores Water Company
428 E. Sacramento St.
Altadena, CA 91001

Dear: William Kimberling

System No: 1910061 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Las Flores Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910061 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910061 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Las Flores Water Company
Public Water System No. *1910061*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

David W. Pedersen
General Manager
Las Virgenes MWD
4232 Las Virgenes Road
Calabasas, CA 91302

Dear David W. Pedersen:

System No. 1910225- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Las Virgenes MWD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Las Virgenes MWD
Public Water System No. *1910225*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lassen County Water District #1
(Public Water System No. 1810003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

January 17, 2017

Graham Dobson
Water Treatment Operator
LASSEN VNP - HEADQUARTERS, System No. 5210503
P.O. BOX 100
MINERAL, CA 96063

Dear : Graham Dobson

ISSUANCE OF PERMIT AMENDMENT 86-031

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the LASSEN VNP - HEADQUARTERS water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

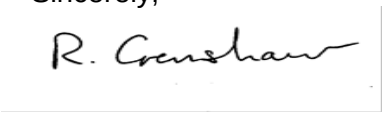

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 86-031

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LASSEN VNP - HEADQUARTERS
(Public Water System No. *5210503*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***86-031***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LATON COMMUNITY SERVICES DISTRICT
Public Water System No. *1010020*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_093**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

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   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

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   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

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a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2310011

Jim Shields, District Manager
Laytonville County Water District
P.O. Box 32
Laytonville, CA 95454

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2310011

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Jim Shields:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Laytonville County Water District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2310011

cc: Mendocino County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Laytonville County Water District
(Public Water System No. 2310011)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2310011/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2410011
January 17, 2017

RICHARD KILGORE, PW SUPERINTENDENT
LE GRAND COMM SERVICES DIST
13038 E. JEFFERSON ST.
LE GRAND, CA 95333

Dear RICHARD KILGORE,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the LE GRAND COMM SERVICES DIST water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Merced Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LE GRAND COMM SERVICES DIST
(Public Water System No.: *2410011*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

185. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

186. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

187. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

188. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

189. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

190. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

191. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

192. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

208. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

209. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

210. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

211. The water system may stop lead sampling at a school if:

oooo. All initial samples are less than or equal to 15 ppb; or

pppp. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xlvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xlviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

qqqq. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

rrrr. If requested in writing by the school's authorized school representative.

212. The water system is responsible for the following costs:

uu. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

vv. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

213. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

214. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

215. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

lllll. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

mmmmm. The date of the request;

nnnnn. The date of the initial meeting;

ooooo. The date of the sampling plan along with a copy of each sampling plan; and

ppppp. The date of initial lead sampling and all repeat samples.

216. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

369. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
370. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
371. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
372. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
373. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
374. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
375. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

376. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
377. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
378. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
379. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
380. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
381. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
382. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
383. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
384. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

162. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
163. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
164. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

165. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
166. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
167. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
168. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

116. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
117. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
118. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
119. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
120. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
74. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
75. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

76. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

162. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
163. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
164. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
165. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
166. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
167. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
168. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Leavitt Lake CSD
(Public Water System No. 1810004)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Michael Hightower Sr., Board President
Lebec County Water District
P.O. Box 910
Lebec, CA 93243

Dear Mr. Hightower Sr.:

ISSUANCE OF PERMIT AMENDMENT: 1510051-2017PA_SCHOOLS (System No. 1510051)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lebec County Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510051-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Michael Hightower Jr., Lebec CWD (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lebec County Water District
(Public Water System No. 1510051)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510051-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S. Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Board of Directors
Lemon Cove Water Co., System No. 5400616
P.O. Box 44374
Lemon Cove, CA 93244

Dear: Board of Directors

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lemon Cove Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lemon Cove Water Co.
(Public Water System No. 5400616)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Mr. Michael Costello
Manager
Liberty Park Water Association, System No. 3000618
7922 Speer Ave.
Huntington Beach, CA 92647

Dear Mr. Costello:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Liberty Park Water Association water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Liberty Park Water Association
(Public Water System No. 3000618)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jeanne-Marie Bruno
General Manager
Liberty Utilities - Bellflower-Norwalk
P.O.Box 7002
Downey, CA 90241-7002

Dear Jeanne-Marie Bruno:

System No. 1910211- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Liberty Utilities - Bellflower-Norwalk water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

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Please visit the Division's school lead sampling webpage at:
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for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Liberty Utilities - Bellflower-Norwalk
Public Water System No. *1910211*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jeanne-Marie Bruno
General Manager
Liberty Utilities - Compton
P.O.Box 7002
Downey, CA 90241-7002

Dear Jeanne-Marie Bruno:

System No. 1910021- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Liberty Utilities - Compton water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Liberty Utilities - Compton
Public Water System No. *1910021*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jeanne-Marie Bruno
General Manager
Liberty Utilities - Lynwood
P.O.Box 7002
Downey, CA 90241-7002

Dear Jeanne-Marie Bruno:

System No. 1910161- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Liberty Utilities - Lynwood water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Liberty Utilities - Lynwood
Public Water System No. *1910161*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

ROSIE CASTILLO
PROPERTY MANAGER
LIMONEIRA CO. - MCKEVETT, System No. 5601206
1141 CUMMINGS ROAD
SANTA PAULA, CA 93060

Dear: ROSIE CASTILLO

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the LIMONEIRA CO. - MCKEVETT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LIMONEIRA CO. - MCKEVETT
(Public Water System No. *5601206*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

497. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

498. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

499. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

500. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

501. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

502. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

503. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

504. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

559. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

560. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

561. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

562. The water system may stop lead sampling at a school if:

oooooooooo. All initial samples are less than or equal to 15 ppb; or

pppppppppp. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxxv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxxvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

qqqqqqqqqq. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

rrrrrrrrrr. If requested in writing by the school's authorized school representative.

563. The water system is responsible for the following costs:

uuuuu. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

vvvvv. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

564. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

565. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

566. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

yyyyyyyyyyyy. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

zzzzzzzzzzzz. The date of the request;

aaaaaaaaaaaa. The date of the initial meeting;

bbbbbbbbbbbb. The date of the sampling plan along with a copy of each sampling plan; and

cccccccccccc. The date of initial lead sampling and all repeat samples.

567. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

ROSIE CASTILLO
PROPERTY MANAGER
LIMONEIRA RANCH #1, System No. 5601201
1141 CUMMINGS ROAD
SANTA PAULA, CA 93060

Dear: ROSIE CASTILLO

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the LIMONEIRA RANCH #1 water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LIMONEIRA RANCH #1
(Public Water System No. *5601201*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

489. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

490. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

491. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

492. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

493. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

494. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

495. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

496. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

550. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

551. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

552. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

553. The water system may stop lead sampling at a school if:

kkkkkkkkkk. All initial samples are less than or equal to 15 ppb; or

lllllllll. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxxiii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxxiv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

mmmmmmmmmm. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

nnnnnnnnnn. If requested in writing by the school's authorized school representative.

554. The water system is responsible for the following costs:

sssss. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ttttt. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

555. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

556. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

557. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

tttttttttttt. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

uuuuuuuuuuuu. The date of the request;

vvvvvvvvvvvv. The date of the initial meeting;

wwwwwwwwwwwww. The date of the sampling plan along with a copy of each sampling plan; and

xxxxxxxxxxxx. The date of initial lead sampling and all repeat samples.

558. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Robert Hayward
General Manager
Lincoln Avenue Water Company
564 W. Harriet Street
Altadena, CA 91001

Dear: Robert Hayward

System No: 1910063 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lincoln Avenue Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910063 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910063 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lincoln Avenue Water Company
Public Water System No. *1910063*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Brian Davis
General Manager
LINDA COUNTY WATER DISTRICT, System No. 5810002
1280 Scales Street
MARYSVILLE, CA 95901

Dear : Brian Davis

ISSUANCE OF PERMIT AMENDMENT 010296P58001A4

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the LINDA COUNTY WATER DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

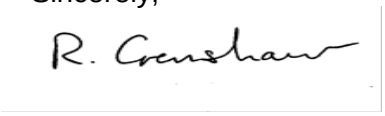

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 010296P58001A4

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LINDA COUNTY WATER DISTRICT
(Public Water System No. *5810002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***010296P58001A4***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LINDA VISTA FARMS
Public Water System No. *1000445*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_056**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Tom McCoy
General Manager
Linden County Water District, System No. 3910019
P.O. Box 595
Linden, CA 95236

Dear : Mr. McCoy

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Linden County Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Linden County Water District
(Public Water System No. 3910019)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Ken Kugler
Executive Director
Linnell Farm Labor Center, System No. 5400631
5140 West Cypress
Visalia, CA 93279

Dear: Ken Kugler

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Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

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(Public Water System No. 5400631)

By The

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Division of Drinking Water

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Richard Hiwa, General Manager
Little Bear Water Company, System No. 2710016
51201 Pine Canyon Road, SP. 125
King City, CA. 93930

Dear Mr. Hiwa:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Little Bear Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LITTLE BEAR WATER COMPANY
(Public Water System No. *2710016*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Travis Berglund
General Manager
Littlerock Creek Irrigation Dist.
35141 North 87Th Street East
Littlerock, CA 93543

Dear Travis Berglund:

System No: 1910064 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Littlerock Creek Irrigation Dist. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910064 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910064 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Littlerock Creek Irrigation Dist.

Los Angeles County
System No. 1910064

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Littlerock Creek Irrigation Dist.
Public Water System No. *1910064*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Joe Salzman
District Manager
Lockeford Community Services District, System No. 3910008
P.O. Box 809
Lockeford, CA 95237

Dear: Mr. Salzman,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lockeford Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lockeford Community Services District
(Public Water System No. 3910008)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

February 24, 2017

Wendy Roth
Loma Linda Power Plant
LPA ID: 3600152
Loma Linda Power Plant
11100 Anderson St
Loma Linda, CA 92350

Dear Ms. Roth,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The San Bernardino County Division of Environmental Health Services (DEHS) has issued a permit amendment to the Loma Linda Power Plant water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance . Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the DEHS for reconsideration of the decision to issue the permit amendment. Petitions must be received by the DEHS within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the State Water Resources Control Board's (SWRCB) school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact DEHS at (800) 442- 2280 or email your question to joy.chakma@dph.sbcounty.gov.

Sincerely,

Joy Chakma
Environmental Health Services
Land Use Protection Program
385 N. Arrowhead Ave., 2nd Floor
San Bernardino, CA 92415

Enclosure: 1. 2017PA_Schools
2. Appendix A Sampling Guidance

cc: SWRCB by email at dwpdist13@waterboards.ca.gov

STATE OF *CALIFORNIA*

DOMESTIC WATER SUPPLY PERMIT

Issued To

Loma Linda University

System No. 3600152

By

San Bernardino County Department of Public Health
Division of Environmental Health Services

PERMIT AMENDMENT NO: **2017PA-SCHOOLS** EFFECTIVE DATE: **February 24, 2017**

WHEREAS:

1. The Department of Environmental Health Services (DEHS) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [DEHS] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 {d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB and DEHS oversee public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the DEHS to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The San Bernardino County Division of Environmental Health Services hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to November 1, 2019, as provided for in Provision 3.

2. Each water system shall submit to the DEHS a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by July 1, 2017. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school,

governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DOW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "3Ts for Reducing Lead in Drinking Water in Schools" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DEHS.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in Appendix A (Sampling Guidance) which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website at http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml .

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DEHS, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

FOR THE DIVISION OF ENVIRONMENTAL HEALTH SERVICES

Signature: J. Chakma **Dated: February 24, 2017**

Joy Chakma
Environmental Health Services
Land Use Protection Program
385 N. Arrowhead Ave., 2nd Floor

San Bernardino, CA 92415

APPENDIX A SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<SchoolID>-<Sample ID> i.e. 36xxxxx-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and

Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.

7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.
8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead

concentration at the drinking water outlet.

5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the

Action Level and additional corrective actions should be implemented at the drinking water outlet.

6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DOW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents,

however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

GENE MARGHEIM
WATER SUPERINTENDENT
LOMPOC-CITY WATER UTILITY DIV, System No. 4210006
601 EAST NORTH AVENUE
LOMPOC, CA 93436

Dear: GENE MARGHEIM

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the LOMPOC-CITY WATER UTILITY DIV water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

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Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LOMPOC-CITY WATER UTILITY DIV
(Public Water System No. *4210006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

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276. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

277. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

278. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

279. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

280. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

307. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

308. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

309. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

310. The water system may stop lead sampling at a school if:

ggggg. All initial samples are less than or equal to 15 ppb; or

hhhhhh. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxx. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

iiiiii. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

jjjjjj. If requested in writing by the school's authorized school representative.

311. The water system is responsible for the following costs:

qqq. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

rrr. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

312. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

313. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

314. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

ooooooo. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

ppppppp. The date of the request;

qqqqqqq. The date of the initial meeting;

rrrrrrr. The date of the sampling plan along with a copy of each sampling plan; and

sssssss. The date of initial lead sampling and all repeat samples.

315. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 5500057
January 17, 2017

RALPH FEOLA,
LONG BARN PROPERTY OWNERS
P.O.BOX 260
LONG BARN, CA 95335

Dear RALPH FEOLA,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the LONG BARN PROPERTY OWNERS water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tuolumne Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LONG BARN PROPERTY OWNERS
(Public Water System No.: *5500057*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

225. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

226. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

227. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

228. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

229. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

230. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

231. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

232. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

253. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

254. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

255. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

256. The water system may stop lead sampling at a school if:

iiiii. All initial samples are less than or equal to 15 ppb; or

jjjjj. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

kkkkk. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

llllll. If requested in writing by the school's authorized school representative.

257. The water system is responsible for the following costs:

eee. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

fff. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

258. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

259. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

260. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

kkkkkk. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

llllll. The date of the request;

mmmmmm. The date of the initial meeting;

nnnnnn. The date of the sampling plan along with a copy of each sampling plan; and

oooooo. The date of initial lead sampling and all repeat samples.

261. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

449. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
450. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
451. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
452. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
453. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
454. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
455. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

456. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
457. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
458. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
459. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
460. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
461. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
462. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
463. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
464. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

197. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
198. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
199. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

200. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
201. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
202. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
203. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

141. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
142. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
143. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
144. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
145. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
89. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
90. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

91. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

197. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
198. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
199. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
200. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
201. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
202. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
203. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

KEVIN BARNARD
GENERAL MANAGER
LOS ALAMOS COMMUNITY SER DIST, System No. 4210002
P.O. BOX 675
LOS ALAMOS, CA 93440

Dear: KEVIN BARNARD

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the LOS ALAMOS COMMUNITY SER DIST water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LOS ALAMOS COMMUNITY SER DIST
(Public Water System No. *4210002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

241. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

242. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

243. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

244. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

245. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

246. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

247. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

248. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

271. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

272. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

273. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

274. The water system may stop lead sampling at a school if:

qqqqq. All initial samples are less than or equal to 15 ppb; or

rrrrr. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

sssss. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ttttt. If requested in writing by the school's authorized school representative.

275. The water system is responsible for the following costs:

iii. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

jjj. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

276. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

277. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

278. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

uuuuuu. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

vvvvvv. The date of the request;

wwwwww. The date of the initial meeting;

xxxxxx. The date of the sampling plan along with a copy of each sampling plan; and

yyyyyy. The date of initial lead sampling and all repeat samples.

279. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

James Lowden
General Manager
LOS MOLINOS COMM. SERVICES DIST., System No. 5210003
P.O. BOX 9
LOS MOLINOS, CA 96055

Dear : James Lowden

ISSUANCE OF PERMIT AMENDMENT 010299P52001A2

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the LOS MOLINOS COMM. SERVICES DIST. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

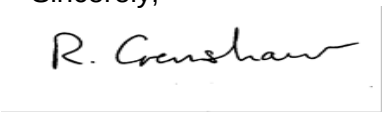

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 010299P52001A2

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LOS MOLINOS COMM. SERVICES DIST.
(Public Water System No. *5210003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***010299P52001A2***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD
OPERATIONS BRANCH

January 17, 2017

RENEE OSBORNE
GENERAL MANAGER
LOS OSOS COMMUNITY SERVICES DISTRICT, System No. 4010016
P.O. Box 6064
LOS OSOS, CA 93412

Dear: RENEE OSBORNE

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the LOS OSOS COMMUNITY SERVICES DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

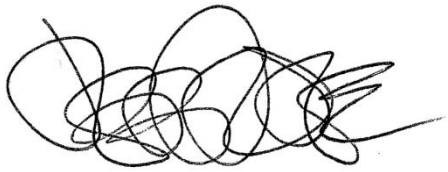

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

LOS OSOS COMMUNITY SERVICES DISTRICT
(Public Water System No. *4010016*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

137. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

138. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

139. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

140. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

141. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

142. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

143. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

144. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

154. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

155. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

156. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

157. The water system may stop lead sampling at a school if:

qqq. All initial samples are less than or equal to 15 ppb; or

rrr. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxxv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxxvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

sss. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ttt. If requested in writing by the school's authorized school representative.

158. The water system is responsible for the following costs:

ii. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

jj. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

159. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

160. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

161. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

hhhh. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

iiii. The date of the request;

jjjj. The date of the initial meeting;

kkkk. The date of the sampling plan along with a copy of each sampling plan; and

llll. The date of initial lead sampling and all repeat samples.

162. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Board of Directors
Lost Hills Utility District, System No. 1510046
P. O. Box 246
Lost Hills, CA 93249

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Board of Directors:

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If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lost Hills Utility District
(Public Water System No. *1510046*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 1710010

Todd Fiora, Acting General Manager
Lower Lake County Water District
P.O. Box 263
Lower Lake, CA 95423

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_1710010

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Todd Fiora:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Lower Lake County Water District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_1710010

cc: Lake County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lower Lake County Water District
(Public Water System No. 1710010)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service..

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

1710010/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

System No. 1710005

Sophie James, Director of WQ
Lucerne Water Co. - Cal Water Service
1720 North First Street
San Jose, CA 95112

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_1710005

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Sophie James:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Lucerne Water Co. - Cal Water Service (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_1710005

cc: John Graham, 2222 Dr. Martin Luther King Jr. Pkwy, Chico, CA 95928
Darrin McCosker, P.O. Box 1133, Lucerne, CA 95458
Lake County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lucerne Water Co. - Cal Water Service
(Public Water System No. 1710005)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

1710005/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. 0910007

Danny Lukins
President
Lukins Brothers Water Company, System No. 0910007
2031 West Way
South Lake Tahoe, CA 96150

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-0910007

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lukins Brothers Water Company public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-0910007

cc: County of El Dorado Environmental Management, Community Development Agency (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lukins Brothers Water Company
Public Water System
(Public Water System No. 0910007)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-0910007**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Felix Contreras
President of Board Operations
Lynwood Park Mutual Water Company
2644 E. 124Th Street
Compton, CA 90222

Dear: Felix Contreras

System No: 1910081 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lynwood Park Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910081 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910081 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lynwood Park Mutual Water Company
Public Water System No. *1910081*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jose Molina
Manager Utility Serv
Lynwood-City, Water Dept.
11330 Bullis Road
Lynwood, CA 90262

Dear Jose Molina:

System No. 1910079- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lynwood-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lynwood-City, Water Dept.
Public Water System No. *1910079*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2010008
January 17, 2017

PHIL TOLER, SPECIAL DIST MANAGER
MADERA CO MD #10A - MADERA RANCHOS
200 WEST 4TH ST., THIRD FLOOR
MADERA, CA 93637

Dear PHIL TOLER,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the MADERA CO MD #10A - MADERA RANCHOS water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Madera Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MADERA CO MD #10A - MADERA RANCHOS
(Public Water System No.: *2010008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

49. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

50. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

51. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

52. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

53. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

54. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

55. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

56. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

55. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

56. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

57. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

58. The water system may stop lead sampling at a school if:

y. All initial samples are less than or equal to 15 ppb; or

z. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xiii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xiv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

aa. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

bb. If requested in writing by the school's authorized school representative.

59. The water system is responsible for the following costs:

m. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

n. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

60. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

61. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

62. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    ee. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    ff. The date of the request;

    gg. The date of the initial meeting;

    hh. The date of the sampling plan along with a copy of each sampling plan; and

    ii. The date of initial lead sampling and all repeat samples.

63. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

97. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
98. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
99. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
100. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
101. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
102. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
103. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

104. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
105. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
106. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
107. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
108. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
109. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
110. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
111. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
112. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

43. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
44. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
45. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

46. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
47. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
48. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
49. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

31. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
32. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
33. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
34. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
35. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
23. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
24. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

25. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

43. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
44. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
45. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
46. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
47. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
48. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
49. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2010006
January 17, 2017

PHIL TOLER, SPECIAL DIST MANAGER
MADERA CO SA# 3 PARKSDALE
200 WEST 4TH ST., THIRD FLOOR
MADERA, CA 93637

Dear PHIL TOLER,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the MADERA CO SA# 3 PARKSDALE water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Madera Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MADERA CO SA# 3 PARKSDALE
(Public Water System No.: *2010006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

33. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

34. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

35. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

36. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

37. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

38. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

39. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

40. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

37. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

38. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

39. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

40. The water system may stop lead sampling at a school if:

q. All initial samples are less than or equal to 15 ppb; or

r. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

ix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

x. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

s. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

t. If requested in writing by the school's authorized school representative.

41. The water system is responsible for the following costs:

i. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

j. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

42. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

43. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

44. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    u. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    v. The date of the request;

    w. The date of the initial meeting;

    x. The date of the sampling plan along with a copy of each sampling plan; and

    y. The date of initial lead sampling and all repeat samples.

45. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

65. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
66. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
67. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
68. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
69. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
70. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
71. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

72. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
73. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
74. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
75. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
76. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
77. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
78. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
79. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
80. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

29. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
30. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
31. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

32. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
33. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
34. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
35. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

21. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
22. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
23. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
24. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
25. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
17. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
18. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

19. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

29. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
30. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
31. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
32. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
33. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
34. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
35. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2010010
January 17, 2017

GREG RODGERS, GENERAL MANAGER
MADERA VALLEY WATER COMPANY
18454 ROAD 26
MADERA, CA 93638

Dear GREG RODGERS,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the MADERA VALLEY WATER COMPANY water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Madera Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MADERA VALLEY WATER COMPANY
(Public Water System No.: *2010010*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

57. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

58. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

59. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

60. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

61. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

62. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

63. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

64. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

64. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

65. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

66. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

67. The water system may stop lead sampling at a school if:

cc. All initial samples are less than or equal to 15 ppb; or

dd. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ee. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ff. If requested in writing by the school's authorized school representative.

68. The water system is responsible for the following costs:

o. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

p. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

69. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

70. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

71. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    jj. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    kk. The date of the request;

    ll. The date of the initial meeting;

    mm. The date of the sampling plan along with a copy of each sampling plan; and

    nn. The date of initial lead sampling and all repeat samples.

72. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

113. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
114. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
115. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
116. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
117. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
118. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
119. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

120. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
121. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
122. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
123. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
124. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
125. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
126. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
127. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
128. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

50. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
51. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
52. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

53. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
54. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
55. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
56. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

36. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
37. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
38. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
39. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
40. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
26. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
27. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

28. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

50. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
51. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
52. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
53. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
54. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
55. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
56. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 20, 2017

Leo Refsland
MADISON SERVICE DISTRICT, SYSTEM NO. 5700571
PO BOX 40
MADISON CA 95653

Dear : Mr. Refsland,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The Yolo County Environmental Health Divison, delegated by the State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Madison Service District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chelsea Brown
Environmental Health Specialist
Yolo County Environmental Health Division

Enclosure: 2017PA_Schools

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Madison Service District
(Public Water System No. 5700571)

By The

Yolo County Environmental Health Division

Delegated By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jianmin Huang, REHS
Supervising Environmental Health Specialist

Chelsea Brown, EHS
Environmental Health Specialist I

Dated: 1/17/2017

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

David Shenk
General Manager
Majestic Pines Community Service District, System No. 3710041
P.O. BOX 266
Julian, CA 92036

Dear David Shenk:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Majestic Pines Community Service District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Majestic Pines Community Service District
(Public Water System No. *3710041*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

James D. Anderson, General Manager
Malaga County Water District, System No. 1010042
3580 S. Frank Street
Fresno, CA 93725

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear James D. Anderson:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Malaga County Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Malaga County Water District
(Public Water System No. *1010042*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Patrick Hayes, General Manager
Mammoth CWD
System No. 2610001
P.O. Box 597
Mammoth Lakes, CA 93546

Dear: Patrick Hayes,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Mammoth CWD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Mammoth CWD
(Public Water System No. *2610001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MANNING GARDENS CARE CENTER INC
Public Water System No. *1000324*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_045**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/07/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

James Hansen Jr., General Manager
Mariana Ranchos CWD
System No. 3610030
9600 Manzanita Street
Apple Valley, CA 92308

Dear: James Hansen Jr.,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Mariana Ranchos CWD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Mariana Ranchos CWD
(Public Water System No. *3610030*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2110002

Paul Sellier
Marin Municipal Water District
220 Nellen Avenue
Corte Madera, CA 94925

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2110002

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Paul Sellier:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Marin Municipal Water District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2110002

cc: Marin County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Marin Municipal Water District
(Public Water System No. 2110002)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

2110002/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Keith Van Der Maaten, General Manager
Marina Coast Water District, System No. 2710017
11 Reservation Road
Marina, CA. 93933

Dear Mr. Van Der Maaten:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Marina Coast Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MARINA COAST WATER DISTRICT
(Public Water System No. *2710017*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2210001
January 17, 2017

MARK ROWNEY, GENERAL MANAGER
MARIPOSA PUBLIC UTILITY DIST
P.O. BOX 494
MARIPOSA, CA 95338

Dear MARK ROWNEY,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the MARIPOSA PUBLIC UTILITY DIST water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Mariposa Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MARIPOSA PUBLIC UTILITY DIST
(Public Water System No.: *2210001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

73. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

74. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

75. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

76. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

77. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

78. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

79. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

80. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

82. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

83. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

84. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

85. The water system may stop lead sampling at a school if:

kk. All initial samples are less than or equal to 15 ppb; or

ll. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xx. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

mm. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

nn. If requested in writing by the school's authorized school representative.

86. The water system is responsible for the following costs:

s. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

t. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

87. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

88. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

89. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

tt. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

uu. The date of the request;

vv. The date of the initial meeting;

ww. The date of the sampling plan along with a copy of each sampling plan; and

xx. The date of initial lead sampling and all repeat samples.

90. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

145. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
146. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
147. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
148. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
149. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
150. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
151. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

152. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
153. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
154. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
155. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
156. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
157. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
158. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
159. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
160. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

64. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
65. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
66. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

67. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
68. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
69. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
70. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

46. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
47. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
48. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
49. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
50. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
32. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
33. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

34. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

64. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
65. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
66. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
67. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
68. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
69. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
70. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MARY LOU MOBILE HOME PARK
Public Water System No. *1000265*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_039**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

Justin Brokaw, General Manager
Marygold MWC
System No. 3610028
9725 Alder Avenue
Bloomington, CA 92316

Dear: Justin Brokaw,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Marygold MWC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Marygold MWC
(Public Water System No. *3610028*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

David Wadsworth
General Manager
MAXWELL PUBLIC UTILITY DISTRICT, System No. 610003
P.O. BOX 294
MAXWELL, CA 95955

Dear : David Wadsworth

ISSUANCE OF PERMIT AMENDMENT 51-005A2

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the MAXWELL PUBLIC UTILITY DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

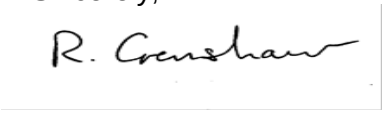

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 51-005A2

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MAXWELL PUBLIC UTILITY DISTRICT
(Public Water System No. *610003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***51-005A2***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD
OPERATIONS BRANCH

January 17, 2017

Sergio Palos
General Manager
Maywood Mutual Water Co. #1
5953 Gifford Avenue
Huntington Park, CA 90255

Dear: Sergio Palos

System No: 1910084 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Maywood Mutual Water Co. #1 water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910084 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910084 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Maywood Mutual Water Co. #1
Public Water System No. *1910084*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Steven Rojo
Field Operator
Maywood Mutual Water Co. #2
3521 E Slauson Ave
Maywood, CA 90270

Dear: Steven Rojo

System No: 1910085 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Maywood Mutual Water Co. #2 water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910085 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910085 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Maywood Mutual Water Co. #2
Public Water System No. *1910085*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Robert Rohlf
Director of Operations
Maywood Mutual Water Co. #3
6151 Heliotrope Avenue
Maywood, CA 90270

Dear: Robert Rohlf

System No: 1910086 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Maywood Mutual Water Co. #3 water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910086 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910086 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Maywood Mutual Water Co. #3
Public Water System No. *1910086*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ray Shorey, President
Mcmahon Road Mutual Water Company, System No. 3500510
61 Carpenter Drive
Hollister, CA. 95023

Dear Mr. Shorey:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Mcmahon Road Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MCMAHON ROAD
MUTUAL WATER COMPANY
(Public Water System No. *3500510*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

Community and Economic Development
Environmental Health Division

Dexter Marr
Deputy Director

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January 27, 2017

Madera County Public Works
Phil Toler
MD #33 Fairmead District, System No. 2000554
200 West Fourth Street
Madera, Ca 93637

Dear: Phil Toler

ISSUANCE OF PERMIT AMENDMENT PT0002644-2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the MD #33 Fairmead District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Thongdy Madsen,
Registered Environmental Health Specialist II

Enclosure: 2017PA_Schools

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

Community and Economic Development
Environmental Health Division

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Deputy Director

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PERMIT AMENDMENT NO. **PT0002644 - 2016PA_SCHOOLS**

EFFECTIVE DATE: **December 20, 2016**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

And WHEREAS:

1. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

2. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

3. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight).

If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

4. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

5. If any school that is a customer of the water system submits a written request for assistance from the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school, to the water system, the water system is required by this permit amendment to meet with the school staff, develop a lead sampling plan, collect up to five samples from regularly used faucets at the school, submit the samples to a laboratory certified by the SWRCB's Environmental Laboratory Accreditation Program (ELAP) to analyze lead, and require the laboratory to submit the results to the SWRCB electronically and to provide a copy to the requesting school.

   Within 10 business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, the water system shall resample at that sample site. If the resample shows a result less than or equal to 15 ppb, the water system shall then collect a second repeat sample within 10 business days of the first resample.

   The water system shall collect at least one additional lead sample at each sample site where the school has completed some corrective action following an initial lead sample greater than 15 ppb. If the additional lead sample collected after completing some corrective action is at or below 15 ppb, the water system may discontinue lead sampling at the sample site. (Examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.) The water system is responsible for the cost of the samples, but not for any maintenance or corrective actions needed at the school.

6. The water system shall not release school lead sampling results to the public until at least 60 days after receipt of the results of the initial round of lead sampling and only after the water system has first discussed the results with the school. The water system is required to discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory. Following the 60-day period, the water system may post the school lead sampling results on their website.

   The water system shall include a statement to summarize the lead sampling at all schools served by the public water system within the annual Consumer Confidence Report to customers. The statement shall include the number of schools sampled and a link to the DDW Lead Sampling in California Schools website, which contains the results of the school lead sampling. All state regulations applicable to the content and distribution of the Consumer Confidence Report remain the same.

7. The authorized school representative may only request the lead sampling assistance outlined in this permit amendment one-time for each school. For each requested school, the water system is not obligated to continue to provide lead sampling assistance after the conditions of this permit amendment are satisfied.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Condition 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Condition 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Condition 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Condition 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Condition 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the conditions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 01/27/2018

Thongdy Madsen,
Madera County,
Registered Environmental Health Specialist II

Community and Economic Development
Environmental Health Division

Dexter Marr
Deputy Director

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January 27, 2017

Madera County Public Works
Phil Toler
MD #36 Eastin Arcola, System No. 2000727
200 West Fourth Street
Madera, Ca 93637

Dear: Phil Toler

ISSUANCE OF PERMIT AMENDMENT PT0002634-2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the MD #36 Eastin Arcola water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Thongdy Madsen,
Registered Environmental Health Specialist II

Enclosure: 2017PA_Schools

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

Community and Economic Development
Environmental Health Division

Dexter Marr
Deputy Director

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PERMIT AMENDMENT NO. **PT0002634 - 2017PA_SCHOOLS**

EFFECTIVE DATE: **January 27, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 01/27/2018

Thongdy Madsen,
Madera County
Registered Environmental Health Specialist II

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MEADOW LAKES CLUB
Public Water System No. *1000056*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_015**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Meadow Vista CWD
(Public Water System No. 3110009)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provison 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

System No.: 2410008
January 17, 2017

DAVID WALKER, CEO
MEADOWBROOK WC
2272 MEADOWBROOK AVENUE
MERCED, CA 95348

Dear DAVID WALKER,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the MEADOWBROOK WC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Merced Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MEADOWBROOK WC
(Public Water System No.: *2410008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

161. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

162. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

163. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

164. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

165. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

166. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

167. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

168. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

181. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

182. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

183. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

184. The water system may stop lead sampling at a school if:

cccc. All initial samples are less than or equal to 15 ppb; or

dddd. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xli. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xlii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

eeee. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ffff. If requested in writing by the school's authorized school representative.

185. The water system is responsible for the following costs:

oo. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

pp. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

186. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

187. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

188. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

wwww. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

xxxx. The date of the request;

yyyy. The date of the initial meeting;

zzzz. The date of the sampling plan along with a copy of each sampling plan; and

aaaaa. The date of initial lead sampling and all repeat samples.

189. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

321. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
322. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
323. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
324. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
325. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
326. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
327. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

328. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
329. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
330. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
331. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
332. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
333. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
334. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
335. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
336. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

141. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
142. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
143. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

144. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
145. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
146. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
147. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

101. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
102. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
103. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
104. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
105. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
65. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
66. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

67. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

141. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
142. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
143. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
144. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
145. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
146. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
147. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ken Toy, Board President
Meadow Creek Mutual Water Company
System No. 1400111
P.O. Box 1587
Bishop, CA 93514

Dear: Ken Toy,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Meadow Creek Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Meadow Creek Mutual Water Company
(Public Water System No. *1400111*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

MIKE HOLLEBRANDS
GENERAL MANAGER
MEINERS OAKS CWD, System No. 5610005
202 WEST EL ROBLAR DRIVE
OJAI, CA 93023

Dear: MIKE HOLLEBRANDS

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the MEINERS OAKS CWD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MEINERS OAKS CWD
(Public Water System No. *5610005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

609. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

610. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

611. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

612. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

613. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

614. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

615. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

616. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

685. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

686. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

687. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

688. The water system may stop lead sampling at a school if:

ssssssssssss. All initial samples are less than or equal to 15 ppb; or

ttttttttttt. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cliii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cliv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

uuuuuuuuuuuu. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

vvvvvvvvvvvv. If requested in writing by the school's authorized school representative.

689. The water system is responsible for the following costs:

wwwwww. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

xxxxxx. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

690. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

691. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

692. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

qqqqqqqqqqqqqqq. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

rrrrrrrrrrrrrrr. The date of the request;

sssssssssssssss. The date of the initial meeting;

tttttttttttttttt. The date of the sampling plan along with a copy of each sampling plan; and

uuuuuuuuuuuuuuu. The date of initial lead sampling and all repeat samples.

693. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Timothy Flynn
Manager/President
Mesa Crest Water Co.
4532 Rinetti Ln. Unit C
La Canada, CA 91011

Dear: Timothy Flynn

System No: 1910241 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Mesa Crest Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910241 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910241 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Mesa Crest Water Co.
Public Water System No. *1910241*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

KARIN STADDON
REGIONAL MANAGER
MESA DUNES MOBILE HOME ESTATES, System No. 4000650
P.O. BOX 3670
ONTARIO, CA 91761

Dear: KARIN STADDON

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the MESA DUNES MOBILE HOME ESTATES water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

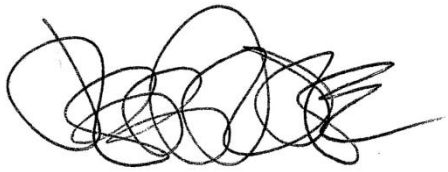

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MESA DUNES MOBILE HOME ESTATES
(Public Water System No. *4000650*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

17. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

18. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

19. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

20. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

21. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

22. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

23. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

24. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

19. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

20. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

21. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

22. The water system may stop lead sampling at a school if:

i. All initial samples are less than or equal to 15 ppb; or

j. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

v. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

vi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

k. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

l. If requested in writing by the school's authorized school representative.

23. The water system is responsible for the following costs:

e. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

f. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

24. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

25. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

26. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    k. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    l. The date of the request;

    m. The date of the initial meeting;

    n. The date of the sampling plan along with a copy of each sampling plan; and

    o. The date of initial lead sampling and all repeat samples.

27. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Ms. Kaying Lee
Water Quality & Compliance Supervisor
Mesa Water District, System No. 3010004
1965 Placentia Ave
Costa Mesa, CA 92627

Dear Ms. Lee:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Mesa Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Mesa Water District
(Public Water System No. 3010004)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

BRIAN YANEZ
INTERIM PW DIRECTOR
MIDDLE ROAD MUTUAL WATER CO, System No. 5601110
P.O. Box 569
SANTA PAULA, CA 93061

Dear: BRIAN YANEZ

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the MIDDLE ROAD MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

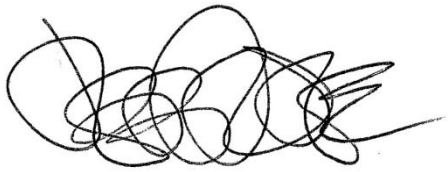

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MIDDLE ROAD MUTUAL WATER CO
(Public Water System No. *5601110*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

409. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

410. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

411. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

412. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

413. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

414. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

415. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

416. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

460. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

461. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

462. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

463. The water system may stop lead sampling at a school if:

wwwwwwww. All initial samples are less than or equal to 15 ppb; or

xxxxxxxx. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

ciii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

civ. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

yyyyyyyy. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

zzzzzzzz. If requested in writing by the school's authorized school representative.

464. The water system is responsible for the following costs:

yyyy. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

zzzz. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

465. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

466. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

467. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

vvvvvvvvvv. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

wwwwwwwwww. The date of the request;

xxxxxxxxxx. The date of the initial meeting;

yyyyyyyyyy. The date of the sampling plan along with a copy of each sampling plan; and

zzzzzzzzzz. The date of initial lead sampling and all repeat samples.

468. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Midland School Corporation
(Public Water System No. 4200618)

By

Santa Barbara County

Environmental Health Services Division

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 24, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD AND THE COUNTY OF SANTA BARBARA

Dated: 12/20/2016

Deanna Talerico
Senior Environmental Health Specialist
Santa Barbara County
Environmental Health Services Division

cc: Jeff Densmore, SWRCB Division of Drinking Water

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ms. Tammy Rudock
Mid-Peninsula Water District, System No. 4110001
3 Dairy Lane
Belmont, CA 94002

Dear Ms. Rudock:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Mid-Peninsula Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Mid-Peninsula Water District
(Public Water System No. *4110001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Ms. Jean Bauer
Secretary
Midway City Mutual Water Company, System No. 3010097
P.O. Box 11150
Westminster, CA 92685

Dear Ms. Bauer:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Midway City Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Midway City Mutual Water Company
(Public Water System No. 3010097)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

James R Carruth, Chief Operator
Mil Potrero Mutual Water Company
P.O. Box "W"
Pine Mountain Club, CA 93222

Dear Mr. Carruth:

ISSUANCE OF PERMIT AMENDMENT: 1510028-2017PA_SCHOOLS (System No. 1510028)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Mil Potrero Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510028-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Mil Potrero Mutual Water Company
(Public Water System No. 1510028)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510028-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2310006

William Koehler, General Manager
Millview County Water District
P.O. Box 399
Redwood Valley, CA 95470

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2310006

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear William Koehler:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Millview County Water District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2310006

cc: Mendocino County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Millview County Water District
(Public Water System No. 2310006)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2310006/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

John Frehse
General Manager
MINERAL COUNTY WATER DISTRICT, System No. 5200503
P. O. BOX 206
MINERAL, CA 96063

Dear : John Frehse

ISSUANCE OF PERMIT AMENDMENT 010201P52002A2

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the MINERAL COUNTY WATER DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

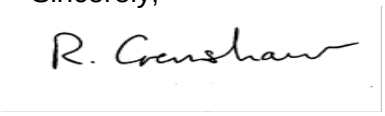

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 010201P52002A2

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MINERAL COUNTY WATER DISTRICT
(Public Water System No. *5200503*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***010201P52002A2***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD
OPERATIONS BRANCH

January 17, 2017

MICHAEL RILEY
GENERAL MANAGER
MISSION HILLS CSD, System No. 4210019
1550 EAST BURTON MESA BOULEVARD
LOMPOC, CA 93436

Dear: MICHAEL RILEY

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the MISSION HILLS CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MISSION HILLS CSD
(Public Water System No. *4210019*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

345. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

346. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

347. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

348. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

349. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

350. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

351. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

352. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

388. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

389. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

390. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

391. The water system may stop lead sampling at a school if:

qqqqqqq. All initial samples are less than or equal to 15 ppb; or

rrrrrrr. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxxxvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxxxviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

sssssss. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

tttttt. If requested in writing by the school's authorized school representative.

392. The water system is responsible for the following costs:

iiii. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

jjjj. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

393. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

394. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

395. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

hhhhhhhhh. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

iiiiiiiii. The date of the request;

jjjjjjjjj. The date of the initial meeting;

kkkkkkkkk. The date of the sampling plan along with a copy of each sampling plan; and

lllllllll. The date of initial lead sampling and all repeat samples.

396. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Joseph Kovalik, Owner
Mission Oaks Mobile Home Park, System No. 3510006
1155 Redmond Avenue
San Jose, CA. 95120

Dear Mr. Kovalik:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Mission Oaks Mobile Home Park water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MISSION OAKS MOBILE HOME PARK
(Public Water System No. *3510006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Arden Wallum
General Manager
Mission Springs Water District, System No. 3310008
66575 Second St.
Desert Hot Springs, CA 92240

Dear Arden Wallum:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Mission Springs Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Mission Spring Water District
(Public Water System No. 3310008)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Bee Coy Jr., General Manager
Mojave Public Utilities District
15844 K Street
Mojave, CA 93501

Dear Mr. Coy Jr.:

ISSUANCE OF PERMIT AMENDMENT: 1510014-2017PA_SCHOOLS (System No. 1510014)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Mojave Public Utilities District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510014-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Dan Sackett, skOO'kum h2o monitoring, inc. (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Mojave Public Utilities District
(Public Water System No. 1510014)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510014-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report, shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Tina Cherry
Director
Monrovia-City, Water Dept.
415 S Ivy Ave
Monrovia, CA 91016

Dear Tina Cherry:

System No. 1910090- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Monrovia-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Monrovia-City, Water Dept.
Public Water System No. *1910090*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Clemens Heldmaier
Montara Water and Sanitary District, System No. 4110010
P.O. Box 370131
Montara, CA 94037

Dear Mr. Heldmaier:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Montara Water and Sanitary District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Mark Kinsey, General Manager
Monte Vista CWD
System No. 3610029
P.O. Box 71
Montclair, CA 91763

Dear: Mark Kinsey,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Monte Vista CWD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Monte Vista CWD
(Public Water System No. *3610029*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Kenneth Bradbury
General Manager
Montebello Land & Water Co.
344 E. Madison Ave., P.O. Box 279
Montebello, CA 90640

Dear: Kenneth Bradbury

System No: 1910091 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Montebello Land & Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910091 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910091 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Montebello Land & Water Co.
Public Water System No. *1910091*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Robert Diprimio
VP Engineering, Ops
Montebello-City, Water Dept.
P.O.Box 6010
El Monte, CA 91734-2010

Dear Robert Diprimio:

System No. 1910117- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Montebello-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Montebello-City, Water Dept.
Public Water System No. *1910117*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

NICHOLAS TURNER
GENERAL MANAGER
MONTECITO WATER DIST, System No. 4210007
583 San Ysidro Road
SANTA BARBARA, CA 93108

Dear: NICHOLAS TURNER

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the MONTECITO WATER DIST water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

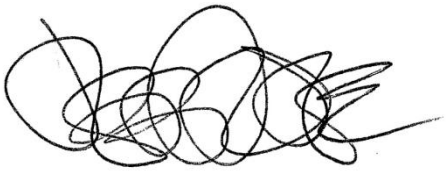

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MONTECITO WATER DIST
(Public Water System No. *4210007*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

281. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

282. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

283. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

284. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

285. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

286. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

287. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

288. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

316. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

317. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

318. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

319. The water system may stop lead sampling at a school if:

kkkkkk. All initial samples are less than or equal to 15 ppb; or

llllll. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxxi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxxii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

mmmmmm. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

nnnnnn. If requested in writing by the school's authorized school representative.

320. The water system is responsible for the following costs:

sss. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ttt. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

321. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

322. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

323. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

tttttt. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

uuuuuuu. The date of the request;

vvvvvvv. The date of the initial meeting;

wwwwwww. The date of the sampling plan along with a copy of each sampling plan; and

xxxxxxx. The date of initial lead sampling and all repeat samples.

324. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

ROB LIVICK
PUBLIC SERVICES DIRECTOR
MORRO BAY PW DEPT - WATER DIVISION, System No. 4010011
955 Shasta Avenue
MORRO BAY, CA 93442

Dear: ROB LIVICK

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the MORRO BAY PW DEPT - WATER DIVISION water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

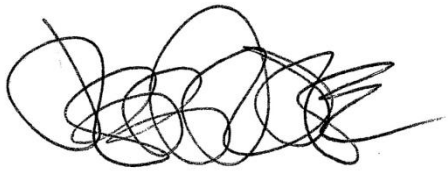

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MORRO BAY PW DEPT - WATER DIVISION
(Public Water System No. *4010011*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

105. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

106. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

107. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

108. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

109. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

110. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

111. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

112. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

118. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

119. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

120. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

121. The water system may stop lead sampling at a school if:

aaa. All initial samples are less than or equal to 15 ppb; or

bbb. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ccc. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ddd. If requested in writing by the school's authorized school representative.

122. The water system is responsible for the following costs:

aa. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

bb. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

123. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

124. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

125. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

nnn. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

ooo. The date of the request;

ppp. The date of the initial meeting;

qqq. The date of the sampling plan along with a copy of each sampling plan; and

rrr. The date of initial lead sampling and all repeat samples.

126. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

GEORGE BRETT
PRESIDENT
MORRO ROCK MUTUAL WATER CO, System No. 4010015
PO Box 757
CAYUCOS, CA 93430

Dear: GEORGE BRETT

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the MORRO ROCK MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

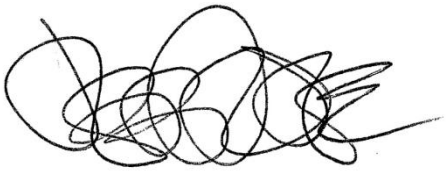

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MORRO ROCK MUTUAL WATER CO
(Public Water System No. *4010015*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

129. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

130. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

131. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

132. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

133. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

134. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

135. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

136. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

145. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

146. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

147. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

148. The water system may stop lead sampling at a school if:

mmm. All initial samples are less than or equal to 15 ppb; or

nnn. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxxiii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxxiv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ooo. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ppp. If requested in writing by the school's authorized school representative.

149. The water system is responsible for the following costs:

gg. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

hh. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

150. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

151. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

152. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

cccc. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

dddd. The date of the request;

eeee. The date of the initial meeting;

ffff. The date of the sampling plan along with a copy of each sampling plan; and

gggg. The date of initial lead sampling and all repeat samples.

153. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Ms. Joone Lopez
General Manager
Moulton Niguel Water District, System No. 3010073
27500 La Paz Road
Laguna Niguel, CA 92677

Dear Ms. Lopez:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Moulton Niguel Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Moulton Niguel Water District
(Public Water System No. 3010073)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Nader Shareghi
Public Works Manager
Mountain House Community Services District, System No. 3910027
230 South Sterling Drive, Suite 100
Mountain House, CA 95391

Dear : Mr. Shareghi

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Mountain House Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Mountain House Community Services District
(Public Water System No. 3910027)

By The

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   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Scott Kissack, Owner
Mountain Mesa Water Company
P.O. Box 2431
Bakersfield, CA 93303

Dear Mr. Kissack:

ISSUANCE OF PERMIT AMENDMENT: 1510042-2017PA_SCHOOLS (System No. 1510042)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Mountain Mesa Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510042-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Eric Furtado, California Water Service Co. (via email)
Rami Kahlon, CPUC (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Mountain Mesa Water Company
(Public Water System No. 1510042)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510042-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S. Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Kent Goodrich
Owner
Mountain View Duplexes, System No. 5400604
31159 Meadow Lark Lane
Springville, CA 93265

Dear: Kent Goodrich

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Mountain View Duplexes water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Mountain View Duplexes
(Public Water System No. 5400604)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Stephen Johnson
Gen. Manager
Mountain View MHP, System No. 5400819
P.O. Box 3025
Visalia, CA 93278

Dear: Stephen Johnson

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Mountain View MHP water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Mountain View MHP
(Public Water System No. 5400819)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2210901
January 17, 2017

LARRY HARRIS, DIST UTILITIES MGR.
MPWD-COULTERVILLE CSA 1
4639 Ben Hur Road
MARIPOSA, CA 95338

Dear LARRY HARRIS,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the MPWD-COULTERVILLE CSA 1 water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Mariposa Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MPWD-COULTERVILLE CSA 1
(Public Water System No.: *2210901*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

81. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

82. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

83. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

84. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

85. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

86. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

87. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

88. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

91. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

92. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

93. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

94. The water system may stop lead sampling at a school if:

oo. All initial samples are less than or equal to 15 ppb; or

pp. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

qq. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

rr. If requested in writing by the school's authorized school representative.

95. The water system is responsible for the following costs:

u. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

v. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

96. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

97. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

98. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    yy. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    zz. The date of the request;

    aaa. The date of the initial meeting;

    bbb. The date of the sampling plan along with a copy of each sampling plan; and

    ccc. The date of initial lead sampling and all repeat samples.

99. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

161. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
162. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
163. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
164. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
165. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
166. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
167. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

168. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
169. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
170. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
171. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
172. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
173. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
174. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
175. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
176. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

71. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
72. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
73. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

74. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
75. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
76. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
77. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

51. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
52. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
53. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
54. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
55. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
35. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
36. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

37. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

71. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
72. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
73. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
74. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
75. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
76. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
77. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MT ARARAT MOBILE HOME PARK
Public Water System No. *1000257*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_036**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Richard Wismer, Manager
Mt Baldy Homeowners Assn.
System No. 3610033
P. O. Box 611
Mt. Baldy, CA 91759

Dear: Richard Wismer,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Mt Baldy Homeowners Assn. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Mt Baldy Homeowners Assn.
(Public Water System No. *3610033*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Dale Pollock, Facility Engineer
Mt. Hermon Association, Inc., System No. 4410008
PO Box 413
Mount Hermon, CA. 95041

Dear Mr. Pollock:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Mt. Hermon Association, Inc. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MT. HERMON ASSOCIATION, INC.
(Public Water System No. *4410008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 1710014

Alan Farr, Operations Manager
Mt. Konocti Mutual Water Company
9733 State Highway 281
Kelseyville, CA 95451

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_1710014

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Alan Farr:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Mt. Konocti Mutual Water Company (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_1710014

cc: Lake County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Mt. Konocti Mutual Water Company
(Public Water System No. 1710014)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

1710014/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MURRIETA/HERNANDEZ FARMS
Public Water System No. *1000585*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_066**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Kenneth Lambert, President
Muscoy MWC No. 1
System No. 3610031
2167 Darby St
San Bernardino, CA 92407

Dear: Kenneth Lambert,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Muscoy MWC No. 1 water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Muscoy MWC No. 1
(Public Water System No. *3610031*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MUSICK CREEK TRACT ASSOCIATION
Public Water System No. *1000058*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_017**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichtl, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MUSICK HEIGHTS MUTUAL
Public Water System No. *1000059*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_018**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

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and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

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   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

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2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MUSICK MEADOWS #1
Public Water System No. *1000060*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_019**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

MUSICK MEADOWS #2
Public Water System No. *1000061*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_020**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

TIM BEAN
GENERAL MANAGER
NACIMIENTO WATER COMPANY, System No. 4010027
2890 Saddle Way
BRADLEY, CA 93426

Dear: TIM BEAN

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the NACIMIENTO WATER COMPANY water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

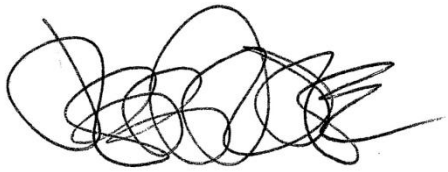

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

NACIMIENTO WATER COMPANY
(Public Water System No. *4010027*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

193. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

194. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

195. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

196. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

197. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

198. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

199. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

200. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

217. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

218. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

219. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

220. The water system may stop lead sampling at a school if:

ssss. All initial samples are less than or equal to 15 ppb; or

tttt. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xlix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

l. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

uuuu. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

vvvv. If requested in writing by the school's authorized school representative.

221. The water system is responsible for the following costs:

ww. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

xx. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

222. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

223. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

224. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

qqqqq. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

rrrrr. The date of the request;

sssss. The date of the initial meeting;

ttttt. The date of the sampling plan along with a copy of each sampling plan; and

uuuuu. The date of initial lead sampling and all repeat samples.

225. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

William Kagele
Water Program Manager
Naval Air Facility El Centro, System No. 1310700
1605 Third Street, Building 504
El Centro, CA 92243

Dear William Kagele:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Naval Air Facility El Centro water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Jeff Lamoure, Deputy Director - Division of Environmental Health, Imperial County Public Health Department (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Naval Air Facility El Centro
(Public Water System No. *1310700*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Joseph Pharo, Public Works Production Director
Lemoore Naval Air Station, System No. 1610700
750 Enterprise Ave
Lemoore, CA 93246

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Joseph Pharo:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Lemoore Naval Air Station water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Lemoore Naval Air Station
(Public Water System No. *1610700*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Donald Chuck
Nasa Ames Research Center, System No. 4300997
Nasa - Ames Research Center M/S 204-15, N-204, Rm 100
Moffett Field, CA 94035

Dear Mr. Chuck:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Nasa Ames Research Center water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Nasa Ames Research Center
(Public Water System No. *4300997*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

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This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Jason Golumbfskie-Jones
Environmental Director
Naval Air Station North Island & Naval Amphibious Base Coronado, System No. 3710750
Env. Div. Naval Base Coronado PWO Bldg 3
PO Box 357088
San Diego, CA 92135-7089

Dear Jason Golumbfskie-Jones:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Naval Air Station North Island & Naval Amphibious Base Coronado water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Naval Air Station North Island & Naval Amphibious Base Coronado
(Public Water System No. *3710750*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

ALICIA THOMPSON
WATER PRGM MANAGER
NAVAL BASE VENTURA COUNTY, POINT MUGU, System No. 5610700
311 MAIN RD STE 1, BLDG 632 CODE N45V
POINT MUGU, CA 93042

Dear: ALICIA THOMPSON

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the NAVAL BASE VENTURA COUNTY, POINT MUGU water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

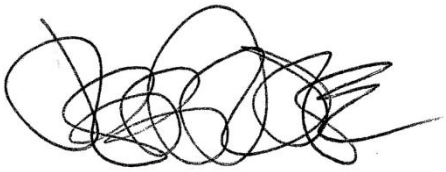

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

NAVAL BASE VENTURA COUNTY, POINT MUGU

(Public Water System No. *5610700*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

873. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

874. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

875. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

876. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

877. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

878. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

879. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

880. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

982. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

983. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

984. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

985. The water system may stop lead sampling at a school if:

uuuuuuuuuuuuuuuuu. All initial samples are less than or equal to 15 ppb; or

vvvvvvvvvvvvvvvvv. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

ccxix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ccxx. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

wwwwwwwwwwwwwwwwww. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

xxxxxxxxxxxxxxxxx. If requested in writing by the school's authorized school representative.

986. The water system is responsible for the following costs:

kkkkkkkkk. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

llllllll. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

987. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

988. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

989. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

zzzzzzzzzzzzzzzzzzzzz. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

aaaaaaaaaaaaaaaaaaaaa. The date of the request;

bbbbbbbbbbbbbbbbbbbbb. The date of the initial meeting;

ccccccccccccccccccccc. The date of the sampling plan along with a copy of each sampling plan; and

dddddddddddddddddddddd. The date of initial lead sampling and all repeat samples.

990. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

ALICIA THOMPSON
WATER PRGM MANAGER
NAVAL BASE VENTURA COUNTY, PORT HUENEME, System No. 5610701
311 MAIN RD STE 1, BLDG 632 CODE N45V
POINT MUGU, CA 93042

Dear: ALICIA THOMPSON

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the NAVAL BASE VENTURA COUNTY, PORT HUENEME water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

NAVAL BASE VENTURA COUNTY, PORT HUENEME

(Public Water System No. *5610701*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

881. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

882. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

883. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

884. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

885. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

886. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

887. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

888. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

991. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

992. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

993. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

994. The water system may stop lead sampling at a school if:

yyyyyyyyyyyyyyyyy. All initial samples are less than or equal to 15 ppb; or

zzzzzzzzzzzzzzzzz. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

ccxxi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ccxxii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

aaaaaaaaaaaaaaaaaa. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

bbbbbbbbbbbbbbbbbb. If requested in writing by the school's authorized school representative.

995. The water system is responsible for the following costs:

mmmmmmmmm. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

nnnnnnnnn. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

996. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

997. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

998. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

eeeeeeeeeeeeeeeeeeeee. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

fffffffffffffffffffff. The date of the request;

gggggggggggggggggggg. The date of the initial meeting;

hhhhhhhhhhhhhhhhhhhh. The date of the sampling plan along with a copy of each sampling plan; and

iiiiiiiiiiiiiiiiiiii. The date of initial lead sampling and all repeat samples.

999. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017 PWS No. 2910004

Fred Waymire
Superintendent
Nevada Irrigation District – E. George, Banner Mountain, System No. 2910004
1036 West Main Street
Grass Valley, CA 95945

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-2910004

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Nevada Irrigation District – E. George, Banner Mountain public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-2910004

cc: Nevada County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Nevada Irrigation District – E. George, Banner Mountain
Public Water System
(Public Water System No. 2910004)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-2910004**
EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 18, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017 PWS No. 2910014

Fred Waymire
Superintendent
Nevada Irrigation District – Lake of Pines, System No. 2910014
1036 West Main Street
Grass Valley, CA 95945

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-2910014

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Nevada Irrigation District – Lake of Pines public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-2910014

cc: Nevada County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Nevada Irrigation District – Lake of Pines
Public Water System
(Public Water System No. 2910014)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-2910014**
EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website. .

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 18, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017 PWS No. 2910023

Fred Waymire
Superintendent
Nevada Irrigation District – Lake Wildwood, System No. 2910023
1036 West Main Street
Grass Valley, CA 95945

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-2910023

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

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If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-2910023

cc: Nevada County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Nevada Irrigation District – Lake Wildwood
Public Water System
(Public Water System No. 2910023)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-2910023**
EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 18, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017 PWS No. 2910006

Fred Waymire
Superintendent
Nevada Irrigation District – Loma Rica, System No. 2910006
1036 West Main Street
Grass Valley, CA 95945

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-2910006

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Nevada Irrigation District – Loma Rica public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

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cc: Nevada County Environmental Health Department (email)

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STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

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Public Water System
(Public Water System No. 2910006)

By The

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Division of Drinking Water

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EFFECTIVE DATE**: January 18, 2017**

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   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 18, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017 PWS No. 3110026

Fred Waymire
Superintendent
Nevada Irrigation District – North Auburn, System No. 3110026
1036 West Main Street
Grass Valley, CA 95945

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3110026

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Nevada Irrigation District – North Auburn public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3110026

cc: Placer County Environmental Health (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Nevada Irrigation District – North Auburn
Public Water System
(Public Water System No. 3110026)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3110026**
EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 18, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

NEW AUBERRY WATER ASSOCIATION
Public Water System No. *1000063*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_021**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

NEW HORIZONS MOBILE/RV PARK
Public Water System No. *1000259*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_037**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

MARIO IGLESIAS
GENERAL MANAGER
NIPOMO COMM SERVICES DIST, System No. 4010026
148 South Wilson Street
NIPOMO, CA 93444

Dear: MARIO IGLESIAS

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the NIPOMO COMM SERVICES DIST water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

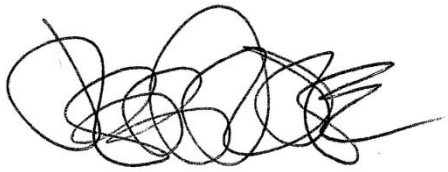

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

NIPOMO COMM SERVICES DIST
(Public Water System No. *4010026*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

185. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

186. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

187. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

188. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

189. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

190. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

191. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

192. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

208. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

209. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

210. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

211. The water system may stop lead sampling at a school if:

oooo. All initial samples are less than or equal to 15 ppb; or

pppp. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xlvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xlviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

qqqq. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

rrrr. If requested in writing by the school's authorized school representative.

212. The water system is responsible for the following costs:

uu. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

vv. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

213. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

214. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

215. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

llll. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

mmmmm. The date of the request;

nnnnn. The date of the initial meeting;

ooooo. The date of the sampling plan along with a copy of each sampling plan; and

ppppp. The date of initial lead sampling and all repeat samples.

216. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Don Rosa, General Manager
Normco Water Company, System No. 2700511
136 San Juan Road
Royal Oaks, CA. 95076

Dear Mr. Rosa:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Normco Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

NORMCO WATER COMPANY
(Public Water System No. *2700511*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ms. Cari Lemke
North Coast County Water District, System No. 4110025
P.O. Box 1039
Pacifica, CA 94044

Dear Ms. Lemke:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the North Coast County Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

North Coast County Water District
(Public Water System No. *4110025*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet; check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Dollie Kostopoulos, General Manager
North Edwards Water District
13525 Fran Street
North Edwards, CA 93523

Dear Ms. Kostopoulos:

ISSUANCE OF PERMIT AMENDMENT: 1510052-2017PA_SCHOOLS (System No. 1510052)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the North Edwards Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510052-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

North Edwards Water District
(Public Water System No. 1510052)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510052-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Kevin Skeen
Board President
North Kaweah Mutual Water Co., System No. 5400506
P.O. Box 94
Three Rivers, CA 93271

Dear: Kevin Skeen

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the North Kaweah Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

North Kaweah Mutual Water Co.
(Public Water System No. 5400506)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2110003

Chris Degabriele
North Marin Water District
P.O. Box 146
Novato, CA 94948

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2110003

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Chris Degabriele:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the North Marin Water District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2110003

cc: Marin County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

North Marin Water District
(Public Water System No. 2110003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

2110003/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

System No. 2110006

Chris Degabriele
North Marin WD - Pt. Reyes
P.O. Box 146
Novato, CA 94948

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2110006

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Chris Degabriele:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the North Marin WD - Pt. Reyes (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2110006

cc: Marin County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

North Marin WD - Pt. Reyes
(Public Water System No. 2110006)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017 Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

2110006/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Ron Carr
Assistant General Manager
North Perris Water System, System No. 3310082
101 North D St.
Perris, CA 92570

Dear Ron Carr:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the North Perris Water System water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

North Perris Water System
(Public Water System No. 3310082)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

North Tahoe PUD - Main
(Public Water System No. 3110001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

January 17, 2017

Jeff Maupin
Manager
NORTH YUBA WATER DISTRICT, System No. 5810006
8691 LaPorte RD.
PO Box 299
BROWNSVILLE, CA 95919

The number 72-003A3 is incorrect. This is the 2nd amendment to Permit No. 72-003. The permit number in the permit database has been updated to refelect No. 72-003A2 for this action.
Ray Bruun, 5/25/17.

Dear : Jeff Maupin

ISSUANCE OF PERMIT AMENDMENT 72-003A3

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the NORTH YUBA WATER DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

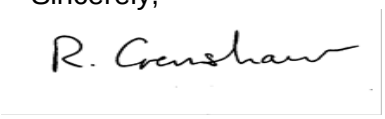

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 72-003A3

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

NORTH YUBA WATER DISTRICT
(Public Water System No. *5810006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***72-003A3***
EFFECTIVE DATE**: January 17, 2017**

The number 72-003A3 is incorrect. This is the 2nd amendment to Permit No. 72-003. The permit number in the permit database has been updated to refelect No. 72-003A2 for this action.
Ray Bruun, 5/25/17.

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD
OPERATIONS BRANCH

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

NPS-GRANT GROVE
Public Water System No. *1010501*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_111**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/07

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Edward Piester
Operations Manager
Nuevo Water Company, System No. 3310026
30427 11th St.
Nuevo, CA 92567

Dear Edward Piester:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Nuevo Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Nuevo Water Company
(Public Water System No. 3310026)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

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c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

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iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

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l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

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i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

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   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DINA ONTIVERAS
PRESIDENT
NYELAND ACRES MUTUAL WATER CO, System No. 5602111
P.O. Box 1228
OXNARD, CA 93032

Dear: DINA ONTIVERAS

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the NYELAND ACRES MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

NYELAND ACRES MUTUAL WATER CO
(Public Water System No. *5602111*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

537. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

538. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

539. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

540. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

541. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

542. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

543. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

544. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

604. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

605. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

606. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

607. The water system may stop lead sampling at a school if:

iiiiiiiiiii. All initial samples are less than or equal to 15 ppb; or

jjjjjjjjjjj. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxxxv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxxxvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

kkkkkkkkkkkk. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

lllllllllll. If requested in writing by the school's authorized school representative.

608. The water system is responsible for the following costs:

eeeeee. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ffffff. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

609. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

610. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

611. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

xxxxxxxxxxxxx. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

yyyyyyyyyyyyy. The date of the request;

zzzzzzzzzzzzz. The date of the initial meeting;

aaaaaaaaaaaaaa. The date of the sampling plan along with a copy of each sampling plan; and

bbbbbbbbbbbbbb. The date of initial lead sampling and all repeat samples.

612. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

RICHARD JONES
WATER & WW SUPT
OAK PARK WATER SERVICE, System No. 5610043
1001 Partridge Drive Suite 150
VENTURA, CA 93003

Dear: RICHARD JONES

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the OAK PARK WATER SERVICE water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

OAK PARK WATER SERVICE
(Public Water System No. *5610043*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

785. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

786. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

787. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

788. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

789. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

790. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

791. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

792. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

883. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

884. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

885. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

886. The water system may stop lead sampling at a school if:

cccccccccccccccc. All initial samples are less than or equal to 15 ppb; or

ddddddddddddddddd. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxcvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxcviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

eeeeeeeeeeeeeeee. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

fffffffffffffffff. If requested in writing by the school's authorized school representative.

887. The water system is responsible for the following costs:

oooooooo. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

pppppppp. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

888. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

889. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

890. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

wwwwwwwwwwwwwwwwwwww. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

xxxxxxxxxxxxxxxxxxx. The date of the request;

yyyyyyyyyyyyyyyyyyy. The date of the initial meeting;

zzzzzzzzzzzzzzzzzzz. The date of the sampling plan along with a copy of each sampling plan; and

aaaaaaaaaaaaaaaaaaa. The date of initial lead sampling and all repeat samples.

891. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

PAAVO OGREN
GENERAL MANAGER
OCEANO COMM SERVICES DIST., System No. 4010005
1655 Front Street
OCEANO, CA 93445

Dear: PAAVO OGREN

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the OCEANO COMM SERVICES DIST. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

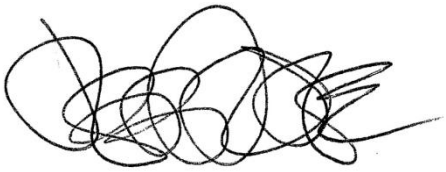

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

OCEANO COMM SERVICES DIST.
(Public Water System No. *4010005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

57. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

58. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

59. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

60. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

61. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

62. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

63. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

64. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

64. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

65. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

66. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

67. The water system may stop lead sampling at a school if:

cc. All initial samples are less than or equal to 15 ppb; or

dd. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ee. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ff. If requested in writing by the school's authorized school representative.

68. The water system is responsible for the following costs:

o. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

p. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

69. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

70. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

71. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    jj. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    kk. The date of the request;

    ll. The date of the initial meeting;

    mm. The date of the sampling plan along with a copy of each sampling plan; and

    nn. The date of initial lead sampling and all repeat samples.

72. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ms. Ana Pedreiro
O'Connor Tract Co-Operative Water Company, System No. 4110019
P.O. Box 1375
Palo Alto, CA 94302

Dear Ms. Pedreiro:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the O'Connor Tract Co-Operative Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

O'Connor Tract Co-Operative Water Company
(Public Water System No. *4110019*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet; check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Douglas Nunneley, General Manager
Oildale Mutual Water Company, System No. 1510015
P.O. Box 5638
Oildale, CA 93388

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Douglas Nunneley:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Oildale Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Oildale Mutual Water Company
(Public Water System No. *1510015*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Mr. Tim Shaw
General Manager
OLIVEHURST PUBLIC U.D., System No. 5810003
P.O. BOX 670
OLIVEHURST, CA 95961

Dear : Mr. Tim Shaw

ISSUANCE OF PERMIT AMENDMENT 03251963A10

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

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If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

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If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

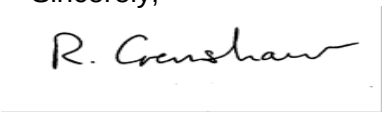

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 03251963A10

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

OLIVEHURST PUBLIC U.D.
(Public Water System No. *5810003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***03251963A10***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD
OPERATIONS BRANCH

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Kim Thorner
General Manager
Olivenhain Municipal Water District, System No. 3710029
1966 Olivenhain Rd.
Encinitas, CA 92024

Dear Kim Thorner:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Olivenhain Municipal Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterohi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Olivenhain Municipal Water District
(Public Water System No. *3710029*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Scott Burton, Utility General Manager
Ontario Municipal Utilities Company
System No. 3610034
1425 S. Bon View Ave.
Ontario, CA 91761

Dear: Scott Burton,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Ontario Municipal Utilities Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Ontario Municipal Utilities Company
(Public Water System No. *3610034*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 19, 2017

PWS No. 3410016

Sharon Wilcox
General Manager
Orange Vale Water Company, System No. 3410016
P.O. Box 620800
Sacramento, CA 95662

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410016

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Orange Vale Water Company public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410016

cc: Sacramento County Environmental Management Department. (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Orange Vale Water Company
Public Water System
(Public Water System No. 3410016)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410016**
EFFECTIVE DATE**: January 19, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 19, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Ed Castaneda
General Manager
Orchard Dale Water District
13819 East Telegraph Road
Whittier, CA 90604

Dear Ed Castaneda:

System No: 1910101 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Orchard Dale Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910101 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910101 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Orchard Dale Water District

Los Angeles County
System No. 1910101

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

10655

10606

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Orchard Dale Water District
Public Water System No. *1910101*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Raul Mariscal
Foreman
Orosi Public Utility District, System No. 5410008
12488 Avenue 416
Orosi, CA 93647

Dear: Raul Mariscal

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Orosi Public Utility District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Orosi Public Utility District
(Public Water System No. 5410008)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Mark Watton
General Manager
Otay Water District, System No. 3710034
2554 Sweetwater Springs Blvd.
Spring Valley, CA 91978

Dear Mark Watton:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

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for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Otay Water District
(Public Water System No. *3710034*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DANIEL RYDBERG
INT PW DIRECTOR UTILITIES
OXNARD WATER DEPT, System No. 5610007
251 South Hayes Avenue
OXNARD, CA 93030

Dear: DANIEL RYDBERG

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the OXNARD WATER DEPT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

OXNARD WATER DEPT
(Public Water System No. *5610007*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

625. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

626. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

627. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

628. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

629. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

630. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

631. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

632. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

703. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

704. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

705. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

706. The water system may stop lead sampling at a school if:

aaaaaaaaaaaaa. All initial samples are less than or equal to 15 ppb; or

bbbbbbbbbbbbb. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ccccccccccccc. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

dddddddddddd. If requested in writing by the school's authorized school representative.

707. The water system is responsible for the following costs:

aaaaaaa. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

bbbbbbb. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

708. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

709. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

710. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

aaaaaaaaaaaaaaa. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

bbbbbbbbbbbbbbbb. The date of the request;

ccccccccccccccccc. The date of the initial meeting;

ddddddddddddddddd. The date of the sampling plan along with a copy of each sampling plan; and

eeeeeeeeeeeeeeeee. The date of initial lead sampling and all repeat samples.

711. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2810012

Dale Withers, Facilities Director
Pacific Union College
205 Highlands Oaks Drive
Angwin, CA 94508-9802

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2810012

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Dale Withers:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Pacific Union College (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2810012

cc: Napa County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Pacific Union College
(Public Water System No. 2810012)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2810012/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Alan Carlisle
General Manager
Padre Dam Municipal Water District, System No. 3710037
PO BOX 719003
Santee, CA 92071

Dear Alan Carlisle:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Padre Dam Municipal Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Padre Dam Municipal Water District
(Public Water System No. *3710037*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Mr. James Konopisos
Board Member
Page Avenue Mutual Water Company, System No. 3000585
1900 Page Avenue
Fullerton, CA 92833

Dear Mr. Konopisos:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Page Avenue Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Page Avenue Mutual Water Company
(Public Water System No. 3000585)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Don Rosa, General Manager
Pajaro Community Services District, System No. 2710020
136 San Juan Road
Royal Oaks, CA. 95076

Dear Mr. Rosa:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Pajaro Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

PAJARO COMMUNITY SERVICES DISTRICT
(Public Water System No. *2710020*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Peter Tuculet
Chief Operator
Palm Ranch Irrigation Dist.
4871 West Columbia Way
Quartz Hill, CA 93536

Dear: Peter Tuculet

System No: 1910103 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Palm Ranch Irrigation Dist. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910103 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910103 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Palm Ranch Irrigation Dist.
Public Water System No. *1910103*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Dennis Lamoreaux
General Manager
Palmdale Water Dist.
2029 East Avenue Q
Palmdale, CA 93550

Dear Dennis Lamoreaux:

System No: 1910102 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Palmdale Water Dist. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910102 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910102 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Palmdale Water Dist.

Los Angeles County
System No. 1910102

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Palmdale Water Dist.
Public Water System No. *1910102*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ms. Katherine Loudd
Palo Alto Park Mutual Water Company, System No. 4110020
2190 Addison Avenue
Palo Alto, CA 94303

Dear Ms. Loudd:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Palo Alto Park Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Palo Alto Park Mutual Water Company
(Public Water System No. *4110020*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

PANOCHE WATER DISTRICT
Public Water System No. *1000345*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_046**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

PAPPAS & CO (COALINGA)
Public Water System No. *1009006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_068**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Licht, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

PAPPAS & CO (MENDOTA)
Public Water System No. *1009039*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_073**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

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      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

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iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

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a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

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6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

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8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

Jim Passanisi
Water Treatment Plant Supervisor
PARADISE IRRIGATION DISTRICT, System No. 410007
13888 PINE NEEDLE DRIVE
MAGALIA, CA 95954

Dear : Jim Passanisi

ISSUANCE OF PERMIT AMENDMENT 01-02-99(P)040002

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the PARADISE IRRIGATION DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

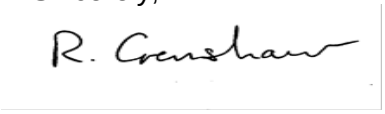

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 01-02-99(P)040002

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

PARADISE IRRIGATION DISTRICT
(Public Water System No. *410007*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***01-02-99(P)040002***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD
OPERATIONS BRANCH

January 17, 2017

ANDY LILLEY
VICE PRESIDENT
PASO ROBLES BEACH WATER ASSN, System No. 4010006
PO Box 315
CAYUCOS, CA 93430

Dear: ANDY LILLEY

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the PASO ROBLES BEACH WATER ASSN water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

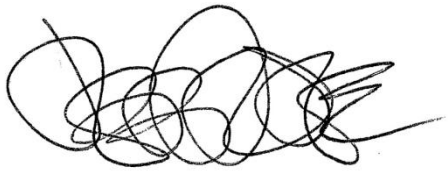

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

PASO ROBLES BEACH WATER ASSN
(Public Water System No. *4010006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

65. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

66. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

67. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

68. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

69. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

70. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

71. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

72. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

73. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

74. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

75. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

76. The water system may stop lead sampling at a school if:

gg. All initial samples are less than or equal to 15 ppb; or

hh. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ii. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

jj. If requested in writing by the school's authorized school representative.

77. The water system is responsible for the following costs:

q. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

r. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

78. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

79. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

80. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    oo. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    pp. The date of the request;

    qq. The date of the initial meeting;

    rr. The date of the sampling plan along with a copy of each sampling plan; and

    ss. The date of initial lead sampling and all repeat samples.

81. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

CHRISTOPHER ALAKEL
WATER RESOURCE MANAGER
PASO ROBLES WATER DEPARTMENT, System No. 4010007
1230 PASO ROBLES STREET
PASO ROBLES, CA 93446

Dear: CHRISTOPHER ALAKEL

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the PASO ROBLES WATER DEPARTMENT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

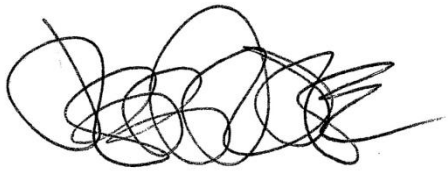

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

PASO ROBLES WATER DEPARTMENT
(Public Water System No. *4010007*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

73. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

74. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

75. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

76. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

77. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

78. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

79. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

80. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

82. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

83. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

84. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

85. The water system may stop lead sampling at a school if:

kk. All initial samples are less than or equal to 15 ppb; or

ll. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xx. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

mm. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

nn. If requested in writing by the school's authorized school representative.

86. The water system is responsible for the following costs:

s. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

t. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

87. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

88. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

89. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    tt. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    uu. The date of the request;

    vv. The date of the initial meeting;

    ww. The date of the sampling plan along with a copy of each sampling plan; and

    xx. The date of initial lead sampling and all repeat samples.

90. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Linda Lee
Patterson Tract CSD, System No. 5402038
P.O. Box 532
Visalia, CA 93279

Dear: Linda Lee

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Patterson Tract CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Patterson Tract CSD
(Public Water System No. 5402038)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

System No. 4910003

Karen Ball, General Manager
Penngrove Water Company (PUC)
4982 Sonoma Highway
Santa Rosa, CA 95409

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910003

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Karen Ball:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Penngrove Water Company (PUC) (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910003

cc: Sonoma County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Penngrove Water Company (PUC)
(Public Water System No. 4910003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910003/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

PG&E HELMS SUPPORT FACILITY
Public Water System No. *1000472*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_058**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Don Bartz, General Manager
Phelan Pinon Hills CSD
System No. 3610120
P.O. Box 294049
Phelan, CA 92329

Dear: Don Bartz,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Phelan Pinon Hills CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Phelan Pinon Hills CSD
(Public Water System No. *3610120*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Mark Grajeda
General Manager
Pico WD
P.O. Box 758
Pico Rivera, CA 90660

Dear Mark Grajeda:

System No: 1910125 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Pico WD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910125 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910125 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Pico WD

Los Angeles County
System No. 1910125

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

10907

10858

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Pico WD
Public Water System No. *1910125*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

PIEDRA PARK ASSOCIATION
Public Water System No. *1000405*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_052**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

Michelle Ray
Owner
Pierpoint Springs Water Co., System No. 5400732
P.O. Box 85
Camp Nelson, CA 93208

Dear: Michelle Ray

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Pierpoint Springs Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Pierpoint Springs Water Co.
(Public Water System No. 5400732)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Russell Howard
Lead Operator
Pine Grove CSD, System No. 0310005
P.O. Box 367
Pine Grove, CA 95665

Dear : Mr. Howard

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Pine Grove CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Pine Grove CSD
(Public Water System No. 0310005)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples
for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Neil Symonds
Board President
Pine Hills Mutual Water Company, System No. 3700905
P.O. Box 725
Julian, CA 92036

Dear Neil Symonds:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Pine Hills Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Pine Hills Mutual Water Company
(Public Water System No. *3700905*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Trevor Brown
Manager
Pine Valley Mutual Water Company, System No. 3710039
28789 Old HWY 80
Pine Valley, CA 91962

Dear Trevor Brown:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Pine Valley Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Pine Valley Mutual Water Company
(Public Water System No. *3710039*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jason Franklin, General Manager
Pinedale County Water District, System No. 1010026
480 W. Birch Ave.
Pinedale, CA 93650

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Jason Franklin:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Pinedale County Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Pinedale County Water District
(Public Water System No. *1010026*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

TOM HEMBREE
WATER SYSTEM SUPERVISOR
PISMO BEACH WATER DEPARTMENT, System No. 4010008
760 MATTIE ROAD
PISMO BEACH, CA 93449

Dear: TOM HEMBREE

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the PISMO BEACH WATER DEPARTMENT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

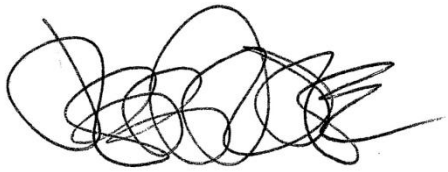

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

PISMO BEACH WATER DEPARTMENT
(Public Water System No. *4010008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

81. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

82. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

83. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

84. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

85. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

86. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

87. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

88. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

91. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

92. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

93. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

94. The water system may stop lead sampling at a school if:

oo. All initial samples are less than or equal to 15 ppb; or

pp. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

qq. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

rr. If requested in writing by the school's authorized school representative.

95. The water system is responsible for the following costs:

u. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

v. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

96. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

97. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

98. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    yy. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    zz. The date of the request;

    aaa. The date of the initial meeting;

    bbb. The date of the sampling plan along with a copy of each sampling plan; and

    ccc. The date of initial lead sampling and all repeat samples.

99. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Board of Directors
Pixley Public Utility District, System No. 5410009
P. O. Box 535
Pixley, CA 93256

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Board of Directors:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Pixley Public Utility District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Placer CSA - Sheridan
(Public Water System No. 3110048)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Placer CWA - Alta
(Public Water System No. 3110024)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

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   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

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i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

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a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Placer CWA – Auburn/Bowman
(Public Water System No. 3110005)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

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d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

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Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Placer CWA – Colfax
(Public Water System No. 3110006)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

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THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Placer CWA - Foothill
(Public Water System No. 3110025)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

   i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

   ii. If the sample location remains in service, and

      a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

      b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

System No.: 2410007
January 17, 2017

DANIEL CHAVEZ, PRESIDENT
PLANADA CSD
P.O. BOX 905
PLANADA, CA 95365

Dear DANIEL CHAVEZ,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the PLANADA CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Merced Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

PLANADA CSD
(Public Water System No.: *2410007*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

153. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

154. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

155. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

156. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

157. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

158. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

159. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

160. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

172. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

173. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

174. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

175. The water system may stop lead sampling at a school if:

yyy. All initial samples are less than or equal to 15 ppb; or

zzz. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxxix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xl. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

aaaa. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

bbbb. If requested in writing by the school's authorized school representative.

176. The water system is responsible for the following costs:

mm. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

nn. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

177. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

178. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

179. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

rrrr. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

ssss. The date of the request;

tttt. The date of the initial meeting;

uuuu. The date of the sampling plan along with a copy of each sampling plan; and

vvvv. The date of initial lead sampling and all repeat samples.

180. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

305. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
306. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
307. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
308. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
309. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
310. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
311. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

312. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
313. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
314. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
315. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
316. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
317. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
318. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
319. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
320. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

134. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
135. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
136. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

137. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
138. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
139. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
140. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

96. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
97. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
98. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
99. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
100. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
62. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
63. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

64. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

134. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
135. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
136. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
137. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
138. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
139. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
140. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

JERRY DORAN
WATER SUPERINTENDENT
PLEASANT VALLEY MUTUAL WATER CO, System No. 5610008
1863 EAST LAS POSAS ROAD
CAMARILLO, CA 93010

Dear: JERRY DORAN

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the PLEASANT VALLEY MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

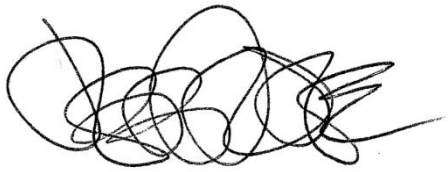

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

PLEASANT VALLEY MUTUAL WATER CO
(Public Water System No. *5610008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

633. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

634. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

635. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

636. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

637. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

638. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

639. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

640. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

712. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

713. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

714. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

715. The water system may stop lead sampling at a school if:

eeeeeeeeeeeee. All initial samples are less than or equal to 15 ppb; or

fffffffffffff. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clx. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

gggggggggggg. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

hhhhhhhhhhhh. If requested in writing by the school's authorized school representative.

716. The water system is responsible for the following costs:

cccccccc. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ddddddd. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

717. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

718. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

719. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

fffffffffffffffff. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

gggggggggggggggg. The date of the request;

hhhhhhhhhhhhhhhh. The date of the initial meeting;

iiiiiiiiiiiiiiii. The date of the sampling plan along with a copy of each sampling plan; and

jjjjjjjjjjjjjjjj. The date of initial lead sampling and all repeat samples.

720. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Mr. Tim Shaw
General Manager
PLUMAS LAKE, System No. 5805001
P.O. BOX 670
OLIVEHURST, CA 95961

Dear : Mr. Tim Shaw

ISSUANCE OF PERMIT AMENDMENT 012104P58001A4

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the PLUMAS LAKE water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

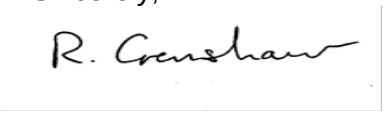

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 012104P58001A4

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

PLUMAS LAKE
(Public Water System No. *5805001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***012104P58001A4***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD
OPERATIONS BRANCH

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2310013

Carla Sigman, Manager
Point Arena Water Works
P.O. Box 205
Point Arena, CA 95468

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2310013

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Carla Sigman:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Point Arena Water Works (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2310013

cc: William Hay Jr., Owner, P.O. Box 205, Point Arena, CA 95468
Mendocino County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Point Arena Water Works
(Public Water System No. 2310013)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2310013/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jennifer Robertson
Office Manager
Ponderosa CSD, System No. 5400934
56287 Aspen
Springville, CA 93265

Dear: Jennifer Robertson

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Ponderosa CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Ponderosa CSD
(Public Water System No. 5400934)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

David Mitchell, Manager
Poplar Community Services District, System No. 5410026
P.O. Box 3849
Porterville, CA 93258

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear David Mitchell:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Poplar Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Poplar Community Services District
(Public Water System No. *5410026*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

STEVE HICKOX
WATER SUPERINTENDENT
PORT HUENEME WATER AGENCY, System No. 5610080
250 NORTH VENTURA ROAD
PORT HUENEME, CA 93041

Dear: STEVE HICKOX

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the PORT HUENEME WATER AGENCY water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

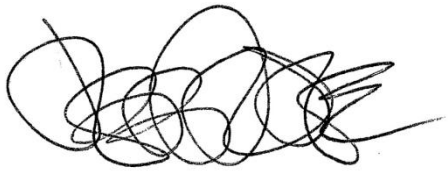

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

PORT HUENEME WATER AGENCY
(Public Water System No. *5610080*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

857. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

858. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

859. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

860. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

861. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

862. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

863. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

864. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

964. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

965. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

966. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

967. The water system may stop lead sampling at a school if:

mmmmmmmmmmmmmmmmm. All initial samples are less than or equal to 15 ppb; or

nnnnnnnnnnnnnnnnn. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

ccxv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ccxvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

oooooooooooooooooo. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ppppppppppppppppp. If requested in writing by the school's authorized school representative.

968. The water system is responsible for the following costs:

ggggggggg. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

hhhhhhhhh. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

969. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

970. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

971. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

pppppppppppppppppppppp. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

qqqqqqqqqqqqqqqqqqqqq. The date of the request;

rrrrrrrrrrrrrrrrrrrr. The date of the initial meeting;

sssssssssssssssssssss. The date of the sampling plan along with a copy of each sampling plan; and

tttttttttttttttttttttt. The date of initial lead sampling and all repeat samples.

972. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

STEVE HICKOX
WATER SUPERINTENDENT
PORT HUENEME WATER DEPT, System No. 5610009
250 NORTH VENTURA ROAD
PORT HUENEME, CA 93041

Dear: STEVE HICKOX

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the PORT HUENEME WATER DEPT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

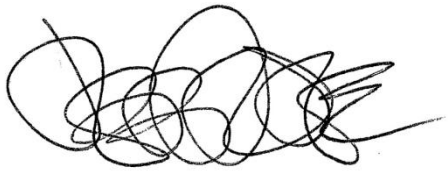

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

PORT HUENEME WATER DEPT
(Public Water System No. *5610009*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

641. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

642. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

643. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

644. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

645. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

646. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

647. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

648. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

721. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

722. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

723. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

724. The water system may stop lead sampling at a school if:

iiiiiiiiiiiii. All initial samples are less than or equal to 15 ppb; or

jjjjjjjjjjjjj. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clxi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clxii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

kkkkkkkkkkkkkk. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

lllllllllllll. If requested in writing by the school's authorized school representative.

725. The water system is responsible for the following costs:

eeeeeee. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

fffffff. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

726. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

727. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

728. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

kkkkkkkkkkkkkkkk. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

llllllllllllllll. The date of the request;

mmmmmmmmmmmmmmmm. The date of the initial meeting;

nnnnnnnnnnnnnnnn. The date of the sampling plan along with a copy of each sampling plan; and

oooooooooooooooo. The date of initial lead sampling and all repeat samples.

729. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jeff Walley
Chief Eng. II
Porterville Developmental Center, System No. 5410801
P.O. Box 2000
Porterville, CA 93257

Dear: Jeff Walley

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Porterville Developmental Center water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Porterville Developmental Center
(Public Water System No. 5410801)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Bryan Styles
Field Services Mgr.
Porterville-Jones Corner, System No. 5410048
291 North Main Street
Porterville, CA 93257

Dear: Bryan Styles

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Porterville-Jones Corner water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Porterville-Jones Corner
(Public Water System No. 5410048)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Terry Zaragoza
Interim Utility Manager
City of Poway, System No. 3710015
P.O. BOX 789
Poway, CA 92074-0789

Dear Terry Zaragoza:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Poway water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Poway
(Public Water System No. *3710015*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA3810700

Dan Patrick
Treatment Supervisor
Presidio of San Francisco
Po Box 29052
San Francisco, CA 94129-0052

Dear Dan Patrick:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Presidio of San Francisco water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Francisco County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Presidio of San Francisco
(Public Water System No. *CA3810700*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Patrick Walter
Purissima Hills Water District, System No. 4310021
26375 Fremont Road
Los Altos Hills, CA 94022

Dear Mr. Walter:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Purissima Hills Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Purissima Hills Water District
(Public Water System No. *4310021*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Chad Reed
General Manager
Quartz Hill Water Dist.
5034 W. Avenue L
Quartz Hill, CA 93536

Dear: Chad Reed

System No: 1910130 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Quartz Hill Water Dist. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910130 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910130 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Quartz Hill Water Dist.
Public Water System No. *1910130*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Quincy Community S.D.
(Public Water System No. 3210004)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Tom Kennedy
General Manager
Rainbow Municipal Water District, System No. 3710016
3707 Old Highway 395
Fallbrook, CA 92028

Dear Tom Kennedy:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Rainbow Municipal Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Rainbow Municipal Water District
(Public Water System No. *3710016*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Joe Lomeli
Operations Manager
Ramona Municipal Water District, System No. 3710019
105 Earlham Street
Ramona, CA 92065

Dear Joe Lomeli:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Ramona Municipal Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Ramona Municipal Water District
(Public Water System No. *3710019*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Rich Ottolini
Interim Director of Operations
Rancho California Water District, System No. 3310038
P.O. Box 9017
42135 Winchester Rd.
Temecula, CA 92589

Dear Rich Ottolini:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Rancho California Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Rancho California Water District
(Public Water System No. 3310038)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-17-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Mr. Daniel R. Ferons
General Manager
Rancho Mission Viejo, System No. 3000852
P.O. Box 7005
Mission Viejo, CA 92690

Dear Mr. Ferons:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Rancho Mission Viejo water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Rancho Mission Viejo
(Public Water System No. 3000852)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Melinda Houser
Administrator
Rancho Pauma Mutual Water Company, System No. 3710012
33129 Cole Grade Road
Pauma Valley, CA 92061

Dear Melinda Houser:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Rancho Pauma Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Rancho Pauma Mutual Water Company
(Public Water System No. *3710012*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Patrick Mulcahy, President
Rancho San Joaquin Mutual Water Company, System No. 3500581
PO Box 1654
Hollister, CA. 95024

Dear Mr. Mulcahy:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Rancho San Joaquin Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

RANCHO SAN JOAQUIN
MUTUAL WATER COMPANY
(Public Water System No. *3500581*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

JAMINETTE PEREZ
PROPERTY MANAGER
RANCHO SESPE WORKERS IMP ASSOC, System No. 5601144
2950 East Telegraph Road
FILLMORE, CA 93015

Dear: JAMINETTE PEREZ

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the RANCHO SESPE WORKERS IMP ASSOC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

RANCHO SESPE WORKERS IMP ASSOC
(Public Water System No. *5601144*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

481. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

482. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

483. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

484. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

485. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

486. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

487. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

488. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

541. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

542. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

543. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

544. The water system may stop lead sampling at a school if:

gggggggggg. All initial samples are less than or equal to 15 ppb; or

hhhhhhhhhh. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxxi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxxii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

iiiiiiiiii. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

jjjjjjjjjj. If requested in writing by the school's authorized school representative.

545. The water system is responsible for the following costs:

qqqqq. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

rrrrr. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

546. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

547. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

548. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

oooooooooooo. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

pppppppppppp. The date of the request;

qqqqqqqqqqqq. The date of the initial meeting;

rrrrrrrrrrrr. The date of the sampling plan along with a copy of each sampling plan; and

ssssssssssss. The date of initial lead sampling and all repeat samples.

549. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mike Powell, General Manager
Rand Communities Water District
P.O. Box 198
Randsburg, CA 93554

Dear Mr. Powell:

ISSUANCE OF PERMIT AMENDMENT: 1510016-2017PA_SCHOOLS (System No. 1510016)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Rand Communities Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510016-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Rand Communities Water District
(Public Water System No. 1510016)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510016-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 4900599

John Osterloh, President
Randal's Ranchette Mutual Water Company
4524 Ranchette Road
Santa Rosa, CA 95409

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4900599

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear John Osterloh:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Randal's Ranchette Mutual Water Company (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4900599

cc: Sonoma County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Randal's Ranchette Mutual Water Company
(Public Water System No. 4900599)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4900599/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

RAU DAIRY
Public Water System No. *1009120*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_077**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Bill Gane, Operations Manager
Redlands City Mud-Water Division
System No. 3610037
P.O. Box 3005
Redlands, CA 92373

Dear: Bill Gane,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Redlands City Mud-Water Division water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Redlands City Mud-Water Division
(Public Water System No. *3610037*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/12

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2310008

William Koehler, General Manager
Redwood Valley County Water District
P.O. Box 399
Redwood Valley, CA 95470

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2310008

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear William Koehler:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Redwood Valley County Water District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2310008

cc: Mendocino County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Redwood Valley County Water District
(Public Water System No. 2310008)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2310008/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Board of Directors
Richgrove Community Services District, System No. 5410024
P. O. Box 86
Richgrove, CA 93261

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Board of Directors:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Richgrove Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Richgrove Community Services District
(Public Water System No. *5410024*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

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SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

System No. 2300708

Joseph R. Swearengin
Ridgewood Water System
16580 N HWY 101
Willits, CA 95490

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2300708

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Joseph R. Swearengin:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Ridgewood Water System (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2300708

cc: Mendocino County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Ridgewood Water System
(Public Water System No. 2300708)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2300708/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

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SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Thomas Gregory
General Manager
Rincon Del Diablo Municipal Water District ID-1, System No. 3710018
1920 N. Iris Lane
Escondido, CA 92026

Dear Thomas Gregory:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Rincon Del Diablo Municipal Water District ID-1 water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Rincon Del Diablo Municipal Water District ID-1
(Public Water System No. *3710018*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Thomas Gregory
General Manager
Rincon Del Diablo Municipal Water District ID-A, System No. 3710044
1920 N. Iris Lane
Escondido, CA 92026

Dear Thomas Gregory:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Rincon Del Diablo Municipal Water District ID-A water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Rincon Del Diablo Municipal Water District ID-A
(Public Water System No. *3710044*)

By The

State Water Resources Control Board

Division of Drinking Water

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THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Martha Slack
General Manager
RIO ALTO WATER DISTRICT, System No. 5210005
22099 River View Drive
COTTONWOOD, CA 96022

Dear : Martha Slack

ISSUANCE OF PERMIT AMENDMENT 82-046A5

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the RIO ALTO WATER DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

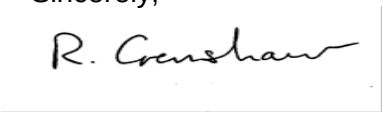

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 82-046A5

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

RIO ALTO WATER DISTRICT
(Public Water System No. *5210005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***82-046A5***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD
OPERATIONS BRANCH

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 19, 2017 PWS No. 3410018

Mary Henrici
General Manager
Rio Linda Elverta Community Water District, System No. 3410018
730 L Street
Rio Linda, CA 95673

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410018

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Rio Linda Elverta Community Water District public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410018

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Rio Linda Elverta Community Water District
Public Water System
(Public Water System No. 3410018)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410018**
EFFECTIVE DATE**: January 19, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 19, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

System No. 4900577

Doug Schimdt, Principal
Rio Lindo Adventist Academy
3200 Rio Lindo Avenue
Healdsburg, CA 95448

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4900577

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Doug Schimdt:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Rio Lindo Adventist Academy (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4900577

cc: Sonoma County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Rio Lindo Adventist Academy
(Public Water System No. 4900577)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4900577/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

ROBERT ERANIO
GENERAL MANAGER
RIO MANOR MUTUAL WATER CO, System No. 5610035
135 West Magnolia Avenue, Suite 12
OXNARD, CA 93030

Dear: ROBERT ERANIO

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the RIO MANOR MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

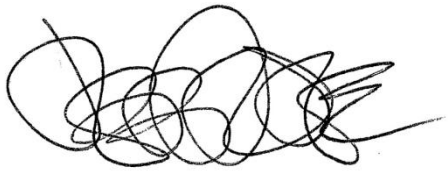

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

RIO MANOR MUTUAL WATER CO
(Public Water System No. *5610035*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

761. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

762. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

763. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

764. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

765. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

766. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

767. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

768. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

856. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

857. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

858. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

859. The water system may stop lead sampling at a school if:

qqqqqqqqqqqqqqq. All initial samples are less than or equal to 15 ppb; or

rrrrrrrrrrrrrrr. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxci. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxcii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ssssssssssssssss. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

tttttttttttttttt. If requested in writing by the school's authorized school representative.

860. The water system is responsible for the following costs:

iiiiiiii. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

jjjjjjjj. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

861. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

862. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

863. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

hhhhhhhhhhhhhhhhhh. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

iiiiiiiiiiiiiiiiii. The date of the request;

jjjjjjjjjjjjjjjjj. The date of the initial meeting;

kkkkkkkkkkkkkkkkkkk. The date of the sampling plan along with a copy of each sampling plan; and

lllllllllllllllllll. The date of initial lead sampling and all repeat samples.

864. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

JOHN NICKEL
PRESIDENT
RIO PLAZA WATER CO INC, System No. 5610010
8698 Roseland Avenue
MOORPARK, CA 93021

Dear: JOHN NICKEL

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the RIO PLAZA WATER CO INC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

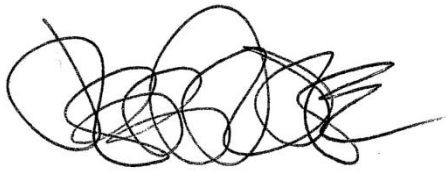

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

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Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

656. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

730. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

731. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

732. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

733. The water system may stop lead sampling at a school if:

mmmmmmmmmmmmm. All initial samples are less than or equal to 15 ppb; or

nnnnnnnnnnnnn. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clxiii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clxiv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

oooooooooooooo. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

pppppppppppppp. If requested in writing by the school's authorized school representative.

734. The water system is responsible for the following costs:

ggggggg

Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Kelly Price
President
River Retreat Mutual, System No. 5400556
P.O. Box 787
Three Rivers, CA 93271

Dear: Kelly Price

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the River Retreat Mutual water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

River Retreat Mutual
(Public Water System No. 5400556)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

RIVERBEND MOBILE HOME & RV PARK
Public Water System No. *1000426*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_054**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

RIVERDALE PUBLIC UTILITY DISTRICT
Public Water System No. *1010028*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_098**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Don Hough, General Manager
Riverside Highland Water Company
System No. 3610057
12374 Michigan Street
Grand Terrace, CA 92323

Dear: Don Hough,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Riverside Highland Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Riverside Highland Water Company
(Public Water System No. *3610057*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Diane Rodriguez-Cole
Rodriguez Labor Camp, System No. 5400735
P.O. Box 1270
Delano, CA 93216

Dear: Diane Rodriguez-Cole

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Rodriguez Labor Camp water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Rodriguez Labor Camp
(Public Water System No. 5400735)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Arnie Peterson, Manager
Rolling Green Utilities, Inc.
System No. 1400010
139 Elmcrest Dr.
Big Pine, CA 93513

Dear: Arnie Peterson,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Rolling Green Utilities, Inc.. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Rolling Green Utilities, Inc.
(Public Water System No. *1400010*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/12

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ron Smith, General Manager
Rosamond Community Services District
3179 35th Street West
Rosamond, CA 93560

Dear Mr. Smith:

ISSUANCE OF PERMIT AMENDMENT: 1510018-2017PA_SCHOOLS (System No. 1510018)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Rosamond Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510018-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Juan DelaRosa, Rosamond CSD (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Rosamond Community Services District
(Public Water System No. 1510018)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510018-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S. Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Tom Coleman
General Manager
Rowland Water District
3021 South Fullerton Road
Rowland Heights, CA 91748

Dear Tom Coleman:

System No. 1910194- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Rowland Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Rowland Water District
Public Water System No. *1910194*

By The

State Water Resources Control Board

Division of Drinking Water

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1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

David Lopez
General Manager
Rubidoux Community Services District, System No. 3310044
P.O. Box 3098
Rubidoux, CA 92519-3098

Dear David Lopez:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Rubidoux Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Rubidoux Community Services District
(Public Water System No. 3310044)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Armando De La Paz
Operations Manager
Rubio Canon Land & Water Association
583 E. Sacramento St.
Altadena, CA 91001

Dear: Armando De La Paz

System No: 1910140 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Rubio Canon Land & Water Association water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910140 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910140 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Rubio Canon Land & Water Association
Public Water System No. *1910140*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

RUBYS VALLEY CARE HOME
Public Water System No. *1000200*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_029**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ryan Gross, General Manager
Running Springs Water District
System No. 3610062
P.O. Box 2206
Running Springs, CA 92382

Dear: Ryan Gross,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Running Springs Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Running Springs Water District
(Public Water System No. *3610062*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA4810013

Gordon Stankowski
General Manager
Rural North Vacaville Water District
P.O. Box 5097
Vacaville, CA 95696

Dear Gordon Stankowski:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Rural North Vacaville Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Solano County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Rural North Vacaville Water District
(Public Water System No. *CA4810013*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017 PWS No. 3410002

Tom Pasterski
Maintenance Manager
Sacramento County Water Agency – Arden Park Vista, System No. 3410002
3847 Branch Center Road, Trailer #3
Sacramento, CA 95827

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410002

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Sacramento County Water Agency – Arden Park Vista public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410002

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sacramento County Water Agency – Arden Park Vista
Public Water System
(Public Water System No. 3410002)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410002**
EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 18, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017 PWS No. 3410029

Tom Pasterski
Maintenance Manager
Sacramento County Water Agency – Laguna / Vineyard, System No. 3410029
3847 Branch Center Road, Trailer #3
Sacramento, CA 95827

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410029

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Sacramento County Water Agency – Laguna / Vineyard public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410029

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sacramento County Water Agency – Laguna / Vineyard
Public Water System
(Public Water System No. 3410029)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410029**
EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 18, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

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This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017 PWS No. 3410704

Tom Pasterski
Maintenance Manager
Sacramento County Water Agency – Mather / Sunrise, System No. 3410704
3847 Branch Center Road, Trailer #3
Sacramento, CA 95827

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410704

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Sacramento County Water Agency – Mather / Sunrise public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410704

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sacramento County Water Agency – Mather / Sunrise
Public Water System
(Public Water System No. 3410704)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410704**
EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 18, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 PWS No. 3410001

Dan York
Field Operations Manager
Sacramento Suburban Water District, Public Water System No. 3410001
3701 Marconi Avenue, Suite 101
Sacramento, CA 95821

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410001

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Sacramento Suburban Water District public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410001

cc: Sacramento County Environmental Management Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sacramento Suburban Water District
Public Water System
(Public Water System No. 3410001)
By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410001**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Sam Ochoa, CP Manager II
Salinas Valley State Prison, System No. 2710851
PO Box 1020
Soledad, CA. 93960

Dear Mr. Ochoa:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Salinas Valley State Prison water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SALINAS VALLEY STATE PRISON
(Public Water System No. *2710851*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SAN ANDREAS FARMS
Public Water System No. *1009258*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_084**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Karen Sked, President
San Antonio Canyon MSC
System No. 3610082
P.O. Box 631
Mt. Baldy, CA 91759

Dear: Karen Sked,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Antonio Canyon MSC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Antonio Canyon MSC
(Public Water System No. *3610082*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Charles Moorrees, General Manager
San Antonio Water Company
System No. 3610085
139 North Euclid Avenue
Upland, CA 91786

Dear: Charles Moorrees,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Antonio Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Antonio Water Company
(Public Water System No. *3610085*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

COUNTY OF MONTEREY
HEALTH DEPARTMENT
Elsa Jimenez, Director of Health

Administration
Behavioral Health

Clinic Services
Emergency Medical Services
Environmental Health/Animal Services

Public Health
Public Administrator/Public Guardian

January 26, 2017

Ms. Suzzi Clark
Secretary
San Ardo Water District, System No. 270-0728
POB 238
San Ardo, CA 93940

Dear Ms. Clark:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Ardo Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

1270 Natividad Road, Salinas, CA 93906 PHONE (831) 755-4507 FAX (831) 796-8691
http://www.mcfhd.org/

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov You may also contact me at (831) 755-4552 or sandovalcl@co.monterey.ca.us.

Sincerely,

Cheryl Sandoval, REHS
Supervisor-Drinking Water Protection Services
Monterey County Health Department
Environmental Health Bureau

Enclosure: 2017PA_Schools

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Ardo Water District
(Public Water System No. 270-0728)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 26, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 26, 2017

Cheryl Sandoval, REHS
Monterey County LPA
Monterey County Health Department
Environmental Health Bureau

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

GARY BALL
MANAGER
SAN CAYETANO MUTUAL WATER CO, System No. 5601116
540 SESPE AVE., #4
FILLMORE, CA 93015

Dear: GARY BALL

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SAN CAYETANO MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

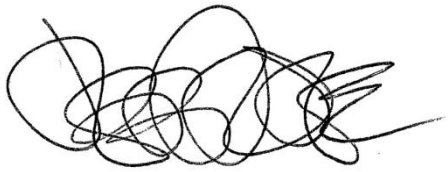

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SAN CAYETANO MUTUAL WATER CO
(Public Water System No. *5601116*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

417. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

418. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

419. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

420. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

421. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

422. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

423. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

424. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

469. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

470. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

471. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

472. The water system may stop lead sampling at a school if:

aaaaaaaaa. All initial samples are less than or equal to 15 ppb; or

bbbbbbbbb. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ccccccccc. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ddddddddd. If requested in writing by the school's authorized school representative.

473. The water system is responsible for the following costs:

aaaaa. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

bbbbb. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

474. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

475. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

476. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

aaaaaaaaaaa. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

bbbbbbbbbbb. The date of the request;

ccccccccccc. The date of the initial meeting;

ddddddddddd. The date of the sampling plan along with a copy of each sampling plan; and

eeeeeeeeeee. The date of initial lead sampling and all repeat samples.

477. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Bill O'Donnell
General Manager
San Dieguito Water District, System No. 3710021
160 Calle Magdalena
Encinitas, CA 92024

Dear Bill O'Donnell:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Dieguito Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Dieguito Water District
(Public Water System No. *3710021*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

James (Jim) Prior
General Manager
San Gabriel County WD
8366 Grand Avenue
Rosemead, CA 91770

Dear James (Jim) Prior:

System No: 1910144 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Gabriel County WD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910144 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910144 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

San Gabriel County WD

Los Angeles County
System No. 1910144

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Gabriel County WD
Public Water System No. *1910144*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Robert Diprimio
VP Engineering, Ops
San Gabriel Valley Water Co.-El Monte
P.O.Box 6010
El Monte, CA 91734-2010

Dear Robert Diprimio:

System No. 1910039- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Gabriel Valley Water Co.-El Monte water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

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http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Gabriel Valley Water Co.-El Monte
Public Water System No. *1910039*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

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3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

California Water Boards

Edmund G. Brown Jr.
Governor

Matthew Rodriquez
Secretary for Environmental Protection

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Robert Diprimio
VP Engineering, Ops
San Gabriel Valley Water Co.-Montebello
P.O.Box 6010
El Monte, CA 91734-2010

Dear Robert Diprimio:

System No. 1910189- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Gabriel Valley Water Co.-Montebello water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Gabriel Valley Water Co.-Montebello
Public Water System No. *1910189*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Josh M. Swift, General Manager
San Gabriel Valley WC - Fontana
System No. 3610041
P.O. Box 987
Fontana, CA 92334

Dear: Josh M. Swift,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Gabriel Valley WC - Fontana water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Gabriel Valley WC - Fontana
(Public Water System No. *3610041*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ben Guzman
Utility Districts Superintendent
San Joaquin County – Colonial Heights, System No. 3910002
P.O. Box 1810
Stockton, CA 952021

Dear : Mr. Guzman

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Joaquin County – Colonial Heignts water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Joaquin County – Colonial Heights
(Public Water System No. 3910002)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ben Guzman
Utility Districts Superintendent
San Joaquin County – Lincoln Village, System No. 3910010
P.O. Box 1810
Stockton, CA 95201

Dear : Mr. Guzman

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Joaquin County – Lincoln Village water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Joaquin County – Lincoln Village
(Public Water System No. 3910010)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ben Guzman
Utility Districts Superintendent
San Joaquin County - Thornton, System No. 3910009
P.O. Box 1810
Stockton, CA 95201

Dear : Mr. Guzman

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Joaquin County - Thornton water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Joaquin County - Thornton
(Public Water System No. 3910009)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ben Guzman
Utility Districts Superintendent
San Joaquin County – Wilkinson Manor, System No. 3910024
P.O. Box 1810
Stockton, CA 95201

Dear : Mr. Guzman

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Joaquin County – Wilkinson Manor water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Joaquin County – Wilkinson Manor
(Public Water System No. 3910024)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. ~~If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter~~ laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. David Krack
San Jose State University, System No. 4310028
One Washington Square Facilities Developement & Operations
San Jose, CA 95192

Dear Mr. Krack:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Jose State University water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Jose State University
(Public Water System No. *4310028*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs *"3Ts for Reducing Lead in Drinking Water in Schools"* as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Francois Rodigari
San Jose Water Company, System No. 4310011
1221 A South Bascom Avenue
San Jose, CA 95128

Dear Mr. Rodigari:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Jose Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Jose Water Company
(Public Water System No. *4310011*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Mr. Glenn R. Garrett
Chief Plant Operator
San Juan Basin Authority, System No. 3010120
32450 Paseo Adelanto
San Juan Capistrano, CA 92675

Dear Mr. Garrett:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Juan Basin Authority water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Juan Basin Authority
(Public Water System No. 3010120)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 PWS No. 3410021

Shauna Lorance
General Manager
San Juan Water District, System No. 3410021
9935 Auburn-Folsom Road
Granite Bay, CA 95746

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-3410021

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Juan Water District public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-3410021

cc: Sacramento County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Juan Water District
Public Water System
(Public Water System No. 3410021)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-3410021**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Brian Lee, District Manager
San Lorenzo Valley Water District, System No. 4410014
13060 Highway 9
Boulder Creek, CA. 95006

Dear Mr. Lee:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Lorenzo Valley Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SAN LORENZO VALLEY WATER DISTRICT
(Public Water System No. *4410014*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

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   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

COUNTY OF MONTEREY
HEALTH DEPARTMENT
Elsa Jimenez, Director of Health

Administration
Behavioral Health
Clinic Services
Emergency Medical Services
Environmental Health/Animal Services
Public Health
Public Administrator/Public Guardian

January 26, 2017

Susan Madson
Secretary
San Lucas Water District, System No. 270-1676
POB 166
San Lucas, CA 93954

Dear: Ms. Madson,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Lucas Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

1270 Natividad Road, Salinas, CA 93906 PHONE (831) 755-4507 FAX (831) 796-8691
http://www.mtyhd.org/

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov You may also contact me at (831) 755-4552 or sandovalcl@co.monterey.ca.us.

Sincerely,

Cheryl Sandoval, REHS
Supervisor-Drinking Water Protection Services
Monterey County Health Department
Environmental Health Bureau

Enclosure: 2017PA_Schools

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Lucas Water District
(Public Water System No. 270-1676)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 26, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 26, 2017

Cheryl Sandoval

Cheryl Sandoval, REHS
Monterey County LPA
Monterey County Health Department
Environmental Health Bureau

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

CARRIE MATTINGLY
UTILITY DIRECTOR
SAN LUIS OBISPO WATER DEPARTMENT, System No. 4010009
879 MORRO STREET
SAN LUIS OBISPO, CA 93401

Dear: CARRIE MATTINGLY

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SAN LUIS OBISPO WATER DEPARTMENT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

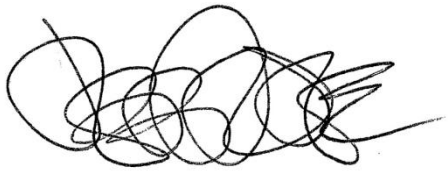

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SAN LUIS OBISPO WATER DEPARTMENT
(Public Water System No. *4010009*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

89. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

90. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

91. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

92. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

93. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

94. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

95. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

96. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

100. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

101. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

102. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of

a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

103. The water system may stop lead sampling at a school if:

ss. All initial samples are less than or equal to 15 ppb; or

tt. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxiii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxiv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

uu. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

vv. If requested in writing by the school's authorized school representative.

104. The water system is responsible for the following costs:

w. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

x. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

105. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

106. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

107. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

ddd. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

eee. The date of the request;

fff. The date of the initial meeting;

ggg. The date of the sampling plan along with a copy of each sampling plan; and

hhh. The date of initial lead sampling and all repeat samples.

108. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Peter Forest
San Martin County Water District, System No. 4300542
P.O. Box 1501
Morgan Hill, CA 95038

Dear Mr. Forest:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the San Martin County Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

San Martin County Water District
(Public Water System No. *4300542*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet; check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DARRELL GENTRY
GENERAL MANAGER
SAN MIGUEL COMMUNITY SERVICES DISTRICT, System No. 4010010
1150 Mission Street
SAN MIGUEL, CA 93451

Dear: DARRELL GENTRY

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SAN MIGUEL COMMUNITY SERVICES DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

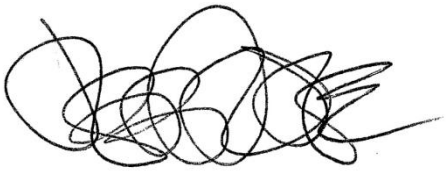

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SAN MIGUEL COMMUNITY SERVICES DISTRICT
(Public Water System No. *4010010*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

97. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

98. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

99. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

100. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

101. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

102. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

103. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

104. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

109. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

110. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

111. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

112. The water system may stop lead sampling at a school if:

ww. All initial samples are less than or equal to 15 ppb; or

xx. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

yy. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

zz. If requested in writing by the school's authorized school representative.

113. The water system is responsible for the following costs:

y. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

z. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

114. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

115. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

116. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

iii. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

jjj. The date of the request;

kkk. The date of the initial meeting;

lll. The date of the sampling plan along with a copy of each sampling plan; and

mmm. The date of initial lead sampling and all repeat samples.

117. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAN MIGLIAZZO
UTILITY MANAGER
SAN MIGUELITO MWC, System No. 4010003
PO Box 2120
AVILA BEACH, CA 93424

Dear: DAN MIGLIAZZO

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SAN MIGUELITO MWC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SAN MIGUELITO MWC
(Public Water System No. *4010003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

41. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

42. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

43. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

44. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

45. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

46. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

47. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

48. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

46. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

47. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

48. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

49. The water system may stop lead sampling at a school if:

u. All initial samples are less than or equal to 15 ppb; or

v. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

w. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

x. If requested in writing by the school's authorized school representative.

50. The water system is responsible for the following costs:

k. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

l. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

51. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

52. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

53. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    z. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    aa. The date of the request;

    bb. The date of the initial meeting;

    cc. The date of the sampling plan along with a copy of each sampling plan; and

    dd. The date of initial lead sampling and all repeat samples.

54. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

CHARLES GRACE
REGIONAL GENERAL MANAGER
SAN SIMEON CSD, System No. 4000568
111 PICO AVE
SAN SIMEON, CA 93452

Dear: CHARLES GRACE

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SAN SIMEON CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SAN SIMEON CSD
(Public Water System No. *4000568*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

9. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

10. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

11. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

12. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

13. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

14. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

15. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

    Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

16. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

    Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

10. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

11. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

12. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

13. The water system may stop lead sampling at a school if:

e. All initial samples are less than or equal to 15 ppb; or

f. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

iii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

iv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

g. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

h. If requested in writing by the school's authorized school representative.

14. The water system is responsible for the following costs:

c. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

d. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

15. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

16. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

17. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    f. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    g. The date of the request;

    h. The date of the initial meeting;

    i. The date of the sampling plan along with a copy of each sampling plan; and

    j. The date of initial lead sampling and all repeat samples.

18. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

STUART CLYDE
GENERAL MANAGER
SAN VICENTE WATER COMPANY, System No. 4210005
340 Old Mill Road, 135A
SANTA BARBARA, CA 93110

Dear: STUART CLYDE

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SAN VICENTE WATER COMPANY water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

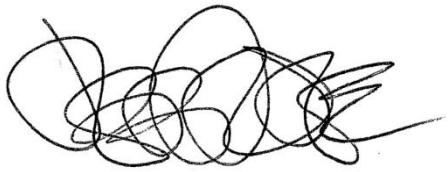

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SAN VICENTE WATER COMPANY
(Public Water System No. *4210005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

265. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

266. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

267. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

268. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

269. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

270. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

271. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

272. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

298. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

299. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

300. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

301. The water system may stop lead sampling at a school if:

cccccc. All initial samples are less than or equal to 15 ppb; or

dddddd. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

eeeeee. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ffffff. If requested in writing by the school's authorized school representative.

302. The water system is responsible for the following costs:

ooo. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ppp. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

303. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

304. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

305. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

jjjjjjj. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

kkkkkkk. The date of the request;

lllllll. The date of the initial meeting;

mmmmmmm. The date of the sampling plan along with a copy of each sampling plan; and

nnnnnnn. The date of initial lead sampling and all repeat samples.

306. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SANDY CREEK VILLAGE MHP
Public Water System No. *1000260*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_038**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

J. Arnold Rodriguez
General Manager
Santa Ana River Water Company, System No. 3310033
P.O. Box 61
10530 4th St.
Jurupa Valley, CA 91752

Dear Arnold Rodriguez:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Santa Ana River Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Santa Ana River Water Company
(Public Water System No. 3310033)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Keith Abercrombie
Retail Manager
Santa Clarita Water Division
26521 Summit Circle
Santa Clarita, CA 91350

Dear Keith Abercrombie:

System No. 1910017- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Santa Clarita Water Division water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Santa Clarita Water Division
Public Water System No. *1910017*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Rosemary Menard, Water Director
Santa Cruz Water Department, System No. 4410010
212 Locust Street, Suite A
Santa Cruz, CA. 95060

Dear Ms. Menard:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Santa Cruz Water Department water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SANTA CRUZ WATER DEPARTMENT
(Public Water System No. *4410010*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Michael Bardin
General Manager
Santa Fe Irrigation District, System No. 3710023
P.O. BOX 409
Rancho Santa Fe, CA 92067

Dear Michael Bardin:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Santa Fe Irrigation District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Santa Fe Irrigation District
(Public Water System No. *3710023*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Frank Beach
Utility Serv. Manager
Santa Fe Springs - City, Water Dept.
11710 E. Telegraph Road
Santa Fe Springs, CA 90670

Dear Frank Beach:

System No. 1910245- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Santa Fe Springs - City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Santa Fe Springs - City, Water Dept.
Public Water System No. *1910245*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Leif Utegaard, Manager
Santa Lucia Preserve, System No. 2702521
1 Rancho San Carlos Road
Carmel, CA. 93923

Dear Mr. Utegaard:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Santa Lucia Preserve water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SANTA LUCIA PRESERVE
(Public Water System No. *2702521*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

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   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Mr. Daniel R. Ferons
General Manager
Santa Margarita Water District, System No. 3010101
P.O. Box 7005
Mission Viejo, CA 92690

Dear Mr. Ferons:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Santa Margarita Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Santa Margarita Water District
(Public Water System No. 3010101)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

RICHARD SWEET
UTILITIES MANAGER
SANTA MARIA WATER DEPARTMENT, System No. 4210011
2065 EAST MAIN STREET
SANTA MARIA, CA 93454

Dear: RICHARD SWEET

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SANTA MARIA WATER DEPARTMENT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

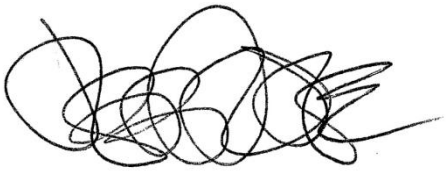

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SANTA MARIA WATER DEPARTMENT
(Public Water System No. *4210011*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

305. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

306. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

307. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

308. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

309. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

310. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

311. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

312. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

343. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

344. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

345. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

346. The water system may stop lead sampling at a school if:

wwwwww. All initial samples are less than or equal to 15 ppb; or

xxxxxx. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxxvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxxviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

yyyyyy. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

zzzzzz. If requested in writing by the school's authorized school representative.

347. The water system is responsible for the following costs:

yyy. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

zzz. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

348. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

349. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

350. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

iiiiiiii. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

jjjjjjjj. The date of the request;

kkkkkkkk. The date of the initial meeting;

llllllll. The date of the sampling plan along with a copy of each sampling plan; and

mmmmmmmm. The date of initial lead sampling and all repeat samples.

351. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2410018
January 17, 2017

AMY MONTGOMERY, GENERAL MANAGER
SANTA NELLA COUNTY WATER DISTRICT
12931 SOUTH HWY 33
SANTA NELLA, CA 95322

Dear AMY MONTGOMERY,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SANTA NELLA COUNTY WATER DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Merced Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SANTA NELLA COUNTY WATER DISTRICT
(Public Water System No.: *2410018*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

201. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

202. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

203. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

204. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

205. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

206. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

207. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

208. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

226. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

227. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

228. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

229. The water system may stop lead sampling at a school if:

wwww. All initial samples are less than or equal to 15 ppb; or

xxxx. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

li. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

yyyy. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

zzzz. If requested in writing by the school's authorized school representative.

230. The water system is responsible for the following costs:

yy. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

zz. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

231. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

232. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

233. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

vvvvv. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

wwwww. The date of the request;

xxxxx. The date of the initial meeting;

yyyyy. The date of the sampling plan along with a copy of each sampling plan; and

zzzzz. The date of initial lead sampling and all repeat samples.

234. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

401. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
402. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
403. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
404. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
405. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
406. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
407. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

408. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
409. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
410. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
411. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
412. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
413. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
414. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
415. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
416. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

176. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
177. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
178. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

179. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
180. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
181. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
182. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

126. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
127. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
128. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
129. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
130. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
80. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
81. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

82. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

176. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
177. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
178. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
179. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
180. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
181. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
182. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

BRIAN YANEZ
INTERIM PW DIRECTOR
SANTA PAULA WATER SYSTEM, System No. 5610011
P.O. Box 569
SANTA PAULA, CA 93061

Dear: BRIAN YANEZ

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SANTA PAULA WATER SYSTEM water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

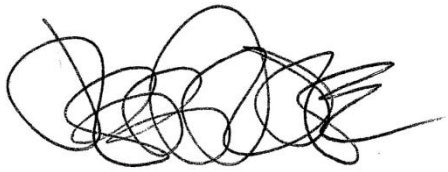

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SANTA PAULA WATER SYSTEM
(Public Water System No. *5610011*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

657. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

658. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

659. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

660. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

661. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

662. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

663. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

664. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

739. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

740. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

741. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

742. The water system may stop lead sampling at a school if:

qqqqqqqqqqqqq. All initial samples are less than or equal to 15 ppb; or

rrrrrrrrrrrrr. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clxv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clxvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ssssssssssssss. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

tttttttttttttt. If requested in writing by the school's authorized school representative.

743. The water system is responsible for the following costs:

iiiiiii. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

jjjjjjj. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

744. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

745. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

746. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

uuuuuuuuuuuuuuuu. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

vvvvvvvvvvvvvvvv. The date of the request;

wwwwwwwwwwwwwwww. The date of the initial meeting;

xxxxxxxxxxxxxxxx. The date of the sampling plan along with a copy of each sampling plan; and

yyyyyyyyyyyyyyyy. The date of initial lead sampling and all repeat samples.

747. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

ERIC TAMBINI
WATER RESOURCES MANAGER
SANTA YNEZ RIVER WATER CONS. DIST. ID#1, System No. 4210020
P.O. BOX 157
SANTA YNEZ, CA 93460

Dear: ERIC TAMBINI

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SANTA YNEZ RIVER WATER CONS. DIST. ID#1 water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SANTA YNEZ RIVER WATER CONS. DIST. ID#1
(Public Water System No. *4210020*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

353. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

354. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

355. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

356. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

357. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

358. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

359. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

360. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

397. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

398. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

399. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

400. The water system may stop lead sampling at a school if:

uuuuuuu. All initial samples are less than or equal to 15 ppb; or

vvvvvvv. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxxxix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xc. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

wwwwwww. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

xxxxxxx. If requested in writing by the school's authorized school representative.

401. The water system is responsible for the following costs:

kkkk. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

llll. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

402. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

403. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

404. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

mmmmmmmmm. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

nnnnnnnnn. The date of the request;

oooooooo. The date of the initial meeting;

pppppppp. The date of the sampling plan along with a copy of each sampling plan; and

qqqqqqqqq. The date of initial lead sampling and all repeat samples.

405. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

SHANA EPSTEIN
GENERAL MANAGER
SATICOY COUNTRY CLUB-CITY OF VENTURA, System No. 5602140
PO Box 99
VENTURA, CA 93002

Dear: SHANA EPSTEIN

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SATICOY COUNTRY CLUB-CITY OF VENTURA water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SATICOY COUNTRY CLUB-CITY OF VENTURA
(Public Water System No. *5602140*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

577. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

578. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

579. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

580. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

581. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

582. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

583. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

584. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

649. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

650. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

651. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

652. The water system may stop lead sampling at a school if:

cccccccccccc. All initial samples are less than or equal to 15 ppb; or

dddddddddddd. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxlv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxlvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

eeeeeeeeeeee. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ffffffffffff. If requested in writing by the school's authorized school representative.

653. The water system is responsible for the following costs:

oooooo. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

pppppp. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

654. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

655. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

656. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

wwwwwwwwwwwwww. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

xxxxxxxxxxxxxx. The date of the request;

yyyyyyyyyyyyyy. The date of the initial meeting;

zzzzzzzzzzzzzz. The date of the sampling plan along with a copy of each sampling plan; and

aaaaaaaaaaaaaa. The date of initial lead sampling and all repeat samples.

657. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

JUAN ZAPIEN
MANAGER
SAVIERS ROAD MUTUAL WATER CO, System No. 5602115
P.O. Box 56
PORT HUENEME, CA 93044

Dear: JUAN ZAPIEN

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SAVIERS ROAD MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

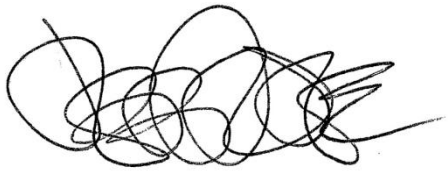

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SAVIERS ROAD MUTUAL WATER CO
(Public Water System No. *5602115*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

545. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

546. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

547. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

548. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

549. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

550. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

551. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

552. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

613. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

614. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

615. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

616. The water system may stop lead sampling at a school if:

mmmmmmmmmmm. All initial samples are less than or equal to 15 ppb; or

nnnnnnnnnnn. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxxxvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxxxviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

oooooooooooo. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

pppppppppppp. If requested in writing by the school's authorized school representative.

617. The water system is responsible for the following costs:

gggggg

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Steve Samaras, Acting Deputy Director
SBDNO County Service Area 64
System No. 3610121
P.O. Box 5004
Victorville, CA 92392

Dear: Steve Samaras,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SBDNO County Service Area 64 water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SBDNO County Service Area 64
(Public Water System No. *3610121*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric Zúñiga

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Steve Samaras, Acting Deputy Director
SBDNO County Service Area 70 Cedar Glen
System No. 3610026
P.O. Box 5004
Victorville, CA 92392

Dear: Steve Samaras,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

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Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

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AMENDMENT TO THE

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(Public Water System No. *3610026*)

By The

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Steve Samaras, Acting Deputy Director
SBNDO County Service Area 70j
System No. 3610125
P.O. Box 5004
Victorville, CA 92392

Dear: Steve Samaras,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SBNDO County Service Area 70j water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SBNDO County Service Area 70j
(Public Water System No. *3610125*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SCE/BIG CREEK POWERHOUSE #1
Public Water System No. *1009111*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_076**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Piret Harmon, General Manager
Scotts Valley Water District, System No. 4410013
2 Civic Center Drive
Scotts Valley, CA. 95066

Dear Ms. Harmon:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Scotts Valley Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SCOTTS VALLEY WATER DISTRICT
(Public Water System No. *4410013*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Stephen Cole
General Manager
Newhall Cwd-Castaic
23780 North Pine Street, P.O. Box 220970
Santa Clarita, CA 91322

Dear Stephen Cole:

System No: 1910247 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Newhall Cwd-Castaic water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

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for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910247 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910247 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Newhall Cwd-Castaic

Los Angeles County
System No. 1910247

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Newhall Cwd-Castaic
Public Water System No. *1910247*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated:_____1/17/2017_____

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Stephen Cole
General Manager
Newhall Cwd-Newhall
23780 North Pine Street, P.O. Box 220970
Santa Clarita, CA 91322

Dear Stephen Cole:

System No: 1910096 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Newhall Cwd-Newhall water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910096 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910096 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Newhall Cwd-Newhall

Los Angeles County
System No. 1910096

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Newhall Cwd-Newhall
Public Water System No. *1910096*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated:_____1/17/2017_____

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Stephen Cole
General Manager
Newhall Cwd-Pinetree
23780 North Pine Street, P.O. Box 220970
Santa Clarita, CA 91322

Dear Stephen Cole:

System No: 1910250 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Newhall Cwd-Pinetree water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910250 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910250 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Newhall Cwd-Pinetree

Los Angeles County
System No. 1910250

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Newhall Cwd-Pinetree
Public Water System No. *1910250*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated:_____1/17/2017_____

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

California Water Boards

Edmund G. Brown Jr.
Governor

Matthew Rodriquez
Secretary for Environmental Protection

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Stephen Cole
General Manager
Newhall Cwd-Tesoro Del Valle
23780 North Pine Street, P.O. Box 220970
Santa Clarita, CA 91322

Dear Stephen Cole:

System No: 1910255 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Newhall Cwd-Tesoro Del Valle water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910255 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910255 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Newhall Cwd-Tesoro Del Valle

Los Angeles County
System No. 1910255

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Newhall Cwd-Tesoro Del Valle
Public Water System No. *1910255*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated:_____1/17/2017_____

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Audrey Schuyler, Manager
Searles Valley Minerals Operations Inc.
System No. 3610854
P.O. Box 367
Trona, CA 93592

Dear: Audrey Schuyler,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Searles Valley Minerals Operations Inc. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Searles Valley Minerals Operations Inc.
(Public Water System No. *3610854*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Craig Malin, City Manager
Seaside Municipal Water System, System No. 2710018
440 Harcourt Avenue
Seaside, CA. 93955

Dear Mr. Malin:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Seaside Municipal Water System water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SEASIDE MUNICIPAL WATER SYSTEM
(Public Water System No. *2710018*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Beatriz Scroggins
Board President
Seeley County Water District, System No. 1310013
P.O. Box 161
Seely, CA 92273

Dear Beatriz Scroggins:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Seeley County Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Jeff Lamoure, Deputy Director - Division of Environmental Health, Imperial County Public Health Department (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Seeley County Water District
(Public Water System No. *1310013*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

RUSSELL KLASSEN
OPERATOR
SENIOR CANYON MUTUAL WATER CO, System No. 5601117
603 West Ojai Avenue Suite A
OJAI, CA 93023

Dear: RUSSELL KLASSEN

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SENIOR CANYON MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

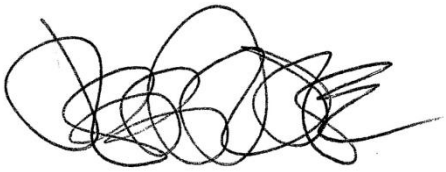

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SENIOR CANYON MUTUAL WATER CO
(Public Water System No. *5601117*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

425. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

426. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

427. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

428. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

429. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

430. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

431. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

432. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

478. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

479. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

480. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

481. The water system may stop lead sampling at a school if:

eeeeeeeee. All initial samples are less than or equal to 15 ppb; or

fffffffff. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ggggggggg. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

hhhhhhhhh. If requested in writing by the school's authorized school representative.

482. The water system is responsible for the following costs:

ccccc. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ddddd. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

483. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

484. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

485. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

fffffffffff. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

ggggggggggg. The date of the request;

hhhhhhhhhhh. The date of the initial meeting;

iiiiiiiiiii. The date of the sampling plan along with a copy of each sampling plan; and

jjjjjjjjjjj. The date of initial lead sampling and all repeat samples.

486. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Mr. Jerry Vilander
General Manager
Serrano Water District, System No. 3010082
18021 East Lincoln Street
Villa Park, CA 92861

Dear Mr. Vilander:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Serrano Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Serrano Water District
(Public Water System No. 3010082)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Benjamin Ruiz
Interim Director
Seville Water Co., System No. 5400550
5961 South Mooney Boulevard
Visalia, CA 93277

Dear: Benjamin Ruiz

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Seville Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Seville Water Co.
(Public Water System No. 5400550)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA3810702

Andrew DeGraca
Water Quality Division Director
SFPUC - Treasure Island
1657 Rollins Road
Burlingame, CA 94010

Dear Andrew DeGraca:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SFPUC - Treasure Island water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Francisco County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SFPUC - Treasure Island
(Public Water System No. *CA3810702*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Michael Glaze
General Manager
SFWP-BANGOR, System No. 410012
2310 ORO-QUINCY HWY.
OROVILLE, CA 95966

Dear : Michael Glaze

ISSUANCE OF PERMIT AMENDMENT 01-21-17P040002

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SFWP-BANGOR water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

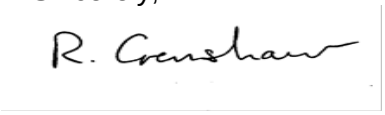

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 01-21-17P040002

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SFWP-BANGOR
(Public Water System No. *410012*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***01-21-17P040002***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD
OPERATIONS BRANCH

January 17, 2017

Michael Glaze
General Manager
SFWP-MINERS RANCH, System No. 410006
2310 ORO-QUINCY HWY.
OROVILLE, CA 95966

Dear : Michael Glaze

ISSUANCE OF PERMIT AMENDMENT 87-012A2

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SFWP-MINERS RANCH water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

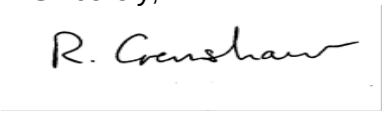

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 87-012A2

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SFWP-MINERS RANCH
(Public Water System No. *410006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***87-012A2***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD
OPERATIONS BRANCH

January 17, 2017

Mike Colletto
Shady Grove MHP, System No. 5400529
P.O. Box 1930
Ventura, CA 93001

Dear: Mike Colletto

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Shady Grove MHP water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Shady Grove MHP
(Public Water System No. 5400529)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SHADY LAKES MOBILE HOME PARK
Public Water System No. *1000244*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_033**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Shasta CSA – Castella, #3
(Public Water System No. 4500015)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Shasta CSA – French Gulch, #11
(Public Water System No. 4500317)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Shasta C.S.D.
(Public Water System No. 4510013)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the conditions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SHAVER LAKE HEIGHTS MWC
Public Water System No. *1010053*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_108**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

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iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SHAVER LAKE HEIGHTS PROP ASSN
Public Water System No. *1000069*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_022**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SHAVER LAKE POINT #2
Public Water System No. *1000072*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_024**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Chris Cummings, General Manager
Sheep Creek Water Company
System No. 3610109
P. O. Box 291820
Phelan, CA 92329

Dear: Chris Cummings,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Sheep Creek Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sheep Creek Water Company
(Public Water System No. *3610109*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SHERWOOD FOREST MHP
Public Water System No. *1000247*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_034**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017 PWS No. CA4810011

Cary Keaten
General Manager
SID - Elmira
810 Vaca Valley Pkwy Ste 201
Vacaville, CA 95688-8834

Dear Cary Keaten:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SID - Elmira water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Solano County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SID - Gibson Canyon
(Public Water System No. *CA4810010*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA4810010

Cary Keaten
General Manager
SID - Gibson Canyon
810 Vaca Valley Pkwy Ste 201
Vacaville, CA 95688-8834

Dear Cary Keaten:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SID - Gibson Canyon water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

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Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Solano County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SID - Gibson Canyon
(Public Water System No. *CA4810010*)

By The

State Water Resources Control Board

Division of Drinking Water

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SIERRA CEDARS CSD
Public Water System No. *1010052*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_107**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Sean Powers
Community Development Agency Director

Amy Irani, REHS
Director of Environmental Health

COUNTY OF NEVADA
COMMUNITY DEVELOPMENT AGENCY
ENVIRONMENTAL HEALTH DEPARTMENT

950 MAIDU AVENUE, SUITE 170, NEVADA CITY, CA 95959-8617
(530) 265-1222 FAX (530) 265-9853 www.mynevadacounty.com

January 20, 2017

Jared Feola
Maintenance Supervisor
Sierra Friends Center Water System, System No. 2900546
13075 Woolman Lane
Nevada City, CA. 95959

Dear: Mr. Feola

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-546

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has requested the issuance of a permit amendment to the Sierra Friends Center water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Catrie Levenson, REHS, PHM
Environmental Health Specialist
Consumer Protection Division
Catrie.levenson@co.nevada.ca.us
530.265.1753 FAX 530.265.9853

Enclosure: 2017PA_Schools; Appendix A – Sampling Guidance

cc: State Water Resources Control Board (email)
Division of Drinking Water

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

College Park Friends Educational Association
for
Sierra Friends Center Water System
(Public Water System No.2900546)

By

Nevada County Department of Environmental Health

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-546** EFFECTIVE DATE**: January 20, 2017**

WHEREAS:

1. *The Department through, its Primacy Delegation Agreement with the State Water Resources Control Board Division of Drinking Water (SWRCB)* "may renew, reissue, revise, or amend any domestic water supply permit whenever the Department (or SWRCB) deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The Department hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR Nevada County Department of Environmental Health

Catrie Levenson, REHS, PHM
Environmental Specialist III

Dated: January 27th, 2017

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Fred Finkbeiner, Manager
Sierra Highland CSD
System No. 1400007
P. O. Box 782
Bishop, CA 93515

Dear: Fred Finkbeiner,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Sierra Highland CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sierra Highland CSD
(Public Water System No. *1400007*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Betty Avalos
President
Sierra King Homeowners Assn., System No. 5400940
45257 Hammond Drive
Three Rivers, CA 93271

Dear: Betty Avalos

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Sierra King Homeowners Assn. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sierra King Homeowners Assn.
(Public Water System No. 5400940)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Glenn Stephenson
Secretary
Sierra Mutual Water Co., System No. 5403110
30840 Sunshine Drive
Porterville, CA 93257

Dear: Glenn Stephenson

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Sierra Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sierra Mutual Water Co.
(Public Water System No. 5403110)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Sandra Blaylock
Sierra Vista Assn., System No. 5400964
Rt. 2, Box 487
Delano, CA 93215

Dear: Sandra Blaylock

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Sierra Vista Assn. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sierra Vista Assn.
(Public Water System No. 5400964)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sierraville P.U.D.
(Public Water System No. 4600018)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

January 17, 2017

ROBERT MCDONALD
FIELD SUPERVISOR
SIETE ROBLES MUTUAL WATER CO, System No. 5601119
603 WEST OJAI AVENUE SUITE A
OJAI, CA 93023

Dear: ROBERT MCDONALD

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SIETE ROBLES MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SIETE ROBLES MUTUAL WATER CO
(Public Water System No. *5601119*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

433. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

434. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

435. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

436. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

437. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

438. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

439. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

440. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

487. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

488. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

489. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

490. The water system may stop lead sampling at a school if:

iiiiiiiii. All initial samples are less than or equal to 15 ppb; or

jjjjjjjjj. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cx. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

kkkkkkkkkk. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

lllllllll. If requested in writing by the school's authorized school representative.

491. The water system is responsible for the following costs:

eeeee. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

fffff. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

492. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

493. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

494. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

kkkkkkkkkkk. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

lllllllllll. The date of the request;

mmmmmmmmmmm. The date of the initial meeting;

nnnnnnnnnnn. The date of the sampling plan along with a copy of each sampling plan; and

oooooooooooo. The date of initial lead sampling and all repeat samples.

495. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

ROD THOMPSON
PRESIDENT
SISAR MUTUAL WATER CO, System No. 5601120
PO BOX 68
SANTA PAULA, CA 93061

Dear: ROD THOMPSON

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SISAR MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

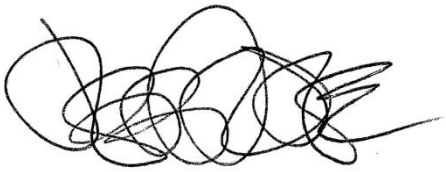

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SISAR MUTUAL WATER CO
(Public Water System No. *5601120*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

441. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

442. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

443. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

444. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

445. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

446. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

447. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

448. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

496. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

497. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

498. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

499. The water system may stop lead sampling at a school if:

mmmmmmmmm. All initial samples are less than or equal to 15 ppb; or

nnnnnnnnn. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

oooooooo. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

pppppppp. If requested in writing by the school's authorized school representative.

500. The water system is responsible for the following costs:

ggggg. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

hhhhh. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

501. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

502. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

503. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

pppppppppppp. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

qqqqqqqqqqq. The date of the request;

rrrrrrrrrrr. The date of the initial meeting;

ssssssssssss. The date of the sampling plan along with a copy of each sampling plan; and

tttttttttttt. The date of initial lead sampling and all repeat samples.

504. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Golden State Water Company
dba
Sisquoc Community Water System
(Public Water System No. 4200560)

By

Santa Barbara County

Environmental Health Services Division

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 24, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD AND THE COUNTY OF SANTA BARBARA

Dated: 1/24/2017

Deanna Talerico
Senior Environmental Health Specialist
Santa Barbara County
Environmental Health Services Division

cc: Jeff Densmore, SWRCB Division of Drinking Water

January 17, 2017

DAVE FLYNN
INTERIM PW DIRECTOR
SLO CSA NO. 16 - SHANDON, System No. 4010028
County Government Center Room 207
SAN LUIS OBISPO, CA 93408

Dear: DAVE FLYNN

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SLO CSA NO. 16 - SHANDON water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SLO CSA NO. 16 - SHANDON
(Public Water System No. *4010028*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

201. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

202. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

203. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

204. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

205. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

206. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

207. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

208. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

226. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

227. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

228. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

229. The water system may stop lead sampling at a school if:

wwww. All initial samples are less than or equal to 15 ppb; or

xxxx. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

li. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

yyyy. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

zzzz. If requested in writing by the school's authorized school representative.

230. The water system is responsible for the following costs:

yy. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

zz. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

231. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

232. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

233. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

vvvvv. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

wwwww. The date of the request;

xxxxx. The date of the initial meeting;

yyyyy. The date of the sampling plan along with a copy of each sampling plan; and

zzzzz. The date of initial lead sampling and all repeat samples.

234. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAVE FLYNN
INTERIM PW DIRECTOR
SLO CWWD NO. 23 - SANTA MARGARITA, System No. 4010024
County Government Center Room 207
SAN LUIS OBISPO, CA 93408

Dear: DAVE FLYNN

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SLO CWWD NO. 23 - SANTA MARGARITA water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

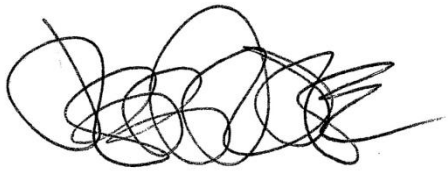

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SLO CWWD NO. 23 - SANTA MARGARITA
(Public Water System No. *4010024*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

177. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

178. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

179. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

180. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

181. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

182. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

183. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

184. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

199. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

200. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

201. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

202. The water system may stop lead sampling at a school if:

kkkk. All initial samples are less than or equal to 15 ppb; or

llll. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xlv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xlvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

mmmm. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

nnnn. If requested in writing by the school's authorized school representative.

203. The water system is responsible for the following costs:

ss. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

tt. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

204. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

205. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

206. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

ggggg. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

hhhhh. The date of the request;

iiiii. The date of the initial meeting;

jjjjj. The date of the sampling plan along with a copy of each sampling plan; and

kkkkk. The date of initial lead sampling and all repeat samples.

207. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAVE FLYNN
INTERIM PW DIRECTOR
SLOCSA #10A - CAYUCOS, System No. 4010901
County Government Center Room 207
SAN LUIS OBISPO, CA 93408

Dear: DAVE FLYNN

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SLOCSA #10A - CAYUCOS water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

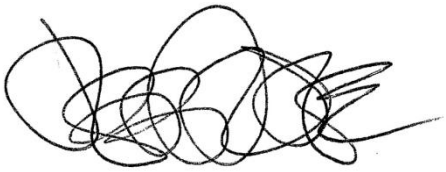

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SLOCSA #10A - CAYUCOS
(Public Water System No. *4010901*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

225. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

226. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

227. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

228. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

229. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

230. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

231. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

232. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

253. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

254. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

255. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

256. The water system may stop lead sampling at a school if:

iiiii. All initial samples are less than or equal to 15 ppb; or

jjjjj. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

kkkkk. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

llllll. If requested in writing by the school's authorized school representative.

257. The water system is responsible for the following costs:

eee. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

fff. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

258. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

259. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

260. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

kkkkkk. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

llllll. The date of the request;

mmmmmm. The date of the initial meeting;

nnnnnn. The date of the sampling plan along with a copy of each sampling plan; and

oooooo. The date of initial lead sampling and all repeat samples.

261. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Brian Lee, District Manager
SLVWD - Felton Water System, System No. 4410002
13060 Highway 9
Boulder Creek, CA. 95006

Dear Mr. Lee:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SLVWD - Felton Water System water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SLVWD - FELTON WATER SYSTEM
(Public Water System No. *4410002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Brian Lee, District Manager
SLVWD-Lompico, System No. 4410015
13060 Highway 9
Boulder Creek, CA. 95006

Dear Mr. Lee:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SLVWD-Lompico water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SLVWD-LOMPICO
(Public Water System No. *4410015*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

GREG MYERS
OPERATOR
SOLANO VERDE MUTUAL WATER CO, System No. 5602130
134 Davis Street
SANTA PAULA, CA 93060

Dear: GREG MYERS

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SOLANO VERDE MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

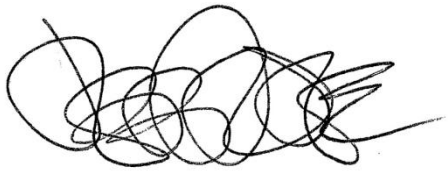

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SOLANO VERDE MUTUAL WATER CO
(Public Water System No. *5602130*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

561. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

562. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

563. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

564. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

565. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

566. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

567. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

568. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

631. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

632. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

633. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

634. The water system may stop lead sampling at a school if:

uuuuuuuuuuu. All initial samples are less than or equal to 15 ppb; or

vvvvvvvvvvv. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxli. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxlii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

wwwwwwwwwww. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

xxxxxxxxxxx. If requested in writing by the school's authorized school representative.

635. The water system is responsible for the following costs:

kkkkkk. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

llllll. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

636. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

637. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

638. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

mmmmmmmmmmmmmm. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

nnnnnnnnnnnnn. The date of the request;

oooooooooooooo. The date of the initial meeting;

pppppppppppppp. The date of the sampling plan along with a copy of each sampling plan; and

qqqqqqqqqqqqqq. The date of initial lead sampling and all repeat samples.

639. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

KEVIN HARMER
INTERIM WATER SUPV
SOLVANG WATER DIVISION, System No. 4210013
1644 Oak Street
SOLVANG, CA 93463

Dear: KEVIN HARMER

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SOLVANG WATER DIVISION water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

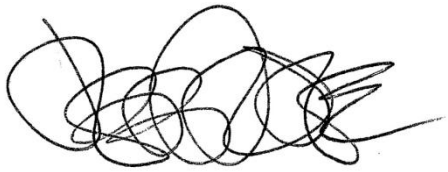

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SOLVANG WATER DIVISION
(Public Water System No. *4210013*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

313. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

314. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

315. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

316. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

317. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

318. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

319. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

320. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

352. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

353. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

354. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

355. The water system may stop lead sampling at a school if:

aaaaaaa. All initial samples are less than or equal to 15 ppb; or

bbbbbbb. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxxix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxxx. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ccccccc. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ddddddd. If requested in writing by the school's authorized school representative.

356. The water system is responsible for the following costs:

aaaa. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

bbbb. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

357. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

358. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

359. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

nnnnnnnn. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

oooooooo. The date of the request;

pppppppp. The date of the initial meeting;

qqqqqqqq. The date of the sampling plan along with a copy of each sampling plan; and

rrrrrrrr. The date of initial lead sampling and all repeat samples.

360. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 4910027

Craig Dawson, Director/Environ Health
Sonoma State University
1801 East Cotati Avenue
Rohnert Park, CA 94928

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910027

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Craig Dawson:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Sonoma State University (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910027

cc: Sonoma County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sonoma State University
(Public Water System No. 4910027)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910027/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ron Duncan, General Manager
Soquel Creek Water District, System No. 4410017
5180 Soquel Drive
Soquel, CA. 95073

Dear Mr. Duncan:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Soquel Creek Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SOQUEL CREEK WATER DISTRICT
(Public Water System No. *4410017*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Debra Phillips
Secretary/Treasurer
Soults Mutual Water Co., System No. 5400805
2721 Soults Drive
Tulare, CA 93274

Dear: Debra Phillips

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Soults Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Soults Mutual Water Co.
(Public Water System No. 5400805)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Mr. Andrew Brunhart
General Manager
South Coast Water District - Capistrano Beach, System No. 3010055
31592 West Street
Laguna Beach, CA 92651

Dear Mr. Brunhart:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the South Coast Water District - Capistrano Beach water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

South Coast Water District - Capistrano Beach
(Public Water System No. 3010055)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Mr. Andrew Brunhart
General Manager
South Coast Water District - South Coast, System No. 3010042
31592 West Street
Laguna Beach, CA 92651

Dear Mr. Brunhart:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the South Coast Water District - South Coast water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

South Coast Water District - South Coast
(Public Water System No. 3010042)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Michael Little
President
South Fork Estates Mutual Water Co., System No. 5403113
P.O. Box 597
Three Rivers, CA 93271

Dear: Michael Little

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the South Fork Estates Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

South Fork Estates Mutual Water Co.
(Public Water System No. 5403113)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Chris Castillo
Water Division Manager
South Gate-City, Water Dept.
8650 California Avenue
South Gate, CA 90280

Dear Chris Castillo:

System No. 1910152- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the South Gate-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

South Gate-City, Water Dept.
Public Water System No. *1910152*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Lew Nelson
Vice President
South Kaweah Mutual Water Company, System No. 5400754
P.O. Box 191
Three Rivers, CA 93271

Dear: Lew Nelson

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the South Kaweah Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

South Kaweah Mutual Water Company
(Public Water System No. 5400754)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

David Armstrong
General Manager
South Mesa Water Company, System No. 3310017
P.O. Box 458
391 West Ave. L
Calimesa, CA 92320

Dear David Armstrong:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the South Mesa Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

South Mesa Water Company
(Public Water System No. 3310017)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Mr. Michael Hutton
Chief Operator
South Midway City Mutual Water Company, System No. 3000825
16162 Beach Blvd Ste #308
Huntington Beach, CA 92847

Dear Mr. Hutton:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the South Midway City Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

South Midway City Mutual Water Company
(Public Water System No. 3000825)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

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4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Alberto Corrales
General Manager
South Montebello Irrigation Dist.
437 Bluff Road
Montebello, CA 90640

Dear Alberto Corrales:

System No. 1910153- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the South Montebello Irrigation Dist. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

South Montebello Irrigation Dist.
Public Water System No. *1910153*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

LYNN HICKS
OPERATOR
SOUTH MOUNTAIN MUTUAL WATER CO, System No. 5601141
P.O. Box 307
SANTA PAULA, CA 93061

Dear: LYNN HICKS

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SOUTH MOUNTAIN MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SOUTH MOUNTAIN MUTUAL WATER CO
(Public Water System No. *5601141*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

473. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

474. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

475. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

476. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

477. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

478. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

479. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

480. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

532. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

533. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

534. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

535. The water system may stop lead sampling at a school if:

cccccccccc. All initial samples are less than or equal to 15 ppb; or

dddddddddd. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxx. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

eeeeeeeeee. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

fffffffffff. If requested in writing by the school's authorized school representative.

536. The water system is responsible for the following costs:

ooooo. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ppppp. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

537. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

538. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

539. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

jjjjjjjjjjj. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

kkkkkkkkkkkk. The date of the request;

lllllllllll. The date of the initial meeting;

mmmmmmmmmmmm. The date of the sampling plan along with a copy of each sampling plan; and

nnnnnnnnnnnn. The date of initial lead sampling and all repeat samples.

540. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 PWS No. 0910002

Randy Curtis
Manager of Water Operations
South Tahoe Public Utility District, System No. 0910002
1275 Meadow Crest Drive
South Lake Tahoe, CA 96150

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-0910002

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the South Tahoe Public Utility District public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml.

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-0910002

cc: County of El Dorado Environmental Management, Community Development Agency (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

South Tahoe Public Utility District
Public Water System
(Public Water System No. 0910002)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-0910002**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

California Water Boards

Edmund G. Brown Jr.
Governor

Matthew Rodriquez
Secretary for
Environmental Protection

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mary Boyd
Administrative Clerk
Southern California Edison Co.-Santa Catalina
1 Pebbly Beach Road, P.O. Box 527
Avalon, CA 90704

Dear: Mary Boyd

System No: 1910006 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Southern California Edison Co.-Santa Catalina water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910006 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910006 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Southern California Edison Co.-Santa Catalina
Public Water System No. *1910006*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Kerry Varney, Vice President
Tasco Spreckels Water Company, System No. 2710023
PO Box 4070
Salinas, CA. 93912

Dear Mr. Varney:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Tasco Spreckels Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

TASCO SPRECKELS WATER COMPANY
(Public Water System No. *2710023*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Board of Directors
Springville Public Utility District, System No. 5410011
35559 Highway 190
Springville, CA 93265

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Board of Directors:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Springville Public Utility District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Springville Public Utility District
(Public Water System No. *5410011*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Dana Persijn, President
Springwood Estates Mutual Water Company, System No. 3500575
1201 Spring Grove Road
Hollister, CA. 95023

Dear Ms. Persijn:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Springwood Estates Mutual Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SPRINGWOOD ESTATES
MUTUAL WATER COMPANY
(Public Water System No. *3500575*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Squaw Valley PSD
(Public Water System No. 3110020)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

ST NICHOLAS RANCH & RETREAT
Public Water System No. *1000377*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_050**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

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   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

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3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

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   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

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l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

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ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

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d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

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   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

October 19, 2017

System: 3500537

Mr. Edward DeGroot
Business Manager, St. Francis Retreat Center
PO Box 970
San Juan Bautista, CA 95045

WATER SYSTEM PERMIT – ST. FRANCIS RETREAT CENTER WATER SYSTEM

Dear Mr. DeGroot,

St Francis Retreat Center (St. Francis) has applied for water system permit amendments to add a 265,000-gallon storage tank in the distribution system and operate the surface water treatment plant for Well 01, consisting of a Deep Bed Manganese Greensand Multi-Media Filter for iron and manganese removal treatment followed by a Strainrite Aquarite Dual Bag Filtration System, and associated oxidation and disinfection treatment. Given the significant changes that have been made to the water system since the last permit was issued, the State Water Resource Control Board – Division of Drinking Water (Division) has chosen to process the applications for issuance of a full water system permit.

The applications have been considered by the Division and it is the finding that Sections 116270 through 116751, inclusive of the California Health and Safety Code can be met by St. Francis, providing that it adheres to the provisions set forth in Domestic Water Supply Permit No. 02-05-17P-3500537. This finding is based upon the Engineering Report dated October 2017, prepared by the Division regarding the permit. Domestic Water Supply Permit No. 02-05-17P-3500537, which includes permit provisions, is enclosed as well as a copy of the corresponding permit engineering report.

Please be advised that failure to comply with one (1) or more of the permit provisions could result in the Division taking enforcement action to compel compliance with this permit.

If you have any questions, please contact Shaminder Kler of my staff at (831) 655-6938 or me at (831) 655-6934.

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

cc: San Benito County Environmental Health

bcc: J. Sweigert, S. Kler, A. Halcon-Urueta, System File 3500537 (Correspondence), Chron

☐ Electronic files moved from system *Draft* folder to appropriate system folder

☐ Any needed updates to SDWIS forwarded to Lora

JRS/ssk

2017.10.19 Fe Mn Strainrite and 265000 gallon tank Amendment 1 Cover LetterDRAFT.doc

STATE OF *CALIFORNIA*

DOMESTIC WATER SUPPLY PERMIT

Issued To
St. Francis Retreat Center

Public Water System No. 3500537

By The

State Water Resources Control Board
Division of Drinking Water

PERMIT NUMBER: 02-05-17P-3500537 DATE: October 19, 2017

WHEREAS:

1. St. Francis Retreat Center Water System's domestic water supply permit is greater than 10 years old and no longer representative of the system. Therefore, the State Water Resources Control Board, Division of Drinking Water (Division) is issuing a revised water supply permit.

2. This public water system is known as the St. Francis Retreat Center whose headquarters is located at 549 Mission Vineyard Road, San Juan Bautista, CA 95045.

3. The legal owner of the St. Francis Retreat Center is Franciscan Friars of California, Province of Santa Barbara. The Franciscan Friars of California, Province of Santa Barbara therefore, is responsible for compliance with all statutory and regulatory drinking water requirements and the conditions set forth in this permit.

4. The public water system for which the permit application has been submitted is as described briefly below (a more detailed description of the permitted system is described in Section ***(Number)*** of the attached Permit Report):

   - Well 01 – active well under the influence of surface water
   - Well 03 – standby groundwater source
   - Well 01 Treatment including iron and manganese removal, bag filtration surface water treatment plant, and addition of sodium hypochlorite for oxidation and disinfection

5. The service area of the St. Francis Retreat Center Water System is as shown on the service area map in Appendix E of the Permit Report.

And WHEREAS:

1. The St. Francis Retreat Center has submitted all of the required information relating to the proposed operation of the St. Francis Retreat Center Water System.

2. The Division has evaluated all of the information submitted by the St. Francis Retreat Center and has conducted a physical investigation of the proposed St. Francis Retreat Center Water System.

3. The Division has the authority to issue domestic water supply permits pursuant to Health and Safety Code Section 116540.

THEREFORE: The Division has determined the following:

1. The St. Francis Retreat Center Water System meets the criteria for and is hereby classified as a transient noncommunity water system.

2. The applicant has demonstrated that the proposed St. Francis Retreat Center Water System has sufficient source capacity to serve the anticipated water demands.

3. The design of the proposed water system complies with the Water Works Standards and all applicable regulations.

4. The applicant has demonstrated adequate technical, managerial, and financial capacity to operate reliably the proposed water system.

5. Provided the following conditions are complied with, the St. Francis Retreat Center Water System should be capable of providing water to consumers that is pure, wholesome, and potable and in compliance with statutory and regulatory drinking water requirements at all times.

ST. FRANCIS RETREAT CENTER IS HEREBY ISSUED THIS DOMESTIC WATER SUPPLY PERMIT TO OPERATE THE ST. FRANCIS RETREAT CENTER WATER SYSTEM.

The St. Francis Retreat Center Water System shall comply with the following permit conditions:

General Provisions

1. *The St. Francis Retreat Center water system shall comply with all the requirements set forth in the California Safe Drinking Water Act, California Health and Safety Code and any regulations, standards or orders adopted thereunder.*

2. *All water supplied by the St. Francis Retreat Center water system for domestic purposes shall meet all applicable Maximum Contaminant Levels (MCLs) established by the California Division of Drinking Water. If the water quality does not comply with the California Drinking Water Standards, treatment shall be provided to meet standards, subject to permit approval.*

3. *The following Primary Station (PS) Codes are assigned to the approved drinking water sources and treatment systems for the purpose of electronic submittal of water monitoring data to the Division:*

Monitoring Site	PS Code
Well 01 – Surface Influenced	3500537-001
Fe Mn and Strainrite Trtmt Effluent	3500537-004
Well 03 – Standby	3500537-003
Well 03 – Cl_2 Treated	3500537-005

4. *No changes, additions, or modifications shall be made to the sources or treatments mentioned in Condition No. 3 unless an amended water permit has first been obtained from the Division.*

5. *All personnel who operate the treatment facilities shall be certified in accordance with Title 22, Section 63765 of the CCR. The surface water treatment plant is classified as a T2 water treatment plant requiring a chief operator with a minimum of T2 certification. All shift operators must have a minimum of T1 certification. All operators with responsibilities related to operation, monitoring, or reporting of the surface water treatment facilities shall be appropriately certified.*

6. *All chemicals added to the water for treatment must be certified as meeting the specifications of ANSI/NSF Standard 60 for direct additives to drinking water.*

7. *The drinking water filtration treatment process approved in this permit amendment includes the following:*

   a. Yardney Deep Bed Multi-Media Filtration System for iron and manganese removal treatment.
   b. Strainrite Aqua-Rite Potable Filtration System consisting of two (2) trains of pre-filters and final filters operating in parallel.
   c. The filter vessels in each train are enclosed in the Strainrite AQ2-2 stainless steel housings.
   d. Strainrite HPM99-CC-2SR pre-filter bags are installed in the Stage 1 vessels.
   e. Strainrite HPM99-CCX-2SR final filter bags are installed in the Stage 2 vessels.

8. *The equipment listed in No. 7 above are the only filtration equipment approved for use in this treatment plant. St Francis is prohibited from modifying or repairing any of the listed equipment with parts that are not approved by the manufacturer for the specified model numbers, without written approval from the Division.*

9. *The treatment plant filtration and disinfection processes shall be operated to achieve a total combined pathogen removal and inactivation of 3-log Giardia, 4-log virus, and 2-log Cryptosporidium at all times.*

10. *St. Francis shall complete a watershed sanitary survey that demonstrates a lack of virus hazard in the watershed for the pond near Well 01, and submit to the Division by* ***December 31, 2017****.*

Yardney Deep Bed Multi-Media Filtration System Operation

11. *The Yardney Deep Bed Multi-Media Filtration System shall be operated such that the maximum head loss (pressure differential) through the filter shall not exceed 10 psi.*

12. *When the differential pressure across the multi-media filter reaches 5 psi, the media must be backwashed for at least 8 minutes at 60 gpm, followed by a filter-to-waste for 10 minutes.*

13. *The multi-media must be inspected and replaced following manufacturer's recommended procedure and frequencies, with ANSI/NSF Standard 61 Certified Multi-Media only.*

Yardney Deep Bed Multi-Media Filtration System Process Monitoring

14. *St. Francis must monitor iron and manganese in the treatment plant effluent at least once per month and the results must be electronically submitted to the Division by the **10th** day of the following month.*

Strainrite Aqua-Rite Potable Filtration System Operation

15. *The Strainrite Aqua-Rite Potable Filtration System shall be operated to meet the following turbidity performance standards:*
    a. The effluent turbidity shall be equal to or less than 0.1 NTU in 95 percent of the measurements taken each month and shall not exceed 0.5 NTU at any time.

16. *When any individual vessel bag is replaced, the plant shall filter-to-waste for a minimum of **two (2)** minutes.*

17. *The raw water flow through each filter train shall not exceed **twenty (20) gallons** per minute.*

18. *The differential pressure as measured across pre and final filter bags shall not exceed **twenty-five (25) psig** at any time.*

19. *The Strainrite Aqua-Rite Potable Filtration System shall be operated in the **"auto"** mode during normal operating conditions.*

Strainrite Aqua-Rite Potable Filtration System Process Monitoring

20. *St. Francis must monitor and record the turbidity of the combined filtration effluent at least once every **fifteen (15) minutes** when the treatment system is in operation. Monitoring shall be conducted in accordance with the approved Operations Plan.*

21. *St. Francis shall calibrate the turbidimeter(s) in accordance with the manufacturer recommendations. Calibration records must be maintained that include date, model, and location of monitoring equipment, and submitted in monthly reports to the Division.*

Sodium Hypochlorite Disinfection Treatment Process Operation

22. *The sodium hypochlorite disinfection treatment process shall be operated to achieve a minimum of 0.5-log Giardia and 4.0-log virus inactivation at all times.*

23. *A minimum free chlorine residual of 0.4 mg/L shall be maintained in the 60,000-gallon tank discharge pipe, upstream of the first service connection. The treatment plant instrumentation and control system shall be configured to activate an automatic shutdown alarm if the free chlorine residual at the first connection is not maintained at 0.4 mg/L or greater for a period not to exceed fifteen (15) continuous minutes.*

24. *The water delivered to the distribution system shall not contain a disinfectant residual of less than 0.2 mg/L for more than four (4) hours in any 24-hour period. Furthermore, a disinfectant residual shall be detectable in at least 95 percent of the samples taken*

from the distribution system and residual measurements shall be made in conjunction with monthly coliform sampling.

Sodium Hypochlorite Disinfection Treatment Process Monitoring

25. *The combined filter effluent discharged from the Clearwell upstream of the first distribution system connection shall be **continuously** monitored for chlorine residual and at least **once** daily for temperature, and pH during peak demand period of the day.*

Treatment Plant Operations Plan

26. *St. Francis must operate the treatment plant in accordance with the Division approved Operations Plan. A copy of the current operations plan must be maintained at the treatment facility and any modification to the operations plan must be approved by the Division.*

Chemical Water Quality Monitoring – Well 01

27. *St. Francis shall monitor Well 01 for iron and manganese **once every three (3) months** and the results must be electronically submitted to the Division by the tenth day of the following month.*

28. *St. Francis must conduct **annual** nitrate monitoring of Well 01 and submit the results electronically to the Division by the **10th** day of the following month.*

Bacteriological Water Quality Monitoring

29. *St. Francis must conduct **monthly** raw water total coliform and E. coli monitoring using an enumeration method at Well 01. All results must be submitted to the Division by the **10th** day of the month following sample collection.*

30. *St. Francis must conduct **monthly** monitoring of the treatment plant effluent for total coliform and E. coli using an enumeration method. All results shall be submitted to the Division by the **10th** day of the month following sample collection.*

Reporting Requirements

31. *St Francis must submit a **monthly** report on the operation of the iron and manganese removal treatment and surface water treatment facilities by the **10th** day of the following month. The report must be signed by the person responsible for the operation of the water treatment plant. The report must include, as a minimum, all of the applicable elements identified in Section 64664, Chapter 17, Title 22, CCR.*

32. *St. Francis shall maintain accurate and complete treatment plant operation records in accordance with Section 64662, Chapter 17, Title 22, CCR. The records must include as a minimum, the following information:*

    a. *The results of all required monitoring.*

    b. *Quantity of water produced, plant flow rates, filtration rates, and hours of operation.*

    c. *Dates and descriptions of all major equipment and process failures and the corrective actions implemented.*

d. *Dates of all filter maintenance and inspections performed and a description of the results.*

33. *St. Francis shall submit a report on the effectiveness of the treatment plant operation for the first year of operation. The engineering report shall include, 1) a description of the effectiveness of each treatment process operation; 2) the results of all water quality analysis conducted and an evaluation of compliance with performance standards under actual operating conditions; 3) an assessment of any problems experienced and the corrective actions taken to achieve resolution, and; 4) a plan and time schedule for implementation of any treatment plant process changes or improvements; 5) an evaluation of the head losses across the pre-filters, the final filters and the filter system as a whole, compared to when filter bags were replaced. The report shall be submitted to the Division by* ***December 31, 2017****.*

34. *St. Francis shall retain all treatment plant records for a minimum of five (5) years and shall be made available to the Division upon request.*

35. *All water quality samples must be analyzed by a state certified laboratory. All source water quality analytical results must be submitted to the Division electronically under the PS Code specified in Provisions 3 above, by the* ***10th*** *day of the month following completion of analysis.*

This permit supersedes all previous domestic water supply permits issued for this public water system and shall remain in effect unless and until it is amended, revised, reissued, or declared to be null and void by the Division. This permit is non-transferable. Should the St. Francis Retreat Center Water System undergo a change of ownership, the new owner must apply for and receive a new domestic water supply permit.

Any change in the source of water for the water system, any modification of the method of treatment as described in the Permit Report, or any addition of distribution system storage reservoirs shall not be made unless an application for such change is submitted to the Division.

This permit shall be effective as of the date shown below.

FOR THE STATE WATER RESOURCES CONTROL BOARD

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Dated: 10/19/2017

STATE OF CALIFORNIA

STATE WATER RESOURCES CONTROL BOARD

Certificate of Issuance

OF A

WATER SUPPLY PERMIT

TO

St. Francis Retreat Center

This is to certify that a water supply permit (**Permit #02-05-17P-3500537**) has been issued to **St. Francis Retreat Center Water System** on October 19, 2017, to provide water for domestic uses. The permit was issued by the State Board, pursuant to the provisions of Division 104, Part 12, Chapter 4, Article 7, of the California Health and Safety Code. The permit is subject to the requirements of Title 22, California Code of Regulations, and to the conditions provided in the water supply permit.

A copy of the water supply permit is on file with the St. Francis Retreat Water System or may be obtained by contacting the Monterey District Office of the State Water Resources Control Board, Division of Drinking Water, 1 Lower Ragsdale, Bldg. 1, Suite 120, Monterey, CA 93940.

Jan Sweigert

Jan Sweigert, P.E.
District Engineer, Monterey District
DIVISION OF DRINKING WATER

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Engineering Report
In the Matter of the Water Supply Permit Application for
St. Francis Retreat Center Water System
Water System Number 3500537

San Benito County
October 2017

State Water Resources Control Board
Division of Drinking Water
Shaminder Kler, P.E., Associate Sanitary Engineer
Jan R. Sweigert, P.E., District Engineer

INTRODUCTION

A. PURPOSE OF REPORT

By applications dated January 30, 2012 and September 29, 2014, the St. Francis Retreat Center Water System (St. Francis) applied for a permit amendment for a 265,000 gallon storage tank in the distribution system and a surface water treatment plant for Well 01. The surface water treatment plant consists of a Deep Bed Manganese Greensand Multi-Media Filter for iron and manganese removal treatment followed by two trains of Strainrite Aquarite Dual Bag Filtration System, with associated oxidation and disinfection treatment by sodium hypochlorite.

The State Water Resources Control Board, Division of Drinking Water (Division) has considered the applications for the purpose of granting a new water supply permit. The purpose of this report is to present a sanitary engineering and public health evaluation of the construction of new storage tank and the surface water treatment plant and make recommendations regarding the issuance of a new water supply permit to the St. Francis Retreat Center water system.

B. WATER SYSTEM DESCRIPTION AND WELL PRODUCTION DATA

St. Francis is a transient noncommunity water system located on a rural parcel in western San Benito County. The water system provides water to the St. Francis Retreat Center through two (2) service connections for 7 residential and up to 65 visitors, according to the 2016 Annual Report to the Drinking Water Program (ARDWP). The water system includes one active well (Well 01), one

standby well (Well 03), a Deep Bed Manganese Greensand Multi-Media Filter to remove iron and manganese, a Strainrite Aquarite Potable Water Filtration System, two hypo-chlorination oxidation and disinfection systems, one 5,000 gallon treated water transfer tank, two booster pumps, one above ground 60,000 gallon concrete storage tank (Clearwell), one 265,000 gallon bolted steel storage tank, and the distribution mains. Well 01 is equipped with a 1-HP submersible pump capable of producing 9 to 15 gallons per minute. The well pumps water through the filtration and disinfection treatment plant to the 5,000 gallon transfer tank, from which the water is then pumped to the Clearwell, using a dedicated transmission main. The Clearwell discharges to the distribution system and the 265,000 gallon tank, which is constructed at the same elevation as Clearwell. The distribution system pressure is maintained by the elevation head of the storage tanks.

C. BACKGROUND INFORMATION

By letter dated May 3, 2004, St. Francis was notified of the Division's determination of Well 01 as a groundwater source under the direct influence of surface water (GWUDI). The letter required the water system to provide surface water treatment to Well 01.

Fall Creek Engineering, Inc. (FCE) conducted an engineering analysis and completed the design of the proposed installation of the Strainrite Aquarite Potable Water Filtration System, the Manganese Greensand Filter System and a 5,000 gallon transfer tank. The plans and specifications for this treatment system were reviewed and approved by the Division. The treatment facility was installed in January 2015, and the Division inspected the new treatment facility on January 27, 2015. Due to inadequate filtration of manganese by the Greensand filter, the Strainrite bags were found to be fouling more frequently than anticipated during the initial performance testing. To overcome this issue and the lowering water table, the well discharge rate was lowered to between 7.5 - 10 gpm, as the well water was found to be less turbid at lower discharge rates. Alum injection was also added upstream of the bag filters to facilitate coagulation and filtration. The Division inspected the SWTP again and met with the system operator and FCE on January 20, 2016, to discuss the treatment plant's inconsistent performance issues and proposed improvements for treatment reliability.

In May 2016 and April 2017, the well screens in Well 1 were scrubbed and cleaned to remove iron bacteria. The system noted increased well production after the rehabilitation. In August 2016, the system reported that due to the lowered raw water turbidity after rehabilitation, the addition of alum was causing rapid clogging of the Strainrite filter bags and so the system has discontinued use of alum. The treatment plant was inspected again on August 25, 2016 and April 12, 2017.

INVESTIGATION AND FINDINGS

SOURCES OF INFORMATION

The information contained in this report was acquired from the following:

- The Technical Report and the Operations and Maintenance Plan for the St. Francis Retreat Surface Water Treatment System, prepared by Fall Creek Engineering
- Division files
- Written and email communications with the Fall Creek Engineering, Acqualogic, and the water system representatives
- On Site inspections

A. SOURCES

St. Francis is supplied by one active source Well 01 which has been determined to be under the direct influence of surface water, and one standby groundwater source Well 03.

Well 01 has a discharge capacity of 9 to 15 gpm. It is equipped with a sounding probe connected to SCADA to optimize well operation based on the groundwater table and drawdown conditions. Well 01 is turned on/off by a water level sensor inside the 5,000 gallon transfer tank, also connected to SCADA. Both wells are locked inside plastic enclosures. The operator inspects the well sites two to three times per week. There is adequate drainage around the wells. The surface seals are in good condition. There are no visible cracks in the well pads. Well 01 discharge pipe is equipped with a check valve, flow meter, unthreaded sample tap, discharge-to-waste outlet, and a gate valve.

Well 03 has a discharge capacity of 3 gpm. The well is physically disconnected from the system. The well discharge pipe is equipped with a sample tap, pressure gauge, chemical injection port, flow meter, gate valve, and a check valve. The casing vent is adequately screened. There is no auxiliary power generator available for emergencies.

According to the water system's Annual Reports to the Drinking Water Program back to 2009, the maximum water produced in a single day was 54,330 gallons or 38 gpm in 2009, which is the maximum day demand (MDD) of the water system. The water system can meet the MDD with Well 01 offline, using 271,000 gallons of system storage. The standby source Well 03 does not have adequate discharge capacity to meet the MDD. The water system is able to meet four hours of peak hourly demand (PHD) of 13,583 gallons with the storage capacity. The PHD of the water system is 3,396 gallons or 57 gpm, calculated by multiplying the MDD by a peaking factor of 1.5.

B. TREATMENT

IRON AND MANGANESE REMOVAL TREATMENT SYSTEM

The raw water from Well 01 is injected with 12.5% sodium hypochlorite solution and passed through an approximately 30 ft. long pipeline contactor, to allow adequate contact time for oxidation of the iron and manganese before entering the Yardney Deep Bed Multi-Media Filtration System for iron and manganese removal treatment. From bottom to top, the media in the Yardney filter consists of 2 inches of crushed rock, 6 inches of interface sand, 30 inches of Manganese Greensand Plus, and 12 inches of anthracite. Although, the design filtration rate is 40 gallons per minutes, the flow rate is maintained at well discharge rate of 9 to 13 gpm. The Yardney Filter effluent is discharged to the Strainrite Aqua-Rite Filtration System. The backwash of the Yardney Multi-Media Filter is initiated automatically when the differential pressure across the filter vessel reaches 5 psi. The treated water from the 60,000-gallon concrete tank is used to backwash the multi-media filter for at least 8 minutes at 60 GPM, or until the water runs clear. At the end of the backwash cycle, the filter-to-waste is initiated for at least 10 minutes, or until the water runs clear. The treated water connection to filter backwash is protected by a reduced pressure principal backflow assembly. The treatment plant is secured inside a locked building.

SURFACE WATER TREATMENT REQUIREMENTS

Well 01 is under the influence of surface water and consequently the treatment plant must meet the requirements of the Surface Water Treatment Rule (SWTR), and the Long Term 1 and 2 Enhanced SWTR (LT1 and LT2 ESWTR). This determination was based on the positive bacteriological test

results, the well construction and the close proximity to the nearby pond. The SWTR, and LT1 and LT2 ESWTR require surface water treatment plants to achieve a minimum of 3-log reduction of Giardia cysts and 4-log reduction of viruses through multi-barrier treatment that includes filtration and disinfection, and 2-log reduction of Cryptosporidium through filtration. In addition, alternatives to filtration technologies specified in the SWTR may be used provided that the technology has been accepted by the State Board as having completed a demonstration study showing adequate pathogen removal and ability to meet turbidity performance standards established by the State Board.

The SWTR also requires watershed sanitary surveys be conducted every five (5) years to evaluate the source(s) water quality and the activities in the watershed that could potentially impact water quality and the water system's ability to meet drinking water standards. St. Francis has not conducted the required watershed sanitary survey for the source water of their treatment plant.

STRAINRITE AQUA-RITE POTABLE WATER FILTRATION SYSTEM

The Strainrite Aqua-Rite Potable Water Filtration System is an alternative filtration technology that received conditional acceptance from the Division for treatment of surface water on June 9, 2005.

The Strainrite Aqua-Rite Potable Water Filtration System, installed to treat water from Well 01, includes two (2) Stage-1 pre filters connected to two (2) Stage-2 final filters, arranged in two separate filter trains of pre and final filters. Each filter train has a maximum flow rating of 20 gallons per minute (gpm) to provide a total design capacity of 40 gpm. The filter vessels in each stage are contained in Strainrite AQ2-2 stainless steel housings. The 1st Stage vessels are loaded with Strainrite HPM99-CC-2SR bags and the 2nd Stage filter vessels with Strainrite HPM99-CCX-2SR bags. The effluent line of each final filter has a Merrill/Dole flow control valve installed to limit the maximum flow through each final filter to 10 gpm, thus limiting the combined flow through the treatment plant to 20 gpm. The treated water is stored in the 5,000-gallon transfer tank near the treatment plant, from where it is pumped to the Clearwell, using a 2.0-hp duplex booster pump system. The filters are replaced when the differential pressure across the filter train reaches 25 psi. Approximately six months' supply of primary and secondary filters is maintained on site at all times. A copy of the current operations plan is kept on site. The operator visits the site at least once per day.

FILTRATION PROCESS PERFORMANCE STANDARDS

The Strainrite Aqua-Rite Potable Water Filtration System is credited by the Division with 3-log Giardia removal, and 3-log Cryptosporidium removal. These removal credits are based on the filtration process operating under the following parameters:

Parameter	Value
Maximum Flow Rate (Each Bag Filter)	20 GPM
Maximum Differential Pressure Across Filters	25 PSIG
Turbidity Performance Standard Across Filters	0.1 NTU 95% of the time, and not to exceed 0.5 NTU at any time.
Startup Operation	Operate filter to waste for a minimum of 2 minutes after bag installation/replacement

The determination of compliance with the turbidity standard must be based on representative filter effluent samples collected at least once every four (4) hours. The Strainrite Aqua-Rite Potable

Filtration Treatment system has received no (zero) credit for virus removal from the Division based on the demonstration study.

SODIUM HYPOCHLORITE DISINFECTION

The disinfection treatment system is required to achieve a minimum of 0.5-log Giardia cyst inactivation and 4-log inactivation of viruses. However, the 0.5-log Giardia cyst inactivation is the governing treatment requirement.

The St. Francis Well 01 disinfection system consists of a Stenner Model 45MHP2 peristaltic metering pump and a thirty (30) gallon solution tank. The metering pump has a maximum capacity of 3 gallons per day (gpd) and a maximum discharge pressure of 100 pounds per square inch (psi). The sodium hypochlorite solution is injected into the finished water pipeline just before it exits the treatment building. A flow switch is mounted in the finished water line to enable the on/off operation of the metering pump. The required disinfection contact time is provided in the Clearwell.

An evaluation was conducted by Fall Creek Engineering to establish the system's ability to achieve 0.5 log Giardia cyst inactivation under the likely water quality and water demand conditions. The information and assumptions used to make this evaluation are given below:

Storage Tank: 54,000 gallons at 7.5 feet depth; 7,197 gal/ft; lowest water level 3.6 ft; short circuiting factor of 0.1; effective volume of 2,591 gallons; and peak flow rate of 20 gpm.

The required "CT" value to achieve 0.5-log Giardia cyst inactivation is based on a worst case condition of a maximum pH of 9.0 and a minimum temperature of 10 °C. The required and calculated CT values under these conditions for a free chlorine residual of 0.4 to 0.8 mg/L are tabulated below. Total contact time for the treatment plant flow rate of twenty (20) gpm is 130 minutes.

Chlorine Residual (mg/l)	Contact Time (Minutes)	$CT_{Calc.}$ (mg/l-min.)	$CT_{Reqd.}$ (mg/l-min.)	CT Inactivation Ratio (CT_{Calc} / CT_{Reqd})
0.4	130	52	35	1.49
0.6	130	78	36	2.17
0.8	130	104	38	2.74

Based on the calculations above, the system can achieve the required CT value under all conditions for 0.5-log Giardia cyst inactivation by maintaining at least 3.6 ft. water level in the clearwell and 0.4 mg/l free chlorine residual in the tank discharge pipe. The system measures the free chlorine residual for CT compliance in the filter backwash water supply connection from the tank discharge pipeline, which is located upstream of the first service connection.

TREATMENT RELIABILITY AND ALARMS

The treatment plant is designed to shut down as a result of three operational conditions going above and/or below allowable levels for: turbidity, chlorine residual, and differential pressure across the filters.

Turbidity – A Hach 1720E continuous reading turbidimeter is fed continuous samples from raw and treated water lines when the treatment plant is on-line. It is controlled by a Hach sc200 universal controller. High alarm set points of 10.0 NTU for raw water and 0.1 NTU for treated water

turbidimeter activate a visual alarm and automatically shut the treatment plant down. The HACH sc200 controller is also connected to the main controller and the Chessell circular chart recorders.

Chlorine Residual – A Hach CL17 Free Chlorine Analyzer is used to monitor the free chlorine residual in the treated water entering the distribution system. The analyzer outputs the data to the main controller and the chart recorder. It has low alarm and shut down set point of 1.0 mg/L and a high alarm and shut down set point of 3.0 mg/L.

Differential Pressure – The system is equipped with three differential pressure gages. One measures the pressure differential across the pre-filters, the second measures the pressure differential across the final filters, and the third measures the pressure differential across both sets of filters. To protect the integrity of the filter bags, the differential pressure across the pre-filter and final filter bags together must not exceed 25 psi. The differential pressure gages activate a visual alarm at 20 psi and automatically shut the treatment plant down if the inlet pressure exceeds 25 psi.

A pressure relief valve is installed in the treatment plant influent line to protect the filter bags from pressure surges. Each individual filter vessel is also fitted with a pressure relief valve for added safety.

The Division's approval of the filtration technology was based on a requirement that the differential pressure measured across pre and final filters does not exceed 25 psi and the flow rate across each filter does not exceed 20 gpm. Each filter train is equipped with a flow control valve installed on it that limits the maximum flow through it to 10 gpm. To ensure that the filters are used efficiently, the water system shall also observe the differential pressure across pre-filters compared to that across the final filters and replace the filters contributing to higher pressure loss. Additionally, if the pre-filters are found to be causing higher pressure loss in majority of cases, the water system must ensure that final filters are also replaced after a reasonable time.

EMERGENCY CHLORINATION PLAN

An Emergency Chlorination Plan has been developed and incorporated in the treatment plant operations plan.

TREATMENT PLANT OPERATIONS

The treatment plant is automatically started and shut down by the preset water levels in the transfer tank. There is no standby power to operate the system well or treatment plant. There is a battery backup system to provide power only for the instrumentation and control system.

An Operations and Maintenance plan has been developed for the surface water treatment plant as required by Section 64661, Chapter 17, Title 22 of the California Code of Regulations (CCR), and submitted to the Division.

OPERATOR CERTIFICATION REQUIREMENTS

The Division has completed an evaluation of the water treatment plant processes and the water quality of the raw water that will supply the treatment plant, for the purposes of establishing the appropriate treatment plant classification and the associated water treatment plant chief operator and shift operator certifications required to operate the plant.

Pursuant to this evaluation, the Division has determined that the surface water treatment plant merits a classification of "T2". Further, the required certifications of the Chief Operator and Shift Operators are "T2" and "T1", respectively.

St. Francis will be required to operate the treatment plant with personnel meeting these operator certification requirements. The chief operator Mr. Edward DeGroot is T2 and D1 certified for treatment plant and distribution system operation, respectively. The water system also has a contract with Acqualogic Inc. as a backup operator for the treatment plant.

C. STORAGE

CLEARWELL

The 60,000-gallon concrete Clearwell receives treated water from the 5,000-gallon transfer tank and discharges to the distribution system. The Clearwell is only filled to height of 5.5 ft. due to its structural condition evaluated by a tank specialist. Therefore the useful storage of the Clearwell is only 40,000 gallons. It is equipped with separate inlet/outlet pipes. There are many fine cracks on the tank exterior with a few minor leaks. The interior condition is unknown. The roof hatch is locked and the vents and overflow pipe are screened. The roof vent screens are intact. The tank was evaluated and cleaned in 2015.

265,000-GALLON BOLTED STEEL STORAGE TANK

The 265,000-Gallon bolted steel tank was installed in October 2009, and is in use in the system. The tank was installed in order to have adequate water storage for fire protection. The permit amendment application for the addition of the tank was submitted in January 2012. As required by the December 2011 inspection letter, the water system submitted a tank circulation plan in February 2016 and modified the tank to improve the water circulation in the tank. The tank is equipped with a single inlet/outlet connection to the distribution system approximately 2 feet above the tank bottom. The useful storage of the tank is 227,000 gallons. The overflow pipe is equipped with a flap valve, screen, and air-gap protection. The roof vent is adequately screened. The shoebox type roof hatch and the access ladder cage are locked. The storage tank is constructed per AWWA D103-97 design specifications.

D. PUMPS, PUMP FACILITIES AND CONTROL

The treated water from the 5,000-gallon transfer tank near the treatment plant is pumped to the Clearwell, using a 2.0-hp duplex booster pump system. There are no other booster pumps or pressure reducing valves in the St. Francis distribution system. The distribution system pressure is maintained using the elevation head provided by the storage tanks.

E. DISTRIBUTION SYSTEM

The St. Francis distribution system has one pressure zone. The distribution mains are constructed of 2" to 8" diameter corrugated or galvanized iron pipes. There are no asbestos cement pipes, lead welding or piping in the water system.

F. MONITORING, REPORTING AND DATA VERIFICATION

Source Water Bacteriological Monitoring – St. Francis is required to monitor the raw water from Well 01 once every month for the total coliform and E.coli. A review of the record from the past two years shows consistent monthly monitoring except November 2015 and September 2016 when no

samples were collected. There were twelve incidents of total coliform detection in Well 01, and one E.coli positive results reported in the past two years.

Distribution System Bacteriological Monitoring – St. Francis has a Division approved Bacteriological Sample Siting Plan (BSSP), dated April 30, 2010, which requires collecting one routine sample per month from one distribution site. A review of past two years' bacteriological record shows that the distribution monitoring is up-to-date except in November 2015 and September 2016 when no samples were collected and, as a result, Total Coliform Rule monitoring and reporting violations were issued. There was no incident of total coliform positive.

Title 22 Regulated Inorganic Chemicals – The water system is not required to monitor Well 01 and Well 03 for inorganic monitoring with the exception of nitrate, which is discussed below.

Nitrate and Nitrite Monitoring – The water system is required to monitor Well 01 for nitrate annually and for nitrite once every three years. The monitoring is up-to-date with nitrate (as N) reported at 1.6 mg/L and nitrite was not detected during the last monitoring. The next nitrate and nitrite monitoring for Well 01 is due in **2018.**

The standby source Well 03 is required to be monitored once every nine years for nitrate and nitrite. It was last monitored in 2011 and next monitoring is due in **2020**.

Title 22 Regulated General Minerals (GM)/General Physical Standards (GPs) – The water system is not required to monitor Well 01 and Well 03 for GM/GPs.

Radiological Monitoring – The water system is not required to monitor Well 01 and Well 03 for radionuclides.

VOC Monitoring – The water system is not required to monitor Well 01 and Well 03 for VOCs

MTBE Monitoring – The water system is not required to monitor Well 01 and Well 03 for MTBE.

SOC Monitoring – The water system is not required to monitor Well 01 and Well 03 for SOCs.

Distribution System Lead and Copper Monitoring – St. Francis is not required to conduct lead and copper monitoring in the distribution system.

Distribution System Disinfectant/Disinfection Byproducts Rule Monitoring – St. Francis is not required to conduct D/DBPR monitoring in the distribution system.

Distribution System Asbestos Monitoring – St. Francis does not have asbestos cement pipes in the system. The monitoring for asbestos in the distribution system is not required.

Surface Water Treatment Plant Effluent Monitoring – The surface water treatment plant effluent monitoring requirements are addressed in the conclusions and recommendations section of this report. All reporting forms were emailed to the water system for monthly reporting after treatment plant startup.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

A. TREATMENT PLANT

The State Water Resources Control Board (SWRCB) as lead agency pursuant to California Environmental Quality Act (CEQA) has reviewed the Environmental Information Form prepared by St. Francis Retreat Center (Center) on September 24, 2014. The proposed project includes the

construction a new treatment system (Strainrite Bag Filtration System), housing structure, chlorination system, 5,000 gallon water storage tank, pump, iron and manganese media filter, and appurtenant structures to address issues related to the Long Term Enhanced Water Treatment Rule.

The SWRCB Environmental Review Unit (ERU) has determined that this project is categorically exempt from the California Environmental Quality Act under Class 3 exemption pursuant to California Code of Regulations Title 14, Section 15301, and Title 22, Section 60101(c). Pursuant to CEQA Guidelines, Section 15062, the ERU filed a Notice of Exemption through the Governor's Office of Planning and Research, State Clearinghouse on October 29, 2014. The California Department of Fish and Wildlife filing fees do not apply to exempted projects.

As a lead agency, SWRCB has considered the Environmental Information Form and project description and hereby makes the following findings for the permit amendment:

The System Improvement Project is exempt from CEQA under CCR, Title 14:

- Class 3 (CCR, Title 14, Sec 15303 and Title 22, Section 60101 (c))

B. 265,000-GALLON BOLTED STEEL STORAGE TANK

In 2009, San Benito County Planning Department as a lead agency for CEQA for the tank construction project, developed an Initial Study/Mitigated Negative Declaration, with a Mitigation Monitoring and Reporting Program and CEQA Findings, and filed an Notice of Determination with the County.

The SWRCB ERU has determined that the filing of tank CEQA documents to the State Clearinghouse is not required and the supporting information is adequate to proceed with a water supply permit.

APPRAISAL OF SANITARY HAZARDS

A. SOURCE WATER

A review of the raw water bacteriological monitoring results from the Well 01 since January 2013 shows several total coliform positive incidents. There was one E.coli positive detection in May 2016 while the well was offline for cleaning. The total coliform levels were between 1 MPN and >200.5 MPN. In addition, Well 01 produces water with high turbidity during start-up. The high concentrations of iron and manganese in the raw water contribute to high turbidity. The high turbidity and coliform results from the source water substantiate the requirement for the treatment plant to achieve the minimum Giardia, Cryptosporidium, and virus removal under the SWTR. Further, the high turbidity indicates that the combination of iron and manganese removal treatment and Strainrite Aqua-Rite Potable Filtration System is an acceptable treatment system to meet the SWTR. A review of the monthly treatment plant reports starting May 2016 shows a trend of reduced turbidity in the well water after rehabilitation.

The Well 01 is currently installed with a 9 to 15 gpm pump, significantly below the design flow rate of 40 gpm of the Yardney Deep Bed Multi-Media Filtration System as well as below 20 gpm, the maximum allowed flow rate across each Strainrite Filtration Train. The well on/off operation is automatically controlled by the water level sensors switch installed inside the 5,000-gallon transfer tank.

B. IRON AND MANGANESE REMOVAL TREATMENT SYSTEM

The filter vessel internal coating and the Multi-Media used for iron and manganese removal treatment are ANSI/NSF Standard 61 Certified. The backwash supply water line from the treated water storage tank is protected with a reduced pressure backflow prevention device. The backwash water and the filter-to-waste water are discharged to the nearby pond with air-gap separation to prevent cross-contamination.

C. SURFACE WATER TREATMENT

Fall Creek conducted an engineering study in September 2012 to evaluate the source water and the treatment system. The engineering study was reviewed and approved by the Division and the Strainrite Aqua-Rite Potable Filtration System was determined to consistently and reliably meet the turbidity performance standard of 0.1 NTU. Consequently, the filtration process should reliably achieve 3-log Giardia and 3-log Cryptosporidium removal.

A review of the monthly reports submitted since May 2016 shows CT ratio between 7.74 and 47.47. The system has been able to meet the turbidity performance standard by maintaining turbidity below 0.1 NTU in at least 95.2% of the time and not exceeding 0.5 NTU at any time. In May 2017 the combined effluent turbidity was below 0.1 NTU in 90.7% of times. Also, there were two instances of combined effluent turbidity exceeding 0.5 NT, which was reportedly caused by a fouled turbidimeter.

The disinfection treatment system should reliably provide the required 0.5-log Giardia and 4-log virus inactivation, respectively. The chlorine residual is continuously monitored after CT is completed. The SWTP monthly reports show calculated CT significantly higher than the required CT.

The ANSI/NSF Standard 60 certified sodium hypochlorite solution used for oxidation of iron and manganese and disinfection is manufactured by HasaChlor and has solution strength of 12.5%.

The treatment system's reliability features are adequate to ensure the plant only produces water that meets the requirements of the surface water treatment regulations. To ensure proper functioning of the plant's alarm/shut down features, they are tested on a regular basis.

The well pump and the chlorine injection pumps have the capability to operate in 'auto' mode as well as 'hand' (manual) mode. During normal operation of the treatment plant, the switches should remain in the 'auto' mode, so that they cannot override the automatic alarm and shutdown functionality.

The treatment plant effluent is discharged to the 5,000-gallon transfer tank, from where it is pumped to the Clearwell using a 2-hp duplex booster station, automatically operated by the water level sensor switch installed inside the Clearwell. The disinfection process is designed to achieve the required Giardia and virus inactivation through the contact time provided by effective volume of the Clearwell.

The Well 01 is located inside a locked storage cabinet and the treatment system is located inside a locked building near the well.

D. WATERSHED SANITARY SURVEY

Per Section 64665, Title 22, CCR, St. Francis is required to conduct a Watershed Sanitary Survey of the GWUDI source – Well 01 at least once every five (5) years. A Watershed Sanitary Survey for Well 01 has not been completed. The Survey must be completed to evaluate the source water quality and the activities in the watershed that could potentially influence water quality and the water system's ability to meet drinking water standards. The report must be submitted to the Division by **December 31, 2017**.

E. LT2 ESWTR

The St. Francis water system is designated as a "Schedule 4" system under the LT2 ESWTR based on serving less than 10,000 people. A review of the Division's record shows that the water system has been conducting monthly Total Coliform and E. coli monitoring since May 2004. The results for E.coli were negative for all samples throughout the noted monitoring period except one incidence during well rehabilitation in May 2016. Based on these results, the water system is not required to install supplemental treatment for additional Cryptosporidium removal. The one incident of E.coli positive in Well 01 was while it was offline for rehabilitation and possibly contaminated during the cleaning process. The subsequent monitoring after the disinfection showed no E.coli presence in Well 01.

St. Francis has submitted a LT2 ESWTR monitoring plan and schematic for the 2nd round of monitoring in Well 01. The system must follow the Division approved plan to begin the monitoring in **October 2017**.

F. STORAGE TANKS

The 5,000-gallon polyethylene plastic transfer tank is ANSI/NSF 61 certified. The roof hatch is secured and the site is enclosed by a 6 ft. high chain-link fence. The tank is equipped with a drain pipe and an overflow pipe with air-gap protection.

The Clearwell is constructed of reinforced concrete. The inlet piping is connected at the top of the tank and the outlet piping is connected at the bottom of the tank, at approximately 90 degrees to each other. The roof of the tank consists of corrugated metal sheets supported by a wooden frame. The roof access hatch is locked. The roof vents are adequately screened.

The ANSI/NSF Standard 61 certification for the 265,000-gallon bolted steel tank material in contact with drinking water was submitted to the Division. The tank design conforms to AWWA D103-97 Specifications. There is adequate security around the tank and all openings are protected to prevent tank contamination from insects, birds, and rodents.

G. ALTERNATIVE TECHNOLOGY OPERATIONAL REPORT

The monthly alternative technology operations reports are consistently being submitted since June 2016. The final monthly evaluation report must be submitted to the Division by **December 10, 2017**. As part of the approval of alternative technology for compliance with the Surface Water Treatment Rule, a report on the effectiveness of the technology during the first year of operation must be submitted to the Division. St. Francis must prepare and submit the report to the Division by **December 31, 2017**. See Provision No. 33 for the information required on the report.

CONCLUSIONS AND RECOMMENDATIONS

It is the finding of the State Water Resources Control Board, Division of Drinking Water, that the installation and operation of the iron and manganese removal treatment system, Strainrite Aqua-Rite Potable Filtration System with sodium hypochlorite disinfection will meet the requirements of the SWTR.

Therefore, it is hereby recommended that a new water supply permit be issued to the St. Francis Retreat Center water system, subject to the following provisions:

General Provisions

1. The St. Francis Retreat Center water system shall comply with all the requirements set forth in the California Safe Drinking Water Act, California Health and Safety Code and any regulations, standards or orders adopted thereunder.

2. All water supplied by the St. Francis Retreat Center water system for domestic purposes shall meet all applicable Maximum Contaminant Levels (MCLs) established by the California Division of Drinking Water. If the water quality does not comply with the California Drinking Water Standards, treatment shall be provided to meet standards, subject to permit approval.

3. The following Primary Station (PS) Codes are assigned to the approved drinking water sources and treatment systems for the purpose of electronic submittal of water monitoring data to the Division:

Monitoring Site	PS Code
Well 01 – Surface Influenced	3500537-001
Fe Mn and Strainrite Trtmt Effluent	3500537-004
Well 03 – Standby	3500537-003
Well 03 – Cl_2 Treated	3500537-005

4. No changes, additions, or modifications shall be made to the sources or treatments mentioned in Condition No. 3 unless an amended water permit has first been obtained from the Division.

5. All personnel who operate the treatment facilities shall be certified in accordance with Title 22, Section 63765 of the CCR. The surface water treatment plant is classified as a T2 water treatment plant requiring a chief operator with a minimum of T2 certification. All shift operators must have a minimum of T1 certification. All operators with responsibilities related to operation, monitoring, or reporting of the surface water treatment facilities shall be appropriately certified.

6. All chemicals added to the water for treatment must be certified as meeting the specifications of ANSI/NSF Standard 60 for direct additives to drinking water.

7. The drinking water filtration treatment process approved in this permit amendment includes the following:

   a. Yardney Deep Bed Multi-Media Filtration System for iron and manganese removal treatment.

b. Strainrite Aqua-Rite Potable Filtration System consisting of two (2) trains of pre-filters and final filters operating in parallel.

c. The filter vessels in each train are enclosed in the Strainrite AQ2-2 stainless steel housings.

d. Strainrite HPM99-CC-2SR pre-filter bags are installed in the Stage 1 vessels.

e. Strainrite HPM99-CCX-2SR final filter bags are installed in the Stage 2 vessels.

8. The equipment listed in No. 7 above are the only filtration equipment approved for use in this treatment plant. St Francis is prohibited from modifying or repairing any of the listed equipment with parts that are not approved by the manufacturer for the specified model numbers, without written approval from the Division.

9. The treatment plant filtration and disinfection processes shall be operated to achieve a total combined pathogen removal and inactivation of 3-log Giardia, 4-log virus, and 2-log Cryptosporidium at all times.

10. St. Francis shall complete a watershed sanitary survey that demonstrates a lack of virus hazard in the watershed for the pond near Well 01, and submit to the Division by **December 31, 2017**.

Yardney Deep Bed Multi-Media Filtration System Operation

11. The Yardney Deep Bed Multi-Media Filtration System shall be operated such that the maximum head loss (pressure differential) through the filter shall not exceed 10 psi.

12. When the differential pressure across the multi-media filter reaches 5 psi, the media must be backwashed for at least 8 minutes at 60 gpm, followed by a filter-to-waste for 10 minutes.

13. The multi-media must be inspected and replaced following manufacturer's recommended procedure and frequencies, with ANSI/NSF Standard 61 Certified Multi-Media only.

Yardney Deep Bed Multi-Media Filtration System Process Monitoring

14. St. Francis must monitor iron and manganese in the treatment plant effluent at least once per month and the results must be electronically submitted to the Division by the **10th** day of the following month.

Strainrite Aqua-Rite Potable Filtration System Operation

15. The Strainrite Aqua-Rite Potable Filtration System shall be operated to meet the following turbidity performance standards:

    a. The effluent turbidity shall be equal to or less than 0.1 NTU in 95 percent of the measurements taken each month and shall not exceed 0.5 NTU at any time.

16. When any individual vessel bag is replaced, the plant shall filter-to-waste for a minimum of **two (2)** minutes.

17. The raw water flow through each filter train shall not exceed **twenty (20) gallons** per minute.

18. The differential pressure as measured across pre and final filter bags shall not exceed **twenty-five (25) psig** at any time.

19. The Strainrite Aqua-Rite Potable Filtration System shall be operated in the **"auto"** mode during normal operating conditions.

Strainrite Aqua-Rite Potable Filtration System Process Monitoring

20. St. Francis must monitor and record the turbidity of the combined filtration effluent at least once every **fifteen (15) minutes** when the treatment system is in operation. Monitoring shall be conducted in accordance with the approved Operations Plan.

21. St. Francis shall calibrate the turbidimeter(s) in accordance with the manufacturer recommendations. Calibration records must be maintained that include date, model, and location of monitoring equipment, and submitted in monthly reports to the Division.

Sodium Hypochlorite Disinfection Treatment Process Operation

22. The sodium hypochlorite disinfection treatment process shall be operated to achieve a minimum of 0.5-log Giardia and 4.0-log virus inactivation at all times.

23. A minimum free chlorine residual of 0.4 mg/L shall be maintained in the 60,000-gallon tank discharge pipe, upstream of the first service connection. The treatment plant instrumentation and control system shall be configured to activate an automatic shutdown alarm if the free chlorine residual at the first connection is not maintained at 0.4 mg/L or greater for a period not to exceed fifteen (15) continuous minutes.

24. The water delivered to the distribution system shall not contain a disinfectant residual of less than 0.2 mg/L for more than four (4) hours in any 24-hour period. Furthermore, a disinfectant residual shall be detectable in at least 95 percent of the samples taken from the distribution system and residual measurements shall be made in conjunction with monthly coliform sampling.

Sodium Hypochlorite Disinfection Treatment Process Monitoring

25. The combined filter effluent discharged from the Clearwell upstream of the first distribution system connection shall be **continuously** monitored for chlorine residual and at least **once** daily for temperature, and pH during peak demand period of the day.

Treatment Plant Operations Plan

26. St. Francis must operate the treatment plant in accordance with the Division approved Operations Plan. A copy of the current operations plan must be maintained at the treatment facility and any modification to the operations plan must be approved by the Division.

Chemical Water Quality Monitoring – Well 01

27. St. Francis shall monitor Well 01 for iron and manganese **once every three (3) months** and the results must be electronically submitted to the Division by the tenth day of the following

month.

28. St. Francis must conduct **annual** nitrate monitoring of Well 01 and submit the results electronically to the Division by the **10th** day of the following month.

Bacteriological Water Quality Monitoring

29. St. Francis must conduct **monthly** raw water total coliform and E. coli monitoring using an enumeration method at Well 01. All results must be submitted to the Division by the **10th** day of the month following sample collection.

30. St. Francis must conduct **monthly** monitoring of the treatment plant effluent for total coliform and E. coli using an enumeration method. All results shall be submitted to the Division by the **10th** day of the month following sample collection.

Reporting Requirements

31. St Francis must submit a **monthly** report on the operation of the iron and manganese removal treatment and surface water treatment facilities by the **10th** day of the following month. The report must be signed by the person responsible for the operation of the water treatment plant. The report must include, as a minimum, all of the applicable elements identified in Section 64664, Chapter 17, Title 22, CCR.

32. St. Francis shall maintain accurate and complete treatment plant operation records in accordance with Section 64662, Chapter 17, Title 22, CCR. The records must include as a minimum, the following information:

    a. The results of all required monitoring.

    b. Quantity of water produced, plant flow rates, filtration rates, and hours of operation.

    c. Dates and descriptions of all major equipment and process failures and the corrective actions implemented.

    d. Dates of all filter maintenance and inspections performed and a description of the results.

33. St. Francis shall submit a report on the effectiveness of the treatment plant operation for the first year of operation. The engineering report shall include, 1) a description of the effectiveness of each treatment process operation; 2) the results of all water quality analysis conducted and an evaluation of compliance with performance standards under actual operating conditions; 3) an assessment of any problems experienced and the corrective actions taken to achieve resolution, and; 4) a plan and time schedule for implementation of any treatment plant process changes or improvements; 5) an evaluation of the head losses across the pre-filters, the final filters and the filter system as a whole, compared to when filter bags were replaced. The report shall be submitted to the Division by **December 31, 2017**.

34. St. Francis shall retain all treatment plant records for a minimum of five (5) years and shall be made available to the Division upon request.

35. All water quality samples must be analyzed by a state certified laboratory. All source water quality analytical results must be submitted to the Division electronically under the PS Code specified in Provisions 3 above, by the **10th** day of the month following completion of analysis.

Report Prepared by:

Shaminder Kler, P.E.
Associate Sanitary Engineer

Report Approved by:

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Appendices
Appendix A: Permit Amendment Applications
Appendix B: Department Conditional Acceptance Letter for the Aqua-Rite Filtration System
Appendix C: Filter Plant and Storage Reservoir Data Sheets
Appendix D: Water Treatment Operator Worksheet
Appendix E: Service Area Map

Appendix A
Permit Amendment Applications

STATE OF CALIFORNIA
APPLICATION
FOR
DOMESTIC WATER SUPPLY PERMIT AMENDMENT
FROM

Applicant: St Francis Retreat Center
(Enter the name of legal owner, person(s) or organization)

Address: 549 Mission Vineyard Road, San Juan Bautista, 95045
System Name: St Francis Retreat Center
System Number: 35000537

TO:
Schminder Kler
Monterey District Sanitary Associate Engineer
Drinking Water Field Operations Branch
California Department of Public Health
1 Lower Ragsdale Drive, Bldg. 1, Ste. 120
Monterey, CA 93940

Pursuant and subject to the requirements of the California Health and Safety Code, Division 104, Part 12, Chapter 4 (California Safe Drinking Water Act), Article 7, Section 116550, relating to changes requiring an amended permit, application is hereby made to amend an existing water supply permit to St Francis Retreat Center

2014 SEP 29 AM 10 11

I (We) declare under penalty of perjury that the statements on this application and on the accompanying attachments are correct to my (our) knowledge and that I (we) are acting under authority and direction of the responsible legal entity under whose name this application is made.

Signed By: Edward J. De Groot
Print Name: Edward J. De Groot
Title: Sys. Op.
Address: 549 Mission Vineyard Rd
San Juan Bautista, CA 95045
Telephone: 831-623-4234

Dated: 9-24-2014

DDWEM: 08/2007

3500537

STATE OF CALIFORNIA
APPLICATION
FOR
DOMESTIC WATER SUPPLY PERMIT AMENDMENT
FROM

Applicant: St. Francis Retreat
(Enter the name of legal owner, person(s) or organization)

Address: 549 Mission Vineyard Rd., San Juan Bautista, CA 95045

System Name: St. Francis Retreat

System Number: 3500537

TO: Department of Public Health
Drinking Water Field Operations
Monterey District Office
1 Lower Ragsdale, Bldg. 1, Suite 120
Monterey, California, 93940

Pursuant and subject to the requirements of the California Health and Safety Code, Division 104, Part 12, Chapter 4 (California Safe Drinking Water Act), Article 7, Section 116550, relating to changes requiring an amended permit, application is hereby made to amend an existing water supply permit to add a 265,000 gallon water storage tank to the system and
(Applicant must state specifically what is being applied for - whether to construct new works, make alterations or additions in works or sources, or change or modify treatment.)
Add the proposed Surface Water Treatment Plant for Well #1 (3500537-001).

I (We) declare under penalty of perjury that the statements on this application and on the accompanying attachments are correct to my (our) knowledge and that I (we) are acting under authority and direction of the responsible legal entity under whose name this application is made.

By: Edward J. Hood

Title: Business Manager and System Operator

Address: 549 Mission Vineyard Rd., PO Box 970
San Juan Bautista, CA 95045

Telephone: (831) 623-4234

Dated: 1-30-2012

DDW 11/2007

Appendix B
Department Conditional Acceptance Letter for the Aqua-Rite Filtration System

State of California—Health and Human Services Agency
Department of Health Services

California Department of Health Services

SANDRA SHEWRY
Director

ARNOLD SCHWARZENEGGER
Governor

June 9, 2005

Mr. Dan Mosley
Senior Sales & Technical Manager
Manager Potable Water Products Division
The Strainrite Companies, Inc.
65 First Flight Dr
Auburn, ME 04211-1970

Dear Mr. Mosley:

CDHS CONDITIONAL ACCEPTANCE OF AQUA-RITE POTABLE WATER FILTRATION SYSTEM AS AN ALTERNATIVE FILTRATION TECHNOLOGY

Based on the results of testing conducted by BioVir Laboratories and reported in "Particle Reduction Study for Strainrite's "AQUA-RITE" Potable Water Filtration System," (no publication date; signed April 2005) the Water Treatment Committee (WTC) of the California Department of Health Services' Drinking Water Program, will accept the use of the Strainrite Companies' AQUA-RITE Potable Water Filtration System as an alternative filtration technology to meet the physical removal requirements of the current California Surface Water Treatment Rule (SWTR).

The AQUA-RITE Potable Water Filtration System is accepted as an alternative SWTR filtration technology under California Code of Regulations, Title 22, Division 4, Environmental Health Chapter 17, Article 2, Section 64653(f) as configured in the BioVir report cited above with the HPM99-CC-2-SR prefilter in front of the HPM 99-CC-35-2-SR final filter (which according to your last e-mail will be manufactured, sold, and distributed as the HPM99-CCX-2-SR). Although not documented in the BioVir report, we understand the AQ2-2 vessel equipped with a "seal Rite" bag flange is a required component of this system and is used as the housing for the prefilter and final filter. We also understand that these filters have not been tested in other Strainrite housing and that it would be inappropriate to use these filters in housings other than the AQ2-2.

Review and approval for the proposed design of any water treatment system proposing to use your technology will be handled on a case-by-case basis by the Drinking Water Program's individual District offices or local primacy agencies. Since the Drinking Water Program's District Engineers are responsible for evaluating the source water quality to

be treated and issuing an operating permit, they will set the overall removal and inactivation requirements for a given installation. Design engineers proposing to use your alternative filtration technology should be aware that the minimum log removal requirements established by the SWTR are to be met using multiple treatment barriers. Your technology is recognized as being *one* component of this multiple barrier. Approval for the use of your technology in any drinking water application is granted through the domestic water supply permitting process.

The AQUA-RITE Potable Water Filtration System is granted the removal credits shown in Table 1, and is subject to the operating parameters identified in Table 2. As the unit was not challenged to demonstrate virus removal, the units receive no log virus removal credit (0-log) and are subject to the limitations outlined in California Code of Regulations, Title 22, Division 4, Environmental Health Chapter 17, Article 2, Section 64653(f and g).

Table 1 – Filter Removal Credit

Target Organism	Removal Credit (log_{10})
Giardia	3.0
Cryptosporidium	3.0
Virus	0.0

Table 2 – System Operating Parameters

Parameter	Value
Maximum Flowrate into system	20 gpm
Max Differential Pressure (as measured across the prefilter and final filter)	25 psid
Turbidity Performance Standards	0.1 NTU 95% of the time Not to exceed 0.5 NTU
Additional Design Criteria	1. Pressure relief to protect bag from an excessive pressure surge. 2. Filter to waste for 2 minutes after bag installation. 3. Means to measure the pressure drop across each filter.

Since the alternative filtration technology testing focused on pathogen removal (via a surrogate), only the pressure differential across the system was measured. Since the maximum pressure differential across the system (as measured across the prefilter and the final filter) is set as a condition of operation, we request specific guidance (e.g., pressure differential or other information) that the operators can use to indicate the final filter requires replacement. For example, your guidance should include, but not be limited to end of life or failure (partial or catastrophic). We are trying to avoid a situation in which an operator continually replaces the prefilter only because the final filter is not functioning properly. Similar guidance is requested for the prefilter.

Experience has led us to believe that bag filter systems may not be appropriate for water sources that contain high concentrations of submicron-sized particles (<2 μm). Before installing a new bag filter system, the source water should be evaluated to determine whether or not submicron-sized particles are present in concentrations that would prevent the bag filter from meeting the 0.1 NTU turbidity standard. Such an evaluation can be completed using either a pilot plant or a 2-μm paper/glass fiber filter in a laboratory setting. If the pilot plant or 2-μm lab filter does not reduce turbidity to less than 0.1 NTU the source may not be amenable to filtration using a bag filter.

Any changes made to any feature, part, or product used on the AQUA-RITE Potable Water Filtration System should be reported (in writing) to the Department in advance of making the changes to any production version of your system sold in California. The detail of your written notification will be reviewed to determine if additional performance testing will be required. Consequently the letter and its appendices should provide sufficient detail to satisfy the reviewing body. Should additional testing be required, the WTC will review all future study protocols. The WTC must approve all study protocols as a condition of accepting the final report. The WTC will also review the final report and, if appropriate, make testing and permit provision recommendations regarding any future changes.

It is our understanding that all the primary components (HPM99-CC-2-SR prefilter HPM99-CCX-2-SR final filter) are to be used once and then discarded (no backwashing; no chemical clean in place). We further understand that the components of the AQUA-RITE Potable Water Filtration System are undergoing NSF Standard 61 certification (drinking water components) and that the results will be released to this regulatory body as soon as they become available. In addition, we understand that no other treatment chemicals or additives will be used to enhance or modify the performance of these units at this time. Should this change, please contact us so we can provide you with guidance regarding the regulatory requirements that cover the use of NSF (or equivalent) certified chemicals.

We would appreciate guidance on steps our field engineers can take to track the HPM99-CC-2-SR prefilter and HPM99-CCX-2-SR final filter to ensure the products are not being reused in the systems.

As we have received a number of inquiries regarding your system, we would be willing to provide any contact information to utilities that you would be willing to provide. If other contacts, such as a local representative, are available, could you provide us with their contact information at your convenience (our listing of alternative filtration technologies is updated periodically, but not on any regular schedule).

Should you have any questions regarding the content of this letter, please feel free to contact me at (510) 849-5050.

Very truly yours,

Original signed by

Richard H. Sakaji, PhD, PE
Senior Sanitary Engineer

cc: WT Committee
chron

Appendix C
Filter Plant and Storage Reservoir Data Sheets

Attachment A7

State of California
Drinking Water Field
Operations Branch

Filter Plant Data

Department of Health Services
Monterey District

System Name: St. Francis Retreat Center **No:** 3500537
Source of Information: St. Francis Retreat
Collected By: Fall Creek Engineering: Paul Myer **Date:** 9/17/14

Name:	
Location:	St Francis Retreat
Purpose: (Fe/Mn Removal, SW Treatment, etc.)	Fe/Mn removal, Compliance with SW treatment rules
Year Operation Began:	To be determined (2014)
Flow, How Measured	Digital Flow Meter
Average Flow:	Restricted to 20 GPM
Peak Daily FLow:	Restricted to 20 GPM
Average Hours of Operation:	To be determined (estimated to be 12 hrs)
Filters	
Design Capacity:	20 GPM (Bag filters up to 40 GPM)
Type:	Greensand Media Prefilter and Bag Filters
Number:	1 Greensand Media Filter and 4 Bag Filters (5 total)
Size:	
Rate Controllers:	Yes
Rate of Filtration:	20 GPM
Loss of Head Gauges:	Yes
Individual Filter Monitoring: (Grab or continuous)	Continuos
Media Inspection: (frequency)	Bag Filters Quarterly or When Changed; Media Filter Annually
Wash Water:	
Backwashing Time/Interval Determined By:	Controller initiates backwash at 7 psi differential for 12 min
Source:	Treated water from distribution system
Drain To:	Pond
Percent Used:	1.5%
Rate of Backwash:	60 GPM
Regeneration:	
Chemicals Used and Dose:	Continuous Chlorine at 0.5 GPD
Time Retained:	NA
Time Rinsed:	NA
Pre-Treatment: (Describe process, design capacity and chemicals used)	Chlorine Oxidation, Greensand Media Filtration at 20 GPM
Post-Treatment: (Describe process, design capacity and chemicals used)	Chlorine Disinfectoin at 20 GPM
Disinfectant/Dose/Contact Time:	Chlorine / 0.5 GPD / 130 minutes minimum
Describe Reliability Features:	Filters run at 50% design capacity, control/monitoring system is continuous and automated
Clear Well: (Capacity in Gallons)	5,000 gallons
Laboratory Control: (Describe parameters measured and frequency)	Turbidity and Chlorine Residual Measured Continuosly and Recorded Daily
Operators:	
Supervisor: (Name and Grade)	Ed Degroot: D1 and T2
Shift Operator: (Name and Grade)	NA
Water:	
From:	Well #1
Sent To:	Storage

Defects and Remarks:	
Attach Schematic of Unit Process:	Attached to other submittal documents

Filter Data Sheet.doc

State of California
Drinking Water Field Operations
Branch

Reservoir Data

Department of Public Health
Monterey District

System Name: St. Francis Retreat Center **No:** 3500537
Source of Information: St Francis Retreat
Collected By: Fall Creek Engineering: Paul Myer **Date:** 9/17/14

Number or Name	30,000 gal	60,000 gal	270,000 gal
Date Constructed	1950s	1960s	2010
Purpose (storage, sand trap, etc)	Storage/ Cl Contact	Storage/ Cl Contact	Storage/Cl Contact
Capacity	30,000 gal	60,000 gal	270,000 gal
Location			
Specific Location (cross streets, etc)	St Francis Retreat	St Francis Retreat	St Francis Retreat
Neighborhood			
Size of Lot			
Fencing			
Construction			
Material: Sides	Concrete	Concrete	Steel
Floor	Concrete	Concrete	Steel
Cover or Roof	Metal	Metal	Steel
Height Top of Walls Above Ground	8'	8'	20'
Surface Drainage to Reservoir Possible?	No	No	No
Ventilation	Yes	Yes	Yes
Screening	Yes	Yes	Yes
Inlet and Outlet Arrangement			
Inlet: Location	Top		Top
Distance Above Bottom	7'	7'	19'
Outlet: Distance From Inlet	15'		
Distance Above Bottom	6"		
Drain to Where	Landscape	Landscape	Rock Dissipater
Overflow to Where	Landscape	Landscape	Rock Dissipater
Sewer or Other Hazardous Connection (If so, attach sketch)	No	No	No
Relation to System			
Receives From	Treatment System	Treatment System	Treatment System
Delivers To	Distribution System	Distribution System	Distribution System
Defects and Remarks (Include statements on cleaning practices, condition of structure -- particularly of roof, dimensions and shape of reservoir, leakage, kind and location of access openings, protection against insects, birds, and rodents.)			

RESERVOIR DATA SHEET.DOC

State of California
Drinking Water Field
Operations Branch

System Information Sheet

Department of Public Health
Monterey District

Water System Name: **St Francis Retreat Center**

System Number: **3500537**

Ownership and Contact Information

System Owner:	St. Francis Retreat	Primary Contact Person:	Ed DeGroot
Address:	549 Mission Vineyard Rd.	Title:	Business Manager
	San Juan Bautista	Address:	549 Mission Vineyard Rd.
Telephone No:	(831) 623-4234		San Juan Bautista
		Telephone No:	(831) 623-4234

Principal Features of System

Sources of Supply

Source Name	Source type *(creek, spring, well, etc.)*	Capacity *(gpm)*	Frequency of use	Comments
Well #1	Well	40 gpm	11,000 GPD	None

Treatment Provided

Describe type of treatment, reason provided, chemicals added, filtration type, waste discharge:

Proposed: Multi-Barrier Treatment System – Dual Bag Filtration for compliance with drinking water rules

Proposed: Chlorine Oxidation and Disinfection

Existing: Chlorine Disinfection

Proposed: Deep Bed Manganese Greensand Media Filter for pretreatment to bag filters and removal of Fe & Mn

Proposed: Waste Discharge: Backwash from Media Filter to Lake

Pumping Facilities

List number of booster pumps & capacity:

Proposed: Duplex Booster Pump System (Two pumps total) / Capacity (Each pump): 2HP, 20 GPM @ 240' TDH

Existing: One well pump / Capacity: 20 GPM

Storage Tanks

Storage Tank Name	Capacity *(gallons)*	Tank Material	Interior Coating Material	Condition
30,000 Gallon	30,000	Reinforced Concrete	Concrete mortar	Standby
60,000 Gallon	60,000	Reinforced Concrete	Concrete mortar	Good
270,000 Gallon	270,000	Steel	Powder Epoxy	Excellent

Pressure Zones

List names, approximate number of connections and population served for each zone:

St Francis Retreat Center has only one pressure zone

Distribution System

Complete the Distribution Data Sheet *(Attachment A4) and* ***attach a detailed map*** *showing the locations and sizes of water distribution mains, storage tanks, wells or other sources, booster pumps and any treatment facilities. All facilities should be labeled with names such as "Well 1".*

Consumer Data

Number of Active Connections: **Metered:** NA **Flat Rate:** NA **Total:** NA

Number of Each: Residential 3 Commercial 4 Industrial ____
Agricultural ____ Other ____

Population: Permanent: 5 Seasonal: ____ Season Dates (*M/D*): Start ____ End ____

Community or Area Served:
Staff and Guests at Retreat Center Only

General description of activities performed at site: *(type of business, residential only, school, etc)*
Retreat Center

Water Use Data

Data Provided for Calendar Year: 2013

	Gallons Produced by Water System	Gallons Purchased from Others	Gallons Sold to Other Utilities
Total Annual	3,466,480	0	0
Maximum Month	418,095	0	0
Maximum Day	27,660	0	0

These figures are based on: Meter Readings ☒ Estimates ☐ Other (Specify) ____

Printed Name: Edward J. DeGroot	Title: Sys. Op.
Signature: Edward J. DeGroot	Date: 9/24/2014

State of California
Drinking Water Field
Operations Branch

Chlorination Data

Department of Public Health
Monterey District

System Name: St. Francis Retreat Center **System No.:** 3500537
Source of Information: St. Francis Retreat
Collected by: Fall Creek Engineering: Paul Myer **Date:** 9/17/14

Reason for chlorination (emergency, mandatory, optional): Mandatory
Water Source: Well Water treated (raw/filtered etc.): Filtered
Chlorine demand char: 0.6 mg/L Dosage: 1 mg/L (0.5 GPD)
Point of application: Before and after filtration Mixing, adequate?: yes
Contact time before use: 130 minutes Contact time for residual test: 130 minutes

Water Flow
Variation: 20 GPM How measured Digital Flow Meter

Equipment
Type: Chlorine Metering Pump Systems
Make: Stenner Model: Oxidation: 45MHP10 / Disinfection: 45MHP2
Capacity: 10 GPD Condition: New
Auto. switchover capability? Yes Portable emergency chlorinator available? Yes
Chlorine residual monitored continuously? Yes Low level residual alarm? Yes
At what level of chlorine residual is the alarm activated? 0.4 mg/L
How often are residual analyses conducted? Continuously
Type of residual measured (free or combined): Free or total
Type of residual test used: Colorimetric DPD chemistry

Chemical added (% available chlorine, form):
12.5% Liquid chlorine
Cylinder or crock capacity: 35 gallon
Stock on hand/days supply: One Month Supply

Housing and Safety Features
Housing: Snyder Chemical Feed Station (Double Containment)
Insulation: Double Containment
Heating: None
Locks: Yes
Lighting: Yes
Ventilation: Yes
Leak detector with alarm: No
Switches outside chlorination room: No
Gas mask: Yes
Is an emergency plan of action posted? Yes, it will be

Operation and maintenance
Lapse during changes: No
Ability to make repairs: Yes
How often is the equipment inspected? Monthly
Operations records kept: Yes
Condition of scales: NA

Remarks and deficiencies:

Appendix D
Water Treatment Operator Worksheet

TREATMENT FACILITY CLASSIFICATION WORKSHEET

System Name: ***St. Francis - SWTP at Well 1***

System Number: ***3500537*** ***Date of Evaluation: 10/3/2017***

Source Water — Part 1

- ( ) Ground Water.....2pts
- (•) Surface Water.....5pts

Points: 5

Median Coliform Density — Part 2

- ( ) < 1 per 100ml.....0 pts
- (•) 1 - 100 per 100ml.....2 pts
- ( ) >100 - 1000 per 100ml.....4 pts
- ( ) > 1000 - 10,000 per 100ml.....6 pts
- ( ) > 10,000 per 100 ml.....8 pts

Points: 2

Influent Water Turbidity Level — Part 3

- (•) < 15 NTU.....0 pts
- ( ) 15 - 100 NTU.....2 pts
- ( ) >100 NTU.....5 pts

Points: 0

Influent Water Nitrate and Nitrite — Part 4

- (•) < /= MCL.....0 pts
- ( ) > MCL.....5 pts

Points: 0

Primary Contaminants with MCL's — Part 5

If all contaminants are less than the MCL put "0" here...
or enter the number of Contaminants...

0 Greater than the MCL.....2 pts each

0 5 X the MCL or greater.....5 pts each

Points: 0

S. W. Filtration Treatment — Part 6

- [ ] Conventional, direct, or inline.....15
- [ ] Diatomaceous Earth.....12 pts
- [x] Slow sand, membrane, cartridge, or bag filter.....8
- [ ] Backwash recycled as part of process.....5

Points: 8

Treatment Processes used to reduce Primary MCL's — Part 7

[ ] # of processes used to reduce contaminants with primary MCL's.....10 pts each

Points: 0

Treatment Processes used to reduce Secondary MCL's — Part 8

1 # of processes used to reduce contaminants with secondary MCL's.....3 pts each

Points: 3

Treatment Processes used for corrosion control or fluoridation — Part 9

0 # of processes for corrosion control and fluoridation.....3 pts each

Points: 0

Disinfection Treatment — Part 10

- [ ] Ozone.....10 pts
- [x] Chlorine and/or chloramine.....10 pts
- [ ] Chlorine dioxide.....10 pts
- [ ] Ultra violet (UV).....7 pts

Points: 10

Disinfection/Oxidation Treatment without Inactivation Credit — Part 11

- [ ] Ozone.....5 pts
- [ ] Chlorine and/or chloramine.....5 pts
- [ ] Chlorine dioxide.....5 pts
- [ ] Ultra violet (UV).....3 pts
- [ ] Other Oxidants.....5 pts

Points: 0

Treatment Processes that alter physical or chemical properties — Part 12

0 # of processes that alter the physical or chemical characteristics of D.W....3 pts each

Points: 0

Treatment Facility Flow — Part 13

1 Flow in MGD, worth 2 points per MGD, up to 50 points. See description for blended water.

Points: 2

The Classification for this Treatment Facility is **T2**

Total Points 30

Calculate | Clear All

<20 pts = T1
20 - 39 pts = T2
40 - 59 pts = T3
60 - 79 pts = T4
>79 pts = T5

Part 2: Median Coliform Density
Revised using coliform data submitted for LT2
LT2 data for Davenport fell under the <100 col./100ml (per Troy Boone email 1/27/2011)

Part 3: Influent Water Turbidity Level
Revised influent turbidity based on Proposed Operations Plan:
O & M Manual, on page 12/56, Table 2: Water Quality, it states a Raw Water Turbidity range of <50 NTU.
(Per Troy Boone email 2/1/2011)

Appendix E
Service Area Map

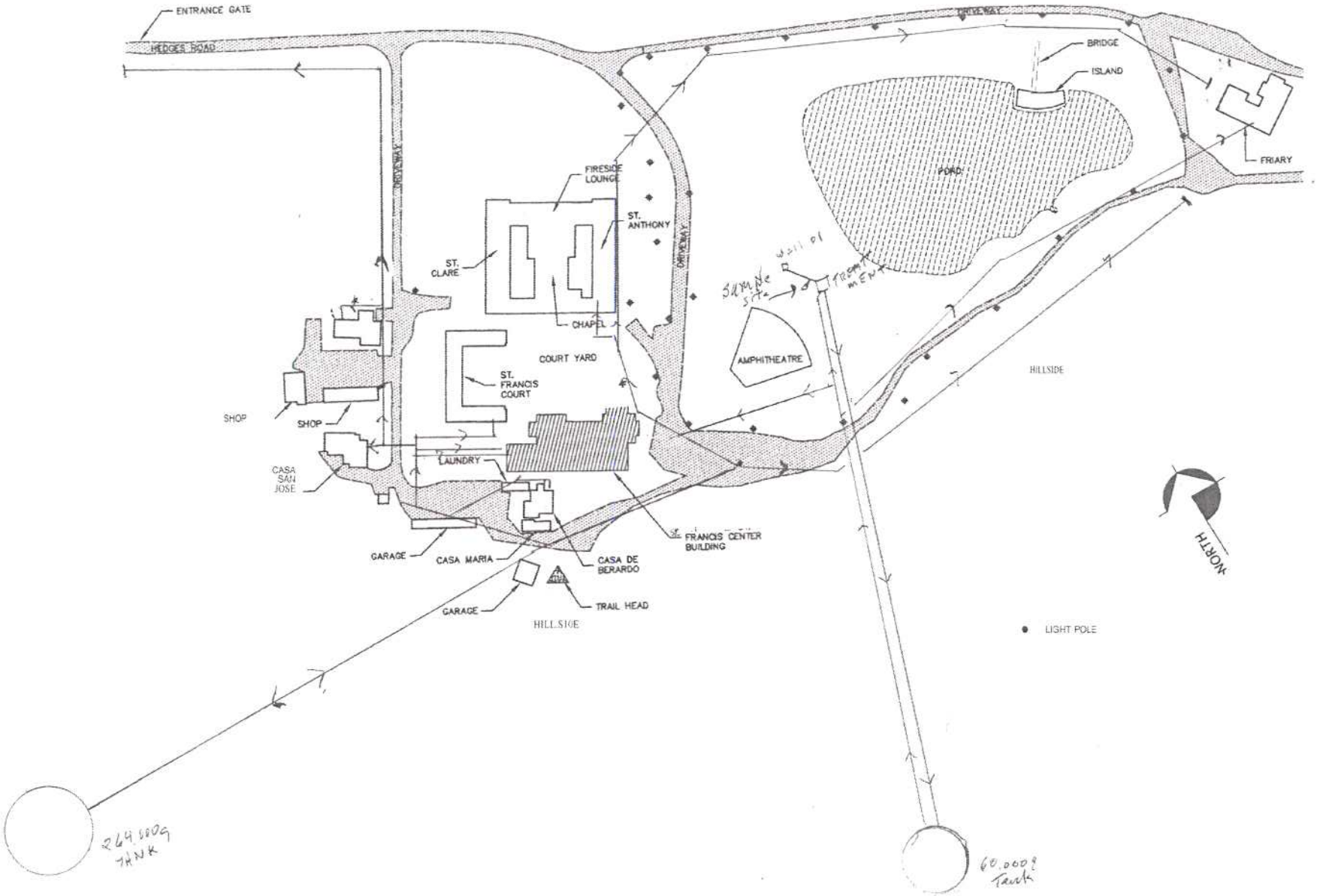
ENTRANCE GATE
HEDGES ROAD
DRIVEWAY
DRIVEWAY
DRIVEWAY
BRIDGE
ISLAND
POND
FRIARY
FIRESIDE LOUNGE
ST. ANTHONY
ST. CLARE
CHAPEL
COURT YARD
ST. FRANCIS COURT
AMPHITHEATRE
HILLSIDE
SHOP
SHOP
CASA SAN JOSE
LAUNDRY
GARAGE
CASA MARIA
CASA DE BERARDO
FRANCIS CENTER BUILDING
GARAGE
TRAIL HEAD
HILLSIDE
NORTH
LIGHT POLE
264,000g TANK
60,000g Tank

13067

13018

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2800625

Mike Fink, Facilities Director
St. Helena Hospital
10 Woodland Road
St. Helena, CA 94574

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2800625

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Mike Fink:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the St. Helena Hospital (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2800625

cc: Napa County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

St. Helena Hospital
(Public Water System No. 2800625)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2800625/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Lori Rodgers, General Manager
Stallion Springs Community Services District
27800 Stallion Springs Dr.
Tehachapi, CA 93561

Dear Ms. Rodgers:

ISSUANCE OF PERMIT AMENDMENT: 1510025-2017PA_SCHOOLS (System No. 1510025)

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Stallion Springs Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The water system to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 1510025-2017PA_Schools

cc: Kern County Dept. of Public Health, Environmental Health Services Division (w/out enclosure)
Al White, Stallion Springs CSD (via email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Stallion Springs Community Services District
(Public Water System No. 1510025)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **1510025-2017PA-SCHOOLS**

EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **June 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday or Thursday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling and a link to the DDW Lead Sampling in California Schools website that contains the sample results.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Jaswinder S. Dhaliwal

Dated: January 17, 2017

Jaswinder S. Dhaliwal, P.E.
Senior Sanitary Engineer, Tehachapi District
Central California Section
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
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MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Tom Zigterman
Stanford University, System No. 4310013
327 Bonair Siding Road
Stanford, CA 94305

Dear Mr. Zigterman:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Stanford University water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Stanford University
(Public Water System No. *4310013*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2110004

Ed Schmidt, General Manager
Stinson Beach County Water District
P.O. Box 245
Stinson Beach, CA 94970

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2110004

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Ed Schmidt:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Stinson Beach County Water Dist (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2110004

cc: Marin County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Stinson Beach County Water Dist
(Public Water System No. 2110004)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

2110004/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Board of Directors
Stratford Public Utility District, System No. 1610006
P.O. Box 85
Stratford, CA 93266

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Board of Directors:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Stratford Public Utility District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Stratford Public Utility District
(Public Water System No. *1610006*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Adrian Ordonez, General Manager
Strathmore Public Utility District, System No. 5410012
P.O. Box 425
Strathmore, CA 93267

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Adrian Ordonez:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Strathmore Public Utility District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Strathmore Public Utility District
(Public Water System No. *5410012*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

THEO PROVENCIO
PRESIDENT
STRICKLAND ACRES, System No. 5602117
4952 Joan Way
OXNARD, CA 93036

Dear: THEO PROVENCIO

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the STRICKLAND ACRES water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

STRICKLAND ACRES
(Public Water System No. *5602117*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

553. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

554. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

555. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

556. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

557. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

558. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

559. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

560. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

622. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

623. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

624. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

625. The water system may stop lead sampling at a school if:

qqqqqqqqqqq. All initial samples are less than or equal to 15 ppb; or

rrrrrrrrrrr. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxxxix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxl. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ssssssssssss. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

tttttttttttt. If requested in writing by the school's authorized school representative.

626. The water system is responsible for the following costs:

iiiiii. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

jjjjjj. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

627. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

628. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

629. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

hhhhhhhhhhhhhh. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

iiiiiiiiiiiiii. The date of the request;

jjjjjjjjjjjjj. The date of the initial meeting;

kkkkkkkkkkkkkk. The date of the sampling plan along with a copy of each sampling plan; and

lllllllllllll. The date of initial lead sampling and all repeat samples.

630. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

John Brettl
VP Quality Assurance
Suburban Water Systems-Covina Knolls
1325 N. Grand Avenue, #100
Covina, CA 91724

Dear John Brettl:

System No: 1910200 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Suburban Water Systems-Covina Knolls water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910200 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910200 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Suburban Water Systems-Covina Knolls

Los Angeles County
System No. 1910200

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Suburban Water Systems-Covina Knolls
Public Water System No. *1910200*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

John Brettl
VP Quality Assurance
Suburban Water Systems-Glendora
1325 N. Grand Avenue, #100
Covina, CA 91724

Dear John Brettl:

System No: 1910046 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Suburban Water Systems-Glendora water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910046 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910046 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Suburban Water Systems-Glendora

Los Angeles County
System No. 1910046

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Suburban Water Systems-Glendora
Public Water System No. *1910046*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

John Brettl
VP Quality Assurance
Suburban Water Systems-La Mirada
1325 N. Grand Avenue, #100
Covina, CA 91724

Dear John Brettl:

System No: 1910059 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Suburban Water Systems-La Mirada water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910059 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910059 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Suburban Water Systems-La Mirada

Los Angeles County
System No. 1910059

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Suburban Water Systems-La Mirada
Public Water System No. *1910059*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Kenneth Reich
QA Manager
Suburban Water Systems-San Jose
1325 N. Grand Avenue, #100
Covina, CA 91724

Dear Kenneth Reich:

System No: 1910205 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Suburban Water Systems-San Jose water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910205 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910205 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Suburban Water Systems-San Jose

Los Angeles County
System No. 1910205

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Suburban Water Systems-San Jose
Public Water System No. *1910205*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

California Water Boards

Edmund G. Brown Jr.
Governor

Matthew Rodriquez
Secretary for Environmental Protection

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

John Brettl
VP Quality Assurance
Suburban Water Systems-Whittier
1325 N. Grand Avenue, #100
Covina, CA 91724

Dear John Brettl:

System No: 1910174 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Suburban Water Systems-Whittier water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Suburban Water Systems-Whittier

Los Angeles County
System No. 1910174

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

Bcc: Copy of Permit - 1910174 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910174 Permit No: 2017PA_SCHOOLS 20170117

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Suburban Water Systems-Whittier
Public Water System No. *1910174*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA4810005

Cary Keaten
General Manager
Suisun-Solano Water Authority
810 Vaca Valley Pkwy Ste 201
Vacaville, CA 95688-8834

Dear Cary Keaten:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Suisun-Solano Water Authority water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Solano County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Suisun-Solano Water Authority
(Public Water System No. *CA4810005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
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Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Celeste Perez
Secretary
Sultana CSD, System No. 5400824
P.O. Box 158
Sultana, CA 93666

Dear: Celeste Perez

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Sultana CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sultana CSD
(Public Water System No. 5400824)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SUMNER PECK RANCH
Public Water System No. *1009232*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_083**
EFFECTIVE DATE**: January 17, 2017**

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5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

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7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

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1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Don Rosa, General Manager
Sunny Mesa Water System, System No. 2700773
136 San Juan Road
Royal Oaks, CA. 95076

Dear Mr. Rosa:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Sunny Mesa Water System water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SUNNY MESA WATER SYSTEM
(Public Water System No. *2700773*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Ken Tcheng
General Manager
Sunny Slope Water Co.
1040 El Campo Drive
Pasadena, CA 91107

Dear Ken Tcheng:

System No: 1910157 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Sunny Slope Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910157 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910157 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Sunny Slope Water Co.

Los Angeles County
System No. 1910157

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sunny Slope Water Co.
Public Water System No. *1910157*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SUNNYSIDE CONVALESCENT HOSP
Public Water System No. *1000366*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_048**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Donald Ridenhour, General Manager
Sunnyslope County Water District, System No. 3510003
3570 Airline Highway
Hollister, CA. 95023

Dear Mr. Ridenhour:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Sunnyslope County Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SUNNYSLOPE COUNTY WATER DISTRICT
(Public Water System No. *3510003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

bbbb. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

357. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

358. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

359. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

nnnnnnnn. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

oooooooo. The date of the request;

pppppppp. The date of the initial meeting;

qqqqqqqq. The date of the sampling plan along with a copy of each sampling plan; and

rrrrrrrr. The date of initial lead sampling and all repeat samples.

360. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Russell Broyles
President
Sunrise Mutual Water Co., System No. 5400881
P.O. Box 492
Visalia, CA 93279

Dear: Russell Broyles

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Sunrise Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sunrise Mutual Water Co.
(Public Water System No. 5400881)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SUNSET WEST COMMUNITY LLC
Public Water System No. *1000378*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_051**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

Danelle Stylos
Director
SUTTER CO. WWD#1 (ROBBINS), System No. 5100107
1130 Civic Center Blvd. Suite A
YUBA CITY, CA 95993

Dear : Danelle Stylos

ISSUANCE OF PERMIT AMENDMENT 010293P51002A2

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SUTTER CO. WWD#1 (ROBBINS) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

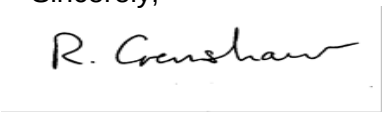

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 010293P51002A2

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SUTTER CO. WWD#1 (ROBBINS)
(Public Water System No. *5100107*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***010293P51002A2***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

Geri Goetzinger
General Manager
SUTTER COMMUNITY S.D., System No. 5110007
P.O. BOX 710
SUTTER, CA 95982

Dear : Geri Goetzinger

ISSUANCE OF PERMIT AMENDMENT 010293P002A4

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SUTTER COMMUNITY S.D. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

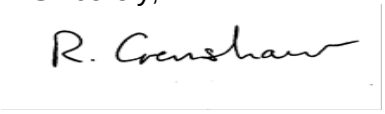

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 010293P002A4

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SUTTER COMMUNITY S.D.
(Public Water System No. *5110007*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***010293P002A4***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD
OPERATIONS BRANCH

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

James Smyth
General Manager
Sweetwater Authority, System No. 3710025
PO BOX 2328
Chula Vista, CA 91912

Dear James Smyth:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Sweetwater Authority water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sweetwater Authority
(Public Water System No. *3710025*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 4910028

Stephen Mack, General Manager
Sweetwater Springs CWD - Monte Rio
P.O. Box 48
Guerneville, CA 95446

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910028

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Stephen Mack:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Sweetwater Springs CWD - Monte Rio (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910028

cc: Kevin Gilman, Field Manager, P.O. Box 48, Guerneville, CA 95446
Sonoma County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Sweetwater Springs CWD - Monte Rio
(Public Water System No. 4910028)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910028/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Tahoe City PUD - Main
(Public Water System No. 3110010)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water. Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically

found at the highest levels on “first draw” samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these “first draw” samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer’s tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school’s lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school’s water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs “*3Ts for Reducing Lead in Drinking Water in Schools*” as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT

Issued To

Tahoe City PUD - Timberland
Public Water System # 3100029

By
Placer County Environmental Health Division

ORIGINAL PERMIT NO. 291 **DATE OF ISSUE:** January 3, 2018

PERMIT AMENDMENT NO. 2017PA-SCHOOLS **EFFECTIVE DATE:** August 16, 2017

WHEREAS:

1. Placer County Environmental Health (PCEH) has delegated authority to issue domestic water supply permits pursuant to Health and Safety Code Section 116540.

2. Placer County Environmental Health "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [PCEH] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

3. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

4. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

5. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

6. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

7. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The State Water Resources Control Board (SWRCB) is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

8. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

9. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: Placer County Environmental Health hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

    a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

    b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by PCEH.

    c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

    d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

    e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

    f. Submit the samples to an ELAP certified laboratory for analysis of lead.

    g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

    h. Provide a copy of the results to the requesting authorized school representative.

    i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

    j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

        i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

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i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to PCEH OR DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

Danielle Pohlman

_____ **Date: 01/03/18**

Danielle Pohlman
Registered Environmental Health Specialist
Placer County Environmental Health Division

January 17, 2017

DAWN WHITE
WATER QUALITY MANAGER
GOLDEN STATE WATER COMPANY - TANGLEWOOD, System No. 4210021
401 S. San Dimas Canyon Road
SAN DIMAS, CA 91773

Dear: DAWN WHITE

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the GOLDEN STATE WATER COMPANY - TANGLEWOOD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

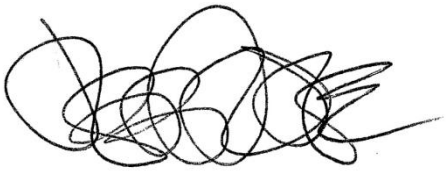

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

GOLDEN STATE WATER COMPANY - TANGLEWOOD

(Public Water System No. *4210021*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

361. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

362. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

363. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

364. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

365. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

366. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

367. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

368. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

406. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

407. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

408. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

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iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

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k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

409. The water system may stop lead sampling at a school if:

yyyyyyy. All initial samples are less than or equal to 15 ppb; or

zzzzzzz. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xci. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xcii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

aaaaaaaa. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

bbbbbbbb. If requested in writing by the school's authorized school representative.

410. The water system is responsible for the following costs:

mmmm. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

nnnn. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

411. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

412. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

413. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

rrrrrrrrr. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

sssssssss. The date of the request;

ttttttttt. The date of the initial meeting;

uuuuuuuuu. The date of the sampling plan along with a copy of each sampling plan; and

vvvvvvvvv. The date of initial lead sampling and all repeat samples.

414. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Jeff Pape
General Manager
Temescal Valley Water District, System No. 3310074
22646 Temescal Canyon Rd.
Corona, CA 92883

Dear Jeff Pape:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Temescal Valley Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Temescal Valley Water District
(Public Water System No. 3310074)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

JEFF BRILTZ
GENERAL MANAGER
TEMPLETON CSD, System No. 4010019
PO Box 780
TEMPLETON, CA 93465

Dear: JEFF BRILTZ

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the TEMPLETON CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

TEMPLETON CSD
(Public Water System No. *4010019*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

161. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

162. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

163. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

164. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

165. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

166. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

167. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

168. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

181. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

182. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

183. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

184. The water system may stop lead sampling at a school if:

cccc. All initial samples are less than or equal to 15 ppb; or

dddd. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xli. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xlii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

eeee. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ffff. If requested in writing by the school's authorized school representative.

185. The water system is responsible for the following costs:

oo. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

pp. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

186. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

187. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

188. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

wwww. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

xxxx. The date of the request;

yyyy. The date of the initial meeting;

zzzz. The date of the sampling plan along with a copy of each sampling plan; and

aaaaa. The date of initial lead sampling and all repeat samples.

189. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Sean Geivet, Manager
Terra Bella Irrigation District, System No. 5410038
24790 Avenue 95
Terra Bella, CA 93270

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Sean Geivet:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Terra Bella Irrigation District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Terra Bella Irrigation District
(Public Water System No. *5410038*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

TERRA LINDA FARMS
Public Water System No. *1009222*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_082**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy Lichti

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Chris Taylor, President
Terrace Water Company
System No. 3610048
925 Jackson Street
Colton, CA 92324

Dear: Chris Taylor,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Terrace Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Terrace Water Company
(Public Water System No. *3610048*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Frank Galaviz
Board President
Teviston CSD, System No. 5400641
P.O. BOX T
Pixley, CA 93256

Dear: Frank Galaviz

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Teviston CSD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Teviston CSD
(Public Water System No. 5400641)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jeri Gagne
Onsite Manager
The Lakes Association, System No. 5400880
1605 N. Tamarack
Visalia, CA 93291

Dear: Jeri Gagne

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the The Lakes Association water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

The Lakes Association
(Public Water System No. 5400880)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Mr. Jayme Boucher
Manager
THERMALITO WATER & SEWER DISTRICT, System No. 410008
410 GRAND AVENUE
OROVILLE, CA 95965

Dear : Mr. Jayme Boucher

ISSUANCE OF PERMIT AMENDMENT 75-015A3

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the THERMALITO WATER & SEWER DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

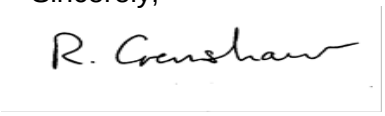

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

Enclosure: 75-015A3

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

THERMALITO WATER & SEWER DISTRICT
(Public Water System No. *410008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. ***75-015A3***
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

R. Crenshaw

Dated: January 17, 2017

Reese B. Crenshaw, P.E.
Valley District Engineer
DRINKING WATER FIELD OPERATIONS BRANCH

January 17, 2017

JAY SPURGIN
PUBLIC WORKS DIRECTOR
THOUSAND OAKS WATER DEPT, System No. 5610020
2100 Thousand Oaks Boulevard
THOUSAND OAKS, CA 91362

Dear: JAY SPURGIN

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the THOUSAND OAKS WATER DEPT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

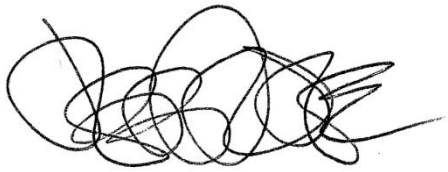

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

THOUSAND OAKS WATER DEPT
(Public Water System No. *5610020*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

713. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

714. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

715. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

716. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

717. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

718. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

719. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

720. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

802. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

803. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

804. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

805. The water system may stop lead sampling at a school if:

ssssssssssssss. All initial samples are less than or equal to 15 ppb; or

ttttttttttttt. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clxxix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clxxx. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

uuuuuuuuuuuuuu. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

vvvvvvvvvvvvvv. If requested in writing by the school's authorized school representative.

806. The water system is responsible for the following costs:

wwwwwww. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

xxxxxxx. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

807. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

808. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

809. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

ddddddddddddddddd. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

eeeeeeeeeeeeeeeee. The date of the request;

fffffffffffffffff. The date of the initial meeting;

ggggggggggggggggg. The date of the sampling plan along with a copy of each sampling plan; and

hhhhhhhhhhhhhhhhh. The date of initial lead sampling and all repeat samples.

810. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

THREE PALMS MOBILEHOME PARK
Public Water System No. *1000299*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_044**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/7/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Roy Shull, General Manager
Thunderbird CWD
System No. 3600306
P.O. Box 1105
Apple Valley, CA 92307

Dear: Roy Shull,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Thunderbird CWD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Thunderbird CWD
(Public Water System No. *3600306*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

FRANCES FITTING
SECRETARY/TREASURER
TICO MUTUAL WATER CO, System No. 5601122
1790 South Rice Road
OJAI, CA 0

Dear: FRANCES FITTING

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the TICO MUTUAL WATER CO water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

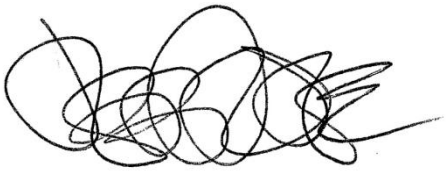

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

TICO MUTUAL WATER CO
(Public Water System No. *5601122*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

449. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

450. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

451. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

452. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

453. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

454. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

455. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

456. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

505. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

506. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

507. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

508. The water system may stop lead sampling at a school if:

qqqqqqqqq. All initial samples are less than or equal to 15 ppb; or

rrrrrrrrr. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxiii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxiv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

sssssssss. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ttttttttt. If requested in writing by the school's authorized school representative.

509. The water system is responsible for the following costs:

iiiii. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

jjjjj. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

510. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

511. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

512. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

uuuuuuuuuuu. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

vvvvvvvvvvv. The date of the request;

wwwwwwwwwww. The date of the initial meeting;

xxxxxxxxxxx. The date of the sampling plan along with a copy of each sampling plan; and

yyyyyyyyyyy. The date of initial lead sampling and all repeat samples.

513. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Johnny Price, Superintendent
Tipton Community Services District, System No. 5410014
P.O. Box 266
Tipton, CA 93272

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Johnny Price:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Tipton Community Services District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Tipton Community Services District
(Public Water System No. *5410014*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Reuben Salazar
President
Tooleville Mutual Non Profit Water Ass., System No. 5400567
2313 E. Morgan
Exeter, CA 93221

Dear: Reuben Salazar

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Tooleville Mutual Non Profit Water Ass. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Tooleville Mutual Non Profit Water Ass.
(Public Water System No. 5400567)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Alan Berndt
Water Superintendent
Torrance-City, Water Dept.
20500 Madrona Avenue
Torrance, CA 90503

Dear Alan Berndt:

System No. 1910213- ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Torrance-City, Water Dept. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Shu-Fang Orr

Shu-Fang Orr, P.E.
District Engineer
Angeles District

Enclosure: Permit Amendment 2017PA_Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

ENCLOSURE

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Torrance-City, Water Dept.
Public Water System No. *1910213*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Shu-Fang Orr

Dated: January 17, 2017

Shu-Fang Orr
Angeles District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 PWS No. CA0710009

Virgil Koehne
Water Manager
Town of Discovery Bay
1800 Willow Lake Road
Discovery Bay, CA 94505-9376

Dear Virgil Koehne:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Town of Discovery Bay water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Contra Costa County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Town of Discovery Bay
(Public Water System No. *CA0710009*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017 PWS No. CA0110012

Andrew DeGraca
Water Quality Division Director
SFPUC - Town of Sunol
1657 Rollins Road
Burlingame, CA 94010

Dear Andrew DeGraca:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the SFPUC - Town of Sunol water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Alameda County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

SFPUC - Town of Sunol
(Public Water System No. *CA0110012*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 4910017

Toni Bertolero, Public Works Director
Windsor, Town Of
P.O. Box 100
Windsor, CA 95492

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910017

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Toni Bertolero:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Windsor, Town Of (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910017

cc: Richard Bartlett, P.O. Box 100, Windsor, CA 95492
Michael Cave, P.O. Box 100, Windsor, CA 95492
Sonoma County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Windsor, Town Of
(Public Water System No. 4910017)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910017/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2810007

Don Moore, Utility Ops Supervisor
Town Of Yountville
6550 Yount Street
Yountville, CA 94599

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2810007

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Don Moore:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Town Of Yountville (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2810007

cc: Napa County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Town Of Yountville
(Public Water System No. 2810007)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2810007/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Mr. Hector Ruiz
General Manager
Trabuco Canyon Water District, System No. 3010094
32003 Dove Canyon Dr
Trabuco Canyon, CA 92679

Dear Mr. Ruiz:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Trabuco Canyon Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Trabuco Canyon Water District
(Public Water System No. 3010094)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Joleen Palmer
Secretary
Tract 92 CSD, System No. 5400903
P.O. Box 276
Farmersville, CA 93223

Dear: Joleen Palmer

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

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If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

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If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Tract 92 CSD
(Public Water System No. 5400903)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

George Perez
CEO/President
Tract 180 Mutual Water Co.
4544 Florence Avenue
Cudahy, CA 90201

Dear George Perez:

System No: 1910159 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Tract 180 Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910159 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910159 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Tract 180 Mutual Water Co.

Los Angeles County
System No. 1910159

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Tract 180 Mutual Water Co.
Public Water System No. *1910159*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Martin Susnir
General Manager
Tract 349 Mutual Water Co.
4630 Santa Ana Street
Cudahy, CA 90201

Dear Martin Susnir:

System No: 1910160 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Tract 349 Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910160 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910160 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Tract 349 Mutual Water Co.

Los Angeles County
System No. 1910160

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Tract 349 Mutual Water Co.
Public Water System No. *1910160*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

TRACT 1199 WATER SYSTEM
Public Water System No. *1000075*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_025**
EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

TRANQUILLITY IRRIGATION DISTRICT
Public Water System No. *1010030*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_100**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017 PWS No. CA4810701

Edison Y. Kim
Flt Chief, Bioenv Eng.
Travis Air Force Base - Distribution
106 Bodin Circle, Bldg. 791
Travis AFB, CA 94535-1800

Dear Edison Y. Kim:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Travis Air Force Base - Distribution water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Stefan Cajina, P.E., Chief
North Coastal Section
State Water Resources Control Board
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Solano County Environmental Health Department

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Travis Air Force Base - Distribution
(Public Water System No. *CA4810701*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Stefan Cajina, P.E., Chief
North Coastal Section
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Raymond Creech, General Manager
Tres Pinos CWD, System No. 3500509
PO Box 1001
Tres Pinos, CA. 95075

Dear Mr. Creech:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Tres Pinos CWD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml

for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jan Sweigert

Jan R. Sweigert, P.E.
District Engineer, Monterey District Office
Northern California Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

TRES PINOS CWD
(Public Water System No. *3500509*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Jan Sweigert

Jan Sweigert, P.E., District Engineer
Monterey District Engineer
Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Jan McKinley
President
Triple R Mutual Water Co., System No. 5400670
16521 Mustang Drive
Springville, CA 93265

Dear: Jan McKinley

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Triple R Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Triple R Mutual Water Co.
(Public Water System No. 5400670)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 PWS No. 2910003

Michael Holley
General Manager
Truckee-Donner Public Utility District - Main, System No. 2910003
11570 Donner Pass Road
Truckee, CA 96161

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-2910003

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Truckee-Donner Public Utility District - Main public water system water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
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Please visit the Division's school lead sampling webpage at:
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If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA-Schools-2910003

cc: Nevada County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Truckee-Donner Public Utility District - Main
Public Water System
(Public Water System No. 2910003)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-2910003**
EFFECTIVE DATE**: January 17, 2017**

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2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Ali R. Rezvani, P.E.
Sacramento District Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

January 17, 2017
Date

APPENDIX A

SAMPLING GUIDANCE

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 5510013
January 17, 2017

DON PERKINS, OPERATIONS MANAGER
TUD - COLUMBIA WATER SYSTEM
18885 Nugget Blvd
SONORA, CA 95370

Dear DON PERKINS,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the TUD - COLUMBIA WATER SYSTEM water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tuolumne Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

TUD - COLUMBIA WATER SYSTEM
(Public Water System No.: *5510013*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

305. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

306. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

307. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

308. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

309. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

310. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

311. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

312. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

343. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

344. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

345. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

346. The water system may stop lead sampling at a school if:

wwwwww. All initial samples are less than or equal to 15 ppb; or

xxxxxx. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxxvii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxxviii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

yyyyyy. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

zzzzzz. If requested in writing by the school's authorized school representative.

347. The water system is responsible for the following costs:

yyy. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

zzz. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

348. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

349. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

350. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

iiiiiiii. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

jjjjjjjj. The date of the request;

kkkkkkkk. The date of the initial meeting;

llllllll. The date of the sampling plan along with a copy of each sampling plan; and

mmmmmmmm. The date of initial lead sampling and all repeat samples.

351. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

609. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
610. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
611. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
612. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
613. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
614. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
615. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

616. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
617. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
618. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
619. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
620. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
621. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
622. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
623. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
624. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

267. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
268. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
269. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

270. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
271. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
272. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
273. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

191. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
192. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
193. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
194. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
195. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
119. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
120. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

121. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

267. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
268. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
269. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
270. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
271. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
272. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
273. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 5510003
January 17, 2017

DON PERKINS, OPERATIONS MANAGER
TUD - TUOLUMNE WATER SYSTEM
18885 Nugget Blvd
SONORA, CA 95370

Dear DON PERKINS,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the TUD - TUOLUMNE WATER SYSTEM water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tuolumne Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

TUD - TUOLUMNE WATER SYSTEM
(Public Water System No.: *5510003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

241. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

242. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

243. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

244. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

245. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

246. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

247. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

248. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

271. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

272. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

273. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

274. The water system may stop lead sampling at a school if:

qqqqq. All initial samples are less than or equal to 15 ppb; or

rrrrr. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

sssss. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ttttt. If requested in writing by the school's authorized school representative.

275. The water system is responsible for the following costs:

iii. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

jjj. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

276. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

277. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

278. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

uuuuuu. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

vvvvvv. The date of the request;

wwwwww. The date of the initial meeting;

xxxxxx. The date of the sampling plan along with a copy of each sampling plan; and

yyyyyy. The date of initial lead sampling and all repeat samples.

279. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

481. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
482. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
483. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
484. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
485. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
486. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
487. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

488. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
489. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
490. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
491. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
492. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
493. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
494. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
495. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
496. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

211. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
212. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
213. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

214. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
215. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
216. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
217. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

151. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
152. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
153. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
154. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
155. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
95. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
96. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

97. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

211. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
212. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
213. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
214. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
215. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
216. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
217. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 5510012
January 17, 2017

DON PERKINS, OPERATIONS MANAGER
TUD - UPPER BASIN WATER SYSTEM
18885 Nugget Blvd
SONORA, CA 95370

Dear DON PERKINS,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the TUD - UPPER BASIN WATER SYSTEM water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tuolumne Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

TUD - UPPER BASIN WATER SYSTEM
(Public Water System No.: *5510012*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

297. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

298. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

299. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

300. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

301. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

302. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

303. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

304. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

334. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

335. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

336. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

337. The water system may stop lead sampling at a school if:

ssssss. All initial samples are less than or equal to 15 ppb; or

tttttt. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxxv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxxvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

uuuuuu. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

vvvvvv. If requested in writing by the school's authorized school representative.

338. The water system is responsible for the following costs:

www. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

xxx. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

339. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

340. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

341. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

ddddddd. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

eeeeeeee. The date of the request;

fffffff. The date of the initial meeting;

ggggggg. The date of the sampling plan along with a copy of each sampling plan; and

hhhhhhhh. The date of initial lead sampling and all repeat samples.

342. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

593. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
594. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
595. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
596. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
597. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
598. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
599. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

600. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
601. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
602. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
603. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
604. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
605. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
606. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
607. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
608. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

260. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
261. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
262. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

263. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
264. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
265. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
266. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

186. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
187. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
188. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
189. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
190. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
116. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
117. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

118. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

260. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
261. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
262. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
263. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
264. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
265. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
266. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 5510001
January 17, 2017

DON PERKINS, OPERATIONS MANAGER
TUD - SONORA/JAMESTOWN WATER SYSTEM
18885 Nugget Blvd
SONORA, CA 95370

Dear DON PERKINS,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the TUD - SONORA/JAMESTOWN WATER SYSTEM water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tuolumne Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

TUD - SONORA/JAMESTOWN WATER SYSTEM
(Public Water System No.: *5510001*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

233. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

234. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

235. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

236. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

237. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

238. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

239. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

240. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

262. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

263. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

264. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

265. The water system may stop lead sampling at a school if:

mmmmm. All initial samples are less than or equal to 15 ppb; or

nnnnn. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lx. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ooooo. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

ppppp. If requested in writing by the school's authorized school representative.

266. The water system is responsible for the following costs:

ggg. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

hhh. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

267. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

268. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

269. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

pppppp. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

qqqqqq. The date of the request;

rrrrrr. The date of the initial meeting;

ssssss. The date of the sampling plan along with a copy of each sampling plan; and

tttttt. The date of initial lead sampling and all repeat samples.

270. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

465. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
466. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
467. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
468. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
469. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
470. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
471. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

472. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
473. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
474. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
475. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
476. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
477. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
478. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
479. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
480. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

204. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
205. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
206. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

207. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
208. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
209. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
210. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

146. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
147. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
148. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
149. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
150. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
92. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
93. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

94. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

204. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
205. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
206. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
207. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
208. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
209. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
210. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 5510005
January 17, 2017

TOM TROTT, GENERAL MANAGER
TWAIN HARTE COMMUNITY SERVICES DISTRICT
P.O. BOX 649
TWAIN HARTE, CA 95383

Dear TOM TROTT,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the TWAIN HARTE COMMUNITY SERVICES DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tuolumne Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

TWAIN HARTE COMMUNITY SERVICES DISTRICT
(Public Water System No.: *5510005*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

257. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

258. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

259. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

260. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

261. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

262. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

263. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

264. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

289. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

290. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

291. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

292. The water system may stop lead sampling at a school if:

yyyyy. All initial samples are less than or equal to 15 ppb; or

zzzzz. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

aaaaaa. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

bbbbbb. If requested in writing by the school's authorized school representative.

293. The water system is responsible for the following costs:

mmm. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

nnn. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

294. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

295. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

296. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

eeeeeee. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

fffffff. The date of the request;

ggggggg. The date of the initial meeting;

hhhhhhh. The date of the sampling plan along with a copy of each sampling plan; and

iiiiiii. The date of initial lead sampling and all repeat samples.

297. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

513. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
514. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
515. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
516. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
517. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
518. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
519. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

520. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
521. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
522. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
523. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
524. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
525. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
526. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
527. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
528. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

225. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
226. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
227. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

228. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
229. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
230. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
231. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

161. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
162. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
163. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
164. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
165. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
101. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
102. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

103. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

225. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
226. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
227. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
228. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
229. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
230. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
231. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Ray Kolisz, Operations Manager
Twentynine Palms Water District
System No. 3610049
P. O. Box 1735
Twentynine Palms, CA 92277

Dear: Ray Kolisz,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Twentynine Palms Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Twentynine Palms Water District
(Public Water System No. *3610049*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 4910701

Mark Walton, Water System Manager
U.S. Coast Guard Training Center
599 Tomales Road - BLDG 150
Petaluma, CA 94952

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910701

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Mark Walton:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the U.S. Coast Guard Training Center (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910701

cc: Sonoma County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

U.S. Coast Guard Training Center
(Public Water System No. 4910701)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910701/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

William Eltringham
District Manager
Union Public Utility District, System No. 0510001
339 Main Street
Murphys, CA 95247

Dear: Mr. Eltringham,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Union Public Utility District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Union Public Utility District
(Public Water System No. 0510001)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

January 17, 2017

MIKE SOLOMON
GENERAL MANAGER
UNITED WTR CONS DIST, System No. 5610046
106 NORTH EIGHTH STREET
SANTA PAULA, CA 93060

Dear: MIKE SOLOMON

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the UNITED WTR CONS DIST water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

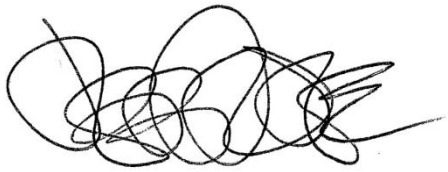

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

UNITED WTR CONS DIST
(Public Water System No. *5610046*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

793. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

794. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

795. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

796. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

797. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

798. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

799. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

800. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

892. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

893. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

894. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

895. The water system may stop lead sampling at a school if:

gggggggggggggggg. All initial samples are less than or equal to 15 ppb; or

hhhhhhhhhhhhhhhh. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxcix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cc. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

iiiiiiiiiiiiiiii. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

jjjjjjjjjjjjjjj. If requested in writing by the school's authorized school representative.

896. The water system is responsible for the following costs:

qqqqqqqq. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

rrrrrrrr. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

897. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

898. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

899. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

bbbbbbbbbbbbbbbbbbbb. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

cccccccccccccccccccc. The date of the request;

ddddddddddddddddddddd. The date of the initial meeting;

eeeeeeeeeeeeeeeeeeee. The date of the sampling plan along with a copy of each sampling plan; and

ffffffffffffffffffff. The date of initial lead sampling and all repeat samples.

900. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 1710009

Rachelle Henry, Watermaster
Upper Lake County Water District
P.O. Box 847
Upper Lake, CA 95485

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_1710009

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Rachelle Henry:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Upper Lake County Water District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_1710009

cc: Lake County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Upper Lake County Water District
(Public Water System No. 1710009)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

1710009/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Muhammad Bari, Director Public Works
Us Army - Fort Irwin
System No. 3610705
P.O. Box 105085, Bldg. 602
Fort Irwin, CA 92310

Dear: Muhammad Bari,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Us Army - Fort Irwin water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Us Army - Fort Irwin
(Public Water System No. *3610705*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 4/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Chris Elliott, Water Resource Manager
USMC - 29 Palms
System No. 3610703
Bldg. 1418 MCAGCC P.O. Box 788110
Twenty Nine Palms, CA 92278

Dear: Chris Elliott,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the USMC - 29 Palms water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

USMC - 29 Palms
(Public Water System No. *3610703*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 4/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Jason Golumbfskie-Jones
Environmental Director
USN San Clemente Island, System No. 3710707
Env. Div. Naval Base Coronado PWO Bldg 3
PO Box 357088
San Diego, CA 92135-7088

Dear Jason Golumbfskie-Jones:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the USN San Clemente Island water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

USN San Clemente Island
(Public Water System No. *3710707*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Dave Michalko
General Manager
Valencia Heights Water Co.
3009 E. Virginia Avenue
West Covina, CA 91791

Dear: Dave Michalko

System No: 1910163 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Valencia Heights Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910163 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910163 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Valencia Heights Water Co.
Public Water System No. *1910163*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Kenneth Petersen
General Manager
Valencia Water Co.
24631 Avenue Rockefeller
Valencia, CA 91355

Dear Kenneth Petersen:

System No: 1910240 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Valencia Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910240 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910240 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Valencia Water Co.

Los Angeles County
System No. 1910240

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Valencia Water Co.
Public Water System No. *1910240*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Glenn Pruim
General Manager
Vallecitos Water District, System No. 3710002
201 Vallecitos de Oro
San Marcos, CA 92069

Dear Glenn Pruim:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Vallecitos Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

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Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Vallecitos Water District
(Public Water System No. *3710002*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

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1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Gary Arant
General Manager
Valley Center Municipal Water District, System No. 3710026
P.O. BOX 67
Valley Center, CA 92082

Dear Gary Arant:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Valley Center Municipal Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Valley Center Municipal Water District
(Public Water System No. *3710026*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Tara Robinson
Water Quality Specialist
Valley County Water Dist.
14521 Ramona Blvd.
Baldwin Park, CA 91706

Dear Tara Robinson:

System No: 1910009 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Valley County Water Dist. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910009 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910009 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Valley County Water Dist.

Los Angeles County
System No. 1910009

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

14005

13956

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Valley County Water Dist.
Public Water System No. *1910009*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated:_____1/17/2017_____

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Brian Smith, General Manager
Valley Of Enchantment MWC
System No. 3610051
P. O. Box 6510
Crestline, CA 92325

Dear: Brian Smith,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Valley Of Enchantment MWC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Valley Of Enchantment MWC
(Public Water System No. *3610051*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 4910013

Daniel Muelrath, General Manager
Valley Of The Moon Water District
P.O. Box 280
El Verano, CA 95433

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_4910013

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Daniel Muelrath:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Valley Of The Moon Water District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Janice M. Thomas

Janice M. Thomas, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_4910013

cc: Sonoma County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Valley Of The Moon Water District
(Public Water System No. 4910013)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Janice M. Thomas

Janice M. Thomas, P.E.
Sonoma District
SWRCB-DDW

4910013/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Michael Fischer
General Manager
Valley Springs Public Utility District, System No. 0510010
P.O. Box 284
Valley Springs, CA 95252

Dear: Mr. Fischer,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Valley Springs Public Utility District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Valley Springs Public Utility District
(Public Water System No. 0510010)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

January 17, 2017

Sukie Madrid
Manager
Valley View Mutual Water Co.
13730 East Los Angeles Street
Baldwin Park, CA 91706

Dear Sukie Madrid:

System No: 1910165 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Valley View Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910165 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910165 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Valley View Mutual Water Co.

Los Angeles County
System No. 1910165

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

14056

14007

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Valley View Mutual Water Co.
Public Water System No. *1910165*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Robert Kavert, Pres., Board Of Dir
Valley View Park MWC
System No. 3610046
P.O. Box 301
Crestline, CA 92325

Dear: Robert Kavert,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Valley View Park MWC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Valley View Park MWC
(Public Water System No. *3610046*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/12

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Bob Fan
General Manager
Valley Water Co.
4524 Hampton Road
La Canada Flintridge, CA 91011

Dear Bob Fan:

System No: 1910166 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Valley Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Chi Diep, P.E.
District Engineer
Metropolitan District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910166 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910166 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Valley Water Co.

Los Angeles County
System No. 1910166

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Valley Water Co.
Public Water System No. *1910166*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated:_____1/17/2017_____

Chi Diep, P.E.
Metropolitan District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

JOSEPH BARGET
GENERAL MANAGER
VANDENBERG VILLAGE COMM. SERV. DIST., System No. 4210017
3757 CONSTELLATION ROAD
LOMPOC, CA 93436

Dear: JOSEPH BARGET

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the VANDENBERG VILLAGE COMM. SERV. DIST. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

VANDENBERG VILLAGE COMM. SERV. DIST.
(Public Water System No. *4210017*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

329. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

330. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

331. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

332. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

333. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

334. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

335. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

336. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

370. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

371. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

372. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

373. The water system may stop lead sampling at a school if:

iiiiiii. All initial samples are less than or equal to 15 ppb; or

jjjjjjj. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lxxxiii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lxxxiv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

kkkkkkk. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

lllllll. If requested in writing by the school's authorized school representative.

374. The water system is responsible for the following costs:

eeee. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ffff. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

375. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

376. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

377. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

xxxxxxxx. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

yyyyyyyy. The date of the request;

zzzzzzzz. The date of the initial meeting;

aaaaaaaaa. The date of the sampling plan along with a copy of each sampling plan; and

bbbbbbbbb. The date of initial lead sampling and all repeat samples.

378. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Van Grayer, General Manager
Vaughn Water Company, Inc., System No. 1510029
10014 Glenn Street
Bakersfield, CA 93312

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Van Grayer:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Vaughn Water Company, Inc. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Vaughn Water Company, Inc.
(Public Water System No. *1510029*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAVID SASEK
DIRECTOR WATER & SAN DEPT
VENTURA CWWD NO. 1 - MOORPARK, System No. 5610018
6767 Spring Road PO Box 250
MOORPARK, CA 93020

Dear: DAVID SASEK

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the VENTURA CWWD NO. 1 - MOORPARK water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

VENTURA CWWD NO. 1 - MOORPARK
(Public Water System No. *5610018*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

697. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

698. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

699. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

700. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

701. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

702. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

703. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

704. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

784. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

785. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

786. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

787. The water system may stop lead sampling at a school if:

kkkkkkkkkkkkkk. All initial samples are less than or equal to 15 ppb; or

llllllllllllll. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clxxv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clxxvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

mmmmmmmmmmmmmm. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

nnnnnnnnnnnnn. If requested in writing by the school's authorized school representative.

788. The water system is responsible for the following costs:

sssssss. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

tttttttt. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

789. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

790. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

791. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

tttttttttttttttttt. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

uuuuuuuuuuuuuuuuu. The date of the request;

vvvvvvvvvvvvvvvvv. The date of the initial meeting;

wwwwwwwwwwwwwwwwww. The date of the sampling plan along with a copy of each sampling plan; and

xxxxxxxxxxxxxxxxx. The date of initial lead sampling and all repeat samples.

792. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAVID SASEK
DIRECTOR WATER & SAN DEPT
VENTURA CWWD NO. 38 - LAKE SHERWOOD, System No. 5610069
6767 Spring Road PO Box 250
MOORPARK, CA 93020

Dear: DAVID SASEK

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the VENTURA CWWD NO. 38 - LAKE SHERWOOD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

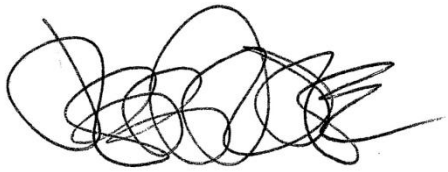

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

VENTURA CWWD NO. 38 - LAKE SHERWOOD
(Public Water System No. *5610069*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

849. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

850. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

851. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

852. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

853. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

854. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

855. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

856. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

955. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

956. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

957. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

958. The water system may stop lead sampling at a school if:

iiiiiiiiiiiiiiii. All initial samples are less than or equal to 15 ppb; or

jjjjjjjjjjjjjjjj. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

ccxiii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ccxiv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

kkkkkkkkkkkkkkkkkk. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

llllllllllllllll. If requested in writing by the school's authorized school representative.

959. The water system is responsible for the following costs:

eeeeeeeee. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

fffffffff. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

960. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

961. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

962. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

kkkkkkkkkkkkkkkkkkkkk. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

lllllllllllllllllllll. The date of the request;

mmmmmmmmmmmmmmmmmmmmm. The date of the initial meeting;

nnnnnnnnnnnnnnnnnnnn. The date of the sampling plan along with a copy of each sampling plan; and

oooooooooooooooooooo. The date of initial lead sampling and all repeat samples.

963. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAVID SASEK
DIRECTOR WATER & SAN DEPT
VENTURA CWWD NO. 17 - BELL CANYON, System No. 5610003
6767 Spring Road PO Box 250
MOORPARK, CA 93020

Dear: DAVID SASEK

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the VENTURA CWWD NO. 17 - BELL CANYON water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

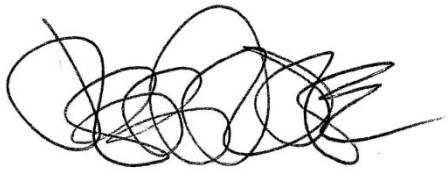

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

VENTURA CWWD NO. 17 - BELL CANYON
(Public Water System No. *5610003*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

601. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

602. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

603. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

604. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

605. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

606. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

607. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

608. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

676. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

677. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

678. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

679. The water system may stop lead sampling at a school if:

oooooooooooo. All initial samples are less than or equal to 15 ppb; or

pppppppppppp. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cli. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

qqqqqqqqqqqq. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

rrrrrrrrrrrr. If requested in writing by the school's authorized school representative.

680. The water system is responsible for the following costs:

uuuuuu. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

vvvvvv. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

681. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

682. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

683. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

lllllllllllllll. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

mmmmmmmmmmmmmmm. The date of the request;

nnnnnnnnnnnnnnn. The date of the initial meeting;

oooooooooooooooo. The date of the sampling plan along with a copy of each sampling plan; and

pppppppppppppppp. The date of initial lead sampling and all repeat samples.

684. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

DAVID SASEK
DIRECTOR WATER & SAN DEPT
VENTURA CWWD NO. 19 - SOMIS, System No. 5610015
6767 Spring Road PO Box 250
MOORPARK, CA 93020

Dear: DAVID SASEK

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the VENTURA CWWD NO. 19 - SOMIS water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

VENTURA CWWD NO. 19 - SOMIS
(Public Water System No. *5610015*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

673. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

674. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

675. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

676. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

677. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

678. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

679. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

680. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

757. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

758. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

759. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

760. The water system may stop lead sampling at a school if:

yyyyyyyyyyyyy. All initial samples are less than or equal to 15 ppb; or

zzzzzzzzzzzzz. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clxix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clxx. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

aaaaaaaaaaaaaa. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

bbbbbbbbbbbbbb. If requested in writing by the school's authorized school representative.

761. The water system is responsible for the following costs:

mmmmmmm. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

nnnnnnn. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

762. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

763. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

764. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

eeeeeeeeeeeeeeeee. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

fffffffffffffffff. The date of the request;

gggggggggggggggg. The date of the initial meeting;

hhhhhhhhhhhhhhhh. The date of the sampling plan along with a copy of each sampling plan; and

iiiiiiiiiiiiiiii. The date of initial lead sampling and all repeat samples.

765. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

BERT RAPP
GENERAL MANAGER
VENTURA RIVER WATER DISTRICT, System No. 5610022
409 Old Baldwin Road
OJAI, CA 93023

Dear: BERT RAPP

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the VENTURA RIVER WATER DISTRICT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

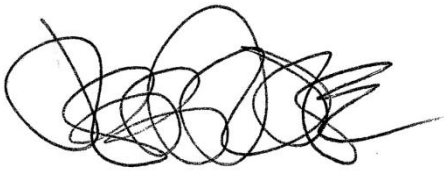

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

VENTURA RIVER WATER DISTRICT
(Public Water System No. *5610022*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

729. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

730. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

731. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

732. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

733. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

734. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

735. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

736. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

820. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

821. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

822. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

823. The water system may stop lead sampling at a school if:

aaaaaaaaaaaaaaa. All initial samples are less than or equal to 15 ppb; or

bbbbbbbbbbbbbbb. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clxxxiii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clxxxiv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ccccccccccccccc. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

dddddddddddddddd. If requested in writing by the school's authorized school representative.

824. The water system is responsible for the following costs:

aaaaaaaa. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

bbbbbbbb. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

825. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

826. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

827. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

nnnnnnnnnnnnnnnnnn. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

oooooooooooooooooo. The date of the request;

pppppppppppppppppp. The date of the initial meeting;

qqqqqqqqqqqqqqqqqq. The date of the sampling plan along with a copy of each sampling plan; and

rrrrrrrrrrrrrrrrrr. The date of initial lead sampling and all repeat samples.

828. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

SHANA EPSTEIN
GENERAL MANAGER
VENTURA WATER DEPARTMENT, System No. 5610017
PO Box 99
VENTURA, CA 93002

Dear: SHANA EPSTEIN

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

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Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

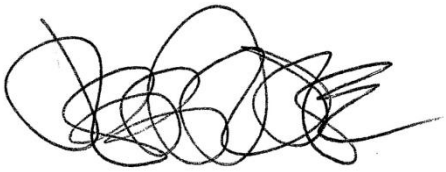

Jeff Densmore, P.E.
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SWRCB – Division of Drinking Water

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cc: Local County Environmental Health Department (email)

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STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

VENTURA WATER DEPARTMENT
(Public Water System No. *5610017*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

689. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

690. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

691. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

692. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

693. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

694. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

695. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

696. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

775. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

776. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

777. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

778. The water system may stop lead sampling at a school if:

ggggggggggggg. All initial samples are less than or equal to 15 ppb; or

hhhhhhhhhhhhh. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clxxiii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clxxiv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

iiiiiiiiiiiiii. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

jjjjjjjjjjjjj. If requested in writing by the school's authorized school representative.

779. The water system is responsible for the following costs:

qqqqqqq. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

rrrrrrr. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

780. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

781. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

782. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

oooooooooooooooo. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

pppppppppppppppp. The date of the request;

qqqqqqqqqqqqqqqq. The date of the initial meeting;

rrrrrrrrrrrrrrrr. The date of the sampling plan along with a copy of each sampling plan; and

ssssssssssssssss. The date of initial lead sampling and all repeat samples.

783. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

GROVER TOWNSEND
DEPUTY DIRECTOR
VENTURA WWD NO. 8 - SIMI VALLEY, System No. 5610023
2929 TAPO CANYON ROAD
SIMI VALLEY, CA 93063

Dear: GROVER TOWNSEND

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the VENTURA WWD NO. 8 - SIMI VALLEY water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

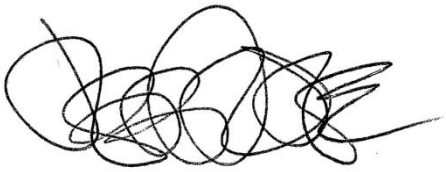

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

VENTURA WWD NO. 8 - SIMI VALLEY
(Public Water System No. *5610023*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

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and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

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Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

829. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

830. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

831. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

832. The water system may stop lead sampling at a school if:

eeeeeeeeeeeeeee. All initial samples are less than or equal to 15 ppb; or

fffffffffffffff. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clxxxv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clxxxvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

gggggggggggggg. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

hhhhhhhhhhhhhh. If requested in writing by the school's authorized school representative.

833. The water system is responsible for the following costs:

cccccccc. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ddddddd. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

834. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

835. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

836. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

sssssssssssssssss. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

tttttttttttttttttt. The date of the request;

uuuuuuuuuuuuuuuuu. The date of the initial meeting;

vvvvvvvvvvvvvvvvv. The date of the sampling plan along with a copy of each sampling plan; and

wwwwwwwwwwwwwwwwww. The date of initial lead sampling and all repeat samples.

837. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017 _____

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Doug Mathews, Public Works Manager
Victorville Water District
System No. 3610052
P.O. Box 5001
Victorville, CA 0

Dear: Doug Mathews,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Victorville Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Victorville Water District
(Public Water System No. *3610052*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Gregory Lockhart
Dixon Water Company, System No. 5400875
P.O. Box 900
Three Rivers, CA 93271

Dear: Gregory Lockhart

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Dixon Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Dixon Water Company
(Public Water System No. 5400875)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

NANCY OLIVARES
BOOKKEEPER
VINEYARD AVENUE ACRES MWC, System No. 5610029
P.O. BOX 6293
OXNARD, CA 93031

Dear: NANCY OLIVARES

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the VINEYARD AVENUE ACRES MWC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

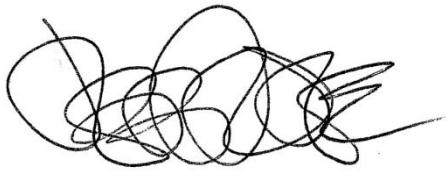

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

VINEYARD AVENUE ACRES MWC
(Public Water System No. *5610029*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

753. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

754. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

755. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

756. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

757. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

758. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

759. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

760. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

847. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

848. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

849. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

850. The water system may stop lead sampling at a school if:

mmmmmmmmmmmmmmm. All initial samples are less than or equal to 15 ppb; or

nnnnnnnnnnnnnnn. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clxxxix. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxc. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

oooooooooooooo. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

pppppppppppppp. If requested in writing by the school's authorized school representative.

851. The water system is responsible for the following costs:

ggggggg. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

hhhhhhhh. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

852. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

853. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

854. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

cccccccccccccccccc. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

dddddddddddddddddd. The date of the request;

eeeeeeeeeeeeeeeeee. The date of the initial meeting;

ffffffffffffffffff. The date of the sampling plan along with a copy of each sampling plan; and

gggggggggggggggggg. The date of initial lead sampling and all repeat samples.

855. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

Santa Barbara District
SWRCB-DDW

APPENDIX A

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This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

JIM BURKE
PRESIDENT
VINEYARD AVE ESTATES MWC, System No. 5610056
P.O. BOX 5065
OXNARD, CA 93031

Dear: JIM BURKE

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the VINEYARD AVE ESTATES MWC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

VINEYARD AVE ESTATES MWC
(Public Water System No. *5610056*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

809. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

810. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

811. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

812. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

813. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

814. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

815. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

816. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

910. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

911. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

912. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

913. The water system may stop lead sampling at a school if:

oooooooooooooooo. All initial samples are less than or equal to 15 ppb; or

pppppppppppppppp. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cciii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cciv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

qqqqqqqqqqqqqqqq. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

rrrrrrrrrrrrrrrr. If requested in writing by the school's authorized school representative.

914. The water system is responsible for the following costs:

uuuuuuuu. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

vvvvvvvv. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

915. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

916. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

917. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

lllllllllllllllllll. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

mmmmmmmmmmmmmmmmmmmm. The date of the request;

nnnnnnnnnnnnnnnnnnn. The date of the initial meeting;

oooooooooooooooooooo. The date of the sampling plan along with a copy of each sampling plan; and

pppppppppppppppppppp. The date of initial lead sampling and all repeat samples.

918. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Eldon Boone
General Manager
Vista Irrigation District, System No. 3710027
1391 Engineer Street
Vista, CA 92081

Dear Eldon Boone:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Vista Irrigation District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Vista Irrigation District
(Public Water System No. *3710027*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2400201
January 17, 2017

JOHN LEONARD, GENERAL MANAGER
VOLTA COMMUNITY SD
PO BOX 2406
LOS BANOS, CA 93635

Dear JOHN LEONARD,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the VOLTA COMMUNITY SD water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Merced Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

VOLTA COMMUNITY SD
(Public Water System No.: *2400201*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

97. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

98. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

99. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

100. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

101. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

102. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

103. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

104. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

109. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

110. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

111. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

112. The water system may stop lead sampling at a school if:

ww. All initial samples are less than or equal to 15 ppb; or

xx. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xxv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xxvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

yy. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

zz. If requested in writing by the school's authorized school representative.

113. The water system is responsible for the following costs:

y. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

z. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

114. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

115. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

116. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

iii. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

jjj. The date of the request;

kkk. The date of the initial meeting;

lll. The date of the sampling plan along with a copy of each sampling plan; and

mmm. The date of initial lead sampling and all repeat samples.

117. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

193. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
194. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
195. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
196. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
197. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
198. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
199. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

200. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
201. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
202. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
203. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
204. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
205. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
206. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
207. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
208. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

85. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
86. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
87. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

88. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
89. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
90. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
91. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

61. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
62. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
63. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
64. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
65. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
41. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
42. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

43. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

85. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
86. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
87. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
88. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
89. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
90. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
91. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

California Water Boards

Edmund G. Brown Jr.
Governor

Matthew Rodriquez
Secretary for Environmental Protection

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mike Gomez
Co Manager
Walnut Park Mutual Water Co.
2460 E. Florence Avenue
Huntington Park, CA 90255

Dear Mike Gomez:

System No: 1910169 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Walnut Park Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Paul Williams, P.E.
District Engineer
Hollywood District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910169 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910169 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURE

PERMIT AMENDMENT 2017PA_SCHOOLS

Walnut Park Mutual Water Co.

Los Angeles County
System No. 1910169

January 17, 2017

CALIFORNIA
Water Boards

STATE WATER RESOURCES CONTROL BOARD
DIVISION OF DRINKING WATER

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Walnut Park Mutual Water Co.
Public Water System No. *1910169*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Paul Williams, P.E.
Hollywood District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Michael Holmes
General Manager
Walnut Valley Water District
271 S. Brea Canyon Road
Walnut, CA 91789

Dear: Michael Holmes

System No: 1910234 ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Walnut Valley Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sutida Bergquist

Sutida Bergquist, P.E.
District Engineer
Central, District

Enclosure: Permit Amendment 2017PA-Schools

cc: Jacqueline Taylor, Bureau Director
Los Angeles County Bureau of Environmental Protection

Bcc: Copy of Permit - 1910234 Permit File
Region 4 email

Email addresses – Cc: jactaylor@ph.lacounty.gov
Bcc: DDWRegion4@waterboards.ca.gov

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

1910234 Permit No: 2017PA_SCHOOLS 20170117

ENCLOSURES

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Walnut Valley Water District
Public Water System No. *1910234*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Sutida Bergquist

Dated: January 17, 2017

Sutida Bergquist
Central, District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Pat Daugherty
Manager
Warner Springs Estates, System No. 3702354
35109 HWY 79
Warner Springs, CA 92086

Dear Pat Daugherty:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Warner Springs Estates water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Warner Springs Estates
(Public Water System No. *3702354*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

GLEN PACE
PRESIDENT
WARRING WATER SERVICE INC, System No. 5610021
P.O. BOX 189
PIRU, CA 93040

Dear: GLEN PACE

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the WARRING WATER SERVICE INC water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

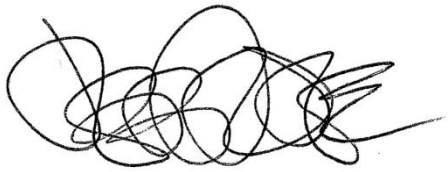

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

WARRING WATER SERVICE INC
(Public Water System No. *5610021*)

By The

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Division of Drinking Water

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Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

811. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

812. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

813. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

814. The water system may stop lead sampling at a school if:

wwwwwwwwwwwwww. All initial samples are less than or equal to 15 ppb; or

xxxxxxxxxxxxxx. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clxxxi. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clxxxii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

yyyyyyyyyyyyyy. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

zzzzzzzzzzzzzz. If requested in writing by the school's authorized school representative.

815. The water system is responsible for the following costs:

yyyyyyy. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

zzzzzzz. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

816. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

817. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

818. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

iiiiiiiiiiiiiiiiii. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

jjjjjjjjjjjjjjjj. The date of the request;

kkkkkkkkkkkkkkkkkk. The date of the initial meeting;

llllllllllllllllll. The date of the sampling plan along with a copy of each sampling plan; and

mmmmmmmmmmmmmmmmmm. The date of initial lead sampling and all repeat samples.

819. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017 _____

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

Sean Powers
Community Development Agency Director

Amy Irani, REHS
Director of Environmental Health

COUNTY OF NEVADA
COMMUNITY DEVELOPMENT AGENCY
ENVIRONMENTAL HEALTH DEPARTMENT

950 MAIDU AVENUE, SUITE 170, NEVADA CITY, CA 95959-8617
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January 20, 2017

Board of Directors
Washington Water District Water System, System No. 2900532
P.O. Box #34
Washington, CA. 95986

Dear: Board of Directors

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS-523

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has requested the issuance of a permit amendment to the Washington Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Catrie Levenson, REHS, PHM
Environmental Health Specialist
Consumer Protection Division
Catrie.levenson@co.nevada.ca.us
530.265.1753 FAX 530.265.9853

Enclosure: 2017PA_Schools; Appendix A – Sampling Guidance

cc: State Water Resources Control Board (email)
Division of Drinking Water

Paul Rose (email)
Water Operator

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Washington Water District
for
Washington Water District Water System
(Public Water System No.2900523)

By

Nevada County Department of Environmental Health

PERMIT AMENDMENT NO. **2017PA-SCHOOLS-523** EFFECTIVE DATE**: January 20, 2017**

WHEREAS:

1. *The Department through, its Primacy Delegation Agreement with the State Water Resources Control Board Division of Drinking Water (SWRCB)* "may renew, reissue, revise, or amend any domestic water supply permit whenever the Department (or SWRCB) deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The Department hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR Nevada County Department of Environmental Health

Catrie Levenson, REHS, PHM
Environmental Specialist III

Dated: January 20th, 2017

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Karen Morgan
Water and Wastewater Supervisor
City of Waterford - Hickman, System No. 5010026
P.O. Box 199
Waterford, CA 95386

Dear Ms. Morgan,

ISSUANCE OF PERMIT AMENDMENT 2017PA-SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Waterford - Hickman water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Bhupinder S. Sahota, P.E.
District Engineer, Stockton District
NORTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA-Schools

cc: Local County Environmental Health Department (email)

Bcc:

☒ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Waterford – Hickman
(Public Water System No. 5010026)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in

the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/2017

Bhupinder S. Sahota, P.E.
District Engineer
Stockton District
Northern California Branch
Drinking Water Field Operations

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an Initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

FRANK BROMMENSCHENKEL
CONSULTANT
WATERS ROAD DOMESTIC USERS GROUP, System No. 5602132
134 DAVIS STREET
SANTA PAULA, CA 93060

Dear: FRANK BROMMENSCHENKEL

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the WATERS ROAD DOMESTIC USERS GROUP water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

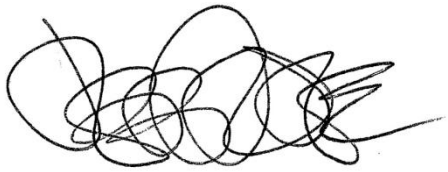

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

WATERS ROAD DOMESTIC USERS GROUP
(Public Water System No. *5602132*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

569. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

570. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

571. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

572. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

573. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

574. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

575. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

576. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

640. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

641. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

642. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

643. The water system may stop lead sampling at a school if:

yyyyyyyyyyy. All initial samples are less than or equal to 15 ppb; or

zzzzzzzzzzz. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

cxliii. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

cxliv. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

aaaaaaaaaaaa. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

bbbbbbbbbbbb. If requested in writing by the school's authorized school representative.

644. The water system is responsible for the following costs:

mmmmmm. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

nnnnnn. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

645. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

646. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

647. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

rrrrrrrrrrrrrr. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

ssssssssssssss. The date of the request;

tttttttttttttt. The date of the initial meeting;

uuuuuuuuuuuuuu. The date of the sampling plan along with a copy of each sampling plan; and

vvvvvvvvvvvvvv. The date of initial lead sampling and all repeat samples.

648. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer

Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Weimar Water Company
(Public Water System No. 3110035)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on “first draw” samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these “first draw” samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer’s tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school’s lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school’s water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs “*3Ts for Reducing Lead in Drinking Water in Schools*” as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

January 17, 2017

Harry O. Starkey, General Manager
West Kern Water District, System No. 1510022
P.O. Box 1105
Taft, CA 93268

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Harry O. Starkey:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the West Kern Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

West Kern Water District
(Public Water System No. *1510022*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Bob Ukestad
West San Martin Water Works, Inc., System No. 4300543
1005 Highland Avenue
San Martin, CA 95046

Dear Mr. Ukestad:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the West San Martin Water Works, Inc. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Santa Clara County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

West San Martin Water Works, Inc.
(Public Water System No. *4300543*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
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MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Matthew Litchfield, Asst. General Manager
West Valley Water District
System No. 3610004
P.O. Box 920
Rialto, CA 92377

Dear: Matthew Litchfield,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the West Valley Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

West Valley Water District
(Public Water System No. *3610004*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/12/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

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Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Mr. Darryl Barrow
Westborough County Water District, System No. 4110027
P.O. Box 2747
South San Francisco, CA 94083

Dear Mr. Barrow:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Westborough County Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric Lacy, P.E.
District Engineer
Santa Clara District
Drinking Water Field Operations Branch
Division of Drinking Water

Enclosure: 2017PA_Schools

cc: San Mateo County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Westborough County Water District
(Public Water System No. *4110027*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Eric Lacy, P.E.
Santa Clara District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

William Brown, Manager
Western Heights Water Company
System No. 3610053
32352 Avenue D
Yucaipa, CA 92399

Dear: William Brown,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Western Heights Water Company water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

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   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Paul Rugge
Director of Operations
Western Municipal Water District, System No. 3310049
16451 El Sobrante Rd.
Riverside, CA 92503

Dear Paul Rugge:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Western Municipal Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Western Municipal Water District
(Public Water System No. 3310049)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Paul Rugge
Director of Operations
Western Municipal WD – Murrieta Division, System No. 3310036
16451 El Sobrante Rd.
Riverside, CA 92503

Dear Paul Rugge:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Western Municipal Water District – Murrieta Division water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Western MWD – Murrieta Division
(Public Water System No. 3310036)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Paul Rugge
Director of Operations
Western Municipal WD – I.D. A – Rainbow, System No. 3310076
16451 El Sobrante Rd.
Riverside, CA 92503

Dear Paul Rugge:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Western Municipal Water District – I.D. A – Rainbow water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:

http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

J. Steven Williams, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Western MWD – I.D. A – Rainbow
(Public Water System No. 3310076)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1-18-2017

J. Steven Williams, P.E.
District Engineer
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Ramiro Barajas
Public Works Supervisor
City of Westmorland, System No. 1310008
P.O. Box 699
Westmorland, CA 92281

Dear Ramiro Barajas:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of Westmorland water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Jeff Lamoure, Deputy Director - Division of Environmental Health, Imperial County Public Health Department (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of Westmorland
(Public Water System No. *1310008*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2300730

Josh Azevedo, District Manager
Westport County Water District
P.O. Box 55
Westport, CA 95488

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2300730

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Josh Azevedo:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Westport County Water District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2300730

cc: Mendocino County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Westport County Water District
(Public Water System No. 2300730)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2300730/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

WESTSIDE HARVESTING
Public Water System No. *1009214*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_081**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 11/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Westwood C.S.D.
(Public Water System No. 1810002)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of

lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following conditions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan shall use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

      https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the

lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

   iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

   iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

b. The date of the request;

c. The date of the initial meeting;

d. The date of the sampling plan along with a copy of each sampling plan; and

e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Michael J. McNamara

Dated: January 17, 2017

Michael J. McNamara
District Engineer
Lassen District
SWRCB-DDW

January 17, 2017

Eddie Martin
Williams Mutual Water Co., System No. 5400718
P.O. Box 1073
Porterville, CA 93258

Dear: Eddie Martin

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Williams Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Williams Mutual Water Co.
(Public Water System No. 5400718)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017 System No. 2310005

David Redding, General Manager, Operator
Willow County Water District
151 Laws Avenue
Ukiah, CA 95482

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS_2310005

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear David Redding:

The State Water Resources Control Board, Division of Drinking Water (Division) has issued an amendment to the Willow County Water District (Water System) water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by the Water System that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If the Water System does not serve potable water to at least one K-12 school, this permit amendment does not apply.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:
http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Sheri K. Miller, P.E., Senior Sanitary Engineer
Division of Drinking Water
STATE WATER RESOURCES CONTROL BOARD

Enclosure: 2017PA_Schools_2310005

cc: Sharon Anderson, Office Manager, 151 Laws Avenue, Ukiah, CA 95482
Mendocino County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Willow County Water District
(Public Water System No. 2310005)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

    a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

    b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Sheri K. Miller, P.E.
Mendocino District
SWRCB-DDW

2310005/Permit
Permit Amendment Schools 2017/EMS

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

System No.: 2410010
January 17, 2017

BRENDA WEY, OFFICE SUPERVISOR
WINTON WATER & SANITARY DIST
P.O. BOX 970
WINTON, CA 95388

Dear BRENDA WEY,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS
REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the WINTON WATER & SANITARY DIST water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Kassy D. Chauhan, P.E.
Senior Sanitary Engineer, Merced District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Merced Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

WINTON WATER & SANITARY DIST
(Public Water System No.: *2410010*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

177. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

178. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

179. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

180. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

181. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

182. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

183. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

184. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

199. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

200. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

201. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private

school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

    i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

    ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

202. The water system may stop lead sampling at a school if:

kkkk. All initial samples are less than or equal to 15 ppb; or

llll. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

xlv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

xlvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

mmmm. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

nnnn. If requested in writing by the school's authorized school representative.

203. The water system is responsible for the following costs:

ss. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

tt. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

204. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

205. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

206. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

ggggg. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

hhhhh. The date of the request;

iiiii. The date of the initial meeting;

jjjjj. The date of the sampling plan along with a copy of each sampling plan; and

kkkkk. The date of initial lead sampling and all repeat samples.

207. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Kassy D. Chauhan

Kassy D. Chauhan, P.E.
Merced District
SWRCB-DDW

APPENDIX A

SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

353. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
354. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
355. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
356. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
357. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
358. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
359. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

360. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
361. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
362. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
363. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
364. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
365. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
366. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
367. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
368. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

155. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
156. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
157. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

158. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
159. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
160. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
161. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.
Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

111. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
112. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
113. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
114. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
115. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
71. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
72. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

73. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

155. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
156. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
157. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
158. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
159. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
160. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
161. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

ROB MILLER
WOODLANDS DEVELOPMENT, System No. 4010081
P.O. BOX 19
ARROYO GRANDE, CA 93421

Dear: ROB MILLER

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the WOODLANDS DEVELOPMENT water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

WOODLANDS DEVELOPMENT
(Public Water System No. *4010081*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

217. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

218. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

219. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

220. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

221. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

222. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

223. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

224. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

244. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

245. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

246. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

247. The water system may stop lead sampling at a school if:

eeeee. All initial samples are less than or equal to 15 ppb; or

fffff. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

lv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

lvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

ggggg. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

hhhhh. If requested in writing by the school's authorized school representative.

248. The water system is responsible for the following costs:

ccc. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

ddd. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

249. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

250. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

251. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

ffffff. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

gggggg. The date of the request;

hhhhhh. The date of the initial meeting;

iiiiii. The date of the sampling plan along with a copy of each sampling plan; and

jjjjjj. The date of initial lead sampling and all repeat samples.

252. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District
SWRCB-DDW

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Ken Kugler
Executive Director
Woodville Farm Labor Center, System No. 5400792
5140 West Cypress
Visalia, CA 93279

Dear: Ken Kugler

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Woodville Farm Labor Center water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Woodville Farm Labor Center
(Public Water System No. 5400792)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Ralph Gutierrez, Manager
Woodville Public Utility District, System No. 5410025
P.O. Box 4567
Woodville, CA 93258

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

Dear Ralph Gutierrez:

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Woodville Public Utility District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Woodville Public Utility District
(Public Water System No. *5410025*

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Tricia A. Wathen

Tricia A. Wathen, P.E.
Senior Sanitary Engineer, Visalia District
SWRCB – Division of Drinking Water

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K- 12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not

during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no

further testing is needed.

4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.
5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the

repeat result and confirmation repeat result are less than or equal to 15 ppb.

7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to

the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of

each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	**SWRCB Sampling Use These Procedures**		**EPA 3Ts Sampling (Not Used)**	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

WOODWARD BLUFFS MHP
Public Water System No. *1000298*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_043**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

January 17, 2017

ROBERT BERRY
PRESIDENT
YERBA BUENA WATER COMPANY, System No. 5610006
PO BOX 3829
PASO ROBLES, CA 93447

Dear: ROBERT BERRY

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the YERBA BUENA WATER COMPANY water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

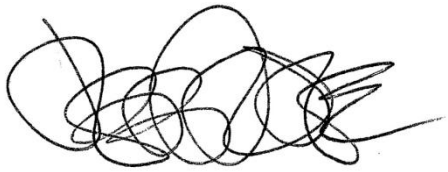

Jeff Densmore, P.E.
Santa Barbara District Engineer
SWRCB – Division of Drinking Water

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

YERBA BUENA WATER COMPANY
(Public Water System No. *5610006*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

617. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

618. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

619. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

620. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

621. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

622. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

623. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

624. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

694. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

695. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list

shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

696. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

697. The water system may stop lead sampling at a school if:

wwwwwwwwwwww. All initial samples are less than or equal to 15 ppb; or

xxxxxxxxxxxx. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

clv. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

clvi. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

yyyyyyyyyyyy. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

zzzzzzzzzzzz. If requested in writing by the school's authorized school representative.

698. The water system is responsible for the following costs:

yyyyyy. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

zzzzzz. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

699. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

700. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

701. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

vvvvvvvvvvvvvvv. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

wwwwwwwwwwwwwww. The date of the request;

xxxxxxxxxxxxxxx. The date of the initial meeting;

yyyyyyyyyyyyyyy. The date of the sampling plan along with a copy of each sampling plan; and

zzzzzzzzzzzzzzz. The date of initial lead sampling and all repeat samples.

702. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

District Engineer
Santa Barbara District

APPENDIX A

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Benjamin Ruiz
Interim Director
Yettem Water System, System No. 5403043
5961 South Mooney Boulevard
Visalia, CA 93277

Dear: Benjamin Ruiz

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Yettem Water System water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Yettem Water System
(Public Water System No. 5403043)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 17, 2017

Mike Thomas
Board President
Yokohl Mutual Water Co., System No. 5400647
1017 W. Cambridge Avenue
Visalia, CA 93277

Dear: Mike Thomas

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Yokohl Mutual Water Co. water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov.

Sincerely,

Chad J. Fischer, P.E.
Senior Sanitary Engineer, Tulare District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

Enclosure: 2017PA_Schools

cc: Tulare County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Yokohl Mutual Water Co.
(Public Water System No. 5400647)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 17, 2017

Chad J. Fischer, P.E.
Tulare District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level.

Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
6. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
7. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
8. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

January 18, 2017

Mr. Steve Conklin
General Manager
Yorba Linda Water District, System No. 3010037
P.O. Box 309
Yorba Linda, CA 92885

Dear Mr. Conklin:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Yorba Linda Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Oliver Pacifico, P.E.
District Engineer
Santa Ana District

Enclosure: 2017PA_Schools

cc: Orange County Environmental Health (email)

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Yorba Linda Water District
(Public Water System No. 3010037)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the … [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

1. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

2. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

3. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached**.** Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

i. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

ii. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

1. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

2. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

3. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

    a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

    b. The date of the request;

    c. The date of the initial meeting;

    d. The date of the sampling plan along with a copy of each sampling plan; and

    e. The date of initial lead sampling and all repeat samples.

4. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Oliver Pacifico, P.E.
District Engineer
Santa Ana District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

1. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
2. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
3. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
4. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
5. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
6. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
7. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
8. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
9. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

1. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
2. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
3. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 17, 2017

Joseph Zoba, General Manager
Yucaipa Valley Water District
System No. 3610055
P.O. Box 730
Yucaipa, CA 92399

Dear: Joseph Zoba,

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Yucaipa Valley Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

Enclosure: 2017PA_Schools

cc: Local County Environmental Health Department (email)

Bcc:

☐ ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Yucaipa Valley Water District
(Public Water System No. *3610055*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

   a. All initial samples are less than or equal to 15 ppb; or

   b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

      i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

      ii. If the sample location remains in service, and

         a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

         b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

   c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

   d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

   a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

   b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Eric J. Zúñiga, P.E.
District Engineer
San Bernardino District
Southern California Field Operations Branch

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

CALIFORNIA
Water Boards

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SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Lori Johnson
General Manager
Yuima Municipal Water District IDA, System No. 3700938
PO Box 177
Pauma Valley, CA 92061

Dear Lori Johnson:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Yuima Municipal Water District IDA water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Yuima Municipal Water District IDA
(Public Water System No. *3700938*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

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GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

January 18, 2017

Lori Johnson
General Manager
Yuima Municipal Water District, System No. 3701408
PO Box 177
Pauma Valley, CA 92061

Dear Lori Johnson:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the Yuima Municipal Water District water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

Yuima Municipal Water District
(Public Water System No. *3701408*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE**: January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be “first draw samples” meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

ZONNEVELD DAIRY - CEDAR
Public Water System No. *1000369*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_049**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

   j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

      i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

ZONNEVELD DAIRY - CERINI
Public Water System No. *1000627*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO.: **2017PA_SCHOOLS_067**
EFFECTIVE DATE**: January 17, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the SWRCB deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical

and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

   a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

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   b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

   c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

   d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

   e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

   f. Submit the samples to an ELAP certified laboratory for analysis of lead.

   g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

   h. Provide a copy of the results to the requesting authorized school representative.

   i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

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iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

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i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

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a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

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8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: 1/17/17

Betsy S. Lichti, P.E.
Senior Sanitary Engineer, Fresno District
SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS

LEAD AND COPPER RULE REVISIONS WHITE PAPER

October 2016

U. S. Environmental Protection Agency

Office of Water

Washington, DC 20460

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I. Executive Summary

Exposure to lead is known to present serious health risks to the brain and nervous system of children. The recent crisis in Flint, Michigan, has brought increased attention to the challenge of lead in drinking water systems across the country. It is important to recognize that major reductions in been achieved in childhood exposure to lead in the United States. Data show that from 1976 – 1980 the median blood lead level of a child (1-5 years old) was 15 micrograms per deciliter. That median level has been reduced dramatically since then, to 1 microgram per deciliter, based on the most recent data. Further, over the last twenty-five years, the percentage of children aged 1–5 years with blood lead levels less than or equal to 5 micrograms per deciliter declined more than ten-fold, and blood lead levels fell dramatically for all racial and ethnic groups. These improvements were made by removing lead from toys and lead solder in cans, taking lead out of gasoline, reducing exposure to lead in paint and dust in homes and during renovations, greatly reducing the allowable content of lead in plumbing materials in homes and other buildings, and further reducing lead in drinking water through the federal Lead and Copper Rule (LCR). Although we have taken significant steps to protect our children from the detrimental effects of lead poisoning, there is more to do.

Lead and copper enter drinking water mainly from corrosion of lead and copper containing plumbing materials. Lead was widely used in plumbing materials until Congress banned its use in 1986, and there are an estimated 6.5 to 10 million homes served by lead service lines (LSLs) in thousands of communities nationwide, in addition to millions of older buildings with lead solder across the U.S. Lead exposure, whether through drinking water, soil, dust or air, can result in serious adverse health effects, particularly for young children. Infants and children exposed to lead may experience delays in physical and mental development and may show deficits in attention span and learning disabilities. In adults, lead exposure can cause kidney problems and high blood pressure. Copper exposure can cause stomach and intestinal distress, liver and kidney damage, and complications of Wilson's disease in genetically predisposed people.

In 1991, EPA promulgated the LCR – a treatment technique regulation under the Safe Drinking Water Act (SDWA) – to protect public health by minimizing lead and copper levels in drinking water, primarily by reducing water corrosivity through corrosion control treatment. This rule applies to 68,000 public water systems nationwide. EPA has continued to work to make the LCR more effective through interim revisions promulgated in 2000 and 2007.

Implementation of the LCR over the past twenty-five years has resulted in major improvements in public health; the number of the nation's large drinking water systems with a 90th percentile sample value exceeding the LCR action level of 15 parts per billion has decreased by over 90 percent since the initial implementation of the LCR. However, the regulation and its implementation are in urgent need of an overhaul. Lead crises in Washington, DC, and in Flint, Michigan, and the subsequent national attention focused on lead in drinking water in other communities, have underscored significant challenges in the implementation of the current rule, including a rule structure that for many systems only compels protective actions after public health threats have been identified. Key challenges include the rule's complexity, the degree of discretion it affords with regard to optimization of corrosion control treatment and compliance sampling practices that in some cases, may not adequately protect from lead exposure, and limited specific focus on key areas of concern such as schools. There is a compelling need to modernize and strengthen implementation of the rule – to strengthen its public health protections and to clarify its implementation requirements to make it more effective and more readily enforceable.

EPA has conducted extensive engagement with stakeholder groups and the public to inform revisions to the LCR. In December of 2015, EPA received comprehensive recommendations from the National Drinking Water Advisory Council (NDWAC) and other concerned stakeholders on potential steps to strengthen the LCR. EPA is carefully evaluating the recommendations from these groups. In addition, EPA is giving extensive consideration to the national experience in implementing the rule as well as the experience in Flint, MI, as we develop proposed revisions to the rule.

Key Principles for LCR Revisions

EPA's goal for the LCR revisions is to improve public health protection while ensuring effective implementation by the 68,000 drinking water systems that are covered by the rule. This includes strengthening corrosion control treatment in drinking water systems to further reduce exposure to lead and copper and identifying additional actions that will equitably reduce the public's exposure to lead and copper when corrosion control treatment alone is not effective. In developing proposed revisions to the LCR, EPA will be guided by several key principles, including:

- Focus on Minimizing Exposure to Lead in Drinking Water: Improve public health protection by reducing exposure to lead in drinking water to the maximum amount possible through proactive measures to remove sources of lead and educating consumers about the health effects of lead and actions to reduce exposure.
- Clear and Enforceable Requirements: Improve implementation by designing a more prescriptive regulation with fewer discretionary decision points that rely on the judgment of individuals in states and drinking water utilities that may lack expertise in the complexities of corrosion control treatment and distribution system management.
- Transparency: Stronger programs to educate consumers about health risks and actions to reduce exposure to lead in drinking water, better access for consumers to information related to the location of LSLs, and more rapid test results of all tap samples and water quality parameter monitoring.
- Environmental Justice and Children's Health: Because of disparities in the quality of housing, community economic status, and access to medical care, lead in drinking water (and other media) disproportionately affects lower-income people. In addition, lead has disproportionate health effects on infants and children. In revising the LCR, EPA seeks to address environmental justice concerns and to prioritize protection of infants and children who are most vulnerable to the harmful effects of lead exposure.
- Integrating Drinking Water with Cross-Media Lead Reduction Efforts: Leveraging efforts of state and local public health authorities to provide integrated approaches to comprehensively reduce exposure to lead from drinking water, paint, dust, soil and other potential sources of exposure.

EPA is carefully considering NDWAC advice and other stakeholder input and is undertaking key analytical work to develop proposed revisions to the LCR. We are considering an approach that will incorporate both technology- based and health-based elements – to ensure effective reductions of lead in drinking water at the water system level, while at the same time providing consumers with the information, tools and protections needed to address remaining risks. We anticipate that these elements will be supported by clear and robust revised sampling requirements, strengthened reporting, transparency provisions that ensure consumers have rapid access to relevant information and public education materials. Key potential elements under consideration are discussed in Section 3; these elements are highly interdependent, and potential revisions to the rule must be considered in an integrated perspective.

II. Background

Health Effects of Lead

Over the past decade, epidemiologic studies have consistently demonstrated that there is no safe level of lead. In particular, studies conducted in diverse populations of children consistently demonstrate the harmful effects of lead exposure on cognitive function, as measured by IQ decrements, decreased academic performance and poorer performance on tests of executive function. Lead exposure is also associated with decreased attention, and increased impulsivity and hyperactivity in children. In adults, long-term lead exposure results in increased blood pressure and hypertension. In addition to its effect on blood pressure, lead exposure can also lead to coronary heart disease and death from cardiovascular causes and is associated with cognitive function decrements, symptoms of depression and anxiety, and immune effects in adults.

Health Effects of Copper

Copper has been demonstrated to cause gastrointestinal distress following short term exposure and can cause liver and kidney damage during longer term exposures. Copper exposures are of particular concern for people with Wilson's disease.

Lead in Plumbing Materials

The extent to which leaded materials occur in drinking water distribution systems and plumbing materials in homes and buildings (premise plumbing) varies across the U.S. Much of the variation is due to the quality and age of the housing stock; older homes are more likely to have pipes and plumbing materials containing lead. Where they are present, the most significant source of lead in drinking water are leaded pipes that extend from the water main underneath the street to the residence (lead service lines, or LSLs) however, faucets and fixtures with leaded brass and pipes with lead solder can also contribute to the presence of lead in drinking water. Water chemistry also plays a role in lead levels, because some water sources are more corrosive to leaded plumbing materials if not treated for corrosion control.

In 1986, Congress amended the Safe Drinking Water Act, prohibiting the use of pipes, solder or flux that are not "lead free" in public water systems or plumbing in facilities providing water for human consumption. At the time, "lead free" was defined as solder and flux with no more than 0.2% lead and pipes with no more than 8%. Prior to this, leaded materials were commonly used in plumbing materials and for service lines connecting residences and buildings to water mains. In 1996, Congress further amended SDWA to expand the prohibition to encompass plumbing fittings and fixtures and to prohibit the introduction into commerce of pipes, fitting, and fixtures, solder or flux that is not lead free. The Reduction of Lead in Drinking Water Act of 2011 created exemptions to the prohibitions and revised the maximum allowable lead content from not more than 8% to not more than a weighted average of 0.25% lead on the wetted surface; further reducing the amount of lead in contact with drinking water when that law became effective in January 2014. While these prohibitions have reduced the amount of lead allowed in covered plumbing materials after they went into effect, there are many buildings that still have LSLs and/or plumbing materials made with a higher percentage of lead than currently allowed for new installations or repairs of existing plumbing.

Summary of the Current Lead and Copper Rule

Under SDWA, EPA establishes national primary drinking water regulations (NPDWRs) which either establish a maximum contaminant level (MCL) or a treatment technique "to prevent known or anticipated adverse effects on the health of persons to the extent feasible." The Lead and Copper Rule (LCR) is a treatment technique rule, first promulgated in 1991 and revised in 2000 and 2007, which requires water systems to conduct tap sampling for lead and copper to determine the actions water systems must take to reduce exposure to lead and copper. Recognizing that there is no safe level of lead in drinking water, the LCR set a health-based maximum contaminant level goal of zero. Under the LCR, water systems must work with their customers to collect samples from locations with LSLs and/or leaded plumbing materials. The LCR established action levels of 0.015 mg/L (15 ppb) for lead and 1.3 mg/L (ppm) for copper, based on the 90th percentile sample level.

The action level for copper is set at the health-based maximum contaminant level goal for copper. The action level for lead is based upon EPA's evaluation of available data on corrosion control's ability to reduce lead levels at the tap. Corrosion control treatment (CCT) typically involves the addition of chemicals such as orthophosphate, or chemical adjustment of drinking water pH, to reduce the corrosivity of drinking water and thus the level of leaching of lead and copper from plumbing materials. Whereas an MCL is an enforceable level that drinking water cannot exceed without violation, an action level is a screening tool for determining when certain treatment technique actions are needed. If the lead or copper action level is exceeded in more than ten percent of tap water samples collected during any monitoring period (i.e., if the 90th percentile level is greater than the action level), a water system must take certain actions.

The type of action that is triggered depends upon the size of the system and the actions it has taken previously. All water systems serving more than 50,000 people were required to install corrosion control treatment soon after the LCR went into effect. Systems serving less than 50,000 people are not required to install corrosion treatment if the system meets the lead and copper action levels during each of two consecutive six-month monitoring periods. Systems serving less than 50,000 people that exceed the action level and have not yet installed CCT must begin working with their state to monitor water quality parameters and install and maintain CCT. Any system that exceeds the lead action level must conduct public education. Any system with LSLs that exceeds the lead action level after installing CCT must begin LSL replacement (LSLR). Although LSLR programs are conducted by public water systems, in many cases, the portion of the LSL that extends from the water main to the residential property line is owned by the water system, while the portion of the line that extends from the property line to the home is solely owned by the homeowner. Under the current rule, water systems conducting LSLR must offer building owners the opportunity to replace their portion of the line at the time the system is replacing the portion of the service line owned by the system, but the system is not obligated to pay for replacing the portion of the line it does not own.

Key Challenges with the Current Lead and Copper Rule

The LCR is one of the most complicated drinking water regulations for states and drinking water utilities to implement due to the need to control corrosivity of treated drinking water as it travels through often antiquated distribution and plumbing systems on the way to the consumer's tap. The LCR is the only NPDWR that requires sampling in homes, often by the consumers themselves. The rule includes complex sampling and treatment technique requirements intended to protect against exposure to lead and copper in drinking water. States and public water systems must have expertise and resources to identify the sampling locations and to collect and analyze samples correctly. Even greater expertise is needed for

systems and states to identify on a system-specific basis the optimal CCT and water quality parameter monitoring to assure effective operation. The current structure of the rule compels additional protective actions on the part of a water system only after a potential problem has been identified, which may create a disincentive for utilities to identify potential problems with lead and copper in the drinking water system. It is also worth noting that road construction activities or maintenance of gas or buried power lines can cause disturbance of LSLs, in some cases introducing high levels of lead into drinking water through the release of lead particulates into the drinking water distribution system.

When corrosion control alone is not sufficient, LSLR, public education, and further actions on the part of consumers to reduce their exposure to lead are necessary. Consumers' ability to understand and afford these actions can pose challenges. In most communities, LSLs are partially owned by the utility and partially owned by the homeowner; the cost of full LSLRs has been estimated to be $2,500-$5,500 per line, but some industry estimates for an average replacement are as high as $8,700 per line.

Summary of National Drinking Water Advisory Council Recommendations

The National Drinking Water Advisory Council (NDWAC) is a Federal Advisory Committee that supports EPA in performing its duties and responsibilities related to the national drinking water program. The council was created through a provision in the SDWA of 1974. The NDWAC LCR Working Group was formed to provide advice to EPA in considering potential revisions to the LCR. In December 2015, the NDWAC provided specific recommendations to the Administrator for LCR revisions including:

- Require proactive LSLR programs, which set replacement goals, effectively engage customers in implementing those goals, and provide improved access to information about LSLs, in place of current requirements in which LSLs must be replaced only after a lead action level exceedance (ALE);
- Establish more robust public education requirements for lead and LSLs, by updating the Consumer Confidence Report (CCR), adding targeted outreach to consumers with LSLs and other vulnerable populations (pregnant women and families with infants and young children), and increasing the information available to the public;
- Strengthen CCT, retaining the current rule requirements to re-assess CCT if changes to source water or treatment are planned, adding a requirement to review updates to EPA guidance to determine if new scientific information warrants changes;
- Modify monitoring requirements to provide for consumer requested tap samples for lead and to utilize results of tap samples for lead to inform consumer action to reduce the risks in their homes, to inform the appropriate public health agency when results are above a designated household action level, and to assess the effectiveness of CCT and/or other reasons for elevated lead results;
- Tailor water quality parameters (WQPs) to the specific CCT plan for each system, and increase the frequency of WQP monitoring for process control;
- Establish a health-based, household action level that triggers a report to the consumer and to the applicable health agency for follow up;
- Separate the requirements for copper from those for lead and focus new requirements where water is corrosive to copper; and
- Establish appropriate compliance and enforcement mechanisms.

Summary of Other Stakeholder Input

EPA has also received recommendations for revisions to the LCR from other stakeholders including a NDWAC Working Group member who dissented on a number of the NDWAC recommendations, the

Flint Water Interagency Coordinating Committee, and local citizens impacted by the experience in Flint. These recommendations emphasize the importance of enforceable goals for LSLR, recognize the significant lead exposure risks that can accompany partial service line replacements (PLSLRs) and provide clearer and more prescriptive requirements for sampling and corrosion control protocols that reduce the opportunities for systems to generate biased sampling results or improperly implement corrosion control procedures. EPA has received input from other stakeholders similarly concerned with eliminating PLSLRs and strengthening the sampling and corrosion control provisions of the LCR. In addition, the Board of the American Water Works Association (AWWA), which represents drinking water utilities, voted unanimously in March of 2016 to support the NDWAC recommendations, including those that would ultimately lead to complete replacement of LSLs.

III. Key Issues and Potential Elements under Consideration

EPA expects that proposed revisions to the LCR will include both technology-driven and health-based elements that focus on proactive, preventative actions to avoid high lead levels and health risks. In addition, we expect to propose robust and ongoing communication and information sharing with consumers that will foster actions by consumers to reduce risks. The potential elements under consideration are interconnected components that together will address the challenges with the current rule and improve public health protection in the revised rule.

In developing revisions to the LCR, EPA must adhere to the SDWA's statutory requirements and achieve the greatest public health protection feasible. The SDWA requires that any treatment technique rule must prevent known or anticipated adverse effects on the health of persons to the extent feasible and revisions to any NPDWR must maintain or strengthen public health protection. In addition, EPA must prepare a Health Risk Reduction Cost Analysis to evaluate if the benefits justify the costs of the rule. EPA is committed to using the best available science. As knowledge about lead contamination in drinking water evolves, we will continue to engage with stakeholders and consider their viewpoints and relevant science in developing revisions to the LCR.

Lead Service Line Replacement

As noted above, LSLs, which connect a residence or building to the water main, can be a significant source of lead in drinking water. The total number of LSLs currently in use in the US is unknown; estimates range from 6.5 million to greater than 10 million homes that have service lines that are at least partially made of lead. The current LCR requires LSLR only after a lead ALE, and allows partial LSLR when an owner of a home or building is unable or unwilling to pay for replacement of the portion of the service line not owned by the water system.

In 2010, EPA asked its Science Advisory Board to evaluate the data regarding the effectiveness of the partial LSLR, in comparison to full line replacement. The EPA Science Advisory Board concluded in its 2011 report to EPA that:

> PLSLRs have not been shown to reliably reduce drinking water lead levels in the short term, ranging from days to months, and potentially even longer. Additionally, PLSLR is frequently associated with short-term elevated drinking water lead levels for some period of time after replacement, suggesting the potential for harm, rather than benefit during that time period. Available data suggest that the elevated tap water lead levels

tend to then gradually stabilize over time following PLSLR, sometimes at levels below and sometimes at levels similar to those observed prior to PLSLR. [1]

Much of the discussion regarding potential LCR revisions has focused on mandatory, proactive LSLR, as a potential opportunity to eliminate one of the primary sources of lead in drinking water, thus reducing reliance on corrosion control to reduce lead in drinking water at the tap.

The NDWAC has recommended that the Agency require proactive full LSLR programs with the following elements:

- Requiring all PWSs to establish a LSLR program that effectively informs and engages customers to encourage them to share appropriately in fully removing LSLs, unless the system can demonstrate that LSLs are not present in their system;
- Targeted outreach to customers with LSLs, with information about the risks of lead exposure, an offer to test a tap sample, and information about and encouragement to participate in the LSLR program;
- Dates by which systems should have met interim goals and completed replacement of all LSLs and partial LSLs, without penalty to the water system for those homeowners who refuse to participate in the replacement program as long as the water system has made a meaningful effort to work with such a homeowner;
- Creating incentives for understanding where LSLs and PLSLs exist, while making action on full replacement, rather than on investigation of the location of LSLs and PLSLs the priority;
- Maintaining ongoing-outreach to homeowners where LSLs or PLSLs still exist;
- Implementation of standard operating procedures (SOPs), either from EPA guidance or tailored to the system, that helps define operations that disturb LSLs and practices to minimize disturbance and consumer exposure to lead; and
- Stronger programs to educate consumers, and to provide test results of tap samples at the request of consumers.

It is important to recognize that LSLR presents substantial economic, legal, technical and environmental justice challenges. First, it is costly. Estimated costs for LSLRs range from $2500 to more than $8000 per line, suggesting an estimated cost of eliminating all 6.5 to 10 million LSLs nationwide ranging from 16 to 80 billion dollars. Potential costs may be disproportionately borne by specific low-income localities, such as Detroit, which has an estimated 100,000 LSLs and where 40 percent of the population is below the poverty line. Second, LSLs are often partially or totally owned by private homeowners. Under the current LCR, public water systems are responsible for replacement of LSL or the portion of the LSL it owns. This is typically the portion of the line from the water main to the property line. There are important legal questions about EPA's authority to mandate replacement of privately owned portions of lines and about water systems' authority under state or local law to require and/or pay for such replacement. To the extent water systems rely on homeowners to pay for replacement of privately owned portions of lines, there are concerns about consumer's ability to pay and the possibility that lower-income homeowners will be unable to replace lines, resulting in disparate levels of protection. However, a number of cities and towns across the nation have successfully implemented full LSLR and have developed innovative approaches to addressing these challenges, including Lansing, Michigan; Madison, Wisconsin; and more recently Boston, Massachusetts – and EPA is looking at this experience in the context of developing proposed revisions to the LCR.

[1] Science Advisory Board, U.S. Environmental Protection Agency, "Evaluation of the Effectiveness of Partial Lead Service Line Replacements," transmitted to Lisa Jackson, EPA Administrator, September 28, 2011.

EPA is considering proposing full LSLR programs. In assessing options for an LCR revision proposal, EPA is evaluating a number of important issues, including:

- The appropriate pace of LSLR and the mechanism for implementing and enforcing any LSLR program requirements. Consideration of number of LSLs that can feasibly be replaced on an annual basis will need to be considered as well as water system size.
- Costs and benefits of LSLR for reducing lead exposures. National costs could range from 16 to 80 billion dollars. Benefits will be estimated based upon avoided effects of lead exposure such as IQ loss in developing children. EPA will evaluate how much additional lead exposure reduction can be achieved in removing LSLs from water systems with optimized corrosion control. EPA will also evaluate other measures that can reduce lead exposure to assure that resources are focused on reducing the most significant sources of lead.
- How to provide for full LSLR where the utility does not own the full line, including an evaluation of whether a potential change to the definition of "control" under the SDWA would facilitate full LSLR.[2]
- Requiring drinking water utilities to update their distribution system materials inventory to identify the number and location of LSLs in their system.
- How to address potential equity concerns with LSLR requirements and consumers ability to pay for replacement of their portion of the LSL. Identifying and evaluating incentive and creative funding mechanisms are critical as is encouraging use of Drinking Water State Revolving Fund to the extent possible.
- How to address LSLR in rental properties, particularly where low income residents do not control the property or have the ability to contribute to the cost of LSLR.
- Whether to prohibit or otherwise limit partial LSLR, and how to address concerns related to potential disturbance of LSLs during emergency repairs to water mains that are connected to LSLs.
- How to address the short term increases in lead levels that can follow LSLRs (i.e., requiring water systems to provide filters when lines, or enhanced household flushing recommendations).

Improved Optimal Corrosion Control Treatment Requirements

Optimal Corrosion Control Treatment (OCCT) is the primary treatment technique on which the LCR focuses, and as noted above, it has been successful on a national basis in reducing lead and copper levels at the tap. Even if the revised LCR includes requirements for full LSLR, full replacement of LSLs would likely take decades to complete, and LSLR will not address potential risks from lead and copper materials present in premise plumbing in tens of millions of homes across the U.S. As a result, CCT requirements will continue to be a key element of a revised LCR.

Since the initial implementation of the LCR, systems have faced ongoing challenges of continuing to maintain optimal corrosion control while making necessary adjustments to treatment processes or system operations unrelated to corrosion control to comply with other NPDWRs. Determining whether treatment is optimized can be challenging for individual systems, given the wide variability in

[2] The Safe Drinking Water Act defines the term public water system as "…a system for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at least fifteen service connections or regularly serves at least twenty-five individuals. Such term includes (i) any collection, treatment, storage, and distribution facilities ***under the control of*** the operator of such system and used primarily in connection with such system, and any collection or pretreatment storage facilities not under such control which are used primarily in connection with such system."

distribution system composition, source water characteristics and approaches to complying with other NPDWRs, such as the surface water treatment rules. While the impact of changes in some water quality parameters on lead and copper levels are well understood, such as fluctuations in pH or alkalinity, others are more complex, such as the quantity and type of disinfectant used or the chemical composition of the protective scales within the LSLs. Small and medium systems (those serving <50,000 persons) are not required to commence development of a CCT plan under the existing LCR unless they have a lead ALE.

The NDWAC recommends that:

- EPA release a revised CCT guidance manual as soon as possible and update this manual every six years, so that PWSs and primacy agencies can take advantage of improvements in the science;
- EPA provide increased expert assistance on CCT to PWSs and primacy agencies;
- The LCR continue to require re-evaluation of CCT when a PWS makes a change in treatment or source water;
- The LCR continue to require water quality parameter monitoring to ensure that the OCCT is achieving the treatment objectives and that EPA consider requiring such monitoring on a more frequent basis with additional guidance on process control methods; and
- Large systems review their existing CCT plan in light of current science in a newly revised guidance manual with their primacy agency to determine whether the WQPs reflect the best available current science.

Recognizing the continuing central importance of CCT in reducing lead exposures, EPA is considering a range of options for strengthening CCT requirements in the proposed rule that could help to provide clearer requirements, reduce uncertainty, and ensure broader and more consistent proactive application of CCT to avoid high lead levels. Options under consideration include:

- Requiring large water systems (serving > 50,000 persons) to evaluate and re-optimize CCT when EPA publishes updated CCT guidance. This option would provide a mechanism to ensure water systems are considering the best available science to inform treatment decisions.
- Given that CCT is also effective at reducing lead leaching in premise plumbing (not just LSLs), requiring all systems in the U.S. to implement CCT, regardless of system size, tap sampling results, or the presence of LSLs; or alternatively, broadening the categories of systems for which CCT is required; requiring all systems to assume that their distribution system includes the presence of LSLs unless or until they provide the primacy agency with a robust distribution system materials evaluation that demonstrates that this is not the case.
- Requiring water systems that are already applying CCT that exceed the lead action level to evaluate and re-optimize CCT.

Incorporating a Health-Based Benchmark to Strengthen Protection

Although the current LCR is focused on protecting public health by reducing lead and copper exposures, it does so through “technology-based” requirements. The 1991 LCR established an action level for lead of 15 ppb (for the 90th percentile sample) based on an assessment that it was generally representative of effective CCT. Although public discussion often mistakes the action level as having significance in terms of health impacts, EPA has consistently emphasized that the health-based maximum contaminant level goal (MCLG) for lead in the current LCR is zero and that there is no safe level of lead exposure. While the future LCR will maintain treatment technique requirements (e.g., CCT, public education and LSLR) to reduce lead exposures, a health-based benchmark for lead in drinking water could help to guide appropriate actions to communicate and mitigate risk, particularly at the household level.

As part of its 2015 recommendations, the NDWAC suggested that EPA establish a "household action level" based on the amount of lead in drinking water that would raise an average, healthy infant's blood lead level to greater than five micrograms per deciliter based on consumption of infant formula made with water. According to the NDWAC recommendations, water systems would be required to notify the consumer and the local public health agency if this level were exceeded – with the expectation that individuals and local officials will use this information to take prompt actions at the household level to mitigate lead risks.

While EPA has not yet determined the specific role of a health based benchmark for lead in drinking water in the new rule, the Agency sees value in providing states, drinking water systems and the public with a greater understanding of the potential health implications for vulnerable populations of specific levels of lead in drinking water. EPA is currently developing up-to-date scientific modeling of the relationship between lead levels in drinking water and blood lead levels – particularly for sensitive lifestages such as formula-fed infants and children under age 6. EPA expects to conduct an expert peer review panel to identify approaches to derive a health based value for lead in drinking water. Following this public peer review process, EPA expects to evaluate and determine what specific role or roles a health-based value may play in the revised LCR. EPA anticipates that the proposal will consider the "household action level" approach recommended by the NDWAC, but a health-based value could also help to inform other potential elements of a revised LCR – including public education requirements, prioritization of households for LSLR or other risk mitigation actions at the household level, and potential requirements related to schools or other priority locations.

Considering the Potential Role of Point of Use Filters

One of the insights that has emerged from work in response to the crisis in Flint, Michigan, is the efficacy of point-of-use household filters in reducing lead levels at the tap. There are a broad array of point-of-use filters that are certified by independent third party labs for lead reduction. Recently, EPA collected samples from these filters installed on taps in Flint, Michigan, and verified that these filters are effective in reducing lead levels. Filters require periodic replacement of cartridges to remain effective. The SDWA requires point of use devices specified as a feasible technology to achieve compliance with an MCL or treatment technique requirements to be owned, controlled, and maintained by the water utility. While filters are not an appropriate substitute for CCT, LSLR, or other actions to properly manage and reduce lead levels at the system level, EPA is considering role for filters in addressing risks from lead and copper at the household level. Potential roles include requiring point of use filters where there has been a disturbance of a LSL or where tap sampling indicates an exceedance of a health-based benchmark or action level.

Clarify and Strengthen Sampling Requirements

The goal of the LCR sampling requirements – including site selection criteria and tap sampling procedures — is to cost effectively assess the effectiveness of a water system's CCT and to trigger additional actions to reduce exposure when necessary. The target locations in the LCR are focused on the homes that are likely to have the highest risk for lead exposure. The lead sampling protocol requires a one liter first draw sample collected after water has remained stagnant for at least 6 hours. Implementation of the sample site selection criteria and the sampling protocol are challenging and provide opportunity for error, particularly given that samples are collected by the residents themselves. In addition, numerous stakeholders have criticized the current rule as providing too much discretion in sampling approaches and providing opportunities for systems to implement their sampling procedures

to avoid exceeding the action level, even in circumstances where corrosion control has not been optimized.

On February 29, 2016, EPA issued a memorandum encouraging states and drinking water utilities to implement protective LCR sampling procedures, based on lessons learned in Flint, Michigan, and other communities. These sampling procedures include eliminating the practice of flushing the tap prior to the mandatory 6-8 hour stagnation period (pre-stagnation flushing), ensuring that faucet aerators are not removed prior to conducting tap sampling under the LCR, and encouraging the use of wide mouth bottles for collection of tap samples to avoid the loss of any of the first draw sample. EPA expects to incorporate each of these recommended sampling procedures as proposed requirements in the proposal for the revised LCR.

In addition, EPA has increased oversight of state programs to ensure effective implementation of the LCR. As part of these efforts, EPA sent letters on February 29, 2016, to state commissioners to ensure consistency with EPA regulations and guidance. The letter requested that primacy agencies work collaboratively with EPA to ensure national consistency and improve transparency and public information regarding the implementation of the rule.

The majority of the states confirmed that they have been consistent with EPA guidance and the LCR. Some primacy agencies specifically stated in their response that they would be undertaking steps to ensure that their protocols and procedures follow the LCR and applicable guidance. Regarding the use of EPA guidance on LCR sampling protocols and optimization corrosion control procedures, the majority of the primacy agencies confirmed that they use relevant guidance and protocols for sampling and corrosion control. Some primacy agencies had previously encouraged pre-flushing but stated they would update their protocols to ensure consistency with the recently published EPA sampling memo.

The NDWAC recommends that a voluntary customer-initiated sampling program based on a more robust and targeted public education be substituted for the current LCR tap sampling requirements.
The results of the voluntary tap sampling program would be used for three separate purposes:

- Informing and empowering individual households to take action to reduce risk;
- Reporting to health officials when monitoring results exceed a “household action level”; and
- Providing an ongoing source of information to the utility to assess effectiveness of CCT.

In the proposed LCR revisions, EPA intends to propose clear and robust sampling requirements to serve the goals of: (1) providing appropriately robust information on how the overall system is performing in reducing lead levels; and (2) providing information on household levels that can be compared to health-based levels, to help guide mitigation actions at individual homes.

EPA is continuing to evaluate specific procedures for tap sampling, including:

- The continued use of “first draw” tap samples, sequential sampling to characterize lead levels in drinking water that has been in contact with premise plumbing and the LSL, random daytime samples, whether the rule should include a variety of tap sampling protocols to meet different needs for customers and the system, and whether the rule should provide for systems to sample customer’s taps on request.
- Mandatory sampling for schools that are not public water systems in the revised LCR, given the presence of vulnerable populations in the school environment and the ongoing challenges that schools continue to encounter with elevated lead levels in drinking water.

- ORD partnering with technology developers in industry and academia to identify available technologies that can be used to support real-time monitoring of water quality parameters for measuring the effectiveness of corrosion control in the distribution system.

Increased Transparency and Information Sharing

Transparency and public sharing of data and information is a cornerstone of EPA's efforts to strengthen the effectiveness of its rules. The drinking water crisis in Flint, Michigan, and subsequent focus on lead issues in other communities has underscored the need for transparency with the public in implementing actions to reduce lead in drinking water. EPA took important steps to advance these efforts on February 29, 2016, when the Agency sent letters to every governor and drinking water primacy agency responsible for implementing the LCR, urging a series of actions to address risks from lead in drinking water. The Agency called on primacy agencies to work with public water systems to increase transparency in implementation of the LCR by posting on their public websites:

- the materials inventory that systems were required to complete under the LCR, including the locations of LSLs, together with any more updated inventory or map of LSLs and lead plumbing in the system; and
- LCR compliance sampling results collected by the system, as well as justifications for invalidation of LCR samples.

The Agency also asked that states enhance efforts to ensure that residents promptly receive lead sampling results from their homes, together with clear information on lead risks and how to abate them, and that the general public receives prompt information on high lead levels in drinking water systems.

Many of the responses from state commissioners identified practices and policies that enhance the implementation of the LCR and increase public transparency. States identified opportunities to promote transparency at the state level by posting individual lead compliance samples, and not just the 90th percentile values on their public websites utilizing the Drinking Water Watch or similar tools. To complement this effort, some public water systems are providing online searchable databases that provide information on known locations of LSLs, or providing videos that show homeowners how to determine whether their home is served by a LSL.

To shorten reporting and notice timeframes, some states have adopted more stringent timelines for water systems to provide consumer notices to all who receive water from sites that were sampled and resulted in a lead ALE. While the LCR allows up to 30 days, some states are requiring notice to consumers as quickly as 48 hours after sampling. In addition, some states require laboratories that analyze lead compliance samples to contact the state within 24 hours of confirming that a sample analysis has exceeded the 15 parts per billion action level for lead. Consistent with the EPA's 2013 E-Reporting Policy[3] the agency intends to use, to the maximum extent practicable, common agency tools, information systems, and data sets for E-Reporting for the revised LCR. E-Reporting can facilitate faster access to data and other information critical to consumers to understand lead and copper levels in their drinking water and within the water system and to make informed decisions regarding actions they may take to reduce exposure from lead in drinking water.

The NDWAC recommends that EPA strengthen requirements for public access to information about LSLs, tap monitoring results and other relevant information. Enhanced requirements for sharing compliance

[3] https://www.epa.gov/compliance/policy-statement-e-reporting-epa-regulations

data and other information with the public can play a critical role in strengthening the protections provided by the LCR. By providing individuals and communities with prompt and accurate information, the LCR can help to leverage broader public involvement and engagement in ensuring accountability, consistency in meeting regulatory requirements, and prompt action to mitigate high lead levels or other risks, both at the system and household level.

Accordingly, the agency expects to propose stronger public transparency elements for the revised LCR. Measures under consideration include:

- Requiring drinking water utilities to post all LCR sampling results and sample invalidation justifications on their publicly accessible website in a form that protects the privacy of customers;
- Mandating shorter time frames for providing lead sampling results to consumers;
- Mandating shorter time frames for providing the public with public health education when high lead levels are detected in their drinking water system;
- Enhanced requirements for sharing the results of the materials evaluation conducted by drinking water system, including publicly identifying the location of LSLs within the community in a way that protects privacy of homeowners;
- Enhanced requirements for states to publicly identify each system within their state that is currently or has recently experienced an ALE, along with the specific steps the system is required to fulfill and their progress in implementing these requirements
- Requiring systems to provide information on the number of lead tap samples collected, number of samples that exceed the lead action level, information about voluntary sample results and any recent changes to CCT or water quality parameters that might affect lead levels in their water; and
- Requiring more timely electronic reporting of sampling results to primacy agencies and EPA.

Public Education Requirements

A critical element of the LCR is public health education to ensure that the public has easy access to clear information on lead and copper risks in drinking water and how to mitigate them. The current LCR requires public health education in response to a lead ALEs. One concern with this approach is that systems can have up to 10 percent of homes with highly elevated levels of lead in drinking water without causing an ALE and triggering the public health education requirements of the rule.

The NDWAC recommends that:

- EPA establish an easily accessible, national clearinghouse of information about lead in drinking water to serve the needs of the public and of public water systems;
- Require information be sent to all new customers on the potential risks of lead in drinking water;
- Revise the current CCR language to address LSLs and update the health statements;
- Add requirements for targeted outreach to customers with LSLs; and
- Expand the current requirements for outreach to caregivers/health care providers of vulnerable populations.

EPA is considering modifications to the rule to strengthen the public education requirements by requiring ongoing, proactive and targeted public education to effectively communicate drinking water lead risks, promote tap sampling, and provide actions consumers can take to reduce lead exposures regardless of ALEs by the system.

The Agency is also considering requiring water utilities to provide information on lead risks to all new customers at the time of service connection, expanding the current LCR requirements for public outreach to caregivers and healthcare providers for vulnerable populations, and revising the current requirement for CCRs so that these reports address the status of LSLs in each city.

Customers with LSLs are at heightened risk for lead exposures in drinking water. EPA is considering a number of potential public education requirements in the proposed LCR revisions to help mitigate these risks, including:

- Requiring water systems to provide targeted outreach to customers with LSLs and to provide these customers with invitations to have their water tested and to participate in a LSLR program, regardless of ALEs in the system;
- Requiring water system to provide public access for LSL inventories, which would include the locations of those service lines;
- Requiring that customers be notified of emergency or planned maintenance that may disrupt LSLs, therefore increasing lead levels, and be provided with information on actions that can be used to mitigate exposure; and
- Requiring a standard operating procedure be prepared and provided to other utilities who may disturb LSLs for maintenance or capital improvements.

Potential Revised Copper Requirements

Published corrosion literature since 1991 on copper has shown that copper and lead leaching patterns differ. The current LCR sample site selection criteria targets highest-risk lead sites, and tap samples for both lead and copper are collected at these locations. Some stakeholders have expressed concerns that elevated levels of copper may be missed using this approach.
The NDWAC Recommends:

- Instead of basing action on the results of routine, in-home copper sampling, actions should be based on the aggressiveness of the water to copper. Systems can determine if their water is aggressive to copper by doing WQP monitoring in the distribution system. All PWSs should be assumed to have water that is aggressive to copper unless they demonstrate that it is not.
- EPA should develop criteria to define water that is not aggressive to copper for the purpose of establishing whether a system falls into that category (or “bin”) for the purposes of the LCR. EPA should consider the accuracy and potential variability of pH and alkalinity monitoring as well as corrosivity to copper in establishing pH and alkalinity ranges. The criteria also should include consideration of passivation time.
- PWSs can choose one of several approaches to demonstrate that their water is not aggressive to copper.
- PWSs with water classified as non-aggressive to copper must continue to demonstrate that the water is non-aggressive. PWS’s can choose to:
    - Maintain those WQPs that demonstrate it maintains non-aggressive water, or
    - Conduct copper sampling at vulnerable homes (houses < 2 years old with new copper plumbing) to demonstrate that water chemistry is non-aggressive cooper levels fall under the AL/MCL).

EPA is considering modifications to the LCR requirements to provide greater attention to the potential risks associated with elevated levels of copper in drinking water. Options that are being considered include modifications to the sample site selection criteria to include sites that are at greatest risk of producing elevated levels of copper, and developing water quality parameters designed to identify

systems that have water aggressive to copper. Systems with aggressive water could be required to install CCT and/or conduct public education for copper, while systems with nonaggressive water could be required to periodically demonstrate that leaching of copper is not a concern for the water system.

Relationship with Broader Lead Issues

While the LCR revisions are focused on lead in drinking water, EPA recognizes that the ultimate goal is comprehensive reduction in exposures to lead from all contaminated media, some of which may present greater risks than drinking water in individual communities or homes.

Lead can be ingested from various sources, including lead paint and house dust contaminated by lead paint, as well as soil, drinking water, and food. The effects of lead exposure are generally measured by blood lead levels. As a result of the multitude of possible exposure pathways, the contribution from specific pathways (e.g., consumer products, diet, soil, ambient air) to blood lead concentrations can vary widely for each individual.

Young children, infants, and fetuses are particularly vulnerable to lead because their behavior patterns typically lead to higher exposures, they absorb a greater proportion of the lead they ingest than adults, physical and behavioral effects of lead occur at lower exposure levels in children than in adults, and the central nervous system of children undergoes rapid development and impacts during this period can have lifelong effects.

EPA estimates that drinking water can make up 20 percent or more of a total exposure to lead. In some circumstances, infants who consume mostly mixed formula can receive 40 percent to 60 percent of their exposure to lead from drinking water. Current water sampling protocols were designed to assess the adequacy of CCT, not the level of human exposure to lead. Important fluctuations in water lead levels can be missed because of limitations inherent in sampling protocols that EPA uses, making it difficult to assess household exposure through drinking water.[4]

Pathways of exposure to lead related to ambient air include both inhalation of lead and ingestion of lead in dust or soil that originated in the ambient air. For example, dietary lead exposure may be air-related if ambient air lead deposits on plant materials or in water that becomes available for human consumption. (They may also be water-related if cooking is undertaken in tap water with high lead levels.)

Dust and soil particles containing lead are typically in the size range that is ingested rather than inhaled. However, soil can act as a reservoir for deposited lead emissions, and exposure to soil contaminated with deposited lead can occur through re-suspended particulate matter as well as hand-to-mouth contact, which is the main pathway of childhood exposure to lead.

To address these concerns, EPA is committed to continuing to work with federal, state and local partners to reduce lead risks in all contaminated media**.**

[4] Brown, Mary Jean and Margolis, Stephen, Division of Emergency and Environmental Health Services, National Center for Environmental Health, Centers for Disease Control, "Lead in Drinking Water and Human Blood Lead Levels in the United States," *Morbidity and Mortality Weekly Report*, August 10, 2012.

IV. Conclusion

It is critical that EPA thoughtfully revise the LCR to strengthen the rule to reduce exposure to lead in drinking water, especially for infants and children and communities bearing a disproportionate risk. It is also important that LCR revisions improve implementation and enforceability of the rule requirements. This paper provides examples of regulatory provisions EPA is considering and evaluating in order to improve public health protection. While EPA has received extensive recommendations from NDWAC and other stakeholders, the Agency is committed to continue to engage with stakeholders and consider all viewpoints in revising the LCR. EPA is committed to using the best available science and to conducting robust analyses of regulatory options that have been informed by stakeholder input. The Agency welcomes input and feedback on the ideas presented in this paper to support development of a Notice of Proposed Rulemaking of LCR Revisions for publication in the Federal Register and public review and comment in 2017.

DECLARATION OF SERVICE BY EMAIL

I, the undersigned, declare as follows:

I am a resident of the County of Sacramento and I am over the age of 18 years, and not a party to the within action. My place of employment is 980 Ninth Street, Suite 300, Sacramento, California 95814.

On August 15, 2018, I served the:

- **SWRCB's Comments on the Test Claim filed August 13, 2018**
- **Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017 filed August 13, 2018**
- **Finance's Comments on the Test Claim filed August 13, 2018**

  Lead Sampling in Schools, Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017, 17-TC-03
  City of San Diego, Claimant

By making it available on the Commission's website and providing notice of how to locate it to the email addresses provided on the attached mailing list.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that this declaration was executed on August 15, 2018 at Sacramento, California.

Lorenzo Duran
Commission on State Mandates
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COMMISSION ON STATE MANDATES

Mailing List

Last Updated: 8/10/18

Claim Number: 17-TC-03

Matter: Lead Sampling in Schools, Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017

Claimant: City of San Diego

TO ALL PARTIES, INTERESTED PARTIES, AND INTERESTED PERSONS:

Each commission mailing list is continuously updated as requests are received to include or remove any party or person on the mailing list. A current mailing list is provided with commission correspondence, and a copy of the current mailing list is available upon request at any time. Except as provided otherwise by commission rule, when a party or interested party files any written material with the commission concerning a claim, it shall simultaneously serve a copy of the written material on the parties and interested parties to the claim identified on the mailing list provided by the commission. (Cal. Code Regs., tit. 2, § 1181.3.)

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RECEIVED
August 13, 2018
Commission on
State Mandates

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Exhibit C

August 13, 2018

Ms. Heather Halsey
Executive Director
Commission on State Mandates
980 Ninth Street, Suite 300
Sacramento, CA 95814

Response to Test Claim 17-TC-03, Lead Sampling in Schools, Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, Effective January 18, 2017

Dear Ms. Halsey:

The Department of Finance (Finance) has reviewed Test Claim 17-TC-03 submitted to the Commission on State Mandates (Commission) by the City of San Diego (City) on behalf of its Public Utilities Department (PUD) that alleges state-mandated, reimbursable costs associated with Permit Amendment No. 2017PA-SCHOOLS (Permit Amendment) issued by the State Water Resources Control Board (State Board) on January 17, 2017, that requires the PUD to provide free lead testing to any K-12 school in the PUD's service area that requests such testing.

The City states the PUD is a "public water system" insofar as it provides water for human consumption through pipes or other conveyances with 15 or more service connections that serve at least 25 persons at least 60 days per year. The City states the PUD has 276,000 metered water connections that daily serve 1.3 million persons.

The City states 502 K-12 schools in the PUD's service area requested free lead testing as of January 1, 2018. The City states this resulted in PUD costs of $34,866.36 incurred between January 17, 2017 and March 29, 2018. The City estimates the PUD incurred additional lead testing costs of $11,693.89 between March 30, 2018 and June 30, 2018.

According to the State Board, there are 6,970 water systems in California, of which 5,314 are operated by private entities such as corporations, investor-owned utilities, or mutual water companies. The remaining 1,656 water systems are operated by public entities such as special districts, cities, or counties. Whether privately or publicly operated, these water systems are collectively referred to as "public water systems."

Public water systems fall into three categories: community water systems, non-community non-transient water systems, and transient water systems. According to the State Board, community water systems deliver water to homes and businesses, and are operated by cities, counties, regulated utilities, regional water systems, or water districts.

On January 17, 2017, the State Board issued identical amendments to the operating permits of approximately 1,200 community water systems with K-12 schools in their service areas. The

permit amendments require the water systems to provide free lead testing to all K-12 schools in their service areas that request such testing. The State Board reports that approximately 450 of the impacted community water systems are privately operated.

Article XIII B, section 6 of the California Constitution requires the state, with specified exceptions, to reimburse local agencies for costs incurred to carry out new programs or higher levels of service mandated by the state. In the California Supreme Court case *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, Los Angeles County alleged that statutory changes increased the cost of its workers' compensation program, and that the costs were state reimbursable pursuant to article XIII B, section 6. In ruling against Los Angeles County, the Court stated "(w)e conclude that when the voters adopted article XIII B, section 6, their intent was not to require the state to provide subvention whenever a newly enacted statute resulted incidentally in some cost to local agencies. Rather, the drafters and the electorate had in mind subventions for the expense or increased cost of programs administered locally and for expenses occasioned by laws *that impose unique requirements on local governments and do not apply generally to all state residents or entities (*emphasis added).

The costs incurred by the PUD pursuant to the Permit Amendment are not reimbursable state mandates under the court's reasoning in *County of Los Angeles* when 5,314 of California's 6,970 public water systems are owned and operated by private entities and of the impacted community water systems, approximately 450 are owned and operated by private entities. While water service is a local governmental function in some jurisdictions, it is not a function unique to local governments. The Commission should therefore reject the City's test claim on these grounds alone.

With respect to the existence of fee authority and Propositions 218 and 26, the City argues there is no fee authority to cover the alleged mandated costs incurred for the claimed activities. Finance believes claimants do have fee authority undiminished by Propositions 218 or 26. Notably, Proposition 26 specifically excludes assessments and property-related fees imposed in accordance with Proposition 218 from the definition of taxes (Art. XIIIC, § 1, subd. (e)(7)).

The alleged mandate involves the provision of water services and the fee authority is subject at most to the majority protest provision under article XIII D, section 6(a). The mere possibility of a protest is not a legal barrier to fee authority. Nothing in the language of Government Code section 17556(d) indicates that an agency's fee authority must be absolute, it merely must be "sufficient." Further, as the State Board makes clear in its comments on this test claim, lead testing in K-12 schools provides a direct benefit to all water systems and each ratepayer, and the City may therefore set water rates sufficient to pay for the costs of compliance with the permit amendment. Accordingly, the test claim statutes do not result in increased costs mandated by the state, and reimbursement is not required under article XIII B, section 6 of the California Constitution.

Sincerely,

Erika Li

ERIKA LI
Program Budget Manager

DECLARATION OF SERVICE BY EMAIL

I, the undersigned, declare as follows:

I am a resident of the County of Sacramento and I am over the age of 18 years, and not a party to the within action. My place of employment is 980 Ninth Street, Suite 300, Sacramento, California 95814.

On August 15, 2018, I served the:

- **SWRCB's Comments on the Test Claim filed August 13, 2018**
- **Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017 filed August 13, 2018**
- **Finance's Comments on the Test Claim filed August 13, 2018**

  Lead Sampling in Schools, Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017, 17-TC-03
  City of San Diego, Claimant

By making it available on the Commission's website and providing notice of how to locate it to the email addresses provided on the attached mailing list.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that this declaration was executed on August 15, 2018 at Sacramento, California.

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Mailing List

Last Updated: 8/10/18

Claim Number: 17-TC-03

Matter: Lead Sampling in Schools, Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017

Claimant: City of San Diego

TO ALL PARTIES, INTERESTED PARTIES, AND INTERESTED PERSONS:

Each commission mailing list is continuously updated as requests are received to include or remove any party or person on the mailing list. A current mailing list is provided with commission correspondence, and a copy of the current mailing list is available upon request at any time. Except as provided otherwise by commission rule, when a party or interested party files any written material with the commission concerning a claim, it shall simultaneously serve a copy of the written material on the parties and interested parties to the claim identified on the mailing list provided by the commission. (Cal. Code Regs., tit. 2, § 1181.3.)

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November 9, 2018

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November 09, 2018
Commission on
State Mandates

VIA CSM DROPBOX

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Re: *Lead Sampling in Schools, Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017*, 17-TC-03, Response to Comments from DOF and SWRCB

Dear Ms. Halsey:

Please accept these comments on behalf of Claimant City of San Diego (City) in response to comments submitted by the Department of Finance (DOF) and the State Water Resources Control Board (SWRCB). These comments address DOF's and SWRCB's legal arguments as to why they believe the City is ineligible to seek reimbursement: that the Permit Amendment does not impose a new program or a higher level of service on the City, and that the City can raise water rates on all its customers to pay for free lead testing at schools.

I. Introduction

On January 11, 2018, the City submitted a test claim for costs associated with lead testing performed at public and private school campuses as required by the above referenced Permit Amendment. The Permit Amendment requires the City to perform lead testing at the request of any Kindergarten through 12th Grade school in the City's service area <u>at no charge to the school</u>.[1]

DOF and SWRCB both argue in their comments that the City is ineligible for subvention because providing water service is not a governmental function, and therefore lead testing conducted by a water agency is not a new program or higher level of service under state mandates law. They also argue the City is ineligible for subvention because the City has the authority to raise fees on all water ratepayers to pay for lead testing at schools under Proposition 218.

[1] Permit Amendment No. 2017PA-SCHOOLS at p. 4, § 5 (Exhibit 1 at p. 6).

At the outset, we recognize that the two arguments raised by DOF and SWRCB were also raised in consolidated test claims 10-TC-12 and 12-TC-01, regarding certain water conservation measures. While the City was preparing these comments, the Commission's decision to deny those consolidated test claims was first affirmed by the Third District Court of Appeal, and then a rehearing was granted.[2] The Court's pending decision, however, does not impact this test claim for two reasons. First, this test claim is distinguishable because the City is not alleging the majority protest provision in Proposition 218 is a barrier to raising fees, as was argued in the consolidated test claims.[3] Instead, the City is deprived of its fee authority because the Permit Amendment directs the new service be provided at no charge to the schools. Second, because the Commission determined the claimants had sufficient fee authority, the Commission did not decide whether providing water service is a governmental function under state mandates law.[4]

II. Free Lead Testing for Schools is a New Program or a Higher Level of Service

The California Constitution provides that "[w]henever the Legislature or any state agency mandates a new program or higher level of service on any local government, the state shall provide a subvention of funds to reimburse such local government for the costs of such program or increased level of service."[5]

The program created by the Permit Amendment is free lead testing for schools. The program is new in that the City was not previously required to conduct lead testing at schools.[6] Soon after SWRCB issued the Permit Amendment, the State Superintendent of Public Instruction issued a press release entitled:

State Schools Chief Tom Torlakson Announces Free Testing for Lead in Drinking Water at California Public Schools[7]

The press release indicated it was a new state program: "State Superintendent of Public Instruction Tom Torlakson announced that public schools can receive free testing for lead in drinking water under a new state program."[8] SWRCB issued a similar press release announcing the new initiative: "K-12 schools in the state can receive free testing for lead under a new initiative announced today by the State Water Resources Control Board."[9]

The program is also a higher level of service in that it mandates more lead testing than required by the federal Lead and Copper Rule. As SWRCB explains, testing performed under the Lead

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[2] *Paradise Irrigation District, et al. v. Commission on State Mandates,* (2018) 27 Cal. App. 5th 1056 (rehearing granted Oct. 31, 2018).
[3] Decision on Consolidated Test Claims 10-TC-12 and 12-TC-1, at p. 19 (Dec. 5, 2014) (Exhibit 4).
[4] *Id*. at p. 29.
[5] Cal. Const. art. XIII B, §6.
[6] Declaration of Doug Campbell ¶ 11 (Exhibit 5).
[7] California Department of Education News Release #17-8 (Jan. 30, 2017) (Exhibit 2).
[8] *Id*.
[9] Media Release, *California Water Systems to Provide Lead Testing For Schools*, (Jan. 17, 2017) (Exhibit 3).

and Copper Rule is primarily done at private residences.[10] Residences are not selected randomly, but are targeted for testing based on the age and characteristics of plumbing in the area.[11] For large agencies like the City, lead testing is performed at 100 locations, which may be reduced to 50 locations if prior testing shows lead and copper are below certain levels.[12] Testing frequency can likewise be reduced from every six months to every three years.[13] The City is currently on a three year schedule.[14] Under the first year of the Permit Amendment, however, the City received requests for lead testing from 255 schools.[15] The Permit Amendment prohibits counting any of the lead testing performed at schools towards satisfying the Lead and Copper Rule.[16] The Permit Amendment mandates a higher level of service in that it requires lead testing be done at schools in addition to targeted private residences, and in numbers in excess of what is required by the Lead and Copper Rule.

As SWRCB explains, however, a new program may not be eligible for reimbursement under state mandates law if it is required by a law of general application.[17] The California Supreme Court identified the programs subject to subvention as being "[1] programs that carry out the governmental function of providing services to the public, or [2] laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state."[18] These are alternative tests; satisfaction of either test will establish a program subject to reimbursement under state mandates law.[19] Both tests are satisfied in this case.

Under the first test, the service being provided under the Permit Amendment is free lead testing. Lead testing furthers two governmental functions of providing services to the public. The first government function is providing water service, in that the Permit Amendment was issued to the City as a local water agency, and water agencies conduct targeted residential lead testing pursuant to the Lead and Copper Rule. The second governmental function is schooling of children, because schools are obligated to provide a safe environment for students and the Permit Amendment requires lead testing only on school property.

Under the second test, lead testing implements a State policy of providing safe drinking water to school students. Lead testing under the Permit Amendment does not apply to all residents and entities in the state; it applies uniquely to the City as a local water agency. The fact that identical permit amendments were issued to local water agencies that are privately-owned does not preclude the Permit Amendment from being a new program under the second test.

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[10] SWRCB Comments at p. 6.
[11] 40 C.F.R. § 141.86(a).
[12] 40 C.F.R. § 141.86(c).
[13] 40 C.F.R. § 141.86(d).
[14] Declaration of Doug Campbell ¶ 13.
[15] *Id*. at ¶ 7f.
[16] Permit Amendment at p. 5, § 6 (Exhibit 1 at p. 7) ["The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements."]
[17] SWRCB Comments at p. 8.
[18] *County of Los Angeles v. State of California*, (1987) 43 Cal. 3d 46, 56.
[19] *Carmel Valley Fire Protection District v. State of California*, (1987) 190 Cal. App. 3d 521, 537.

A. Water service is a governmental function that provides services to the public.

The City of San Diego is a charter city. The City Charter imposes a legal obligation and responsibility on the City to provide water service.[20] The City is empowered to adopted rules and regulations necessary for the regulation, use, and government of the water system.[21] The City has approximately 281,000 retail water connections.[22] The City Council must approve rates and charges for water service.[23] Providing water service is a function of City government.

SWRCB argues that the City is ineligible for reimbursement because water service is not a function "peculiar" to government, and therefore not a governmental function.[24] But the first test established by the California Supreme Court does not require that the function be "peculiar" to government, only that the program "carry out the governmental function of providing services to the public."[25] The word "peculiar" is not in the test. The Supreme Court used the term "peculiar" only to distinguish programs that are forced on local government from laws that apply generally to all state residents and entities.[26] The opinion of *Carmel Valley Fire Protection District v. State of California* cited by SWRCB, certainly found that "fire protection is a peculiarly governmental function" in satisfying the first test, despite the fact that private sector fire fighters provide the same service.[27] The opinion does not say, however, that the first test can only be satisfied if the governmental function is peculiar to government, as SWRCB suggests.

The first test only requires that the governmental function be that "of providing services to the public." SWRCB does not cite a published opinion where the government was providing a public service, but subvention was denied because the government function was not peculiar to government. Instead, instances where the first test was not satisfied involved situations where the new requirements did not increase the level of service provided to the public, such as requirements to provide employees with unemployment insurance coverage[28], worker's compensation benefits,[29] or to upgrade public buildings to comply with statewide elevator safety regulations.[30] These requirements only increased the government's incidental cost of providing existing public services rather than requiring new services or programs.

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[20] San Diego Charter § 26.1.
[21] San Diego Charter § 3.
[22] Declaration of Lee Ann Jones-Santos ¶ 5 (Exhibit 6). In its comments, the SWRCB indicates the City has "over 3,000,000 customers to fund the school testing." SWRCB Comments at p.2. The City does not understand how SWRCB arrived at this figure, seeing as the population of the City of San Diego is only 1.4 million.
[23] *See* Cal. Const. art. XIII D, § 6(a)(2).
[24] *See* SWRCB Comments at p. 8 ["The California Supreme Court has established that only those programs which involve a function peculiar to government, or which impose unique requirements on local government, are eligible for subvention."] *See also Id*. at p. 9 ["The Permit Amendment Does Not Involve a Function Peculiar to Government"].
[25] *County of Los Angeles*, *supra*, 43 Cal. 3d at 56.
[26] *County of Los Angeles*, *supra*, 43 Cal. 3d at 56-57.
[27] *Carmel Valley Fire Protection District*, *supra*, 190 Cal. App. 3d at 537.
[28] *City of Sacramento v. State of California*, (1990) 50 Cal. 3d 51.
[29] *County of Los Angeles v. State of California*, (1987) 43 Cal. 3d 46.
[30] *County of Los Angeles v. Department of Industrial Relations*, (1989) 214 Cal. App. 3d 1538.

SWRCB also relies on a 100-year-old line of cases on sovereign immunity, to argue that cities operating a water utility are performing a "proprietary function" and not a "governmental function." Since then, however, Courts have determined "[t]he labels 'governmental function' and 'proprietary function' are of dubious value in terms of legal analysis in any context."[31] "Whatever local government is authorized to do constitutes a function of government, and when a municipality acts pursuant to granted authority it acts as government and not as a private entrepreneur."[32] Water service provided by public agencies no longer carries the indicia of a proprietary function or private enterprise due to Proposition 218 (discussed below), which eliminates profit from water service charges.

SWRCB's reliance on the Service Duplication Law is confusing.[33] The Legislature recognized that private water utilities may be reluctant to invest in facilities "to meet the present and prospective needs" of its customers when there is a possibility that local government could exercise its authority to provide water service in the same area.[34] State law was adopted in 1965 to provide compensation to private water utilities in the event that happens.[35] But this law does not amount to a legislative determination that water service is not a governmental function. If anything, the Service Duplication Law recognizes that water service was transitioning from a private to a predominantly governmental function by providing compensation to private utilities for lost business. Now, over 50 years later, that transition is substantially complete.

The data provided by SWRCB demonstrates that water service is predominantly provided by public agencies. SWRCB and DOF argue that water service is mostly a private enterprise, in that 75% of drinking water systems, or 5,314 of 6,970 water systems, in the State are privately owned.[36] These figures were pulled directly from tables provided by SWRCB.[37] However, the same tables show that 81% of the population served by drinking water systems statewide, or 33.8 million of 41.6 million people, receive their water service from public entities.[38] Similarly, 81% of the water service connections, or 7.7 million of the 9.5 million connections, are connections to public entities.[39] The City has no means to verify the accuracy of this data, but assuming that SWRCB and DOF are correct that 75% of drinking water systems are privately owned, then the same data tables demonstrate that public agencies serve 81% of people in the State who have drinking water service. Such a large percentage of the State population receiving water service from public entities is strong evidence that water service is a governmental function, more persuasive than the fact that small, privately owned water systems outnumber large, publicly owned systems.

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[31] *Pacific Telephone & Telegraph Company v. Redevelopment Agency of the City of Redlands*, (1977) 75 Cal. App. 3d 957, 968.
[32] *Northeast Sacramento County Sanitation District v. Northridge Park County Water District of Sacramento County*, (1966) 247 Cal. App. 2d 317, 325, quoting *Washington Township v. Village of Ridgewood*, (1958) 26 N.J. 578, 584, 141 A.2d 308, 311.
[33] SWRCB Comments at p. 13.
[34] Cal. Pub. Util. Code § 1501.
[35] *Id*. at § 1503; Stats. 1965, c. 1752, p. 3925, Sec. 1.
[36] SWRCB Comments at p. 2; DOF Comments at p. 2.
[37] SWRCB Comments, Attachment 101, pp. 406-409 (Exhibit 7).
[38] *Id*. (using third column totals).
[39] *Id*. (using fourth column totals).

Nevertheless, the fact that private utilities also provide water service does not preclude water service from being a governmental function. In *Carmel Valley Fire Protection District*, the Court determined fire protection is a governmental function even though fire protection is also provided by private firefighters:

> This classification is not weakened by the State's assertion that there are private sector fire fighters who are also subject to the executive orders. Our record on this point is incomplete because the issue was not presented below. Nonetheless, we have no difficulty in concluding as a matter of judicial notice that the overwhelming number of fire fighters discharge a classic governmental function.[40]

If a service had to be exclusively provided by government to be eligible for subvention, then presumably many of this Commission's decisions involving public schools should have been denied because of the prevalence of private schools. Such a rationale would create a loophole for the State to perpetually avoid subvention by including a handful of private entities within the scope of any new programs it imposes on local government.

The California Supreme Court explained the concern the voters had when the Constitution was amended to address state mandates:

> The concern which prompted the inclusion of section 6 in article XIIIB was the perceived attempt by the state to enact legislation or adopt administrative orders creating programs to be administered by local agencies, thereby transferring to those agencies the fiscal responsibility for providing services which the state believed should be extended to the public.[41]

This is precisely what the Permit Amendment is doing: creating a new lead testing program for schools and transferring the cost and administration of the program to the City. Water service is a governmental function because it is predominately provided by public agencies. Lead testing of drinking water at schools is a service to the public. Therefore, the Permit Amendment is a new program eligible for reimbursement under the first test established by the Supreme Court.

B. Public schooling is a governmental function that provides services to the public.

The lead testing program in the Permit Amendment carries out a second governmental function of ensuring safe schools. "Providing public schooling clearly constitutes a governmental function, and enhancing the safety of those who attend such schools constitutes a service to the public."[42] Schools are obligated to provide free drinking water to students, or to adopt a resolution explaining why fiscal constraints or health and safety concerns prevent it.[43] The City

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[40] *Carmel Valley Fire Protection District*, *supra*, 190 Cal. App. 3d at 537.
[41] *County of Los Angeles*, *supra*, 43 Cal. 3d at 56.
[42] *San Diego Unified School District v. Commission on State Mandates*, (2004) 33 Cal. 4th 859, 879.
[43] Cal. Educ. Code § 38086.

is enhancing the safety of students by performing lead testing of drinking water on school campuses for free.

The history of the Permit Amendment demonstrates its purpose is to provide safe schools, a governmental function, while shifting financial responsibility to local water agencies. In September 2015, the Legislature passed Senate Bill 334 (SB 334), a proposal to amend the California Education Code to ensure that drinking water provided by schools does not contain lead.[44] Inherent in such a requirement is an obligation to test the water for lead. The bill indicated it was imposing a state-mandated local program on school districts.[45] The Governor vetoed SB 334, expressing his concern over the cost to the State:

> **"I agree that all California students should have access to safe drinking water but this bill creates a state mandate of uncertain but possibly very large magnitude."**[46]

Instead of signing the bill, the Governor directed SWRCB to implement lead testing at schools through local water agencies as part of the Lead and Copper Rule.[47] The Governor's intent was clearly to avoid spending State funds, and to shift the costs of school lead testing to local water agencies. SWRCB followed the Governor's direction by issuing the Permit Amendment to the City to perform lead testing on school campuses at no charge.

Had SB 334 become law and schools had to test water for lead to confirm their students had safe, clean drinking water, the schools would have been performing a governmental function subject to reimbursement from the State. Lead testing at schools does not lose its characterization as a "governmental function of providing services to the public" under the Supreme Court's test, merely because the obligation is transferred from schools to water agencies.[48] The City is performing a governmental function, albeit a function associated with schooling, when the City tests for lead on school property pursuant to the Permit Amendment.

C. The Permit Amendment imposes a unique requirement on the City that does not apply generally to all residents and entities in the state.

The Supreme Court's second test to identify programs subject to subvention is "laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state."[49] This includes orders issued by State agencies.[50] The State policy being implemented by the Permit Amendment is providing safe drinking water to school students.

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[44] Senate Bill 334, 2015-2016 Sess. (Sen. Leyva).
[45] *Id*.
[46] Governor's Veto Message on SB 334 (Oct. 9, 2015).
[47] *Id*.
[48] *See Lucia Mar Unified School District v. Honig*, (1988) 44 Cal. 3d 830, 835 [Shifting funding of an existing program for disabled students from the State to a local entity is a new program under state mandates law.]
[49] *County of Los Angeles*, *supra*, 43 Cal. 3d at 56.
[50] *See Carmel Valley Fire Protection District*, *supra*, 190 Cal. App. 3d at 537; Cal. Const. art. XIII B, §6.

SWRCB argues that the Permit Amendment does not impose unique requirements on the City because identical permit amendments were issued to over 1,100 water agencies.[51] SWRCB insists the Permit Amendment "simply effectuates" the Safe Drinking Water Act, a law SWRCB characterizes as law of general application that precludes the Permit Amendment from being a program subject to reimbursement under the second test.[52] However, in characterizing the Act as a law of general application, SWRCB relies only on the legislative findings which broadly declare that every resident has the right to safe drinking water, and water systems must deliver pure, wholesome, potable water.[53] SWRCB does not cite any substantive provisions in the Safe Drinking Water Act that "apply generally to all residents and entities in the state" within the meaning of the second test, or explain how such a provision is implemented by the Permit Amendment.

The Permit Amendment applies specifically to the City. It does not apply generally to all residents and entities in the State. Even collectively considering all 1,100 permit amendments issued by SWRCB, they only apply to local water agencies with schools in their service areas, not to everyone in the State. The Permit Amendment does not require lead testing be performed for all state residents and entities either, only for schools. Collectively, the permit amendments apply uniquely to water agencies in the same way the Court found the requirement for fire protective gear applied uniquely to public and private fire protection agencies.[54] The permit amendments do not need to exclusively apply to publicly-owned water agencies to satisfy the uniqueness element of the second test.[55]

Under the second test, examples of laws that apply generally to all residents and entities in the state include requirements to provide employees with unemployment insurance coverage[56], worker's compensation benefits,[57] or to upgrade public buildings to comply with statewide elevator safety regulations.[58] Subvention was denied in these cases because the requirements applied to everyone, not just to local government. Unlike these examples, though, the Permit Amendment only applies to the City. Those in the State who do not provide water service do not have to comply with the Permit Amendment.

The Permit Amendment satisfies all the elements of the second test. The Permit Amendment is implementing a State policy of providing safe drinking water to school students. The policy is implemented by obligating local water agencies to test for lead on school property. The obligation to test for lead does not apply generally to all residents and entities in the State, but

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[51] SWRCB Comments at p. 14.
[52] *Id*. at p. 15.
[53] *Id*.
[54] *Carmel Valley Fire Protection District*, *supra*, 190 Cal. App. 3d at 538.
[55] *See County of Los Angeles v. Commission on State Mandates*, (2007) 150 Cal. App. 4th 898, 919 ["In any event, the applicability of permits to public and private discharges does not inform us about whether a particular permit or an obligation thereunder imposed on local governments constitutes a state mandate necessitating subvention under article XIII B, section 6."]
[56] *City of Sacramento v. State of California*, (1990) 50 Cal. 3d 51.
[57] *County of Los Angeles v. State of California*, (1987) 43 Cal. 3d 46.
[58] *County of Los Angeles v. Department of Industrial Relations*, (1989) 214 Cal. App. 3d 1538.

uniquely to local water agencies. Therefore, the Permit Amendment is a new program eligible for reimbursement under the second test established by the Supreme Court.

III. The Permit Amendment Deprives the City of its Fee Authority to Charge for Lead Testing.

This test claim would not have been necessary if the Permit Amendment had allowed the City to charge the schools for lead testing performed at their request. By mandating that the City perform lead testing for free, the Permit Amendment has ensnared the City in constitutional web of fees and charges, where the only ways out are to spend local tax revenue or to seek reimbursement through this Commission.

A. Proposition 218 prohibits the City from charging all water ratepayers for lead testing done at the request of schools.

Proposition 218 amended the California Constitution in 1996 by adding articles XIII C and XIII D. Section 6 of article XIII D added procedural and substantive requirements for new and existing property related fees and charges. Charges for water delivered to property owners and residents are property-related fees subject to these restrictions.[59]

The procedural requirements imposed by Proposition 218 include prior notice, a public hearing, and an opportunity to protest new or increased fees or charges.[60] An agency is prohibited from adopting a proposed fee or charge if a majority of the property owners submit written protests against it.[61] The Court of Appeal in *Paradise Irrigation District* recently granted a rehearing, where it will decide whether the majority protest provision divests the claimants of their authority to levy fees.[62] The City has not alleged the majority protest provision is a barrier to its fee authority in this test claim.

Instead, the Permit Amendment divests the City of its authority to levy fees by ordering the City to provide a new service at no charge.[63] Without the ability to charge the schools for a new service provided exclusively to them, the cost of the new service is being absorbed by all City ratepayers. This places the City's water utility in violation of substantive (as opposed to procedural) requirements of Proposition 218, which must be cured.

Proposition 218 introduced five substantive requirements to extend, impose, or increase property-related fees and charges:[64]

> (1) Revenues derived from the fee or charge shall not exceed the funds required to provide the property related service.

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[59] *Bighorn Desert View Water Agency v. Verjil*, (2006) 39 Cal. 4th 205, 217.
[60] Cal. Const. art XIII D, § 6(a).
[61] Cal. Const. art XIII D, § 6(a)(2).
[62] *Paradise Irrigation District, supra,* (2018) 27 Cal. App. 5th 1056 (rehearing granted Oct. 31, 2018).
[63] Permit Amendment at p.4, § 5 (Exhibit 1 at p. 6).
[64] Cal. Const. art XIII D, § 6(b).

> (2) Revenues derived from the fee or charge shall not be used for any purpose other than that for which the fee or charge was imposed.
>
> (3) The amount of a fee or charge imposed upon any parcel or person as an incident of property ownership shall not exceed the proportional cost of the service attributable to the parcel.
>
> (4) No fee or charge may be imposed for a service unless that service is actually used by, or immediately available to, the owner of the property in question. Fees or charges based on potential or future use of a service are not permitted. Standby charges, whether characterized as charges or assessments, shall be classified as assessments and shall not be imposed without compliance with Section 4.
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> (5) No fee or charge may be imposed for general governmental services including, but not limited to, police, fire, ambulance or library services, where the service is available to the public at large in substantially the same manner as it is to property owners.

The first and second listed requirements restrict the City from collectively charging its customers more than it costs to provide water service.[65] The City cannot operate its water system at a profit. The third requirement tasks the City with apportioning the total cost of operating its water system among its customers based on the cost of providing water service to each customer.[66] The purpose of this requirement is to protect customers from having to pay rates that are higher than the cost of providing service to them.[67] This prevents the City from using revenue from certain water customers to subsidize the cost of providing services to other customers.

The SWRCB contends there are no barriers to the City raising water rates to cover the costs associated with the Permit Amendment.[68] The SWRCB believes that the Permit Amendment confers a direct benefit on all water ratepayers, not just the schools, in the form of increased property values and ensuring the City's water does not contain lead.[69] The SWRCB therefore reasons that because all water ratepayers directly benefit, all water ratepayers can pay for lead testing at schools. It is not that simple.

First, raising water rates to cover the cost of the Permit Amendment would ultimately violate the Permit Amendment itself. The City is legally obligated by Proposition 218 to apportion the cost of service based on the relative benefits received by its customers.[70] Proposition 218 further prohibits the City from charging customers for services that are not immediately available to

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[65] *Howard Jarvis Taxpayers Association v. City of Roseville*, (2002) 97 Cal. App. 4th 637, 647-648.
[66] *City of Palmdale v. Palmdale Water District*, (2011) 198 Cal. App. 4th 926, 936-937.
[67] *Capistrano Taxpayers Association, Inc. v. City of San Juan Capistrano*, (2015) 235 Cal. App. 4th 1493, 1503.
[68] SWRCB Comments at p. 15.
[69] *Id*. at pp. 15-16.
[70] *Capistrano Taxpayers Association*, *supra*, 235 Cal. App. 4th at 1503 [Low water users cannot pay for water recycling facilities that would not be necessary but for higher water consumers.]

them.[71] The schools, as the exclusive and direct recipients of lead testing under the Permit Amendment, benefit the most in that the testing assesses school pipes and fixtures for sources of lead. Lead testing is not available to the rest of the City's water ratepayers under the Permit Amendment, so they do not receive the benefit of having their own properties evaluated. The benefits of higher property values and testing of City water that SWRCB says are direct benefits to all ratepayers, are really collateral or incidental benefits. Any water rate increase apportioning the cost of lead testing among City ratepayers would fall primarily on schools, the direct and primary beneficiary of the lead testing. The Permit Amendment, however, prohibits charging a school for lead testing. A school is being charged for lead testing whether the City sends the school an invoice when the testing is done, or passes on the cost of lead testing to a school through a water rate increase.

Second, even assuming there is a plausible connection between lead testing at schools and higher property values in the surrounding neighborhoods, higher property values do not benefit all water ratepayers. Water ratepayers are both homeowners and renters.[72] While a homeowner may benefit from a higher resale value of a home, a tenant will not. Higher property values cannot justify charging all water ratepayers for a service they are not receiving.

Third, lead testing done at the request of a school is not a property-related service that the City can bundle within water rates under Proposition 218. In *Richmond v. Shasta Community Services District*, the California Supreme Court addressed the question whether a water connection fee (also known as a capacity fee) for new service was subject to Proposition 218.[73] The Court distinguished fees for ongoing water service from one-time fees to connect to a water system:

> A fee for ongoing water service though an existing connection is imposed "as an incident of property ownership" because it requires nothing other than normal ownership and use of property. But a fee for making a new connection to the system is not imposed "as an incident of property ownership" because it results from the owner's voluntary decision to apply for the connection.[74]

The Court concluded that water connection fees are not governed by Proposition 218 because the fees are triggered by the voluntary decision of property owners to obtain water service.[75]

Richmond demonstrates that not all fees and charges related to water service are governed by Proposition 218. Fees or charges imposed because of a voluntary decision of a property owner are not imposed "as an incident of property ownership" and fall outside of Proposition 218.[76] Under the Permit Amendment, the City's obligation to conduct lead testing is similarly triggered

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[71] Cal. Const. art XIII D, § 6(b)(4).
[72] Declaration of Lee Ann Jones-Santos ¶ 4.
[73] *Richmond v. Shasta Community Services Dist.*, (2004) 32 Cal. 4th 409 [A water connection fee is neither an assessment nor a property-related fee under Proposition 218].
[74] *Id.* at 427.
[75] *Id.* at 427-428.
[76] *Id.*; *See also Apartment Ass'n of Los Angeles County, Inc. v. City of Los Angeles*, (2001) 24 Cal. 4th 830, 840 [Fee imposed to inspect rental property is not a fee imposed as an incident of property ownership under Proposition 218].

by a voluntary decision of a school to request the service. Lead testing on private property is not an activity associated with ongoing water service, so a fee for lead testing cannot be imposed "as an incident of property ownership" under Proposition 218. Rather, the City has separate fee authority under Proposition 26 that it could exercise, but for the language in the Permit Amendment that prohibits the City from charging the schools for the service.

B. The Permit Amendment prohibits the City from exercising its fee authority under Proposition 26.

The City's authority to levy fees or charges for lead testing mandated by the Permit Amendment is governed by Proposition 26, a constitutional amendment adopted by the voters in 2010. Proposition 26 further tightened the restrictions on local government revenue imposed by Propositions 13 and 218 by defining a tax as "any levy, charge, or exaction of any kind imposed by a local government, except the following:"[77]

> (1) A charge imposed for a specific benefit conferred or privilege granted directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of conferring the benefit or granting the privilege.
>
> (2) A charge imposed for a specific government service or product provided directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of providing the service or product.
>
> (3) A charge imposed for the reasonable regulatory costs to a local government for issuing licenses and permits, performing investigations, inspections, and audits, enforcing agricultural marketing orders, and the administrative enforcement and adjudication thereof.
>
> (4) A charge imposed for entrance to or use of local government property, or the purchase, rental, or lease of local government property.
>
> (5) A fine, penalty, or other monetary charge imposed by the judicial branch of government or a local government, as a result of a violation of law.
>
> (6) A charge imposed as a condition of property development.
>
> (7) Assessments and property-related fees imposed in accordance with the provisions of Article XIII D.

[77] Cal. Const. art. XIII C, § 1(e).

A fee or charge is a tax that must be approved by the voters unless the fee or charge meets one of these seven exceptions.[78] The last of the seven exceptions is for property-related fees and charges under Proposition 218, but because lead testing performed under the Permit Amendment is not provided as an incident of property ownership (discussed above), the City cannot avail itself of that exception to raise water rates without voter approval. The third through sixth exceptions are inapplicable to a fee for lead testing because the City is not acting as a regulator in performing the service, the City is not charging the schools to enter City property, the City is not fining the schools for violating the law, and the City is not imposing a development fee, respectively. The first exception for "a specific benefit conferred or privilege granted directly to the payor" does not apply either, because the City is not issuing a school a permit or a license to engage in any activity.

This leaves only the second exception, which would ordinarily give the City sufficient fee authority in situations like this: "[a] charge imposed for a specific government service or product provided directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of providing the service or product."[79] The City is providing lead testing services on school property at the request of each school, for which the City could ordinarily charge each school an amount equivalent to the cost of providing the service. The problem is the Permit Amendment prohibits the City from charging the schools, even though the schools are receiving the government service. The school is not the "payor," so the second exception does not apply. Therefore, by default, the City's water ratepayers become the "payor" even though they are not requesting or receiving the service. Without any applicable exceptions, charging water ratepayers for lead testing provided to schools for free is a tax subject to voter approval under Proposition 26.

IV. The Permit Amendment Requires the City to Expends Funds Subject to the Taxing and Spending Limitations of Articles XIII A and XIII B to avoid a violation of Proposition 218.

The City of San Diego is a charter city providing a full range of services for its residents. The City provides police and fire protection, lifeguards, water service, wastewater service, trash collection, libraries, park and recreation facilities, street and storm drain maintenance, development services, and many other services. The City is a local government, subject to the taxing and spending limitations of Articles XIII A and XIII B of the California Constitution.[80]

There are instances in the City where different City departments work together to provide public services, including general fund departments, and utility departments funded through fees and charges. Several general fund departments support the Public Utilities Department's efforts to

[78] Cal. Const. art. XIII C, § 2.
[79] Cal. Const. art. XIII C, § 1(e)(2).
[80] Cal. Const. art. XIII A, § 4; Cal. Const. art. XIII B, § 8(d).

provide water service.[81] Water ratepayer funds are used to reimburse the City's general fund for this support, consistent with Proposition 218.[82]

Likewise, the Public Utilities Department helps the City provide other public services. For example, the City's water utility owns surface reservoirs and open space land that is popular for boating, fishing, hiking and picnicking.[83] These recreational activities are available to the general public, whether or not they are City water ratepayers.[84] Proposition 218 prohibits using water ratepayer funds for services available to the general public:

> No fee or charge may be imposed for general governmental services including, but not limited to, police, fire, ambulance or library services, where the service is available to the public at large in substantially the same manner as it is to property owners.[85]

The City's water utility charges the City's general fund about $2.5 million each year for providing park and recreation activities.[86] This fund transfer ensures that water ratepayers are not paying for unrelated activities or programs, consistent with Proposition 218.

By mandating free service, the Permit Amendment similarly makes the City's general fund responsible for the cost of lead testing unless reimbursement is received from the State. The City's water utility has paid for the lead testing at schools to date, pending reimbursement from another source.[87] The City cannot increase water rates, or use existing water ratepayer funds, to pay for lead testing because lead testing pursuant to the Permit Amendment is not a property-related service. The Permit Amendment also prohibits the City from charging the schools for the service they receive. The liability of tax revenue in the City's general fund to pay for lead testing makes the City eligible to pursue subvention from the State.

V. Conclusion

The Permit Amendment imposes a state-mandated local program under both legal tests established by the California Supreme Court. Lead testing performed at schools carries out the governmental functions of providing water service and safe schooling of children. The Permit Amendment also imposes requirements on the City that do not apply generally to all residents and entities in the State, to implement a State policy of providing safe drinking water to school students. The City could ordinarily charge the schools a fee to cover the cost of lead testing, but by mandating that the service be provided at no charge, the Permit Amendment requires the City

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[81] For example, water service is supported by the City Attorney's Office for legal services, the Public Works Department for capital improvement projects, and the Real Estate Assets Department for property management.
[82] *See Moore v. City of Lemon Grove*, (2015) 237 Cal. App. 4th 363.
[83] Declaration of Lee Ann Jones-Santos ¶ 8.
[84] *Id*.
[85] Cal. Const. art XIII D, § 6(b)(5).
[86] Declaration of Lee Ann Jones-Santos ¶ 9.
[87] *Id*. at ¶ 10.

to spend tax revenue to avoid violating Constitutional restrictions on the use of water ratepayer funds. Therefore, the City respectfully requests this test claim be approved.

Pursuant to Cal. Code Regs. tit. 2, § 1181.3(a), I certify and declare under penalty of perjury that the foregoing facts are true and correct to the best of my personal knowledge, information, or belief. I further declare that all exhibits are true and correct copies of such documents as they exist in the City's files, or as they were obtained from publicly available sources.

Sincerely,

MARA W. ELLIOTT, City Attorney

By

Thomas C. Zeleny
Sr. Chief Deputy City Attorney

cc: Service List via CSM Dropbox
Doc. No: 1826175

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[1] Pursuant to Cal. Code Regs. tit. 2, § 1183.3(b)(2), published court opinions arising from state mandate determinations are not attached as exhibits.

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

CC: Peter Vroem
CC: Isam Hireish

January 18, 2017

Halla Razak
Public Utilities Director
City of San Diego, System No. 3710020
9192 Topaz Way
San Diego, CA 92123

Dear Halla Razak:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of San Diego water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

RECEIVED
JAN 23 2017
By

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of San Diego
(Public Water System No. *3710020*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples
for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

California DEPARTMENT OF EDUCATION

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CALIFORNIA DEPARTMENT OF EDUCATION

NEWS RELEASE

TOM TORLAKSON
State Superintendent
of Public Instruction

Release: #17-8
January 30, 2017

Contact: Robert Oakes
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State Schools Chief Tom Torlakson Announces Free Testing for Lead in Drinking Water at California Public Schools

SACRAMENTO— State Superintendent of Public Instruction Tom Torlakson announced that public schools can receive free testing for lead in drinking water under a new state program.

The State Water Resources Control Board, in cooperation with the California Department of Education (CDE), recently required all community water systems to test school drinking water upon request by school officials.

"Students should have access to clean drinking water at all times," Torlakson said. "Students need fresh water, nutritious meals, and appropriate physical activity to be ready to learn in class."

California's water agencies regularly test for lead and other contaminants in their systems to comply with both state and federal laws. Water agencies also use corrosion control measures to prevent any lead that might be present from leaching into tap water.

The State Water Resources Control Board initiative makes testing mandatory if a public school served by a community water system requests testing.

Lead problems are infrequent in California, which has newer water infrastructure and less corrosive water than other parts of the nation. Governor Edmund G. Brown Jr. directed the State Water Resources Control Board to incorporate schools into the regular water quality testing that community water systems conduct at customer's taps.

If school officials make a written request, the community water systems must collect the samples within three months and report results back within two business days. Sampling locations can include drinking fountains, cafeteria and food preparation areas, and reusable water bottle filling stations. The program extends until November 1, 2019.

The community water systems are responsible for the costs associated with collecting drinking water samples, analyzing them, and reporting results.

# # # #

Tom Torlakson — State Superintendent of Public Instruction
Communications Division, Room 5602, 916-319-0818, Fax 916-319-0100

Last Reviewed: Thursday, August 2, 2018

Media Release

California Water Systems to Provide Lead Testing For Schools

FOR IMMEDIATE RELEASE
Jan. 17, 2017

Contact: Andrew DiLuccia
Phone: (916) 324-4775
andrew.diluccia@waterboards.ca.gov

SACRAMENTO – In an effort to further safeguard California's water quality, K-12 schools in the state can receive free testing for lead under a new initiative announced today by the State Water Resources Control Board.

The Board is requiring all community water systems to test school drinking water upon request by the school's officials.

There are approximately 9,000 K-12 schools in California, most of which are served by more than 3,000 community water systems in the state. While these community water systems extensively and regularly test their drinking water for lead, lead could get into clean water at a school campus if there were corroded pipes or old fixtures at the school.

Because California has newer infrastructure and less corrosive water than other parts of the country, lead problems at the tap are uncommon. However, national events have highlighted the importance of ongoing water quality monitoring and in 2015 Governor Edmund G. Brown Jr. directed the State Water Board to incorporate schools into the regular water quality testing that community water systems conduct at customer's taps.

"While the presence of lead in California's water infrastructure is minimal compared to other parts of the country, additional testing can help ensure we are continuing to protect our most vulnerable populations," said Darrin Polhemus, deputy director of the State Water Board's Division of Drinking Water.

Under the new requirement, testing is voluntary for schools, but if the schools make a written request, the community water systems must collect the samples within three months and report the results back to the school within 10 business days after receiving the results from the laboratory, or two business days if a result exceeds 15 parts per billion. Sampling locations can include drinking fountains, cafeteria and food preparation areas, and reusable water bottle filling stations. The one-time program extends until Nov. 1, 2019.

The community water systems are responsible for the costs associated with collecting drinking water samples, analyzing them and reporting results through this new program. In addition, the State Water Board's Division of Financial Assistance will have some funding available to assist with addressing lead found in tests, with a particular focus on schools in disadvantaged communities.

Under the federal Lead and Copper Rule, the U.S. Environmental Protection Agency already requires public water systems to test for lead at customers' taps, targeting the highest risk homes based on the age of their plumbing. California's compliance rate with the Lead and Copper Rule is among the highest in the country, but the rule does not require testing for schools and businesses. The Board's new requirement ensures schools that want lead testing can receive it for free. The Board consulted with water systems and schools in developing the requirement.

Existing federal and state programs provide guidance to help schools determine if a lead problem exists and how to remedy the contamination. And many school districts have already implemented testing programs.

Protecting children from lead exposure is important for their development and lifelong good health.

For more information on the lead sampling for schools program, see our frequently asked questions section of the lead sampling website.

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BEFORE THE

COMMISSION ON STATE MANDATES

STATE OF CALIFORNIA

IN RE TEST CLAIM ON: 10-TC-12 Water Code Division 6, Part 2.55 [Sections 10608 through 10608.64] and Part 2.8 [Sections 10800 through 10853] as added by Statutes 2009-2010, 7th Extraordinary Session, Chapter 4; Filed on June 30, 2011; By, South Feather Water and Power Agency, Paradise Irrigation District, Richvale Irrigation District, Biggs-West Gridley Water District, Claimants; *Consolidated with* 12-TC-01 Filed on February 28, 2013; California Code of Regulations, title 23, sections 597, 597.1 597.2, 597.3, and 597.4, Register 2012, No. 28; By, Richvale Irrigation District, Biggs-West Gridley Water District, Oakdale Irrigation District, Glenn-Colusa Irrigation District, Claimants.	Case Nos.: 10-TC-12 and 12-TC-01 *Water Conservation* DECISION PURSUANT TO GOVERNMENT CODE SECTION 17500 ET SEQ.; CALIFORNIA CODE OF REGULATIONS, TITLE 2, DIVISION 2, CHAPTER 2.5, ARTICLE 7. (*Adopted December 5, 2014*) (*Served December 12, 2014*)

DECISION

The Commission on State Mandates (Commission) heard and decided this test claim during a regularly scheduled hearing on December 5, 2014. Dustin Cooper, Peter Harman, and Alexis Stevens appeared on behalf of the claimants. Donna Ferebee and Lee Scott appeared on behalf of the Department of Finance. Spencer Kenner appeared on behalf of the Department of Water Resources. Dorothy Holzem of the California Special Districts Association and Geoffrey Neill of the California State Association of Counties also appeared on behalf of interested persons and parties.

The law applicable to the Commission's determination of a reimbursable state-mandated program is article XIII B, section 6 of the California Constitution, Government Code sections 17500 et seq., and related case law.

The Commission adopted the proposed decision to deny the test claim by a vote of six to zero.

Summary of the Findings

The Commission finds that the two original agricultural water supplier claimants named in each test claim, Richvale Irrigation District and Biggs-West Gridley Water District, are not eligible to claim reimbursement under article XIII B, section 6, because they do not collect or expend tax revenue, and are therefore not subject to the limitations of articles XIII A and XIII B. However, two substitute agricultural water supplier claimants, Oakdale Irrigation District and Glenn-Colusa Irrigation District, are subject to articles XIII A and XIII B and are therefore claimants eligible to seek reimbursement under article XIII B, section 6. As a result, the Commission has jurisdiction to hear and determine test claims 10-TC-12 and 12-TC-01.

The Commission finds that the Water Conservation Act of 2009 (Act), and the Agricultural Water Measurement regulations promulgated by the Department of Water Resources (DWR) to implement the Act, impose some new required activities on urban water suppliers and agricultural water suppliers, including measurement requirements, conservation and efficient water management requirements, notice and hearing requirements, and documentation requirements, with specified exceptions and limitations.

However, the Commission finds that several agricultural water suppliers are either exempted from the requirements of the test claim statutes and regulations or are subject to alternative and less expensive compliance alternatives because the activities were already required by a regime of federal statutes and regulations, which apply to most agricultural water suppliers within the state.[1]

Additionally, to the extent that the test claim statute and regulations impose any new state-mandated activities, they do not impose costs mandated by the state because the Commission finds that urban water suppliers and agricultural water suppliers possess fee authority, sufficient as a matter of law to cover the costs of any new required activities. Therefore, the test claim statute and regulations do not impose costs mandated by the state pursuant to Government Code section 17556(d), and are not reimbursable under article XIII B, section 6 of the California Constitution.

COMMISSION FINDINGS

I. Chronology

06/30/2011	Co-claimants, South Feather Water and Power Agency (South Feather), Paradise Irrigation District (Paradise), Biggs-West Gridley Water District (Biggs), and Richvale Irrigation District (Richvale) filed test claim 10-TC-12 with the Commission.[2]
10/07/2011	Department of Finance (Finance) requested an extension of time to file comments, which was approved.

[1] See Public Law 102-565 and the Reclamation Reform Act of 1982 and the specific exceptions and alternate compliance provisions in the test claim statutes for those subject to these federal requirements, as discussed in greater detail in the analysis below.

[2] Exhibit A, *Water Conservation Act* Test Claim, 10-TC-12.

12/06/2011	Department of Water Resources (DWR) requested an extension of time to file comments, which was approved.
02/01/2012	DWR requested an extension of time to file comments, which was approved.
03/30/2012	DWR requested an extension of time to file comments, which was approved.
05/30/2012	DWR requested an extension of time to file comments, which was approved.
08/02/2012	DWR requested an extension of time to file comments, which was approved.
10/02/2012	DWR requested an extension of time to file comments, which was approved.
12/03/2012	DWR requested an extension of time to file comments, which was approved.
12/07/2012	Finance requested an extension of time to file comments, which was approved.
02/04/2013	DWR requested an extension of time to file comments, which was approved.
02/06/2013	Finance requested an extension of time to file comments, which was approved.
02/28/2013	Richvale and Biggs filed test claim 12-TC-01 with the Commission.[3]
03/06/2013	The executive director consolidated the test claims for analysis and hearing, and renamed them *Water Conservation*.
03/29/2013	DWR requested an extension of time to file comments, which was approved.
06/07/2013	Finance submitted written comments on the consolidated test claims.[4]
06/07/2013	DWR submitted written comments on the consolidated test claims.[5]
07/09/2013	Claimants requested an extension of time to file rebuttal comments, which was approved.
08/07/2013	Claimants filed rebuttal comments.[6]
08/22/2013	Commission staff issued a request for additional information regarding the eligibility status of the claimants.[7]
09/19/2013	Finance submitted comments in response to staff's request.[8]
09/20/2013	The State Controller's Office (SCO) submitted a request for extension of time to comments, which was approved for good cause.
09/23/2013	DWR submitted comments in response to staff's request.[9]

[3] Exhibit B, *Agricultural Water Measurement* Test Claim, 12-TC-01.

[4] Exhibit C, Finance Comments on Consolidated Test Claims.

[5] Exhibit D, DWR Comments on Consolidated Test Claims.

[6] Exhibit E, Claimant Rebuttal Comments.

[7] Exhibit F, Request for Additional Information.

[8] Exhibit G, Finance Response to Commission Request for Comments.

09/23/2013	The claimants submitted comments in response to staff's request.[10]
10/07/2013	SCO submitted comments in response to staff's request.[11]
11/12/2013	Commission staff issued a Notice of Pending Dismissal of 12-TC-01, and a Notice of Opportunity for a Local Agency, Subject to the Tax and Spend Limitations of Articles XIII A and B of the California Constitution and Subject to the Requirements of the Alleged Mandate to Take Over the Test Claim by a Substitution of Parties.[12]
11/22/2013	Co-claimants Richvale and Biggs filed an appeal of the executive director's decision to dismiss test claim 12-TC-01.[13]
11/25/2013	The executive director issued notice that the appeal would be heard on March 28, 2014.[14]
01/13/2014	Oakdale Irrigation District (Oakdale) requested to be substituted in as a party to 10-TC-12 and 12-TC-01, and designated Dustin C. Cooper, of Minasian, Meith, Soares, Sexton & Cooper, LLP, as its representative.[15]
01/13/2014	Glenn-Colusa Irrigation District (Glenn-Colusa) requested to be substituted in as a party to 10-TC-12 and 12-TC-01, and designated Andrew M. Hitchings and Alexis K. Stevens of Somach, Simmons & Dunn as its representative.[16]
01/15/2014	Commission staff issued a Notice of Substitution of Parties and Notice of Hearing which mooted the appeal.[17]
07/31/2014	Commission staff issued a draft proposed statement of decision.[18]
08/13/2014	South Feather Water and Power Agency, Paradise Irrigation District, Richvale Irrigation District, and Biggs West Gridley Water District filed a request for an extension of time to comment and postponement of hearing to December 5, 2014, which was granted for good cause shown.

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[9] Exhibit H, DWR Response to Commission Request for Comments.

[10] Exhibit I, Claimant Response to Commission Request for Comments.

[11] Exhibit J, SCO Response to Commission Request for Comments.

[12] Exhibit K, Notice of Pending Dismissal.

[13] Exhibit L, Appeal of Executive Director's Decision.

[14] Exhibit M, Appeal of Executive Director Decision and Notice of Hearing.

[15] Exhibit N, Request for Substitution of Parties by Oakdale Irrigation District.

[16] Exhibit O, Request for Substitution of Parties by Glenn-Colusa Irrigation District.

[17] Exhibit P, Notice of Substitution of Parties and Notice of Hearing. Note that matters are only tentatively set for hearing until the draft staff analysis is issued which actually sets the matter for hearing pursuant to section 1187(b) of the Commission's regulations. Staff inadvertently omitted the word "tentative" in this notice.

[18] Exhibit Q, Draft Proposed Decision.

08/14/2014	Glenn Colusa Irrigation District filed a request for an extension of time to comment and postponement of hearing to December 5, 2014, which was granted for good cause shown.
10/16/2014	Claimant filed comments on the draft proposed decision.[19]
10/17/2014	California Special Districts Association (CSDA) filed comments on the draft proposed decision.[20]
10/17/2014	Environmental Law Foundation (ELF)filed comments on the draft proposed decision.[21]
10/17/2014	DWR filed comments on the draft proposed decision.[22]
10/22/2014	Northern California Water Association (NCWA) filed late comments on the draft proposed decision.[23]
11/07/2014	Claimants filed late comments.[24]

II. Background

These consolidated test claims allege that Water Code Part 2.55 [Sections 10608 through 10608.64] and Part 2.8 [Sections 10800 through 10853] enacted by Statutes 2009-2010, 7th Extraordinary Session, chapter 4 (SBX7 7) (10-TC-12) impose reimbursable state-mandated increased costs resulting from activities required of urban water suppliers and agricultural water suppliers. The claimants also allege that the Agricultural Water Measurement regulations issued by DWR (12-TC-01), codified at California Code of Regulations, title 23, sections 597-597.4, impose additional reimbursable state-mandated increased costs on agricultural water suppliers only.

The Water Conservation Act of 2009, pled in test claim 10-TC-12, calls for a 20 percent reduction in urban per capita water use on or before December 31, 2020, and an interim reduction of at least 10 percent on or before December 31, 2015.[25] In order to achieve these reductions, the Act requires urban retail water suppliers, both publicly and privately owned, to develop urban water use targets and interim targets that cumulatively result in the desired 20 percent reduction by December 31, 2020.[26] Prior to adopting its urban water use targets, each supplier is required to conduct at least one public hearing to allow community input regarding the supplier's implementation plan to meet the desired reductions, and to consider the economic

[19] Exhibit R, Claimant Comments on Draft Proposed Decision.

[20] Exhibit S, CSDA Comments on Draft Proposed Decision.

[21] Exhibit T, Environmental Law Foundation Comments on Draft Proposed Decision.

[22] Exhibit U, DWR Comments on Draft Proposed Decision.

[23] Exhibit V, NCWA Comments on Draft Proposed Decision.

[24] Exhibit W, Claimants Late Rebuttal Comments.

[25] Water Code section 10608.16 (Stats. 2009-2010, 7th Ex. Sess., ch. 4 (SBX7 7)).

[26] Water Code section 10608.20 (Stats. 2009-2010, 7th Ex. Sess., ch. 4 (SBX7 7)).

impacts of the implementation plan.[27] This hearing may be combined with the hearing required under prior law (Water Code 10631) for adoption of the urban water management plan (UWMP).[28] An urban retail water supplier is also required to include in its UWMP, which is required to be updated every five years in accordance with pre-existing Water Code section 10621, information describing the baseline per capita water use; interim and final urban water use targets;[29] and a report on the supplier's progress in meeting urban water use targets.[30]

With respect to agricultural water suppliers, the Act requires implementation of specified critical efficient water management practices, including measuring the volume of water delivered to customers and adopting a volume-based pricing structure; and additional efficient water management practices that are locally cost effective and technically feasible.[31] In addition, the Act requires agricultural water suppliers (with specified exceptions)[32] to prepare and adopt, and every five years update, an agricultural water management plan (AWMP),[33] describing the service area, water sources and supplies, water uses within the service area, previous water management activities; and including a report on which efficient water management practices have been implemented or are planned to be implemented, and information documenting any determination that a specified efficient water management practice was not locally cost effective or technically feasible.[34]

Prior to preparing and adopting or updating an AWMP, the Act requires an agricultural water supplier to notify the city or county within which the supplier provides water that it will be preparing or considering changes to the AWMP;[35] and to make the proposed plan available for

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[27] Water Code section 10608.26 (Stats. 2009-2010, 7th Ex. Sess., ch. 4 (SBX7 7)).

[28] Exhibit X, Department of Water Resources, *Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan*, pp. A-2 and 3-4.

[29] Water Code section 10608.20 (Stats. 2009-2010, 7th Ex. Sess., ch. 4 (SBX7 7)).

[30] Water Code section 10608.40 (Stats. 2009-2010, 7th Ex. Sess., ch. 4 (SBX7 7)).

[31] Water Code section 10608.48 (Stats. 2009-2010, 7th Ex. Sess., ch. 4 (SBX7 7)).

[32] See Water Code sections 10608.8(d) (Stats. 2009-2010, 7th Ex. Sess., ch. 4 (SBX7 7)) [agricultural water suppliers that are parties to the Quantification Settlement Agreement, as defined in Statutes 2002, chapter 617 are exempt from the requirements of Part 2.55 (Water Code sections 10608-10608.64)]; 10608.48(f); 10828 (Stats. 2009-2010, 7th Ex. Sess., ch. 4 (SBX7 7)) [an agricultural water supplier may meet requirements of AWMPs by submitting its water conservation plan approved by United States Bureau of Reclamation]; 10827 (Stats. 2009-2010, 7th Ex. Sess., ch. 4 (SBX7 7)) [members of Agricultural Water Management Council and submit water management plans to council pursuant to the Memorandum of Understanding may rely on those plans to satisfy AWMP requirements]; 10829 (Stats. 2009-2010, 7th Ex. Sess., ch. 4 (SBX7 7)) [adoption of an urban water management plan or participation in an areawide, regional, watershed, or basinwide water management plan will satisfy the AWMP requirements].

[33] Water Code section 10820 (Stats. 2009-2010, 7th Ex. Sess., ch. 4 (SBX7 7)).

[34] Water Code sections 10608.48; 10820 (Stats. 2009-2010, 7th Ex. Sess., ch. 4 (SBX7 7)).

[35] Water Code section 10821 (Stats. 2009-2010, 7th Ex. Sess., ch. 4 (SBX7 7)).

public inspection and hold a noticed public hearing.[36] An agricultural water supplier is then required to implement the AWMP in accordance with the schedule set forth in the AWMP;[37] and to submit a copy of the AWMP to DWR and a number of specified local entities, and make the plan available on the internet, within 30 days of adoption.[38]

Finally, to aid agricultural water suppliers in complying with their measurement requirements and developing a volume-based pricing structure as required by section 10608.48, DWR adopted in 2012 the Agricultural Water Measurement Regulations,[39] which are the subject of test claim 12-TC-01. These regulations provide a range of options for agricultural water suppliers to implement accurate measurement of the volume of water delivered to customers. The regulations provide for measurement at the delivery point or farm gate of an individual customer, or at a point upstream of the delivery point where necessary, and provide for specified accuracy standards for measurement devices employed by the supplier, whether existing or new, as well as field testing protocols and recordkeeping requirements, to ensure ongoing accuracy of volume measurements.

To provide some context for how the the test claim statute and implementing regulations fit into the state's water conservation planning efforts, a brief discussion of the history of water conservation law in California follows.

A. Prior California Conservation and Water Supply Planning Requirements.

1. Constitutional and Statutory Framework of Water Conservation.

Article X, section 2 of the California Constitution prohibits the waste, unreasonable use, unreasonable method of use, or unreasonable method of diversion of water. It also declares that the conditions in the state require "that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare." Moreover, article X, section 2 provides that "[t]he right to water or to the use or flow of water in or from any natural stream or water course in this State is and shall be limited to such water as shall be reasonably required for the beneficial use to be served, and *such right does not and shall not extend to the waste or unreasonable use or unreasonable method of use or unreasonable method of diversion of water*."[40] Although article X, section 2 provides that it is self-executing; it also provides that the Legislature may enact statutes to advance its policy.

The Legislature has implemented these constitutional provisions in a number of enactments over the course of many years, which authorize water conservation programs by water suppliers, including metered pricing. For example:

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[36] Water Code section 10841 (Stats. 2009-2010, 7th Ex. Sess., ch. 4 (SBX7 7)).

[37] Water Code section 10842 (Stats. 2009-2010, 7th Ex. Sess., ch. 4 (SBX7 7)).

[38] Water Code sections 10843; 10844 (Stats. 2009-2010, 7th Ex. Sess., ch. 4 (SBX7 7)).

[39] Code of Regulations, title 23, sections 597-597.4 (Register 2012, No. 28).

[40] Adopted June 8, 1976. Derivation, former article 14, section 3, added November 6, 1928 and amended November 5, 1974 [emphasis added].

- Water Code section 1009 provides that water conservation programs are an authorized water supply function for all municipal water providers in the state.[41]
- Water Code section 1011 furthers the water conservation policies of the state by providing that a water appropriator does not lose an appropriative water right because of water conservation programs. [42]
- Water Code sections 520 -529.7 require water meters and recognize that metered water rates are an important conservation tool.[43]
- Water Code section 375(b) provides that public water suppliers may encourage conservation through "rate structure design." The bill amending the Water Code to add this authority was adopted during the height of a statewide drought. In an uncodified portion of the bill, the Legislature specifically acknowledged that conservation is an important part of the state's water policy and that water conservation pricing is a best management practice.[44]
- Water Code sections 370-374 provide additional, alternate authority (in addition to a water supplier's general authority to set rates) for public entities to encourage conservation rate structure design consistent with the proportionality requirements of Proposition 218.[45]
- Water Code section 10631(f)(1)(K) establishes water conservation pricing as a recognized water demand management measure for purposes of UWMPs, and other conservation measures including metering, leak detection and retrofits for pipes and plumbing fixtures.[46]

In addition, the Legislature has long vested water districts with broad authority to manage water to furnish a sustained, reliable supply. For example:

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[41] Statutes 1976, chapter 709, p. 1725, section 1.

[42] Added by statutes 1979, chapter 1112, p. 4047, section 2, amended by Statutes, 1982, chapter 876, p. 3223, section 4, Statutes 1996, chapter 408, section 1, and Statutes 1999, chapter 938, section 2.

[43] Added by Statutes 1991, chapter 407 and amended by Statutes 2004, chapter 884, section 3 and Statutes 2005, chapter 22. See especially, Water Code section 521 (b) and (c)).

[44] Statutes 1993, chapter 313, section 1.

[45] Statutes 2008, chapter 610 (AB 2882). See Exhibit X, Senate Floor Analysis AB 2882; Assembly Floor Analysis AB 2882.

[46] Water Code section 10631(f)(1)(K) (Stats. 1995, ch. 854 (SB 1011); Stats. 2000, ch. 712 (SB 553); Stats. 2001, ch. 643 (SB 610); Stats. 2001, ch. 644 (AB 901); Stats. 2002, ch. 664 (AB 3034); Stats. 2002, ch. 969 (SB 1384); Stats. 2004, ch. 688 (SB 318); Stats. 2006, ch. 538 (SB 1852)).

- Irrigation Districts have the power to take any act necessary to furnish sufficient water for beneficial uses and to control water.[47] They have general authority to fix and collect charges for any service of the district.[48]
- County Water Districts have similar power to take any act necessary to furnish sufficient water and express authority to conserve.[49]
- Municipal Water Districts also have broad power to control water for beneficial uses and express power to conserve.[50]

2. Existing Requirements to Prepare, Adopt, and Update Urban Water Management Plans.

The Urban Water Management Act of 1983 required urban water suppliers to prepare and update an UWMP every five years.[51] This Act has been amended numerous times between its original enactment in 1983 and the enactment of the test claim statute in 2009.[52] The law pertaining to UWMPs in effect immediately prior to the enactment of the test claim statute consisted of sections 10610 through 10657 of the California Water Code, which detail the information that must be included in UWMPs, as well as who must file them.

According to the Act, as amended prior to the test claim statute, "[t]he conservation and efficient use of urban water supplies are of statewide concern; however, the planning for that use and the implementation of those plans can best be accomplished at the local level."[53] The Legislature declared as state policy that:

> (a) The management of urban water demands and efficient use of water shall be actively pursued to protect both the people of the state and their water resources.
>
> (b) The management of urban water demands and efficient use of urban water supplies shall be a guiding criterion in public decisions.

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[47] Water Code section 22075 added by Statutes 1943, chapter 372 and section 22078 added by Statutes 1953, chapter 719, p. 187, section 1.

[48] Water Code section 22280, as amended by statutes 2007, chapter 27, section 19.

[49] Water Code sections 31020 and 31021 added by Statutes 1949, chapter 274, p. 509, section 1.

[50] Water Code sections 71610 as amended by Statutes 1995, chapter 28 and 71610.5 as added by Statutes 1975, chapter 893, p. 1976, section 1.

[51] Statutes 1983, chapter 1009 added Part 2.6 to Division 6 of the Water Code, commencing at section 10610.

[52] Enacted, Statutes 1983, chapter 1009; Amended, Statutes 1990, chapter 355 (AB 2661); Statutes 1991-92, 1st Extraordinary Session, chapter 13 (AB 11); Statutes 1991, chapter 938 (AB 1869) Statutes 1993, chapter 589 (AB 2211); Statutes 1993, chapter 720 (AB 892); Statutes 1994, chapter 366 (AB 2853); Statutes 1995, chapter 28 (AB 1247); Statutes 1995, chapter 854 (SB 1011); Statutes 2000, chapter 712 (SB 553); Statutes 2001, chapter 643 (SB 610); Statutes 2001, chapter 644 (AB 901); Statutes 2002, chapter 664 (AB 3034); Statutes 2002, chapter 969 (SB 1384); Statutes 2004, chapter 688 (SB 318); Statutes 2006, chapter 538 (SB 1852); Statutes 2009, chapter 534 (AB 1465).

[53] Water Code section 10610.2 (Stats. 2002, ch. 664 (AB 3034)).

(c) Urban water suppliers shall be required to develop water management plans to actively pursue the efficient use of available supplies.[54]

The Act specified that each urban water supplier that provides water for municipal purposes either directly or indirectly to more than 3,000 customers or supplies more than 3,000 acre feet of water annually shall prepare, update, and adopt its urban water management plan at least once every five years on or before December 31, in years ending in five and zero.[55]

a. Contents of Plans

The required contents of an UWMP are provided in sections 10631 through 10635. These statutes are prior law and have not been pled in this test claim. As last amended by Statutes 2009, chapter 534 (AB 1465), section 10631 requires that an adopted UWMP contain information describing the service area of the supplier, reliability of supply, water uses over five year increments, water demand management measures currently being implemented or being considered or scheduled for implementation, and opportunities for development of desalinated water.[56] Section 10631 further provides that urban water suppliers that are members of the California Urban Water Conservation Council and submit annual reports in accordance with the "Memorandum of Understanding Regarding Urban Water Conservation in California," may submit those annual reports to satisfy the requirements of section 10631(f) and (g), pertaining to current, proposed, and future demand management measures.[57]

Section 10632 requires that an UWMP provide an urban water shortage contingency analysis, which includes actions to be taken in response to a supply shortage; an estimate of minimum supply available during the next three years; actions to be taken in the event of a "catastrophic interruption of water supplies," such as a natural disaster; additional prohibitions employed during water shortages; penalties or charges for excessive use; an analysis of impacts on revenues and expenditures; a draft water shortage contingency resolution or ordinance; and a mechanism for determining actual reductions in water use.[58]

Section 10633, as amended by Statutes 2002, chapter 261, specifies that the plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier. The preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area, and shall include: a description of wastewater collection and treatment systems; a description of the quantity of treated wastewater that meets recycled water standards; a description of recycled water currently used in the supplier's service area; a description and quantification of the potential uses of recycled water; projected use of recycled water over five year increments for the next 20 years; a description of actions that may be taken to encourage the

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[54] Water Code section 10610.4 (Stats. 1983, ch. 1009; Stats. 1995, ch. 854 (SB 1011)).

[55] Water Code sections 10617 (Stats. 1996, ch. 1023(SB 1497)); 10621(a) (Stats. 2007, ch. 64 (AB 1376)).

[56] Water Code section 10631 (Statutes 2009, chapter 534 (AB 1465)).

[57] Water Code section 10631(i) (Statutes 2009, chapter 534 (AB 1465)).

[58] Water Code section 10632 (Stats. 1995, ch. 854 (SB 1011)).

use of recycled water; and a plan for optimizing the use of recycled water in the supplier's service area.[59]

As added by Statutes 2001, chapter 644, and continuously in law up to the adoption of the test claim statute, section 10634 requires the UWMP to include, to the extent practicable, information relating to the quality of existing sources of water available to the supplier over the same five-year increments as described in Section 10631(a); and to describe the manner in which water quality affects water management strategies and supply reliability.[60]

And finally, section 10635, added by Statutes 1995, chapter 330, requires an urban water supplier to include in its UWMP an assessment of the reliability of its water service to customers during normal and dry years, projected over the next 20 years, in five year increments.[61]

b. Adoption and Implementation of Plans

Sections 10640 through 10645, as added by Statutes 1983, chapter 1009 and Statutes 1990, chapter 355, provide the requirements for adoption and implementation of UWMPs, including public notice and recordkeeping requirements associated with the adoption of each update of the UWMP.

Section 10640 provides that every urban water supplier required to prepare an UWMP pursuant to this part shall prepare its UWMP pursuant to Article 2 (commencing with Section 10630), and shall "periodically review the plan … and any amendments or changes required as a result of that review shall be adopted pursuant to this article."[62] Section 10641 provides that an urban water supplier required to prepare an UWMP may consult with, and obtain comments from, any public agency or state agency or any person who has special expertise with respect to water demand management methods and techniques.[63]

Section 10642 provides that each urban water supplier shall encourage the active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of its UWMP. Prior to adopting an UWMP, the urban water supplier shall make the plan available for public inspection and shall hold a public hearing thereon. Prior to the hearing, notice of the time and place of hearing shall be published within the jurisdiction of the publicly owned water supplier pursuant to section 6066 of the Government Code. A privately owned water supplier is required to provide a similar degree of notice, and the plan shall be adopted after the hearing either "as prepared or as modified…"[64]

Section 10643 provides that an UWMP shall be implemented "in accordance with the schedule set forth in [the] plan."[65] As amended by Statutes 2007, chapter 628, section 10644 requires an

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[59] Water Code section 10633 (Stats. 2002, ch. 261 (SB 1518)).

[60] Water Code section 10634 (Stats. 2001, ch. 644 (AB 901)).

[61] Water Code section 10635 (Stats. 1995, ch. 330 (AB 1845)).

[62] Water Code section 10640 (Stats. 1983, ch. 1009).

[63] Water Code section 10640 (Stats. 1983, ch. 1009; Stats. 1995, ch. 854 (SB 1011)).

[64] Water Code section 10642 (Stats. 1983, ch. 1009; Stats. 1995, ch. 854 (SB 1011); Stats. 2000, ch. 297 (AB 2552)).

[65] Water Code section 10643 (Stats. 1983, ch. 1009).

urban water supplier to submit to DWR, the State Library, and any city or county within which the supplier provides water supplies, a copy of its plan and copies of any changes or amendments to the plans no later than 30 days after adoption. Section 10644 also requires DWR to prepare and submit to the Legislature, on or before December 31, in the years ending in six and one, a report summarizing the status of the UWMPs adopted pursuant to this part. The report is required to identify the outstanding elements of the individual UWMPs. DWR is also required to provide a copy of the report to each urban water supplier that has submitted its UWMP to DWR.[66] And lastly, in accordance with section 10645, not later than 30 days after filing a copy of its UWMP with DWR, the urban water supplier and DWR shall make the plan available for public review during normal business hours.[67]

c. Miscellaneous Provisions Pertaining to the UWMP Requirement

While sections 10631 through 10635 provide for the lengthy and technical content requirements of UWMPs, and sections 10640 through 10645 provide the requirements of a valid adoption of a UWMP, several remaining provisions of the Urban Water Management Planning Act provide for the satisfaction of the UWMP requirements by other means, and provide for the easing of certain other regulatory requirements and the recovery of costs.

- Section 10631, as amended by Statutes 2009, chapter 534 (AB 1465), provides that urban water suppliers that are members of the California Urban Water Conservation Council shall be deemed in compliance with the demand management provisions of the UWMP "by complying with all the provisions of the 'Memorandum of Understanding Regarding Urban Water Conservation in California'…and by submitting the annual reports required by Section 6.2 of that memorandum."[68] These suppliers, then, are not separately required to comply with sections 10631(f) and (g), which require a description and evaluation of the supplier's "demand management measures" that are currently or could be implemented.[69]
- Section 10652 streamlines the adoption of UWMPs by exempting plans from the California Environmental Quality Act (CEQA). However, section 10652 does not exempt any project (that might be contained in the plan) that would significantly affect water supplies for fish and wildlife.[70]
- Section 10653 provides that the adoption of a plan shall satisfy any requirements of state law, regulation, or order, including those of the State Water Resources Control Board and the Public Utilities Commission, for the preparation of water

[66] Water Code section 10644 (Stats. 1983, ch. 1009; Stats. 1990, ch. 355 (AB 2661); Stats. 1992, ch. 711 (AB 2874); Stats. 1995, ch. 854 (SB 1011); Stats. 2000, ch. 297 (AB 2552); Stats. 2004, ch. 497 (AB 105); Stats. 2007, ch. 628 (AB 1420)).

[67] Water Code section 10645 (Stats. 1990, ch. 355 (AB 2661)).

[68] Water Code section 10631 (as amended, Stats. 2009, ch. 534 (AB 1465)).

[69] Water Code section 10631(f-g) (as amended, Stats. 2009, ch. 534 (AB 1465)).

[70] Water Code section 10652 (Stats. 1983, ch. 1009; Stats. 1991-1992, 1st Ex. Sess., ch. 13 (AB 11); Stats. 1995, ch. 854 (SB 1011)).

management plans or conservation plans; provided, that if the State Water Resources Control Board or the Public Utilities Commission requires additional information concerning water conservation to implement its existing authority, nothing in this part shall be deemed to limit the board or the commission in obtaining that information. In addition, section 10653 provides that "[t]he requirements of this part *shall be satisfied by any urban water demand management plan prepared to meet federal laws or regulations after the effective date of this part*, and which substantially meets the requirements of this part, or by any existing urban water management plan which includes the contents of a plan required under this part."[71] The plain language of section 10653 therefore exempts an urban retail water supplier that is already required to prepare a water demand management plan from any requirements of an UWMP added by the test claim statutes.

- Section 10654 provides expressly that an urban water supplier "may recover in its rates the costs incurred in preparing its plan and implementing the reasonable water conservation measures included in the plan." Any best water management practice that is included in the plan that is identified in the "Memorandum of Understanding Regarding Urban Water Conservation in California" (discussed below) is deemed to be reasonable for the purposes of this section.[72] Therefore, suppliers are expressly authorized to recover the costs of implementing "reasonable water conservation measures" or any "best water management practice…identified in [the MOU for Urban Water Conservation]."

3. <u>Prior Requirements to Prepare, Adopt, and Update Agricultural Water Management Plans, Which Became Inoperative by their own Terms in 1993.</u>

The Agricultural Water Management Planning Act was enacted in 1986 and became inoperative, by its own terms, in 1993.[73] The 1986 Act stated in its legislative findings and declarations that "[t]he Constitution requires that water in the state be used in a reasonable and beneficial way…" and that "[t]he conservation of agricultural water supplies are of great concern." The findings and declarations further stated that "[a]gricultural water suppliers that receive water from the federal Central Valley Water Project are required by federal law to develop and implement water conservation plans," as are "[a]gricultural water suppliers applying for a permit to appropriate water from the State Water Resources Control Board…" Therefore, the act stated that "it is the policy of the state as follows:"

(a) The conservation of water shall be pursued actively to protect both the people of the state and their water resources.

(b) The conservation of agricultural water supplies shall be an important criterion in public decisions on water.

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[71] Water Code section 10653 (Stats. 1983, ch. 1009; Stats. 1995, ch. 854 (SB 1011)) [emphasis added].

[72] Water Code section 10654 (Stats. 1983, ch. 1009; Stats. 1994, ch. 609 (SB 1017)).

[73] Statutes 1986, chapter 954 (AB1658). See Former Water Code section 10855 (Stats. 1986, ch. 954 (AB 1658)).

(c) Agricultural water suppliers, who determine that a significant opportunity exists to conserve water or reduce the quantity of highly saline or toxic drainage water, shall be required to develop water management plans to achieve conservation of water.[74]

Specifically, the 1986 Act provided that every agricultural water supplier serving water directly to customers "shall prepare an informational report based on information from the last three irrigation seasons on its water management and conservation practices…" That report "shall include a determination of whether the supplier has a significant opportunity to conserve water or reduce the quantity of highly saline or toxic drainage water through improved irrigation water management…" If a "significant opportunity exists" to conserve water or improve the quality of drainage water, the supplier "shall prepare and adopt an agricultural water management plan…" (AWMP).[75] The Act provided, however, that an agricultural water supplier "may satisfy the requirements of this part by participation in areawide, regional, watershed, or basinwide agricultural water management planning where those plans will reduce preparation costs and contribute to the achievement of conservation and efficient water use and where those plans satisfy the requirements of this part." The requirements of an AWMP or an informational report, where required, included quantity and sources of water delivered to and by the supplier; other sources of water used within the service area, including groundwater; a general description of the delivery system and service area; total irrigated acreage within the service area; acreage of trees and vines within the service area; an identification of current water conservation practices being used, plans for implementation of water conservation practices, and conservation educational practices being used; and a determination of whether the supplier has a significant opportunity to save water by means of reduced evapotranspiration, evaporation, or reduction of flows to unusable water bodies, or to reduce the quantity of highly saline or toxic drainage water.[76] In addition, an AWMP "shall address all of the following:" quantity and source of surface and groundwater delivered to and by the supplier; a description of the water delivery system, the beneficial uses of the water supplied, conjunctive use programs, incidental and planned groundwater recharge, and the amounts of delivered water that are lost to evapotranspiration, evaporation, or surface flow or percolation; an identification of cost-effective and economically feasible measures for water conservation; an evaluation of other significant impacts; and a schedule to implement those water management practices that the supplier determines to be cost-effective and economically feasible.[77]

The Act further provided that an agricultural water supplier required to prepare an AWMP "may consult with, and obtain comments from, any public agency or state agency or any person who has special expertise with respect to water conservation and management methods and techniques."[78] And, "[p]rior to adopting a plan, the agricultural water supplier shall make the plan available for public inspection and shall hold a public hearing thereon." This requirement

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[74] Former Water Code section 10802 (Stats. 1986, ch. 954 (AB 1658)).

[75] Former Water Code section 10821 (as added, Stats. 1986, ch. 954 (AB 1658)).

[76] Former Water Code section 10825 (as added, Stats. 1986, ch. 954 (AB 1658)).

[77] Former Water Code section 10826 (as added, Stats. 1986, ch. 954 (AB 1658)).

[78] Former Water Code section 10841(as added, Stats. 1986, ch. 954 (AB 1658)).

applies also to privately owned water suppliers.[79] In addition, the Act states that an agricultural water supplier shall implement its AWMP in accordance with the schedule set forth in the plan, and "shall file with [DWR] a copy of its plan no later than 30 days after adoption."[80] Finally, the 1986 Act provided for funds to be appropriated to prepare the informational reports and agricultural water management plans, as required, and provided that "[t]his part shall remain operative only until January 1, 1993, except that, if an agricultural water supplier fails to submit its information report or agricultural water management plan prior to January 1, 1993, this part shall remain operative with respect to that supplier until it has submitted its report or plan, or both."[81]

As noted above, the AWMP requirements provided by the Agricultural Water Management Planning Act became inoperative as of January 1, 1993,[82] and therefore do not constitute the law in effect immediately prior to the test claim statute, even though, as shown below, the test claim statute reenacted substantially similar plan requirements. However, the federal requirement to submit water conservation plans to the United States Bureau of Reclamation pursuant to either the federal Central Valley Project Improvement Act (Public Law 102-565) or the federal Reclamation Reform Act of 1982, remained the law throughout and does constitute the law in effect immediately prior to the test claim statute, with respect to those suppliers subject to one or both federal requirements.[83]

4. <u>The Water Measurement Law, Statutes 1991, chapter 407, applicable to Urban and Agricultural Water Suppliers.</u>

The Water Measurement Law (Water Code sections 510-535) requires standardized water management practices and water measurement, and is applicable to Urban and Agricultural Water Suppliers, as follows:[84]

- Every water purveyor that provides potable water to 15 or more service connections or 25 or more yearlong residents must require meters as a condition of *new* water service.[85]
- Urban water suppliers, except those that receive water from the federal Central Valley Project, must install meters on all municipal (i.e., residential and governmental) and industrial (i.e., commercial) service connections on or before January 1, 2025 and shall charge each customer that has a service connection for which a meter has been installed based on the actual volume of deliveries beginning on or before January 1, 2010 service. A water purveyor, including an

[79] Former Water Code section 10842(as added, Stats. 1986, ch. 954 (AB 1658)).

[80] Former Water Code sections 10843 and 10844 (as added, Stats. 1986, ch. 954 (AB 1658)).

[81] Former Water Code sections 10853; 10854; 10855 (as added, Stats. 1986, ch. 954 (AB 1658)).

[82] Former Water Code section 10855 (Stats. 1986, ch. 954 (AB 1658)).

[83] See Water Code section 10828 (added, Stats. 2009-2010, 7th Ex. Sess., ch. 4 (SBX7 7)).

[84] The Water Measurement Law was added by Statutes 1991, chapter 407.

[85] Section 525 as amended by statutes 2005, chapter 22.

urban water supplier, may recover the cost of the purchase, installation, and operation of a water meter from rates, fees, or charges.[86]

- Urban water suppliers receiving water from the federal Central Valley Project (CVP) shall install water meters on all residential and non-agricultural commercial service connections constructed prior to 1992 on or before January 1, 2013 and charge customers for water based on the actual volume of deliveries, as measured by a water meter, beginning March 1, 2013, or according to the CVP water contract. Urban water suppliers that receive water from the CVP are also specifically authorized to "recover the cost of providing services related to the purchase, installation, and operation and maintenance of water meters from rates, fees or charges.[87]
- Agricultural water providers shall report annually to DWR summarizing aggregated farm-gate delivery data, on a monthly or bi-monthly basis. However, the Water Measurement Law does not require implementation of water measurement programs or practices that are not locally cost effective.[88]

The test claim statute, as noted above, requires agricultural water suppliers to measure the volume of water delivered to customers and to adopt a volume-based pricing structure. However, the test claim statute also contemplates a water supplier that is both an agricultural and an urban water supplier, by definition: section 10829 provides that an agricultural water supplier may satisfy the AWMP requirements by adopting an UWMP pursuant to Part 2.6 of Division 6 of the Water Code; and the definitions of "agricultural" and "urban retail" water suppliers in section 10608.12 are not, based on their plain language, mutually exclusive. The record on this test claim is not sufficient to determine how many, if any, agricultural water suppliers are also urban retail water suppliers,[89] and consequently would be required to install water meters on new and existing service connections in accordance with Water Code sections 525-527, and to charge customers based on the volume of water delivered. In addition, the record is not sufficient to determine whether and to what extent some agricultural water suppliers may already have implemented water measurement programs which were locally cost effective, in accordance with section 531.10. However, to the extent that an agricultural water supplier is also an urban water supplier, sections 525-527 may constitute a prior law requirement to accurately measure water delivered and charge customers based on volume, and the test claim statute may not impose new requirements or costs on some entities. And, to the extent that water measurement programs or practices were previously implemented pursuant to section 531.10, some of the activities required by the test claim statute and regulations may not be newly required, with respect to certain agricultural suppliers. These caveats and limitations are noted where relevant in the analysis below.

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[86] Section 527 as amended by statutes 2005, chapter 22.

[87] Section 526 as amended by Statutes 2004, chapter 884.

[88] Section 531.10 as added by Statutes 2007, chapter 675.

[89] See Water Code section 10608.12, as added by Statutes 2009-2010, 7th Extraordinary Session, chapter 4 (SBX7 7) for definitions of "agricultural water supplier" and "urban retail water supplier."

III. Positions of the Parties

A. Claimants' Positions:

The four original claimants together alleged a total of $72,194.48 in mandated costs for fiscal year 2009-2010 (although Paradise maintains a different fiscal year than the remaining claimants). In addition, claimants project that program costs for fiscal year 2010-2011, and for 2011-2012, will be "higher," but claimants allege that they are unable to reasonably estimate the amount.

South Feather Water and Power Agency and Paradise Irrigation District

South Feather and Paradise allege that they are urban retail water suppliers, as defined in Water Code section 10608.12. As such, they allege that they are required to establish urban water use targets "by July 1, 2011 by selecting one of four methods to achieve the mandated water conservation." South Feather and Paradise further allege that they are "mandated to adopt expanded and more detailed urban water management plans in 2010 that include the baseline daily per capita water use, urban water use target, interim urban water use target, compliance daily per capita water use, along with the bases for determining estimates, including supporting data."[90] South Feather and Paradise allege that thereafter, UWMPs are to be updated "in every year ending in 5 and 0," and the 2015 plan "must describe the urban retail water supplier's progress towards [*sic*] achieving the 20% reduction by 2020."[91] Finally, South Feather and Paradise allege that they are required to conduct at least one noticed public hearing to allow community input, consider economic impacts, and adopt a method for determining a water use baseline "from which to measure the 20% reduction."[92]

Prior to the Act, South Feather and Paradise allege that there was no requirement to achieve a 20 percent per capita reduction in water use by 2020. They allege that they were required to adopt UWMPs prior to the Act, but not to include 'the baseline per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with bases for determining those estimates, including supporting data."[93] And they allege that "[f]inally, prior to the Act, there was no requirement to conduct at least one public hearing to allow for community input regarding conservation, consider economic impacts…or to adopt a method for determining an urban water use target."[94]

Biggs-West Gridley Water District and Richvale Irrigation District

Richvale and Biggs allege that they are required to "measure the volume of water delivered to their customers using best professional practices to achieve a minimum level of measurement accuracy at the farm-gate," in accordance with regulations adopted by DWR pursuant to the Act.[95] They further allege that they are required to adopt a pricing structure for water customers

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[90] Exhibit A, 10-TC-12, page 3.

[91] *Ibid.*

[92] Exhibit A, 10-TC-12, page 4.

[93] Exhibit A, 10-TC-12, pages 7-8.

[94] Exhibit A, 10-TC-12, page 8.

[95] Exhibit A, 10-TC-12, page 4.

based on the quantity of water delivered, and that "[b]ecause Richvale and Biggs are local public agencies, the change in pricing structure would have to be authorized and approved by its [*sic*] customers through the Proposition 218 process."[96]

In addition, Richvale and Biggs allege that "[i]f 'locally cost effective' and technically feasible, agricultural water suppliers are required to implement fourteen additional efficient management practices," as specified. They additionally allege that on or before December 31, 2012, they are required to prepare AWMPs that include a report on the implementation and planned implementation of efficient water management practices, and documentation supporting any determination made that certain conservation measures were held to be not locally cost effective or technically feasible.[97] Finally, Richvale and Biggs allege that prior to adoption of an AWMP, they are required to notice and hold a public hearing; and that after adoption the plan must be distributed to "various entities" and posted on the internet for public review.[98]

Prior to the Act, Richvale and Biggs assert, agricultural water suppliers "were not required to have a pricing structure based, at least in part, on the quantity of water delivered." In addition, prior to the Act, "there was no requirement to implement up to 14 additional conservation measures if locally cost effective and technically feasible." And, Richvale and Biggs allege that prior to the Act the number of agricultural water suppliers subject to the requirement to develop an AWMP was significantly fewer, and now the "contents of the plans" are "more encompassing than plans required under the former law."[99] Richvale and Biggs allege that "[f]inally, prior to the Act, there was no requirement to conduct at least one public hearing prior to adopting the plan, make copies of it available for public inspection, or to publish the time and place of the hearing once per week for two successive weeks in a newspaper of general circulation."[100]

As discussed below, in the early stages of Commission staff's review and analysis of these consolidated test claims, it became apparent that Richvale and Biggs, the two claimants representing agricultural water suppliers, are not subject to the revenue limits of article XIII B, and do not collect or expend "proceeds of taxes," within the meaning of articles XIII A and XIII B.[101] After additional briefing and further review, it was concluded that Richvale and Biggs are indeed not eligible for reimbursement under article XIII B, section 6. The Commission's executive director therefore issued a notice of pending dismissal and offered an opportunity for another eligible local claimant, subject to the tax and spend limitations of articles XIII A and XIII B, to take over the test claim.[102] Richvale and Biggs filed an appeal of that decision, and maintain that they are eligible local government claimants pursuant to Government Code section 17518, and that the fees or assessments that the districts would be required to establish or increase to comply with the requirements of the test claim statute and regulations would be

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[96] *Ibid.*

[97] Exhibit A, 10-TC-12, pages 4-6.

[98] Exhibit A, 10-TC-12, page 6.

[99] Exhibit A, 10-TC-12, page 8.

[100] Exhibit A, 10-TC-12, page 9.

[101] Exhibit F, Commission Request for Additional Information, page 1.

[102] Exhibit K, Notice of Pending Dismissal.

characterized as taxes under article XIII B, section 8, because such fees or assessments would exceed the reasonable costs of providing water services.[103] This decision addresses these issues.

Glenn-Colusa Irrigation District and Oakdale Irrigation District

Glenn-Colusa and Oakdale requested to be substituted in as parties to these consolidated test claims, in place of Richvale and Biggs.[104] Both Glenn-Colusa and Oakdale submitted declarations asserting that they receive an annual share of property tax revenue, and therefore are subject to articles XIII A and XIII B of the California Constitution. Both additionally allege that they incur at least $1000 in increased costs as a result of the test claim statute and regulations, and that they are subject to the requirements of the test claim statutes and regulations as described in the test claim narrative.[105]

Claimants' Collective Response to the Draft Proposed Decision

In comments on the draft proposed decision, the claimants focus primarily on the findings regarding the ineligibility of Richvale and Biggs to claim reimbursement based on the evidence in the record indicating that neither agency collects or expends tax revenues subject to the limitations of articles XIII A and XIII B. The claimants also address the related findings that all claimants have sufficient fee authority under law to cover the costs of the mandate, and thus the Commission cannot find costs mandated by the state, pursuant to section 17556(d).

Specifically, the claimants argue that "[f]ees and charges for sewer, water, or refuse collection services are excused from the formal election process, but not from the majority protest process."[106] Therefore, claimants conclude that "[a]gencies that provide water, sewer, or refuse collection services, including Claimants, lack sufficient authority to unilaterally impose new or increased fees or charges in light of Proposition 218's majority protest procedure."[107]

In addition, claimants note the Commission's analysis in 07-TC-09, *Discharge of Stormwater Runoff*, and argue that the Commission should not "ignore a prior Commission decision that is directly on point…" The claimants assert that "as this Commission has already recognized…" Proposition 218 "created a legal barrier to establishing or increasing fees or charges…" and as a result claimants "can do no more than merely propose new or increased fees for customer approval and the customers have the authority to then accept or reject…" a fee increase.[108]

The claimants assert that the reasoning of the draft proposed decision "would prohibit state subvention for every enterprise district in the state that is subject to Proposition 218..."[109] and "would create a class of local agencies that are per se ineligible for reimbursement under this test

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[103] Exhibit L, Appeal of Executive Director's Decision.

[104] Exhibit N, Request for Substitution of Parties by Oakdale Irrigation District; Exhibit O, Request for Substitution of Parties by Glenn-Colusa Irrigation District.

[105] *Ibid.*

[106] Exhibit R, Claimant Comments on Draft Proposed Decision, page 10.

[107] Exhibit R, Claimant Comments on Draft Proposed Decision, page 11.

[108] Exhibit R, Claimant Comments on Draft Proposed Decision, page 11.

[109] Exhibit R, Claimant Comments on Draft Proposed Decision, page 14.

claim, all potential future test claims, and all previous test claims dating back to Proposition 218's passage in 1996."[110] The claimant calls this a "sea change in Constitutional interpretation…"[111]

The claimants argue, based on this interpretation of the effect of Proposition 218, that the draft proposed decision inappropriately excluded Richvale and Biggs from subvention, "because they do not currently collect or expend tax revenues."[112] The claimants argue that "this additional 'requirement' [is] based on an outdated case that predates Proposition 218 and on an inapplicable line of cases that apply only to redevelopment agencies, while ignoring the strong policy underlying the voters' approval of the subvention requirement."[113] The claimants argue that after articles XIII C and XIII D, "assessments and property-related fees and charges have joined tax revenues as among local entities' 'increasingly limited revenue sources…'"[114]

The claimants further argue that: "Agencies like Richvale and Biggs that need additional revenue to pay for new mandates but are subject to the limitations of Proposition 218 are faced with three problematic options: (a) do not implement the mandates in light of revenue limitations; (b) implement the mandates with existing revenue; or (c) propose a new or increased fee or charge, assessment, or special tax to implement the mandates."[115] The claimants argue for the Commission to take action to expand the scope of reimbursement: "the subvention provision should be read in harmony with later Constitutional enactments and protect not just tax revenue, but assessment and fee revenue as well."[116]

Finally, in late comments, the claimants challenge DWR's reasoning, including the figures cited by the department, that due to the existence of a substantial number of private water suppliers, the test claim statutes do not impose a "program" within the meaning of article XIII B, section 6.[117]

B. State Agency Positions:

Department of Finance

Finance maintains that "the Act and Regulations do not impose a reimbursable mandate on local agencies within the meaning of Article XIII B, section 6."[118] Finance asserts that each of the claimants is a special district authorized to charge a fee for delivery of water to its users, and therefore has the ability to cover the costs of any new required activities.[119] Finance further

[110] Exhibit R, Claimant Comments on Draft Proposed Decision, page 15.

[111] Exhibit R, Claimant Comments on Draft Proposed Decision, page 15.

[112] Exhibit R, Claimant Comments on Draft Proposed Decision, page 15.

[113] Exhibit R, Claimant Comments on Draft Proposed Decision, page 16.

[114] Exhibit R, Claimant Comments on Draft Proposed Decision, page 17.

[115] Exhibit R, Claimant Comments on Draft Proposed Decision, page 20.

[116] Exhibit R, Claimant Comments on Draft Proposed Decision, page 21.

[117] Exhibit W, Claimant Late Comments, pages 1-4.

[118] Exhibit C, Finance Comments, page 1.

[119] Exhibit C, Finance Comments, page 1.

asserts that the conservation efforts required by the test claim statute and regulations will result in surplus water accruing to the claimant districts, which are authorized to sell water. Finance concludes that "each district will likely have the opportunity to cover all or a portion of costs related to implementation of the Act or Regulations with revenue from surplus water sales."[120] Moreover, Finance argues that "special districts are only entitled to reimbursement if they are subject to the tax and spend limitations under articles XIII A and XIII B…*and only when the mandated costs in question can be recovered solely from the proceeds of taxes*."[121] Finance argues that the claimants "should be directed to provide information that will enable the Commission on State Mandates to determine if they are subject to tax and spending limitations."[122] Finance did not submit comments on the draft proposed decision.

State Controller's Office

In response to Commission staff's request for additional information regarding the uncertain eligibility of the test claimants, the SCO submitted written comments confirming that the "Butte County Auditor-Controller has confirmed for fiscal years 2010-2011, 2011-2012, and 2012-2013," that South Feather and Paradise both received proceeds of taxes, but Richvale and Biggs did not.[123] However, the SCO also noted that none of the four claimants reported an appropriations limit for fiscal years 2010-2011, 2011-2012, and 2012-2013. The SCO stated that "Government Code section 7910 requires each local government entity to annually establish its appropriations limit by resolution of its governing board," and that "Government Code section 12463 requires the annual appropriations limit to be reported in the financial transactions report submitted to the SCO." However, the SCO noted that it "has the responsibility to review each report for reasonableness, yet we are not required to audit any of the data reported." The SCO concluded, therefore, that "we are unable to determine which special district is subject to report an annual appropriations limit." The SCO did not comment on the draft proposed decision.

Department of Water Resources

DWR argues, in comments on the consolidated test claims, first, that the Water Conservation Act of 2009 applies to public and private entities alike, and is therefore not a "program" within the meaning of article XIII B, section 6. In addition, DWR argues that the Act is not a "new program," because it is "a refinement of urban and agricultural water conservation requirements that have been part of the law for years." DWR further asserts that even if the Act "were an unfunded state mandate, it would not be reimbursable since the water suppliers have sufficient non-tax sources to offset any implementation costs." And, DWR asserts that the test claim regulations on agricultural water measurement do not impose any requirements on water suppliers because "they are free to choose alternative measurement methods." And finally, DWR argues that the Act does not impose any new programs or higher levels of service "because what is required is compliance with general and evolving water conservation standards based on

[120] Exhibit C, Finance Comments, page 2.

[121] Exhibit C, Finance Comments, page 2 [emphasis in original].

[122] Exhibit C, Finance Comments, page 2.

[123] Exhibit J, SCO Comments, pages 1-2.

the foundational reasonable and beneficial water use principle dating from before the 1928 amendment – Article X, section 2 – to California's Constitution revising water use standards."[124]

In comments on the draft proposed decision, DWR "concurs with and fully supports the ultimate conclusion reached…", but reiterates and expands upon its earlier comments with respect to whether the alleged test claim requirements constitute a new program or higher level of service that is uniquely imposed upon local government.[125] DWR argues that "a law that governs private and public entities alike is not a 'program' for purposes of article XIII B…"[126] DWR continues:

> Claimants, in their Rebuttal Comments, ignore DWR's reference to the language of the Water Conservation Act, which by its plain terms is made applicable to both public and private entities. Instead, Claimants seek to shift attention away from the nature of the activity and focus instead on the number of entities engaged in that activity. Claimants concede that the law and regulations adopted pursuant to that law do in fact apply to both private and public entities, but argue that because (according to their calculation) "only 7.67%" of urban retail water suppliers are private, the requirements of the Water Conservation Act ought to be treated as reimbursable "programs" because those requirements "fall overwhelmingly on local governmental agencies."[127]

DWR maintains that "there are, in fact, 72 private wholesale and retail suppliers out of a total of 369…so the proportion of private water suppliers is actually 16.3 percent." And, "based on data submitted in the 2010 urban water management plans, it turns out that private retail water suppliers serve 19.7 percent of the population and account for 17.3 percent of water delivered."[128]

DWR acknowledges that there are more public than private water suppliers, but asserts that "[u]nder the Supreme Court's test in *County of Los Angeles v. State of California* the question is not whether an activity is more likely to be undertaken by a governmental entity, but whether the activity implements a state policy and imposes unique requirements on local governments, but is one that does not apply generally to all residents and entities in the state."[129] DWR explains that "generally," in this context, is not synonymous with "commonly," and therefore the prevalence of public water suppliers as to private is not relevant to the issue; rather, "generally" refers to

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[124] Exhibit D, DWR Comments, page 2.

[125] Exhibit U, DWR Comments on Draft Proposed Decision, page 1.

[126] Exhibit U, DWR Comments on Draft Proposed Decision, page 2 [citing Exhibit D, DWR Comments, filed June 7, 2013; *Carmel Valley Fire Protection District v. State* (1987) 190 Cal.App.3d 521, 537].

[127] Exhibit U, DWR Comments on Draft Proposed Decision, page 3 [quoting Exhibit E, Claimant's Rebuttal Comments, pages 3-4].

[128] Exhibit U, DWR Comments on Draft Proposed Decision, page 3.

[129] Exhibit U, DWR Comments on Draft Proposed Decision, page 3. See also, *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46.

laws of general application, meaning "those that apply to all persons or entities of a particular class."[130] The Water Conservation Act, DWR maintains, "does just that."[131]

In addition, DWR disputes that the provision of water services is a "classic governmental function," as asserted by the claimants.[132] The California Supreme Court has held that reimbursement should be limited to new "programs" that carry out the governmental function of providing services to the public.[133] DWR maintains that there is an important distinction between public purposes, and private or corporate purposes, and that that distinction should control in the analysis of a new program or higher level of service. In particular, DWR identifies the provision of utilities to municipal customers as a corporate activity, rather than a governmental purpose:

> Of the myriad services provided by government, although some may be difficult to categorize, at either end of the spectrum the categories are fairly clear. At one end, such things as police and fire protection have long been recognized as true governmental functions, those that implicate the notion of the "government as sovereign." At the other end, however, are public utilities such as power generation, and, of particular significance to this claim, municipal water districts.[134]

DWR argues that "California law thus draws a distinction between the many utilitarian services that could as easily be (and often are) undertaken by the private sector, and those that implicate the unique authority vested in the state and its political subdivisions." DWR continues: "Maintaining a police force, for instance, is easily understood as something fundamental to the government *as government*." "On the other hand," DWR reasons, "there is nothing intrinsically governmental about a government entity operating a utility and providing services such as electricity, natural gas, sewer, garbage collection, or water delivery."[135]

DWR thus "urges the Commission to give full consideration to the fact that the Water Conservation Act is a law of general application that applies to private as well as public water

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[130] Exhibit U, DWR Comments on Draft Proposed Decision, page 3 [citing *McDonald v. Conniff* (1893) 99 Cal.386, 391.

[131] Exhibit U, DWR Comments on Draft Proposed Decision, page 3.

[132] Exhibit U, DWR Comments on Draft Proposed Decision, page 4 [citing Exhibit E, Claimant Rebuttal Comments, page 4].

[133] Exhibit U, DWR Comments on Draft Proposed Decision, page 4 [citing *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 50].

[134] Exhibit U, DWR Comments on Draft Proposed Decision, page 5 [citing *Chappelle v. City of Concord* (1956) 144 Cal.App.2d 822, 825; *County of Sacramento v. Superior Court* (1972) 8 Cal.3d 479, 481; *Davoust v. City of Alameda* (1906) 149 Cal. 69, 72; *City of South Pasadena v. Pasadena Land & Water Co.* (1908) 152 Cal. 579, 593; *Nourse v. City of Los Angeles* (1914) 25 Cal.App. 384, 385; *Mann Water & Power Co. v. Town of Sausalito* (1920) 49 Cal.App. 78, 79; *In re Bonds of Orosi Public Utility Dist.* (1925) 196 Cal. 43, 58; *Glenbrook Development Co. v. City of Brea* (1967) 253 Cal.App.2d 267, 274].

[135] Exhibit U, DWR Comments on Draft Proposed Decision, page 6.

suppliers alike." And, DWR reiterates: "contrary to Claimants' suggestion, water delivery, while clearly an important service, is not a classic "governmental function" in the constitutional sense."[136]

C. Interested Person Positions:[137]

California Special Districts Association

CSDA asserts that "the Proposed Decision fails to appropriately analyze the provisions of Article XIII B Section 6…as amended by Proposition 1A in 2004…"[138] CSDA argues that the draft proposed decision "rather analyzes the original language of Article XIII B Section 6 adopted as Proposition 4 in 1978, before the adoption of Proposition 218 adding articles XIII C and XIII D to the Constitution and before the adoption of Proposition 1A amending Article XIII B Section 6."[139]

CSDA argues that the plain language of article XIII B, section 6, as amended by Proposition 1A, "indicates that the mandate provisions are applicable to all cities, counties, cities and counties, and special districts without restriction."[140] CSDA further asserts that "[t]he plain language also mandates the state to appropriate the 'full payment amount' of costs incurred by local government in complying with state mandated programs, without any qualification as to the types of revenues utilized by local governments in paying the costs of such compliance."[141] CSDA reasons that "there are no words of limitation indicating that suspension of mandates is only applicable to those local government agencies which receive proceeds of taxes and expend those proceeds of taxes in complying with state mandated programs." Therefore, absent "such limiting language, the holding of the Proposed Decision which limits eligibility for claiming reimbursement…to those local agencies receiving proceeds of taxes is contradicted by the mandate provisions of Proposition 1A, and is therefore incorrect as a matter of law."[142]

CSDA also argues that the voters' intent and understanding in adopting Proposition 1A is controlling, and can be determined by examining the LAO analysis in the ballot pamphlet.[143] CSDA argues that "[t]he LAO analysis of Proposition 1A in the ballot pamphlet fails to mention any restriction or limitation on state mandates to be reimbursed or suspended, and such analysis is totally silent as to any requirement that reimbursable mandates be limited to those mandates imposed on local governments which receive and expend proceeds of taxes…" In fact, CSDA argues, the LAO analysis indicates that Proposition 1A "expand(s) the circumstances under

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[136] Exhibit U, DWR Comments on Draft Proposed Decision, page 7.

[137] "Interested person" is defined in the Commission's regulations to mean "any individual, local agency, school district, state agency, corporation, partnership, association, or other type of entity, having an interest in the activities of the Commission." (Cal. Code Regs., tit. 2, § 1181.2(j).)

[138] Exhibit S, CSDA Comments on Draft Proposed Decision, page 6.

[139] Exhibit S, CSDA Comments on Draft Proposed Decision, page 6.

[140] Exhibit S, CSDA Comments on Draft Proposed Decision, page 8.

[141] Exhibit S, CSDA Comments on Draft Proposed Decision, page 8.

[142] Exhibit S, CSDA Comments on Draft Proposed Decision, page 8.

[143] Exhibit S, CSDA Comments on Draft Proposed Decision, page 8.

which the state is responsible for reimbursing cities, counties and special districts for complying with state mandated programs by including all programs for which the state even had partial financial responsibility before such transfer."[144] CSDA maintains that "[t]herefore the voters who approved Proposition 1A by 82% of the popular vote had no understanding of this limitation on reimbursement of state mandates to local governments which is the basic holding of the Proposed Decision."[145] CSDA relies on the language of the ballot pamphlet, which states: "if the state does not fund a mandate within any year, the state must eliminate local government's duty to implement it for that same time period."[146] CSDA concludes that "[t]he plain words of Proposition 1A support this voter intent to require the state to fully reimburse the costs incurred by all cities, counties, cities and counties and special districts in implementing any state program in which the complete or partial financial responsibility for that program has been transferred from the state to local government, not just those cities, counties, cities and counties, and special districts which receive proceeds of taxes."[147]

In addition, CSDA argues that the Commission's analysis must read together and harmonize articles XIII A, XIII B, XIII C, and XIII D.[148] Specifically, CSDA argues that pursuant to article XIII C, added by Proposition 218, property-related fees are subject to "majority protest procedures" and "may not be expended for general governmental services…which are available to the public at large in substantially the same manner as they are to property owners..." [149] And, revenues from property-related fees "may not be used for any purpose other than that for which the fee was imposed;" and "may not exceed the costs required to provide the property related service."[150] In addition, CSDA asserts that the amount of a property-related fee must not exceed the proportional cost of providing the service to each individual parcel subject to the fee.[151] CSDA also notes that "Article XIII D includes similar provisions restricting the ability of local governments to raise and expend assessment revenue."[152] CSDA argues that "[a]nalyzed together, all of these restrictions on the raising and expenditure of property related fees and charges by local government agencies specified in Articles XIII C and D of the Constitution severely limit the ability of local government agencies to utilize revenue for property related fees and charges to fund the costs of state mandated programs."[153] CSDA goes on to argue that "[t]hose restrictions are more onerous and stringent than the restrictions imposed on local government agencies in expending proceeds of taxes by virtue of the appropriations limit in

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[144] Exhibit S, CSDA Comments on Draft Proposed Decision, page 9.

[145] Exhibit S, CSDA Comments on Draft Proposed Decision, page 9.

[146] Exhibit S, CSDA Comments on Draft Proposed Decision, page 10.

[147] Exhibit S, CSDA Comments on Draft Proposed Decision, page 10.

[148] Exhibit S, CSDA Comments on Draft Proposed Decision, page 10.

[149] Exhibit S, CSDA Comments on Draft Proposed Decision, page 11.

[150] Exhibit S, CSDA Comments on Draft Proposed Decision, page 11.

[151] Exhibit S, CSDA Comments on Draft Proposed Decision, page 11.

[152] Exhibit S, CSDA Comments on Draft Proposed Decision, page 12.

[153] Exhibit S, CSDA Comments on Draft Proposed Decision, page 12.

Article XIII B."[154] CSDA concludes that "[t]he Proposed Decision should be modified to recognize these restrictions imposed by Articles XIII C and D."[155]

Environmental Law Foundation Position

ELF states, in its comments, that it agrees with the draft proposed decision, however, "[t]o aid the Commission in developing its final decision, we would like to present an additional ground upon which the Commission could rely in denying the test claim…"[156] ELF asserts that "the Commission should find that charges for irrigation water are not 'property-related fees' for the purposes of Article XIII D of the California Constitution."[157] Specifically, ELF agrees that the test claim statutes are exempt from the voter-approval requirements of article XIII D, section 6(c);[158] however, ELF also argues that "charges for irrigation water are not 'property-related fees' at all." ELF reasons: "As a result, raising them does not trigger the substantive or procedural requirements contained in Article XIII D, and the claimant districts may increase them free of any constitutional obstacle."[159]

ELF continues: "Article XIII D, § 3 restricts local governments' ability to levy a new "assessment, fee, or charge" without complying with the substantive and procedural requirements of section 4 (assessments) and section 6 (property-related fees)." However, ELF asserts that "Section 2 of Article XIII D makes Proposition 218's relatively limited reach abundantly clear."[160] ELF notes that section 2 defines a fee or charge as "any levy other than an ad valorem tax, a special tax, or an assessment, imposed by an agency upon a parcel or upon a person as an incident of property ownership, including a user fee or charge for a property related service."[161] ELF therefore reasons that "[f]ees that are not 'imposed upon a parcel' or that are not imposed upon a 'person as an incident of property ownership' or that are not a 'user fee or charge for a property related service' are not subject to Article XIII D."[162] ELF notes that in *Apartment Association of Los Angeles County v. City of Los Angeles*[163] the court held that an inspection fee imposed upon landlords was not imposed upon them as property owners, but as business owners and, therefore the fee was not subject to article XIII D.[164] The court, ELF

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[154] Exhibit S, CSDA Comments on Draft Proposed Decision, page 12.

[155] Exhibit S, CSDA Comments on Draft Proposed Decision, page 12.

[156] Exhibit T, ELF Comments on Draft Proposed Decision, page 1.

[157] Exhibit T, ELF Comments on Draft Proposed Decision, page 1.

[158] Exhibit T, ELF Comments on Draft Proposed Decision, page 3 [citing Exhibit Q, Draft Proposed Decision, page 80].

[159] Exhibit T, ELF Comments on Draft Proposed Decision, page 3.

[160] Exhibit T, ELF Comments on Draft Proposed Decision, page 3.

[161] California Constitution, article XIII D, section 2; Exhibit T, ELF Comments on Draft Proposed Decision, page 3.

[162] Exhibit T, ELF Comments on Draft Proposed Decision, pages 3-4.

[163] (2001) 24 Cal.4th 830.

[164] Exhibit T, ELF Comments on Draft Proposed Decision, page 4.

explains, found that this type of fee was "not 'property related' because it was dependent on the property's use – it was not imposed on the property simply as an incident of ownership."[165]

ELF goes on to note that "no case has squarely addressed the issue…" but the courts have recognized that not all water service charges are necessarily subject to article XIII D. In *Pajaro Valley Water Management Agency v. Amrheim*,[166] the court held that a groundwater augmentation charge was a property-related fee, but "it rested that conclusion on the fact that the majority of users were residential users, not large-scale irrigators."[167] And, ELF notes, other cases have found that domestic water use is "necessary for 'normal ownership and use of property.'"[168] ELF concludes that these cases, and others, "present no obstacle to the conclusion that irrigation water is not a property-related service."[169] ELF concludes that fees for irrigation water are not "property-related" but a business-related fee, and that therefore the Commission should deny this test claim.[170]

Northern California Water Association Position

In late comments on the draft proposed decision, NCWA seeks to "highlight and emphasize how onerous and expensive these new state mandates are in the Sacramento Valley."[171] NCWA argues that "[t]hese statewide benefits, achieved through implementation of incredibly expensive mandates, ought to be funded by the state and not borne exclusively by the impacted local agencies' landowners."[172] NCWA continues: "The draft proposed decision, in an effort to circumvent the clear requirements to reimburse for these types of state mandates, has attempted to avoid reimbursement by exerting exclusions that are not appropriate for the facts before the Commission."[173] NCWA denies that any "exemptions" apply to the test claim statutes, and "urge[s] the Commission to modify the draft proposed decision to reimburse these and other similarly affected water suppliers."[174]

IV. Discussion

Article XIII B, section 6 of the California Constitution provides in relevant part the following:

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[165] Exhibit T, ELF Comments on Draft Proposed Decision, page 4.

[166] (2007) 150 Cal.App.4th 1364.

[167] Exhibit T, ELF Comments on Draft Proposed Decision, pages 4-5.

[168] Exhibit T, ELF Comments on Draft Proposed Decision, page 5 [citing *Richmond v. Shasta Community Services District* (2004) 32 Cal.4th 409, 427; *Bighorn Desert View Water Agency v. Verjil* (2006) 39 Cal.4th 205].

[169] Exhibit T, ELF Comments on Draft Proposed Decision, page 5.

[170] Exhibit T, ELF Comments on Draft Proposed Decision, page 5.

[171] Exhibit V, NCWA Comments on Draft Proposed Decision, page 1.

[172] Exhibit V, NCWA Comments on Draft Proposed Decision, page 2.

[173] Exhibit V, NCWA Comments on Draft Proposed Decision, page 2.

[174] Exhibit V, NCWA Comments on Draft Proposed Decision, page 2.

> Whenever the Legislature or any state agency mandates a new program or higher level of service on any local government, the state shall provide a subvention of funds to reimburse such local government for the costs of such programs or increased level of service, except that the Legislature *may, but need not*, provide a subvention of funds for the following mandates:
>
> (1) Legislative mandates requested by the local agency affected.
>
> (2) Legislation defining a new crime or changing an existing definition of a crime.
>
> (3) Legislative mandates enacted prior to January 1, 1975, or executive orders or regulations initially implementing legislation enacted prior to January 1, 1975.

The purpose of article XIII B, section 6 is to "preclude the state from shifting financial responsibility for carrying out governmental functions to local agencies, which are 'ill equipped' to assume increased financial responsibilities because of the taxing and spending limitations that articles XIII A and XIII B impose."[175] Thus, the subvention requirement of section 6 is "directed to state-mandated increases in the services provided by [local government] …"[176]

Reimbursement under article XIII B, section 6 is required when the following elements are met:

1. A state statute or executive order requires or "mandates" local agencies or school districts to perform an activity.[177]
2. The mandated activity either:
    a. Carries out the governmental function of providing a service to the public; or
    b. Imposes unique requirements on local agencies or school districts and does not apply generally to all residents and entities in the state.[178]
3. The mandated activity is new when compared with the legal requirements in effect immediately before the enactment of the test claim statute or executive order and it increases the level of service provided to the public.[179]
4. The mandated activity results in the local agency or school district incurring increased costs, within the meaning of section 17514. Increased costs, however, are not

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[175] *County of San Diego v. State of California* (1997) 15 Cal.4th 68, 81.

[176] *County of Los Angeles v. State of California* (*County of Los Angeles I*) (1987) 43 Cal.3d 46, 56.

[177] *San Diego Unified School Dist. v. Commission on State Mandates* (*San Diego Unified School Dist.*) (2004) 33 Cal.4th 859, 874.

[178] *Id.* at 874-875 (reaffirming the test set out in *County of Los Angeles*, *supra*, 43 Cal.3d 46, 56).

[179] *San Diego Unified School Dist.*, *supra*, 33 Cal.4th 859, 874-875, 878; *Lucia Mar Unified School District v. Honig* (1988) 44 Cal.3d 830, 835.

reimbursable if an exception identified in Government Code section 17556 applies to the activity.[180]

The determination whether a statute or executive order imposes a reimbursable state-mandated program is a question of law.[181] The Commission is vested with exclusive authority to adjudicate disputes over the existence of state-mandated programs within the meaning of article XIII B, section 6.[182] In making its decisions, the Commission must strictly construe article XIII B, section 6, and not apply it as an "equitable remedy to cure the perceived unfairness resulting from political decisions on funding priorities."[183]

The parties raise the following issues in their comments:

- The test claim statute and executive order do not impose a new program or higher level of service that is subject to article XIII B, section 6 because the Water Conservation Law and implementing regulations apply to both public and private water suppliers alike, and do not impose requirements uniquely upon local government.
- The test claim statute and executive order do not impose a new program or higher level of service because the provision of water and other utilities is an activity that could be, and often is, undertaken by private enterprise, and is therefore not a quintessentially governmental service in the manner that police and fire protection are generally accepted to be.
- The test claim does not result in costs mandated by the state for agricultural water suppliers because fees or charges for the provision of irrigation water are not "property-related" fees or charges subject to the limitations of articles XIII C and XIII D.

As described below, the Commission denies this claim on the grounds that most of the code sections and regulations pled do not impose new mandated activities, and all affected claimants have sufficient fee authority as a matter of law to cover the costs of any new requirements. Therefore, this decision does not make findings on the additional potential grounds for denial raised in comments on the draft proposed decision summarized above.

A. South Feather Water and Power Agency, Paradise Irrigation District, Oakdale Irrigation District, and Glenn-Colusa Irrigation District are Subject to the Revenue Limitations of Article XIII B, and are Therefore Eligible for Reimbursement Pursuant to Article XIII B, Section 6.

1. <u>To be eligible for reimbursement, a local agency must be subject to the taxing and spending limitations of articles XIII A and XIII B.</u>

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[180] *County of Fresno v. State of California* (1991) 53 Cal.3d 482, 487; *County of Sonoma v. Commission on State Mandates* (Cal. Ct. App. 1st Dist. 2000) 84 Cal.App.4th 1265, 1284; Government Code sections 17514 and 17556.

[181] *County of San Diego*, *supra*, 15 Cal.4th 68, 109.

[182] *Kinlaw v. State of California* (1991) 54 Cal.3d 326, 332.

[183] *County of Sonoma*, *supra*, 84 Cal.App.4th 1265, 1280 [citing *City of San Jose*, *supra*].

An interpretation of article XIII B, section 6 requires an understanding of articles XIII A and XIII B. "Articles XIII A and XIII B work in tandem, together restricting California governments' power both to levy and to spend taxes for public purposes."[184]

In 1978, the voters adopted Proposition 13, which added article XIII A to the California Constitution. Article XIII A drastically reduced property tax revenue previously enjoyed by local governments by providing that "the maximum amount of any ad valorem tax on real property shall not exceed one percent (1%) of the full cash value of such property," and that the one percent (1%) tax was to be collected by counties and "apportioned according to law to the districts within the counties…"[185] In addition to limiting the property tax, section 4 also restricts a local government's ability to impose special taxes by requiring a two-thirds approval by voters.[186]

Article XIII B was adopted by the voters as Proposition 4 less than 18 months after the addition of article XIII A to the state Constitution, and was billed as "the next logical step to Proposition 13."[187] While article XIII A is aimed at controlling ad valorem property taxes and the imposition of new special taxes, "the thrust of article XIII B is toward placing certain limitations on the growth of appropriations at both the state and local government level; in particular, Article XIII B places limits on the authorization to expend the 'proceeds of taxes.'"[188]

Article XIII B established an "appropriations limit," or spending limit for each "entity of local government" beginning in fiscal year 1980-1981.[189] Specifically, the appropriations limit provides as follows:

> The total annual appropriations subject to limitation of the State and of each local government shall not exceed the appropriations limit of the entity of government for the prior year adjusted for the change in the cost of living and the change in population, except as otherwise provided in this article.[190]

No "appropriations subject to limitation" may be made in excess of the appropriations limit, and revenues received in excess of authorized appropriations must be returned to the taxpayers within the following two fiscal years.[191] Article XIII B does not limit the ability to expend government funds collected from *all sources*; the appropriations limit is based on "appropriations subject to limitation," which means, pursuant to article XIII B, section 8, "any authorization to

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[184] *County of Fresno v. State of California* (1991) 53 Cal.3d 482, 486 (*County of Fresno*).

[185] California Constitution, article XIII A, section 1 (effective June 7, 1978).

[186] California Constitution, article XIII A, section 4 (effective June 7, 1978).

[187] *County of Placer v. Corin* (1980) 113 Cal.App.3d 443, 446 (*County of Placer*).

[188] *Ibid.*

[189] California Constitution, article XIII B, section 8(h) (added, Nov. 7, 1979).

[190] California Constitution, article XIII B, section 1 (added, Nov. 7, 1979; amended by Proposition 111, June 5, 1990).

[191] California Constitution, article XIII B, section 2 (added, Nov. 7, 1979).

expend during a fiscal year the *proceeds of taxes* levied by or for that entity."[192] Appropriations subject to limitation do not include "local agency loan funds or indebtedness funds"; "investment (or authorizations to invest) funds…of an entity of local government in accounts at banks…or in liquid securities";[193] "[a]ppropriations for debt service"; "[a]ppropriations required to comply with mandates of the courts or the federal government"; and "[a]ppropriations of any special district which existed on January 1, 1978 and which did not as of the 1977-78 fiscal year levy an ad valorem tax on property in excess of 12 [and one half] cents per $100 of assessed value; or the appropriations of any special district then existing or thereafter created by a vote of the people, which is totally funded by other than the proceeds of taxes."[194]

Proposition 4 also added article XIII B, section 6 to require the state to reimburse local governments for any additional expenditures that might be mandated by the state, and which would rely solely on revenues subject to the appropriations limit. The California Supreme Court, in *County of Fresno v. State of California*,[195] explained:

> Section 6 was included in article XIII B in recognition that article XIII A of the Constitution severely restricted the taxing powers of local governments. (See *County of Los Angeles I, supra,* 43 Cal.3d at p. 61.) The provision was intended to preclude the state from shifting financial responsibility for carrying out governmental functions onto local entities that were ill equipped to handle the task. (*Ibid.*; see *Lucia Mar Unified School Dist. v. Honig* (1988) 44 Cal.3d 830, 836, fn. 6.) Specifically, it was designed to protect the tax revenues of local governments from state mandates that would require expenditure of such revenues. Thus, although its language broadly declares that the "state shall provide a subvention of funds to reimburse ... local government for the costs [of a state-mandated new] program or higher level of service," read in its textual and historical context section 6 of article XIII B requires subvention only when the costs in question can be recovered *solely from tax revenues.*[196]

Not every local agency is subject to the restrictions of article XIII B, and therefore not every local agency is entitled to reimbursement. Redevelopment agencies, for example, have been identified by the courts as being exempt from the restrictions of article XIII B. In *Bell Community Redevelopment Agency v. Woolsey*, the Second District Court of Appeal concluded that a redevelopment agency's power to issue bonds, and to repay those bonds with its tax increment, was not subject to the spending limit of article XIII B. The court reasoned that to construe tax increment payments as appropriations subject to limitation "would be directly contrary to the mandate of section 7," which provides that "[n]othing in this Article shall be construed to impair the ability of the state or of any local government to meet its obligations with

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[192] California Constitution, article XIII B, section 8 (added, Nov. 7, 1979; amended by Proposition 111, June 5, 1990) [emphasis added].

[193] California Constitution, article XIII B, section 8.

[194] California Constitution, article XIII B, section 9 (added, Nov. 7, 1979; amended by Proposition 111, June 5, 1990).

[195] *County of Fresno, supra*, (1991) 53 Cal.3d 482.

[196] *Id*, at p. 487. Emphasis in original.

respect to existing or future bonded indebtedness."[197] In addition, the court found that article XVI, section 16, addressing the funding of redevelopment agencies, was inconsistent with the limitations of article XIII B:

> Article XVI, section 16, provides that tax increment revenues "may be irrevocably pledged" to the payment of tax allocation bonds. If bonds must annually compete for payment within an annual appropriations limit, and their payment depend upon complying with the such limit [*sic*], it is clear that tax allocation proceeds cannot be irrevocably pledged to the payment of the bonds. Annual bond payments would be contingent upon factors extraneous to the pledge. That is, bond payments would be revocable every year of their life to the extent that they conflicted with an annual appropriation limit. The untoward effect would be that bonds would become unsaleable because a purchaser could not depend upon the agency having a sure source of payment for such bonds.[198]

The court therefore concluded that redevelopment agencies could not reasonably be subject to article XIII B, and therefore upheld Health and Safety Code section 33678, and ordered that the writ issue to compel Woolsey to publish the notice.

Accordingly, in *Redevelopment Agency of San Marcos v. Commission on State Mandates*,[199] the court held that redevelopment agencies were not eligible to claim reimbursement because Health and Safety Code section 33678 exempted tax increment financing, their primary source of revenue, from the limitations of article XIII B.

> Because of the nature of the financing they receive, tax increment financing, redevelopment agencies are not subject to this type of appropriations limitations or spending caps; they do not expend any "proceeds of taxes." Nor do they raise, through tax increment financing, "general revenues for the local entity." The purpose for which state subvention of funds was created, to protect local agencies from having the state transfer its cost of government from itself to the local level, is therefore not brought into play when redevelopment agencies are required to allocate their tax increment financing in a particular manner...
>
> For all these reasons, we conclude the same policies which support exempting tax increment revenues from article XIII B appropriations limits also support denying reimbursement under section 6… [The] costs of depositing tax increment revenues in the Housing Fund are attributable not directly to tax revenues, but to the benefit received by the Agency from the tax increment financing scheme, which is one step removed from other local agencies' collection of tax revenues.[200]

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[197] (1985) 169 Cal.App.3d 24, at p. 31 [quoting article XIII B, section 7].

[198] *Id*, at p. 31.

[199] (1997) 55 Cal.App.4th 976.

[200] *Redevelopment Agency of San Marcos*, *supra*, 55 Cal.App.4th at pp. 986-987 [internal citations omitted].

In 2000, the Third District Court of Appeal, in *City of El Monte v. Commission on State Mandates,* affirmed the reasoning of the *San Marcos* decision, holding that a redevelopment agency cannot accept the benefits of an exemption from article XIII B's spending limit while asserting an entitlement to reimbursement under article XIII B, section 6.[201]

Therefore, pursuant to the plain language of article XIII B, section 9 and the decisions in *County of Fresno*, *supra*, *Redevelopment Agency of San Marcos*, *supra*, and *City of El Monte*, *supra*, a local agency that does not collect and expend "proceeds of taxes" is not subject to the tax and spend limitations of articles XIII A and B, and therefore is not entitled to claim reimbursement pursuant to article XIII B, section 6.

Nevertheless, claimants argue that *County of Fresno* and the redevelopment agency cases do not apply in this case. Specifically, claimants argue that *County of Fresno*, *supra*, predates Proposition 218, which added articles XIII C and XIII D to the California Constitution, and is factually distinguishable from this test claim because the test claim statute at issue in *County of Fresno* specifically authorized user fees to pay for the mandated activities. With respect to the redevelopment cases (*Bell Community Redevelopment Agency*, *Redevelopment Agency of San Marcos*, and *City of El Monte*), the claimants argue that the courts' findings rely on Health and Safety Code section 33678, which specifically excepts the revenues of redevelopment agencies from the scope of revenue-limited appropriations under article XIII B.[202] In addition, the claimants argue that the above reasoning "would prohibit state subvention for every enterprise district in the state that is subject to Proposition 218…" and "would create a class of local agencies that are per se ineligible for reimbursement under this test claim, all potential future test claims, and all previous test claims dating back to Proposition 218's passage in 1996."[203] In addition, both the claimants and CSDA suggest that the Commission broaden the scope of reimbursement eligibility under article XIII B, section 6, beyond that articulated by the courts, and beyond the plain language of articles XIII A and XIII B.[204] The claimants and CSDA urge the Commission to consider the restrictions placed on special districts' authority to impose assessments, fees, or charges by articles XIII C and XIII D to be part of the "increasingly limited revenues sources" that subvention under section 6 was intended to protect. The claimants and CSDA would have the Commission broadly interpret and extend the subvention requirement and treat fee authority subject to proposition 218 as proceeds of taxes, "to advance the goal of 'preclud[ing] the state from shifting financial responsibility for carrying out governmental functions onto local entities that [are] ill equipped to handle the task."[205]

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[201] (2000) 83 Cal.App.4th 266, 281-282 (*El Monte*).

[202] Exhibit R, Claimant Comments on Draft Proposed Decision, pages 17-18.

[203] Exhibit R, Claimant Comments on Draft Proposed Decision, pages 14-15.

[204] See Exhibit R, Claimant Comments on Draft Proposed Decision, page 21; Exhibit S, CSDA Comments on Draft Proposed Decision, pages 10-12 [Arguing that the restrictions of articles XIII C and XIII D are more onerous than the revenue limits of article XIII B, and the Commission should "recognize these restrictions…" and "Articles XIII A, B, C, and D should be read together and harmonized…"].

[205] Exhibit R, Claimant Comments on Draft Proposed Decision, page 21 [quoting *County of Fresno*, *supra* 53 Cal.3d, at p. 487.].

The claimant's comments do not alter the above analysis. The factual distinction that claimants allege between this test claim and *County of Fresno* is not dispositive.[206] Specific fee authority provided by the test claim statute is not necessary: so long as a local government's statutory fee authority can be legally applied to alleged activities mandated by the test claim statute, there are no *costs mandated by the state* within the meaning of Government Code section 17514 and article XIII B, section 6, to the extent of that fee authority.[207] If the local entity is not compelled to rely on *appropriations subject to limitation* to comply with the alleged mandate, no reimbursement is required.[208]

The claimant's comments addressing the redevelopment cases are similarly unpersuasive. Those cases are discussed above not as analogues for the types of special districts represented in this test claim, but only to demonstrate that *not all local government entities* are subject to articles XIII A and XIII B, and that an agency that is not bound by article XIII B cannot assert an entitlement to reimbursement under section 6.[209]

Moreover, enterprise districts, and indeed any local government entity funded exclusively through user fees, charges, or assessments, *are* per se ineligible for mandate reimbursement. This is so because only a mandate to expend revenues that are subject to the appropriations limit, as defined and expounded upon by the courts,[210] can entitle a local government entity to mandate reimbursement. In other words, a local agency that is funded solely by user fees or charges, (or tax increment revenues, as discussed above), or appropriations for debt service, or any combination of revenues "other than the proceeds of taxes" is an agency that is not subject to the appropriations limit, and therefore not entitled to subvention.[211]

This interpretation is supported by decades of mandates precedent and is consistent with the purpose of article XIII B. As discussed above, "Section 6 was included in article XIII B in recognition that article XIII A…severely restricted the *taxing* powers of local governments."[212] Article XIII B "was not intended to reach beyond taxation…" and "would not restrict the growth in appropriations financed from other [i.e., nontax] sources of revenue…"[213] The issue, then, is

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[206] Exhibit R, Claimant Comments on Draft Proposed Decision, pages 17-18. *County of Fresno*, *supra*, 53 Cal.3d at p. 485.

[207] See also, *Clovis Unified School District v. Chiang* (2010) 188 Cal.App.4th 794, 812 ["Claimants can choose not to required these fees, but not at the state's expense."

[208] See *Redevelopment Agency of San Marcos*, *supra*, 55 Cal.App.4th at p. 987 ["No state duty of subvention is triggered where the local agency is not required to expend its proceeds of taxes."].

[209] *City of El Monte*, *supra*, (2000) 83 Cal.App.4th 266, 281-282 [citing *Redevelopment Agency of San Marcos*, *supra*, (1997) 55 Cal.App.4th 976].

[210] See *Placer v. Corin* (1980) 113 Cal.App.3d 443; *Bell Community Redevelopment Agency*, *supra* (1985) 169 Cal.App.3d 24; *County of Fresno*, *supra* (1991) 53 Cal.3d 482; *Redevelopment Agency of San Marcos*, *supra*, (1997) 55 Cal.App.4th 976.

[211] California Constitution, article XIII B, section 9 (Adopted Nov. 6, 1979; Amended June 5, 1990).

[212] See *County of Fresno*, *supra*, 53 Cal.3d at p. 487 [emphasis added].

[213] *Ibid.*

not *how many* different sources of revenue a local entity has at its disposal, as suggested by claimants;[214] it is whether and to what extent those sources of revenue (and the appropriations to be made) are *limited* by articles XIII A and XIII B. Based on the foregoing, nothing in claimants' comments alters the above analysis.

The Commission also disagrees with the interpretation offered by CSDA. CSDA argues in its comments that Proposition 1A, adopted in 2004, made changes to article XIII B, section 6, which must be considered by the Commission, and that the voters' intent and understanding when adopting Proposition 1A should weigh heavily on the Commission's interpretation of the amended text.[215] However, the amendments made by Proposition 1A require the Legislature to either pay or suspend a mandate for local agencies, and expand the definition of a new program or higher level of service. The plain language of Proposition 1A does not address which entities are eligible to claim reimbursement, and does not require reimbursement for all special districts, including those that do not receive property tax revenue and are not subject to the appropriations limitation of article XIII B.[216] CSDA's comments do not alter the above analysis.

Based on the foregoing, a local agency that does not collect and expend "proceeds of taxes" is not subject to the tax and spend limitations of articles XIII A and B, and therefore is not entitled to claim reimbursement pursuant to article XIII B, section 6.

2. <u>Biggs-West Gridley Water District and Richvale Irrigation District are not subject to the taxing and spending limitations of articles XIII A and XIII B, and are therefore not eligible for reimbursement under article XIII B, section 6 of the California Constitution. However, Oakdale Irrigation District and Glenn-Colusa Irrigation District are subject to the taxing and spending limitations, have been substituted in as claimants for both of the consolidated test claims, and are eligible for reimbursement under article XIII B, section 6 of the California Constitution.</u>

10-TC-12 was originally filed by four co-claimants: South Feather, Paradise, Biggs, and Richvale.[217] 12-TC-01 was filed by Richvale and Biggs only,[218] and the two test claims were consolidated for analysis and hearing and renamed *Water Conservation*. Based on the analysis herein, the Commission finds that Richvale and Biggs are ineligible to claim reimbursement under article XIII B, section 6, and test claim 12-TC-01 would have to be dismissed for want of an eligible claimant.[219] However, Oakdale and Glenn-Colusa have requested to be substituted in on both test claims in the place of the ineligible claimants.[220] The analysis below will therefore address the eligibility of each of the six co-claimants, and will show that South Feather, Paradise,

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[214] Exhibit R, Claimant Comments on Draft Proposed Decision, pages 20-21.

[215] See, e.g., Exhibit S, CSDA Comments on Draft Proposed Decision, page 7.

[216] See California Constitution, article XIII B, section 6 (b-c).

[217] Exhibit A, Test Claim 10-TC-12.

[218] Exhibit B, Test Claim 12-TC-01.

[219] See Exhibit K, Notice of Pending Dismissal.

[220] Exhibit N, Request for Substitution of Parties by Oakdale Irrigation District; Exhibit O, Request for Substitution of Parties by Glenn-Colusa Irrigation District.

Oakdale, and Glenn-Colusa are all eligible to claim reimbursement under article XIII B, section 6, and therefore the Commission maintains jurisdiction over both of the consolidated test claims.

a. Biggs-West Gridley Water District and Richvale Irrigation District are not eligible to claim reimbursement under article XIII B, section 6.

The Districts have acknowledged that "Richvale and Biggs do not receive property tax revenue."[221] With respect to Richvale, that statement is consistent with the original test claim filing, in which Richvale stated that it "does not receive an annual share of property tax revenue."[222] However, Biggs had earlier stated in a declaration by Karen Peters, the District's Executive Administrator, that "Biggs receives an annual share of property tax revenue," and for "Fiscal Year 2011 the amount of property tax revenue is expected to be approximately $64,000."[223] Biggs has since determined that the Peters declaration was in error, and a more recent declaration from Eugene Massa, the District's General Manager, states that "[t]hat revenue estimate actually reflects Biggs' *assessment*, equating to $2 per acre within Biggs' boundaries." Mr. Massa goes on to state that "Biggs does not currently receive any share of ad valorem *property tax* revenue."[224,225]

Even though Richvale and Biggs acknowledge that they receive no property tax revenue, they argue that they and "other similarly situated public agencies should not be deemed ineligible for subvention due to a historical quirk that resulted in those agencies not receiving a share of ad valorem property taxes."[226] The "historical quirk" to which Richvale and Biggs refer, it is assumed, is the fact that Richvale and Biggs either did not exist or did not share in ad valorem property tax revenue as of the 1977-78 fiscal year, which would render at least some portion of

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[221] Exhibit I, Claimant Response to Request for Additional Information, page 1.

[222] Exhibit A, South Feather Water and Power Test Claim, page 22.

[223] Exhibit A, 10-TC-12, page 30.

[224] Exhibit I, Claimant Response to Request for Additional Information, page 393 [emphasis added].

[225] See also Exhibit X, Special Districts Annual Report 2010-2011, pages 184; 389; 1051 [The Special Districts Annual Report for 2010-2011 is consistent with Richvale's statement that it does not receive property tax revenue. Table 8 indicates no property tax receipts, and Table 1 does not indicate an appropriations limit. Biggs did not submit the necessary information to the SCO, and therefore does not appear in Tables 1 or 8 of the 2010-2011 Special Districts Annual Report. Based on that report, and the admissions of the Districts, a notice of dismissal was issued on November 12, 2013 for test claim 12-TC-01, for which Richvale and Biggs were the only named claimants. In response to the Notice of Pending Dismissal, the Districts submitted an Appeal of Dismissal, in which they argue that Proposition 218 undermines a local agency's fee authority, and that the Districts are eligible for reimbursement "for the reasons already explained in the Districts' 'Claimants' Response to Request for Additional Information 10-TC-12 and 12-TC-01.'" (Exhibit K, Notice of Pending Dismissal; Exhibit L, Appeal of Executive Director's Decision)].

[226] Exhibit R, Claimant Comments on Draft Proposed Decision, page 20.

their revenues subject to the appropriations limit, in accordance with article XIII B, section 9.[227] They argue that all public agencies are ill-equipped to cover the costs of new mandates, whether they are subject to the tax and spend limits of articles XIII A and XIII B, or the fee and assessment restrictions of articles XIII C and XIII D.[228] In addition, Richvale and Biggs assert that to the extent they do have authority to raise revenues other than taxes, any increased fees or assessments necessary to cover the costs of the required activities would, by definition, be classified as proceeds of taxes under article XIII B, section 8.[229]

The Districts' reasoning is both circular and fundamentally unsound. Article XIII B, section 8 provides that "proceeds of taxes" includes "all tax revenues and the proceeds to an entity of government from (1) regulatory licenses, user charges, and user fees *to the extent that those proceeds exceed the costs reasonably borne by that entity in providing the regulation, product, or service*, and (2) the investment of tax revenues."[230] The districts argue, therefore, that "proceeds of taxes" includes not only revenues directly derived from taxes, "but also revenues exceeding the costs to fund the services provided by the agency." The Districts argue that Richvale and Biggs are unable, under Proposition 218, to impose new fees as a matter of law, and must reallocate existing fees, which constitute "proceeds of taxes" under article XIII B, section 8. But Proposition 218 added article XIII D to expressly provide that fees or charges "*shall not be extended, imposed, or increased*" if revenues derived from the fee or charge exceed the funds needed to provide the property-related service; and "shall not be used for any purpose other than that for which the fee or charge was imposed."[231] Therefore, Proposition 218 imposes an absolute bar to raising fees beyond those necessary to provide the property-related service, or "reallocating" fees for a purpose other than that for which the fee or charge was imposed.

Moreover, Richvale and Biggs' reasoning that such fees *would automatically and by definition* constitute proceeds of taxes under article XIII B, section 8, rests on the initial presumption that such fees or charges would "exceed" those necessary to provide the service. In other words, the Districts presume that the costs of the mandate are unrelated to, or exceed, the costs of providing water service to the districts' users.[232] On the contrary, any fees or charges, whether *new or existing*, imposed by Richvale and Biggs are imposed for the purpose of providing irrigation water. The alleged mandated activities imposed upon irrigation districts by the test claim statute and regulations are required for those districts to *continue* providing irrigation water. Therefore, utilizing revenues from fees or charges to comply with the alleged new requirements is not

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[227] Section 9 states that appropriations subject to limitation do not include: "Appropriations of any special district which existed on January 1, 1978, and which did not as of the 1977–78 fiscal year levy an ad valorem tax on property in excess of 12 1/2 cents per $100 of assessed value; or the appropriations of any special district then existing or thereafter created by a vote of the people, which is totally funded by other than the proceeds of taxes."

[228] Exhibit R, Claimant Comments on Draft Proposed Decision, page 20.

[229] Exhibit I, Claimant Response to Request for Additional Information, page 3.

[230] Exhibit I, Claimant Response to Request for Additional Information, page 3 [citing California Constitution, article XIII B, section 8 (emphasis added)].

[231] Article XIII D, section 6(b) (added November 5, 1996, by Proposition 218).

[232] Exhibit I, Claimant Response to Request for Additional Information, pages 4-5.

"divert[ing] existing revenues from their authorized purposes…"[233] Rather, the increased or reallocated fees are merely being used to ensure that claimants can continue to provide water service consistently with all applicable legal requirements. Claimants' assertion that an increase or reallocation of fees alters the legal significance of such fees pursuant to article XIII B, section 8 is not supported by the law or the record.

Simply put, Richvale and Biggs do not impose or collect taxes[234] and the Commission cannot say, as a matter of law, that fees increased or imposed to comply with the alleged mandate would constitute proceeds of taxes, within the meaning of article XIII B, section 8. Unless or until a court determines that article XIII B, section 8 can be applied in this manner, the Commission must presume that only those local government entities that collect and expend proceeds of taxes, within the meaning of article XIII A, are subject to the spending limits of article XIII B, including section 6.

Based on the foregoing, the Commission finds that Richvale Irrigation District and Biggs-West Gridley Water District are not subject to the taxing and spending limitations of articles XIII A and XIII B, and are therefore not eligible to claim reimbursement under article XIII B, section 6.

b. South Feather Water and Power Agency and Paradise Irrigation District are eligible to claim reimbursement under article XIII B, section 6.

Claimants state that "South Feather and Paradise receive property tax revenue," and "are in the process of establishing their appropriations limits for their current fiscal years."[235]

Declarations attached to claimants' response state that both South Feather and Paradise are in the process of determining and adopting an appropriations limit. Kevin Phillips, Finance Manager of Paradise, stated that during his tenure, "I have not calculated or otherwise established Paradise's appropriation limit as set forth in Proposition 4." Mr. Phillips further states that "[a]t the request of Paradise's legal counsel, I have begun working to establish Paradise's appropriation limit and intend…to ask Paradise's Board of Directors to adopt a resolution…for its current fiscal year."[236] Similarly, Steve Wong, Finance Division Manager of South Feather, states that he has not "calculated or otherwise established South Feather's appropriation limit" during his employment with South Feather. Mr. Wong further states that "[a]t the request of South Feather's legal counsel, I have begun working to establish South Feather's appropriation limit and intend, after the requisite public review period, to ask South Feather's Board of Directors to adopt a resolution establishing South Feather's appropriation limit for its current fiscal year."[237]

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[233] See Exhibit I, Claimant Response to Request for Additional Information, pages 4-5.

[234] Note that special districts generally have statutory authorization to impose special taxes, but only with two-thirds voter approval (See article XIII A, section 4). However, there is no evidence in the record indicating that Richvale or Biggs currently collects or expends special taxes.

[235] Exhibit I, Claimant Response to Request for Additional Information, pages 1-2.

[236] See Exhibit I, Claimant Response to Request for Additional Information, page 394.

[237] See Exhibit I, Claimant Response to Request for Additional Information, page 427.

Based on the foregoing, the Commission finds that both South Feather and Paradise are subject to the tax and spend limitations of articles XIII A and XIII B, and are therefore eligible to claim reimbursement under article XIII B, section 6.

3. Oakdale Irrigation District and Glenn-Colusa Irrigation District are eligible to claim reimbursement under article XIII B, section 6 and are thus substituted in as claimants in the consolidated test claims in place of Biggs-West Gridley Water District and Richvale Irrigation District.

Pursuant to the Notice of Pending Dismissal, Oakdale submitted a request to be substituted in as a party on 10-TC-12 and 12-TC-01 on January 13, 2014. Oakdale states that it is subject to the tax and spend limitations of articles XIII A and XIII B, and that it is an agricultural water supplier "subject to the mandates imposed by the Agricultural Water Measurement Regulations…and the Water Conservation Act of 2009."[238] The declaration of Steve Knell, Oakdale's General Manager, attached to the Request for Substitution, states that Oakdale "receives an annual share of ad valorem property tax revenue from Stanislaus and San Joaquin counties." The declaration further states that the District "received $5,701,730 in property taxes for 2011-2013 and expects to receive approximately $1.9 million in 2014."

The Special Districts Annual Reports for 2010-2011 and 2011-2012 do not indicate an appropriations limit for Oakdale in Table 1,[239] but they do indicate that Oakdale received property tax revenue in Table 8 for 2010-2011 and 2011-2012.[240]

Similarly, Glenn-Colusa submitted a request to be substituted in as a party on both test claims. Glenn-Colusa asserted in its request that it "is subject to the tax and spend limitations of Articles XIII A and XIII B of the California Constitution," and is an agricultural water supplier, subject to "the mandates imposed by the Water Conservation Act of 2009…and the Agricultural Water Measurement Regulations."[241] In declarations attached to the Request for Substitution, Thaddeus Bettner, General Manager of Glenn-Colusa, asserts that the District "received $520,420 in property taxes in 2013 and expects to receive $528,300 in 2014."[242]

Table 8 of the Special Districts Annual Report indicates that Glenn-Colusa collected property taxes in 2010-2011 and 2011-2012,[243] but Table 1 does not indicate an appropriations limit for the district.[244]

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[238] Exhibit N, Request for Substitution of Parties by Oakdale Irrigation District, page 2.

[239] Exhibit X, Special Districts Annual Reports for 2010-2011 and 2011-2012, pages 159 and 157, respectively.

[240] Exhibit X, Special Districts Annual Reports for 2010-2011 and 2011-2012, pages 381 and 379, respectively.

[241] Exhibit O, Request for Substitution of Parties by Glenn-Colusa Irrigation District, pages 1-2.

[242] Exhibit O, Request for Substitution of Parties by Glenn-Colusa Irrigation District, page 7.

[243] Exhibit X, Special Districts Annual Report, 2010-2011 and 2011-2012, pages 357 and 355, respectively.

[244] Exhibit X, Special Districts Annual Report, 2010-2011 and 2011-2012, pages 104 and 101, respectively.

Based on the evidence in the record, including the declarations of the General Managers of Oakdale and Glenn-Colusa, as well as the information reported to the SCO in the Special Districts Annual Reports for fiscal years 2010-2011 and 2011-2012, both the substitute claimants collect some amount of property tax revenue. In turn, because property tax revenue is subject to the appropriations limit, both claimants also expend revenues subject to the appropriations limit, in accordance with article XIII B. A local government entity that is subject to both articles XIII A and XIII B is eligible for subvention under article XIII B, section 6, and is an eligible claimant before the Commission.

The Commission concludes that both Oakdale and Glenn-Colusa are subject to article XIII B as a matter of law, because they have authority to collect and expend property tax revenue.

Based on the foregoing, the Commission finds that Oakdale and Glenn-Colusa are subject to the tax and spend limitations of articles XIII A and XIII B, and are therefore eligible to claim reimbursement under article XIII B, section 6.

B. Some of the Test Claim Statutes and Regulations Impose New Requirements on Urban Retail Water Suppliers.

Test claim 10-TC-12 alleged all of Part 2.55 of Division 6 of the Water Code, which consists of sections 10608 through 10608.64. The following analysis addresses only those sections of Part 2.55 containing mandatory language, and those sections specifically alleged in the test claim narrative. Sections 10608.22, 10608.28, 10608.36, 10608.43, 10608.44, 10608.50, 10608.56, 10608.60, and 10608.64 are not analyzed below, because those sections were not specifically alleged to impose increased costs mandated by the state, and because they do not impose new requirements on local government.

1. Water Code sections 10608, 10608.4(d), 10608.12(a; p), and 10608.16(a), as added by Statutes 2009-2010, 7th Extraordinary Session, chapter 4 (SBX7 7), do not impose any new requirements on local government.

Water Code section 10608 states the Legislature's findings and declarations, including: "Water is a public resource that the California Constitution protects against waste and unreasonable use..." and "Reduced water use through conservation provides significant energy and environmental benefits, and can help protect water quality, improve streamflows, and reduce greenhouse gas emissions." Subdivision (g), specifically invoked by the claimants,[245] states that "[t]he Governor has called for a 20 percent per capita reduction in urban water use statewide by 2020."[246] The plain language of this section establishes a goal, but does not, itself, impose any new requirements on local government.

Water Code section 10608.4 as added, states the "intent of the legislature," including, as highlighted by the claimants,[247] to "[e]stablish a method or methods for urban retail water suppliers to determine targets for achieving increased water use efficiency by the year 2020, in

[245] Exhibit A, Test Claim 10-TC-12, page 3.

[246] Water Code section 10608(a; d; g) (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[247] Exhibit A, Test Claim 10-TC-12, page 3.

accordance with the Governor's goal of a 20 percent reduction."[248] The plain language of this section expresses legislative intent, and does not impose any new activities on local government

Water Code section 10608.16(a), as added, states that "[t]he state shall achieve a 20 percent reduction in urban per capita water use in California on or before December 31, 2020." In addition, section 10608.16(b) provides that the state "shall make incremental progress towards the state target specified in subdivision (a) by reducing urban per capita water use by at least 10 percent on or before December 31, 2015."[249] The plain language of this section is directed to the State generally, and does not impose any new mandated activities on local government.

Water Code section 10608.12 provides that "the following definitions govern the construction of this part:" An "urban retail water supplier " is defined as "a water supplier, either publicly or privately owned, that directly provides potable municipal water to more than 3,000 end users or that supplies more than 3,000 acre-feet of potable water annually at retail for municipal purposes."[250] The claimants allege that the Water Conservation Act imposes unfunded state mandates on urban retail water suppliers, and that South Feather and Paradise "are 'urban retail water suppliers,' as defined."[251] Likewise, under section 10608.12, an "agricultural water supplier" is defined as "a water supplier, either publicly or privately owned, providing water to 10,000 or more irrigated acres, excluding recycled water."[252] The claimants allege that this definition "expanded the definition of what constitutes an agricultural water supplier," and thus required a greater number of entities to adopt AWMPs and perform other activities under the Water Code.[253] However, whatever new activities may be required by the test claim statutes, the plain language of amended section 10608.12 does not impose any new requirements on urban retail water suppliers or agricultural water suppliers; section 10608.12 merely prescribes the applicability and scope of the other requirements of the test claim statutes.

Based on the foregoing, the Commission finds that sections 10608, 10608.4 10608.12, and 10608.16, pled as added, do not impose any new requirements on local government, and are therefore denied.

2. Water Code sections 10608.20(a; b; e; and j), 10608.24, and 10608.40, as added by Statutes 2009-2010, 7th Extraordinary Session, chapter 4 (SBX7 7) impose new required activities on urban water suppliers.

Prior law required the preparation of an urban water management plan, and required urban water suppliers to update the plan every five years. The test claim statutes add additional information related to conservation goals to that required to be included in a supplier's UWMP, and authorize an extension of time from December 31, 2010 to July 1, 2011 for the adoption of the next UWMP. As added by the test claim statute, section 10608.20 provides, in pertinent part:

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[248] Water Code section 10608.4 (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[249] Water Code section 10608.16(a; b) (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[250] Water Code section 10608.12(p) (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[251] Exhibit A, 10-TC-12, page 2.

[252] Water Code section 10608.12(a) (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[253] Exhibit A, 10-TC-12, page 8.

(a)(1) Each urban retail water supplier shall develop urban water use targets and an interim urban water use target by July 1, 2011. Urban retail water suppliers may elect to determine and report progress toward achieving these targets on an individual or regional basis, as provided in subdivision (a) of Section 10608.28, and may determine the targets on a fiscal year or calendar year basis.

(2) It is the intent of the Legislature that the urban water use targets described in subdivision (a) cumulatively result in a 20-percent reduction from the baseline daily per capita water use by December 31, 2020.

(b) An urban retail water supplier shall adopt one of the following methods for determining its urban water use target pursuant to subdivision (a):

(1) Eighty percent of the urban retail water supplier's baseline per capita daily water use.

(2) The per capita daily water use that is estimated using the sum of the following performance standards:

(A) For indoor residential water use, 55 gallons per capita daily water use as a provisional standard. Upon completion of the department's 2016 report to the Legislature pursuant to Section 10608.42, this standard may be adjusted by the Legislature by statute.

(B) For landscape irrigated through dedicated or residential meters or connections, water efficiency equivalent to the standards of the Model Water Efficient Landscape Ordinance set forth in Chapter 2.7 (commencing with Section 490) of Division 2 of Title 23 of the California Code of Regulations, as in effect the later of the year of the landscape's installation or 1992. An urban retail water supplier using the approach specified in this subparagraph shall use satellite imagery, site visits, or other best available technology to develop an accurate estimate of landscaped areas.

(C) For commercial, industrial, and institutional uses, a 10-percent reduction in water use from the baseline commercial, industrial, and institutional water use by 2020.

(3) Ninety-five percent of the applicable state hydrologic region target, as set forth in the state's draft 20x2020 Water Conservation Plan (dated April 30, 2009). If the service area of an urban water supplier includes more than one hydrologic region, the supplier shall apportion its service area to each region based on population or area.

(4) A method that shall be identified and developed by the department, through a public process, and reported to the Legislature no later than December 31, 2010…[254]

In addition, section 10608.20(e) provides that an urban retail water supplier "shall include in its urban water management plan due in 2010…the baseline daily per capita water use, urban water

[254] Water Code section 10608.20 (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining estimates, including references to supporting data."[255]

And, section 10608.20(j) provides that an urban retail water supplier "shall be granted an extension to July 1, 2011…" to adopt a complying water management plan, and that an urban retail water supplier that adopts an urban water management plan due in 2010 "that does not use the methodologies developed by the department pursuant to subdivision (h) shall amend the plan by July 1, 2011 to comply with this part."[256]

Section 10608.40 provides that an urban retail water supplier shall also "report to [DWR] on their progress in meeting their urban water use targets as part of their [UWMPs] submitted pursuant to Section 10631."[257]

Section 10608.24 provides that each urban retail water supplier "shall meet its interim urban water use target by December 31, 2015," and "shall meet its [final] urban water use target by December 31, 2020."[258]

As discussed above, prior law required the adoption of an UWMP, which, pursuant to section 10631, included a detailed description and analysis of water supplies within the service area, including reliability of supply in normal, dry, and multiple dry years, and a description and evaluation of water demand management measures currently being implemented and scheduled for implementation.[259] Pursuant to existing section 10621, that plan was required to be updated "once every five years…in years ending in five and zero."[260] And, existing section 10631(e) also required identification and quantification of past, current and projected water use over a five-year period including, but not necessarily limited to, all of the following uses:

> (A) Single-family residential.
>
> (B) Multifamily.
>
> (C) Commercial.
>
> (D) Industrial.
>
> (E) Institutional and governmental.
>
> (F) Landscape.
>
> (G) Sales to other agencies.
>
> (H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof.

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[255] Water Code section 10608.20(e) (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[256] Water Code section 10608.20(j) (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[257] Water Code section 10608.40 (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[258] Water Code section 10608.24(a; b) (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[259] Water Code section 10631 (Stats. 2009, ch. 534 (AB 1465)).

[260] Water Code section 10621 (Stats. 2007, ch. 64 (AB 1376)).

(I) Agricultural.[261]

However, nothing in prior law required the adoption of urban water use targets, baseline information on a per capita basis (as opposed to on a type of use basis), interim and final water use targets, assessment of present and proposed measures to achieve the targeted reductions, or a report on the supplier's progress toward meeting the reductions.

Based on the foregoing, the Commission finds that Water Code sections 10608.20, 10608.24, and 10608.40, as added by the test claim statute, impose new requirements on urban retail water suppliers, as follows:

- Develop urban water use targets and an interim urban water use targets by July 1, 2011.[262]
- Adopt one of the methods specified in section 10608.20(b) for determining an urban water use target.[263]
- Include in its urban water management plan due in 2010 the baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.[264]
- Report to DWR on their progress in meeting urban water use targets as part of their UWMPs.[265]
- Amend its urban water management plan, by July 1, 2011, to allow use of technical methodologies developed by the department pursuant to subdivisions (b) and (h) of section 10608.20.[266]
- Meet interim urban water use target by December 31, 2015.[267]
- Meet final urban water use target by December 31, 2020.[268]

The activities required to meet the interim and final urban water use targets are intended to vary significantly among local governments based upon differences in climate, population density, levels of per capita water use according to plant water needs, levels of commercial, industrial, and institutional water use, and the amount of hardening that has occurred as a result of prior conservation measures implemented in different regions

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[261] Water Code section 10631 (Stats. 2009, ch. 534 (AB 1465)).

[262] Water Code section 10608.20(a) (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[263] Water Code section 10608.20(b) (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[264] Water Code section 10608.20(e) (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[265] Water Code section 10608.40 (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[266] Water Code section 10608.20(i) (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[267] Water Code section 10608.24(a) (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[268] Water Code section 10608.24(b) (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

throughout the state. Local variations, therefore, are not expressly stated in the test claim statutes.

3. Water Code section 10608.26, as added by Statutes 2009-2010, 7th Extraordinary Session, chapter 4 (SBX7 7), requires urban water suppliers to conduct at least one public hearing to allow community input regarding an urban retail water supplier's implementation plan.

Section 10608.26 provides that "[i]n complying with this part," an urban retail water supplier shall conduct at least one public hearing "to accomplish all of the following:" (1) allow community input regarding the urban retail water supplier's implementation plan; (2) consider the economic impacts of the urban retail water supplier's implementation plan; and (3) adopt one of the four methods provided in section 10608.20(b) for determining its urban water use target.[269]

The claimants assert that "prior to the Act, there was no requirement to conduct at least one public hearing to allow for community input regarding conservation, consider economic impacts of the implementing the 20% reduction [*sic*], or to adopt a method for determining an urban water use target."[270]

Section 10642, added by Statutes 1983, chapter 1009, required a public hearing prior to *adopting an UWMP*, as follows:

> Prior to adopting a plan, the urban water supplier shall make the plan available for public inspection and shall hold a public hearing thereon. Prior to the hearing, notice of the time and place of hearing shall be published within the jurisdiction of the publicly owned water supplier pursuant to Section 6066 of the Government Code…[271]

However, section 10608.26 requires a public hearing for purposes of allowing public input regarding an implementation plan, considering the economic impacts of an implementation plan, or adopting a method for determining the urban water supplier's water use targets, as required by section 10608.20(b). DWR, the agency with responsibility for implementing the Water Conservation Act, has interpreted these two requirements as only requiring one hearing.[272] As the implementing agency, DWRs interpretation of the Act is entitled to great weight.[273]

Based on the foregoing, the Commission finds that section 10608.26 imposes a new and additional requirement on urban retail water suppliers, as follows:

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[269] Water Code section 10608.26(a) (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[270] Exhibit A, 10-TC-12, page 8 [citing Water Code section 10608.26(a)(1-3)].

[271] Water Code section 10642 (Stats. 1983, ch. 1009) [citing Government Code section 6066 (Stats. 1959, ch. 954), which provides for publication once per week for two successive weeks in a newspaper of general circulation].

[272] Exhibit X, Department of Water Resources, *Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan*, pp. A-2 and 3-4.

[273] *Yamaha Corporation of America v. State Board of Equalization* (1998) 19 Cal.4th 1, 10-11.

> Include in the public hearing on the adoption of the UWMP an opportunity for community input regarding the urban retail water supplier's implementation plan; consideration of the economic impacts of the implementation plan; and the adoption of a method, pursuant to section 10608.20(b), for determining urban water use targets.[274]

4. Water Code section 10608.42, as added by Statutes 2009-2010, 7th Extraordinary Session, chapter 4 (SBX7 7), does not impose any new requirements on local government.

Section 10608.42 provides:

> The department shall review the 2015 urban water management plans and report to the Legislature by December 31, 2016, on progress towards achieving a 20-percent reduction in urban water use by December 31, 2020. The report shall include recommendations on changes to water efficiency standards or urban water use targets in order to achieve the 20-percent reduction and to reflect updated efficiency information and technology changes.[275]

The claimants allege that section 10608.42 requires an UWMP, adopted by an urban retail water supplier, to "describe the urban retail water supplier's progress toward achieving the 20% reduction by 2020."[276] However, the plain language of this section is directed to DWR, and does not, itself, impose any new activities or requirements on local government.

Based on the foregoing, the Commission finds that section 10608.42 does not impose any new requirements on local government, and is therefore denied.

5. Water Code sections 10608.56 and 10608.8, as added by Statutes 2009-2010, 7th Extraordinary Session, chapter 4 (SBX7 7), do not impose any new requirements on local government.

Section 10806.56 provides that "[o]n and after July 1, 2016, an urban retail water supplier is not eligible for a water grant or loan awarded or administered by the state unless the supplier complies with this part."[277] The plain language of this section does not impose any new requirements on local government; the section only states the consequence of failing to comply with all other requirements of the Act.

Section 10608.8 provides that "[b]ecause an urban agency is not required to meet its urban water use target until 2020 pursuant to subdivision (b) of Section 10608.24, an urban retail water supplier's failure to meet those targets shall not establish a violation of law for purposes of any state administrative or judicial proceeding prior to January 1, 2021."[278] The plain language of

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[274] Water Code section 10608.26 ((Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)). See also Exhibit X, Department of Water Resources, *Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan*, pp. A-2 and 3-4.

[275] Water Code section 10608.42 (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[276] Exhibit A, 10-TC-12, page 3.

[277] Water Code section 10608.56 (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[278] Water Code section 10608.8 (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

this section does not impose any new requirements on local government; rather, the section states that no violation of law shall occur until after the date that urban water use targets are supposed to be met.

The claimants allege that Water Code section 10608.56 imposes reimbursable state-mandated costs, alleging that "[f]ailure to comply with the aforementioned mandates by South Feather and Paradise will result, on and after July 1, 2016, in ineligibility for water grants or loans awarded or administered by the State of California." In addition, the claimants allege that "a failure to meet the 20% target shall be a violation of law on and after January 1, 2021," citing Water Code section 10608.8.[279] The plain language of sections 10608.8 and 10608.56, as described above, do not impose any new activities or tasks on local government; the provisions that the claimants allege only state the consequences of failing to comply with all other requirements of the Act.

Based on the foregoing, the Commission finds that sections 10806.56 and 10806.8 do not impose any new requirements on local government, and are therefore denied.

C. Some of the Test Claim Statutes and Regulations Impose New Requirements on Non-exempt Agricultural Water Suppliers.

Chapter 4 of Part 2.55 of Division 6 of the Water Code consists of a single code section that addresses water conservation requirements for agricultural water suppliers: section 10608.48. The remaining provisions of the test claim statute addressing agricultural water suppliers were added in Part 2.8 of Division 6 of the Water Code, consisting of sections 10800-10853, and address agricultural water management planning requirements. Sections 10608.8 and 10828 provide for exemptions from the requirements of Part 2.55 and Part 2.8, respectively, under certain circumstances, which are addressed where relevant below.

1. <u>Water Code section 10608.48(a-c), as amended by Statutes 2009-2010, 7th Extraordinary Session, chapter 4 (SBX7 7), imposes new requirements on some agricultural water suppliers to implement efficient water management practices, including measurement and a pricing structure based in part on quantity of water delivered; and to implement up to fourteen other efficient water management practices, if locally cost effective and technically feasible.</u>

Section 10608.48 provides for the implementation by agricultural water suppliers of specified critical efficient water management practices, including measurement and volume-based pricing; and *additional* efficient water management practices, where locally cost effective and technically feasible, as follows:

> (a) On or before July 31, 2012, an agricultural water supplier shall implement efficient water management practices pursuant to subdivisions (b) and (c).
>
> (b) Agricultural water suppliers shall implement *all of the following critical efficient management practices*:
>
> (1) Measure the volume of water delivered to customers with sufficient accuracy to comply with subdivision (a) of Section 531.10 and to implement paragraph (2).

[279] Exhibit A, 10-TC-12, page 4.

(2) Adopt a pricing structure for water customers based at least in part on quantity delivered.

(c) Agricultural water suppliers shall implement *additional efficient management practices*, including, but not limited to, practices to accomplish all of the following, *if the measures are locally cost effective and technically feasible*:

(1) Facilitate alternative land use for lands with exceptionally high water duties or whose irrigation contributes to significant problems, including drainage.

(2) Facilitate use of available recycled water that otherwise would not be used beneficially, meets all health and safety criteria, and does not harm crops or soils.

(3) Facilitate the financing of capital improvements for on-farm irrigation systems.

(4) Implement an incentive pricing structure that promotes one or more of the following goals:

(A) More efficient water use at the farm level.

(B) Conjunctive use of groundwater.

(C) Appropriate increase of groundwater recharge.

(D) Reduction in problem drainage.

(E) Improved management of environmental resources.

(F) Effective management of all water sources throughout the year by adjusting seasonal pricing structures based on current conditions.

(5) Expand line or pipe distribution systems, and construct regulatory reservoirs to increase distribution system flexibility and capacity, decrease maintenance, and reduce seepage.

(6) Increase flexibility in water ordering by, and delivery to, water customers within operational limits.

(7) Construct and operate supplier spill and tailwater recovery systems.

(8) Increase planned conjunctive use of surface water and groundwater within the supplier service area.

(9) Automate canal control structures.

(10) Facilitate or promote customer pump testing and evaluation.

(11) Designate a water conservation coordinator who will develop and implement the water management plan and prepare progress reports.

(12) Provide for the availability of water management services to water users. These services may include, but are not limited to, all of the following:

(A) On-farm irrigation and drainage system evaluations.

(B) Normal year and real-time irrigation scheduling and crop evapotranspiration information.

(C) Surface water, groundwater, and drainage water quantity and quality data.

(D) Agricultural water management educational programs and materials for farmers, staff, and the public.

(13) Evaluate the policies of agencies that provide the supplier with water to identify the potential for institutional changes to allow more flexible water deliveries and storage.

(14) Evaluate and improve the efficiencies of the supplier's pumps.[280]

The claimants allege that section 10608.48 requires agricultural water suppliers (Oakdale and Glenn-Colusa) to "measure the volume of water delivered to their customers using best professional practices to achieve a minimum level of measurement accuracy at the farm-gate." In addition, they allege, agricultural water suppliers are required to "adopt a pricing structure for water customers based on the quantity of water delivered." The claimants further allege that "[i]f 'locally cost effective' and technically feasible, agricultural water suppliers are required to implement fourteen additional efficient management practices" specified in section 10608.48(c).[281]

The claimants argue that prior to the test claim statute, agricultural water suppliers "were not required to have a pricing structure based, at least in part, on the quantity of water delivered," and were not required to measure the volume of water delivered if it was not locally cost effective to do so. The claimants assert that "[w]hile subdivision (a) of Water Code section 531.10 was a preexisting obligation, subdivision (b) of that same section gave an exception to the farm-gate measurement requirement if the measurement devices were not locally cost effective." The claimants conclude that now "[t]he Act requires compliance with subdivision (a) regardless of whether it is locally cost effective."[282] In addition, the claimants assert that prior to the Act, "there was no requirement to implement up to 14 additional conservation measures if locally cost effective and technically feasible."[283]

Section 531.10 of the Water Measurement Law, as added by Statutes 2007, chapter 675 provides, in its entirety:

> (a) An agricultural water supplier shall submit an annual report to the department that summarizes aggregated farm-gate delivery data, on a monthly or bimonthly basis, using best professional practices.
>
> (b) Nothing in this article shall be construed to require the implementation of water measurement programs or practices that are not locally cost effective.

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[280] Water Code section 10608.48(a-c) (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)) [emphasis added].

[281] Exhibit A, Test Claim 10-TC-12, page 4.

[282] Exhibit A, 10-TC-12, page 8.

[283] Exhibit A, 10-TC-12, page 8.

(c) It is the intent of the Legislature that the requirements of this section shall complement and not affect the scope of authority granted to the department or the board by provisions of law other than this article.

The plain language of section 531.10 required agricultural water suppliers to submit an annual report to DWR summarizing aggregated data on water delivered to individual agricultural customers using best professional practices, but only if water measurement programs or practices were locally cost effective.[284] Therefore, to the extent that water measurement programs or practices *were* locally cost effective, such activities were required to comply with prior law. Section 10608.48(b), in turn, does not impose a *new* requirement to "[m]easure the volume of water delivered to customers with sufficient accuracy to comply with [section 531.10(a),]" if such water measurement activities were already performed. However, section 10608.48(b) also requires an agricultural water supplier, *regardless of local cost-effectiveness*, to "[m]easure the volume of water delivered to customers with sufficient accuracy to comply with subdivision (a) of Section 531.10 *and to implement paragraph (2)*," which requires suppliers to implement a pricing structure based at least in part on volume of water delivered. Therefore, section 10608.48(b) imposes a new requirement to the extent that prior law activities were not sufficient to also implement a pricing structure based at least in part on quantity of water delivered.

Moreover, Water Code section 10608.8 provides that "[t]he requirements of this part do not apply to an agricultural water supplier that is a party to the Quantification Settlement Agreement" (QSA), as defined in Statutes 2002, chapter 617, section 1, for as long as the QSA remains in effect.[285] The local agency parties to the QSA include the San Diego County Water Authority, Coachella Valley Water District, Imperial Irrigation District, and Metropolitan Water District of Southern California.[286] As a result, by the plain language of Water Code section 10608.8 those entities are exempt and are not mandated by the state to comply with the requirements of Part 2.55 of Division 6 of the Water Code, including section 10608.48.

Based on the foregoing, the Commission finds that section 10608.48 imposes new requirements on agricultural water suppliers, except those that are parties to the Quantification Settlement Agreement, as defined in Statutes 2002, chapter 617, section 1, for as long as QSA remains in effect, as follows:

- Measure the volume of water delivered to customers with sufficient accuracy to (1) comply with subdivision (a) of Water Code section 531.10, which previously imposed the requirement, with specified exceptions, for agricultural water suppliers to submit an annual report summarizing aggregated farm-gate delivery data, on a monthly or bi-monthly basis, using best professional practices; and (2) implement a pricing structure for water customers based at least in part on quantity of water delivered.[287]

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[284] Water Code section 531.10 (Stats. 2007, Ch. 675 (AB 1404)).

[285] Water Code section 10608.8 (Stats. 2009-2010, 7th Ex. Sess., ch. 4 (SBX7 7)).

[286] Exhibit X, Quantification Settlement Agreement, dated October 10, 2003.

[287] Water Code section 10608.48(b)(1) (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

This activity is only newly required if measurement of farm-gate delivery data was not previously performed by the agricultural water supplier pursuant to a determination under section 531.10(b) that such measurement programs or practices were not locally cost effective, or if measurement data was not sufficient to implement a pricing structure based at least in part on quantity of water delivered.[288]

- Implement a pricing structure for water customers based at least in part on quantity of water delivered.[289]
- *If the measures are locally cost effective and technically feasible,* implement additional efficient management practices, including, but not limited to, practices to accomplish all of the following:

  (1) Facilitate alternative land use for lands with exceptionally high water duties or whose irrigation contributes to significant problems, including drainage.

  (2) Facilitate use of available recycled water that otherwise would not be used beneficially, meets all health and safety criteria, and does not harm crops or soils.

  (3) Facilitate the financing of capital improvements for on-farm irrigation systems.

  (4) Implement an incentive pricing structure that promotes one or more of the following goals:

  (A) More efficient water use at the farm level.

  (B) Conjunctive use of groundwater.

  (C) Appropriate increase of groundwater recharge.

  (D) Reduction in problem drainage.

  (E) Improved management of environmental resources.

  (F) Effective management of all water sources throughout the year by adjusting seasonal pricing structures based on current conditions.

  (5) Expand line or pipe distribution systems, and construct regulatory reservoirs to increase distribution system flexibility and capacity, decrease maintenance, and reduce seepage.

  (6) Increase flexibility in water ordering by, and delivery to, water customers within operational limits.

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[288] Water Code section 531.10(a-b) previously required reporting annually to the Department of Water Resources aggregated farm-gate delivery data, summarized on a monthly or bi-monthly basis, unless such measurement programs or practices were not locally cost effective. If an agricultural water supplier had not determined that such practices were not locally cost effective, then the prior law, Section 531.10(a) would have required measurement, and the activity is not therefore new.

[289] Water Code section 10608.48(b)(2) (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

(7) Construct and operate supplier spill and tailwater recovery systems.

(8) Increase planned conjunctive use of surface water and groundwater within the supplier service area.

(9) Automate canal control structures.

(10) Facilitate or promote customer pump testing and evaluation.

(11) Designate a water conservation coordinator who will develop and implement the water management plan and prepare progress reports.

(12) Provide for the availability of water management services to water users. These services may include, but are not limited to, all of the following:

(A) On-farm irrigation and drainage system evaluations.

(B) Normal year and real-time irrigation scheduling and crop evapotranspiration information.

(C) Surface water, groundwater, and drainage water quantity and quality data.

(D) Agricultural water management educational programs and materials for farmers, staff, and the public.

(13) Evaluate the policies of agencies that provide the supplier with water to identify the potential for institutional changes to allow more flexible water deliveries and storage.

(14) Evaluate and improve the efficiencies of the supplier's pumps.[290]

2. Water Code sections 10608.48(d-f) and 10820-10829, as added by Statutes 2009-2010, 7th Extraordinary Session, chapter 4 (SBX7 7), impose new requirements on agricultural water suppliers, as defined pursuant to section 10608.12, to prepare and adopt on or before December 31, 2012, and to update on or before December 31, 2015, and every five years thereafter, an agricultural water management plan, as specified. However, many agricultural water suppliers, including all participants in the Central Valley Project and United States Bureau of Reclamation water contracts, are exempt from the requirement to *prepare and adopt* an agricultural water management plan pursuant to 10826, because they were already required by existing federal law to prepare a water conservation plan, which they may submit to satisfy this requirement.

As noted above, the test claim statute repealed and added Part 2.8 of Division 6 of the Water Code, commencing with section 10800. While a number of the activities alleged in these consolidated test claims were required by the prior provisions of the Water Code that were repealed and replaced by the test claim statute, those provisions were by their own terms no longer operative immediately prior to the effective date of the test claim statute. Former Water Code section 10855, as added by Statutes 1986, chapter 954, provided that "[t]his part shall

[290] Water Code section 10608.48(c) (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

remain operative only until January 1, 1993..." Therefore, the provisions added by the test claim statute, which became effective on February 3, 2010, impose new requirements or activities.[291]

Section 10820, as added, provides that all agricultural water suppliers *shall prepare and adopt* an AWMP on or before December 31, 2012, and shall update that plan on December 31, 2015, and on or before December 31 every five years thereafter.[292]

Section 10826, as added, provides that the plan "shall do all of the following:"

> (a) Describe the agricultural water supplier and the service area, including all of the following:
>
> (1) Size of the service area.
>
> (2) Location of the service area and its water management facilities.
>
> (3) Terrain and soils.
>
> (4) Climate.
>
> (5) Operating rules and regulations.
>
> (6) Water delivery measurements or calculations.
>
> (7) Water rate schedules and billing.
>
> (8) Water shortage allocation policies.
>
> (b) Describe the quantity and quality of water resources of the agricultural water supplier, including all of the following:
>
> (1) Surface water supply.
>
> (2) Groundwater supply.
>
> (3) Other water supplies.
>
> (4) Source water quality monitoring practices.
>
> (5) Water uses within the agricultural water supplier's service area, including all of the following:
>
> (A) Agricultural.
>
> (B) Environmental.
>
> (C) Recreational.
>
> (D) Municipal and industrial.
>
> (E) Groundwater recharge.
>
> (F) Transfers and exchanges.

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[291] Bills introduced in an extraordinary session take effect 91 days after the final adjournment of that extraordinary session. (Cal. Const. Art. IV, Sec. 8(c)(1).) The 7th Extraordinary Session concluded on November 4, 2009. Thus, the effective date of SB X7 7 is February 3, 2010.

[292] Water Code section 10820 (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

(G) Other water uses.

(6) Drainage from the water supplier's service area.

(7) Water accounting, including all of the following:

(A) Quantifying the water supplier's water supplies.

(B) Tabulating water uses.

(C) Overall water budget.

(8) Water supply reliability.

(c) Include an analysis, based on available information, of the effect of climate change on future water supplies.

(d) Describe previous water management activities.

(e) Include in the plan the water use efficiency information required pursuant to Section 10608.48.[293]

Meanwhile, section 10608.48(d) provides that agricultural water suppliers "shall include in the agricultural water management plans required pursuant to [section 10820] a report on which efficient water management practices have been implemented and are planned to be implemented, an estimate of the water use efficiency improvements that have occurred since the last report, and an estimate of the water use efficiency improvements estimated to occur five and 10 years in the future."[294]

Furthermore, section 10608.48 provides that if a supplier "determines that an efficient water management practice is not locally cost effective or technically feasible, the supplier shall submit information documenting that determination."[295] And, the section further provides that "[t]he data shall be reported using a standardized form developed pursuant to Section 10608.52."[296]

In addition, section 10828 provides that:

(a) Agricultural water suppliers that are required to submit water conservation plans to the United States Bureau of Reclamation pursuant to either the Central Valley Project Improvement Act (Public Law 102-575) or the Reclamation Reform Act of 1982, or both, *may submit those water conservation plans to satisfy the requirements of Section 10826, if both of the following apply*:

(1) The agricultural water supplier has adopted and submitted the water conservation plan to the United States Bureau of Reclamation within the previous four years.

(2) The United States Bureau of Reclamation has accepted the water conservation plan as adequate.

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[293] Water Code section 10826 (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[294] Water Code section 10608.48(d) (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[295] Water Code section 10608.48(d) (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[296] *Ibid.*

> (b) This part does not require agricultural water suppliers that are required to submit water conservation plans to the United States Bureau of Reclamation pursuant to either the Central Valley Project Improvement Act (Public Law 102-575) or the Reclamation Reform Act of 1982, or both, to prepare and adopt water conservation plans according to a schedule that is different from that required by the United States Bureau of Reclamation.[297]

And, section 10829 provides that an agricultural water supplier may satisfy the requirements "of this part" by adopting an UWMP pursuant to Part 2.6 or by participating in areawide, regional, watershed, or basinwide water management planning, so long as those plans meet or exceed the requirements of this part.[298]

Based on the plain language of section 10828, those local agencies who are CVP or USBR contractors may submit a copy of their water conservation plan already submitted to USBR in satisfaction of the requirements of section 10826 (which provides for the contents of an AWMP). In addition, section 10828(b) provides that CVP or USBR contractors are not required to adhere to the "schedule" for preparing and adopting AWMPs, as provided in section 10820, above. Therefore, the requirements of section 10820, to prepare and adopt an AWMP on or before December 31, 2012, and to update the AWMP on or before December 31, 2015 and every five years thereafter, do not apply to CVP or USBR contractors, who may instead rely on the schedule for updating and readopting their water conservation plans.

Both Glenn-Colusa and Oakdale are contractors with the United States Bureau of Reclamation (USBR) and as a result are required by federal law to prepare water conservation plans. Glenn-Colusa and Oakdale are also CVP contractors, as are dozens of other local agencies.[299]

As noted above, Water Code section 10608.8 provides that "[t]he requirements of this part do not apply to an agricultural water supplier that is a party to the Quantification Settlement Agreement" (QSA), as defined in Statutes 2002, chapter 617, section 1 for as long as QSA remains in effect.[300] Therefore, a supplier that is a party to the QSA is not mandated by the state to include the water use efficiency reporting requirements in the plan pursuant to section 10680.48.

Additionally, section 10608.48(f) provides that an agricultural water supplier "may meet the requirements of subdivisions (d) and (e) by submitting to [DWR] a water conservation plan submitted to the United States Bureau of Reclamation that meets the requirements described in Section 10828."[301] Therefore, the requirements to include in a supplier's AWMP a report on efficient water management practices and documentation on those practices determined not to be cost effective or technically feasible, pursuant to section 10608.48(d-e), do not apply to CVP or

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[297] Water Code section 10828 (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[298] Water Code section 10829 (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[299] Exhibit X, Bureau of Reclamation, Mid-Pacific Region, Central Valley Project (CVP) Water Contractors, dated March 4, 2014.

[300] Water Code section 10608.8 (Stats. 2009-2010, 7th Ex. Sess., ch. 4 (SBX7 7)).

[301] Water Code section 10608.48(e; f) (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

USBR contractors that prepare and submit water conservation plans to USBR.[302] The *Guidebook to Assist Agricultural Water Suppliers to Prepare a 2012 Agricultural Water Management Plan*, issued by DWR, "encourages" suppliers to file certain "documentation as an attachment with the USBR-accepted water management/conservation plan."[303] However, the plain language of section 10608.48(f) states that a supplier may satisfy the requirements of section 10608.48(d) and (e) by submitting to DWR its water conservation plan prepared for USBR. And, section 10828, as shown above, exempts CVP and USBR contractors from the requirement to prepare an AWMP in the first instance. Finally, pursuant to section 10829, the requirement to adopt an AWMP in the first instance does not apply if the supplier adopts a UWMP, or participates in regional water management planning.

Based on the foregoing, the Commission finds that newly added sections 10820 and 10826, and 10608.48(d-f), impose the following new requirements on agricultural water suppliers, except for suppliers that adopt a UWMP or participate in areawide, regional, watershed, or basinwide water management planning, and CVP and USBR contractors:

- On or before December 31, 2012, prepare and adopt an agricultural water management plan in accordance with section 10826.[304]
- On or before December 31, 2015, and every five years thereafter, update the agricultural water management plan, in accordance with section 10820 et seq.[305]
- If a supplier becomes an agricultural water supplier, as defined, after December 31, 2012, that agricultural water supplier shall prepare and adopt an agricultural water management plan within one year after the date that it has become an agricultural water supplier.[306]
- Include in the agricultural water management plans required pursuant to Water Code section 10800 et seq. a report on which efficient water management practices have been implemented and are planned to be implemented, an estimate of the water use efficiency improvements that have occurred since the last report,

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[302] Water Code section 10608.48(f) (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[303] Exhibit X, *Guidebook to Assist Agricultural Water Suppliers to Prepare a 2012 Agricultural Water Management Plan*, page 11, "The agricultural water suppliers that submit a plan to USBR may meet the requirements of section 10608.48 (d) and (e) [report of EWMPs implemented, planned for implementation, and estimate of efficiency improvements, as well as documentation for not locally cost effective EWMPs] by submitting the USBR-accepted plan to DWR. "DWR *encourages* CVPIA/RRA water suppliers to also provide a report on water use efficiency information (required by section 10608.48(d);see Section 3.7 of this Guidebook)." Emphasis added.

[304] Water Code sections 10820; 10826 (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[305] Water Code sections 10820; 10826 (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[306] Water Code section 10820 (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

and an estimate of the water use efficiency improvements estimated to occur five and 10 years in the future.[307]

In addition, an agricultural water supplier that is a party to the Quantification Settlement Agreement (QSA), as defined in Statutes 2002, chapter 617, section 1 is not subject to this requirement for as long as the QSA remains in effect.[308]

- If an agricultural water supplier determines that an efficient water management practice is not locally cost effective or technically feasible, the supplier shall submit information documenting that determination.[309]

  In addition, an agricultural water supplier that is a party to the Quantification Settlement Agreement (QSA), as defined in Statutes 2002, chapter 617, section 1 is not subject to this requirement for as long as the QSA remains in effect.[310]

- Report the data using a standardized form developed pursuant to Water Code section 10608.52.[311]

  An agricultural water supplier that is a party to the Quantification Settlement Agreement (QSA), as defined in Statutes 2002, chapter 617, section 1 is not subject to this requirement for as long as the QSA remains in effect.[312]

3. Section 10608.48(g-i), as added by Statutes 2009-2010, 7th Extraordinary Session, chapter 4 (SBX7 7), does not impose any new activities on local government.

Section 10608.48(g) provides that on or before December 31, 2013, DWR shall submit to the Legislature a report on agricultural efficient water management practices that have been implemented or are planned to be implemented, and an assessment of those practices and their effects on agricultural operations. Section 10608.48(h) states that DWR "may update the efficient water management practices required pursuant to [section 10608.48(c)]," but only after conducting public hearings. Section 10608.48(i) provides that DWR "shall adopt regulations that provide for a range of options that agricultural water suppliers may use or implement to comply with the measurement requirement" of section 10608.48(b).

The plain language of these sections section 10608.48(g-i) is directed to DWR, and does not impose any activities or requirements on local government.

4. Sections 10821, 10841, 10842, 10843, and 10844, as added by Statutes 2009-2010, 7th Extraordinary Session, chapter 4 (SBX7 7), impose new requirements on agricultural water suppliers.

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[307] Water Code section 10608.48(d) (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[308] Water Code section 10608.8 (Stats. 2009-2010, 7th Ex. Sess., ch. 4 (SBX7 7)).

[309] Water Code section 10608.48(d) (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[310] Water Code section 10608.8 (Stats. 2009-2010, 7th Ex. Sess., ch. 4 (SBX7 7)).

[311] Water Code section 10608.48(e) (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[312] Water Code section 10608.8 (Stats. 2009-2010, 7th Ex. Sess., ch. 4 (SBX7 7)).

Water Code section 10821, as added, provides that an agricultural water supplier required to prepare an AWMP pursuant to this part, "shall notify each city or county within which the supplier provides water supplies that the agricultural water supplier will be preparing the plan or reviewing the plan and considering amendments or changes to the plan."[313]

In addition, newly added section 10841 requires that the plan be made available for public inspection and that a public hearing shall be held as follows:

> Prior to adopting a plan, the agricultural water supplier shall make the proposed plan available for public inspection, and shall hold a public hearing on the plan. Prior to the hearing, notice of the time and place of hearing shall be published within the jurisdiction of the publicly owned agricultural water supplier pursuant to Section 6066 of the Government Code. A privately owned agricultural water supplier shall provide an equivalent notice within its service area and shall provide a reasonably equivalent opportunity that would otherwise be afforded through a public hearing process for interested parties to provide input on the plan...[314]

Section 10842 provides that an agricultural water supplier shall implement its AWMP "in accordance with the schedule set forth in its plan."[315]

Following adoption of an AWMP, section 10843 requires an agricultural water supplier to submit a copy of its AWMP, no later than 30 days after adoption, to DWR and to the following affected or interested entities:

> (2) Any city, county, or city and county within which the agricultural water supplier provides water supplies.
>
> (3) Any groundwater management entity within which jurisdiction the agricultural water supplier extracts or provides water supplies.
>
> (4) Any urban water supplier within which jurisdiction the agricultural water supplier provides water supplies.
>
> (5) Any city or county library within which jurisdiction the agricultural water supplier provides water supplies.
>
> (6) The California State Library.
>
> (7) Any local agency formation commission serving a county within which the agricultural water supplier provides water supplies.[316]

Finally, newly added section 10844 requires an agricultural water supplier to make its water management plan available for public review via the internet, as follows:

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[313] Water Code section 10821 (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[314] Water Code section 10841 (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[315] Water Code section 10842 (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[316] Water Code section 10843 (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

(a) Not later than 30 days after the date of adopting its plan, the agricultural water supplier shall make the plan available for public review on the agricultural water supplier's Internet Web site.

(b) An agricultural water supplier that does not have an Internet Web site shall submit to [DWR], not later than 30 days after the date of adopting its plan, a copy of the adopted plan in an electronic format. [DWR] shall make the plan available for public review on [its] Internet Web site.[317]

The prior provisions of the Water Code pertaining to the adoption and implementation of AWMPs, as explained above, were inoperative by their own terms as of January 1, 1993.[318] Therefore, the requirements to hold a public hearing, to implement the plan in accordance with the schedule, to submit copies to DWR and other specified local entities, and to make the plan available by either posting the plan on the supplier's web site, or by sending an electronic copy to DWR for posting on its web site, are new activities with respect to prior law.

However, section 10828, as discussed above, provides that USBR or CVP contractors may satisfy the requirements of section 10826 by submitting their water conservation plans adopted within the previous four years pursuant to the Central Valley Improvement Act or the Reclamation Reform Act of 1982.[319] This section does not expressly exempt CVP or USBR contractors from all requirements of Part 2.8, but only from the content requirements of the plan itself, and the requirement to adopt according to the "schedule" set forth in section 10820, as discussed above. Accordingly, DWR's *Guidebook to Assist Agricultural Water Suppliers to Prepare a 2012 [AWMP]* provides:

> All agricultural water suppliers required to prepare new agricultural water management/conservation plans must prepare and complete their plan in accordance with Water Code Part 2.8, Article 1 and Article 3 requirements for notification, public participation, adoption, and submittal (refer to Section 3.1 for details). *The federal review process may incorporate many requirements specified in Part 2.8, Articles 1 and 3; as such the federal process may meet the requirements of Part 2.8, otherwise, the agricultural water supplier would have to complete those requirements in Part 2.8, Articles 1 and 3 that are not already a part of the federal review pro*cess.[320]

Article 1 of Part 2.8 includes section 10821, which requires an agricultural water supplier to notify the city or county that it will be preparing an AWMP. Therefore, to the extent that the "federal process" of adopting a water conservation plan for USBR or CVP also requires notice to the city or county, this activity is not newly required. Article 3 of Part 2.8 includes sections 10840-10845, pertaining to the adoption and implementation of AWMPs. Those requirements include, as discussed above, noticing and holding a public hearing; implementing the plan in

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[317] Water Code section 10844 (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[318] See former Water Code sections 10840-10845; 10855 (Stats. 1986, ch. 954).

[319] Water Code section 10828 (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[320] Exhibit X, *Guidebook to Assist Agricultural Water Suppliers to Prepare a 2012 Agricultural Water Management Plan*, page 94 [emphasis added].

accordance with the schedule set forth in the plan; submitting a copy of the AWMP to specified state and local entities within 30 days after adoption; and making the AWMP available on the supplier's website, or submitting the AWMP for posting on DWR's website. To the extent that the "federal process" satisfies those requirements, they are not newly required by the test claim statutes.

In addition, as noted above, section 10829 provides that an agricultural water supplier may satisfy the requirements "of this part" by adopting an UWMP pursuant to Part 2.6 or by participating in areawide, regional, watershed, or basinwide water management planning, so long as those plans meet or exceed the requirements of this part.[321] That exception would include all of the notice and hearing requirements identified below.

Based on the foregoing, the Commission finds that Water Code sections 10821, 10841, 10842, 10843, and 10844 impose new requirements on agricultural water suppliers, except those that adopt an UWMP or participate in areawide, regional, watershed, or basinwide water management planning, and except to the extent that suppliers that are USBR or CVP contractors have water conservation plans that satisfy the AWMP adoption requirements, as follows:

- Notify the city or county within which the agricultural supplier provides water supplies that it will be preparing the AWMP or reviewing the AWMP and considering amendments or changes.[322]
- Prior to adopting a plan, the agricultural water supplier shall make the proposed plan available for public inspection, and shall hold a public hearing on the plan.[323]
- Prior to the hearing, notice of the time and place of hearing shall be published in a newspaper within the jurisdiction of the publicly owned agricultural water supplier once a week for two successive weeks, as specified in Government Code 6066.[324]
- Implement the AWMP in accordance with the schedule set forth in the AWMP.[325]
- An agricultural water supplier shall submit to the following entities a copy of its plan no later than 30 days after the adoption of the plan. Copies of amendments or changes to the plans shall be submitted to the entities identified within 30 days after the adoption of the amendments or changes.
    - DWR.
    - Any city, county, or city and county within which the agricultural water supplier provides water supplies.
    - Any groundwater management entity within which jurisdiction the agricultural water supplier extracts or provides water supplies.

[321] Water Code section 10829 (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[322] Water Code section 10821(Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[323] Water Code section 10841 (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[324] Water Code section 10841 (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[325] Water Code section 10842 (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

- Any urban water supplier within which jurisdiction the agricultural water supplier provides water supplies.
- Any city or county library within which jurisdiction the agricultural water supplier provides water supplies.
- The California State Library.
- Any local agency formation commission serving a county within which the agricultural water supplier provides water supplies.[326]

- An agricultural water supplier shall make its agricultural water management plan available for public review on its web site not later than 30 days after adopting the plan, or for an agricultural water supplier that does not have a web site, submit an electronic copy to the Department of Water Resources not later than 30 days after adoption, and the Department shall make the plan available for public review on its web site.[327]

5. Agricultural Water Measurement Regulations, California Code of Regulations, Title 23, Division 6, sections 597 through 597.4, Register 2012, Number 28.

California Code of Regulations, title 23, section 597 provides that under authority included in Water Code section 10608.48(i), DWR is required to adopt regulations that provide for a range of options that agricultural water suppliers may use or implement to comply with the measurement requirements of section 10609.48(b).[328] The plain language of this section does not impose any new activities or requirements on local government.

Section 597.1 provides that an agricultural water supplier providing water to less than 10,000 irrigated acres, excluding acres that receive only recycled water, is not subject to this article, and a supplier providing water to 10,000 or more irrigated acres but less than 25,000 irrigated acres, excluding acres that receive only recycled water, is not subject to this article unless sufficient funding is provided pursuant to Water Code section 10853. A supplier providing water to 25,000 irrigated acres or more, excluding acres that receive only recycled water, is subject to this article. A supplier providing water to wildlife refuges or habitat lands, as specified, is subject to this article. A *wholesale* agricultural water supplier is subject to this article at the location at which control of the water is transferred to the receiving water supplier, but the wholesale supplier is not required to measure the ultimate deliveries to customers. A canal authority or other entity that conveys water through facilities owned by a federal agency is not subject to this article. An agricultural water supplier that is a party to the QSA, as defined in Statutes 2002, chapter 617, section 1, is not subject to this article. And finally, DWR is not subject to this article.[329] None of the above-described provisions of section 597.1 impose any new requirements or activities on local government.

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[326] Water Code section 10843 (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[327] Water Code section 10844 (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[328] Code of Regulations, title 23, section 597 (Register 2012, No. 28).

[329] Code of Regulations, title 23, section 597.1 (Register 2012, No. 28).

Section 597.2 provides definitions of "accuracy," "agricultural water supplier," "approved by an engineer," "best professional practices," "customer," "delivery point," "existing measurement device," "farm-gate," "irrigated acres," "manufactured device," "measurement device," "new or replacement measurement device," "recycled water," and "type of device."[330] Based on the plain language of 597.2, the definitions provided in section 597.2 do not impose any new requirements or activities on local government.

Section 597.3 requires an agricultural water supplier to measure surface water and groundwater that it delivers to its customers and provides a range of options to comply with section 10608.48(i), as follows:

> An agricultural water supplier subject to this article shall measure surface water and groundwater that it delivers to its customers pursuant to the accuracy standards in this section. The supplier may choose any applicable single measurement option or combination of options listed in paragraphs (a) or (b) of this section. Measurement device accuracy and operation shall be certified, tested, inspected and/or analyzed as described in §597.4 of this article.
>
> **(a) Measurement Options at the Delivery Point or Farm-gate of a Single Customer**
>
> An agricultural water supplier shall measure water delivered at the delivery point or farm-gate of a single customer using one of the following measurement options. The stated numerical accuracy for each measurement option is for the volume delivered. If a device measures a value other than volume, for example, flow rate, velocity or water elevation, the accuracy certification must incorporate the measurements or calculations required to convert the measured value to volume as described in §597.4(e).
>
> (1) An existing measurement device shall be certified to be accurate to within +12% by volume,
>
> and,
>
> (2) A new or replacement measurement device shall be certified to be accurate to within:
>
> (A) ±5% by volume in the laboratory if using a laboratory certification;
>
> (B) ±10% by volume in the field if using a non-laboratory certification.
>
> **(b) Measurement Options at a Location Upstream of the Delivery Points or Farm-gates of Multiple Customers**
>
> (1) An agricultural water supplier may measure water delivered at a location upstream of the delivery points or farm-gates of multiple customers using one of the measurement options described in §597.3(a) if the downstream individual customer's delivery points meet either of the following conditions:

[330] Code of Regulations, title 23, section 597.2 (Register 2012, No. 28).

(A) The agricultural water supplier does not have legal access to the delivery points of individual customers or group of customers needed to install, measure, maintain, operate, and monitor a measurement device.

(B) An engineer determines that, due to small differentials in water level or large fluctuations in flow rate or velocity that occur during the delivery season at a single farm-gate, accuracy standards of measurement options in §597.3(a) cannot be met by installing a measurement device or devices (manufactured or on-site built or in-house built devices with or without additional components such as gauging rod, water level control structure at the farm-gate, etc.). If conditions change such that the accuracy standards of measurement options in §597.3(a) at the farm-gate can be met, an agricultural water supplier shall include in its Agricultural Water Management Plan, a schedule, budget and finance plan to demonstrate progress to measure water at the farm-gate in compliance with §597.3(a) of this article.

(2) An agricultural water supplier choosing an option under paragraph (b)(l) of this section shall provide the following current documentation in its Agricultural Water Management Plan(s) submitted pursuant to Water Code §10826:

(A) When applicable, to demonstrate lack of legal access at delivery points of individual customers or group of customers downstream of the point of measurement, the agricultural water supplier's legal counsel shall certify to the Department that it does not have legal access to measure water at customers delivery points and that it has sought and been denied access from its customers to measure water at those points.

(B) When applicable, the agricultural water supplier shall document the water measurement device unavailability and that the water level or flow conditions described in §597.3(b)(l)(B) exist at individual customer's delivery points downstream of the point of measurement as approved by an engineer.

(C) The agricultural water supplier shall document all of the following criteria about the methodology it uses to apportion the volume of water delivered to the individual downstream customers:

(i) How it accounts for differences in water use among the individual customers based on but not limited to the duration of water delivery to the individual customers, annual customer water use patterns, irrigated acreage, crops planted, and on-farm irrigation system, and;

(ii) That it is sufficient for establishing a pricing structure based at least in part on the volume delivered, and;

(iii) That it was approved by the agricultural water supplier's governing board or body.[331]

Thus, one option under these regulations, in order to measure the volume of water delivered, as required by section 10608.48, is measurement "at the delivery point or farm-gate of a single customer" using an existing measurement device certified to be accurate to within 12 percent by volume, or a new measurement device certified to be accurate within 5 percent if certified in a laboratory or within 10 percent if certified in the field. Another option is to measure upstream of a delivery point or farm gate if the supplier does not have legal access to the delivery point for an individual customer, or if the standards of measurement cannot be met due to large fluctuations in flow rate or velocity during the delivery season. If this option is chosen, appropriate documentation explaining the option must be provided, as described above.

The claimants allege that section 597.3 requires agricultural water suppliers to measure at a delivery point or farm gate "by either (1) using an existing measurement device, certified to be accurate within ±12% by volume or (2) a new or replacement measurement device, certified to be accurate within ±5% by volume in the laboratory if using a laboratory certification or ±10% by volume in the field if using a non-laboratory certification." In addition, the claimants allege that the regulations provide for "limited exceptions" if the supplier is unable to measure at the farm-gate, which allow, in certain circumstances, for upstream measurement.[332] The claimants assert that prior to these regulations, "there was no requirement to measure water delivered to the farm-gate of *each* single customer, with limited exception."[333]

DWR argues that these regulations merely provide options, and are not therefore a mandate. Specifically, DWR asserts that "[n]o local government is required to comply with those regulations." DWR asserts that "the regulations exist as a resource for agricultural water suppliers who wish to comply with certain requirements…described in the 2009 Water Law." DWR concludes that "[the regulations] are optional, and the suppliers are free to comply with the law in other ways."[334]

Section 10608.48(i) provides that DWR "shall adopt regulations that provide for a range of options that agricultural water suppliers may use or implement" to comply with the measurement requirements of subdivision (b).[335] The phrase "may use or implement" suggests that the regulations provide a choice for agricultural water suppliers, rather than a mandate.

However, Section 10608.48(b) states that agricultural water suppliers "shall implement all of the following critical efficient management practices…(1) Measure the volume of water delivered to customers with sufficient accuracy to comply with subdivision (a) of Section 531.10 and to [adopt a pricing structure based in part on quantity of water delivered]."[336] Moreover, the plain language of section 597.3 of the regulations, as cited above, states that an agricultural water

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[331] Code of Regulations, title 23, section 597.3 (Register 2012, No. 28).

[332] Exhibit B, 12-TC-01, page 4.

[333] Exhibit B, 12-TC-01, page 6.

[334] Exhibit D, DWR Comments, page 11.

[335] Water Code section 10608.48 (Stats. 2009-2010, 7th Ex. Sess., ch. 4 (SBX7 7)).

[336] *Ibid.*

supplier "shall measure surface water and groundwater that it delivers to customers pursuant to the accuracy standards in this section." The language states that the supplier "may choose any applicable single measurement option or combination of options listed in paragraphs (a) or (b) of this section."[337] There is no express provision for choosing a measurement option or combination of options not listed in section 597.3. Although an agricultural water supplier may pick which one of the regulatory options to comply with, it "shall" pick one of them based on the plain language of section 597.3. As a result, most agricultural water suppliers are required to implement one of the measurement options provided by 597.3. As discussed above though, there are several water suppliers exempt from this requirement, including parties to the QSA, suppliers providing water to less than 10,000 irrigated acres, excluding acres that receive only recycled water, and suppliers providing water to more than 10,000 irrigated acres but less than 25,000 irrigated acres, excluding acres that receive only recycled water, unless sufficient funding is provided pursuant to Water Code section 10853. Thus, section 597.3 requires the following for those agencies which are not exempt:

- Measure water delivered at the delivery point or farm-gate of a single customer using one of the following options.
  - An existing measurement device certified to be accurate to within ±12% by volume.
  - A new or replacement measurement device certified to be accurate to within:
    - ±5% by volume in the laboratory if using a laboratory certification;
    - ±10% by volume in the field if using a non-laboratory certification.

  If a device measures a value other than volume (e.g., flow rate, velocity or water elevation) the accuracy certification must incorporate the measurements or calculations required to convert the measured value to volume.[338]
- Measure water delivered at a location upstream of the delivery points or farm-gates of multiple customers if:
  - The supplier does not have legal access to the delivery points of individual customers or group of customers needed to install, measure, maintain, operate, and monitor a measurement device; or
  - An engineer determines that, due to small differentials in water level or large fluctuations in flow rate or velocity that occur during the delivery season, accuracy standards of measurement cannot be met by installing a measurement device or devices.[339]
- And, when a supplier chooses to measure water delivered at an upstream location:

[337] Code of Regulations, title 23, section 597.3 (Register 2012, No. 28).

[338] Code of Regulations, title 23, section 597.3(a) (Register 2012, No. 28).

[339] Code of Regulations, title 23, section 597.3(b) (Register 2012, No. 28).

- Provide, where applicable, documentation to demonstrate the lack of legal access at delivery points of individual or groups of customers downstream of the point of measurement; or documentation of the water measurement device unavailability and that water level or flow conditions exist that prohibit meeting accuracy standards, as approved by an engineer.
- Document the following about its apportionment of water delivered to individual customers:
  - How the supplier accounts for differences in water use among individual customers based on the duration of water delivery to the individual customers, annual customer water use patterns, irrigated acreage, crops planted, and on-farm irrigation system;
  - That it is sufficient for establishing a pricing structure based at least in part on the volume of water delivered; and
  - That it was approved by the agricultural water supplier's governing board or body.[340]

Section 597.4, also alleged in this consolidated test claim, requires that measurement devices be certified and documented as follows:

(a) Initial Certification of Device Accuracy

The accuracy of an existing, new or replacement measurement device or type of device, as required in §597.3, shall be initially certified and documented as follows:

(1) For existing measurement devices, the device accuracy required in section 597.3(a) shall be initially certified and documented by either:

(A) Field-testing that is completed on a random and statistically representative sample of the existing measurement devices as described in §597.4(b)(1) and §597.4(b)(2). Field-testing shall be performed by individuals trained in the use of field-testing equipment, and documented in a report approved by an engineer.

Or,

(B) Field-inspections and analysis completed for every existing measurement device as described in §597.4(b)(3). Field-inspections and analysis shall be performed by trained individuals in the use of field inspection and analysis, and documented in a report approved by an engineer.

(2) For new or replacement measurement devices, the device accuracy required in sections 597.3 (a)(2) shall be initially certified and documented by either:

[340] Code of Regulations, title 23, section 597.3(b) (Register 2012, No. 28).

(A) Laboratory Certification prior to installation of a measurement device as documented by the manufacturer or an entity, institution or individual that tested the device following industry-established protocols such as the National Institute for Standards and Testing (NIST) traceability standards. Documentation shall include the manufacturer's literature or the results of laboratory testing of an individual device or type of device.

Or,

(B) Non-Laboratory Certification after the installation of a measurement device in the field, as documented by either:

(i) An affidavit approved by an engineer submitted to the agricultural water supplier of either (1) the design and installation of an individual device at a specified location, or (2) the standardized design and installation for a group of measurement devices for each type of device installed at specified locations.

Or,

(ii) A report submitted to the agricultural water supplier and approved by an engineer documenting the field-testing performed on the installed measurement device or type of device, by individuals trained in the use of field testing equipment.

(b) Protocols for Field-Testing and Field-Inspection and Analysis of Existing Devices

(1) Field-testing shall be performed for a sample of existing measurement devices according to manufacturer's recommendations or design specifications and following best professional practices. It is recommended that the sample size be no less than 10% of existing devices, with a minimum of 5, and not to exceed 100 individual devices for any particular device type. Alternatively, the supplier may develop its own sampling plan using an accepted statistical methodology.

(2) If during the field-testing of existing measurement devices, more than one quarter of the samples for any particular device type do not meet the criteria pursuant to §597.3(a), the agricultural water supplier shall provide in its Agricultural Water Management Plan, a plan to test an additional 10% of its existing devices, with a minimum of 5, but not to exceed an additional 100 individual devices for the particular device type. This second round of field-testing and corrective actions shall be completed within three years of the initial field-testing.

(3) Field-inspections and analysis protocols shall be performed and the results shall be approved by an engineer for every existing measurement device to demonstrate that the design and installation standards used for the installation of existing measurement devices meet the accuracy standards

of §597.3(a) and operation and maintenance protocols meet best professional practices.

(c) Records Retention

Records documenting compliance with the requirements in §597.3 and §597.4 shall be maintained by the agricultural water supplier for ten years or two Agricultural Water Management Plan cycles.

(d) Performance Requirements

(1) All measurement devices shall be correctly installed, maintained, operated, inspected, and monitored as described by the manufacturer, the laboratory or the registered Professional Engineer that has signed and stamped certification of the device, and pursuant to best professional practices.

(2) If an installed measurement device no longer meets the accuracy requirements of §597.3(a) based on either field-testing or field-inspections and analysis as defined in sections 597.4 (a) and (b) for either the initial accuracy certification or during operations and maintenance, then the agricultural water supplier shall take appropriate corrective action, including but not limited to, repair or replacement to achieve the requirements of this article.

(e) Reporting in Agricultural Water Management Plans

Agricultural water suppliers shall report the following information in their Agricultural Water Management Plan(s):

(1) Documentation as required to demonstrate compliance with §597.3 (b), as outlined in section §597.3(b)(2), and §597.4(b)(2).

(2) A description of best professional practices about, but not limited to, the (1) collection of water measurement data, (2) frequency of measurements, (3) method for determining irrigated acres, and (4) quality control and quality assurance procedures.

(3) If a water measurement device measures flow rate, velocity or water elevation, and does not report the total volume of water delivered, the agricultural water supplier must document in its Agricultural Water Management Plan how it converted the measured value to volume. The protocols must follow best professional practices and include the following methods for determining volumetric deliveries:

(A) For devices that measure flow-rate, documentation shall describe protocols used to measure the duration of water delivery where volume is derived by the following formula: Volume = flow rate x duration of delivery.

(B) For devices that measure velocity only, the documentation shall describe protocols associated with the measurement of the cross-sectional area of flow and duration of water delivery, where volume is

derived by the following formula: Volume = velocity x cross-section flow area x duration of delivery.

(C) For devices that measure water elevation at the device (e.g. flow over a weir or differential elevation on either side of a device), the documentation shall describe protocols associated with the measurement of elevation that was used to derive flow rate at the device. The documentation will also describe the method or formula used to derive volume from the measured elevation value(s).

(4) If an existing water measurement device is determined to be out of compliance with §597.3, and the agricultural water supplier is unable to bring it into compliance before submitting its Agricultural Water Management Plan in December 2012, the agricultural water supplier shall provide in its 2012 plan, a schedule, budget and finance plan for taking corrective action in three years or less.

Thus, the plain language of section 597.4 requires agricultural water suppliers to certify and document the initial accuracy of "existing, new or replacement measurement device[s]," as specified.[341] In addition, section 597.4 provides that field-testing "shall be performed" following "best professional practices," and either sampling "no less than 10% of existing devices," as recommended by the department, or developing a "sampling plan using an accepted statistical methodology." Then, if field testing results in more than a quarter of any particular devices failing the accuracy criteria described in section 597.3(a), above, the supplier "shall provide in its Agricultural Water Management Plan, a plan to test an additional 10% of its existing devices…"[342] In addition, section 597.4 provides that records documenting compliance "shall be maintained…for ten years or two Agricultural Water Management Plan cycles."[343] Section 597.4 further provides that "all measurement devices shall be correctly installed, maintained, operated, inspected, and monitored," and if a device no longer meets the accuracy requirements of section 597.3, the supplier "shall take appropriate corrective action," including repair or replacement, if necessary.[344] And finally, section 597.4 requires agricultural water suppliers to report additional information regarding their compliance and "best professional practices" for water measurement in their agricultural water measurement plan.[345]

As noted above, some agricultural water suppliers may have been required pursuant to section 531.10 to measure farm-gate water deliveries.[346] To the extent that those measurement programs or practices satisfy the requirements of these regulations, the regulations do not impose new activities.[347] In addition, for any agricultural water supplier that is also an urban water supplier,

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[341] Code of Regulations, title 23, section 597.4(a) (Register 2012, No. 28).

[342] Code of Regulations, title 23, section 597.4(b) (Register 2012, No. 28).

[343] Code of Regulations, title 23, section 597.4(c) (Register 2012, No. 28).

[344] Code of Regulations, title 23, section 597.4(d) (Register 2012, No. 28).

[345] Code of Regulations, title 23, section 597.4(e) (Register 2012, No. 28).

[346] Water Code section 531.10 (Stats. 2007, ch. 675 (AB 1404)).

[347] See discussion above addressing section 10608.48(a-c).

existing sections 525 through 527 required those entities to install water meters on new and existing service connections, as specified.[348] To the extent that any such water meter on an agricultural service connection satisfies the measurement requirements of these regulations, the regulations do not impose any new activities or requirements.

Based on the foregoing, the Commission finds that section 597.4 imposes new requirements on agricultural water suppliers not exempt from the water measurement requirements, and not already required by existing law to take part in the programs or practices of water measurement, discussed above, that would satisfy the accuracy standards of these regulations, as follows:

- Certify the initial accuracy of existing measurement devices by either:
  - Field-testing that is completed on a random and statistically representative sample of the existing measurement devices, performed by individuals trained in the use of field-testing equipment, and documented in a report approved by an engineer; or
  - Field inspections and analysis for every existing measurement device, performed by individuals trained in the use of field inspection and analysis, and documented in a report approved by an engineer.[349]
- Certify the initial accuracy of new or replacement measurement devices by either:
  - Laboratory certification prior to installation of the device as documented by the manufacturer or an entity, institution, or individual that tested the device following industry-established protocols such as the National Institute of Standards and Testing traceability standards. Documentation shall include the manufacturer's literature or the results of laboratory testing of an individual device or type of device; or
  - Non-laboratory certification after installation of a measurement device in the field, documented by either:
    - An affidavit approved by an engineer submitted to the agricultural water supplier of either (1) the design and installation of an individual device at a specified location, or (2) the standardized design and installation for a group of measurement devises for each type of device installed at specified locations; or
    - A report submitted to the agricultural water supplier and approved by an engineer documenting the field-testing performed on the installed measurement device or type of device, by individuals trained in the use of field testing equipment.[350]
- Ensure that field-testing is performed as follows:

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[348] Section 525 as amended by statutes 2005, chapter 22; Section 527 as amended by statutes 2005, chapter 22; Section 526 as amended by Statutes 2004, chapter 884.

[349] Code of Regulations, title 23, section 597.4(a)(1) (Register 2012, No. 28).

[350] Code of Regulations, title 23, section 597.4(a)(2) (Register 2012, No. 28).

- Field-testing shall be performed for a sample of existing measurement devices according to the manufacturer's recommendations or design specifications and following best professional practices.
- If more than one quarter of the samples for any particular device type do not meet the accuracy criteria specified in section 597.3(a), the supplier shall provide in its Agricultural Water Management Plan a plan to test an additional 10% of its existing devices, with a minimum of 5, but not to exceed 100 additional devices for the particular device type, and shall complete the second round of field-testing and corrective actions within three years of the initial field-testing.
- Field inspections and analysis protocols shall be performed and the results shall be approved by an engineer for every existing measurement device to demonstrate that the design and installation standards used for the installation of existing measurement devices meet the accuracy standards specified in section 597.3(a) and that operation and maintenance protocols meet best professional practices.[351]

- Maintain records documenting compliance with the requirements of sections 597.3 and 597.4 for ten years or two Agricultural Water Management Plan cycles.[352]
- Ensure that all measurement devices are correctly installed, maintained, operated, inspected, and monitored as described by the manufacturer, the laboratory or the registered Professional Engineer that has signed and stamped certification of the device, and pursuant to best professional practices.[353]
- If an installed measurement device no longer meets the accuracy requirements of section 597.3(a) based on either field-testing or field-inspections and analysis for either the initial accuracy certification or during operations and maintenance, take appropriate corrective action, including but not limited to, repair or replacement of the device.[354]
- Report the information listed below in its Agricultural Water Management Plan(s). :
  - Documentation, as required, to demonstrate that an agricultural water supplier that chooses to measure upstream of a delivery point or farm-gate for a customer or group of customers has complied justified the reason to do so, and has taken appropriate steps to ensure that measurements can be allocated to the customer or group of customers sufficiently to support a pricing structure based at least in part on quantity of water delivered.

[351] Code of Regulations, title 23, section 597.4(b) (Register 2012, No. 28).

[352] Code of Regulations, title 23, section 597.4(c) (Register 2012, No. 28).

[353] Code of Regulations, title 23, section 597.4(d)(1) (Register 2012, No. 28).

[354] Code of Regulations, title 23, section 597.4(d)(2) (Register 2012, No. 28).

- A description of best professional practices about, but not limited to, the (1) collection of water measurement data, (2) frequency of measurements, (3) method for determining irrigated acres, and (4) quality control and quality assurance procedures.
- If a water measurement device measures flow rate, velocity or water elevation, and does not report the total volume of water delivered, the agricultural water supplier must document in its Agricultural Water Management Plan how it converted the measured value to volume. The protocols must follow best professional practices and include the following methods for determining volumetric deliveries:
  - For devices that measure flow-rate, documentation shall describe protocols used to measure the duration of water delivery where volume is derived by the following formula: Volume = flow rate x duration of delivery.
  - For devices that measure velocity only, the documentation shall describe protocols associated with the measurement of the cross-sectional area of flow and duration of water delivery, where volume is derived by the following formula: Volume = velocity x cross-section flow area x duration of delivery.
  - For devices that measure water elevation at the device (e.g. flow over a weir or differential elevation on either side of a device), the documentation shall describe protocols associated with the measurement of elevation that was used to derive flow rate at the device. The documentation will also describe the method or formula used to derive volume from the measured elevation value(s).
- If an existing water measurement device is determined to be out of compliance with §597.3, and the agricultural water supplier is unable to bring it into compliance before submitting its Agricultural Water Management Plan in December 2012, the agricultural water supplier shall provide in its 2012 plan, a schedule, budget and finance plan for taking corrective action in three years or less.[355]

D. The Test Claim Statutes and Regulations do not Result in Increased Costs Mandated by the State, Because the Claimants Possess Fee Authority Sufficient as a Matter of Law to Cover the Costs of any New Mandated Activities.

As the preceding analysis indicates, many of the requirements of the test claim statutes are not new, at least with respect to *some* urban or agricultural water suppliers, because suppliers were previously required to perform substantially the same activities under prior law. Additionally, many of the alleged test claim statutes do not impose any requirements at all, based on the plain language. However, even if the new requirements identified above could be argued to mandate a new program or higher level of service, the Commission finds that the costs incurred to comply

[355] Code of Regulations, title 23, section 597.4(e) (Register 2012, No. 28).

with those requirements are not costs mandated by the state, within the meaning of article XIII B, section 6 and Government Code section 17514, because all affected entities have fee authority, sufficient as a matter of law to cover the costs of any mandated activities.

Government Code section 17556(d) provides that the Commission shall not find costs mandated by the state, as defined in section 17514, if the local government claimant "has the authority to levy service charges, fees, or assessments sufficient to pay for the mandated program or increased level of service." The California Supreme Court upheld the constitutionality of Government Code section 17556, subdivision (d), in *County of Fresno v. State of California.*[356] The Court, in holding that the term "costs" in article XIII B, section 6 excludes expenses recoverable from sources other than taxes, stated:

> Section 6 was included in article XIII B in recognition that article XIII A of the Constitution severely restricted the taxing powers of local governments. (See *County of Los Angeles I, supra,* 43 Cal.3d at p. 61.) The provision was intended to preclude the state from shifting financial responsibility for carrying out governmental functions onto local entities that were ill equipped to handle the task. (*Ibid.*; see *Lucia Mar Unified School Dist. v. Honig* (1988) 44 Cal.3d 830, 836, fn. 6 [244 Cal.Rptr. 677, 750 P.2d 318].) Specifically, it was designed to protect the tax revenues of local governments from state mandates that would require expenditure of such revenues. Thus, although its language broadly declares that the "state shall provide a subvention of funds to reimburse ... local government for the costs [of a state-mandated new] program or higher level of service," read in its textual and historical context section 6 of article XIII B requires subvention only when the costs in question can be recovered *solely from tax revenues.*[357]

Accordingly, in *Connell v. Superior Court of Sacramento County*,[358] the Santa Margarita Water District, among others, was denied reimbursement based on its authority to impose fees on water users. The water districts submitted evidence that funding the mandated costs with fees was not practical: "rates necessary to cover the increased costs [of pollution control regulations] would render the reclaimed water unmarketable and would encourage users to switch to potable water."[359] The court concluded that "[t]he question is whether the Districts have authority, i.e., the right or power, to levy fees sufficient to cover the costs." Water Code section 35470 authorized the levy of fees to "correspond to the cost and value of the service," and "to defray the ordinary operation or maintenance expenses of the district and for any other lawful district purpose."[360] The court held that the Districts had not demonstrated "that anything in Water Code section 35470 limits the authority of the Districts to levy fees 'sufficient' to cover their costs,"

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[356] *County of Fresno v. State of California, supra,* 53 Cal.3d 482.

[357] *Id*, at p. 487 [emphasis added].

[358] (Cal. Ct. App. 3d Dist. 1997) 59 Cal.App.4th 382.

[359] *Id*, at p. 399.

[360] *Ibid.*

and that therefore "the economic evidence presented by SMWD to the Board [of Control] was irrelevant and injected improper factual questions into the inquiry."[361]

Likewise, in *Clovis Unified School District v. Chiang*, the court found that the SCO was not acting in excess of its authority in reducing reimbursement claims to the full extent of the districts' authority to impose fees, even if there existed practical impediments to collecting the fees. In making its decision the court noted that the concept underlying Government Code sections 17514 and 17556(d) is that "[t]o the extent a local agency or school district 'has the authority' to charge for the mandated program or increased level of service, that charge cannot be recovered as a state-mandated cost."[362] The court further noted that, "this basic principle flows from common sense as well." The court reasoned: "As the Controller succinctly puts it, 'Claimants can choose not to require these fees, but not at the state's expense.'"[363]

1. <u>The claimants have statutory authority to levy fees or charges for the provision of water.</u>

Both Finance and DWR asserted, in comments on the test claim, that the test claim statutes are not reimbursable pursuant to section 17556(d). Finance argued that the claimants are "statutorily authorized to charge a fee for the delivery of water," and thus "each of these water agencies has the ability to cover any potential initial and ongoing costs related to the Act and Regulations with fee revenue."[364] DWR asserted that "Senate Bill 1017, which amended the [Urban Water Management Act] in 1994," provides authority for an urban water supplier "to recover the costs of preparing its [urban water management plan] and implementing the reasonable water conservation measures included in the plan in its water rates."[365]

For the following reasons, the Commission finds that the claimants have statutory authority to establish and increase fees or assessments for the provision of water services.

Water Code section 35470 provides generally that "[a]ny [water] district formed on or after July 30, 1917, may, in lieu in whole or in part of raising money for district purposes by assessment, make water available to the holders of title to land or the occupants thereon, and may fix and collect charges therefor." Section 35470 further provides that "[t]he charges may vary in different months and in different localities of the district to correspond to the cost and value of the service, and the district *may use so much of the proceeds of the charges as may be necessary to defray the ordinary operation or maintenance expenses of the district and for any other lawful purpose.*"[366] In addition, section 50911 provides that an irrigation district may "[a]dopt a schedule of rates to be charged by the district for furnishing water for the irrigation of district lands."[367]

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[361] *Connell, supra*, (1997) 59 Cal.App.4th at p. 401.

[362] *Clovis Unified School Dist. v. Chiang* (2010) 188 Cal.App.4th 794, at p. 812.

[363] *Ibid.*

[364] Exhibit C, Finance Comments on Test Claim, page 1.

[365] Exhibit D, DWR Comments on Test Claim, pages 8-9 [citing Water Code section 10654].

[366] Water Code section 35470 (Stats. 2007, ch. 27 (SB 444)) [emphasis added].

[367] Water Code section 50911 (Stats. 2007, ch. 27 (SB 444)).

More specifically, and pertaining to the requirements of the test claim statutes, Water Code section 10654 permits an urban water supplier to "recover in its rates" for the costs incurred in preparing and implementing water conservation measures.[368] And, section 10608.48 expressly requires agricultural water suppliers to "[a]dopt a pricing structure for water customers based at least in part on quantity delivered."[369] This provision indicates that the Legislature intended user fees to be an essential component of the water conservation practices called for by the Act. And finally, Water Code section 10608.32, as added *within the test claim statute*, provides that all costs incurred pursuant to this part may be recoverable in rates subject to review and approval by the Public Utilities Commission.[370]

Based on the foregoing, the Commission finds that both agricultural and urban water suppliers have statutory authority to impose or increase fees to cover the costs of new state-mandated activities.

2. Nothing in Proposition 218, case law, or any prior Commission Decision, alters the analysis of the claimants' statutory fee authority.

The claimants argue that both Finance and DWR cite *Connell v. Superior Court* and "ignore the most recent rulings on the subject of Proposition 218 where their exact arguments were considered and overruled by the Commission in *Discharge of Stormwater Runoff*, 07-TC-09." The claimants argue that "under Proposition 218, Claimants' customers could reject the Board's action to establish or increase fees or assessments, yet Claimants would still be obligated to implement the mandates."[371] In comments on the draft proposed decision, the claimants reiterate, more urgently:

> The Commission should not accept its staff's invitation to ignore a prior Commission decision that is directly on point, and which was based on a plain reading of the California Constitution, all in order to reject the test claim here. To do so would undermine the Commission' s credibility, eviscerate the Commission's Constitutional duty to reimburse agencies for new state mandates, and have far-reaching negative effects.[372]

For the following reasons, the claimant's argument is unsound. In *Connell v. Superior Court, supra* the court held that "[t]he question is whether the Districts have authority, i.e., the right or power, to levy fees sufficient to cover the costs," and that the economic viability of the necessary rate increases "was irrelevant and injected improper factual questions into the inquiry."[373] *Connell* did not address the possible impact of Proposition 218 on the districts' fee authority, because the districts did not "contend that the services at issue…are among the 'many services'

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[368] Water Code section 10654 (Stats. 1994, ch. 609 (SB 1017)).

[369] Water Code section 10608.48 (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[370] Water Code section 10608.32 (Stats. 2009-2010, 7th Ex. Sess. ch. 4 (SBX7 7)).

[371] Exhibit E, Claimant Rebuttal Comments, pages 11-12 [citing *Discharge of Stormwater Runoff*, 07-TC-09, page 107].

[372] Exhibit R, Claimant Comments on Draft Proposed Decision, page 14.

[373] *Connell, supra*, (1997) 59 Cal.App.4th at p. 401.

impacted by Proposition 218."[374] The claimants here argue that *Connell* is no longer good authority, because Proposition 218 has changed the landscape of special districts' legal authority to impose fees or charges.

Proposition 218, adopted by the voters in 1996, also known as the "Right to Vote on Taxes Act," declared its purpose to protect taxpayers "by limiting the methods by which local governments exact revenue from taxpayers without their consent." Proposition 218 added articles XIII C and XIII D to the Constitution;[375] article XIII C addresses assessments, while article XIII D addresses user fees and charges. The claimants allege that article XIII D, section 6, specifically, imposes a legal or constitutional hurdle to imposing or increasing fees, which undermines any analysis of statutory fee authority under Government Code section 17556(d).

The requirements of article XIII D, section 6 to which claimants refer provide as follows:

> Property Related Fees and Charges. (a) Procedures for New or Increased Fees and Charges. An agency shall follow the procedures pursuant to this section in imposing or increasing any fee or charge as defined pursuant to this article, including, but not limited to, the following:
>
> (1) The parcels upon which a fee or charge is proposed for imposition shall be identified. The amount of the fee or charge proposed to be imposed upon each parcel shall be calculated. The agency shall provide written notice by mail of the proposed fee or charge to the record owner of each identified parcel upon which the fee or charge is proposed for imposition, the amount of the fee or charge proposed to be imposed upon each, the basis upon which the amount of the proposed fee or charge was calculated, the reason for the fee or charge, together with the date, time, and location of a public hearing on the proposed fee or charge.
>
> (2) The agency shall conduct a public hearing upon the proposed fee or charge not less than 45 days after mailing the notice of the proposed fee or charge to the record owners of each identified parcel upon which the fee or charge is proposed for imposition. At the public hearing, the agency shall consider all protests against the proposed fee or charge. *If written protests against the proposed fee or charge are presented by a majority of owners of the identified parcels, the agency shall not impose the fee or charge.*
>
> [¶…¶]
>
> (c) Voter Approval for New or Increased Fees and Charges. *Except for fees or charges for sewer, water, and refuse collection services*, no property related fee or charge shall be imposed or increased unless and until that fee or charge is submitted and approved by a majority vote of the property owners of the property subject to the fee or charge or, at the option of the agency, by a two-thirds vote of the electorate residing in the affected area. The election shall be conducted not less than 45 days after the public hearing. An agency may adopt procedures

[374] 59 Cal.App.4th at p. 403.

[375] Exhibit X, Text of Proposition 218.

similar to those for increases in assessments in the conduct of elections under this subdivision.[376]

The claimants have acknowledged that they have fee authority, absent the restrictions of articles XIII C and XIII D: "Claimants do not deny that, before the passage Proposition 218, the Water Code would have provided Claimants sufficient authority, pursuant to their governing bodies' discretion, to unilaterally establish or increase fees or charges for the provision of water services."[377] After Proposition 218, the claimants argue they are now "authorized to do no more than *propose* a fee increase that can be rejected" by majority protest.[378] Furthermore, the claimants maintain that the Commission's decision in *Discharge of Stormwater Runoff* recognized the limitations imposed by article XIII D, section 6, and the effect on local governments' fee authority: "[f]inding *Connell* inapposite, the Commission observed that 'The voting requirement of Proposition 218 does not impose a mere practical or economic hurdle, as in *Connell*, but a legal and constitutional one.'"[379]

However, claimants' reliance on the Commission's prior action is misplaced, and claimants' assertions about the effect of Proposition 218 on the law of *Connell* are overstated. Commission decisions are not precedential, and in any event the current test claim is distinguishable from the analysis in *Discharge of Stormwater Runoff*. The Commission, in *Discharge of Stormwater Runoff*, deviated from the rule of *Connell*, and found that Proposition 218, as *applied to the claimants* and *the mandated activities in that test claim*, constituted a legal and constitutional barrier to increasing fees. The test claim was brought by the County of San Diego and a number of cities, and alleged various mandated activities and costs related to reducing stormwater pollution.[380] The Commission found that although the County and the Cities had a generalized fee authority based on regulatory and police powers,[381] "[w]ith some exceptions, local government fees or assessments that are incident to property ownership are subject to voter approval under article XIII D of the California Constitution, as added by Proposition 218 in 1996."[382] The Commission reasoned that "it is possible that the local agency's voters or property owners may never adopt the proposed fee or assessment, but the local agency would still be required to comply with the state mandate,"[383] and that "[a]bsent compliance with the Proposition 218 election and other procedures, there is no legal authority to impose or raise fees within the meaning of Government Code section 17556, subdivision (d)."[384] Thus, the

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[376] California Constitution, article XIII D, section 6 (added, November 5, 1996, by Proposition 218) [emphasis added].

[377] Exhibit R, Claimant Comments on Draft Proposed Decision, page 11.

[378] Exhibit R, Claimant Comments on Draft Proposed Decision, page 15.

[379] Exhibit E, Claimant Rebuttal Comments, page 12 [citing *Discharge of Stormwater Runoff*, 07-TC-09, page 107].

[380] Exhibit X, Statement of Decision, *Discharge of Stormwater Runoff*, 07-TC-09, page 1.

[381] Exhibit X, Statement of Decision, *Discharge of Stormwater Runoff*, 07-TC-09, page 103.

[382] Exhibit X, Statement of Decision, *Discharge of Stormwater Runoff*, 07-TC-09, page 105.

[383] Exhibit X, Statement of Decision, *Discharge of Stormwater Runoff*, 07-TC-09, page 106.

[384] Exhibit X, Statement of Decision, *Discharge of Stormwater Runoff*, 07-TC-09, page 107.

Commission concluded that "[t]he voting requirement of Proposition 218 does not impose a mere practical or economic hurdle, as in *Connell*, but a legal and constitutional one."[385]

Here, Proposition 218 does not impose a legal and constitutional hurdle, because fees for the provision of water services are expressly exempt from the voter approval requirements of Proposition 218.[386] The Proposition 218 Omnibus Implementation Act, enacted specifically to construe Proposition 218, defines "water" as "any system of public improvements intended to provide for the production, storage, supply, treatment, or distribution of water."[387] Thus, an urban or agricultural water supplier that undertakes measures to ensure the conservation of water, to produce more water, and enhance the quality and reliability of its supply, is providing water service, within the meaning of the Omnibus Act. The statutory and regulatory metering and other conservation practices required of the claimants therefore describe "water service." Unlike the test claimants in *Discharge of Stormwater Runoff* (cities and counties), the services for which fees or charges would be increased are expressly exempt from the voter approval requirements in article XIII D, section 6(c), and the decision and reasoning of the Commission in *Discharge of Stormwater Runoff* is not relevant. Therefore, the Commission's earlier decision is distinguishable on the very same ground that renders *Connell* significantly poignant. The claimants cannot rely on the unwillingness of voters to raise fees, because the fees in question fall, based on the plain language of the Constitution, outside voter-approval requirement of article XIII D, section 6(c).

Claimants acknowledge that fees for water service "are excused from the formal election requirement under article XIII D section 6(c), [but] the majority protest provision in subdivision (a)(2) still applies and constitutes a legal barrier to Claimants' fee authority."[388] Claimants therefore argue that they "find themselves required to implement and pay for the newly mandated activities, yet are authorized to do no more than *propose* a fee increase that can be rejected by a simple majority of affected customers."[389]

However, the so-called "majority protest provision," which claimants allege constitutes a legal barrier to claimants' fee authority, presents either a mixed question of fact and law, which has not been demonstrated based on the evidence in the record, or a legal issue that is incumbent on the courts first to resolve. In order for the Commission to make findings that the claimants' fee authority has been diminished, or negated, pursuant to article XIII D, section 6(a), the claimants would have to provide evidence that they tried and failed to impose or increase the necessary fees,[390] or provide evidence that a court determined that Proposition 218 represents a

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[385] Exhibit X, Statement of Decision, *Discharge of Stormwater Runoff*, 07-TC-09, page 107 [citing *Connell v. Superior Court*, *supra*, 59 Cal.App.4th 382, at p. 401].

[386] See California Constitution, article XIII D, section 6(c).

[387] Government Code section 53750(m) (Stats. 2002, ch. 395).

[388] Exhibit R, Claimant Comments on Draft Proposed Decision, page 14.

[389] Exhibit R, Claimant Comments on Draft Proposed Decision, page 15.

[390] If a claimant were to provide evidence that it had tried and failed to impose or increase fees, that evidence could constitute costs "first incurred," within the meaning of Government Code section 17551, and a claimant otherwise barred from reimbursement under section 17556(d) could thus potentially demonstrate that it had incurred costs mandated by the state, as defined in

constitutional hurdle to fee authority as a matter of law. The Commission cannot now say, as a matter of law, that the claimants' fee authority is insufficient based on the speculative and uncertain threat of a "written protests against the proposed fee or charge [being] presented by a majority of owners of the identified parcels…"[391]

Based on the foregoing analysis, the Commission cannot find costs mandated by the state, within the meaning of Government Code section 17514, because the claimants have sufficient fee authority, as a matter of law, to establish or increase fees or charges to cover the costs of any new required activities.

V. Conclusion

Based on the foregoing analysis, the Commission finds that the Water Conservation Act of 2009, enacted as Statutes 2009-2010, 7th Extraordinary Session, chapter 4 (SBX7 7), and the Agricultural Water Measurement Regulations issued by the Department of Water Resources, found at Code of Regulations, title 23, section 597 et seq., do not impose a reimbursable state-mandated program on urban retail water suppliers or agricultural water suppliers within the meaning of article XIII B, section 6 of the California Constitution and Government Code section 17514. The Commission therefore denies this test claim.

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section 17514. The Commission does not make findings on this issue, but merely observes the potentiality.

[391] See article XIII D, section 6(a)(2).

COMMISSION ON STATE MANDATES
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RE: **Decision**

Water Conservation, 10-TC-12 and 12-TC-01
Water Conservation Act of 2009 et al.
South Feather Water and Power Agency, Paradise Irrigation District,
Oakdale Irrigation District, and Glenn-Colusa Irrigation District, Claimants

On December 5, 2014, the foregoing decision of the Commission on State Mandates was adopted in the above-entitled matter.

Heather Halsey, Executive Director

Dated: December 12, 2014

SECTION 6. DECLARATIONS

Test Claim Title: SWRCB Water Supply Permit Amendment (2017PA-SCHOOLS) for PWS No. 3710020
Claimant: City of San Diego

DECLARATION OF DOUG CAMPBELL
IN SUPPORT OF TEST CLAIM FILED BY THE CITY OF SAN DIEGO

I, Doug Campbell, declare as follows:

1. I am a Senior Chemist of the Public Utilities Department (PUD) that oversees the Department's Environmental Monitoring and Technical Services Division for the City of San Diego (City). In that capacity, I have direct oversight of the City's implementation of monitoring requirements contained in the City's Domestic Water Supply Permit (the Permit) and in the Permit Amendment No. 2017PA-SCHOOLS (Permit Amendment), as adopted by the California State Water Resources Control Board (SWRCB).

2. I instructed and supervised each of the staff members who were required to perform this work as stated in the Test Claim Documents and this Declaration, and have personal knowledge of the work that was required by each of them at my direction.

3. I have reviewed sections of the Test Claim filing as set forth herein and am familiar with those provisions. I am also familiar with the pertinent sections of Permit Amendment No. 2017PA-SCHOOLS, which was issued by the SWRCB on January 17, 2017.

5. I have personal knowledge of the City's sources of funding for programs and activities required to comply with the Permit and the Permit Amendment.

6. I have personal knowledge of the facts contained in this declaration, and if called upon as a witness, I could and would competently testify to the truthfulness of these facts as set forth in this declaration.

7. Based on my knowledge of the Permit Amendment and its requirements, the Permit Amendment requires the City to undertake the following new activities not required by the City's Domestic Water Supply Permit and which are unique to local government entities:

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a. The Lead and Copper Rule (LCR) is a United States federal regulation that requires San Diego Public Utilities to test for corrosivity of the City's water supply by analyzing samples from residential plumbing systems that contain copper and may contain lead. The LCR studies occur regularly every three years and are funded through rates charged by the Department. Since analyses required by the LCR are a normal part of the Public Utilities Department's scheduled responsibilities, and provide water quality information on a system-wide basis, no specific budget is earmarked for this activity. Instead, costs associated with LCR sampling and analyses have been included as part of the City's Public Utilities annual laboratory budget since the implementation of the regulation in the early 1990's. This service benefits all PUD customers for water, thus it is properly charged to all ratepayers.

b. The LCR differs markedly from the California state-mandated Lead in Schools amendment to the City's Water Supply Permit. Unlike the LCR that is examining corrosivity system-wide, the Lead in Schools amendment determines whether plumbing at a specific school site may be contaminating that facility's drinking water supply. This service directly benefits only the individual school tested and cannot be charged to all ratepayers.

c. The City's PUD was afforded very little time to develop this program. Schools were eligible to send sampling requests on the same day full details of the program became available to PUD. This required a significant investment of time on the part of management and staff to develop a thorough understanding of the program requirements, to seek answers to questions, and to become experts in all facets of the requirement such that proper information can be relayed to school officials.

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d. This included review and understanding of DDW DRINC database, used to login schools requesting sampling, and to assign sample IDs to each school sampling location.

e. As a result of media attention and public pressure, the San Diego Unified School District (SDUSD) requested in March 2017 that all 198 of its schools be tested before the end of the 2016-2017 school year. This required a substantial investment of resources to quickly develop templates, training materials, webpages, database routines and naming conventions, sampling kits, and the like.

f. The volume of requests for school sampling for PUD as of January 1, 2018, was 255 schools, which is greater than any other county in the State, and represents nearly 12% of the 2,160 requests in the State to date. An investment was required into additional sample bottles and coolers for sampling kits totaling $3,730.40. (Exhibit 19). No other Public Water System was as impacted by this Permit Amendment as the City's PUD.

g. The Permit Amendment increases the service obligations imposed on the City, creating a number of new program requirements not present in the LCR or other state or federal regulations. These activities are not mandated by federal law, were not required as part of the City's initial permit or any previous permit amendment, and constitute a new program or higher level of service for which the City has and will continue to incur significant costs.

h. The Permit Amendment required the City to submit to the State Board's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all K-12 schools that the City serves water through a utility meter by July 1, 2017.

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8. All of the work necessary to fulfill the required mandates of the Permit Amendment was either performed by me or at my direction, and I have personal knowledge of the staff time and expense needed to fulfill these mandates. (See, Exhibits 5-15, 17-35.)

9. The City is required to keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. The City's annual Consumer Confidence Report must include a statement summarizing the number of schools requesting lead sampling. (See, Exhibit 1 - Permit Amendment No. 2017PA-Schools to COSD, ¶ 8.)

10. According to the Permit Amendment, PUD is responsible for all costs associated with collecting, analyzing, and reporting drinking water samples for lead testing at up to five locations at each school, and is required to meet with the authorized school representative to develop a sampling plan and review the sampling results. The Permit Amendments do *not* require the community water system to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water, but the water system is required to conduct repeat sampling at the school to confirm elevated lead levels and the effectiveness of any corrective action taken by the school. (See, Exhibits 5-15, 17-35.)

11. The City's existing Permit and its prior amendments do not require PUD to perform lead testing at K-12 schools. Nor is the City required to perform such testing under the Federal Lead and Copper Rule (LCR). In 1991, the EPA adopted the LCR, which established "action levels" for lead. The LCR requires *schools* that have their own non-transient, non-

community water system supply to test water at the tap for a sample of their customers served (students) for lead levels. The LCR requires lead samples to be collected every six months.

12. There are approximately 500 schools in California that are permitted as a public water system because they have their own water supply, such as a well. Those schools are already required to test their taps for lead (and copper), and have been performing this testing for many years. No permit amendments were issued to schools that are already regulated as public water systems. However, most schools in California are served by community water systems which have not been required to test their water for lead under the current Lead and Copper Rule.

13. Under state regulations (virtually identical to the federal LCR), lead and copper testing is conducted on a regular basis. Public water systems conduct water sampling once every six months for lead. Testing frequency relaxes if test results consistently show no lead exceedances. According to the California Department of Public Health, the City's PUD is on a schedule to test for lead once every three years under Title 22's Reduced Monitoring program (Cal. Code Regs. Title 22, § 64675.5).

14. The City may not use any of the lead samples collected from schools as part of the Permit Amendment to satisfy federal or state LCR requirements. The City is required to communicate with the school after the lead sampling is complete and assist the school with interpreting the laboratory results as well as provide information regarding potential corrective actions if a school has lead levels above 15 ppb. (See, Exhibit 1.)

15. The Permit Amendment required extensive modifications to PUD's existing monitoring activities. Program Management elements include the general administration of the

program by management, supervisory, and support staff. This includes written and verbal communication with schools staff, the public, media, management, and concerned citizens and parents. As the scope of labor that this effort would require became apparent, management expended labor to communicate with City leadership, to discuss and seek agreement on the identification and solicitation of additional labor resources, to meet and confer with resources and their leadership, and to communicate program expectations and requirements. Labor was invested to track program documents and information – sampling requests, emails, phone calls, and requests for information.

16. For each sampling request that was received, staff were required to: prepare and send a response to the sampling request; submit a copy of the sampling request to the State; communicate with the school to schedule training meetings, and communicate school request status to PUD management; create and maintain a daily tracking spreadsheet that includes school request status, contact information, and other relevant information, and upgrading, updating, and maintenance of tracking spreadsheets. (See, Exhibits 5-15, 17-35.)

17. In addition, the Permit Amendment's Site Specific Planning Elements include tasks that are specific to sampling at a school site. Sampling plans were created by school staff using the template and guidelines provided by PUD. Staff review of these plans ensures that sites fall within permit amendment guidelines, are clearly identified and marked in the sampling plan, and are signed by appropriate and qualified school personnel. Correspondence was frequently required with school staff to clarify or request revision of sampling plans. Once deemed acceptable, information on the individual sample sites was required to be entered into the DDW

DRINC database to obtain State Sample IDs. These data also had to be entered into the PUD LIMS database, along with all identifying information, including the full description of each site and DRINC sample IDs. When all this information had been finalized and entered, sampling plans were signed by PUD staff and finalized as a pdf document. (See, Exhibits 5-15, 17-35.)

18. The large number of SDUSD requested schools, along with the short time period remaining before the end of the school year, required PUD to approve a minimum of 25 School Sample Plans per week to complete the project on time. For each school site, a sampling kit had to be prepared, including a printed copy of the sampling plan, chain of custody and associated paperwork; sample bottles and coolers had to be located, and sample bottles properly labeled. A trained PUD sampler had to be identified, briefed on the school, and given contact information for the school representative who would meet them at the school.

19. School sampling was conducted by a number of PUD staff, all of which had to be conducted on a Tuesday, Wednesday, Thursday, Friday, or for SDUSD Schools only by agreement with DDW, Saturday. According to the Permit Amendment, sampling was required to be conducted after water had been sitting stagnant in plumbing and fixtures for a minimum of six hours. This meant sampling had to be conducted prior to the start of the school day, as use of fixtures other than those identified and secured for sampling could disturb water in the plumbing system itself. This requirement limited the number of schools that could be sampled by an individual sampler on any given day. The large number of SDUSD requested schools, along with the short time period remaining before the end of the school year, required PUD to sample a minimum of 25 schools per week to complete the project on time.

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20. Following sampling, school samplers deliver sampling kit and associated paperwork to WQCS QA/DM staff. Paperwork is reviewed, sample status is updated in LIMS database, paperwork is finalized, and samples are routed and stored in the proper location. One thousand, one hundred and fifteen field samples were analyzed in FY17 for the PUD Lead in Schools program. This does not include quality control and other samples required in each analytical batch.

21. A reporting template was developed for use in the Lead in Schools program. This report needed to contain sufficient information to track samples in DDW website, the PUD LIMS database, and for the schools and public to understand the source from which the sample was obtained. All reports were reviewed by supervisory or management staff. This review included the referencing of SDUSD or other school websites to ensure the report contained proper identifying information for the school and reports with schools of similar names were clarified. (See, Exhibits 8-17.)

22. Per Permit Amendment requirements, consultation was provided to schools in interpreting results obtained via this program. For school fixtures with lead results above 15 ppb, the parameters of the program were explained, including the option to resample, remediate, or remove the fixture from service. When remediation was complete, resamples were obtained by PUD and reports of these results were provided to the schools. Results for each school sample were required to be uploaded into the DDW EDT database.

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23. Utilizing the State-provided Write On software for this task, as PUD does for routine regulatory reporting, would have required the generation of a separate report for each of the 1,115 samples analyzed. Instead staff developed a method to convert reports into files that are compatible with the EDT system (called .res files) in order to upload results *en masse*. This required a significant amount of time for trial and error, and the upload of a test set of samples prior to the upload of the complete data set. (See, Exhibits 5-15, 17-36.)

24. I have personal knowledge that a search was done to find external funding for this new work and services, and there are no dedicated state, federal, or local funds that are or will be available to pay for any of the new programs set forth in this declaration. I am not aware of any fee, charge or tax which the City would have the discretion to impose under California law to recover any portion of these new activities.

25. I have personal knowledge of all of the staff time required to fulfill the new programs, services and mandates that are necessary to comply with the Permit Amendment. The monies spent by the City and PUD to comply with all of the work and services described in my declaration and the Written Narrative provided as part of this Test Claim are true and accurate, as also stated in the Declaration of Rex Ragucos and Exhibit 36, referenced therein, which I have confirmed.

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SECTION 6. DECLARATIONS

Test Claim Title: SWRCB Water Supply Permit Amendment (2017PA-SCHOOLS) for PWS No. 3710020

Claimant: City of San Diego

DECLARATION OF DOUG CAMPBELL
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I declare under penalty of perjury, under the laws of the State of California, that the foregoing is true and correct. Executed this 29th day of March 2018 in San Diego, California.

Doug Campbell, Senior Chemist
Public Utilities Department

MARA W. ELLIOTT, City Attorney
SANNA R. SINGER, Assistant City Attorney
THOMAS C. ZELENY, Sr. Chief Deputy City Attorney
California State Bar No. 176280
Office of the City Attorney
1200 Third Avenue, Suite 1100
San Diego, California 92101-4100
Telephone: (619) 533-5800
Facsimile: (619) 533-5856

Attorneys for Claimant City of San Diego

COMMISSION ON STATE MANDATES, STATE OF CALIFORNIA

IN RE TEST CLAIM ON: Lead Sampling in Schools Permit Amendment No. 2017PA-SCHOOLS City of San Diego Public Water System No. 3710020	Test Claim No. 17-TC-03 **DECLARATION OF LEE ANN JONES-SANTOS IN SUPPORT OF TEST CLAIM FILED BY THE CITY OF SAN DIEGO**

I, Lee Ann Jones-Santos, declare:

1. I am the Assistant Director of the Public Utilities Department of the City of San Diego and have been in that role since May 2015. From April 2010 to May 2015, I was the Deputy Director of Finance and Information Technology for the Public Utilities Department. I have personal knowledge of the facts stated below, and if I were called as a witness I could competently testify about what I have written in this declaration.

2. My responsibilities include overseeing the finances of the Public Utilities Department. The Department is funded primarily by the Water Fund and the Sewer Fund, which consist of water ratepayer funds and sewer ratepayer funds, respectively.

3. My responsibilities also include overseeing the Customer Service Division of the Public Utilities Department, which is responsible for opening and closing customer accounts,

sending periodic billing statements to customers for water and sewer service, and answering questions from customers.

4. Water and sewer accounts may be opened by a property owner or a tenant of the property. Whoever opens the account is responsible for payment of the water and sewer bill.

5. There are approximately 281,000 retail connections for water service managed by the Public Utilities Department.

6. The Water Fund and the Sewer Fund are held and accounted for separately, to avoid commingling of ratepayer funds, consistent with my understanding of the restrictions imposed on the use of ratepayer funds under Proposition 218.

7. Similarly, the Water and Sewer Funds are held and accounted for separately from the City's General Fund, in part to avoid using ratepayer funds to pay for costs that are not associated with providing water and sewer service.

8. The Water Fund owns surface reservoirs and open space land that is popular for boating, fishing, hiking and picnicking. These recreational activities are available to the general public, whether or not they are City water ratepayers.

9. The Public Utilities Department charges the General Fund about $2.5 million each fiscal year to pay for the recreational activities on Water Fund property, to ensure water ratepayers funds are not used for programs available to the general public.

10. The Water Fund has incurred all the costs of lead testing performed by the City at the requests of schools to date, pending reimbursement from the City's General Fund or some other source.

I declare under the penalty of perjury of the laws of the State of California that the foregoing is true and correct.

Dated: November 7, 2018

By _____
Lee Ann Jones-Santos
Assistant Director

Agency At-A-Glance

This report allows users to view key information for mulitiple Regulating Agencies on one screen. Clicking on the Regulating Agency name will generate a detailed report of the associated Water Systems. If you would like to see all Water Systems from your search criteria click on "See All" located at the bottom of the results table.

Regulating Agency	Total Water Systems	Total Population	Total Service Connections
DISTRICT 01 - KLAMATH	75	173,359	61,282
DISTRICT 02 - LASSEN	76	509,495	176,788
DISTRICT 03 - MENDOCINO	54	226,045	70,295
DISTRICT 04 - SAN FRANCISCO	50	3,836,477	987,724
DISTRICT 05 - MONTEREY	29	357,170	92,152
DISTRICT 06 - SANTA BARBARA	65	1,265,926	339,471
DISTRICT 07 - HOLLYWOOD	23	1,206,228	259,502
DISTRICT 08 - SANTA ANA	36	5,274,972	762,668
DISTRICT 09 - SACRAMENTO	43	1,644,292	499,470
DISTRICT 10 - STOCKTON	70	1,121,155	311,822
DISTRICT 11 - MERCED	74	868,460	224,842
DISTRICT 12 - VISALIA	38	637,536	166,675
DISTRICT 13 - SAN BERNARDINO	62	1,701,262	466,810
DISTRICT 14 - SAN DIEGO	34	3,053,812	676,902
DISTRICT 15 - METROPOLITAN	23	5,014,404	860,746
DISTRICT 16 - CENTRAL	31	1,070,998	234,350
DISTRICT 17 - SANTA CLARA	55	1,180,663	291,426
DISTRICT 18 - SONOMA	70	650,823	203,731
DISTRICT 19 - TEHACHAPI	32	121,999	31,637
DISTRICT 20 - RIVERSIDE	40	2,317,098	652,595
DISTRICT 21 - VALLEY	49	255,193	73,810
DISTRICT 22 - ANGELES	19	733,632	160,774
DISTRICT 23 - FRESNO	85	196,513	40,872
DISTRICT 24 - TULARE	60	237,658	57,569
LPA32 - ALPINE COUNTY	2	50	16
LPA33 - AMADOR COUNTY	2	260	98
LPA34 - BUTTE COUNTY	15	2,160	397
LPA37 - CONTRA COSTA COUNTY	17	3,155	365
LPA39 - EL DORADO COUNTY	13	3,612	86
LPA43 - IMPERIAL COUNTY	14	5,667	541
LPA44 - INYO COUNTY	18	2,446	126
LPA46 - KINGS COUNTY	9	2,808	59
LPA49 - LA COUNTY	11	12,628	121
LPA50 - MADERA COUNTY	40	10,780	1,159
LPA56 - MONO COUNTY	17	1,530	412
LPA57 - MONTEREY COUNTY	21	5,233	39
LPA58 - NAPA COUNTY	9	1,083	187
LPA59 - NEVADA COUNTY	9	1,315	119
LPA61 - PLACER COUNTY	4	450	140
LPA62 - PLUMAS COUNTY	19	1,204	503
LPA63 - RIVERSIDE COUNTY	15	3,935	890
LPA64 - SACRAMENTO COUNTY	23	23,835	877
LPA66 - SAN BERNARDINO COUNTY	25	19,333	921
LPA67 - SAN DIEGO COUNTY	28	6,955	630
LPA69 - SAN JOAQUIN COUNTY	51	9,518	1,267
LPA70 - SAN LUIS OBISPO COUNTY	10	2,742	23
LPA72 - SANTA BARBARA COUNTY	7	3,578	146
LPA74 - SANTA CRUZ COUNTY	8	9,057	24
LPA75 - SHASTA COUNTY	16	4,232	122
LPA80 - STANISLAUS COUNTY	30	7,984	683
LPA82 - TEHAMA COUNTY	19	3,024	110
LPA87 - YOLO COUNTY	9	3,562	293
LPA88 - YUBA COUNTY	2	300	156
See All	1656	33,807,606	7,714,423

Agency At-A-Glance

This report allows users to view key information for mulitiple Regulating Agencies on one screen. Clicking on the Regulating Agency name will generate a detailed report of the associated Water Systems. If you would like to see all Water Systems from your search criteria click on "See All" located at the bottom of the results table.

Regulating Agency	Total Water Systems	Total Population	Total Service Connections
DISTRICT 01 - KLAMATH	121	29,082	6,976
DISTRICT 02 - LASSEN	56	17,973	11,094
DISTRICT 03 - MENDOCINO	148	47,363	14,685
DISTRICT 04 - SAN FRANCISCO	52	99,444	26,915
DISTRICT 05 - MONTEREY	78	313,757	90,539
DISTRICT 06 - SANTA BARBARA	77	281,507	90,742
DISTRICT 07 - HOLLYWOOD	21	622,982	157,702
DISTRICT 08 - SANTA ANA	15	170,557	43,091
DISTRICT 09 - SACRAMENTO	21	534,426	100,291
DISTRICT 10 - STOCKTON	10	183,594	46,776
DISTRICT 11 - MERCED	215	80,768	22,302
DISTRICT 12 - VISALIA	140	593,914	154,974
DISTRICT 13 - SAN BERNARDINO	40	399,731	102,069
DISTRICT 14 - SAN DIEGO	14	148,697	32,781
DISTRICT 15 - METROPOLITAN	14	681,156	59,499
DISTRICT 16 - CENTRAL	13	371,345	74,336
DISTRICT 17 - SANTA CLARA	115	1,398,867	342,827
DISTRICT 18 - SONOMA	369	60,546	17,601
DISTRICT 19 - TEHACHAPI	143	52,335	17,853
DISTRICT 20 - RIVERSIDE	12	47,423	13,896
DISTRICT 21 - VALLEY	81	167,464	45,799
DISTRICT 22 - ANGELES	22	957,551	220,235
DISTRICT 23 - FRESNO	235	44,482	5,625
DISTRICT 24 - TULARE	194	31,665	4,645
LPA32 - ALPINE COUNTY	22	1,222	450
LPA33 - AMADOR COUNTY	49	4,076	722
LPA34 - BUTTE COUNTY	65	10,868	2,056
LPA35 - CALAVERAS COUNTY	35	3,733	555
LPA37 - CONTRA COSTA COUNTY	76	8,040	2,074
LPA39 - EL DORADO COUNTY	96	11,909	1,741
LPA43 - IMPERIAL COUNTY	44	6,510	1,130
LPA44 - INYO COUNTY	65	6,532	1,907
LPA46 - KINGS COUNTY	19	1,824	220
LPA49 - LA COUNTY	95	20,297	4,059
LPA50 - MADERA COUNTY	36	3,595	1,540
LPA54 - MERCED COUNTY	18	352	150
LPA56 - MONO COUNTY	47	7,418	1,002
LPA57 - MONTEREY COUNTY	292	25,172	6,310
LPA58 - NAPA COUNTY	176	12,960	890
LPA59 - NEVADA COUNTY	54	9,068	1,077
LPA61 - PLACER COUNTY	87	20,443	1,525
LPA62 - PLUMAS COUNTY	110	7,673	1,088
LPA63 - RIVERSIDE COUNTY	215	22,029	8,231
LPA64 - SACRAMENTO COUNTY	122	20,895	3,749
LPA66 - SAN BERNARDINO COUNTY	221	59,194	6,599
LPA67 - SAN DIEGO COUNTY	114	16,620	5,910
LPA69 - SAN JOAQUIN COUNTY	235	24,447	2,810
LPA70 - SAN LUIS OBISPO COUNTY	118	12,311	2,473
LPA72 - SANTA BARBARA COUNTY	112	16,516	1,984
LPA74 - SANTA CRUZ COUNTY	88	10,451	2,320
LPA75 - SHASTA COUNTY	117	14,029	3,624
LPA80 - STANISLAUS COUNTY	172	16,236	2,518
LPA82 - TEHAMA COUNTY	77	7,318	2,431
LPA87 - YOLO COUNTY	73	11,323	1,180
LPA88 - YUBA COUNTY	58	22,416	1,408
See All	5314	7,752,106	1,776,986

Senate Bill No. 334

Passed the Senate September 10, 2015

_____

Secretary of the Senate

Passed the Assembly September 8, 2015

_____

Chief Clerk of the Assembly

This bill was received by the Governor this _____ day of _____, 2015, at _____ o'clock ____M.

_____

Private Secretary of the Governor

CHAPTER _____

An act to amend Sections 32242 and 38086 of, to add Sections 32241.5, 32246, and 32249 to, and to add Article 13 (commencing with Section 49580) to Chapter 9 of Part 27 of Division 4 of Title 2 of, the Education Code, relating to pupil health.

LEGISLATIVE COUNSEL'S DIGEST

SB 334, Leyva. Pupil health: drinking water.

(1) Existing law requires a school district to provide access to free, fresh drinking water during meal times in school food service areas, unless the governing board of a school district adopts a resolution stating that it is unable to comply with this requirement and demonstrating the reasons why it is unable to comply due to fiscal constraints or health and safety concerns. Existing law requires the resolution to be publicly noticed on at least 2 consecutive meeting agendas and approved by at least a majority of the governing board of the school district.

This bill would delete the provision authorizing a school district to adopt a resolution stating that it is unable to provide access to free, fresh drinking water during meal times. The bill would instead specify that a school district shall provide access to free, fresh, and clean drinking water during meal times through the use of drinking water access points, as defined. By imposing additional duties on school districts, this bill would impose a state-mandated local program.

This bill would require a school district that has drinking water sources with drinking water that does not meet the United States Environmental Protection Agency drinking water standards for lead or any other contaminant to close access to those drinking water sources, to provide alternative drinking water sources, as specified, and to notify specified persons if the school district is required to provide those alternative drinking water sources. By imposing additional duties on pupil schools and school districts, this bill would impose a state-mandated local program.

(2) Under existing law, known as the Lead-Safe Schools Protection Act, the State Department of Public Health is required to perform various activities related to reducing the risk of exposure

to lead hazards in public schools, including, among other activities, working with the State Department of Education to develop voluntary guidelines to ensure that lead hazards are minimized in the course of school repair and maintenance programs and abatement procedures.

This bill would repeal the requirement that the State Department of Public Health develop voluntary guidelines. The bill would instead require the State Department of Education to make information available to school districts about the United States Environmental Protection Agency's technical guidance for reducing lead in drinking water in schools. The bill would prohibit drinking water that does not meet the United States Environmental Protection Agency drinking water standards for lead from being provided at a school facility. The bill would require a public school that has lead-containing plumbing components to flush all drinking water sources at the beginning of each schoolday, except as provided. By imposing additional duties on public schools and school districts, this bill would impose a state-mandated local program.

(3) The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that, if the Commission on State Mandates determines that the bill contains costs mandated by the state, reimbursement for those costs shall be made pursuant to these statutory provisions.

The people of the State of California do enact as follows:

SECTION 1. Section 32241.5 is added to the Education Code, to read:

32241.5. The department shall make information available to school districts, by posting on its Internet Web site or through any other means for distributing information it deems effective, about the United States Environmental Protection Agency's technical guidance for reducing lead in drinking water in schools.

SEC. 2. Section 32242 of the Education Code is amended to read:

32242. The State Department of Public Health shall do all of the following:

(a) Design and implement a strategy for identifying the characteristics of high-risk schools and provide a basis for statewide estimates of the presence of lead in schools attended by young children.

(b) Conduct a sample survey, as described in Section 32241, to determine the likely extent and distribution of lead exposure to children from paint on the school, soil in play areas at the school, drinking water at the tap, and other potential sources identified by the State Department of Public Health for this purpose. To the maximum extent possible, limited sample testing shall be used to validate survey results. The State Department of Public Health shall compile and summarize the results of that survey and report those results to the Legislature and the department.

(c) Within 60 days of the completion of testing a schoolsite, the State Department of Public Health shall notify the principal of the school or director of the schoolsite of the survey results. Within 45 days of receiving the survey results, the principal or director, as the case may be, shall notify the teachers and other school personnel and parents of the survey results.

(d) Make recommendations to the Legislature and the department, based on the survey results and consideration of appropriate federal and state standards, on the feasibility and necessity of conducting statewide lead testing and any additional action needed relating to lead contamination in the schools.

(e) As deemed necessary and appropriate in view of the survey results, develop environmental lead testing methods and standards to ensure the scientific integrity of results, for use by schools and contractors designated by schools for that purpose.

(f) Evaluate the most current cost-effective lead abatement technologies.

SEC. 3. Section 32246 is added to the Education Code, to read:

32246. Drinking water that does not meet the United States Environmental Protection Agency drinking water standards for lead shall not be provided at a school facility.

SEC. 4. Section 32249 is added to the Education Code, to read:

32249. A school that has lead-containing plumbing components shall flush all drinking water sources at the beginning of each schoolday, consistent with protocols recommended by the United

States Environmental Protection Agency. A school is not required to flush drinking water sources that have been shut off or have been certified as meeting the United States Environmental Protection Agency's drinking water standards for lead.

SEC. 5. Section 38086 of the Education Code is amended to read:

38086. (a) A school district shall provide access to free, fresh, and clean drinking water during meal times in the food service areas of the schools under its jurisdiction, including, but not necessarily limited to, areas where reimbursable meals under the federal National School Lunch Program or the federal School Breakfast Program are served or consumed. A school district may comply with this section by, among other means, providing cups and containers of water or soliciting or receiving donated bottled water.

(b) A school district shall comply with this section through the use of drinking water access points.

(c) For purposes of this section, "drinking water access point" is defined as a station, plumbed or unplumbed, where pupils can access free, fresh, and clean drinking water. An unplumbed access point may include water bottles and portable water dispensers.

SEC. 6. Article 13 (commencing with Section 49580) is added to Chapter 9 of Part 27 of Division 4 of Title 2 of the Education Code, to read:

Article 13. Drinking Water

49580. (a) A school district that has drinking water sources with drinking water that does not meet the United States Environmental Protection Agency drinking water standards for lead or any other contaminant shall close access to those drinking water sources immediately upon receipt of test results or notification from the public water system.

(b) (1) If, as a result of closing access to a drinking water source pursuant to subdivision (a), a schoolsite within a school district no longer has the minimum number of drinking fountains required pursuant to Chapter 4 (commencing with Section 401.0) of the California Plumbing Code (Part 5 of Title 24 of the California Code of Regulations), the school district shall provide alternative drinking water sources at that schoolsite.

(2) An alternative drinking water source provided pursuant to this subdivision while the source of contamination is being mitigated may be from plumbed or unplumbed sources. Unplumbed sources may include, but are not limited to, portable water sources and bottled water.

(c) A school district shall notify parents or legal guardians, pupils, teachers, and other school personnel of drinking water test results, immediately upon receipt of those test results, if the school district is required to provide alternative drinking water sources.

SEC. 7. If the Commission on State Mandates determines that this act contains costs mandated by the state, reimbursement to local agencies and school districts for those costs shall be made pursuant to Part 7 (commencing with Section 17500) of Division 4 of Title 2 of the Government Code.

Approved _____, 2015

_____

Governor

OFFICE OF THE GOVERNOR

OCT 9 2015

To the Members of the California State Senate:

I am returning Senate Bill 334 without my signature.

This bill requires a school district that has a drinking water source that does not meet the Environmental Protection Agency's drinking water standards to provide alternative drinking water to their students.

I agree that all California students should have access to safe drinking water but this bill creates a state mandate of uncertain but possibly very large magnitude.

As our first order of business, local schools should understand the nature of their water quality problem, if there is one. Accordingly, I am directing the State Water Resources Control Board to work with school districts and local public water systems to incorporate water quality testing in schools as part of their lead and copper rule. School districts should utilize this information to ensure all students are provided safe water.

Sincerely,

Edmund G. Brown Jr.

GOVERNOR EDMUND G. BROWN JR. • SACRAMENTO, CALIFORNIA 95814 • (916) 445-2841

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*** CALIFORNIA CONSTITUTION - CONS**

ARTICLE XIII A [TAX LIMITATION] [SECTION 1 - SEC. 7] *(Article 13A added June 6, 1978, by Prop. 13. Initiative measure.)*

SECTION 1. (a) The maximum amount of any ad valorem tax on real property shall not exceed One percent (1%) of the full cash value of such property. The one percent (1%) tax to be collected by the counties and apportioned according to law to the districts within the counties.

(b) The limitation provided for in subdivision (a) shall not apply to ad valorem taxes or special assessments to pay the interest and redemption charges on any of the following:

(1) Indebtedness approved by the voters prior to July 1, 1978.

(2) Bonded indebtedness for the acquisition or improvement of real property approved on or after July 1, 1978, by two-thirds of the votes cast by the voters voting on the proposition.

(3) Bonded indebtedness incurred by a school district, community college district, or county office of education for the construction, reconstruction, rehabilitation, or replacement of school facilities, including the furnishing and equipping of school facilities, or the acquisition or lease of real property for school facilities, approved by 55 percent of the voters of the district or county, as appropriate, voting on the proposition on or after the effective date of the measure adding this paragraph. This paragraph shall apply only if the proposition approved by the voters and resulting in the bonded indebtedness includes all of the following accountability requirements:

(A) A requirement that the proceeds from the sale of the bonds be used only for the purposes specified in Article XIII A, Section 1(b)(3), and not for any other purpose, including teacher and administrator salaries and other school operating expenses.

(B) A list of the specific school facilities projects to be funded and certification that the school district board, community college board, or county office of education has evaluated safety, class size reduction, and information technology needs in developing that list.

(C) A requirement that the school district board, community college board, or county office of education conduct an annual, independent performance audit to ensure that the funds have been expended only on the specific projects listed.

(D) A requirement that the school district board, community college board, or county office of education conduct an annual, independent financial audit of the proceeds from the sale of the bonds until all of those proceeds have been expended for the school facilities projects.

(c) Notwithstanding any other provisions of law or of this Constitution, school districts, community college districts, and county offices of education may levy a 55 percent vote ad valorem tax pursuant to subdivision (b).

(Sec. 1 amended Nov. 7, 2000, by Prop. 39. Initiative measure.)

SEC. 2. (a) The "full cash value" means the county assessor's valuation of real property as shown on the 1975–76 tax bill under "full cash value" or, thereafter, the appraised value of real property when purchased, newly constructed, or a change in ownership has occurred after the 1975 assessment. All real property not already assessed up to the 1975–76 full cash value may be reassessed to reflect that valuation. For purposes of this section, "newly constructed" does not include real property that is reconstructed after a disaster, as declared by the Governor, where the fair market value of the real property, as reconstructed, is comparable to its fair market value prior to the disaster. For purposes of this section, the term "newly constructed" does not include that portion of an existing structure that consists of the construction or reconstruction of seismic retrofitting components, as defined by the Legislature.

However, the Legislature may provide that, under appropriate circumstances and pursuant to definitions and procedures established by the Legislature, any person over the age of 55 years who resides in property that is eligible for the homeowner's exemption under subdivision (k) of Section 3 of Article XIII and any implementing legislation may transfer the base year value of the property entitled to exemption, with the adjustments authorized by subdivision (b), to any replacement dwelling of equal or lesser value located within the same county and purchased or newly constructed by that person as his or her principal residence within two years of the sale of the original property. For purposes of this section, "any person over the age of 55 years" includes a married couple one member of which is over the age of 55 years. For purposes of this section, "replacement dwelling" means a building, structure, or other shelter constituting a place of abode, whether real property or personal property, and any land on which it may be situated. For purposes of this section, a two-dwelling unit shall be considered as two separate single-family dwellings. This paragraph shall apply to any replacement dwelling that was purchased or newly constructed on or after November 5, 1986.

In addition, the Legislature may authorize each county board of supervisors, after consultation with the local affected agencies within the county's boundaries, to adopt an ordinance making the provisions of this subdivision relating to transfer of base year value also applicable to situations in which the replacement dwellings are located in that county and the original properties are located in another county within this State. For purposes of this paragraph, "local affected agency" means any city, special district, school district, or community college district that receives an annual property tax revenue allocation. This paragraph applies to any replacement dwelling that was purchased or newly constructed on or after the date the county adopted the provisions of this subdivision relating to transfer of base year value, but does not apply to any replacement dwelling that was purchased or newly constructed before November 9, 1988.

The Legislature may extend the provisions of this subdivision relating to the transfer of base year values from original properties to replacement dwellings of homeowners over the age of 55 years to severely disabled homeowners, but only with respect to those replacement dwellings purchased or newly constructed on or after the effective date of this paragraph.

(b) The full cash value base may reflect from year to year the inflationary rate not to exceed 2 percent for any given year or reduction as shown in the consumer price index or comparable data for the area under taxing jurisdiction, or may be reduced to reflect substantial damage, destruction, or other factors causing a decline in value.

(c) For purposes of subdivision (a), the Legislature may provide that the term "newly constructed" does not include any of the following:

(1) The construction or addition of any active solar energy system.

(2) The construction or installation of any fire sprinkler system, other fire extinguishing system, fire detection system, or fire-related egress improvement, as defined by the Legislature, that is constructed or installed after the effective date of this paragraph.

(3) The construction, installation, or modification on or after the effective date of this paragraph of any portion or structural component of a single- or multiple-family dwelling that is eligible for the homeowner's exemption if the construction, installation, or modification is for the purpose of making the dwelling more accessible to a severely disabled person.

(4) The construction, installation, removal, or modification on or after the effective date of this paragraph of any portion or structural component of an existing building or structure if the construction, installation, removal, or modification is for the purpose of making the building more accessible to, or more usable by, a disabled person.

(5) The construction or addition, completed on or after January 1, 2019, of a rain water capture system, as defined by the Legislature.

(d) For purposes of this section, the term "change in ownership" does not include the acquisition of real property as a replacement for comparable property if the person acquiring the real property has been displaced from the property replaced by eminent domain proceedings, by acquisition by a public entity, or governmental action that has resulted in a judgment of inverse condemnation. The real property acquired shall be deemed comparable to the property replaced if it is similar in size, utility, and function, or if it conforms to state regulations defined by the Legislature governing the relocation of persons displaced by governmental actions. This subdivision applies to any property acquired after March 1, 1975, but affects only those assessments of that property that occur after the provisions of this subdivision take effect.

(e) (1) Notwithstanding any other provision of this section, the Legislature shall provide that the base year value of property that is substantially damaged or destroyed by a disaster, as declared by the Governor, may be transferred to comparable property within the same county that is acquired or newly constructed as a replacement for the substantially damaged or destroyed property.

(2) Except as provided in paragraph (3), this subdivision applies to any comparable replacement property acquired or newly constructed on or after July 1, 1985, and to the determination of base year values for the 1985–86 fiscal year and fiscal years thereafter.

(3) In addition to the transfer of base year value of property within the same county that is permitted by paragraph (1), the Legislature may authorize each county board of supervisors to adopt, after consultation with affected local agencies within the county, an ordinance allowing the transfer of the base year value of property that is located within another county in the State and is substantially damaged or destroyed by a disaster, as declared by the Governor, to comparable replacement property of equal or lesser value that is located within the adopting county and is acquired or newly constructed within three years of the substantial damage or destruction of the original property as a replacement for that property. The scope and amount of the benefit provided to a property owner by the transfer of base year value of property pursuant to this paragraph shall not exceed the scope and amount of the benefit provided to a property owner by the transfer of base year value of property pursuant to subdivision (a). For purposes of this paragraph, "affected local agency" means any city, special district, school district, or community college district that receives an annual allocation of ad valorem property tax revenues. This paragraph applies to any comparable replacement property that is acquired or newly constructed as a replacement for property substantially damaged or destroyed by a disaster, as declared by the Governor, occurring on or after October 20, 1991, and to the determination of base year values for the 1991–92 fiscal year and fiscal years thereafter.

(f) For the purposes of subdivision (e):

(1) Property is substantially damaged or destroyed if it sustains physical damage amounting to more than 50 percent of its value immediately before the disaster. Damage includes a diminution in the value of property as a result of restricted access caused by the disaster.

(2) Replacement property is comparable to the property substantially damaged or destroyed if it is similar in size, utility, and function to the property that it replaces, and if the fair market value of the acquired property is comparable to the fair market value of the replaced property prior to the disaster.

(g) For purposes of subdivision (a), the terms "purchased" and "change in ownership" do not include the purchase or transfer of real property between spouses since March 1, 1975, including, but not limited to, all of the following:

(1) Transfers to a trustee for the beneficial use of a spouse, or the surviving spouse of a deceased transferor, or by a trustee of such a trust to the spouse of the trustor.

(2) Transfers to a spouse that take effect upon the death of a spouse.

(3) Transfers to a spouse or former spouse in connection with a property settlement agreement or decree of dissolution of a marriage or legal separation.

(4) The creation, transfer, or termination, solely between spouses, of any coowner's interest.

(5) The distribution of a legal entity's property to a spouse or former spouse in exchange for the interest of the spouse in the legal entity in connection with a property settlement agreement or a decree of dissolution of a marriage or legal separation.

(h) (1) For purposes of subdivision (a), the terms "purchased" and "change in ownership" do not include the purchase or transfer of the principal residence of the transferor in the case of a purchase or transfer between parents and their children, as defined by the Legislature, and the purchase or transfer of the first one million dollars ($1,000,000) of the full cash value of all other real property between parents and their children, as defined by the Legislature. This subdivision applies to both voluntary transfers and transfers resulting from a court order or judicial decree.

(2) (A) Subject to subparagraph (B), commencing with purchases or transfers that occur on or after the date upon which the measure adding this paragraph becomes effective, the exclusion established by paragraph (1) also applies to a purchase or transfer of real property between grandparents and their grandchild or grandchildren, as defined by the Legislature, that otherwise qualifies under paragraph (1), if all of the parents of that grandchild or those grandchildren, who qualify as the children of the grandparents, are deceased as of the date of the purchase or transfer.

(B) A purchase or transfer of a principal residence shall not be excluded pursuant to subparagraph (A) if the transferee grandchild or grandchildren also received a principal residence, or interest therein, through another purchase or transfer that was excludable pursuant to paragraph (1). The full cash value of any real property, other than a principal residence, that was transferred to the grandchild or grandchildren pursuant to a purchase or transfer that was excludable pursuant to paragraph (1), and the full cash value of a principal residence that fails to qualify for exclusion as a result of the preceding sentence, shall be included in applying, for purposes of subparagraph (A), the one-million-dollar ($1,000,000) full cash value limit specified in paragraph (1).

(i) (1) Notwithstanding any other provision of this section, the Legislature shall provide with respect to a qualified contaminated property, as defined in paragraph (2), that either, but not both, of the following apply:

(A) (i) Subject to the limitation of clause (ii), the base year value of the qualified contaminated property, as adjusted as authorized by subdivision (b), may be transferred to a replacement property that is acquired or newly constructed as a replacement for the qualified contaminated property, if the replacement real property has a fair market value that is equal to or less than the fair market value of the qualified contaminated property if that property were not contaminated and, except as otherwise provided by this clause, is located within the same county. The base year value of the qualified contaminated property may be transferred to a replacement real property located within another county if the board of supervisors of that other county has, after consultation with the affected local agencies within that county, adopted a resolution authorizing an intercounty transfer of base year value as so described.

(ii) This subparagraph applies only to replacement property that is acquired or newly constructed within five years after ownership in the qualified contaminated property is sold or otherwise transferred.

(B) In the case in which the remediation of the environmental problems on the qualified contaminated property requires the destruction of, or results in substantial damage to, a structure located on that property, the term "new construction" does not include the repair of a substantially damaged structure, or the construction of a structure replacing a destroyed structure on the qualified contaminated property, performed after the remediation of the environmental problems on that property, provided that the repaired or replacement structure is similar in size, utility, and function to the original structure.

(2) For purposes of this subdivision, "qualified contaminated property" means residential or nonresidential real property that is all of the following:

(A) In the case of residential real property, rendered uninhabitable, and in the case of nonresidential real property, rendered unusable, as the result of either environmental problems, in the nature of and including, but not limited to, the presence of toxic or hazardous materials, or the remediation of those environmental problems, except where the existence of the environmental problems was known to the owner, or to a related individual or entity as described in paragraph (3), at the time the real property was acquired or constructed. For purposes of this subparagraph, residential real property is "uninhabitable" if that property, as a result of health hazards caused by or associated with the environmental problems, is unfit for human habitation, and nonresidential real property is "unusable" if that property, as a result of health hazards caused by or associated with the environmental problems, is unhealthy and unsuitable for occupancy.

(B) Located on a site that has been designated as a toxic or environmental hazard or as an environmental cleanup site by an agency of the State of California or the federal government.

(C) Real property that contains a structure or structures thereon prior to the completion of environmental cleanup activities, and that structure or structures are substantially damaged or destroyed as a result of those environmental cleanup activities.

(D) Stipulated by the lead governmental agency, with respect to the environmental problems or environmental cleanup of the real property, not to have been rendered uninhabitable or unusable, as applicable, as described in subparagraph (A), by any act or omission in which an owner of that real property participated or acquiesced.

(3) It shall be rebuttably presumed that an owner of the real property participated or acquiesced in any act or omission that rendered the real property uninhabitable or unusable, as applicable, if that owner is related to any individual or entity that committed that act or omission in any of the following ways:

(A) Is a spouse, parent, child, grandparent, grandchild, or sibling of that individual.

(B) Is a corporate parent, subsidiary, or affiliate of that entity.

(C) Is an owner of, or has control of, that entity.

(D) Is owned or controlled by that entity.

If this presumption is not overcome, the owner shall not receive the relief provided for in subparagraph (A) or (B) of paragraph (1). The presumption may be overcome by presentation of satisfactory evidence to the assessor, who shall not be bound by the findings of the lead governmental agency in determining whether the presumption has been overcome.

(4) This subdivision applies only to replacement property that is acquired or constructed on or after January 1, 1995, and to property repairs performed on or after that date.

(j) Unless specifically provided otherwise, amendments to this section adopted prior to November 1, 1988, are effective for changes in ownership that occur, and new construction that is completed, after the effective date of the amendment. Unless specifically provided otherwise, amendments to this section adopted after November 1,

1988, are effective for changes in ownership that occur, and new construction that is completed, on or after the effective date of the amendment.

(Subdivision (c) amended June 5, 2018, by Prop. 72; Res.Ch. 1, 2018. Entire Sec. 2 amended June 8, 2010, by Prop. 13. Res.Ch. 115, 2008.)

SEC. 3. (a) Any change in state statute which results in any taxpayer paying a higher tax must be imposed by an act passed by not less than two-thirds of all members elected to each of the two houses of the Legislature, except that no new ad valorem taxes on real property, or sales or transaction taxes on the sales of real property may be imposed.

(b) As used in this section, "tax" means any levy, charge, or exaction of any kind imposed by the State, except the following:

(1) A charge imposed for a specific benefit conferred or privilege granted directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the State of conferring the benefit or granting the privilege to the payor.

(2) A charge imposed for a specific government service or product provided directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the State of providing the service or product to the payor.

(3) A charge imposed for the reasonable regulatory costs to the State incident to issuing licenses and permits, performing investigations, inspections, and audits, enforcing agricultural marketing orders, and the administrative enforcement and adjudication thereof.

(4) A charge imposed for entrance to or use of state property, or the purchase, rental, or lease of state property, except charges governed by Section 15 of Article XI.

(5) A fine, penalty, or other monetary charge imposed by the judicial branch of government or the State, as a result of a violation of law.

(c) Any tax adopted after January 1, 2010, but prior to the effective date of this act, that was not adopted in compliance with the requirements of this section is void 12 months after the effective date of this act unless the tax is reenacted by the Legislature and signed into law by the Governor in compliance with the requirements of this section.

(d) The State bears the burden of proving by a preponderance of the evidence that a levy, charge, or other exaction is not a tax, that the amount is no more than necessary to cover the reasonable costs of the governmental activity, and that the manner in which those costs are allocated to a payor bear a fair or reasonable relationship to the payor's burdens on, or benefits received from, the governmental activity.

(Sec. 3 amended Nov. 2, 2010, by Prop. 26. Initiative measure.)

Section 4. Cities, Counties and special districts, by a two-thirds vote of the qualified electors of such district, may impose special taxes on such district, except ad valorem taxes on real property or a transaction tax or sales tax on the sale of real property within such City, County or special district.

(Sec. 4 added June 6, 1978, by Prop. 13. Initiative measure.)

Section 5. This article shall take effect for the tax year beginning on July 1 following the passage of this Amendment, except Section 3 which shall become effective upon the passage of this article.

(Sec. 5 added June 6, 1978, by Prop. 13. Initiative measure.)

Section 6. If any section, part, clause, or phrase hereof is for any reason held to be invalid or unconstitutional, the remaining sections shall not be affected but will remain in full force and effect.

(Sec. 6 added June 6, 1978, by Prop. 13. Initiative measure.)

SEC. 7. Section 3 of this article does not apply to the California Children and Families First Act of 1998.

(Sec. 7 added Nov. 3, 1998, by Prop. 10. Initiative measure. Effective on date election results were certified.)

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*** CALIFORNIA CONSTITUTION - CONS**

ARTICLE XIII B GOVERNMENT SPENDING LIMITATION [SEC. 1 - SEC. 15] *(Article 13B added Nov. 6, 1979, by Prop. 4. Initiative measure.)*

SEC. 1. The total annual appropriations subject to limitation of the State and of each local government shall not exceed the appropriations limit of the entity of government for the prior year adjusted for the change in the cost of living and the change in population, except as otherwise provided in this article.

(Sec. 1 amended June 5, 1990, by Prop. 111. Res.Ch. 66, 1989. Effective July 1, 1990.)

SEC. 1.5. The annual calculation of the appropriations limit under this article for each entity of local government shall be reviewed as part of an annual financial audit.

(Sec. 1.5 added June 5, 1990, by Prop. 111. Res.Ch. 66, 1989. Effective July 1, 1990.)

SEC. 2. (a) (1) Fifty percent of all revenues received by the State in a fiscal year and in the fiscal year immediately following it in excess of the amount which may be appropriated by the State in compliance with this article during that fiscal year and the fiscal year immediately following it shall be transferred and allocated, from a fund established for that purpose, pursuant to Section 8.5 of Article XVI.

(2) Fifty percent of all revenues received by the State in a fiscal year and in the fiscal year immediately following it in excess of the amount which may be appropriated by the State in compliance with this article during that fiscal year and the fiscal year immediately following it shall be returned by a revision of tax rates or fee schedules within the next two subsequent fiscal years.

(b) All revenues received by an entity of government, other than the State, in a fiscal year and in the fiscal year immediately following it in excess of the amount which may be appropriated by the entity in compliance with this article during that fiscal year and the fiscal year immediately following it shall be returned by a revision of tax rates or fee schedules within the next two subsequent fiscal years.

(Sec. 2 amended June 5, 1990, by Prop. 111. Res.Ch. 66, 1989. Effective July 1, 1990.)

SEC. 3. The appropriations limit for any fiscal year pursuant to Sec. 1 shall be adjusted as follows:

(a) In the event that the financial responsibility of providing services is transferred, in whole or in part, whether by annexation, incorporation or otherwise, from one entity of government to another, then for the year in which such transfer becomes effective the appropriations limit of the transferee entity shall be increased by such reasonable amount as the said entities shall mutually agree and the appropriations limit of the transferor entity shall be decreased by the same amount.

(b) In the event that the financial responsibility of providing services is transferred, in whole or in part, from an entity of government to a private entity, or the financial source for the provision of services is transferred, in whole or in part, from other revenues of an entity of government, to regulatory licenses, user charges or user fees, then for the year of such transfer the appropriations limit of such entity of government shall be decreased accordingly.

(c) (1) In the event an emergency is declared by the legislative body of an entity of government, the appropriations limit of the affected entity of government may be exceeded provided that the appropriations limits in the following three years are reduced accordingly to prevent an aggregate increase in appropriations resulting from the emergency.

(2) In the event an emergency is declared by the Governor, appropriations approved by a two-thirds vote of the legislative body of an affected entity of government to an emergency account for expenditures relating to that emergency shall not constitute appropriations subject to limitation. As used in this paragraph, "emergency" means

the existence, as declared by the Governor, of conditions of disaster or of extreme peril to the safety of persons and property within the State, or parts thereof, caused by such conditions as attack or probable or imminent attack by an enemy of the United States, fire, flood, drought, storm, civil disorder, earthquake, or volcanic eruption.

(Subd. (c) amended June 5, 1990, by Prop. 111. Res.Ch. 66, 1989. Effective July 1, 1990. Entire Sec. 3 was added Nov. 6, 1979, by Prop. 4; initiative measure.)

SEC. 4. The appropriations limit imposed on any new or existing entity of government by this Article may be established or changed by the electors of such entity, subject to and in conformity with constitutional and statutory voting requirements. The duration of any such change shall be as determined by said electors, but shall in no event exceed four years from the most recent vote of said electors creating or continuing such change.

(Sec. 4 added Nov. 6, 1979, by Prop. 4. Initiative measure.)

SEC. 5. Each entity of government may establish such contingency, emergency, unemployment, reserve, retirement, sinking fund, trust, or similar funds as it shall deem reasonable and proper. Contributions to any such fund, to the extent that such contributions are derived from the proceeds of taxes, shall for purposes of this Article constitute appropriations subject to limitation in the year of contribution. Neither withdrawals from any such fund, nor expenditures of (or authorizations to expend) such withdrawals, nor transfers between or among such funds, shall for purposes of this Article constitute appropriations subject to limitation.

(Sec. 5 added Nov. 6, 1979, by Prop. 4. Initiative measure.)

SECTION 5.5. Prudent State Reserve. The Legislature shall establish a prudent state reserve fund in such amount as it shall deem reasonable and necessary. Contributions to, and withdrawals from, the fund shall be subject to the provisions of Section 5 of this Article.

(Sec. 5.5 added Nov. 8, 1988, by Prop. 98. Initiative measure.)

SEC. 6. (a) Whenever the Legislature or any state agency mandates a new program or higher level of service on any local government, the State shall provide a subvention of funds to reimburse that local government for the costs of the program or increased level of service, except that the Legislature may, but need not, provide a subvention of funds for the following mandates:

(1) Legislative mandates requested by the local agency affected.

(2) Legislation defining a new crime or changing an existing definition of a crime.

(3) Legislative mandates enacted prior to January 1, 1975, or executive orders or regulations initially implementing legislation enacted prior to January 1, 1975.

(4) Legislative mandates contained in statutes within the scope of paragraph (7) of subdivision (b) of Section 3 of Article I.

(b) (1) Except as provided in paragraph (2), for the 2005–06 fiscal year and every subsequent fiscal year, for a mandate for which the costs of a local government claimant have been determined in a preceding fiscal year to be payable by the State pursuant to law, the Legislature shall either appropriate, in the annual Budget Act, the full payable amount that has not been previously paid, or suspend the operation of the mandate for the fiscal year for which the annual Budget Act is applicable in a manner prescribed by law.

(2) Payable claims for costs incurred prior to the 2004–05 fiscal year that have not been paid prior to the 2005–06 fiscal year may be paid over a term of years, as prescribed by law.

(3) Ad valorem property tax revenues shall not be used to reimburse a local government for the costs of a new program or higher level of service.

(4) This subdivision applies to a mandate only as it affects a city, county, city and county, or special district.

(5) This subdivision shall not apply to a requirement to provide or recognize any procedural or substantive protection, right, benefit, or employment status of any local government employee or retiree, or of any local government employee organization, that arises from, affects, or directly relates to future, current, or past local government employment and that constitutes a mandate subject to this section.

(c) A mandated new program or higher level of service includes a transfer by the Legislature from the State to cities, counties, cities and counties, or special districts of complete or partial financial responsibility for a required program for which the State previously had complete or partial financial responsibility.

(Sec. 6 amended June 3, 2014, by Prop. 42. Res.Ch. 123, 2013.)

SEC. 7. Nothing in this Article shall be construed to impair the ability of the State or of any local government to meet its obligations with respect to existing or future bonded indebtedness.

(Sec. 7 added Nov. 6, 1979, by Prop. 4. Initiative measure.)

SEC. 8. As used in this article and except as otherwise expressly provided herein:

(a) "Appropriations subject to limitation" of the State means any authorization to expend during a fiscal year the proceeds of taxes levied by or for the State, exclusive of state subventions for the use and operation of local government (other than subventions made pursuant to Section 6) and further exclusive of refunds of taxes, benefit payments from retirement, unemployment insurance, and disability insurance funds.

(b) "Appropriations subject to limitation" of an entity of local government means any authorization to expend during a fiscal year the proceeds of taxes levied by or for that entity and the proceeds of state subventions to that entity (other than subventions made pursuant to Section 6) exclusive of refunds of taxes.

(c) "Proceeds of taxes" shall include, but not be restricted to, all tax revenues and the proceeds to an entity of government, from (1) regulatory licenses, user charges, and user fees to the extent that those proceeds exceed the costs reasonably borne by that entity in providing the regulation, product, or service, and (2) the investment of tax revenues. With respect to any local government, "proceeds of taxes" shall include subventions received from the State, other than pursuant to Section 6, and, with respect to the State, proceeds of taxes shall exclude such subventions.

(d) "Local government" means any city, county, city and county, school district, special district, authority, or other political subdivision of or within the State.

(e) (1) "Change in the cost of living" for the State, a school district, or a community college district means the percentage change in California per capita personal income from the preceding year.

(2) "Change in the cost of living" for an entity of local government, other than a school district or a community college district, shall be either (A) the percentage change in California per capita personal income from the preceding year, or (B) the percentage change in the local assessment roll from the preceding year for the jurisdiction due to the addition of local nonresidential new construction. Each entity of local government shall select its change in the cost of living pursuant to this paragraph annually by a recorded vote of the entity's governing body.

(f) "Change in population" of any entity of government, other than the State, a school district, or a community college district, shall be determined by a method prescribed by the Legislature.

"Change in population" of a school district or a community college district shall be the percentage change in the average daily attendance of the school district or community college district from the preceding fiscal year, as determined by a method prescribed by the Legislature.

"Change in population" of the State shall be determined by adding (1) the percentage change in the State's population multiplied by the percentage of the State's budget in the prior fiscal year that is expended for other than educational purposes for kindergarten and grades one to 12, inclusive, and the community colleges, and (2) the percentage change in the total statewide average daily attendance in kindergarten and grades one to 12, inclusive, and the community colleges, multiplied by the percentage of the State's budget in the prior fiscal year that is expended for educational purposes for kindergarten and grades one to 12, inclusive, and the community colleges.

Any determination of population pursuant to this subdivision, other than that measured by average daily attendance, shall be revised, as necessary, to reflect the periodic census conducted by the United States Department of Commerce, or successor department.

(g) "Debt service" means appropriations required to pay the cost of interest and redemption charges, including the funding of any reserve or sinking fund required in connection therewith, on indebtedness existing or legally authorized as of January 1, 1979, or on bonded indebtedness thereafter approved according to law by a vote of the electors of the issuing entity voting in an election for that purpose.

(h) The "appropriations limit" of each entity of government for each fiscal year is that amount which total annual appropriations subject to limitation may not exceed under Sections 1 and 3. However, the "appropriations limit" of each entity of government for fiscal year 1978–79 is the total of the appropriations subject to limitation of the entity for that fiscal year. For fiscal year 1978–79, state subventions to local governments, exclusive of federal grants, are deemed to have been derived from the proceeds of state taxes.

(i) Except as otherwise provided in Section 5, "appropriations subject to limitation" do not include local agency loan funds or indebtedness funds, investment (or authorizations to invest) funds of the State, or of an entity of local government in accounts at banks or savings and loan associations or in liquid securities.

(Sec. 8 amended June 5, 1990, by Prop. 111. Res.Ch. 66, 1989. Effective July 1, 1990.)

SEC. 9. "Appropriations subject to limitation" for each entity of government do not include:

(a) Appropriations for debt service.

(b) Appropriations required to comply with mandates of the courts or the federal government which, without discretion, require an expenditure for additional services or which unavoidably make the provision of existing services more costly.

(c) Appropriations of any special district which existed on January 1, 1978, and which did not as of the 1977–78 fiscal year levy an ad valorem tax on property in excess of 121/2 cents per $100 of assessed value; or the appropriations of any special district then existing or thereafter created by a vote of the people, which is totally funded by other than the proceeds of taxes.

(d) Appropriations for all qualified capital outlay projects, as defined by the Legislature.

(e) Appropriations of revenue which are derived from any of the following:

(1) That portion of the taxes imposed on motor vehicle fuels for use in motor vehicles upon public streets and highways at a rate of more than nine cents ($0.09) per gallon.

(2) Sales and use taxes collected on that increment of the tax specified in paragraph (1).

(3) That portion of the weight fee imposed on commercial vehicles which exceeds the weight fee imposed on those vehicles on January 1, 1990.

(Sec. 9 amended June 5, 1990, by Prop. 111. Res.Ch. 66, 1989. Effective July 1, 1990.)

SEC. 10. This Article shall be effective commencing with the first day of the fiscal year following its adoption.

(Sec. 10 added Nov. 6, 1979, by Prop. 4. Initiative measure.)

SEC. 10.5. For fiscal years beginning on or after July 1, 1990, the appropriations limit of each entity of government shall be the appropriations limit for the 1986–87 fiscal year adjusted for the changes made from that fiscal year pursuant to this article, as amended by the measure adding this section, adjusted for the changes required by Section 3.

(Sec. 10.5 added June 5, 1990, by Prop. 111. Res.Ch. 66, 1989. Effective July 1, 1990.)

SEC. 11. If any appropriation category shall be added to or removed from appropriations subject to limitation, pursuant to final judgment of any court of competent jurisdiction and any appeal therefrom, the appropriations limit shall be adjusted accordingly. If any section, part, clause or phrase in this Article is for any reason held invalid or unconstitutional, the remaining portions of this Article shall not be affected but shall remain in full force and effect.

(Sec. 11 added Nov. 6, 1979, by Prop. 4. Initiative measure.)

SEC. 12. "Appropriations subject to limitation" of each entity of government shall not include appropriations of revenue from the Cigarette and Tobacco Products Surtax Fund created by the Tobacco Tax and Health Protection Act of 1988. No adjustment in the appropriations limit of any entity of government shall be required pursuant to Section 3 as a result of revenue being deposited in or appropriated from the Cigarette and Tobacco Products Surtax Fund created by the Tobacco Tax and Health Protection Act of 1988.

(Sec. 12 added Nov. 8, 1988, by Prop. 99. Initiative measure.)

SEC. 13. "Appropriations subject to limitation" of each entity of government shall not include appropriations of revenue from the California Children and Families First Trust Fund created by the California Children and Families First Act of 1998. No adjustment in the appropriations limit of any entity of government shall be required pursuant to Section 3 as a result of revenue being deposited in or appropriated from the California Children and Families First Trust Fund. The surtax created by the California Children and Families First Act of 1998 shall not be considered General Fund revenues for the purposes of Section 8 of Article XVI.

(Sec. 13 added Nov. 3, 1998, by Prop. 10. Initiative measure. Effective on date election results were certified.)

SEC. 14. "Appropriations subject to limitation" of each entity of government shall not include appropriations of revenue from the California Healthcare, Research and Prevention Tobacco Tax Act of 2016 Fund created by the California Healthcare, Research and Prevention Tobacco Tax Act of 2016. No adjustment in the appropriations limit

of any entity of government shall be required pursuant to Section 3 as a result of revenue being deposited in or appropriated from the California Healthcare, Research and Prevention Tobacco Tax Act of 2016 Fund.

(Sec. 14 added Nov. 8, 2016, by Prop. 56. Initiative measure.)

SEC. 15. "Appropriations subject to limitation" of each entity of government shall not include appropriations of revenues from the Road Maintenance and Rehabilitation Account created by the Road Repair and Accountability Act of 2017, or any other revenues deposited into any other funds pursuant to the act. No adjustment in the appropriations limit of any entity of government shall be required pursuant to Section 3 as a result of revenues being deposited in or appropriated from the Road Maintenance and Rehabilitation Account created by the Road Repair and Accountability Act of 2017 or any other account pursuant to the act.

(Sec. 15 added June 5, 2018, by Prop. 69. Res.Ch. 30, 2017.)

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*** CALIFORNIA CONSTITUTION - CONS**

ARTICLE XIII C [VOTER APPROVAL FOR LOCAL TAX LEVIES] [SECTION 1 - SEC. 3] *(Article 13C added Nov. 5, 1996, by Prop. 218. Initiative measure.)*

SECTION 1. Definitions. As used in this article:

(a) "General tax" means any tax imposed for general governmental purposes.

(b) "Local government" means any county, city, city and county, including a charter city or county, any special district, or any other local or regional governmental entity.

(c) "Special district" means an agency of the State, formed pursuant to general law or a special act, for the local performance of governmental or proprietary functions with limited geographic boundaries including, but not limited to, school districts and redevelopment agencies.

(d) "Special tax" means any tax imposed for specific purposes, including a tax imposed for specific purposes, which is placed into a general fund.

(e) As used in this article, "tax" means any levy, charge, or exaction of any kind imposed by a local government, except the following:

(1) A charge imposed for a specific benefit conferred or privilege granted directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of conferring the benefit or granting the privilege.

(2) A charge imposed for a specific government service or product provided directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of providing the service or product.

(3) A charge imposed for the reasonable regulatory costs to a local government for issuing licenses and permits, performing investigations, inspections, and audits, enforcing agricultural marketing orders, and the administrative enforcement and adjudication thereof.

(4) A charge imposed for entrance to or use of local government property, or the purchase, rental, or lease of local government property.

(5) A fine, penalty, or other monetary charge imposed by the judicial branch of government or a local government, as a result of a violation of law.

(6) A charge imposed as a condition of property development.

(7) Assessments and property-related fees imposed in accordance with the provisions of Article XIII D.

The local government bears the burden of proving by a preponderance of the evidence that a levy, charge, or other exaction is not a tax, that the amount is no more than necessary to cover the reasonable costs of the governmental activity, and that the manner in which those costs are allocated to a payor bear a fair or reasonable relationship to the payor's burdens on, or benefits received from, the governmental activity.

(Sec. 1 amended Nov. 2, 2010, by Prop. 26. Initiative measure.)

SEC. 2. Local Government Tax Limitation. Notwithstanding any other provision of this Constitution:

(a) All taxes imposed by any local government shall be deemed to be either general taxes or special taxes. Special purpose districts or agencies, including school districts, shall have no power to levy general taxes.

(b) No local government may impose, extend, or increase any general tax unless and until that tax is submitted to the electorate and approved by a majority vote. A general tax shall not be deemed to have been increased if it is

imposed at a rate not higher than the maximum rate so approved. The election required by this subdivision shall be consolidated with a regularly scheduled general election for members of the governing body of the local government, except in cases of emergency declared by a unanimous vote of the governing body.

(c) Any general tax imposed, extended, or increased, without voter approval, by any local government on or after January 1, 1995, and prior to the effective date of this article, shall continue to be imposed only if approved by a majority vote of the voters voting in an election on the issue of the imposition, which election shall be held within two years of the effective date of this article and in compliance with subdivision (b).

(d) No local government may impose, extend, or increase any special tax unless and until that tax is submitted to the electorate and approved by a two-thirds vote. A special tax shall not be deemed to have been increased if it is imposed at a rate not higher than the maximum rate so approved.

(Sec. 2 added Nov. 5, 1996, by Prop. 218. Initiative measure.)

SEC. 3. Initiative Power for Local Taxes, Assessments, Fees and Charges. Notwithstanding any other provision of this Constitution, including, but not limited to, Sections 8 and 9 of Article II, the initiative power shall not be prohibited or otherwise limited in matters of reducing or repealing any local tax, assessment, fee or charge. The power of initiative to affect local taxes, assessments, fees and charges shall be applicable to all local governments and neither the Legislature nor any local government charter shall impose a signature requirement higher than that applicable to statewide statutory initiatives.

(Sec. 3 added Nov. 5, 1996, by Prop. 218. Initiative measure.)

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*** CALIFORNIA CONSTITUTION - CONS**

ARTICLE XIII D [ASSESSMENT AND PROPERTY-RELATED FEE REFORM] [SECTION 1 - SEC. 6] *(Article 13D added Nov. 5, 1996, by Prop. 218. Initiative measure.)*

SECTION 1. Application. Notwithstanding any other provision of law, the provisions of this article shall apply to all assessments, fees and charges, whether imposed pursuant to state statute or local government charter authority. Nothing in this article or Article XIII C shall be construed to:

(a) Provide any new authority to any agency to impose a tax, assessment, fee, or charge.

(b) Affect existing laws relating to the imposition of fees or charges as a condition of property development.

(c) Affect existing laws relating to the imposition of timber yield taxes.

(Sec. 1 added Nov. 5, 1996, by Prop. 218. Initiative measure.)

SEC. 2. Definitions. As used in this article:

(a) "Agency" means any local government as defined in subdivision (b) of Section 1 of Article XIII C.

(b) "Assessment" means any levy or charge upon real property by an agency for a special benefit conferred upon the real property. "Assessment" includes, but is not limited to, "special assessment," "benefit assessment," "maintenance assessment" and "special assessment tax."

(c) "Capital cost" means the cost of acquisition, installation, construction, reconstruction, or replacement of a permanent public improvement by an agency.

(d) "District" means an area determined by an agency to contain all parcels which will receive a special benefit from a proposed public improvement or property-related service.

(e) "Fee" or "charge" means any levy other than an ad valorem tax, a special tax, or an assessment, imposed by an agency upon a parcel or upon a person as an incident of property ownership, including a user fee or charge for a property related service.

(f) "Maintenance and operation expenses" means the cost of rent, repair, replacement, rehabilitation, fuel, power, electrical current, care, and supervision necessary to properly operate and maintain a permanent public improvement.

(g) "Property ownership" shall be deemed to include tenancies of real property where tenants are directly liable to pay the assessment, fee, or charge in question.

(h) "Property-related service" means a public service having a direct relationship to property ownership.

(i) "Special benefit" means a particular and distinct benefit over and above general benefits conferred on real property located in the district or to the public at large. General enhancement of property value does not constitute "special benefit."

(Sec. 2 added Nov. 5, 1996, by Prop. 218. Initiative measure.)

SEC. 3. Property Taxes, Assessments, Fees and Charges Limited. (a) No tax, assessment, fee, or charge shall be assessed by any agency upon any parcel of property or upon any person as an incident of property ownership except:

(1) The ad valorem property tax imposed pursuant to Article XIII and Article XIII A.

(2) Any special tax receiving a two-thirds vote pursuant to Section 4 of Article XIII A.

(3) Assessments as provided by this article.

(4) Fees or charges for property related services as provided by this article.

(b) For purposes of this article, fees for the provision of electrical or gas service shall not be deemed charges or fees imposed as an incident of property ownership.

(Sec. 3 added Nov. 5, 1996, by Prop. 218. Initiative measure.)

SEC. 4. Procedures and Requirements for All Assessments. (a) An agency which proposes to levy an assessment shall identify all parcels which will have a special benefit conferred upon them and upon which an assessment will be imposed. The proportionate special benefit derived by each identified parcel shall be determined in relationship to the entirety of the capital cost of a public improvement, the maintenance and operation expenses of a public improvement, or the cost of the property related service being provided. No assessment shall be imposed on any parcel which exceeds the reasonable cost of the proportional special benefit conferred on that parcel. Only special benefits are assessable, and an agency shall separate the general benefits from the special benefits conferred on a parcel. Parcels within a district that are owned or used by any agency, the State of California or the United States shall not be exempt from assessment unless the agency can demonstrate by clear and convincing evidence that those publicly owned parcels in fact receive no special benefit.

(b) All assessments shall be supported by a detailed engineer's report prepared by a registered professional engineer certified by the State of California.

(c) The amount of the proposed assessment for each identified parcel shall be calculated and the record owner of each parcel shall be given written notice by mail of the proposed assessment, the total amount thereof chargeable to the entire district, the amount chargeable to the owner's particular parcel, the duration of the payments, the reason for the assessment and the basis upon which the amount of the proposed assessment was calculated, together with the date, time, and location of a public hearing on the proposed assessment. Each notice shall also include, in a conspicuous place thereon, a summary of the procedures applicable to the completion, return, and tabulation of the ballots required pursuant to subdivision (d), including a disclosure statement that the existence of a majority protest, as defined in subdivision (e), will result in the assessment not being imposed.

(d) Each notice mailed to owners of identified parcels within the district pursuant to subdivision (c) shall contain a ballot which includes the agency's address for receipt of the ballot once completed by any owner receiving the notice whereby the owner may indicate his or her name, reasonable identification of the parcel, and his or her support or opposition to the proposed assessment.

(e) The agency shall conduct a public hearing upon the proposed assessment not less than 45 days after mailing the notice of the proposed assessment to record owners of each identified parcel. At the public hearing, the agency shall consider all protests against the proposed assessment and tabulate the ballots. The agency shall not impose an assessment if there is a majority protest. A majority protest exists if, upon the conclusion of the hearing, ballots submitted in opposition to the assessment exceed the ballots submitted in favor of the assessment. In tabulating the ballots, the ballots shall be weighted according to the proportional financial obligation of the affected property.

(f) In any legal action contesting the validity of any assessment, the burden shall be on the agency to demonstrate that the property or properties in question receive a special benefit over and above the benefits conferred on the public at large and that the amount of any contested assessment is proportional to, and no greater than, the benefits conferred on the property or properties in question.

(g) Because only special benefits are assessable, electors residing within the district who do not own property within the district shall not be deemed under this Constitution to have been deprived of the right to vote for any assessment. If a court determines that the Constitution of the United States or other federal law requires otherwise, the assessment shall not be imposed unless approved by a two-thirds vote of the electorate in the district in addition to being approved by the property owners as required by subdivision (e).

(Sec. 4 added Nov. 5, 1996, by Prop. 218. Initiative measure.)

SEC. 5. Effective Date. Pursuant to subdivision (a) of Section 10 of Article II, the provisions of this article shall become effective the day after the election unless otherwise provided. Beginning July 1, 1997, all existing, new, or increased assessments shall comply with this article. Notwithstanding the foregoing, the following assessments existing on the effective date of this article shall be exempt from the procedures and approval process set forth in Section 4:

(a) Any assessment imposed exclusively to finance the capital costs or maintenance and operation expenses for sidewalks, streets, sewers, water, flood control, drainage systems or vector control. Subsequent increases in such assessments shall be subject to the procedures and approval process set forth in Section 4.

(b) Any assessment imposed pursuant to a petition signed by the persons owning all of the parcels subject to the assessment at the time the assessment is initially imposed. Subsequent increases in such assessments shall be subject to the procedures and approval process set forth in Section 4.

(c) Any assessment the proceeds of which are exclusively used to repay bonded indebtedness of which the failure to pay would violate the Contract Impairment Clause of the Constitution of the United States.

(d) Any assessment which previously received majority voter approval from the voters voting in an election on the issue of the assessment. Subsequent increases in those assessments shall be subject to the procedures and approval process set forth in Section 4.

(Sec. 5 added Nov. 5, 1996, by Prop. 218. Initiative measure.)

SEC. 6. Property Related Fees and Charges. (a) Procedures for New or Increased Fees and Charges. An agency shall follow the procedures pursuant to this section in imposing or increasing any fee or charge as defined pursuant to this article, including, but not limited to, the following:

(1) The parcels upon which a fee or charge is proposed for imposition shall be identified. The amount of the fee or charge proposed to be imposed upon each parcel shall be calculated. The agency shall provide written notice by mail of the proposed fee or charge to the record owner of each identified parcel upon which the fee or charge is proposed for imposition, the amount of the fee or charge proposed to be imposed upon each, the basis upon which the amount of the proposed fee or charge was calculated, the reason for the fee or charge, together with the date, time, and location of a public hearing on the proposed fee or charge.

(2) The agency shall conduct a public hearing upon the proposed fee or charge not less than 45 days after mailing the notice of the proposed fee or charge to the record owners of each identified parcel upon which the fee or charge is proposed for imposition. At the public hearing, the agency shall consider all protests against the proposed fee or charge. If written protests against the proposed fee or charge are presented by a majority of owners of the identified parcels, the agency shall not impose the fee or charge.

(b) Requirements for Existing, New or Increased Fees and Charges. A fee or charge shall not be extended, imposed, or increased by any agency unless it meets all of the following requirements:

(1) Revenues derived from the fee or charge shall not exceed the funds required to provide the property related service.

(2) Revenues derived from the fee or charge shall not be used for any purpose other than that for which the fee or charge was imposed.

(3) The amount of a fee or charge imposed upon any parcel or person as an incident of property ownership shall not exceed the proportional cost of the service attributable to the parcel.

(4) No fee or charge may be imposed for a service unless that service is actually used by, or immediately available to, the owner of the property in question. Fees or charges based on potential or future use of a service are not permitted. Standby charges, whether characterized as charges or assessments, shall be classified as assessments and shall not be imposed without compliance with Section 4.

(5) No fee or charge may be imposed for general governmental services including, but not limited to, police, fire, ambulance or library services, where the service is available to the public at large in substantially the same manner as it is to property owners.
Reliance by an agency on any parcel map, including, but not limited to, an assessor's parcel map, may be considered a significant factor in determining whether a fee or charge is imposed as an incident of property ownership for purposes of this article. In any legal action contesting the validity of a fee or charge, the burden shall be on the agency to demonstrate compliance with this article.

(c) Voter Approval for New or Increased Fees and Charges. Except for fees or charges for sewer, water, and refuse collection services, no property related fee or charge shall be imposed or increased unless and until that fee or charge is submitted and approved by a majority vote of the property owners of the property subject to the fee or charge or, at the option of the agency, by a two-thirds vote of the electorate residing in the affected area. The election shall be conducted not less than 45 days after the public hearing. An agency may adopt procedures similar to those for increases in assessments in the conduct of elections under this subdivision.

(d) Beginning July 1, 1997, all fees or charges shall comply with this section.

(Sec. 6 added Nov. 5, 1996, by Prop. 218. Initiative measure.)

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EDUCATION CODE - EDC

TITLE 2. ELEMENTARY AND SECONDARY EDUCATION [33000 - 64100] *(Title 2 enacted by Stats. 1976, Ch. 1010.)*

DIVISION 3. LOCAL ADMINISTRATION [35000 - 45460] *(Division 3 enacted by Stats. 1976, Ch. 1010.)*

PART 23. SUPPLEMENTAL SERVICES [38000 - 38139] *(Part 23 repealed (by Sec. 6) and added by Stats. 1996, Ch. 277, Sec. 5.)*

CHAPTER 3. Cafeterias [38080 - 38103] *(Chapter 3 added by Stats. 1996, Ch. 277, Sec. 5.)*

ARTICLE 1. Establishment and Use [38080 - 38086.1] *(Article 1 added by Stats. 1996, Ch. 277, Sec. 5.)*

38080. The term "cafeteria" as used in this code is considered synonymous with the term "food service."

(Added by Stats. 1996, Ch. 277, Sec. 5. Effective January 1, 1997. Operative January 1, 1998.)

38081. The governing board of any school district may establish cafeterias in the schools under its jurisdiction whenever in its judgment it is advisable to do so.

(Added by Stats. 1996, Ch. 277, Sec. 5. Effective January 1, 1997. Operative January 1, 1998.)

38082. Food shall not be sold at any cafeteria operated by a school district to anyone except pupils and employees of any school district, members of the governing board thereof, and members or employees of the fund or association maintaining the cafeteria; provided, however, that nothing herein contained shall prohibit the use of the cafeteria facilities by any work or harvest camp maintained by or within the district, and by persons entitled to use the school under the Civic Center Act; and provided further, that the governing board of any school district operating a cafeteria may exempt by formal resolution of the board other individuals and organizations from the operation of this section including senior citizens participating in any program conducted pursuant to Chapter 6 (commencing with Section 9500) of Division 8.5 of the Welfare and Institutions Code.

(Added by Stats. 1996, Ch. 277, Sec. 5. Effective January 1, 1997. Operative January 1, 1998.)

38083. Perishable foodstuffs and seasonal commodities needed in the operation of cafeterias may be purchased by the school district in accordance with rules and regulations for such purchase adopted by the governing board of said district notwithstanding any provisions of this code in conflict with such rules and regulations.

(Added by Stats. 1996, Ch. 277, Sec. 5. Effective January 1, 1997. Operative January 1, 1998.)

38084. The food served shall be sold to the patrons of the cafeterias at such a price as will pay the cost of maintaining the cafeterias, exclusive of the costs made a charge against the funds of the school district by this chapter, and items made a charge against the funds of the school district by resolution of the governing board under authority of this chapter.

(Added by Stats. 1996, Ch. 277, Sec. 5. Effective January 1, 1997. Operative January 1, 1998.)

38086. (a) Except as provided in subdivision (b), by July 1, 2011, a school district shall provide access to free, fresh drinking water during meal times in the food service areas of the schools under its jurisdiction, including, but not necessarily limited to, areas where reimbursable meals under the National School Lunch Program or the federal School Breakfast Program are served or consumed. A school district may comply with this section by, among other means, providing cups and containers of water or soliciting or receiving donated bottled water.

(b) The governing board of a school district may adopt a resolution stating that it is unable to comply with the requirements of this section and demonstrating the reasons why it is unable to comply due to fiscal constraints or health and safety concerns. The resolution shall be publicly noticed on at least two consecutive meeting agendas,

first as an information item and second as an action item, and approved by at least a majority of the governing board.

(Added by Stats. 2010, Ch. 558, Sec. 1. (SB 1413) Effective January 1, 2011.)

38086.1. (a) The department may receive funds transferred from any available state and federal source, to be allocated by the department to school districts for the purpose of complying with the requirements of Section 38086.

(b) Subject to all laws, guidelines, policies, and criteria applicable to the funds, school districts may use funds received pursuant to subdivision (a) for water quality projects, including, but not limited to, water treatment, water facilities restructuring, water filling stations, and maintenance of water facilities.

(c) The department shall do both of the following:

(1) Consult with the State Department of Public Health, the Department of Water Resources, and the State Water Resources Control Board to identify available sources of funding, including, but not limited to, funding from Proposition 1, approved by the voters at the November 4, 2014, statewide general election, funds for safe drinking water programs administered by the department, the State Department of Public Health, the Department of Water Resources, and the State Water Resources Control Board, other state funding, and federal funding available to fund school water quality and infrastructure.

(2) Post the information collected pursuant to paragraph (1) on the department's Internet Web site.

(d) Nothing in this section or Section 38086 affects criteria established by the State Water Resources Control Board for funds and funding programs administered by the State Water Resources Control Board.

(Added by Stats. 2015, Ch. 664, Sec. 2. (AB 496) Effective January 1, 2016.)

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PUBLIC UTILITIES CODE - PUC

DIVISION 1. REGULATION OF PUBLIC UTILITIES [201 - 3260] *(Division 1 enacted by Stats. 1951, Ch. 764.)*

PART 1. PUBLIC UTILITIES ACT [201 - 2120] *(Part 1 enacted by Stats. 1951, Ch. 764.)*

CHAPTER 8.5. Service Duplication [1501 - 1507] *(Chapter 8.5 added by Stats. 1965, Ch. 1752.)*

1501. The Legislature recognizes the substantial obligation undertaken by a privately owned public utility which is franchised under the Constitution or by a certificate of public convenience and necessity to provide water service in that the utility must provide facilities to meet the present and prospective needs of those in its service area who may request service. At the same time, the rates that may be charged for water service by a regulated utility are fixed by the Public Utilities Commission at levels which assume that the facilities so installed will remain used and useful in the operation of the utility for a period of time measured by the physical life of such facilities.

The Legislature finds and declares that the potential loss of value of such facilities which may result from the construction and operation by a political subdivision of similar or duplicating facilities in the service area of such a private utility often deters such private utility from obtaining a certificate or extending its facilities to provide in many areas a water supply essential to the health and safety of the citizens thereof.

The Legislature further finds and declares that it is necessary for the public health, safety, and welfare that privately owned public utilities regulated by the state be compensated for damages that they may suffer by reason of political subdivisions extending their facilities into the service areas of such privately owned public utilities.

(Added by Stats. 1965, Ch. 1752.)

1502. (a) As used in this chapter, "political subdivision" means a county, city and county, city, municipal water district, county water district, irrigation district, public utility district, California water district, or any other public corporation.

(b) As used in this chapter, "service area" means an area served by a privately owned public utility in which the facilities have been dedicated to public use and in which territory the utility is required to render service to the public.

(c) As used in this chapter, "operating system" means an integrated water system for the supply of water to a service area of a privately owned public utility.

(d) As used in this chapter, "private utility" means a privately owned public utility providing a water service.

(e) As used in this chapter, "type of service" means, among other things, domestic, commercial, industrial, fire protection, wholesale, or irrigation service.

(f) As used in this chapter, "reclaimed water" means reclaimed water as defined in Section 13050 of the Water Code.

(g) As used in this chapter, "private use" means an entity's use of its own reclaimed water.

(Amended by Stats. 1994, Ch. 859, Sec. 1. Effective January 1, 1995.)

1503. The Legislature finds and declares that whenever a political subdivision constructs facilities to provide or extend water service, or provides or extends such service, to any service area of a private utility with the same type of service, such an act constitutes a taking of the property of the private utility for a public purpose to the extent that the private utility is injured by reason of any of its property employed in providing the water service being made inoperative, reduced in value or rendered useless to the private utility for the purpose of providing water service to the service area.

(Amended by Stats. 1975, Ch. 1240.)

1504. Just compensation for the property so taken for public purposes shall be as may be mutually agreed by the political subdivision and the private utility or as ascertained and fixed by a court of competent jurisdiction pursuant to the laws of this state relating to eminent domain, including consideration of the useful value to the political subdivision of the property so taken.

Whenever the compensation by a political subdivision under this section is an amount equal to the just compensation value of all the property of the private utility in the operating system that the private utility employs in providing water service to the service area, the political subdivision may, by resolution, provide for the acquisition of all such property.

A political subdivision engaged in activities set forth in Section 1503 shall pay just compensation for the property so taken for public purposes.

(Added by Stats. 1965, Ch. 1752.)

1505. The provisions of Sections 1503 and 1504 will be applicable to any private utility which constructs facilities to provide or extend water service or provides or extends such service to any territory theretofore served by a political subdivision with the same type of service.

(Added by Stats. 1965, Ch. 1752.)

1505.5. The provisions of Sections 1503 and 1504 will be applicable to any political subdivision which constructs facilities to provide or extend water service or provides or extends such service to any territory theretofore actually being lawfully served by any other political subdivision with facilities designed and constructed to provide the same type of service. The provisions of this section shall not apply to any territory, or portion thereof, which is the subject of any final judgment or litigation pending on the effective date of this section involving any duplication of water service occurring prior to the effective date of this section.

(Added by Stats. 1973, Ch. 997.)

1506. (a) As used in this chapter, "private utility" includes a mutual water company. In its application to mutual water companies, this chapter affects and relates only to the property, or portion of any property, of a mutual water company that is employed by the company in providing water service in or for a territory that is actually being provided with water service by the company when a political subdivision constructs facilities to provide or extend water service or provides or extends the service to the territory, and that territory shall constitute the "service area" of a mutual water company as used in Section 1502.

(b) Subject to the preservation of rights of a mutual water company in subdivision (c), this section does not apply to a political subdivision that constructs facilities to provide or extend recycled water service to the territory of the mutual water company, if the political subdivision complies with the Water Recycling Act of 1991 (Chapter 7.5 (commencing with Section 13575) of Division 7 of the Water Code).

(c) The exception in subdivision (b), for a political subdivision that constructs facilities to provide or extend recycled water service to the territory of the mutual water company, does not apply to those customers and their properties to which the mutual water company was providing recycled water service, or for whom the mutual water company has identified and developed specific plans to provide recycled water service, as of December 31, 2014.

(Amended by Stats. 2014, Ch. 817, Sec. 1. (AB 2443) Effective January 1, 2015.)

1507. This chapter shall not be applicable if all of the following conditions are met:

(a) The use is limited to the private use of reclaimed water by an entity that owns a water reclamation plant.

(b) The use is limited to the premises of a water reclamation plant or landfill owned by the entity that owns or operates the water reclamation plant.

(c) The use is limited to dust suppression, and irrigation purposes, and other uses on the site for which reclaimed water has been approved by the State Department of Health Services.

(d) No existing reclaimed water facilities, whether owned or operated by a private utility or political subdivision, can reasonably and economically serve the intended use.

(e) If reclaimed water is used on the premises of a landfill, the entity provides appropriate compensation to the private utility or political subdivision for those facilities directly used for the water services being replaced by reclaimed water service. Appropriate compensation shall not include valuations based on revenues lost by the private utility or political subdivision due to replacement of water service with reclaimed water.

(f) This section shall apply only in Los Angeles County.

(Added by Stats. 1994, Ch. 859, Sec. 2. Effective January 1, 1995.)

Section 2.1: Prohibition on Construction, Operation or Maintenance of Facilities Related to Offshore Drilling

Neither the City Council nor any officer or employee of the City shall take any action, or permit any action to be taken, which directly or indirectly authorizes or permits the construction, operation or maintenance of any pipeline within the City for the transmission of any crude oil or natural gas taken or removed from any offshore crude oil or natural gas drilling or pumping operations within 100 nautical miles of the coastline of the County of San Diego; nor shall the City Council or any officer or employee of the City take any action, or permit any action to be taken, which directly or indirectly authorizes or permits the construction, operation or maintenance of any commercial or industrial facility within the City, including but not necessarily limited to crude oil or natural gas storage facilities, which operated directly or indirectly in support of any offshore crude oil or natural gas drilling or pumping operations within 100 nautical miles of the coastline of the County of San Diego.
(Addition voted 11-4-1986; effective 12-8-1986.)

Section 3: Extent of Municipal Jurisdiction

The municipal jurisdiction of The City of San Diego shall extend to the limits and boundaries of said City and over the tidelands and waters of the Bay of San Diego, and into the Pacific Ocean to the extent of one Marine League. In addition thereto The City of San Diego shall have the right and power to prepare and adopt such rules and regulations as it may deem necessary for the regulation, use, and government of the water system of The City of San Diego, both within and without the territorial limits of said City, and such rules and regulations having been adopted by Ordinance, shall have the force and effect of law.

ARTICLE V

(Effective 01-01-2006, all executive authority, power, and responsibilities conferred upon the City Manager in this Article were transferred to the Mayor. See section 260.)

EXECUTIVE AND ADMINISTRATIVE SERVICE

Section 26: Administrative Code

The existing Departments, Divisions and Boards and existing Offices of the City Government are hereby continued unless changed by the provisions of this Charter or by ordinance of the Council. The Council shall by ordinance, by majority vote, adopt an administrative code providing for the detailed powers and duties of the administrative offices and departments of the City Government, based upon the provisions of this Charter. Thereafter, except as established by the provisions of this Charter, the Council may change, abolish, combine, and rearrange the departments, divisions and boards of the City Government provided for in said administrative code, but such ordinance creating, combining, abolishing or decreasing the powers of any department, division or board shall require a vote of two-thirds of the members elected to the Council. The Council may by ordinance, if authorized so to do by the general law of the State, provide that any function of the City may be performed by the County or that any function of the County may be performed by the City, provided the respective legislative bodies authorize and approve such transfer and assumption of function. There may also be established a combined City and County district for the performance of any function.
(Amendment voted 09-17-1963; effective 02-11-1964.)
(Amendment voted 11-08-1977; effective 01-20-1978.)
Prior Language

Section 26.1: Public Services Required

It shall be the obligation and responsibility of The City of San Diego to provide public works services, water services, building inspection services, public health services, park and recreation services, library services, and such other services and programs as may be desired, under such terms and conditions as may be authorized by the Council by ordinance.
(Addition voted 09-17-1963; effective 02-11-1964.)

ELECTRONIC CODE OF FEDERAL REGULATIONS

e-CFR data is current as of November 5, 2018

Title 40 → Chapter I → Subchapter D → Part 141 → Subpart I → §141.86

Title 40: Protection of Environment
PART 141—NATIONAL PRIMARY DRINKING WATER REGULATIONS
Subpart I—Control of Lead and Copper

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§141.86 Monitoring requirements for lead and copper in tap water.

(a) *Sample site location.* (1) By the applicable date for commencement of monitoring under paragraph (d)(1) of this section, each water system shall complete a materials evaluation of its distribution system in order to identify a pool of targeted sampling sites that meets the requirements of this section, and which is sufficiently large to ensure that the water system can collect the number of lead and copper tap samples required in paragraph (c) of this section. All sites from which first draw samples are collected shall be selected from this pool of targeted sampling sites. Sampling sites may not include faucets that have point-of-use or point-of-entry treatment devices designed to remove inorganic contaminants.

(2) A water system shall use the information on lead, copper, and galvanized steel that it is required to collect under §141.42(d) of this part [special monitoring for corrosivity characteristics] when conducting a materials evaluation. When an evaluation of the information collected pursuant to §141.42(d) is insufficient to locate the requisite number of lead and copper sampling sites that meet the targeting criteria in paragraph (a) of this section, the water system shall review the sources of information listed below in order to identify a sufficient number of sampling sites. In addition, the system shall seek to collect such information where possible in the course of its normal operations (e.g., checking service line materials when reading water meters or performing maintenance activities):

(i) All plumbing codes, permits, and records in the files of the building department(s) which indicate the plumbing materials that are installed within publicly and privately owned structures connected to the distribution system;

(ii) All inspections and records of the distribution system that indicate the material composition of the service connections that connect a structure to the distribution system; and

(iii) All existing water quality information, which includes the results of all prior analyses of the system or individual structures connected to the system, indicating locations that may be particularly susceptible to high lead or copper concentrations.

(3) The sampling sites selected for a community water system's sampling pool ("tier I sampling sites") shall consist of single family structures that:

(i) Contain copper pipes with lead solder installed after 1982 or contain lead pipes; and/or

(ii) Are served by a lead service line. When multiple-family residences comprise at least 20 percent of the structures served by a water system, the system may include these types of structures in its sampling pool.

(4) Any community water system with insufficient tier 1 sampling sites shall complete its sampling pool with "tier 2 sampling sites", consisting of buildings, including multiple-family residences that:

(i) Contain copper pipes with lead solder installed after 1982 or contain lead pipes; and/or

(ii) Are served by a lead service line.

(5) Any community water system with insufficient tier 1 and tier 2 sampling sites shall complete its sampling pool with "tier 3 sampling sites", consisting of single family structures that contain copper pipes with lead solder installed before 1983. A community water system with insufficient tier 1, tier 2, and tier 3 sampling sites shall complete its sampling pool with representative sites throughout the distribution system. For the purpose of this paragraph, a representative site is a site in which the plumbing materials used at that site would be commonly found at other sites served by the water system.

(6) The sampling sites selected for a non-transient noncommunity water system ("tier I sampling sites") shall consist of buildings that:

(i) Contain copper pipes with lead solder installed after 1982 or contain lead pipes; and/or

(ii) Are served by a lead service line.

(7) A non-transient non-community water system with insufficient tier 1 sites that meet the targeting criteria in paragraph (a)(6) of this section shall complete its sampling pool with sampling sites that contain copper pipes with lead solder installed before 1983. If additional sites are needed to complete the sampling pool, the non-transient non-community water system shall use representative sites throughout the distribution system. For the purpose of this paragraph, a representative site is a site in which the plumbing materials used at that site would be commonly found at other sites served by the water system.

(8) Any water system whose distribution system contains lead service lines shall draw 50 percent of the samples it collects during each monitoring period from sites that contain lead pipes, or copper pipes with lead solder, and 50 percent of the samples from sites served by a lead service line. A water system that cannot identify a sufficient number of sampling sites served by a lead service line shall collect first-draw samples from all of the sites identified as being served by such lines.

(b) *Sample collection methods.* (1) All tap samples for lead and copper collected in accordance with this subpart, with the exception of lead service line samples collected under §141.84(c) and samples collected under paragraph (b)(5) of this section, shall be first-draw samples.

(2) Each first-draw tap sample for lead and copper shall be one liter in volume and have stood motionless in the plumbing system of each sampling site for at least six hours. First-draw samples from residential housing shall be collected from the cold water kitchen tap or bathroom sink tap. First-draw samples from a nonresidential building shall be one liter in volume and shall be collected at an interior tap from which water is typically drawn for consumption. Non-first-draw samples collected in lieu of first-draw samples pursuant to paragraph (b)(5) of this section shall be one liter in volume and shall be collected at an interior tap from which water is typically drawn for consumption. First-draw samples may be collected by the system or the system may allow residents to collect first-draw samples after instructing the residents of the sampling procedures specified in this paragraph. To avoid problems of residents handling nitric acid, acidification of first-draw samples may be done up to 14 days after the sample is collected. After acidification to resolubilize the metals, the sample must stand in the original container for the time specified in the approved EPA method before the sample can be analyzed. If a system allows residents to perform sampling, the system may not challenge, based on alleged errors in sample collection, the accuracy of sampling results.

(3) Each service line sample shall be one liter in volume and have stood motionless in the lead service line for at least six hours. Lead service line samples shall be collected in one of the following three ways:

(i) At the tap after flushing the volume of water between the tap and the lead service line. The volume of water shall be calculated based on the interior diameter and length of the pipe between the tap and the lead service line;

(ii) Tapping directly into the lead service line; or

(iii) If the sampling site is a building constructed as a single-family residence, allowing the water to run until there is a significant change in temperature which would be indicative of water that has been standing in the lead service line.

(4) A water system shall collect each first draw tap sample from the same sampling site from which it collected a previous sample. If, for any reason, the water system cannot gain entry to a sampling site in order to collect a follow-up tap sample, the system may collect the follow-up tap sample from another sampling site in its sampling pool as long as the new site meets the same targeting criteria, and is within reasonable proximity of the original site.

(5) A non-transient non-community water system, or a community water system that meets the criteria of §141.85(b)(7), that does not have enough taps that can supply first-draw samples, as defined in §141.2, may apply to the State in writing to substitute non-first-draw samples. Such systems must collect as many first-draw samples from appropriate taps as possible and identify sampling times and locations that would likely result in the longest standing time for the remaining sites. The State has the discretion to waive the requirement for prior State approval of non-first-draw sample sites selected by the system, either through State regulation or written notification to the system.

(c) *Number of samples.* Water systems shall collect at least one sample during each monitoring period specified in paragraph (d) of this section from the number of sites listed in the first column ("standard monitoring") of the table in this paragraph. A system conducting reduced monitoring under paragraph (d)(4) of this section shall collect at least one sample from the number of sites specified in the second column ("reduced monitoring") of the table in this paragraph during each monitoring period specified in paragraph (d)(4) of this section. Such reduced monitoring sites shall be representative of the sites required for standard monitoring. A public water system that has fewer than five drinking water taps, that can be used for human consumption meeting the sample site criteria of paragraph (a) of this section to reach the required number of sample sites listed in paragraph (c) of this section, must collect at least one sample from each tap and then must collect additional samples from those taps on different days during the monitoring period to meet the required number of sites. Alternatively the State may allow these public water systems to collect a number of samples less than the number of sites specified in paragraph

(c) of this section, provided that 100 percent of all taps that can be used for human consumption are sampled. The State must approve this reduction of the minimum number of samples in writing based on a request from the system or onsite verification by the State. States may specify sampling locations when a system is conducting reduced monitoring. The table is as follows:

System size (number of people served)	Number of sites (standard monitoring)	Number of sites (reduced monitoring)
>100,000	100	50
10,001 to 100,000	60	30
3,301 to 10,000	40	20
501 to 3,300	20	10
101 to 500	10	5
≤100	5	5

(d) *Timing of monitoring*—(1) *Initial tap sampling.* The first six-month monitoring period for small, medium-size and large systems shall begin on the following dates:

System size (No. people served)	First six-month monitoring period begins on
>50,000	January 1, 1992.
3,301 to 50,000	July 1, 1992.
≤3,300	July 1, 1993.

(i) All large systems shall monitor during two consecutive six-month periods.

(ii) All small and medium-size systems shall monitor during each six-month monitoring period until:

(A) The system exceeds the lead or copper action level and is therefore required to implement the corrosion control treatment requirements under §141.81, in which case the system shall continue monitoring in accordance with paragraph (d)(2) of this section, or

(B) The system meets the lead and copper action levels during two consecutive six-month monitoring periods, in which case the system may reduce monitoring in accordance with paragraph (d)(4) of this section.

(2) *Monitoring after installation of corrosion control and source water treatment.* (i) Any large system which installs optimal corrosion control treatment pursuant to §141.81(d)(4) shall monitor during two consecutive six-month monitoring periods by the date specified in §141.81(d)(5).

(ii) Any small or medium-size system which installs optimal corrosion control treatment pursuant to §141.81(e)(5) shall monitor during two consecutive six-month monitoring periods by the date specified in §141.81(e)(6).

(iii) Any system which installs source water treatment pursuant to §141.83(a)(3) shall monitor during two consecutive six-month monitoring periods by the date specified in §141.83(a)(4).

(3) *Monitoring after State specifies water quality parameter values for optimal corrosion control.* After the State specifies the values for water quality control parameters under §141.82(f), the system shall monitor during each subsequent six-month monitoring period, with the first monitoring period to begin on the date the State specifies the optimal values under §141.82(f).

(4) *Reduced monitoring.* (i) A small or medium-size water system that meets the lead and copper action levels during each of two consecutive six-month monitoring periods may reduce the number of samples in accordance with paragraph (c) of this section, and reduce the frequency of sampling to once per year. A small or medium water system collecting fewer than five samples as specified in paragraph (c) of this section, that meets the lead and copper action levels during each of two consecutive six-month monitoring periods may reduce the frequency of sampling to once per year. In no case can the system reduce the number of samples required below the minimum of one sample per available tap. This sampling shall begin during the calendar year immediately following the end of the second consecutive six-month monitoring period.

(ii) Any water system that meets the lead action level and maintains the range of values for the water quality control parameters reflecting optimal corrosion control treatment specified by the State under §141.82(f) during each of two consecutive six-month monitoring periods may reduce the frequency of monitoring to once per year and reduce the number of lead and copper samples in accordance with paragraph (c) of this section if it receives written approval from the State. This sampling shall begin during the calendar year immediately following the end of the second consecutive six-month monitoring period. The State shall review monitoring, treatment, and other relevant information submitted by the water system in accordance with §141.90, and shall notify the system in writing when it determines the system is eligible to commence reduced monitoring pursuant to this paragraph. The State shall review, and where appropriate, revise its determination when the system submits new monitoring or treatment data, or when other data relevant to the number and frequency of tap sampling becomes available.

(iii) A small or medium-size water system that meets the lead and copper action levels during three consecutive years of monitoring may reduce the frequency of monitoring for lead and copper from annually to once every three years. Any water system that meets the lead action level and maintains the range of values for the water quality control parameters reflecting optimal corrosion control treatment specified by the State under §141.82(f) during three consecutive years of monitoring may reduce the frequency of monitoring from annually to once every three years if it receives written approval from the State. Samples collected once every three years shall be collected no later than every third calendar year. The State shall review monitoring, treatment, and other relevant information submitted by the water system in accordance with §141.90, and shall notify the system in writing when it determines the system is eligible to reduce the frequency of monitoring to once every three years. The State shall review, and where appropriate, revise its determination when the system submits new monitoring or treatment data, or when other data relevant to the number and frequency of tap sampling becomes available.

(iv) A water system that reduces the number and frequency of sampling shall collect these samples from representative sites included in the pool of targeted sampling sites identified in paragraph (a) of this section. Systems sampling annually or less frequently shall conduct the lead and copper tap sampling during the months of June, July, August, or September unless the State has approved a different sampling period in accordance with paragraph (d)(4)(iv)(A) of this section.

(A) The State, at its discretion, may approve a different period for conducting the lead and copper tap sampling for systems collecting a reduced number of samples. Such a period shall be no longer than four consecutive months and must represent a time of normal operation where the highest levels of lead are most likely to occur. For a non-transient non-community water system that does not operate during the months of June through September, and for which the period of normal operation where the highest levels of lead are most likely to occur is not known, the State shall designate a period that represents a time of normal operation for the system. This sampling shall begin during the period approved or designated by the State in the calendar year immediately following the end of the second consecutive six-month monitoring period for systems initiating annual monitoring and during the three-year period following the end of the third consecutive calendar year of annual monitoring for systems initiating triennial monitoring.

(B) Systems monitoring annually, that have been collecting samples during the months of June through September and that receive State approval to alter their sample collection period under paragraph (d)(4)(iv)(A) of this section, must collect their next round of samples during a time period that ends no later than 21 months after the previous round of sampling. Systems monitoring triennially that have been collecting samples during the months of June through September, and receive State approval to alter the sampling collection period as per paragraph (d)(4)(iv)(A) of this section, must collect their next round of samples during a time period that ends no later than 45 months after the previous round of sampling. Subsequent rounds of sampling must be collected annually or triennially, as required by this section. Small systems with waivers, granted pursuant to paragraph (g) of this section, that have been collecting samples during the months of June through September and receive State approval to alter their sample collection period under paragraph (d)(4)(iv)(A) of this section must collect their next round of samples before the end of the 9-year period.

(v) Any water system that demonstrates for two consecutive 6-month monitoring periods that the tap water lead level computed under §141.80(c)(3) is less than or equal to 0.005 mg/L and the tap water copper level computed under §141.80(c)(3) is less than or equal to 0.65 mg/L may reduce the number of samples in accordance with paragraph (c) of this section and reduce the frequency of sampling to once every three calendar years.

(vi)(A) A small or medium-size water system subject to reduced monitoring that exceeds the lead or copper action level shall resume sampling in accordance with paragraph (d)(3) of this section and collect the number of samples specified for standard monitoring under paragraph (c) of this section. Such a system shall also conduct water quality parameter monitoring in accordance with §141.87(b), (c) or (d) (as appropriate) during the monitoring period in which it exceeded the action level. Any such system may resume annual monitoring for lead and copper at the tap at the reduced number of sites specified in paragraph (c) of this section after it has completed two subsequent consecutive six-month rounds of monitoring that meet the criteria of paragraph (d)(4)(i) of this section and/or may resume triennial monitoring for lead and copper at the reduced number of sites after it demonstrates through subsequent rounds of monitoring that it meets the criteria of either paragraph (d)(4)(iii) or (d)(4)(v) of this section.

(B) Any water system subject to the reduced monitoring frequency that fails to meet the lead action level during any four-month monitoring period or that fails to operate at or above the minimum value or within the range of values for the water quality parameters specified by the State under §141.82(f) for more than nine days in any six-month period specified in §141.87(d) shall conduct tap water sampling for lead and copper at the frequency specified in paragraph (d)(3) of this section, collect the number of samples specified for standard monitoring under paragraph (c) of this section, and shall resume monitoring for water quality parameters within the distribution system in accordance with §141.87(d). This standard tap water sampling shall begin no later than the six-month period beginning January 1 of the calendar year following the lead action level exceedance or water quality parameter excursion. Such a system may resume reduced monitoring for lead and copper at the tap and for water quality parameters within the distribution system under the following conditions:

(*1*) The system may resume annual monitoring for lead and copper at the tap at the reduced number of sites specified in paragraph (c) of this section after it has completed two subsequent six-month rounds of monitoring that meet the criteria of paragraph (d)(4)(ii) of this section and the system has received written approval from the State that it is appropriate to resume reduced monitoring on an annual frequency. This sampling shall begin during the calendar year immediately following the end of the second consecutive six-month monitoring period.

(*2*) The system may resume triennial monitoring for lead and copper at the tap at the reduced number of sites after it demonstrates through subsequent rounds of monitoring that it meets the criteria of either paragraph (d)(4)(iii) or (d)(4)(v) of this section and the system has received written approval from the State that it is appropriate to resume triennial monitoring.

(*3*) The system may reduce the number of water quality parameter tap water samples required in accordance with §141.87(e)(1) and the frequency with which it collects such samples in accordance with §141.87(e)(2). Such a system may not resume triennial monitoring for water quality parameters at the tap until it demonstrates, in accordance with the requirements of §141.87(e)(2), that it has re-qualified for triennial monitoring.

(vii) Any water system subject to a reduced monitoring frequency under paragraph (d)(4) of this section shall notify the State in writing in accordance with §141.90(a)(3) of any upcoming long-term change in treatment or addition of a new source as described in that section. The State must review and approve the addition of a new source or long-term change in water treatment before it is implemented by the water system. The State may require the system to resume sampling in accordance with paragraph (d)(3) of this section and collect the number of samples specified for standard monitoring under paragraph (c) of this section or take other appropriate steps such as increased water quality parameter monitoring or re-evaluation of its corrosion control treatment given the potentially different water quality considerations.

(e) *Additional monitoring by systems*. The results of any monitoring conducted in addition to the minimum requirements of this section shall be considered by the system and the State in making any determinations (*i.e.*, calculating the 90th percentile lead or copper level) under this subpart.

(f) *Invalidation of lead or copper tap water samples*. A sample invalidated under this paragraph does not count toward determining lead or copper 90th percentile levels under §141.80(c)(3) or toward meeting the minimum monitoring requirements of paragraph (c) of this section.

(1) The State may invalidate a lead or copper tap water sample at least if one of the following conditions is met.

(i) The laboratory establishes that improper sample analysis caused erroneous results.

(ii) The State determines that the sample was taken from a site that did not meet the site selection criteria of this section.

(iii) The sample container was damaged in transit.

(iv) There is substantial reason to believe that the sample was subject to tampering.

(2) The system must report the results of all samples to the State and all supporting documentation for samples the system believes should be invalidated.

(3) To invalidate a sample under paragraph (f)(1) of this section, the decision and the rationale for the decision must be documented in writing. States may not invalidate a sample solely on the grounds that a follow-up sample result is higher or lower than that of the original sample.

(4) The water system must collect replacement samples for any samples invalidated under this section if, after the invalidation of one or more samples, the system has too few samples to meet the minimum requirements of paragraph (c) of this section. Any such replacement samples must be taken as soon as possible, but no later than 20 days after the date the State invalidates the sample or by the end of the applicable monitoring period, whichever occurs later. Replacement samples taken after the end of the applicable monitoring period shall not also be used to meet the monitoring requirements of a subsequent monitoring period. The replacement samples shall be taken at the same locations as the invalidated samples or, if that is not possible, at locations other than those already used for sampling during the monitoring period.

(g) *Monitoring waivers for small systems*. Any small system that meets the criteria of this paragraph may apply to the State to reduce the frequency of monitoring for lead and copper under this section to once every nine years (*i.e.*, a “full waiver”) if it meets all of the materials criteria specified in paragraph (g)(1) of this section and all of the monitoring criteria specified in paragraph (g)(2) of this section. If State regulations permit, any small system that meets the criteria in paragraphs (g)(1) and (2) of this section only for lead, or only for copper, may apply to the State for a waiver to reduce the frequency of tap water monitoring to once every nine years for that contaminant only (*i.e.*, a “partial waiver”).

(1) *Materials criteria*. The system must demonstrate that its distribution system and service lines and all drinking water supply plumbing, including plumbing conveying drinking water within all residences and buildings connected to the system, are

free of lead-containing materials and/or copper-containing materials, as those terms are defined in this paragraph, as follows:

(i) *Lead.* To qualify for a full waiver, or a waiver of the tap water monitoring requirements for lead (*i.e.*, a "lead waiver"), the water system must provide certification and supporting documentation to the State that the system is free of all lead-containing materials, as follows:

(A) It contains no plastic pipes which contain lead plasticizers, or plastic service lines which contain lead plasticizers; and

(B) It is free of lead service lines, lead pipes, lead soldered pipe joints, and leaded brass or bronze alloy fittings and fixtures, unless such fittings and fixtures meet the specifications of any standard established pursuant to 42 U.S.C. 300g-6(e) (SDWA section 1417(e)).

(ii) *Copper.* To qualify for a full waiver, or a waiver of the tap water monitoring requirements for copper (*i.e.*, a "copper waiver"), the water system must provide certification and supporting documentation to the State that the system contains no copper pipes or copper service lines.

(2) *Monitoring criteria for waiver issuance.* The system must have completed at least one 6-month round of standard tap water monitoring for lead and copper at sites approved by the State and from the number of sites required by paragraph (c) of this section and demonstrate that the 90th percentile levels for any and all rounds of monitoring conducted since the system became free of all lead-containing and/or copper-containing materials, as appropriate, meet the following criteria.

(i) *Lead levels.* To qualify for a full waiver, or a lead waiver, the system must demonstrate that the 90th percentile lead level does not exceed 0.005 mg/L.

(ii) *Copper levels.* To qualify for a full waiver, or a copper waiver, the system must demonstrate that the 90th percentile copper level does not exceed 0.65 mg/L.

(3) *State approval of waiver application.* The State shall notify the system of its waiver determination, in writing, setting forth the basis of its decision and any condition of the waiver. As a condition of the waiver, the State may require the system to perform specific activities (e.g., limited monitoring, periodic outreach to customers to remind them to avoid installation of materials that might void the waiver) to avoid the risk of lead or copper concentration of concern in tap water. The small system must continue monitoring for lead and copper at the tap as required by paragraphs (d)(1) through (d)(4) of this section, as appropriate, until it receives written notification from the State that the waiver has been approved.

(4) *Monitoring frequency for systems with waivers.* (i) A system with a full waiver must conduct tap water monitoring for lead and copper in accordance with paragraph (d)(4)(iv) of this section at the reduced number of sampling sites identified in paragraph (c) of this section at least once every nine years and provide the materials certification specified in paragraph (g)(1) of this section for both lead and copper to the State along with the monitoring results. Samples collected every nine years shall be collected no later than every ninth calendar year.

(ii) A system with a partial waiver must conduct tap water monitoring for the waived contaminant in accordance with paragraph (d)(4)(iv) of this section at the reduced number of sampling sites specified in paragraph (c) of this section at least once every nine years and provide the materials certification specified in paragraph (g)(1) of this section pertaining to the waived contaminant along with the monitoring results. Such a system also must continue to monitor for the non-waived contaminant in accordance with requirements of paragraph (d)(1) through (d)(4) of this section, as appropriate.

(iii) Any water system with a full or partial waiver shall notify the State in writing in accordance with §141.90(a)(3) of any upcoming long-term change in treatment or addition of a new source, as described in that section. The State must review and approve the addition of a new source or long-term change in water treatment before it is implemented by the water system. The State has the authority to require the system to add or modify waiver conditions (e.g., require recertification that the system is free of lead-containing and/or copper-containing materials, require additional round(s) of monitoring), if it deems such modifications are necessary to address treatment or source water changes at the system.

(iv) If a system with a full or partial waiver becomes aware that it is no longer free of lead-containing or copper-containing materials, as appropriate, (e.g., as a result of new construction or repairs), the system shall notify the State in writing no later than 60 days after becoming aware of such a change.

(5) *Continued eligibility.* If the system continues to satisfy the requirements of paragraph (g)(4) of this section, the waiver will be renewed automatically, unless any of the conditions listed in paragraph (g)(5)(i) through (g)(5)(iii) of this section occurs. A system whose waiver has been revoked may re-apply for a waiver at such time as it again meets the appropriate materials and monitoring criteria of paragraphs (g)(1) and (g)(2) of this section.

(i) A system with a full waiver or a lead waiver no longer satisfies the materials criteria of paragraph (g)(1)(i) of this section or has a 90th percentile lead level greater than 0.005 mg/L.

(ii) A system with a full waiver or a copper waiver no longer satisfies the materials criteria of paragraph (g)(1)(ii) of this section or has a 90th percentile copper level greater than 0.65 mg/L.

(iii) The State notifies the system, in writing, that the waiver has been revoked, setting forth the basis of its decision.

(6) *Requirements following waiver revocation.* A system whose full or partial waiver has been revoked by the State is subject to the corrosion control treatment and lead and copper tap water monitoring requirements, as follows:

(i) If the system exceeds the lead and/or copper action level, the system must implement corrosion control treatment in accordance with the deadlines specified in §141.81(e), and any other applicable requirements of this subpart.

(ii) If the system meets both the lead and the copper action level, the system must monitor for lead and copper at the tap no less frequently than once every three years using the reduced number of sample sites specified in paragraph (c) of this section.

(7) *Pre-existing waivers.* Small system waivers approved by the State in writing prior to April 11, 2000 shall remain in effect under the following conditions:

(i) If the system has demonstrated that it is both free of lead-containing and copper-containing materials, as required by paragraph (g)(1) of this section and that its 90th percentile lead levels and 90th percentile copper levels meet the criteria of paragraph (g)(2) of this section, the waiver remains in effect so long as the system continues to meet the waiver eligibility criteria of paragraph (g)(5) of this section. The first round of tap water monitoring conducted pursuant to paragraph (g)(4) of this section shall be completed no later than nine years after the last time the system has monitored for lead and copper at the tap.

(ii) If the system has met the materials criteria of paragraph (g)(1) of this section but has not met the monitoring criteria of paragraph (g)(2) of this section, the system shall conduct a round of monitoring for lead and copper at the tap demonstrating that it meets the criteria of paragraph (g)(2) of this section no later than September 30, 2000. Thereafter, the waiver shall remain in effect as long as the system meets the continued eligibility criteria of paragraph (g)(5) of this section. The first round of tap water monitoring conducted pursuant to paragraph (g)(4) of this section shall be completed no later than nine years after the round of monitoring conducted pursuant to paragraph (g)(2) of this section.

[56 FR 26548, June 7, 1991; 56 FR 32113, July 15, 1991; 57 FR 28788, June 29, 1992, as amended at 65 FR 2007, Jan. 12, 2000; 72 FR 57817, Oct. 10, 2007]

Need assistance?

CHAPTER 1751

An act to add Section 5060 to, and to repeal Sections 2945 and 3057 of, the Penal Code, relating to aid to persons discharged or paroled from institutions of Department of Corrections.

[Approved by Governor July 17, 1965. Filed with Secretary of State July 23, 1965.]

The people of the State of California do enact as follows:

SECTION 1. Section 5060 is added to the Penal Code, to read:

5060. The Director of Corrections may assist persons discharged, paroled, or otherwise released from confinement in an institution of the department and may secure employment for them, and for such purposes he may employ necessary officers and employees, may purchase tools, and give any other assistance that, in his judgment, he deems proper for the purpose of carrying out the objects and spirit of this section. Repayment of cash assistance received under this section from the current, or any prior appropriation, shall be credited to the appropriation current at time of such repayment.

SEC. 2. Section 2945 of said code is repealed.

SEC. 3. Section 3057 of said code is repealed.

CHAPTER 1752

An act to add Chapter 8.5 (commencing with Section 1501) to Part 1 of Division 1 of the Public Utilities Code, relating to water service duplication.

[Approved by Governor July 17, 1965. Filed with Secretary of State July 23, 1965.]

The people of the State of California do enact as follows:

SECTION 1. Chapter 8.5 (commencing with Section 1501) is added to Part 1 of Division 1 of the Public Utilities Code, to read:

CHAPTER 8.5. SERVICE DUPLICATION

1501. The Legislature recognizes the substantial obligation undertaken by a privately owned public utility which is franchised under the Constitution or by a certificate of public convenience and necessity to provide water service in that the utility must provide facilities to meet the present and prospective needs of those in its service area who may request service. At the same time, the rates that may be charged for water service by a regulated utility are fixed by the Public Utilities Commission at levels which assume that the facilities so installed will remain used and useful in the operation of the

utility for a period of time measured by the physical life of such facilities.

The Legislature finds and declares that the potential loss of value of such facilities which may result from the construction and operation by a political subdivision of similar or duplicating facilities in the service area of such a private utility often deters such private utility from obtaining a certificate or extending its facilities to provide in many areas a water supply essential to the health and safety of the citizens thereof.

The Legislature further finds and declares that it is necessary for the public health, safety, and welfare that privately owned public utilities regulated by the state be compensated for damages that they may suffer by reason of political subdivisions extending their facilities into the service areas of such privately owned public utilities.

1502. (a) As used in this chapter, "political subdivision" means a county, city and county, city, municipal water district, county water district, irrigation district, public utility district, or any other public corporation.

(b) As used in this chapter, "service area" means an area served by a privately owned public utility in which the facilities have been dedicated to public use and in which territory the utility is required to render service to the public.

(c) As used in this chapter, "operating system" means an integrated water system for the supply of water to a service area of a privately owned public utility.

(d) As used in this chapter, "private utility" means a privately owned public utility providing a water service.

(e) As used in this chapter, "type of service" means, among other things, domestic, commercial, industrial, fire protection, wholesale, or irrigation service.

1503. The Legislature finds and declares that whenever a political subdivision constructs facilities to provide or extend water service, or provides or extends such service, to any service area of a private utility with the same type of service, such an act constitutes a taking of the property of the private utility for a public purpose to the extent that the private utility is injured by reason of any of its property employed in providing the water service being made inoperative, reduced in value or rendered useless to the private utility for the purpose of providing water service to the service area, and such taking shall be compensable under Section 14 of Article I of the Constitution of California.

1504. Just compensation for the property so taken for public purposes shall be as may be mutually agreed by the political subdivision and the private utility or as ascertained and fixed by a court of competent jurisdiction pursuant to the laws of this state relating to eminent domain, including consideration of the useful value to the political subdivision of the property so taken.

Whenever the compensation by a political subdivision under this section is an amount equal to the just compensation value

of all the property of the private utility in the operating system that the private utility employs in providing water service to the service area, the political subdivision may, by resolution, provide for the acquisition of all such property.

A political subdivision engaged in activities set forth in Section 1503 shall pay just compensation for the property so taken for public purposes.

1505. The provisions of Sections 1503 and 1504 will be applicable to any private utility which constructs facilities to provide or extend water service or provides or extends such service to any territory theretofore served by a political subdivision with the same type of service.

1506. As used in this chapter, "private utility" includes a mutual water company. In its application to mutual water companies, this chapter affects and relates only to the property, or portion of any property, of a mutual water company that is employed by the company in providing water service in or for a territory that is actually being provided with water service by the company when a political subdivision constructs facilities to provide or extend water service or provides or extends such service to the territory, and that territory shall constitute the "service area" of a mutual water company as used in Section 1502.

CHAPTER 1753

An act to amend Section 18500 of the Government Code, relating to the purpose of State Civil Service Act.

[Approved by Governor July 17, 1965. Filed with Secretary of State July 23, 1965.]

The people of the State of California do enact as follows:

SECTION 1. Section 18500 of the Government Code is amended to read:

18500. It is the purpose of this part:

(a) To facilitate the operation of Article XXIV of the Constitution.

(b) To promote and increase economy and efficiency in the state service.

(c) To provide a comprehensive personnel system for the state civil service, wherein:

(1) Positions involving comparable duties and responsibilities are similarly classified and compensated.

(2) Appointments are based upon merit and fitness ascertained through practical and competitive examination.

(3) State civil service employment is made a career by providing for security of tenure and the advancement of employees within the service insofar as consistent with the best interests of the state.

(4) The rights and interests of the state civil service employee are given consideration insofar as consistent with the best interests of the state.

(5) A high morale is developed among state civil service employees by providing adequately for leaves of absence, vacations, and other considerations for the general welfare of the employees.

(6) Tenure of civil service employment is subject to good behavior, efficiency, the necessity of the performance of the work, and the appropriation of sufficient funds.

CHAPTER 1754

An act to add Section 6503.8 to the Welfare and Institutions Code, relating to state property.

[Approved by Governor July 17, 1965. Filed with Secretary of State July 23, 1965.]

The people of the State of California do enact as follows:

SECTION 1. Section 6503.8 is added to the Welfare and Institutions Code, to read:

6503.8. Notwithstanding the provisions of Section 6503 of this code, the Director of General Services, with the consent of the Director of Mental Hygiene, may grant a right-of-way for road purposes to the County of San Bernardino over and along a portion of the Patton State Hospital property adjacent to Arden Way and Pacific Street upon such terms and conditions and with such reservations and exceptions as in the opinion of the Director of General Services will be for the best interests of the state.

CHAPTER 1755

An act to amend Section 2290 of, to repeal Section 2291 of, and to add Sections 2291, 2291.1, 2291.2, 2291.3, and 2291.4 to the Health and Safety Code, relating to mosquito abatement districts.

[Approved by Governor July 17, 1965. Filed with Secretary of State July 23, 1965.]

The people of the State of California do enact as follows:

SECTION 1. Section 2290 of the Health and Safety Code is amended to read:

2290. Any mosquito abatement district organized on or after August 14, 1931, and any such district organized prior to that date that elects to do so by a vote taken at an election called and conducted as provided for an election for a tax to raise additional funds for the district, may provide for the

KeyCite Yellow Flag - Negative Treatment
Distinguished by Pajaro Valley Water Management Agency v. Amrhein, Cal.App. 6 Dist., May 21, 2007

24 Cal.4th 830, 14 P.3d 930, 102 Cal.Rptr.2d 719, 01 Cal. Daily Op. Serv. 209, 2001 Daily Journal D.A.R. 237

APARTMENT ASSOCIATION OF LOS ANGELES COUNTY, INC., et al., Plaintiffs and Appellants,
v.
CITY OF LOS ANGELES,
Defendant and Respondent.

No. S082645.
Supreme Court of California
Jan. 8, 2001.

SUMMARY

A city council, seeking to establish and fund a program to remedy substandard housing conditions, adopted an ordinance that required the owners of all residential rental properties subject to inspection under the program to pay a fee. An apartment association and other groups with similar interests brought an action for declaratory and injunctive relief against the city, alleging that the fee ordinance was unconstitutional and therefore void as a charge upon real property under Prop. 218 (Cal. Const., art. XIII D). The trial court sustained the city's demurrer without leave to amend, finding that the fee was not subject to the constitutional requirements, and entered judgment for the city. (Superior Court of Los Angeles County, No. BC195216, Charles W. McCoy, Jr., Judge.) The Court of Appeal, Second Dist., Div. One, No. B130243, reversed.

The Supreme Court reversed the judgment of the Court of Appeal. The court held that this ordinance did not fall within the scope of Cal. Const., art. XIII D, which only restricts fees imposed directly on property owners in their capacity as such. The inspection fee was not imposed on landlords in their capacity as property owners, but rather in their capacity as business owners. This constitutional provision does not refer to fees imposed on an incident of property ownership, but rather to fees imposed on a parcel or a person as an incident of property ownership; this distinction was crucial to this case. According to its plain meaning, Cal. Const., art. XIII D applies only to exactions levied solely by virtue of property ownership. This inspection fee was imposed because the property was being rented; it ceased along with the business operation, whether or not ownership remained in the same hands. (Opinion by Mosk, J., with George, C. J., Kennard, Werdegar, and Chin, JJ., concurring. Dissenting opinion by Brown, J., with Baxter, J., concurring (see p. 845).)

HEADNOTES

Classified to California Digest of Official Reports

(1)
Appellate Review § 145--Scope of Review--Questions of Law and Fact-- Interpretation of Constitutional Provision.
The interpretation of a constitutional provision, passed by voter initiative, is a question of law for the appellate courts to decide on independent review of the facts.

(2a, 2b, 2c)
Property Taxes § 7.6--Real Property Tax Limitation-- Proposition 218--Construction--In Context of Proposition 13.
Prop. 218, which added Cal. Const., art. XIII C and art. XIII D, can best be understood against its historical background, which began in 1978 with the adoption of Prop. 13, the purpose of which was to cut local property taxes. Prop. 218 buttressed the limitations in Prop. 13 on ad valorem property taxes and special taxes by placing analogous restrictions on assessments, fees, and charges. Prop. 218 must be construed in the context of Prop. 13. Prop. 218 focuses on exactions, whether they be called taxes, fees, or charges, that are directly associated with property ownership.

(3a, 3b, 3c, 3d, 3e)
Property Taxes § 7.6--Real Property Tax Limitation--Proposition 218:Municipalities § 54--Ordinances--Fee Imposed on Owners of Residential Rental Properties--Validity.
A city ordinance that required payment of a fee by the owners of all residential rental properties subject to inspection under a program designed to remedy substandard housing conditions did not fall within the scope of Prop. 218 (Cal. Const., art. XIII D), which only restricts fees imposed directly on property owners in their capacity as such. The inspection fee was not imposed on

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landlords in their capacity as property owners, but rather in their capacity as business owners. This constitutional provision does not refer to fees imposed on an incident of property ownership, but rather to fees imposed on a parcel or a person as an incident of property ownership. That distinction was crucial to this case. According to its plain meaning, Cal. Const., art. XIII D applies only to exactions levied solely by virtue of property ownership. This inspection fee was imposed because the property was being rented; it ceased along with the business operation, whether or not ownership remained in the same hands.

[See 9 Witkin, Summary of Cal. Law (9th ed. 1989) Taxation, §§ 110A, 110B.]

(4)
Real Property § 4--Incidents of Ownership--Right of Alienation.
Ownership of property in fee simple absolute is the greatest possible estate. Among the panoply of lesser estates are such nonfreehold chattels real as leases for a specific term and periodic tenancies-in common parlance, rentals or leases of limited duration. Among the incidents of estates in land are the so-called bundle of rights that flow from such tenure. Among them is the fundamental right to alienate one's property held in fee simple. That incident, or right, has been called inseparable, indispensable, and necessary. The power to alienate property or a property right is not limited to the right to sell or assign it. It means generally the power to transfer or convey it to another. The conveyance need not be of the whole fee. The right of alienation applies when fee holders seek to convey lesser estates. The power or right of alienation incident to the ownership of an estate in fee simple includes the power or right to dispose of property held in fee by lease, mortgage, or other mode of conveyance.

(5)
Taxation § 3--Construction--Distinguished from Regulatory Fees.
Regulatory fees are those charged in connection with regulatory activities, which do not exceed the reasonable cost of providing services necessary to the activity for which the fee is charged, and which are not levied for unrelated revenue purposes.

(6)
Statutes § 27--Construction--Liberality:Constitutional Law § 11-- Construction--Liberality.
As a rule, a command that a constitutional provision or a statute be liberally construed does not license either enlargement or restriction of the evident meaning of the provision.

COUNSEL
California Apartment Law Information Foundation, Trevor Grimm and Craig Mordoh for Plaintiffs and Appellants.
Sharon L. Browne and Stephen R. McCutcheon, Jr., for Pacific Legal Foundation as Amicus Curiae on behalf of Plaintiffs and Appellants.
James K. Hahn, City Attorney, Pedro B. Echeverria, Chief Assistant City Attorney, Ronald Tuller, Assistant City Attorney, and Miguel A. Dager, Deputy City Attorney, for Defendant and Respondent.
Hart, King & Coldren, Robert S. Coldren and C. William Dahlin for Western Manufactured Housing Communities Association as Amicus Curiae on behalf of Defendant and Respondent. ***833**
Gibson, Dunn & Crutcher, James P. Clark, Joel M. Tantalo; Western Center on Law & Poverty, Richard Rothschild; Bet Tzedek Legal Services and Lauren Saunders for the Los Angeles Blue Ribbon Citizens' Committee on Slum Housing, Bet Tzedek Legal Services, the Inner City Law Center, Los Angeles Center for Law and Justice, Legal Aid Foundation of Los Angeles, Legal Services of Northern California, Los Angeles Housing Law Project, Public Counsel, San Fernando Valley Neighborhood Legal Services, Western Center on Law and Poverty, Esperanza Community Housing Corporation, Southern California Association of Non-Profit Housing, Southern California Mutual Housing Association, the Coalition for Economic Survival, Inquilinos Unidos, the St. Francis Center, the Fair Housing Congress of Southern California and SEIU Local 347 as Amici Curiae on behalf of Defendant and Respondent.
Richard Doyle, City Attorney (San Jose), George Rios, Assistant City Attorney, and Robert Fabela, Deputy City Attorney, for the City of San Jose, 89 Additional California Cities, the California State Association of Counties and the California Association of Sanitation Agencies as Amici Curiae on behalf of Defendant and Respondent.

MOSK, J.

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We granted review to decide whether a city ordinance imposing an inspection fee on private landlords violates article XIII D of the California Constitution (article XIII D), added by initiative measure, Proposition 218, in 1996. We conclude that it does not.

In July 1998, the City of Los Angeles put into effect the Los Angeles Housing Code. It is codified as article 1 of chapter XVI of the Los Angeles Municipal Code (§ 161.101 et seq.). Later that month, plaintiffs sued the city for declaratory and injunctive relief, alleging that Los Angeles Municipal Code section 161.352, imposing an inspection fee on private landlords, is unenforceable because it was enacted without complying with section 6 of article XIII D. The city demurred. The trial court sustained the demurrer without leave to amend, finding that the fee was not subject to the constitutional requirements. It entered judgment for the city.

In its statement of decision, the trial court recognized that the inspection fee "appears arguably to fall within the wide range of assessments which Proposition 218 was apparently written to encompass." But it added, "In *Pennell v. City of San Jose* (1986) 42 Cal.3d 365, 375 [***834** 228 Cal.Rptr. 726, 721 P.2d 1111], the California Supreme Court held that a fee charged to cover the costs of operating San Jose's rent control ordinances, and not used to raise general revenue, is not subject to Article XIII A of the California Constitution. The City's ordinance here fits squarely within both the reason and rule of *Pennell*. The ordinance levies only property used for residential apartment rentals, and the money is used only to pay for regulat[ing such] rentals to insure, among other things, that they do not degenerate into what is commonly called 'slum conditions.' The assessment is not imposed on all property owners-only a subset of owners who rent apartments."

The Court of Appeal reversed, holding that the state constitutional provision invalidated the city ordinance. The court wrote: "There is nothing in Proposition 218 that exempts regulatory fees imposed on residential rental properties. It thus adds nothing to say, as does the City, that the fees are not 'imposed upon property owners in general, but only those who voluntarily engage in the business of renting, generate the risks of slum housing, and specially benefit from regular inspections as they contribute to the overall reputability and safety of the housing provided.' Quite plainly, Proposition 218 applies to any 'fee' or 'charge,' both of which are defined to mean 'any levy other than an ad valorem tax, a special tax, or an assessment, imposed by an agency upon a parcel or upon a person as an incident of property ownership, including a user fee or charge for a property-related service.' (Art. XIII D, § 2, subd. (e) ....) However well intentioned the City's program to abolish slum housing may be, we find it impossible to say that a fee imposed upon the owners of rental units so the City can locate and eradicate substandard housing is anything other than a user fee or charge for a property-related service." (Italics and fn. omitted.)

I.

A.

Section 161.102 of the Los Angeles Municipal Code states the reason for enacting the Los Angeles Housing Code: "It is found and declared that there exist in the City of Los Angeles substandard and unsanitary residential buildings and dwelling units the physical conditions and characteristics of which render them unfit or unsafe for human occupancy and habitation, and which conditions and characteristics are such as to be detrimental to or jeopardize the health, safety and welfare of their occupants and of the public.

"It is further found and declared that the existence of such substandard buildings as dwelling units threatens the physical, social and economic stability of sound residential buildings and areas, and of their supporting ***835** neighborhood facilities and institutions; necessitates disproportionate expenditures of public funds for remedial action; impairs the efficient and economical exercise of governmental powers and functions; and destroys the amenity of residential areas and neighborhoods and of the community as a whole."

Los Angeles Municipal Code section 161.301, entitled Scope, declares that the Los Angeles Housing Code applies to "all residential rental properties with two or more dwelling units on the same lot, the land, buildings and structures appurtenant thereto," but not to owner-occupied units, on-campus dormitory housing, hotels, motels, or certain other types of housing also specifically exempted.

Division 3.5 of the Los Angeles Housing Code (§ 161.351 et seq.) is entitled Housing Inspection Fees. Section

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161.351 limits the scope of division 3.5 to "residential rental properties with two or more dwellings subject to the provisions of this Code." Those properties "will be subject to regular inspection by the General Manager or an authorized representative. Inspections may also be complaint-based." (*Ibid.*)

Section 161.352 of the Los Angeles Municipal Code, at issue here, sets forth the inspection fee schedule. It provides, in its entirety: "Owners of all buildings subject to inspection shall pay a service fee of $12.00 per unit per year. The fee will be used to finance the cost of inspection and enforcement by the Housing Department. Should the owner fail to pay the required fee, the City of Los Angeles will recover it, plus accrued interest, utilizing any remedies provided by law including nuisance abatement or municipal tax lien procedures established by ordinance or state law. This fee shall be known as the 'Systematic Code Enforcement Program Fee.' " (*Ibid.*, boldface omitted.)

B.

In November 1996 the voters approved Proposition 218, the Right to Vote on Taxes Act. (Ballot Pamp., Gen. Elec. (Nov. 5, 1996) text of Prop. 218, § 1, p. 108; reprinted as Historical Notes, 2A West's Ann. Cal. Const. (2001 supp.) foll. art. XIII C, § 1, p. 33.) The proposition amended the California Constitution, adding article XIII D. Section 3, subdivision (a)(3) of article XIII D provides that, with certain exceptions not relevant here, "No tax, assessment, fee, or charge shall be assessed by any agency upon any parcel of property or upon any person as an incident of property ownership except: [¶] ... [¶] ... as provided by this article." An agency is a local or regional governmental entity. (*Id.*, § 2, subd. (a); Cal. Const., art. XIII C, § 1, subd. (b).) ***836**

Section 1 of article XIII D provides that it applies to "all assessments, fees and charges, whether imposed pursuant to state statute or local government charter authority." Fees and charges are defined in subdivision (e) of section 2 thereof. " 'Fee' or 'charge' means any levy other than an ad valorem tax, a special tax, or an assessment, imposed by an agency upon a parcel or upon a person as an incident of property ownership, including a user fee or charge for a property-related service." (*Ibid.*)

"Property-related service" is further defined. It "means a public service having a direct relationship to property ownership." (Art. XIII D, § 2, subd. (h).)

Thus, and in summary, article XIII D applies, with certain exceptions not relevant here, to "any levy ... upon a parcel or upon a person as an incident of property ownership, including a user fee or charge for a property-related service." (Art. XIII D, § 2, subd. (e).) As will appear, the outcome of this case turns on the meaning of this language.

C.

() Before us is "a question of law for the appellate courts to decide on independent review of the facts." (*Sinclair Paint Co. v. State Bd. of Equalization* (1997) 15 Cal.4th 866, 874 [64 Cal.Rptr.2d 447, 937 P.2d 1350].) Though our reasoning turns on the language of the constitutional stricture, it may be helpful to explain, as did the Court of Appeal in *Howard Jarvis Taxpayers Assn. v. City of Riverside* (1999) 73 Cal.App.4th 679 [86 Cal.Rptr.2d 592] (*Howard Jarvis*), the reasons that led to placing Proposition 218 on the ballot.

() "Proposition 218 can best be understood against its historical background, which begins in 1978 with the adoption of Proposition 13. 'The purpose of Proposition 13 was to cut local property taxes. [Citation.]' [Citation.] Its principal provisions limited ad valorem property taxes to 1 percent of a property's assessed valuation and limited increases in the assessed valuation to 2 percent per year unless and until the property changed hands. (Cal. Const., art. XIII A, §§ 1, 2.)

"To prevent local governments from subverting its limitations, Proposition 13 also prohibited counties, cities, and special districts from enacting any special tax without a two-thirds vote of the electorate. (Cal. Const., art. XIII A, § 4; *Rider v. County of San Diego* (1991) 1 Cal.4th 1, 6-7 [2 Cal.Rptr.2d 490, 820 P.2d 1000].) It has been held, however, that a special assessment is not a special tax within the meaning of Proposition 13. (*Knox v. City of* ***837** *Orland* (1992) 4 Cal.4th 132, 141 [14 Cal.Rptr.2d 159, 841 P.2d 144], and cases cited.) Accordingly, a special assessment could be imposed without a two-thirds vote.

"In November 1996, in part to change this rule, the electorate adopted Proposition 218, which added articles XIII C and XIII D to the California Constitution. Proposition 218 allows only four types of local property taxes: (1) an ad valorem property tax; (2) a special tax; (3) an assessment; and (4) a fee or charge. (Cal. Const., art.

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XIII D, § 3, subd. (a)(1)-(4); see also [*id.*], § 2, subd. (a).) It buttresses Proposition 13's limitations on ad valorem property taxes and special taxes by placing analogous restrictions on assessments, fees, and charges." (*Howard Jarvis*, *supra*, 73 Cal.App.4th 679, 681-682.)

D.

() The Court of Appeal explained the parties' differing views of the effect of article XIII D on the city ordinance. "As viewed by [plaintiffs], the fee is imposed 'upon a parcel or upon a person as an incident of property ownership' and is, therefore, subject to the procedural requirements of Proposition 218. As viewed by the City, the fee is imposed upon a business activity (the rental of residential dwellings), separate and apart from property ownership, and purely for regulatory purposes, and it is therefore not subject to Proposition 218." (Italics omitted.)

Adhering before us to their point of view, plaintiffs contend that "nothing in Proposition 218 ... support[s] the contention that [it] was not meant to affect the ability of local governments to impose and collect business 'regulatory fees.' " The city also adheres to its position, devoting much of its briefing to an argument that because its inspection fee is a regulatory fee on business operations, it falls outside the purview of article XIII D. Examining the ballot arguments for and against Proposition 218 and the Legislative Analyst's analysis of the measure, the city also contends that article XIII D was intended only to restrict fees imposed directly on property owners in their capacity as such. A regulatory fee imposed on residential rental businesses, the city argues, necessarily falls outside article XIII D's ambit, even if the fee bears some relation to ownership of real property. [1]

As will appear, neither party is entirely correct. The relevant language of article XIII D does not compel a conclusion in plaintiffs' favor; rather, it ***838** compels the opposite. The city also misses the mark when it contends (or at least implies) that a regulatory fee or a levy on the operation of a business necessarily falls outside the scope of article XIII D.

But both parties are partly correct. Plaintiffs accurately state that the constitutional provision does not speak of regulatory fees or levies on business operations. Hence, the mere fact that a levy is regulatory (as this inspection fee clearly is) or touches on business activities (as it clearly does) is not enough, by itself, to remove it from article XIII D's scope. But the city is correct that article XIII D only restricts fees imposed directly on property owners in their capacity as such. The inspection fee is not imposed solely because a person owns property. Rather, it is imposed because the property is being rented. It ceases along with the business operation, whether or not ownership remains in the same hands. For that reason, the city must prevail.

II.

Section 2 of Proposition 218 stated the measure's purpose. "The people of the State of California hereby find and declare that Proposition 13 was intended to provide effective tax relief and to require voter approval of tax increases. However, local governments have subjected taxpayers to excessive tax, assessment, fee and charge increases that not only frustrate the purposes of voter approval for tax increases, but also threaten the economic security of all Californians and the California economy itself. This measure protects taxpayers by limiting the methods by which local governments exact revenue from taxpayers without their consent." (Ballot Pamp., Gen. Elec., *supra*, text of Prop. 218, § 2, p. 108; reprinted as Historical Notes, 2A West's Ann. Cal. Const., *supra*, foll. art. XIII C, § 1, p. 33.)

The repeated references to taxes and taxpayers suggest an intent to prohibit unratified exactions imposed on property owners as such, rather than on the business of renting or leasing apartments-i.e., "residential rental properties with two or more dwellings" (L.A. Mun. Code, § 161.351).

() As explained in *Howard Jarvis*, *supra*, 73 Cal.App.4th 679, Proposition 218 is Proposition 13's progeny. Accordingly, it must be construed in that context. (***839** *People ex rel. Lungren v. Superior Court* (1996) 14 Cal.4th 294, 301 [58 Cal.Rptr.2d 855, 926 P.2d 1042].) Specifically, because Proposition 218 was designed to close government-devised loopholes in Proposition 13, the intent and purpose of the latter informs our interpretation of the former. Proposition 13 was directed at taxes imposed on property owners, in particular homeowners. The text of Proposition 218, the ballot arguments (both in favor and against), the Legislative Analyst's analysis, and the annotations of the Howard Jarvis Taxpayers Association, which drafted Proposition 218, all focus on exactions, whether they are called taxes, fees, or charges, that are directly associated with property ownership.

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() The Legislative Analyst's analysis, printed in the November 1996 ballot pamphlet, is illustrative. It explained that Proposition 218 "would constrain local governments' ability to impose fees, assessments, and taxes," meaning "property-related" fees, including fees for water, sewer and refuse collection, but excluding gas and electricity charges (see Cal. Const., art. XIII D, § 3, subd. (b)) and development fees (see *id.*, § 1, subd. (b)). (Ballot Pamp., Gen. Elec., *supra*, Legis. Analyst's analysis, p. 73.) It did not refer to levies linked more indirectly to property ownership.

() The ballot arguments for Proposition 218 are also illustrative. "Proposition 218 guarantees your right to vote on local tax increases-even when they are called something else, like 'assessments' or 'fees' and imposed on homeowners." (Ballot Pamp., Gen. Elec., *supra*, argument in favor of Prop. 218, p. 76.) "After voters passed Proposition 13, politicians created a loophole in the law that allows them to raise taxes without voter approval by calling taxes 'assessments' and 'fees.' " (*Ibid.*) "There are now over 5,000 local districts which can impose fees and assessments without the consent of local voters. Special districts have increased assessments by over 2400% over 15 years. Likewise, cities have increased utility taxes 415% and raised benefit assessments 976%, a ten-fold increase." (*Ibid.*) "To confirm the impact of fees and assessments on you, look at your property tax bill. You will see a growing list of assessments imposed without voter approval. The list will grow even longer unless Proposition 218 passes." (*Ibid.*)

() The ballot arguments identify what was perhaps the drafter's main concern: tax increases disguised via euphemistic relabeling as "fees," "charges," or "assessments." But in fairness to plaintiffs, it cannot be denied that the text of article XIII D does not limit its scope to taxes and taxpayers. We turn to the definitive language: restrictions on *any* levy imposed "upon a parcel or upon a person as an incident of property ownership." (Art. XIII D, § 2, subd. (e).)

The foregoing language means that a levy may not be imposed on a property owner as such-i.e., in its capacity as property owner-unless it ***840** meets constitutional prerequisites. In this case, however, the fee is imposed on landlords not in their capacity as landowners, but in their capacity as business owners. The exaction at issue here is more in the nature of a fee for a business license than a charge against property. It is imposed only on those landowners who choose to engage in the residential rental business, and only while they are operating the business.

The contrary reasoning of the Court of Appeal, and of plaintiffs, stems from a reliance on the word "incident," leaving aside that the constitutional provision does not refer to fees imposed *on* an incident of property ownership, but on a parcel or a person *as* an incident of property ownership. As amicus curiae for the city persuasively argue, the distinction is crucial.

Were the principal words *parcel* and *person* missing, and were *as* replaced with *on*, so that article XIII D restricted the city's ability to impose fees "on an incident of property ownership," plaintiffs' argument might have merit. () For among the incidents [2] of estates in land are the so-called bundle of rights that flow from such tenure. (31 C.J.S. (1996) Estates § 12, pp. 28-30; *id.*, § 14, pp. 32, 34; *id.*, § 31, p. 58.) Among them is the fundamental right to alienate one's property held in fee simple. (E.g., *id.*, § 12, p. 30; *Holien v. Trydahl* (N.D. 1965) 134 N.W.2d 851, 856; *Davis v. Geyer* (1942) 151 Fla. 362, 369 [9 So.2d 727, 728]; ***841** *Hardy v. Galloway* (1892) 111 N.C. 519, 523 [15 S.E. 890]; see also *Yee v. City of Escondido* (1992) 503 U.S. 519, 528 [112 S.Ct. 1522, 1528-1529, 118 L.Ed.2d 153].) That incident, or right, has been called "inseparable" (*Holien*, *supra*, 134 N.W.2d at p. 856; *Hardy*, *supra*, 15 S.E. at p. 890), "indispensable" (*Dukes v. Crumpton* (1958) 233 Miss. 611, 620 [103 So.2d 385, 388]), and "necessary" (*Re Collier* (Nfld. 1966) 60 D.L.R.2d 70, 75 [52 M.P.R. 211, 216] (per Puddester, J.)).

The power to alienate property or a property right is not limited to the right to sell or assign it. It means generally the power "to transfer or convey [it] to another." (Black's Law Dict., *supra*, p. 73, col. 1.) The conveyance need not be the whole fee. The right of alienation applies when fee holders seek to convey lesser estates. [3] " '[T]he power or right of alienation' " " 'incident to the ownership of an estate in fee-simple' " " 'include[s] the power or right to dispose of property held in fee ... by *lease*, mortgage, or other mode of conveyance ....' " (*Porter v. Barrett* (1925) 233 Mich. 373, 379-380 [206 N.W. 532, 535], quoting *Manierre v. Welling* (1911) 32 R.I. 104, 140 [78 A. 507, 522], italics added here.)

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() Accordingly, *if* article XIII D restricted the city's ability to impose a "tax, assessment, fee, or charge on an incident of property ownership" (cf. *id.*, §§ 2, subd. (e), 3), plaintiffs' argument might be persuasive. The business of renting apartments is an incident of owning them, an activity necessarily dependent on that ownership but not vice versa. One can own apartments without renting them, but no one can rent them without owning them. (See fn. 2, *ante*, at p. 840.) [4]

But the language of article XIII D is materially dissimilar. As stated, article XIII D, section 3 provides that "[n]o tax, assessment, fee, or charge ***842** shall be assessed by any agency upon any parcel of property or upon any person as an incident of property ownership except ... [¶] ... [¶] ... as provided by this article." (See also *id.*, § 2, subd. (e).) In other words, taxes, assessments, fees, and charges are subject to the constitutional strictures when they burden landowners *as landowners*. The ordinance does not do so: it imposes a fee on its subjects by virtue of their ownership of a business-i.e., because they are landlords. [5] What plaintiffs ask us to do is to alter the foregoing language-changing "as an incident of property ownership" to "on an incident of property ownership." But to do so would be to ignore its plain meaning-namely, that it applies only to exactions levied solely by virtue of property ownership. We may not interpret article XIII D as if it had been rewritten. (Accord, *People ex rel. Lungren v. Superior Court*, *supra*, 14 Cal.4th 294, 301.)

The language of article XIII D, sections 2, subdivision (e), and 3, shows that it applies to levies imposed on a person or on property strictly as an incident of property ownership. Had the law included levies imposed on incidents of the ownership or use of residential real property (as relevant ***843** here, the exercise of the right to rent one's property), its text would have said so. But it did not. And although the plain language of the relevant constitutional provisions requires us not to consider extrinsic evidence of the voters' intent, we reiterate, purely as an aside, that neither the ballot arguments nor the Legislative Analyst's analysis suggested that article XIII D was intended to encompass fees of the type at issue here.

The subordinate clause in section 2, subdivision (e), of article XIII D, as clarified in section 2, subdivision (h), supports our conclusion. It may be recalled that among the fees or charges covered by article XIII D, section 2, subdivision (e), is "a user fee or charge for a property-related service." Such a service "means a public service having a direct relationship to property ownership." (*Id.*, § 2, subd. (h).) In this case, the relationship between the city's inspection fee and property ownership is indirect-it is overlain by the requirement that the landowner be a landlord.

As stated, the foregoing clause is subordinate. It does not include all possible fees and charges that fall within the ambit of article XIII D. ()**(See fn. 6.)** But it does provide additional evidence of the scope of the constitutional provision. [6]

() At oral argument, plaintiffs emphasized article XIII D's exemptions for existing development fees and all charges to provide gas and electrical ***844** service. (Art. XIII D, §§ 1, subd. (b), 3, subd. (b).) They assert that a developer fee is a fee on an incident of property-the right to improve it-and that there would have been no need to exempt such fees if other fees imposed on incidents of property did not fall within article XIII D's scope. Similarly, they argue that one can own property without having utility service, and that if article XIII D applied strictly to levies that are imposed solely on the basis of property ownership, there would have been no need to exempt such utility charges in the constitutional provision.

We note, however, that the provision regarding development fees refers only to those existing at the time of article XIII D's enactment. Moreover, it is unclear to us whether a fee to provide gas or electricity service is the same as a fee imposed on the consumption of electricity or gas. In any event, we believe that the aforementioned exemptions may have been included in an abundance of caution in case court interpretations of article XIII D similar to the Court of Appeal's should prevail. Finally, we do not believe that any incongruity can trump the plain language we have discussed herein. In short, we are unpersuaded.

Similarly unpersuasive is plaintiffs' contention, also emphasized at oral argument, that the city's ability to enforce payment of the inspection fee by imposing a lien on the property shows that the fee is property-related, not business-related. The fact is that the city is simply availing itself of all possible means to collect the fee. Property liens may be precipitated by at least one cause unconnected to land ownership (except ownership of the land on which the lien is imposed): the cost of removing graffiti. (Gov. Code,

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§ 38772.) A lien may be imposed on parents' land to defray the cost of removing graffiti their child has scrawled on that belonging to another. (*Id.*, subd. (b).)

Plaintiffs also advert to section 5 of Proposition 218, which requires that "[t]he provisions of this act shall be liberally construed to effectuate its purposes of limiting local government revenue and enhancing taxpayer consent." (Ballot Pamp., Gen. Elec., *supra*, text of Prop. 218, § 5, p. 109; reprinted as Historical Notes, 2A West's Ann. Cal. Const., *supra*, foll. art. XIII C, p. 33.) But "[l]iberal construction cannot overcome the plain language of Proposition 218 limiting [its] scope ... to [levies] based on real property." (*Howard Jarvis Taxpayers Assn. v. City of San Diego* (1999) 72 Cal.App.4th 230, 237-238 [84 Cal.Rptr.2d 804].) () As a rule, a command that a constitutional provision or a statute be liberally construed "does not license either enlargement or restriction of its evident meaning" (*People v. Cruz* (1974) 12 Cal.3d 562, 566 [116 Cal.Rptr. 242, 526 P.2d 250]). Thus, ***845** given that article XIII D's scope is, as we have explained, unambiguously limited to burdens on landowners as such, " 'no resort to this command [of liberal construction] is required' " (*Howard Jarvis*, *supra*, 73 Cal.App.4th 679, 687, quoting *Buhlert Trucking v. Workers' Comp. Appeals Bd.* (1988) 199 Cal.App.3d 1530, 1533, fn. 4 [247 Cal.Rptr. 190]) or even permitted.

III.

The Court of Appeal's judgment is reversed.

George, C. J., Kennard, J., Werdegar, J., and Chin, J., concurred.

BROWN, J.

I respectfully dissent.

Under the provisions of Proposition 218, affected property owners must approve the imposition of any new or increased fee, which is "any levy other than an ad valorem tax, a special tax, or an assessment, imposed by an agency upon a parcel or upon a person as an incident of property ownership, including a user fee or charge for a property-related service." (Cal. Const., art. XIII D, § 2, subd. (e) (article XIII D).) The dispositive determination in this case is whether a rental inspection fee is imposed "upon a person as an incident of property ownership." (*Ibid.*) To find that it is not, the majority concludes the Court of Appeal erroneously substituted "on" for "as." It is the majority that errs, however, in assuming "incident" denotes "the so-called bundle of rights that flow from [estates in land]." (Maj. opn., *ante*, at p. 840; see maj. opn., *ante*, at pp. 840-841.) In my view, the voters did not intend the courts to look any further than a standard dictionary in applying the terms of article XIII D.

"A constitutional amendment should be construed in accordance with the natural and ordinary meaning of its words. [Citation.]" (*Amador Valley Joint Union High Sch. Dist. v. State Bd. of Equalization* (1978) 22 Cal.3d 208, 245 [149 Cal.Rptr. 239, 583 P.2d 1281]; *People ex rel. Lungren v. Superior Court* (1996) 14 Cal.4th 294, 302 [58 Cal.Rptr.2d 855, 926 P.2d 1042].) Nothing in the ballot arguments in favor of or against Proposition 218 or in the Legislative Analyst's analysis implies that a different rule should obtain with respect to "incident," or that the voters intended it to have other than a plain meaning. The dictionary defines an "incident" as "something incident to something else," that is, "dependent upon or involved in something else." (Webster's New World Dict. (3d college ed. 1988) p. 682; see also Black's Law Dict. (4th ed. 1968) p. 904, col. 2 ["Used as a noun, [incident] denotes anything which inseparably belongs to, or is connected with, or inherent in, another thing .... Also, less strictly, it denotes anything which is usually ***846** connected with another, or connected for some purposes, though not inseparably"].) In other words, if the imposition of a fee depends upon one's ownership of property, it comes within the purview of article XIII D unless otherwise excepted.

The fee at issue here plainly meets this definition. Pursuant to its police powers, the City of Los Angeles (City) enacted a Housing Code (L.A. Mun. Code, § 161.101 et seq.), which provides that residential rental properties are subject to regular inspection for substandard and unsanitary conditions. Under the Housing Code, funding for these inspections devolves to a particular class of property owners, the landlords of the rental units, who must pay a $12 fee for every unit owned. (*Id.*, § 161.352.)[1] As the majority acknowledges, "no one can rent [apartments] without owning them." (Maj. opn., *ante*, at p. 841; see also *Nash v. City of Santa Monica* (1984) 37 Cal.3d 97, 105 [207 Cal.Rptr. 285, 688 P.2d 894].) And no one is subject to the rental inspection fee without owning

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them. This exaction is thus imposed "as an incident of property ownership" (art. XIII D, § 2, subd. (e)); that is, it is dependent upon such ownership. (Cf. Off. of Legis. Analyst, Understanding Proposition 218 (Dec. 1996) p. 30 ["Generally, we think these fees would be considered property-related if there were no practical way that the owner could avoid the fee, short of selling the property or fundamentally changing its use"].) Moreover, "[s]hould the owner fail to pay the required fee, the City of Los Angeles will recover it, plus accrued interest, utilizing any remedies provided by law including nuisance abatement or municipal tax lien procedures established by ordinance or state law." (L.A. Mun. Code, § 161.352.) The use of tax lien procedures is a typical enforcement mechanism for delinquent levies imposed against property.

The majority avoids this result in part by finding the City "imposes a fee on its subjects by virtue of their ownership of a business-i.e., because they are landlords." (Maj. opn., *ante*, at p. 842.) The last portion of this statement proves too much: Landlords are property owners. Imposition of the fee is an incident of, i.e., depends upon, that status and thereby runs afoul of article XIII D. As for the first portion of the statement, it ignores or disregards what the majority elsewhere concedes, that the business at issue is inseparable from property ownership. No amount of parsing can change that ineluctable fact. ***847**

The majority also concludes "neither the ballot arguments nor the Legislative Analyst's analysis suggested that article XIII D was intended to encompass fees of the type at issue here." (Maj. opn., *ante*, at p. 843.) Ultimately, the terms of the measure as enacted control our interpretation (see *Kopp v. Fair Pol. Practices Com.* (1995) 11 Cal.4th 607, 673 [47 Cal.Rptr.2d 108, 905 P.2d 1248] (conc. opn. of Mosk, J.)); and their plain meaning does not support the majority's reasoning. But the ballot materials also belie the majority's conclusion. While those materials do not specifically mention rental inspection fees, such an intention is readily discernable from any fair reading. The Legislative Analyst warned generally that "[t]his measure would constrain local governments' ability to impose fees" and "[r]educe the amount of fees ... businesses pay." (Ballot Pamp., Gen. Elec. (Nov. 5, 1996), analysis of Prop. 218 by the Legis. Analyst, p. 73 (Ballot Pamphlet).) More particularly, the Legislative Analyst's list of "most likely fees and assessments affected by these provisions" (*id.* at p. 74) easily encompasses this type of exaction: "park and recreation programs, fire protection, lighting, ambulance, business improvement programs, library, and water service." (*Ibid.*) The argument in favor of Proposition 218 reminded the electorate that "[a]fter voters passed Proposition 13, politicians created a loophole in the law that allows them to raise taxes without voter approval by calling taxes 'assessments' and 'fees.' " (Ballot Pamp., *supra*, argument in favor of Prop. 218, p. 76.) "Proposition 218 guarantees your right to vote on local tax increases-even when they are called something else, like 'assessments' or 'fees' ...." (*Ibid.*) The argument did not limit the type of "fee" that would be subject to a vote under article XIII D but instead promised, "Proposition 218 ... stops politicians' end-runs around Proposition 13." (Ballot Pamp., *supra*, rebuttal to argument against Prop. 218, p. 77.) Particularly in light of its timing, the City's rental inspection fee appears to be just the kind of evasive maneuver at which proponents aimed Proposition 218. (See generally *Huntington Park Redevelopment Agency v. Martin* (1985) 38 Cal.3d 100, 105 [211 Cal.Rptr. 133, 695 P.2d 220] [purpose, in part, of Prop. 13 was "to prevent the government from recouping its losses from decreased property taxes by imposing or increasing other taxes"].)

In this regard, the majority also fails to accord any significance to two important provisions of Proposition 218. In any action challenging imposition of a new or increased fee or charge, the initiative assigns to the agency "the burden ... to demonstrate compliance with this article" (art. XIII D, § 6, subd. (b)(5)), thereby reversing the usual deference accorded governmental action in such matters and making it more difficult to defend its legitimacy. (See Ballot Pamp., *supra*, analysis of Prop. 218 by the Legis. ***848** Analyst, p. 74; see also art. XIII D, § 4, subd. (f) [imposing same burden for assessments].) The voters also expressly provided that Proposition 218 "shall be liberally construed to effectuate its purposes of limiting local government revenue and enhancing taxpayer consent." (Ballot Pamp., *supra*, text of Prop. 218, § 5, p. 109, also reprinted as Historical Notes, 2A West's Ann. Cal. Const. (2000 supp.) foll. art. XIII C, § 1, p. 25.) The majority's construction frustrates both these goals.

The City argues that conditioning imposition of its rental inspection fee on compliance with the procedures set forth in article XIII D would allow landlords to defeat regulation of their businesses. This argument misses two critical points: First and generally, since the City has decided its rental inspections are necessary to eradicate

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"substandard and unsanitary residential buildings and dwelling units the physical conditions and characteristics of which ... are such as to be detrimental to or jeopardize the health, safety and welfare of their occupants and of the public" (L.A. Mun. Code, § 161.102), it can reasonably expect the public to pay for the program.

Second and specifically, the Los Angeles Municipal Code already provides substantial enforcement authority to prosecute landlords who violate the City's Housing Code. If a property owner fails to correct violations, the City may recover its administrative as well as abatement costs (L.A. Mun. Code, § 161.206.2), may seek criminal penalties including fines and imprisonment (*id.*, § 161.206.3), and may pursue civil remedies as provided in the Health and Safety Code (L.A. Mun. Code, § 161.206.4).

When the voters passed Proposition 13 in 1978, they sought to restrict the ability of government to impose taxes and other charges on property owners without their approval. For almost two decades, however, they witnessed politicians evade this constitutional limitation. The message of Proposition 218 is that they meant what they said. With the majority turning a deaf ear to that message, we may well expect a future effort to "stop[] politicians' end-runs around Proposition 13." (Ballot Pamp., *supra*, rebuttal to argument against Prop. 218, p. 77.)

Baxter, J., concurred. ***849**

Footnotes

1 We have also received several amicus curiae briefs. Along with one of them is a request to judicially notice three purported local mobilehome park rent control ordinances and two other documents regarding that topic. The request is denied. The five documents have no bearing on the question before us.
Amici curiae also include a printed discussion issued by the Legislative Analyst in December 1996 and entitled Understanding Proposition 218. This document contains material relevant to the question at bench, and we grant the request for judicial notice regarding it. (Evid. Code, §§ 452, subd. (c), 459, subd. (a).)

2 Over time, "incident" has meant many things. As a noun, the meanings include the burden of the risk of a diminution of the value of real property during condemnation proceedings (*Agins v. City of Tiburon* (1980) 447 U.S. 255, 263, fn. 9 [100 S.Ct. 2138, 2143, 65 L.Ed.2d 106]), the " 'burdens and disabilities' " of slavery prohibited by the Thirteenth Amendment to the United States Constitution (*Jones v. Mayer Co*. (1968) 392 U.S. 409, 441 [88 S.Ct. 2186, 2204, 20 L.Ed.2d 1189]), or, in earlier times, the monetary obligations imposed by the king or a mesne lord (McPherson, *Revisiting the Manor of East Greenwich* (1998) 42 Am. J. Legal Hist. 35, 39; see also 2 Coke (1641) Institutes of the Lawes of England (Butler & Hargrave's Notes ed.) 69a, § 95, fn. 7). And, in a more general sense, the meanings of "incident" include benefits or duties that appertain to some greater right or interest, i.e., the principal. (Civ. Code, §§ 662, 1084, 3540; *Owsley v. Hamner* (1951) 36 Cal.2d 710, 716-717 [227 P.2d 263, 24 A.L.R.2d 112]; *Fender v. Waller* (1941) 139 Neb. 612, 616 [298 N.W. 349, 351]; *Harris v. Elliott* (1836) 35 U.S. (10 Pet.) 25, 54 [9 L.Ed. 333].) In its fourth edition (1897), Bouvier's Law Dictionary defined "incident" as a term "used both substantively and adjectively of a thing which, either usually or naturally and inseparably depends upon, appertains to, or follows another that is more worthy. For example, ... the right of alienation is necessarily incident to a fee-simple at common law ...." (*Id.* at p. 1006, col. 1.) Many cases have followed the Bouvier's Law Dictionary definition, or ones similar to it. (E.g., *Watts v. Copeland* (1933) 170 S.C. 449, 452 [170 S.E. 780]; *Moccasin State Bank v. Waldron* (1928) 81 Mont. 579, 586 [264 P. 940].) "Thus, timber trees are incident to the freehold, and so is a right of way." (*In re Estate of Bellesheim* (N.Y. Surr. 1888) 1 N.Y.S. 276, 278 [dictum]; accord, *Harris v. Elliott*, *supra*, 35 U.S. (10 Pet.) at p. 54 [9 L.Ed. at p. 344] [easements]; Black's Law Dict. (7th ed. 1999) p. 765, col. 1 ["the utility easement is incident to the ownership of the tract"].)

3 It is, of course, axiomatic in Anglo-American law that ownership of real property in fee simple absolute is the greatest possible estate (1 Coke (1628) Institutes of the Lawes of England (Butler & Hargrave's Notes ed.) 18a, § 11), and among the panoply of lesser estates are such nonfreehold chattels real as leases for a specific term and periodic tenancies (*Pacific Southwest Realty Co. v. County of Los Angeles* (1991) 1 Cal.4th 155, 162 [2 Cal.Rptr.2d 536, 820 P.2d 1046])- in common parlance, rentals or leases of limited duration. (1 Tiffany, The Law of Real Property (3d ed. 1939) § 76, pp. 112-113; *Wilgus v. Commonwealth* (1873) 72 Ky. (9 Bush.) 556, 557 [1873 WL 6660], citing 2 Blackstone, Commentaries 143 [" 'An estate for years in land is regarded in law as inferior to an estate for life or an inheritance' "]; *Brydges v. Millionair Club* (1942) 15 Wash.2d 714, 719 [132 P.2d 188, 190]; see also *Williams v. R. R.* (1921) 182 N.C. 267, 272 [108 S.E. 915, 918].)

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4 In *Acme Freight Lines v. City of Vidalia* (1942) 193 Ga. 334 [18 S.E.2d 540] (*Acme Freight*), similar statutory language favored an analogous argument-that a tax on an incident of the trucking business was a tax on a trucking company's ancillary delivery business.

In *Acme Freight*, a trucking company sought an injunction against a city's practice of imposing a business tax on those ancillary operations. The firm relied on this law: " 'No subdivision of this State ... shall levy any excise, license, or occupation tax of any nature *on* ... *any incidents* of said motor carrier business, or on a motor common carrier.' " (*Acme Freight, supra*, 193 Ga. 334, 335 [18 S.E.2d 540, 541], italics added.)

The city, Vidalia, acknowledged "its lack of authority to levy any tax against the plaintiff in reference to its transportation of freight as a motor common carrier .... Justification for the tax is founded upon the fact that, in addition to the operation of trucks for the transportation of freight ..., the plaintiff carries on ... a 'pick-up and delivery service' in and around the city. The trial judge ruled that this 'is not a *necessary* incident to the operation of a common carrier,' and that as to it 'the plaintiff is not a motor common carrier, but is engaged in a special and distinct business in the City of Vidalia, and is taxable as such.' This formula interpolates before the word 'incidents,' used in the statute, the word 'necessary' so as to require, as a condition of tax immunity, that the operation be a necessary incident of the business of a motor common carrier. This appears to us to be erroneous. [Rather,] ... an incident of the business of a motor common carrier of freight would be something naturally associated as pertinent to such transportation and necessarily dependent upon it, but without which the business of transportation might nevertheless be carried on. In other words, the incidental operation would be necessarily dependent upon the transportation, but the business of transportation would not be necessarily dependent upon the incidental operation.... As we understand the evidence adduced in this case, the plaintiff's operations against which the tax is said to be levied is of the above-described character; and accordingly we conclude that the tax is illegal, and should have been enjoined." (*Acme Freight*, *supra*, 193 Ga. 334, 335-336 [18 S.E.2d 540, 541].)

5 We acknowledge that landlords may rent because they wish to keep the property occupied in their absence, for philanthropic reasons, or to a family member for a nominal charge. Such arrangements are not rare, and may lie within the province of the ordinance, which refers to "residential rental properties." But even nonprofit or charitable purposes are business purposes under broad constructions of the term, and we believe that as long as the property is being rented for consideration, it is being conveyed for a business purpose. (Cf. *Marin Municipal Water Dist. v. Chenu* (1922) 188 Cal. 734, 738 [207 P. 251] [" 'business' " has "a narrower meaning applicable to occupation or employment for livelihood or gain, and to mercantile or commercial enterprises or transactions"].)

6 We turn to discuss briefly the authorities on which the city chiefly relies. They consist of two cases: *Sinclair Paint Co. v. State Bd. of Equalization*, *supra*, 15 Cal.4th 866; and *Pennell v. City of San Jose* (1986) 42 Cal.3d 365 [228 Cal.Rptr. 726, 721 P.2d 1111] (affd. *sub nom*. *Pennell v. San Jose* (1988) 485 U.S. 1 [108 S.Ct. 849, 99 L.Ed.2d 1]). They are inapposite. In *Sinclair* we held that an exaction on sources of lead contamination to remediate the effects of lead poisoning was a fee, not a tax. In *Pennell*, we held that a $3.75 charge on each residential rental unit, imposed by a rent control ordinance to fund its hearing process, also was a fee, not a tax. In *Sinclair* and *Pennell*, we defined such fees, which are similar to the city's inspection charge, as regulatory in nature. Regulatory fees are those " ' "charged in connection with regulatory activities[,] which fees do not exceed the reasonable cost of providing services necessary to the activity for which the fee is charged and which are not levied for unrelated revenue purposes." ' " (*Sinclair Paint Co. v. State Bd. of Equalization*, *supra*, 15 Cal.4th 866, 876, quoting *Pennell v. City of San Jose*, *supra*, 42 Cal.3d 365, 375, in turn quoting *Mills v. County of Trinity* (1980) 108 Cal.App.3d 656, 659-660 [166 Cal.Rptr. 674], bracketed material added here.)

We have stated that the city's inspection fee is a regulatory fee. And we have concluded that it does not fall within article XIII D's ambit. But *Sinclair* and *Pennell* do not concern themselves with the issue we confront here. Indeed, in *Sinclair* we cautioned that "We are not here concerned with issues arising under constitutional amendments effected by a recent initiative measure (Proposition 218) adopted at the November 5, 1996, General Election. That measure contains new restrictions on local agencies' power to impose fees and assessments." (*Sinclair Paint Co. v. State Bd. of Equalization*, *supra*, 15 Cal.4th 866, 873, fn. 2.) In *Pennell v. City of San Jose, supra*, 42 Cal.3d 365, we could not have written a similar caveat, for article XIII D did not exist at the time. But it applies just as well.

1 Los Angeles Municipal Code section 161.352 provides: "*Owners* of all buildings subject to inspection shall pay a service fee of $12.00 per unit per year. The fee will be used to finance the cost of inspection and enforcement by the Housing Department. Should the *owner* fail to pay the required fee, the City of Los Angeles will recover it, plus accrued interest, utilizing any remedies provided by law including nuisance abatement or municipal tax lien procedures established by ordinance or state law. This fee shall be known as the 'Systematic Code Enforcement Program Fee.' " (Italics added.)

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KeyCite Yellow Flag - Negative Treatment
Distinguished by City of San Buenaventura v. United Water Conservation Dist., Cal., December 4, 2017

39 Cal.4th 205
Supreme Court of California

BIGHORN–DESERT VIEW WATER AGENCY,
Plaintiff, Cross-defendant and Respondent,
v.
Kari VERJIL, as Registrar of Voters,
etc., Defendant and Cross-defendant;
E.W. Kelley, Real Party in Interest,
Cross-complainant and Appellant.

No. S127535.
|
July 24, 2006.

Synopsis
Background: Local public water district sought declaratory judgment invalidating proposed county initiative measure that would reduce domestic water rates and require voter preapproval of any subsequent rate increases. The Superior Court, San Bernardino County, No. SCV97005, Tara Reilly, J., entered judgment for district. Proponent of voter initiative appealed. The Court of Appeal affirmed. The Supreme Court granted review and transferred the case for reconsideration back to the Court of Appeal, which again affirmed. The Supreme Court again granted review, superseding the opinions of the Court of Appeal.

Holdings: The Supreme Court, Kennard, J., held that:

[1] portion of measure that would reduce district's charges for delivering domestic water to existing customers was not subject to state constitutional restrictions, disapproving *Howard Jarvis Taxpayers Assn. v. City of Los Angeles,* 85 Cal.App.4th 79, 101 Cal.Rptr.2d 905; but

[2] portion of measure that would require voter preapproval for future increases was constitutionally prohibited; and

[3] due to invalidity of latter portion, initiative was properly withheld from county ballot.

Affirmed.

Opinions, 8 Cal.Rptr.3d 485, 15 Cal.Rptr.3d 911, superseded.

West Headnotes (9)

[1] **Water Law**
Water Rates, Rents, Connection Fees, and Other Charges

County initiative measure that would reduce a local public water district's charges for delivering domestic water to existing customers was protected by state constitutional guarantee against prohibition of initiative proposing reduction of local "fee or charge"; disapproving *Howard Jarvis Taxpayers Assn. v. City of Los Angeles,* 85 Cal.App.4th 79, 101 Cal.Rptr.2d 905. West's Ann.Cal. Const. Art. 13C, § 3.

See 7 Witkin, Summary of Cal. Law (10th ed. 2005) Constitutional Law, § 159; 9 Witkin, Summary of Cal. Law (10th ed. 2005) Taxation, § 131 et seq.

20 Cases that cite this headnote

[2] **Constitutional Law**
Intent in general

When interpreting a provision of the state Constitution, the Supreme Court's aim is to determine and effectuate the intent of those who enacted the constitutional provision at issue.

7 Cases that cite this headnote

[3] **Constitutional Law**
Intent in general

When the voters enacted a state constitutional provision, their intent governs the Supreme Court's construction of the provision.

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2 Cases that cite this headnote

[4] **Constitutional Law**
Meaning of Language in General
Constitutional Law
Plain, ordinary, or common meaning

To determine the voters' intent in enacting a state constitutional provision, the Supreme Court begins by examining the constitutional text, giving the words their ordinary meanings.

7 Cases that cite this headnote

[5] **Constitutional Law**
Giving effect to every word
Constitutional Law
Giving effect to entire instrument

In construing a constitutional provision, if possible, significance should be given to every word, phrase, sentence, and part of the provision in pursuance of the legislative purpose.

1 Cases that cite this headnote

[6] **Constitutional Law**
Intrinsic Aids to Construction

When a word has been used in different parts of a single state constitutional enactment, courts normally infer that the word was intended to have the same meaning throughout.

4 Cases that cite this headnote

[7] **Water Law**
Water Rates, Rents, Connection Fees, and Other Charges

Proposed county initiative measure that would impose a requirement of voter preapproval for any future increase in local public water district's charges for delivering domestic water to existing customers, or new charge, was prohibited under state constitution. West's Ann.Cal. Const. Art. 13C, § 3, Art. 13D, § 6(c).

19 Cases that cite this headnote

[8] **Constitutional Law**
Giving effect to entire instrument
Constitutional Law
Harmonizing provisions

Related constitutional provisions should be read together and construed in a manner that gives effect to each, yet does not lead to disharmony with the others.

4 Cases that cite this headnote

[9] **Municipal Corporations**
Initiative procedure

When a significant part of a proposed initiative measure is invalid, the measure may not be submitted to the voters.

2 Cases that cite this headnote

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No appearance for Defendant and Cross-defendant.

Opinion

KENNARD, J.

***208** ****221** In November 1996, California voters adopted Proposition 218, which added articles XIII C and XIII D to the California Constitution. In *Richmond v. Shasta Community Services Dist.* (2004) 32 Cal.4th 409, 9 Cal.Rptr.3d 121, 83 P.3d 518 (*Richmond*), we construed article XIII D as it applies to fees that a local public water district charged for making new service connections to its domestic water delivery system. We concluded that those connection charges were not "assessments" or "property-related fees or ***209** charges" within the meaning of article XIII D. (*Richmond, supra,* at pp. 425, 428, 9 Cal.Rptr.3d 121, 83 P.3d 518.)

Here, we consider a related issue, one that involves section 3 of article XIII C, which provides that "the initiative power shall not be prohibited or otherwise limited in matters of reducing or repealing any local tax, assessment, fee or charge." Does this provision grant local voters authority to adopt an initiative ****222** measure that would reduce a local public water district's charges for delivering domestic water to existing customers and that also would require voter preapproval for any future increase in those charges or for the imposition of any new charge?

As explained below, we conclude that section 3 of article XIII C grants local voters a right to use the initiative power to reduce the rate that a public water district charges for domestic water. We also conclude, however, that this new constitutional provision does not grant local voters a right to impose a voter-approval requirement on all future adjustments of water delivery charges, and that the proposed initiative at issue here was properly withheld from the ballot because it included a provision to impose such a requirement.

I

In 1969, the California Legislature formed the Bighorn–Desert View Water Agency (Agency) as a special district under the Bighorn Mountains Water Agency Law.[1] (Stats.1969, ch. 1175, p. 2273 et seq.) The Agency provides domestic water service to residents in a roughly 42–square–mile area north of Yucca Valley in San Bernardino County.

E.W. Kelley is a resident of San Bernardino County and the proponent of a local initiative measure to reduce the Agency's *****76** water rate and other charges. Kelley's initiative proposed to reduce the Agency's water rate from $4.00 to $2.00 per 100–cubic–foot billing unit,[2] to reduce the "non-cap recovery charge" from $4.65 to $2.50 per month, and to reduce the "MWA ***210** pipeline charge" from $13.62 to $11.50 per month. The initiative also would have required the Agency to obtain voter approval before increasing any existing water rate, fee, or charge, or imposing any new water rate, fee, or charge.

Kelley succeeded in qualifying the initiative for the ballot. On October 24, 2002, Sharon Beringson, as the Interim Registrar of Voters for San Bernardino County, certified the initiative, and the next day by letter she informed the Agency of its duty under Elections Code section 9310 to either adopt the initiative or submit it to the voters at a special election. The Agency did neither, however. Instead, on November 20, 2002, it filed a complaint for declaratory relief in the superior court, naming Beringson as the defendant and Kelley as the real party in interest.

In the complaint, the Agency asked the court to declare the initiative impermissible under California law, and beyond the power of the Agency's electorate to enact, because it would interfere with the statutory responsibility of the Agency's board of directors to set the water rate high enough to cover its costs. (See Stats.1969, ch. 1175, § 25, pp. 2285–2286, 72 B. West's Ann. Wat.-Appen., *supra,* ch. 112, p. 203 ["The board of directors, so far as practicable, shall fix such rate or rates for water in the agency ... as will result in revenues which will pay the operating expenses of the agency, ... provide for repairs and depreciation of works, provide a reasonable surplus for improvements, extensions, and enlargements, pay the interest on any bonded debt, and provide a sinking or other fund for the

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payment of the principal of such debt as it may become due."].)

Kelley answered the complaint and filed a motion for judgment on the pleadings and a cross-petition for writ of mandate seeking to compel the Agency to either adopt the initiative as an ordinance or submit it to the voters at a special election. Asserting that the Agency was challenging the legality of the proposed initiative both on its face (insofar as it asserted that its board of directors had the exclusive power to set the agency's ****223** water rates and charges) and as applied (insofar as it asserted that the particular rates and charges that the initiative would set would leave the Agency with insufficient net revenues), Kelly argued that the as-applied challenge could not be raised before the election and that the facial challenge failed because the initiative was authorized and protected by section 3 of article XIII C of the California Constitution. In its opposition to Kelley's motion for judgment on the pleadings, the Agency argued, essentially, that it was raising only a facial challenge to the proposed initiative.

***211** At the hearing on the motion for judgment on the pleadings, the parties agreed that the only issue was the validity of the initiative on its face, that the facts relevant to that issue were undisputed, and that the issue could be decided as a matter of law. The trial court, declaring that voters in the area served by the Agency lacked power to affect its water rates and fees and charges, denied Kelley's motion *****77** and cross-petition and entered a judgment of declaratory relief for the Agency.

Kelley appealed the judgment to the Court of Appeal, arguing that his initiative was authorized by article XIII C, section 3 of the California Constitution. The Court of Appeal affirmed the superior court's ruling, and Kelley petitioned this court for review. We granted review and then transferred the case back to the Court of Appeal with directions to vacate its decision and to reconsider the issues in light of *Richmond, supra,* 32 Cal.4th 409, 9 Cal.Rptr.3d 121, 83 P.3d 518.

The Court of Appeal again found in favor of the Agency, holding that article XIII C did not authorize Kelley's initiative because the initiative did not deal with special or general taxes, which the Court of Appeal held to be the only subject matter article XIII C covers. The court held that the Agency's rate, fees, and charges were not subject to Proposition 218, and thus could not be reduced by voter initiative. Kelley again petitioned this court for review, which we again granted.

II

Article XIII C of the California Constitution is entitled Voter Approval for Local Tax Levies. Section 1 of article XIII C defines the terms " '[g]eneral tax,' " " '[s]pecial tax,' " " '[l]ocal government,' " and " '[s]pecial district.' " Section 2 of article XIII C provides, in subdivision (b), that "[n]o local government may impose, extend, or increase any general tax unless and until that tax is submitted to the electorate and approved by a majority vote," and it provides, in subdivision (d), that "[n]o local government may impose, extend, or increase any special tax unless and until that tax is submitted to the electorate and approved by a two-thirds vote." Section 3, the provision at issue here, states: "Initiative Power for Local Taxes, Assessments, Fees and Charges. Notwithstanding any other provision of this Constitution, including, but not limited to, Sections 8 and 9 of Article II, the initiative power shall not be prohibited or otherwise limited in matters of reducing or repealing *any local tax, assessment, fee or charge.* The power of initiative to affect *local taxes, assessments, fees and charges* shall be applicable to all local governments ***212** and neither the Legislature nor any local government charter shall impose a signature requirement higher than that applicable to statewide statutory initiatives." [3] (Italics added.)

[1] With a single sentence, the Court of Appeal rejected Kelley's reliance on article XIII C as authority for the proposed initiative. The Court of Appeal stated: "Article XIII C governs special and general taxes, which are not at issue here." Kelley argues that this statement is erroneous because section 3 of article XIII C is not limited to special and general taxes, but applies by it terms to "any local tax, assessment, fee or charge."

[2] **[3]** **[4]** When interpreting a provision of our state Constitution, our aim is "to determine ****224** and effectuate the intent of those who enacted the constitutional provision at issue." (*Richmond, supra,* 32 Cal.4th at p. 418, 9 Cal.Rptr.3d 121, 83 P.3d 518.) When, as here, the voters enacted the provision, their intent governs. (*Delaney* *****78** *v. Superior Court* (1990) 50 Cal.3d 785, 798, 268 Cal.Rptr. 753, 789 P.2d 934.) To

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determine the voters' intent, "we begin by examining the constitutional text, giving the words their ordinary meanings." (*Richmond, supra,* at p. 418, 9 Cal.Rptr.3d 121, 83 P.3d 518.)

[5] Article XIII C, section 3 of the California Constitution expressly states that the initiative power cannot be limited or prohibited when an initiative proposes to reduce or repeal "any local tax, assessment, fee or charge." In construing a constitutional or statutory provision, " ' "[i]f possible, significance should be given to every word, phrase, sentence and part of an act in pursuance of the legislative purpose." ' " (*DuBois v. Workers' Comp. Appeals Bd.* (1993) 5 Cal.4th 382, 388, 20 Cal.Rptr.2d 523, 853 P.2d 978.) If possible, therefore, we must give significance to the words "assessment, fee or charge" in article XIII C, section 3, as meaning something other than "local tax." Accordingly, it would appear that article XIII C, section 3, is not limited to local special and general taxes but applies also to assessments, fees, and charges.

In the ballot pamphlet for the election at which Proposition 218 (which included both article XIII C and article XIII D) was adopted, the Legislative Analyst gave this description of how Proposition 218 would affect initiative powers: "The measure states that Californians have the power to repeal or ***213** reduce any local tax, assessment, or fee through the initiative process." (Ballot Pamp., Gen. Elec. (Nov. 5, 1996), analysis of Prop. 218 by Legis. Analyst, p. 74.) Thus, the Legislative Analyst appears to have also read section 3 of article XIII C as applying to fees as well as to special and general taxes and so described it to the voters who enacted it. (See *People v. Birkett* (1999) 21 Cal.4th 226, 243–244, 87 Cal.Rptr.2d 205, 980 P.2d 912 [argument and analyses in official ballot pamphlet may be consulted to determine voters' understanding and intent].)

Because the Agency offers no argument in support of the Court of Appeal's assertion that article XIII C applies only to special and general taxes, and not to fees, we will not belabor the point. We conclude that article XIII, section 3, applies to assessments, fees, and charges and not just to special and general taxes.

Are the amounts that the Agency bills its customers for the delivery of domestic water properly characterized as fees or charges within the meaning of those words in article XIII C, section 3? Although article XIII C contains definitions of the terms "general tax" and "special tax" (Cal. Const., art. XIII C, § 1, subds. (a), (d)), it does not define the terms "fee" or "charge." Article XIII D, which was enacted together with article XIII C as part of Proposition 218, does contain a definition of those terms. According to that definition, " '[f]ee' or 'charge' means any levy other than an ad valorem tax, a special tax, or an assessment, imposed by an agency upon a parcel or upon a person as an incident of property ownership, including a user fee or charge for a property related service." (Cal. Const., art. XIII D, § 2, subd. (e).) It is unclear, however, whether that definition governs the meaning of the terms "fee" and "charge" in article XIII C, section 3.

[6] Section 2 of article XIII D of the state Constitution, which contains definitions for various terms, including "fee" and "charge," begins with the words, "As used *in this article.*" (Italics added.) Therefore, although the definitions in section 2 of article XIII D govern the meaning of the defined terms in article XIII D (see *People v. Canty* (2004) 32 Cal.4th 1266, 1277, 14 Cal.Rptr.3d 1, 90 P.3d 1168; *****79** *Richmond, supra,* 32 Cal.4th at p. 423, 9 Cal.Rptr.3d 121, 83 P.3d 518), those definitions do not *necessarily* apply outside of article XIII D and, in particular, in article XIII C. On the other hand, when a word has been used in different parts of a single enactment, courts normally infer that the word was intended to have the same meaning throughout. (*People v. Roberge* (2003) 29 Cal.4th 979, 987, 129 Cal.Rptr.2d 861, 62 P.3d 97.) Because article XIII C and article XIII D were enacted together by Proposition 218, it seems ***214** unlikely that the ****225** terms "fee" and "charge" were meant to carry *entirely* different meanings in those two articles, although some variation in meaning is possible. [4]

We considered a related question in *Richmond, supra,* 32 Cal.4th 409, 9 Cal.Rptr.3d 121, 83 P.3d 518. At issue there was whether a water service connection fee was a fee or charge within the meaning of article XIII D's definition of the terms "fee" and "charge" as "any levy other than an ad valorem tax, a special tax, or an assessment, imposed by an agency upon a parcel or upon a person as an incident of property ownership, *including a user fee or charge for a property related service.*" (Cal. Const., art. XIII D, 2, subd. (e), italics added; see *Richmond, supra,* at p. 415, 9 Cal.Rptr.3d 121, 83 P.3d 518.) Of relevance here, we stated:

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"In the ballot pamphlet for the election at which article XIII D was adopted, the Legislative Analyst stated that '[f]ees for water, sewer, and refuse collection service probably meet the measure's definition of property-related fee.' (Ballot Pamp., Gen. Elec. (Nov. 5, 1996), analysis of Prop. 218 by Legis. Analyst, p. 73.) The Legislative Analyst apparently concluded that water service has a direct relationship to property ownership, and thus is a property-related service within the meaning of article XIII D because water is indispensable to most uses of real property; because water is provided through pipes that are physically connected to the property; and because a water provider may, by recording a certificate, obtain a lien on the property for the amount of any delinquent service charges (see Gov.Code, §§ 61621, 61621.3)....

"Several provisions of article XIII D tend to confirm the Legislative Analyst's conclusion that charges for utility services such as electricity and water should be understood as charges imposed 'as an incident of property ownership.' For example, subdivision (b) of section 3 provides that 'fees for the provision of electrical or gas service shall not be deemed charges or fees imposed as an incident of property ownership' under article XIII D. Under the rule of construction that the expression of some things in a statute implies the exclusion of other things not expressed (*In re Bryce C.* (1995) 12 Cal.4th 226, 231, 48 Cal.Rptr.2d 120, 906 P.2d 1275), the expression that electrical and gas service charges are not within the category of property-related fees implies that similar charges for other utility services, such as water and sewer, are property-related fees subject to the restrictions of article XIII D.

***215** "This implication is reinforced by subdivision (c) of article XIII D, section 6, which expressly excludes 'fees or charges for sewer, water, and refuse collection services' from the voter approval requirements *****80** that article XIII D imposes on property-related fees and charges. Because article XIII D does not include similar express exemptions from the other requirements that it imposes on property-related fee[s] and charges, the implication is strong that fees for water, sewer, and refuse collection services are subject to those other requirements. (See *Howard Jarvis Taxpayers Assn. v. City of Roseville* (2002) 97 Cal.App.4th 637, 645, 119 Cal.Rptr.2d 91 [reaching the same conclusion].)

"Thus, we agree that water service fees, being fees for property-related services, may be fees or charges within the meaning of article XIII D. But we do not agree that *all* water service charges are necessarily subject to the restrictions that article XIII D imposes on fees and charges. Rather, we conclude that a water service fee is a fee or charge under article XIII D if, but only if, it is imposed 'upon a person as an incident of property ownership.' (Art. XIII D, § 2, subd. (e).)" (*Richmond, supra,* 32 Cal.4th at pp. 426–427, 9 Cal.Rptr.3d 121, 83 P.3d 518.)

For purposes of identifying fees and charges under California Constitution article XIII D, we drew a distinction between water service connection charges and charges for ****226** ongoing water delivery. We explained: "A fee for ongoing water service through an existing connection is imposed 'as an incident of property ownership' because it requires nothing other than normal ownership and use of property. But a fee for making a new connection to the system is not imposed 'as an incident of property ownership' because it results from the owner's voluntary decision to apply for the connection." (*Richmond, supra,* 32 Cal.4th at p. 427, 9 Cal.Rptr.3d 121, 83 P.3d 518.)

Comparing the provisions of article XIII C and article XIII D, it appears to us that the words "fee" and "charge," which appear in both articles, may well have been intended to have a narrower, more restrictive meaning in article XIII D. The title of article XIII D is Assessment and *Property–Related* Fee Reform (italics added) and section 6 of article XIII D, which imposes restrictions on fees, is titled *Property Related* Fees and Charges (italics added). Consistent with these references to "property-related" fees, article XIII D's definition of "fee" requires that it be imposed "upon a parcel or upon a person as an incident of property ownership." (Cal. Const., art. XIII D, § 2, subd. (e).) By comparison, the words "property related" do not appear anywhere in article XIII C, nor does anything in the text of article XIII C suggest that it is limited to levies imposed on real property or on persons as an incident of property ownership. Thus, the terms "fee" and "charge" in section 3 of article XIII C may not be subject to the "property-related" qualification that was at issue in *Richmond, supra,* 32 Cal.4th 409, 9 Cal.Rptr.3d 121, 83 P.3d 518. At the same time, any levy that ***216** qualifies as a property-related fee or charge under article XIII D must also qualify as a "fee" or "charge" under article XIII

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C, section 3. Nothing in the text of article XIII C, or in the ballot pamphlet for the November 1996 general election at which it was adopted, suggests an intent to *exclude* property-related fees and charges from the reach of section 3 of article XIII C, or to impose any separate or additional restriction on the meaning of "fee" or "charge" as used in article XIII C.

Thus, it is possible that California Constitution article XIII C's grant of initiative power extends to some fees that, because they are not property related, are not fees within the meaning of article XIII D. But we perceive no basis for excluding from article XIII C's authorization any of the *****81** fees subject to article XIII D. The absence of a restrictive definition of "fee" or "charge" in article XIII C suggests that those terms include all levies that are ordinarily understood to be fees or charges, including all of the property-related fees and charges subject to article XIII D.

For present purposes, it is unnecessary to arrive at an exact definition of the terms "fee" and "charge" as used in article XIII C. It is sufficient to conclude that a public water agency's charges for ongoing water delivery, which are fees and charges within the meaning of article XIII D (*Richmond, supra,* 32 Cal.4th at pp. 426–427, 9 Cal.Rptr.3d 121, 83 P.3d 518), are also fees within the meaning of section 3 of article XIII C. Therefore, section 3 of article XIII C establishes that the initiative power "shall not be prohibited or otherwise limited in matters of reducing or repealing" a public agency's water delivery charges. In other words, this constitutional provision expressly authorizes initiative measures like Kelley's insofar as they seek to reduce or repeal a public agency's water rates and other water delivery charges.

The Agency urges us to draw a distinction between water delivery charges that are "consumption based" (calculated according to the quantity of water delivered) and charges that are imposed regardless of water usage. Under this proposed distinction, the Agency's water rate, which is a charge per 100 cubic feet of water, is a consumption-based charge, while its "non-cap recovery charge" and "MWA Pipeline charge" (both of which the Agency imposes in a fixed amount per month per customer) are not. The Agency argues that consumption-based water charges are not fees or charges within the meaning of article XIII D because they are not imposed "as an incident of property ownership" (Cal. Const., art. XIII D, § 2, subd. (e)), but instead as a result of the voluntary decisions of each water customer as to how much water to use. We are not persuaded.

****227** Article XIII D defines "fee" or "charge" as "*including* a user fee or charge for a property related service." (Cal. Const., art. XIII D, § 2, subd. (e), ***217** italics added.) The word "including" is " 'ordinarily a term of enlargement.' " (*Hassan v. Mercy American River Hospital* (2003) 31 Cal.4th 709, 717, 3 Cal.Rptr.3d 623, 74 P.3d 726.) As we explained in *Richmond, supra,* 32 Cal.4th 409, 9 Cal.Rptr.3d 121, 83 P.3d 518, domestic water delivery through a pipeline is a property-related service within the meaning of this definition. (*Id.* at pp. 426–427, 9 Cal.Rptr.3d 121, 83 P.3d 518.) Accordingly, once a property owner or resident has paid the connection charges and has become a customer of a public water agency, all charges for water delivery incurred thereafter are charges for a property-related service, whether the charge is calculated on the basis of consumption or is imposed as a fixed monthly fee.[5] Consumption-based water delivery charges also fall within the definition of user fees, which are "amounts charged to a person using a service where the amount of the charge is generally related to the value of the services provided." (*Utility Audit Co., Inc. v. City of Los Angeles* (2003) 112 Cal.App.4th 950, 957, 5 Cal.Rptr.3d 520.) Because it is imposed for the property-related service of water delivery, the Agency's water rate, as well as its fixed monthly charges, are fees or charges within the meaning of article XIII D, and thus, for the reasons we have explained, they are also fees or charges within the *****82** meaning of section 3 of article XIII C. Under the constitutional grant of power in section 3 of article XIII C, the initiative may be used to reduce each of those water delivery charges.

The Agency also argues that even if its water rate and other water delivery charges are fees or charges within the meaning of section 3 of article XIII C of the California Constitution, Kelley's initiative is nonetheless invalid because the Legislature has granted the Agency's governing board exclusive authority to set the Agency's rate and other charges. (See *DeVita v. County of Napa* (1995) 9 Cal.4th 763, 775–777, 38 Cal.Rptr.2d 699, 889 P.2d 1019 [discussing exclusive delegation]; *Committee of Seven Thousand v. Superior Court* (1988) 45 Cal.3d 491, 511, 247 Cal.Rptr. 362, 754 P.2d 708 [same].) The Legislature is bound by the state Constitution, however, and the evident purpose of article XIII C is to extend

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the local initiative power to fees and charges imposed by local public agencies. We need not determine whether the Legislature intended to preclude the use of the initiative to reduce the Agency's fees because even if it did so intend, the Legislature's authority in enacting the statutes under which the Agency operates must in this instance yield to constitutional command.

[7] To this point we have considered only the portions of Kelley's initiative that would reduce the Agency's water delivery charges. Kelley's initiative measure would do more than roll back the Agency's water rate and other charges, however. It would also require the Agency's board of directors to ***218** obtain voter approval before increasing any existing rate or charge or imposing any new rate or charge. Nothing in section 3 of California Constitution article XIII C authorizes initiative measures that impose voter-approval requirements for future increases in fees or charges.

Arguing to the contrary, Kelley points to the reference in section 3 of article XIII C to "[t]he power of initiative to *affect* local taxes, assessments, fees and charges." (Italics added.) He asserts that by imposing a voter-approval requirement on future increases in water delivery charges, his initiative would "affect" those charges and therefore is within the constitutional grant of initiative power. We disagree. The entire sentence reads: "The power of initiative to affect local taxes, assessments, fees and charges shall be applicable to all local governments and neither the Legislature nor any local government charter shall impose a signature requirement higher than that applicable to statewide statutory initiatives." (Cal. Const., art. XIII C, § 3.) The evident purpose of this sentence is not to define how the initiative may be used to ****228** impact fees and charges, but instead to specify that the initiative power extends to charges imposed by all local public agencies and that the signature requirement applied to statewide initiatives may not be exceeded. The scope of the initiative power is set by the previous sentence, stating that "the initiative power shall not be prohibited or otherwise limited *in matters of reducing or repealing* any local tax, assessment, fee or charge." (*Ibid.,* italics added.) Thus, analysis of the text of section 3 of article XIII C supports the conclusion that the initiative power granted by that section extends only to "reducing or repealing" taxes, assessments, fees, and charges.

[8] That the voters who enacted Proposition 218 did not intend to authorize initiative measures imposing voter-approval requirements on future water delivery charge increases is confirmed by an examination of section 6 of California Constitution article XIII D. Related provisions *****83** "should be read together and construed in a manner that gives effect to each, yet does not lead to disharmony with the others." (*City of Huntington Beach v. Board of Administration* (1992) 4 Cal.4th 462, 468, 14 Cal.Rptr.2d 514, 841 P.2d 1034; see also *Cooley v. Superior Court* (2002) 29 Cal.4th 228, 248, 127 Cal.Rptr.2d 177, 57 P.3d 654; *Garcia v. McCutchen* (1997) 16 Cal.4th 469, 476, 66 Cal.Rptr.2d 319, 940 P.2d 906; *DeVita v. County of Napa, supra,* 9 Cal.4th at p. 778, 38 Cal.Rptr.2d 699, 889 P.2d 1019; *Pacific Southwest Realty Co. v. County of Los Angeles* (1991) 1 Cal.4th 155, 167, 2 Cal.Rptr.2d 536, 820 P.2d 1046.) Article XIII D, section 6, subdivision (c), says that "[*e*]*xcept for fees or charges for* sewer, *water,* and refuse collection services, no property related fee or charge shall be imposed or increased unless and until that fee or charge is submitted and approved by a majority vote of the property owners of the property subject to the fee or charge or, at the option of the agency, by a two-thirds vote of the electorate residing in the affected area." (Italics added.) Thus, article XIII D ***219** expressly exempts water service charges from the voter-approval requirement that it imposes on all other fees and charges.

At least as to fees and charges that are property related, section 6 of California Constitution article XIII D would appear to embody the electorate's intent as to when voter-approval should be required, or not required, before existing fees may be increased or new fees imposed, and the electorate chose not to impose a voter-approval requirement for increases in water service charges. Although this provision does not expressly prohibit local initiatives that would impose such a requirement, neither does it authorize them. The provisions of article XIII C support a similar conclusion. Although section 2 of article XIII C imposes voter-approval requirements for general taxes and for special taxes, nothing in article XIII C imposes a voter-approval requirement for fees or charges.

Kelley has asserted no authority other than section 3 of California Constitution article XIII C for the portion of his initiative that would require voter approval before any future increase in water delivery charges, and we have concluded that article XIII C does not authorize that

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provision. Kelley apparently concedes that in the absence of the authority granted by section 3 of article XIII C, the exclusive delegation rule (*DeVita v. County of Napa, supra,* 9 Cal.4th at pp. 775–777, 38 Cal.Rptr.2d 699, 889 P.2d 1019; *Committee of Seven Thousand v. Superior Court, supra,* 45 Cal.3d at p. 511, 247 Cal.Rptr. 362, 754 P.2d 708) bars initiative measures that infringe on the power of the Agency's governing board to set its water delivery rate and charges. Accordingly, we agree with the Court of Appeal that Kelley's initiative is invalid insofar as it seeks to impose a voter-approval requirement on future actions by the Agency's board of directors to increase the existing water rate and other charges or to impose new charges.

To some extent, this portion of the initiative is superfluous, because under Elections Code section 9323[6] voter approval is required ****229** before a local district's governing board may amend an ordinance adopted by initiative, unless the ordinance provides *****84** otherwise. (See *DeVita v. County of Napa, supra,* 9 Cal.4th at p. 788, 38 Cal.Rptr.2d 699, 889 P.2d 1019 [discussing similar statute for county ordinance]; *Mobilepark West Homeowners Assn. v. Escondido Mobilepark West* (1995) 35 Cal.App.4th 32, 40–41, 41 Cal.Rptr.2d 393 [discussing similar statute for city ordinance].) Therefore, if the voters were to approve an initiative lowering the Agency's water rate or other charge, the Agency's governing board would need voter approval before it could change the rate or charge ***220** that had been set by initiative. The Agency's governing board would not need voter approval, however, to increase a charge that was not affected by initiative or to impose an entirely new charge.

We have concluded that under section 3 of California Constitution article XIII C, local voters by initiative may reduce a public agency's water rate and other delivery charges, but also that section 3 of article XIII C does not authorize an initiative to impose a requirement of voter preapproval for future rate increases or new charges for water delivery. In other words, by exercising the initiative power voters may decrease a public water agency's fees and charges for water service, but the agency's governing board may then raise other fees or impose new fees without prior voter approval. Although this power-sharing arrangement has the potential for conflict, we must presume that both sides will act reasonably and in good faith, and that the political process will eventually lead to compromises that are mutually acceptable and both financially and legally sound. (See *DeVita v. County of Napa, supra,* 9 Cal.4th at pp. 792–793, 38 Cal.Rptr.2d 699, 889 P.2d 1019 ["We should not presume ... that the electorate will fail to do the legally proper thing."].) We presume local voters will give appropriate consideration and deference to a governing board's judgments about the rate structure needed to ensure a public water agency's fiscal solvency, and we assume the board, whose members are elected (see Stats.1969, ch. 1175, § 5, p. 2274, 72B West's Ann. Wat.-Appen., *supra,* ch. 112, p. 190), will give appropriate consideration and deference to the voters' expressed wishes for affordable water service. The notice and hearing requirements of subdivision (a) of section 6 of California Constitution article XIII D[7] will facilitate communications between a public water agency's board and its customers, and the substantive restrictions on property-related charges in ***221** subdivision (b) of *****85** the same section[8] should allay customers' concerns ****230** that the agency's water delivery charges are excessive.

In holding that section 3 of article XIII C of the state Constitution authorizes initiative measures that reduce public agency water service charges, we are not holding that the authorized initiative power is free of all limitations. In particular, we are not determining whether the electorate's initiative power is subject to the statutory provision requiring that water service charges be set at a level that "will pay the operating expenses of the agency, ... provide for repairs and depreciation of works, provide a reasonable surplus for improvements, extensions, and enlargements, pay the interest on any bonded debt, and provide a sinking or other fund for the payment of the principal of such debt as it may become due." (Stats.1969, ch. 1175, § 25, p. 2286, 72B West's Ann. Wat.-Appen., *supra,* ch. 112, p. 203.) That issue is not currently before us.

III

[9] We have concluded that Kelley's initiative is invalid insofar as it seeks to require voter approval before the Agency's governing board may increase water service charges or impose new charges. When a significant part of a proposed initiative measure is invalid, the measure may not be submitted to the voters. (*American Federation of Labor v. Eu* (1984) 36 Cal.3d 687, 715–716, 206 Cal.Rptr. 89, 686 P.2d 609; *City and County of San Francisco v. Patterson* (1988) 202 Cal.App.3d 95, 105–106,

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248 Cal.Rptr. 290.) Accordingly, the trial court correctly determined that the initiative ***222** could not be placed on the ballot, and it properly granted judgment for the Agency, and the Court of Appeal correctly affirmed the trial court's judgment, although its reasoning differed substantially from the reasoning we use here.

The judgment of the Court of Appeal is affirmed.

GEORGE, C.J., BAXTER, WERDEGAR, CHIN, MORENO, and CORRIGAN, JJ., concur.

All Citations

39 Cal.4th 205, 138 P.3d 220, 46 Cal.Rptr.3d 73, 06 Cal. Daily Op. Serv. 6649, 2006 Daily Journal D.A.R. 9616

Footnotes

1 The Agency was formed under the name Bighorn Mountains Water Agency and acquired its current name after consolidation in 1989 with Desert View Water District. (See Wat.Code, §§ 33300–33306; Stats.1989, ch. 570, § 3, p. 1878, 73B West's Ann. Wat.-Appen. (1995 ed.) ch. 112, p. 189.)

2 Although the Agency's water rate was $4.00 per 100–cubic–foot billing unit when the initiative was circulated for signatures, it was scheduled to be reduced to $2.30 per billing unit in June 2003. Thus, one could argue, as Kelley has, that the actual reduction proposed by the initiative was not from $4.00 to $2.00, but from $2.30 to $2.00 per billing unit. We need not resolve this dispute.

3 In section 9 of article II, the state Constitution defines "referendum" as "the power of the electors to approve or reject statutes or parts of statutes *except ... statutes providing for tax levies* ...." (Cal. Const., art. II, § 9, subd. (a), italics added.) Under this definition, tax measures are exempt from referendum. (See *Rossi v. Brown* (1995) 9 Cal.4th 688, 697, 38 Cal.Rptr.2d 363, 889 P.2d 557.) But the state Constitution imposes no similar limitation on the initiative. (See *id.* at pp. 699–705, 38 Cal.Rptr.2d 363, 889 P.2d 557.)

4 Because article XIII D provides a single definition that includes both "fee" and "charge," those terms appear to be synonymous in both article XIII D and article XIII C. This is an exception to the normal rule of construction that each word in a constitutional or statutory provision is assumed to have independent significance. (*DuBois v. Workers' Comp. Appeals Bd., supra,* 5 Cal.4th at p. 388, 20 Cal.Rptr.2d 523, 853 P.2d 978.) We use the terms interchangeably in this opinion.

5 *Howard Jarvis Taxpayers Assn. v. City of Los Angeles* (2000) 85 Cal.App.4th 79, 101 Cal.Rptr.2d 905, which was decided before *Richmond, supra,* 32 Cal.4th 409, 9 Cal.Rptr.3d 121, 83 P.3d 518, is disapproved insofar as it is inconsistent with this conclusion.

6 That section reads: "No ordinance proposed by initiative petition and adopted either by the district board without submission to the voters or adopted by the voters shall be repealed or amended except by a vote of the people, unless provision is otherwise made in the original ordinance. In all other respects, an ordinance proposed by initiative petition and adopted shall have the same force and effect as any ordinance adopted by the board." (Elec.Code, § 9323.)

7 "(a) Procedures for New or Increased Fees and Charges. An agency shall follow the procedures pursuant to this section in imposing or increasing any fee or charge as defined pursuant to this article, including, but not limited to, the following:

"(1) The parcels upon which a fee or charge is proposed for imposition shall be identified. The amount of the fee or charge proposed to be imposed upon each parcel shall be calculated. The agency shall provide written notice by mail of the proposed fee or charge to the record owner of each identified parcel upon which the fee or charge is proposed for imposition, the amount of the fee or charge proposed to be imposed upon each, the basis upon which the amount of the proposed fee or charge was calculated, the reason for the fee or charge, together with the date, time, and location of a public hearing on the proposed fee or charge.

"(2) The agency shall conduct a public hearing upon the proposed fee or charge not less than 45 days after mailing the notice of the proposed fee or charge to the record owners of each identified parcel upon which the fee or charge is proposed for imposition. At the public hearing, the agency shall consider all protests against the proposed fee or charge. If written protests against the proposed fee or charge are presented by a majority of owners of the identified parcels, the agency shall not impose the fee or charge." (Cal. Const., art. XIII D, § 6, subd. (a).)

8 "(b) Requirements for Existing, New or Increased Fees and Charges. A fee or charge shall not be extended, imposed, or increased by any agency unless it meets all of the following requirements:

"(1) Revenues derived from the fee or charge shall not exceed the funds required to provide the property related service.

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"(2) Revenues derived from the fee or charge shall not be used for any purpose other than that for which the fee or charge was imposed.
"(3) The amount of a fee or charge imposed upon any parcel or person as an incident of property ownership shall not exceed the proportional cost of the service attributable to the parcel.
"(4) No fee or charge may be imposed for a service unless that service is actually used by, or immediately available to, the owner of the property in question. Fees or charges based on potential or future use of a service are not permitted. Standby charges, whether characterized as charges or assessments, shall be classified as assessments and shall not be imposed without compliance with Section 4.
"(5) No fee or charge may be imposed for general governmental services including, but not limited to, police, fire, ambulance or library services, where the service is available to the public at large in substantially the same manner as it is to property owners." (Cal. Const., art. XIII D, § 6, subd. (b).)

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KeyCite Yellow Flag - Negative Treatment
Distinguished by California Building Industry Association v. State Water Resources Control Board, Cal., May 7, 2018

235 Cal.App.4th 1493
Court of Appeal,
Fourth District, Division 3, California.

CAPISTRANO TAXPAYERS ASSOCIATION, INC., Plaintiff and Respondent,
v.
CITY OF SAN JUAN CAPISTRANO, Defendant and Appellant.

G048969
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Filed 4/20/2015
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As Modified May 19, 2015

Synopsis
Background: Ratepayers brought action against city to challenge water service fees under Right to Vote on Taxes Act. The Superior Court, Orange County, No. 30–2012–00594579, Gregory Munoz, J., granted declaratory judgment for ratepayers. City appealed.

Holdings: The Court of Appeal, Bedsworth, Acting P.J., held that:

[1] water fees were for service "immediately available to customers" under Right to Vote on Taxes Act;

[2] Right to Vote on Taxes Act required city to calculate the actual costs of providing water at various levels of usage; and

[3] "penalty rate" for excessive water usage was not within the penalty exception from the Act.

Affirmed in part, reversed in part, and remanded.

West Headnotes (13)

[1] **Water Law**
Necessity of voter approval
Water Law
Effect of usage or consumption on rate charged

Tiered water rate structures and the Right to Vote on Taxes Act are thoroughly compatible so long as those rates reasonably reflect the cost of service attributable to each parcel. Cal. Const. art. XIII D, § 6(b)(3).

2 Cases that cite this headnote

[2] **Water Law**
Types of Charges and Fees
Water Law
Necessity of voter approval

Water fees attributed to the cost of building a water recycling plant were for "service" that was "actually used by, or immediately available to" the ratepayers under Right to Vote on Taxes Act, even though the non-potable recycled water would not be delivered to all ratepayers, since the relevant service was simply water service, water service was immediately available to city's ratepayers, and delivery of non-potable water to some customers would free up potable water for others. Cal. Const. art. 13D, § 6(b)(4); Cal. Gov't Code § 53750(m).

2 Cases that cite this headnote

[3] **Water Law**
Necessity of voter approval
Water Law
Methodologies;establishment of rate base

Right to Vote on Taxes Act does not require figuring ratepayers' fees to pay for a water recycling plant on a month-to-month basis. Cal. Const. art. 13D, § 6(b)(4).

Cases that cite this headnote

[4] **Water Law**
Types of Charges and Fees

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Under the statute providing that an agency providing water service may adopt a schedule of fees or charges authorizing automatic adjustments that pass through increases in wholesale charges for water for a period not to exceed five years, within a five-year period a water agency might develop a capital-intensive means of production of what is effectively new water, such as recycling or desalinization, and pass on the costs of developing that new water to those customers whose marginal or incremental extra usage requires such new water to be produced. Cal. Water Code § 31020; Cal. Gov't Code § 53755.

2 Cases that cite this headnote

[5] **Water Law**
Necessity of voter approval
Water Law
Effect of usage or consumption on rate charged

The Right to Vote on Taxes Act's limit on fees to the "proportional cost of the service attributable to the parcel" protects lower-than-average water users from having to pay rates that are above the cost of service for them because those rates include capital investments their levels of consumption do not make necessary. Cal. Const. art. 13D, § 6(b)(3).

1 Cases that cite this headnote

[6] **Water Law**
Necessity of voter approval
Water Law
Effect of usage or consumption on rate charged

Under the Right to Vote on Taxes Act's limit on fees to the "proportional cost of the service attributable to the parcel," the cost for city to build a water recycling plant could not be passed on in water fees to any ratepayers whose levels of consumption were so low that they could not be said to be responsible for the need for that recycling. Cal. Const. art. 13D, § 6(b)(3).

5 Cases that cite this headnote

[7] **Water Law**
Necessity of voter approval
Water Law
Effect of usage or consumption on rate charged

City failed to assign ratepayers the "proportional cost of the service attributable to the parcel" for city's cost to build a water recycling plant, as required by the Right to Vote on Taxes Act, even though city identified four tiers of ratepayers by usage from "low" to "very excessive," where city assigned rates to each ascending tier by applying a multiplier to the rates for lower tiers, and city did not try to correlate the incremental cost of providing service at the various tiers to the prices of water at those tiers. Cal. Const. art. 13D, § 6(b)(3).

2 Cases that cite this headnote

[8] **Constitutional Law**
Intrinsic Aids to Construction

Constitutional provisions, particularly when enacted in the same measure, should be construed together and read as a whole.

Cases that cite this headnote

[9] **Water Law**
Rate and Amount in General

Nothing in the constitutional provision limiting water rights "to such water as shall be reasonably required for the beneficial use to be served" requires water rates to exceed the true cost of supplying that water. Cal. Const. art. 10, § 2.

1 Cases that cite this headnote

[10] **Municipal Corporations**
Submission to popular vote

The Right to Vote on Taxes Act was passed by the voters in order to curtail discretionary

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models of local agency fee determination. Cal. Const. art. 13D, § 6.

Cases that cite this headnote

[11] **Water Law**
Rate and Amount in General

Nothing in the constitutional provision giving cities the right to go into the water supply business requires municipal corporations to establish fees in excess of their costs. Cal. Const. art. 11, § 9.

Cases that cite this headnote

[12] **Water Law**
Necessity of voter approval
Water Law
Rate and Amount in General

The constitutional provision limiting water rights "to such water as shall be reasonably required for the beneficial use to be served" does not require what the Right to Vote on Taxes Act's limit on fees to the "proportional cost of the service attributable to the parcel" forbids. Cal. Const. art. 10, § 2; Cal. Const. art. 13D, § 6(b)(3).

Cases that cite this headnote

[13] **Water Law**
Necessity of voter approval
Water Law
Rate and Amount in General

City's "penalty rate" for ratepayers in the "very excessive" water usage tier was not within the exception to the Right to Vote on Taxes Act's proportionality requirement for a "fine, penalty, or other monetary charge" imposed "as a result of a violation of law," since allowing city to rely on the penalty rate theory would open up a loophole so large it would virtually repeal the Act. Cal. Const. art. 13C, § 1(e)(5); Cal. Const. art. 13D, § 6(b)(3).

See 9 Witkin, Summary of Cal. Law (10th ed. 2005) Taxation, § 143.

Cases that cite this headnote

****363** Appeal from a judgment of the Superior Court of Orange County, Gregory Munoz, Judge. Affirmed in part; reversed in part and remanded. (No. 30–2012–00594579)

Attorneys and Law Firms

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OPINION

BEDSWORTH, ACTING P.J.

***1496** I. INTRODUCTION

Southern California is a "semi-desert with a desert heart." [1] Visionary engineers and scientists have done a

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remarkable job of making our home habitable, and too many of us south of the Tehachapis never give a thought to ***1497** its remarkable reclamation. In his brilliant —if opinionated—classic *Cadillac Desert,* the late Marc Reisner laments how little appreciation there is of "how difficult it will be just to hang on to the beachhead they have made." [2]

In this case we deal with parties who have an acute appreciation of how tenuous the beachhead is, and how desperately we all must fight to protect it. But they disagree about what steps are allowable—or required—to accomplish that task. We are called upon to determine not what is the right—or even the more reasonable—approach to the beachhead's preservation, but what is the one chosen by the state's voters.

We hope there are future scientists, engineers, and legislators with the wisdom to envision and enact water plans to keep our beloved Cadillac Desert habitable. But that is not the court's mandate. Our job—and it is daunting enough—is solely to determine what water plans the voters and legislators of the past have put in place, and to determine whether the trial court's rulings complied with those plans.

We conclude the trial court erred in holding that Proposition 218 does not allow public water agencies to pass on to their customers the capital costs of improvements to provide additional increments of water —such as building a recycling plant. Its findings were that future water provided by the improvement is not immediately available to customers. (See Cal. Const., art. XIII D, § 6, subd. (b)(4)) [no fees "may be imposed for a service unless that service is actually used by, or immediately available to, the owner of the property in question"].) But, as applied to water delivery, the phrase "a service" cannot be read to differentiate between recycled water and traditional, potable water. Water *service* is already "immediately available" to all customers, and *continued* water service is assured by such capital improvements as water recycling plants. That satisfies the constitutional and statutory requirements.

****365** However, the trial court did not err in ruling that Proposition 218 requires public water agencies to calculate the actual costs of providing water at various levels of usage. Article XIII D, section 6, subdivision (b)(3) of the California Constitution, as interpreted by our Supreme Court in *Bighorn–Desert View Water Agency v. Verjil* (2006) 39 Cal.4th 205, 226 [46 Cal.Rptr.3d 73, 138 P.3d 220] (*Bighorn*) provides that water rates must reflect the "cost of the service attributable" to a given parcel. [3] While tiered, or inclined rates that go up progressively in relation to usage are perfectly ***1498** consonant with article XIII D, section 6, subdivision (b)(3) and *Bighorn,* the tiers must still correspond to the actual cost of providing service at a given level of usage. The water agency here did not try to calculate the cost of actually providing water at its various tier levels. It merely allocated all its costs among the price tier levels, based not on costs, but on predetermined usage budgets. Accordingly, the trial court correctly determined the agency had failed to carry the burden imposed on it by another part of Proposition 218 (art. XIII D, § 6, subd. (b)(5)) of showing it had complied with the requirement water fees not exceed the cost of service attributable to a parcel—at least without a vote of the electorate. That part of the judgment must be affirmed.

II. FACTS

Sometimes cities are themselves customers of a water district, the best example in the case law being the City of Palmdale, which successfully invoked Proposition 218 to challenge the rates *it* was paying to a water district. [4] (See *City of Palmdale v. Palmdale Water Dist.* (2011) 198 Cal.App.4th 926 [131 Cal.Rptr.3d 373] (*Palmdale*)). And sometimes cities are, as in the present case, their own water district. As amicus curiae Association of California Water Agencies (ACWA) points out, government water suppliers in California are a diverse lot that includes municipal water districts, irrigation districts, county water districts, and, in some cases, cities themselves. To focus on its specific role in this case as a municipal water supplier—as distinct from its role as the provider of municipal services which consume water such as parks, city landscaping or public golf courses—we will refer to appellant City of San Juan Capistrano as "City Water."

In February 2010, City Water adopted a new water rate structure recommended by a consulting firm. The way City Water calculated the new rate structure is well described in City Water's supplemental brief of November 25, 2014. [5] City Water followed a pattern generally recommended ****366** by a manual used by public water agencies throughout the western United

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States known as the "M–1" manual. It first ascertained its total costs, including things like debt service on previous infrastructural improvements. It then ***1499** identified components of its costs, such as the cost of billing and the cost of water treatment. Next it identified classes of customers, differentiating, for example, between "regular lot" residential customers and "large lot" residential customers, and between construction customers and agricultural customers. Then, in regard to each class, City Water calculated four possible budgets for water usage, based on historical data of usage patterns: low, reasonable, excessive and very excessive.

[1] The four budgets were then used as the basis for four distinct "tiers" of pricing. [6] For residential customers, tier 1, the low budget, was assumed to be exclusively indoor usage, based on World Health Organization guidelines concerning the "minimum quantity of water required for survival," with adjustments for things like "low-flush toilets and other high-efficiency appliances." Tier 2, the reasonable budget, included an outdoor allocation based on "typical landscapes," and assumed "use of native plants and drought-tolerant plants." The final two tiers were based on budgets of what City Water considers excessive usages of water or overuse volumes. Using these four budgets of consumption levels, City Water allocated its total costs in such a way that the anticipated revenues from all four tiers would equal its total costs, and thus the four-tier system would be, taken as a whole, revenue neutral, and City Water would not make a profit on its pricing structure. City Water did not try to calculate the incremental cost of providing water at the level of use represented by each tier, and in fact, at oral argument in this court, admitted it effectively used revenues from the top tiers to subsidize below-cost rates for the bottom tier.

Here is the rate structure adopted, as applied to residential customers:

****367**

Tier	Usage
1	Up to 6 ccf[7]
2	7 to 17 ccf[8]
3	18 to 34 ccf[9]
4	Over 34 ccf[10]

7 Ccf stands for one hundred cubic feet, which tran
Cal.App.4th at p. 184.)

8 A precise figure for the usage is complicated by a
indoor and outdoor use. Technically, tier 2 is tier 1 + 3 extra ccfs, p
average out to a total of 17 ccfs, i.e., 8 ccfs are allocated (on averag

9 Technically, tier 3 is defined as up to 200 percent
projected 17 ccf average, works out to be 34 ccf.

10 While the consultants distinguished between regu
structure made no distinction between the two.

[**Editor's Note:** The preceding image contains the references for footnotes [7], [8], [9], [10]].

***1500** City Water obtains water from five separate sources: a municipal groundwater recovery plant, the Metropolitan Water District, five local groundwater wells, recycled water wells, and the nearby Moulton Niguel Water District. With the exception of water obtained from the Metropolitan Water District, City Water admits in its briefing that the record does not contain any breakdown as to the relative cost of each source of supply.

The breakdown of cost from each of its various sources of water is, in percentage terms:

****368**

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Source	Percent of Supply	Cost to Supply
Groundwater Recovery Plant	51.95%	Not ascertained
Metropolitan Water District	28.54%	$1,007 per acre foot[11]
Local Wells	7.79%	Not ascertained
Recycled Wells	6.11%	Not ascertained
Moulton Niguel Water District	5.61%	Not ascertained

[11] In 2010, City Water was paying $719 per acre foot for water from the Metropolitan Water District, and that cost was projected to increase incrementally each year until it reached $1,007 per acre foot by 2014. One acre foot equals 435.6 ccf.

[**Editor's Note:** The preceding image contains the references for footnote [11]].

Various percentages of City Water's overhead—or fixed costs in the record—were allocated in percentages to some of the sources of water, so the price per tier reflected a percentage of fixed costs and costs of some sources.

This chart reflects those allocations:

Tier	Price	Percentage Allocation
1	$2.47	$1.78 to fixed costs, .62 to wells
2	$3.29	$1.78 to fixed, 1.46 to wells
3	$4.94	$1.53 to fixed, .69 to wells, .17 to the Metropolitan Water District, and 2.50 to the groundwater recovery plant
4	$9.05	0 to fixed, 0 to wells, .53 to groundwater recovery plant, 2.53 to recycled, 3.32 to the Metropolitan Water District, and 2.64 to Penalty Set Aside

***1501** There is no issue in this case as to the process of the adoption of the new rates, such as whether they should have been voted on first under the article XIII C part of Proposition 218. For purposes of this appeal it is enough to say City Water adopted them. [12]

****369** In August 2012, the Capistrano Taxpayers Association, Inc. (CTA), filed this action, challenging City Water's new rates as violative of Proposition 218, specifically article XIII D, section 6, subdivision (b)(3)'s limit on fees to the "cost of the service attributable to the parcel." After a review of the administrative record and hearing, the trial court found the rates were not compliant with article XIII D, noting it "could not find any specific financial cost data in the [record] to support the substantial rate increases" in the progressively more expensive tiers. In particular the trial judge found a lack of support for the inequality between the tiers.

The statement of decision also concluded that the imposition of charges for recycling within the rate structure violated the "immediately available" provision in article XIII D, section 6, subdivision (b)(4), because *recycled* water is not used by residential parcels. (City Water concedes that when the recycling plant comes on line, it will supply water to some, but not all, of its customers. Residences, for example, are not typically plumbed to receive nonpotable recycled water.) City Water has timely appealed from the declaratory judgment, challenging both determinations.

III. DISCUSSION

A. *Capital Costs and Proposition 218*

[2] We first review the constitutional text. Article XIII D, section 6, subdivision (b)(4) provides: "No fee or charge may be imposed for a service unless that service is actually used by, or immediately available to, the owner of the

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property in question. Fees or charges based on potential or future use of a service are not permitted. Standby charges, whether characterized as charges or assessments, shall be classified as assessments and shall not be imposed without compliance with Section 4."

The trial court ruled City Water had violated this provision by "charging certain ratepayers for recycled water that they do not actually use and that is ***1502** not immediately available to them." The trial judge specifically found, in his statement of decision, that "City [Water] imposed a fee on all ratepayers for recycled water services and delivery of recycled water services, despite the fact that not all ratepayers used recycled water or have it immediately available to them or would ever be able to use it."

But the trial court assumed that providing recycled water is a fundamentally different kind of service from providing traditional potable water. We think not. When each kind of water is provided by a single local agency that provides water to different kinds of users, some of whom can make use of recycled water (for example, cities irrigating park land) while others, such as private residences, can only make use of traditional potable water, providing each kind of water is providing the *same* service. Both are getting water that meets their needs. Nonpotable water for some customers frees up potable water for others. And since water service is already immediately available to all customers of City Water, there is no contravention of subdivision (b)(4) in including charges to construct and provide recycled water to some customers.

On this point, *Griffith v. Pajaro Valley Water Management Agency* (2013) 220 Cal.App.4th 586 [163 Cal.Rptr.3d 243] (*Griffith*) is instructive. *Griffith* involved an augmentation fee on parcels that had their own wells. An objection to the augmentation fee by the well owners was that the fee included a charge for delivered water, ****370** even though some of the properties were outside the area and not actually receiving delivered water. The *Griffith* court said that even if some parcel owners weren't receiving delivered water, revenues from the augmentation fee still benefited those parcels, since they funded "activities required to prepare or implement the groundwater management program for the common benefit of all water users." (*Id.* at p. 602, 163 Cal.Rptr.3d 243.) In *Griffith* the augmentation fee was thus intended to fund aggressive capital investments to increase the general supply of water, including some customers receiving delivered water when other customers did not. It was undeniable that by funding delivered water to some customers, water was *freed up* for all customers. (See *Griffith, supra,* 220 Cal.App.4th at p. 602, 163 Cal.Rptr.3d 243; accord, *Paland v. Brooktrails Township Community Services Dist. Bd. of Directors* (2009) 179 Cal.App.4th 1358, [102 Cal.Rptr.3d 270] [customer in rural area who periodically went inactive still had water immediately available to him].)

In the present case, there is a Government Code definition of water, which shows water to be part of a holistic distribution system that does not distinguish between potable and nonpotable water: " 'Water' means any system of public improvements intended to provide for the production, storage, supply, treatment, or distribution of water from any source." (Gov.Code, § 53750, subd. (m).)

[3] ***1503** A recycling plant, like other capital improvements to increase water supply, obviously entails a longer timeframe than a residential customer's normal one-month billing cycle. As shown in *Morgan v. Imperial Irrigation District* (2014) 223 Cal.App.4th 892 [167 Cal.Rptr.3d 687], the timeframe for the calculation of the true cost of water can be, given capital improvements, quite long. (See *id.* p. 900, 167 Cal.Rptr.3d 687 [costs amortized over a six-year period].) And, as pointed out by amicus curiae Howard Jarvis Taxpayers Association, Government Code section 53756 contemplates timeframes for water rates that can be as long as five years. [13] There is no need, then, to conclude that rates to pay for a recycling plant have to be figured on a month-to-month basis.

[4] The upshot is that within a five-year period, a water agency might develop a capital-intensive means of production of what is effectively *new* water, such as recycling or desalinization, and pass on the costs of developing that new water to those customers whose marginal or incremental extra usage requires such new water to be produced. As amicus curiae Mesa Water District points out, Water Code section 31020 gives local water agencies the power to do acts to "furnish sufficient water in the district for any present or *future* beneficial use." (Wat.Code, § 31020, italics added.) The trial court thus erred in concluding the inclusion of charges to fund a recycling operation was, by itself, a violation of subdivision (b)(4).

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[5] **[6]** However, the record is insufficient to allow us to determine at this level whether residential ratepayers who only use six ccf or less—what City Water considers the superconservers—are being required to pay for recycling facilities that ****371** would not be necessary but for above-average consumption. Proposition 218 protects lower-than-average users from having to pay rates that are *higher than the cost of service for them* because those rates cover capital investments their levels of consumption do not make necessary. We note, in this regard, that in *Palmdale, supra,* one of the reasons the court there found the tiered pricing structure to violate subdivision (b)(3) was the perverse effect of affirmatively penalizing conservation by some users. (See *Palmdale, supra,* 198 Cal.App.4th at pp. 937–938, 131 Cal.Rptr.3d 373; see accord, *Brydon, supra,* 24 Cal.App.4th at p. 202, 29 Cal.Rptr.2d 128 ["To the extent that certain customers overutilize the resource, they contribute disproportionately to the necessity for conservation, and the requirement that the District acquire new sources for the supply of domestic water."].)

***1504** There is a case with an analogous lacuna, the Supreme Court case of *California Farm Bureau Federation v. State Water Resources Control Bd.* (2011) 51 Cal.4th 421 [121 Cal.Rptr.3d 37, 247 P.3d 112] (*Farm Bureau*). In *Farm Bureau,* the record was also unclear as to the issue of apportionment between a regulatory activity's fees and its costs. (*Id.* at p. 428, 121 Cal.Rptr.3d 37, 247 P.3d 112.) Accordingly, the high court directed the matter to be remanded to the trial court for such necessary findings.

That seems to us the appropriate way to complete the record in our case. Following the example of *Farm Bureau,* we remand the matter for further findings on whether charges to develop City Water's nascent recycling operation have been improperly allocated to users whose levels of consumption are so low that they cannot be said to be responsible for the need for that recycling.

B. *Tiered Pricing and Cost of Service*

1. *Basic Analysis*

We begin, as we did with the capital cost issue, with the text of the Constitution. In addition to subdivision (b)(3), the main provision at issue in this case, we also quote subdivision (b)(1), because it throws light on subdivision (b)(3). Subdivision (b) describes "Requirements for Existing, New or Increased Fees and Charges," and provides that, "A fee or charge shall not be extended, imposed, or increased by any agency unless it meets all of the following requirements: [¶] (1) Revenues derived from the fee or charge *shall not exceed the funds required to provide the property related service.* [¶] ... [¶] (3) *The amount of a fee or charge* imposed upon any parcel or person as an incident of property ownership *shall not exceed the proportional cost of the service attributable to the parcel.*" (Italics added.)

[7] In addition to these two substantive limits on fees, article XIII D, section 6, subdivision (b)(5) puts an important procedural limit on a court's analysis in regard to the burden of proof: "In any legal action contesting the validity of a fee or charge, the burden shall be on the agency to demonstrate compliance with this article." The trial court found City Water had failed to carry its burden of proof under subdivision (b)(5) of showing its 2010 tiered water fees were proportional to the cost of service attributable to each customer's parcel as required by subdivision (b)(3).

As respondent CTA quickly ascertained, the difference between tier 1 and tier 2 is a tidy one-third extra, the difference between tier 2 and 3 is a similarly exact one-half extra, and the difference between tier 3 and tier 4 is precisely five-sixths extra. This fractional precision suggested to us that City Water did not ***1505** attempt to correlate its rates with ****372** cost of service. Such mathematical tidiness is rare in multidecimal-point calculations. This conclusion was confirmed at oral argument in this court, when City Water acknowledged it had not tried to correlate the incremental cost of providing service at the various incremental tier levels to the prices of water at those levels.

In voluminous briefing by City Water and its amici curiae allies, two somewhat overlapping core thoughts emerge: First, they contend that when it comes to water, local agencies do not have to—or should not have to—calculate the cost of water service at various incremental levels of usage because the task is simply too complex and thus not required by our Constitution. The second core thought is that even if agencies are required to calculate the actual costs of water service at various tiered levels of usage, such a calculation is necessarily, as City Water's briefing contends, a legislative or quasi-legislative, discretionary matter, largely insulated from judicial review. We cannot agree with either assertion.

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The appropriate way of examining the text of Proposition 218 has already been spelled out by the Supreme Court in *Silicon Valley Taxpayers' Assn., Inc. v. Santa Clara County Open Space Authority* (2008) 44 Cal.4th 431, 448 [79 Cal.Rptr.3d 312, 187 P.3d 37] (*Silicon Valley*): "We ' " 'must enforce the provisions of our Constitution and "may not lightly disregard or blink at ... a clear constitutional mandate." ' " ' [Citation.] In so doing, we are obligated to construe constitutional amendments in a manner that effectuates the voters' purpose in adopting the law. [Citation.] [¶] Proposition 218 specifically states that '[t]he provisions of this act shall be *liberally construed to effectuate its purposes of limiting local government revenue and enhancing taxpayer consent.*' (Ballot Pamp., [Gen. Elec. (Nov. 5, 1996)] text of Prop. 218, § 5, p. 109; see Historical Notes, [2A West's Ann. Const. (2008 supp.) foll. *Cal. Const., art. XIII C.*], at p. 85.) Also, as discussed above, the ballot materials explained to the voters that Proposition 218 was designed to 'constrain local governments' ability to impose assessments; place extensive requirements on local governments charging assessments; shift the burden of demonstrating assessments' legality to local government; *make it easier for taxpayers to win lawsuits; and limit the methods by which local governments exact revenue from taxpayers without their consent.*' " (*Silicon Valley, supra,* 44 Cal.4th at p. 448, 79 Cal.Rptr.3d 312, 187 P.3d 37, italics added.)

If the phrase "proportional cost of the service attributable to *the* parcel" (italics added) is to mean anything, it has to be that article XIII D, section 6, subdivision (b)(3) assumes that there really *is* an ascertainable cost of the service that can be attributed to a specific—hence that little word "the"—parcel. Otherwise, the cost of service language would be meaningless. Why use the phrase "cost of the service to the parcel" if a local agency doesn't actually have to ascertain a cost of service to that particular parcel?

[8] ***1506** The presence of subdivision (b)(1) of section 6, article XIII D, just a few lines above subdivision (b)(3), confirms our conclusion. Constitutional provisions, particularly when enacted in the same measure, should be construed together and read as a whole. (*Bighorn, supra,* 39 Cal.4th at p. 228, 46 Cal.Rptr.3d 73, 138 P.3d 220.) The "proportional cost of the service" language from subdivision (b)(3) is part of a general subdivision (b), and there is an additional reference to costs in subdivision (b)(1). Subdivision (b)(1) provides that the total revenue from fees "shall not exceed the funds required to provide *the property* related service." (Italics added.)

****373** It seems to us that to comply with the Constitution, City Water had to do more than merely balance its total costs of service with its total revenues—that's already covered in subdivision (b)(1). To comply with subdivision (b)(3), City Water also had to correlate its tiered prices with the actual cost of providing water at those tiered levels. Since City Water didn't try to calculate the actual costs of service for the various tiers, the trial court's ruling on tiered pricing must be upheld simply on the basis of the constitutional text.

We find precedent for our conclusion in the *Palmdale* case. There, a water district obtained its water from two basic sources: 60 percent from a reservoir and the state water project, and the 40 percent balance from the district's own area groundwater wells. Most (about 72 percent) of the water went to single family residences, with irrigation users accounting for 5 percent of the distribution. (*Palmdale, supra,* 198 Cal.App.4th at p. 928, 131 Cal.Rptr.3d 373.) For the previous five years, the district had spent considerable money to upgrade its water treatment plant ($56 million) but revenues suffered from a "decline in water sales," so its reserves were depleted. The district wanted to issue more debt for "future capital projects." (*Id.* at pp. 928–929, 131 Cal.Rptr.3d 373.) Relying on consultants, the water district adopted a new, five-tiered rate structure, which progressively increased rates (for the top four tiers) for three basic categories of customers: residences, businesses, and irrigation projects. The tiered budgets for irrigation users were more stringent than for residential and commercial customers. (*Id.* at p. 930, 131 Cal.Rptr.3d 373.) The way the tiers operated, all three classes of customers got a tier 1 budget, but irrigation customers had less leeway to increase usage without progressing to another tier. Thus, for example, the tier 2 rates for residential customers did not kick in until 125 percent of the budget, but tier 2 rates for irrigation customers kicked in at 110 percent of the budget. The tiered rate structure was itself based on a monthly allocated water budget. (*Ibid.*)

Two irrigation users—the city itself and its redevelopment agency—sought to invalidate the new rates. The trial court had the advantage of the newly-decided Supreme Court opinion in *Silicon Valley,* which had clarified the

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***1507** standard of review for Proposition 218 cases. There, the high court made it clear that in Proposition 218 challenges to agency action, the agency had to bear the burden of proof of demonstrating compliance with Proposition 218, and both trial and reviewing courts are to apply an independent review standard, not the traditional, deferential standards *usually* applicable in challenges to governmental action. (*Silicon Valley, supra,* 44 Cal.4th at p. 448, 79 Cal.Rptr.3d 312, 187 P.3d 37.) More directly, said *Silicon Valley,* it is not enough that the agency have substantial evidence to support its action. That substantial evidence must itself be able to withstand independent review. (See *id.* at pp. 441, 448–449, 79 Cal.Rptr.3d 312, 187 P.3d 37 [explaining why substantial evidence to support the agency action standard was too deferential in light of Prop. 218's liberal construction in favor of taxpayer feature].)

With this in mind, the *Palmdale* court held the district had failed to carry its burden of showing compliance with Proposition 218. (*Palmdale, supra,* 198 Cal.App.4th at pp. 937–938, 131 Cal.Rptr.3d 373.) The core of the *Palmdale* court's reasoning was twofold. First, there was discrimination against irrigation-only customers, giving an unfair price advantage to those customers in other classes who were inclined to inefficiently use—or, for that matter, waste—outdoor water. (The opinion noted the perfect exemplar of water waste: hosing off a parking lot.) Thus an ****374** irrigation user, such as a city providing playing fields, playgrounds and parks, was disproportionately impacted by the inequality in classes of users. (*Palmdale, supra,* 198 Cal.App.4th at p. 937, 131 Cal.Rptr.3d 373.) Second, the discrimination was gratuitous. The district's own consultants had proposed a "cost of service" option that they considered Proposition 218 compliant, but the district did not choose it because it preferred a "fixed" option providing better " 'rate stability.' " In fact the choice had the perverse effect of entailing a " '*weaker* signal for water conservation' " for " 'small customers who *conserve* water.' " (*Palmdale, supra,* 198 Cal.App.4th at pp. 937–939, 131 Cal.Rptr.3d 373, some italics added.) [14]

We recognize that *Palmdale* was primarily focused on inequality between classes of users, as distinct from classes of water rate tiers. But, just as in *Palmdale* where the district never attempted to justify the inequality "in the cost of providing water" to its various classes of customers at each tiered level (*Palmdale, supra,* 198 Cal.App.4th at p. 937, 131 Cal.Rptr.3d 373), so City Water has never attempted to justify its price points as based on *costs of service for those tiers.* Rather, City Water merely used what it thought was its legislative, discretionary power to attribute percentages of total costs to the various tiers. While an interesting conversation might be had about whether this was ***1508** reasonable or wise, we can find no room for arguing its constitutionality. It does not comply with the mandate of the voters as we understand it.

2. *City Water's Arguments*

a. *Article X, Section 2*

In supplemental briefing prior to oral argument, this court pitched a batting practice fastball question to City Water, intended to give the agency its best chance of showing that the prices for its various usage tiers, particularly the higher tiers (e.g., $4.94 for all usage over 17 ccf to 34 ccf, and $9.05 for usage over 34 ccf) corresponded with its actual costs of delivering water in those increments. We were hoping that, maybe, we had missed something in the record that would demonstrate the actual cost of delivering water for usage over 34 ccf per month really is $9.05 per ccf, and City Water would hit our question into the upper deck.

What we got back was a rejection of the very idea behind the question. As would later be confirmed at oral argument, City Water's answer was that there does not have to be a correlation between tiered water prices and the cost of service. Its position is that the "cost-of-service principle of Proposition 218" must be "balance[d]" against "the conservation mandate of article X, section 2." In short, City Water justifies the lack of a correlation between the marginal amounts of water usage represented by its various tiers and the actual cost of supplying that water by saying the lack of correlation is excused by the subsidy for low usage represented by tier 1, on the theory that subsidized tier 1 rates are somehow *required* by article X, section 2. While we agree that low-cost water rates do not, in and of themselves, offend subdivision (b)(3) (see *Morgan v. Imperial Irrigation Dist., supra,* 223 Cal.App.4th at p. 899, 167 Cal.Rptr.3d 687), we cannot adopt City Water's constitutional extrapolation of that point.

We quote the complete text of article X, ****375** section 2 in the margin. [15] Article X, section 2 was enacted in 1928 in reaction to a specific Supreme Court case

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***1509** decided two years earlier, *Herminghaus v. South. California Edison Co.* (1926) 200 Cal. 81 [252 P. 607] (*Herminghaus*). The *Herminghaus* decision, as Justice Shenk wrote in his dissent there, allowed downstream riparian landowners—basically farmers owning land adjacent to a river—to claim 99 percent of the flow of the San Joaquin River even though they were actually using less than 1 percent of that flow. [16] To compound that anomaly, the downstream riparian landowners' claims came at the expense of the efforts of an electric utility company to generate electricity for general, beneficial use by building reservoirs at various points upstream on the river. (See *id.* at p. 109, 252 P. 607.) In the process of upholding the downstream landowners' "riparian rights" over the rights of the electric company to use the water to make electricity, the *Herminghaus* majority invalidated legislation aimed at preserving water in the state for a reasonable beneficial use, thereby countenancing what Justice Shenk perceived to be a plain waste of good water. (*Herminghaus, supra,* 200 Cal. at p. 123, 252 P. 607 (dis. opn. of Shenk, J.).) As our Supreme Court would describe *Herminghaus* about half a century later: "we held not only that riparian rights took priority over appropriations authorized by the Water Board, a point which had always been clear, but that as between the riparian and the appropriator, the former's use of water was not limited by the doctrine of reasonable use." (*National Audubon Society v. Superior Court* (1983) 33 Cal.3d 419, 442 [189 Cal.Rptr. 346, 658 P.2d 709] (*Audubon–Mono Lake*).)

The voters overturned *Herminghaus* in the 1928 election by adopting article X, section 2, then denoted article XIV, section 3. (See *Gin S. Chow v. City of Santa Barbara* (1933) 217 Cal. 673, 699 [22 P.2d 5] (*Gin Chow*).) In the 1976 Constitutional revision, old article XIV, section 3, was recodified *verbatim* as article X, section 2. (See Gray, *"In Search of Bigfoot": The Common Law Origins of Article X, Section 2 of the California Constitution* ****376** (1989) 17 Hastings Const. L. Q. 225 (hereinafter "*Origins of Article X, Section 2*"). [17]

The purpose of article X, section 2 was described in *Gin Chow,* the first case to reach the Supreme Court in the wake of the adoption of what is now ***1510** article X, section 2, in 1928. Justice Shenk, having been vindicated by the voters on the point of a perceived need to prevent the waste of water by letting it flow to the sea, summarized the new amendment in terms emphasizing beneficial use: "The purpose of the amendment was stated to be 'to prevent the waste of waters of the state resulting from an interpretation of our law which permits them to flow unused, unrestrained and undiminished to the sea', and is an effort 'on the part of the state, in the interest of the people of the state, to conserve our waters' without interference with the beneficial uses to which such waters may be put by the owners of water rights, including riparian owners. That such purpose is reflected in the language of the amendment is beyond question. Its language is plain and unambiguous. In the main it is an endeavor on the part of the people of the state, through its fundamental law, to conserve a great natural resource, and thereby render available for beneficial use that portion of the waters of our rivers and streams which, under the old riparian doctrine, was of no substantial benefit to the riparian owner and the conservation of which will result in no material injury to his riparian right, and without which conservation such waters would be wasted and forever lost." (*Gin Chow, supra,* 217 Cal. at p. 700, 22 P.2d 5.)

The emphasis in the actual language of article X, section 2 is thus on a policy that favors the beneficial use of water as against the waste of water for nonbeneficial uses. That is what one would expect, consistent with both Justice Shenk's dissent in *Herminghaus* and his majority opinion in *Gin Chow.* (See Gray, *supra, Origins of Article X, Section 2*, 17 Hastings Const. L. Q. at p. 263 [noting emphasis in text on beneficial use].) The word "conservation" is used in the introductory sentence of the provision in the context of promoting beneficial uses: "the conservation of such waters is to be exercised *with a view to the reasonable and beneficial use thereof* in the interest of the people and for the public welfare." (Gray, *supra, Origins v. Article X, Section 2*, at p. 225, italics added.)

[9] But nothing in article X, section 2, requires water rates to exceed the true cost of supplying that water, and in fact pricing water at its true cost is compatible with the article's theme of conservation with a view toward reasonable and beneficial use. (See *Palmdale, supra,* 198 Cal.App.4th at pp. 936–937, 131 Cal.Rptr.3d 373 [reconciling article X, section 2 with Prop. 218]; accord, *Brydon, supra,* 24 Cal.App.4th at p. 197, 29 Cal.Rptr.2d 128 [noting that incremental rate structures create an incentive to reduce water use].) Thus it is hard for us to see how article X, section 2, can be read to trump subdivision (b)(3). We would note here that in times of drought—which looks increasingly like the foreseeable future—providing water can become very pricey indeed. [18] And, we emphasize,

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there ***1511** is ****377** nothing at all in subdivision (b)(3) or elsewhere in Proposition 218 that prevents water agencies from passing on the incrementally higher costs of expensive water to incrementally higher users. That would seem like a good idea. But subdivision (b)(3) does require they figure out the true cost of water, not simply draw lines based on water budgets. Thus in *Palmdale,* the appellate court perceived no conflict between Proposition 218 and article X, section 2, *so long as* article X, section 2 is not read to allow water rates that exceed the cost of service. Said *Palmdale:* "California Constitution, article X, section 2 is not at odds with article XIII D *so long as, for example, conservation is attained in a manner that 'shall not exceed the proportional cost of the service attributable to the parcel.'* (Art. XIII D, § 6, subd. (b)(3).)" (*Palmdale, supra,* 198 Cal.App.4th at pp. 936–937, 131 Cal.Rptr.3d 373, italics added.) And as its history, and the demonstrated concern of the voters in 1928 demonstrates, article X, section 2 certainly does not require above-cost water rates.

In fact, if push came to shove and article X, section 2, really were in irreconcilable conflict with article XIII D, section 6, subdivision (b)(3), we might have to read article XIII D, section 6, subdivision (b)(3) to have carved out an *exception* to article X, section 2, since Proposition 218 is both more recent, and more specific. (*Greene v. Marin County Flood Control & Water Conservation Dist.* (2010) 49 Cal.4th 277, 290 [109 Cal.Rptr.3d 620, 231 P.3d 350] ["As a means of avoiding conflict, a recent, specific provision is deemed to carve out an exception to and thereby limit an older, general provision."]; *Izazaga v. Superior Court* (1991) 54 Cal.3d 356, 371 [285 Cal.Rptr. 231, 815 P.2d 304] [same].)

Fortunately, that problem has not arisen. We perceive article X, section 2 and article XIIID, section 6, subdivision (b)(3) to work *together* to promote increased supplies of water—after all, the main reason article X, section 2 was enacted in the first place was to ensure the *capture and beneficial use,* of water and prevent its wasteful draining into the ocean. As a pre–Proposition 218 case, *Brydon, supra,* 24 Cal.App.4th 178, 29 Cal.Rptr.2d 128 observed, one of the benefits of tiered rates is that it is reasonable to assume people will not waste water as its price goes up. (See *id.* at p. 197, 29 Cal.Rptr.2d 128 [noting that incremental rate structures create an incentive to reduce water use].) Our courts have made it clear they interpret the Constitution to allow tiered pricing; but the voters have made it clear they want it done in a particular way.

b. *Brydon and Griffith*

We believe the precedent most on point is *Palmdale,* and we read *Palmdale* to support the trial court's conclusion City Water did not comply ***1512** with the subdivision (b)(3) requirement that rates be proportional to cost of service. The two cases City Water relies on primarily for its opposite conclusion, *Brydon* and *Griffith,* do not support a different result.

Brydon was a pre-Proposition 218 case upholding a tiered water rate structure as against challenges based on 1978's Proposition 13 rational basis and equal protection challenges. Similar to the case at hand, the water district promulgated an "inclining block rate structure." (*Brydon, supra,* 24 Cal.App.4th at p. 182, 29 Cal.Rptr.2d 128; see p. 184 [details of four-tier structure].) Proposition 218 had not yet been enacted, so the opponents of the block rate structure did not have the "proportional cost of the service attributable to the parcel" language in subdivision (b)(3) ****378** to use to challenge the rate structure. They relied, rather, on the theory that Proposition 13 made the rate structure a "special tax," requiring a vote. As backup they made traditional rational basis and equal protection arguments. They claimed the rate structure was "arbitrary, capricious and not rationally related to any legitimate legislative or administrative objective" and, further, that the structure unreasonably discriminated against customers in the hotter areas of the district. (*Brydon, supra,* at p. 182, 29 Cal.Rptr.2d 128.) The *Brydon* court rejected both the Proposition 13 and rational basis/equal protection arguments.

But *Brydon*—though it might still be read as evidence that tiered pricing not otherwise connected to cost of service would survive a rational basis or equal protection challenge—simply has no application to post–Proposition 218 cases. In fact, the construction of Proposition 13 applied by *Brydon* was based on cases Proposition 218 was designed to overturn.[19] The best example of such reliance was *Brydon's* declination to follow *Beaumont Investors v. Beaumont–Cherry Valley Water Dist.* (1985) 165 Cal.App.3d 227 [211 Cal.Rptr. 567] (*Beaumont*) on the issue of the burden of proof. *Beaumont* had held it was the agency that had the burden of proof to show compliance with Proposition 13. *Brydon,* however,

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said the burden was on the taxpayers to show lack of compliance. In coming to its conclusion, *Brydon* invoked *Knox v. City of Orland* (1992) 4 Cal.4th 132 [14 Cal.Rptr.2d 159, 841 P.2d 144]. *Knox,* said *Brydon,* had "cast substantial doubt" on the "propriety of shifting the burden of proof to the agency." (***1513** *Brydon, supra,* 24 Cal.App.4th at p. 191, 29 Cal.Rptr.2d 128.) But, more than a decade later, our Supreme Court in *Silicon Valley* recognized that *Knox* itself was one of the targets of Proposition 218. (See *Silicon Valley, supra,* 44 Cal.4th at p. 445, 79 Cal.Rptr.3d 312, 187 P.3d 37. [20]) In the wake of *Knox's* fate (see in particular subd. (b)(5) [changing burden of proof]), it seems safe to say that *Brydon* itself was part of the general case law which the enactors of Proposition 218 wanted replaced with stricter controls on local government discretion.

[10] **[11]** As the *Silicon Valley* court observed, Proposition 218 effected a paradigm shift. Proposition 218 was passed by the voters in order to *curtail* discretionary models of local agency fee determination. (See *Silicon Valley, supra,* 44 Cal.4th at p. 446, 79 Cal.Rptr.3d 312, 187 P.3d 37 ["As further evidence that the voters sought to curtail local agency discretion in raising ****379** funds...."].) [21] Allocation of water rates might indeed have been a purely discretionary, legislative task when *Brydon* was decided, but not after passage of Proposition 218.

The other key case in City Water's analysis of this point is *Griffith.* There, the fee itself varied according to the location of the property, e.g., whether the parcels with wells were coastal and metered, noncoastal and metered, or residential and nonmetered. Objectors to the fee asserted certain tiers in the fee, *based on the geographic differences in the parcels covered* by the fee, were not proportional to the cost they were paying. One objector in particular complained the fee was improperly established by working backwards from the overall amount of the project, subtracting other revenues, the balance being the augmentation charge, which was then apportioned among the users. (*Griffith, supra,* 220 Cal.App.4th at p. 600, 163 Cal.Rptr.3d 243.) This objector argued that the proportional cost of service had to be calculated prior to setting the rate for the charge.

***1514** The court noted the M-1 industry manual recommends such a work-backwards-from-total-cost methodology in setting rates, and held that the objectors did not attempt to explain why such an approach "offends Proposition 218 proportionality." (*Griffith, supra,* 220 Cal.App.4th at p. 600, 163 Cal.Rptr.3d 243.) The best the objectors could do was to point to what *Silicon Valley* had said about *assessments,* namely, agencies cannot start with " 'an amount taxpayers are likely to pay' " and *then* determine their annual spending budget from that. (*Ibid.* quoting *Silicon Valley, supra,* 44 Cal.4th at p. 457, 79 Cal.Rptr.3d 312, 187 P.3d 37.) The *Griffith* court distinguished the language from *Silicon Valley,* however, by saying the case before it did not entail any what-the-market-will-bear methodology. (*Griffith, supra,* 220 Cal.App.4th at p. 600, 163 Cal.Rptr.3d 243.)

The objectors had also relied on *Palmdale* for the proposition that "Proposition 218 proportionality compels a parcel-by-parcel proportionality analysis." (*Griffith, supra,* 220 Cal.App.4th at p. 601, 163 Cal.Rptr.3d 243.) The *Griffith* court rejected that point by stating "Apportionment is not a determination that lends itself to precise calculation," for which it cited a pre–Proposition 13, pre–Proposition 218 case, *White v. County of San Diego* (1980) 26 Cal.3d 897, 903, 163 Cal.Rptr. 640, 608 P.2d 728, without any explanation. (*Griffith, supra,* 220 Cal.App.4th at p. 601, 163 Cal.Rptr.3d 243.)

When read in context, *Griffith* does not excuse water agencies from ascertaining the true costs of supplying water to various tiers of usage. Its comments on proportionality ****380** necessarily relate only to variations in property location, such as what side of a water basin a parcel might fall into. That explains its citation to *White,* which itself was not only pre-Proposition 218, but pre-Proposition 13. Moreover, while the *Griffith* court may have noted that the M-1 manual generally recommends a work-backwards approach, we certainly do not read *Griffith* for the proposition that a mere manual used by utilities throughout the western United States can trump the plain language of the California state Constitution. The M–1 manual might show working backwards is reasonable, but it cannot excuse utilities from ascertaining cost of service now that the voters and the Constitution have chosen cost of service.

To the extent *Griffith* does apply to this case, which is on the (b)(4) issue, we find it helpful and have followed it. But trying to apply it to the (b)(1) and (b)(3) issues is fatally flawed.

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c. *Penalty Rates*

[12] **[13]** A final justification City Water gives for not tying tier prices to cost of service is to say it doesn't make any difference because the higher tiers can be justified as penalties not within the purview of Proposition 218 at all. (In ***1515** the context of art. X, § 2, City Water euphemistically refers to its higher tiered rates as conservation rates as if such a designation would bring them within art. X, § 2 and exempt them from subd. (b)(3), but as we have explained, art. X, § 2, does not require what article XIII D, § 6, subd. (b)(3) forbids) and designating something a "conservation rate" is no more determinative than calling it an "apple pie" or "motherhood" rate.

City Water's theory of penalty rates relies on article XIII C, section 1, subdivision (e)(5). This subdivision defines the word "tax" to exclude fines "imposed by" a local government "as a result of a violation of law."[22] That is hardly a revelation, of course. We may take as a given that Proposition 218 was never meant to apply to parking tickets.

But City Water's penalty rate theory is inconsistent with the Constitution. It would open up a loophole in article XIII D, section 6, subdivision (b)(3) so large it would virtually repeal it. All an agency supplying *any* service would need to do to circumvent article XIII D, section 6, subdivision (b)(3), would be to establish a low legal base use for that service, pass an ordinance to the effect that any usage above the base amount is illegal, and then decree that the penalty for such illegal usage equals the incrementally increased rate for that service. Such a methodology could easily yield rates that have no relation at all to the actual cost of providing the service at the penalty levels. And it would make a mockery of the Constitution.

IV. CONCLUSION

All of which leads us to the conclusion City Water's pricing violates the constitutional requirement that fees "not exceed the proportional cost of the service attributable to the parcel." (*Art. XIII D, § 6, subd. (b)(3)*.) This is not to say City Water must calculate a rate for 225 Elm Street and then calculate another for the house across the street at 226. Neither the voters nor the Constitution say ****381** anything we can find that would prohibit tiered pricing.

The way Proposition 218 operates, water rates that exceed the cost of service operate as a tax, similar to the way a 'carbon tax' might be imposed on use of energy. But, we should emphasize: Just because such above-cost rates are a tax does not mean they cannot be imposed—they just have to be submitted to the relevant electorate and approved by the people in a vote. There is no reason, for example, why a water district or local government cannot, consistent with Proposition 218, seek the approval of the voters to impose a tax on water over a given level of usage—as we indicated earlier, that might be a good idea. However, if a local government body chooses to impose tiered rates unilaterally without a vote, those tiers must be based on cost of service for the incremental level of usage, not predetermined budgets. (For the moment, of course, we need not decide whether such a proposed tax would constitute a general tax or special tax.)

Having chosen to bypass the electorate, City Water's article X, section 2 position kept it from explaining to us *why* it cannot anchor rates to cost of service. Nothing in our record tells us why, for example, they could not figure out the costs of given usage levels that require City Water to tap more expensive supplies, and then bill users in those tiers accordingly. Such computations would seem to satisfy Proposition 218, and City Water has not shown in this record it would be impossible to comply with the constitutional mandate in this way or some other. As the court pointed out in *Howard Jarvis Taxpayers Ass'n v. City of Fresno* (2005) 127 Cal.App.4th 914, 923 [26 Cal.Rptr.3d 153], the calculations required by Proposition 218 may be "complex," but "such a process is now required by the California Constitution."

***1516** Water service fees to fund the costs of capital-intensive operations to produce more or new water, such as the recycling plant at issue in this case, do not contravene article XIII, section 6, subdivision (b)(4) of the Constitution. While that provision precludes fees for a service not immediately available, both recycled water and traditional potable water are part of the same service—water service. And water service most assuredly is immediately available to City Water's customers now.

But, because the record is unclear whether low usage customers might be paying for a recycling operation made necessary only because of high usage customers, we must reverse the trial court's judgment that the rates

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here are *necessarily* inconsistent with subdivision (b)(4), and remand the matter for further proceedings with a view to ascertaining the portion of the cost of funding the recycling operation attributable to those customers whose additional, incremental usage requires its development.

By the same token, we see nothing in article XIII, section 6, subdivision (b)(3) of the California Constitution that is incompatible with water agencies passing on the true, marginal cost of water to those consumers whose extra use of water forces water agencies to incur higher costs to supply that extra water. Precedent and common sense both support such an approach. However, we do hold that above-cost-of-service pricing for tiers of water service is not allowed by Proposition 218 and in this case, City Water did not carry its burden of proving its higher tiers reflected its costs of service. In fact it has practically admitted those tiers do not reflect cost of service, as shown by their tidy percentage increments and City Water's refusal to defend the calculations. And so, on the subdivision (b)(3) issue, we affirm the trial court's judgment.

Given the procedural posture the case now finds itself in, the issue of who is the prevailing party is premature. That question should be first dealt with by the trial court only after all proceedings as to City Water's rate structure are final. Accordingly, we do not make an appellate cost order now, but ***1517** reserve that matter for future adjudication in the trial court. (See *Neufeld v. Balboa Ins. Co.* (2000) 84 Cal.App.4th 759, 766 [101 Cal.Rptr.2d 151] [deferring question of appellate costs in case being remanded until litigation was final].)

Moore, J., and Thompson, J., concurred.

All Citations

235 Cal.App.4th 1493, 186 Cal.Rptr.3d 362, 15 Cal. Daily Op. Serv. 3836, 2015 Daily Journal D.A.R. 4351

Footnotes

1 Webb, *The American West*, Perpetual Mirage (May 1957) Harper's Magazine.

2 Reisner, Cadillac Desert: The American West and Its Disappearing Water (1986) page 6.

3 Until *Bighorn,* there was a question as to whether Proposition 218 applied at all to water rates. In 2000, the appellate court in *Howard Jarvis Taxpayers Assn. v. City of Los Angeles* (2000) 85 Cal.App.4th 79, 83 [101 Cal.Rptr.2d 905] (*Jarvis v. Los Angeles*), held that a city's water rates weren't subject to Proposition 218, reasoning that water rates are mere commodity charges. *Bighorn,* however, formally disapproved *Jarvis v. Los Angeles* and held that water rates *are* subject to article XIII D of the California Constitution. (*Bighorn, supra,* 39 Cal.4th at p. 217, fn. 5, 46 Cal.Rptr.3d 73, 138 P.3d 220.)

4 For reader convenience, we will occasionally refer in this opinion in shorthand to “subdivision (b)(1),” “subdivision (b)(3),” “subdivision (b)(4),” and “subdivision (b)(5),” and sometimes even just to “(b)(1)” “(b)(3),” “(b)(4)” or “(b)(5).” Each time those references refer to article XIII D, section 6, subdivision (b) of the California Constitution. Also, all references to any “article” are to the California Constitution.

5 We requested supplemental briefing prior to oral argument to clarify the nature of the issues and precisely what was in, and not in, the administrative record. We are indebted to able counsel on all sides for giving us their best efforts to answer our questions.

6 Such rate structures are sometimes called “inclining” as in the pre–Proposition 218 case, *Brydon v. East Bay Mun. Utility Dist.* (1994) 24 Cal.App.4th 178, 184 [29 Cal.Rptr.2d 128] (*Brydon*). Amicus ACWA estimates that over half its members now have some sort of tiered water rate system. As we will say numerous times in this opinion, tiered water rate structures and Proposition 218 are thoroughly compatible “so long as”—and that phrase is drawn directly from *Palmdale*—those rates reasonably reflect the cost of service attributable to each parcel. (*Palmdale, supra,* 198 Cal.App.4th at p. 936, 131 Cal.Rptr.3d 373.)

7 Ccf stands for one hundred cubic feet, which translates to 748 gallons. (See *Brydon, supra,* 24 Cal.App.4th at p. 184, 29 Cal.Rptr.2d 128.)

8 A precise figure for the usage is complicated by an attempt in the rate structure to distinguish indoor and outdoor use. Technically, tier 2 is tier 1 + 3 extra ccfs, plus an outdoor allocation that is supposed to average out to a total of 17 ccfs, i.e., 8 ccfs are allocated (on average) for outdoor use.

9 Technically, tier 3 is defined as up to 200 percent of tiers 1 and 2, which, given City Water's projected 17 ccf average, works out to be 34 ccf.

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10 While the consultants distinguished between regular and large lot residential customers, the final structure made no distinction between the two.

11 In 2010, City Water was paying $719 per acre foot for water from the Metropolitan Water District, and that cost was projected to increase incrementally each year until it reached $1,007 per acre foot by 2014. One acre foot equals 435.6 ccf.

12 With a minor qualification that, given our disposition, it need not be addressed in too much detail. A minor issue in the briefing is whether City Water should have made its consultants' report available for taxpayer scrutiny prior to the public hearing contemplated in article XIII D, section 6, subdivision (c). Since City Water is not able to show its price structure correlates with the actual cost of providing service at the various incremental levels even *with* the consultants' report, we need not get bogged down in this issue.

13 Government Code section 53756 provides in relevant part:

"An agency providing water, wastewater, sewer, or refuse collection service may adopt a schedule of fees or charges authorizing automatic adjustments that pass through increases in wholesale charges for water, sewage treatment, or wastewater treatment or adjustments for inflation, if it complies with all of the following:

"(a) It adopts the schedule of fees or charges for a property-related service for a period *not to exceed five years* pursuant to Section 53755." (Italics added.)

14 As described by the court, the fixed cost option was really a "fixed variable" option, with fixed charges being 60 percent of total costs, the balance being variable. (*Palmdale, supra,* 198 Cal.App.4th at p. 929, 131 Cal.Rptr.3d 373.)

15 "It is hereby declared that because of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare. The right to water or to the use or flow of water in or from any natural stream or water course in this State is and shall be limited to such water as shall be reasonably required for the beneficial use to be served, and such right does not and shall not extend to the waste or unreasonable use or unreasonable method of use or unreasonable method of diversion of water. Riparian rights in a stream or water course attach to, but to no more than so much of the flow thereof as may be required or used consistently with this section, for the purposes for which such lands are, or may be made adaptable, in view of such reasonable and beneficial uses; provided, however, that nothing herein contained shall be construed as depriving any riparian owner of the reasonable use of water of the stream to which the owner's land is riparian under reasonable methods of diversion and use, or as depriving any appropriator of water to which the appropriator is lawfully entitled. This section shall be self-executing, and the Legislature may also enact laws in the furtherance of the policy in this section contained."

16 "In order to have the beneficial use of less than one per cent of the maximum flow of the San Joaquin River on their riparian lands the plaintiffs are contending for the right to use the balance in such a way that, so far as they are concerned, over ninety-nine per cent of that flow is wasted. This is a highly unreasonable use or method of the use of water." (*Herminghaus, supra,* 200 Cal. at p. 123, 252 P. 607 (dis. opn. of Shenk, J.).)

17 Professor Gray's article is an exceptionally valuable source on the origins of article X, section 2.

18 It was recently noted that Santa Barbara is dusting off a desalinization plant built in the 1990's to provide additional water for the city in the current drought. (See Covarrubias, *Santa Barbara Working to Reactive Mothballed Desalinization Plant* (March 3, 2015, L.A. Times < http://www.latimes.com/local/california/la–me–santa–barbara–desal–20150303–story.html> (as of March 30, 2015) [noting, among other things, that desalination can be expensive].)

19 Two examples of early, post–Proposition 13 cases that took a strict constructionist view of the provision are *Los Angeles County Transportation Com. v. Richmond* (1982) 31 Cal.3d 197, 182 Cal.Rptr. 324, 643 P.2d 941 (*Los Angeles County v. Richmond*) [strictly construing Proposition 13's voting requirements to avoid finding a transportation commission was a "special district"]; *City and County of San Francisco v. Farrell* (1982) 32 Cal.3d 47, 54, 184 Cal.Rptr. 713, 648 P.2d 935 [strictly construing words "special tax" used in section 4 of Proposition 13 as ambiguous to avoid finding municipal payroll and gross receipts tax was a "special tax"].) *Brydon* expressly relied on *Los Angeles County v. Richmond.* (See *Brydon, supra,* 24 Cal.App.4th at p. 190, 29 Cal.Rptr.2d 128.) Proposition 218 effectively reversed these cases with a liberal construction provision. (See *Silicon Valley, supra,* 44 Cal.4th at p. 448, 79 Cal.Rptr.3d 312, 187 P.3d 37.)

20 Here is the relevant passage from *Silicon Valley:* "As the dissent below points out, a provision in Proposition 218 shifting the burden of demonstration was included in reaction to our opinion in *Knox.* The drafters of Proposition 218 were clearly aware of *Knox* and the deferential standard it applied based on *Dawson* [*v. Town of Los Altos Hills* (1976)] 16 Cal.3d 676 [129 Cal.Rptr. 97, 547 P.2d 1377]."

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21 Here and there in City Water's briefing there are references to a discretionary, legislative power in regard to local municipal water agencies conferred by article XI, section 9, which was a 1970 amendment to the Constitution, though one can trace it back to the Constitution of 1879. Basically, article XI, section 9, gives cities the right to go into the water supply business. We quote its text, unamended since 1970: "(a) A municipal corporation may establish, purchase, and operate public works to furnish its inhabitants with light, water, power, heat, transportation, or means of communication. It may furnish those services outside its boundaries, except within another municipal corporation which furnishes the same service and does not consent. [¶] (b) Persons or corporations may establish and operate works for supplying those services upon conditions and under regulations that the city may prescribe under its organic law."
Article XI, section 9 obviously does not *require* municipal corporations to establish fees in excess of their costs, so there is no incompatibility between it and the later enacted Proposition 218.

22 The relevant text from article XIII C, section 1, subdivision (e)(5) is:

> "(e) As used in this article, "tax" means any levy, charge, or exaction of any kind imposed by a local government, except the following: [¶] ... [¶] (5) A fine, penalty, or other monetary charge imposed by the judicial branch of government or a local government, as a result of a violation of law."

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KeyCite Yellow Flag - Negative Treatment
Distinguished by Morgan v. Imperial Irrigation Dist., Cal.App. 4 Dist., January 17, 2014

198 Cal.App.4th 926
Court of Appeal, Second District, Division 7, California.

CITY OF PALMDALE, Plaintiff and Appellant,
v.
PALMDALE WATER DISTRICT, et al., Defendants and Respondents.

No. B224869.
|
Aug. 9, 2011.
|
As Modified Aug. 25, 2011.

Synopsis
Background: City brought action seeking to invalidate water district's water rate increase structure and corresponding bonds which district sought to issue for future capital projects and refinancing. The Superior Court, Los Angeles County, No. BC413907, Conrad R. Aragon, J., entered judgment for water district, and city appealed.

Holdings: The Court of Appeal, Woods, J., held that:

[1] proposed tiered pricing structure for irrigation customers was not proportional to the cost of providing water to each parcel;

[2] tiers constituted a "fee or charge" for purposes of Proposition 218; and

[3] goal of promoting water conservation did not allow water district to charge irrigation customers a disproportionate fee.

Reversed.

West Headnotes (7)

[1] Constitutional Law
Judicial Authority and Duty in General
The court must enforce the provisions of the Constitution and may not lightly disregard or blink at a clear constitutional mandate.

Cases that cite this headnote

[2] Constitutional Law
Policy and purpose in general
The court is obligated to construe constitutional amendments in a manner that effectuates the voters' purpose in adopting the law.

1 Cases that cite this headnote

[3] Municipal Corporations
Constitutional Requirements and Restrictions
The underlying purpose of Proposition 218, which concerned voter approval for local government general taxes and special taxes and set forth procedures, requirements, and voter approval mechanisms for local government assessments, fees, and charges, was to limit government's power to exact revenue and to curtail the deference that had been traditionally accorded legislative enactments on fees, assessments, and charges. West's Ann.Cal. Const. Arts. 13C, § 1 et seq., 13D, § 1 et seq.

3 Cases that cite this headnote

[4] Water Law
Effect of usage or consumption on rate charged
Water district's proposed tiered pricing structure, which imposed greater costs on irrigation water users, was not proportional to the cost of providing water to each parcel as required by Proposition 218 and constitutional provisions prohibiting a fee or

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charge from exceeding the proportional cost of the service attributable to the parcel. West's Ann.Cal. Const. Art. 13D, § 6(b)(3, 4).

See Cal. Jur. 3d, Property Taxes, § 15; Cal. Jur. 3d, Public Improvements, § 3; 9 Witkin, Summary of Cal. Law (10th ed. 2005) Taxation, §§ 143, 144.

4 Cases that cite this headnote

[5] **Water Law**
Effect of usage or consumption on rate charged

Water district's proposed various tiers of escalated pricing of water used by irrigation customers constituted a "fee or charge" for purposes of Proposition 218's prohibition against fees and charges assessed to a parcel owner that exceed the proportional cost of the service attributable to the parcel, as district used the tiers to calculate its customers' water rates. West's Ann.Cal. Const. Art. 13D, § 6(b)(3).

4 Cases that cite this headnote

[6] **Water Law**
Types of Charges and Fees
Water Law
Rate and Amount in General
Water Law
Effect of usage or consumption on rate charged

All charges for water delivery incurred after a water connection is made are charges for a "property-related service" for purposes of Proposition 218 limitation on fees or charges, regardless of whether the charge is calculated on the basis of consumption or is imposed as a fixed monthly fee. West's Ann.Cal. Const. Art. 13D, §§ 2(e), 6(a)(4), (b)(3).

Cases that cite this headnote

[7] **Water Law**
Effect of usage or consumption on rate charged

Goal of promoting water conservation did not allow water district, in compliance with Proposition 218's limitation on fees or charges for property-related services, to employ tiered pricing structure which imposed escalating costs on irrigation-only customers, depending on their usage, that were disproportionate to rates which district charged other users. West's Ann.Cal. Const. Arts. 10, § 2, 13D, § 6(b)(3); West's Ann.Cal.Water Code § 372.

4 Cases that cite this headnote

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Daniel S. Hentschke, Oceanside, for Association of California Water Agencies (ACWA) as Amicus Curiae on behalf of Defendant and Respondent Palmdale Water District.

WOODS, J.

928** ***INTRODUCTION

In this appeal, the City of Palmdale (City) asserts the trial court erred in finding the Palmdale Water District (PWD) had adopted a new water rate structure in conformity with the constitutional requirements of Proposition 218.

After conducting an independent review of the record (*Silicon Valley Taxpayers Assn., Inc. v. Santa Clara County Open Space Authority* (2008) 44 Cal.4th 431, 448, 79 Cal.Rptr.3d 312, 187 P.3d 37), we conclude PWD failed to satisfy its burden to establish that its new water rate structure complies with the mandates of Proposition 218 (as set forth in art. XIII D of the Cal. Const. (article XIII D)), including the proportionality requirement which specifies that no fee or charge imposed upon any person or parcel as an incident of property ownership shall exceed

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the proportional cost of the service attributable to the parcel. Accordingly, we reverse the judgment.

FACTUAL AND PROCEDURAL SUMMARY

As of 2008, PWD revenues had decreased by about $1.3 million ("primarily due to a decline in water sales"), while its expenses had increased by about $1.2 million in 2008 (and $2.4 million in 2007). PWD's general manager concluded a 15 percent rate increase was necessary to balance the budget.

At a cost of $136,000, PWD retained Raftelis Financial Consultants (RFC) to prepare a rate study and recommend a new rate structure. According to RFC's water rate study report, ****375** PWD serves a population of approximately 145,000 with about 26,000 service connections. PWD's water supply consists of 60 percent surface water (from Littlerock Reservoir and the State Water Project) and 40 percent from PWD's 25 area groundwater wells. Single-family residential (SFR) customers account for 72 percent of PWD's total water usage. Remaining water usage is as follows: commercial/industrial (10 percent), multifamily residential (MFR) (9 percent), irrigation (5 percent), and construction and other customers such as schools and municipalities (4 percent).

***929** According to RFC's report, over the preceding five years, PWD had spent more than $56 million to upgrade its water treatment plant and depleted its reserves. PWD wanted to issue $38.25 million in debt by July 2009 for future capital projects and refinancing. RFC presented policy issues for the PWD board to decide, including water budget allocation defaults and methods for calculating desired fixed revenue from proposed new rates. RFC advised the board regarding two options for determining fixed revenues: a "Cost of Service" option and a "Percentage of fixed cost" option. Advantages of the Cost of Service option were noted as "Defensible—Prop 218" and "Consistent with industry standards" but one disadvantage was "Greater revenue fluctuation with varying demand." An advantage of the alternative option was "rate stability" while disadvantages included "Significant impact on small customers who conserve water" and "weaker signal for water conservation." RFC indicated fixed revenue should not exceed 30 percent of revenues.

RFC again met with PWD's board regarding the "need to adopt a water rate increase structure for a future bond issue...." It was determined PWD's new rate structure would recover 75 percent of its costs from fixed fees and 25 percent from variable fees "based on the bond team's recommendation and conservation factors...." The proposed rate structure then included a fixed monthly service charge based on meter size and commodity charges based on a water budget allocation. Residential customers were provided indoor and outdoor allocations, commercial customers received a three-year average allocation and irrigation customers received only an outdoor allocation. Commodity rates were then imposed under a tiered structure, determining how much the customer went over (or stayed within) the allocated budget.

Again, RFC presented two options for determining the commodity rates and monthly service charge: the Cost of Service (COS) option and the "Fixed/Variable Cost Allocation" (FV). With the FV option, monthly fixed charges would represent 75 percent of total costs while the COS alternative would include only billing and customer service costs plus meter charges in the fixed monthly fees. RFC indicated this option offered "more revenue stability" but a "weaker conservation signal." The reverse was true for the COS option: "less revenue stability" but a "stronger conservation signal."

When RFC presented its final water rate study report to the PWD board in March 2009, the board approved the FV option but modified it such that 60 percent of fixed costs would be recovered from fixed monthly charges and 40 percent would be recovered from variable charges.

PWD prepared a "Notice of Public Hearing" pursuant to Proposition 218, and the City (and its redevelopment agency) sent letters to PWD protesting the rate increase. PWD held a public hearing in May 2009 at which City ***930** representatives spoke against the increase and members of the public appeared to object as well. At ****376** the same meeting, the board adopted a resolution approving its 2009 bonds to replenish its reserves. "The success of this bond issue is dependent on the adoption of the pending water rate increases."

As approved, the new rate structure now imposes a fixed monthly service charge based on the size of the

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customer's meter and a per unit commodity charge for the commodity charge of water used, with the amount depending upon the customer's adherence to the allocated water budget. The customer pays a higher commodity charge per unit of water above the budgeted allotment, but the incremental rate increase depends on the customer's class. More particularly, all customers pay tier 1 rates ($0.64/unit in 2009) at 0 to 100 percent of their water budget allocation. Thereafter, however, the increased rate depends on the customer category:

	SFR/MFR	Commercial	Irrigation
Tier 2 ($2.50/unit)	100–125%	100–130%	0–110%
Tier 3 ($3.20/unit)	125–150%	130–160%	110–120%
Tier 4 ($4.16/unit)	150–175%	160–190%	120–130%
Tier 5 ($5.03/unit) [1]	Above 175%	Above 190%	Above 130%

The following day, the City filed a complaint seeking to invalidate the water rate increase and the 2009 bonds. (The case was deemed related to another action filed by the City against PWD seeking injunctive and declaratory relief to stop imposition of the new rates. The cases were not consolidated.)

This action was tried in February 2010. The City sought to introduce evidence beyond the scope of the administrative record, after propounding discovery and serving Public Records Act requests for documents. The trial court granted the City's motion to amend its complaint but denied its motion to augment the record. The City filed an offer of proof identifying evidence it would have presented at trial had it been allowed to do so and requested a statement of decision. Initially, the trial court's tentative ruling was to invalidate the rate increase but after hearing oral argument and taking the matter under submission, the trial court issued its ruling validating PWD's rates and the 2009 bonds. At the court's request, both the City and PWD submitted proposed statements of decision (and the City also filed objections to PWD's statement). The court issued PWD's statement without changes. (The court mistakenly believed the City had not filed a proposed statement ***931** but, when the error was brought to the court's attention, decided PWD's statement should stand.) Judgment was entered. The City appeals.

DISCUSSION

"In November 1996, California voters adopted Proposition 218, the Right to Vote on Taxes Act. In adopting this measure, the people found and declared ' " 'that Proposition 13 was intended to provide effective tax relief and to require voter approval of tax increases. However, local governments have subjected taxpayers to excessive tax, assessment, fee and charge increases that not only frustrate the purposes of voter approval for tax increases, but also threaten the economic security of all Californians and the California economy itself. This measure protects taxpayers by limiting the methods by which local governments exact revenue from taxpayers without their consent.' " ' [ ]" (*Howard Jarvis Taxpayers Assn. v. City of Roseville* (2002) 97 Cal.App.4th 637, 640, 119 Cal.Rptr.2d 91, fns. omitted.) "Proposition 218 added articles XIII C and XIII D to the California Constitution. Article ****377** XIII C concerns voter approval for local government general taxes and special taxes. Article XIII D sets forth procedures, requirements and voter approval mechanisms for local government assessments, fees and charges. We are concerned here with article XIII D, specifically certain provisions concerning fees and charges." (*Ibid.*)

The relevant article XIII D provisions on fees and charges are as follows:

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"[Section] 1. Application of article. Notwithstanding any other provision of law, the provisions of this article shall apply to all assessments, fees and charges, whether imposed pursuant to state statute or local government charter authority.... [¶] ... [¶]

"[Section] 2. Definitions. As used in this article: [¶] ... [¶]

"(e) 'Fee' or 'charge' means any levy other than an ad valorem tax, a special tax, or an assessment, imposed by an agency upon a parcel or upon a person as an incident of property ownership, *including a user fee or charge for a property-related service.*[¶] ... [¶]

"(g) 'Property ownership' shall be deemed to include tenancies of real property where tenants are directly liable to pay the assessment, fee, or charge in question.

"(h) 'Property-related service' means a public service having a direct relationship to property ownership. [¶] ... [¶]

***932** "[Section] 3. Limitation of property taxes, assessments, fees and charges[.]

"(a) No tax, assessment, fee, or charge shall be assessed by any agency upon any parcel of property or upon any person as an incident of property ownership except:

"(1) The ad valorem property tax imposed pursuant to Article XIII and Article XIII A.

"(2) Any special tax receiving a two-thirds vote pursuant to Section 4 of Article XIII A.

"(3) Assessments as provided by this article.

"(4) *Fees or charges for property related services as provided by this article.*

"(b) For purposes of this article, fees for the provision of electrical or gas service shall not be deemed charges or fees imposed as an incident of property ownership. [2] [¶] ... [¶]

"[Section] 6. Property Related Fees and Charges.

"(a) Procedures for New or Increased Fees and Charges. An agency shall follow the procedures pursuant to this section in imposing or increasing any fee or charge as defined pursuant to this article [(these procedures include notice to property owners, and a public hearing for proposed new or increased fees)]: [¶] ... [¶]

"(b) *Requirements for Existing, New or Increased Fees and Charges*. A fee or charge shall not be extended, imposed, or increased by any agency unless it meets *all* of the following requirements:

"(1) Revenues derived from the fee or charge *shall not exceed the funds required to provide* the property-related service.

"(2) Revenues derived from the fee or charge *shall not be used for any purpose other* than that for which the fee or charge was imposed.

"(3) The amount of a fee or charge imposed upon any parcel or person as an ****378** incident of property ownership *shall not exceed the proportional cost of the service attributable to the parcel.*

***933** "(4) No fee or charge may be imposed for a service unless that service is actually used by, or immediately available to, the owner of the property in question. Fees or charges based on potential or future use of a service are not permitted. Standby charges, whether characterized as charges or assessments, shall be classified as assessments and shall not be imposed without compliance with Section 4.

"(5) No fee or charge may be imposed for general governmental services including, but not limited to, police, fire, ambulance or library services, where the service is available to the public at large in substantially the same manner as it is to property owners. [¶] Reliance by an agency on any parcel map, including, but not limited to, an assessor's parcel map, may be considered a significant factor in determining whether a fee or charge is imposed as an incident of property ownership for purposes of this article. *In any legal action contesting the validity of a fee or charge, the burden shall be on the agency to demonstrate compliance with this article.*

"(c) Voter Approval for New or Increased Fees and Charges. Except for fees or charges for sewer, water, and refuse collection services, no property-related fee or charge shall be imposed or increased unless and until that fee or charge is submitted and approved by a majority vote

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of the property owners of the property subject to the fee or charge or, at the option of the agency, by a two-thirds vote of the electorate residing in the affected area. The election shall be conducted not less than 45 days after the public hearing....

"(d) Beginning July 1, 1997, all fees or charges shall comply with this section." (Italics added.)

[1] **[2]** **[3]** As our Supreme Court emphasized in *Silicon Valley, supra,* 44 Cal.4th 431, 79 Cal.Rptr.3d 312, 187 P.3d 37, "We ' " 'must enforce the provisions of our Constitution and "may not lightly disregard or blink at ... a clear constitutional mandate." ' " ' [Citation.] In so doing, we are obligated to construe constitutional amendments in a manner that effectuates the voters' purpose in adopting the law. [Citation.]" (*Id.* at p. 448, 79 Cal.Rptr.3d 312, 187 P.3d 37.) "Because Proposition 218's underlying purpose was to limit government's power to exact revenue and to curtail the deference that had been traditionally accorded legislative enactments on fees, assessments, and charges, a more rigorous standard of review is warranted," and we must exercise our "independent judgment" in determining whether PWD's rate increase violates article XIII D (Prop. 218). (*Ibid.*)

[4] Among other substantive challenges, the City argues PWD failed to demonstrate that its water rates are proportional to the cost of providing water service to each parcel as required under ***934** section 6(b) (3) of article XIII D: "The Proposition 218 Ballot Pamphlet makes clear that the voters intended that 'No property owner's fee may be more than the cost to provide service to that property owner's land.' " Nevertheless, the City says, PWD's rates violate this proportionality requirement in a number of respects: (1) for no permissible purpose (according to the City), PWD admittedly targets irrigation users to pay dramatically higher and disproportionate water rates; (2) PWD's monthly service charge is arbitrary and not tied to the actual costs of providing identified services to each meter; (3) PWD's commodity charge tiers are not ****379** proportional to the costs of providing water service; and (4) PWD's water budget structure is not proportional to the costs of providing water service and fails to achieve its stated purpose. Moreover, the City urges, PWD failed to prove its revenues under the new rate structure will not exceed the costs of providing water service in contravention of Article XIII D, section 6(b)(1), and instead "all but assures that revenues PWD receives from customers in the higher tiers will be more than is required to cover PWD's costs of service." Further, the City says, PWD's new rates require irrigation users to pay for services they cannot receive in violation of section 6(b)(4) of Article XIII D.

[5] According to the City, "PWD's scheme charges a few irrigation users a vastly disproportionate share of PWD's total costs. PWD makes no showing whatsoever that PWD's cost of delivering service to those irrigation users is proportionately higher than PWD's costs of delivering service to residential and commercial users. The record shows that PWD intentionally seeks to recoup most of its costs from a relatively few irrigation users (who happen to be institutions such as the City), so as to keep costs to the vast majority of PWD's customers proportionately low. This sort of price discrimination is not allowed under Proposition 218...."

[6] In response, PWD asserts that the structuring of the various tiers does not even constitute a "fee or charge" for purposes of Proposition 218 but merely "defined percentages of a customer's water budget that define the breaking points for the applicable tiers," but this is inconsistent with the law as PWD uses these tiers to calculate its customers' water rates. "Because it is imposed for the property-related service of water delivery, [PWD's] water rate, as well as its fixed monthly charges, are fees or charges within the meaning of article XIII D...." (*Bighorn–Desert View Water Agency v. Verjil* (2006) 39 Cal.4th 205, 217, 46 Cal.Rptr.3d 73, 138 P.3d 220.) "[A]ll charges for water delivery" incurred after a water connection is made "are charges for a property-related service, whether the charge is calculated on the basis of consumption or is imposed as a fixed monthly fee." (*Ibid.*)

[7] Next, PWD says it is entitled to promote conservation in such a manner pursuant to Article X, section 2, of the California Constitution: "It is hereby ***935** declared that because of the conditions prevailing in this State the general welfare requires that the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare. The right to water or to the use or flow of water in or from any natural stream or water course in this State is and shall

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be limited to such water as shall be reasonably required for the beneficial use to be served, and such right does not and shall not extend to the waste or unreasonable use or unreasonable method of use or unreasonable method of diversion of water.... This section shall be self-executing, and the Legislature may also enact laws in the furtherance of the policy in this section contained."

In addition, PWD notes, consistent with this constitutional provision, the Legislature enacted Water Code section 372 (allocation-based conservation water pricing) which provides:

"(a) A public entity may employ allocation-based conservation water pricing that meets all of the following criteria:

****380** "(1) Billing is based on metered water use.

"(2) A basic use allocation is established for each customer account that provides a reasonable amount of water for the customer's needs and property characteristics. Factors used to determine the basic use allocation may include, but are not limited to, the number of occupants, the type or classification of use, the size of lot or irrigated area, and the local climate data for the billing period. Nothing in this chapter prohibits a customer of the public entity from challenging whether the basic use allocation established for that customer's account is reasonable under the circumstances. Nothing in this chapter is intended to permit public entities to limit the use of property through the establishment of a basic use allocation.

"(3) A basic charge is imposed for all water used within the customer's basic use allocation, except that at the option of the public entity, a lower rate may be applied to any portion of the basic use allocation that the public entity has determined to represent superior or more than reasonable conservation efforts.

"(4) A conservation charge shall be imposed on all increments of water use in excess of the basic use allocation. The increments may be fixed or may be determined on a percentage or any other basis, without limitation on the number of increments, or any requirement that the increments or conservation ***936** charges be sized, or ascend uniformly, or in a specified relationship. The volumetric prices for the lowest through the highest priced increments shall be established in an ascending relationship that is economically structured to encourage conservation and reduce the inefficient use of water, consistent with Section 2 of Article X of the California Constitution.

"(b) (1) Except as specified in subdivision (a), the design of an allocation-based conservation pricing rate structure shall be determined in the discretion of the public entity.

"(2) The public entity may impose meter charges or other fixed charges to recover fixed costs of water service in addition to the allocation-based conservation pricing rate structure.

"(c) A public entity may use one or more allocation-based conservation water pricing structures for any class of municipal or other service that the public entity provides." (Wat.Code, § 372.)

While this statute contemplates allocation-based conservation pricing consistent with Article X, section 2, PWD fails to explain why this provision cannot be harmonized with Proposition 218 and its mandate for proportionality. PWD fails to identify any support in the record for the inequality *between* tiers, depending on the category of user. In addition, PWD says, "the distinct tiers for irrigation users are [further] supported by Water Code section 106, which expressly recognizes that the use of water for domestic purposes is superior to that for irrigation usage." However, the precise language of section 106 is as follows: "It is hereby declared to be the established policy of this State that the use of water for domestic purposes is the highest use of water and that the *next highest use* is for irrigation." (Wat.Code, § 106, italics added; and see *Deetz v. Carter* (1965) 232 Cal.App.2d 851, 854, 856, 43 Cal.Rptr. 321 [domestic use includes "consumption for the sustenance of human beings, for household conveniences, and for the care of livestock," but not "commercial purposes"].) Yet, under PWD's tier structure, commercial users are permitted to use amounts of water exceeding their budgeted allocation under tier 1 at a lower cost than irrigation only users—without ****381** any explanation for this disparity even attempted by PWD.

California Constitution, article X, section 2 is not at odds with article XIII D so long as, for example, conservation is attained in a manner that "shall not ***937** exceed the proportional cost of the service attributable to the

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parcel." (Art. XIII D, § 6, subd. (b), par. (3).) According to the record, the efficient use of water in keeping with the policy in favor of water conservation is already built into the customer's budgeted allocation (the tier 1 rate, which is equal for all users). Yet, a review of the tier structure alone establishes that irrigation customers such as the City are charged disproportionate rates reaching tier 5 ($5.03/unit) rates at 130 percent of their budgeted allocation as compared to other users who do not reach such high rates until they exceed 175 percent (SFR/MFR) or 190 percent (commercial) without any showing by PWD of a corresponding disparity in the cost of providing water to these customers at such levels. [3] Notably, PWD's "IRR" category means customers designated as "irrigation *only* " users; PWD does not segregate the recognized outdoor and irrigation usage of its other customers such as residential or commercial users. As a result, a residential (single- or multifamily) or commercial user (constrained only by its historical three-year average usage) could waste or inefficiently use water by, for example, filling, emptying and refilling a swimming pool or excessively hosing off a worksite or parking lot without the same proportional cost because of the significant disparity in tiered rates for water use in excess of the customer's allotted water budget. According to the record, it is the irrigation-only user (perhaps, as the City urges, maintaining playing fields, playgrounds and parks for example) who is "potentially the most impacted," without a corresponding showing in the record that such impact is justified under Article X, section 2, or permissible under Article XIII D, section 6.

As stated in section 6, subdivision (b)(5) of Article XIII D, "In any legal action contesting the validity of a fee or charge, the burden shall be on the agency to demonstrate compliance with this article." According to RFC, it was the cost of service (COS) option—the option PWD did *not* choose—that was "[d]efensible [under] Prop[osition] 218," and this option was also "[c]onsistent with industry standards," but it meant "[g]reater revenue fluctuation with varying demand." On the other hand, RFC advised PWD the "[p]ercentage of fixed cost" or FV option it ultimately chose would send a "*weaker* signal for water conservation" and would mean a "[s]ignificant impact on small customers *who conserve* water," but afforded "rate ***938** stability." (Italics added.) It follows that PWD has failed to carry its burden to demonstrate compliance with the requirements of article XIII D, and the judgment must be reversed. [4]

****382** *DISPOSITION*

The judgment is reversed. The City is entitled to its costs of appeal.

We concur: PERLUSS, P.J., and ZELON, J.

All Citations

198 Cal.App.4th 926, 131 Cal.Rptr.3d 373, 11 Cal. Daily Op. Serv. 11,067, 2011 Daily Journal D.A.R. 13,081

Footnotes

1 These costs per unit are the tiered rates for 2009; the per unit cost increases each year thereafter while the tier percentages remain the same.

2 Article XIII D, section 4 sets forth procedures and requirements for assessments analogous to the procedures and requirements for fees and charges set forth in article XIII D, section 6, post. Article XIII D, section 5 specifies the effective date and exemptions from section 4.

3

	SFR/MFR	Commercial	Irrigation
Tier 2 ($2.50/unit)	100–125%	100–130%	0–110%
Tier 3 ($3.20/unit)	125–150%	130–160%	110–120%
Tier 4 ($4.16/unit)	150–175%	160–190%	120–130%
Tier 5 ($5.03/unit)	Above 175%	Above 190%	Above 130%

4 In addition to arguing PWD's rate structure violated the proportionality requirement of Proposition 218, the City says the trial court abused its discretion in denying its motion to augment (beyond the administrative record) and raises a number of additional substantive and procedural challenges, but we need not address these additional arguments in light of our disposition of the preceding issue.

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KeyCite Yellow Flag - Negative Treatment
Distinguished by Citizens for Fair REU Rates v. City of Redding, Cal., August 27, 2018

97 Cal.App.4th 637, 119 Cal.Rptr.2d 91, 02 Cal. Daily Op. Serv. 3160, 2002 Daily Journal D.A.R. 3870

HOWARD JARVIS TAXPAYERS ASSOCIATION et al., Plaintiffs and Respondents,
v.
CITY OF ROSEVILLE, Defendant and Appellant.

No. C036295.
Court of Appeal, Third District, California.
Apr. 12, 2002.

SUMMARY

A taxpayers association and related parties filed an action against a city, alleging that an "in-lieu franchise fee" of 4 percent imposed by the city on the annual budgets of each of the city's utilities (water, sewer, and refuse collection), paid by the utility ratepayers and transferred to the city's general fund, violated Prop. 218 (Cal. Const., art. XIII D), which requires voter approval of local government property-related assessments, fees, and charges. The trial court entered summary judgment for plaintiffs. (Superior Court of Placer County, No. SCV7831, Frances A. Kearney, Judge.)

The Court of Appeal affirmed. The court held that the fee was subject to, and violated Prop. 218, specifically Cal. Const., art. XIII D, § 6, subd. (b), which provides that fee or charge revenues may not exceed what it costs to provide fee or charge services, and that no fee or charge may be imposed for general governmental services. The in-lieu franchise fee did not comply with either of these requirements. (Opinion by Davis, J., with Scotland, P. J., and Callahan, J., concurring.)

HEADNOTES

Classified to California Digest of Official Reports

(1)
Property Taxes § 7.8--Real Property Tax Limitation--In-lieu Franchise Fee--Municipal Utilities--Voter Approval Requirement.
An "in-lieu franchise fee" of 4 percent imposed by a city on the annual budgets of each of the city's utilities (water, sewer, and refuse collection), paid by the utility ratepayers and transferred to the city's general fund, was subject to Prop. 218 (Cal. Const., art. XIII D), which requires voter approval of local government property-related assessments, fees, and charges. The fee was not dependent upon the quantity of service used, which is excepted from Prop. 218, but was imposed upon a parcel or upon a person as an incident of property ownership for Prop. 218 purposes.

(2)
Property Taxes § 7.8--Real Property Tax Limitation--In-lieu Franchise Fee--Municipal Utilities--Validity--Voter Approval Requirement.
An in-lieu franchise fee of 4 percent imposed by a city on the annual budgets of each of the city's utilities (water, sewer, and refuse collection), paid by the utility ratepayers and transferred to the city's general fund, violated Prop. 218 (Cal. Const., art. XIII D), which requires voter approval of local government property-related assessments, fees, and charges, and specifically Cal. Const., art. XIII D, § 6, subd. (b), which provides that fee or charge revenues may not exceed what it costs to provide fee or charge services, and that no fee or charge may be imposed for general governmental services. The in-lieu franchise fee did not comply with either of these requirements.

[See 9 Witkin, Summary of Cal. Law (9th ed. 1989) Taxation, § 109C-110B; West's Key Digest System, Municipal Corporations
956(2).]

COUNSEL
Mark J. Doane, City Attorney, Richard G. Glenn, Deputy City Attorney; and Dennis W. De Cuir for Defendant and Appellant.
Trevor A. Grimm, Jonathan M. Coupal and Timothy A. Bittle for Plaintiffs and Respondents.

DAVIS, J.

The City of Roseville (Roseville) operates three municipal utilities that provide, respectively, water, sewer, and refuse collection services. Roseville imposes an "in-lieu franchise fee" (in-lieu fee) of 4 percent on each of the utilities' annual budgets; this fee is paid by the utility ratepayers and transferred to Roseville's general fund.

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This appeal presents us with two principal questions: whether Proposition 218-a descendant of Proposition 13 that covers local government fees and charges-applies to Roseville's in-lieu fee; and, if so, whether the in-lieu fee violates Proposition 218. We answer yes to both questions and affirm the judgment. ***639**

Background

Private utilities pay public authorities "franchise fees" to use government land such as streets, or for rights-of-way to provide utility service. [1] Roseville similarly imposes the in-lieu fee on its municipal utilities; "in-lieu" is the term of choice since the utilities are not private entities.

The accounting for Roseville's municipal utilities is maintained in enterprise accounts that are separate from Roseville's general fund. The in-lieu fee was conceived in 1968, and has existed in various forms since then. The in-lieu fee at issue here began in 1992, when Roseville began transferring from the utilities' enterprise accounts to its general fund a fee of 4 percent of the utilities' annual budgets.

The Howard Jarvis Taxpayers Association, together with two other groups and two individual ratepayers (collectively referred to as plaintiffs), sued Roseville over the in-lieu fee. Plaintiffs sought declaratory relief, injunctive relief, and a writ of mandate; they claimed the in-lieu fee violated Proposition 218 by imposing a fee for a property-related service that was not tied properly to the cost of providing that service. Plaintiffs initially had also sought a refund, but they abandoned that claim.

Preliminarily, Roseville argues that plaintiffs failed to exhaust their administrative remedies, and that the trial court lacked jurisdiction to entertain a suit in equity because plaintiffs had the adequate legal remedy of a refund. Similar to the situation presented in the recent high court decision in *Agnew v. State Bd. of Equalization*, however, the legal validity of the in-lieu fee is a question properly raised through an action seeking declaratory, injunctive and mandate relief; to the extent the complaint seeks a judicial determination of the legal validity of the in-lieu fee, it does not involve an issue subject to determination through the administrative refund remedy available to plaintiffs. [2]

Roseville sought to counter plaintiffs' view of the in-lieu fee (i.e., as one not tied properly to the cost of providing the utility service) by characterizing the fee as compensation or rent paid to its general fund by each of the municipal utilities for the costs of Roseville's streets, alleys and rights-of-way used to provide utility service; or as a reasonable economic return ***640** to the general fund which supports or pays for those streets, alleys and rights-of-way.

Plaintiffs and Roseville filed cross-motions for summary judgment. Plaintiffs emerged with the judgment. The trial court concluded: "Assuming without deciding that [Roseville] has the right to charge the budgets of the municipal utilities with the cost of using [Roseville's] rights[-]of[-]way, the in-lieu franchise fee as presently imposed does not appear to bear any relationship to the actual cost of maintenance of those rights[-]of[-]way, or the utilities' proportional share of that cost."

We will turn now to the first issue, whether Proposition 218 applies to the in-lieu fee. We will weave the pertinent facts into the fabric of our discussion.

Discussion

1. *Proposition 218 Applies to the In-lieu Fee*

In November 1996, California voters adopted Proposition 218, the Right to Vote on Taxes Act. [3] In adopting this measure, the people found and declared " 'that Proposition 13 was intended to provide effective tax relief and to require voter approval of tax increases. However, local governments have subjected taxpayers to excessive tax, assessment, fee and charge increases that not only frustrate the purposes of voter approval for tax increases, but also threaten the economic security of all Californians and the California economy itself. This measure protects taxpayers by limiting the methods by which local governments exact revenue from taxpayers without their consent.' " [4]

Proposition 218 added articles XIII C and XIII D to the California Constitution. Article XIII C concerns voter approval for local government general taxes and special taxes. Article XIII D sets forth procedures, requirements and voter approval mechanisms for local government assessments, fees and charges. We are concerned here with

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article XIII D, specifically certain provisions concerning fees and charges.

The relevant California Constitution, article XIII D provisions on fees and charges are as follows: ***641**

"*Section 1. Application*. Notwithstanding any other provision of law, the provisions of this article shall apply to all ... fees and charges [with some exceptions, most notably, existing laws relating to development fees or charges], whether imposed pursuant to state statute or local government charter authority.... [¶] ... [¶]

"*Sec. 2. Definitions.* As used in this article: [¶] ... [¶]

"(e) 'Fee' or 'charge' means any levy other than an ad valorem tax, a special tax, or an assessment, imposed by an agency upon a parcel or upon a person as an incident of property ownership, including a user fee or charge for a property-related service. [¶] ... [¶]

"(g) 'Property ownership' shall be deemed to include tenancies of real property where tenants are directly liable to pay the assessment, fee, or charge in question.

"(h) 'Property-related service' means a public service having a direct relationship to property ownership. [¶] ... [¶]

"*Sec. 3. Property Taxes, Assessments, Fees and Charges Limited.* ... [¶] ... [¶]

"(b) For purposes of this article, fees for the provision of electrical or gas service shall not be deemed charges or fees imposed as an incident of property ownership. [¶] ... [¶]

"*Sec. 6. Property-Related Fees and Charges. (a) Procedures for New or Increased Fees and Charges.* An agency shall follow the procedures pursuant to this section in imposing or increasing any fee or charge as defined pursuant to this article [these procedures include notice to property owners, and a public hearing for proposed new or increased fees]: [¶] ... [¶]

"*(b) Requirements for Existing, New or Increased Fees and Charges.* A fee or charge shall not be extended, imposed, or increased by any agency unless it meets all of the following requirements:

"(1) Revenues derived from the fee or charge shall not exceed the funds required to provide the property-related service.

"(2) Revenues derived from the fee or charge shall not be used for any purpose other than that for which the fee or charge was imposed.

"(3) The amount of a fee or charge imposed upon any parcel or person as an incident of property ownership shall not exceed the proportional cost of the service attributable to the parcel. ***642**

"(4) No fee or charge may be imposed for a service unless that service is actually used by, or immediately available to, the owner of the property in question. Fees or charges based on potential or future use of a service are not permitted....

"(5) No fee or charge may be imposed for general governmental services including, but not limited to, police, fire, ambulance or library services, where the service is available to the public at large in substantially the same manner as it is to property owners. [¶] Reliance by an agency on any parcel map, including, but not limited to, an assessor's parcel map, may be considered a significant factor in determining whether a fee or charge is imposed as an incident of property ownership for purposes of this article. In any legal action contesting the validity of a fee or charge, the burden shall be on the agency to demonstrate compliance with this article.

"*(c) Voter Approval for New or Increased Fees and Charges.* Except for fees or charges for sewer, water, and refuse collection services, no property-related fee or charge shall be imposed or increased unless and until that fee or charge is submitted and approved by a majority vote of the property owners of the property subject to the fee or charge or, at the option of the agency, by a two-thirds vote of the electorate residing in the affected area. The election shall be conducted not less than 45 days after the public hearing....

"(d) Beginning July 1, 1997, all fees or charges shall comply with this section." (Italics added.)

The issue here is whether the in-lieu fee for Roseville's water, sewer, and refuse collection services is within the California Constitution, article XIII D, section 2,

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definition of "fee" or "charge"-that is, "imposed by an agency upon a parcel or upon a person as an incident of property ownership, including a user fee or charge for a property-related service"; a " '[p]roperty-related service' means a public service having a direct relationship to property ownership." We conclude the in-lieu fee is within this definition.

We start with the definition's use of the term "agency." That term includes a charter city and any other local governmental entity. [5] Roseville and its municipal utilities fall within this definition.

That settled, the next inquiry is whether the in-lieu fee for Roseville's water, sewer, and refuse collection services is imposed "upon a parcel or ***643** upon a person as an incident of property ownership[.]" Roseville Municipal Code governs water, sewer, and refuse charges. The relevant code provisions are as follows.

For water:

"The owner of the real property served by the city shall be charged with, and shall be personally responsible for, the water bills incurred for water service to such property." [6]

"The water division shall install service connections and lay service pipes up to the coterminous of the public easement or interest in land and the property of the applicant ...." [7]

"There shall be due and payable the following monthly charges, upon submission of the bill by the City to the owner of the property supplied with service, for all treated water measured by meters for residential, commercial, industrial and manufacturing or other purposes: [¶] ... [¶] ... The total amount due and payable shall be the sum of the monthly service charge plus the quantity rate. The monthly service charge is due and payable regardless of whether water has been consumed." [8]

"The following service charges shall apply to flat rate [residential] consumers [based on property lot size] that the Environmental Utilities Director determines are not cost effective to assign metered rates." [9]

"All consumers, whether owners or not, shall maintain and keep in good repair the water pipes on the interior and exterior of the property served." [10]

For sewer:

"If a lot or other parcel of property has had an existing connection to the public sewer system ... , the connection fees ... shall not be required ***644** ...." "... The city shall construct all laterals necessary to make connections from the main sewer to the line of the property of the adjoining owner[.]" [11]

"Except as otherwise provided in this chapter, a monthly unit sewer service charge [not dependent upon discharge volume] shall be paid by each [property-based residential (i.e., depending on dwelling type)] user connected to the City-owned public sewer.... [¶] ... The monthly sewer charge shall be $15.50/sewer unit." [12] (Commercial and industrial users are property-based too, depending upon business or activity; some of these users are tied to discharge volume, and some are not.) [13]

And for refuse collection:

"Each and every householder or tenant occupying any dwelling, house, or residence, shall pay to the city ... a fixed minimum charge ... as a refuse fee. Such fixed minimum is based upon service of one (1) call per week, irrespective of whether there is any refuse to remove from any premises." [14]

"Every proprietor of each and every store, shop, apartment, house, roominghouse, or factory shall pay to the city ... a fixed minimum charge ... as a refuse fee. Such fixed minimum is based upon service of (1) call per week, irrespective of whether there is any refuse to remove from any premises." [15]

() These municipal code sections direct the provision of water, sewer, and refuse services to (owned) property. These services are first necessarily delivered to property, and then, and only then, to those living or working on the property. This recognized dichotomy discounts any argument that water, sewer, and refuse services delivered to a tenant are not property-related, that is, not directly tied to property ownership. Furthermore, California Constitution, article XIII D, section 2, subdivision (g),

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states that " '[p]roperty ownership' shall be deemed to include tenancies of real property where tenants are directly liable to pay" the fee or charge. In light of these observations, we conclude that the in-lieu fee for Roseville's water, sewer, ***645** and refuse services, a fee not dependent upon the quantity of service used, is a fee imposed upon a parcel or upon a person as an incident of property ownership for Proposition 218 purposes. [16]

Our specific conclusion is buttressed by general language in California Constitution, article XIII D and in the ballot materials for Proposition 218, and by a recent state Supreme Court decision mindful of that language.

Under California Constitution, article XIII D, section 3, subdivision (b), "fees for the provision of electrical or gas service shall not be deemed charges or fees imposed as an incident of property ownership." More importantly, article XIII D, section 6, subdivision (c), states that "[e]xcept for fees or charges for sewer, water, and refuse collection services, no property-related fee or charge shall be imposed or increased" unless submitted for voter approval. There would be no point in specifically exempting sewer, water and refuse collection fees and charges from this one requirement of article XIII D, and in characterizing these fees and charges in this grammatical way, if they were not subject, at least in some respects, to article XIII D's other requirements for property-related fees or charges.

In the ballot materials for Proposition 218, the Legislative Analyst's analysis bears out this view. That analysis observes: "Local governments charge fees to pay for many services to their residents. Some of these fees pay for services to property, such as garbage collection and sewer service.... [¶] ... [¶] ... Fees for water, sewer, and refuse collection service probably meet the measure's definition of a property-related fee. Gas and electric fees and fees charged to land developers are specifically exempted. [¶] ... [¶] ... The most likely fees ... affected by these provisions would be those for: [among others], water service." [17]

Our state high court, in *Apartment Assn.*, recently noted that this analysis from the Legislative Analyst "explained that Proposition 218 'would constrain local governments' ability to impose fees, assessments, and taxes,' meaning 'property-related' fees, including fees for water, sewer and refuse ***646** collection, but excluding gas and electricity charges [citation] and development fees [citation]. [Citation.] It did not refer to levies linked more indirectly to property ownership." [18]

Roseville emphasizes two passages from *Apartment Assn.* There the court concluded that Proposition 218 did not apply to an inspection fee that a city imposed on apartment landlords for code compliance inspections. [19] The inspection fee, said the court, was "imposed on landlords not in their capacity as landowners, but in their capacity as business owners" [20] In the two passages that Roseville emphasizes, the *Apartment Assn.* court stated that Proposition 218 "only restricts fees imposed directly on property owners in their capacity as such," and "applies only to exactions levied solely by virtue of property ownership." [21] This reading was based on the plain language of Proposition 218's article XIII D, section 2, subdivision (e), which defines a fee or charge as one imposed "as an incident of property ownership" rather than "on an incident of property ownership." [22]

The inspection fee in *Apartment Assn.* was imposed because the property there was being rented; here, as we have seen, the in-lieu fee was imposed because the property was being owned. As the *Apartment Assn.* court reiterated, the inspection fee was "more in the nature of a fee for a business license than a charge against property." [23] Furthermore, article XIII D, section 2, subdivision (e)'s definition of fee or charge includes "a user fee or charge for a property-related service"; a property-related service "means a public service having a direct relationship to property ownership." [24] The relationship between the inspection fee in *Apartment Assn.* and property ownership was indirect-it was "overlain by the requirement that the landowner be a landlord." [25] Here, as we have seen, the relationship between the in-lieu fee and property ownership is direct.

Roseville also cites to *Howard Jarvis Taxpayers Assn. v. City of Los Angeles* to claim that the in-lieu fee is not subject to Proposition 218. [26] That case is distinguishable. There, the appellate court faced the question whether certain municipal water usage rates were imposed as an incident of property ownership, and therefore, required voter approval. The court noted that fees ***647** or charges for water services are specifically exempted from the voter approval requirement by California Constitution, article XIII D, section 6, subdivision (c). The court also

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noted that under the ordinances setting water rates, the supply and delivery of water did not require that a person own or rent the property where the water was delivered; and that the charges for water service were usage rates-basically, commodity charges-based primarily on the amount consumed. Therefore, the water usage rates were not incident to or directly related to property ownership within the meaning of Proposition 218. [27]

By contrast, the ordinances at issue here governing the initial delivery of water, sewer, and refuse collection services are necessarily tied to property ownership. And the in-lieu fee is not a commodity charge based primarily on the amount consumed; rather, it comprises a flat 4 percent of the yearly budgets of the water, sewer, and refuse utilities, and is a blended component of the rates charged by those utilities irrespective of the amount consumed. We do not suggest that measured or metered consumption determines, on its own, whether a fee is property related within the meaning of Proposition 218; it is simply a factor to consider in an analysis like that undertaken in *Jarvis-L.A.* We also reiterate that the evidence shows, and the parties have treated, the in-lieu fee, for Proposition 218 purposes, as a separate, independent fee for water, sewer, and refuse collection services, and not simply as a component part of another fee.

We conclude that Proposition 218 applies to the in-lieu fee for Roseville's water, sewer, and refuse collection services.

2. *The In-lieu Fee Violates Proposition 218*

() Plaintiffs contend the in-lieu fee violates Proposition 218, specifically some of the cost and usage requirements set forth in section 6, subdivision (b) of California Constitution, article XIII D (hereafter section 6(b), or section 6(b) of Proposition 218). We agree.

Section 6(b)(1) states that "[r]evenues derived from the fee or charge shall not exceed the funds required to provide the property-related service." Section 6(b)(2) compatibly states that "[r]evenues derived from the fee or charge shall not be used for any purpose other than that for which the fee or charge was imposed." And section 6(b)(5), in part, adds for emphasis, "[n]o fee or charge may be imposed for general governmental services including, but not limited to, police, fire, ambulance or library services, where the service is available to the public at large in substantially the same manner as it is to property owners."

The theme of these sections is that fee or charge revenues may not exceed what it costs to provide fee or charge services. Of course, what it costs to ***648** provide such services includes all the required costs of providing service, short-term and long-term, including operation, maintenance, financial, and capital expenditures. The key is that the revenues derived from the fee or charge are required to provide the service, and may be used only for the service. In short, the section 6(b) fee or charge must reasonably represent the cost of providing service.

In line with this theme, Roseville may charge its water, sewer, and refuse utilities for the street, alley and right-of-way costs attributed to the utilities; and Roseville may transfer these revenues to its general fund to pay for such costs (the general fund supports or pays for Roseville's streets, alleys, and rights-of-way). Here, however, there has been no showing that the in-lieu fee reasonably represents these costs.

Roseville sets the in-lieu fee at a flat 4 percent of each of the three utilities' annual budgets. On its face, this fee does not represent costs. It is a flat fee. It is imposed on the utilities' budgets, presumably after their total costs have been accounted for in the budget process. If the budget of a utility increases because of a cost increase unrelated to the in-lieu fee, the in-lieu revenues, as a flat percentage of that increased budget, increase as well. The in-lieu fee is the same percentage applied to each budget, regardless of varying uses of streets, alleys and rights-of-way by the individual utilities. It cannot be said that this flat fee on budgets coincides with these costs.

Roseville concedes that the in-lieu fee was set at 4 percent "of utility expenses by a process that considered (1) what [Roseville] collects as franchise fees from private enterprises, (2) what other communities collect as franchise fees, and (3) what would be a reasonable rate of return for use of [Roseville's] rights[-]of[-]way." As plaintiffs point out, however, not one of these factors aligns with an identified cost of providing utility service, as required by Proposition 218; instead, they all ask, " 'What will the market bear?' " While Roseville may be free to impose franchise fees on private utilities on the basis of contractual negotiation rather than costs, it is not free, under section 6(b) of Proposition 218, to

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impose franchise-like fees on a noncost basis regarding its municipal utilities. [28]

Relying on a valuation analysis it commissioned regarding the in-lieu fee (the Sierra West Report), Roseville notes the fee constitutes "[reasonable] compensation or rent paid to the General Fund by each of the municipal utilities as an expense for the costs of [Roseville's] streets, alleys, and rights-of-way used by such utilities in providing each separate utility service"; this report also characterizes the fee "as a reasonable economic return to the General Fund on the investment made by General Fund support of and ***649** contributions to each municipal utility." While the Sierra West Report may provide a theoretical foundation for imposing the in-lieu fee-at least with respect to compensation paid for the street, alley and right-of-way costs attributed to the utilities-the report fails to show those costs. Under section 6(b) of Proposition 218, the fee or charge must reasonably represent the cost of providing service.

Furthermore, the reliance by Roseville and by the Sierra West Report on aspects of the state Supreme Court's 1986 decision in *Hansen v. City of San Buenaventura* is problematic. [29] *Hansen* observed that a municipal utility is entitled to a reasonable rate of return and that utility rates need not be based purely on costs. [30] To support these observations, *Hansen* noted that nothing in the California Constitution forecloses a local governmental entity from " 'using the *net proceeds* of enterprises such as municipal utility systems for the benefit of its own general fund.' " [31] *Hansen*'s observations, however, were made 10 years before Proposition 218 added article XIII D to the state Constitution. Although the *Jarvis-L.A.* court relied on *Hansen* for part of its analysis, the decision in *Jarvis-L.A.* concluded that Proposition 218 did not apply to the water usage rates at issue there. [32]

We previously granted Roseville's request to take judicial notice of two local ballot measures that purported to amend Roseville's charter. These measures were approved by Roseville's electorate at a general municipal election held on November 7, 2000, after the trial court proceedings in this case. The two measures are Measure K, which received a majority vote; and Measure U, which received greater than a two-thirds vote.

Measure U amended the charter to state that "Each city-owned utility shall be financially self-sufficient, and shall fully compensate the city general fund for all goods, services, real property and rights to use or operate on or in city-owned real property."

Measure K purportedly amended the charter to provide that for purposes of accounting for the use of the public right-of-way, Roseville's utilities may pay to Roseville's general fund an in-lieu franchise fee not to exceed 4 percent of total utility operating and capital expenditures, which shall be budgeted and appropriated solely for police, fire, parks and recreation, or library services. The impartial ballot analysis for Measure K, written by Roseville's city attorney, stated that the measure, "if enacted, would validate ***650** the in[-]lieu franchise fee concept as representing an element of the actual cost of providing utility services to the public."

These measures do not turn the tide for Roseville by displaying the costs the in-lieu fee covers. Measure U simply states that Roseville's utilities will pay Roseville for what the city provides the utilities, including real property and rights to use or operate on or in city-owned real property. Proposition 218 has no quarrel with Measure U in theory, but the measure does nothing to show what the actual costs of that real property, usage or operation are. And Measure K suffers from a similar deficiency. It states that the utilities may pay an in-lieu fee "not to exceed four percent (4%) of total operating and capital expenditures"-again, this measure does nothing to show actual costs. The city attorney's analysis of Measure K is couched similarly in theoretical terms: the measure "would validate the in[-]lieu franchise fee *concept* as representing an element of the actual cost of providing utility services ...." (italics added); moreover, the in-lieu revenues under Measure K are to be spent solely on police, fire, parks and recreation, or library services, rather than on actual costs of providing utility service. Because it is unnecessary to do so, we express no views regarding the validity of Measure K.

Last, but not least, the in-lieu fee violates section 6(b) of Proposition 218 in a more direct way. Roseville concedes that "[r]evenue from the in[-]lieu franchise fee is 'placed in [Roseville's] general fund to pay for general governmental services. It has not been pledged, formally or informally[,] for any specific purpose." This concession runs afoul of section 6(b)(2) that "[r]evenues derived from the fee or charge shall not be used for any purpose other than

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that for which the fee or charge was imposed." It also contravenes section 6(b)(5) that "[n]o fee or charge may be imposed for general governmental services ...." As noted, Roseville may place in its general fund the revenues derived from a cost-based in-lieu franchise fee to pay for the street, alley and right-of-way costs attributed to the water, sewer and refuse utilities.

We conclude the in-lieu fee violates section 6(b) of Proposition 218.

Disposition

The judgment is affirmed.

Scotland, P. J., and Callahan, J., concurred.

A petition for a rehearing was denied May 13, 2002, and the opinion was modified to read as printed above. Appellant's petition for review by the Supreme Court was denied July 10, 2002. Brown, J., did not participate therein. ***651**

Footnotes

1 *Santa Barbara County Taxpayer Assn. v. Board of Supervisors* (1989) 209 Cal.App.3d 940, 949 [257 Cal.Rptr. 615] (*Santa Barbara Taxpayer Assn.*).

2 *Agnew v. State Bd. of Equalization* (1999) 21 Cal.4th 310, 319-320 [87 Cal.Rptr.2d 423, 981 P.2d 52]; see also *Howard Jarvis Taxpayers Assn. v. City of La Habra* (2001) 25 Cal.4th 809, 822 [107 Cal.Rptr.2d 369, 23 P.3d 601], citing *Brown v. County of Los Angeles* (1999) 72 Cal.App.4th 665, 670 [85 Cal.Rptr.2d 414].

3 See Historical Notes, 2A West's Annotated California Constitution (2002 supp.) following article XIII C, section 1, page 38; California Constitution, articles XIII C and XIII D; *Apartment Assn. of Los Angeles County, Inc. v. City of Los Angeles* (2001) 24 Cal.4th 830, 835 [102 Cal.Rptr.2d 719, 14 P.3d 930] (*Apartment Assn.*).

4 Historical Notes, 2A West's Annotated California Constitution (2002 supp.) following article XIII C, section 1, page 38.

5 California Constitution, article XIII D, section 2, subdivision (a); article XIII C, section 1, subdivision (b).

6 Roseville Municipal Code (RMC) section 14.08.010; see, however, Public Utilities Code section 10009.6 and *California Apartment Assn. v. City of Stockton* (2000) 80 Cal.App.4th 699, 701 [95 Cal.Rptr.2d 605] (a municipal utility may be prohibited from making a residential property owner pay the overdue amounts for utility services provided a prior tenant).

7 RMC section 14.08.020, subdivision A.

8 RMC section 14.08.090.

9 RMC section 14.08.100.

10 RMC section 14.08.150.

11 RMC sections 14.16.020, subdivision B., 14.16.030.

12 RMC section 14.16.200; see also RMC sections 14.16.100, 14.16.210.

13 RMC sections 14.16.220, 14.16.230, 14.16.240.

14 RMC section 9.12.100, subdivision A.

15 RMC section 9.12.100, subdivision 2A.

16 See 80 Ops.Cal.Atty.Gen. 183, 186 (1997) ("We believe that each water fee or charge must be examined individually in light of the [Proposition 218] constitutional mandate.")

17 Ballot Pamphlet, General Election (Nov. 5, 1996), Proposition 218, analysis by the Legislative Analyst, pages 73-74; see *Amador Valley Joint Union High Sch. Dist. v. State Bd. of Equalization* (1978) 22 Cal.3d 208, 245-246 [149 Cal.Rptr. 239, 583 P.2d 1281] (courts may use ballot summary, arguments and analysis to construe voter-approved enactment).

18 *Apartment Assn.*, *supra*, 24 Cal.4th at page 839.

19 *Apartment Assn.*, *supra*, 24 Cal.4th at pages 833, 838.

20 *Apartment Assn.*, *supra*, 24 Cal.4th at page 840.

21 *Apartment Assn.*, *supra*, 24 Cal.4th at pages 838 and 842, respectively.

22 *Apartment Assn.*, supra, 24 Cal.4th at pages 840-843.

23 *Apartment Assn.*, *supra*, 24 Cal.4th at page 840.

24 California Constitution, article XIII D, section 2, subdivision (h).

25 *Apartment Assn.*, *supra*, 24 Cal.4th at page 843.

26 *Howard Jarvis Taxpayers Assn. v. City of Los Angeles* (2000) 85 Cal.App.4th 79, 83 [101 Cal.Rptr.2d 905] (*Jarvis-L.A.*).

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27 *Jarvis-L.A.*, *supra*, 85 Cal.App.4th at page 83.

28 See *Santa Barbara Taxpayer Assn.*, *supra*, 209 Cal.App.3d at page 949.

29 *Hansen v. City of San Buenaventura* (1986) 42 Cal.3d 1172 [233 Cal.Rptr. 22, 729 P.2d 186] (*Hansen*).

30 *Hansen, supra,* 42 Cal.3d at page 1182.

31 *Hansen, supra,* 42 Cal.3d at pages 1182-1183, quoting *Golden Gate Bridge etc. Dist. v. Luehring* (1970) 4 Cal.App.3d 204, 215 [84 Cal.Rptr. 291], italics added in *Hansen*.

32 *Jarvis-L.A., supra,* 85 Cal.App.4th at pages 81-83.

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KeyCite Yellow Flag - Negative Treatment
Declined to Extend by Johnson v. County of Mendocino, Cal.App. 1 Dist., August 8, 2018

237 Cal.App.4th 363
Court of Appeal, Fourth District, Division 1, California.

Jack MOORE, Appellant,
v.
CITY OF LEMON GROVE et al., Respondents.

D066670
|
Filed June 2, 2015

Synopsis
Background: Sanitation fee ratepayer filed petition for writ of mandate and equitable relief against city and city sanitation district, seeking to stop district from transferring funds collected as sewer service fees and charges to city's general fund, claiming that transfers violated Right to Vote on Taxes Act. The Superior Court, San Diego County, No. 37–2013–00045077–CU–WM–CTL, Ronald S. Prager, J., denied petition. Ratepayer appealed.

Holdings: The Court of Appeal, McIntyre, J., held that:

[1] fees were not spent for unrelated revenue purposes;

[2] fees were in amount necessary to accomplish their purpose; and

[3] fees were not imposed for general governmental services.

Affirmed.

West Headnotes (9)

[1] Municipal Corporations
Power to Tax for Special Purposes

Property-related fee or charge imposed by government agency must reasonably represent the cost of providing service. Cal. Const. art. 13D, § 6.

1 Cases that cite this headnote

[2] Administrative Law and Procedure
Matters which rest in discretion in general

Courts afford agencies reasonable degree of flexibility to apportion costs of regulatory programs in a variety of reasonable financing schemes.

Cases that cite this headnote

[3] Municipal Corporations
Power to Tax for Special Purposes

Court of Appeal presumes that judgment on question of whether fee or charge violates constitutional procedures and requirements governing property-related fees and charges imposed by government agency is correct on appeal. Cal. Const. art. 13D, § 6.

Cases that cite this headnote

[4] Municipal Corporations
Power to Tax for Special Purposes

Even when Court of Appeal exercises its independent judgment in reviewing the record on appeal from judgment on question of whether fee or charge violates constitutional procedures and requirements governing property-related fees and charges imposed by government agency, Court does not decide disputed issues of fact, and Court's review is limited to issues which have been adequately raised and supported in appellant's brief. Cal. Const. art. 13D, § 6.

1 Cases that cite this headnote

[5] Municipal Corporations
Sewer service fees

Sewer service fees collected from ratepayer by city sanitation district were not spent for unrelated revenue purposes, and thus did not violate constitutional provision providing

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that property-related fee imposed by local government was prohibited unless used for purpose for which it was charged, in ratepayer's action seeking to stop district from transferring funds collected as sewer service fees and charges to city's general fund; despite contention that allocation of portion of city workers' salaries to district was not subject to any level of rigor or objective analysis, district presented evidence showing that method it used to determine amount of time city workers spent on district activities, and thus amounts transferred to city's general fund, were reasonable, and ratepayer presented no expert testimony or other authority showing district's allocation methods were illegal or otherwise improper. Cal. Const. art. 13D, § 6(b)(2); Cal. Evid. Code § 801(a).

Cases that cite this headnote

[6] **Municipal Corporations**
Power and Duty to Tax in General

When determining whether property-related fee was used for purpose it was charged by local government, courts consider all the required costs of providing service, short-term and long-term, including operation, maintenance, financial, and capital expenditures. Cal. Const. art. 13D, § 6(b)(2).

Cases that cite this headnote

[7] **Municipal Corporations**
Sewer service fees

Sewer service fees collected from ratepayer by city sanitation district were in amount necessary to accomplish their purpose, and thus did not exceed cost of providing sanitation services in violation of constitutional provision governing property-related fees and charges imposed by local governments, in ratepayer's action seeking to stop district from transferring funds collected as sewer service fees and charges to city's general fund; fees were appropriately spent on maintenance and management of sewer system, and evidence, including that district annually determined whether estimates of maximum fee increases provided in district rate study were accurate and that city finance department monitored expenditures to make sure they stayed within budget, sufficiently tied rates charged by district to amounts needed to run district. Cal. Const. art. 13D, § 6(b)(1).

1 Cases that cite this headnote

[8] **Municipal Corporations**
Submission to voters, and levy, assessment, and collection

Taxation
Distinguishing "tax" and "license" or "fee"

To show fee imposed by local government is not a special tax subject to approval by two-thirds vote of qualified electors, government should prove: (1) estimated costs of the service or regulatory activity, and (2) basis for determining manner in which costs are apportioned, so that charges allocated to payor bear fair or reasonable relationship to payor's burdens on or benefits from regulatory activity. Cal. Const. art. 13D, § 4.

2 Cases that cite this headnote

[9] **Municipal Corporations**
Sewer service fees

Sewer service fees collected from ratepayer by city sanitation district and transferred to city's general fund were not imposed for general governmental services, and thus did not violate constitutional provision requiring that property-related fee or charge collected from ratepayers be used to pay for service for which fee or charge was imposed, in ratepayer's action seeking to stop district from transferring funds collected as sewer service fees and charges to city's general fund; despite contention that district failed to earmark or pledge transferred funds for any specific purpose, district presented evidence linking fees to its costs and showing that fees did not

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exceed cost of providing service, and district reimbursed city for services and expenditures related to services provided by city. Cal. Const. art. 13D, § 6(b)(5).

See 9 Witkin, Summary of Cal. Law (10th ed. 2005) Taxation, § 143.

1 Cases that cite this headnote

****132** APPEAL from a judgment of the Superior Court of San Diego County, Ronald S. Prager, Judge. Affirmed. (No. 37–2013–00045077–CU–WM–CTL)

Attorneys and Law Firms

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Opinion

McINTYRE, J.

***366** In this case, a sanitation fee ratepayer, Jack Moore, appealed a judgment denying his petition for writ of mandate and equitable relief as against the City of Lemon Grove (the City) and the Lemon Grove Sanitation District (the District; together with the City, Respondents). Moore sought to stop Respondents from transferring funds collected as sewer service fees and charges to the City's general fund, claiming the transfers violated Proposition 218, the Right to Vote on Taxes Act. (Historical Notes, 2B West's Ann. Codes, Cal. Const. (2013 ed.) foll. art. XIII C, § 1, p. 363.) The trial court concluded that the charges at issue were subject to Proposition 218, but that the transfers did not violate Proposition 218 as the District had used reasonable methods to determine the amounts to transfer. We agree and affirm the judgment.

FACTUAL AND PROCEDURAL BACKGROUND

The District manages and maintains about 67 miles of collection pipes that ****133** transport sewage to the City of San Diego treatment plants. The District possesses very little capital equipment and the City has three employees who exclusively perform District-related work. All District maintenance, facilities, administrative equipment, personnel, service, billing, regulatory and other overhead are provided by the City. The other functions required for the District to operate (accountants/finance, receptionists, analysts, engineers, inspectors, plan checkers, etc.) are provided by City employees who divide their time among various activities.

***367** Moore is a resident of the City and a sanitation fee ratepayer. He filed a petition for writ of mandate and a complaint for injunctive relief, claiming Respondents provide sewer services and impose fees and charges on users of the sewer services through semiannual property tax bills. He alleged that Respondents engaged in a practice whereby they transferred funds collected as sewer service fees and charges to the City's general fund. Further, he claimed Respondents failed to earmark these funds for a specific purpose, such as for reimbursement of shared costs or sewer maintenance and operations, but instead used the funds for general governmental purposes. Moore claimed the yearly amount transferred by Respondents to the general fund was not based on the actual costs incurred to support sewer maintenance and operations, but was calculated as about 22 percent of the annual sewer service fees collected.

Moore sought a petition for writ of mandate directing that Respondents stop all transfers to the general fund and restore all previously transferred funds received by the general fund. He also sought a declaration of rights declaring that Respondents violated *article XIII D* of the California Constitution *(article XIII D)* and an injunction enjoining Respondents from transferring funds to the general fund and requiring them to repay all previously transferred funds received by the general fund.

After considering the parties' evidence, the trial court issued a tentative ruling concluding that the sanitation fees and charges at issue were subject to Proposition 218, but finding Respondents did not violate Proposition 218. The trial court later confirmed its tentative ruling. Thereafter,

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the court issued a judgment denying Moore's petition for writ of mandate. Moore timely appealed. We granted the application of the Howard Jarvis Taxpayers Association to file an amicus curiae brief on behalf of Moore.

DISCUSSION

I. *General Legal Principles*

"In 1978, California voters enacted Proposition 13, which amended the California Constitution by adding article XIII A (article XIII A). The amendment 'plac[ed] significant limits on the taxing power of local and state governments.' [Citation.] As pertinent here, article XIII A, section 4 provides, 'Cities, Counties and special districts, by a two-thirds vote of the qualified electors of such district, may impose special taxes on such district....' " (*City of San Diego v. Shapiro* (2014) 228 Cal.App.4th 756, 760–761, 175 Cal.Rptr.3d 670 (*Shapiro*), italics omitted.)

"In 1996, California voters enacted Proposition 218, which added article XIII C (article XIII C) and article XIII D (article XIII D) to the California ***368** Constitution in order to 'close government-devised loopholes in Proposition 13.' " (*Shapiro, supra,* 228 Cal.App.4th at p. 761, 175 Cal.Rptr.3d 670.) "[T]he primary purpose of Proposition 218 was to reform the law governing local government's imposition of revenue generating devices *other* than special taxes ****134** ...." (*Id.* at p. 779, 175 Cal.Rptr.3d 670.) A "fee" or "charge" is defined as "any levy *other* than an ad valorem tax, a special tax, or an assessment, imposed by an agency upon a parcel or upon a person as an incident of property ownership, including a user fee or charge for a property related service." (Art. XIII D, § 2, subd. (e).)

[1] Section 6 of article XIII D sets forth the procedures and requirements governing property-related fees and charges. As relevant here, section 6 provides a fee cannot be charged in excess of the service provided; a fee can only be used for the purpose it was charged; and the fee may not be imposed for general governmental services. (Art. XIII D, § 6, subd. (b)(1), (2) & (5), hereinafter section 6(b)(1), (2) or (5).) "The theme of these sections is that fee or charge revenues may not exceed what it costs to provide fee or charge services. Of course, what it costs to provide such services includes all the required costs of providing service, short-term and long-term, including operation, maintenance, financial, and capital expenditures. The key is that the revenues derived from the fee or charge are required to provide the service, and may be used only for the service. In short, the section 6(b) fee or charge must reasonably represent the cost of providing service." (*Howard Jarvis Taxpayers Assn. v. City of Roseville* (2002) 97 Cal.App.4th 637, 647-648, 119 Cal.Rptr.2d 91 (*Roseville*).)

[2] As one court that examined a regulatory fee noted, some fees "are not easily correlated to a specific, ascertainable cost. This may be due to the complexity of the regulatory scheme and the multifaceted responsibilities of the department or agency charged with implementing or enforcing the applicable regulations; the multifaceted responsibilities of each of the employees who are charged with implementing or enforcing the regulations; the intermingled functions of various departments as well as intermingled funding sources; and expansive accounting systems which are not designed to track specific tasks." (*California Assn. of Prof. Scientists v. Department of Fish & Game* (2000) 79 Cal.App.4th 935, 950, 94 Cal.Rptr.2d 535.) Thus, courts afford agencies a reasonable degree of flexibility "to apportion the costs of regulatory programs in a variety of reasonable financing schemes." (*Ibid.*)

[3] **[4]** The agency charging the fee or charge has the burden of demonstrating compliance with these requirements. (Art. XIII D, § 6(b)(5).) The question whether a fee or charge violates article XIII D is subject to de novo review. (*Silicon Valley Taxpayers' Assn., Inc. v. Santa Clara County Open Space Authority* (2008) 44 Cal.4th 431, 450, 79 Cal.Rptr.3d 312, 187 P.3d 37.) We presume that the appealed judgment is correct. (***369** *Denham v. Superior Court* (1970) 2 Cal.3d 557, 564, 86 Cal.Rptr. 65, 468 P.2d 193.) Even when we exercise our independent judgment in reviewing the record, we do not decide disputed issues of fact (*Morgan v. Imperial Irrigation Dist.* (2014) 223 Cal.App.4th 892, 912, 167 Cal.Rptr.3d 687) and our review "is limited to issues which have been adequately raised and supported in [the appellant's] brief." (*Reyes v. Kosha* (1998) 65 Cal.App.4th 451, 466, fn. 6, 76 Cal.Rptr.2d 457.)

II. *Analysis*

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The trial court concluded that the sanitation fees and charges at issue were fees as defined in article XIII D, section 2, subdivision (e) of the California Constitution and thus, were "property-related fees subject to [Proposition] 218." This finding is not at issue. Rather, Moore contends the money transferred by Respondents from the sanitation fund to the general fund is illegal because the transfers were ****135** not properly tied to actual costs incurred for the District's benefit and Respondents never properly identified and quantified the costs. Moore alleges a violation of three specific subdivisions of article XIII D, section 6. Accordingly, we address each subdivision in turn, examining whether the District met its burden of demonstrating compliance with the requirements of section 6.

A. The Fees Were Not Spent for Unrelated Revenue Purposes

[5] **[6]** A fee may only be used for the purpose for which it was charged. (Art. XIII D, § 6(b)(2).) Here, the fees at issue were collected from property owners and described as sewer service charges. Accordingly, Respondents may appropriately spend these fees on anything related to the maintenance and management of the sewer system. We consider "all the required costs of providing service, short-term and long-term, including operation, maintenance, financial, and capital expenditures." (*Roseville, supra,* 97 Cal.App.4th at p. 648, 119 Cal.Rptr.2d 91.)

The District presented evidence showing most functions required for it to operate are provided by City employees that divide their time among various activities. In return, the District reimburses the City for these services and expenses related to these services. Cathleen Till, the City's finance director, explained that basic operational tools that the District requires to operate include support staff, accounting software, accounts payable staff, computer and geographic information systems, human resource services, executive management and support, inspection services, engineering staff, design programs and tools, and receptionist staff. Because the District does not possess any of these software programs, computer systems, personnel, expertise, buildings for office space, etc., it relies on the City to provide these services.

Graham Mitchell is the city manager and serves as executive director of the District. As the District's executive director, Mitchell oversees the overall ***370** operation of the District, manages the employees who provide direct and support services to the District, manages the overall budget, provides policy recommendations to the District's board of directors and ensures that the District is fiscally solvent.

Mitchell explained that the shared staffing approach utilized by the District and the City creates effective economies of scale and saves the taxpayers and ratepayers of the City and the District. Mitchell also stated it is common practice in California for a city manager to provide executive management for several city-related enterprises and for city staff to provide support for the other city-related enterprises, such as a sanitation district.

Mitchell attempts to ensure an equitable and reasonable exchange of personnel and services between the City and the District. To manage the exchange of personnel and services between the City and the District, he utilizes an accounting practice in which the District transferred reimbursements to the City under two categories--—" 'Interfund Transfers for Operations' " and " 'Interfund Transfers for Administrative Services.' " Interfund Transfers for Operations relates to the direct personnel costs that the City incurs to manage and operate the District (direct costs) and the Interfund Transfers for Administrative Services represents the overhead costs associated with operating the District (indirect costs).

Till explained how the City and the District apportion indirect costs. For example, the telephone in the one-room office used by the District is charged as a direct cost to the sanitation program. However, a percentage of the telephones used by the ****136** supervising public works director, city manager and other employees who spend part of their working hours performing sanitation duties is apportioned as an indirect cost to the District. The apportionment is done in accordance with the City's best estimate of the actual time spent on sanitation matters. Till stated that general department overhead is apportioned to the general fund if services are provided to the District by that department.

Mitchell stated that Moore's inquiries over the past few years have prompted the City to create a better system to document transfers between the District and the City. After consulting with the San Diego County Grand Jury auditor, the City developed a method to determine overhead costs. The City first determines its total overhead-related costs for building expenditures,

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accounting software, copiers, utilities, etc. It then determines each fund's activity's share of the overhead costs by examining the budgeted expenditures for each fund or activity. Mitchell explained that the challenge with using an expenditure model is that in any given year, expenditures can fluctuate greatly. For example, the District could have $2 million in capital improvements, which would increase its share wildly that year. Because this anomaly ***371** exists, Mitchell explained that it makes more sense to base each fund's activity's share of overhead on revenue.

Till similarly stated that revenue estimates are a good indicator of general time spent by the support departments of each special fund when dividing overhead costs and provided the following as an example. Assume she gets 30 phone calls a day about various business items. Each phone call may discuss a different budget fund. A call from the public works director may raise five or six special fund issues. Cost allocation by timesheet could not capture the allocation of each of these costs. However, a general allocation method based on how much money flowed into the programs would be a more accurate measure of the actual time spent and the loaded costs of each employee's time in each program.

Till noted that counting tasks assigned to each manager would be a misleading way to determine overhead costs, using the handling of tort claims by the risk manager/ public works director as an example. She stated that most street-related claims involve tire or wheel damage due to potholes. These claims have a very standardized process and seldom are a significant cost item. In contrast, sewer damage claims happen once or twice a year and take up significant time and resources. Till explained that for sewer backups, the District must respond as if it is the District's fault unless proven otherwise. This entails significant environmental cleanup costs and costs for damage to households and often hotel bills. It is a time-intensive process even if it is later determined that the District was not at fault. The risk manager, city manager, city attorney, public works crews and outside contractors are involved for sewer backup claims. Accordingly, one claim for tire damage and one sewer backup claim are not equal from a cost allocation perspective.

Significantly, Moore conceded at oral argument below that when a cost is incurred for the joint benefit of different divisions within a city or local government, those costs may be allocated. Moore explained that the principle used by Respondents was "okay," but that the methods used were "too ad hoc" and "not subject to any kind of objective criteria." Moore agreed with the trial court's restatement of his argument that he believed the method used by Respondents to estimate and allocate ****137** their costs was unreasonable, while Respondents believed the method to be reasonable. Below and on appeal, Moore relied on the *Roseville* case to support his argument that Respondents did not use a reasonable methodology.

At issue in *Roseville* was an "in-lieu franchise fee" (in-lieu fee). (*Roseville, supra,* 97 Cal.App.4th at p. 638, 119 Cal.Rptr.2d 91.) The *Roseville* court explained that "[p]rivate utilities pay public authorities 'franchise fees' to use government land such as streets, or for rights-of-way to provide utility service. [The ***372** city] similarly imposes the in-lieu fee on its municipal utilities; 'in-lieu' is the term of choice since the utilities are not private entities." (*Id.* at p. 639, 119 Cal.Rptr.2d 91, fn. omitted.) The city set the in-lieu franchise fee at a flat four 4 percent of the utilities' annual budgets. (*Id.* at p. 648, 119 Cal.Rptr.2d 91.) The *Roseville* court concluded that the flat fee on the annual budget violated article XIII D, section 6(b)(1) because the City made no showing that the flat fee represented actual costs, noting "[o]n its face, this fee does not represent costs. It is a flat fee." (*Roseville,* at p. 648, 119 Cal.Rptr.2d 91.) Once collected, the City transferred the flat fee into its general fund without pledging it for any specific purpose. (*Id.* at p. 650, 119 Cal.Rptr.2d 91.) The court concluded the transfer violated article XIII D, section 6(b)(2) and (5) because the flat fee was used to pay for general governmental services, not costs attributable to the services for which the fee was charged. (*Roseville,* at p. 650, 119 Cal.Rptr.2d 91.)

Similarly, in *Howard Jarvis Taxpayers Assn. v. City of Fresno* (2005) 127 Cal.App.4th 914, 26 Cal.Rptr.3d 153 (*Fresno*), the city required each municipal utility to " 'pay to the City, in lieu of property and other taxes normally placed upon private business,' " an in-lieu fee currently set at 1 percent of the assessed value of fixed assets of the utility department or division. (*Id.* at p. 917, 26 Cal.Rptr.3d 153.) The *Fresno* court concluded that the trial court properly prohibited the city from collecting the in[-]lieu fee, noting "[the city] has not even *claimed* the in[-]lieu fee approximates the cost of city services to the utility departments and divisions, much less has it established such a relationship as a fact." (*Id.* at p.

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928, 26 Cal.Rptr.3d 153.) The *Fresno* court stated that if the city wished to recover all of its costs from user fees, it must reasonably determine the unbudgeted costs of utilities enterprises and that those costs be recovered through rates proportional to the cost of providing service to each parcel. (*Id.* at p. 923, 26 Cal.Rptr.3d 153.)

The trial court rejected Moore's argument that the instant case was akin to the in-lieu fees at issue in *Roseville*. The court found that, unlike the *Roseville* case, "Respondents provided ample evidence that the amount of money transferred to the [g]eneral [f]und [was] based on [r]eliable estimates of time spent by City workers on sanitation issues." We agree.

In *Roseville* and *Fresno,* each city made no attempt to show that the flat fees represented the actual cost of providing the service as required by article XIII D, section 6(b)(2). (*Roseville, supra,* 97 Cal.App.4th at p. 648, 119 Cal.Rptr.2d 91; *Fresno, supra,* 127 Cal.App.4th at p. 928, 26 Cal.Rptr.3d 153.) Here, in contrast, Respondents presented evidence on this issue. Unlike *Roseville* and *Fresno,* Moore's challenge is to Respondents' method of showing they used the fees collected for only the purpose for which the fees were charged. Moore separately addressed personnel costs and overhead costs. We do the same.

As to personnel costs, Moore acknowledged that some city workers spent time on sanitation activities and, to the extent ****138** city workers did so, a portion of ***373** their salaries can be allocated to the District. Moore explained he is not seeking to cut off salary reimbursements; rather, he is concerned that the salary allocations were not subjected to any level of rigor or objective analysis. At oral argument below, Moore's counsel admitted "[i]n principle" transferring money to the general fund to pay for a portion of nonsanitation worker salaries that worked on sanitation matters was "okay," but complained about the allocation methods used by Respondents. Moore also testified he believed some money should be transferred to the general fund to compensate for employee time.

Thus, at issue is the method used by Respondents to determine the amount of time city workers spend on District activities and thus, the amounts transferred to the general fund. On this issue, Till stated that after sanitation rates are established, she and her staff monitor expenditures to make sure that they stay within budget. Her department tracks direct costs to the sewer program to ensure they stay within budgetary parameters, she interviews department directors and makes adjustments to personnel allocations between various funds, and directors are required to review and analyze for which funds the work of their respective staff applies.

Although Till was not employed by the City during the preparation of the budgets for fiscal years 2009-2010 and 2010-2011, she created spreadsheets for these fiscal years by reviewing previous budgets and identifying the staff allocated to the District. She also reviewed handwritten notes identifying the various individuals with a percentage. Although these spreadsheets were created after the fact, Mitchell stated that Respondents employed the same analysis, albeit informally with written notes justifying the transfers to the general fund.

Our review of the totality of the evidence shows Respondents' methods were informal. For example, although Mitchell asked Till to interview each of the department directors to identify the amount of time spent on District activities and then interview individual staff members to verify the amount of time, Till never interviewed employees to determine if the percentages were accurate. Similarly, Till did not provide instructions on determining percentages. She assumed that based on their supervisory roles, directors knew what percentage of time employees were spending on certain directives. While the informality of Respondents' method for determining the percentage of time employees spend on District matters is not ideal, we concur with the trial court's implied conclusion that no unconstitutionality exists.

As to overhead costs, Till stated that "[g]eneral department overhead is apportioned to the General Fund *if* services are provided to the [District] by that [particular] department." (Italics added.) After the City determines its total overhead related costs, it then determines each fund or activity's share ***374** of the overhead costs by examining the budgeted expenditures for each fund or activity. Mitchell explained it makes more sense to base each fund's or activity's share of overhead on revenue and not expenditures as expenditures can vary greatly year to year.

The District's revenue is specifically tied to expenditures through the Lemon Grove Sanitation District Wastewater Enterprise Rate Study (the Five-Year Rate Study). An

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independent consultant develops the Five-Year Rate Study by reviewing past and projected expenditures, such as costs associated with capital improvement projects, sewer line maintenance, contracted services, and administration (including indirect operational costs). The Five-Year ****139** Rate Study averages out costs over a five-year period and then determines the revenue required to cover those charges from year to year to avoid ratepayers experiencing spikes in sewer bills the year of a large capital project. Mitchell explained that this process helps to ensure that ratepayers do not overpay for sewer services.

Moore argues that Respondents transferred a flat fee to the general fund that bore no relation to costs. He cited evidence that for the 2010-2011 fiscal year, Respondents transferred a flat 11 percent of sanitation revenues to the general fund as administration/indirect costs and the following fiscal year, this percentage increased to 13.5 percent. This argument is misleading as it ignores the methodology used by Respondents to calculate the percentages transferred. Namely, Respondents calculated the percentage to transfer to the general fund by dividing sanitation expenditures by sanitation revenue. As Mitchell explained, reviewing staff report time revealed that amounts budgeted for sanitation "pretty close[ly]" corresponded to time actually spent on sanitation matters.

Moore asserts Respondents provided no authority to support their "revenue-centric methodology," noting Respondents argued in conclusory fashion that their method of cost allocation was reasonable and legal. We disagree.

Here, Respondents presented evidence regarding the methods used and the trial court found the evidence showed "apportioning the funds based on revenue [was] reasonable under the circumstances." This evidence consists mainly of declarations from the City's manager, finance director and clerk. While Moore is dissatisfied with the explanations provided by these individuals regarding Respondents' cost allocation methods, these explanations constitute evidence and the trial court impliedly found the evidence satisfied Respondents' burden of demonstrating compliance with the requirements of article XIII D, section 6.

***375** Moore presented no expert testimony or other authority showing Respondents' allocation methods were illegal or otherwise improper. Rather, cost allocation methods used by governments present a subject beyond the trial court's and our common experience and knowledge. (Evid. Code, § 801, subd. (a) [an expert's opinion must relate to a subject matter that is sufficiently beyond common experience that it assists the trier of fact].) On this record, we cannot conclude that Respondents' cost allocation methods were improper or that Respondents improperly spent fees for unrelated revenue purposes in violation of article XIII D, section 6(b)(2).

B. The Fees Were in Amounts Necessary to Accomplish Their Purpose

[7] **[8]** We next examine whether the fees imposed by the District exceeded the cost of providing the service. (Art. XIII D, § 6(b)(1).) As a preliminary matter, we note Moore did not specifically challenge in his appellate briefing the trial court's implied conclusion that Respondents did not violate section 6(b)(1). Nonetheless, because the parties generally jumbled all their arguments together, we exercise our discretion to address this issue. To show a fee is " 'not a special tax, the government should prove (1) the estimated costs of the service or regulatory activity, and (2) the basis for determining the manner in which the costs are apportioned, so that charges allocated to a payor bear a fair or reasonable relationship to the payor's burdens on or benefits from the regulatory activity.' " (*Collier v. City and County of San Francisco* (2007) 151 Cal.App.4th 1326, 1346, 60 Cal.Rptr.3d 698.)

As explained above, we determined Respondents appropriately spend the fees ****140** collected from ratepayers on the maintenance and management of the sewer system. The District explained its revenue is tied to expenditures through the Five-Year Rate Study and we concluded that Respondents reasonably apportioned the funds based on revenue. (*Ante,* pt. A.)

As allowed by law, the Five-Year Rate Study identifies the maximum fee increases that the District can apply annually. This same approach was used in the previous rate study published in 2007. The District board annually determines whether the estimates identified in the Five-Year Rate Study are accurate based on new cost conditions. In 2007 and 2011, the District board increased the sanitation rates consistent with the amounts set forth in the current and prior Five-Year Rate Study. In later years, the District lowered the rate increases to an amount

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below that set forth in the current the Five-Year Rate Study. After sanitation rates are established, the City finance department monitors expenditures to make sure they stay within budget. Additionally, direct costs to the District are tracked to ensure they stay within budgetary ***376** parameters. Finally, Till interviews department directors and makes adjustments to personnel allocations between various funds. This evidence sufficiently tied the rates charged by the District to the amounts needed to run the District as required by section 6(b)(1).

C. The Fees Were Not Imposed for General Governmental Services

[9] Article XIII D, section 6(b)(5) provides in part: "No fee or charge may be imposed for general governmental services including, but not limited to, police, fire, ambulance or library services, where the service is available to the public at large in substantially the same manner as it is to property owners." Viewed in conjunction with section 6(b)(1) and (2), the purpose of section 6(b)(5) is to require that a fee or charge collected from ratepayers be used to pay for the service for which the fee or charge was imposed and not general governmental services.

To show a violation of article XIII D, section 6(b)(5), Moore relies on the following discussion in *Roseville*: "[The city] concedes that '[r]evenue from the in[-]lieu franchise fee is ... placed in [the city's] general fund to pay for general governmental services. *It has not been pledged, formally or informally[,] for any specific purpose*.' This concession runs afoul of section 6(b)(2) that '[r]evenues derived from the fee or charge shall not be used for any purpose other than that for which the fee or charge was imposed.' It also contravenes section 6(b)(5) that '[n]o fee or charge may be imposed for general governmental services....' " (*Roseville, supra,* 97 Cal.App.4th at p. 650, 119 Cal.Rptr.2d 91, italics added.)

Namely, Moore cites to the above italicized language to assert Respondents violated article XIII D, section 6(b)(5) because they failed to earmark or pledge the transferred funds for any specific purpose. Rather, once Respondents determined the proper amount needed to cover the District's share of personnel and overhead expenses, the funds were placed in the City's general fund. Although not specifically argued by Moore, he appears to suggest that the funds placed in the general fund need to be specifically earmarked as payment for particular overhead or personnel costs of the District. We conclude Respondents' action did not violate section 6(b)(5).

First, as addressed above, *Roseville* is distinguishable because the city imposed a flat fee to cover the cost of water, sewer, and refuse collection services, but failed to connect the flat fee to the cost of providing these services. (*Ante,* pt. A.) Significantly, after noting fees "must reasonably represent ****141** the cost of providing [the] service," the *Roseville* court stated, "In line with this theme, [the city] may charge its water, sewer, and refuse utilities for the street, alley and right-of-way costs attributed to the utilities; ***377** and [the city] may transfer these revenues to its general fund to pay for such costs (the general fund supports or pays for [the city's] streets, alleys, and rights-of-way)." (*Roseville, supra,* 97 Cal.App.4th at p. 648, 119 Cal.Rptr.2d 91.) The *Roseville* court reaffirmed this statement at the end of its opinion: "As noted, [the city] may place in its general fund the revenues derived from a cost-based in-lieu franchise fee to pay for the street, alley and right-of-way costs attributed to the water, sewer and refuse utilities." (*Id.* at p. 650, 119 Cal.Rptr.2d 91.) In other words, if fees are properly linked to costs, article XIII D, section 6(b) does not prevent those properly imposed fees from then being placed in a general fund. The statement of the *Roseville* court that the funds transferred to the general fund were not earmarked or pledged for any specific purpose must be considered based on the facts presented.

Here, Respondents presented evidence linking the fees to its costs and showing its fees did not exceed the cost of providing the service. (*Ante,* pts. A. & B.) The District then reimburses the City for services and expenditures related to the services provided by the City. As Till stated, the general fund can subsidize any other fund, including sanitation. Respondents' action of reimbursing the general fund for its costs did not violate article XIII D, section 6(b)(5).

DISPOSITION

The judgment is affirmed. Respondents are entitled to their costs on appeal.

WE CONCUR:

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NARES, Acting P.J.

O'ROURKE, J.

All Citations

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247 Cal.App.2d 317, 55 Cal.Rptr. 494

NORTHEAST SACRAMENTO COUNTY SANITATION DISTRICT, Plaintiff and Appellant,
v.
NORTHRIDGE PARK COUNTY WATER DISTRICT OF SACRAMENTO COUNTY, Defendant and Respondent.

Civ. No. 11269.
Court of Appeal, Third District, California.
Dec. 16, 1966.

HEADNOTES

(1)
Sanitary Districts § 6.1--Construction and Maintenance of Facilities-- Cost of Relocation.
A county sanitation district must compensate a county water district for the latter's costs when required to relocate its water mains because of an extension of the sanitation district's sewer facilities, since there is no priority between a county water district and a county sanitation district; both agencies serve their separate users in the interests of the public health and safety.

See **Cal.Jur.2d,** Drains and Sewers, § 9 et seq; **Am.Jur.2d,** Drains and Drainage Districts, § 31 et seq.

(2)
Sanitary Districts § 6.1--Construction and Maintenance of Facilities-- Cost of Relocation.
Where the water lines of a county water district were in place first and had to be relocated to make way for new lines being installed by a county sanitation district, and each district involved comprised a separate group of people who would benefit, the county water district should have the right to be compensated.

(3)
Sanitary Districts § 6.1--Construction and Maintenance of Facilities-- Cost of Relocation.
No statute gives a sanitation district superior rights over a water district in the matter of relocation.

SUMMARY

APPEAL from a judgment of the Superior Court of Sacramento County. Frank G. Finnegan, Judge. Affirmed.

Action to determine whether a county sanitation district must compensate a county water district for the latter's costs when required to relocate its water mains because of an extension of the sanitation district's sewer facilities. Judgment for defendant affirmed.

COUNSEL
John B. Heinrich, County Counsel, and Lawrence E. Viau, Jr., Deputy County Counsel, for Plaintiff and Appellant.
Lambert, Lemmon & Winchell and John V. Lemmon for Defendant and Respondent.

PIERCE, P. J.

([1]) The sole question on this appeal is whether a county sanitation district must compensate a county water district for the latter's costs when required to relocate its water mains because of an extension of the sanitation district's sewer facilities (both works being located beneath county roads). The trial court held that it must. We agree with that holding upon the principles of law and reasoning related below.

Northridge is a county water district created under the provisions of section 30000 et seq. of the Water Code. Its function is to provide water for domestic purposes to people within its boundaries located within a part of Sacramento County. It owns and operates a water distribution system at least a part of which consists of water lines located beneath the surface of county roads. County water districts come into existence by an election of the voters within the boundaries of the proposed district. (Wat. Code, § 30295.) They are managed by a board of directors also elected by the voters within the district. (Wat. Code, § 30732 et seq.)

Appellant Northeast is a county sanitation district organized under the provisions of section 4700 et seq. of the Health and Safety Code. It operates and maintains sewers in a portion of Sacramento County. Its boundaries are not coterminus with the boundaries of the water district. It also comes into existence by an election at which "only voters registered *in the proposed* ***319** *district* may vote." (§ 4716.) (Italics supplied.) [1] Sanitation districts are also managed by a board of directors selected

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in various ways. This particular district, because it is carved wholly out of unincorporated territory, has as its board of directors the county supervisors; but they are not supervisors *qua* supervisors; they are a board of directors. [2]

Both districts have statutory rights to build and maintain their facilities in and beneath public roads (sanitation districts, Health & Saf. Code, §§ 4759 and 4759.1; water districts, Wat. Code, §§ 31060-31062.)

Both districts derive their revenues for the construction and maintenance of their works and for the services they afford by assessments and taxes levied upon the people within their districts. (See, e.g., re sanitation districts, Health & Saf. Code, § 4747, 4780 et seq.; re water districts, Wat. Code, § 35900 et seq., § 36725 et seq.)

In 1963 Northeast constructed sewers in and under the same county roads where lay the water mains of Northridge already constructed. This required a relocation of the latter. A dispute arose as to Northeast's obligation to pay for the relocation. By agreement Northridge moved its mains and Northeast paid the cost of such relocation without prejudice to a suit for reimbursement. This suit was brought to resolve the question.

Northeast argues that a county could compel a water district to relocate its lines without remibursement of costs whenever the county chose to install works of its own and therefore it has the same superior status over Northridge because it is managed by the board of supervisors. We may assume (but we by no means concede) the premise. The conclusion drawn is a *non sequitur.* Sacramento County's Board of Supervisors (in this particular sanitation district) happens to act ex officio as the board of directors. When they do so they do not act as the governing body of the county or for the county. When representing Northeast they are as much an independent board of directors as is the board of directors of Northridge. That ***320** portion of the public residing within Northridge does not as a whole either benefit by or bear the burden of taxation for the works of the sanitation district.

In *County of Contra Costa v. Central Contra Costa Sanitary Dist.* (1960) 182 Cal.App.2d 176 [5 Cal.Rptr. 783] (hearing by Supreme Court denied), a county acting solely on behalf of a flood control district, performed the work of relocating the sewer line of a sanitary district [3] already in existence extending over and across a thoroughfare, to wit: a county bridge. The relocation was made necessary by the flood control district's project to deepen a creek channel. The county sought compensation from the sanitary district for the cost of such relocation. The county's right of recovery was denied in both the trial and appellate courts. One of the contentions of the county was that the right of way of the sanitary district was but a franchise which it identified with the franchise of a privately-owned public utility. The court's opinion (per Presiding Justice Bray) states (on p. 179): "... Obviously a sanitary district bears no resemblance to a privately owned public utility. It is a public corporation organized under the provisions of the Sanitary District Act of 1923 (Health & Saf. Code, § 6400 et seq.). Moreover, the sanitary district's right to a sewer line in the street is due, first, to the fact that it was there when the county acquired the street, and secondly, to the rights given by section 6518, Health and Safety Code. A privately owned public utility, on the other hand, derives its right to streets under franchises which require it to move its facilities whenever required by the authorities at its own expense.

"As said by the Honorable Wakefield Taylor in his memorandum of decision, the sanitary district's right to maintain its sewer line 'is a species of real property and neither the Flood Control District nor the County Board of Supervisors acting on behalf of said District and for its purposes has any right to appropriate or interfere with property already dedicated to a public use, without legal process and the payment of just compensation. The cost of relocation should not be borne by the taxpayers of the County generally nor by the taxpayers ***321** of the Sanitary District, but rather by the people resident within the Flood Control zone benefited by the improvement.' " (With reference to the quoted statement see Van Alstyne, *Governmental Tort Liability*: *A Public Policy Prospectus,* 10 U.C.L.A. L.Rev. 463, 501-502.)

The *Contra Costa Sanitary Dist.* case, *supra,* involved the relocation of sewer lines to accommodate the construction of flood control drainage works. The case at bench involves the relocation of water mains. The trial court could find no priority between the functions performed by Northeast and those performed by Northridge. Neither can we. One provides for water brought in and used for domestic purposes; the other takes care of the disposition of that water (plus human and other wastes) after it is

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used. As we see it, one is no more or less important in our society than the other. Both agencies serve their separate users in the interests of the public health and safety. It is important that the water supply be reasonably pure (e.g., lest a typhoid epidemic result). It is equally, but no more important, that sewerage be properly disposed of for similar public health reasons.

A water district is also empowered to provide sewer lines (see footnote 3). It would indeed seem an absurdity to hold that the water lines of such a district which bring the water to the home have a lesser status than the lines which take the water away after domestic use.

([2]) Each district here involved comprises a separate group of people who will benefit and should be burdened only by the building and maintenance of its own public works. Why should the taxpayers of Northridge be taxed to pay the costs of a sewerage disposal system which does not benefit them? Why should the taxpayers of Northeast receive a free ride for this not inconsiderable item of expense in the building of said sewerage system?

The obvious inequities of the postulated result become magnified when one remembers that the water lines of Northridge were in place first and had to be relocated to make way for new lines being installed by Northeast, a district which performs functions not perceptibly different from the functions of Northridge-certainly as regards the running of its lines beneath the surface of the street. Under such circumstances the district whose facilities are first in place should have the right to be compensated when it is determined it has to relocate its lines. ***322**

The court in the *Contra Costa Sanitary District* case, *supra,* so held and we agree with that holding. ([3]) As stated above, no statute gives a sanitation district superior rights over a water district in the matter of relocation. In the matter of condemnation for a higher public use California's statute, Code of Civil Procedure, section 1241, subdivision 2, referring to resolutions of necessity, treats sanitary, sanitation and water districts exactly the same. (In the matter of denying-under certain conditions-the right of condemnation for a higher public use, subdivision 3 of the same statute refers specifically to water districts, only generally to other "public utility districts.") Our Supreme Court in the very recent case of *City of Beaumont v. Beaumont Irrigation Dist.,* 63 Cal.2d 291 [46 Cal.Rptr. 465, 405 P.2d 377] (Sept. 1965) held that under the latter statute the irrigation district's domestic water system could not be condemned by a city.

In addition to its favorable position in the area of eminent domain, a water district has been expressly given special powers. Water Code section 31062 provides in part: "[A] district has the same rights and privileges appertaining to the rights of way as are granted to municipalities within the State." One of those privileges is, in an appropriate situation, to "exercise police powers equal in extent to those of the state." (*McKay Jewelers, Inc. v. Bowron,* 19 Cal.2d 595, 600 [122 P.2d 543, 139 A.L.R. 1188].)

These matters we point out to illustrate that so far at least as the Legislature is concerned water districts, in the hierarchy of governmental agencies, do not occupy a position inferior to counties, cities and other public entities.

As noted, *County of Contra Costa v. Central Contra Costa Sanitary Dist., supra,* 182 Cal.App.2d 176, discussed (and distinguished) the rules applicable to the nature of a franchise of a privately-owned public utility in a public street as compared to the franchise of a public agency. A franchise, whether it be owned by a private utility or a public agency, is property. A franchise to lay pipes or conduits in a street is real property in the nature of an easement. (*Stockton Gas etc. Co. v. San Joaquin County,* 148 Cal. 313, 321 [83 P. 54, 7 Ann. Cas. 511, 5 L.R.A. N.S. 174]; *Balestra v. Button,* 54 Cal.App.2d 192 [128 P.2d 816].) In *Southern Cal. Gas Co. v. City of Los Angeles,* 50 Cal.2d 713, 716 [329 P.2d 289], our Supreme Court, while recognizing the private utility's franchise in a public street is property created by contract and that its ***323** rights cannot be taken or damaged without payment of just compensation (Cal. Const., art. I, § 14; U.S. Const., Amend. XIV, § 1), nevertheless held (on p. 716) that the utility accepts its franchise rights in a public street "subject to an implied obligation to relocate its facilities therein at its own expense when necessary to make way *for a proper governmental use of the streets."* (Italics supplied.) The phrase (emphasized by us) does not limit the precedential governmental uses to rights to repair, maintain and reconstruct the street involved. In *Southern Cal. Gas Co., supra,* the city was causing a gas line relocation to enable it to put in a sewer line.

As we see it, there is no inequity in the rule asserted. It is a consideration the privately-owned utility pays for

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the right, usually a monopoly, to furnish its designated services to a section of the public for which the latter pays at rates which, though regulated, are designed to afford the utility's shareholder's private profit after deducting all expense outlays (including the costs of relocation under discussion.)

It would be a mistake to identify the rights of a public entity to lay its facilities in a public street with the rights of a private utility, although both rights are sometimes called franchises. *Contra Costa Sanitary Dist., supra,* points out this fallacy. It has been held, however, in at least two cases that even the right, easement or franchise of a public utility, may under some circumstances be required to assume the burden of the costs of relocating its lines. When that occurs it must be justified under a proper exercise of the police power. In *State of California v. Marin Municipal Water Dist.,* 17 Cal.2d 699 [111 P.2d 641], it was held that the state could do this when relocation of the municipal water district's lines was made necessary to reconstruct a state highway. There, however, an express statute, section 680 of the Streets and Highways Code, had given the Department of Public Works the authority to require removal of a pipeline at the owner's expense when necessary "to insure the safety of the traveling public." It was held (on p. 706) that the Legislature's action was "clearly within that residuary power of the state to protect the health, safety, and morals of its inhabitants known as the 'police power.' " The court added that determination of whether a statute constitutes a taking of property without due process of law or an impairment of the obligation of a contract on the one hand or on the other hand a proper exercise of the ***324** police power is a balancing process. The court stated: "If the benefit to the public [as a whole] outweighs the burden on the individual, the statute is a valid exercise of the 'police power.' " (P. 706) The court (also on p. 706) stressed: "The trial court found in the present case that the removal and relocation of defendant's main was necessary to insure the safety of the traveling public and to permit the construction of the highway. ... The benefit to the public as a whole thus clearly outweighs the burden imposed upon defendant, and the legislation is therefore valid."

East Bay Municipal Utility Dist. v. County of Contra Costa, 200 Cal.App.2d 477 [19 Cal.Rptr. 506] (hearing by Supreme Court denied), is the second case referred to wherein one public agency, a municipal water district, was held obligated to pay the costs of relocating its facilities (water mains) underneath an existing county road to accommodate the reconstruction of that road by the county. Since a county and not the state was involved Streets and Highways Code section 680 was inapplicable. The court held, nevertheless, that the obligation to relocate at the public agency's cost would be implied. There is language in the decision which equates a privately owned utility with a public agency and a statement that "the controlling factor ... is the all-important distinction between a governmental and merely proprietary use of the street." (P. 481.) We can only accept that statement with reservation. Since the holding was that the right of the traveling public-the public as a whole-has a paramount right in an existing street, its maintenance, repair and reconstruction, superior to that of another public agency to lay its facilities in and under that street, the rule is established law by Supreme Court decision and must be accepted, but that case is distinguishable from the case at bench. In the stated sense "governmental use" means the right of government, whether it be the state, county, city or any other public entity (including a water district to which the police power also has been conferred) to exercise that power in a proper situation. But in the sense that the right exists in favor of one public agency and against another without any of the weighing and balancing upon which the validity of an attempted exercise of the police power hinges and solely because of some unexplained and inexplicable "governmental versus proprietary" distinction-that is a proposition which we do not accept as a true measure of the respective rights of public entities in the field of relocation ***325** cost allocation. Although the Supreme Court in *Southern Cal. Gas Co., supra,* 50 Cal.2d 713, 718, did refer to a municipal water district as operating in a proprietary capacity, that statement must be read in the context described above.

It is noteworthy that in *Muskopf v. Corning Hospital Dist.* (1961) 55 Cal.2d 211, 216 [11 Cal.Rptr. 89, 359 P.2d 457], the Supreme Court's opinion remarks that the "governmental versus proprietary" distinction operated both "illogically" and "inequitably" as applied to the law of governmental immunity from liability in torts. It was in that field that the distinction had been born (see Prosser, Law of Torts (3d ed.) p. 1005). Regarding the application of the doctrine Dean Prosser states: " '[R]ules which courts have sought to establish in solving this problem are as logical as those governing French irregular verbs.' "[4] Under the Government Tort Liability Act of 1963 (Gov.

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Code, § 900 et seq.) the distinction has been abandoned in the field of government immunity from torts.

To maintain the "Governmental versus proprietary function" as a test in the determination of relocation cost allocation is no less specious. In *Nissen v. Cordua Irrigation Dist.,* 204 Cal. 542 [269 P. 171], an irrigation district furnishing water for irrigation of lands was held to be performing a governmental function, yet as we have seen a district furnishing a domestic water supply is said to be performing a proprietary act. Fire departments which have been uniformly held to be governmental (see Van Alstyne, *op cit.,* p. 18) would be useless without water and water mains. We agree with the court in *Washington Township v. Ridgewood Village* 26 N.J. 578 [141 A.2d 308, 311]: "[W]hatever local government is authorized to do constitutes a function of government, and when a municipality acts pursuant to granted authority it acts as government and not as a private entrepreneur."

As between two public agencies located as these two are located, each district when performing the identical type of ***326** function-the laying of pipe lines in a public street-should pay its own way. That is both equitable and sound law.

The judgment is affirmed.

Friedman, J., and Regan, J., concurred.

A petition for a rehearing was denied January 10, 1967, and appellant's petition for a hearing by the Supreme Court was denied February 8, 1967.

Footnotes

1 The county board of supervisors initiates the proceedings to form the district. A hearing, however, must be held and whenever 2 percent of the registered voters object to the formation of the district it must either be abandoned or an election called as stated. (Health & Saf. Code, § 4715.)

2 Sometimes the board will be a mixture of elected private individuals, a member, or members, of the governing body of cities, counties or other public agencies, lying wholly or partly within its boundaries. (Health & Saf. Code, §§ 4730, 4730.1.)

3 In the interests of exactitude a sanitary district is not the same as a sanitation district. The former is formed under Health and Safety Code section 6400 et seq., the latter, as stated, under section 4700 of said code. Both are authorized to construct sewers; so also, by the way, is a water district (Wat. Code, § 35500 et seq.).

4 As stated by Professor Van Alstyne, California Government Tort Liability (Cont. Ed. Bar), pages 18-19, section 1.17: "Inadequacies of Governmental-Proprietary Distinction ... Manifestly, the distinction was unsatisfactory. It offered no solid grounds for prediction, invited test litigation, operated in a fortuitous and erratic fashion, and had little relevance to either the social need for risk distribution or the economic feasibility of shifting from the injured individual to the public treasury losses due to serious injuries."

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75 Cal.App.3d 957, 142 Cal.Rptr. 584

PACIFIC TELEPHONE AND TELEGRAPH COMPANY, Plaintiff and Appellant,
v.
REDEVELOPMENT AGENCY OF THE CITY OF REDLANDS et al., Defendants and Respondents

Civ. No. 17831.
Court of Appeal, Fourth District, Division 2, California.
December 15, 1977.

SUMMARY

In an action by a telephone and telegraph company against a city and its redevelopment agency to recover costs of relocating telephone lines under streets vacated in furtherance of a redevelopment project, the trial court granted defendants' motion for judgment on the pleadings and entered judgment that plaintiff take nothing by its complaint. The complaint alleged that the city redevelopment agency had notified plaintiff of the proposed vacation of the streets and the necessity of relocating the lines, and that the agency had rejected plaintiff's claim of costs incurred in the relocation of the lines. The complaint sought recovery for the costs on the theory of inverse condemnation and on the theory that relocation was required without affording plaintiff prior notice and an opportunity to be heard. (Superior Court of San Bernardino County, No. 168995, Don A. Turner, Judge.)

The Court of Appeal affirmed. The court held that the California Community Redevelopment Law (Health & Saf. Code, § 33000 et seq.) did not require the city or the redevelopment agency to compensate plaintiff for the expense of relocating its facilities to other city streets. The court also held that apart from the Community Redevelopment Law, a municipality is not required to compensate a utility for relocating its facilities to accommodate an urban redevelopment project even though the plan contemplates ultimate development of the property to industrial or commercial uses. Finally, the court rejected plaintiff's claim that it should be compensated for its relocation costs on the ground it was not afforded notice and an opportunity to be heard before being required to relocate, in light of the fact that plaintiff did not allege that the city failed to comply with the notice and hearing requirements of the Community Redevelopment Law or the provisions of the Streets and Highways Code pertaining to vacation of city streets, and that plaintiff did not contend that it could amend its complaint to so allege.(Opinion by Tamura, J., with Gardner, P. J., and McDaniel, J., concurring.)

HEADNOTES

Classified to California Digest of Official Reports

(1a, 1b)
Public Housing and Urban Renewal § 5--Urban Renewal Projects-- Vacation of Streets--Liability for Costs of Relocating Underground Telephone Lines--Inverse Condemnation.
The California Community Redevelopment Law (Health & Saf. Code, § 33000 et seq.) regulating redevelopment projects by municipalities in blighted areas, does not require a city or its redevelopment agency to compensate a utility company for the expense of relocating its facilities to other streets from streets vacated in furtherance of the redevelopment project. Thus, relocation by a telephone company of its lines under streets vacated by a city in furtherance of a redevelopment project could not form the basis for an action by the telephone company against the city in inverse condemnation for the cost of relocation of the lines.

[See **Cal.Jur.3d,** Eminent Domain, § 83; **Am.Jur.2d,** Eminent Domain, § 181.]

(2)
Telegraphs and Telephones § 3--Franchises--Use of Public Streets.
While the right granted to a telephone company by Pub. Util. Code, § 7901, providing that telegraph or telephone corporations may construct lines along or on any public road or highway, has often been termed a "franchise," it is not a grant of a proprietary interest in the street. The utility acquires only a limited right to use these streets to the extent necessary to furnish communication services to the public, and the franchise is subject to an implied obligation to relocate the facilities when necessary to make way for a proper governmental use of the streets.

(3)

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Public Housing and Urban Renewal § 5--Urban Renewal Projects-- Construction of Redevelopment Law--Utility's Relocation Costs.
In light of the nature of a telephone company's franchise to construct lines on or along public streets as authorized by Pub. Util. Code, § 7901, the Community Redevelopment Law Health & Saf. Code, §§ 33391, 33395), empowering a redevelopment agency to acquire real property by eminent domain and providing that property already devoted to a public use may be acquired by the redevelopment agency through eminent domain, cannot be construed to mean that relocation of telephone lines along or under a public street may be required only through exercise of the power of eminent domain or that compensation must be paid as though compelled by the federal and state Constitutions. The statutes are merely provisions empowering a redevelopment agency to exercise the power of eminent domain without which the power could not be exercised.

(4)
Eminent Domain § 8--Uses and Purposes Authorized--Legislative Determination.
In granting a public agency the power of eminent domain, the Legislature may prescribe the kinds of property that may be taken as well as the purpose for which property may be condemned. Conferral of the power of eminent domain, however, does not mean the power must be invoked or compensation must be paid when the agency's action does not result in a constitutionally compensable taking or damaging of the property.

(5a, 5b)
Public Housing and Urban Renewal § 5--Urban Renewal Projects-- Liability for Relocation of Utility's Facilities--Governmental or Proprietary Function.
A utility's right to compensation for relocation of its facilities in furtherance of a redevelopment project instituted by a municipality should depend, not on whether the municipal activity is governmental or proprietary, but on whether compensation has been required by the Legislature, or whether there has been a constitutionally compensable taking or damaging of a valuable property right. Thus, a telephone company was not entitled to compensation from a city for relocation of its telephone lines located under streets vacated pursuant to an urban renewal project, on the ground that the city was acting in a proprietary capacity when it required relocation of the facilities.

(6a, 6b)
Public Housing and Urban Renewal § 5--Urban Renewal Projects-- Proper Function of Government.
Municipal acquisition of blighted areas for redevelopment under the Community Redevelopment Law (Health & Saf. Code, § 33000 et seq.) is a proper function of government, and vacation of public streets in furtherance of a redevelopment project is likewise an exercise of a governmental function.

(7)
Statutes § 42--Construction--Aids--In General--Legislative Policy Declarations.
While legislative policy declarations contained in a statute are not binding on the courts, as statements of policy they are entitled to great weight, and it is not the duty or prerogative of the court to interfere with such legislative finding unless it clearly appears to be erroneous and without reasonable foundation.

(8)
Public Housing and Urban Renewal § 5--Urban Renewal Projects-- Relocation of Utility's Facilities--Notice and Opportunity to Be Heard.
A telephone company was not denied procedural due process on the ground that it was not afforded notice and opportunity to be heard before being required to relocate telephone lines under streets being vacated in furtherance of an urban renewal project, where the telephone company had ample opportunity to be heard both on the scope and nature of the redevelopment plan as well as on the city's intention to vacate the streets in question.

COUNSEL
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TAMURA, J.

The central issue on this appeal is whether a telephone company must bear the cost of relocating underground facilities it maintains in street rights-of-way where relocation is necessitated by ***961** vacation of the streets in furtherance of a redevelopment project under the Community Redevelopment Law (Health & Saf. Code, § 33000 et seq.).

For reasons expressed below, we have concluded that the utility must relocate its facilities at its own expense.

The pertinent facts are not in dispute. In 1972 the City Council of the City of Redlands approved a redevelopment plan which included as one of its major elements the construction of a shopping mall in a blighted downtown area and called for the city's cooperation in the vacation of streets, alleys, and other public ways and the relocation of sewers, water mains, and other public facilities. The project required the vacation of two streets in which Pacific Telephone and Telegraph Company (PT&T) maintained underground long distance telephone cables pursuant to rights granted by Public Utilities Code section 7901. [1]

The city redevelopment agency notified PT&T of the proposed vacation of the streets and the necessity of relocating the company's facilities to other city streets. PT&T responded it would relocate upon payment of its relocation costs. The city declined to so agree, undertook street vacation proceedings, and adopted a resolution vacating and abandoning the streets without reserving public utility easements therein. [2] PT&T relocated its facilities under protest, submitted a claim to the city for $72,088.64, and, upon rejection of the claim, commenced the instant action against the city and the city redevelopment agency to recover the relocation costs.

PT&T's complaint alleged the facts summarized above and sought recovery on two theories: (1) Inverse condemnation and (2) damages for requiring relocation without affording the utility prior notice and an opportunity to be heard. In their answer, the city and the agency admitted the factual allegations of the complaint but denied liability. ***962** Each side moved for a judgment on the pleadings. The court initially granted PT&T's motion but, on a motion for reconsideration, granted defendants' motion and entered judgment that PT&T take nothing by its complaint. PT&T appeals.

PT&T concedes the common law rule to be that, in the absence of a provision to the contrary, a public utility's franchise rights in a public street are subject to an implied obligation to relocate its facilities at the utility's own expense when necessary to make way for a proper governmental use of the street. (*New Orleans Gaslight Co.* v. *Drainage Commission of New Orleans*, 197 U.S. 453, 461-462 [49 L.Ed. 831, 835, 25 S.Ct. 471, 473-474]; *L.A. County Flood Control Dist. v. Southern Cal. Edison Co.*, 51 Cal.2d 331, 334 [333 P.2d 1]; *Southern Cal. Gas Co.* v. *City of L.A.*, 50 Cal.2d 713, 716 [329 P.2d 289].) However, PT&T maintains: (1) The common law rule does not govern the instant relocation because (a) the Community Redevelopment Law contemplates reimbursement of relocation expenses incurred by a utility, and (b) apart from the Community Redevelopment Law, a municipality must compensate a utility for relocating its facilities to accommodate an urban redevelopment project when the plan contemplates ultimate development of the property to industrial or commercial uses; and (2) assuming applicability of the common law rule, the utility was nevertheless entitled to damages in the amount of the relocation expenses, because it was not afforded notice and an opportunity to be heard on the necessity for relocating its facilities. In the ensuing discussion, we examine those contentions seriatim and conclude that they are without merit.

I

() The utility's primary contention is that the case at bench is not governed by the common law rule because relocation was occasioned by a redevelopment project under the Community Redevelopment Law. The argument rests on Health and Safety Code sections 33390, 33391, and 33395. [3]

Section 33390 defines the term "real property" as including "[e]very estate, interest, privilege, easement, franchise, and right in land"; section 33391 empowers a redevelopment agency to "[a]cquire real property by eminent domain"; and section 33395 provides that "[p]roperty alreadydevoted ***963** to a public use may be acquired by the agency through eminent domain." PT&T's argument takes the following form: The right granted to a telephone company by Public Utilities Code section

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7901 constitutes a franchise and hence is a species of "real property" as that term is defined in section 33390; PT&T's right to maintain its facilities in the streets in question is "[p]roperty already devoted to a public use" within the meaning of section 33395; the only method by which a redevelopment agency may acquire "[p]roperty already devoted to a public use" is by eminent domain; relocation costs incurred by PT&T were, therefore, recoverable in an inverse condemnation action. We are unpersuaded.

() While the right granted to a telephone company by Public Utilities Code section 7901 has often been termed a "franchise" (*Pac. Tel. & Tel. Co. v. City & County of S. F.*, 51 Cal.2d 766, 770-771 [336 P.2d 514]; *Pac. Tel. & Tel. Co.* v. *City of Los Angeles*, 44 Cal.2d 272, 276 [282 P.2d 36]; *Western Union Tel. Co. v. Hopkins*, 160 Cal. 106, 119 [116 P. 557]), it is not a grant of a proprietary interest in the street (*County of L.A.* v. *Southern Cal. Tel. Co.*, 32 Cal.2d 378, 387 [196 P.2d 773]; *Pacific Tel. & Tel. Co. v. City & County of San Francisco*, 197 Cal.App.2d 133, 154 [17 Cal.Rptr. 687]). The utility acquires only a limited right to use the streets to the extent necessary to furnish communication services to the public (*County of L.A.* v. *Southern Cal. Tel. Co., supra*, 32 Cal.2d 378, 387; *Pacific Tel. & Tel. Co. v. City & County of San Francisco, supra*, 197 Cal.App.2d 133, 154), and the franchise is subject to an implied obligation to relocate the facilities when necessary to make way for a proper governmental use of the streets (*Pacific Tel. & Tel. Co. v. City & County of San Francisco, supra*, 197 Cal.App.2d 133, 154; see *L.A. County Flood Control Dist. v. Southern Cal. Edison Co., supra*, 51 Cal.2d 331, 334; *Southern Cal. Gas Co. v. City of L.A., supra*, 50 Cal.2d 713, 716.)

() In light of the nature of the utility's franchise or privilege, sections 33391 and 33395 cannot be construed to mean that relocation may be required only through exercise of the power of eminent domain or that compensation must be paid as though compelled by the federal and state Constitutions. Section 33391 is merely a provision empowering a redevelopment agency to exercise the power of eminent domain without which the power could not be exercised. (*City of Beaumont* v. *Beaumont Irr. Dist.*, 63 Cal.2d 291, 293 [46 Cal.Rptr. 465, 405 P.2d 377]; *County of Marin* v. *Superior Court*, 53 Cal.2d 633, 636 [2 Cal.Rptr. 758, 349 P.2d 526]; *People v. Superior Court*, 10 Cal.2d 288, 295-296 [***964** 73 P.2d 1221]; *San Bernardino County Flood etc. Dist.* v. *Superior Court*, 269 Cal.App.2d 514, 518 [75 Cal.Rptr. 24].) The same is true of section 33395 authorizing the agency to acquire by eminent domain property already devoted to a public use. () In granting a public agency the power of eminent domain, the Legislature may prescribe the kinds of property that may be taken as well as the purpose for which property may be condemned. (*Eden Memorial Park Assn. v. Superior Court*, 189 Cal.App.2d 421, 425 [11 Cal.Rptr. 189].) Conferral of the power of eminent domain, however, does not mean the power must be invoked or compensation must be paid where the agency's action does not result in a constitutionally compensable taking or damaging of property. () The city's insistence that the utility do that which it impliedly agreed to do when it accepted the franchise offer contained in Public Utilities Code section 7901 did not result in a taking or damaging of the utility's franchise rights. The city's action did not impose on the utility a burden it had not already assumed when it accepted the franchise by constructing its facilities in public streets. (*L.A. County Flood Control Dist.* v. *Southern Cal. Edison Co., supra*, 51 Cal.2d 331, 336.) Thus, the required relocation cannot form the basis for an action in inverse condemnation. In order to state a cause of action for inverse condemnation, there must be an invasion or appropriation of some valuable property right possessed by the claimant. (*Selby Realty Co. v. City of San Buenaventura*, 10 Cal.3d 110, 119-120 [109 Cal.Rptr. 799, 514 P.2d 111].)

Although the Legislature may grant a utility the right to compensation for relocating its facilities to accommodate a proper governmental use of the street, such right should not be deemed to have been given unless the Legislature specifically so provides. (*Southern Cal. Gas. Co.* v. *City of L.A., supra*, 50 Cal.2d 713, 719; *First Nat. Bank of Boston v. Maine Turnpike Auth.*, 153 Me. 131, 152 [136 A.2d 699, 711]; *Consolidated Edison of New York v. Lindsay*, 24 N.Y.2d 309 [300 N.Y.S.2d 321, 248 N.E.2d 150, 154]; *Appalachian Power Co. v. City of Huntington*, W.Va. [210 S.E.2d 471, 475].) The sections of the Community Redevelopment Law on which PT&T bases its claim do not, either singly or collectively, manifest a legislative will that a utility be compensated for relocating facilities maintained in a public street pursuant to Public Utilities Code section 7901.

PT&T's contention is similar to another utility's unsuccessful argument in *L.A. County Flood Control Dist. v. Southern Cal. Edison Co., supra*, 51 Cal.2d 331. There, the Southern California Edison Co. based

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itsentitlement ***965** to relocation costs on an amendment to the Los Angeles County Flood Control Act which provided that "'nothing in this act contained shall be deemed to authorize said district in exercising any of its powers to take, damage or destroy any property or to require the removal, relocation, alteration or destruction of any bridge, railroad, wire line, pipeline, facility or other structure unless just compensation therefor be first made, in the manner and to the extent required by the Constitution of the United States and the Constitution of California.' (Stats. 1953, ch. 1139, p. 2635, § 1.)" (*Id.*, at p. 336.) The utility argued that the quoted provision meant that compensation must be made in the same manner and to the same extent as if a constitutionally compensable taking or damaging of property had occurred. (*Id.*, at pp. 336-337.) In rejecting the contention, our high court interpreted the statute as providing for compensation only as required by the state and federal Constitutions. (*Id.*, at p. 337.) The court reasoned that had the Legislature intended to go beyond constitutional demands, it would have so provided as it had done elsewhere. *(Id.)* The court cited as an example the Marin County Flood Control and Water Conservation District Act which provides that the district shall "'*in addition to the damage for the taking, injury, or destruction of property*, also pay the cost of removal, reconstruction or relocation of any structure, railways, mains, pipes, conduits, wires, cable, poles, of any public utility which is required to be moved to a new location. ...' (Stats. 1953, ch. 666, p. 1915, 1919; ...)" (*Id.*, italics added.) In the case at bench, neither the Community Redevelopment Law nor Public Utilities Code section 7901 contains any express direction to compensate a utility for relocation expenses.[4] The broad definition of "real property" in section 33390 does not constitute an express legislative directive to reimburse utilities for relocation of their facilities. (See *Consolidated Edison Co. of New York v. Lindsay, supra*, 24 N.Y.2d 309 [248 N.E.2d 150, 154].)

We recognize that our analysis of the pertinent provisions of the Community Redevelopment Law is at variance with the view expressed in *East Bay Muni. Utility Dist. v. Richmond Redevelopment Agency*, 51 Cal.App.3d 789 [124 Cal.Rptr. 606]. There, after a brief recitation of the ***966** substance of sections 33390, 33391 and 33395, the Court of Appeal concluded: "The apparent purpose of Health and Safety Code sections 33390, 33391 and 33395 is to protect franchise holders, including utilities, from uncompensated seizures of property occasioned by redevelopment projects. (See *Vermont Gas Systems, Inc. v. City of Burlington* (1971) 130 Vt. 75, 82 [286 A.2d 275, 279]; *City of Center Line* v. *Michigan Bell Tel. Co*. (1970) 26 Mich.App. 659 [182 N.W.2d 769], affd. 387 Mich. 260 [196 N.W.2d 144]; *Mayor etc. of Baltimore v. Baltimore Gas & Elec. Co*. (1959) 221 Md. 94 [156 A.2d 447]; *In re Gillen Place, Borough of Brooklyn, etc*. (1952) 304 N. Y. 215 [106 N.E.2d 897]; *City of Columbus v. Indiana Bell Telephone Co*. (1972) 152 Ind.App. 22 [281 N.E.2d 510].)

"

. . . . . .

"Therefore, if the relocating costs had been incurred as a result of an exercise of governmental power by the redevelopment agency (through an eminent domain proceeding or by a taking established as compensable in an inverse condemnation action) EBMUD would have been entitled to recover. ..." (*East Bay Muni. Utility Dist. v. Richmond Redevelopment Agency, supra*, 51 Cal.App.3d 789, 794.)

We would first observe that the *East Bay* court nevertheless affirmed the judgment denying recovery from the redevelopment agency for the utility district's cost of relocating its water mains. (*Id.*, at p. 795.) The reviewing court held that the trial court's implied finding that relocation was not occasioned by the exercise of the agency's power of eminent domain was supported by the record in that it appeared the utility had intended to replace its existing water main with a larger line, its engineers had planned the relocation, the redevelopment agency was never apprised of the cost of relocation, there was no resistance to the planned relocation and a claim for compensation was never filed. (*Id.*, at pp. 794-795.) Thus, the quoted language is dictum.

In any event while we have the highest regard for the author of the *East Bay* opinion, for reasons heretofore stated, we respectfully decline to share the view expressed in the court's dictum.

Nor are we persuaded by the cases from other jurisdictions cited by the *East Bay* court. In the cited cases, relocation costs were held to be compensable either because of the particular language of the state statute or redevelopment ordinance or on the theory that it was somehow unfair to require the utility to bear relocation costs where the urban renewal orredevelopment ***967** project contemplated ultimate development by private individuals

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for commercial or industrial purposes. Among the cited cases, PT&T relies most heavily upon *City of Center Line* v. *Michigan Bell Tel. Co*., 26 Mich.App. 659 [182 N.W.2d 769], affd. 387 Mich. 260 [196 N.W.2d 144]. There, the Michigan Court of Appeal held that the utility should recover relocation expenses because (1) otherwise the ultimate private developers would benefit at the expense of another private corporation (the utility) and (2) since urban renewal is "a socially-oriented program operating under the guise of the police power," the relocation costs should be borne by the taxpayers rather than the consumers of the utility service. (*City of Center Line* v. *Michigan Bell Tel. Co., supra*, 26 Mich.App. 659 [182 N.W.2d 769, 770-771].) The Michigan Supreme Court was unimpressed with the first reason given by the Court of Appeal, but held that the second reason, though as expressed was "unfelicitous," was sound and in accord with the legislative will. (*In re City of Center Line*, 387 Mich. 260 [196 N.W.2d 144, 146].) The statutory analysis, however, merely consisted of the following cryptic conclusions: "The whole tenor of the act is for the city to acquire private interests through purchase. The inclusion in the definition of real property in Sec. 2(e) of 'every estate, interest, *privilege, easement*' and the direction to the city to acquire such real property in Sec. 5 obviates the constitutional question of whether it is necessary to reimburse a utility for relocation costs when a public use entails the removal and relocation of equipment. [¶] We hold that the RBA [Rehabilitation of Blighted Areas] act requires that the city reimburse a utility for costs for removal and relocation of its equipment necessitated by the implementation of an urban renewal plan under the act." (*In re City of Center Line, supra*, 387 Mich. 260 [196 N.W.2d 144, 146-147].) As we have explained, we do not so analyze the California Community Redevelopment Law.

Other out-of-state cases which we believe to be better reasoned have held that a utility must bear the expense of a utility relocation necessitated by an urban renewal or redevelopment project. (*Southern Union Gas Co.* v. *City of Artesia*, 81 N.M. 654 [472 P.2d 368, 369-370]; *Consolidated Edison of New York v. Lindsay, supra*, 24 N.Y.2d 309 [248 N.E.2d 150, 153-154]; *New York Telephone Co. v. City of Binghamton*, 18 N.Y.2d 152 [272 N.Y.S.2d 359, 219 N.E.2d 184, 188]; *Bristol Tennessee Housing Auth. v. Bristol Gas. Corp*., 219 Tenn. 194 [407 S.W.2d 681, 682-683]; *Appalachian Power Co. v. City of Huntington, supra*, 210 S.E.2d 471, 475.) ***968**

We hold that the California Community Redevelopment Law does not require the city or agency to compensate PT&T for the expense of relocating its facilities to other city streets. We perceive nothing fundamentally unfair in requiring the utility to bear the relocation expenses as a part of its cost of doing business. It is for the Legislature to decide whether those expenses should be shifted to the taxpayers. It has not so decided in the Community Redevelopment Law.

() PT&T maintains, however, that apart from the Community Redevelopment Law it is entitled to recover relocation expenses because the city and the agency were acting in a proprietary capacity. This contention must also be rejected.

The labels "governmental function" and "proprietary function" are of dubious value in terms of legal analysis in any context. The classification has been employed primarily in the tort field as a judicial technique for determining questions of common law governmental immunity. The distinction was, as Professor Van Alstyne observes, manifestly unsatisfactory: "It offered no solid grounds for prediction, invited test litigation, operated in a fortuitous and erratic fashion, and had little relevance to either the social need for risk distribution or the economic feasibility of shifting from the injured individual to the public treasury losses due to serious injuries. The eradication of the distinction from the governmental immunity doctrine was attributed in *Muskopf* to the fact that it operated both 'illogically' and 'inequitably.' *Muskopf v. Corning Hosp. Dist*. (1961) 55 C2d 211, 216, 11 CR 89, 92." (Van Alstyne, Cal. Government Tort Liability (Cont.Ed.Bar 1964) § 1.17, p. 19.)

The classification is not a serviceable tool for decision making in the present context. "The distinction between 'governmental function' and 'proprietary function' is a sort of abstraction difficult to make meaningful in a day when municipalities continually find new ways to exercise police power in their efforts to cope with the pressing needs of their citizens." (*New York Telephone Co. v. City of Binghamton, supra*, 18 N.Y.2d 152 [219 N.E.2d 184, 186].) A utility's right to compensation should depend, not on whether municipal activity is "governmental" or "proprietary," but on whether compensation has been required by the Legislature, or whether there has been

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a constitutionally compensable taking or damaging of a valuable property right.

PT&T urges that *City of Los Angeles v. Los Angeles Gas & Electric Corp.*, 251 U.S. 32 [64 L.Ed. 121, 40 S.Ct. 76], and ***969** *Postal Tel.-Cable Co.* v. *San Francisco*, 53 Cal.App. 188 [199 P. 1108], compel us to apply the distinction in determining its right to compensation. Even were we to feel so compelled, those cases do not aid PT&T's cause. They are readily distinguishable under traditional governmental and proprietary function concepts. They involved utility relocations required to accommodate a public utility business carried on by a municipality. Under traditional tests, such enterprises were uniformly treated as being proprietary in nature. (Van Alstyne, Cal. Government Tort Liability (Cont.Ed.Bar 1964) § 1.17, p. 18.)

() However, in this day and age it is too late to quarrel with the proposition that elimination of urban blight by acquiring and clearing areas so infected and converting them into sites for commercial and industrial development is a legitimate governmental function. (*New York Telephone Co. v. City of Binghamton, supra*, 18 N.Y.2d 152 [219 N.E.2d 184, 187]; *Bristol Tennessee Housing Auth. v. Bristol Gas Corp., supra*, 407 S.W.2d 681, 683.) To hold otherwise would be viewing "present day conditions under the myopic eyes of years now gone." (*Redevelopment Agency* v. *Hayes*, 122 Cal.App.2d 777, 803 [266 P.2d 105].) In *New York Telephone Co. v. City of Binghamton, supra*, the New York Court of Appeal held that it need not endorse or reject the "governmental-proprietary" distinction drawn in *In re Gillen Place, Borough of Brooklyn, etc.*, 304 N.Y. 215 [106 N.E.2d 897], cited in the *East Bay* court's dictum and relied upon by PT&T, because "clearing, replanning and rehabilitation of substandard and insanitary areas is a public purpose separate in itself regardless of subsequent use of the property." (*New York Telephone Co. v. City of Binghamton, supra*, 18 N.Y.2d 152 [219 N.E.2d 184, 186-187].) We agree.

In this state, the Community Redevelopment Law contains the following legislative policy declaration: "(c) That the redevelopment of blighted areas and the provisions for appropriate continuing land use and construction policies in them constitute public uses and purposes for which public money may be advanced or expended and private property acquired, and *are governmental functions of state concern* in the interest of health, safety, and welfare of the people of the State and of the communities in which the areas exist." (§ 33037, subd. (c), italics added.) () While such legislative declarations are not binding on the courts, as statements of policy they are "entitled to great weight and it is not the duty or prerogative of the courts to interfere with such legislative finding unless it clearly appears to be erroneous and without reasonable ***970** foundation" (*The Housing Authority* v. *Dockweiler*, 14 Cal.2d 437, 449-450 [94 P.2d 794]; accord *Fellom* v. *Redevelopment Agency*, 157 Cal.App.2d 243, 248 [320 P.2d 884].) () Our courts have respected the legislative policy declaration. Municipal acquisition of blighted areas for redevelopment under the Community Redevelopment Law has consistently been held to be a proper function of government. (*In re Redevelopment Plan For Bunker Hill*, 61 Cal.2d 21, 41, 71 [37 Cal.Rptr. 74, 389 P.2d 538]; *Redevelopment Agency v. Hayes, supra*, 122 Cal.App.2d 777, 800-802.) Vacation of public streets in furtherance of a redevelopment project is expressly authorized by section 33220 and is likewise an exercise of a governmental function.

() PT&T's contention that it is entitled to compensation on the theory that the city and the agency were acting in a proprietary capacity is without merit.

II

() The utility's due process argument merits little consideration. PT&T urges that even if this court should conclude that relocation did not involve a "taking" or "damaging" of the utility's property, it was nevertheless denied procedural due process because it was not afforded notice and an opportunity to be heard before being required to relocate. The only authority cited is *Leppo v. City of Petaluma*, 20 Cal.App.3d 711 [97 Cal.Rptr. 840]. *Leppo* is inapposite. That was an action for damages for the demolition of a building as a public nuisance. (*Id.*, at p. 715.) The reviewing court held that absent an emergency, a municipality must give the owner notice and an opportunity to be heard before it may order demolition of a building as a public nuisance. (*Id.*, at pp. 718-719.) As we have explained, in the case at bench there has been no taking or damaging of the utility's property.

Furthermore, PT&T had ample opportunity to be heard both on the scope and nature of the redevelopment plan as well as on the city's intention to vacate the streets in question. PT&T did not allege that the city or the agency

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failed to comply with the notice and hearing requirements of the Community Redevelopment Law (§§ 33348, 33349, 33355, 33356, 33360-33363) or the provisions of the Streets and Highways Code pertaining to vacation of city streets (Sts. & Hy. Code, §§ 8322-8323). Nor does it contend it could amend its complaint to so ***971** allege. In the absence of such allegation, it must be presumed that the city and agency proceeded in the manner required by law.

The judgment is affirmed.

Gardner, P. J., and McDaniel, J., concurred.

A petition for a rehearing was denied January 5, 1978, and appellant's petition for a hearing by the Supreme Court was denied February 23, 1978.

Footnotes

1 Public Utilities Code section 7901 provides: "Telegraph or telephone corporations may construct lines of telegraph or telephone lines along and upon any public road or highway, along or across any of the waters or lands within this State, and may erect poles, posts, piers, or abutments for supporting the insulators, wires, and other necessary fixtures of their lines, in such manner and at such points as not to incommode the public use of the road or highway or interrupt the navigation of the waters."

2 The city is empowered, in its discretion, to reserve and to except from the vacation of a street an easement to construct, maintain, and operate utility facilities pursuant to existing franchises. (Sts. & Hy. Code, § 8330.)

3 Unless otherwise indicated, all section references in this opinion are to the Health and Safety Code.

4 When the Legislature intends that a utility be reimbursed for its relocation costs, it has said so in specific and direct language. For example, in addition to the instance cited by the Supreme Court in *L.A. County Flood Control Dist. v. Southern Cal. Edison Co., supra*, 51 Cal.2d 331, 337, the Legislature has expressly provided for reimbursement of relocation costs of utility facilities maintained in freeways (Sts. & Hy. Code, §§ 702, 703), relocations required by the Southern California Rapid Transit District (Pub. Util. Code, § 30631), and relocations required by the Reclamation Board in connection with certain flood control projects (Wat. Code, § 8617.5).

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KeyCite Yellow Flag - Negative Treatment
Distinguished by Bay Area Cellular Telephone Co. v. City of Union City, Cal.App. 1 Dist., April 29, 2008

32 Cal.4th 409
Supreme Court of California

Jerry RICHMOND et al., Plaintiffs and Appellants,
v.
SHASTA COMMUNITY SERVICES DISTRICT, Defendant and Respondent.

No. S105078.
|
Feb. 9, 2004.

Synopsis
Background: Property owners brought action challenging constitutionality of resolution adopted by water district that increased connection fee charged to new users and continued unchanged, as part of connection fee, a fee for fire suppression. The Superior Court, Shasta County, No. 0134636, Richard A. McEachen, J., upheld enactment. Property owners appealed. The Court of Appeal affirmed in part and reversed in part. The Supreme Court granted review, superseding the opinion of the Court of Appeal.

Holdings: The Supreme Court, Kennard, J., held that:

[1] district's capacity charge, imposed on applicants for new service connections, was not an "assessment" subject to state constitutional restrictions;

[2] district's fee for fire suppression as part of new connection fee was not subject to constitutional restrictions on fees; and

[3] district could amend ordinance establishing new connection fees by resolution.

Judgment of the Court of Appeal reversed and matter remanded to that court with directions.

Opinion, 116 Cal.Rptr.2d 343, superseded.

West Headnotes (9)

[1] Water Law
Charges as Taxes or Assessments

Water district's capacity charge, imposed on applicants for new service connections, was not an "assessment" subject to state constitutional restrictions on assessments, since district could only estimate number of connections and could not identify specific parcels for which new applications would be made, as required by constitutional provision. West's Ann.Cal. Const. Art. 13D, §§ 2, 4.

See 9 Witkin, Summary of Cal. Law (9th ed. 1989) Taxation, §§ 110A, 110B; Cal. Jur. 3d, Property Tax, § 4.

16 Cases that cite this headnote

[2] Constitutional Law
General Rules of Construction

The principles of constitutional interpretation are similar to those governing statutory construction.

4 Cases that cite this headnote

[3] Constitutional Law
Intent in general

The aim of constitutional interpretation is to determine and effectuate the intent of those who enacted the constitutional provision at issue.

7 Cases that cite this headnote

[4] Constitutional Law
Meaning of Language in General
Constitutional Law
Plain, ordinary, or common meaning

To determine intent of enactors of a constitutional provision, the Supreme Court begins by examining the constitutional text, giving the words their ordinary meanings.

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3 Cases that cite this headnote

[5] **Constitutional Law**
Reasonableness of result
Constitutional Law
Meaning of Language in General

Courts construe constitutional phrases liberally and practically; where possible they avoid a literalism that effects absurd, arbitrary, or unintended results.

Cases that cite this headnote

[6] **Constitutional Law**
Meaning of Language in General
Constitutional Law
Relation to former constitution
Statutes
Defined terms;definitional provisions
Statutes
Legislative Construction

Rule, holding that when a term has been given a particular meaning by a judicial decision it should be presumed to have the same meaning in later-enacted statutes or constitutional provisions, does not apply when the statute or constitutional provision contains its own definition of the term at issue; if the Legislature has provided an express definition of a term, that definition ordinarily is binding on the courts.

2 Cases that cite this headnote

[7] **Water Law**
Connection and capitalization fees

Water district's capacity charge, imposed on applicants for new service connections, was not a "development fee"; district had no authority to approve or disapprove property development, and a property owner could request a new service connection without proposing any new development.

19 Cases that cite this headnote

[8] **Water Law**
Charge for fire protection service

Water district's fee for fire suppression as part of new connection fee was not subject to constitutional restrictions on fees, since it was not imposed as an incident to ownership; although supplying water was a property-related service within constitutional definition of a fee or charge, a water service fee was a "fee or charge" only if it was imposed upon a person as an incident of property ownership, and making a new connection to the system was not such imposition, since it resulted from an owner's voluntary decision to apply for the connection. West's Ann.Cal. Const. Art. 13D, §§ 2(e), 3(b), 6(a, b); West's Ann.Cal.Gov.Code §§ 61621, 61621.3.

24 Cases that cite this headnote

[9] **Water Law**
Connection and capitalization fees

Water district could amend ordinance establishing new connection fee by resolution under authority of Mitigation Fee Act, which allowed such action by ordinance or resolution; district was not subject to statute requiring sewage system actions to be enacted by ordinance. West's Ann.Cal.Gov.Code § 66016(b); West's Ann.Cal.Health & Safety Code § 5471.

3 Cases that cite this headnote

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Opinion

KENNARD, J.

In November 1996, California voters adopted Proposition 218, the Right to Vote on Taxes Act, which added articles XIII C and XIII D to the California Constitution. (See *Apartment Assn. of Los Angeles County,* **415 *Inc. v. City of Los Angeles* (2001) 24 Cal.4th 830, 835, 102 Cal.Rptr.2d 719, 14 P.3d 930.) Article XIII D of the state Constitution (hereafter article XIII D) specifies various restrictions and requirements for assessments, fees, and charges that local governments impose on real property or on persons as an incident of property ownership. Here, the main issue is whether a charge that a local water district imposed as a condition of making a new connection to the water system, and that the district used to finance capital improvements to the water system, is subject to the restrictions of article XIII D. Other questions presented are whether article XIII D prohibits a local water district from continuing to include in the new connection fees a fire suppression charge, the proceeds of which are used to purchase firefighting and emergency medical equipment for the district's volunteer fire department, and whether an ordinance imposing a water connection fee may be amended by a resolution.

On these questions, we conclude: (1) a capacity charge imposed as a condition for making a new connection to a water system, the proceeds of which are used to finance capital improvements, is not an assessment within the meaning of article XIII D, and thus it is not subject to article XIII D's restrictions on assessments; (2) a fire suppression fee imposed as a condition for making a new connection to a water system, the proceeds of which are used to purchase firefighting and emergency medical ***124 equipment, is not a property-related fee or charge under article XIII D, and thus it is not subject to article XIII D's prohibition against property-related fees and charges for general governmental services; and (3) an ordinance enacted by a community services district to impose a water connection fee may be amended by a resolution. Because these conclusions are consistent with the trial court's judgment but inconsistent with part of the Court of Appeal's opinion, we will reverse that court's judgment with directions to affirm the trial court's judgment.

I. FACTS AND PROCEDURAL HISTORY

Because neither party petitioned the Court of Appeal for a rehearing, we take the facts largely from that court's opinion. (See Cal. Rules of Court, rule 28(c)(2).)

Defendant Shasta Community Services District (the District) is a local public entity organized under the community services district law (Gov.Code, § 61000 et seq.). It operates a water system for residential and commercial users and a volunteer fire department that provides both fire suppression and emergency medical services. In February 1994, the District adopted an ordinance (No. 1–94) establishing a "standard connection fee" of $2,000, plus the cost of a water meter, for new water service connections. *416 According to the ordinance, this fee included a capacity charge [1] of $600 for future improvements to the water system and a fire suppression charge of $400. The ordinance did not expressly allocate the remaining $1,000, but one may infer that it covered the cost of installing the water service connection because the ordinance also provided that if the water main was not on the same side of the street or highway as the property to be served, "the District will charge the actual **521 cost of the connection to the extent such cost exceed[s] the sum of $1,000."

In November 1997, the District adopted a resolution (No. 10–97) to amend this ordinance. According to the resolution, applicants for new water service connections would be required to pay: (1) a "standard connection fee"; (2) the actual cost of a water meter; and (3) if the property owner chose to have the District install the service connection, the "actual cost of the materials,

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labor, and overhead" for installing the "entire service connection including the meter, line setter, meter box, appurtenant equipment, and mainline extension, if any." The "standard connection fee" consisted of a $3,176 capacity charge for capital improvements to the water system and a $400 fire suppression charge. The resolution stated that the $3,176 capacity charge was "based upon estimated project costs of $762,300 for future improvements assigned to the new development of 240 future connections which equals $3,176 per connection."

In March 1998, plaintiffs Jerry Richmond, Linda Panich, Hank Edelstein, and Victoria Edelstein, both individually and doing business as a joint venture, brought this action to test the validity of the resolution increasing the fees for new connections. (Code Civ. Proc., § 860; Gov.Code, §§ 66013, 66022.) They alleged that they owned real property within the District and also within an area proposed for annexation into the District. They challenged the resolution on many grounds, only three of which are relevant here: (1) The resolution imposed an assessment within the meaning of article XIII D, but *****125** the District had not satisfied the constitutional requirements for imposing an assessment; (2) the $400 fire suppression charge was a "fee" or "charge" within the meaning of article XIII D, and it violated article XIII D's prohibition against fees or charges for general governmental services; and (3) the 1994 ordinance could be amended only by another ordinance, not by a mere resolution. Plaintiffs requested a declaratory judgment that the resolution was void and a permanent injunction restraining the District from enforcing it.

***417** The action was tried to the court without a jury. At the trial, the District presented evidence showing, among other things, that the capital improvements to be funded by the $3,176 capacity charge, including a new 500,000–gallon storage tank, would both remedy existing deficiencies in the water system and expand the system's ability to provide service to new customers through new connections. The $3,176 charge was calculated by allocating 50 percent of the cost of the improvements to new connections and 50 percent to existing connections. Water customers throughout the district would benefit from the improvements, but customers in certain higher-elevation areas would receive somewhat less benefit than other customers. After considering the evidence, the superior court granted judgment for the District. The court concluded: (1) The connection fee imposed by resolution No. 10–97 is not a special assessment but a development fee exempt from article XIII D; (2) the fire suppression charge is merely the continuation of a fee imposed before article XIII D was enacted; and (3) the connection fee could legally be adopted by a resolution (enactment of an ordinance was not required).

On plaintiffs' appeal, the Court of Appeal affirmed the judgment, except as to the fire suppression charge. The court reasoned that the District's connection fee was not an assessment within the meaning of article XIII D because that constitutional provision by implication defines an assessment as a charge imposed on specific identified parcels, whereas the connection fee was not imposed on identified parcels. Because the connection fee was imposed only when a property owner requested a new service connection, the specific properties for which connections would be sought could not be identified (although the number of such requests could be estimated), and thus the connection charge could not be characterized as an assessment. The Court of Appeal also concluded that the connection fee, because it was incurred only when the owner voluntarily requested a new service connection, was properly characterized as a development fee, and as such it was exempt from the requirements of article XIII D.

****522** With respect to the fire suppression charge, however, the Court of Appeal accepted plaintiff's argument that it was a fee for general governmental services prohibited by section 6, subdivision (b)(5), of article XIII D. The Court of Appeal rejected the District's argument that this provision did not apply to fees authorized by laws enacted before article XIII D became effective, but only to fees that were newly enacted or increased thereafter.

Finally, the Court of Appeal concluded that the District could validly use a resolution to amend an ordinance.

***418 II. THE CAPACITY CHARGE**

[1] [2] [3] [4] To determine whether the District's $3,176 capacity charge, imposed only on applicants for new service connections, violates article XIII D's restrictions on assessments, we must interpret our state Constitution. "The principles of constitutional interpretation are similar to those governing statutory

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construction." ***126 (*Thompson v. Department of Corrections* (2001) 25 Cal.4th 117, 122, 105 Cal.Rptr.2d 46, 18 P.3d 1198.) The aim of constitutional interpretation is to determine and effectuate the intent of those who enacted the constitutional provision at issue. (*Ibid.*) To determine that intent, we begin by examining the constitutional text, giving the words their ordinary meanings. (*Ibid.;* accord, *Leone v. Medical Board* (2000) 22 Cal.4th 660, 665, 94 Cal.Rptr.2d 61, 995 P.2d 191.)

Section 2 of article XIII D defines an "assessment" as "any levy or charge upon real property ... for a special benefit conferred upon the real property...." (Art. XIII D, § 2, subd. (b).) It defines "special benefit" as "a particular and distinct benefit over and above general benefits conferred on real property located in the district or to the public at large...." (*Id.,* § 2, subd. (i).)

Section 4 of article XIII D establishes procedures and requirements for assessments. A local public agency may not impose an assessment, as defined in article XIII D, unless: (1) the agency identifies "all parcels which will have a special benefit conferred upon them and upon which an assessment will be imposed" (art. XIII D, § 4, subd. (a)); (2) the agency obtains an engineer's report that supports the assessment (*id.,* § 4, subd. (b)); (3) the assessment does not exceed the reasonable cost of the proportional special benefit conferred on the affected parcel (*id.,* § 4, subds. (a) & (f)); and (4) after giving notice to affected property owners and holding a public hearing, the agency does not receive a majority protest based on ballots "weighted according to the proportional financial obligation of the affected property" (*id.,* § 4, subds. (c)-(e)).

To determine what constitutes an assessment under article XIII D, it is necessary to consider not only article XIII D's definition of an assessment, but also the requirements and procedures that article XIII D imposes on assessments. Article XIII D requires that an agency imposing an assessment identify "all parcels which *will* have a special benefit conferred upon them and upon which an assessment *will* be imposed." (Art. XIII D, § 4, subd. (a), italics added.) The agency then must give written notice of the proposed assessment to the owners of these identified parcels (*id.,* § 4, subd. (c)) and provide an opportunity for a protest using ballots "weighted according to the proportional financial obligation of the affected property" (*id.,* § 4, subd. (e)).

*419 Because the capacity charge is imposed only on property owners who apply for a new service connection, the District cannot identify the parcels upon which the capacity charge will be imposed. Here, the District *estimated* that there would be 240 new connection applications, but the District did not and could not *identify* the specific parcels for which new connection applications would be made. At most, the District can identify the parcels within its boundaries on which the capacity charge *would* be imposed *if* the owners applied for a service connection. But the matter is more complex, because many existing undeveloped parcels would likely be subdivided into an indeterminable number of smaller parcels, for each of which a connection might be requested, thus making it impossible to now determine "the proportional financial obligation of the affected property." And even this understates the problem, because owners of property outside the District's **523 boundaries may seek service connections by applying for annexation of their property into the District. Therefore, it is impossible for the District to comply with article XIII D's requirement that the agency identify the parcels on which the assessment will be imposed ***127 and provide an opportunity for a majority protest weighted according to the proportional financial obligation of the affected property.

We agree with the Court of Appeal that the proper conclusion to be drawn from this impossibility of compliance is that an assessment within the meaning of article XIII D must not only confer a special benefit on real property, but also be imposed on identifiable parcels of real property. Because the District does not impose the capacity charge on identifiable parcels, but only on individuals who request a new service connection, the capacity charge is not an assessment within the meaning of article XIII D.

[5] This construction is consistent with settled rules of constitutional interpretation. "Courts construe constitutional phrases liberally and practically; where possible they avoid a literalism that effects absurd, arbitrary, or unintended results." (*Carman v. Alvord* (1982) 31 Cal.3d 318, 327, 182 Cal.Rptr. 506, 644 P.2d 192; see also *California Correctional Peace Officers Assn. v. State Personnel Bd.* (1995) 10 Cal.4th 1133, 1147, 43 Cal.Rptr.2d 693, 899 P.2d 79 ["a practical construction is preferred"].) Construing article XIII D's definition of assessment as applying only to charges imposed

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on identifiable parcels avoids the probably unintended result of prohibiting local water districts from imposing capacity charges, no matter how modest or reasonable, for new connections because of the inherent impossibility of identifying in advance the parcels for which new connections would later be requested.

This construction is also consistent with article XIII D's definition of an assessment as a "levy or charge *upon real property* ...." (Art. XIII D, § 2, ***420** subd. (b), italics added.) [2] The District does not impose the capacity charge on real property as such, but on individuals who apply for new service connections. It is the applicant who must pay, and the District may not impose a lien or otherwise have recourse to the property to compel payment. Rather, the District simply does not initiate water service until the charge is paid. A charge that operates in this way cannot be described as a charge upon real property, within the meaning of article XIII D.

Finally, this construction is consistent with the aim of Proposition 218 to enhance taxpayer consent. Here, the District proposed to divide the costs of new capital improvements between users receiving service through existing connections and users applying for new connections. This case concerns only imposition of costs on new connections. Presumably, any costs imposed on customers receiving service through existing connections would be subject to article XIII D's voter approval requirements, and thus their consent. Customers who apply for new connections give consent by the act of applying. Moreover, water connection fees are already subject to significant constraints under Government Code section 66013. [3]

*****128** ***421** ****524** Plaintiffs rely on this court's decision in *****129** *San Marcos Water Dist. v. San Marcos Unified School Dist.* (1986) 42 Cal.3d 154, 228 Cal.Rptr. 47, 720 P.2d 935 (*San Marcos*). The issue there was whether a provision of the state Constitution exempting public entities from payment of property taxes (Cal. Const., art. XIII, § 3, subd. (b)) applied to a local water district's capacity fee, used to fund capital improvements to the water system. The constitutional property tax exemption for public entities had been construed to include ***422** special assessments, but not user fees, and thus the issue presented to this court was whether the capacity charge was more properly characterized as a special assessment or as a user fee for purposes of this constitutional provision. We concluded that a capacity charge was a hybrid, in the sense that it had some characteristics of a user fee and some characteristics of an assessment. (*San Marcos, supra,* at p. 163, 228 Cal.Rptr. 47, 720 P.2d 935.) We concluded also, however, that the fee should be considered an assessment for purposes of the public entity property tax exemption. We established a bright-line rule that "a fee aimed at assisting a utility district to defray costs of capital ****525** improvements will be deemed a special assessment from which other public entities are exempt." (*Id.* at pp. 164–165, 228 Cal.Rptr. 47, 720 P.2d 935.) [4]

San Marcos, supra, 42 Cal.3d 154, 228 Cal.Rptr. 47, 720 P.2d 935, is not on point here. We were not there construing the term "assessment" as used in article XIII D; instead, we were construing the constitutional provision exempting public entities from property taxes (Cal. Const., art. XIII, § 3, subd. (b)), a provision in which the term "assessment" does not appear. In deciding what constituted an assessment in *San Marcos,* we sought to determine and effectuate the constitutional purpose for exempting public entities from property taxes, a purpose that plays no role in interpreting the provisions of article XIII D that are at issue here. The characteristic that we found determinative for identifying assessments in *San Marcos*—that the proceeds of the fee were used for capital improvements—forms no part of article XIII D's definition of assessments. For each of these reasons, we agree with the Court of Appeal that *San Marcos* is not helpful, much less controlling, in this strikingly different context. (See *Ginns v. Savage* (1964) 61 Cal.2d 520, 524, fn. 2, 39 Cal.Rptr. 377, 393 P.2d 689 ["Language used in any opinion is of course to be understood in the light of the facts and the issue then before the court, and an opinion is not authority for a proposition not therein considered."]; *People v. Woodhead* (1987) 43 Cal.3d 1002, 1008, 239 Cal.Rptr. 656, 741 P.2d 154 [a word may have different legal meanings in different contexts]; *In re Marriage of Buol* (1985) 39 Cal.3d 751, 757, fn. 6, 218 Cal.Rptr. 31, 705 P.2d 354 [same].)

[6] Plaintiffs invoke the rule that when a term has been given a particular meaning by a judicial decision, it should be presumed to have the same meaning in later-enacted statutes or constitutional provisions. (See *People v. Hurtado* (2002) 28 Cal.4th 1179, 1188–1189, 124 Cal.Rptr.2d 186, 52 P.3d 116; *Arnett v. Dal* *****130** *Cielo* (1996) 14 Cal.4th 4, 19, 56 Cal.Rptr.2d 706, 923

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***423** P.2d 1.) Plaintiffs argue that *San Marcos, supra,* 42 Cal.3d 154, 228 Cal.Rptr. 47, 720 P.2d 935, gave the term "assessment" a precise legal meaning as applying to capacity charges used to fund capital improvements, and therefore the term "assessment" in article XIII D, enacted after *San Marcos,* must be construed to have the same meaning. But the rule that plaintiffs invoke does not apply when, as here, the statute or constitutional provision contains its own definition of the term at issue: "If the Legislature has provided an express definition of a term, that definition ordinarily is binding on the courts." (*Curle v. Superior Court* (2001) 24 Cal.4th 1057, 1063, 103 Cal.Rptr.2d 751, 16 P.3d 166.) Here, article XIII D provides both an express definition of assessment and an implied qualification of that definition through the requirement that the agency identify the specific parcels on which the assessment will be imposed.

Plaintiffs next rely on the definition of assessment in Government Code section 53750, part of the Proposition 218 Omnibus Implementation Act (Gov.Code, §§ 53750–53753) that the Legislature enacted in 1997. (Stats.1997, ch. 38, § 5.) Government Code section 53750 states that "[f]or purposes of Article XIII C and Article XIII D of the California Constitution" an "assessment" means "any levy or charge by an agency upon real property that is based upon the special benefit conferred upon the real property by a public improvement or service, that is imposed to pay the capital cost of the public improvement, the maintenance and operation expenses of the public improvement, or the cost of the service being provided." (Gov.Code, § 53750, subd. (b).) As plaintiffs point out, this definition does not distinguish between charges imposed only in response to a request for service and charges imposed on previously identified parcels. In this respect, ****526** the statutory definition is no different from the constitutional definition in section 2, subdivision (b), of article XIII D. But the statutory provisions implementing article XIII D, like article XIII D itself, assume that assessments are imposed only on identified parcels. Under Government Code section 53753, subdivision (b), before levying a new or increased assessment, an agency must give notice " to the record owner of each identified parcel." Government Code section 53750, subdivision (g), defines an "identified parcel" as "a parcel of real property that an agency has identified as having a special benefit conferred upon it and upon which a proposed assessment is to be imposed...." Because the statutory provisions merely reflect the constitutional provisions, they do not alter our conclusion that under article XIII D an assessment is a charge imposed on previously identified parcels, and not a charge imposed only as a condition of extending service through a new service connection.

Arguing that a charge imposed only on property owners who voluntarily seek a governmental service or approval may properly be characterized as an assessment, plaintiffs call our attention to the Integrated Financing District ***424** Act (Gov.Code, § 53175 et seq.), under which local agencies may establish "contingent assessments" payable only when a landowner applies for development approval. (See *id.,* § 53187.) As plaintiffs point out, the Integrated Financing District Act includes notice and majority protest provisions for owners of property subject to the contingent assessment (*id.,* § 53183). (See *Southern Pacific Pipe Lines, Inc. v. Board of Supervisors* (1992) 9 Cal.App.4th 451, 461–462, 11 Cal.Rptr.2d 745.) We agree that the District's capacity charge is similar to a contingent assessment under the Integrated Financing District Act, but this *****131** observation does not assist plaintiffs. Unlike article XIII D, the Integrated Financing District Act does not require a local agency to identify in advance the particular parcels that *will be* subject to the assessment. Instead, the notice of intention to impose a contingent assessment goes to all owners of property within the proposed assessment zone, and the assessment cannot be imposed if protested by "the owners of more than one-half of the area of the property within the proposed ... district which is proposed to be subject to the contingent assessment immediately or in the future...." (Gov.Code, § 53183, subd. (d).) Thus, under the Integrated Financing District Act, in contrast to article XIII D, all owners of property *potentially* subject to a charge are entitled to notice and a weighted vote.

Article XIII D could have been written, like the Integrated Financing District Act, to cover contingent assessments as well as assessments imposed only on previously identified parcels. But it was not written in that manner, and we remain persuaded that a capacity charge contingent on some voluntary action by the property owner is not an assessment within the meaning of article XIII D.

[7] Plaintiffs argue that the Court of Appeal erred in characterizing the District's capacity charge as a development fee. Observing that development fees "are imposed only if a property owner elects to

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develop" (*Loyola Marymount University v. Los Angeles Unified School Dist.* (1996) 45 Cal.App.4th 1256, 1267, 53 Cal.Rptr.2d 424), the Court of Appeal reasoned that the District's capacity charge, because it was imposed only in response to a property owner's voluntary decision to request a service connection, should be considered a development fee and thus exempt from the requirements of article XIII D under its section 1, subdivision (b), stating that "[n]othing in this article ... shall be construed to ... [a]ffect existing laws relating to the imposition of fees or charges as a condition of property development."

Plaintiffs insist that the District's capacity charge cannot be a development fee because the District has no authority to approve or disapprove property development, and because a property owner may request a new service connection without proposing any new development, such as when the owner ***425** of a previously developed residential parcel decides to use the District's water instead of water from an existing well on the property.

We agree with plaintiffs that the District's capacity charge is not a development fee. It is similar to a development fee in being imposed ****527** only in response to a property owner's voluntary application to a public entity, but it is different in that the application may be only for a water service connection without necessarily involving any development of the property. (See *Utility Cost Management v. Indian Wells Valley Water Dist., supra,* 26 Cal.4th at p. 1191, 114 Cal.Rptr.2d 459, 36 P.3d 2 [noting that a capacity charge "might apply regardless of whether a development project is at issue"]; *Capistrano Beach Water Dist. v. Taj Development Corp.* (1999) 72 Cal.App.4th 524, 530, 85 Cal.Rptr.2d 382 [concluding that a capacity charge is not a development fee under the Mitigation Fee Act (Gov.Code, § 66000 et seq.)].) Our agreement that the capacity charge is not a development fee does not assist plaintiffs, however, because it does not mean that the capacity charge is an assessment within the meaning of article XIII D. The capacity charge is neither an assessment nor a development fee under article XIII D.

We conclude, as did the trial court and the Court of Appeal, that the District's *****132** capacity charge is not an assessment under article XIII D.

III. THE FIRE SUPPRESSION CHARGE

Article XIII D provides: "No fee or charge may be imposed for general governmental services including, but not limited to, police, *fire,* ambulance or library services, where the service is available to the public at large in substantially the same manner as it is to property owners." (Art. XIII D, § 6, subd. (b)(5), italics added.) At the trial below, the evidence showed that the District uses the proceeds of the fire suppression component of the connection fee to purchase equipment for its volunteer fire department, including both firefighting equipment and emergency medical equipment. [5] The fire department provides firefighting and emergency medical services to the public at large. Accordingly, the District's fire suppression charge is "imposed for general governmental services" within the meaning of section 6, subdivision (b)(5), of article XIII D, and it is prohibited by that provision if it satisfies article XIII D's definition of a "fee or charge."

***426** Article XIII D defines a "fee" or "charge" as "any levy other than an ad valorem tax, a special tax, or an assessment, imposed by an agency upon a parcel or upon a person as an incident of property ownership, including a user fee or charge for a property-related service." (*Id.,* § 2, subd. (e).) It defines "property-related service" as "a public service having a direct relationship to property ownership." (*Id.,* § 2, subd. (h).)

[8] The District argues that the connection fee, including its fire suppression component, does not fall within article XIII D's definition of a fee or charge because it is not imposed "upon a parcel or upon a person as an incident of property ownership." (Art. XIII D, § 2, subd. (e).) The District does not impose the fee on parcels of real property but on persons who apply for a water service connection. The District does not impose the fee on such persons "as an incident of property ownership" but instead as an incident of their voluntary decisions to request water service. If a person fails to pay the connection fee, the District does not collect it by levying upon the person's property. Rather, because the person applying for service has not satisfied a condition for extending service, the District does not make the water connection and does not provide water service.

We agree that a connection charge, because it is not imposed "as an incident of property ownership" (art. XIII D, § 2, subd. (e)), is not a fee or charge under article XIII D. A connection fee is not imposed simply by virtue of property ownership, but instead it is imposed as an

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incident of the voluntary act of ****528** the property owner in applying for a service connection.

Urging a different construction, plaintiffs rely on article XIII D's definition of a fee or charge as "including a user fee or charge for a property-related service." (*Id.,* § 2, subd. (e).) They argue that supplying water is a "property-related service," and, therefore, all charges for water service must be deemed to be imposed *****133** "upon a person as an incident of property ownership."

We agree that supplying water is a "property-related service" within the meaning of article XIII D's definition of a fee or charge. In the ballot pamphlet for the election at which article XIII D was adopted, the Legislative Analyst stated that "[f]ees for water, sewer, and refuse collection service probably meet the measure's definition of property-related fee." (Ballot Pamp., Gen. Elec. (Nov. 5, 1996), analysis of Prop. 218 by Legis. Analyst, p. 73.) The Legislative Analyst apparently concluded that water service has a direct relationship to property ownership, and thus is a property-related service within the meaning of article XIII D because water is indispensable to most uses of real property; because water is provided through pipes that are physically connected to the property; and because a water provider may, by recording a certificate, obtain a lien on the property for the amount of any ***427** delinquent service charges (see Gov.Code, §§ 61621, 61621.3). But the Legislative Analyst was apparently referring to fees imposed on existing water service customers, not fees imposed as a condition of initiating water service in the first instance.

Several provisions of article XIII D tend to confirm the Legislative Analyst's conclusion that charges for utility services such as electricity and water should be understood as charges imposed "as an incident of property ownership." For example, subdivision (b) of section 3 provides that "fees for the provision of electrical or gas service shall not be deemed charges or fees imposed as an incident of property ownership" under article XIII D. Under the rule of construction that the expression of some things in a statute implies the exclusion of other things not expressed (*In re Bryce C.* (1995) 12 Cal.4th 226, 231, 48 Cal.Rptr.2d 120, 906 P.2d 1275), the expression that electrical and gas service charges are not within the category of property-related fees implies that similar charges for other utility services, such as water and sewer, are property-related fees subject to the restrictions of article XIII D.

This implication is reinforced by subdivision (c) of article XIII D, section 6, which expressly excludes "fees or charges for sewer, water, and refuse collection services" from the voter approval requirements that article XIII D imposes on property-related fees and charges. Because article XIII D does not include similar express exemptions from the other requirements that it imposes on property-related fee and charges, the implication is strong that fees for water, sewer, and refuse collection services are subject to those other requirements. (See *Howard Jarvis Taxpayers Assn. v. City of Roseville* (2002) 97 Cal.App.4th 637, 645, 119 Cal.Rptr.2d 91 [reaching the same conclusion].)

Thus, we agree that water service fees, being fees for property-related services, may be fees or charges within the meaning of article XIII D. But we do not agree that *all* water service charges are necessarily subject to the restrictions that article XIII D imposes on fees and charges. Rather, we conclude that a water service fee is a fee or charge under article XIII D if, but only if, it is imposed "upon a person as an incident of property ownership." (Art. XIII D, § 2, subd. (e).) A fee for ongoing water service through an existing connection is imposed "as an incident of property ownership" because it requires nothing other than normal ownership and use of property. But a fee for making a new connection to the system is not imposed "as an incident of property ownership" because it results from the owner's voluntary decision to apply for the connection.

*****134** Any doubt on this point is removed by considering the requirements that article XIII D imposes on property-related fees and charges. As with assessments, article XIII D requires local government agencies to identify the ***428** parcels affected by a property-related fee or charge. Specifically, it requires the agency to identify "[t]he parcels ****529** upon which a fee or charge is proposed for imposition." (Art. XIII D, § 6, subd. (a)(1).) As we have explained, it is impossible for the District to comply with such a requirement for connection charges, because the District cannot determine in advance which property owners will apply for water service connection. As with assessments, this impossibility of compliance strongly suggests that connection fees for new users are

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not subject to article XIII D's restrictions on property-related fees.

Because the connection fee, including the fire suppression charge, is not a property-related fee or charge within the meaning of article XIII D, it is not subject to article XIII D's prohibition on property-related fees or charges for general governmental services.

IV. AMENDMENT OF AN ORDINANCE BY A RESOLUTION

[9] Government Code section 66016, part of the Mitigation Fee Act (Gov.Code, § 66000 et seq.), provides in subdivision (b): "Any action by a local agency to levy a new fee or service charge or to approve an increase in an existing fee or service charge shall be taken only by ordinance *or resolution.*" (Italics added.) We agree with the Court of Appeal that this provision authorizes the District to use a resolution to increase existing connection fees, and that this authorization applies even when the fees were initially imposed by an ordinance.

Arguing to the contrary, plaintiffs assert that the Mitigation Fee Act is procedural rather than substantive. In other words, it does not give local water districts substantive authority to impose fees, but instead it merely regulates the manner in which fees may be imposed. But whether a fee imposed by ordinance may be amended by resolution is essentially a question of procedure, not substance. Therefore, we may and do construe Government Code section 66016 as giving the District authority to use a resolution to amend a fee ordinance.

In support of their position that the District may not use a resolution to amend an ordinance imposing a connection fee, plaintiffs rely on *Cavalier Acres, Inc. v. San Simeon Acres Community Services District* (1984) 151 Cal.App.3d 798, 199 Cal.Rptr. 4 (*Cavalier Acres*), in which the Court of Appeal concluded that a community services district could impose or increase water charges only by ordinance. In reaching this conclusion, the *Cavalier Acres* Court of Appeal relied on Government Code section 61621.5 and Health and Safety Code section 5471. Relying on the rule of construction that when two statutory provisions conflict, the one that is more specific controls, ***429** the *Cavalier Acres* Court of Appeal stated that, as applied to water charges imposed by a community services district, Government Code section 61621.5 and Health and Safety Code section 5471 were both more specific than Government Code section 66016.

Government Code section 61621.5 is part of the Community Services District Law (Gov.Code, § 61000 et seq.). As here relevant, it provides: "Except as otherwise provided in this section, a district may *by ordinance* adopt regulations binding upon all persons to govern the construction and use of its facilities and property, including regulations imposing reasonable charges for the use thereof." (Gov.Code, § 61621.5, subd. (a), italics added.) By its *****135** terms, this provision applies only to charges for the use of a community services district's *facilities,* not charges for its *services.* The Community Services District Law gives districts authority to impose charges for services, including charges for water, in a different section, Government Code section 61621. (See *Waterman Convalescent Hospital, Inc. v. Jurupa Community Services Dist.* (1996) 53 Cal.App.4th 1550, 1552–1553, 62 Cal.Rptr.2d 264.) As relevant here, it provides: "A district may prescribe, revise and collect rates or other charges for the services and facilities furnished by it...." (Gov.Code, § 61621.) Nothing in this provision requires a community services district to act by ordinance rather than by resolution when, as here, it revises and prescribes the charges for water service.

Health and Safety Code section 5471 is part of article 4 ("Sanitation and Sewerage Systems") of chapter 6 ("General Provisions with Respect to Sewers") of part 3 ("Community Facilities") of division 5 ("Sanitation") of ****530** the Health and Safety Code. As relevant here, it reads: "In addition to the powers granted in the principal act, *any entity* shall have power, *by an ordinance* approved by a two-thirds vote of the members of the legislative body thereof, to prescribe, revise and collect, fees, tolls, rates, rentals, or other charges, including *water,* sewer standby or immediate availability charges, for services and facilities furnished by it, either within or without its territorial limits, in connection with its *water,* sanitation, storm drainage, or sewerage system...." (Italics added.)

Health and Safety Code section 5471 does not apply to the District because it is not an "entity" within the meaning of this provision. Health and Safety Code section 5470 states that " '[e]ntity' means and includes counties, cities and counties, cities, sanitary districts, county sanitation districts, sewer maintenance districts,

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and other public corporations and districts authorized to acquire, construct, maintain and operate sanitary sewers and sewerage systems." The District is a public agency organized as a community services district under the Community Services District Law (Gov.Code, § 61000 et seq.) to provide water service. Nothing in the record indicates it is authorized ***430** to construct, maintain, or operate sewers or sewerage systems. In this respect, *Cavalier Acres, supra,* 151 Cal.App.3d 798, 199 Cal.Rptr. 4, is distinguishable because the community services district at issue there provided both water and sewer services. (See *id.* at p. 800, 199 Cal.Rptr. 4.)

Moreover, even if we assume that Health and Safety Code section 5471 applies to the District, that provision, by its terms, confers authority "[i]n addition to" the authority otherwise granted to a public entity. In other words, its main purpose is to supplement rather than to limit a public agency's authority to impose charges for water or sewer services in connection with a water or sewerage system. For a public agency organized as a community services district, the "principal act" (*ibid.*) providing its authority is the Community Services District Law (Gov.Code, § 61000 et seq.). As we have seen, Government Code section 61621 authorizes community services districts to establish charges for water services without requiring that they act by ordinance rather than by resolution, and Government Code section 66016, part of the Mitigation Fee Act (Gov.Code, § 66000 et seq.), expressly authorizes districts to use either a resolution or an ordinance to impose or increase a service charge. We do not read Health and Safety Code section 5471 as limiting or abrogating that authority.

Again, we find *Cavalier Acres, supra,* 151 Cal.App.3d 798, 199 Cal.Rptr. 4, to be *****136** distinguishable. In 1984, when the Court of Appeal decided *Cavalier Acres,* the wording of Health and Safety Code section 5471 was materially different. The introductory phrase ("In addition to the powers granted in the principal act") was not present, having been added later by amendment. (Stats.1988, ch. 706, § 1, p. 2348.) The 1988 amendment demonstrates the Legislature's intent that Health and Safety Code section 5471 not be read as limiting the powers conferred on public entities by the laws under which they were organized.

V. CONCLUSION

Before beginning to provide water service to real property through a new connection, the District requires its new customers to pay a capacity fee and a fire suppression fee. Both of these fees are used to fund capital improvements, the former to the water system and the latter to the volunteer fire department. Because these fees are imposed only on the self-selected group of water service applicants, and not on real property that the District has identified or is able to identify, and because neither fee can ever become a charge on the property itself, we conclude that neither fee is subject to the restrictions that article XIII D imposes on property assessments and property-related fees. We also conclude that the District could properly use a resolution to amend an ordinance establishing these fees.

***431** The judgment of the Court of Appeal is reversed and the matter is remanded to that court with directions to affirm the trial court's judgment.

****531** WE CONCUR: GEORGE, C.J., BAXTER, WERDEGAR, CHIN, BROWN and MORENO, JJ.

All Citations

32 Cal.4th 409, 83 P.3d 518, 9 Cal.Rptr.3d 121, 2004 Daily Journal D.A.R. 1146, 2004 Daily Journal D.A.R. 1429

Footnotes

1 The Government Code defines a "capacity charge" as "a charge for facilities in existence at the time a charge is imposed or charges for new facilities to be constructed in the future that are of benefit to the person or property being charged." (Gov.Code, § 66013, subd. (b)(3).)

2 In this regard, it may be instructive to compare article XIII D's definition of an assessment as a "levy or charge upon real property" (*id.,* § 2, subd. (b)) with its definition of a fee or charge as a "levy ... upon a parcel or upon a person as an incident of property ownership ..." (*id.,* § 2, subd. (e)). Although a property-related fee or charge may be imposed either on the property itself or upon the owner as an incident of ownership, a levy must be imposed on the property itself to qualify as an assessment under article XIII D.

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3 Government Code section 66013 provides:

"(a) Notwithstanding any other provision of law, when a local agency imposes fees for water connections or sewer connections, or imposes capacity charges, those fees or charges shall not exceed the estimated reasonable cost of providing the service for which the fee or charge is imposed, unless a question regarding the amount of the fee or charge imposed in excess of the estimated reasonable cost of providing the services or materials is submitted to, and approved by, a popular vote of two-thirds of those electors voting on the issue.

"(b) As used in this section:

"(1) 'Sewer connection' means the connection of a structure or project to a public sewer system.

"(2) 'Water connection' means the connection of a structure or project to a public water system, as defined in subdivision (f) of Section 116275 of the Health and Safety Code.

"(3) 'Capacity charge' means a charge for facilities in existence at the time a charge is imposed or charges for new facilities to be constructed in the future that are of benefit to the person or property being charged.

"(4) 'Local agency' means a local agency as defined in Section 66000.

"(5) 'Fee' means a fee for the physical facilities necessary to make a water connection or sewer connection, including, but not limited to, meters, meter boxes, and pipelines from the structure or project to a water distribution line or sewer main, and that does not exceed the estimated reasonable cost of labor and materials for installation of those facilities.

"(c) A local agency receiving payment of a charge as specified in paragraph (3) of subdivision (b) shall deposit it in a separate capital facilities fund with other charges received, and account for the charges in a manner to avoid any commingling with other moneys of the local agency, except for investments, and shall expend those charges solely for the purposes for which the charges were collected. Any interest income earned from the investment of moneys in the capital facilities fund shall be deposited in that fund.

"(d) For a fund established pursuant to subdivision (c), a local agency shall make available to the public, within 180 days after the last day of each fiscal year, the following information for that fiscal year:

"(1) A description of the charges deposited in the fund.

"(2) The beginning and ending balance of the fund and the interest earned from investment of moneys in the fund.

"(3) The amount of charges collected in that fiscal year.

"(4) An identification of all of the following:

"(A) Each public improvement on which charges were expended and the amount of the expenditure for each improvement, including the percentage of the total cost of the public improvement that was funded with those charges if more than one source of funding was used.

"(B) Each public improvement on which charges were expended that was completed during that fiscal year.

"(C) Each public improvement that is anticipated to be undertaken in the following fiscal year.

"(5) A description of each interfund transfer or loan made from the capital facilities fund. The information provided, in the case of an interfund transfer, shall identify the public improvements on which the transferred moneys are, or will be, expended. The information, in the case of an interfund loan, shall include the date on which the loan will be repaid, and the rate of interest that the fund will receive on the loan.

"(e) The information required pursuant to subdivision (d) may be included in the local agency's annual financial report.

"(f) The provisions of subdivisions (c) and (d) shall not apply to any of the following:

"(1) Moneys received to construct public facilities pursuant to a contract between a local agency and a person or entity, including, but not limited to, a reimbursement agreement pursuant to Section 66003.

"(2) Charges that are used to pay existing debt service or which are subject to a contract with a trustee for bondholders that requires a different accounting of the charges, or charges that are used to reimburse the local agency or to reimburse a person or entity who advanced funds under a reimbursement agreement or contract for facilities in existence at the time the charges are collected.

"(3) Charges collected on or before December 31, 1998.

"(g) Any judicial action or proceeding to attack, review, set aside, void, or annul the ordinance, resolution, or motion imposing a fee or capacity charge subject to this section shall be brought pursuant to Section 66022.

"(h) Fees and charges subject to this section are not subject to the provisions of Chapter 5 (commencing with Section 66000), but are subject to the provisions of Sections 66016, 66022, and 66023.

"(i) The provisions of subdivisions (c) and (d) shall only apply to capacity charges levied pursuant to this section."

4 In response to our *San Marcos* decision, the Legislature granted local water districts authority to impose capacity charges on other public entities, thereby removing the public entity exemption. (See Gov.Code, §§ 54999–54999.6; *Utility Cost Management v. Indian Wells Valley Water Dist.* (2001) 26 Cal.4th 1185, 1189, 114 Cal.Rptr.2d 459, 36 P.3d 2; *City of*

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Marina v. Board of Trustees (2003) 109 Cal.App.4th 1179, 1182–1183, 135 Cal.Rptr.2d 815; *Utility Cost Management v. East Bay Mun. Utility Dist.* (2000) 79 Cal.App.4th 1242, 1246–1247, 94 Cal.Rptr.2d 777.)

5 Government Code section 50078 authorizes "[a]ny local agency which provides fire suppression services" to "determine and levy an assessment for fire suppression services." Plaintiffs have argued that the District may not rely on this provision as authority for its fire suppression fee because Government Code section 50001 defines "local agency" to include only cities and counties. Plaintiffs have overlooked Government Code section 50078.1, subdivision (b), which defines "local agency," as used in Government Code section 50078, to include any city, county, "or special district."

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Supreme Court of New Jersey.

TOWNSHIP OF WASHINGTON, In the COUNTY of BERGEN, etc., et al., Plaintiffs-Respondents,
and
Borough of Ho-Ho-Kus, a Municipal Corporation of the State of New Jersey, Intervening Plaintiff-Respondent,
v.
VILLAGE OF RIDGEWOOD, in the County of Bergen, etc., et al., Defendants-Appellants.
Charles W. GRENZ et al., Plaintiffs-Respondents,
v.
VILLAGE OF RIDGEWOOD, in the County of Bergen, etc., et al., Defendants-Appellants.

No. A-78.
|
Argued Feb. 3, 1958.
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Decided May 5, 1958.

Synopsis
Suit against village and others to require removal of water tank structure. The Superior Court, Chancery Division, 46 N.J.Super. 152, 134 A.2d 345, ordered partially constructed tank to be removed, and village appealed. The Supreme Court certified appeal on its own motion prior to consideration by Appellate Division. The Supreme Court, Weintraub, C.J., held that where village gave no consideration to conflict in zoning schemes of adjoining municipalities where water storage tank was to be erected and did not consider the land uses near the site, and gave no consideration to alternate method of providing adequate water storage facilities, decision to construct water tank was arbitrary.

Affirmed.

Heher, Proctor and Jacobs, JJ., dissented.

West Headnotes (6)

[1] **Municipal Corporations**
Acts or Omissions Constituting Violations of Regulations
Zoning and Planning
Residential Districts
Construction of elevated water storage tank did not violate municipal zoning ordinance which authorized village to construct any municipally owned or village building, structure or use in a one-family district.

1 Cases that cite this headnote

[2] **Zoning and Planning**
Proceedings for Variances and Exceptions
Where permit to erect water storage tank structure was approved informally and approval did not meet statutory requirements for a variance, approval was invalid.

Cases that cite this headnote

[3] **Municipal Corporations**
Purposes for which property may be acquired or held
Where village proposed to construct elevated water storage tank on ground partially within another village, fact that ordinance of other village by its terms forbade improvement did not prevent first village from acquiring property of other village to construct tank, in view of the statutes authorizing municipality to acquire land, within or without municipality, for purposes of supplying water. R.S. 40:62-49, 65, N.J.S.A.

Cases that cite this headnote

[4] **Municipal Corporations**
Acts or Omissions Constituting Violations of Regulations

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Zoning and Planning
Government and related entities

In determining question whether village, which acquired property in another village for purposes of constructing elevated water storage tank, would violate other village's zoning ordinance, distinctions between "proprietary" and "governmental" functions were immaterial. R.S. 40:62-49, 65, N.J.S.A.

15 Cases that cite this headnote

[5] **Water Law**
Reservoirs, conduits, pumping stations, wells, and other works

Village, in erecting water storage tank structure, was required to act reasonably in exercise of its authority to erect such a structure.

1 Cases that cite this headnote

[6] **Water Law**
Reservoirs, conduits, pumping stations, wells, and other works

Where village gave no consideration to conflict in zoning schemes of adjoining municipalities where water storage tank was to be erected and did not consider land uses near site, and gave no consideration to alternate method of providing adequate water storage facilities, decision to construct elevated water tank was arbitrary and trial court properly ordered that portion of tank already constructed be removed. R.S. 40:62-49, 65, N.J.S.A.

8 Cases that cite this headnote

Attorneys and Law Firms

***580** ****309** James A. Major argued the cause for appellants (William E. Reinhardt, Ridgewood, on the brief).

Lloyd L. Schroeder, Hackensack, argued the cause for respondent Washington Tp. and others.

Marshall Crowley, Newark, argued the cause for respondents Charles W. Grenz and others (Toner, Crowley, Woelper & Vanderbilt, Newark, attorneys; Marshall Crowley, Newark, of counsel; Robert A. Matthews, Newark, on the brief).

Thomas McNulty, Jersey City, argued the cause for intervening respondent Borough of Ho-Ho-Kus (Milton, McNulty & Augelli Jersey City, attorneys; Paul A. Vivers, Ridgewood, on the brief).

Opinion

The opinion of the court was delivered by

WEINTRAUB, C.J.

The Chancery Division of the Superior Court entered a judgment directing the Village of Ridgewood to dismantle and remove an elevated steel water tower it erected upon Van Emburgh Avenue, partially within the village and partially within the Borough of Ho-Ho-Kus. 46 N.J.Super. 152, 134 A.2d 345 (1957). Ridgewood appealed and we certified the appeal on our own motion prior to consideration of it by the Appellate Division.

Ridgewood operates a water supply system serving itself the Boroughs of Glen Rock and Midland Park and the Township of Wyckoff, and meeting the needs of the inhabitants and municipalities, including fire fighting. The water is obtained from deep-rock wells. There are no reservoirs; storage to meet the increased demands of certain days or portions thereof is provided by tanks.

The pressure being inadequate, Ridgewood engaged a consulting engineer, Mr. Crew, to devise a plan for additional storage. He recommended three tanks, all elevated, one at the Van Emburgh site here involved, another on Goffle Road in Ridgewood, and the third on the Cedarhill site in Wyckoff. The anticipated total cost was $1,701,000.

***581** In view of the sum involved, Ridgewood solicited the opinion of another expert, Mr. Capen. Mr. Capen, then some 1,200 miles away, was familiar with the Goffle site, and on the basis of his recollection of it, said in his report:

> 'In areas where elevated tanks have been established (and particularly where such installation has been made prior to nearby residential

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> developments) repetition of the practice may well be in order. A very serious question is raised, however, in regard to placing an elevated tank in the Goffle area, near Goffle Road. There are a number of substantial residences in the vicinity which will probably be adversely affected in value by such a structure. It is therefore recommended that the entire matter of this storage be carefully reviewed and that an underground or ground level storage ****310** tank be substituted. This procedure is not a new trend but has been adopted in various residential communities.'

This recommendation was explored and a decision made to shift from the Goffle site to another on Lafayette Avenue in Wyckoff, where a tank could be installed partially below ground level. The change was profitable. Instead of the Goffle tank, designed to provide storage of two million gallons at an estimated cost of $499,000, Ridgewood obtained storage of 2 1/4 million gallons at Lafayette at a cost of $243,672.84.

With respect to the proposed Cedarhill tank, the Board of Adjustment of Wyckoff refused approval because of objections to an elevated structure. Ridgewood thereupon selected another site where as of the time of trial a ground level tank was to be installed without increase in cost and with an increase in capacity from one million to 2 1/4 million gallons.

Thus as to two of the sites, objections to elevated tanks led to their abandonment in favor of tanks at or below ground level.

Mr. Capen's report was received in February 1955. In September 1955 Mr. Crew approached the governing body of Ho-Ho-kus with respect to the Van Emburgh improvement. The testimony is not harmonious, but it is clear that the officials of Ho-Ho-Kus understood the tank would be at ground level, the same as the existing water tanks of Ho-Ho-Kus, and as such would be shielded by trees. In ***582** the light of Mr. Capen's report, Mr. Crew should have been explicit, but was not. The board of adjustment and planning board approved, and a permit issued. The approvals were granted informally; Ridgewood concedes that the statutory requirements for a variance or exception were not met, and that if the zoning ordinance of Ho-Ho-Kus applies, it can claim no benefit from the wholly irregular grant.

When the work got under way, it was realized that an elevated structure was involved. It in fact would tower to the height of 160 feet. Ho-Ho-Kus immediately adopted a resolution rescinding the permit, and Ho-Ho-Kus and the abutting Township of Washington and residents affected instituted these actions promptly. About 75 to 85% Of the structure itself was completed by the time of trial, representing a cost of some $80,000.

Three issues are involved: (1) whether the improvement violates the zoning ordinance of Ridgewood; (2) whether it violates the zoning ordinance of Ho-Ho-Kus, and (3) whether the action of Ridgewood in any event constitutes an unreasonable and arbitrary exercise of delegated power.

I

[1] We are satisfied that neither zoning ordinance applies.

In Thornton v. Village of Ridgewood, 17 N.J. 499, 111 A.2d 899 (1955), a question involved was whether Ridgewood could acquire property within its one-family district for use as an administrative building and assembly hall. It was held that the zoning statute does not restrain the power of a municipality to determine where to locate municipal facilities within its borders, and hence the issue became whether the zoning ordinance itself accomplished a restriction. As the ordinance then read, 'any governmentally owned or operated building' was authorized in the one-family district. It was concluded that the proposed use came within the quoted phrase.

In the course of Thornton, it was indicated that the phrase 'governmentally owned or operated' would 'seem to bar governmental buildings devoted to industrial or proprietary ***583** use' (17 N.J. at page 514, 111 A.2d at page 906). For the obvious purpose of meeting that view, Ridgewood amended its ordinance to substitute 'Any Municipally owned or operated building, structure or use' for the phrase quoted above. There can be no doubt that the amendatory expression embraces the storage tank, and hence there is no violation by Ridgewood of its own ordinance.

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****311** **[2]** **[3]** With respect to so much of the site as is situate in Ho-Ho-Kus, it is conceded that the zoning ordinance of that municipality by its terms forbids the improvement and, as pointed out above, that the informal variance cannot be sustained. The issue accordingly is whether Ridgewood is bound by the ordinance of Ho-Ho-Kus in the use of property as part of a water supply system. We think it is not.

We see no difference between this case and Aviation Services, Inc., v. Board of Adjustment of Hanover Township, 20 N.J. 275, 119 A.2d 761, 765 (1956), in which it was held that a municipality's power to establish and maintain an airport was not subject to the zoning ordinance of another municipality in which the airport was situate. In Aviation Services, the municipality was authorized to acquire and establish airports 'within or without' its boundaries, with power to condemn. Here R.S. 40:62-49, N.J.S.A., provides:
'Any municipality may provide and supply water, or an additional supply of water, * * * in any one or more of the following methods:

'(g) Any municipality may purchase, condemn or otherwise acquire the necessary lands, and rights or interests in lands, water rights and rights of flowage or diversion, within or without the municipality, for the purpose of a water supply, or an additional water supply, and for the connection thereof with the municipality, and in case of highway or other public or quasi public structures, may require the same to be abandoned as far as necessary for such purposes, and to be relaid, if necessary, by some other route or in some other location. * * *'

The lands necessary for 'a water supply' must include lands necessary for facilities required to meet the needs of the consumer. The consent of such other municipality is required ***584** only with respect to the laying of pipes or mains 'in and under any and all streets, highways, alleys and public places' in that municipality, subject to the power of the Superior Court to direct the terms of such laying if consent should be refused. N.J.S.A. 40:62-65.

This result has a baneful potential, but so does a contrary holding. The problem invites a legislative solution committing the final decision to a body other than the interested municipalities themselves, but if Aviation Services correctly found the legislative will in that case, the same considerations dictate the same answer here.

[4] Plaintiffs urge that the supply of water is a 'proprietary' rather than a 'governmental' function and hence should be subject to the Ho-Ho-Kus ordinance.

We cannot agree that the distinction between governmental and proprietary functions is relevant to this controversy. The distinction is illusory; whatever local government is authorized to do constitutes a function of government, and when a municipality acts pursuant to granted authority it acts as government and not as a private entrepreneur. The distinction has proved useful to restrain the ancient concept of municipal tort immunity, not because of any logic in the distinction, but rather because sound policy dictated that governmental immunity should not envelop the many activities which government today pursues to meet the needs of the citizens. Cloyes v. Delaware Township, 23 N.J. 324, 129 A.2d 1, 57 A.L.R.2d 1327 (1957). We see no connection between that classification and the problem before us. Surely the supply of water cannot be deemed to be a second-class activity in the scheme of municipal functions. Nor is it significant that the municipality serves areas in addition to its own, for from the nature of the subject, cooperative action among municipalities is imperative and consonant with the governmental nature of the activity.

II

[5] **[6]** But Ridgewood was required to act reasonably in the exercise of its authority, ****312** ***585** Aviation Services, supra (20 N.J. at page 285, 119 A.2d at page 766), and the circumstance that its own interests conflicted with those of Ho-Ho-Kus and Washington emphasized that obligation. Among the considerations which Ridgewood should have weighed but in fact ignored were the zoning schemes of the municipal plaintiffs and the land uses abutting and near the site.

Mr. Crew was concerned solely with the engineering aspects. Despite Mr. Capen's Caveat and the confirmation of it by experience with respect to the Goffle and Cedarhill sites recited above, Ridgewood made no effort to re-evaluate its plan for an elevated tank on the Van Emburgh property. The testimony shows without contradiction that the residential development there was equal or superior to that at either of the other sites and that Mr. Capen had

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not adverted to the interest of property owners at the Van Emburgh location only because he was not aware of that development.

Mr. Crew and Mr. Capen agreed a ground level tank could be used at Van Emburgh Avenue if pumping facilities were added. Mr. Crew stated that a gravity flow system would yield a better quality of water, but conceded that a satisfactory, wholesome supply would be furnished by ground level storage tanks. Mr. Capen made no reference to that subject and in fact had suggested pumping at the Goffle site if a ground level tank were used. The difference between the two approaches is one of cost. If the elevated tank should be used, the estimated cost for the complete installation is $226,026, whereas if the tank is placed at ground level the pumping facilities would increase the outlay to a total of $272,700. Mr. Capen would prefer to add an inlet pipe costing another $60,000 but agreed the improvement could be engineered to operate without it. The annual bill for pumping would be $5,000, less a saving of the higher maintenance costs of an elevated structure.

It appears further that immediately before trial consideration was given to alternate sites, and that one permitting a ground level tank with gravity flow operation is available at an estimated expenditure of $292,600. This exceeds the original proposal by some $66,000, part of which is attributable ***586** to the increase in costs in the intervening period (and perhaps also to the inclusion of land costs; it is not clear whether the figure of $226,026 for the elevated tank installation includes the value of the land which Ridgewood had acquired back in 1940).

Hence Ridgewood could have placed the tank at ground level, either at the Van Emburgh site or the alternate site. The difference is one of cost described above. Under the circumstances, Ridgewood should have assumed that cost rather than visit the burden of an elevated structure of 160 feet upon the other municipalities. We agree with the trial court's finding that Ridgewood acted arbitrarily.

The judgment is accordingly affirmed.

***595** For affirmance: Chief Justice WEINTRAUB and Justices WACHENFELD, BURLING and FRANCIS-4.

For affirmance and remandment: Justices HEHER, JACOBS and PROCTOR-3.

HEHER, J. (for affirmance).

By section 4 of the Ridgewood zoning ordinance, as amended December 8, 1953, 'Any municipally owned or operated building, structure or use' is permissible in a one-family zone; and this includes a corporate or proprietary function or use as well as uses strictly governmental in nature.

As pointed out in Reid Development Corporation v. Parsippany-Troy Hills Township 10 N.J. 229, 89 A.2d 667 (1952), ****313** there are cases holding that the maintenance and operation of a water system for protection against fire and other dangers to the public health and safety constitute a governmental function comprehended in the delegated local police power. But there is general agreement that the distribution of water by a municipality to its inhabitants for domestic and commercial uses is a private or proprietary activity or service which is subject to the principles and rules of conduct applicable to private corporations. This is the rule in New Jersey. Lehigh Valley R. Co. v. Jersey City, 103 N.J.L. 574, 138 A. 467 (Sup.Ct.1927), affirmed 104 N.J.L. 437, 140 A. 920 (E. & A. 1928); Fay v. City of Trenton, 126 N.J.L. 52, 18 A.2d 66 (E. & A. 1941); Mongiello v. Borough of Hightstown, 17 N.J. 611, 112 A.2d 241, 48 A.L.R.2d 1216 (1955). See, also, Olesiewicz v. City of Camden, 100 N.J.L. 336, 126 A. 317 (E. & A. 1924). And such is the case, A fortiori, where, as here, the water system has been constituted ***587** a self-liquidating utility under R.S. 40:1-78, N.J.S.A., empowered to serve other municipalities as well as its own inhabitants. Compare Morganweck v. Egg Harbor City, 106 N.J.L. 141, 147 A. 468 (E. & A. 1929); Cloyes v. Delaware Township, 23 N.J. 324, 129 A.2d 1, 57 A.L.R.2d 1327 (1957); Borough of West Caldwell v. Borough of Caldwell, 26 N.J. 9, 138 A.2d 402 (1958). But the operation has been held not to be within the rate-regulating function of the Board of Public Utility Commissioners. In re Borough of Glen Rock, 25 N.J. 241, 135 A.2d 506 (1957).

A municipally-owned and -controlled water system may not be used to supply the needs of another municipality and its inhabitants without express legislative sanction. We do not have here a cooperative entity comprising several municipal corporations for joint operation of a water system in the common interest, a common ownership, management and service, although it does not necessarily follow that that would be a determinative circumstance. By our statute, a municipality owning and controlling its own water supply may contract for

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the sale and delivery of water to residents of another municipality, R.S. 40:62-83, N.J.S.A. or may supply water to 'dwellers and other consumers of water' in other municipalities 'through which its mains may pass,' and 'for that purpose may lay its mains and water pipes' in the streets and highways of the other municipality, R.S. 40:62-85, N.J.S.A., but in each of such cases only with the consent of the other municipality. And see R.S. 40:62-84, N.J.S.A., providing that a municipality owning and controlling waterworks may contract for such service directly with another municipality. There is no legislative mandate to do what was done here as a governmental function, either express or implied.

The weight of authority elsewhere is that in the particular circumstances the municipality acts in a proprietary or private capacity, just as would an individual or a private corporation in the prosecution of the same enterprise. Taber v. City of Benton Harbor, 280 Mich. 522, 274 N.W. 324 (Sup.Ct.1937). And compare ***588** O'Brien v. Town of Greenburgh, 239 App.Div. 555, 268 N.Y.S. 173 (App.Div.1934), affirmed 266 N.Y. 582, 195 N.E. 210 (Ct.App.1935).

In this latter case, involving a garbage disposal plant, a distinction was made 'between the acts of a municipality in the performance of a governmental function carrying out a legislative mandate' and 'acts which may be deemed municipal or corporate acts'; the 'difference is that in the first instance the municipality is executing the legislative mandate related to a public duty generally, while in the other it is exercising its private rights as a corporate body.'

A municipal corporation 'owning and operating a water system' and selling water to individuals, although engaged in a public service, 'does so in its business or proprietary capacity, and not in any governmental capacity, and * * * no distinction ****314** is to be drawn between such business whether engaged in by a municipality or by a private corporation.' Baltis v. Village of Westchester, 3 Ill.2d 388, 121 N.E.2d 495 (Sup.Ct.1954).

The distinction between governmental and proprietary functions is not necessarily the same for state and local purposes as in the application of federal statutes imposing a tax on the salaries of municipal officers and employees engaged in the performance of governmental functions, for 'a federal tax in respect of the activities of a state or a state agency is an imposition by one government upon the activities of another and must accord with the implied federal requirement that state and local governmental functions be not burdened thereby.' Brush v. Commissioner of Internal Revenue, 300 U.S. 352, 57 S.Ct. 495, 81 L.Ed. 691, 108 A.L.R. 1428 (1937).

The local legislative design to exempt the waterworks from the operation of the Ridgewood zoning ordinance is clear and imperative.

But under the Ho-Ho-Kus zoning ordinance, Ridgewood's land ownership extending into the Borough is within a zone restricted to the highest residence use, an area where dwellings range in value between $25,000 and $50,000; and ***589** Ridgewood's planned municipal or corporate use is by its nature within the interdiction of the Ho-Ho-Kus use regulation.

In Thornton v. Village of Ridgewood, 17 N.J. 499, 111 A.2d 899 (1955), reference was made to the doctrine, Bassett, Zoning, pp. 31, 212, that municipal and state officials 'usually comply with zoning requirements as a matter of comity'; the 'municipality which ordains should be the first to obey its own ordinance'; but '(t)he need of a public building in a certain location ought to be determined by the federal, state, or municipal authority, and its determination on the question of necessary or desirable location cannot be interfered with by a local zoning ordinance'; no zoning ordinance, it was said, 'can prevent the municipal, state, or federal government from erecting buildings in the form and on the site needed by the public.' And Yokley, Zoning Law and Practice (2d ed.), s 40, was there cited for the proposition that the local police power in this regard is subject only to 'the supreme law of the land or a definitely fixed legislative policy of the state.' The subjection of the municipality to its own zoning regulations is in accord with principle and sound policy where the use or function is inherently corporate or proprietary. Ordinarily, a local law authorizing the use of lands or a building in a given zone for a municipal purpose may be regarded as an amendment or repeal of the zoning ordinance, Pro tanto, although the doctrine of reasonable classification may then be involved, depending on the nature of the use and the circumstances. Reichelderfer v. Quinn, 287 U.S. 315, 53 S.Ct. 177, 77 L.Ed. 331, 83 A.L.R. 1429 (1932); Lees v. Sampson Land Co., 372 Pa. 126, 92 A.2d 692, 40 A.L.R.2d 1171 (Sup.Ct.1952). There is no occasion now to consider the operation of this principle under our zoning statute, prescribing as it does the mode and manner of effecting changes in a local

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zoning ordinance. R.S. 40:55-35, as amended by L.1948, c. 305, N.J.S.A.

And the corollary theorem is that Ridgewood's land in Ho-Ho-Kus is bound by the use-restriction to residences of ***590** the highest class laid down in the Borough's zoning ordinance. We are not here concerned with a water source vital to the essential public welfare, but rather the storage of water for distribution by the pressure of gravity, the alternative, for reasons of cost alone, to underground or ground-level distribution that in structure and mechanism would not be so violent in its intrusion upon the character of the zone district and the essential rights of those who had established their dwellings there in reliance on the reserved use.

In Baltis v. Village of Westchester, supra, the Supreme Court of Illinois said of a proposed water-storage standpipe, having ****315** a capacity of 1,500,000 gallons, in its own first-class residence zone:

> '* * * This court has many times held that a purchaser of property subject to a general zoning ordinance has the right to rely upon the rule of law that the classification made in the general ordinance will not be changed unless the change is required for the public good.'

There, also, it was contended that the planned facility was necessary to provide the city with adequate fire protection and sufficient water for its inhabitants and industries, and was therefore a governmental function. The court held, quoting from the Michigan case of Taber v. City of Benton Harbor, supra, that the city, in this service, acted in its municipal or proprietary capacity, and was bound by its own zoning ordinance 'so long as such ordinance is in force and (it) is not excepted from its provisions as would an individual or private corporation in attempting to engage upon the same project under the same conditions'; it is 'undoubtedly true that under the provisions of the charter the city owes a duty to its inhabitants to maintain an adequate water system, but in so providing it cannot proceed in disregard of the plain legislative enactments of the duly elected representatives of its citizens.' The New York case of O'Brien v. Town of Greenburgh, supra, was cited for the principle.

***591** Thus it is that, in this activity, Ridgewood is engaged in a municipal or corporate function, and in the pursuit of the endeavor it is bound equally with all others, individual or corporate, by the terms of the Ho-Ho-Kus zoning ordinance. There is no statutory exemption, either express or implied, from the operation of the Ho-Ho-Kus use limitation. R.S. 40:62-65, as amended by L.1953, c. 37, N.J.S.A., merely authorizes the extension of pipes and mains in and under the streets of another municipality 'for the purpose of connecting its waterworks with the pipes and mains so laid or to be laid' for the supplying of water 'in one or more of the methods' provided by the statute, but only with the consent of the other municipality. There is provision for a review in case such consent is refused in the Superior Court, and affirmative action on terms.

There is not here an exertion of delegated state power that by the legislative will is not subject to the local use-zoning process, as in Town of Bloomfield v. New Jersey Highway Authority, 18 N.J. 237, 113 A.2d 658 (1955), and Hill v. Borough of Collingswood, 9 N.J. 369, 88 A.2d 506 (1952). See, also, Decatur Park District v. Becker, 368 Ill. 442, 14 N.E.2d 490 (Sup.Ct.1938).

I have a different view of Aviation Services, Inc., v. Board of Adjustment of Hanover Township, 20 N.J. 275, 119 A.2d 761 (1956). There, Morristown's airport operation in Hanover Township was an exercise of the authority conferred by R.S. 40:8-1 et seq., N.J.S.A. A municipality is thereby empowered, R.S. 40:8-2, as amended by L.1947, c. 85, N.J.S.A., to acquire and operate airports and landing fields 'within or without the limits of (the) municipality' and, R.S. 40:8-4 and 40:8-5, N.J.S.A., to 'acquire property for such purpose or purposes under the power of eminent domain as and for a public necessity.' And the holding was that the 'absence of any language which would limit a municipal airport undertaking, either within or without its boundaries, and the bestowal of the power of eminent domain to subserve the program all reflect legislative intent to immunize the acquisition and maintenance from the zoning power,' but that the authority ***592** 'must be reasonably exercised in response to the public need * * *.' Compare Petition of City of Detroit, 308 Mich. 480, 14 N.W.2d 140 (Sup.Ct.1944).

There is no showing, none whatever, that Ridgewood's lands in Ho-Ho-Kus are 'necessary for facilities required to meet the needs of the consumer.' It does not ****316** matter that Ridgewood is now the owner of the lands

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in Ho-Ho-Kus. If it were not in such ownership, on what principle could Ridgewood condemn this particular piece of land in Ho-Ho-Kus for water storage purposes, notwithstanding the zoning limitation? R.S. 40:62-49(g), N.J.S.A., authorizes a municipality to purchase, condemn or otherwise acquire 'the necessary lands, and rights or interests in lands, and water rights and rights of flowage or diversion, within or without the municipality, for the purpose of a water supply, or an additional water supply, and for the connection thereof with the municipality, * * *.'

This provision by its own terms has to do with water rights and rights of flowage or diversion for the purpose of a water supply and connection thereof with the municipality; and, without undertaking a more specific delineation of the terms, it is enough to say that they patently do not include the use of Ridgewood's lands in Ho-Ho-Kus for the erection of a water tower contrary to local use-zoning, to serve the inhabitants of three nearby municipalities as well as its own, and the land, if in other proprietorship, could not in this context have been condemned for such use. The condemnation statute has no such sweep. There is no showing of need for land in Ho-Ho-Kus for the given purpose, much less the land in question; presumably, the motivating consideration is the economic advantage of using land now in Ridgewood's ownership, even though in part beyond its borders in an area restricted against such use. R.S. 40:62-65, N.J.S.A., requiring the consent of the other municipality for the extension of pipes and mains, is significant in this regard. Why this particular provision if there be the claimed broad power to condemn? Can it be that, though consent be required for the mere extension of pipes and ***593** mains, Ridgewood may, Ex proprio vigore, store and distribute water to other municipalities through a plant maintained in Ho-Ho-Kus' highest class residence district? It is to be borne in mind that Ho-Ho-Kus has no interest whatever in the operation; neither it nor its inhabitants are to have water service from Ridgewood. Ridgewood may undertake to supply water to other municipalities, but not by subverting Ho-Ho-Kus' zone plan, and thus to lay the burden on its neighbor, In invitum. Simple justice so ordains.

Compare R.S. 40:55-50, N.J.S.A., which renders 'public utilities' subject to such use regulations unless the Board of Public Utility Commissioners shall determine, after hearing on notice, that 'the present or proposed situation of the building or structure in question is reasonably necessary for the service, convenience or welfare of the public.' And see In re Borough of Glen Rock, supra.

Indeed, Ridgewood's brief requests that, if there be an adverse determination of these issues, it be afforded time to take other measures to solve its problem, saying that '(i)t may be feasible to completely contain the structure within the Village boundaries and thus no application to Ho-Ho-Kus be necessary,' a seeming concession that in itself negates peremptory need.

Local use-zoning and water power derive from the Legislature, and they are to be reconciled accordingly to advance the essential public interest; the one predominates over the other only when and to the extent directed by the over-all legislative authority. And the statute itself provides the means of modifying zoning rules and regulations. Zoning is a major constitutionally-secured public policy that is not to be sacrificed save in the service of an imperative public need recognized as such by the legislative authority.

I submit that there is no jurisdiction in equity, nor at law, for that matter, to enjoin submission by Ho-Ho-Kus (and such is a postulate of the majority opinion) to this invasion of its first-class residence zone by an alien use deemed by the court to ****317** be 'reasonable' in its exercise as compared with other more conspicuous means of accomplishing ***594** the same end. And if the given use of its lands in Ho-Ho-Kus is not subject to the established use-restrictions, then is it reasonable thus to outlaw a much less expensive mechanism, both as to capital outlay and cost of operation, and in the face of expert opinion evidence that 'a gravity flow system would yield a better quality of water'? Compare Wallerstein v. Westchester Joint Water Works, 166 Misc. 34, 1 N.Y.S.2d 111 (Sup.Ct.1937). There, also, the water tower had been almost completed. And if the whole of the land so used were situated in Ridgewood, could the gravity-flow use be enjoined in equity as arbitrary on the hypothesis that since the ground-level mechanism is feasible, Ridgewood 'should have assumed (the greater) cost rather than visit the burden of an elevated structure of 160 feet upon the municipalities'? The choice of means would then rest in the discretion and judgment of the local authority. It is, I would suggest, the zoning restriction established by Ho-Ho-Kus that alone restrains Ridgewood's use of the lands in question.

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We have here the problem of a local political boundary dividing an expanse of land area peculiarly suitable for the highest residence use, and so zoned by the adjoining municipalities save that in one a variant use is allowable that is denied in the other, a border conflict involving something more than the mere nonconforming use of Ridgewood's land in Ho-Ho-Kus. Ho-Ho-Kus may assert its sovereignty over lands within its limits, except as otherwise ordained by the Legislature, but it cannot oppose a different use of adjacent lands in Ridgewood unless such use constitutes a nuisance-a clash of interests that suggests the wisdom of coordinate inter-municipal action for the essential common good.

I would affirm the judgment and remand the cause with direction to stay execution until plaintiff is afforded an opportunity to take such further action in the light of the foregoing considerations as it may be advised.

PROCTOR, J., joins in this opinion.

All Citations

26 N.J. 578, 141 A.2d 308

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DECLARATION OF SERVICE BY EMAIL

I, the undersigned, declare as follows:

I am a resident of the County of Sacramento and I am over the age of 18 years, and not a party to the within action. My place of employment is 980 Ninth Street, Suite 300, Sacramento, California 95814.

On November 9, 2018, I served the:

- **Claimant's Rebuttal Comments filed November 9, 2018**

  Lead Sampling in Schools, Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017, 17-TC-03
  City of San Diego, Claimant

By making it available on the Commission's website and providing notice of how to locate it to the email addresses provided on the attached mailing list.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that this declaration was executed on November 9, 2018 at Sacramento, California.

Jill Magee

Jill L. Magee
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COMMISSION ON STATE MANDATES

Mailing List

Last Updated: 10/16/18

Claim Number: 17-TC-03

Matter: Lead Sampling in Schools, Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017

Claimant: City of San Diego

TO ALL PARTIES, INTERESTED PARTIES, AND INTERESTED PERSONS:

Each commission mailing list is continuously updated as requests are received to include or remove any party or person on the mailing list. A current mailing list is provided with commission correspondence, and a copy of the current mailing list is available upon request at any time. Except as provided otherwise by commission rule, when a party or interested party files any written material with the commission concerning a claim, it shall simultaneously serve a copy of the written material on the parties and interested parties to the claim identified on the mailing list provided by the commission. (Cal. Code Regs., tit. 2, § 1181.3.)

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STATE of CALIFORNIA
COMMISSION ON STATE MANDATES

Exhibit E

December 21, 2018

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And Parties, Interested Parties, and Interested Persons (See Mailing List)

Re: Draft Proposed Decision, Schedule for Comments, and Notice of Hearing
Lead Sampling in Schools: Public Water System No. 3710020, 17-TC-03
Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017
City of San Diego, Claimant

Dear Ms. Li and Mr. Palmucci:

The Draft Proposed Decision for the above-captioned matter is enclosed for your review and comment.

Written Comments

Written comments may be filed on the Draft Proposed Decision by **January 11, 2019**. Please note that all representations of fact submitted to the Commission must be signed under penalty of perjury by persons who are authorized and competent to do so and must be based upon the declarant's personal knowledge, information, or belief. (Cal. Code Regs., tit. 2, § 1187.5.) Hearsay evidence may be used for the purpose of supplementing or explaining other evidence but shall not be sufficient in itself to support a finding unless it would be admissible over an objection in civil actions. (Cal. Code Regs., tit. 2, § 1187.5.) The Commission's ultimate findings of fact must be supported by substantial evidence in the record.[1]

You are advised that comments filed with the Commission on State Mandates (Commission) are required to be simultaneously served on the other interested parties on the mailing list, and to be accompanied by a proof of service. However, this requirement may also be satisfied by electronically filing your documents. Refer to http://www.csm.ca.gov/dropbox_procedures.php on the Commission's website for electronic filing instructions. (Cal. Code Regs., tit. 2, § 1181.3.)

If you would like to request an extension of time to file comments, please refer to section 1187.9(a) of the Commission's regulations.

[1] Government Code section 17559(b), which provides that a claimant or the state may commence a proceeding in accordance with the provisions of section 1094.5 of the Code of Civil Procedure to set aside a decision of the Commission on the ground that the Commission's decision is not supported by substantial evidence in the record.

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Hearing

This matter is set for hearing on **Friday, March 22, 2019** at 10:00 a.m., State Capitol, Room 447, Sacramento, California. The Proposed Decision will be issued on or about March 8, 2019. Please let us know in advance if you or a representative of your agency will testify at the hearing, and if other witnesses will appear. If you would like to request postponement of the hearing, please refer to section 1187.9(b) of the Commission's regulations.

Sincerely,

Heather Halsey
Executive Director

ITEM ___

TEST CLAIM

DRAFT PROPOSED DECISION

Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017

Lead Sampling in Schools: Public Water System No. 3710020

17-TC-03

City of San Diego, Claimant

EXECUTIVE SUMMARY

Overview

This test claim alleges reimbursable state-mandated activities arising from Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017. This amendment requires the City of San Diego's (claimant's) Public Water System (PWS)[1] to sample and test drinking water in K-12 schools for the presence of lead, upon request of an authorized representative of the school from January 18, 2017 until November 1, 2019. Acorrding to the claimant city, as of January 1, 2018, 502 schools within San Diego County requested lead sampling from their respective PWSs.[2]

The test claim order imposes new requirements on the claimant, but the requirements do not mandate a new program or higher level of service because the test claim order is one of over 1,100 orders issued simultaneously to both publicly and privately owned and operated PWSs. In addition, the provision of drinking water is not a peculiarly governmental function or service, even when one of the system's customers is a K-12 school. Therefore, the test claim order does not impose a reimbursable state-mandated program.

Procedural History

The State Water Resources Control Board (SWRCB) issued 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017. The claimant filed the Test Claim on January 11, 2018.[3] The Notice of Complete Test Claim, Schedule for Comments,

[1] These systems are also known as "community water systems" which are PWSs that supply water to the same population year-round. (See Health and Safety Code section 116275(i).) The reader may find these two terms used interchangeably in some of the supporting documentation in the record.

[2] Exhibit A, Test Claim, page 14.

[3] Exhibit A, Test Claim, page 1. Note though, that only a portion of schools within San Diego County are served by claimant, the *City* of San Diego.

Request for Administrative Record, and Notice of Tentative Hearing Date was issued on April 13, 2018.

SWRCB requested an extension of time to comment and to provide the administrative record on April 23, 2018, which was granted. The Department of Finance (Finance) requested an extension of time on May 11, 2018, which was granted. SWRCB requested a second extension of time to comment and to provide the administrative record and a postponement of hearing on June 11, 2018, which was granted for good cause. Finance requested a second extension of time on June 25, 2018, which was granted for good cause.

Finance filed comments on the Test Claim on August 13, 2018.[4] SWRCB filed comments on the Test Claim on August 13, 2018,[5] along with the requested administrative record for Permit Amendment No. 2017 PA-SCHOOLS.[6] The claimant requested an extension of time to file rebuttal comments on August 29, 2018, which was granted. The claimant requested a second extension of time to file rebuttal comments on October 18, 2018, after the Third District Court of Appeal issued its decision in *Paradise Irrigation District v. Commission on State Mandates*,[7] which has since been withdrawn by the court pursuant to a grant of rehearing under Rule 8.268 of the California Rules of Court; that extension was granted. The claimant filed rebuttal comments on November 9, 2018.[8]

Commission staff issued the Draft Proposed Decision on December 21, 2018.[9]

Commission Responsibilities

Under article XIII B, section 6 of the California Constitution, local agencies and school districts are entitled to reimbursement for the costs of state-mandated new programs or higher levels of service. In order for local government to be eligible for reimbursement, one or more similarly situated local agencies or school districts must file a test claim with the Commission. "Test claim" means the first claim filed with the Commission alleging that a particular statue or executive order imposes costs mandated by the state. Test claims function similarly to class actions and all members of the class have the opportunity to participate in the test claim process and all are bound by the final decision of the Commission for purposes of that test claim.

The Commission is the quasi-judicial body vested with exclusive authority to adjudicate disputes over the existence of state-mandated programs within the meaning of article XIII B, section 6 of

[4] Exhibit D, Finance's Comments on the Test Claim.

[5] Exhibit C, SWRCB's Comments on the Test Claim.

[6] Exhibit B, Administrative Record on Permit Amendment No. 2017PA-SCHOOLS.

[7] The court's order of October 31, 2018 vacating its decision pending rehearing renders the decision non-citeable, as if it had never been published.

[8] Exhibit E, Claimant's Rebuttal Comments.

[9] Exhibit F, Draft Proposed Decision.

the California Constitution and not apply it as an "equitable remedy to cure the perceived unfairness resulting from political decisions on funding priorities."[10]

Claims

The following chart provides a brief summary of the claims and issues raised and staff's recommendation.

Issue	Description	Staff Recommendation
Is the Test Claim timely filed pursuant to Government Code section 17551?	Government Code section 17551 states that test claims must be filed "not later than 12 months following the effective date of a statute or executive order, or within 12 months of incurring increased costs as a result of a statute or executive order, whichever is later."[11]	*Timely filed* - The effective date of the Order is January 18, 2017.[12] The claimant filed the Test Claim on January 11, 2018, less than 12 months after the effective date of the Order.[13] Therefore, the Test Claim is timely filed.
Does the Test Claim Order impose a state-mandated new program or higher level of service?	Mandate reimbursement is required only in the case that the Legislature or an executive order imposes a "new program or higher level of service."[14] The California Supreme Court explained in *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46 that "the intent underlying section 6 was to require reimbursement to local agencies for the costs involved in carrying out functions peculiar to government, not for expenses incurred by local agencies as an incidental impact of laws	*Deny* - The activities required by the order are new, as compared against prior state and federal law. However, the activities alleged do not constitute a state-mandated new program or higher level of service subject to reimbursement under article XIII B, section 6 of the California Constitution. The requirements imposed by the test claim order are not mandated by the state, but are triggered by a local decision to provide water service and operate as a public water

[10] *County of Sonoma v. Commission on State Mandates* (2000) 84 Cal.App.4th 1264, 1281, citing *City of San Jose v. State of California* (1996) 45 Cal.App.4th 1802, 1817.

[11] Government Code section 17551(c).

[12] Exhibit A, Test Claim, page 104 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 1].

[13] Exhibit A, Test Claim, page 1.

[14] California Constitution, article XIII B, section 6.

Issue	Description	Staff Recommendation
	that apply generally to all state residents and entities."[15] Thus, the test claim order must carry out the governmental function of providing a service to the public; or, to implement a state policy, impose unique requirements on local agencies, which do not apply generally to all residents and entities in the state.[16]	system. In addition, the Order is one of 1,100 nearly identical permit amendments issued to "public water system(s)," as defined, over one-third of which are privately owned and operated, and are not governmental entities. Thus, the test claim order is not unique to government. In addition, the provision of drinking water, even when K-12 schools are among the customers of a PWS, is not a peculiarly governmental function or service. Thus, the test claim order does not provide a *governmental* service to the public.

Staff Analysis

A. This Test Claim Is Timely Filed.

Government Code section 17551 states that local agency and school district test claims must be filed "not later than 12 months following the effective date of a statute or executive order, or within 12 months of incurring increased costs as a result of a statute or executive order, whichever is later."[17]

The effective date of the order is January 18, 2017.[18] The claimant filed the Test Claim on January 11, 2018, less than 12 months after the effective date of the order.[19] Therefore, the Test Claim is timely filed.

[15] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56-57.

[16] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56.

[17] Government Code section 17551(c).

[18] Exhibit A, Test Claim, page 104 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 1].

[19] Exhibit A, Test Claim, page 1.

B. <u>The Test Claim Order Does Not Impose a State-Mandated New Program or Higher Level of Service.</u>

1. The test claim order imposes new requirements on operators of public water systems.

This Test Claim alleges new state-mandated activities and costs arising from an amendment to the claimant's public water system permit adopted by SWRCB, Order No. 2017 PA-SCHOOLS, which requires the claimant, as the operator of a "public water system" (PWS) that serves a number of K-12 schools, to perform lead sampling, upon request. A PWS may be a private company or a governmental entity.[20] Generally, under the order, the PWS must submit to the SWRCB a list of names and addresses of all K-12 schools served water by the PWS through a utility meter and must, upon request, take samples at one to five fixtures (e.g., drinking fountains or food preparation areas) on the school's property, process the samples at a certified laboratory, maintain records of the requests and the results, and provide the results, and if necessary, information to the school regarding possible remediation or other solutions if lead is detected in the fixtures above 15 parts per billion (ppb), as specified.[21]

Both the claimant and SWRCB agree that the order imposes requirements which are new, as compared to prior law.[22] Prior law did not specifically require local government to assist schools with lead sampling at drinking water fountains and other fixtures. Accordingly, the requirements of the order are new.

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[20] 42 United States Code, section 300f(4): "The term "public water system" means a system for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at least fifteen service connections or regularly serves at least twenty-five individuals." Also, "the term "supplier of water" means any person who owns or operates a public water system." (42 United States Code, section 300f(5), Emphasis added.) Further, "the term "person" means an individual, corporation, company, association, partnership, State, municipality, or Federal agency (and includes officers, employees, and agents of any corporation, company, association, State, municipality, or Federal agency)." (42 United States Code, section 300f(12).) California law is consistent: '"Public water system" means a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year." (Health and Safety Code 116275(h).)

[21] Exhibit A, Test Claim, page 108 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, pp 3-5.].

[22] See Exhibit A, Test Claim, pages 16-17 ["The City's existing Permit and its prior amendments do not require [the claimant] to perform lead testing at K-12 schools."]; Exhibit C, SWRCB's Comments on the Test Claim, pages 5-7 [Explaining that under prior federal and state regulations community water systems, such as operated by the claimant, were required to monitor and sample for lead throughout their systems, but mostly by sampling private residences.].

2. The requirements imposed by the test claim order are not mandated by the state, but are triggered by a local decision to provide water service and operate as a public water system.

The requirements of the test claim order are not mandated by the state, but are triggered by a local discretionary decision to provide water service and operate as a PWS.

Article XI, section 9(a) of the California Constitution provides that a "municipal corporation" *may* be established to operate public works to furnish light, water, power, heat, transportation, or means of communication.[23] The courts have interpreted article XI, section 9 (previously section 19) as granting authority, rather than imposing a duty.[24]

Under the Government Code, when interpreting statutes and constitutional provisions, "shall" is mandatory, and "may" is permissive.[25] Article XI, section 9 provides that a municipal corporation *may* establish water service. Government Code section 38742 also provides that the legislative body of any city "*may*" contract for supplying the city with water for municipal purposes; *or* "*may*" "[a]cquire, construct, repair, and manage pumps, aqueducts, reservoirs, or other works necessary or proper for supplying water for the use of the city or its inhabitants or for irrigating purposes of the city."

The claimant contends that the required activities are mandated by the state since its city charter "imposes a legal obligation and responsibility on the City to provide water service."[26] However, the claimant's obligations under its own city charter are self-imposed, and are no different than the circumstances in *City of Merced*,[27] *Department of Finance* (*Kern High School Dist.*),[28] and *Department of Finance* (*POBRA*)[29] in which test claimants sought reimbursement for costs alledged to be state-mandated, but which the courts found were incurred as a result of their own discretionary decisions and thus were not subject to the subjection requirement of articleXIII B, section 6 of the California Constitution.

Here, state law does not legally compel the claimant to provide water services or to operate as a PWS, and there is no evidence in the record that the claimant is practically compelled and would suffer "certain and severe penalties or other draconian measures," if the claimant decided to no longer provide water services to its residents or operate as a PWS. As noted above, the California Constitution clearly permits cities to establish and operate public works to provide

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[23] California Constitution, article XI, section 9(a).

[24] *Glenbrook Development Co. v. City of Brea* (1967) 253 Cal.App.2d 267, 274.

[25] Government Code section 14.

[26] Exhibit E, Claimant's Rebuttal Comments, page 4.

[27] *City of Merced v. State of California* (1984) 153 Cal.App.3d 777.

[28] *Department of Finance v. Commission on State Mandates* (2003) 30 Cal.4th 727.

[29] *Department of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1355.

water; however the next subdivision permits the same activities to be undertaken by a private entity.[30]

Moreover, the line of cases finding that the service of water by a city is considered a proprietary function rather than a governmental one supports this conclusion. (*In re Orosi Public Utility Dist.* [1925] 196 Cal. 43, 57-58; *City of Pasadena v. Railroad Com.* [1920] 183 Cal. 526, 529; *Marin Water etc. Co. v. Town of Sausalito* [1916] 168 Cal. 587, 595, overruled on other grounds in *Los Angeles Met. Transit Authority v. Public Utilities Com.* [1963] 59 Cal.2d 863, 869; *South City of Pasadena v. Pasadena Land etc. Co.* [1908] 152 Cal. 579, 593.) In supplying water to its inhabitants, a municipality acts in the same capacity as a private corporation engaged in a similar business, and not in its sovereign role. (*Nourse v. City of Los Angeles* [1914] 25 Cal.App. 384, 385.) Consequently, the authority granted to a city under article XI, section 19, is a "privileged power"; a city is not obliged to furnish water to its inhabitants and has no duty of supplying water, although it may do so. (*People* ex rel. *City of Downey v. Downey County Water Dist.* [1962] 202 Cal.App.2d 786, 792.) Moreover the law has always authorized the provision of water by private companies, but historically, the authority of municipal corporations (which includes cities) to provide this service was in question until the amendment of article XI of the California Constitution in 1911.[31] Thus, the law allows a city to operate as a PWS, and also allows a city to contract for the supply of the city's water. But there is no state law that legally compels the claimant, or any other similarly situated local government entity, to operate a public water system, or to serve as the drinking water provider of last resort, or to include such obligations in its city charter.[32]

Accordingly, staff finds that requirements imposed by the test claim order are not mandated by the state, but are triggered by a local discretionary decision to provide water services and operate as a PWS.

3. The new requirements of the test claim order do not constitute a new program or higher level of service, within the meaning of article XIII B, section 6 of the California Constitution.

State mandate reimbursement is not required for any and all costs that might be incurred by local government as an incident of a change in law. Mandate reimbursement is required only when all elements of article XIII B, section 6 are met, including that the statute or executive order imposes a "new program or higher level of service."[33] The California Supreme Court explained in *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, that a new program or higher level of service means a program that carries out of the governmental function of providing services to the public, or laws which, to implement a state policy, imposes unique requirements

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[30] California Constitution, article XI, section 9(a-b).

[31] *National City v. Fritz* (1949) 33 Cal.2d 635, 637.

[32] See *City of Merced v. State of California* (1984) 153 Cal.App.3d 777 [Finding that statute requiring compensation for business goodwill was not a state mandate because the requirement was triggered only by the discretionary local decision to exercise eminent domain.]

[33] California Constitution, article XIII B, section 6.

on local government and does not apply generally to all residents and entities in the state.[34] The Court further held that "the intent underlying section 6 was to require reimbursement to local agencies for the costs involved in carrying out functions *peculiar to government*, not for expenses incurred by local agencies as an incidental impact of laws that apply generally to all state residents and entities."[35] The Court also concluded that the statute did not impose unique requirements on local government: "Although local agencies must provide benefits to their employees either through insurance or direct payment, they are indistinguishable in this respect from private employers."[36] Therefore, the Court found that reimbursement was not required.

In *City of Sacramento*, the Court held that "[b]y requiring local governments to provide unemployment compensation protection to their own employees, the state has not compelled provision of new or increased 'service to the public' at the local level…[nor] imposed a state policy 'uniquely' on local governments."[37] Rather, the Court observed that most employers were already required to provide unemployment protection to their employers, and "[e]xtension of this requirement to local governments, together with the state government and nonprofit corporations, merely makes the local agencies 'indistinguishable in this respect from private employers.'"[38]

In *Carmel Valley*, the claimants sought reimbursement from the state for protective clothing and equipment required by regulation, and the State argued that private sector firefighters were also subject to the regulations, and thus the regulations were not unique to government.[39] The court rejected that argument, finding that "police and fire protection are two of the most essential and basic functions of local government."[40] The court concluded that the regulations imposed a reimbursable "program," within the meaning of article XIII B, section 6.

Later, in *County of Los Angeles II*, counties sought reimbursement for elevator fire and earthquake safety regulations that applied to all elevators, not just those that were publicly

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[34] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56 (emphasis added).

[35] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56-57 (emphasis added).

[36] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56, 58.

[37] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 67.

[38] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 67. See also, *City of Richmond v. Commission on State Mandates* (1998) 64 Cal.App.4th 1190 [Finding that statute eliminating local government exemption from liability for worker's compensation death benefits for public safety employees "simply puts local government employers on the same footing as all other nonexempt employers."

[39] *Carmel Valley Fire Protection District v. State of California* (1987) 190 Cal.App.3d 521.

[40] *Carmel Valley Fire Protection District v. State of California* (1987) 190 Cal.App.3d 521, 537 [quoting *Verreos v. City and County of San Francisco* (1976) 63 Cal.App.3d 86, 107].

owned.[41] The court found that the regulations were plainly not unique to government.[42] The court also found that the regulations did not carry out the governmental function of providing a service to the public, despite declarations by the county that without those elevators, "no peculiarly governmental functions and no purposes mandated on County by State law could be performed in those County buildings . . . ."[43]

Here, the test claim order is one of over 1,100 public water system permits amended simultaneously, approximately 450 of which were issued to privately-owned and operated drinking water suppliers. Furthermore, providing water, and testing for lead in that water, is not a peculiarly governmental function, traditionally it is a proprietary one. Case law distinguishes between local government activities in a sovereign capacity and local government activities more in the nature of corporate or business activities, and the operation of a PWS is comparable to the latter category of activity.[44] And, the Service Duplication Law within the Public Utilities Code requires a local government to compensate a private water provider when it extends service into the private entity's service area, which implies that providing water service is not universally, or even predominantly, the purview of local government.[45]

In its rebuttal comments, the claimant argues at length that providing water service *is* a governmental function of providing services to the public, and that the test claim order imposes unique requirements on the claimant.[46]

As analyzed herein, staff finds that the test claim order does not impose a new program or higher level of service.

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[41] *County of Los Angeles v. Department of Industrial Relations* (1989) 214 Cal.App.3d 1538.

[42] *County of Los Angeles v. Department of Industrial Relations* (1989) 214 Cal.App.3d 1538, 1545.

[43] *County of Los Angeles v. Department of Industrial Relations* (1989) 214 Cal.App.3d 1538, 1545.

[44] *In re Orosi Public Utility Dist.* (1925) 196 Cal. 43, 57-58; *City of Pasadena v. Railroad Com.* [1920] 183 Cal. 526, 529; *Marin Water etc. Co. v. Town of Sausalito* [1916] 168 Cal. 587, 595, overruled on other grounds in *Los Angeles Met. Transit Authority v. Public Utilities Com.* [1963] 59 Cal.2d 863, 869; *South City of Pasadena v. Pasadena Land etc. Co.* [1908] 152 Cal. 579, 593.): See also *Nourse v. City of Los Angeles* (1914) 25 Cal.App. 384, 385 "In supplying water to its inhabitants, a municipality acts in the same capacity as a private corporation engaged in a similar business, and not in its sovereign role."; And *People* ex rel. *City of Downey v. Downey County Water Dist.* (1962) 202 Cal.App.2d 786, 792. "Consequently, the authority granted to a city under article XI, section 19, is a "privileged power"; a city is not obliged to furnish water to its inhabitants and has no duty of supplying water, although it may do so."

[45] See Public Utilities Code sections 1501-1504.

[46] Exhibit E, Claimant's Rebuttal Comments, pages 7-8.

a. The requirements of the test claim order are not uniquely imposed on government.

The claimant contends that the test claim order imposes unique requirements on the claimant that do not apply generally to all residents and entities in the State and, therefore constitutes a new program or higher level of service.[47]

Staff disagrees with the claimant and finds that the requirements of the test claim order are not uniquely imposed on government.

It is correct that the test claim order, as pled, is uniquely addressed to *a* local government entity (the City of San Diego, in its capacity as the operator of a PWS). However, as instructed by the courts interpreting article XIII B, section 6 of the California Constitution, this test claim order cannot be considered in isolation; it must be construed in context with other similar permits issued by SWRCB to PWSs.[48] Thus the courts required the Commission to consider the test claim order in the context of the other identical orders adopted simultaneously.[49]

Furthermore, as indicated above, the provision of water through a public water system, to a school or any other customer, is not a mandatory function of government, and may be performed by a private corporation. Article XI, section 9 of the California Constitution provides that a municipal corporation, or a private person or corporation, may be established to operate public works to furnish water.[50] This provision was adopted by voter initiative to make clear that cities or other local entities had authority to organize to provide such services, which had previously been provided primarily by private entities.[51] Moreover, the term "public water system" does not mean a water system owned or operated by a governmental entity; both the federal Lead and Copper Rule (LCR) and California's Safe Drinking Water Act (SDWA) define a PWS as "a system for the provision to the public of water for human consumption" that has at least 15 service connections and serves at least 25 people per day.[52] The law makes no distinction between publicly and privately owned PWSs. And, SWRCB provides evidence that currently

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[47] Exhibit E, Claimant's Rebuttal Comments, page 8.

[48] See *City of Richmond v. Commission on State Mandates* (1998) 64 Cal.App.4th 1190 [Elimination of a previous statutory exemption from part of worker's compensation law was not a new program, uniquely imposed on government, even though the statute itself, considered in isolation, affected only local government.].

[49] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 69 [The Court observed that it would "have an anomalous result" if the State could "avoid subvention under *County of Los Angeles* standards by imposing new obligations on the public and private sectors at the same time," while "if it chose to proceed by stages, extending such obligations first to private entities, and only later to local governments, it would have to pay."].

[50] California Constitution, article XI, section 9(a-b).

[51] *In re Bonds of Orosi Public Utility Dist*. (1925) 196 Cal. 43, 55 ["The adoption of the amendment definitely settled and removed all doubt from the question of the right of cities and towns to own and operate the kind of public utilities designated by the Constitution."].

[52] Health and Safety Code 116275(h); 40 Code of Federal Regulations, Part 141.80 et seq.

there are 6,970 water systems of various types operating in California, 5,314 of which (approximately 76 percent) are privately owned and operated, and 1,656 of which are public entities.[53]

Thus, the test claim order is but one of 1,128 permit amendments adopted near-simultaneously, more than a third of which were issued to privately owned PWSs, with the same requirements to perform lead sampling upon request of a school district.[54] Privately owned PWS's subject to lead testing requirements due to a permit amendment include mutual water companies organized under the Corporations Code;[55] and investor-owned utilities regulated under the Public Utilities Code.[56] Accordingly, this test claim is distinguishable from *Carmel Valley*, in which the court

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[53] Exhibit C, SWRCB's Comments on the Test Claim, pages 2; 455-457. However, the claimant argues, and SWRCB concedes, that the largest water systems are publicly owned, and therefore the majority of Californians are served by a publicly owned water system. (Exhibit C, SWRCB's Comments on the Test Claim, p. 2; Exhibit E, Claimant's Rebuttal Comments, p. 5.)

[54] Exhibit C, SWRCB's Comments on the Test Claim, pages 14, 819-14751. The SWRCB states that approximately 450 of the PWSs receiving the permit amendments are privately owned. (See, e.g., Exhibit C, SWRCB's Comments on the Test Claim, page 6481 [Permit Amendment Issued to East Pasadena Water Co.]; Exhibit X, List of Regulated Water and Sewer Utilities, California Public Utilities Commission, August 17, 2018, p. 5 [East Pasadena Water Co.].)

[55] Corporations Code section 14300 et seq.. See, e.g., Exhibit C, SWRCB Comments on the Test Claim, Permit Amendments issued to entities described as "mutual water company" or "mutual water association": pages 897 [Ali Mutual Water Co.]; 1053 [Aromas Hills Mutual Water Association]; 1092 [Arrowhead Villas Mutual Service Co.]; 1139 [Atascadero Mutual Water Co.]; 1153 [Averydale Mutual Water Co.]; 1340 [Bedel Mutual Water Co.]; 1392 [Bellflower-Somerset MWC]; 1414 [Best Road Mutual Water Co.]; 1427 [Beverly Grand Mutual Water]; 1623 [Box Springs Mutual Water Co.].

[56] See, Exhibit X, List of Regulated Water and Sewer Utilities, California Public Utilities Commission, August 17, 2018. See, e.g., Exhibit C, SWRCB Comments on the Test Claim, Permit Amendments issued to investor-owned utilities regulated by PUC: pages 1265 [Bakman Water Co.]; 1292 [Bass Lake Water Co.]; 1455 [Big Basin Water Co.]; 1862-1939 [California Water Service Company: King City, Las Lomas, Oak Hills, Salinas Hills, Salinas, Stockton]; 1940 [California American Water, Coronado]; 2105 [California Water Service, Bear Gulch]; 2133-2177 [California Water Service: East Los Angeles, Hermosa/Redondo; Palos Verdes]; 2193-2220 [California Water Service: Westlake, Los Altos Suburban]; 2240 [California Water Service, South San Francisco]; 2380-2414 [Cal-Water Service Co.: Chico, Hamilton City, Marysville, Oroville, Willows]; 2508 [Canada Woods Water Co.]; 2661 [Cazadero Water Co.]; 5956 [CWS Bakersfield]; 6034 [CWS Selma]; 6060-6098 [CWS: Visalia, Dixon, Livermore]; 6194-6214 [Del Oro Water Co.: Magalia, Paradise Pines, Stirling Bluffs]; 6481 [East Pasadena Water Co.]; 6541 [Easton Estates Water Co.]; 6725 [Erskine Creek Water Co.]; 7077 [Fruitridge Vista Water Co.]; 7192 [Golden State Water Co., Clearlake]; 7315 [Golden State Water Co., Wrightwood]; 7395 [Great Oaks Water Co.]; 7408 [Green Acres Mobile Home Estates]; 7880 [Havasu Water Co.]; 8078 [Hillview Water Co., Oakhurst/Sierra Lakes]; 8524 [Kenwood Village Water Co.]; 8866 [Lake Alpine Water Co.]; 9021 [Las Flores Water Co.]; 9270 Little Bear Water

noted that it did not have evidence in the record of the existence or prevalence of private fire-fighting teams or private fire personnel, but accepted it as a matter of judicial notice that the overwhelming majority of fire fighters discharge a governmental service.[57]

This Test Claim most closely resembles *County of Los Angeles II*.[58] In that case, earthquake safety regulations applied to all elevators, and affected the local government only insofar as the local entity operated buildings that contained working elevators.[59] Here, the test claim order affects the claimant only because the claimant provides drinking water through a PWS to K-12 schools within its service area, and those schools have requested testing.

Accordingly, the requirements of the test claim order are not uniquely imposed on local government.

b. <u>The test claim order does not impose a *governmental* function of providing a service to the public within the meaning of article XIII B, section 6.</u>

Staff finds that the test claim order does not impose a governmental function of providing a service to the public within the meaning of article XIII B, section 6 of the California Constitution.

As discussed above, the California Supreme Court in *County of Los Angeles* defined a program subject to article XIII B, section 6, as "*programs that carry out the governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state*."[60] The Court went on to explain that the intent underlying section 6 was to require reimbursement to local agencies for the *costs involved in carrying out functions peculiar to government*, not for expenses incurred by local agencies as an incidental impact of laws that apply generally to all state residents and entities."[61] On that basis, the Court reasoned that

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Co.]; 9426 Lukins Brothers Water Co.]; 9768 [Mesa Crest Water Co.]; 10082 [Mountain Mesa Water Co.]; 10217 Nacimiento Water Co.]; 10871 Penngrove Water Co.]; 10925 [Pierpoint Springs Water Co.]; 11066 [Point Arena Water Works]; 11478 [Rio Plaza Water Co.]; 11542 [Rolling Green Utilities]; 11803-11845 [San Gabriel Valley Water Co., El Monte, Montebello, Fontana]; 11915 [San Jose Water Co.]; 12959 [Southern California Edison Co., Santa Catalina]; 12975 [Spreckels Water Co.]; 13163-13213 [Suburban Water Systems, Covina, Glendora, La Mirada]; 14361 [Warring Water Service, Inc.]; 14411 [Weimar Water Co.]; 14426 [West San Martin Water Works, Inc.]; 14649 [Yerba Buena Water Co.].

[57] *Carmel Valley Fire Protection Dist. v. State of California* (1987) 190 Cal.App. 3d 521, 537.

[58] *County of Los Angeles v. Dept. of Industrial Relations* (1989) 214 Cal.App.3d 1538.

[59] *County of Los Angeles v. Dept. of Industrial Relations* (1989) 214 Cal.App.3d 1538, 1545.

[60] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56 (emphasis added).

[61] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 57.

workers compensation was not a governmental *program* at all, because it is not administered by local government and private and public employers have the same obligations under the law.[62]

In the years since, the courts have applied this test to *confirm* the existence of a *governmental* program within the meaning of article XIII B, section 6 to include the following: protective clothing and equipment for firefighters;[63] education of "handicapped" children;[64] reducing racial or ethnic segregation in public schools;[65] providing due process in expulsion proceedings in public schools;[66] and providing due process in disciplinary proceedings for peace officers employed by cities and counties.[67] In addressing fire protective clothing and equipment, the court observed that fire fighting is a "peculiarly governmental function," and that police and fire protection are "two of the most essential and basic functions of local government."[68] The same was echoed in *POBRA*, relative to the due process for city and county peace officer disciplinary proceedings.[69] *Lucia Mar*, *Long Beach*, and *San Diego Unified* all addressed alleged reimbursable mandates in the realm of education,[70] for which the governmental duty of a school district is clearly expressed in the California Constitution,[71] and for which the court in *Long Beach* expressly recognized that education is a "peculiarly governmental function," notwithstanding the existence of private schools.[72]

At the same time the courts have *rejected* mandate reimbursement in the following cases because they did *not* involve a *governmental function* of providing a service to the public: fire and

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[62] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 57-58.

[63] *Carmel Valley Fire Protection Dist. v. State of California* (1987) 190 Cal.App.3d 521.

[64] *Lucia Mar Unified School Dist. v. Honig* (1988) 44 Cal.3d 830.

[65] *Long Beach Unified School Dist. v. State of California* (1990) 225 Cal.App.3d 155.

[66] *San Diego Unified School Dist. v. Commission* (2004) 33 Cal.4th 859.

[67] *Department of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1355.

[68] *Carmel Valley Fire Protection Dist. v. State of California* (1987) 190 Cal.App.3d 521, 537 [citing *County of Sacramento v. Superior Court* (1972) 8 Cal.3d 479, 481; *Verreros v. City and County of San Francisco* (1976) 63 Cal.App.3d 86, 107].

[69] *Department of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1355, 1367 [An "ordinary, principal and mandatory duty" for cities and counties and some special districts to provide "policing services within their territorial jurisdiction."].

[70] *Lucia Mar Unified School Dist. v. Honig* (1988) 44 Cal.3d 830; *Long Beach Unified School Dist. v. State of California* (1990) 225 Cal.App.3d 155; *San Diego Unified School Dist. v. Commission* (2004) 33 Cal.4th 859.

[71] California Constitution, article IX, sections 2 [providing for a State Superintendent of Public Instruction]; 3 [providing for a Superintendent of Schools in each county]; 5 ["The Legislature shall provide for a system of common schools by which a free school shall be kept up and supported in each district at least six months in every year."].

[72] See *Long Beach Unified School Dist.* v. *State of California* (1990) 225 Cal.App.3d 155, 172.

earthquake safety features for elevators in buildings open to the public;[73] elimination of a government and nonprofit employer exemption from contributing to unemployment insurance;[74] awarding attorneys' fees against a local government under Code of Civil Procedure section 1021.5;[75] and the elimination of an exemption for local governments employing public safety workers from requirements to pay workers' compensation death benefits.[76] The cases disapproving reimbursement therefore involved either costs and activities related to public employees;[77] or generally-applicable laws that impacted local government but which were not a *governmental function* or unique to government (i.e., the award of attorneys' fees for litigants successful against local govenrment, and the applicability of elevator safety regulations in public buildings).[78]

Unlike *Carmel Valley*, *Lucia Mar*, *Long Beach*, *San Diego Unified*, and *POBRA*, the test claim order in this case does not involve an essential and *peculiarly governmental* function.[79] The test claim order here relates to the provision of drinking water through a PWS, which is fundamentally distinct from the other examples discussed above: providing water service for a fee –a traditionally a proprietary function – to ratepayers, is far different from a city or county providing police or fire protection, or tax administration or mental hospital care, or from school districts providing a free and appropriate public education, to all residents of the jurisdiction regardless of their ability to pay.

Furthermore, as noted above, there is no legal requirement for local agencies to be involved in providing water, nor historical predominance of local agencies in this area. Article XI, section 9 of the California Constitution provides that a municipal corporation *may* be established to operate public works to furnish light, water, power, heat, transportation, or means of communication, or, *private persons or corporations* may also establish and operate works for those same purposes "upon conditions and under regulations that the city may prescribe…"[80] The courts have interpreted article XI, section 9 to provide *authority* to provide public utilities,

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[73] *County of Los Angeles v. Department of Industrial Relations* (1989) 214 Cal.App.3d 1538.

[74] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51.

[75] *County of Fresno v. Lehman* (1991) 229 Cal.App.3d 340.

[76] *City of Richmond v. Commission on State Mandates* (1998) 64 Cal.App.4th 1190.

[77] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51; *City of Richmond v. Commission on State Mandates* (1998) 64 Cal.App.4th 1190. See also, *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46.

[78] *County of Los Angeles v. Department of Industrial Relations* (1989) 214 Cal.App.3d 1538; *County of Fresno v. Lehman* (1991) 229 Cal.App.3d 340.

[79] See, e.g., *Carmel Valley Fire Protection Dist. v. State of California* (1987) 190 Cal.App.3d 521, 537; *Department of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1355, 1367; *Long Beach Unified School Dist.* v. *State of California* (1990) 225 Cal.App.3d 155, 172.

[80] California Constitution, article XI, section 9(a-b).

but not a *duty*.[81] As noted, SWRCB provides evidence that there are 6,970 water systems currently operating in California, 5,314 of which are privately owned and operated, and 1,656 of which are public entities.[82] And, as many as two million Californians "are served either by the estimated 250,000 to 600,000 private domestic wells, or by water systems serving fewer than 15 service connections.[83] Thus, the provision of drinking water through a PWS is not only not necessary in all cases and in all parts of the State, it is also an activity and function that, where necessary or expedient, can be fulfilled by a private person or corporation.[84] It bears repeating that the term "public water system" does not mean a water system owned or operated by a governmental entity; a "public water system" is defined only by the number of connections.[85] Neither the California SDWA, nor federal regulations, defines these entities any differently whether owned and operated by a public entity or by a private person or corporation.

The Claimant challenges SWRCB's evidence that approximately 75 percent of water systems throughout the state are privately owned or operated. The claimant states that the same data provided by SWRCB "demonstrate that public agencies serve 81% of people in the State who have drinking water service."[86] The claimant argues that the number of people statewide receiving drinking water from a publicly owned utility "is strong evidence that water service is a governmental function, more persuasive than the fact that small, privately owned water systems outnumber large, publicly owned systems."[87]

However, the relative number of *persons* served by privately or publicly owned water systems is not persuasive evidence that water service is a governmental function; the majority of persons served by publicly owned water systems is merely a function of the size and capacity of the publicly owned systems, and presumably also a more dense and urbanized ratepayer/customer base.[88] In addition, as many as two million California residents still rely on private domestic wells or water systems with fewer than 15 service connections for their drinking water, rather

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[81] *Glenbrook Development Co. v. City of Brea* (1967) 253 Cal.App.2d 267, 275.

[82] Exhibit C, SWRCB's Comments on the Test Claim, page 2. See also, Exhibit C, SWRCB's Comments on the Test Claim, pages 455; 457 [Listing the number of public and private water systems, respectively, governed by each county and water district].

[83] Exhibit X, *A Guide for Private Domestic Well Owners*, California State Water Resources Control Board Groundwater Ambient Monitoring and Assessment (GAMA) Program, March 2015, page 6.

[84] See California Constitution, article XI, section 9(b); Corporations Code section 14300 et seq.

[85] A public water system is defined as having 15 or more service connections, serving 25 or more persons at least 60 days out of the year.

[86] Exhibit E, Claimant's Rebuttal Comments, page 5.

[87] Exhibit E, Claimant's Rebuttal Comments, page 5.

[88] Exhibit C, SWRCB's Comments on the Test Claim, page 2.

than a PWS.[89] The specific requirements of this test claim order apply beyond local government entities, as discussed above; the requirements apply to any and every PWS that decides to supply water and serves at least one K-12 school. Subtantial evidence has been presented that as many as one-third of affected entities are privately held or operated.[90]

Finally, the claimant argues that the "program" at issue in this Test Claim is not providing water through a PWS at all; rather "[t]he lead testing program in the Permit Amendment carries out a…governmental function of ensuring safe schools."[91] Staff disagrees.

A PWS has no duty to ensure safe schools, as alleged by the claimant; the schools maintain and exercise that duty with their request for lead testing. The claimant, and other public entities operating water systems that serve K-12 schools, are subject to the test claim order by virtue of their decision to provide water. Like maintaining elevators, providing water is not a *governmental* function, as explained in the above analysis.

Therefore, the test claim order does not impose a *governmental* function of providing a service to the public within the meaning of article XIII B, section 6 of the California Constitution.

SWRCB asserts that local governments act in either a "governmental" or "public" capacity, or a "corporate" or "private" capacity, and that the same distinction used to determine whether sovereign immunity attached to a particular action is consistent with, and provides an analogy to, the concept of a governmental function or "program" in the mandates context.[92]

The claimant argues, to the contrary, that essentially any service that a local government has authority to provide, or any activity that local government may engage in under its police power, is a local government function, and that the distinction between governmental and "proprietary" or "corporate" activity is no longer a useful determinant: "Water service provided by public agencies no longer carries the indicia of a proprietary function or private enterprise due to Proposition 218…, which eliminates profit from water service charges."[93] The claimant cites authority that it maintains undermines the usefulness of the distinction: in *Pacific Telephone & Telegraph Company v. Redevelopment Agency of the City of Redlands* the court held that "[t]he labels 'governmental function' and 'proprietary function' are of dubious value in terms of legal

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[89] Exhibit C, SWRCB's Comments on the Test Claim, page 2; Exhibit X, *A Guide for Private Domestic Well Owners*, California State Water Resources Control Board Groundwater Ambient Monitoring and Assessment (GAMA) PRogram, March 2015, page 6.

[90] See Exhibit E, Claimant's Rebuttal Comments, pages 34-35 [SWRCB Media Release, January 17, 2017 ("The Board is requiring all community water systems to test school drinking water upon request by the school's officials.")]; Exhibit C, SWRCB's Comments on the Test Claim, page 2. See also, Exhibit C, SWRCB's Comments on the Test Claim, pages 455; 457 [Listing the number of public and private water systems, respectively, governed by each county and water district]

[91] Exhibit E, Claimant's Rebuttal Comments, page 6.

[92] Exhibit C, SWRCB's Comments on the Test Claim, page 12.

[93] Exhibit E, Claimant's Rebuttal Comments, page 5.

analysis in any context."[94] The court went on to say that the distinction, developed for and applied in government tort claims, was "manifestly unsatisfactory" and "operated both 'illogically' and 'inequitably.'"[95] In *Northeast Sacramento County Sanitation District v. Northridge Park County Water District of Sacramento County*, also cited by the claimant, the court stated broadly that anything local government is authorized to do "constitutes a function of government, and when a municipality acts pursuant to granted authority it acts as government and not as a private entrepreneur."[96]

First, staff disagrees that Proposition 218 has any bearing on whether water service is a "governmental" function. Imposition of additional limitations on fee authority when a governmental entity undertakes an activity has no bearing on the nature of the activity. Furthermore, the comparison is poor: a private utility entity is hardly an unfettered profit generator, because it is required by law to charge only rates that are just and reasonable, subject to the regulation and control of the Public Utilities Commission.[97] In short, the limitations of Proposition 218, applicable to a publicly owned PWS, do not alter the fundamental nature of the service or function being provided.

More importantly, while the cases cited by the claimant discount the value of the distinction between *governmental* and *proprietary* or *corporate* functions,[98] they are decided on grounds other than the nature of the service provided. In both cases the court is weighing the rights of a utility (in *Northeast Sacramento* an apparent publicly owned utility) to place its service lines along or under a public roadway, against the power of a public agency to force relocation of those service lines at the utility's expense.[99] This makes the applicability of the cited language

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[94] *Pacific Telephone & Telegraph Company v. Redevelopment Agency of the City of Redlands* (1977) 75 Cal.App.3d 957, 968.

[95] *Pacific Telephone & Telegraph Company v. Redevelopment Agency of the City of Redlands* (1977) 75 Cal.App.3d 957, 968.

[96] *Northeast Sacramento County Sanitation District v. Northridge Park County Water District of Sacramento County* (1966) 247 Cal.App.2d 317, 325.

[97] See Public Utilities Code 451; 454; 728 ["Whenever the commission, after a hearing, finds that the rates or classifications, demanded, observed, charged, or collected by any public utility for or in connection with any service, product, or commodity, or the rules, practices, or contracts affecting such rates or classifications are insufficient, unlawful, unjust, unreasonable, discriminatory, or preferential, the commission shall determine and fix, by order, the just, reasonable, or sufficient rates, classifications, rules, practices, or contracts to be thereafter observed and in force."].

[98] *Pacific Telephone & Telegraph Company v. Redevelopment Agency of the City of Redlands* (1977) 75 Cal.App.3d 957, 968; *Northeast Sacramento County Sanitation District v. Northridge Park County Water District of Sacramento County* (1966) 247 Cal.App.2d 317, 325.

[99] *Pacific Telephone & Telegraph Company v. Redevelopment Agency of the City of Redlands* (1977) 75 Cal.App.3d 957, 961-961; *Northeast Sacramento County Sanitation District v. Northridge Park County Water District of Sacramento County* (1966) 247 Cal.App.2d 317, 318.

to the mandates context suspect, at best. And, in each case, the claimant has selectively quoted language that undermines the *governmental* versus *proprietary* distinction, despite contrary language in the same opinion.[100] In addition, *neither* court finds the distinction to be dispositive of the issues.[101]

And, in 1967, the year after *Northeast Sacramento*, the Fourth District Court of Appeal decided *Glenbrook Development Co*.[102] As discussed above, the court in *Glenbrook Development Co.* found that that cities have no legal duty to provide water to their citizens, and reiterated and endorsed the view that "service of water by a city is a proprietary function."[103]

Thus, these cases overwhelmingly support the conclusion that the test claim order does not impose a *governmental* function of providing a service to the public within the meaning of article XIII B, section 6, and the cases cited by the claimant on this point are not relevant to the new program or higher level of service issue here and are dicta,[104] at best.

Staff finds further that the Service Duplication Law, Public Utilities Code section 1501 et seq., provides a remedy to protect the investment of privately owned utilities providing water service, and to mitigate the deterrent effect of potential eminent domain. And, while sections 1503 and 1504 of the Public Utilities Code may have become necessary due to a pattern of municipalities extending duplicative service in certain areas and thus undermining the value of privately owned

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[100] *Pacific Telephone & Telegraph Company v. Redevelopment Agency of the City of Redlands* (1977) 75 Cal.App.3d 957, 969 ["Under traditional tests, such enterprises were uniformly treated as being proprietary in nature."]; *Northeast Sacramento County Sanitation District v. Northridge Park County Water District of Sacramento County* (1966) 247 Cal.App.2d 317, 325 ["…as we have seen a district furnishing a domestic water supply is said to be performing a proprietary act."].

[101] *Pacific Telephone & Telegraph Company v. Redevelopment Agency of the City of Redlands* (1977) 75 Cal.App.3d 957, 968 ["A utility's right to compensation should depend, not on whether municipal activity is 'governmental' or 'proprietary,' but on whether compensation has been required by the Legislature, or whether there has been a constitutionally compensable taking or damaging of a valuable property right."]; 970 ["PT&T's contention that it is entitled to compensation on the theory that the city and the agency were acting in a proprietary capacity is without merit."]; *Northeast Sacramento County Sanitation District v. Northridge Park County Water District of Sacramento County* (1966) 247 Cal.App.2d 317, 325 [To maintain the 'governmental versus proprietary function' as a test in the determination of relocation cost allocation is no less specious."].

[102] *Glenbrook Development Co. v. City of Brea* (1967) 253 Cal.App.2d 267.

[103] *Glenbrook Development Co. v. City of Brea* (1967) 253 Cal.App.2d 267, 275 ["In supplying water to its inhabitants, a municipality acts in the same capacity as a private corporation engaged in a similar business, and not in its sovereign role."].

[104] "Dicta" is a legal term which is short for "obiter dictum" which in Latin means "something said in passing" and is a comment made while delivering a judicial opinion, but is unnecessary to the decision in the case and therefore not precedential.

facilities or equipment, there is no indication that there was any intent of the Legislature to make the service of water a governmental rather than proprietary function, as the claimant seems to imply. Indeed the acknowledgement of a deterrent effect on private water suppliers and the statutory requirement of compensation suggests that the Legislature believed that private utility companies serving water in areas of the State would continue to be necessary into the future, and for that reason their investments should be protected, lest private entities choose not to offer such services in the first instance. The courts have observed that this is especially important with respect to water utilities.[105] Without the Service Duplication Law, infringement on the service area of a private water utility, and the potential loss of business, might not be compensable at all, unless the facilities and equipment were fully acquired by eminent domain.[106] The Service Duplication Law, in short, is a Legislative innovation designed to protect the viability of private water utilities, in recognition of their long term necessity to provide water in certain areas of the State.

Accordingly, case law distinguishing between proprietary and governmental functions, and the "Service Duplication Law" support the finding that the test claim order does not impose a *governmental* function of providing a service to the public within the meaning of article XIII B, section 6.

Conclusion

Based on the forgoing analysis, staff finds that:

- The Test Claim is timely filed;
- The test claim order, Permit Amendment No. 2017 PA-SCHOOLS, issued to the City of San Diego Public Water System, imposes new requirements on the claimant which are identical to the requirments imposed on over 1,000 publicly and privately owned operators of public water systems though their Permit Amendments.
- The requirements imposed by the test claim order are not mandated by the state, but are triggered by a local decision to provide water service and operate as a public water system.
- The new requirements of the test claim order do not constitute a new program or higher level of service, within the meaning of article XIII B, section 6, because the requirements are not uniquely imposed on government, and do not impose a governmental function of providing services to the public.

Based on this conclusion, no findings are made on whether the test claim order results in increased costs mandated by the state within the meaning of Government Code sections 17514 and 17556.

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[105] *Cucamonga County Water Dist. v. Southwest Water Co.* (1971) 22 Cal.App.3d 245, 259 ["The special importance attached to efficient and economical use and distribution of water in the arid western states, and the provision of the California Constitution that the use of all water is subject to regulation by the State (Cal.Const. Art. XIV) justifies the classification under consideration here."]

[106] *Cucamonga County Water Dist. v. Southwest Water Co.* (1971) 22 Cal.App.3d 245, 259

Staff Recommendation

Staff recommends that the Commission adopt the Proposed Decision to deny the Test Claim and authorize staff to make any technical, non-substantive changes to the Proposed Decision following the hearing.

BEFORE THE

COMMISSION ON STATE MANDATES

STATE OF CALIFORNIA

IN RE TEST CLAIM Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017 Filed on January 11, 2018 City of San Diego, Claimant	Case No.: 17-TC-03 *Lead Sampling in Schools: Public Water System No. 3710020* DECISION PURSUANT TO GOVERNMENT CODE SECTION 17500 ET SEQ.; CALIFORNIA CODE OF REGULATIONS, TITLE 2, DIVISION 2, CHAPTER 2.5, ARTICLE 7. (*Adopted March 22, 2019*)

DECISION

The Commission in State Mandates (Commission) heard and decided this Test Claim during a regularly scheduled hearing on March 22, 2019. [Witness list will be included in the adopted Decision.]

The law applicable to the Commission's determination of a reimbursable state-mandated program is article XIII B, section 6 of the California Constitution, Government Code sections 17500 et seq., and related case law.

The Commission [adopted/modified] the Proposed Decision to [approve/partially approve/deny] the Test Claim by a vote of [vote will be included in the adopted Decision], as follows:

Member	**Vote**
Lee Adams, County Supervisor	
Ken Alex, Director of the Office of Planning and Research	
Mark Hariri, Representative of the State Treasurer, Vice Chairperson	
Sarah Olsen, Public Member	
Carmen Ramirez, City Council Member	
Yvette Stowers, Representative of the State Controller	
Jacqueline Wong-Hernandez, Representative of the Director of the Department of Finance, Chairperson	

Summary of the Findings

This Test Claim alleges new state-mandated activities and costs arising from an amendment to the City of San Diego's (claimant's) public water system (PWS) permit adopted by the State Water Resources Control Board (SWRCB), Order No. 2017PA-SCHOOLS. The test claim order requires the claimant, as the operator of a "public water system"[107] that serves a number of K-12 schools, to perform lead sampling, upon request. A PWS may be a private company or a governmental .[108]. Specifically, a PWS is defined as "a system for the provision *to the public* of water for human consumption" that has at least 15 service connections and serves at least 25 people per day for at least 60 days out of the year.[109] Under the order, upon request, the PWS must take samples at one to five fixtures (e.g., drinking fountains or food preparation areas) on the school's property, process those results with a certified laboratory, maintain records of the requests and the results, and provide the results, and if necessary, information to the school regarding possible remediation or other solutions if lead is detected in the fixtures above 15 parts per billion (ppb).

The Commission finds that the Test Claim is timely filed.

The Commission further finds that the activities required by the order are new, as compared against prior state and federal law. However, the requirements of the test claim order are not mandated by the state, and do not impose a new program or higher level of service, within the meaning of article XIII B, section 6. First, the provision of water service as a PWS is not mandated by the state and is understaken by a discretionary decision of the City.[110] In addition, he requirements are not uniquely imposed on local government, because the Test Claim Order is one of over 1,100 PWS permits amended simultaneously with identical requirements

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[107] These systems are also known as "community water systems" which are PWSs that supply water to the same population year-round. (See Health and Safety Code section 116275(i).) The reader may find these two terms used interchangeably in some of the supporting documentation in the record.

[108] 42 United States Code, section 300f(4): "The term "public water system" means a system for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at least fifteen service connections or regularly serves at least twenty-five individuals." (Emphasis added.) Also, "the term "supplier of water" means any person who owns or operates a public water system." (42 United States Code, section 300f(5).) Further, "the term "person" means an individual, corporation, company, association, partnership, State, municipality, or Federal agency (and includes officers, employees, and agents of any corporation, company, association, State, municipality, or Federal agency)." (42 United States Code, section 300f(12).) California law is consistent: '"Public water system" means a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year." (Health and Safety Code 116275(h).)

[109] Health and Safety Code section 116275(h).

[110] Department of Finance v. Commission on State Mandates (2003) 30 Cal.4th 727

approximately 450 of which were issued to privately-owned and operated drinking water suppliers. Moreover, water service is not a *governmental* function of providing services to the public because providing water service is not required by state or federal law and is not a core function of government, water service is different in character from providing police or fire protection, or education and this finding is further supported by the case law demonstrating that it is a proprietary function. Thus the order does not constitute a governmental "program," nor does it impose requirements uniquely upon local government. For these reasons, the Commission finds that the test claim order does not constitute a reimbursable state-mandated program within the meaning of article XIII B, section 6 of the California Constitution, and denies this Test Claim.

COMMISSION FINDINGS

I. Chronology

01/18/2017	Permit Amendment No. 2017PA-SCHOOLS for City of San Diego PWS 3710020 was adopted by SWRCB, Division of Drinking Water.[111]
01/11/2018	The claimant filed the Test Claim.[112]
04/13/2018	The Test Claim was deemed complete and issued for comment, along with a request that SWRCB provide a copy of its administrative record for the adoption of the permit amendment.
04/23/2018	SWRCB requested an extension of time to file comments and to provide its administrative record.
05/11/2018	The Department of Finance (Finance) requested an extension of time to comment.
06/11/2018	SWRCB requested a second extension of time to file comments and to provide its administrative record, and a postponement of the hearing.
06/25/2018	Finance requested a second extension of time to comment.
08/13/2018	SWRCB filed comments on the Test Claim and provided its administrative record.[113]
08/13/2018	Finance filed comments on the Test Claim.[114]
08/29/2018	The claimant requested an extension of time to file rebuttal comments.
10/18/2018	The claimant requested a second extension of time to file rebuttal comments.

[111] Exhibit A, Test Claim, page 14.

[112] Exhibit A, Test Claim.

[113] Exhibit B, Administrative Record on Permit Amendment No. 2017PA-SCHOOLS; Exhibit C, SWRCB's Comments on the Test Claim.

[114] Exhibit D, Finance's Comments on the Test Claim.

11/09/2018 The claimant filed its rebuttal comments.[115]

12/21/2018 Commission staff issued the Draft Proposed Decision.[116]

II. Background

The test claim order is one of over 1,100 permit amendments simultaneously issued to privately and publicly owned "public water systems," (PWSs) requiring each to test for lead in the drinking water connections of every K-12 school that it serves and that requests testing at no charge to the school from January 11, 2017 until November 1, 2019.

A. Lead as an Environmental Health Risk

Lead is toxic and has "no known value to the human body."[117] Young children "are at particular risk for lead exposure because they have frequent hand-to-mouth activity and absorb lead more easily than do adults."[118] No safe blood lead level has been determined; lead damages almost every organ and system in the body, including and especially the brain and nervous system.[119] Low levels of lead exposure can lead to reduced IQ and attention span, learning disabilities, poor classroom performance, hyperactivity, behavioral problems, impaired growth and hearing loss.[120] Higher lead levels can cause severe neurological problems and ultimately death.[121]

Though a naturally occurring metal found all over the Earth, "[e]nvironmental levels of lead have increased more than 1,000-fold over the past three centuries as a result of human activity."[122] Because lead is "widespread, easy to extract and easy to work with, lead has been used in a wide variety of products," including paints, ceramics, plumbing, solder, gasoline, batteries, and cosmetics.[123] In 1984, burning leaded gasoline was the largest source of lead emissions in the air, and so the Environmental Protection Agency (EPA) phased out and

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[115] Exhibit E, Claimant's Rebuttal Comments.

[116] Exhibit F, Draft Proposed Decision.

[117] Exhibit B, Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, page 163 [USEPA: 3Ts for Reducing Lead in Drinking Water in Schools, p. 6].

[118] Exhibit B, Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, page 163 [USEPA: 3Ts for Reducing Lead in Drinking Water in Schools, p. 6].

[119] Exhibit B, Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, page 163 [USEPA: 3Ts for Reducing Lead in Drinking Water in Schools, p. 6].

[120] Exhibit B, Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, page 163 [USEPA: 3Ts for Reducing Lead in Drinking Water in Schools, p. 6].

[121] Exhibit B, Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, page 163 [USEPA: 3Ts for Reducing Lead in Drinking Water in Schools, p. 6].

[122] Exhibit X, Public Health Statement: Lead, Agency for Toxic Substances and Disease Registry, August 2007, page 2.

[123] Exhibit X, National Institutes of Health, Lead Information Home Page, page 1.

eventually banned leaded gasoline.[124] U.S. EPA and other agencies have "taken steps over the past several decades to dramatically reduce new sources of lead in the environment; according to the U.S. EPA, "[t]oday, the greatest contributions of lead to the environment stem from past human activities."[125] Sources include: lead-based paint; lead in the air from industrial emissions; lead in the soil around roadways and streets from past emissions by automobiles using leaded gasoline, and from deposits of lead dust from paints; industrial lead byproducts; consumer products, including imported dishes, toys, jewelry and plastics; and lead in drinking water leaching from corrosion of plumbing products containing lead.[126]

Lead exposure in drinking water results from either lead being present in the source water, such as from contaminated runoff; or through the interaction of water with plumbing materials containing lead.[127] Although "very little lead is found in lakes, rivers, or groundwater used to supply the public with drinking water," the drinking water in older houses and communities with lead service lines or lead plumbing can contain lead, "especially if the water is acidic or 'soft.'"[128] The concern with lead plumbing and fixtures is lead leaching into the water that runs through them, but "as buildings age, mineral deposits form a coating on the inside of the water pipes that insulates the water from lead in the pipe or solder, thus reducing the amount of lead that can leach into the water."[129] Those stabilizing mineral deposits, however, can be upset by acidity in the water supply: "Acidic water makes it easier for the lead found in pipes, leaded solder, and brass faucets to be dissolved and to enter the water we drink."[130] Accordingly, the primary regulatory approach, as discussed below, is to require water systems to prioritize monitoring, and to implement and maintain corrosion control treatment to minimize toxic metals leaching into water supplies.

To potentially close some of the gaps in lead exposure prevention, the California Legislature in 1992 enacted the Lead-Safe Schools Protection Act,[131] which acknowledged the potential

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[124] Exhibit X, Public Health Statement: Lead, Agency for Toxic Substances and Disease Registry, August 2007, page 4.

[125] Exhibit B, Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, page 163 [USEPA: 3Ts for Reducing Lead in Drinking Water in Schools, p. 6].

[126] Exhibit B, Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, pages 163-164 [USEPA: 3Ts for Reducing Lead in Drinking Water in Schools, pp. 6-7].

[127] Exhibit B, Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, page 164 [USEPA: 3Ts for Reducing Lead in Drinking Water in Schools, p. 7].

[128] Exhibit X, Public Health Statement: Lead, Agency for Toxic Substances and Disease Registry, August 2007, pages 3-4.

[129] Exhibit X, Public Health Statement: Lead, Agency for Toxic Substances and Disease Registry, August 2007, page 4.

[130] Exhibit X, Public Health Statement: Lead, Agency for Toxic Substances and Disease Registry, August 2007, page 4.

[131] Education Code section 32240 et seq.

dangers of lead exposure, especially in children, and required the State Department of Health Services to assess the risk factors of schools and "determine the likely extent and distribution of lead exposure to children from paint on the school, soil in play areas at the school, drinking water at the tap, and other potential sources identified by the department for this purpose.[132] The Act did not specifically require testing of drinking water, but only required the Department to assess risk factors, of which drinking water was one.

B. Prior Law on Drinking Water

1. Federal Law

In 1974 Congress passed the federal Safe Drinking Water Act (SDWA), authorizing U.S. EPA to set health-based standards for drinking water supplies, which U.S. EPA, the states, and drinking water systems work together to meet.[133] The Safe Drinking Water Act applies to all "public water systems," which may be privately owned or governmental and, which are defined as "a system for the provision to the public of water for human consumption" that has at least 15 service connections and serves at least 25 people per day for at least 60 days out of the year.[134] U.S. EPA states that there are over 170,000 public water systems providing drinking water to Americans, to which the Act applies.[135]

Under authority provided in the federal Act, U.S. EPA promulgated health-based standards for lead and copper in drinking water, known as the federal Lead and Copper Rule (LCR).[136] The federal action level "is exceeded if the concentration of lead in more than 10 percent of tap water samples collected during any monitoring period…is greater than 0.015 mg/L [15 ppb]."[137] The number of samples required depends on the size of the drinking water system, and any history of prior exceedances.[138] The primary mechanisms described in the LCR to control and minimize lead in drinking water are "optimal corrosion control treatment," which includes monitoring and adjusting the chemistry of drinking water supplies to prevent or minimize corrosion of lead or copper plumbing materials; source water treatment; replacement of lead service lines; and public

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[132] Education Code section 32242.

[133] Exhibit X, *Understanding the Safe Drinking Water Act*, EPA publication, June 2004, page 1 (available at https://www.epa.gov/sites/production/files/2015-04/documents/epa816f04030.pdf).

[134] 42 U.S.C. § 300f(4).

[135] Exhibit X, *Understanding the Safe Drinking Water Act*, EPA publication, June 2004, page 2 (available at https://www.epa.gov/sites/production/files/2015-04/documents/epa816f04030.pdf).

[136] Title 40, Code of Federal Regulations, section 141.80 et seq.

[137] Title 40, Code of Federal Regulations, section 141.80(c).

[138] See Exhibit X, Lead and Copper Rule: A Quick Reference Guide, U.S. EPA publication June 2008, page 1 [Chart showing the number of sample sites required under standard sampling or reduced sampling, according to the size of the drinking water system].

education.[139] The LCR also includes monitoring and reporting requirements for public water systems.[140]

2. California Law

The California Safe Drinking Water Act addresses drinking water quality specifically and states the policy that "[e]very resident of California has the right to pure and safe drinking water," and that "[i]t is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases."[141] These provisions do not provide a right to the delivery of water, but merely provide that drinking water delivered by a PWS must be of a certain quality, and reasonably free of pollutants, to the extent feasible. The Act goes on to state:

> (e) This chapter is intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable. This chapter provides the means to accomplish this objective.
>
> (f) It is the intent of the Legislature to improve laws governing drinking water quality, to improve upon the minimum requirements of the federal Safe Drinking Water Act Amendments of 1996, to establish primary drinking water standards that are at least as stringent as those established under the federal Safe Drinking Water Act, and to establish a program under this chapter that is more protective of public health than the minimum federal requirements.
>
> (g) It is further the intent of the Legislature to establish a drinking water regulatory program within the state board to provide for the orderly and efficient delivery of safe drinking water within the state and to give the establishment of drinking water standards and public health goals greater emphasis and visibility within the state.[142]

Article XI, section 9 of the California Constitution makes clear that drinking water may be provided either by a municipal corporation, or by another person or corporate entity.[143] SWRCB

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[139] Exhibit C, SWRCB's Comments on the Test Claim, page 6; Title 40, Code of Federal Regulations, section 141.80(d-g).

[140] Title 40, Code of Federal Regulations, sections 141.86 – 141.91.

[141] Health and Safety Code section 116270.

[142] Health and Safety Code section 116270.

[143] California Constitution, article XI, section 9 [Article XI, section 9(a) provides that "[a] municipal corporation *may* establish, purchase, and operate public works to furnish its inhabitants with light, water, power, heat, transportation, or means of communication." Article XI, section 9(b) also provides that "[p]ersons or corporations may establish and operate works for supplying those services upon conditions and under regulations that the city may prescribe under its organic law." Article XII asserts government regulatory authority, via the Public Utilities Commission, over "private corporations or persons that own, operate, control, of manage a line, plant, or system for …the production, generation, transmission, or furnishing of

issues drinking water supply permits to all California "public water systems," which may be privately or government owned and which are defined the same as under the federal Act as "a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year."[144]

The courts have called the California SDWA "a remedial act intended to protect the public from contamination of its drinking water."[145] Accordingly, the Act does not create affirmative rights, including rights to the delivery of water: the only mandatory duty on local government is to review on a monthly basis water quality monitoring data submitted to the local government by water suppliers within its jurisdiction in order to detect exceedances of water quality standards.[146] Nothing in the Act requires state or local government to assume responsibility to ensure that every resident of California receives water from a public water system, or to test or monitor the public water systems within its jurisdiction, or take corrective or enforcement actions when pollutants are detected. The focus of the Act is "to ensure that the water *delivered* by public water systems of this state shall at all times be pure, wholesome, and potable,"[147] and the monitoring and corrosion control requirements are aimed at the water systems themselves, whether publicly or privately owned.

The State has also adopted a Lead and Copper Rule, substantially similar to the federal rule, which requires all operators of drinking water systems to monitor and sample at a number of sample sites determined by the size of the system, primarily residential sample sites.[148] If lead levels above 0.015 mg/L (15 ppb) are detected, the water system is expected to take corrective action, beginning with corrosion control treatment measures, then source water treatment, lead service line replacement, and public education.[149] Approximately 500 schools within California are themselves permitted as a "public water system," because they have their own water supply,

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heat, light, water, power, storage, or wharfage directly or indirectly to or for the public…" However, nothing in article XI or XII creates or implies a right to the delivery of any such services, or any mandatory duty on local government to provide such services.]

[144] Health and Safety Code sections 116525, 116271(k) [Before July 1, 2014, the Department of Public Health issued such permits; however, Statutes 2014, chapter 35 transferred those duties to the SWRCB, effective July 1, 2014];"Public Water Systems" are defined in Health and Safety Code section 116275(h) and 42 U.S.C. § 300f(4).

[145] *Coshow v. City of Escondido* (2005) 132 Cal.App.4th 687, 704.

[146] *Guzman v. County of Monterey* (2009) 178 Cal.App.4th 983, 989.

[147] Health and Safety Code section 116270(e) (emphasis added).

[148] See California Code of Regulations, title 22, section 64670 et seq.; Exhibit C, SWRCB's Comments on the Test Claim, pages 5-6; California Code of Regulations, title 22, section 64676 [Sample Site Selection].

[149] See, e.g., California Code of Regulations, title 22, section 64673 [Describing monitoring and corrosion control measures to be taken if an elevated lead level is detected].

such as a well.[150] Those entities also are required to test their taps for lead and copper under the LCR; however, most schools are served by community water systems that are not required to test for lead specifically at the school's taps.[151]

C. The Test Claim Permit Amendment

Both the federal and state law and regulations have long required drinking water systems to monitor a sample of their customers' water supplies for exceedances and to take corrective action as necessary. However, that monitoring has been mostly limited to residential service connections, as a proxy for the presence of lead within the greater drinking water system.[152]

In September 2015, the Legislature passed SB 334 as a potential solution to the gap in regulation, which would have, had it been enacted, required school districts with water sources or drinking water supplies that do not meet U.S. EPA standards to close access to those drinking water sources; provide alternative drinking water sources if the school did not have the minimum number of drinking fountains required by law; and to provide access to free, fresh, and clean drinking water during meal times in the food service areas of the schools under its jurisdiction.[153] SB 334 was vetoed by the Governor, whose veto message expressed concern that the bill would create a very expensive reimbursable state mandate.[154] The veto message instead directed the SWRCB to examine the scope of the potential problem by incorporating water quality testing in schools as part of the state's LCR.[155]

Accordingly, SWRCB adopted the Permit Amendment (the test claim order) at issue here, as well as over 1,100 nearly identical (but for the individual PWS information) permit amendments for other drinking water systems serving K-12 schools. Specifically, the test claim order requires the claimant to submit to the Division of Drinking Water (DDW) a list of all K-12 schools served water through a utility meter; and then, if requested by any school within its service area, the drinking water system shall:

- Respond in writing within 60 days and schedule a meeting;

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[150] Exhibit X, *Frequently Asked Questions by Public Water Systems about Lead Testing of Drinking Water in California Schools*, California Water Boards, March 30, 3018, page 2.

[151] Exhibit X, *Frequently Asked Questions by Public Water Systems about Lead Testing of Drinking Water in California Schools*, California Water Boards, March 30, 3018, page 2.

[152] Exhibit C, SWRCB's Comments on the Test Claim, page 6 ["Together, the sampling sites provide an overall picture of lead levels in the water customers are consuming – the assumption being that the houses and other facilities near sampling sites will have similar plumbing characteristics and, therefore, similar amounts of lead in tap water."

[153] Exhibit B, Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, page 148 [SB 334, Legislative Counsel's Digest].

[154] Exhibit B, Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, page 145 [Governor's Veto Message].

[155] Exhibit B, Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, page 145 [Governor's Veto Message].

- Finalize a sampling plan and complete initial sampling within 90 days, or develop an alternative time schedule if necessary;
- Collect one to five samples from drinking fountains, cafeteria/food preparation areas, or reusable bottle filling stations;
- Collect samples on a Tuesday, Wednesday, Thursday, or Friday on a day when school is in session;
- Submit samples to an ELAP certified laboratory;
- Within two business days of a result that shows an exceedance of 15 parts per billion (ppb), notify the school of the sample result;
- If an initial sample shows an exceedance of 15 ppb:
    - Collect an additional sample within 10 business days, unless the sample site is removed from service by the school;
    - Collect a third sample within 10 business days if the resample is less than or equal to 15 ppb;
    - Collect at least one more sample at a site where the school has completed some corrective action;
- Ensure the water system receives the results of repeat samples no more than 10 business days after the date of collection;
- Do not release lead sampling data to the public for 60 days, unless in compliance with a Public Records Act request;
- Discuss the results with the school prior to releasing the results to the public.[156]

Finally, the order states that the water system may not use any lead samples collected under the order to satisfy federal or state LCR requirements; the water system must keep records of all schools requesting testing or lead-related assistance and provide those records to DDW upon request; and the water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.[157]

III. Positions of the Parties

A. <u>City of San Diego</u>

The claimant alleges that the test claim order required the claimant to perform lead testing, at no charge, on the property of all schools that receive water from the claimant's public water system, upon request.[158]

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[156] Exhibit A, Test Claim, pages 105-107 [Permit Amendment No. 2017-PASCHOOLS, pp. 2-4].

[157] Exhibit A, Test Claim, pages 108 [Permit Amendment No. 2017-PASCHOOLS, p. 5].

[158] Exhibit A, Test Claim, page 14.

Specifically, the claimant alleges initial costs to develop a plan and begin responding to testing requests from schools;[159] as well as costs to compile a list of schools within the claimant's service area;[160] and costs and activities surrounding the actual response to testing requests.[161] Claimant further alleges for each sampling request received, it was required to:

(a) Prepare and send a response to the request;

(b) Submit a copy of the request to the state;

(c) Communicate with the school to schedule training meetings;

(d) Communicate school request status with the water system's management;

(e) Create and maintain a tracking spreadsheet; and

(f) Create sampling plans for each school (the claimant alleges 25 plans per week were required to be completed in order to meet the deadline in the order).[162]

The claimant also states that for each sampling request, and to complete each sampling plan, the claimant was required to collect one to five samples at each school from "regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan…"[163] The claimant asserts that this sampling could only be done before the start of the school day, because the order required sampling after water had been sitting in plumbing and fixtures for at least six hours; and, the claimant asserts that sampling was only permitted to be conducted Tuesday through Friday, or on Saturdays in specific cases with approval from SWRCB.[164] The claimant states that 1,115 samples were taken and analyzed by the claimant in fiscal year 2017, excluding quality control samples.[165] The claimant further states that it developed a reporting template for tracking samples and the schools and fixtures from which they originated; and, based on the requirements of the order, the claimant consulted with schools after testing, aiding in the interpretation of results.[166] For school fixtures with lead sampling results over 15 ppb, schools had the option to resample, remediate, or remove the fixture. In cases where the school chose remediation, follow-up samples were taken and new reports provided to the school.[167]

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[159] Exhibit A, Test Claim, page 21.

[160] Exhibit A, Test Claim, pages 22-23.

[161] Exhibit A, Test Claim, pages 26-27.

[162] Exhibit A, Test Claim, pages 28-30.

[163] Exhibit A, Test Claim, page 30.

[164] Exhibit A, Test Claim, pages 31-32.

[165] Exhibit A, Test Claim, page 32.

[166] Exhibit A, Test Claim, page 32.

[167] Exhibit A, Test Claim, pages 32-33.

The claimant states that it used its own laboratory, which contains a mass spectrometer, to analyze the samples. The samples were analyzed independently, and not combined with other regulatory or special project samples, but a trained chemist.[168] The results of the sampling were required to be uploaded to DDW's database, which, the claimant asserts, required the claimant to develop a method to convert and upload the information all at once, rather than generate and upload 1,115 separate reports.[169]

The claimant further states that it was required to provide the results to the school representative, and in the case of an exceedance of 15 ppb, notify the school within two business days.[170] Also in the case of an exceedance, claimant states that it was required to collect and additional sample within 10 days, and a third sample within 10 days if the resample is less than or equal to 15 ppb.[171] An additional sample is also required after remediation.[172]

Though the order prohibits releasing the sampling results to the public for 60 days unless the water system releases the data in compliance with the Public Records Act, the claimant asserts that the Environmental Committee of the City Council also requested updates on the progress of lead testing on May 25, 2017 and June 20, 2017, for which the claimant prepared a presentation.[173] And, the order required the claimant to discuss lead sampling results with the school prior to release to the public, and to discuss results within 10 business days of receiving laboratory results.[174]

Finally, the claimant states that the order required the claimant to keep records of all requests from schools for lead sampling, and provide those records to DDW, upon request.[175]

The claimant asserts that no prior federal or state law requires the activities described, and that the claimant does not receive any dedicated state or federal funds, or any other non-local agency funds.[176]

The claimant's rebuttal comments also assert that the test claim order imposes a new program or higher level of service. The claimant argues that the lead sampling requirements are a statewide policy or program;[177] which "furthers two governmental functions of providing services to the

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[168] Exhibit A, Test Claim, pages 36-37.

[169] Exhibit A, Test Claim, page 38.

[170] Exhibit A, Test Claim, pages 39-41.

[171] Exhibit A, Test Claim, page 42.

[172] Exhibit A, Test Claim, page 43.

[173] Exhibit A, Test Claim, pages 44-45.

[174] Exhibit A, Test Claim, page 46.

[175] Exhibit A, Test Claim, page 49.

[176] Exhibit A, Test Claim, pages 16-17; 52-53.

[177] Exhibit E, Claimant's Rebuttal Comments, page 2.

public," namely providing water service, and ensuring a safe environment for school children;[178] and that the Permit Amendment "applies uniquely to the City as a local water agency."[179] The claimant also notes that the case law, beginning with *County of Los Angeles*, articulates and applies two alternative tests.[180] The California Supreme Court decision in *County of Los Angeles* states that:

> The concern which prompted the inclusion of section 6 in article XIIIB was the perceived attempt by the state to enact legislation or adopt administrative orders creating programs to be administered by local agencies, thereby transferring to those agencies the fiscal responsibility for providing services which the state believed should be extended to the public.[181]

The claimant argues: "This is precisely what the Permit Amendment is doing: creating a new lead testing program for schools and transferring the cost and administration of the program to the City."[182] The claimant states that it has "approximately 281,000 retail water connections," and the city council approves rates and charges for water service.[183] The claimant also argues that the City's charter "imposes a legal obligation and responsibility on the City to provide water service."[184] Accordingly, the claimant argues that providing water service is a function of the City's government. In addition, the claimant argues that the provision of water service is a governmental function "because it is predominantly provided by public agencies," and in particular, "[l]ead testing of drinking water at schools is a service to the public."[185] The claimant reasons, therefore that the test claim order is a new program eligible for reimbursement under *County of Los Angeles*.[186]

Alternatively, the claimant argues that the test claim order constitutes a local program subject to mandate reimbursement because the lead sampling requirements carry out a governmental

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[178] Exhibit E, Claimant's Rebuttal Comments, page 3.

[179] Exhibit E, Claimant's Rebuttal Comments, page 3.

[180] Exhibit E, Claimant's Rebuttal Comments, page 3 [Citing *Carmel Valley Fire Protection Dist. v. State of California* (1987) 190 Cal.App.3d 521, 537 ("In [*County of Los Angeles v.*] *State of California*, the Court concluded that the term 'program' has two alternative meanings…").]. See also, *San Diego Unified School Dist. v. Commission on State Mandates* (2004) 33 Cal.4th 859, 876 [Citing and discussing *City of Sacramento v. State of California* (1990) 50 Cal.3d 51 ("We again applied the alternative tests set forth in *County of Los Angeles*…"].

[181] Exhibit E, Claimant's Rebuttal Comments, page 6 [quoting *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56].

[182] Exhibit E, Claimant's Rebuttal Comments, page 6.

[183] Exhibit E, Claimant's Rebuttal Comments, page 4.

[184] Exhibit E, Claimant's Rebuttal Comments, page 4.

[185] Exhibit E, Claimant's Rebuttal Comments, page 6.

[186] Exhibit E, Claimant's Rebuttal Comments, page 6.

function related to the safety of schools: "Schools are obligated to provide free drinking water to students, or to adopt a resolution explaining why fiscal constraints or health and safety concerns prevent it."[187] The claimant argues that the "history of the Permit Amendment demonstrates its purpose is to provide safe schools, a governmental function, while shifting financial responsibility to local water agencies."[188] The claimant references failed SB 334, vetoed in October 2015: "Instead of signing the bill, the Governor directed SWRCB to implement lead testing at schools through local water agencies as part of the Lead and Copper Rule."[189] The claimant argues that the reason SB 334 was vetoed was to avoid a reimbursable state mandate, but "[l]ead testing at schools does not lose its characterization as a 'governmental function of providing services to the public' under the Supreme Court's test, merely because the obligation is transferred from schools to water agencies."[190]

The claimant also argues that the test claim order imposes a unique requirement on the claimant that does not apply generally to all residents and entities in the State:

> The Permit Amendment applies specifically to the City. It does not apply generally to all residents and entities in the State. Even collectively considering all 1,100 permit amendments issued by SWRCB, they only apply to local water agencies with schools in their service areas, not to everyone in the State. The Permit Amendment does not require lead testing be performed for all state residents and entities either, only for schools. Collectively, the permit amendments apply uniquely to water agencies in the same way the Court found the requirement for fire protective gear applied uniquely to public and private fire protection agencies. The permit amendments do not need to exclusively apply to publicly-owned water agencies to satisfy the uniqueness element of the second test.
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> Under the second test, examples of laws that apply generally to all residents and entities in the state include requirements to provide employees with unemployment insurance coverage, worker's compensation benefits, or to upgrade public buildings to comply with statewide elevator safety regulations. Subvention was denied in these cases because the requirements applied to everyone, not just to local government. Unlike these examples, though, the Permit Amendment only applies to the City. Those in the State who do not provide water service do not have to comply with the Permit Amendment.[191]

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[187] Exhibit E, Claimant's Rebuttal Comments, page 6 [citing Educ. Code § 38086].

[188] Exhibit E, Claimant's Rebuttal Comments, page 7.

[189] Exhibit E, Claimant's Rebuttal Comments, page 7.

[190] Exhibit E, Claimant's Rebuttal Comments, page 7.

[191] Exhibit E, Claimant's Rebuttal Comments, page 8.

The claimant therefore concludes that the test claim order implements a state policy, and imposes unique requirements on the claimant that do not apply generally to all persons and entities in the state.[192]

The claimant also disputes the arguments of the SWRCB and the Department of Finance. First, the claimant argues that the SWRCB's reliance on the concept of a service "peculiar" to government is not supported in the case law:

> SWRCB argues that the City is ineligible for reimbursement because water service is not a function "peculiar" to government, and therefore not a governmental function. But the first test established by the California Supreme Court does not require that the function be "peculiar" to government, only that the program "carry out the governmental function of providing services to the public." The word "peculiar" is not in the test. The Supreme Court used the term "peculiar" only to distinguish programs that are forced on local government from laws that apply generally to all state residents and entities. The opinion of *Carmel Valley Fire Protection District v. State of California* cited by SWRCB, certainly found that "fire protection is a peculiarly governmental function" in satisfying the first test, despite the fact that private sector fire fighters provide the same service. The opinion does not say, however, that the first test can only be satisfied if the governmental function is peculiar to government, as SWRCB suggests.
>
> The first test only requires that the governmental function be that "of providing services to the public." SWRCB does not cite a published opinion where the government was providing a public service, but subvention was denied because the government function was not peculiar to government. Instead, instances where the first test was not satisfied involved situations where the new requirements did not increase the level of service provided to the public, such as requirements to provide employees with unemployment insurance coverage, worker's compensation benefits, or to upgrade public buildings to comply with statewide elevator safety regulations. These requirements only increased the government's incidental cost of providing existing public services rather than requiring new services or programs.[193]

The claimant also argues that SWRCB's reliance on "a 100-year-old line of cases on sovereign immunity" is inapplicable, and irrelevant. The claimant argues that more recently "Courts have determined '[t]he labels "governmental function" and "proprietary function" are of dubious value in terms of legal analysis in any context.'"[194] The claimant argues that Proposition 218 weakens the analogy to corporate or proprietary activities: "Water service provided by public

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[192] Exhibit E, Claimant's Rebuttal Comments, page 8.

[193] Exhibit E, Claimant's Rebuttal Comments, page 4.

[194] Exhibit E, Claimant's Rebuttal Comments, page 5 [citing *Pacific Telephone & Telegraph Company v. Redevelopment Agency of the City of Redlands*, (1977) 75 Cal. App.3d 957, 968.].

agencies no longer carries the indicia of a proprietary function or private enterprise due to Proposition 218 (discussed below), which eliminates profit from water service charges."[195]

And, the claimant argues that "SWRCB's reliance on the Service Duplication Law is confusing."[196] The claimant asserts that the Service Duplication Law, which was adopted in 1965, "recognizes that water service was transitioning from a private to a predominantly governmental function by providing compensation to private utilities for lost business."[197] The claimant maintains that "[n]ow, over 50 years later, that transition is substantially complete."[198]

Further, the claimant disputes the characterization by SWRCB and Finance that water service is largely a private enterprise. The claimant notes that even though SWRCB provides evidence that approximately 75 percent of drinking water systems are private entities, "the same tables show that 81% of the population served by drinking water systems statewide, or 33.8 million of 41.6 million people, receive their water service from public entities."[199] The claimant argues that "[s]uch a large percentage of the State population receiving water service from public entities is strong evidence that water service is a governmental function, more persuasive than the fact that small, privately owned water systems outnumber large, publicly owned systems."[200]

The claimant also asserts that it has incurred increased costs mandated by the state, and that the exceptions in Government Code section 17556 do not apply. The claimant alleges its total costs for fiscal year 2016-2017 to be $351,577.26, and for fiscal year 2017-2018, $47,815.67.[201] The order expressly provides that the claimant must conduct the lead sampling at no charge to the schools in its service area. The claimant concludes on this basis, and pursuant to article XIII C of the California Constitution, which prohibits a fee or charge that exceeds the proportional cost of service attributable to a parcel, that the claimant is unable to recoup the costs of the alleged mandate through fees for water service, because it cannot impose or increase fees on the schools

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[195] Exhibit E, Claimant's Rebuttal Comments, page 5 [Proposition 218 added articles XIII C and XIII D to the California Constitution, which generally require assessments, as well as fees or charges for property-related services, to be proportional to the benefit received by the payor, and to be limited to the amount necessary to provide the service or special benefit. As a general rule, any revenues received in excess of the proportional benefit or burden are deemed to be taxes, and thus are illegally collected absent a two-thirds voter approval.].

[196] Exhibit E, Claimant's Rebuttal Comments, page 5.

[197] Exhibit E, Claimant's Rebuttal Comments, page 5.

[198] Exhibit E, Claimant's Rebuttal Comments, page 5.

[199] Exhibit E, Claimant's Rebuttal Comments, page 5 [citing Exhibit C, SWRCB Comments, Attachment 101, pp. 406-409].

[200] Exhibit E, Claimant's Rebuttal Comments, page 5.

[201] Exhibit A, Test Claim, page 58.

in which it conducts lead testing, and it is legally proscribed from imposing or increasing fees on other water users.[202]

The claimant states in its rebuttal comments that the test claim order results in increased costs mandated by the state: "By mandating that the City perform lead testing for free, the Permit Amendment has ensnared the City in [a] constitutional web of fees and charges, where the only ways out are to spend local tax revenue or to seek reimbursement through this Commission."[203] The claimant argues that because the express language of the test claim order prohibits charging schools for the costs of sampling, "the cost of the new service is being absorbed by all City ratepayers."[204] The "constitutional web" the claimant is referring to is the substantive limitations on new fees or charges imposed by Proposition 218; article XIII D imposes a proportionality requirement, a prohibition on excessive fees, and a prohibition on new fees or charges for any service "unless that service is actually used by, or immediately available to, the owner of the property in question."[205] And although the "SWRCB believes that the Permit Amendment confers a direct benefit on all water ratepayers, not just the schools, in the form of increased property values and ensuring the City's water does not contain lead,"[206] the claimant argues that the benefits are not sufficiently direct:

> First, raising water rates to cover the cost of the Permit Amendment would ultimately violate the Permit Amendment itself. The City is legally obligated by Proposition 218 to apportion the cost of service based on the relative benefits received by its customers. Proposition 218 further prohibits the City from charging customers for services that are not immediately available to them. The schools, as the exclusive and direct recipients of lead testing under the Permit Amendment, benefit the most in that the testing assesses school pipes and fixtures for sources of lead. Lead testing is not available to the rest of the City's water ratepayers under the Permit Amendment, so they do not receive the benefit of having their own properties evaluated. The benefits of higher property values and testing of City water that SWRCB says are direct benefits to all ratepayers, are really collateral or incidental benefits. Any water rate increase apportioning the cost of lead testing among City ratepayers would fall primarily on schools, the direct and primary beneficiary of the lead testing. The Permit Amendment, however, prohibits charging a school for lead testing. A school is being charged for lead testing whether the City sends the school an invoice when the testing is done, or passes on the cost of lead testing to a school through a water rate increase.

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[202] Exhibit A, Test Claim, page 54.

[203] Exhibit E, Claimant's Rebuttal Comments, page 9.

[204] Exhibit E, Claimant's Rebuttal Comments, page 9.

[205] Exhibit E, Claimant's Rebuttal Comments, page 10 [citing Cal. Const. art. XIII D, § 6].

[206] Exhibit E, Claimant's Rebuttal Comments, page 10.

> Second, even assuming there is a plausible connection between lead testing at schools and higher property values in the surrounding neighborhoods, higher property values do not benefit all water ratepayers. Water ratepayers are both homeowners and renters. While a homeowner may benefit from a higher resale value of a home, a tenant will not. Higher property values cannot justify charging all water ratepayers for a service they are not receiving.[207]

Moreover, the claimant argues that any fees that might be imposed for lead testing are not imposed as an incident of property ownership, on an ongoing basis.[208] Accordingly, the claimant argues that Proposition 26 controls:

> Proposition 26 further tightened the restrictions on local government revenue imposed by Propositions 13 and 218 by defining a tax as "any levy, charge, or exaction of any kind imposed by a local government, except the following:"
>
> > (1) A charge imposed for a specific benefit conferred or privilege granted directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of conferring the benefit or granting the privilege.
> >
> > (2) A charge imposed for a specific government service or product provided directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of providing the service or product.
> >
> > (3) A charge imposed for the reasonable regulatory costs to a local government for issuing licenses and permits, performing investigations, inspections, and audits, enforcing agricultural marketing orders, and the administrative enforcement and adjudication thereof.
> >
> > (4) A charge imposed for entrance to or use of local government property, or the purchase, rental, or lease of local government property.
> >
> > (5) A fine, penalty, or other monetary charge imposed by the judicial branch of government or a local government, as a result of a violation of law.
> >
> > (6) A charge imposed as a condition of property development.
> >
> > (7) Assessments and property-related fees imposed in accordance with the provisions of Article XIII D.
>
> A fee or charge is a tax that must be approved by the voters unless the fee or charge meets one of these seven exceptions. [Citing to Cal. Const., art. XIII C, § 2.] The last of the seven exceptions is for property-related fees and charges under Proposition 218, but because lead testing performed under the Permit Amendment is not provided as an incident of property ownership (discussed above), the City

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[207] Exhibit E, Claimant's Rebuttal Comments, page 11.

[208] Exhibit E, Claimant's Rebuttal Comments, page 12.

> cannot avail itself of that exception to raise water rates without voter approval. The third through sixth exceptions are inapplicable to a fee for lead testing because the City is not acting as a regulator in performing the service, the City is not charging the schools to enter City property, the City is not fining the schools for violating the law, and the City is not imposing a development fee, respectively. The first exception for "a specific benefit conferred or privilege granted directly to the payor" does not apply either, because the City is not issuing a school a permit or a license to engage in any activity.
>
> This leaves only the second exception, which would ordinarily give the City sufficient fee authority in situations like this: "[a] charge imposed for a specific government service or product provided directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of providing the service or product." [Citing to Cal. Const., art. XIII C, § 1(e)(2).] The City is providing lead testing services on school property at the request of each school, for which the City could ordinarily charge each school an amount equivalent to the cost of providing the service. The problem is the Permit Amendment prohibits the City from charging the schools, even though the schools are receiving the government service. The school is not the "payor," so the second exception does not apply. Therefore, by default, the City's water ratepayers become the "payor" even though they are not requesting or receiving the service. Without any applicable exceptions, charging water ratepayers for lead testing provided to schools for free is a tax subject to voter approval under Proposition 26.[209]

Accordingly, the claimant asserts that the test claim order imposes a reimbursable state-mandated program within the meaning of article XIII B, section 6 of the California Constitution.

B. Department of Finance

Finance argues that "[w]hile water service is a local governmental function in some jurisdictions, it is not a function unique to local governments."[210] Finance bases this conclusion on SWRCB's statement that 450 of the 1,100 "public water systems" affected by permit amendments identical to the test claim order are privately owned and operated.[211]

Finance also argues that "claimants do have fee authority undiminished by Propositions 218 or 26."[212] Finance states that "Proposition 26 specifically excludes assessments and property-related fees imposed in accordance with Proposition 218 from the definition of taxes."[213] Finance maintains that the alleged mandate "involves the provision of water services and the fee

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[209] Exhibit E, Claimant's Rebuttal Comments, pages 12-13.

[210] Exhibit D, Finance's Comments on the Test Claim, page 2.

[211] Exhibit D, Finance's Comments on the Test Claim, page 2.

[212] Exhibit D, Finance's Comments on the Test Claim, page 2.

[213] Exhibit D, Finance's Comments on the Test Claim, page 2.

authority is subject at most to the majority protest provision under article XIII D, section 6(a)."[214] Finance further asserts that "as the State Board makes clear in its comments on this test claim, lead testing in K-12 schools provides a direct benefit to all water systems and each ratepayer, and the City may therefore set water rates sufficient to pay for the costs of compliance with the permit amendment."[215]

C. State Water Resources Control Board

SWRCB asserts that the test claim order is not subject to state mandate reimbursement because the order does not constitute a "new program or higher level of service" since it does not provide a peculiarly governmental service and is not unique to government. Additionally, and in the alternative, the claimant has fee authority sufficient to cover the costs of any required activities despite Proposition 218.

Specifically, SWRCB argues that the claimant's operation of a PWS subject to the order "is not a function of service peculiar to government because public water systems are operated by both private and governmental entities."[216] And, SWRCB argues that the order "imposes no unique requirements on the City because the State Water Board imposed the exact same lead testing in school requirements on over 1,100 publicly and privately owned water systems."[217]

SWRCB acknowledges that the Safe Drinking Water Act, which SWRCB is responsible for implementing, makes it the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that may cause cancer, birth defects, or other chronic illness. And, SWRCB recognizes that it is the policy of the state to establish standards at least as stringent as the federal Safe Drinking Water Act, and to protect public health and "establish a drinking water regulatory program that provides for the orderly and efficient delivery of safe drinking water throughout the state."[218]

However, in doing so, SWRCB argues that this order, one of 1,100 simultaneously adopted permit amendments, does not impose a state-mandated new program or higher level of service because the requirements of sampling for lead in K-12 schools apply to a variety of public and private entities, the only common characteristic of which is that the subject water systems are all PWSs that serve at least one K-12 school. SWRCB argues that the alleged mandate "relates to the City's provision of drinking water as a public water system."[219] SWRCB argues that the

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[214] Exhibit D, Finance's Comments on the Test Claim, page 2.

[215] Exhibit D, Finance's Comments on the Test Claim, page 2.

[216] Exhibit C, SWRCB's Comments on the Test Claim, page 8.

[217] Exhibit C, SWRCB's Comments on the Test Claim, pages 8-9.

[218] Exhibit C, SWRCB's Comments on the Test Claim, page 4.

[219] Exhibit C, SWRCB's Comments on the Test Claim, page 10.

provision of drinking water, in this context, is not a service that is "peculiar to government," in the sense discussed in *County of Los Angeles v. State of California*.[220]

The term "public water system," SWRCB explains, does not mean only those drinking water systems that are publicly owned; instead, "[a] public water system is defined as a system that provides water for human consumption to at least 15 or more connections or that regularly serves 25 or more people daily."[221] And, SWRCB notes, "[o]f the 6,970 water systems currently operating in California, 5,314 are private entities and 1,656 are public entities."[222] More importantly, SWRCB argues that the courts have found that reimbursement is only required for "programs" that are essential and basic to government, "peculiar" to government, or "traditional" governmental services.[223] SWRCB argues that the provision of water, though sometimes a service provided by a governmental entity is not a traditional or essential service of government.

SWRCB argues that the rules developed by the courts are also consistent with a line of cases involving tort claims against local governments, prior to the adoption of the Government Claims Act. A threshold issue in each of those tort claims was whether sovereign immunity barred an action against the local government, and the courts distinguished cases in which sovereign immunity was available or not by characterizing the activity giving rise to the action as either "governmental" or "public," or more in the nature of "corporate" or "private."[224] SWRCB asserts that municipal activities providing utilities or other "facilities of urban life," are generally considered more in the nature of "corporate" services, rather than "government" services.[225] SWRCB concludes "[a]lthough for the purposes of sovereign immunity, the distinction between the corporate and governmental functions of government is no longer relevant, this line of cases remains appropriate and persuasive authority for defining what constitutes a service peculiar to government."[226]

SWRCB also argues that this interpretation "is underscored by the Service Duplication Law, which requires a local government to compensate a private water supplier when the local

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[220] Exhibit C, SWRCB's Comments on the Test Claim, pages 9-10 [citing *County of Los Angeles v. State* (1987) 43 Cal.3d 46].

[221] Exhibit C, SWRCB's Comments on the Test Claim, page 3 [citing Health and Safety Code § 116275(h)].

[222] Exhibit C, SWRCB's Comments on the Test Claim, page 2 [citing May 2018 Water System Report, Attachment 101 (Exhibit C, p. 455)].

[223] Exhibit C, SWRCB's Comments on the Test Claim, pages 10-11.

[224] Exhibit C, SWRCB's Comments on the Test Claim, page 12 [citing *Chafor v. City of Long Beach* (1917) 174 Cal. 478; *Plaza v. City of San Mateo* (1954) 123 Cal.App.2d 103; *City of Concord v. Tony Freitas* (1956) 144 Cal.App.2d 822].

[225] Exhibit C, SWRCB's Comments on the Test Claim, page 12 [citing *In re Bonds of Orosi Public Utility District v. McHuiag* (1925) 196 Cal. 43].

[226] Exhibit C, SWRCB's Comments on the Test Claim, page 12 [citing Muskopf v. Corning Hospital Dist. (1961) 55 Cal.2d 211, 219-220].

government extends service into the service area of the private supplier.[227] SWRCB states that "[t]his statutory requirement for compensation…amounts to a legislative determination that water service is not a service that is or should be peculiar to local governments."[228]

SWRCB concludes on this issue that "simply put, the provision of drinking water is not a function or service which is peculiar to local government."[229] SWRCB states that "statewide, the overwhelming majority (over 75 percent) of drinking water systems are privately owned."[230] SWRCB asserts that no state or federal law requires a city or county to operate a drinking water system, and "[i]ndeed, many cities and counties do not provide potable water to their residents and, instead, rely on private companies to provide drinking water to city and county residents."[231] SWRCB argues that unlike the services at issue in *Carmel Valley* and *City of Sacramento*, "operating a public water system is not an 'essential,' 'basic,' 'classical' or 'traditional' governmental function."[232]

With respect to the alternative test, requirements "uniquely" imposed on local government, and not applicable generally to all residents or entities, SWRCB argues that the order must be considered in the context of the SWRCB's other permit amendments adopted simultaneously: "[w]hen viewed within this larger programmatic context, the Permit Amendment imposes no unique requirements on the City and is not a new program subject to subvention…"[233] SWRCB explains:

> [T]he City was one of more than 1,100 public water systems that received permit amendments substantially identical to the City's Permit Amendment. The State Water Board issued these permit amendments within a few days of each other. Collectively, these permit amendments, including the Permit Amendment at issue in this Test Claim, effectuate the statewide lead testing of drinking water in schools program. Of the over 1,100 public water systems that received the permit amendments, approximately 450 water systems are privately owned. Accordingly, the Permit Amendment, as part of the State Water Board's lead testing in schools program, imposed no unique requirements on the City that were not imposed on the privately owned water systems.[234]

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[227] Exhibit C, SWRCB's Comments on the Test Claim, page 13 [citing Public Utilities Code § 1501 et seq.].

[228] Exhibit C, SWRCB's Comments on the Test Claim, page 13.

[229] Exhibit C, SWRCB's Comments on the Test Claim, page 13.

[230] Exhibit C, SWRCB's Comments on the Test Claim, page 13.

[231] Exhibit C, SWRCB's Comments on the Test Claim, page 13.

[232] Exhibit C, SWRCB's Comments on the Test Claim, page 13.

[233] Exhibit C, SWRCB's Comments on the Test Claim, page 13.

[234] Exhibit C, SWRCB's Comments on the Test Claim, page 14.

SWRCB also notes that "[v]iewing each individual drinking water permit in a vacuum, and not relative to other similarly situated water systems, could result in a determination that each requirement was unique to that particular water system because the drinking water permit only applies to that entity."[235] SWRCB concludes that "[t]his cannot be the result the voters intended…"[236]

Finally, SWRCB argues that Proposition 218 does not prevent the claimant from imposing or increasing water rates to recoup the costs of the alleged mandate. SWRCB argues that the claimant interprets its authority post-Proposition 218 too narrowly. Broadly, Proposition 218 requires new or increased fees to be proportional to the benefit received or the burden imposed on the local government related to the governmental service at issue. However, SWRCB argues that the lead testing required under the Order confers a direct benefit on all water system users as a whole.[237] Additionally, SWRCB states that "[b]y requiring additional lead testing in schools, the Permit Amendment functionally extends the Lead and Copper rule by providing additional testing points which can inform the City about how the water chemistry in its distribution network may be impacting not only particular schools, but residences who obtain water from a common source or through a common delivery system."[238] SWRCB thus argues that "just as the testing of private residences under the Lead and Copper rule benefits the water system as a whole…the lead testing in K-12 schools provides a similar direct benefit to each ratepayer by providing additional testing inputs the City can use to optimize its water chemistry and quality…"[239]

In addition, SWRCB argues that lead testing in schools will help to maintain and possibly improve property values; and that school facilities are often used for community meetings and generally provide a benefit to the entire community.[240]

Based on these arguments SWRCB concludes that the activities alleged in the test claim order are not reimbursable.

IV. Discussion

Article XIII B, section 6 of the California Constitution provides in relevant part the following:

> Whenever the Legislature or any state agency mandates a new program or higher level of service on any local government, the state shall provide a subvention of funds to reimburse such local government for the costs of such programs or increased level of service…

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[235] Exhibit C, SWRCB's Comments on the Test Claim, page 14.

[236] Exhibit C, SWRCB's Comments on the Test Claim, page 14.

[237] Exhibit C, SWRCB's Comments on the Test Claim, page 15.

[238] Exhibit C, SWRCB's Comments on the Test Claim, page 16.

[239] Exhibit C, SWRCB's Comments on the Test Claim, page 16.

[240] Exhibit C, SWRCB's Comments on the Test Claim, page 16.

The purpose of article XIII B, section 6 is to "preclude the state from shifting financial responsibility for carrying out governmental functions to local agencies, which are 'ill equipped' to assume increased financial responsibilities because of the taxing and spending limitations that articles XIII A and XIII B impose."[241] Thus, the subvention requirement of section 6 is "directed to state-mandated increases in the services provided by [local government] …"[242]

Reimbursement under article XIII B, section 6 is required when the following elements are met:

1. A state statute or executive order requires or "mandates" local agencies or school districts to perform an activity.[243]
2. The mandated activity either:
   a. Carries out the governmental function of providing a service to the public; or
   b. Imposes unique requirements on local agencies or school districts and does not apply generally to all residents and entities in the state.[244]
3. The mandated activity is new when compared with the legal requirements in effect immediately before the enactment of the test claim statute or executive order.[245]
4. The mandated activity results in the local agency or school district incurring increased costs mandated by the state within the meaning of section 17514. Increased costs, however, are not reimbursable if an exception identified in Government Code section 17556 applies to the activity.[246]

The Commission is vested with the exclusive authority to adjudicate disputes over the existence of state-mandated programs within the meaning of article XIII B, section 6 of the California Constitution.[247] The determination whether a statute or executive order imposes a reimbursable state-mandated program is a question of law.[248] In making its decisions, the Commission must strictly construe article XIII B, section 6 of the California Constitution, and not apply it as an

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[241] *County of San Diego v. State of California* (1997) 15 Cal.4th 68, 81.

[242] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56.

[243] *San Diego Unified School Dist. v. Commission on State Mandates* (2004) 33 Cal.4th 859, 874.

[244] *San Diego Unified School Dist. v. Commission on State Mandates* (2004) 33 Cal.4th 859, 874-875 (reaffirming the test set out in *County of Los Angeles* (1987) 43 Cal.3d 46, 56).

[245] *San Diego Unified School Dist.* (2004) 33 Cal.4th 859, 874-875, 878; *Lucia Mar Unified School District v. Honig* (1988) 44 Cal3d 830, 835.

[246] *County of Fresno v. State of California* (1991) 53 Cal.3d 482, 487; *County of Sonoma v. Commission on State Mandates* (2000) 84 Cal.App.4th 1265, 1284; Government Code sections 17514 and 17556.

[247] *Kinlaw v. State of California* (1991) 53 Cal.3d 482, 487.

[248] *County of San Diego v. State of California* (1997) 15 Cal.4th 68, 109.

"equitable remedy to cure the perceived unfairness resulting from political decisions on funding priorities."[249]

A. This Test Claim Is Timely Filed Pursuant to Government Code Section 17551.

Government Code section 17551(c) states that test claims "shall be filed not later than 12 months following the effective date of a statute or executive order, or within 12 months of incurring increased costs as a result of a statute or executive order, whichever is later."[250]

The effective date of the order is January 18, 2017.[251] The claimant filed the Test Claim on January 11, 2018, less than 12 months after the effective date of the order.[252] Therefore, the Test Claim is timely filed.

B. The Test Claim Order Does Not Impose a State-Mandated New Program or Higher Level of Service.

This Test Claim alleges new state-mandated activities and costs arising from an amendment to the claimant's public water system permit adopted by SWRCB, Order No. 2017PA-SCHOOLS for the City of San Diego PWS No. 370020, which requires the claimant, as the operator of a "public water system" that serves a number of K-12 schools, to perform lead sampling upon request. A PWS may be a private company or a governmental entity and is defined as "a system for the provision to the public of water for human consumption" that has at least 15 service connections and serves at least 25 people per day for at least 60 days out of the year.[253] Under the order, upon request, the PWS must take samples to perform lead sampling, at one to five fixtures (e.g., drinking fountains or food preparation areas) on the school's property, process those results at a certified laboratory, maintain records of the requests and the results, and provide the results, and if necessary, information to the school regarding possible remediation or other solutions if lead is detected in the fixtures above 15 parts per billion (ppb).

The activities required by the order are new, as compared against prior state and federal law. However, the activities alleged do not constitute a state-mandated new program or higher level of service subject to reimbursement under article XIII B, section 6 of the California Constitution.

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[249] *County of Sonoma v. Commission on State Mandates* (2000) 84 Cal.App.4th 1265, 1280 [citing *City of San Jose v. State of California* (1996) 45 Cal.App.4th 1802, 1817].

[250] Government Code section 17551(c).

[251] Exhibit A, Test Claim, page 104 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 1].

[252] Exhibit A, Test Claim, page 1.

[253] 42 United States Code, section 300f(4).

1. **The test claim order imposes new requirements on operators of public water systems.**

As noted, the test claim order requires the claimant, upon request of a school in its service area, to test for the presence of lead in drinking water fixtures on school property at no charge to the school.

Specifically, the plain language of the order requires the claimant, as a PWS, to:

- Submit to SWRCB's Division of Drinking Water a comprehensive list of the names and addresses of all K-12 schools served water through a utility meter [by the claimant];[254]
- If a school representative requests lead sampling assistance in writing:
    - Respond in writing within 60 days and schedule a meeting with school officials to develop a sampling plan;[255]
    - Finalize a sampling plan and complete initial sampling within 90 days [or an alternative time schedule approved by DDW];[256]
    - Collect one to five samples at each school, from regularly used drinking fountains, cafeteria or food preparation areas, or reusable bottle filling stations, selected according to the sampling plan, and using the sampling guidance provided in Appendix A;[257]
    - Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday, or Friday on a day that school is in session and has been in session for at least one day prior to the day of sampling;[258]
    - Ensure samples are collected by an adequately trained water system representative;[259]

[254] Exhibit A, Test Claim, page 105 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 2].

[255] Exhibit A, Test Claim, page 106 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 3].

[256] Exhibit A, Test Claim, page 106 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 3].

[257] Exhibit A, Test Claim, page 106 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 3].

[258] Exhibit A, Test Claim, page 106 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 3].

[259] Exhibit A, Test Claim, page 106 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 3].

- Submit the samples to an ELAP certified laboratory for analysis;[260]
- Require the laboratory to submit the data electronically to DDW;[261]
- Provide a copy of the results to the school representative;[262]
- Within two business days of a result that shows an exceedance of 15 ppb, notify the school of the sample result;[263]

- If an initial sample shows an exceedance of 15 ppb:
  - Collect an additional sample within 10 days if the sample site remains in service;[264]
  - Collect a third sample within 10 business days after notification that a resample result is less than or equal to 15 ppb;[265]
  - Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb;[266]
- Ensure that the water system receives the results of repeat lead samples from the laboratory in no more than 10 business days;[267]

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[260] Exhibit A, Test Claim, page 106 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 3].

[261] Exhibit A, Test Claim, page 106 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 3].

[262] Exhibit A, Test Claim, page 106 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 3].

[263] Exhibit A, Test Claim, page 106 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 3].

[264] Exhibit A, Test Claim, page 106 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 3].

[265] Exhibit A, Test Claim, page 106 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 3].

[266] Exhibit A, Test Claim, page 107 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 4].

[267] Exhibit A, Test Claim, page 107 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 4].

- Do not release the lead sampling data to the public for 60 days following receipt of the initial lead sampling results unless in compliance with a Public Records Act request for specific results;[268]
- Discuss the lead sample results with the school prior to releasing the sample results to the public, and within 10 days of receiving the results from the laboratory;[269]
- Communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if the results confirm lead levels above 15 ppb;[270]
    - The water system is not responsible for the costs of any corrective action or maintenance;[271]
- Keep records of all requests for lead related assistance and provide the records to DDW, upon request;[272]
- Include in the annual Consumer Confidence Report a statement summarizing the number of schools requesting lead sampling.[273]

Both the claimant and SWRCB agree that these requirements are new, as compared against prior law.[274]

The Commission finds that the requirements imposed by the test claim order are new. Prior law, under the federal Safe Drinking Water Act, the California SDWA, and the federal and state Lead and Copper Rule, all address, in some manner, the existence of lead in drinking water. But none

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[268] Exhibit A, Test Claim, page 107 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 4].

[269] Exhibit A, Test Claim, page 107 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 4].

[270] Exhibit A, Test Claim, page 108 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 5].

[271] Exhibit A, Test Claim, page 108 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 5].

[272] Exhibit A, Test Claim, page 108 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 5].

[273] Exhibit A, Test Claim, page 108 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 5].

[274] See Exhibit A, Test Claim, pages 16-17 ["The City's existing Permit and its prior amendments do not require [the claimant] to perform lead testing at K-12 schools."]; Exhibit C, SWRCB's Comments on the Test Claim, pages 5-7 [Explaining that under prior federal and state regulations community water systems, such as operated by the claimant, were required to monitor and sample for lead throughout their systems, but mostly by sampling private residences.].

of those provisions specifically requires local government to assist schools with lead sampling at drinking water fountains and other fixtures. As noted, schools that operate their own water systems, or that receive water from groundwater wells, were already subject to some mixture of lead sampling requirements and control measures under existing law, but the requirements of this order, for PWSs that supply water to K-12 schools to sample one to five drinking water fixtures on school property, upon request of the school, are new.

2. The requirements imposed by the test claim order are not mandated by the state, but are triggered by a local decision to provide water services and operate as a public water system.

The requirements of the test claim order are imposed on the claimant as a PWS. The requirements, however, are not mandated by the state. They are, instead, triggered by a local discretionary decision to provide water service and operate as a PWS.

Article XI, section 9(a) of the California Constitution provides that a "municipal corporation" *may* be established to operate public works to furnish light, water, power, heat, transportation, or means of communication.[275] Prior to the amendment to prior article XI, section 19 in 1911 (since renumbered as article XI, section 9) to include this language, there was doubt whether a municipal corporation (which includes a city) even had authority to aquire and operate public utilites including specifically water and electricity services which were customarily provided by private entities. In *National City v. Fritz* the court stated: "The term 'public utilities,' with reference to the power of a municipal corporation to acquire and operate them, customarily embraces an enterprise which was usually engaged in by private corporations or individuals such as supplying water and electricity to the inhabitants. In this state it never has been the custom to have sewers operated privately. There was some doubt whether municipal corporations could acquire and operate such enterprises (public utilities) until the amendment to the Constitution (Cal.Const. Art. XI, sec. 19) in 1911 authorizing such corporations to supply their inhabitants with light, water, power, heat, transportation and means of communication…"[276]

And private companies still do provide these services as is recognized by article XI, section 9(b), which provides that private persons or corporations may also establish and operate public works for those same purposes "upon conditions and under regulations that the city may prescribe under its organic law."[277]

The courts have interpreted article XI, section 9 (previously section 19) as granting authority, rather than imposing a duty:

> By virtue of the amendment of 1911, general law cities and quasi-municipal corporations were given the right to engage in the service of water to the inhabitants of their territories. (*Morrison v. Smith Bros., Inc.* [1930] 211 Cal. 36.) However, service of water by a city is a proprietary function. (*In re Orosi Public Utility Dist.* [1925] 196 Cal. 43, 57-58; *City of Pasadena v. Railroad Com.* [1920] 183 Cal. 526, 529; *Marin Water etc. Co. v. Town of Sausalito* [1916] 168 Cal.

[275] California Constitution, article XI, section 9(a).

[276] *National City v. Fritz* (1949) 33 Cal.2d 635, 637.

[277] California Constitution, article XI, section 9(b).

> 587, 595, overruled on other grounds in *Los Angeles Met. Transit Authority v. Public Utilities Com.* [1963] 59 Cal.2d 863, 869; *South City of Pasadena v. Pasadena Land etc. Co.* [1908] 152 Cal. 579, 593.) In supplying water to its inhabitants, a municipality acts in the same capacity as a private corporation engaged in a similar business, and not in its sovereign role. (*Nourse v. City of Los Angeles* [1914] 25 Cal.App. 384, 385.) Consequently, the authority granted to a city under article XI, section 19, is a "privileged power"; a city is not obliged to furnish water to its inhabitants and has no duty of supplying water, although it may do so. (*People* ex rel. *City of Downey v. Downey County Water Dist.* [1962] 202 Cal.App.2d 786, 792.) Conversely, a county water district has a legal duty to carry out its primary purpose of furnishing water to its inhabitants. (*Coachella Valley County Water Dist. v. Stevens* [1929] 206 Cal. 400, 406-407, 410-411; *Moore v. Twentynine Palms etc. Water Dist.* [1957] 156 Cal.App.2d 109, 111.)[278]

Under the Government Code, when interpreting statutes and constitutional provisions, "shall" is mandatory, and "may" is permissive.[279] Article XI, section 9 provides that a municipal corporation *may* establish water service. Government Code section 38742 also provides that the legislative body of any city "*may*" contract for supplying the city with water for municipal purposes; *or* "*may* "[a]cquire, construct, repair, and manage pumps, aqueducts, reservoirs, or other works necessary or proper for supplying water for the use of the city or its inhabitants or for irrigating purposes of the city."

Thus, the law allows a city to operate as a PWS, and also allows a city to contract for the supply of the city's water. But there is no state law that legally compels the claimant to operate a PWS, or to serve as the drinking water provider of last resort, or to include such obligations in its city charter.[280] As indicated in the Background, if the city decides to operate a PWS, it is required by law to first submit an application to the SWRCB (or to the predecessor agency, the Department of Public Health) and receive a permit.[281]

The claimant contends that the required activities are mandated by the state since its city charter "imposes a legal obligation and responsibility on the City to provide water service."[282] However, the claimant's obligations under its own city charter are self-imposed, and are no different than the circumstances in *City of Merced,*[283] *Department of Finance* (*Kern High School*

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[278] *Glenbrook Development Co. v. City of Brea* (1967) 253 Cal.App.2d 267, 274

[279] Government Code section 14.

[280] See *City of Merced v. State of California* (1984) 153 Cal.App.3d 777 [Finding that statute requiring compensation for business goodwill was not a state mandate because the requirement was triggered only by the discretionary local decision to exercise eminent domain.]

[281] Health and Safety Code sections 116525, 116271(k).

[282] Exhibit E, Claimant's Rebuttal Comments, page 4.

[283] *City of Merced v. State of California* (1984) 153 Cal.App.3d 777.

Dist.),[284] and *Department of Finance* (*POBRA*)[285] in which test claimants sought reimbursement for costs incurred as a result of their own discretionary decisions.

In *City of Merced*, the claimant alleged reimbursable state-mandated costs under Code of Civil Procedure provisions requiring compensation for the loss of business goodwill when local entities exercised their eminent domain authority.[286] The court found that the Legislature intended for the payment of goodwill to be discretionary because the legislation also stated the following:

> Nothing in this title requires that the power of eminent domain be exercised to acquire property necessary to public use. Whether property necessary for public use is to be acquired by purchase or other means or by eminent domain is a decision left to the discretion of the person authorized to acquire the property.
>
> We agree that the Legislature intended the payment of goodwill to be discretionary. The above authorities reveal that whether a city or county decides to exercise eminent domain is, essentially, an option of the city or county, rather than a mandate of the state. The fundamental concept is that city or county is not required to exercise eminent domain. If, however, the power of eminent domain is exercised, then the city will be required to pay for loss of goodwill. Thus, payment for loss of goodwill is not a state-mandated cost.[287]

In *Kern*, school districts sought reimbursement for certain notice and agenda requirements for school site councils and advisory bodies established pursuant to underlying funded programs.[288] The Court found that, with respect to eight of the nine programs at issue, the claimant was not legally compelled to participate in the underlying program and therefore did not incur state-mandated costs pursuant to the notice and agenda requirements alleged. The Court explained its decision to follow *City of Merced*:

> The truer analogy between that case and the present case is this: In *City of Merced*, the city was under no legal compulsion to resort to eminent domain-but when it elected to employ that means of acquiring property, its obligation to compensate for lost business goodwill was not a reimbursable state mandate, because the city was not required to employ eminent domain in the first place. Here as well, if a school district elects to participate in or continue participation in any underlying *voluntary* education-related funded program, the district's

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[284] *Department of Finance v. Commission on State Mandates* (2003) 30 Cal.4th 727.

[285] *Department of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1355.

[286] *City of Merced v. State of California* (1984) 153 Cal.App.3d 777, 781.

[287] *City of Merced v. State of California* (1984) 153 Cal.App.3d 777, 783.

[288] *Department of Finance v. Commission on State Mandates* (2003) 30 Cal.4th 727, 733.

> obligation to comply with the notice and agenda requirements related to that program does not constitute a reimbursable state mandate.[289]

The Court further clarified that the "proper focus under a legal compulsion inquiry is upon the nature of claimants' participation in the underlying programs themselves."[290] The Court "therefore conclude[d] that, as to eight of the nine funded programs, the statutory notice and agenda obligations exist and apply to claimants only because they have *elected* to participate in, or continue to participate in, the various underlying funded programs-and hence to incur notice and agenda costs that are a condition of program participation."[291]

In 2009, the Third District Court of Appeal in *Department of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1355 (*POBRA*) applied these cases to a school district request for reimbursement for costs required by statute on law enforcement agencies, including school districts, that are authorized, but not legally compelled, to employ peace officers.[292] The court noted that:

> When the Legislature makes such a rule, it only says that if you participate you must follow the rule. This is not a rule that bears on compulsion to participate. (Cf. *Kern High School Dist., supra*, 30 Cal.4th at p. 743, . . .[the proper focus of a legal compulsion inquiry is upon the nature of claimants' participation in the underlying programs, not that costs incurred in complying with program conditions have been legally compelled].)[293]

Also in *Kern*, and later in *Department of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1355 (*POBRA*), it was argued that even if a local entity is not legally compelled to participate in a program or engage in activities that trigger additional state law requirements, such entity might be practically compelled to comply with new requirements, and that "[t]he absence of a reasonable alternative to participation is a de facto mandate."[294] The Court in *Kern*

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[289] *Department of Finance v. Commission on State Mandates* (2003) 30 Cal.4th 727, 743.

[290] *Department of Finance v. Commission on State Mandates* (2003) 30 Cal.4th 727, 743.

[291] *Department of Finance v. Commission on State Mandates* (2003) 30 Cal.4th 727, 745 [emphasis in original]. The Court also declined to consider or decide whether a reimbursable state mandate would arise where a local entity voluntarily elected to participate in a program and committed itself to doing so, and thereafter the state imposed additional requirements at a time when the local entity is not free to immediately end its participation. (30 Cal.4th 727, 745, Fn 15.)

[292] *Department of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1355, 1368.

[293] *Department of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1355, 1367.

[294] *Department of Finance v. Commission on State Mandates* (2003) 30 Cal.4th 727, 748. See also, *Department of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1355, 1361-1362 [Commission found, and trial court agreed, that as a practical matter, school districts

held that while it would not "foreclose the possibility" that a reimbursable state mandate may arise in a situation that falls short of express legal compulsion, the entity would have to face "certain and severe ... penalties" such as "double ... taxation" or other "draconian" consequences if it discontinued participation in the program:

> In essence, claimants assert that their participation in the education-related programs here at issue is so beneficial that, as a practical matter, they feel they must participate in the programs, accept program funds, and-by virtue of Government Code section 54952 and Education Code section 35147-incur expenses necessary to comply with the procedural conditions imposed on program participants. Although it is completely understandable that a participant in a funded program may be disappointed when additional requirements (with their attendant costs) are imposed as a condition of continued participation in the program, just as such a participant would be disappointed if the total amount of the annual funds provided for the program were reduced by legislative or gubernatorial action, the circumstance that the Legislature has determined that the requirements of an ongoing elective program should be modified does not render a local entity's decision whether to continue its participation in the modified program any less voluntary.
>
> [¶…¶]
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> In sum, the circumstances presented in the case before us do not constitute the type of nonlegal compulsion that reasonably could constitute, in claimants' phrasing, a "de facto" reimbursable state mandate. Contrary to the situation that we described in *City of Sacramento*, *supra*, 50 Cal.3d 51, a claimant that elects to discontinue participation in one of the programs here at issue does not face "certain and severe ... penalties" such as "double ... taxation" or other "draconian" consequences (*id.*, at p. 74), but simply must adjust to the withdrawal of grant money along with the lifting of program obligations. Such circumstances do not constitute a reimbursable state mandate for purposes of article XIII B, section 6.[295]

The court in *Department of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1355 (*POBRA*) also found that practical compulsion (or certain and severe … penalties' such as 'double … taxation' or other 'draconian' consequences) can be shown if a local government claimant makes a concrete showing, supported by substantial evidence in the record, that as a practical matter exercising the authority is the only reasonable means to carry out the entity's core mandatory function.[296] The test claim statutes at issue in that case imposed duties on all law

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and community college districts may be required to hire peace officers to maintain a safe campus].

[295] *Department of Finance v. Commission on State Mandates* (2003) 30 Cal.4th 727, 753-754.

[296] *Department of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1355, 1368.

enforcement agencies that employ peace officers. School districts have the authority to employ peace officers, but, unlike counties and cities, are not required to employ peace officer.[297] The court found that although school districts have a basic and mandatory duty to educate students, the provision of police protection is not an essential or basic function of school districts.[298] The court further found that "it was not manifest on the face of the statutes cited nor is there any showing in the record that hiring its own peace officers, rather than relying upon the county or city in which it is embedded, is the only way as a practical matter to comply."[299] Thus, as described below, the court held that there was no showing that as a practical matter, exercising the authority to hire peace officers was the only reasonable means to carry out their core mandatory function to educate students.

> The Commission submits that this case should be distinguishable from *City of Merced* and *Kern High School Dist.* because the districts "employ peace officers when necessary to carry out the essential obligations and functions established by law." However, the "necessity" that is required is facing " 'certain and severe … penalties' such as 'double … taxation' or other 'draconian' consequences." [Citation omitted.] That cannot be established in this case without a concrete showing that reliance upon the general law enforcement resources of cities and counties will result in such severe adverse consequences.
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> The Commission notes that *Carmel Valley Fire Protection Dist. v. State* characterizes police protection as one of "the most essential and basic functions of local government.'" [Citation omitted.] However, that characterization is in the context of cities, counties, and districts that have as an ordinary, principal, and mandatory duty the provision of policing services within their territorial jurisdiction. A fire protection district perforce must hire firefighters to supply that protection.
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> Thus, as to cities, counties, and such districts, new statutory duties that increase the costs of such services are prima facie reimbursable. This is true, notwithstanding a potential argument that such a local government's decision is voluntary in part, as to the number of personnel it hires. [Citation omitted.] A school district, for example, has an analogous basic and mandatory duty to educate students. In the course of carrying out that duty, some "discretionary expulsions will necessarily occur. [Citation omitted.] Accordingly, *San Diego Unified School Dist.* suggests additional costs of "discretionary" expulsions should not be considered voluntary. Where, as a practical matter, it is inevitable that certain actions will occur in the administration of a mandatory program, costs

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[297] *Department of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1355, 1368.

[298] *Department of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1355, 1367.

[299] *Department of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1355, 1367.

> attendant to those actions cannot fairly and reasonably be characterized as voluntary under the rationale of *City of Merced*. [Citation omitted.]
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> However, the districts in issue are authorized, but not required, to provide their own peace officers and do not have provision of police protection as an essential and basic function. It is not essential unless there is a showing that, as a practical matter, exercising the authority to hire peace officers is the only reasonable means to carry out their core mandatory functions. As there is no such showing in the record, the Commission erred in finding that POBRA constitutes a state-mandated program for school districts and the special districts identified in Government Code section 3301. Similarly, the superior court erred in concluding as a matter of law that, "[a]s a practical matter," the employment of peace officers by the local agencies is "not an optional program" and "they do not have a genuine choice of alternative measures that meet their agency-specific needs for security and law enforcement.[300]

Here, state law does not legally compel the claimant to provide water services or to operate as a PWS, and there is no evidence in the record that the claimant is practically compelled and would suffer "certain and severe penalties or other draconian measures," if the claimant decided to no longer provide water services to its residents or operate as a PWS. As noted above, the California Constitution clearly permits cities to establish and operate public works to provide water; however the next subdivision permits the same activities to be undertaken by a private entity and case law states that this an historically proprietary rather than a governmental function.[301] In supplying water to its inhabitants, a municipality acts in the same capacity as a private corporation engaged in a similar business, and not in its sovereign role.[302] Consequently, "the authority granted to a city under article XI, section 19, is a "privileged power"; a city is not obliged to furnish water to its inhabitants and has no duty of supplying water, although it may do so."[303]

Accordingly, the Commission finds that requirements imposed by the test claim order are not mandated by the state, but are triggered by a local decision to provide water services and operate as a PWS.

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[300] *Department of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1355, 1367-1368.

[301] California Constitution, article XI, section 9(a-b); *In re Orosi Public Utility Dist.* (1925) 196 Cal. 43, 57-58; *City of Pasadena v. Railroad Com.* (1920) 183 Cal. 526, 529; *Marin Water etc. Co. v. Town of Sausalito* (1916) 168 Cal. 587, 595, overruled on other grounds in *Los Angeles Met. Transit Authority v. Public Utilities Com.* (1963) 59 Cal.2d 863, 869; *South City of Pasadena v. Pasadena Land etc. Co.* [1908] 152 Cal. 579, 593.

[302] *Nourse v. City of Los Angeles* (1914) 25 Cal.App. 384, 385.

[303] *People* ex rel. *City of Downey v. Downey County Water Dist.* (1962) 202 Cal.App.2d 786, 792.

3. The new requirements of the test claim order do not constitute a new program or higher level of service, within the meaning of article XIII B, section 6 of the California Constitution.

State mandate reimbursement is not required for any and all costs that might be incurred by local government as an incident of a change in law. Mandate reimbursement is required only when all elements of article XIII B, section 6 are met, including that the statute or executive order imposes a "new program or higher level of service."[304] The California Supreme Court explained in *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, that a new program or higher level of service means a program that carries out of the governmental function of providing services to the public, or laws which, to implement a state policy, imposes unique requirements on local government and does not apply generally to all residents and entities in the state," as follows:

> Looking at the language of section 6 then, it seems clear that by itself the term "higher level of service" is meaningless. It must be read in conjunction with the predecessor phrase "new program" to give it meaning. Thus read, it is apparent that the subvention requirement for increased or higher level of service is directed to state mandated increases in the services provided by local agencies in existing "programs." But the term "program" itself is not defined in article XIII B. What programs then did the electorate have in mind when section 6 was adopted? We conclude that the drafters and the electorate had in mind the commonly understood meanings of the term – *programs that carry out the governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state*.[305]

The Court further held that "the intent underlying section 6 was to require reimbursement to local agencies for the costs involved in carrying out functions *peculiar to government*, not for expenses incurred by local agencies as an incidental impact of laws that apply generally to all state residents and entities."[306] The law at issue in the *County of Los Angeles* case addressed increased worker's compensation benefits for government employees, and the Court concluded that:

> …section 6 has no application to, and the state need not provide subvention for, the costs incurred by local agencies in providing to their employees the same increase in worker's compensation benefits that employees of private individuals or organizations receive. Workers' compensation is *not* a program administered by local agencies to *provide service to the public*.[307]

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[304] California Constitution, article XIII B, section 6.

[305] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56 (emphasis added).

[306] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56-57 (emphasis added).

[307] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 57-58 (emphasis added).

The Court also concluded that the statute did not impose unique requirements on local government:

> Although local agencies must provide benefits to their employees either through insurance or direct payment, they are indistinguishable in this respect from private employers. In no sense can employers, public or private, be considered to be administrators of a program of workers' compensation or to be providing services incidental to administration of the program. Workers' compensation is administered by the state through the Division of Industrial Accidents and the Workers' Compensation Appeals Board. [Citation omitted.] Therefore, although the state requires that employers provide workers' compensation for nonexempt categories of employees, increases in the cost of providing this employee benefit are not subject to reimbursement as state-mandated programs or higher levels of service within the meaning of section 6.[308]

In *City of Sacramento*, the Court considered whether a state law extending mandatory unemployment insurance coverage to include local government employees imposed a reimbursable state mandate.[309] The Court followed *County of Los Angeles*, holding that "[b]y requiring local governments to provide unemployment compensation protection to their own employees, the state has not compelled provision of new or increased 'service to the public' at the local level…[nor] imposed a state policy 'uniquely' on local governments."[310] Rather, the Court observed that most employers were already required to provide unemployment protection to their employers, and "[e]xtension of this requirement to local governments, together with the state government and nonprofit corporations, merely makes the local agencies 'indistinguishable in this respect from private employers.'"[311]

A few other examples are instructive. In *Carmel Valley*, the claimants sought reimbursement from the state for protective clothing and equipment required by regulation, and the State argued that private sector firefighters were also subject to the regulations, and thus the regulations were not unique to government.[312] The court rejected that argument, finding that "police and fire protection are two of the most essential and basic functions of local government."[313] And since there was no evidence on that point in the trial court, the court held "we have no difficulty in

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[308] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56, 58.

[309] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51.

[310] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 67.

[311] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 67. See also, *City of Richmond v. Commission on State Mandates* (1998) 64 Cal.App.4th 1190 [Finding that statute eliminating local government exemption from liability for worker's compensation death benefits for public safety employees "simply puts local government employers on the same footing as all other nonexempt employers."

[312] *Carmel Valley Fire Protection District v. State of California* (1987) 190 Cal.App.3d 521.

[313] *Carmel Valley Fire Protection District v. State of California* (1987) 190 Cal.App.3d 521, 537 [quoting *Verreos v. City and County of San Francisco* (1976) 63 Cal.App.3d 86, 107].

concluding as a matter of judicial notice that the overwhelming number of fire fighters discharge a classic governmental function."[314] Thus, the court found that the regulations requiring local agencies to provide protective clothing and equipment to firefighters carried out the governmental function of providing services to the public. The court also found that the requirements were uniquely imposed on government because:

> The executive orders manifest a state policy to provide updated equipment to all fire fighters. Indeed, compliance with the executive orders is compulsory. The requirements imposed on local governments are also unique because fire fighting is overwhelmingly engaged in by local agencies. Finally, the orders do not generally apply to all residents and entities in the State but only to those involved in fire fighting.[315]

Later, in *County of Los Angeles II*, counties sought reimbursement for elevator fire and earthquake safety regulations that applied to all elevators, not just those that were publicly owned.[316] The court found that the regulations were plainly not unique to government.[317] The court also found that the regulations did not carry out the governmental function of providing a service to the public, despite declarations by the county that without those elevators, "no peculiarly governmental functions and no purposes mandated on County by State law could be performed in those County buildings . . . ."[318] The court held that the regulations did not constitute an increased or higher level of service, because "[t]he regulations at issue do not mandate elevator service; they simply establish safety measures."[319] The court continued:

> In determining whether these regulations are a program, the critical question is whether the mandated program carries out the governmental function of providing services to the public, not whether the elevators can be used to obtain these services. Providing elevators equipped with fire and earthquake safety features simply is not "a governmental function of providing services to the public." [FN 5 This case is therefore unlike *Lucia Mar, supra*, 44 Cal.3d 830, in which the court found the education of handicapped children to be a governmental function (44

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[314] *Carmel Valley Fire Protection District v. State of California* (1987) 190 Cal.App.3d 521, 537.

[315] *Carmel Valley Fire Protection District v. State of California* (1987) 190 Cal.App.3d 521, 538.

[316] *County of Los Angeles v. Department of Industrial Relations* (1989) 214 Cal.App.3d 1538.

[317] *County of Los Angeles v. Department of Industrial Relations* (1989) 214 Cal.App.3d 1538, 1545.

[318] *County of Los Angeles v. Department of Industrial Relations* (1989) 214 Cal.App.3d 1538, 1545.

[319] *County of Los Angeles v. Department of Industrial Relations* (1989) 214 Cal.App.3d 1538, 1546.

> Cal.3d at p. 835) and *Carmel Valley, supra*, where the court reached a similar conclusion regarding fire protection services. (190 Cal.App.3d at p. 537.)[320]

Here, SWRCB has argued that the test claim order, one of over 1,100 public water system permits amended simultaneously, is not a state-mandated new program or higher level of service because (1) of the 1,100 permits, approximately 450 were issued to privately-owned and operated drinking water suppliers; and (2) providing water, and testing for lead in that water, is not a peculiarly governmental function. SWRCB reaches its conclusion not only by analyzing *County of Los Angeles* and its progeny, discussed above, but also calling upon case law distinguishing between local government activities in a sovereign capacity and local government activities more in the nature of corporate or business activities, comparing the operation of a PWS to the latter category of activity. And, SWRCB notes the existence of the Service Duplication Law within the Public Utilities Code, which requires a local government to compensate a private water provider when it extends service into the private entity's service area.[321] SWRCB asserts that the existence of a compensation requirement implies that providing water service is not universally, or even predominantly, the purview of local government.

In its rebuttal comments, the claimant argues at length that providing water service *is* a governmental function of providing services to the public, and that the test claim order imposes unique requirements on the claimant. Specifically, the claimant asserts (1) that *County of Los Angeles* and the cases following only require that a governmental function be a function of providing services to the public, not that the function at issue must be "peculiar" to government;[322] (2) that the sovereign immunity cases cited by SWRCB no longer provide a useful determinant, especially after Proposition 218, for whether services provided by local entities are more in the nature of governmental services, or proprietary or corporate services;[323] (3) that anything that a local government does pursuant to legal authority is a government function;[324] (4) that the Service Duplication Law cited by SWRCB does not represent a legislative determination on water service as a non-governmental activity;[325] (5) that even though SWRCB presents evidence that 75 percent of drinking water systems are private entities, it should be more persuasive that 81 percent of California residents are served by a governmental water provider;[326] (6) that the "program" at issue is ensuring safe schools, which the courts have found to be a program within the meaning of article XIII B, section 6, and not providing

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[320] *County of Los Angeles v. Department of Industrial Relations* (1989) 214 Cal.App.3d 1538, 1546, Footnote 5.

[321] Exhibit C, SWRCB's Comments on the Test Claim, pages 9-13.

[322] Exhibit E, Claimant's Rebuttal Comments, page 4.

[323] Exhibit E, Claimant's Rebuttal Comments, page 5.

[324] Exhibit E, Claimant's Rebuttal Comments, page 5.

[325] Exhibit E, Claimant's Rebuttal Comments, page 5.

[326] Exhibit E, Claimant's Rebuttal Comments, page 5.

water;[327] and finally, (7) that the test claim order does not apply generally to all residents and entities in the state, but implements a state policy of providing safe drinking water to students by requiring local water providers to test for lead on school property.[328]

As analyzed herein, the Commission finds that the test claim order does not impose a new program or higher level of service.

a. The requirements of the test claim order are not uniquely imposed on government.

The claimant contends that the test claim order imposes unique requirements on the claimant that do not apply generally to all residents and entities in the State and, therefore constitutes a new program or higher level of service:

> The Permit Amendment applies specifically to the City. It does not apply generally to all residents and entities in the State. Even collectively considering all 1,100 permit amendments issued by SWRCB, they only apply to local water agencies with schools in their service areas, not to everyone in the State. The Permit Amendment does not require lead testing be performed for all state residents and entities either, only for schools. Collectively, the permit amendments apply uniquely to water agencies in the same way the Court found the requirement for fire protective gear applied uniquely to public and private fire protection agencies. The permit amendments do not need to exclusively apply to publicly-owned water agencies to satisfy the uniqueness element of the second test.
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> Under the second test, examples of laws that apply generally to all residents and entities in the state include requirements to provide employees with unemployment insurance coverage, worker's compensation benefits, or to upgrade public buildings to comply with statewide elevator safety regulations. Subvention was denied in these cases because the requirements applied to everyone, not just to local government. Unlike these examples, though, the Permit Amendment only applies to the City. Those in the State who do not provide water service do not have to comply with the Permit Amendment.
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> The Permit Amendment satisfies all the elements of the second test. The Permit Amendment is implementing a State policy of providing safe drinking water to school students. The policy is implemented by obligating local water agencies to test for lead on school property. The obligation to test for lead does not apply generally to all residents and entities in the State, but uniquely to local water agencies. Therefore, the Permit Amendment is a new program eligible for reimbursement under the second test established by the Supreme Court.[329]

The Commission disagrees with the claimant and finds that the requirements of the test claim order are not uniquely imposed on government.

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[327] Exhibit E, Claimant's Rebuttal Comments, pages 6-7.

[328] Exhibit E, Claimant's Rebuttal Comments, pages 7-8.

[329] Exhibit E, Claimant's Rebuttal Comments, page 8.

It is correct that the test claim order, is uniquely addressed to *a* local government entity (the City of San Diego, in its capacity as the operator of a PWS in this instance). However, it is but one of 1,128 permit amendments adopted near-simultaneously, more than a third of which were issued to privately owned PWSs, with the same requirements to perform lead sampling upon request of a school district. Privately owned PWS's subject to lead testing requirements due to a permit amendment include mutual water companies organized under the Corporations Code;[330] and investor-owned utilities regulated under the Public Utilities Code.[331] And, as instructed by the courts interpreting article XIII B, section 6 of the California Constitution, this test claim order cannot be considered in isolation; it must be construed in context with other similar permits

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[330] Corporations Code section 14300 et seq.. See, e.g., Exhibit C, SWRCB Comments on the Test Claim, Permit Amendments issued to entities described as "mutual water company" or "mutual water association": pages 897 [Ali Mutual Water Co.]; 1053 [Aromas Hills Mutual Water Association]; 1092 [Arrowhead Villas Mutual Service Co.]; 1139 [Atascadero Mutual Water Co.]; 1153 [Averydale Mutual Water Co.]; 1340 [Bedel Mutual Water Co.]; 1392 [Bellflower-Somerset MWC]; 1414 [Best Road Mutual Water Co.]; 1427 [Beverly Grand Mutual Water]; 1623 [Box Springs Mutual Water Co.].

[331] See, Exhibit X, List of Regulated Water and Sewer Utilities, California Public Utilities Commission, August 17, 2018. See, e.g., Exhibit C, SWRCB Comments on the Test Claim, Permit Amendments issued to investor-owned utilities regulated by PUC: pages 1265 [Bakman Water Co.]; 1292 [Bass Lake Water Co.]; 1455 [Big Basin Water Co.]; 1862-1939 [California Water Service Company: King City, Las Lomas, Oak Hills, Salinas Hills, Salinas, Stockton]; 1940 [California American Water, Coronado]; 2105 [California Water Service, Bear Gulch]; 2133-2177 [California Water Service: East Los Angeles, Hermosa/Redondo; Palos Verdes]; 2193-2220 [California Water Service: Westlake, Los Altos Suburban]; 2240 [California Water Service, South San Francisco]; 2380-2414 [Cal-Water Service Co.: Chico, Hamilton City, Marysville, Oroville, Willows]; 2508 [Canada Woods Water Co.]; 2661 [Cazadero Water Co.]; 5956 [CWS Bakersfield]; 6034 [CWS Selma]; 6060-6098 [CWS: Visalia, Dixon, Livermore]; 6194-6214 [Del Oro Water Co.: Magalia, Paradise Pines, Stirling Bluffs]; 6481 [East Pasadena Water Co.]; 6541 [Easton Estates Water Co.]; 6725 [Erskine Creek Water Co.]; 7077 [Fruitridge Vista Water Co.]; 7192 [Golden State Water Co., Clearlake]; 7315 [Golden State Water Co., Wrightwood]; 7395 [Great Oaks Water Co.]; 7408 [Green Acres Mobile Home Estates]; 7880 [Havasu Water Co.]; 8078 [Hillview Water Co., Oakhurst/Sierra Lakes]; 8524 [Kenwood Village Water Co.]; 8866 [Lake Alpine Water Co.]; 9021 [Las Flores Water Co.]; 9270 Little Bear Water Co.]; 9426 Lukins Brothers Water Co.]; 9768 [Mesa Crest Water Co.]; 10082 [Mountain Mesa Water Co.]; 10217 Nacimiento Water Co.]; 10871 Penngrove Water Co.]; 10925 [Pierpoint Springs Water Co.]; 11066 [Point Arena Water Works]; 11478 [Rio Plaza Water Co.]; 11542 [Rolling Green Utilities]; 11803-11845 [San Gabriel Valley Water Co., El Monte, Montebello, Fontana]; 11915 [San Jose Water Co.]; 12959 [Southern California Edison Co., Santa Catalina]; 12975 [Spreckels Water Co.]; 13163-13213 [Suburban Water Systems, Covina, Glendora, La Mirada]; 14361 [Warring Water Service, Inc.]; 14411 [Weimar Water Co.]; 14426 [West San Martin Water Works, Inc.]; 14649 [Yerba Buena Water Co.].

issued by SWRCB to PWSs.[332] For example, the test claim statute in *City of Sacramento* expressly extended unemployment insurance to public sector employees without altering the law applicable to private sector employees.[333] The California Supreme Court, however, considered the statute in context and held that the statute did not impose requirements unique to local government and, thus, did not impose a new program or higher level of service: "Extension of this requirement to local governments, together with the state government and nonprofit corporations, merely makes the local agencies 'indistinguishable in this respect from private employers.'"[334] The Court also observed that it would "have an anomalous result" if the State could "avoid subvention under *County of Los Angeles* standards by imposing new obligations on the public and private sectors at the same time," while "if it chose to proceed by stages, extending such obligations first to private entities, and only later to local governments, it would have to pay."[335] Similarly, the test claim statute in *City of Richmond v. Commission on State Mandates* eliminated a statutory exemption from providing workers' compensation death benefits to local safety members, which put local government employers on the same footing as all other nonexempt employers, requiring that they provide the workers' compensation death benefit.[336] The court found that the statute did not impose a new program or higher level of service, even though the statute itself, considered in isolation, affected only local government.[337]

As indicated above, the provision of water through a public water system, to a school or any other customer, is not unique to government. Article XI, section 9 of the California Constitution provides that a municipal corporation, or a private person or corporation, may be established to operate public works to furnish water.[338] This provision was adopted by voter initiative to make clear that cities or other local entities had authority to organize to provide such services, which had previously been provided primarily by private entities.[339] Moreover, as noted the term "public water system" does not mean a water system owned or operated by a governmental entity; California's SDWA defines a PWS as "a system for the provision to the public of water for human consumption" that has at least 15 service connections and serves at least 25 people per

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[332] See *City of Richmond v. Commission on State Mandates* (1998) 64 Cal.App.4th 1190 [Elimination of a previous statutory exemption from part of worker's compensation law was not a new program, uniquely imposed on government, even though the statute itself, considered in isolation, affected only local government.].

[333] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51.

[334] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 67 [quoting *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 58].

[335] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 69.

[336] *City of Richmond v. Commission on State Mandates* (1998) 64 Cal.App.4th 1190, 1197.

[337] *City of Richmond v. Commission on State Mandates* (1998) 64 Cal.App.4th 1190, 1197-1198.

[338] California Constitution, article XI, section 9(a-b).

[339] *In re Bonds of Orosi Public Utility Dist*. (1925) 196 Cal. 43, 55 ["The adoption of the amendment definitely settled and removed all doubt from the question of the right of cities and towns to own and operate the kind of public utilities designated by the Constitution."].

day for at least 60 days out of the year.[340] In addition, the Act defines several other water systems that might deliver drinking water and would be regulated under the Act, including, but not limited to, a "community water system," defined as a public water system that serves yearlong residents; and a "state small water system," defined as a system that serves at least five but not more than 14 service connections and does not regularly serve at least 25 persons for more than 60 days out of the year.[341] Accordingly, SWRCB provides evidence that there are 6,970 water systems of various types currently operating in California, 5,314 of which (approximately 76 percent) are privately owned and operated, and 1,656 of which are public entities.[342]

Therefore, this Test Claim is distinguishable from *Carmel Valley*, in which the court noted that it did not have evidence in the record of the existence or prevalence of private fire-fighting teams or private fire personnel, but accepted it as a matter of judicial notice that the overwhelming majority of fire fighters discharge a governmental service.[343] Here, the evidence shows that the test claim order is one permit of more than 1,100 issued to drinking water suppliers that serve at least one K-12 school, a substantial number of which are non-governmental entities.

This Test Claim most closely resembles *County of Los Angeles II*.[344] In that case, earthquake safety regulations applied to all elevators, and affected the local government only insofar as the local entity operated buildings that contained working elevators.[345] Here, the test claim order affects the claimant only because the claimant provides drinking water through a PWS to K-12 schools within its service area, and those schools have requested testing.

The claimant asserts that the lead sampling requirements of the test claim order "do not apply generally to all residents and entities in the State, but uniquely to local water agencies,"[346] but that statement misconstrues the test,[347] and misstates the facts. The Court in *County of Los Angeles* reasoned that the "drafters and the electorate" that shaped and adopted article XIII B, section 6, intended to require mandate reimbursement for "programs that carry out the governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on local government and do not apply generally to all

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[340] Health and Safety Code 116275(h).

[341] See Health and Safety Code section 116275(h-k; n-o).

[342] Exhibit C, SWRCB's Comments on the Test Claim, pages 2; 455-457. However, the claimant argues, and SWRCB concedes, that the largest water systems are publicly owned, and therefore the majority of Californians are served by a publicly owned water system. (Exhibit C, SWRCB's Comments on the Test Claim, p. 2; Exhibit E, Claimant's Rebuttal Comments, p. 5.)

[343] *Carmel Valley Fire Protection Dist. v. State of California* (1987) 190 Cal.App.3d 521, 537.

[344] *County of Los Angeles v. Dept. of Industrial Relations* (1989) 214 Cal.App.3d 1538.

[345] *County of Los Angeles v. Dept. of Industrial Relations* (1989) 214 Cal.App.3d 1538, 1545.

[346] Exhibit E, Claimant's Rebuttal Comments, pages 8-9.

[347] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56.

residents and entities in the state."[348] The claimant asserts that because the test claim order applies only to PWSs, and not "all residents and entities in the State," that it should be considered "uniquely [imposed on] local water agencies."[349] This reasoning misinterprets and misapplies the words "generally" and "uniquely," which the Court used to illustrate the difference between a generally applicable law that results indirectly, or incidentally, in costs to local government; and a law that specifically and directly imposes new "unique" requirements on local government.[350]

First, *general*, does not mean *universal*: "The rule need not, however, apply universally; a rule applies generally so long as it declares how a certain class of cases will be decided."[351] Accordingly, the idea that a law would "apply generally to all residents and entities in the State" should not be taken to mean that a law must apply broadly to *all* persons and entities without limitation or caveat; laws may apply to a class of persons or entities, or to a defined set of circumstances, and still be considered to apply *generally*.[352]

Second, and relatedly, a law that applies to a class of persons or entities whose members are both governmental and private cannot be said to apply *uniquely* to local government, as the claimant asserts. Rather, the requirements of the test claim order are applicable to all PWS's that serve at least one K-12 school, and there is evidence in the record, absent in *Carmel Valley*,[353] that there are a substantial number of PWS's affected by the policy that are privately owned. Thus, the requirements are not *unique* to government at all; rather, they apply to the claimant and similarly-situated local agencies by virtue of their decision to own or operate a PWS, but they also apply to PWSs that are not local government agencies; approximately 450 privately owned PWSs are subject to the same requirements. The claimant notes that in *City of Sacramento*,[354] *County of Los Angeles*,[355] and *County of Los Angeles II*,[356] "[s]ubvention was denied in these

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[348] *County of Los Angeles v. State* (1987) 43 Cal.3d 46, 56.

[349] Exhibit E, Claimant's Rebuttal Comments, pages 8-9.

[350] *County of Los Angeles v. State* (1987) 43 Cal.3d 46, 56-57.

[351] *Tidewater Marine Western v. Bradshaw* (1996) 14 Cal.4th 557, 571.

[352] *Ex parte Weisberg* (1932) 215 Cal. 624, 629 ["A law is general and uniform and affords equal protection in its operation when it applies equally to all persons embraced within the class to which it is addressed, provided that such class is founded upon some natural or intrinsic or constitutional distinction between the persons composing it and others not embraced in it."]

[353] *Carmel Valley Fire Protection Dist. v. State of California* (1987) 190 Cal.App.3d 521, 537 ["Our record on this point is incomplete because the issue was not presented below. Nonetheless, we have no difficulty in concluding as a matter of judicial notice that the overwhelming number of fire fighters discharge a classical governmental function."]

[354] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51.

[355] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56.

[356] *County of Los Angeles v. Dept. of Industrial Relations* (1989) 214 Cal.App.3d 1538.

cases because the requirements applied to everyone, not just to local government."[357] The same must hold true regarding the lead testing requirements of the test claim order, which apply to "everyone" that operates a PWS that serves K-12 schools.

Accordingly, the requirements of the test claim order are not uniquely imposed on local government.

b. The test claim order does not impose a *governmental function* of providing a service to the public within the meaning of article XIII B, section 6.

The claimant also asserts that the test claim order imposes a new program or higher level of service on the following grounds: *County of Los Angeles* and the cases following only require that a governmental function be a function of providing services to the public, not that the function at issue must be "peculiar" to government;[358] anything a local government does pursuant to legal authority is a government function;[359] even though SWRCB presents evidence that 75 percent of drinking water systems are private entities, it should be more persuasive that 81 percent of California residents are served by a governmental water provider;[360] and, alternatively, the "program" at issue is ensuring safe schools, and not providing water, which the courts have found to be a program within the meaning of article XIII B, section 6.[361]

The Commission finds that the test claim order does not impose a governmental function of providing a service to the public within the meaning of article XIII B, section 6 of the California Constitution.

As discussed above, the California Supreme Court in *County of Los Angeles* defined a program subject to article XIII B, section 6, as "*programs that carry out the governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state*."[362] The Court went on to explain, referencing the ballot arguments that declared that section 6 "[w]ill not allow the state government to force programs on local governments without the state paying for them," that "the phrase 'to force programs on local governments' confirms that the intent underlying section 6 was to require reimbursement to local agencies for the *costs involved in carrying out functions peculiar to government*, not for expenses incurred by local agencies as an incidental impact of laws that apply generally to all state residents and entities."[363] On that basis, the Court reasoned that workers compensation was not a governmental *program* at all, both because it is not administered by local government (it is administered by the State), and

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[357] Exhibit E, Claimant's Rebuttal Comments, page 8.

[358] Exhibit E, Claimant's Rebuttal Comments, page 4.

[359] Exhibit E, Claimant's Rebuttal Comments, page 5.

[360] Exhibit E, Claimant's Rebuttal Comments, page 5.

[361] Exhibit E, Claimant's Rebuttal Comments, pages 6-7.

[362] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56 (emphasis added).

[363] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 57.

because, pursuant to the test claim statute, private and public employers have the same obligations under the law.[364]

In the years since, the courts have applied and interpreted this test to *confirm* the existence of a *governmental* program within the meaning of article XIII B, section 6 to include the following: protective clothing and equipment for firefighters;[365] education of "handicapped" children;[366] reducing racial or ethnic segregation in public schools;[367] providing due process in expulsion proceedings in public schools;[368] and providing due process in disciplinary proceedings for peace officers employed by cities and counties.[369] In *Carmel Valley*, addressing fire protective clothing and equipment, the court observed that the underlying government service at issue is a "peculiarly governmental function," and that police and fire protection are "two of the most essential and basic functions of local government."[370] The same was echoed in *POBRA*, relative to the due process for city and county peace officer disciplinary proceedings.[371] *Lucia Mar*, *Long Beach*, and *San Diego Unified* all addressed alleged reimbursable mandates in the realm of education,[372] for which the governmental duty of a school district is clearly expressed in the California Constitution,[373] and for which the court in *Long Beach* expressly recognized that education is a "peculiarly governmental function," notwithstanding the existence of private schools.[374] The California Supreme Court also identified, in an earlier decision cited and relied

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[364] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 57-58.

[365] *Carmel Valley Fire Protection Dist. v. State of California* (1987) 190 Cal.App.3d 521.

[366] *Lucia Mar Unified School Dist. v. Honig* (1988) 44 Cal.3d 830.

[367] *Long Beach Unified School Dist. v. State of California* (1990) 225 Cal.App.3d 155.

[368] *San Diego Unified School Dist. v. Commission* (2004) 33 Cal.4th 859.

[369] *Department of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1355.

[370] *Carmel Valley Fire Protection Dist. v. State of California* (1987) 190 Cal.App.3d 521, 537 [citing *County of Sacramento v. Superior Court* (1972) 8 Cal.3d 479, 481; *Verreros v. City and County of San Francisco* (1976) 63 Cal.App.3d 86, 107].

[371] *Department of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1355, 1367 [An "ordinary, principal and mandatory duty" for cities and counties and some special districts to provide "policing services within their territorial jurisdiction."].

[372] *Lucia Mar Unified School Dist. v. Honig* (1988) 44 Cal.3d 830; *Long Beach Unified School Dist. v. State of California* (1990) 225 Cal.App.3d 155; *San Diego Unified School Dist. v. Commission* (2004) 33 Cal.4th 859.

[373] California Constitution, article IX, sections 2 [providing for a State Superintendent of Public Instruction]; 3 [providing for a Superintendent of Schools in each county]; 5 ["The Legislature shall provide for a system of common schools by which a free school shall be kept up and supported in each district at least six months in every year."].

[374] See *Long Beach Unified School Dist.* v. *State of California* (1990) 225 Cal.App.3d 155, 172.

upon in part in *Carmel Valley*, that "tax administration, and mental hospital administration" are "functions peculiarly 'governmental' in nature."[375]

At the same time the courts have *rejected* mandate reimbursement in the following cases, finding that they did *not* involve a governmental function of providing a service to the public: fire and earthquake safety features for elevators in buildings open to the public;[376] elimination of a government and nonprofit employer exemption from contributing to unemployment insurance;[377] awarding attorneys' fees against a local government under Code of Civil Procedure section 1021.5;[378] and the elimination of an exemption for local governments employing public safety workers from requirements to pay workers' compensation death benefits.[379] The cases disapproving reimbursement therefore involved either costs and activities related to public employees;[380] or generally-applicable laws that impacted local government by virtue of some other circumstance (i.e., the award of attorneys' fees for litigants successful against local govenrment, and the applicability of elevator safety regulations in public buildings).[381]

Unlike *Carmel Valley*, *Lucia Mar*, *Long Beach*, *San Diego Unified*, and *POBRA*, the test claim order in this case does not involve an essential and *peculiarly governmental* function.[382] The test claim order here relates to the provision of drinking water through a PWS, which is fundamentally distinct from the other examples discussed above: providingwater service for a fee, and to ratepayers/customers, is far different from providing police or fire protection, or free and appropriate public education, or tax administration or mental hospital care, to all residents of the jurisdiction regardless of their ability to pay which are core governmental functions.

Furthermore, as noted above, there is no legal requirement for local agencies to be involved in providing water, and historically the authority of local agencies to do so was in question. Article XI, section 9(a) of the California Constitution provides that a municipal corporation *may* be established to operate public works to furnish light, water, power, heat, transportation, or means

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[375] *County of Sacramento v. Superior Court* (1972) 8 Cal.3d 479, 481 [cited by *Carmel Valley Fire Protection Dist. v. State of California* (1987) 190 Cal.App.3d 521, 537].

[376] *County of Los Angeles v. Department of Industrial Relations* (1989) 214 Cal.App.3d 1538.

[377] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51.

[378] *County of Fresno v. Lehman* (1991) 229 Cal.App.3d 340.

[379] *City of Richmond v. Commission on State Mandates* (1998) 64 Cal.App.4th 1190.

[380] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51; *City of Richmond v. Commission on State Mandates* (1998) 64 Cal.App.4th 1190. See also, *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46.

[381] *County of Los Angeles v. Department of Industrial Relations* (1989) 214 Cal.App.3d 1538; *County of Fresno v. Lehman* (1991) 229 Cal.App.3d 340.

[382] See, e.g., *Carmel Valley Fire Protection Dist. v. State of California* (1987) 190 Cal.App.3d 521, 537; *Department of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1355, 1367; *Long Beach Unified School Dist.* v. *State of California* (1990) 225 Cal.App.3d 155, 172.

of communication.[383] However, section 9(b) provides that *private persons or corporations* may also establish and operate works for those same purposes "upon conditions and under regulations that the city may prescribe…"[384] As noted above, the courts have interpreted article XI, section 9 to provide authority to provide public utilities, but not a duty.[385] Accordingly, SWRCB provides evidence that there are 6,970 water systems currently operating in California, 5,314 of which are privately owned and operated, and 1,656 of which are public entities.[386] And, as many as two million Californians "are served either by the estimated 250,000 to 600,000 private domestic wells, or by water systems serving fewer than 15 service connections.[387] Thus, the provision of drinking water through a PWS is not only not necessary in all cases and in all parts of the State, it is also an activity and function that, where necessary or expedient, can be fulfilled by a private person or corporation.[388] It bears repeating that the term "public water system" does not mean a water system owned or operated by a governmental entity; a "public water system" is defined only by the number of connections,[389] and is distinguished from a "community water system," a "noncommunity water system," a "nontransient noncommunity water system," a "state small water system," and a "transient noncommunity water system," by the size of each system.[390] Neither the California SDWA, nor federal LCR, defines these entities any differently whether owned and operated by a public entity or by a private person or corporation.

The claimant challenges SWRCB's evidence that approximately 75 percent of water systems throughout the state, or 5,314 of 6,970, are privately owned or operated. The claimant states that while it "has no means to verify the accuracy of this data," the same data provided by SWRCB "demonstrate that public agencies serve 81% of people in the State who have drinking water service."[391] The claimant argues that the number of people statewide receiving drinking water from a publicly owned utility "is strong evidence that water service is a governmental function,

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[383] California Constitution, article XI, section 9(a).

[384] California Constitution, article XI, section 9(b).

[385] *Glenbrook Development Co. v. City of Brea* (1967) 253 Cal.App.2d 267, 275.

[386] Exhibit C, SWRCB's Comments on the Test Claim, page 2. See also, Exhibit C, SWRCB's Comments on the Test Claim, pages 455; 457 [Listing the number of public and private water systems, respectively, governed by each county and water district].

[387] Exhibit X, *A Guide for Private Domestic Well Owners*, California State Water Resources Control Board Groundwater Ambient Monitoring and Assessment (GAMA) Program, March 2015, page 6.

[388] See California Constitution, article XI, section 9(b); Corporations Code section 14300 et seq.

[389] A public water system is defined as having 15 or more service connections, serving 25 or more persons at least 60 days out of the year.

[390] Health and Safety Code section 116275(h-k; n-o).

[391] Exhibit E, Claimant's Rebuttal Comments, page 5.

more persuasive than the fact that small, privately owned water systems outnumber large, publicly owned systems."[392]

However, the relative number of *persons* served by privately or publicly owned water systems is not persuasive evidence that water service is a governmental function; the majority of persons served by publicly owned water systems is merely a function of the size and capacity of the publicly owned systems, and presumably also a more dense and urbanized ratepayer/customer base.[393] In addition, as many as two million California residents still rely on private domestic wells or water systems with fewer than 15 service connections for their drinking water, rather than a PWS.[394] The specific requirements of this test claim order apply beyond local government entities, as discussed above; the requirements apply to any and every PWS that decides to supply water and serves at least one K-12 school. Subtantial evidence has been presented that as many as one-third of affected entities are privately held or operated.[395]

Finally, the claimant argues that the "program" at issue in this Test Claim is not providing water through a PWS at all; rather "[t]he lead testing program in the Permit Amendment carries out a…governmental function of ensuring safe schools."[396] The claimant asserts that the history of the test claim order, including failed SB 334 and the associated veto message, "demonstrates [the order's] purpose is to provide safe schools, a governmental function, while shifting financial responsibility to local water agencies."[397] The claimant argues that "[h]ad SB 334 become law and schools had to test water for lead to confirm their students had safe, clean drinking water, the schools would have been performing a governmental function subject to reimbursement from the state."[398] The claimant concludes that the required testing "does not lose its characterization as a 'governmental function of providing services to the public' under the Supreme Court's test, merely because the obligation is transferred from schools to water agencies."[399]

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[392] Exhibit E, Claimant's Rebuttal Comments, page 5.

[393] Exhibit C, SWRCB's Comments on the Test Claim, page 2.

[394] Exhibit C, SWRCB's Comments on the Test Claim, page 2; Exhibit X, *A Guide for Private Domestic Well Owners*, California State Water Resources Control Board Groundwater Ambient Monitoring and Assessment (GAMA) Program, March 2015, page 6.

[395] See Exhibit E, Claimant's Rebuttal Comments, pages 34-35 [SWRCB Media Release, January 17, 2017 ("The Board is requiring all community water systems to test school drinking water upon request by the school's officials.")]; Exhibit C, SWRCB's Comments on the Test Claim, page 2. See also, Exhibit C, SWRCB's Comments on the Test Claim, pages 455; 457 [Listing the number of public and private water systems, respectively, governed by each county and water district]

[396] Exhibit E, Claimant's Rebuttal Comments, page 6.

[397] Exhibit E, Claimant's Rebuttal Comments, page 7.

[398] Exhibit E, Claimant's Rebuttal Comments, page 7.

[399] Exhibit E, Claimant's Rebuttal Comments, page 7.

The Commission disagrees. As noted in the Background, SB 334 proposed to amend the "Lead-Safe Schools Protection Act" in the Education Code to require school districts with water sources or drinking water supplies that do not meet U.S. EPA standards, to close access to those drinking water sources, provide alternative drinking water sources if the school did not have the minimum number of drinking fountains required by law, and to provide access to free, fresh, and clean drinking water during meal times in the food service areas of the schools under its jurisdiction.[400] The governor vetoed SB 334, believing that it would impose a reimbursable mandate of "uncertain but possibly very large magnitude."[401]

There is no dispute that school districts, as part of the educational services they provide to students, have an existing affirmative duty to protect students and to keep the school premises safe and welcoming. The courts have found that

> A special relationship is formed between a school district and its students resulting in the imposition of an affirmative duty on the school district to take all reasonable steps to protect its students. This affirmative duty arises, in part, based on the compulsory nature of education. (*Rodriguez v. Inglewood Unified School Dist.* (1986) 186 Cal.App.3d 707, 714-715; … see also Cal.Const., art. 1, § 28, subd. (c) [students have inalienable right to attend safe, secure, and peaceful campuses]; Ed. Code, § 48200 [children between 6 and 18 years subject to compulsory full-time education].) "The right of all students to a school environment fit for learning cannot be questioned. Attendance is mandatory and the aim of all schools is to teach. Teaching and learning cannot take place without the physical and mental well-being of the students. The school premises, in short, must be safe and welcoming." (*In re William G.* (1985) 40 Cal.3d 550, 563 …)[402]

In addition, existing law requires school districts to furnish and repair school property and to "keep the schoolhouses in repair during the time school is taught therein . . . ."[403]

The test claim order, and similar orders issued by the SWRCB, require a PWS to test for the presence of lead in drinking water fixtures on school property *upon request of a school in its service area*. A PWS has no duty to ensure safe schools, as alleged by the claimant; the schools maintain and exercise that duty with their request for lead testing. The claimant, and other public entities operating water systems that serve K-12 schools, are subject to the test claim order by virtue of their decision to provide water. Like maintaining elevators, providing water is not a *governmental* function, as explained in the above analysis.

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[400] Senate Bill 334 sought to amend Education Code sections 32242 and 38086, and add sections 32241.5, 32246, and 32249 to the Education Code. Exhibit B, Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, page 148 [SB 334, Legislative Counsel's Digest].

[401] Exhibit E, Claimant's Rebuttal Comments, page 7 [quoting Governor's Veto Message, SB 334 (Oct. 9, 2015)].

[402] *M.W. v. Panama Buena Vista Union School Dist.* (2003) 110 Cal.App.4th 508, 517. (Exhibit D, Finance's Comments on the Test Claim.)

[403] Education Code sections 17565 and 17593.

Therefore, the test claim order does not impose a *governmental* function of providing a service to the public within the meaning of article XIII B, section 6 of the California Constitution.

c. The cases addressing tort claims for damages, which distinguished between proprietary and governmental functions, and the "Service Duplication Law" support the finding that the test claim order does not impose a *governmental* function of providing a service to the public within the meaning of article XIII B, section 6.

Additionally, a "line of cases decided prior to California's adoption of the Government Claims Act, and which involved tort claims for damages against local governments," is consistent with and reinforces the distinction between "governmental" functions or programs that may be the subject of mandate reimbursement, and those functions that are not "governmental" and are not subject to mandate reimbursement. Specifically, SWRCB asserts that local entities act in either a "governmental" or "public" capacity, or a "corporate" or "private" capacity, and that the same distinction used to determine whether sovereign immunity attached to a particular action is consistent with, and provides an analogy to, the concept of a governmental function or "program" in the mandates context.[404]

The "proprietary" versus "governmental" distinction traces back to the common law jurisprudence on the scope of sovereign immunity, prior to the adoption of the Government Claims Act. In order to resolve questions of government liability the courts had been forced to draw a distinction between activities that are *governmental* in nature, and thus entitled to immunity, and those that are more "corporate" or "proprietary" and not so entitled.[405] The Court described a local government providing water, light, heat, or power as "not acting in its governmental capacity as a sovereign, but…in a proprietary capacity."[406] The Court later explained that it was "now a generally accepted proposition that," when a local government "undertakes to supply…utilities and facilities of urban life…it is, in fact, *engaging in business* upon municipal capital and for municipal purposes."[407]

The claimant argues, to the contrary, that essentially any service that a local government has authority to provide, or any activity that local government may engage in under its police power, is a local government function, and that the distinction between governmental and "proprietary" or "corporate" activity is no longer a useful determinant: "Water service provided by public

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[404] Exhibit C, SWRCB Comments on the Test Claim, page 12.

[405] Exhibit C, SWRCB's Comments on the Test Claim, page 12.

[406] Exhibit C, SWRCB's Comments on the Test Claim, page 12 [quoting *City of Pasadena v. Railroad Commission of California* (1920) 183 Cal. 526 (disapproved of on other grounds by *County of Inyo v. Public Utilities Commission* (1980) 26 Cal.3d 154)].

[407] Exhibit C, SWRCB's Comments on the Test Claim, page 12 [quoting *In re Bonds of Orosi Public Utility District v. McHuaig* (1925) 196 Cal. 43]. See also, *Glenbrook Development Co. v. City of Brea* (1967) 253 Cal.App.2d 267, 275 ["In supplying water to its inhabitants, a municipality acts in the same capacity as a private corporation engaged in a similar business, and not in its sovereign role."].

agencies no longer carries the indicia of a proprietary function or private enterprise due to Proposition 218…, which eliminates profit from water service charges."[408] The claimant cites authority that it maintains undermines the usefulness of the distinction: in *Pacific Telephone & Telegraph Company v. Redevelopment Agency of the City of Redlands* the court held that "[t]he labels 'governmental function' and 'proprietary function' are of dubious value in terms of legal analysis in any context."[409] The court went on to say that the distinction, developed for and applied in government tort claims, was "manifestly unsatisfactory" and "operated both 'illogically' and 'inequitably.'"[410] In *Northeast Sacramento County Sanitation District v. Northridge Park County Water District of Sacramento County*, also cited by the claimant, the court stated broadly that anything local government is authorized to do "constitutes a function of government, and when a municipality acts pursuant to granted authority it acts as government and not as a private entrepreneur."[411]

First, the Commission disagrees that Proposition 218 has any bearing on whether water service is a "governmental" function. The claimant argues that the existence of Proposition 218 demonstrates that utility services such as water are "governmental," not "proprietary" functions, because a local government engaging in utility services does not have the ability to set its rates at a level that will maintain profitability. The claimant assumes, without analysis or evidence, that a private utility supplier would be able to do so. However, the comparison is poor: a private utility entity is hardly an unfettered profit generator, because it is required by law to charge only rates that are just and reasonable, subject to the regulation and control of the Public Utilities Commission.[412] In short, the limitations of Proposition 218, applicable to a publicly owned PWS, even to the extent they may be more stringent than the the limitations applicable to a privately owned utility, do not alter the fundamental nature of the service or function being provided – in this case a function that the city is not required by law to perform – to provide water service.

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[408] Exhibit E, Claimant's Rebuttal Comments, page 5.

[409] *Pacific Telephone & Telegraph Company v. Redevelopment Agency of the City of Redlands* (1977) 75 Cal.App.3d 957, 968.

[410] *Pacific Telephone & Telegraph Company v. Redevelopment Agency of the City of Redlands* (1977) 75 Cal.App.3d 957, 968.

[411] *Northeast Sacramento County Sanitation District v. Northridge Park County Water District of Sacramento County* (1966) 247 Cal.App.2d 317, 325.

[412] See Public Utilities Code 451; 454; 728 ["Whenever the commission, after a hearing, finds that the rates or classifications, demanded, observed, charged, or collected by any public utility for or in connection with any service, product, or commodity, or the rules, practices, or contracts affecting such rates or classifications are insufficient, unlawful, unjust, unreasonable, discriminatory, or preferential, the commission shall determine and fix, by order, the just, reasonable, or sufficient rates, classifications, rules, practices, or contracts to be thereafter observed and in force."].

More importantly, while the cases cited by the claimant discount the value of the distinction between *governmental* and *proprietary* or *corporate* functions,[413] they do so on grounds other than the nature of the service provided. In both cases the court is weighing the rights of a utility (in *Northeast Sacramento* an apparent publicly owned utility) to place its service lines along or under a public roadway, against the power of a public agency to force relocation of those service lines at the utility's expense.[414] This makes the applicability of the cited language to the mandates context suspect, at best. And, in each case, the claimant has selectively quoted language that undermines the *governmental* versus *proprietary* distinction, despite contrary language in the same opinion.[415] In addition, *neither* court finds the distinction to be dispositive of the issues.[416]

In *Pacific Telephone and Telegraph Co.*, the company sought compensation from the City and the Redevelopment Agency for expenses resulting from the abandonment of a street that carried its service lines, which in turn necessitated relocation of the lines] under two theories including "because the city and the agency were acting in a proprietary capacity."[417] But the court held that "'[a] utility's right to compensation should depend, not on whether municipal activity is 'governmental' or 'proprietary,' but on whether compensation has been required by the Legislature [such as under the Community Redevelopment Law], or whether there has been a

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[413] *Pacific Telephone & Telegraph Company v. Redevelopment Agency of the City of Redlands* (1977) 75 Cal.App.3d 957, 968; *Northeast Sacramento County Sanitation District v. Northridge Park County Water District of Sacramento County* (1966) 247 Cal.App.2d 317, 325.

[414] *Pacific Telephone & Telegraph Company v. Redevelopment Agency of the City of Redlands* (1977) 75 Cal.App.3d 957, 961-961; *Northeast Sacramento County Sanitation District v. Northridge Park County Water District of Sacramento County* (1966) 247 Cal.App.2d 317, 318.

[415] *Pacific Telephone & Telegraph Company v. Redevelopment Agency of the City of Redlands* (1977) 75 Cal.App.3d 957, 969 ["Under traditional tests, such enterprises were uniformly treated as being proprietary in nature."]; *Northeast Sacramento County Sanitation District v. Northridge Park County Water District of Sacramento County* (1966) 247 Cal.App.2d 317, 325 ["…as we have seen a district furnishing a domestic water supply is said to be performing a proprietary act."].

[416] *Pacific Telephone & Telegraph Company v. Redevelopment Agency of the City of Redlands* (1977) 75 Cal.App.3d 957, 968 ["A utility's right to compensation should depend, not on whether municipal activity is 'governmental' or 'proprietary,' but on whether compensation has been required by the Legislature, or whether there has been a constitutionally compensable taking or damaging of a valuable property right."]; 970 ["PT&T's contention that it is entitled to compensation on the theory that the city and the agency were acting in a proprietary capacity is without merit."]; *Northeast Sacramento County Sanitation District v. Northridge Park County Water District of Sacramento County* (1966) 247 Cal.App.2d 317, 325 [To maintain the 'governmental versus proprietary function' as a test in the determination of relocation cost allocation is no less specious."].

[417] *Pacific Telephone & Telegraph Company v. Redevelopment Agency of the City of Redlands* (1977) 75 Cal.App.3d 957, 968.

constitutionally compensable taking or damaging of a valuable property right."[418] And, the court also noted, in declining to consider *City of Los Angeles v. Los Angeles Gas & Electric Corp*.[419] and *Postal-Tel.Co. v. San Francisco*,[420] both of which addressed utilities compelled to relocate service lines to accommodate another, publicly owned utility, that "[u]nder traditional tests," public utility businesses carried on by a municipality "*were uniformly treated as being proprietary in nature*."[421]*Northeast Sacramento County Sanitation Dist*. addressed a dispute between a water utility district and a sewer utility district, wherein the sanitation district constructed sewers in and under the same roads where water lines had already been laid, which required relocation of the water mains. Each asserted a "governmental" status superior to the other's "proprietary" interest: the sanitation district argued that it stood in the shoes of the County because the County Board of Supervisors also served as its Board of Directors; while the water district, the court observed, not only held a "favorable position in the area of eminent domain," but also had been given certain rights and privileges under the Water Code usually held by municipalities.[422] However, the court found that neither had superior rights, and the language that the claimant cites, that "whatever local government is authorized to do constitutes a function of government…"[423] is, in context, an observation that between a water district and a sanitation district, neither has a greater claim to a "governmental" purpose or a benefit to the public; and therefore neither has superior rights. The court concluded that "each district when performing the identical type of function – the laying of pipe lines in a public street – should pay its own way," and therefore since the water district's lines were first in time, the sanitation district must pay for the necessary relocation.[424]

And, in 1967, the year after *Northeast Sacramento*, the Fourth District Court of Appeal decided *Glenbrook Development Co*.[425] As discussed above, the court in *Glenbrook Development Co.*

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[418] *Pacific Telephone & Telegraph Company v. Redevelopment Agency of the City of Redlands* (1977) 75 Cal.App.3d 957, 968.

[419] 251 U.S. 32.

[420] 53 Cal.App. 188.

[421] *Pacific Telephone & Telegraph Company v. Redevelopment Agency of the City of Redlands* (1977) 75 Cal.App.3d 957, 969 [Declining to consider *City of Los Angeles v. Los Angeles Gas & Electric Corp*., 251 U.S. 32 and *Postal Tel.-Cable Co. v. San Francisco*, 53 Cal.App. 188, because both involve utility relocations to accommodate another utility].

[422] *Northeast Sacramento County Sanitation District v. Northridge Park County Water District of Sacramento County* (1966) 247 Cal.App.2d 317, 322.

[423] *Northeast Sacramento County Sanitation District v. Northridge Park County Water District of Sacramento County* (1966) 247 Cal.App.2d 317, 325.

[424] *Northeast Sacramento County Sanitation District v. Northridge Park County Water District of Sacramento County* (1966) 247 Cal.App.2d 317, 325-326.

[425] *Glenbrook Development Co. v. City of Brea* (1967) 253 Cal.App.2d 267.

found that that cities have no legal duty to provide water to their citizens, and reiterated and again endorsed the view that "service of water by a city is a proprietary function."[426]

Thus, the cases cited by SWRCB support the conclusion that the test claim order does not impose a *governmental* function of providing a service to the public within the meaning of article XIII B, section 6, and the cases cited by the claimant are not relevant to the mandate issue here and are dicta,[427] at best.

Finally, the Public Utilities Code contains a provision known as the "Service Duplication Law," which requires a local government to compensate a privately owned drinking water supplier if the local entity extends service into the service area of the private supplier.[428] SWRCB argues that this compensation requirement "amounts to a legislative determination that water service is not a service that is or should be peculiar to local governments."[429] The claimant argues instead that "[i]f anything, the Service Duplication Law recognizes that water service was transitioning from a private to a predominantly governmental function by providing compensation to private utilities for lost business."[430] The claimant asserts that "[n]ow, over 50 years later, that transition is substantially complete."[431]

The Commission finds that the Service Duplication Law weighs against finding that water service is a governmental function. Public Utilities Code section 1501 provides as follows:

> The Legislature recognizes the substantial obligation undertaken by a privately owned public utility which is franchised under the Constitution or by a certificate of public convenience and necessity to provide water service in that the utility must provide facilities to meet the present and prospective needs of those in its service area who may request service. At the same time, the rates that may be charged for water service by a regulated utility are fixed by the Public Utilities Commission at levels which assume that the facilities so installed will remain used and useful in the operation of the utility for a period of time measured by the physical life of such facilities.
>
> The Legislature finds and declares that the potential loss of value of such facilities which may result from the construction and operation by a political subdivision of

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[426] *Glenbrook Development Co. v. City of Brea* (1967) 253 Cal.App.2d 267, 275 ["In supplying water to its inhabitants, a municipality acts in the same capacity as a private corporation engaged in a similar business, and not in its sovereign role."].

[427] "Dicta" is a legal term which is short for "obiter dictum" and which in Latin means "something said in passing" and is a comment made while delivering a judicial opinion, but it is unnecessary to the decision in the case and therefore not precedential.

[428] Exhibit C, SWRCB's Comments on the Test Claim, page 13 [citing Pub. Util. Code § 1501 et seq.].

[429] Exhibit C, SWRCB's Comments on the Test Claim, page 13.

[430] Exhibit E, Claimant's Rebuttal Comments, page 5.

[431] Exhibit E, Claimant's Rebuttal Comments, page 5.

> similar or duplicating facilities in the service area of such a private utility often deters such private utility from obtaining a certificate or extending its facilities to provide in many areas a water supply essential to the health and safety of the citizens thereof.
>
> The Legislature further finds and declares that it is necessary for the public health, safety, and welfare that privately owned public utilities regulated by the state be compensated for damages that they may suffer by reason of political subdivisions extending their facilities into the service areas of such privately owned public utilities.[432]

Sections 1503 and 1504 contain the operative provisions. In section 1503, the Legislature "finds and declares that whenever a political subdivision constructs facilities to provide or extend water service, or provides or extends such service, to any service area of a private utility with the same type of service, such an act constitutes a taking of the property of the private utility for a public purpose to the extent that the private utility is injured by reason of any of its property employed in providing water service being made inoperative, reduced in value or rendered useless…"[433] Section 1504 requires the "political subdivision" to compensate for the taking: "Just compensation for the property so taken for public purposes shall be as may be mutually agreed by the political subdivision and the private utility or as ascertained and fixed by a court…"[434] Section 1504 further provides that if the compensation required is equal to the just compensation value of all the property of the private utility, the political subdivision may provide for the acquisition of all such property (i.e., condemn the property in eminent domain).[435]

As the Legislative intent language in section 1501 states, the Legislature "recognize[d] the substantial obligation undertaken by a privately owned public utility…" including facilities and equipment, and that the Public Utilities Commission limits the rates that may be charged by such utilities "at levels which assume that the facilities so installed will remain used and useful…" for the life of the equipment or facilities.[436] In addition, the Legislature recognized that "the potential loss of value of such facilities…often deters such private utility from…extending its facilities to provide in many areas a water supply essential to the health and safety of the citizens thereof."[437]

The intent language shows that the purpose of the Service Duplication Law was to provide a remedy to protect the investment of privately owned utilities providing water service, and to mitigate the deterrent or chilling effect of local government potentially encroaching upon a private water supplier's service area and customers. And, while sections 1503 and 1504 of the

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[432] Public Utilities Code section 1501.

[433] Public Utilities Code section 1503.

[434] Public Utilities Code section 1504.

[435] Public Utilities Code section 1504.

[436] Public Utilities Code section 1501.

[437] Public Utilities Code section 1501.

Public Utilities Code may have become necessary due to a pattern of municipalities extending duplicative service in certain areas and thus undermining the value of privately owned facilities or equipment, there is no indication that the Legislature intended to convert the provision of water service to a governmental function, as the claimant seems to imply. And indeed the acknowledgement of a deterrent effect and the statutory requirement of compensation suggests that the Legislature believed that private utility companies serving water in areas of the State would continue to be necessary into the future, and for that reason their investments should be protected, lest private entities choose not to offer such services in the first instance. The courts have observed that this is especially important with respect to water utilities.[438] Without the Service Duplication Law, infringement on the service area of a private water utility, and the potential loss of business, might not be compensable at all, unless the facilities and equipment were fully acquired by eminent domain.[439] The Service Duplication Law, in short, is a Legislative innovation designed to protect the viability of private water utilities, in recognition of their long term necessity to provide water in certain areas of the State.

Accordingly, the line of cases addressing tort claims for damages, which distinguished between proprietary and governmental functions, and the "Service Duplication Law," support the finding that the test claim order does not impose a *governmental* function of providing a service to the public within the meaning of article XIII B, section 6.

V. Conclusion

Based on the foregoing analysis, the Commission denies this Test Claim and finds that the test claim order does not mandate a new program or higher level of service.

Accordingly, no findings are made on the issue of whether the test claim order results in increased costs mandated by the state within the meaning of Government Code sections 17514 and 17556.

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[438] *Cucamonga County Water Dist. v. Southwest Water Co.* (1971) 22 Cal.App.3d 245, 259 ["The special importance attached to efficient and economical use and distribution of water in the arid western states, and the provision of the California Constitution that the use of all water is subject to regulation by the State (Cal.Const. Art. XIV) justifies the classification under consideration here."]

[439] *Cucamonga County Water Dist. v. Southwest Water Co.* (1971) 22 Cal.App.3d 245, 259

DECLARATION OF SERVICE BY EMAIL

I, the undersigned, declare as follows:

I am a resident of the County of Sacramento and I am over the age of 18 years, and not a party to the within action. My place of employment is 980 Ninth Street, Suite 300, Sacramento, California 95814.

On December 21, 2018, I served the:

- **Draft Proposed Decision, Schedule for Comments, and Notice of Hearing issued December 21, 2018**

  Lead Sampling in Schools: Public Water System No. 3710020, 17-TC-03
  Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017
  City of San Diego, Claimant

By making it available on the Commission's website and providing notice of how to locate it to the email addresses provided on the attached mailing list.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that this declaration was executed on December 21, 2018 at Sacramento, California.

Jill Magee

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Last Updated: 12/21/18

Claim Number: 17-TC-03

Matter: Lead Sampling in Schools: Public Water System No. 3710020

Claimant: City of San Diego

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Each commission mailing list is continuously updated as requests are received to include or remove any party or person on the mailing list. A current mailing list is provided with commission correspondence, and a copy of the current mailing list is available upon request at any time. Except as provided otherwise by commission rule, when a party or interested party files any written material with the commission concerning a claim, it shall simultaneously serve a copy of the written material on the parties and interested parties to the claim identified on the mailing list provided by the commission. (Cal. Code Regs., tit. 2, § 1181.3.)

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CALIFORNIA
Water Boards

GAVIN NEWSOM
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JARED BLUMENFELD
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

RECEIVED
January 11, 2019
Commission on State Mandates

January 11, 2019

VIA CSM DROPBOX
Heather Halsey
Executive Director
Commission on State Mandates
980 Ninth Street, Suite 300
Sacramento, CA 95814

Re: *Lead Sampling in Schools, Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020,* Comments on Draft Proposed Decision

Dear Ms. Halsey:

The State Water Resources Control Board (State Water Board or Board) appreciates the careful and thoughtful work of the Commission on State Mandates (Commission) staff and concurs with the conclusion reached in the Draft Proposed Decision for the above-noted test claim. The Draft Proposed Decision correctly concludes that Permit Amendment No. 2017PA-SCHOOLS, issued to the City of San Diego (City) (Permit Amendment), does not constitute a reimbursable state-mandated program and denies the test claim.

The Board agrees with the rationale of the Draft Proposed Decision as to why the Permit Amendment does not impose a new program or higher level of service. The Board also agrees that since the Draft Proposed Decision concludes that the test claim does not mandate a new program or higher level of service, it is unnecessary to address the issue of fees. Should the Commission find that the Permit Amendment constitutes a new program or higher level of service, as the Board argued in its response to the test claim, there are alternative grounds to find that the City has sufficient fee authority to comply with the Permit Amendment.

Your December 21, 2018 letter requests that the State Water Board provide the Commission information in advance regarding the Board's participation in the hearing, which is currently set for March 22, 2019 at 10:00 am. At this time, I anticipate that representatives of the Board consisting of myself and management from the State Water Board's Division of Drinking Water will be present at the hearing to answer any questions the Commission may have. I will provide more specifics as the hearing draws near.

If you have any questions concerning this letter, please contact me by email at David.Rice@waterboards.ca.gov or by phone at (916) 341-5182.

Sincerely,

David Rice

David R. Rice
Senior Staff Counsel

DECLARATION OF SERVICE BY EMAIL

I, the undersigned, declare as follows:

I am a resident of the County of Sacramento and I am over the age of 18 years, and not a party to the within action. My place of employment is 980 Ninth Street, Suite 300, Sacramento, California 95814.

On January 14, 2019, I served the:

- **Claimant's Comments on the Draft Proposed Decision filed January 11, 2019**
- **SWRCB's Comments on the Draft Proposed Decision filed January 11, 2019**

  Lead Sampling in Schools: Public Water System No. 3710020, 17-TC-03
  Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017
  City of San Diego, Claimant

By making it available on the Commission's website and providing notice of how to locate it to the email addresses provided on the attached mailing list.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that this declaration was executed on January 14, 2019 at Sacramento, California.

Lorenzo Duran
Commission on State Mandates
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COMMISSION ON STATE MANDATES

Mailing List

Last Updated: 1/9/19

Claim Number: 17-TC-03

Matter: Lead Sampling in Schools: Public Water System No. 3710020

Claimant: City of San Diego

TO ALL PARTIES, INTERESTED PARTIES, AND INTERESTED PERSONS:

Each commission mailing list is continuously updated as requests are received to include or remove any party or person on the mailing list. A current mailing list is provided with commission correspondence, and a copy of the current mailing list is available upon request at any time. Except as provided otherwise by commission rule, when a party or interested party files any written material with the commission concerning a claim, it shall simultaneously serve a copy of the written material on the parties and interested parties to the claim identified on the mailing list provided by the commission. (Cal. Code Regs., tit. 2, § 1181.3.)

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RECEIVED
January 11, 2019
Commission on
State Mandates

January 11, 2019

VIA CSM DROPBOX

Heather Halsey
Executive Director
Commission on State Mandates
980 Ninth Street, Suite 300
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Re: *Lead Sampling in Schools, Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017*, 17-TC-03, Comments on Draft Proposed Decision

Dear Ms. Halsey:

Please accept these comments on behalf of Claimant City of San Diego (City) in response to the Draft Proposed Decision issued on December 21, 2018.

The Commission on State Mandates (Commission) has never been presented with a test claim like this before. This is the only test claim where a local agency has specifically been ordered to provide a new service to customers <u>at no charge</u>. The express purpose behind the Permit Amendment is to avoid spending state funds, and transfer the cost of the new State program to local water agencies.[1] And because of Constitutional restrictions in Proposition 218, local tax dollars will need to be used to fund these free services, from the same limited funds that pay for police, firefighters, filling potholes, and for keeping parks and libraries open.[2] The Draft Proposed Decision validates the State's approach, determining that municipal water agencies are categorically ineligible to seek reimbursement through this Commission, whether or not the cost of new State programs can be recovered through fees or charges. The reasoning is so broad, it opens the door for local taxpayer dollars to be diverted to whatever free services the State decides the public should receive, under the veil of water services.

The main problem with the Draft Proposed Decision, explained in more detail below, is that it only analyzes water service generally, not lead testing specifically, and certainly not <u>free</u> lead testing provided only to schools. This test claim would not have been necessary if the above referenced Permit Amendment did not prohibit the City from charging a fee for its services. The

[1] City of San Diego Comment Letter dated Nov. 9, 2018 (City's Rebuttal Comments) at p. 7.
[2] *Id*. at pp. 9-14.

requirement to conduct lead testing on school property for free amounts to a reimbursable state mandate because it is a public governmental service that must be funded through taxpayer dollars subject to the Gann limit. The expenditure of local taxpayer funds to implement free public programs or services established by the State is what the voters intended to prevent when they passed the Constitutional amendment prohibiting unfunded state mandates.

I. By relying on a distinction between governmental and proprietary functions arising from sovereign immunity and torts, the Draft Proposed Decision erroneously concludes that water service is not a governmental function because private companies provide the same service.

As set forth in the Draft Proposed Decision, there are two tests for programs that are subject to State reimbursement: (1) programs that carry out the governmental function of providing services to the public, or (2) laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state.[3] The first test focuses on whether the program is governmental (a program-specific test), while the second test focuses on whether the program is uniquely imposed on government (a provider-specific test). These are two alternative, independent tests.[4] A state program is eligible for reimbursement if the program is governmental, or if the program is imposed uniquely on local government.

The Draft Proposed Decision kills two birds with one stone, by applying a provider-specific test twice. The Draft Proposed Decision determines the Permit Amendment does not impose unique requirements on local government because private companies received similar orders, and then concludes water service is not a peculiarly governmental function because private companies also provide water service. In other words, the fact that private companies provide water service defeats both tests. What this analysis fails to recognize is that private companies can perform governmental functions without turning the function into a proprietary one. For example, operating prisons is a governmental function even though both public entities and private companies perform the service.[5] Trash collection is also a governmental function even though public agencies and private firms both provide the service.[6] Governmental functions are not limited to functions performed *exclusively* by government.[7]

The reason why the Draft Proposed Decision is applying the same test twice is because it rests on a century-old distinction between governmental and proprietary functions that uses a provider-specific test to determine the nature of the function. The court opinions cited by the State Water Resources Control Board (SWRCB) determine water service is not a governmental function

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[3] *County of Los Angeles v. State of California*, (1987) 43 Cal. 3d 46, 56.
[4] *Carmel Valley Fire Protection District v. State of California*, (1987) 190 Cal. App. 3d 521, 537.
[5] *See Richardson v. McKnight*, (1997) 521 U.S. 399, 408-409; *Pennsylvania Dept. of Corrections v. Yeskey*, (1998) 524 U.S. 206, 209.
[6] *Davis v. City of Santa Ana*, (1952) 108 Cal. App. 2d 669, 676-677; *Glass v. City of Fresno*, (1936) 17 Cal. App. 2d 555, 558.
[7] *See* Test Claim 10-TC-12, Claimant's Response to DWR Comments on Proposed Draft Decision at p. 2 (Nov. 7, 2014). The City concurs with the legal analysis presented by Claimant in its comment letter.

solely because both local government and private companies provide water service.[8] Furthermore, the distinction was used primarily to resolve questions of sovereign immunity involving torts. The distinction was soundly criticized by the courts, and ultimately abolished by the California Legislature with the Torts Claim Act.[9] The Commission has never denied a test claim because the public service being provided by a local government is a proprietary function.

To properly apply the program-specific test as delineated in *County of Los Angeles*, the Commission must consider the nature of the program or service itself,[10] not whether the service is being provided by government or private companies. The United States Supreme Court has done just that, and determined that municipal water service is a governmental function by focusing on the nature of the program rather than the identity of the provider:

> We conclude that the acquisition and distribution of a supply of water for the needs of the modern city involve the exercise of essential governmental functions, and this conclusion is fortified by a consideration of the public uses to which the water is put. Without such a supply, public schools, public sewers so necessary to preserve health, fire departments, street sprinkling and cleaning, public buildings, parks, playgrounds, and public baths could not exist. And this is equivalent, in a very real sense, to saying that the city itself would then disappear. More than one-fourth of the water furnished by the city of New York, we are told by the record, is utilized for these public purposes. Certainly, the maintenance of public schools, a fire department, a system of sewers, parks, and public buildings, to say nothing of other public facilities and uses, calls for the exercise of governmental functions. And so far as these are concerned, the water supply is a necessary auxiliary, and, therefore, partakes of their nature. [citation omitted]. Moreover, the health and comfort of the city's population of 7,000,000 souls, and in some degree their very existence, are dependent upon and [sic] adequate supply of pure and wholesome water. It may be, as it is suggested, that private corporations would be able and willing to undertake to provide a supply of water for all purposes; but if the state and city of New York be of opinion, as they evidently are, that the service should not be intrusted [sic] to private hands, but should be rendered by the city itself as an appropriate means of discharging its duty to protect the health, safety, and lives of its inhabitants, we do not doubt that it may do so in the exercise of its essential governmental functions.[11]

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[8] *See eg. In re Orosi Public Utility Dist.*, (1925) 196 Cal. 43, 58 "We take it to be now a generally accepted proposition that, while a municipality, which undertakes to supply those of its inhabitants who will pay therefor with utilities and facilities of urban life, is performing a function not governmental, but more often committed to private corporations or persons with whom it may come into competition, it is, in fact, engaging in business upon municipal capital, and for municipal purposes."

[9] *Datil v. City of Los Angeles*, (1968) 263 Cal. App. 2d 655, 660.

[10] The Draft Proposed Decision seems to support this approach, where it states "More importantly, while the cases cited by the claimant discount the value of the distinction between *governmental* and *proprietary* or *corporate* functions, they do so on grounds other than the nature of the service provided." Draft Proposed Decision at p. 73 (emphasis original).

[11] *Brush v. Commissioner of Internal Revenue*, (1936) 300 U.S. 352, 370-371; overruled in part (on other grounds) by *Graves v. People of State of New York ex rel. O'Keefe*, (1939) 306 U.S. 466.

The United States Supreme Court concluded water service is a governmental function in the context of federal taxation, local governmental functions being immune from federal taxes while proprietary functions are not. The Court recognized that many states consider water service to be a proprietary function in the context of immunity and torts, but declined to extend the rule beyond torts, characterizing it as a rule created so that injustice would not result from technical governmental defenses.[12] This analysis provided by the United States Supreme Court is more consistent with the program-specific test in *County of Los Angeles* by examining the nature of the program or service, not just the identity of the providers of the service.

Adopting the United States Supreme Court's determination that water service is a governmental function is also consistent with the California Supreme Court's decision that the City of San Diego, specifically, is acting in a governmental capacity when exercising its pueblo water rights:

> It should at the outset be understood and stated that the pueblo rights, and hence the rights of its successor, the city of San Diego, to whatever of the waters of the San Diego river were from time to time required for the needs of the pueblo and of the city and of the inhabitants of each, were rights which were essentially 'governmental' in character, as much so in fact as were the rights of the ancient pueblo and modern city to the public squares or streets, and that the term 'proprietary,' as employed with reference to certain commercialized uses made by municipalities and other public bodies, of water, light, and power, for example, has no application to the fundamental rights of the plaintiff herein to its ownership of its foregoing classes of property dedicated and devoted to public uses.[13]

If adopted by the Commission, the Draft Proposed Decision would lead to the incongruous result of the City performing a governmental function in securing its local water supply, but then somehow transitioning to a proprietary function in distributing that water to its customers.

II. Even if water service is not a governmental function, lead testing provided at no charge to schools is a governmental function being performed by the City.

The Draft Proposed Decision analyzes the broad concept of water services, without examining the specific public service the Permit Amendment imposes. The Permit Amendment requires the City to perform free lead testing at the request of schools, and to complete the testing and reporting requirements within short deadlines based on the date of the initial request.[14] Just because the City's water utility is capable of providing the service does not mean the new service

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[12] *Id*. at 363. "It is true that in most of the state courts, including those in the state of New York, it is held that the operation of waterworks falls within the category of corporate activities; and the city's liability is affirmed in tort actions arising from negligence in such operation. But the rule in respect of such cases, as we pointed out in Trenton v. New Jersey, 262 U.S. 182, 192, 43 S.Ct. 534, 538, 67 L.Ed. 937, 29 A.L.R. 1471, has been 'applied to escape difficulties, in order that injustice may not result from the recognition of technical defenses based upon the governmental character of such corporations'; and the rule is hopelessly indefinite, probably for that very reason."

[13] *City of San Diego v. Cuyamaca Water Company*, (1930) 209 Cal. 105, 130. Had the City been acting in a proprietary capacity, presumably it would have lost its water rights to the Cuyamaca Water Company and other defendants, who had appropriated the water first.

[14] Permit Amendment at pp. 3-4, paragraphs 3(a)-(m).

is a proprietary water service.[15] As the City explained in its earlier comments, the California Supreme Court has determined that activity performed at the request of water customers is not associated with ongoing water service.[16] Therefore, lead testing performed on school property at their request is not associated with ongoing water service.

The Draft Proposed Decision implies that because the Lead and Copper Rule requires water providers to test for lead on private property, that all lead testing is integral to water service. The Lead and Copper Rule requires "targeted" testing, where at-risk areas for testing are identified by the City using factors such as the age of the plumbing and the source of the water in the particular area, to help assess whether the City's water could contribute to any exceedances for lead or copper. The Permit Amendment is different, requiring lead testing at the request of any K-12 school, regardless of the age of the school or the plumbing, the source of the water, or the City's assessment of the risk of lead at that location. The City must even test separate schools co-located on the same property receiving water from the same location in the City's water system.[17] The Permit Amendment is designed to locate sources of lead on school property, not to assess the City's water. To date, the City has tested for lead at 262 schools pursuant to the Permit Amendment.[18] Five fixtures at four school sites had lead levels above 15 parts per billion.[19] Three of those schools took remedial action which resolved the problems.[20] The remaining school is no longer at the property.[21] The City has not identified any problems with City water through the Permit Amendment.[22]

Lead testing on school property is more akin to the governmental function of building inspections on private property,[23] where the City inspects private facilities that it neither owns nor operates, to confirm compliance with pre-established standards. In this case, the standards and action thresholds are established by the Permit Amendment.[24] The purpose of performing free lead testing at schools is to protect the health of children and students, which is another governmental function.[25] Providing public services for free also seems inherently governmental, though there does not appear to be a case on point in California.[26]

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[15] To simply characterize everything the State orders the City's water utility to do as a proprietary water service would open the door to ordering municipal water agencies to replace pipes and fixtures on school property for free, or to provide free drinking water, the other costs implicated by SB 334. The City has the capability to perform these functions, but such tasks are not associated with ongoing water service.
[16] City's Rebuttal Comments at p. 11; *Richmond v. Shasta Community Services Dist.*, (2004) 32 Cal. 4th 409.
[17] Supplemental Declaration of Doug Campbell, paragraph 11.
[18] *Id*. at paragraph 8.
[19] *Id*.
[20] *Id*. at paragraphs 9, 10.
[21] *Id*. at paragraph 9.
[22] *Id*. at paragraph 10.
[23] *Denman v. City of Pasadena*, (1929) 101 Cal. App. 769, 779.
[24] Permit Amendment at pp. 3-4.
[25] *Kellar v. City of Los Angeles*, (1919) 179 Cal. 605, 608; *Davie v. Board of Regents, University of California*, (1957) 66 Cal. App. 693, 700.
[26] *See Horne v. Town of Blowing Rock*, (2012) 223 N.C. App. 26, 35. "Thus, prior cases in this State reveal that a municipality's operation and maintenance of free public parks for the recreation of its citizens is traditionally a governmental function for which governmental immunity will ordinarily apply; but a municipality may waive such

The Draft Proposed Decision indicates the schools are performing these governmental functions, not the City, by submitting requests to the City for free lead testing.[27] But that presumes the City and the schools cannot both be performing the same governmental functions, and ignores the fact that the Permit Amendment requires the City to honor the schools' requests and to provide all the services for free. Drawing a distinction based on a school's request for free lead testing implies that the regulations in *Carmel Valley* would not have been a reimbursable state mandate if the firefighting agencies had only been required to issue new equipment when requested by individual firefighters. The State should not be able to avoid reimbursable state mandates by merely empowering those needing the service to demand it, instead of directing local agencies to provide it.

III. There is no legislative or voter intent to categorically exclude municipal water agencies from seeking reimbursement for state mandates.

The Service Duplication Law, first raised by SWRCB and relied on by the Draft Proposed Decision, simply has no bearing on this test claim. SWRCB argues this law amounts to a legislative determination that water service is not a governmental function.[28] All the Service Duplication Law does is acknowledge that municipal water agencies and private water companies may end up in competition with one another, and establish a means for compensating one another for lost business to encourage investment in water facilities. Nothing in the Service Duplication Law discusses the distinction between governmental and proprietary functions.

If there was legislative intent to make proprietary functions or municipal water service categorically ineligible for reimbursement, it would be found in the statutes that created this very Commission. Government Code section 17556 lists the seven categories of test claims where the Commission cannot find costs mandated by the state. If the Legislature intended to categorically exclude proprietary services generally, or municipal water agencies specifically, it would have included it there. But the Legislature did not. Instead, the Legislature excluded new programs or higher levels of service where the local government has the authority to levy service charges or fees to recover its costs,[29] which would normally encompass nearly every activity of a municipal water agency. But at least implicit in this exclusion is a legislative intent of where the local government does not have the authority to levy fees or charges to cover the cost, the new program or higher level of service could be eligible to receive reimbursement for the state mandate. This is the situation presented by this test claim because the Permit Amendment mandates a new service at no charge.

A review of the ballot initiative that amended the Constitution to prohibit unfunded state mandates, does not disclose any voter intent to exclude state mandates imposed on municipal

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governmental immunity when revenue is derived either from the operation of the park itself or from the conduct of activities within the park, which can render the park's operation and maintenance a proprietary function."

[27] Draft Proposed Decision at p. 70.

[28] SWRCB Comments at p. 13.

[29] Cal. Gov't Code § 17556(d).

water agencies.[30] The measure was intended to prevent the state government from forcing new programs on local government without the state paying for them.[31] It is unreasonable to believe that voters were aware of the judicially-created distinction between governmental and proprietary functions in torts, and intended to apply the rule in the context of state mandates. The more reasonable interpretation is that the voters intended to include any new state mandated programs imposed on local government that spend local tax dollars, regardless of which branch, department, or service of local government the state chooses to impose upon.

IV. Testing for lead on school property at the City's expense is not analogous to all building owners upgrading their elevators at their own expense.

The Draft Proposed Decision characterizes this test claim as being most analogous to *County of Los Angeles II*, a case involving a requirement to upgrade elevators to meet earthquake safety regulations.[32] The City disagrees. The regulations in that case required all owners of buildings with elevators to upgrade them to meet new earthquake safety standards. Everyone had to upgrade their own elevators, at their own expense. SWRCB did not order everyone to test their own buildings for lead, which would be analogous to *County of Los Angeles II*. Instead, the Permit Amendment requires the City to go out and test other owners' buildings for lead, at City rather than the owners' expense. Upgrading elevators to meet safety standards does not offer any new or additional public service, because the elevators were already installed and in use. The cost of operating the elevators merely became more expensive. Testing for lead on school property is distinguishable as a new service that the City did not offer until mandated by the Permit Amendment. The cost of lead testing is not an incidental or overhead cost, but a direct cost incurred as the new service is requested by each school, and performed by the City.

The other opinions relied on by the Draft Proposed Decision similarly only increase the incidental cost of providing existing services, without offering any new services or programs. Benefits for public and private employees such as unemployment insurance,[33] workers' compensation benefits,[34] and workers' compensation death benefits[35] all increase the cost of having employees, but do not mandate the hiring of additional employees or provide new services to the public. The Permit Amendment requires the City to provide a new public service: free lead testing for schools.

The City's test claim is more analogous to the decision in *Carmel Valley*.[36] *Carmel Valley* involved an executive order to provide updated equipment to all firefighters. The Court noted that "firefighting is overwhelmingly engaged in by local agencies" and the executive orders in the case "do not generally apply to all residents and entities in the State but only to those

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[30] Proposition 4, Special Election ballot pamphlet (1979).
[31] *County of Los Angeles*, *supra*, 43 Cal. 3d at 56.
[32] Draft Proposed Decision at p. 63; *County of Los Angeles v. Dept. of Industrial Relations*, (1989) 214 Cal. App. 3d 1538.
[33] *City of Sacramento v. State of California*, (1990) 50 Cal. 3d 51.
[34] *County of Los Angeles v. State of California*, (1987) 43 Cal. 3d 46.
[35] *City of Richmond v. Commission on State Mandates*, (1998) 64 Cal. App. 4th 1190.
[36] *Carmel Valley Fire Protection District*, *supra*, 190 Cal. App. 3d 521.

involved in fire fighting."[37] Though the Draft Proposed Decision discounts its relevance, 81% of Californians who receive potable water service receive their service from local government agencies.[38] The Permit Amendments do not generally apply to all residents and entities in the State, but only to those providing water service to schools, in the same manner that the requirements in *Carmel Valley* only applied to firefighting agencies. The Commission should determine the Permit Amendment is a reimbursable state mandate following the reasoning in *Carmel Valley*.

V. The City's decision to provide water service does not preclude free lead testing provided at schools from being a reimbursable state mandate.

The Proposed Draft Decision raises new grounds for denying the City's test claim that was not presented by DOF or SWRCB. The Draft Proposed Decision indicates the obligation to provide free lead testing for schools is not mandated by SWRCB, but "instead, triggered by a local discretionary decision to provide water service and operate as a PWS."[39]

The three opinions cited by the Draft Proposed Decision are all distinguishable. First, they all involve relatively contemporaneous decisions to engage in certain activities or programs that can easily be revisited. *City of Merced* involved a new requirement to consider loss of business goodwill when calculating compensation to be paid by local agencies exercise eminent domain.[40] The Court reasoned the new requirement was not mandated by the state because local agencies could then and there decide whether to pursue eminent domain, acquire the property through purchase, or pursue other means.[41] *Department of Finance (Kern High School District)* involved certain notice and agenda requirements for school site councils and advisory bodies that were already being funded by the state.[42] The Court explained the notice and agenda requirements were simply conditions of participating in a state-funded program, and the school is free to stop participating in the program if it does not want to incur the associated costs.[43] In *Department of Finance (POBRA)*, reimbursement of certain administrative and procedural costs associated with investigation and discipline of peace officers was denied because school districts are not required to employ them.[44] Based on the fact that most schools did not have peace officers,[45] the Court determined that hiring peace officers was voluntary and not necessary for the schools to educate and protect students.[46] The Commission appears to recognize that there must be a relationship between when the discretionary decision was made (or can be revisited) and when new state requirements are imposed, because it found reimbursable state mandates with discretionary local

[37] *Id*. at 538.
[38] City's Rebuttal Comments at p. 5.
[39] Proposed Draft Decision at p. 49.
[40] *City of Merced v. State of California*, (1984) 153 Cal. App. 3d 777.
[41] *Id*. at 783.
[42] *Department of Finance v. Commission on State Mandates*, (2003) 30 Cal. 4th 727.
[43] *Id*. at 745.
[44] *Department of Finance v. Commission on State Mandates*, (2009) 170 Cal. App. 4th 1355.
[45] *Id*. at 1359.
[46] *Id*. at 1368.

programs and services that are not mandated by law, such as operating municipal airports[47] and public parks.[48]

The City "decided" to become a municipal water agency on July 21, 1901, when San Diego voters approved the issuance of bonds to purchase the water distribution system from a private water company.[49] This predates even the 1911 Constitutional amendment cited in the Proposed Draft Decision that specifically authorizes municipalities to provide water service.[50] Therefore, the City started providing water service likely before there was even a requirement to obtain a permit from the State to operate a municipal water system. Over the last century, the City has heavily invested in the expansion and betterment of its water system to now serve 1.3 million residents.

Unlike the situations in the three opinions cited by the Draft Proposed Decision, the City cannot take back a decision made almost 120 years ago and stop providing water to its residents. Cities must provide for the health, safety, and welfare of their residents, and simply put, people cannot survive without water. Many of the impacts of turning off the water for 1.3 million people are self-evident:

> We conclude that the acquisition and distribution of a supply of water for the needs of the modern city involve the exercise of essential governmental functions, and this conclusion is fortified by a consideration of the public uses to which the water is put. Without such a supply, public schools, public sewers so necessary to preserve health, fire departments, street sprinkling and cleaning, public buildings, parks, playgrounds, and public baths could not exist. And this is equivalent, in a very real sense, to saying that the city itself would then disappear.[51]

The six largest water consumers in the City are federal (primarily military), state (university), and local agencies serving public purposes, with the City of San Diego being its own largest water customer.[52] These public agencies could no longer function without water. Water is necessary for drinking, cooking, cleaning, firefighting and sanitation. Toilets cannot flush without water, and the absence of water would quickly lead to a health crisis. The City must continue to provide water service to protect the health, safety, and welfare of its residents.

Second, to preclude a state mandate there must be a meaningful nexus or connection between the service or program voluntarily undertaken by a local agency, and the new requirement being imposed by the State. In the three opinions cited by the Proposed Draft Decision, the new requirements imposed by the State were integral to the voluntary programs or services being

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[47] Statement of Decision on Test Claim CSM-4507 (Oct. 22, 1987).
[48] Statement of Decision on Test Claim 01-TC-11 (Dec. 9, 2005).
[49] William E. Smythe, *History of San Diego, 1542-1908*, Part Four, Chapter 4: Water Development at p. 5 of 11 (1908). Also available at http://sandiegohistory.org/archives/books/smythe/part4-4/.
[50] Draft Proposed Decision at p. 49.
[51] *Brush*, *supra*, 300 U.S. at 370-371.
[52] Official Statement, City of San Diego Subordinated Water Revenue Bonds, Series 2018A, (Official Statement) at p. 31; *See* Supplemental Declaration of Ray Palmucci (describing the Official Statement).

provided by local government. In *City of Merced*, the local agency exercising eminent domain is legally responsible to pay for the property, and lost business goodwill is part of the calculation of that cost. In *POBRA*, only the school district can provide the procedural protections mandated by the State because the peace officers are school employees. And in *Kern High School District*, the State mandated notice and agendas are for meetings of the school councils and advisory bodies to the schools.

The City's test claim is distinguishable because there is no nexus between the City's decision to provide water service and free lead testing on school property, other than the one created by the State itself in issuing the order through an amendment to a permit. Certified laboratories can perform lead testing on school property without affecting or interfering with City water service. SWRCB is implementing an accreditation program to certify such laboratories in California.[53] Several State-approved laboratories for water quality analysis are located in San Diego County.[54] There are many obligations SWRCB imposes on municipal water agencies that are integral to water service, such as chemical additives, operational processes at treatment plants, water management plans, and public water quality reports, that only the provider of water service can perform. Free lead testing on school property simply is not one of them, and cannot be said to be inherent or tied to a decision to provide water service.

Finally, even though the City is not legally obligated to provide water service under State law, the City has no practical alternative but to comply with the Permit Amendment. In *Kern High School District*, the California Supreme Court recognizes that circumstances short of legal compulsion could amount to a state mandate:

> Although we do not foreclose the possibility that a reimbursable state mandate might be found in circumstances short of legal compulsion-for example, if the state were to impose a substantial penalty (independent of the program funds at issue) upon any local entity that declined to participate in a given program-claimants here faced no such practical compulsion.[55]

Failure to comply with a drinking water permit can result in suspension or revocation of the permit, which would prevent the City from operating its water system.[56] The Permit Amendment became effective on January 18, 2017, five days before the Permit Amendment was even received by the City on January 23, 2017.[57] The City had no opportunity to revisit its decision or opt out of providing water service before the effective date of the Permit Amendment.

The City would suffer severe consequences if it discontinued water service. Besides the obvious impacts to residents and public services described above, the City would face immediate repayment of bonds and other financing secured over the years to maintain its water system in good working order. As of November 15, 2018, the cumulative amount of that outstanding debt

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[53] Cal. Health & Safety Code § 100829.
[54] County of San Diego informational bulletin, *State Approved Laboratories for Water Quality Analysis* (2015)
[55] *Department of Finance*, *supra*, 30 Cal. 4th at 731.
[56] Cal. Health & Safety Code § 116625.
[57] Permit Amendment at p.1; Permit Amendment cover letter at p.2 (stamped "received" on Jan. 23, 2017).

was about $890 million.[58] Repayment of that debt is scheduled to run through 2050.[59] As a condition of receiving the financing, the City is required to operate and maintain its water system and dedicate net system revenues towards paying back the borrowed money plus interest.[60] Discontinuing water service would be considered an Event of Default, upon which owners of 25% or more of the outstanding principal amount can "declare the entire unpaid principal amount thereof and the accrued interest thereon to be due and payable immediately,"[61] amounting to nearly one billion dollars. Such severe consequences, both practical and financial, compel the City to comply with the Permit Amendment rather than discontinue water service to its residents.

For the reasons set forth herein, the City respectfully requests the Draft Proposed Decision be revised to reflect the City's comments and to grant the City's test claim.

Pursuant to Cal. Code Regs. tit. 2, § 1181.3(a), I certify and declare under penalty of perjury that the foregoing facts are true and correct to the best of my personal knowledge, information, or belief. I further declare that all exhibits are true and correct copies of such documents as they exist in the City's files, or as they were obtained from publicly available sources.

Sincerely,

MARA W. ELLIOTT, City Attorney

By

Thomas C. Zeleny
Sr. Chief Deputy City Attorney

cc: Service List via CSM Dropbox
Doc. No: 1905720

[58] Official Statement, at p. 5 (consisting of $78 million in senior obligations and $812 million in subordinate obligations). This does not include the pending receipt of $614 million in federal loans through the Water Infrastructure Finance and Innovation Act for the Pure Water San Diego Program, which will create a new local source of water by recycling wastewater into potable water.
[59] Official Statement, Debt Service Schedule at p. 24.
[60] *Id*. at pp. 13-14; 2009 Amended and Restated Master Installment Purchase Agreement (MIPA), §§ 5.01, 6.07.
[61] MIPA §§ 8.01(b), 8.01(d).

CITY COMMENTS ON DRAFT PROPOSED DECISION
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Exhibit 24	*Kellar v. City of Los Angeles*, (1919) 179 Cal. 605	820
Exhibit 25	*Pennsylvania Dept. of Corrections v. Yeskey*, (1998) 524 U.S. 206	823
Exhibit 26	*Richardson v. McKnight*, (1997) 521 U.S. 399	828
Exhibit 27	*Richmond v. Shasta Community Services Dist.*, (2004) 32 Cal. 4th 409	840

[1] Pursuant to Cal. Code Regs. tit. 2, § 1183.3(b)(2), published court opinions arising from state mandate determinations are not attached as exhibits.

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

CC: Peter Vroem
CC: Isam Hireish

January 18, 2017

Halla Razak
Public Utilities Director
City of San Diego, System No. 3710020
9192 Topaz Way
San Diego, CA 92123

Dear Halla Razak:

ISSUANCE OF PERMIT AMENDMENT 2017PA_SCHOOLS

REQUIREMENTS FOR LEAD SAMPLING AT K-12 SCHOOLS

The State Water Resource Control Board, Division of Drinking Water (Division) has issued a permit amendment to the City of San Diego water supply permit. The enclosed permit amendment establishes requirements for lead monitoring and lead sample result interpretation at Kindergarten to 12th grade (K-12) schools served by your water system that have submitted a written request for lead sampling related assistance. Full details of the new requirements for K-12 school lead sampling and lead sample result interpretation are included in the enclosed permit amendment.

If your water system does not serve potable water to at least one K-12 school, this permit amendment does not apply to your water system.

The Water System to whom a permit amendment is issued may file a petition with the State Water Resources Control Board (State Water Board) for reconsideration of the decision to issue the permit amendment. Petitions must be received by the State Water Board within 30 calendar days of the issuance of the permit amendment. The date of issuance is the earlier of the date when the permit amendment is mailed or served. If the 30th day falls on a Saturday, Sunday or state holiday, the petition is due the following business day. Petitions must be received by 5 p.m. Information regarding filing petitions may be found at:

http://www.waterboards.ca.gov/drinking_water/programs/petitions/index.shtml

Please visit the Division's school lead sampling webpage at:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.shtml
for additional information including frequently asked questions and other important guidance.

If you have any questions, please contact the Lead Sampling for Schools Specialist at (916) 449-5577 or email your question to DDW-PLU@waterboards.ca.gov

Sincerely,

Sean Sterchi, P.E.
District Engineer

Enclosure: 2017PA_Schools

cc: Keith Kezer, Program Coordinator, Land and Water Quality Division, County of San Diego, Department of Environmental Health (via email)

bcc: ECM – Permitting and Technical Review – Permits, Amendments, Decisions – Permit Amendments

RECEIVED
JAN 23 2017
By

STATE OF *CALIFORNIA*

AMENDMENT TO THE

DOMESTIC WATER SUPPLY PERMIT ISSUED TO

City of San Diego
(Public Water System No. *3710020*)

By The

State Water Resources Control Board

Division of Drinking Water

PERMIT AMENDMENT NO. **2017PA-SCHOOLS** EFFECTIVE DATE: **January 18, 2017**

WHEREAS:

1. The State Water Resources Control Board (SWRCB) "may renew, reissue, revise, or amend any domestic water supply permit whenever the ... [SWRCB] deems it to be necessary for the protection of public health whether or not an application has been filed." (California Health and Safety Code (CHSC), Section 116525 (c))

2. "Every resident of California has the right to pure and safe drinking water." (CHSC, Section 116270 (a))

3. "It is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases." (CHSC, Section 116270 (d))

4. The Safe Drinking Water Act is "intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable." (CHSC, Section 116270 (e))

5. Protecting children from exposure to lead is important to lifelong good health. Children who are exposed to lead could experience long-term problems with physical and mental growth and development. Effects of lead exposure can be managed, but they cannot be remedied.

6. Recent events in the United States have shown that lead in drinking water remains an ongoing public health challenge and important concern for children's health. The SWRCB is encouraging schools that serve one or more of grades Kindergarten through 12th grade to test for lead in water from taps regularly used for drinking or cooking. The school can request assistance from their public water system.

7. Lead exposure in children typically results from a combination of environmental and man-made lead from sources such as paint, air, soil, industry, consumer products, food, and drinking water.

   Normally, the exposure from drinking water would be a very low component of this exposure. Children consume drinking water at home, at school and at various other locations. High levels of lead in drinking water are a concern at any of these locations. Lead in drinking water is typically found at the highest levels on "first draw" samples after the water has stagnated in the water pipes for several hours (such as overnight). If the lead levels are found to be below the action level after stagnation, that is a strong indication that there is an insignificant exposure to lead at that particular sampling location. Individual plumbing fixtures can contribute to high levels in these "first draw" samples.

8. In California, the SWRCB oversees public water systems to ensure the water they provide is tested and safe per the requirements of the State and Federal Safe Drinking Water Acts, and regulations adopted pursuant to those Acts, which includes the Lead and Copper Rule (LCR), a regulation adopted by the United States Environmental Protection Agency (USEPA) and the SWRCB to control lead and copper in drinking water.

   Under the LCR, public water systems are required to test water for lead at a set number of service connections (depending on the number of customers served by the system) that are at a higher risk for lead in the tap water due to their plumbing characteristics. Water suppliers are not required to test every customer's tap. Schools that are served by community water systems are generally not included in the LCR testing; only residential connections are included.

THEREFORE: The State Water Resources Control Board hereby determines that it is necessary for the protection of public health for this amendment to be issued, and hereby issues this permit amendment subject to the following provisions:

1. This permit amendment applies to each public water system that serves drinking water to at least one or more of grades Kindergarten through 12th grade school for which a request for lead sampling has been made prior to **November 1, 2019**, as provided for in Provision 3.

2. Each water system shall submit to the SWRCB's Division of Drinking Water (DDW) a comprehensive list of the names and addresses of all Kindergarten through 12th grade schools that are served water through a utility meter by **July 1, 2017**. The list shall be in the format and method posted on the DDW Lead Sampling in California Schools website.

3. If an authorized school representative, (the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a

private school) of a school served by the water system requests one-time assistance with lead sampling in writing, the water system shall:

a. Respond in writing within 60 days of receiving the school's lead sampling request and schedule a meeting with school officials, including at least one staff member familiar with the school's water infrastructure, to develop a sampling plan. An example school lead sampling plan is located on the DDW Lead Sampling in California Schools website. The sampling plan may use the USEPAs "*3Ts for Reducing Lead in Drinking Water in Schools*" as general guidance. The 3T document can be found online at:

https://www.epa.gov/sites/production/files/2015-09/documents/toolkit_leadschools_guide_3ts_leadschools.pdf

b. Finalize a sampling plan and complete the initial sampling within 90 days of receiving the lead sampling request, except that if the water system cannot complete the sampling plan and the lead sampling in that time period, the water system shall develop and comply with a time schedule to complete the sampling plan and initial lead sampling that has been approved by DDW.

c. Collect from one to five samples at each school from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan described in Provision 3 (b) using the sampling guidance located in **Appendix A (Sampling Guidance)** which is attached. Sample sites may be either treated or untreated.

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday or Friday during a day school is in session and has been in session for at least one school day prior to the date of sampling.

e. Ensure that samples are collected by a water system representative that is adequately trained to collect lead and copper samples.

f. Submit the samples to an ELAP certified laboratory for analysis of lead.

g. Require the laboratory to submit the data electronically to DDW in accordance with the electronic submittal guidance which is located on the DDW Lead Sampling in California Schools website.

h. Provide a copy of the results to the requesting authorized school representative.

i. Within two school business days of receipt of a laboratory result that shows an exceedance of 15 parts per billion (ppb) at a sample site, notify the school of the sample result.

j. If an initial lead sample result shows an exceedance of 15 parts per billion (ppb) at a sample site,

   i. Collect an additional sample (resample) within 10 business days of receipt of the laboratory result above 15 ppb if the sample site remains in service.

   ii. Collect a third sample within 10 business days after notification that a resample result described above is less than or equal to 15 ppb.

iii. If the sample site is removed from service by the school, do not collect the repeat samples unless the school has completed corrective actions.

iv. Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb (examples of corrective action are replacing interior piping, replacing faucet, installing filters, etc.)

k. Ensure that it receives the results of the repeat lead samples required in Provision 3 (j) from the laboratory no more than 10 business days after the date of sample collection.

l. Not release the lead sampling data to the public for 60 days following the receipt of the initial lead sampling results unless the water system releases the data in compliance with a Public Records Act (PRA) request for the specific results.

m. Discuss the lead sample results with the school prior to releasing the sample results to the public. The water system shall discuss all lead sampling results with the school within 10 business days of receiving the results from the laboratory.

4. The water system may stop lead sampling at a school if:

a. All initial samples are less than or equal to 15 ppb; or

b. Repeat sampling has been analyzed for each sample location with an initial lead sample greater than 15 ppb in accordance with Provision 3, and either:

i. If lead is confirmed over 15 ppb and the sample location has subsequently been physically removed from service, or

ii. If the sample location remains in service, and

a. If lead is confirmed over 15 ppb and the school has taken some corrective actions at the sample location and the water system has collected at least one additional lead sample after the corrective actions and the result is less than or equal to 15 ppb, or

b. If lead is less than or equal to 15 ppb in both the first repeat sample and second repeat sample described in Provision 3(j).

c. A written request from the water system to terminate lead sampling assistance has been approved by DDW.

d. If requested in writing by the school's authorized school representative.

5. The water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

6. The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements.

7. The water system shall communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if a school has confirmed lead levels above 15 ppb. The water system is not responsible to pay for any maintenance or corrections needed at the school if elevated lead levels are found in the drinking water. The water system is not responsible for determining any corrective actions needed at the school.

8. The water system shall keep records of all written requests from a school for lead related assistance and provide the records to DDW, upon request. Records shall include, at a minimum, the following information:

   a. The name of the school. If a school district makes a request, the school district's name shall be recorded along with each individual school served by the water system that is requesting sampling;

   b. The date of the request;

   c. The date of the initial meeting;

   d. The date of the sampling plan along with a copy of each sampling plan; and

   e. The date of initial lead sampling and all repeat samples.

9. The water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.

This permit amendment shall be appended to and shall be considered to be an integral part of the existing Domestic Water Supply Permit previously issued to the water system.

This permit amendment shall be effective as of the date shown below.

FOR THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

Dated: January 18, 2017

Sean Sterchi, P.E.
District Engineer
San Diego District
SWRCB-DDW

APPENDIX A
SAMPLING GUIDANCE
Collecting Drinking Water Samples
for Lead Testing At K-12 Schools

This Sampling Guidance is provided by the State Water Resources Control Board (SWRCB) Division of Drinking Water for use by schools and water system staff who will be participating in the collection of samples for the determination of lead in drinking water at K-12 schools. Sampling and testing will be used to help reduce students and staff exposure to lead in the drinking water provided at the school.

This guidance and the instructions for sampling are taken from the US Environmental Protection Agency's 3Ts (Testing, Training, and Telling) for Reducing Lead in Drinking Water in Schools program for measuring and reducing lead at school drinking water locations; however, there are differences between the EPA and SWRCB sampling procedures. The SWRCB procedures used for this testing includes initial sampling to determine the combined lead concentration from the outlet device (bubbler, sink faucet, fountain, etc.) and from the internal plumbing, and repeat sampling to confirm initial sampling test results or to determine the lead concertation after routine, interim, and permanent corrective actions to reduce lead from an outlet device have been completed.

To ensure accurate test results the samples should be collected by following the instructions below for preparation, initial sampling, and repeat sampling.

Preparation

1. At least one school employee should be designated to assist the water system trained sampler during the collection of initial, repeat, confirmation, and check samples and to provide any additional help as necessary to complete the sampling.
2. Select up to five of the busiest locations used for drinking and cooking to be sampled and tested. These locations can be selected by observing students and staff during the morning, break, and lunch periods over as many days as needed until the busiest locations have been identified.
3. All faucets, fountains, coolers, bubblers, bottle filling stations, and filtered water dispensers located on the exterior and interior of buildings, including those located in hallways, playgrounds, classrooms, and cafeterias, should be evaluated to assure that all locations have been considered for selection. Large industrial sinks designed for washing and not intended to be used as a source of water for drinking and cooking should not be included.
4. Do not omit from the evaluation and selection process drinking water locations that are served by a point of use filter (a filter attached to the faucet or under the sink) or drinking water locations in buildings or school ground areas that are served by a water softening, conditioning, or filtration treatment system.
5. Each location selected for testing should be assigned a Sample ID. Each Sample ID should use the following format: <Water System No.>-<School ID>-<Sample ID> i.e. 1710001-005-001.
6. A Lead Sampling Plan should be prepared that includes the five sample locations and Sample IDs identified on a map of the school grounds. Only water system staff trained in sampling should be collecting the samples.
7. All samples should be collected on a Tuesday, Wednesday, Thursday or Friday morning during periods of normal school operations (school is in session) and not during summer school, summer or winter breaks, or other extended breaks. Do not collect the samples on the first day back to school following a vacation, holidays, or weekends.

8. Record the location description, date and time last used, and date and time collected in the Lead Sampling Plan.
9. All samples must be "first draw samples" meaning that at the time of sampling the drinking water locations must not have been used during the previous 6 hours. To ensure this period of inactivity it may be necessary to protect the sample locations overnight prior to collecting the samples early in the morning before students and staff arrive.
10. Do not flush a sample site for any length of time prior to the 6 hour period of inactivity and do not flush a sample site at the outlet before collection of the sample.
11. Leave all angle stops, shutoff valves, and similar devices on the sample line providing water to the drinking water location in a normal state of operation prior to sampling. Do not modify, open, or close any devices located on the sample line in preparation for collecting a sample. Doing so may cause sample results that are not representative of normal operating conditions.
12. Do not remove any filters, aerators, or screens at any sample outlet prior to collecting the samples.
13. All sample bottles must be labeled with the Sample IDs for each sample location. All samples must be collected in 1 liter wide mouth plastic bottles and all bottles must be completely filled. Make sure your laboratory provides 1 liter (not 250 mL) wide mouth sample bottles.
14. If a bottle does not fit at the sample site and cannot be completely filled, a spare 1 liter laboratory bottle may be used to partially fill and transfer the drinking water until the sample bottle is full.
15. It should be requested to the laboratory to provide unpreserved sample bottles. All samples must be delivered to the testing laboratory within 14 days of collection for preservation.
16. Cold water must be collected for all samples. If sampling from a drinking water outlet that provides cold and hot water, the cold water handle must be used for sample collection.

Initial Sampling

Initial sampling is used to determine if a drinking water outlet has a lead level that is above or below the Action Level of 15 ppb. Drinking water outlets with a test result of equal to or less than 15 ppb do not need additional testing and a water system is not required to collect additional samples when the initial sample results is less than or equal to 15 ppb.. Drinking water outlets with an initial sampling test result of greater than 15 ppb exceed the Action Level and should undergo repeat sampling. Water system staff should provide the initial test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory. In the case of an Action Level exceedance water system staff should provide the results to the school within two school business days. Following a review of the initial test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects initial samples using the Initial Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory, the standard laboratory turn-around-time for receiving results is acceptable.
3. All initial sample locations with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, the location is suitable for consumption, and no further testing is needed.
4. All initial sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be tested again by collecting a repeat sample.

5. Drinking water locations with an initial Action Level exceedance should remain in service and repeat samples collected within 10 days of receiving the initial sample results from the water system and by using the Repeat Sampling Instructions as guidance.
6. Alternatively, drinking water locations with an initial Action Level exceedance can be removed from service permanently or until addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions.
7. The water system cannot release the initial lead sampling data to the public for 60 days following the receipt of the initial sampling results in accordance with the permit amendment.

Repeat and Confirmation Sampling

Repeat sampling is used to confirm an initial sampling result indicating that a drinking water outlet has a lead level that is greater than 15 ppb and exceeds the lead Action Level. Confirmation sampling is used to confirm the lead concentration at a drinking water location following an initial sampling lead result greater than 15 ppb and a repeat sampling lead result less than or equal to 15 ppb. Repeat sampling should be performed within 10 days of receiving the initial sample results and, if necessary, confirmation repeat sampling should be performed within 10 days of receiving the repeat sample results. Drinking water outlets with a repeat Action Level exceedance that confirms an initial sample result should be removed from service until corrective actions and check sampling have been performed with test results that indicate the water outlet has a lead level of less than 15 ppb. Water system staff should provide the repeat test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. Following a review of the repeat test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects repeat samples using the Repeat Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All repeat sample locations with a test result of greater than 15 ppb have a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions to minimize students and staff exposure to lead in drinking water.
4. All repeat sample locations with a test result of less than or equal to 15 ppb should be tested again by collecting a confirmation repeat sample to confirm the lead concentration at the drinking water outlet.
5. If the confirmation repeat sample has a test result of greater than 15 ppb the outlet has a lead level that exceeds the Action Level and should be removed from service permanently or addressed using the EPA 3Ts recommendations for routine, interim, and permanent corrective actions and check sampling.
5. If the confirmation repeat sample has a test result of less than or equal to 15 ppb the lead level is less than the Action Level, the location is suitable for consumption, and no further testing is needed.
6. The water system is not required to collect any additional samples when the repeat result and confirmation repeat result are less than or equal to 15 ppb.
7. All repeat sample locations with an Action Level exceedance should remain out of service until the school has completed the corrective actions and the water system has completed check sampling identified in the Corrective Action Plan described below in the Laboratory Results section of this guidance document.

Corrective Action Check Sampling

Following the implementation of any corrective action at a drinking water outlet, check sampling should be performed to determine if the corrective action was successful in reducing the lead level to less than 15 ppb. Corrective actions are performed to reduce the lead concentration at a specific outlet; however, it is possible for a corrective action to have no effect or to increase the lead concentration at an outlet. If any check sample has a lead result of greater than the Action Level, additional corrective actions should be performed until the check sample indicates that the drinking water outlet has a lead level of less than 15 ppb. Water system staff should provide the corrective action test results to the school contact person and meet with the school to discuss the results within 10 days of receipt from the laboratory and in the case of an Action Level exceedance provide the results to the school within two school business days. The drinking water outlet should remain out of service during check sampling and until a lead level of less than 15 ppb is obtained for the test result. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb. If successive corrective actions indicate that the lead level at a drinking water outlet cannot be reduced to equal to or less than the Action Level, the school may choose to permanently remove the outlet from service. Water system staff should provide all laboratory test results to the school contact person upon receipt and in the case of an Action Level exceedance should provide the results within two school business days. Following a review of the check sampling test results the school should document how it will proceed with each individual drinking water outlet.

1. After completing the preparation steps above, the trained sampler collects check samples using the Corrective Action Check Sampling Instructions as guidance.
2. Upon delivery of the samples to the laboratory it shall be requested that results are reported by the laboratory within 10 business days.
3. All check samples with a test result of less than or equal to 15 ppb have lead levels less than the Action Level, no further testing at the drinking water outlet is needed, and the drinking water outlet can be placed back into service.
4. The water system is not required to collect additional samples when the corrective action sample result is less than or equal to 15 ppb.
5. All check samples with a test result of greater than 15 ppb have lead levels greater than the Action Level and additional corrective actions should be implemented at the drinking water outlet.
6. Following each corrective action, collect a check sample for testing to determine if the corrective action was successful in reducing the lead level at the drinking water outlet to less than 15 ppb.
7. Complete the necessary corrective actions and check sampling until a lead level of less than 15 ppb is obtained at which time the drinking water outlet can be placed back into service.

Laboratory Concentrations

The testing laboratory may report the results of the initial and repeat samples in several different formats or units. If the report includes the units of ppb (parts per billion) or ug/L (micrograms per liter) these two are essentially the same and the values in the report can be directly compared to the lead Action Level. If the report includes the units of ppm (parts per million) or mg/L (milligrams per liter) the values in the report must be converted to ppb or ug/L before comparison to the lead Action Level. To convert between units use the following conversion factors:

Convert from ppm to ppb: 1 ppm = 1,000 ppb
Convert from mg/L to ug/L: 1 mg/L = 1,000 ug/L

For example, if the laboratory reports an initial sample result of 0.007 ppm, the conversion would be 0.007 ppm X 1,000 = 7 ppb. The drinking water outlet has a lead concentration below the Action Level of 15 ppb and no further testing is needed.

If the laboratory reports an initial sample result of 0.021 mg/L, the conversion would be 0.021 mg/L X 1,000 = 21 ug/L. Since the units of ug/L and ppb are essentially the same, the drinking water outlet has a lead concentration above the Action Level of 15 ppb and needs testing again using the Repeat Sampling Instructions.

Laboratory Results

Test results should be reviewed by both the water system and the school prior to making any decisions on Action Level exceedances, repeat, confirmation, and check sampling, corrective actions, and release of the results and testing information to the students, staff, and water system customers.

Under most conditions laboratory results are very accurate and considered final; however, under rare circumstances errors can occur during sampling or in the laboratory and test results may not reflect the true concentration of the drinking water outlet. If you feel this has happened, contact the water system staff who performed the sampling and let them know. Water system staff should contact the local SWRCB DDW office for instructions on how to proceed.

Following the review of initial test results by both the water system and the school, both parties should document which drinking water locations are below the Action Level and need no additional testing, and which drinking water locations are above the Action Level and need repeat testing.

Following review of repeat test results by both the water system and the school, both parties should document which drinking water locations have Action Level exceedances and require corrective actions.

Corrective Action Plan

It is recommended that the school prepare a Corrective Action Plan if initial sample test results exceed the Action Level. The water system may be able to assist. The Corrective Action Plan identifies all drinking water outlets that need corrective actions to bring lead levels to less than or equal to 15 ppb and check sampling to return the drinking water outlets to service. The Corrective Action Plan lists all corrective actions found to be appropriate for each individual drinking water location with an Action Level exceedance. Corrective actions such as an aerator/screen cleaning and maintenance program may be suitable for one drinking outlet while the complete replacement of the outlet may be suitable for another location. Schools should refer to the EPA 3Ts references for detailed information on corrective actions. The Corrective Action Plan should be completed before releasing the results and testing information to the students, staff, and water system customers as it will help answer questions about Action Level Exceedances and what plans the school has to address the lead contamination issues. The Corrective Action Plan should be updated with the dates that corrective actions are made, the dates check sampling is performed, and the dates each drinking water outlet is returned to service, so that a record is maintained of each drinking water outlet initially having an Action Level exceedance.

Differences Between SWRCB and EPA Sample Collection

Schools are encouraged to read the EPA 3Ts references listed in the SWRCB *Frequently Asked Questions about Lead Sampling of Drinking Water in California Schools* document. SWRCB has prepared the lead testing at schools program using the EPA 3Ts documents, however, there are differences between the two sampling procedures. The table below lists the major differences and highlights the SWRCB procedures that should be followed.

Differences Between SWRCB and EPA Sample Collection				
Sampling Step	SWRCB Sampling Use These Procedures		EPA 3Ts Sampling (Not Used)	
Lead Action Level	15 ppb	If Initial Sample greater than 15 ppb should do repeat sample	20 ppb	If Initial Sample greater than 20 ppb should do follow-up sample
Initial Sample	1 liter	Tests for lead in the sample outlet and internal plumbing	250 mL	Tests for lead in the sample outlet
Repeat Sample	1 liter	Confirms Initial Sample Result	Not used	
Confirmation Repeat Sample	1 liter	Confirms Repeat Sample Result	Not used	
Corrective Action Check Sample	1 liter	Test lead level after implementation of corrective actions	Not used	
Follow-up Sample with 30-second flush	Not used		250 mL	Test for lead in the internal plumbing
Two-step sampling process	Not used		Determines if source of lead is from sample outlet or internal plumbing	
Lead Sampling Plan and Corrective Action Plan	Record water system and school information; record sample collection information noting any important observations during sampling; complete sample location map for all samples; document all routine, interim, and permanent corrective actions implemented		Not used	
Plumbing Profile and Sampling Plan	Not used		Prepare building and plumbing details; Select sites to be tested	
Drinking Outlet Inactivity	6 hours	Sample outlet unused for at least 6 hrs prior to sampling	8-18 hours	Sample outlet unused for at least 6 hrs but no more than 18 hrs prior to sampling

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November 9, 2018

VIA CSM DROPBOX

Heather Halsey
Executive Director
Commission on State Mandates
980 Ninth Street, Suite 300
Sacramento, CA 95814

Re: *Lead Sampling in Schools, Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017*, 17-TC-03, Response to Comments from DOF and SWRCB

Dear Ms. Halsey:

Please accept these comments on behalf of Claimant City of San Diego (City) in response to comments submitted by the Department of Finance (DOF) and the State Water Resources Control Board (SWRCB). These comments address DOF's and SWRCB's legal arguments as to why they believe the City is ineligible to seek reimbursement: that the Permit Amendment does not impose a new program or a higher level of service on the City, and that the City can raise water rates on all its customers to pay for free lead testing at schools.

I. Introduction

On January 11, 2018, the City submitted a test claim for costs associated with lead testing performed at public and private school campuses as required by the above referenced Permit Amendment. The Permit Amendment requires the City to perform lead testing at the request of any Kindergarten through 12th Grade school in the City's service area <u>at no charge to the school</u>.[1]

DOF and SWRCB both argue in their comments that the City is ineligible for subvention because providing water service is not a governmental function, and therefore lead testing conducted by a water agency is not a new program or higher level of service under state mandates law. They also argue the City is ineligible for subvention because the City has the authority to raise fees on all water ratepayers to pay for lead testing at schools under Proposition 218.

[1] Permit Amendment No. 2017PA-SCHOOLS at p. 4, § 5 (Exhibit 1 at p. 6).

At the outset, we recognize that the two arguments raised by DOF and SWRCB were also raised in consolidated test claims 10-TC-12 and 12-TC-01, regarding certain water conservation measures. While the City was preparing these comments, the Commission's decision to deny those consolidated test claims was first affirmed by the Third District Court of Appeal, and then a rehearing was granted.[2] The Court's pending decision, however, does not impact this test claim for two reasons. First, this test claim is distinguishable because the City is not alleging the majority protest provision in Proposition 218 is a barrier to raising fees, as was argued in the consolidated test claims.[3] Instead, the City is deprived of its fee authority because the Permit Amendment directs the new service be provided at no charge to the schools. Second, because the Commission determined the claimants had sufficient fee authority, the Commission did not decide whether providing water service is a governmental function under state mandates law.[4]

II. Free Lead Testing for Schools is a New Program or a Higher Level of Service

The California Constitution provides that "[w]henever the Legislature or any state agency mandates a new program or higher level of service on any local government, the state shall provide a subvention of funds to reimburse such local government for the costs of such program or increased level of service."[5]

The program created by the Permit Amendment is free lead testing for schools. The program is new in that the City was not previously required to conduct lead testing at schools.[6] Soon after SWRCB issued the Permit Amendment, the State Superintendent of Public Instruction issued a press release entitled:

State Schools Chief Tom Torlakson Announces Free Testing for Lead in Drinking Water at California Public Schools[7]

The press release indicated it was a new state program: "State Superintendent of Public Instruction Tom Torlakson announced that public schools can receive free testing for lead in drinking water under a new state program."[8] SWRCB issued a similar press release announcing the new initiative: "K-12 schools in the state can receive free testing for lead under a new initiative announced today by the State Water Resources Control Board."[9]

The program is also a higher level of service in that it mandates more lead testing than required by the federal Lead and Copper Rule. As SWRCB explains, testing performed under the Lead

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[2] *Paradise Irrigation District, et al. v. Commission on State Mandates,* (2018) 27 Cal. App. 5th 1056 (rehearing granted Oct. 31, 2018).
[3] Decision on Consolidated Test Claims 10-TC-12 and 12-TC-1, at p. 19 (Dec. 5, 2014) (Exhibit 4).
[4] *Id*. at p. 29.
[5] Cal. Const. art. XIII B, §6.
[6] Declaration of Doug Campbell ¶ 11 (Exhibit 5).
[7] California Department of Education News Release #17-8 (Jan. 30, 2017) (Exhibit 2).
[8] *Id*.
[9] Media Release, *California Water Systems to Provide Lead Testing For Schools*, (Jan. 17, 2017) (Exhibit 3).

and Copper Rule is primarily done at private residences.[10] Residences are not selected randomly, but are targeted for testing based on the age and characteristics of plumbing in the area.[11] For large agencies like the City, lead testing is performed at 100 locations, which may be reduced to 50 locations if prior testing shows lead and copper are below certain levels.[12] Testing frequency can likewise be reduced from every six months to every three years.[13] The City is currently on a three year schedule.[14] Under the first year of the Permit Amendment, however, the City received requests for lead testing from 255 schools.[15] The Permit Amendment prohibits counting any of the lead testing performed at schools towards satisfying the Lead and Copper Rule.[16] The Permit Amendment mandates a higher level of service in that it requires lead testing be done at schools in addition to targeted private residences, and in numbers in excess of what is required by the Lead and Copper Rule.

As SWRCB explains, however, a new program may not be eligible for reimbursement under state mandates law if it is required by a law of general application.[17] The California Supreme Court identified the programs subject to subvention as being "[1] programs that carry out the governmental function of providing services to the public, or [2] laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state."[18] These are alternative tests; satisfaction of either test will establish a program subject to reimbursement under state mandates law.[19] Both tests are satisfied in this case.

Under the first test, the service being provided under the Permit Amendment is free lead testing. Lead testing furthers two governmental functions of providing services to the public. The first government function is providing water service, in that the Permit Amendment was issued to the City as a local water agency, and water agencies conduct targeted residential lead testing pursuant to the Lead and Copper Rule. The second governmental function is schooling of children, because schools are obligated to provide a safe environment for students and the Permit Amendment requires lead testing only on school property.

Under the second test, lead testing implements a State policy of providing safe drinking water to school students. Lead testing under the Permit Amendment does not apply to all residents and entities in the state; it applies uniquely to the City as a local water agency. The fact that identical permit amendments were issued to local water agencies that are privately-owned does not preclude the Permit Amendment from being a new program under the second test.

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[10] SWRCB Comments at p. 6.
[11] 40 C.F.R. § 141.86(a).
[12] 40 C.F.R. § 141.86(c).
[13] 40 C.F.R. § 141.86(d).
[14] Declaration of Doug Campbell ¶ 13.
[15] *Id*. at ¶ 7f.
[16] Permit Amendment at p. 5, § 6 (Exhibit 1 at p. 7) ["The water system may not use any lead samples collected as part of these special school samples to satisfy federal or state Lead and Copper Rule requirements."]
[17] SWRCB Comments at p. 8.
[18] *County of Los Angeles v. State of California*, (1987) 43 Cal. 3d 46, 56.
[19] *Carmel Valley Fire Protection District v. State of California*, (1987) 190 Cal. App. 3d 521, 537.

A. Water service is a governmental function that provides services to the public.

The City of San Diego is a charter city. The City Charter imposes a legal obligation and responsibility on the City to provide water service.[20] The City is empowered to adopted rules and regulations necessary for the regulation, use, and government of the water system.[21] The City has approximately 281,000 retail water connections.[22] The City Council must approve rates and charges for water service.[23] Providing water service is a function of City government.

SWRCB argues that the City is ineligible for reimbursement because water service is not a function "peculiar" to government, and therefore not a governmental function.[24] But the first test established by the California Supreme Court does not require that the function be "peculiar" to government, only that the program "carry out the governmental function of providing services to the public."[25] The word "peculiar" is not in the test. The Supreme Court used the term "peculiar" only to distinguish programs that are forced on local government from laws that apply generally to all state residents and entities.[26] The opinion of *Carmel Valley Fire Protection District v. State of California* cited by SWRCB, certainly found that "fire protection is a peculiarly governmental function" in satisfying the first test, despite the fact that private sector fire fighters provide the same service.[27] The opinion does not say, however, that the first test can only be satisfied if the governmental function is peculiar to government, as SWRCB suggests.

The first test only requires that the governmental function be that "of providing services to the public." SWRCB does not cite a published opinion where the government was providing a public service, but subvention was denied because the government function was not peculiar to government. Instead, instances where the first test was not satisfied involved situations where the new requirements did not increase the level of service provided to the public, such as requirements to provide employees with unemployment insurance coverage[28], worker's compensation benefits,[29] or to upgrade public buildings to comply with statewide elevator safety regulations.[30] These requirements only increased the government's incidental cost of providing existing public services rather than requiring new services or programs.

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[20] San Diego Charter § 26.1.
[21] San Diego Charter § 3.
[22] Declaration of Lee Ann Jones-Santos ¶ 5 (Exhibit 6). In its comments, the SWRCB indicates the City has "over 3,000,000 customers to fund the school testing." SWRCB Comments at p.2. The City does not understand how SWRCB arrived at this figure, seeing as the population of the City of San Diego is only 1.4 million.
[23] *See* Cal. Const. art. XIII D, § 6(a)(2).
[24] *See* SWRCB Comments at p. 8 ["The California Supreme Court has established that only those programs which involve a function peculiar to government, or which impose unique requirements on local government, are eligible for subvention."] *See also Id*. at p. 9 ["The Permit Amendment Does Not Involve a Function Peculiar to Government"].
[25] *County of Los Angeles*, *supra*, 43 Cal. 3d at 56.
[26] *County of Los Angeles*, *supra*, 43 Cal. 3d at 56-57.
[27] *Carmel Valley Fire Protection District*, *supra*, 190 Cal. App. 3d at 537.
[28] *City of Sacramento v. State of California*, (1990) 50 Cal. 3d 51.
[29] *County of Los Angeles v. State of California*, (1987) 43 Cal. 3d 46.
[30] *County of Los Angeles v. Department of Industrial Relations*, (1989) 214 Cal. App. 3d 1538.

SWRCB also relies on a 100-year-old line of cases on sovereign immunity, to argue that cities operating a water utility are performing a "proprietary function" and not a "governmental function." Since then, however, Courts have determined "[t]he labels 'governmental function' and 'proprietary function' are of dubious value in terms of legal analysis in any context."[31] "Whatever local government is authorized to do constitutes a function of government, and when a municipality acts pursuant to granted authority it acts as government and not as a private entrepreneur."[32] Water service provided by public agencies no longer carries the indicia of a proprietary function or private enterprise due to Proposition 218 (discussed below), which eliminates profit from water service charges.

SWRCB's reliance on the Service Duplication Law is confusing.[33] The Legislature recognized that private water utilities may be reluctant to invest in facilities "to meet the present and prospective needs" of its customers when there is a possibility that local government could exercise its authority to provide water service in the same area.[34] State law was adopted in 1965 to provide compensation to private water utilities in the event that happens.[35] But this law does not amount to a legislative determination that water service is not a governmental function. If anything, the Service Duplication Law recognizes that water service was transitioning from a private to a predominantly governmental function by providing compensation to private utilities for lost business. Now, over 50 years later, that transition is substantially complete.

The data provided by SWRCB demonstrates that water service is predominantly provided by public agencies. SWRCB and DOF argue that water service is mostly a private enterprise, in that 75% of drinking water systems, or 5,314 of 6,970 water systems, in the State are privately owned.[36] These figures were pulled directly from tables provided by SWRCB.[37] However, the same tables show that 81% of the population served by drinking water systems statewide, or 33.8 million of 41.6 million people, receive their water service from public entities.[38] Similarly, 81% of the water service connections, or 7.7 million of the 9.5 million connections, are connections to public entities.[39] The City has no means to verify the accuracy of this data, but assuming that SWRCB and DOF are correct that 75% of drinking water systems are privately owned, then the same data tables demonstrate that public agencies serve 81% of people in the State who have drinking water service. Such a large percentage of the State population receiving water service from public entities is strong evidence that water service is a governmental function, more persuasive than the fact that small, privately owned water systems outnumber large, publicly owned systems.

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[31] *Pacific Telephone & Telegraph Company v. Redevelopment Agency of the City of Redlands*, (1977) 75 Cal. App. 3d 957, 968.
[32] *Northeast Sacramento County Sanitation District v. Northridge Park County Water District of Sacramento County*, (1966) 247 Cal. App. 2d 317, 325, quoting *Washington Township v. Village of Ridgewood*, (1958) 26 N.J. 578, 584, 141 A.2d 308, 311.
[33] SWRCB Comments at p. 13.
[34] Cal. Pub. Util. Code § 1501.
[35] *Id*. at § 1503; Stats. 1965, c. 1752, p. 3925, Sec. 1.
[36] SWRCB Comments at p. 2; DOF Comments at p. 2.
[37] SWRCB Comments, Attachment 101, pp. 406-409 (Exhibit 7).
[38] *Id*. (using third column totals).
[39] *Id*. (using fourth column totals).

Nevertheless, the fact that private utilities also provide water service does not preclude water service from being a governmental function. In *Carmel Valley Fire Protection District*, the Court determined fire protection is a governmental function even though fire protection is also provided by private firefighters:

> This classification is not weakened by the State's assertion that there are private sector fire fighters who are also subject to the executive orders. Our record on this point is incomplete because the issue was not presented below. Nonetheless, we have no difficulty in concluding as a matter of judicial notice that the overwhelming number of fire fighters discharge a classic governmental function.[40]

If a service had to be exclusively provided by government to be eligible for subvention, then presumably many of this Commission's decisions involving public schools should have been denied because of the prevalence of private schools. Such a rationale would create a loophole for the State to perpetually avoid subvention by including a handful of private entities within the scope of any new programs it imposes on local government.

The California Supreme Court explained the concern the voters had when the Constitution was amended to address state mandates:

> The concern which prompted the inclusion of section 6 in article XIIIB was the perceived attempt by the state to enact legislation or adopt administrative orders creating programs to be administered by local agencies, thereby transferring to those agencies the fiscal responsibility for providing services which the state believed should be extended to the public.[41]

This is precisely what the Permit Amendment is doing: creating a new lead testing program for schools and transferring the cost and administration of the program to the City. Water service is a governmental function because it is predominately provided by public agencies. Lead testing of drinking water at schools is a service to the public. Therefore, the Permit Amendment is a new program eligible for reimbursement under the first test established by the Supreme Court.

B. Public schooling is a governmental function that provides services to the public.

The lead testing program in the Permit Amendment carries out a second governmental function of ensuring safe schools. "Providing public schooling clearly constitutes a governmental function, and enhancing the safety of those who attend such schools constitutes a service to the public."[42] Schools are obligated to provide free drinking water to students, or to adopt a resolution explaining why fiscal constraints or health and safety concerns prevent it.[43] The City

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[40] *Carmel Valley Fire Protection District*, *supra*, 190 Cal. App. 3d at 537.
[41] *County of Los Angeles*, *supra*, 43 Cal. 3d at 56.
[42] *San Diego Unified School District v. Commission on State Mandates*, (2004) 33 Cal. 4th 859, 879.
[43] Cal. Educ. Code § 38086.

is enhancing the safety of students by performing lead testing of drinking water on school campuses for free.

The history of the Permit Amendment demonstrates its purpose is to provide safe schools, a governmental function, while shifting financial responsibility to local water agencies. In September 2015, the Legislature passed Senate Bill 334 (SB 334), a proposal to amend the California Education Code to ensure that drinking water provided by schools does not contain lead.[44] Inherent in such a requirement is an obligation to test the water for lead. The bill indicated it was imposing a state-mandated local program on school districts.[45] The Governor vetoed SB 334, expressing his concern over the cost to the State:

> **"I agree that all California students should have access to safe drinking water but this bill creates a state mandate of uncertain but possibly very large magnitude."**[46]

Instead of signing the bill, the Governor directed SWRCB to implement lead testing at schools through local water agencies as part of the Lead and Copper Rule.[47] The Governor's intent was clearly to avoid spending State funds, and to shift the costs of school lead testing to local water agencies. SWRCB followed the Governor's direction by issuing the Permit Amendment to the City to perform lead testing on school campuses at no charge.

Had SB 334 become law and schools had to test water for lead to confirm their students had safe, clean drinking water, the schools would have been performing a governmental function subject to reimbursement from the State. Lead testing at schools does not lose its characterization as a "governmental function of providing services to the public" under the Supreme Court's test, merely because the obligation is transferred from schools to water agencies.[48] The City is performing a governmental function, albeit a function associated with schooling, when the City tests for lead on school property pursuant to the Permit Amendment.

C. The Permit Amendment imposes a unique requirement on the City that does not apply generally to all residents and entities in the state.

The Supreme Court's second test to identify programs subject to subvention is "laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state."[49] This includes orders issued by State agencies.[50] The State policy being implemented by the Permit Amendment is providing safe drinking water to school students.

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[44] Senate Bill 334, 2015-2016 Sess. (Sen. Leyva).
[45] *Id*.
[46] Governor's Veto Message on SB 334 (Oct. 9, 2015).
[47] *Id*.
[48] *See Lucia Mar Unified School District v. Honig*, (1988) 44 Cal. 3d 830, 835 [Shifting funding of an existing program for disabled students from the State to a local entity is a new program under state mandates law.]
[49] *County of Los Angeles*, *supra*, 43 Cal. 3d at 56.
[50] *See Carmel Valley Fire Protection District*, *supra*, 190 Cal. App. 3d at 537; Cal. Const. art. XIII B, §6.

SWRCB argues that the Permit Amendment does not impose unique requirements on the City because identical permit amendments were issued to over 1,100 water agencies.[51] SWRCB insists the Permit Amendment "simply effectuates" the Safe Drinking Water Act, a law SWRCB characterizes as law of general application that precludes the Permit Amendment from being a program subject to reimbursement under the second test.[52] However, in characterizing the Act as a law of general application, SWRCB relies only on the legislative findings which broadly declare that every resident has the right to safe drinking water, and water systems must deliver pure, wholesome, potable water.[53] SWRCB does not cite any substantive provisions in the Safe Drinking Water Act that "apply generally to all residents and entities in the state" within the meaning of the second test, or explain how such a provision is implemented by the Permit Amendment.

The Permit Amendment applies specifically to the City. It does not apply generally to all residents and entities in the State. Even collectively considering all 1,100 permit amendments issued by SWRCB, they only apply to local water agencies with schools in their service areas, not to everyone in the State. The Permit Amendment does not require lead testing be performed for all state residents and entities either, only for schools. Collectively, the permit amendments apply uniquely to water agencies in the same way the Court found the requirement for fire protective gear applied uniquely to public and private fire protection agencies.[54] The permit amendments do not need to exclusively apply to publicly-owned water agencies to satisfy the uniqueness element of the second test.[55]

Under the second test, examples of laws that apply generally to all residents and entities in the state include requirements to provide employees with unemployment insurance coverage[56], worker's compensation benefits,[57] or to upgrade public buildings to comply with statewide elevator safety regulations.[58] Subvention was denied in these cases because the requirements applied to everyone, not just to local government. Unlike these examples, though, the Permit Amendment only applies to the City. Those in the State who do not provide water service do not have to comply with the Permit Amendment.

The Permit Amendment satisfies all the elements of the second test. The Permit Amendment is implementing a State policy of providing safe drinking water to school students. The policy is implemented by obligating local water agencies to test for lead on school property. The obligation to test for lead does not apply generally to all residents and entities in the State, but

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[51] SWRCB Comments at p. 14.
[52] *Id*. at p. 15.
[53] *Id*.
[54] *Carmel Valley Fire Protection District*, *supra*, 190 Cal. App. 3d at 538.
[55] *See County of Los Angeles v. Commission on State Mandates*, (2007) 150 Cal. App. 4th 898, 919 ["In any event, the applicability of permits to public and private discharges does not inform us about whether a particular permit or an obligation thereunder imposed on local governments constitutes a state mandate necessitating subvention under article XIII B, section 6."]
[56] *City of Sacramento v. State of California*, (1990) 50 Cal. 3d 51.
[57] *County of Los Angeles v. State of California*, (1987) 43 Cal. 3d 46.
[58] *County of Los Angeles v. Department of Industrial Relations*, (1989) 214 Cal. App. 3d 1538.

uniquely to local water agencies. Therefore, the Permit Amendment is a new program eligible for reimbursement under the second test established by the Supreme Court.

III. The Permit Amendment Deprives the City of its Fee Authority to Charge for Lead Testing.

This test claim would not have been necessary if the Permit Amendment had allowed the City to charge the schools for lead testing performed at their request. By mandating that the City perform lead testing for free, the Permit Amendment has ensnared the City in constitutional web of fees and charges, where the only ways out are to spend local tax revenue or to seek reimbursement through this Commission.

A. Proposition 218 prohibits the City from charging all water ratepayers for lead testing done at the request of schools.

Proposition 218 amended the California Constitution in 1996 by adding articles XIII C and XIII D. Section 6 of article XIII D added procedural and substantive requirements for new and existing property related fees and charges. Charges for water delivered to property owners and residents are property-related fees subject to these restrictions.[59]

The procedural requirements imposed by Proposition 218 include prior notice, a public hearing, and an opportunity to protest new or increased fees or charges.[60] An agency is prohibited from adopting a proposed fee or charge if a majority of the property owners submit written protests against it.[61] The Court of Appeal in *Paradise Irrigation District* recently granted a rehearing, where it will decide whether the majority protest provision divests the claimants of their authority to levy fees.[62] The City has not alleged the majority protest provision is a barrier to its fee authority in this test claim.

Instead, the Permit Amendment divests the City of its authority to levy fees by ordering the City to provide a new service at no charge.[63] Without the ability to charge the schools for a new service provided exclusively to them, the cost of the new service is being absorbed by all City ratepayers. This places the City's water utility in violation of substantive (as opposed to procedural) requirements of Proposition 218, which must be cured.

Proposition 218 introduced five substantive requirements to extend, impose, or increase property-related fees and charges:[64]

> (1) Revenues derived from the fee or charge shall not exceed the funds required to provide the property related service.

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[59] *Bighorn Desert View Water Agency v. Verjil*, (2006) 39 Cal. 4th 205, 217.
[60] Cal. Const. art XIII D, § 6(a).
[61] Cal. Const. art XIII D, § 6(a)(2).
[62] *Paradise Irrigation District, supra,* (2018) 27 Cal. App. 5th 1056 (rehearing granted Oct. 31, 2018).
[63] Permit Amendment at p.4, § 5 (Exhibit 1 at p. 6).
[64] Cal. Const. art XIII D, § 6(b).

> (2) Revenues derived from the fee or charge shall not be used for any purpose other than that for which the fee or charge was imposed.
>
> (3) The amount of a fee or charge imposed upon any parcel or person as an incident of property ownership shall not exceed the proportional cost of the service attributable to the parcel.
>
> (4) No fee or charge may be imposed for a service unless that service is actually used by, or immediately available to, the owner of the property in question. Fees or charges based on potential or future use of a service are not permitted. Standby charges, whether characterized as charges or assessments, shall be classified as assessments and shall not be imposed without compliance with Section 4.
>
> (5) No fee or charge may be imposed for general governmental services including, but not limited to, police, fire, ambulance or library services, where the service is available to the public at large in substantially the same manner as it is to property owners.

The first and second listed requirements restrict the City from collectively charging its customers more than it costs to provide water service.[65] The City cannot operate its water system at a profit. The third requirement tasks the City with apportioning the total cost of operating its water system among its customers based on the cost of providing water service to each customer.[66] The purpose of this requirement is to protect customers from having to pay rates that are higher than the cost of providing service to them.[67] This prevents the City from using revenue from certain water customers to subsidize the cost of providing services to other customers.

The SWRCB contends there are no barriers to the City raising water rates to cover the costs associated with the Permit Amendment.[68] The SWRCB believes that the Permit Amendment confers a direct benefit on all water ratepayers, not just the schools, in the form of increased property values and ensuring the City's water does not contain lead.[69] The SWRCB therefore reasons that because all water ratepayers directly benefit, all water ratepayers can pay for lead testing at schools. It is not that simple.

First, raising water rates to cover the cost of the Permit Amendment would ultimately violate the Permit Amendment itself. The City is legally obligated by Proposition 218 to apportion the cost of service based on the relative benefits received by its customers.[70] Proposition 218 further prohibits the City from charging customers for services that are not immediately available to

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[65] *Howard Jarvis Taxpayers Association v. City of Roseville*, (2002) 97 Cal. App. 4th 637, 647-648.
[66] *City of Palmdale v. Palmdale Water District*, (2011) 198 Cal. App. 4th 926, 936-937.
[67] *Capistrano Taxpayers Association, Inc. v. City of San Juan Capistrano*, (2015) 235 Cal. App. 4th 1493, 1503.
[68] SWRCB Comments at p. 15.
[69] *Id*. at pp. 15-16.
[70] *Capistrano Taxpayers Association*, *supra*, 235 Cal. App. 4th at 1503 [Low water users cannot pay for water recycling facilities that would not be necessary but for higher water consumers.]

them.[71] The schools, as the exclusive and direct recipients of lead testing under the Permit Amendment, benefit the most in that the testing assesses school pipes and fixtures for sources of lead. Lead testing is not available to the rest of the City's water ratepayers under the Permit Amendment, so they do not receive the benefit of having their own properties evaluated. The benefits of higher property values and testing of City water that SWRCB says are direct benefits to all ratepayers, are really collateral or incidental benefits. Any water rate increase apportioning the cost of lead testing among City ratepayers would fall primarily on schools, the direct and primary beneficiary of the lead testing. The Permit Amendment, however, prohibits charging a school for lead testing. A school is being charged for lead testing whether the City sends the school an invoice when the testing is done, or passes on the cost of lead testing to a school through a water rate increase.

Second, even assuming there is a plausible connection between lead testing at schools and higher property values in the surrounding neighborhoods, higher property values do not benefit all water ratepayers. Water ratepayers are both homeowners and renters.[72] While a homeowner may benefit from a higher resale value of a home, a tenant will not. Higher property values cannot justify charging all water ratepayers for a service they are not receiving.

Third, lead testing done at the request of a school is not a property-related service that the City can bundle within water rates under Proposition 218. In *Richmond v. Shasta Community Services District*, the California Supreme Court addressed the question whether a water connection fee (also known as a capacity fee) for new service was subject to Proposition 218.[73] The Court distinguished fees for ongoing water service from one-time fees to connect to a water system:

> A fee for ongoing water service though an existing connection is imposed "as an incident of property ownership" because it requires nothing other than normal ownership and use of property. But a fee for making a new connection to the system is not imposed "as an incident of property ownership" because it results from the owner's voluntary decision to apply for the connection.[74]

The Court concluded that water connection fees are not governed by Proposition 218 because the fees are triggered by the voluntary decision of property owners to obtain water service.[75]

Richmond demonstrates that not all fees and charges related to water service are governed by Proposition 218. Fees or charges imposed because of a voluntary decision of a property owner are not imposed "as an incident of property ownership" and fall outside of Proposition 218.[76] Under the Permit Amendment, the City's obligation to conduct lead testing is similarly triggered

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[71] Cal. Const. art XIII D, § 6(b)(4).
[72] Declaration of Lee Ann Jones-Santos ¶ 4.
[73] *Richmond v. Shasta Community Services Dist.*, (2004) 32 Cal. 4th 409 [A water connection fee is neither an assessment nor a property-related fee under Proposition 218].
[74] *Id.* at 427.
[75] *Id.* at 427-428.
[76] *Id.*; *See also Apartment Ass'n of Los Angeles County, Inc. v. City of Los Angeles*, (2001) 24 Cal. 4th 830, 840 [Fee imposed to inspect rental property is not a fee imposed as an incident of property ownership under Proposition 218].

by a voluntary decision of a school to request the service. Lead testing on private property is not an activity associated with ongoing water service, so a fee for lead testing cannot be imposed "as an incident of property ownership" under Proposition 218. Rather, the City has separate fee authority under Proposition 26 that it could exercise, but for the language in the Permit Amendment that prohibits the City from charging the schools for the service.

B. The Permit Amendment prohibits the City from exercising its fee authority under Proposition 26.

The City's authority to levy fees or charges for lead testing mandated by the Permit Amendment is governed by Proposition 26, a constitutional amendment adopted by the voters in 2010. Proposition 26 further tightened the restrictions on local government revenue imposed by Propositions 13 and 218 by defining a tax as "any levy, charge, or exaction of any kind imposed by a local government, except the following:"[77]

> (1) A charge imposed for a specific benefit conferred or privilege granted directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of conferring the benefit or granting the privilege.
>
> (2) A charge imposed for a specific government service or product provided directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of providing the service or product.
>
> (3) A charge imposed for the reasonable regulatory costs to a local government for issuing licenses and permits, performing investigations, inspections, and audits, enforcing agricultural marketing orders, and the administrative enforcement and adjudication thereof.
>
> (4) A charge imposed for entrance to or use of local government property, or the purchase, rental, or lease of local government property.
>
> (5) A fine, penalty, or other monetary charge imposed by the judicial branch of government or a local government, as a result of a violation of law.
>
> (6) A charge imposed as a condition of property development.
>
> (7) Assessments and property-related fees imposed in accordance with the provisions of Article XIII D.

[77] Cal. Const. art. XIII C, § 1(e).

A fee or charge is a tax that must be approved by the voters unless the fee or charge meets one of these seven exceptions.[78] The last of the seven exceptions is for property-related fees and charges under Proposition 218, but because lead testing performed under the Permit Amendment is not provided as an incident of property ownership (discussed above), the City cannot avail itself of that exception to raise water rates without voter approval. The third through sixth exceptions are inapplicable to a fee for lead testing because the City is not acting as a regulator in performing the service, the City is not charging the schools to enter City property, the City is not fining the schools for violating the law, and the City is not imposing a development fee, respectively. The first exception for "a specific benefit conferred or privilege granted directly to the payor" does not apply either, because the City is not issuing a school a permit or a license to engage in any activity.

This leaves only the second exception, which would ordinarily give the City sufficient fee authority in situations like this: "[a] charge imposed for a specific government service or product provided directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of providing the service or product."[79] The City is providing lead testing services on school property at the request of each school, for which the City could ordinarily charge each school an amount equivalent to the cost of providing the service. The problem is the Permit Amendment prohibits the City from charging the schools, even though the schools are receiving the government service. The school is not the "payor," so the second exception does not apply. Therefore, by default, the City's water ratepayers become the "payor" even though they are not requesting or receiving the service. Without any applicable exceptions, charging water ratepayers for lead testing provided to schools for free is a tax subject to voter approval under Proposition 26.

IV. The Permit Amendment Requires the City to Expends Funds Subject to the Taxing and Spending Limitations of Articles XIII A and XIII B to avoid a violation of Proposition 218.

The City of San Diego is a charter city providing a full range of services for its residents. The City provides police and fire protection, lifeguards, water service, wastewater service, trash collection, libraries, park and recreation facilities, street and storm drain maintenance, development services, and many other services. The City is a local government, subject to the taxing and spending limitations of Articles XIII A and XIII B of the California Constitution.[80]

There are instances in the City where different City departments work together to provide public services, including general fund departments, and utility departments funded through fees and charges. Several general fund departments support the Public Utilities Department's efforts to

[78] Cal. Const. art. XIII C, § 2.
[79] Cal. Const. art. XIII C, § 1(e)(2).
[80] Cal. Const. art. XIII A, § 4; Cal. Const. art. XIII B, § 8(d).

provide water service.[81] Water ratepayer funds are used to reimburse the City's general fund for this support, consistent with Proposition 218.[82]

Likewise, the Public Utilities Department helps the City provide other public services. For example, the City's water utility owns surface reservoirs and open space land that is popular for boating, fishing, hiking and picnicking.[83] These recreational activities are available to the general public, whether or not they are City water ratepayers.[84] Proposition 218 prohibits using water ratepayer funds for services available to the general public:

> No fee or charge may be imposed for general governmental services including, but not limited to, police, fire, ambulance or library services, where the service is available to the public at large in substantially the same manner as it is to property owners.[85]

The City's water utility charges the City's general fund about $2.5 million each year for providing park and recreation activities.[86] This fund transfer ensures that water ratepayers are not paying for unrelated activities or programs, consistent with Proposition 218.

By mandating free service, the Permit Amendment similarly makes the City's general fund responsible for the cost of lead testing unless reimbursement is received from the State. The City's water utility has paid for the lead testing at schools to date, pending reimbursement from another source.[87] The City cannot increase water rates, or use existing water ratepayer funds, to pay for lead testing because lead testing pursuant to the Permit Amendment is not a property-related service. The Permit Amendment also prohibits the City from charging the schools for the service they receive. The liability of tax revenue in the City's general fund to pay for lead testing makes the City eligible to pursue subvention from the State.

V. Conclusion

The Permit Amendment imposes a state-mandated local program under both legal tests established by the California Supreme Court. Lead testing performed at schools carries out the governmental functions of providing water service and safe schooling of children. The Permit Amendment also imposes requirements on the City that do not apply generally to all residents and entities in the State, to implement a State policy of providing safe drinking water to school students. The City could ordinarily charge the schools a fee to cover the cost of lead testing, but by mandating that the service be provided at no charge, the Permit Amendment requires the City

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[81] For example, water service is supported by the City Attorney's Office for legal services, the Public Works Department for capital improvement projects, and the Real Estate Assets Department for property management.
[82] *See Moore v. City of Lemon Grove*, (2015) 237 Cal. App. 4th 363.
[83] Declaration of Lee Ann Jones-Santos ¶ 8.
[84] *Id*.
[85] Cal. Const. art XIII D, § 6(b)(5).
[86] Declaration of Lee Ann Jones-Santos ¶ 9.
[87] *Id*. at ¶ 10.

to spend tax revenue to avoid violating Constitutional restrictions on the use of water ratepayer funds. Therefore, the City respectfully requests this test claim be approved.

Pursuant to Cal. Code Regs. tit. 2, § 1181.3(a), I certify and declare under penalty of perjury that the foregoing facts are true and correct to the best of my personal knowledge, information, or belief. I further declare that all exhibits are true and correct copies of such documents as they exist in the City's files, or as they were obtained from publicly available sources.

Sincerely,

MARA W. ELLIOTT, City Attorney

By

Thomas C. Zeleny
Sr. Chief Deputy City Attorney

cc: Service List via CSM Dropbox
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Commission on State Mandates

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November 7, 2014

Heather Halsey, Executive Director
Commission on State Mandates
980 9th Street, Suite 300
Sacramento, CA 95814

Re: Response to DWR Comments on Draft Proposed Decision Re: Test Claim No. 10-TC-12 (Water Conservation), consolidated with Test Claim No. 12 TC 01 (Agricultural Water Measurement)

Dear Ms. Halsey:

This letter is in reply to comments of the Department of Water Resources (DWR), filed on October 17, 2014, which raise issues not addressed in the Draft Proposed Decision issued on July 31, 2014. In its comment letter, DWR urges the Commission on State Mandates (Commission) to deny subvention to the Claimants in consolidated Test Claims 10-TC-12 and 12-TC-01 based on a finding that the test claim statutes and regulations at issue do not constitute a "program" as that term is used in article XIII B, section 6, of the California Constitution (Section 6).[1] DWR contends that if the laws and regulations at issue in the consolidated test claims are not "programs," then the Claimants are not eligible for subvention.

The word "program," as used in Section 6, has two alternative definitions: (1) "programs that carry out the governmental function of providing services to the public" and (2) "laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state."[2] Activities mandated by a "program" that falls within either of these two meanings may be eligible for reimbursement.[3] Both definitions apply in these Test Claims.

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[1] "Whenever the Legislature or any state agency mandates a new program or higher level of service on any local government, the State shall provide a subvention of funds to reimburse that local government for the costs of the program or increased level of service . . . ." Cal. Const., art. XIII b, § 6(a).

[2] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, at p. 56.

[3] *Carmel Valley Fire Protection Dist. v. State of California* (1987) 190 Cal.App.3d 521, at p. 537.

In its comments, DWR argues that the first definition does not apply because it claims that, in order to be a "program," the "service" provided to the public must be an "*exclusively* governmental function," and DWR claims that water service is not an exclusively governmental function. DWR also contends that the second definition of "program" does not apply because the laws and regulations at issue in the test claim apply to private and public entities alike, and therefore do not impose "unique requirements on local governments," but rather "apply generally to all residents and entities in the state." DWR's arguments are flawed for the reasons explained below.

I. The Statutes and Regulations at Issue in this Test Claim Constitute "Programs that Carry Out the Governmental Function of Providing Services to the Public."

DWR argues that the test claim statutes and regulations are not a "program" eligible for reimbursement because the provision of water service is not a "uniquely" or "exclusively" governmental function.[4] However, nothing in the definition of "program" requires the service provided to the public to be uniquely or exclusively "governmental."[5] Instead, it only requires that the program relate to a service that is provided as a function of government.[6]

Here, the Claimants are all governmental entities organized for the specific statutory purpose of providing water to the public.[7] The California Water Code provides enabling legislation for many types of governmental entities whose main purpose is to perform the governmental function of providing water service to the public.[8] Contrary to DWR's assertions, these agencies' functions are recognized by the courts as being governmental functions.[9] As a result, there can be no doubt that the Claimants and all other affected governmental entities are "carry[ing] out the governmental function of providing [water] service[] to the public" when implementing the mandated actions at issue in the consolidated test claims.

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4 DWR Letter at pp. 5, 7.

5 See *County of Los Angeles*, *supra*, 43 Cal.3d at p. 56.

6 *Id.*

7 E.g., Water Code § 22075 et seq. (irrigation districts); Water Code § 35400 et seq. (California water districts).

8 See, e.g., Water Code Divisions 11 through 21.

9 E.g., *Imperial Irrigation District v. State Water Resources Control Board* (1990) 255 Cal.App.3d 548, 566 ["Irrigation districts . . . are public agencies performing governmental functions . . . ."]; *Northeast Sacramento Cty. Sanitation Dist. v. Northridge Park Cty. Water Dist.* (1966) 247 Cal.App.3d 317, 325 ["[Whatever] local government is authorized to do constitutes a function of government"]; *Johnson v. Arvin-Edison Water Storage Dist.* (2009) 174 Cal.App.4th 729, 741.

DWR's arguments are also inapt to the extent they rely almost exclusively on early-20th century tort cases that attempted to distinguish between "governmental" as opposed to "corporate" or "proprietary" functions of government.[10] This line of reasoning was rejected by the California Supreme Court in 1961 in *Muskopf v. Corning Hospital District* (*Muskopf*),[11] and in any event has never been applied to subvention cases. DWR attempts to argue that this distinction applies in modern subvention cases because one subvention case, *Carmel Valley Fire Protection District v. State of California* (*Carmel Valley*),[12] cited a "pre-*Muskopf* sovereign immunity case" and therefore somehow resurrected the rejected doctrine.[13] However, the case in question is actually post-*Muskopf* and does not rely on the rejected logic.[14] Instead, the cited text states only that certain sections of the Government Code control governmental tort immunity for fire protection efforts, among others.[15] To construe that case or *Carmel Valley* as relying on or supporting the pre-*Muskopf* corporate/governmental distinctions is wholly inaccurate.

Even if this distinction did apply here, DWR admits that "[t]he relative number of public versus private entities engaged in an activity" could be relevant in "determining whether an activity constitutes a 'governmental function.'"[16] Here, no fewer than 83.7% of the urban water suppliers affected by the statutes and regulations at issue are governmental entities.[17] And DWR does not assert—nor have Claimants found—that *any* of the agricultural water suppliers affected by the test claim statutes and regulations (those that serve at least 25,000 irrigated acres) are

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[10] DWR Letter at pp. 4-6.

[11] (1961) 55 Cal.2d 211.

[12] (1987) 190 Cal.App.3d 521, 537.

[13] DWR Letter at p. 6

[14] See *County of Sacramento v. Superior Court* (1972) 8 Cal.3d 479, 481, as cited in *Carmel Valley Fire Protection Dist. v. State of California* (1987) 190 Cal.App.3d 521, 537.

[15] See *County of Sacramento, supra,* 8 Cal.3d at pp. 481-482 (implicitly referring to, *inter alia,* Government Code § 850 et seq.).

[16] DWR Letter at p. 1.

[17] DWR Letter at p. 3. This lower figure is based on DWR's calculation. We note that the list of "public" and "private" water service entities appended to DWR's comment letter contains errors. On page 2 of the list of "private retail water suppliers," DWR has included South Feather Water and Power Agency as a private supplier. South Feather is a public agency—an irrigation district—and is one of the public agency test claimants herein. This list also includes 21 separate entries for California Water Services Company, 17 entries for Golden West Water Company, and 5 entries for California-American Water Company. There are actually only 30 total private urban water suppliers affected by these mandates, compared to 370 public entities. As such, only 7.5% of the urban water suppliers affected by the test claim statutes and regulations are private entities, and 92.5% are public entities. (These numbers differ slightly from those found in the August 7, 2013, Claimants' Rebuttal because the October 17, 2014, DWR Letter used more recent data.)

private entities.[18] The agricultural water conservation mandates are directed entirely to public agencies.

Given that water service in California is overwhelmingly provided by government agencies, DWR's claim that water service is not a "governmental function" is not supported by the facts. Further, California statutes and jurisprudence recognize that the provision of water service by governmental entities created for that purpose is a governmental function. Because the statutes and regulations at issue constitute "programs that carry out the governmental function of providing services to the public," they are the proper subject for these consolidated test claims.

II. The Statutes and Regulations at Issue Here "Impose Unique Requirements on Local Governments and Do Not Apply Generally to All Residents and Entities in the State."

DWR argues that "a law that governs private and public entities alike is not a 'program' for purposes of" state subvention,[19] because it applies generally to all residents and entities in the state and does not impose unique requirements on local government. DWR further argues that the "relative proportion" of public versus private entities affected by a law is "not relevant" to this determination.[20] These arguments are incorrect and are disproven in the very authority upon which DWR relies.

In *Carmel Valley*, the court found that a new law requiring all fire protection entities in the state to purchase certain protective clothing and equipment was a new mandate reimbursable under Section 6.[21] Although the court explicitly acknowledged that "private sector fire fighters" were also subject to the mandate, it held that "[t]he requirements imposed on local governments are . . . unique because fire fighting is *overwhelmingly* engaged in by local agencies."[22] The fact that the law also applied to private entities did not affect the court's finding that the new laws constituted a "program" for subvention purposes. The court held that the law was not a law of general application, even though it applied to all public and private firefighting entities alike, because "the orders do not apply generally to all residents and entities in the State *but only to those involved in fire fighting*."[23]

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[18] Water Code §§ 10608.12, subd. (a), 10853; 23 C.C.R. § 597.1, subd. (a); See also Exhibit A to Decl. of Dustin C. Cooper in Support of Claimants' Rebuttal dated August 7, 2013 (Document 67).

[19] DWR Letter at p. 2.

[20] *Id.* at 3.

[21] *Carmel Valley Fire Protection Dist. v. State of California* (1987) 190 Cal.App.3d 521.

[22] *Id.* at pp. 537-538 (emphasis added).

[23] *Id.* at p. 538 (emphasis added).

Here, the new mandates "impose unique requirements on local governments"[24] because the provision of water service "is overwhelmingly engaged in by local agencies."[25] The new mandates "do not apply generally to all residents and entities in the State but only to those involved in" providing water service.[26] Because the statutes and regulations at issue here also fall within the second definition of "program," and impose unique requirements on local government, the new mandates are an appropriate subject for these consolidated test claims and Claimants are entitled to reimbursement.[27]

III. DWR's Arguments, If Accepted, Would Preclude Constitutional Subvention For Practically All Potential Claimants.

According to DWR, a new state mandate imposed on local governments would only be reimbursable if the newly mandated activity is "uniquely governmental in nature" and an "exclusively governmental function."[28] This would preclude subvention for most claimants. The People of California did not intend Section 6 to be limited in such a severe manner when they passed the Constitutional amendment creating the subvention requirement.[29] Nor have the courts interpreted this Constitutional provision in such a limited manner.[30]

Such an interpretation would remove entire classes of claimants from eligibility for subvention when, in many cases, the Commission has already determined them to be eligible. For instance, DWR's interpretation would exclude schools and community college districts from subvention because there are private schools and colleges in the state that perform the same "functions" as the public institutions. The Commission has already decided this issue in favor if their eligibility,[31] as have the courts[32]. Also eliminated from eligibility for subvention would be the hundreds of local governmental agencies governed by publicly elected boards that provide water, sewer, refuse collection, energy, and other services, because there are some private entities that perform those functions as well. Even public animal shelters would be deemed

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24 *County of Los Angeles, supra,* 43 Cal.3d at p. 56.

25 *Carmel Valley Fire Protection Dist., supra,* 190 Cal.App.3d at p. 538.

26 *Id.*

27 *Id.* at p. 537.

28 DWR Letter at pp. 5, 7.

29 See California Ballot Pamphlet, Special Statewide Election, November 6, 1979, at pp. 16-22 (included as Exhibit D to Claimants' Response to Request for Additional Information 10-TC-12 and 12-TC-01, filed September 23, 2013).

30 See, e.g., *Carmel Valley, supra,* 190 Cal.App.3d at pp. 537-538.

31 E.g., 00-TC-05 at p. 8.

32 E.g., *Long Beach USD v. State of California* (1990) 225 Cal.App.3d 155, 172, citing *Carmel Valley, supra,* 190 Cal.App.3d at p. 537.

ineligible for subvention due to the existence of private shelters, when the Commission has already determined animal shelters to be eligible.[33]

IV. Conclusion.

For the reasons explained above, the Commission should not accept DWR's proffered arguments. Instead, the Commission should find that the Claimants in the consolidated test claims are eligible and entitled to reimbursement for the new state mandates at issue in these proceedings.

Respectfully submitted,

MINASIAN, MEITH, SOARES, SEXTON & COOPER, LLP

By: Dustin Cooper by PCH
DUSTIN C. COOPER

By: Peter Harman
PETER C. HARMAN

Attorneys for Claimants Paradise Irrigation District, Richvale Irrigation District, Oakdale Irrigation District, and South Feather Water & Power Agency

SOMACH SIMMONS & DUNN

By: Alexis Stevens
ALEXIS K. STEVENS,
Attorney for Claimants Biggs-West Gridley Water District and Glenn-Colusa Irrigation District

[33] See 98-TC-11.

DECLARATION OF SERVICE BY EMAIL

I, the undersigned, declare as follows:

I am a resident of the County of Yolo and I am over the age of 18 years, and not a party to the within action. My place of employment is 980 Ninth Street, Suite 300, Sacramento, California 95814.

On November 13, 2014, I served the:

> **Claimant Comments**
> *Water Conservation*, 10-TC-12 and 12-TC-01
> Water Conservation Act of 2009 et al.
> South Feather Water and Power Agency, Paradise Irrigation District, Richvale Irrigation District, Biggs-West Gridley Water District, Oakdale Irrigation District, and Glenn-Colusa Irrigation District, Claimants

By making it available on the Commission's website and providing notice of how to locate it to the email addresses provided on the attached mailing list.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that this declaration was executed on November 13, 2014 at Sacramento, California.

Jason Hone
Commission on State Mandates
980 Ninth Street, Suite 300
Sacramento, CA 95814
(916) 323-3562

COMMISSION ON STATE MANDATES

Mailing List

Last Updated: 10/24/14

Claim Number: 10-TC-12 and 12-TC-01

Matter: Water Conservation

Claimants: Glenn-Colusa Irrigation District
Oakdale Irrigation District
Paradise Irrigation District
South Feather Water and Power Agency

TO ALL PARTIES, INTERESTED PARTIES, AND INTERESTED PERSONS:

Each commission mailing list is continuously updated as requests are received to include or remove any party or person on the mailing list. A current mailing list is provided with commission correspondence, and a copy of the current mailing list is available upon request at any time. Except as provided otherwise by commission rule, when a party or interested party files any written material with the commission concerning a claim, it shall simultaneously serve a copy of the written material on the parties and interested parties to the claim identified on the mailing list provided by the commission. (Cal. Code Regs., tit. 2, § 1181.3.)

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SECTION 6. DECLARATIONS

Test Claim Title: SWRCB Water Supply Permit Amendment (2017PA-SCHOOLS) for PWS No. 3710020

Claimant: City of San Diego

SUPPLEMENTAL DECLARATION OF RAYMOND C. PALMUCCI IN SUPPORT OF TEST CLAIM FILED BY THE CITY OF SAN DIEGO

I, RAYMOND C. PALMUCCI, hereby declare as follows:

1. I am a Deputy City Attorney for the City of San Diego and I am the claimant representative for both the City and the Public Utilities Department for purposes of the Test Claim filed with the Commission on State Mandates.

2. I have personal knowledge of the facts contained in this declaration, and if called upon as a witness, I could and would competently testify to the truthfulness of these facts as set forth in this declaration.

3. San Diego Municipal Code § 22.4101 *et seq*, provides for a Disclosure Practices Working Group (DPWG). The purpose and intent of the DPWG is to ensure the compliance by the City (including the City Council, City officers, and staff) with federal and state securities laws and to promote the highest standards of accuracy in disclosures relating to securities issued by the City or by its related entities.

4. San Diego Municipal Code § 22.4103 provides that the Disclosure Practices Working Group consists of the Chief Operating Officer or designee; the City Attorney or designee; the Chief Financial Officer; the City Director of Debt Management; the Deputy City Attorney for Finance and Disclosure; and the City's outside disclosure counsel.

5. I have been assigned, as part of my legal duties, to be a City Attorney designee for purposes of review and approval of information pertaining to the City's Water Fund. As part of my official business duties for the City's Public Utilities Department, I maintain custody of the

official information related to the City's Water System. I am required to review and verify the information and statements in the City of San Diego's Official Statements.

4. The 2018 Official Statement for the City's recent bond offering, entitled "$243,180,000 Public Facilities Financing Authority of the City of San Diego Subordinated Water Revenue Bonds, Series 2018A Payable Solely from Subordinated Installment Payments Secured by Net System Revenues of the Water Utility Fund" contains factual and trustworthy information based on my personal knowledge and that of other City officials, and it is my responsibility to verify the information in the 2018 Official Statement as a City Attorney designee.

5. The proceeds of the 2018 Bonds will be used to (a) finance capital improvements to the Water System of The City of San Diego, (b) pay all of the outstanding principal of the Subordinated Water Revenue Commercial Paper Notes, Series A (Payable Solely from Subordinated Installment Payments Secured by Net System Revenues of the Water Utility Fund) and the Subordinated Water Revenue Commercial Paper Notes, Series B (Payable Solely from Subordinated Installment Payments Secured by Net System Revenues of the Water Utility Fund) of the Authority, which were issued to initially finance a portion of the capital improvements to the Water System, and (c) pay the costs of issuance incurred in connection with the issuance of the 2018 Bonds.

6. The 2018 Bonds are limited obligations of the Authority secured by Subordinated Revenues consisting primarily of 2018 Subordinated Installment Payments to be made by the

City to the San Diego Facilities and Equipment Leasing Corporation (the "Corporation") under the Amended and Restated Master Installment Purchase Agreement, dated as of January 1, 2009 (the "Original Master Installment Purchase Agreement"), as amended and supplemented, including as supplemented by the 2018 Supplement to Amended and Restated Master Installment Purchase Agreement, dated as of December 1, 2018 (the "2018 Supplement" and, together with the Original Master Installment Purchase Agreement as previously amended and supplemented, the "Master Installment Purchase Agreement"), each by and between the City and the Corporation, and other assets pledged therefor under the Indenture.

7. The 2018 Subordinated Installment Payments are payable solely from Net System Revenues, on a basis that is subordinate to the right of payment by the City of its Senior Obligations under the Master Installment Purchase Agreement and on parity with the right of payment by the City of its other Subordinated Obligations under the Master Installment Purchase Agreement. Net System Revenues for any Fiscal Year are the System Revenues for such Fiscal Year less the Maintenance and Operation Costs of the Water System for such Fiscal Year. System Revenues are all income, rents, rates, fees, charges, and other moneys derived from the ownership and operation of the Water System.

8. The 2018 Official Statement was made in the regular course of City business, in conjunction with obtaining financing of City water projects. It was prepared for and made public at or near the time of the 2018 Bond Offering.

SECTION 6. DECLARATIONS

Test Claim Title: SWRCB Water Supply Permit Amendment (2017PA-SCHOOLS) for PWS No. 3710020

Claimant: City of San Diego

SUPPLEMENTAL DECLARATION OF RAYMOND C. PALMUCCI IN SUPPORT OF TEST CLAIM FILED BY THE CITY OF SAN DIEGO

9. My legal duties involve ensuring the information in the 2018 Official Statement concerning the City's Water System is accurate, true and correct. Materially false or misleading statements or omissions in an Official Statement are subject to administrative penalties under the Securities Exchange Act of 1934.

10. The 2018 Official Statement undergoes multiple levels of legal and factual review by independent bond counsel, and is certified by the Mayor and City Attorney. The 2018 Official Statement is trustworthy based on the sources of information and method of preparation; and the copy provided with the City's comments on the Draft Proposed Decision is a true and correct copy of the records as kept at the City's place of business.

I declare under penalty of perjury, under the laws of the State of California, that the foregoing is true and correct. Executed this 10TH day of January 2019 in San Diego, California.

Raymond C. Palmucci
Deputy City Attorney

SECTION 6. DECLARATIONS

Test Claim Title: SWRCB Water Supply Permit Amendment (2017PA-SCHOOLS) for PWS No. 3710020
Claimant: City of San Diego

SUPPLEMENTAL DECLARATION OF DOUG CAMPBELL IN SUPPORT OF TEST CLAIM FILED BY THE CITY OF SAN DIEGO

I, Doug Campbell, declare as follows:

1. I am a Senior Chemist of the Public Utilities Department (PUD) that oversees the Department's Water Quality Chemistry Services section for the City of San Diego (City). In that capacity, I have direct oversight of the City's implementation of monitoring requirements contained in the City's Domestic Water Supply Permit (the Permit) and in the Permit Amendment No. 2017PA-SCHOOLS (Permit Amendment), as adopted by the California State Water Resources Control Board (SWRCB).

2. I instructed and supervised each of the staff members who were required to perform this work as stated in the Test Claim Documents and this Declaration, and have personal knowledge of the work that was required by each of them at my direction.

3. I have reviewed sections of the Test Claim filing as set forth herein and am familiar with those provisions. I am also familiar with the pertinent sections of Permit Amendment No. 2017PA-SCHOOLS, which was issued by the SWRCB on January 17, 2017.

5. I have personal knowledge of the activities required to comply with the Permit and the Permit Amendment.

6. I have personal knowledge of the facts contained in this declaration, and if called upon as a witness, I could and would competently testify to the truthfulness of these facts as set forth in this declaration.

7. The City is on a reduced monitoring program approved by the SWRCB and is only required to test 50 residences every three years under the federal and state lead and copper rules, as the City's past test results have not exceeded action levels at the 90th percentile.

SUPPLEMENTAL DECLARATION OF DOUG CAMPBELL IN SUPPORT OF TEST CLAIM FILED BY THE CITY OF SAN DIEGO

8. The City tested 262 schools from the date of the Permit Amendment until January 7, 2019. Elevated lead levels with values greater than 15 ppb were discovered in five fixtures on four school sites.

9. Three of the four school sites took remedial action to replace the fixtures. When the City retested after the schools took remedial action, lead levels were Not Detected or below the 15-ppb action level. One school did not perform any remediation, as it is no longer located in the facility.

10. All remediations conducted by the schools consisted of replacement of fixtures or drinking fountains, or replacement of plumbing lines internal to the schools themselves. In all instances where remediation was performed, follow-up sampling has shown that the source of lead was removed. The City has not identified any problems with City water through the Permit Amendment.

11. There are multiple campus sites where two schools are co-located (as identified in the state database). Because each school is eligible for lead testing, these schools were treated separately and each school was sampled individually, even though both schools are located on the same property.

I declare under penalty of perjury, under the laws of the State of California, that the foregoing is true and correct. Executed this 9th day of January 2019 in San Diego, California.

Doug Campbell, Senior Chemist
Public Utilities Department

University of California, Hastings College of the Law
UC Hastings Scholarship Repository

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1979

Voter Information Guide for 1979, Special Election

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CALIFORNIA STATE ARCHIVES
SECRETARY OF STATE

CALIFORNIA BALLOT PAMPHLET

SPECIAL STATEWIDE ELECTION NOVEMBER 6, 1979

COMPILED BY MARCH FONG EU • SECRETARY OF STATE
ANALYSES BY WILLIAM G. HAMM • LEGISLATIVE ANALYST

AVISO

Una traducción al español de este folleto de la balota puede obtenerse si completa y nos envía la tarjeta con porte pagado que encontrará entre las páginas 12 y 13. Escriba su nombre y dirección en la tarjeta en LETRA DE MOLDE y regrésela a lo menos el día 30 de octubre de 1979.

NOTICE

A Spanish translation of this ballot pamphlet may be obtained by completing and returning the postage-paid card which you will find between pages 12 and 13. Please PRINT your name and mailing address on the card and return it no later than October 30, 1979.

0050

Secretary of State

SACRAMENTO 95814

Estimados Californianos:

Esta es la versión en inglés del folleto de la balota de California para la Elección Especial Estatal del 6 de noviembre de 1979. Contiene el título de la balota, un breve resumen, el análisis del Analista Legislativo, los razonamientos a favor y en contra y las refutaciones y el texto completo de cada proposición. También contiene el voto legislativo depositado a favor y en contra de todo proyecto de ley propuesto por la legislatura.

Con objeto de reducir los pasos innecesarios asociados con la distribución de este folleto y para evitar demoras indebidas en el tiempo necesario para que usted lo reciba, la oficina de la Secretaria del Estado los esta enviando directamente a los votantes registrados 60 días antes de la elección. Los funcionarios electorales de los condados enviarán los folletos a votantes registrados entre los 59 y los 29 días antes de la elección.

Si usted desea recibir un folleto de la balota en español, simplemente complete y envíe la tarjeta adjunta entre las páginas 12 y 13 de este folleto. No se necesitan estampillas.

Lea cuidadosamente cada uno de los proyectos de ley y la información respecto a los mismos contenidos en este folleto. Las proposiciones legislativas y las iniciativas patrocinadas por ciudadanos estan diseñadas específicamente para darle a usted, el votante, la oportunidad de influir las leyes que nos gobiernan a todos.

Aproveche esta oportunidad y vote el 6 de noviembre de 1979.

March Fong Eu

MARCH FONG EU
Secretaria del Estado

Secretary of State

SACRAMENTO 95814

Dear Californians:

This is the English version of the California ballot pamphlet for the November 6, 1979, Special Statewide Election. It contains the ballot title, short summary, the Legislative Analyst's analysis, the pro and con arguments and rebuttals, and the complete text of each proposition. It also contains the legislative vote cast for and against any measure proposed by the Legislature.

To reduce unnecessary steps associated with the distribution of this pamphlet and to avoid any undue delays in the amount of time it takes to reach you, pamphlets are being mailed directly by the Secretary of State's office to voters registered 60 days before the election. County election officials will mail pamphlets to voters registered between the 59th and 29th days before the election.

If you wish to receive a Spanish language ballot pamphlet, simply fill out and mail the card enclosed between pages 12 and 13 of this pamphlet. No postage is needed.

Read carefully each of the measures and the information about them contained in this pamphlet. Legislative propositions and citizen-sponsored initiatives are designed specifically to give you, the electorate, the opportunity to influence the laws which regulate us all.

Take advantage of this opportunity and vote on November 6, 1979.

March Fong Eu

MARCH FONG EU
Secretary of State

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1 School Assignment and Transportation of Pupils

Official Title and Summary Prepared by the Attorney General

SCHOOL ASSIGNMENT AND TRANSPORTATION OF PUPILS. LEGISLATIVE CONSTITUTIONAL AMENDMENT. Amends Section 7(a) of Article I of the Constitution to provide that nothing in the California Constitution imposes upon the State of California or any public entity, board, or official any obligations or responsibilities which exceed those imposed by the United States Constitution with respect to the use of pupil school assignment or transportation. Provides for modification of existing judgments, decrees, writs or other court orders to conform to the provisions of this subdivision. Provides that governing boards of school districts may voluntarily continue or commence a school integration plan. Financial impact: Indeterminable. Potential savings if school districts elect to reduce or eliminate pupil transportation or assignment programs as a result of this measure.

FINAL VOTE CAST BY LEGISLATURE ON SCA 2 (PROPOSITION 1)

Assembly—Ayes, 62	Senate—Ayes, 28
Noes, 17	Noes, 6

Analysis by Legislative Analyst

Background:

The U.S. Supreme Court has interpreted the U.S. Constitution to require public school desegregation only when the segregation was caused by government action with a discriminatory intent. The California Supreme Court has interpreted the State Constitution to require that public school segregation be alleviated regardless of what caused the segregation. Thus, the State Constitution now requires public school desegregation in cases where the U.S. Constitution does not.

Currently, there are many California school districts which are providing pupil transportation and/or assigning pupils to schools outside of their immediate neighborhoods in order to alleviate segregation. Other school districts are currently involved in court actions concerning desegregation, and still others could become involved in court actions at some time in the future.

Some school districts have started desegregation plans because of federal court orders or because of agreements with the U.S. Office of Civil Rights. Other school districts are carrying out desegregation plans because of California court decisions. A third group of school districts is implementing desegregation plans on a voluntary basis.

Proposal:

This proposition would limit the power of California courts to require desegregation. Specifically, desegregation could be required only in cases where the U.S. Constitution would require it. As a result, the proposition could affect 13 school districts which now have desegregation plans ordered or approved by a California court plus other school districts that are involved or could become involved in desegregation actions before California courts.

This measure has four major provisions. First, it would require California courts to follow applicable federal court decisions when deciding if changes in pupil school assignment or pupil transportation are required to alleviate segregation. Consequently, if a California school district is found to have segregation for reasons other than government action with a discriminatory intent, the proposition would prohibit a California court from ordering the school district to start a pupil school assignment or pupil transportation desegregation plan.

Second, the proposition would make past California court decisions requiring desegregation through changes in pupil school assignment or pupil transportation subject to court review using the same standards applicable to the federal courts. Any person could request a court to review its prior decision that resulted in a pupil school assignment or pupil transportation plan. The court would then have to reconsider its prior decision, and if necessary issue a new ruling based upon the California Constitution as amended by this proposition.

Third, the proposition would require California courts that are asked to review their prior decisions to give first priority to such a review relative to other civil cases.

Fourth, public schools would be allowed to continue current desegregation plans and start new desegregation plans on a voluntary basis.

Fiscal Effect:

The proposition would have an unknown fiscal effect. It would not require any school district to stop or reduce current busing programs. Thus, it would not necessarily affect school district costs. However, because review of current court-ordered busing programs, as permitted by the proposition, might result in some of these programs being modified to require less busing, the proposition could result in significant sav-

ings to the state and school districts. The savings would only occur, however, if school districts chose to eliminate or reduce their current busing programs based on new court decisions. Additional state and local costs would result from court review of existing court decisions, and these costs would offset some portion of any savings that might occur due to decreased busing.

Therefore, the net fiscal impact of this measure could range from a net increase in state and local government costs (if no districts chose to reduce or eliminate pupil transportation programs) to significant net savings (if many districts reduce or eliminate these programs).

Text of Proposed Law

This amendment proposed by Senate Constitutional Amendment No. 2 (Statutes of 1979, Resolution Chapter 18) expressly amends an existing section of the Constitution; therefore, new provisions proposed to be inserted or added are printed in *italic type* to indicate that they are new.

PROPOSED AMENDMENT TO ARTICLE I

Subdivision (a) of Section 7 is amended to read:

(a) A person may not be deprived of life, liberty, or property without due process of law or denied equal protection of the laws*; provided, that nothing contained herein or elsewhere in this Constitution imposes upon the State of California or any public entity, board, or official any obligations or responsibilities which exceed those imposed by the Equal Protection Clause of the 14th Amendment to the United States Constitution with respect to the use of pupil school assignment or pupil transportation. In enforcing this subdivision or any other provision of this Constitution, no court of this state may impose upon the State of California or any public entity, board, or official any obligation or responsibility with respect to the use of pupil school assignment or pupil transportation, (1) except to remedy a specific violation by such party that would also constitute a violation of the Equal Protection Clause of the 14th Amendment to the United States Constitution, and (2) unless a federal court would be permitted under federal decisional law to impose that obligation or responsibility upon such party to remedy the specific violation of the Equal Protection Clause of the 14th Amendment of the United States Constitution.*

Except as may be precluded by the Constitution of the United States, every existing judgment, decree, writ, or other order of a court of this state, whenever rendered, which includes provisions regarding pupil school assignment or pupil transportation, or which requires a plan including any such provisions shall, upon application to a court having jurisdiction by any interested person, be modified to conform to the provisions of this subdivision as amended, as applied to the facts which exist at the time of such modification.

In all actions or proceedings arising under or seeking application of the amendments to this subdivision proposed by the Legislature at its 1979–80 Regular Session, all courts, wherein such actions or proceedings are or may hereafter be pending, shall give such actions or proceedings first precedence over all other civil actions therein.

Nothing herein shall prohibit the governing board of a school district from voluntarily continuing or commencing a school integration plan after the effective date of this subdivision as amended.

In amending this subdivision, the Legislature and people of the State of California find and declare that this amendment is necessary to serve compelling public interests, including those of making the most effective use of the limited financial resources now and prospectively available to support public education, maximizing the educational opportunities and protecting the health and safety of all public school pupils, enhancing the ability of parents to participate in the educational process, preserving harmony and tranquility in this state and its public schools, preventing the waste of scarce fuel resources, and protecting the environment.

1 School Assignment and Transportation of Pupils

Arguments in Favor of Proposition 1

CURRENTLY, THE CALIFORNIA CONSTITUTION CAN BE INTERPRETED TO REQUIRE COMPULSORY BUSING, INCLUDING METROPOLITAN COMPULSORY BUSING, IN CIRCUMSTANCES WHERE BUSING WOULD *NOT* BE REQUIRED BY THE CONSTITUTION OF THE UNITED STATES OF AMERICA.

THE INTENT AND PURPOSE OF MY AMENDMENT IS TO PROHIBIT ANY CALIFORNIA JUDGE FROM ORDERING MANDATORY BUSING UNLESS THE BUSING IS REQUIRED BY FEDERAL LAW. This amendment is based on the conclusion that forced busing is *not* a useful tool in achieving desegregation because its financial and educational costs render it counterproductive.

COURT-ORDERED COMPULSORY BUSING HAS BECOME PART OF THE PROBLEM RATHER THAN PART OF THE SOLUTION. *The racial tension and strife of compulsory busing is counterproductive* to our goal of maximum racial harmony, and the furor over compulsory busing stands in the way of community support for voluntary integration. By adopting this amendment, we will allow our courts and local school officials to turn to other *more appropriate solutions.*

ON TUESDAY, NOVEMBER 6, PLEASE JOIN ME IN DOING EVERYTHING THAT WE LEGALLY CAN TO HELP STOP COMPULSORY BUSING. PLEASE VOTE *YES* ON PROPOSITION 1.

ALAN ROBBINS
State Senator, 20th District

One of the great myths of our society is that blacks and other minority children can only receive an effective and equal education through the use of forced busing programs. This is simply *not* true. The use of forced busing hinders voluntary integration participation and other steps which could improve the quality of education available in our schools.

AS MAYOR TOM BRADLEY HAS SAID, "MOST PARENTS, WHATEVER THEIR COLOR, WHATEVER THEIR BACKGROUND, WHEREVER THEY LIVE, DON'T WANT THEIR KIDS TRANSPORTED BACK AND FORTH ACROSS THE CITY."

Norman Cousins, the respected editor of *Saturday Review* and a strong supporter of integration, said a few years ago:

"The evidence is substantial that busing is leading away from integration and not toward it; that it has not significantly improved the quality of education accessible to blacks . . . that it has resulted in the exodus of white students to private schools inside the city or to public schools in the comparatively affluent suburbs beyond the economic means of blacks; and finally, that it has not contributed to racial harmony but has produced deep fissures within American society."

As a black parent and minister who cares about children, I urge you to help end forced school busing in California by voting *YES on the Robbins Amendment.*

REV. W. C. JACKSON
Pastor, Beth Ezel Baptist Church, Watts

As the plaintiff in *Serrano v. Priest,* I have worked to insure equal educational opportunity for all California children. The excessive use of court-ordered forced busing will not guarantee this result.

FORCED BUSING TO ACHIEVE INTEGRATION IS A SHAM. TO FORCE A CHILD TO SPEND THREE HOURS ON A BUS AND FIVE HOURS IN A CLASS DOES NOTHING MORE THAN CHANGE THE COLOR BALANCE OF A FEW SCHOOLS FOR A FEW HOURS.

Children would be better off if we spent these dollars on teachers and buildings rather than wasting it on compulsory busing.

ON NOVEMBER 6, I WILL CAST MY VOTE IN FAVOR OF EQUAL, QUALITY EDUCATION—I WILL VOTE *YES* ON PROPOSITION 1.

JOHN SERRANO, JR.
Plaintiff, Serrano v. Priest

Rebuttal to Arguments in Favor of Proposition 1

1. Busing will NOT come to a halt if Proposition 1 is passed.
2. Proposition 1 will NOT prevent metropolitan integration.
3. Proposition 1 will NOT release money for classroom use in Los Angeles.

Proposition 1's proponents would have you believe that the issue is busing, that amending the California Constitution will stop so-called compulsory busing, and that busing cannot be required under the U.S. Constitution.

Proponents hold up the specter of metropolitan busing, implying that Proposition 1 would block such a plan in Los Angeles and other California metropolitan areas.

Just this year the U.S. Supreme Court approved sweeping compulsory desegregation plans in which federal courts required metropolitan busing. Thus, federal standards may impose broader rather than narrower duties to desegregate.

Proponents complain of the excessive cost of busing under the existing Los Angeles integration order. But, in fact, under a metropolitan plan, busing would cost less and children would spend less time traveling to and from school than some children spend under the current plan.

Since 1954, selfish and shortsighted persons who were responsible for the building of schools and housing in communities throughout California have refused to plan and implement long-term solutions which could have effected integration WITHOUT busing.

Until thoughtful planning for school locations and metropolitan zoning and intelligent housing programs are implemented, busing is one of the only tools we have to provide equal educational opportunity.

WE URGE YOU TO VOTE NO ON PROPOSITION 1.

DIANE E. WATSON
State Senator, 30th District

TERESA P. HUGHES
Member of the Assembly, 47th District

SUSAN F. RICE
President
League of Women Voters of California

Arguments printed on this page are the opinions of the authors and have not been checked for accuracy by any official agency.

Argument Against Proposition 1

Contrary to the promises made by the Amendment's supporters, neither desegration in Los Angeles, nor the busing used as a tool to achieve it, would come to a halt with the passage of this measure.

In the Los Angeles school integration case, the trial court found—and the State Supreme Court agreed—that the segregation resulted from official acts of the school board. Even if the California Constitution were to be amended to make the so-called Federal standard on desegregation apply in California, *de jure* (i.e.: intentional) segregation would still require a remedy not only in Los Angeles but in other school districts all over the state.

There is good reason to believe that Proposition 1 will ultimately be declared unconstitutional, since its very enactment could be interpreted to be *de jure* (intentional) segregation. The backers of Proposition 1 have made it clear in public statements that it is their intention in seeking this amendment to thwart the court's mandate to desegregate the schools in Los Angeles.

The right of every citizen to equal protection of the law, currently guaranteed by our strong California Constitution, is effectively diluted by Proposition 1. The Tenth Amendment to the U.S. Constitution expressly reserves to the States the power to establish greater Constitutional protections for their citizens than those provided by the U.S. Constitution. Proposition 1 drastically weakens the California Constitution's protection of minority students and their right to equal educational opportunity, consigning a generation of minority children to segregated inferior schools.

The campaign in favor of this amendment has played on fears and stirred up racial hostilities. If enacted, it will be a signal to all citizens of California that the state is on the side of prejudice, not equality. By making it possible to reopen cases in districts presently under California court order, the amendment would further generate disruption and turmoil where progress is being made toward desegregation.

Quality education should be available to all the students of our state; it cannot be achieved in a segregated setting. School districts should be encouraged and committed to making education a realistic experience, as we live in an integrated society. But passage of this amendment effectively prevents our school system from preparing our children to function in the real world.

In short, the enactment of this proposition will not deliver what its proponents have promised: the blocking of court-ordered school desegregation in Los Angeles. It will make the state a party to discrimination; it will increase racial conflict; it will restrict educational opportunities for school children; it will touch off a series of costly court battles; and it will set a precedent of altering the California Constitution for political gain.

We urge voters to vote "NO" on Proposition 1.

DIANE E. WATSON
State Senator, 30th District

TERESA P. HUGHES
Member of the Assembly, 47th District

SUSAN F. RICE
President
League of Women Voters of California

Rebuttal to Argument Against Proposition 1

THE ROBBINS AMENDMENT HAS BEEN VERY CAREFULLY DRAFTED TO WITHSTAND ANY CONSTITUTIONAL CHALLENGE AND TO STOP COURT-ORDERED FORCED BUSING IN CALIFORNIA. That is what it is designed to do, and *that is all it will do.*

The opponents of Proposition 1 argue that it will cause segregation and reduce the quality of our schools. In fact, it will do just the opposite.

The Robbins Amendment will assure quality education for the children of California. IT WILL PUT MONEY WHERE IT IS NEEDED —INTO SCHOOLS, TEACHERS AND BOOKS—NOT INTO BUSES, GAS AND BUS DRIVERS.

Forced busing has *not* eased racial tension, it has *not* stopped discrimination, and it has *not* improved the quality of education. It merely forces large numbers of children to take long daily bus rides.

THE SCOPE OF OUR AMENDMENT IS LIMITED TO THE PROBLEMS CAUSED BY COURT-ORDERED BUSING. It makes no attempt to interfere with the prerogatives of local school districts and does *not* diminish their obligation to provide minority students with equal educational opportunities.

By ending the use of court-ordered forced busing, unless such busing is required by the U.S. Constitution, *Proposition 1 does everything the people of California may legally do to stop court-ordered forced busing* in Los Angeles and in all other California school districts. That is one reason why the California P.T.A. has urged the adoption of this type of amendment.

When you vote on the 6th of November, please vote YES on Proposition 1, the Robbins Amendment, and help end forced busing in California.

ALAN ROBBINS
State Senator, 20th District

REV. W. C. JACKSON
Pastor, Beth Ezel Baptist Church, Watts

JOHN SERRANO, JR.
Plaintiff, Serrano v. Priest

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2 Loan Interest Rates

Official Title and Summary Prepared by the Attorney General

LOAN INTEREST RATES. LEGISLATIVE CONSTITUTIONAL AMENDMENT. Amends constitutional limit of 10 percent on loan interest rates. Applies 10 percent rate limit to loans primarily for personal, family or household purposes. For other purposes authorizes interest rate limit to be higher of 10 percent or 5 percent plus rate of interest charged by San Francisco Federal Reserve Bank to member banks 25 days prior to execution of loan contract or making of loan. Continues exemption of specified lending institutions from rate restrictions. Extends exemption to loans made or arranged by licensed real estate brokers when secured by lien on real property. Financial impact: No direct fiscal effect on state or local government.

FINAL VOTE CAST BY LEGISLATURE ON ACA 52 (PROPOSITION 2)

Assembly	Senate
Ayes, 73	Ayes, 33
Noes, 5	Noes, 0

Analysis by Legislative Analyst

Background:

The California Constitution prohibits any lender of money, other than those specifically exempted by the Constitution, from charging interest on any loan at a rate exceeding 10 percent per year. This provision of the Constitution is commonly referred to as the usury law.

The Constitution specifically exempts the following lenders from the usury law: savings and loan associations, state and national banks, industrial loan companies, credit unions, pawnbrokers, personal property brokers and agricultural cooperatives.

Proposal:

This ballot measure would amend the Constitution to make several changes in existing law regarding the level of interest rates that may be charged:

1. Under existing law, loans made or arranged by any person licensed as a real estate broker by the State of California and secured in whole or in part by liens on real property are subject to a 10 percent interest rate ceiling. Such loans commonly are made by mortgage brokers and mortgage bankers. Under this measure such loans would be exempt from the constitutional limitations on interest rates that may be charged.

2. Under existing law, lenders not specifically exempted by the Constitution, such as insurance companies and private individuals, are subject to the 10 percent interest rate ceiling on all of their loans. This measure would retain the 10 percent ceiling on loans made by these lenders if the loans were made for personal, family or household purposes. However, if these loans were made for other purposes, such as the purchase, construction or improvement of real property, or financing business activity, they would become subject to a new ceiling. The new interest rate ceiling on these nonpersonal loans would be the higher of (a) 10 percent per year or (b) the prevailing annual interest rate charged to member banks for moneys advanced by the Federal Reserve Bank of San Francisco, plus 5 percent per year. In June 1979, the interest rate charged by the Federal Reserve Bank was 9½ percent. Thus, the allowable rate on loans made during that month would have been 14½ percent had this measure been in effect.

3. The Legislature would be authorized to exempt any other class of persons from the restrictions on interest rates. Currently, exemptions may only be granted by amending the Constitution, which requires a vote of the people.

4. Under the measure, a loan which is exempt from the provisions of the usury law at the time it is made would continue to be exempt from these provisions even if the loan is sold or transferred to another party. While such a loan generally does not become subject to the limitation on interest rates under existing law, the courts have the authority to review the particular circumstances surrounding the sale or transfer. If the court finds that the transaction violates the intent of existing law limiting the rate of interest that may be charged, it may rule that the loan is subject to the limitation. This ballot measure may restrict the court's authority to make such rulings.

Fiscal Effect:

The proposition would have no direct fiscal effect on state or local governments.

This amendment proposed by Assembly Constitutional Amendment No. 52 (Statutes of 1979, Resolution Chapter 49) expressly amends an existing section of the Constitution; therefore, existing provisions proposed to be deleted are printed in ~~strikeout type~~ and new provisions proposed to be inserted are printed in *italic type* to indicate that they are new.

PROPOSED AMENDMENT TO ARTICLE XV

SECTION 1. The rate of interest upon the loan or forbearance of any money, goods , or things in action, or on accounts after demand, shall be 7 ~~per cent~~ *percent* per annum but it shall be competent for the parties to any loan or forbearance of any money, goods or things in action to contract in writing for a rate of interest ~~not exceeding 10 per cent per annum.~~ *:*

(1) For any loan or forbearance of any money, goods, or things in action, if the money, goods, or things in action are for use primarily for personal, family, or household purposes, at a rate not exceeding 10 percent per annum: provided, however, that any loan or forbearance of any money, goods or things in action the proceeds of which are used primarily for the purchase, construction or improvement of real property shall not be deemed to be a use primarily for personal, family or household purposes; or

(2) For any loan or forbearance of any money, goods, or things in action for any use other than specified in paragraph (1), at a rate not exceeding the higher of (a) 10 percent per annum or (b) 5 percent per annum plus the rate prevailing on the 25th day of the month preceding the earlier of (i) the date of execution of the contract to make the loan or forbearance, or (ii) the date of making the loan or forbearance established by the Federal Reserve Bank of San Francisco on advances to member banks under Sections 13 and 13a of the Federal Reserve Act as now in effect or hereafter from time to time amended (or if there is no such single determinable rate of advances, the closest counterpart of such rate as shall be designated by the Superintendent of Banks of the State of California unless some other person or agency is delegated such authority by the Legislature).

No person, association, copartnership or corporation shall by charging any fee, bonus, commission, discount or other compensation receive from a borrower more than ~~10 per cent per annum~~ *the interest authorized by this section* upon any loan or forbearance of any money, goods or things in action.

However, none of the above restrictions shall apply to any *obligations of, loans made by, or forbearances of, any* building and loan association as defined in and which is operated under that certain act known as the "Building and Loan Association Act," approved May 5, 1931, as amended, or to any corporation incorporated in the manner prescribed in and operating under that certain act entitled "An act defining industrial loan companies, providing for their incorporation, powers and supervision," approved May 18, 1917, as amended, or any corporation incorporated in the manner prescribed in and operating under that certain act entitled "An act defining credit unions, providing for their incorporation, powers, management and supervision," approved March 31, 1927, as amended or any duly licensed pawnbroker or personal property broker, *or any loans made or arranged by any person licensed as a real estate broker by the State of California and secured in whole or in part by liens on real property,* or any bank as defined in and operating under that certain act known as the "Bank Act," approved March 1, 1909, as amended, or any bank created and operating under and pursuant to any laws of this State or of the United States of America or any nonprofit cooperative association organized under Chapter 1 (commencing with Section 54001) of Division 20 of the Food and Agricultural Code in loaning or advancing money in connection with any activity mentioned in said title or any corporation, association, syndicate, joint stock company, or partnership engaged exclusively in the business of marketing agricultural, horticultural, viticultural, dairy, live stock, poultry and bee products on a cooperative nonprofit basis in loaning or advancing money to the members thereof or in connection with any such business or any corporation securing money or credit from any ~~Federal~~ *federal* intermediate credit bank, organized and existing pursuant to the provisions of an act of Congress entitled "Agricultural Credits Act of 1923," as amended in loaning or advancing credit so secured, *or any other class of persons authorized by statute, or to any successor in interest to any loan or forbearance exempted under this article,* nor shall any such charge of any said exempted classes of persons be considered in any action or for any purpose as increasing or affecting or as connected with the rate of interest hereinbefore fixed. The Legislature may from time to time prescribe the maximum rate per annum of, or provide for the supervision, or the filing of a schedule of, or in any manner fix, regulate or limit, the fees, ~~bonus~~ *bonuses* , commissions, discounts or other compensation which all or any of the said exempted classes of persons may charge or receive from a borrower in connection with any loan or ~~forebearance~~ *forbearance* of any money, goods or things in action.

The rate of interest upon a judgment rendered in any court of this state shall be set by the Legislature at not more than 10 percent per annum. Such rate may be variable and based upon interest rates charged by federal agencies or economic indicators, or both.

In the absence of the setting of such rate by the Legislature, the rate of interest on any judgment rendered in any court of the state shall be 7 percent per annum.

The provisions of this section shall supersede all provisions of this Constitution and laws enacted thereunder in conflict therewith.

2 Loan Interest Rates

Argument in Favor of Proposition 2

In our society today, every family, individual, and employer faces an occasional need for money.

Because sometimes there are problems in securing that money, and some of those problems are actually *caused* by outdated laws adopted in totally different circumstances, Proposition 2 attempts to eliminate *one* problem area.

The Usury Law of California, adopted in 1934 (during the Depression), limited the price which many lenders could charge for the use of money to 10 percent. Unfortunately, inflation and other factors have made that limit unrealistic.

Because 10 percent is not enough today, many lenders no longer loan money in California (although others who are *now* exempt from the Usury Law still do). For example, mortgage bankers, who last year provided $13 billion for housing loans in California, are limited to a 10 percent rate and in 1979 have practically abandoned providing conventional mortgage loans.

This *shortage* of money is curtailing the building of new homes, apartments, stores, and factories to provide needed new jobs. Because this reduces competition among lenders, it actually forces interest *up* on money from lenders now exempt from the Usury Law.

Now, it might *seem* good to be able to have a law which limited the price of a loaf of bread to 10 cents; but, if we had such a law, there would be no bread or only black market bread. We are approaching that stage on the availability of *extra* money—for a family to buy a home, an employer to buy a new factory, tools, a store, or some other job-creating opportunity.

Proposition 2 deals with that problem in realistic and *controlled* circumstances.

It is complex and technical because both the law and the money market are complex and technical. Proposition 2 is explained in the Legislative Analyst's analysis in this pamphlet with text of the changes.

An important fact is that this constitutional provision *retains* present provisions enabling a control by law on "the maximum rate per annum" and on fees or other compensation—a vital control against abuse. Proposition 2 removes the arbitrary, inflexible, and unrealistic *constitutional* limits on nonconsumer loans and on exemptions which have severely limited the flow of money to California to buy homes, create job opportunities, and for other purposes.

Cheap money is no good if you can't get it when you need it. In that case, cheap money is no money.

In the last few years, state after state has found it necessary to change its usury law *for* the people in those states. Today, in today's world, California must change too *for* the people of California.

Proposition 2 is endorsed by labor, business, civic, and governmental leaders who have studied this issue and recognize the need. No group and no individual appeared before the legislative committees to oppose this measure, which passed the Senate 33-0 and the Assembly 73-5.

Because sometimes we all need money, we need to remove outdated limitations on the availability of that money. Vote "YES" on Proposition 2.

WALTER M. INGALLS
Member of the Assembly, 68th District

WILLIAM CAMPBELL
State Senator, 33rd District
Senate Minority Floor Leader

No rebuttal to argument in favor of Proposition 2 was submitted.

Argument printed on this page is the opinion of the authors and has not been checked for accuracy by any official agency.

Argument Against Proposition 2

Proposition 2 would weaken California's usury laws by boosting interest rates on certain loans above the current 10% maximum. Eroding these laws would be a misstep in the direction of higher costs and tighter money.

In both the primary and general elections in 1976, the voters clearly said NO to similar ballot proposals which would have increased interest rates by changing the portion of the California Constitution that has protected consumers for more than 40 years. I ask you to vote NO once again.

Proposition 2 would boost interest rates for other than consumer loans above the current 10% maximum. These maximum interest rates would be tied to the prevailing discount rate or the interest rate which the Federal Reserve Bank charges member banks. Thus, if this measure had been law in July 1979 when the discount rate was at an all-time high of 9½%, the interest rate charged by a nonexempt lender could now be 14½%.

If higher interest rates can be charged on loans to businesses and corporations than can be charged for consumer loans, then obviously there will be a greater incentive to loan more money to corporations. This will take money away from the consumer loan market and could virtually dry it up. Consumer loans will be harder and harder to get.

Proposition 2, contrary to what supporters say, could affect consumer loans. Although loans used primarily for personal, family, or household purposes would be exempt, you could be charged these higher interest rates if under half of the money borrowed is to be used for household needs and over half for some other purpose.

We need our consumer protection laws. Let's keep California's usury laws intact. Let's say NO to higher interest rates. Vote NO on Proposition 2.

HERSCHEL ROSENTHAL
Member of the Assembly, 45th District

Rebuttal to Argument Against Proposition 2

Opponents say that we should deny businesses and corporations the opportunity to pay higher interest rates—a primary purpose of Proposition 2.

Make no mistake; business does not want to pay a penny more in interest than it must—and will not. But, business needs money to build housing, factories, stores, and offices and develop farms and energy sources so that they can create jobs and homes for our growing population.

And today, not enough money is available because of the outdated restrictions of our interest laws applicable to business or nonconsumer loans. California business needs a change to compete fairly for dollars.

Proposition 2 will have essentially no effect on loans for personal, family, or household purposes—such loans will remain subject to the 10 percent interest limit and, in many cases, are *already* and have always been exempt from constitutional control. Our consumer protection laws will remain essentially unchanged and as strong as they are today.

Conditions today are very different than they were even in 1976, when the voters last examined this issue; and are certainly different than they were in 1934, when this provision was originally written.

We cannot go back to the 10¢ loaf of bread. In realism, California must join other states in making money available for all its citizens.

WALTER M. INGALLS
Member of the Assembly, 68th District

WILLIAM CAMPBELL
State Senator, 33rd District
Senate Minority Floor Leader

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3 Property Taxation — Veterans' Exemption

Official Title and Summary Prepared by the Attorney General

PROPERTY TAXATION — VETERANS' EXEMPTION. LEGISLATIVE CONSTITUTIONAL AMENDMENT. Adds Section 3.5 to Article XIII of the Constitution to require that, in any year in which the assessment ratio is changed, the Legislature shall adjust the valuation of assessable property of eligible veterans, unmarried spouses of deceased veterans, and parents of deceased veterans to maintain the same proportionate values of such property. Financial impact: No effect on the amount of property taxes levied. No effect on tax liability of taxpayers claiming the veterans' exemption. Minor initial costs to local government.

FINAL VOTE CAST BY LEGISLATURE ON SCA 60 (PROPOSITION 3)

Assembly—Ayes, 76	Senate—Ayes, 35
Noes, 1	Noes, 0

Analysis by Legislative Analyst

Background:

The California Constitution provides that all property subject to property taxation shall be assessed for property tax purposes at the same percentage of full value. The Legislature, however, may determine what specific percentage of "full value," commonly referred to as the assessment ratio, is to be used by assessors. Existing law requires county assessors to assess property at 25 percent of full value. Thus, a property with a full value of $80,000 would be assessed for property tax purposes at $20,000.

The California Constitution also provides for the exemption of certain types of property from property taxation. The veterans' exemption excludes from property taxation $1,000 of the *assessed* value of taxable property owned by a veteran of the armed services, the unmarried spouse of a deceased veteran, or the parent of a deceased veteran. Eligible persons must own property valued at less than $5,000 in the case of single persons, and $10,000 in the case of married persons, in order to qualify for the exemption. These property value limits have been interpreted by the California courts to be based on the *assessed* value of taxable property and the *full* value of all other property.

Proposal:

Passage of this ballot proposition would cause legislation enacted in 1978 to go into effect. This legislation—Chapter 1207, Statutes of 1978—would change the assessment ratio from 25 percent of full value to 100 percent of full value, beginning with the 1981–82 tax year. It would also make a number of technical changes in various provisions of law to make them consistent with the change in the assessment ratio. Chapter 1207 contains a provision specifying that it will not take effect until this ballot proposition is approved by the voters.

This ballot proposition would also require the Legislature to adjust the amount of the veterans' exemption, which currently is $1,000 of assessed value, to reflect any changes made by the Legislature in the assessment ratio. Chapter 1207 increases this ratio from 25 percent to 100 percent, and requires that the amount of the veterans' exemption be increased from $1,000 to $4,000 of assessed value.

Passage of this ballot proposition would also cause legislation enacted in July 1979 to go into effect. This legislation—Chapter 260, Statutes of 1979—would provide that the property value limit used in determining eligibility for the veterans' exemption ($5,000 in the case of a single person and $10,000 in the case of married persons) is to be increased to reflect any increase in the value of a claimant's property resulting from the change in the assessment ratio.

Fiscal Effect:

The change in the assessment ratio from 25 percent to 100 percent would have no effect on the amount of property taxes levied or the amount of value exempted by current property tax exemptions. The proposition would require certain state and local agencies to make adjustments in all computations which use assessed value as a factor. Most of these changes would affect data processing procedures used by county auditors and assessors. The cost of these adjustments statewide is estimated to be relatively minor. Because these local costs would result from a constitutional amendment approved by the voters, they would not be reimbursed by the state.

The change in the veterans' exemption would have no effect on the tax liability of any taxpayer claiming the veterans' exemption.

Argument in Favor of Proposition 3

Proposition 3 is concerned with the method of stating property taxes on your property tax bill. *Its passage would neither raise nor lower property taxes but would make it easier for you to understand how your taxes are computed.*

For many years, tax assessors have used a 25% assessment ratio in computing property taxes. If your house is valued at $80,000 for property tax purposes, the assessor multiplies that amount by 25% for an assessed value of $20,000. The tax collector then divides the assessed value by 100, and multiplies it by the county tax rate per $100 of assessed value to yield the amount of tax due. If you have never understood the computation of your property tax when you paid your bill, it was because of this confusing system.

Passage of Proposition 3 will eliminate use of the 25% assessment ratio and the rate per $100. Instead, the tax rate will be stated as a simple percentage of the assessed value. Property taxes on an $80,000 house will, under the 1% limitation of Proposition 13, be stated as 1% of $80,000 (plus the addition allowed under Proposition 13 for outstanding indebtedness from voter-approved bonds). The result will be an understandable system without complicated or confusing formulas.

The language of Proposition 3 also ensures that the current Veterans' Property Tax Exemption guaranteed by the California Constitution is not reduced by this change.

Proposition 3 is designed to simplify the property tax system and make it more easily understandable to property taxpayers *without increasing or decreasing anyone's taxes. Proposition 3 in no way changes the property tax limitations or the amount of property taxes payable under Proposition 13.*

Proposition 3 received bipartisan support in the Legislature. We urge its adoption by the people.

ALAN SIEROTY
State Senator, 22nd District

ROSE ANN VUICH
State Senator, 15th District

MEL LEVINE
Member of the Assembly, 44th District

No argument against Proposition 3 was submitted

Text of proposed law appears on page 22

Argument printed on this page is the opinion of the authors and has not been checked for accuracy by any official agency.

4 Limitation of Government Appropriations — Initiative Constitutional Amendment

Official Title and Summary Prepared by the Attorney General

LIMITATION OF GOVERNMENT APPROPRIATIONS. INITIATIVE CONSTITUTIONAL AMENDMENT. Establishes and defines annual appropriation limits on state and local governmental entities based on annual appropriations for prior fiscal year. Requires adjustments for changes in cost of living, population and other specified factors. Appropriation limits may be established or temporarily changed by electorate. Requires revenues received in excess of appropriations permitted by this measure to be returned by revision of tax rates or fee schedules within two fiscal years next following year excess created. With exceptions, provides for reimbursement of local governments for new programs or higher level of services mandated by state. Financial impact: Indeterminable. Financial impact of this measure will depend upon future actions of state and local governments with regard to appropriations that are not subject to the limitations of this measure.

Analysis by Legislative Analyst

Background:

The Constitution places no limitation on the amount which may be appropriated for expenditure by the state or local governments (including school districts), provided sufficient revenues are available to finance these expenditures. Nor does the Constitution limit the amount by which appropriations in one year may exceed appropriations in the prior year.

Proposal:

This ballot measure would amend the Constitution to:

- Limit the growth in appropriations made by the state and individual local governments. Generally, the measure would limit the rate of growth in appropriations to the percentage increase in the cost of living and the percentage increase in the state or local government's population.
- Establish the general requirement that state and local governments return to the taxpayers moneys collected or on hand that exceed the amount appropriated for a given fiscal year.
- Require the state to reimburse local governments for the cost of complying with "state mandates." "State mandates" are requirements imposed on local governments by legislation or executive orders.

The appropriation limits would become effective in the 1980–81 fiscal year, which begins on July 1, 1980, and ends on June 30, 1981. These limits would only apply to appropriations financed from the "proceeds of taxes," which the initiative defines as:

- All tax revenues (we are advised by Legislative Counsel that this would include those tax revenues carried over from prior years);
- Any proceeds from the investment of tax revenues; and
- Any revenues from a regulatory license fee, user charge or user fee that *exceed* the amount needed to cover the reasonable cost of providing the regulation, product or service.

The initiative would not restrict the growth in appropriations financed from other sources of revenue, including federal funds, bond funds, traffic fines, user fees based on reasonable costs, and income from gifts.

The *appropriation limit for the state government* in fiscal year 1980–81 would be equal to the sum of all appropriations initially available for expenditure during the period July 1, 1978–June 30, 1979, that were financed from the "proceeds of taxes," less amounts specifically excluded by the measure (discussed below), with the remainder adjusted for changes in the cost of living and population. The appropriations limit for each succeeding year would be equal to the limit for the prior year, adjusted for changes in the cost of living and population. Thus, even if the state appropriations in a given year were held below the level permitted by this ballot measure, the appropriation limit for the following year would not be any lower as a result. The limit would still be based on the limit for the prior year, and not on the actual level of appropriations for that year.

The following types of appropriations would *not* be subject to the state limit:

(1) State financial assistance to local governments—that is, any state funds which are distributed to local governments other than funds provided to reimburse these governments for state mandates;

(2) Payments to beneficiaries from retirement, disability insurance and unemployment insurance funds;

(3) Payments for interest and redemption charges on state debt existing on January 1, 1979, or payments on voter-approved *bonded* debt incurred after that date;

(4) Appropriations needed to pay the state's cost of complying with mandates imposed by federal laws and regulations or court orders.

We estimate that the state appropriated approxi-

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This initiative measure proposes to add a new Article XIII B to the Constitution; therefore, new provisions proposed to be added are printed in *italic type* to indicate that they are new.

PROPOSED ADDITION OF ARTICLE XIII B

PROPOSED ARTICLE XIII B. CONSTITUTION GOVERNMENT SPENDING LIMITATION

SEC. 1. The total annual appropriations subject to limitation of the state and of each local government shall not exceed the appropriations limit of such entity of government for the prior year adjusted for changes in the cost of living and population except as otherwise provided in this Article.

SEC. 2. Revenues received by any entity of government in excess of that amount which is appropriated by such entity in compliance with this Article during the fiscal year shall be returned by a revision of tax rates or fee schedules within the next two subsequent fiscal years.

SEC. 3. The appropriations limit for any fiscal year pursuant to Sec. 1 shall be adjusted as follows:

(a) In the event that the financial responsibility of providing services is transferred, in whole or in part, whether by annexation, incorporation or otherwise, from one entity of government to another, then for the year in which such transfer becomes effective the appropriations limit of the transferee entity shall be increased by such reasonable amount as the said entities shall mutually agree and the appropriations limit of the transferor entity shall be decreased by the same amount.

(b) In the event that the financial responsibility of providing services is transferred, in whole or in part, from an entity of government to a private entity, or the financial source for the provision of services is transferred, in whole or in part, from other revenues of an entity of government, to regulatory licenses, user charges or user fees, then for the year of such transfer the appropriations limit of such entity of government shall be decreased accordingly.

(c) In the event of an emergency, the appropriation limit may be exceeded provided that the appropriation limits in the following three years are reduced accordingly to prevent an aggregate increase in appropriations resulting from the emergency.

SEC. 4. The appropriations limit imposed on any new or existing entity of government by this Article may be established or changed by the electors of such entity, subject to and in conformity with constitutional and statutory voting requirements. The duration of any such change shall be as determined by said electors, but shall in no event exceed four years from the most recent vote of said electors creating or continuing such change.

SEC. 5. Each entity of government may establish such contingency, emergency, unemployment, reserve, retirement, sinking fund, trust, or similar funds as it shall deem reasonable and proper. Contributions to any such fund, to the extent that such contributions are derived from the proceeds of taxes, shall for purposes of this Article constitute appropriations subject to limitation in the year of contribution. Neither withdrawals from any such fund, nor expenditures of (or authorizations to expend) such withdrawals, nor transfers between or among such funds, shall for purposes of this Article constitute appropriations subject to limitation.

SEC. 6. Whenever the Legislature or any state agency mandates a new program or higher level of service on any local government, the state shall provide a subvention of funds to reimburse such local government for the costs of such program or increased level of service, except that the Legislature may, but need not, provide such subvention of funds for the following mandates:

(a) Legislative mandates requested by the local agency affected;

(b) Legislation defining a new crime or changing an existing definition of a crime; or

(c) Legislative mandates enacted prior to January 1, 1975, or executive orders or regulations initially implementing legislation enacted prior to January 1, 1975.

SEC. 7. Nothing in this Article shall be construed to impair the ability of the state or of any local government to meet its obligations with respect to existing or future bonded indebtedness.

SEC. 8. As used in this Article and except as otherwise expressly provided herein:

(a) "Appropriations subject to limitation" of the state shall mean any authorization to expend during a fiscal year the proceeds of taxes levied by or for the state, exclusive of state subventions for the use and operation of local government (other than subventions made pursuant to Section 6 of this Article) and further exclusive of refunds of taxes, benefit payments from retirement, unemployment insurance and disability insurance funds;

(b) "Appropriations subject to limitation" of an entity of local government shall mean any authorization to expend during a fiscal year the proceeds of taxes levied by or for that entity and the proceeds of state subventions to that entity (other than subventions made pursuant to Section 6 of this Article) exclusive of refunds of taxes;

(c) "Proceeds of taxes" shall include, but not be restricted to, all tax revenues and the proceeds to an entity of government, from (i) regulatory licenses, user charges, and user fees to the extent that such proceeds exceed the costs reasonably borne by such entity in providing the regulation, product, or service, and (ii) the investment of tax revenues. With respect to any local government, "proceeds of taxes" shall include subventions received from the state, other than pursuant to Section 6 of this Article, and, with respect to the state, proceeds of taxes shall exclude such subventions;

(d) "Local government" shall mean any city, county, city and county, school district, special district, authority, or other political subdivision of or within the state;

(e) "Cost of living" shall mean the Consumer Price Index for the United States as reported by the United States Department of Labor, or successor agency of the United States Government; provided, however, that for purposes of Section 1, the change in cost of living from the preceding year shall in no event exceed the change in California per capita personal income from said preceding year;

(f) "Population" of any entity of government, other than a school district, shall be determined by a method prescribed by the Legislature, provided that such determination shall be revised, as necessary, to reflect the periodic census conducted by the United States Department of Commerce, or successor agency of the United States Government. The population of any school district shall be such school district's average daily

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4 Limitation of Government Appropriations — Initiative Constitutional Amendment

Arguments in Favor of Proposition 4

The 'Spirit of 13' citizen-sponsored initiative provides permanent constitutional protection for taxpayers from excessive taxation. A 'yes' vote for Proposition 4 will *preserve* the gains made by Proposition 13.

VERY SIMPLY, this measure:

1) WILL limit state and local government spending.
2) WILL refund or credit excess taxes received by the state to the taxpayer.
3) WILL curb excessive user fees imposed by local government.
4) WILL eliminate government waste by forcing politicians to rethink priorities while spending our tax money.
5) WILL close loopholes government bureaucrats have devised to evade the intent of Proposition 13.

ADDITIONALLY, this measure:

1) WILL NOT allow the state government to force programs on local governments without the state paying for them.
2) WILL NOT prevent the state and local governments from responding to emergencies whether natural or economic.
3) WILL NOT prevent state and local governments from providing essential services.
4) WILL NOT allow politicians to make changes (in this law) without voter approval.
5) WILL NOT favor one group of taxpayers over another.

Proposition 4 is a well researched, carefully written citizen-sponsored initiative that is sponsored by the signatures of nearly one million Californians who know that the 'Spirit of 13' is the next logical step to Proposition 13.

Your 'yes' vote will guarantee that excessive state tax surpluses will be returned to the taxpayer, not left in the State Treasury to fund useless and wasteful programs.

This amendment is a reasonable and flexible way to provide discipline in tax spending at the state and local levels and will not override the desires of individual communities—a majority of *voters* may adjust the spending limits for local entities such as cities, counties, etc.—it will force return of any additional taxation to voter control! To protect our government's credit rating on behalf of the taxpayers, the limit does not apply to user charges required to meet obligations to the holders of existing or future bonds regardless of voter approval.

For California's sake, we sincerely urge a Yes vote on Proposition 4 to continue the Spirit of Proposition 13.

PAUL GANN
Coauthor, Proposition 13

CAROL HALLETT
Member of the Assembly, 29th District
Assembly Minority Leader

No government should have an unrestricted right to spend the taxpayer's money. Government should be subject to fiscal discipline no less than the citizens it represents.

Proposition 4 is a thoughtfully drafted spending limit. It will require state and local governments to limit their budgets yet provide for reasonable growth and meet emergencies.

It will not require wholesale cuts in necessary services. Californians want quality education, health services, police and fire protection.

Our citizens want to provide adequately for the elderly, the disabled, the abandoned children. Such programs will not be impaired.

Government must continue to be sensitive to human needs. A rational spending limit is not only consistent with that view, it is essential if government services are to be rendered effectively.

Nothing hinders the prompt attention to real needs as surely as an inefficient bureaucracy.

We need lean, flexible, responsive government. We need sensible spending controls that will help eliminate waste without sacrificing truly useful programs.

Proposition 4 offers that possibility.

LEO T. McCARTHY
Member of the Assembly, 18th District
Speaker of the Assembly

Rebuttal to Arguments in Favor of Proposition 4

Don't be misled by promises!

The proponents make Proposition 4 sound like a cure-all for every government ill. They make Proposition 4 seem like a magic wand that will transform government into an efficient machine perfectly responsive to the public will. What nonsense!

Proposition 4

- will NOT eliminate government waste;
- will NOT eliminate user fees;
- will NOT allow governments to respond to emergencies without severe penalty.

What about waste? Proposition 4 puts the power to decide how spending limits will be met right back into the hands of the very same officials who have yet to prove they know how to cut waste. They find it much easier to cut services than to cut fat!

What about fees? The measure itself states that user fees, service charges and admission taxes can still be levied. (Check Sections 3(b) and 8(c)).

What about emergencies? Every time an emergency occurs, future expenditures in other important areas will have to be cut back. It is irresponsible to pit everyday services (like police and fire protection) against the extraordinary needs of an emergency.

Proposition 4

- will NOT guarantee YOU a tax refund;
- will NOT preserve needed services;
- will NOT allow California to cope with the ravages of inflation and unemployment.

Recession and inflation are ganging up on government *and* on taxpayers. Proposition 4 is too inflexible to assure adequate government services for an uncertain future.

VOTE NO ON PROPOSITION 4!

JONATHAN C. LEWIS
Executive Director
California Tax Reform Association

SUSAN F. RICE
President
League of Women Voters of California

JOHN F. HENNING
Executive Secretary-Treasurer
California Labor Federation AFL-CIO

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Argument Against Proposition 4

Proposition 4 DOES NOT guarantee that the "fat" will be cut from government. Proposition 4 IS NOT tax reform. Proposition 4 is, instead, a rash measure that places a straitjacket on government at the very moment when Californians are faced with an uncertain economic future.

Some of the state's largest businesses, financial institutions, utilities, agribusiness and real estate interests spent $537,000 putting Proposition 4 on the ballot. Doesn't it strike you as strange that these interests are backing a so-called "grassroots" initiative?

All Californians are understandably concerned about rising taxes. We all want efficient government *and* a fair tax system. But who will really benefit from Proposition 4? Will it be *you* or the special interests backing this measure?

Proposition 4 does not guarantee tax relief for the individual. There is no guarantee that any excess government revenues will necessarily be used to lower *your* taxes. Genuine tax reform means changing the tax system so everyone pays his or her fair share.

During the past 20 years the burden of taxation has shifted from business and commercial interests to the individual taxpayer. The percentage of state and local taxes paid by business has dropped from 57% to only 37%. This partially accounts for the increase in your tax bills.

It is a myth to believe that Proposition 4 will streamline government. Nowhere in the proposal is there a requirement to cut unnecessary or wasteful government spending. The "fat" in government could go untouched while cuts are made in vital and important services.

Passage of this measure could cripple economic growth in California. There will be no advantage for cities and counties to approve new commercial developments. Because of the spending limitation, revenues generated by new commercial development cannot be spent by local entities already at their spending limit. However, services must still be provided to new commercial and housing developments, which will result in a reduction in the level of services already provided to existing residents and businesses. Communities will be forced to choose between creating new jobs and cutting services.

Proposition 4 is smokescreen politics. That is why we ask you to join us in voting NO.

JONATHAN C. LEWIS
Executive Director
California Tax Reform Association

SUSAN F. RICE
President
League of Women Voters of California

JOHN F. HENNING
Executive Secretary-Treasurer
California Labor Federation, AFL-CIO

Rebuttal to Argument Against Proposition 4

The arguments submitted by the groups opposing Proposition 4 should come as no surprise—particularly to those of us who supported Proposition 13 last year. Scare tactics, distortion and a healthy smattering of "buzzwords" are the same devices used time and again against the people whenever they decide it's time to offer a logical and reasonable solution. In this case, the people simply want to place *a limit on government spending.*

If you are among the people who think government should *not* have the unrestricted right to spend taxpayers' money, you can recite these facts to your friends and neighbors.

FACT: In the past 20 years, government spending increased 5 times beyond the allowable limits of Proposition 4.

FACT: Proposition 4 *requires* that surplus funds be returned to the taxpayers.

FACT: Proposition 4 will force politicians to prioritize and economize just as households and small businesses do to make ends meet.

FACT: Proposition 4 is supported by nearly one million voter signatures, the Democratic and Republican leaders of the State Assembly, state cochairperson Secretary of State March Fong Eu, the California Taxpayers' Association, the California Chamber of Commerce, the 83,000 family-farm member California Farm Bureau, the 55,000 small business member Federation of Independent Business, local taxpayer associations, and scores of civic and community leaders concerned about the ever-increasing growth of government spending.

Please join us in voting "Yes" on Proposition 4 to maintain the Spirit of 13.

PAUL GANN
Coauthor, Proposition 13

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mately $7.9 billion from the "proceeds of taxes" in fiscal year 1978–79, after taking into account the exclusions listed above. This amount, referred to as "appropriations subject to limitation," represents approximately 40 percent of *total* General Fund and special fund appropriations made for that fiscal year. The main reason why the state's appropriation limit covers less than half of the state's total expenditures is that a large proportion of total state expenditures represents funds passed on to local governments for a variety of public purposes. Under this ballot measure, these funds would be subject to the limits on local, rather than state, appropriations.

The *appropriation limit for a local government* in fiscal year 1980–81 would be equal to the sum of all appropriations initially available for expenditure during the period of July 1, 1978–June 30, 1979, that were financed from the "proceeds of taxes," *plus* state financial assistance received in that year, *less* amounts specifically excluded by the measure (discussed below), with the remainder adjusted for changes in the cost of living and population. The appropriations limit in each subsequent year would be equal to the limit for the prior year, adjusted for changes in the cost of living and population. For each school district, "population" is defined in this measure as the district's average daily attendance.

The following types of appropriations would not be subject to the local limit:

(1) Refunds of taxes;
(2) Appropriations required for payment of local costs incurred as a result of state mandates. (The initiative requires the state to reimburse local governments for such costs, and the appropriation of such funds would be subject to limitation at the state level.);
(3) Payments for interest and redemption charges on debt existing on or before January 1, 1979, or payments on voter-approved *bonded* debt incurred after that date;
(4) Appropriations required to pay the local government's cost of complying with mandates imposed by federal laws and regulations or court orders.

Furthermore, any special district which was in existence on July 1, 1978, and which had a 1977–78 fiscal year property tax rate of 12½ cents per $100 of assessed value or less, would never be subject to a limit on appropriations. Special districts which do not receive any funding from the "proceeds of taxes" would also be exempt from the limits.

Under the initiative, the limit on state or local government appropriations could be changed in one of four ways:

(1) An appropriation limit *may* be changed temporarily if a majority of voters in the jurisdiction approve the change. Such a change could be made for one, two, three, or four years, but it could *not* be effective for more than four years unless a majority of the voters again voted to change the limit.
(2) In the event of an emergency, an appropriation limit *may* be exceeded for a single year by the governing body of a local government without voter approval. However, if the governing body provides for an emergency increase, the appropriation limits in the following three years would have to be reduced by an amount sufficient to recoup the excess appropriations. The initiative does not place any restrictions upon the types of circumstances which may be declared to constitute an emergency.
(3) If the financial responsibility for providing a program or service is transferred from one entity of government to another *government* entity, the appropriation limits of both entities *must* be adjusted by a reasonable amount that is mutually agreed upon. Any increase in one entity's limit would have to be offset by an equal decrease in the other entity's limit.
(4) If an entity of government transfers the financial responsibility for providing a program or service from itself to a *private* entity, or the source of funds used to support an existing program or service is shifted from the "proceeds of taxes" to regulatory license fees, user charges or use fees, the entity's appropriation limit *must* be decreased accordingly.

If, in any fiscal year, an entity of government were to receive or have on hand revenues in excess of the amount that it appropriates for that year, it would be required to return the excess to taxpayers within the next two fiscal years. The initiative specifies that these funds are to be returned by lowering tax rates or fee schedules. In addition, Legislative Counsel has advised us that direct refunds of taxes paid would also be permitted under the measure.

Because certain types of appropriations would not be directly subject to the limitations established by this ballot measure, it would be possible for the state or a local government with excess funds to spend these funds in the exempt categories rather than return the funds to the taxpayers. For example, the state could appropriate any excess revenues for additional financial assistance to local governments, because such assistance is excluded from the limit on state appropriations. (This, in turn, might result in the return of excess revenues to local taxpayers if a local government were unable to spend these funds within its limit.) Similarly, a local government with an unfunded liability in its retirement system could appropriate its excess revenues to reduce the liability, as such an appropriation would be considered a payment toward a legal "indebtedness" under this ballot measure.

Finally, the initiative would establish a requirement that the state provide funds to reimburse local agencies

r the cost of complying with state mandates. The initiative specifies that the Legislature need not provide such reimbursements for mandates enacted or adopted *prior* to January 1, 1975, but does not require explicitly that reimbursement be provided for mandates enacted or adopted after that date. Legislative Counsel advises us that under this measure the state would only be *required* to provide reimbursements for costs incurred as a result of mandates enacted or adopted *after* July 1, 1980.

Fiscal Impact:

This proposition is primarily intended to limit the rate of growth in state and local spending by imposing a limit on certain categories of state and local appropriations. As noted above, approximately 60 percent of current state expenditures would be excluded from the limit on state appropriations, although nearly all of these expenditures would be subject to limitation at the local level. Also, some unknown percentage of local government expenditures would not be subject to the limits on either state or local appropriations. Thus, the fiscal impact of this ballot measure would depend on two factors:

(1) What the rate of growth in state and local "appropriations subject to limitation" would be, in the absence of this limitation; and

(2) The extent to which any reductions in "appropriations subject to limitation" required by the measure are offset by increases in those appropriations *not* subject to limitation.

Impact on State Government. During six of the past ten years, total state spending has increased more rapidly than the cost of living and population. Thus, it is likely that, had this measure been in effect during those years, it would have caused "appropriations subject to limitation" to be less than they actually were.

It is *not* possible to predict with any accuracy the future rate of growth in state "appropriations subject to limitation." Thus it is not possible to estimate with any reliability what effect the measure, if approved, would have on such appropriations in the future. However, based on the best information now available (July 1979), we estimate that passage of the initiative would cause state "appropriations subject to limitation" in fiscal year 1980–81 to be modestly lower than they probably would be if the initiative were not approved. This assumes that state reimbursement would only be required for state mandates enacted or adopted after July 1, 1980. If the courts ruled that reimbursement was required for mandates enacted or adopted after January 1, 1975, the impact of the measure on "appropriations subject to limitation" would be substantial. This is because the state would be required to provide significant reimbursements to local governments within this limitation. We have no basis for predicting the impact in subsequent years.

Whether this would result in a reduction in *total* state spending would depend on whether the state decided to use the funds that could not be spent under the limitation for (1) additional financial assistance to local governments (or for some other category of appropriations excluded from the limit), or (2) state tax relief. Thus, the effect of this ballot measure on state spending in 1980–81 could range from no change to a modest reduction.

Impact on Local Governments. Existing data do not permit us to make reliable estimates of either the appropriation limits that local governments would face in fiscal year 1980–81 if this ballot measure were approved, or what these governments would spend in that fiscal year if the initiative were not approved. Nonetheless, we estimate that those school districts experiencing significant declines in enrollment would have to reduce "appropriations subject to limitation" significantly below what these appropriations would be otherwise. We also estimate that most cities and counties, at least initially, would not be required to reduce the growth in these categories of appropriations by any significant amounts. However, some local governments, especially those with stable or declining populations, could be subject to more significant restrictions on their "appropriations subject to limitation."

Whether any reductions in "appropriations subject to limitation" caused by this measure would result in corresponding reductions in *total* local government expenditures and a return of excess revenues to the taxpayers would depend on whether increased spending resulted in those categories *not* subject to limitation. We have no basis for estimating the actions of local governments in this regard.

Conclusion. Thus, while a reduction in the rate of growth in state or local government expenditures may result from this ballot measure in fiscal year 1980–81, there may be instances in which no reduction in the rate of growth in an individual government's spending occurs. The impact of this measure in subsequent years cannot be estimated, although the measure could cause government spending to be significantly lower than it would be otherwise.

TEXT OF PROPOSITION 3

This amendment proposed by Senate Constitutional Amendment No. 60 (Statutes of 1978, Resolution Chapter 85) expressly adds a section to the Constitution; therefore, provisions proposed to be added are printed in *italic type* to indicate that they are new.

PROPOSED AMENDMENT TO ARTICLE XIII

SEC. 3.5. In any year in which the assessment ratio is changed, the Legislature shall adjust the valuation of assessable property described in subdivisions (o), (p) and (q) of Section 3 of this article to maintain the same proportionate values of such property.

TEXT OF PROPOSITION 4—*Continued from page 17*

attendance as determined by a method prescribed by the Legislature;

(g) "Debt service" shall mean appropriations required to pay the cost of interest and redemption charges, including the funding of any reserve or sinking fund required in connection therewith, on indebtedness existing or legally authorized as of January 1, 1979 or on bonded indebtedness thereafter approved according to law by a vote of the electors of the issuing entity voting in an election for such purpose.

(h) The "appropriations limit" of each entity of government for each fiscal year shall be that amount which total annual appropriations subject to limitation may not exceed under Section 1 and Section 3; provided, however, that the "appropriations limit" of each entity of government for fiscal year 1978–79 shall be the total of the appropriations subject to limitation of such entity for that fiscal year. For fiscal year 1978–79, state subventions to local governments, exclusive of federal grants, shall be deemed to have been derived from the proceeds of state taxes.

(i) Except as otherwise provided in Section 5, "appropriations subject to limitation" shall not include local agency loan funds or indebtedness funds, investment (or authorizations to invest) funds of the state, or of an entity of local government in accounts at banks or savings and loan associations or in liquid securities.

SEC. 9. "Appropriations subject to limitation" for each entity of government shall not include:

(a) Debt service.

(b) Appropriations required for purposes of complying with mandates of the courts or the federal government which, without discretion, require an expenditure for additional services or which unavoidably make the providing of existing services more costly.

(c) Appropriations of any special district which existed on January 1, 1978, and which did not as of the 1977–78 fiscal year levy an ad valorem tax on property in excess of 12½ cents pe $100 of assessed value; or the appropriations of any specia. district then existing or thereafter created by a vote of the people, which is totally funded by other than the proceeds of taxes.

SEC. 10. This Article shall be effective commencing with the first day of the fiscal year following its adoption.

SEC. 11. If any appropriation category shall be added to or removed from appropriations subject to limitation, pursuant to final judgment of any court of competent jurisdiction and any appeal therefrom, the appropriations limit shall be adjusted accordingly. If any section, part, clause or phrase in this Article is for any reason held invalid or unconstitutional, the remaining portions of this Article shall not be affected but shall remain in full force and effect.

MARCH FONG EU
Secretary of State
1230 J STREET
SACRAMENTO, CA 95814

BULK RATE
U.S.
POSTAGE
PAID
Secretary of
State

In an effort to reduce election costs, the State Legislature has authorized counties having this capability to mail only one ballot pamphlet to addresses where more than one voter with the same surname resides. If you wish additional copies, you may obtain them by calling or writing to your county clerk or registrar of voters.

En un esfuerzo por reducir los costos electorales, la Legislatura Estatal ha autorizado a los condados que cuentan con la capacidad de hacerlo, enviar una sola balota a direcciones en que reside más de un votante del mismo apellido. Si usted desea copias adicionales, llame o escriba al secretario del condado o registrador de votantes que le corresponde y se las suministrarán.

CERTIFICATE OF SECRETARY OF STATE

I, March Fong Eu, Secretary of State of the State of California, do hereby certify that the foregoing measures will be submitted to the electors of the State of California at the SPECIAL ELECTION to be held throughout the State on November 6, 1979, and that the foregoing pamphlet has been correctly prepared in accordance with law.

Witness my hand and the Great Seal of the State in Sacramento, California, this first day of August 1979.

March Fong Eu

MARCH FONG EU
Secretary of State

0071

HISTORY OF SAN DIEGO, 1542-1908

PART FOUR: CHAPTER 4: WATER DEVELOPMENT

The question of an adequate supply of water for San Diego always has been one of the most vital problems in the life of the place. During the short life of "Davis's Folly," or "Graytown," and for some time after Horton came the inhabitants depended upon water hauled from the San Diego River. The early settlers still remember paying Tasker & Hoke twenty-five cents a pail for this water. After that, they were for some time dependent upon a few wells. An effort to find an artesian supply began in 1871. A well was sunk by Calloway & Co. in which some water was found at a depth of 250 feet. They asked for city aid to enable them to continue boring, but the proposition to issue $10,000 city bonds to carry on the work was defeated at an election held in July, 1872. The well in the court house yard furnished a good supply, which was used to some extent for irrigation. In 1873 a well was completed at the Horton House, which gave great satisfaction and was thought to demonstrate that "an inexhaustible supply of good water exists at but a comparatively trifling depth, which can be reached with little expense." The well which Captain Sherman sank in the western part of his new addition, was also an important factor.

The town soon outgrew the possibility of dependence upon wells, early in its first boom, and in 1872 San Diego's first water company was organized. This was the San Diego Water Company, incorporated January 20, 1873. The principal stockholders were: H. M. Covert and Jacob Gruendike; the incorporators were these two and D. W. Briant, D.O. McCarthy, Wm. K. Gardner, B. F. Nudd, and Return Roberts. The capital stock was $90,000, divided into 900 shares of $100 each. The term of the incorporation was fifty years from February 1, 1873. H. M. Covert was the first president.

The first works of this company were artesian wells and reservoirs. They bored a well in Pound Canyon, near the southeast corner of the Park, and found water, but at a depth of 300 feet the drill entered a large cavern and work had to be abandoned. The water rose to within 60 feet of the surface and remained stationary. They then sank a well 12 feet in diameter around the first pipe, to a depth of 170 feet, and from the bottom of this second boring put down a pipe to

tap the subterranean stream. The large well was then bricked up and cemented. It had a capacity of 54,000 gallons per hour. Two small reservoirs were also constructed, one at 117 feet above tide water, with a capacity of 70,000 gallons, and the other more than 200 feet above the tide, with a capacity of 100,000 gallons. The water was pumped from the 12-foot well into these two reservoirs. Such were San Diego's first waterworks. In March, 1874, the *Union* said with pride:

"About 18,000 feet of pipe will be put down for the present. Pipe now extends from the smaller reservoir down Eleventh and D, along D to Fifth, down Fifth to K, along K to Eleventh, and will also run through Ninth from D to K and from Fifth along J to Second. The supply from this well will be sufficient for 30,000 population and is seemingly inexhaustible."

But notwithstanding this confidence, in a few years the water supply in Pound Canyon was found to be inadequate, and it was determined to bring water from the river. In the summer of 1875 the company increased its capital stock to $250,000 for the purpose of making this improvement. A reservoir was built at the head of the Sandrock Grade, on University Heights. The water had to be lifted several hundred feet from the river to the reservoir, and this pumping was expensive. In order to avoid this expense and improve the service, the company drove a tunnel through the hills, beginning at a point in Mission Valley below the new County Hospital and coming out on University Avenue near George P. Hall's place. The water was piped through this tunnel, which is still in a fair state of preservation. A new reservoir was built at the southwest corner of Fifth and Hawthorne Streets; and these works constituted the San Diego water system until the pumping plant and reservoir at Old Town were constructed. This old reservoir gave sufficient pressure for the time being, and it was not then believed the high mesa lands would ever be built upon.

In the fall of 1879 the papers note that the water mains had been extended down K Street as far as the flour mill and thence up Twelfth to the Bay View Hotel. Early in 1886 the long delayed work on the river system, near Old Town, was resumed. From numerous wells in the river bed, the water was pumped into the large reservoir on the hill. At this time the company also made many extensions and laid new pipes for almost the entire system. The pumps installed had a capacity of 6,600,000 gallons per twenty-four hours. There are four covered reservoirs with a total capacity of 4,206,000 gallons. A standpipe was placed on Spreckels Heights, 136 feet high and 36 inches in diameter. The top of this standpipe was 401 feet above tide, and it regulated the pressure all over the city. According to the engineer's statement, about 30,000,000 gallons were pumped during each month of the year 1888. The pipe lines in January, 1890,

exceeded 60 miles and had cost $800,000. There were 185 fire hydrants connected, for which the company received $100 each per annum.

The next large undertaking in the way of water development was that of the San Diego Flume Company. This project originated with Theodore S. Van Dyke and W. E. Robinson, who worked upon it for some time before they succeeded in interesting anyone else. Then General S. H. Marlette became interested and these three associates secured the water rights needed for the development. In 1885, they planned to form a corporation, to be called the San Diego Irrigating Company, but for some reason the plan failed. The promoters continued to work indefatigably, however, and finally succeeded in enlisting the interest of George D. Copeland, A. W. Hawley, and a few others, and soon were in a position to incorporate. The articles of incorporation were filed in May, 1886. Besides those mentioned, the following were incorporators: Milton Santee, R. H. Stretch, George W. Marston, General T. T. Crittenden, Robert Allison, J. M. Luco, and E. W. Morse.

Sufficient money was paid in to start the work. Copeland became President, Robinson Vice-President, and Stretch Engineer. Captain Stretch served about six months and did some of the preliminary work. He was succeeded by Lew B. Harris, who served about a year, and then J. H. Graham became the engineer and remained until the work was completed. The capital stock was $1,000,000, divided into 10,000 shares of $100 each.

The difficulties encountered were many. There was an inefficient contractor whose men the company was compelled to pay. It was asserted that the flume encroached upon an Indian reservation, and there was frequently a lack of funds. Their means becoming exhausted, some of the original incorporators were obliged to step out. Copeland became manager in place of Robinson, and Morse president in place of Copeland. Later, Bryant Howard became president and W. H. Ferry superintendent, and these two men saw the work completed.

This great pioneer undertaking was organized and carried out by far-seeing, courageous men, for the purpose of irrigating the rich lands of El Cajon Valley and also of bringing a supply of water to San Diego. Incidentally, but quite as important, they were aware that they were making a demonstration of the agricultural possibilities of San Diego's derided back country. There were a few citizens who understood the importance of the undertaking and watched the course of events with almost breathless interest. But the majority were too busy with real estate speculations to be much concerned—at least, this was true of the floating population of newcomers. Van Dyke writes pointedly: "The writer and his associates who were struggling to get the San Diego River water out of the mountains to give the city an abundant supply, and reclaim the beautiful

tablelands about it, were mere fools 'monkeying' with an impracticable scheme, and of no consequence anyhow."

DEDICATION OF THE SAN DIEGO FLUME. The man at the extreme right is Governor Waterman. The man in the second row wearing a straw hat is W. E. Robinson, one of the originators of the enterprise.

On February 22, 1889, the completion of the flume was celebrated in San Diego, most impressively. There was a street parade over a mile long, and a display of the new water. A stream from a 1¾ inch nozzle was thrown 125 feet into the air, at the corner of Fifth and Beech Streets, and at the corner of Fifth and Ivy, another one 150 feet high, to the admiration of the citizens. There were 19 honorary presidents of the day on the grand stand. Bryant Howard, M. A. Luce, George Puterbaugh, Hon. John Brennan of Sioux City, Iowa, D. C. Reed, and Colonel W. G. Dickinson spoke, and letters and telegrams from absent notables were read.

It is really a pity to have to spoil the story of the celebration of such an achievement, with a joke, but—the truth is, the water in the pipes at the time was not the Flume Company's water, at all. The Flume Company had placed no valves in their pipes, and, consequently, when they turned the water on, it was airbound and the water advanced very slowly. When the day for the celebration came, the water being still several miles away, the officers of the San Diego Water Company quietly turned their own water into the pipes, and had a good laugh in their sleeves while listening to the praises the people lavished on the fine qualities of the "new water." The Flume Company's water arrived three weeks later.

The flume emerges from the San Diego River a short distance below the mouth of Boulder Creek, and proceeds thence down the Capitan Grande Valley to El Cajon Valley, about 250 feet from the Monte. From this point the flume curves to the east and south of El Cajon, at a considerable elevation. From El Cajon, the flume is brought to the city by the general route of the Mesa road. The total length of the flume proper is 35.6 miles. The reservoir is an artificial lake on the side of Cuyamaca Mountain, about fifty miles from San Diego, at an elevation of about 5,000 feet. Its capacity is nearly 4,000,000,000 gallons. It is formed by a breastwork of clay and cement, built across the mouth of a valley, forming a natural basin.

The construction of this flume exerted a very important influence in bringing on and sustaining the great boom, although it was not completed until after the close of that episode. The officers at the time of its completion. were: Bryant Howard, president; W. H. Ferry, vice-president and manager; L. F. Doolittle, secretary; Bryant Howard, W. H. Ferry, M. A. Luce, E. W. Morse, and A. W. Hawley, directors. These men are entitled to the credit of being the first to carry to a successful conclusion a scheme of development of the water resources of San Diego County, upon a large scale.

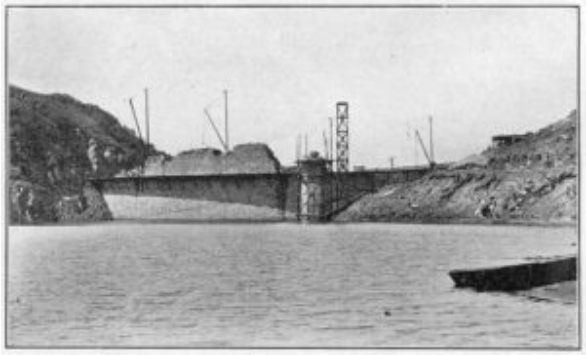

SWEETWATER DAM IN COURSE OF CONSTRUCTION, 1887.

The construction of the Sweetwater Dam was begun November, 1886, and completed March, 1888, under the well-known engineer, James D. Schuyler. The Dam alone cost $225,000 and the lands used for reservoir site I7. .9,000 more. The original investment in the system of distribution exceeded half a million dollars. The reservoir stores 7,000,000,000 gallons and supplies National City Chula Vista, and a small area of land in Sweetwater Valley.

The Otay Water Company filed its articles of incorporation March 15, 1886, its declared object being to irrigate the Otay Valley lands and the adjacent mesa, and E. S. Babcock being the principal owner. In 1895 he sold a half interest to the Spreckels Brothers and the name of the corporation was changed to the Southern California Mountain Water Company. Later, the Spreckelses became sole owners. This company has an important contract under which it now supplies the city with its entire water supply. Its storage dam is at Moreno and its pipe line was extended to the city reservoir and the delivery of water commenced in the summer of 1906.

The San Diego Water Company was incorporated in 1889, and in 1894 the Consolidated Water Company was formed for the purpose of uniting the San Diego Water Company and the San Diego Flume Company under one ownership. The Consolidated acquired by exchange of securities all the stock and bonds of both the water and the flume company. On July 21, 1901, the system of distribution within the city limits became the property of the municipality, a bond issue of $600,000 having been voted for its acquisition. The city obtained its supply from the pumping plant in Mission Valley until August, 1906, when its

E.S. BABCOCK. Who came to San Diego in 1884 to hunt quail and remained to influence events more powerfully than anyone since Horton. A man of big conceptions and restless enterprise, he founded Coronado, engaged assiduously in water development, and was identified with numerous public utility corporations. Moreover, he it was who interested John D. Spreckels in local enterprises and thereby started as series of developments which is still unfolding to the immense advantage of the city and region.

contract with the Southern California Mountain Water Company went into operation. Under the terms of this contract, the city obtains an abundant supply of water from mountain reservoirs at a price of four cents per thousand gallons, the water being delivered to its mains on University Heights.

The water question has been from the beginning a prolific source of controversy between the people and various corporations, and every important stage of its evolution, from the day of the earliest wells to the time when the great Spreckels system was sufficiently developed to meet the present demands, was marked by acrimonious discussion and sharp divisions in the community. The Spreckels contract was not approved by public opinion until an unsuccessful effort had been made to increase the city's own supply by the purchase of water-bearing lands in El Cajon Valley and the establishment of a great pumping plant at that point. The municipal election of 1905 turned largely upon this issue. It resulted in the election of a mayor favorable to the El Cajon project, with a council opposed to it. A referendum on the subject revealed a curious state of the public mind. A majority favored the purchase of the lands, but opposed their development. The majority in favor of buying lands fell short of the necessary two-thirds, however, and the city government then turned to the Southern California Mountain Water Company as the only feasible means of creating a water supply to meet the needs of a rapidly growing city.

The mayor vetoed the contract with the Spreckels company when it first came to him from the council, urging that it be revised in such a way as to put its legality beyond all possible question (the contract was for a period of ten years, while the city attorney advised that it could legally be made for only one year at a time), and also to reserve the city's right to operate its pumping plant in Mission Valley sufficiently to keep it in condition to meet an emergency. The council promptly passed the contract over the mayor's veto, whereupon it was signed by the

executive. The act was followed by the rapid completion of the pipe line to the city and the construction of an aerating plant on University Heights.

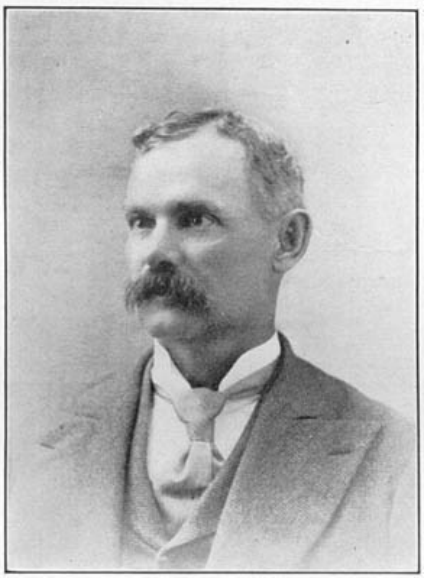

C.S. ALVERSON. To whom the public and the government is largely indebted for the exact knowledge concerning the water resources of the western slope of San Diego County, which he has studied for twenty years.

The consummation of this contract ended the long struggle for water and marked the beginning of a new epoch in the city's life. This fortunate result was not due to the fact that the contract was made with any particular company, nor to the fact that it brought water from any particular source. It was due to the fact that the people of San Diego had obtained a cheap and reliable water supply adequate to the needs of a city three or four times its present size. Water from El Cajon or from San Luis Rey would have served the same purpose and exerted the same happy influence on the growth of population and stability of values. Since the city had failed to adopt a project of its own, it was very fortunate to possess a capitalist able and willing to meet its needs upon reasonable terms at a crucial moment in its history.

Return to **Books**.

HISTORY OF SAN DIEGO

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Political Roster, City of San Diego
Political Roster, San Diego County

San Diego History Center
Casa De Balboa, Balboa Park
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Phone: 619-232-6203

For general inquiries: info@sandiegohistory.org
For research questions: collections@sandiegohistory.org

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One-on-One Appointments Only

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Walk-In Research – No Appointment Necessary

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Closed Thanksgiving and Christmas

Junípero Serra Museum
September 5, 2017 – June 1, 2018: Saturday, Sunday from 10:00 am-4:00 pm
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For a list of upcoming closures at each site, see Visit and click on the location you will be visiting.

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NEW ISSUE – BOOK-ENTRY ONLY

RATINGS: Fitch – "AA-" (stable outlook)
Moody's – "Aa3" (stable outlook)
See "RATINGS."

In the opinion of Hawkins Delafield & Wood LLP, Bond Counsel to the Authority, under existing statutes and court decisions and assuming continuing compliance with certain tax covenants described herein, (i) interest on the 2018 Bonds is excluded from gross income for federal income tax purposes pursuant to Section 103 of the Internal Revenue Code of 1986, as amended (the "Code") and (ii) interest on the 2018 Bonds is not treated as a preference item in calculating the alternative minimum tax under the Code. In addition, in the opinion of Bond Counsel to the Authority, under existing statutes, interest on the 2018 Bonds is exempt from State of California personal income. See "TAX MATTERS."

$243,180,000
PUBLIC FACILITIES FINANCING AUTHORITY OF THE CITY OF SAN DIEGO
SUBORDINATED WATER REVENUE BONDS, SERIES 2018A
(Payable Solely From Subordinated Installment Payments Secured by Net System Revenues of the Water Utility Fund)

Dated: Date of Delivery **Due: August 1, as shown on the inside cover page**

The $243,180,000 Public Facilities Financing Authority of the City of San Diego Subordinated Water Revenue Bonds, Series 2018A (Payable Solely From Subordinated Installment Payments Secured by Net System Revenues of the Water Utility Fund) (the "2018 Bonds") are being issued by the Public Facilities Financing Authority of the City of San Diego (the "Authority") pursuant to Article 4 (commencing with Section 6584, known as the Marks-Roos Local Bond Pooling Act of 1985) of Chapter 5 of Division 7 of Title 1 of the Government Code of the State of California (the "Government Code") and the Indenture, dated as of January 1, 2009, as amended and supplemented, including as supplemented by the Sixth Supplemental Indenture, dated as of December 1, 2018 (collectively, the "Indenture"), each by and between the Authority and U.S. Bank National Association, as successor trustee (the "Trustee"). The proceeds of the 2018 Bonds will be used to (a) finance capital improvements to the Water System (the "Water System") of The City of San Diego (the "City"), (b) pay all of the outstanding principal of the Subordinated Water Revenue Commercial Paper Notes, Series A (Payable Solely from Subordinated Installment Payments Secured by Net System Revenues of the Water Utility Fund) and the Subordinated Water Revenue Commercial Paper Notes, Series B (Payable Solely from Subordinated Installment Payments Secured by Net System Revenues of the Water Utility Fund) of the Authority, which were issued to initially finance a portion of the capital improvements to the Water System, and (c) pay the costs of issuance incurred in connection with the issuance of the 2018 Bonds. See "PLAN OF FINANCE." Capitalized terms used on this cover page and not otherwise defined shall have the meanings ascribed to them elsewhere in this Official Statement. See in particular "APPENDIX A – SUMMARY OF PRINCIPAL LEGAL DOCUMENTS – Indenture" and "– Master Installment Purchase Agreement."

The 2018 Bonds are limited obligations of the Authority secured by Subordinated Revenues consisting primarily of 2018 Subordinated Installment Payments to be made by the City to the San Diego Facilities and Equipment Leasing Corporation (the "Corporation") under the Amended and Restated Master Installment Purchase Agreement, dated as of January 1, 2009 (the "Original Master Installment Purchase Agreement"), as amended and supplemented, including as supplemented by the 2018 Supplement to Amended and Restated Master Installment Purchase Agreement, dated as of December 1, 2018 (the "2018 Supplement" and, together with the Original Master Installment Purchase Agreement as previously amended and supplemented, the "Master Installment Purchase Agreement"), each by and between the City and the Corporation, and other assets pledged therefor under the Indenture. The 2018 Subordinated Installment Payments will be assigned by the Corporation to the Authority pursuant to the Assignment Agreement. The pledge and right of payment from Net System Revenues securing the 2018 Subordinated Installment Payments will be subordinate to the payment by the City of Senior Obligations and on parity with the payment of the City of other Subordinated Obligations. See "SECURITY AND SOURCES OF PAYMENT FOR THE 2018 BONDS."

The 2018 Bonds are limited obligations of the Authority payable solely from and secured solely by the Subordinated Revenues pledged therefor and amounts on deposit in the Subordinated Bonds Payment Fund established under the Indenture. The obligation of the City to make 2018 Subordinated Installment Payments under the 2018 Supplement does not constitute an obligation of the City for which the City is obligated to levy or pledge any form of taxation or for which the City has levied or pledged any form of taxation. Neither the full faith and credit of the Authority, the City, the County of San Diego (the "County"), the State of California (the "State"), or any political subdivision of the State nor the taxing power of the City, the County, the State, or any political subdivision of the State is pledged to the payment of the principal of or interest on the 2018 Bonds. The Authority has no taxing power. Neither the 2018 Bonds nor the obligation of the City to make 2018 Subordinated Installment Payments constitutes an indebtedness of the Authority, the City, the County, the State, or any political subdivision of the State within the meaning of any constitutional or statutory debt limitation or restriction.

The 2018 Bonds will bear interest at the respective rates set forth on the inside cover page hereof. Interest on the 2018 Bonds will accrue from the date of delivery of the 2018 Bonds and is payable on February 1 and August 1 of each year, commencing on February 1, 2019. See "DESCRIPTION OF THE 2018 BONDS – General."

The 2018 Bonds are subject to redemption as described herein. See "DESCRIPTION OF THE 2018 BONDS – Redemption of 2018 Bonds."

The 2018 Bonds will be issued only in fully-registered form in denominations of $5,000 and any integral multiple thereof and, when issued, will be registered in the name of Cede & Co., as the nominee of The Depository Trust Company, New York, New York ("DTC"). DTC will act as securities depository for the 2018 Bonds. Ownership interests in the 2018 Bonds may be purchased in book-entry form only. So long as DTC or its nominee is the Owner of the 2018 Bonds, the principal, the redemption premium, if any, and interest on the 2018 Bonds will be made as described in "APPENDIX D – INFORMATION REGARDING THE BOOK-ENTRY ONLY SYSTEM."

This cover page contains information for general reference only. Potential purchasers are advised to read the entire Official Statement to obtain information essential to making an informed investment decision. See "INTRODUCTION – Changes from the Preliminary Official Statement" for information that was not included in the Preliminary Official Statement.

The 2018 Bonds are offered when, as, and if delivered to and received by the Underwriters, subject to the approval of legality by Hawkins Delafield & Wood LLP, Bond Counsel. Certain legal matters will be passed upon for the Authority by Hawkins Delafield & Wood LLP, for the Authority and the City by Mara W. Elliott, City Attorney, and for the Underwriters by their counsel, Nixon Peabody LLP, Los Angeles, California. It is anticipated that the 2018 Bonds will be available for delivery through the facilities of DTC in New York, New York on or about January 3, 2019.

BofA Merrill Lynch **Citigroup**

HilltopSecurities **UBS Financial Services Inc.** **280 Securities LLC**

Dated: December 12, 2018

MATURITY SCHEDULE

$243,180,000
PUBLIC FACILITIES FINANCING AUTHORITY OF THE CITY OF SAN DIEGO
SUBORDINATED WATER REVENUE BONDS, SERIES 2018A

Base CUSIP No.† 79730C

Maturity Date (August 1)	Principal Amount	Interest Rate	Yield‡	CUSIP† (Suffix)	Maturity Date (August 1)	Principal Amount	Interest Rate	Yield‡	CUSIP† (Suffix)
2019	$3,815,000	5.00%	1.49%	HF4	2029	$6,290,000	5.00%	2.42%*	HR8
2020	4,010,000	5.00	1.58	HG2	2030	6,615,000	5.00	2.55*	HS6
2021	4,215,000	5.00	1.62	HH0	2031	6,955,000	5.00	2.66*	HT4
2022	4,435,000	5.00	1.69	HJ6	2032	7,310,000	5.00	2.76*	HU1
2023	4,660,000	5.00	1.76	HK3	2033	7,685,000	5.00	2.84*	HV9
2024	4,900,000	5.00	1.84	HL1	2034	8,080,000	5.00	2.94*	HW7
2025	5,155,000	5.00	1.96	HM9	2035	8,495,000	5.00	3.04*	HX5
2026	5,415,000	5.00	2.10	HN7	2036	8,930,000	5.00	3.10*	HY3
2027	5,690,000	5.00	2.21	HP2	2037	9,385,000	5.00	3.16*	HZ0
2028	5,985,000	5.00	2.25	HQ0	2038	9,865,000	5.00	3.21*	JA3

$57,470,000 5.00% Series 2018A Term Bonds due August 1, 2043 - Yield‡: 3.38%* CUSIP No.† 79730CJB1
$57,820,000 5.25% Series 2018A Term Bonds due August 1, 2047 - Yield‡: 3.39%* CUSIP No.† 79730CJC9

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* Yield assumes a par call on August 1, 2028.

‡ Reoffering yields are furnished by the Underwriters. Neither the Authority nor the City takes any responsibility for the accuracy thereof.

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No dealer, broker, salesperson, or other person has been authorized by the City, the Authority, or the Corporation to give any information or to make any representations other than those contained herein and, if given or made, such other information or representations must not be relied upon as having been authorized by the City, the Authority, or the Corporation. This Official Statement does not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of the 2018 Bonds by a person in any jurisdiction in which it is unlawful for such person to make an offer, solicitation, or sale.

This Official Statement is not a contract with the purchasers of the 2018 Bonds. Statements contained in this Official Statement that involve estimates, forecasts or matters of opinion, whether or not expressly so described herein, are intended solely as such and are not to be construed as a representation of facts.

The information set forth herein has been furnished by the City or otherwise derived from other sources that are believed to be reliable including, without limitation, the San Diego County Water Authority and The Metropolitan Water District of Southern California. The Underwriters have provided the following sentence for inclusion in this Official Statement: the Underwriters have reviewed the information in this Official Statement in accordance with, and as part of, their responsibility to investors under the federal securities law as applied to the facts and circumstances of this transaction, but the Underwriters do not guarantee the accuracy or completeness of such information.

The information and expressions of opinion herein are subject to change without notice and neither the delivery of this Official Statement nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in the affairs of the City, the Authority, the Corporation, or any other parties described herein since the date hereof. All summaries of the 2018 Bonds, the Indenture, the Master Installment Purchase Agreement, the 2018 Supplement, the Assignment Agreement, and other documents summarized herein are made subject to the provisions of such documents respectively and do not purport to be complete statements of any or all of such provisions.

This Official Statement is submitted in connection with the issuance of the 2018 Bonds referred to herein and may not be reproduced or used, in whole or in part, for any other purpose.

The City maintains a website that includes investor information at http://www.sandiego.gov/investorinformation. However, the information presented at such website is not part of this Official Statement, is not incorporated by reference herein, and should not be relied upon in making an investment decision with respect to the 2018 Bonds.

IN CONNECTION WITH THIS OFFERING, THE UNDERWRITERS MAY OVERALLOT OR EFFECT TRANSACTIONS THAT STABILIZE OR MAINTAIN THE MARKET PRICE OF THE 2018 BONDS AT A LEVEL ABOVE THAT WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME. THE UNDERWRITERS MAY OFFER AND SELL THE 2018 BONDS TO CERTAIN DEALERS AND DEALER BANKS AND BANKS ACTING AS AGENT AT PRICES LOWER THAN THE PUBLIC OFFERING PRICE STATED ON THE INSIDE COVER PAGE HEREOF AND SAID PUBLIC OFFERING PRICE MAY BE CHANGED FROM TIME TO TIME BY THE UNDERWRITERS.

CITY OF SAN DIEGO

Mayor
Kevin L. Faulconer

City Council
(Also serves as Board of Commissioners of the Public Facilities Financing Authority of the City of San Diego)

Georgette Gómez, City Council President (*District 9*)
Barbara Bry, City Council President Pro Tem (*District 1*)
Jennifer Campbell (*District 2*)
Chris Ward (*District 3*)
Monica Montgomery (*District 4*)
Mark Kersey (*District 5*)
Chris Cate (*District 6*)
Scott Sherman (*District 7*)
Vivian Moreno (*District 8*)

City Attorney
Mara W. Elliott

City Officials

Kris Michell, *Chief Operating Officer*
Stacey LoMedico, *Assistant Chief Operating Officer*
Rolando Charvel, *Chief Financial Officer*
Gail R. Granewich, *City Treasurer*
Kyle Elser, *Interim City Auditor*
Tracy McCraner, *City Comptroller and Financial Management Director*
Andrea Tevlin, *Independent Budget Analyst*
Elizabeth S. Maland, *City Clerk*
Johnnie Perkins, *Deputy Chief Operating Officer for Infrastructure/Public Works*
Matthew Vespi, *Interim Director of Public Utilities*

SPECIAL SERVICES

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Hawkins Delafield & Wood LLP
Los Angeles, California

Municipal Advisor
KNN Public Finance, a Limited Liability Company
Oakland, California

Trustee
U.S. Bank National Association
Los Angeles, California

SUMMARY OF THE OFFERING

This summary is subject in all respects to more complete information contained in this Official Statement and should not be considered a complete statement of the facts material to making an investment decision. The offering of the 2018 Bonds to potential investors is made only by means of the entire Official Statement, including the cover page, the inside cover page, and the Appendices, and other documents available for review and to which reference is herein made. Capitalized terms used in this summary and not otherwise defined have the meanings given to such terms in this Official Statement.

Issuer: The Public Facilities Financing Authority of the City of San Diego (the "Authority").

Bonds Offered: $243,180,000 aggregate principal amount of the Authority's Subordinated Water Revenue Bonds, Series 2018A (the "2018 Bonds").

Interest Payment Dates: Interest on the 2018 Bonds will be payable semiannually on each February 1 and August 1, commencing on February 1, 2019.

Security and Sources of Payment: The following is qualified in all respects by the information in this Official Statement under the caption "SECURITY AND SOURCES OF PAYMENT FOR THE 2018 BONDS" and the documents referenced under such caption.

The City, pursuant to a Master Installment Purchase Agreement with the San Diego Facilities and Equipment Leasing Corporation (the "Corporation"), will make 2018 Subordinated Installment Payments. The Corporation will assign such payments to the Authority pursuant to the Assignment Agreement.

The 2018 Subordinated Installment Payments will be in amounts that are sufficient to pay the principal of and interest on the 2018 Bonds.

The 2018 Subordinated Installment Payments are payable solely from Net System Revenues, on a basis that is subordinate to the right of payment by the City of its Senior Obligations under the Master Installment Purchase Agreement and on parity with the right of payment by the City of its other Subordinated Obligations under the Master Installment Purchase Agreement. Net System Revenues for any Fiscal Year are the System Revenues for such Fiscal Year less the Maintenance and Operation Costs of the Water System for such Fiscal Year. System Revenues are all income, rents, rates, fees, charges, and other moneys derived from the ownership and operation of the Water System. Notwithstanding any contributions from the Sewer Revenue Fund to finance Pure Water Program components of the Water System CIP, amounts from the Sewer Revenue Fund are not available to pay principal of and interest on the 2018 Bonds. See "WATER SYSTEM CAPITAL

IMPROVEMENT PLAN – Capital Improvement Financing Plan."

The 2018 Bonds will be secured by the Indenture by and between the Authority and U.S. Bank National Association, as Trustee. The Authority will transfer, convey, and assign to the Trustee, for the benefit of the owners of the 2018 Bonds, all of the Authority's right to receive the 2018 Subordinated Installment Payments from the City.

Rate Covenant: The City has covenanted in the Master Installment Purchase Agreement to fix, prescribe, and collect rates and charges for the City's water service, which will be at least sufficient to yield the greater of (i) Net System Revenues sufficient to pay during each Fiscal Year all Obligations, including the 2018 Subordinated Installment Payments, payable in each Fiscal Year, or (ii) Adjusted Net System Revenues during each Fiscal Year equal to 120% of the Adjusted Debt Service (which does not include debt service on Subordinated Obligations such as the 2018 Subordinated Installment Obligation) for such Fiscal Year. See "SECURITY AND SOURCES OF PAYMENT FOR THE 2018 BONDS – Rate Covenant."

No Debt Service Reserve Fund: No debt service reserve fund will be created or funded to secure the 2018 Bonds.

Additional Obligations: The City may incur additional Obligations, payments with respect to which will be senior to, or on parity with, the City's obligation to make the 2018 Subordinated Installment Payments, subject to satisfaction of the conditions specified in the Master Installment Purchase Agreement.

Use of Proceeds: The net proceeds of the 2018 Bonds will be applied to (i) finance capital improvements to the Water System, (ii) pay all of the outstanding principal of commercial paper notes of the Authority, which were used initially to finance a portion of the capital improvements to the Water System, and (iii) pay the costs of issuance incurred in connection with the issuance of the 2018 Bonds.

Redemption: The 2018 Bonds are subject to optional and mandatory sinking fund redemption prior to maturity as described herein. See "DESCRIPTION OF THE 2018 BONDS – Redemption of 2018 Bonds" herein.

Authorized Denominations: The 2018 Bonds will be issued as registered bonds in denominations of $5,000 and integral multiples thereof.

Form and Depository: The 2018 Bonds will be delivered solely in registered form under a global book-entry system through the facilities of DTC.

Tax Status: For information on the tax status of the 2018 Bonds, see the

italicized language at the top of the cover page of this Official Statement and "TAX MATTERS" herein.

Continuing Disclosure: The City will execute a Continuing Disclosure Certificate to assist the Underwriters in complying with the provisions of Rule 15c2-12, as further described in "CONTINUING DISCLOSURE" herein. The form of Continuing Disclosure Certificate that the City will execute is attached as APPENDIX C hereto.

Ratings: Fitch: "AA-" (with a stable outlook)
Moody's: "Aa3" (with a stable outlook)

See "RATINGS" herein.

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City of San Diego Water System

Existing Facilities

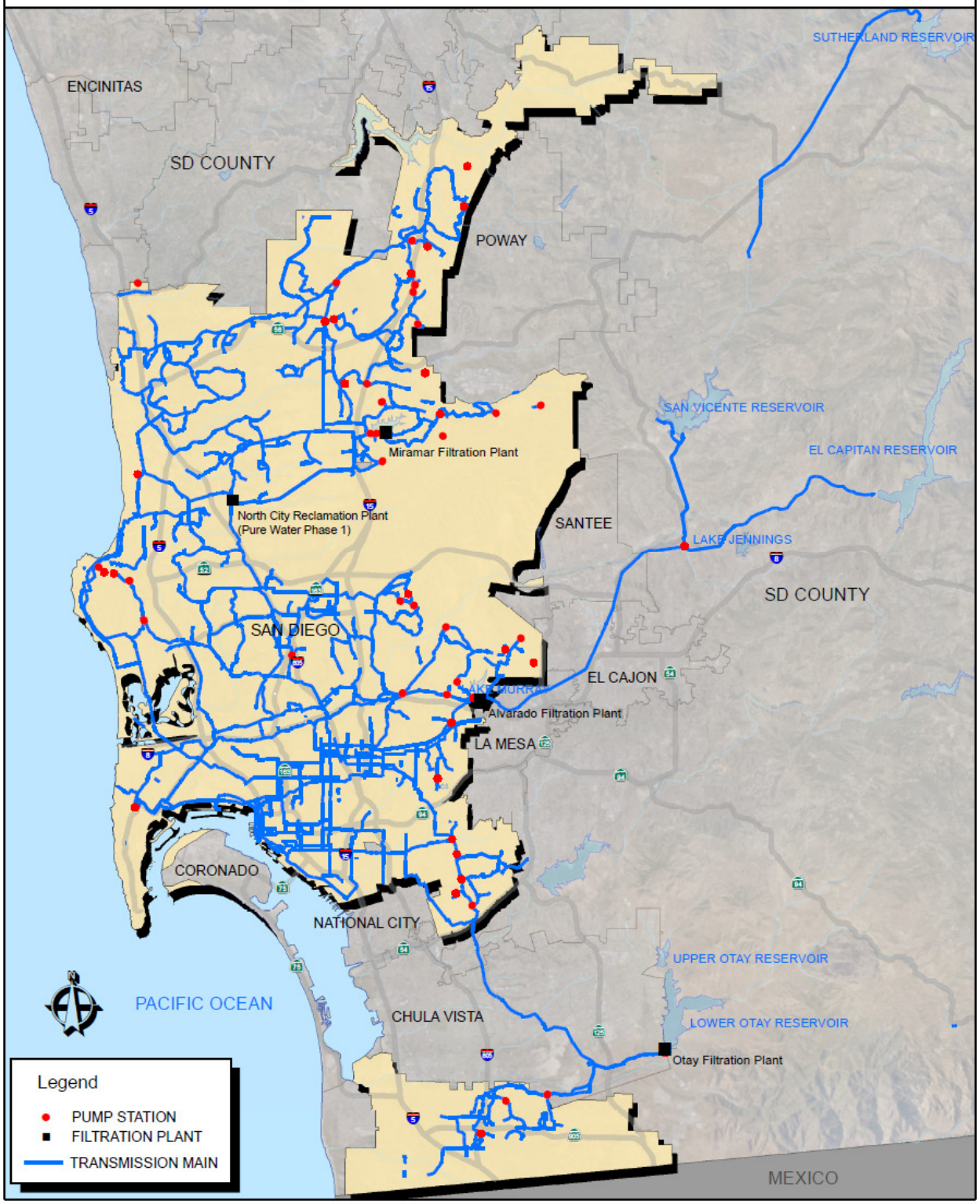

OFFICIAL STATEMENT

$243,180,000
PUBLIC FACILITIES FINANCING AUTHORITY OF
THE CITY OF SAN DIEGO
SUBORDINATED WATER REVENUE BONDS, SERIES 2018A
(Payable Solely From Subordinated Installment Payments
Secured by Net System Revenues of the Water Utility Fund)

INTRODUCTION

This introduction is not a summary of this Official Statement. It is only a brief description of and guide to, and is qualified by, more complete and detailed information contained in the entire Official Statement, including the cover page, the inside cover page and appendices hereto and the documents described herein. All statements contained in this introduction are qualified in their entirety by reference to the entire Official Statement. References to and summaries of the laws of the State of California and any documents, reports, and other instruments referred to herein do not purport to be complete and such references are qualified in their entirety by reference to each such law, document, report, or instrument. All capitalized terms used in this Official Statement and not otherwise defined herein have the meanings set forth in the Indenture or the Master Installment Purchase Agreement, each as defined herein. See "APPENDIX A – SUMMARY OF PRINCIPAL LEGAL DOCUMENTS – Indenture" and "– Master Installment Purchase Agreement."

General

The $243,180,000 Public Facilities Financing Authority of the City of San Diego Subordinated Water Revenue Bonds, Series 2018A (Payable Solely From Subordinated Installment Payments Secured by Net System Revenues of the Water Utility Fund) (the "2018 Bonds") are being issued by the Public Facilities Financing Authority of the City of San Diego (the "Authority") pursuant to Article 4 (commencing with Section 6584, known as the Marks-Roos Local Bond Pooling Act of 1985) of Chapter 5 of Division 7 of Title 1 of the Government Code of the State of California (the "Government Code") and the Indenture, dated as of January 1, 2009 (the "Original Indenture"), as amended and supplemented by the First Supplemental Indenture, dated as of June 1, 2009, the Second Supplemental Indenture, dated as of June 1, 2010, the Third Supplemental Indenture, dated as of April 1, 2012, the Fourth Supplemental Indenture, dated as of June 1, 2016, the Fifth Supplemental Indenture, dated as of January 1, 2017, and the Sixth Supplemental Indenture, dated as of December 1, 2018 (the "Sixth Supplemental Indenture"), each by and between the Authority and U.S. Bank National Association, as successor trustee (the "Trustee"). The Original Indenture as heretofore amended and supplemented, including by the Sixth Supplemental Indenture, is referred to herein as the "Indenture."

The proceeds of the 2018 Bonds will be used to (a) finance capital improvements to the Water System (the "Water System") of The City of San Diego (the "City"), (b) pay all of the outstanding principal of the Subordinated Water Revenue Commercial Paper Notes, Series A (Payable Solely from Subordinated Installment Payments Secured by Net System Revenues of the Water Utility Fund) the ("Series A Commercial Paper Notes") and the Subordinated Water Revenue Commercial Paper Notes, Series B (Payable Solely from Subordinated Installment Payments Secured by Net System Revenues of the Water Utility Fund) (the "Series B Commercial Paper Notes" and, together with the Series A Commercial Paper Notes, the "Commercial Paper Notes") of the Authority, which were issued to initially finance a portion of the capital improvements to the Water System, and (c) pay the costs of issuance incurred in connection with the issuance of the 2018 Bonds. See "PLAN OF FINANCE."

Changes From the Preliminary Official Statement

In addition to updating this Official Statement to reflect the pricing information for the Bonds, including the interest rates, maturities, and redemption provisions, the annual debt service schedule (Table 1), and Pension Plan membership numbers (Table 25), the following paragraphs are being added:

The Water System is subject to various federal, state, and local laws and regulations. See "WATER SYSTEM REGULATORY REQUIREMENTS." The City is in compliance with all such laws and regulations, including those relating to drinking water quality (which is highly regulated) and those which require an identification and replacement of user service lines as described below. The City does not expect that continued compliance with such laws, including those relating to the replacement of user service lines, will result in additional material financial costs to the Water System.

California Health and Safety Code Section 116885 required the City to submit the results of an inventory of lead user service lines to the California State Water Resources Control Board ("SWRCB") by July 1, 2018. User service lines includes pipes, tubing, and fittings connecting the water main (distribution) lines to an individual water meter or service connection. The City completed the inventory of user service lines in accordance with applicable law. The City identified approximately 281,000 service lines, of which 192,507 service lines and 15,863 fittings are of unknown material. To date, no service lines have been identified as being made of lead. Under State law, the City must provide to the SWRCB by July 1, 2020 a timeline for replacement of both service lines that are known to contain lead and service lines that are of an unknown material. The City is preparing a plan with the SWRCB's Division of Drinking Water to identify the material used in those service lines that are currently categorized as unknown. This should significantly minimize the number of currently unknown service lines that may be made of lead and, if they are lead, are required to be replaced.

There are three types of materials used for water main lines in the City. These materials are cast iron, PVC, and asbestos cement. The City believes that lead user service lines, if any, would very likely be connected to cast iron main lines, and not to main lines made of PVC or asbestos cement. The City estimates that there are approximately 20 miles of cast iron main lines that remain to be replaced. There are approximately 3200 service lines connected to all of these cast iron main lines. The City's current capital and funding plans include the replacement of these cast iron main lines and all service lines (and associated fittings) attached to such main lines. The City expects to award contracts for the replacement of the cast iron main lines by 2021, which replacement is expected to be completed 12-18 months after such contracts are awarded. The funding for the replacement of the cast iron main lines and the associated service lines (approximately 3200) (and fittings) to be undertaken in Fiscal Year 2019 has been included in the Fiscal Year 2019 budget, and the funding needed in later Fiscal Years is included in the rate cases and projections for those fiscal years. See "WATER SYSTEM CAPITAL IMPROVEMENT PROGRAM – Description of Major Projects" and the line titled "Pipelines" in Table 11 for current funding projections for the pipeline replacement, including cast iron pipelines. The funding amounts budgeted in Fiscal Year 2019 and projected to be needed in subsequent fiscal years for the pipeline replacement program remain unchanged from the amounts set forth in the Preliminary Official Statement. The City does not expect that the replacement of any user service lines will result in additional material financial costs to the Water System.

The 2018 Bonds

The 2018 Bonds will bear interest at the respective rates set forth on the inside cover page hereof. Interest on the 2018 Bonds will accrue from the date of delivery of the 2018 Bonds and is payable on February 1 and August 1 of each year, commencing on February 1, 2019.

The 2018 Bonds are being issued only in fully-registered form in denominations of $5,000 and any integral multiple thereof and, when issued, will be registered in the name of Cede & Co., as the nominee of The Depository Trust Company, New York, New York ("DTC"). DTC will act as securities depository for the 2018 Bonds. Ownership interests in the 2018 Bonds may be purchased in book-entry form only. So long as DTC or its nominee is the Owner of the 2018 Bonds, the principal, the redemption premium, if any, and interest on the 2018 Bonds will be made as described in "APPENDIX D – INFORMATION REGARDING THE BOOK-ENTRY ONLY SYSTEM."

Security and Sources of Payment for the 2018 Bonds

The 2018 Bonds are Subordinated Bonds (as defined herein) under the Indenture. The Indenture provides for the issuance of Senior Bonds (as defined herein) that are secured by a pledge of Revenues and the issuance of Subordinated Bonds that are secured by a pledge of Subordinated Revenues. "Revenues" consist of Installment Payments that are Parity[**] Obligations received by or due to the San Diego Facilities and Equipment Leasing Corporation (the "Corporation") pursuant to the Amended and Restated Master Installment Purchase Agreement, dated as of January 1, 2009 (the "Original Master Installment Purchase Agreement"), by and between the City and the Corporation, as amended and supplemented, including as amended by the First Amendment to Amended and Restated Master Installment Purchase Agreement, dated as of November 14, 2018, each by and between the City and the Corporation, as supplemented by the Collateral Agency, Account and Assignment Agreement, dated as of November 14, 2018 (the "Collateral Agency Agreement"), by and among the City, the Corporation, the Authority, the United States Environmental Protection Agency (the "EPA"), acting by and through the Administrator of the Environmental Protection Agency (the "WIFIA Lender"), and U.S. Bank National Association as collateral agent (the "Collateral Agent") under the Collateral Agency Agreement and as Trustee under the Indenture, and as supplemented by the 2018 Supplement to Amended and Restated Master Installment Purchase Agreement, dated as of December 1, 2018 (the "2018 Supplement" and, together with the Original Master Installment Purchase Agreement, as previously amended and supplemented, the "Master Installment Purchase Agreement"), by and between the City and the Corporation. "Subordinated Revenues" consist of Installment Payments that are Subordinated Obligations (such Installment Payments being "Subordinated Installment Payments") received by or due to the Corporation pursuant to the Master Installment Purchase Agreement.

The 2018 Bonds are limited obligations of the Authority secured by Subordinated Revenues and other assets pledged therefor under the Indenture. The Subordinated Revenues will consist primarily of 2018 Subordinated Installment Payments (as defined herein) to be made by the City to the Corporation under the 2018 Supplement. The 2018 Subordinated Installment Payments will be assigned by the Corporation to the Authority pursuant to the Assignment Agreement, dated as of December 1, 2018 (the "Assignment Agreement"), by and between the Corporation and the Authority, which provides for the granting, sale, assignment, and transfer by the Corporation to the Authority, for the benefit of the Owners of the 2018 Bonds, all of the Corporation's right, title, and interest in and to the 2018 Supplement. See "SECURITY AND SOURCES OF PAYMENT FOR THE 2018 BONDS."

The Master Installment Purchase Agreement provides for the payment by the City of Senior Obligations (as defined herein) and Subordinated Obligations (as defined herein) in amounts sufficient to

[**] The Master Installment Purchase Agreement uses the term "Parity" in connection with obligations whose right of payment is not subordinated to the right of payment of any other obligations. For purposes of the forepart of this Official Statement, the term "Senior" will be used in place of "Parity" to clarify that the related obligations have a first priority lien on Net System Revenues and that such lien is senior to the lien of Subordinated Obligations on Net System Revenues.

make payments of the principal of and interest on Bonds (as defined herein) of the Authority. The 2018 Supplement provides for the payment by the City of Subordinated Installment Payments (the "2018 Subordinated Installment Payments"), which are Subordinated Obligations under the Master Installment Purchase Agreement, in amounts sufficient to make payments of the principal of and interest on the 2018 Bonds. The 2018 Subordinated Installment Payments securing payment of the 2018 Bonds are payable from Net System Revenues (as defined herein) on a basis that is subordinate to the right of payment by the City of its Senior Obligations under the Master Installment Purchase Agreement and on parity with the right of payment by the City of its other Subordinated Obligations under the Master Installment Purchase Agreement. See "Outstanding Senior Obligations and Subordinated Obligations" below. Notwithstanding any contributions from the Sewer Revenue Fund to finance Pure Water Program components of the Water System CIP, amounts from the Sewer Revenue Fund are not available to pay principal of and interest on the 2018 Bonds. See "WATER SYSTEM CAPITAL IMPROVEMENT PROGRAM – Capital Improvement Financing Plan."

Pursuant to the Collateral Agency Agreement, Net System Revenues are deposited into accounts established thereunder for the purposes set forth therein, including, the payment of amounts due under Senior Obligations and/or Subordinated Obligations, as the context requires (collectively, the "Secured Obligations"), and the Collateral Agent is appointed agent to enforce the rights of holders of or lenders under the Secured Obligations. See "SECURITY AND SOURCES OF PAYMENT FOR THE 2018 BONDS" and "APPENDIX A – SUMMARY OF PRINCIPAL LEGAL DOCUMENTS – Collateral Agency Agreement."

The 2018 Bonds are limited obligations of the Authority payable solely from and secured solely by the Subordinated Revenues pledged therefor and amounts on deposit in the Subordinated Bonds Payment Fund established under the Indenture. The obligation of the City to make 2018 Subordinated Installment Payments under the 2018 Supplement does not constitute an obligation of the City for which the City is obligated to levy or pledge any form of taxation or for which the City has levied or pledged any form of taxation. Neither the full faith and credit of the Authority, the City, the County of San Diego (the "County"), the State of California (the "State"), or any political subdivision of the State nor the taxing power of the City, the County, the State, or any political subdivision of the State is pledged to the payment of the principal of or interest on the 2018 Bonds. The Authority has no taxing power. Neither the 2018 Bonds nor the obligation of the City to make 2018 Subordinated Installment Payments constitutes an indebtedness of the Authority, the City, the County, the State, or any political subdivision of the State within the meaning of any constitutional or statutory debt limitation or restriction.

Rate Covenant

The City has covenanted in the Master Installment Purchase Agreement to fix, prescribe, and collect rates and charges for the City's water service, (as described below, the "Water Service"), which will be at least sufficient to yield the greater of (i) Net System Revenues sufficient to pay during each "Fiscal Year" (being the period that begins on July 1 of each year and ends on June 30 of the following year) all Obligations (as defined herein), including the 2018 Subordinated Installment Payments, payable in such Fiscal Year, or (ii) Adjusted Net System Revenues (as defined herein) during each Fiscal Year equal to 120% of the Adjusted Debt Service (which does not include debt service on Subordinated Obligations such as the 2018 Subordinated Installment Obligation) for such Fiscal Year. The Water Service rendered by the City includes the collection, conservation, production, storage, treatment, transmission, furnishing, and distribution services made available or provided by the City's water system (the "Water System"). In addition, pursuant to the agreements executed by the City in connection with certain of the herein referenced Senior SRF Loans, the City has covenanted to ensure that net revenues are equal to at least 1.1 times maximum annual debt service on all Obligations in each Fiscal Year. Pursuant

to the WIFIA Loan (as defined herein), the City has covenanted to ensure Net System Revenues are equal to at least one hundred ten percent (110%) of the debt service with respect to all Outstanding Obligations for such Fiscal Year. The covenants in the agreements for the Senior SRF Loans and the WIFIA Loan are not made for the benefit of the Owners of the 2018 Bonds and Owners of the 2018 Bonds do not have a right to enforce such covenants. See "SECURITY AND SOURCES OF PAYMENT FOR THE 2018 BONDS – Rate Covenant" and "WATER SYSTEM FINANCIAL OPERATIONS – Rate Stabilization Fund; Other Funds and Accounts." For information on the possible limitation on the City's ability to comply with the rate covenant as a consequence of Proposition 218 (as defined herein), see "RISK FACTORS – Rate-Setting Process Under Proposition 218" and "CONSTITUTIONAL LIMITATIONS ON TAXES AND WATER RATES AND CHARGES – Article XIIIC" and "– Article XIIID."

Redemption of the 2018 Bonds

The 2018 Bonds are subject to redemption prior to maturity as described herein. See "DESCRIPTION OF THE 2018 BONDS – Redemption of 2018 Bonds."

No Debt Service Reserve Fund for the 2018 Bonds

No debt service reserve fund will be created or funded to secure the 2018 Bonds. Debt service reserve funds were created in connection with the issuance of certain of the Authority's Bonds and the incurrence of certain of the City's Obligations. Amounts on deposit in, or to be on deposit in, such debt service reserve funds are not available to secure the 2018 Bonds. See "SECURITY AND SOURCES OF PAYMENT FOR THE 2018 BONDS – No Debt Service Reserve Fund for the 2018 Bonds."

Outstanding Senior Obligations and Subordinated Obligations

The 2018 Subordinated Installment Payments securing payment of the 2018 Bonds are payable from Net System Revenues on a basis that is subordinate to the right of payment by the City of Senior Obligations incurred and to be incurred under the Master Installment Purchase Agreement. As of November 15, 2018, Senior Obligations consisted of $78,332,490 principal amount of loans from the Drinking Water State Revolving Fund (the "Senior SRF Loans"). There are no other Outstanding Senior Obligations. As of November 15, 2018, there was $812,654,000 aggregate principal amount of Outstanding Subordinated Obligations that are payable from Net System Revenues on parity with the 2018 Subordinated Installment Payments, which includes $205,889,000 aggregate principal amount of Commercial Paper Notes. Under the Indenture, the aggregate principal amount of Commercial Paper Notes Outstanding at any time may not exceed $250,000,000. The Outstanding Subordinated Obligations principal amount does not include the City's borrowing of up to $614 million (the "WIFIA Loan") from the EPA pursuant to the Water Infrastructure Finance and Innovation Act ("WIFIA") and the terms of the WIFIA Loan Agreement (the "WIFIA Loan Agreement") to finance certain improvements to the Water System in connection with the herein described Pure Water Program as the City has not yet requested disbursements of amounts under the WIFIA Loan. In connection with the closing of the WIFIA Loan on November 14, 2018, Kroll Bond Rating Agency and Fitch Ratings Inc. ("Fitch") assigned to the WIFIA Loan their ratings of "AA" and "AA-," respectively, each with a stable outlook. As used herein, the term "Subordinated Bonds" means the 2018 Bonds and any other Bonds secured by a pledge of Subordinated Revenues on parity with such 2018 Bonds. See "SECURITY AND SOURCES OF PAYMENT FOR THE 2018 BONDS – Senior Obligations" and "– Subordinated Obligations" and "WATER SYSTEM FINANCIAL OPERATIONS – Outstanding Indebtedness."

Additional Obligations

Pursuant to the Master Installment Purchase Agreement, the City may incur additional Obligations, payments with respect to which will be senior to, or on parity with, the City's obligation to make 2018 Subordinated Installment Payments, subject to satisfaction of the conditions specified in the Master Installment Purchase Agreement. In addition, the loan agreements executed by the City in connection with certain of the Senior SRF Loans and the WIFIA Loan provide for additional requirements for the incurrence of additional Obligations. See "SECURITY AND SOURCES OF PAYMENT FOR THE 2018 BONDS – Issuance of Additional Obligations Under the Master Installment Purchase Agreement," "WATER SYSTEM CAPITAL IMPROVEMENT PROGRAM – Capital Improvement Financing Plan," and "WATER SYSTEM FINANCIAL OPERATIONS – Anticipated Additional Obligations." Additional obligations are expected to include additional SRF loans received from the SWRCB, payments with respect to which are expected to be senior in right of payment to the City's obligation to make 2018 Subordinated Installment Payments.

The City of San Diego

The City, with a total population of approximately 1.4 million as of January 1, 2018 and a land area of approximately 325 square miles, is the eighth largest city in the nation by population, and the second largest city by population (and land area) in California. The City is the county seat for the County of San Diego. Major components of the City's diversified economy include defense, tourism, biotechnology/biosciences, financial and business services, software and telecommunications. The City's economic base is also anchored by higher education and major scientific research institutions, including the University of California, San Diego, San Diego State University, Scripps Research Institute, the Salk Institute for Biological Studies, and the San Diego Supercomputer Center.

The City was incorporated in 1850. The City operates under and is governed by the laws of the State of California (the "State") and the City Charter, as periodically amended since its adoption by the electorate in 1931. The City has been operating under a "Strong Mayor" form of government since January 1, 2006. Under the Strong Mayor form of government, the Mayor is the Chief Executive Officer of the City and has direct oversight over all City functions and services except for the City Council, Personnel, City Clerk, Independent Budget Analyst, Ethics Commission, City Attorney and City Auditor's departments.

The Water System

The City owns the Water System and operates the Water System through the Public Utilities Department (the "Department"). The City has expanded the Water System from time to time to provide safe, reliable water in an efficient, cost-effective, and environmentally responsible manner. See "WATER SYSTEM ORGANIZATION AND MANAGEMENT," "WATER SYSTEM SERVICE AREA AND FACILITIES," "WATER SUPPLY," "WATER SYSTEM REGULATORY REQUIREMENTS," "WATER SYSTEM CAPITAL IMPROVEMENT PROGRAM," and "WATER SYSTEM FINANCIAL OPERATIONS."

The Corporation

The Corporation is a nonprofit charitable corporation duly organized and existing under and by virtue of the laws of the State. The Corporation was organized to acquire, lease, and/or sell to the City real and personal property to be used in the municipal operations of the City. The Corporation was formed at the request of the City to assist in financings such as the installment purchase financing described herein and is governed by its own Board of Directors. The Corporation is prohibited from

engaging in any business or activities other than those incidental to its sole purpose, and no part of its net earnings may accrue to the benefit of any person or entity other than the City.

The Corporation has no liability to the owners or Beneficial Owners of any 2018 Bonds, and has pledged none of its moneys, funds or assets to any Installment Payments including, without limitation, the 2018 Subordinated Installment Payments or any payments under the 2018 Bonds. Pursuant to the Assignment Agreement, the Corporation has assigned its right to receive the 2018 Subordinated Installment Payments to the Authority.

The Authority

The Authority is a California joint exercise of powers authority established pursuant to the Third Amended and Restated Joint Exercise of Powers Agreement, dated as of January 1, 2013, by and among the City, the City solely in its capacity as the designated successor agency (the "Successor Agency") to the former Redevelopment Agency of the City of San Diego (the "Former RDA"), and the Housing Authority of the City of San Diego (the "Housing Authority"). The Authority is organized, in part, to finance certain public capital improvements of the City, the Successor Agency or the Housing Authority.

Except as provided in the Indenture, the Authority has no liability to the owners or Beneficial Owners of any of the 2018 Bonds and has pledged none of its moneys, funds or assets toward the payment of any amount due in connection with the 2018 Bonds. The Indenture provides that the Authority transfers, conveys and assigns to the Trustee, for the benefit of the Owners, all of the Authority's rights under the Master Installment Purchase Agreement, including the right to receive the 2018 Subordinated Installment Payments from the City, the right to receive any proceeds of insurance maintained thereunder or any condemnation award rendered with respect to the related Components, and the right to exercise any remedies provided therein in the event of a default by the City under the Master Installment Purchase Agreement.

The Authority is governed by its own Board of Commissioners consisting of the members of the San Diego City Council. The Authority is dependent upon the officers and employees of the City to administer its programs.

Forward-Looking Statements

Certain statements, tables and charts included or incorporated by reference in this Official Statement constitute "forward-looking statements." Such statements, tables and charts are generally identifiable by the terminology used such as "plan," "expect," "estimate," "budget," "project" or other similar words. The achievement of certain results or other expectations contained in such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause actual results, performance or achievements described to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Although such expectations reflected in such forward-looking statements are reasonable, there can be no assurance that such expectations will prove to be correct. The Authority is not obligated to issue any updates or revisions to the forward-looking statements if or when its expectations, or events, conditions or circumstances on which such statements are based occur.

PLAN OF FINANCE

The net proceeds of the 2018 Bonds will be applied to (a) finance capital improvements to the Water System, (b) pay all of the outstanding principal of the Commercial Paper Notes of the Authority, which were issued to initially finance a portion of the capital improvements to the Water System, and

(c) pay the costs of issuance incurred in connection with the issuance of the 2018 Bonds. To facilitate payment of the Commercial Paper Notes, on the date of issuance of the 2018 Bonds, a portion of the proceeds of the sale of the 2018 Bonds will be deposited with the issuing and paying agent of the Commercial Paper Notes and held for payment of the Commercial Paper Notes as they mature. Amounts on deposit with the issuing and paying agent of the Commercial Paper Notes will not be available for the payment of debt service on the 2018 Bonds.

The following tables set forth the projects funded with the proceeds of the Commercial Paper Notes as part of the Water System CIP and the projected projects to be funded with the proceeds of the 2018 Bonds. See "WATER SYSTEM CAPITAL IMPROVEMENT PROGRAM – Description of Major Projects."

Project Type	Capital Expenditures Funded by Commercial Paper Notes
Pure Water Program	$28,047,000
Water Pipelines – Distribution	76,513,000
Water Pipelines – Transmission	29,461,000
Water Storage Facilities	1,970,000
Water Treatment Plants	53,970,000
Pump Stations	6,308,000
Recycled Water	620,000
Other Projects[1]	8,724,000
Costs of Issuance of Commercial Paper Notes	276,000
Total	$205,889,000

[1] Includes the Chollas building, Groundwater Asset Development Program, and Bayview Reservoir Solar Project.

Project Type	Projected Near-Term Capital Expenditures Funded by 2018 Bonds
Water Pipelines – Distribution	$20,845,000
Water Pipelines – Transmission	25,640,000
Water Storage Facilities	3,907,000
Water Treatment Plants	11,200,000
Pump Stations	3,620,000
Other Projects[1]	8,899,000
Total	$74,111,000

[1] Includes the Chollas building, Groundwater Asset Development Program, and Bayview Reservoir Solar Project.

ESTIMATED SOURCES AND USES OF BOND PROCEEDS

The following table details the sources and uses of the proceeds of the sale of the 2018 Bonds and other available funds.

Sources:	
Principal Amount of the 2018 Bonds	$243,180,000.00
Net Original Issue Premium	37,512,651.80
Total Sources	$280,692,651.80
Uses:	
Deposit to Acquisition Fund	$ 74,111,000.00
Pay Commercial Paper Notes	205,889,000.00
Pay Costs of Issuance[1]	692,651.80
Total Uses	$280,692,651.80

[1] Costs of Issuance for the 2018 Bonds, including all eligible costs of issuing the 2018 Bonds, including fees of Bond Counsel, Disclosure Counsel, the Municipal Advisor, the Trustee, rating agencies and the printer, the underwriters' discount, and other miscellaneous expenses.

DESCRIPTION OF THE 2018 BONDS

General

The 2018 Bonds will be issued as fully-registered bonds in denominations of $5,000 and any integral multiple thereof and, when issued, will be registered in the name of Cede & Co., as the nominee of The Depository Trust Company, New York, New York ("DTC"). DTC will act as securities depository for the 2018 Bonds. Ownership interests in the 2018 Bonds may be purchased in book-entry form only. So long as DTC or its nominee is the Owner of the 2018 Bonds, principal of, redemption premium, if any, and interest on the 2018 Bonds will be made as described in "APPENDIX D – INFORMATION REGARDING THE BOOK-ENTRY ONLY SYSTEM."

The 2018 Bonds will bear interest at the respective rates set forth on the inside cover page hereof. Interest on the 2018 Bonds will accrue from the date of delivery of the 2018 Bonds and is payable on February 1 and August 1 of each year, commencing on February 1, 2019. Interest on the 2018 Bonds shall be calculated on the basis of a 360-day year, comprised of twelve 30-day months. Interest coming due on a date that is not a Business Day shall be payable on the immediately following Business Day.

Redemption of 2018 Bonds

Optional Redemption. The 2018 Bonds maturing on and after August 1, 2029 shall be subject to redemption, in whole or in part, at the option of the Authority (upon the direction of the City), on or after August 1, 2028, at any time, from and to the extent of prepaid 2018 Subordinated Installment Payments paid pursuant to the 2018 Supplement, at a redemption price equal to the principal amount of 2018 Bonds called for redemption, together with interest accrued thereon to the date fixed for redemption, without premium.

Mandatory Sinking Fund Redemption. The 2018 Term Bonds maturing on August 1, 2043 are subject to mandatory sinking fund redemption, with sinking account payments payable on August 1 in each of the years, at a redemption price of par, plus interest accrued to the date fixed for redemption, in the principal amounts as follows:

2018 Bonds Maturing August 1, 2043

Sinking Fund Payment Dates (August 1)	Principal Amount
2039	$10,375,000
2040	10,905,000
2041	11,465,000
2042	12,055,000
2043†	12,670,000

† Final maturity.

The 2018 Term Bonds maturing on August 1, 2047 are subject to mandatory sinking fund redemption, with sinking account payments payable on August 1 in each of the years, at a redemption price of par, plus interest accrued to the date fixed for redemption, in the principal amounts as follows:

2018 Bonds Maturing August 1, 2047

Sinking Fund Payment Dates (August 1)	Principal Amount
2044	$13,340,000
2045	14,055,000
2046	14,815,000
2047†	15,610,000

† Final maturity.

The Authority may credit against any sinking account payment requirement Term Bonds or portions thereof which are of the same maturity as the Term Bonds subject to redemption and which, prior to said date, have been purchased with funds, other than moneys in a Sinking Account, at public or private sale or redeemed and cancelled by the Authority and not theretofore applied as a credit against any mandatory sinking account payment requirement.

Notice of Redemption. So long as DTC is acting as securities depository for the 2018 Bonds, notice of redemption, containing the information required by the Indenture, will be mailed by first class mail, postage prepaid, by the Trustee to DTC (not to the Beneficial Owners of any 2018 Bonds designated for redemption) not more than 60 days nor less than 30 days prior to the redemption date and shall state the date of such notice, the redemption price (including the name and appropriate address of the Trustee), and, in the case of 2018 Bonds to be redeemed in part only, the respective portions of the principal amount thereof to be redeemed. Each such notice shall also state that on said date there will become due and payable on each of said 2018 Bonds the principal amount thereof and, in the case of a 2018 Bond to be redeemed in part only, the specified portion of the principal amount thereof to be redeemed, together with interest accrued thereon to the redemption date, and that from and after such redemption date, interest thereon shall cease to accrue, and shall require that such 2018 Bonds be then surrendered at the address of the Trustee specified in the redemption notice. Notice of redemption may be conditioned upon the occurrence of future events, including but not limited to the issuance of refunding bonds, and may be given and rescinded by the Trustee prior to the redemption date, upon written instruction of the Authority.

Selection for Redemption. If less than all of the outstanding 2018 Bonds are to be redeemed prior to maturity, the Authority (at the direction of the City) shall select the specific maturity and interest rate (or maturities of bonds and interest rates) of 2018 Bonds, or portions thereof equal to $5,000 or any integral multiple thereof, including any specified reduction in any sinking account payments required to

be made with respect to such outstanding 2018 Bonds, to be redeemed. If less than all of the 2018 Bonds of like maturity are to be redeemed, the Trustee will select the particular 2018 Bonds or portions of 2018 Bonds to be redeemed at random in such manner as the Trustee in its discretion may deem fair and appropriate.

Effect of Redemption. If notice of redemption has been duly given as provided in the Indenture and money for the payment of the redemption price of the 2018 Bonds called for redemption is held by the Trustee, then on the redemption date designated in such notice, the 2018 Bonds shall become due and payable, and from and after the date so designated, interest on the 2018 Bonds so called for redemption shall cease to accrue, and the Owners of such 2018 Bonds shall have no rights in respect thereof except to receive payment of the redemption price thereof. The insufficiency of any such notice shall not affect the sufficiency of the proceedings for redemption. If said moneys are not so available on the redemption date, such 2018 Bonds or portions thereof will continue to bear interest until paid at the same rate as they would have borne had they not been called for redemption. If there is selected for redemption a portion of a 2018 Bond, the Authority will execute and the Trustee for that 2018 Bond will authenticate and deliver, upon the surrender of such 2018 Bond, without charge to the Owner thereof, for the unredeemed balance of the principal amount of the 2018 Bond so surrendered, a 2018 Bond of like maturity and interest rate in any authorized denomination.

SECURITY AND SOURCES OF PAYMENT FOR THE 2018 BONDS

Pledge of Subordinated Revenues; Subordinated Installment Payments

Pursuant to the Indenture, the 2018 Bonds are limited obligations of the Authority payable solely from the Subordinated Revenues and amounts on deposit in the Subordinated Bonds Payment Fund established under the Indenture. The term "Subordinated Revenues," as applied to the 2018 Bonds, means all 2018 Subordinated Installment Payments received by or due to be paid to the Corporation pursuant to the 2018 Supplement and the interest or profits from the investment of money in the Subordinated Bonds Payment Fund pursuant to the Indenture. The 2018 Subordinated Installment Payments will be assigned by the Corporation to the Authority pursuant to the Assignment Agreement. To secure the pledge of the Subordinated Revenues, the Authority will transfer, convey, and assign to the Trustee, for the benefit of the Owners, all of the Authority's right to receive 2018 Subordinated Installment Payments from the City. See "APPENDIX A – SUMMARY OF PRINCIPAL LEGAL DOCUMENTS – Indenture."

The Water Utility Fund; Application of System Revenues

The City accounts for its water operations through an enterprise fund known as the "Water Utility Fund." The Water Utility Fund was established pursuant to an amendment to the City Charter effective February 11, 1963, and is accounted for separately from other funds of the City. The City has agreed and covenanted in the Master Installment Purchase Agreement that all System Revenues shall be received by the City in trust and shall be deposited when and as received in the Water Utility Fund, which fund the City agrees and covenants to maintain so long as any Obligations remain unpaid, and all moneys in the Water Utility Fund shall be so held in trust and applied and used solely in the amounts, at the times and only for the purposes specified below and in the following order of priority; provided that no amount shall be transferred on any date pursuant to any clause below until amounts sufficient for all the purposes specified under the prior clauses shall have been transferred or set aside; and provided further that in the event there are insufficient Net System Revenues to make all of the payments contemplated in any one clause below, then said transfers, deposits and payments directed by such clause shall be made as nearly as practicable, pro rata, based upon the respective unpaid principal amounts of the Obligations addressed by such clause:

First, the City shall pay from the Water Utility Fund directly or as otherwise required all Maintenance and Operation Costs of the Water System (as herein defined);

Second, on each "Senior Obligation Interest Funding Date" (being each Senior Obligation Installment Payment Date on which the Interest Portion is due and payable under the Master Installment Purchase Agreement as well as each date on which interest is due and payable on any Senior Obligation under any other Issuing Instrument) and on each other date on which the following amounts shall be due and payable, the City shall transfer Net System Revenues from the Water Utility Fund to the Collateral Agent, for deposit in the Senior Obligations Interest Account of the Senior Obligations Payment Fund, the sum of (A) an amount equal to the interest due and payable on all Senior Obligations; plus (B) an amount equal to any continuing shortfall in transfers required to have been made to the Senior Obligations Interest Account on any preceding Senior Obligation Interest Funding Date;

Third, on each "Senior Obligation Principal Funding Date" (being each Senior Obligation Installment Payment Date on which the Principal Portion is due and payable under the Master Installment Purchase Agreement as well as each date on which principal or mandatory sinking fund redemptions are due and payable on any Senior Obligation under any other Issuing Instrument) and on each other date on which the following amounts shall be due and payable, the City shall transfer Net System Revenues from the Water Utility Fund to the Collateral Agent, for deposit in the Senior Obligations Principal Account of the Senior Obligations Payment Fund, the sum of (A) an amount equal to the principal and mandatory sinking fund redemptions due and payable on all Senior Obligations; plus (B) an amount equal to any continuing shortfall in transfers required to have been made to the Senior Obligations Principal Account on any preceding Senior Obligation Principal Funding Date;

Fourth, on each Senior Obligation Interest Funding Date, the City shall transfer Net System Revenues from the Water Utility Fund to the Collateral Agent, for deposit in any Senior Obligations Reserve Account (if any) the amount necessary so that the balance therein equals the applicable Senior Obligations Reserve Requirement; provided that in the event of any draw on a Reserve Fund Credit Facility held in any Senior Obligations Reserve Account, there shall be deemed a deficiency in such Senior Obligations Reserve Account until the amount of the Reserve Fund Credit Facility is restored to its pre-draw amount;

Fifth, on each "Subordinated Obligation Interest Funding Date" (being each Subordinated Obligation Installment Payment Date on which the Interest Portion is due and payable under the Master Installment Purchase Agreement as well as each date on which interest is due and payable on any Subordinated Obligation under any other Issuing Instrument) and on each other date on which the following amounts shall be due and payable, the City shall transfer Net System Revenues from the Water Utility Fund to the Collateral Agent, for deposit in the Subordinated Obligations Interest Account of the Subordinated Obligations Payment Fund, the sum of (A) an amount equal to the interest due and payable on all Subordinated Obligations; plus (B) an amount equal to any continuing shortfall in transfers required to have been made to the Subordinated Obligations Interest Account on any preceding Subordinated Obligation Interest Funding Date;

Sixth, on each "Subordinated Obligation Principal Funding Date" (being each Subordinated Obligation Installment Payment Date on which the Principal Portion is due and payable under the Master Installment Purchase Agreement as well as each date on which principal or mandatory sinking fund redemptions are due and payable on any Subordinated Obligation under any other Issuing Instrument) and on each other date on which the following amounts shall be due and payable, the City shall transfer Net System Revenues from the Water Utility Fund to the Collateral Agent, for deposit in the Subordinated Obligations Principal Account of the Subordinated Obligations Payment Fund, the sum of (A) an amount equal to the principal and mandatory sinking fund redemptions due and payable on all Subordinated

Obligations; plus (B) an amount equal to any continuing shortfall in transfers required to have been made to the Subordinated Obligations Principal Account on any preceding Funding Date; and

Seventh, on each Subordinated Obligation Interest Funding Date, the City shall transfer Net System Revenues from the Water Utility Fund to the Collateral Agent, for deposit in any Subordinated Obligations Reserve Account (if any) the amount necessary so that the balance therein equals the applicable Subordinated Obligations Reserve Requirement; provided that in the event of any draw on a Reserve Fund Credit Facility held in any Subordinated Obligations Reserve Account, there shall be deemed a deficiency in such Subordinated Obligations Reserve Account until the amount of the Reserve Fund Credit Facility is restored to its pre-draw amount.

After the deposits described in the preceding paragraphs have been made, any amounts thereafter remaining in the Water Utility Fund may be used for any lawful purpose of the Water System. See "APPENDIX A – SUMMARY OF PRINCIPAL LEGAL DOCUMENTS."

Pledge of Net System Revenues; Payment of Installment Payments

The Master Installment Purchase Agreement provides for the payment by the City of Senior Obligations and Subordinated Obligations in amounts sufficient to make payments of the principal of and interest on Bonds of the Authority. Pursuant to the Master Installment Purchase Agreement, including as supplemented by the Collateral Agency Agreement, all Senior Obligations, including Senior Installment Payment Obligations, shall be secured by a first priority lien on and pledge of Net System Revenues. The City grants to the Collateral Agent, for the benefit of the Holders of Senior Obligations, a first priority lien on and pledge of Net System Revenues to secure Senior Obligations. All Senior Obligations shall be of equal rank with each other without preference, priority or distinction of any Senior Obligations over any other Senior Obligations; provided that a Senior Obligation that by its terms under certain circumstances can require the full amount of the Senior Obligation to become payable in installments over not less than five years from the occurrence of the triggering event shall not be deemed to create any impermissible preference, priority or distinction as to lien or otherwise of such Senior Obligation over any other Senior Obligation.

Pursuant to the Master Installment Purchase Agreement, including as supplemented by the Collateral Agency Agreement, all Subordinated Obligations, including Subordinated Installment Payment Obligations, shall be secured by a second priority lien on and pledge of Net System Revenues that is junior and subordinate to the lien on and pledge of Net System Revenues securing Senior Obligations. The City grants to the Collateral Agent, for the benefit of the Holders of Subordinated Obligations, a second priority lien on and pledge of Net System Revenues to secure Subordinated Obligations. All Subordinated Obligations shall be of equal rank with each other without preference, priority or distinction of any Subordinated Obligations over any other Subordinated Obligations; provided that a Subordinated Obligation that by its terms under certain circumstances can require the full amount of the Subordinated Obligation to become payable in installments over not less than five years from the triggering event shall not be deemed to create any impermissible preference, priority or distinction as to lien or otherwise of such Subordinated Obligation over any other Subordinated Obligation; and provided further that a Subordinated Obligation that by its terms under certain circumstances must be treated as, or becomes, a Senior Obligation shall not be deemed to create any impermissible preference, priority or distinction as to lien or otherwise of such Subordinated Obligation over any other Subordinated Obligation.

Pursuant to the Master Installment Purchase Agreement, the City agrees to make Installment Payments (including the 2018 Subordinated Installment Payments) solely from Net System Revenues. The 2018 Subordinated Installment Payments shall be Subordinated Obligations under the Master Installment Purchase Agreement and the payment of the 2018 Subordinated Installment Payments shall be

on parity in right of payment to the 2016 Subordinated Installment Payments, the 2012 Subordinated Installment Payments, and the WIFIA Loan under the Master Installment Purchase Agreement. No Owner of the Obligations shall have any right to take any action or enforce any right that has a materially adverse effect on the interests of the Owners of the Installment Payment Obligations. The City agrees to make Installment Payments solely from Net System Revenues until such time as the Purchase Price for any Components has been paid in full (or provision for the payment thereof has been made pursuant to the Master Installment Purchase Agreement).

The 2018 Supplement provides for the payment by the City of 2018 Subordinated Installment Payments in amounts sufficient to make payments of the principal of and interest on the 2018 Bonds. The 2018 Subordinated Installment Payments securing payment of the 2018 Bonds are payable from Net System Revenues on a basis that is subordinate to the right of payment by the City of its Outstanding Senior Obligations (as defined herein) under the Master Installment Purchase Agreement and on parity with the 2012A Subordinated Bonds, 2016 Subordinated Bonds, and the WIFIA Loan.

Under the Master Installment Purchase Agreement, the City has agreed that it will not discontinue or suspend any Installment Payments (including the 2018 Subordinated Installment Payments) required to be made by the City under the Master Installment Purchase Agreement, whether or not the Project or any part thereof is operating or operable or has been completed, or its use is suspended, interfered with, reduced, curtailed, or terminated, in whole or in part, and such Installment Payments (including the 2018 Subordinated Installment Payments) shall not be subject to reduction, whether by offset or otherwise, and will not be conditioned upon the performance or nonperformance by any party of any agreement for any cause whatsoever.

The term "Net System Revenues" is defined in the Master Installment Purchase Agreement as, for any Fiscal Year, the System Revenues for such Fiscal Year, less the Maintenance and Operation Costs of the Water System for such Fiscal Year.

The term "System Revenues" is defined in the Master Installment Purchase Agreement as all income, rents, rates, fees, charges, and other moneys derived from the ownership or operation of the Water System, including, without limiting the generality of the foregoing: (a) all income, rents, rates, fees, charges, or other moneys derived by the City from the water services or facilities, and commodities or byproducts, including hydroelectric power, sold, furnished or supplied through the facilities of or in the conduct or operation of the business of the Water System, and including, without limitation, investment earnings on the operating reserves to the extent that the use of such earnings is limited to the Water System by or pursuant to law, and earnings on any Reserve Fund for Obligations, but only to the extent that such earnings may be utilized under the indenture, trust agreement, loan agreement, lease, or installment purchase agreement under which the applicable Obligations are issued (each, an "Issuing Instrument") for the payment of debt service for such Obligations; (b) standby charges and Capacity Charges derived from the services and facilities sold or supplied through the Water System; (c) the proceeds derived by the City directly or indirectly from the lease of a part of the Water System; (d) any amount received from the levy or collection of taxes that are solely available and are earmarked for the support of the operation of the Water System; (e) amounts received under contracts or agreements with governmental or private entities and designated for capital costs for the Water System; and (f) grants for maintenance and operations received from the United States of America or from the State; provided, however, that System Revenues shall not include: (1) in all cases, customers' deposits or any other deposits or advances subject to refund until such deposits or advances have become the property of the City; and (2) the proceeds of borrowings. Notwithstanding the foregoing, there shall be deducted from System Revenues any amounts transferred into a Rate Stabilization Fund as contemplated by the Master Installment Purchase Agreement and any amounts transferred from current System Revenues to the Secondary Purchase Fund as permitted by the Master Installment Purchase Agreement. There shall be

added to System Revenues any amounts transferred out of such Rate Stabilization Fund or the Secondary Purchase Fund to pay Maintenance and Operation Costs of the Water System. See "WATER SYSTEM FINANCIAL OPERATIONS – Rate Stabilization Fund; Other Funds and Accounts."

The term "Maintenance and Operation Costs of the Water System" is defined in the Master Installment Purchase Agreement as (a) any Qualified Take or Pay Obligation (as defined herein), and (b) the reasonable and necessary costs spent or incurred by the City for maintaining and operating the Water System, calculated in accordance with generally accepted accounting principles, including (among other things) the reasonable expenses of maintenance and repair and other expenses necessary to maintain and preserve the Water System in good repair and working order, and including administrative costs of the City attributable to the Water System, including the Project and the Master Installment Purchase Agreement, salaries and wages of employees of the Water System, payments to such employees' retirement systems (to the extent paid from System Revenues), overhead, taxes (if any), fees of auditors, accountants, attorneys or engineers, and insurance premiums, and including all other reasonable and necessary costs of the City or charges required to be paid by it to comply with the terms of the Obligations, including the Master Installment Purchase Agreement, including any amounts required to be deposited in the Rebate Fund pursuant to a Tax Certificate, and fees and expenses payable to any Credit Provider (other than in repayment of a "Credit Provider Reimbursement Obligation"), but excluding in all cases (1) depreciation, replacement, and obsolescence charges or reserves therefor, (2) amortization of intangibles or other bookkeeping entries of a similar nature, (3) costs of capital additions, replacements, betterments, extensions, or improvements to the Water System, which under generally accepted accounting principles are chargeable to a capital account or to a reserve for depreciation, (4) charges for the payment of principal of and interest on any general obligation bond heretofore or hereafter issued for Water System purposes, and (5) charges for the payment of principal of and interest on any debt service on account of any Obligation on parity with, to the Installment Payments.

The term "Obligations" is defined in the Master Installment Purchase Agreement as (i) obligations of the City for money borrowed (such as bonds, notes, or other evidences of indebtedness) or as installment purchase payments under any contract (including Installment Payments), or as lease payments under any financing lease (determined to be such in accordance with generally accepted accounting principles), the principal of and interest on which are payable from Net System Revenues; (ii) obligations to replenish any debt service reserve funds with respect to such obligations of the City; (iii) obligations secured by or payable from any of such obligations of the City; and (iv) obligations of the City payable from Net System Revenues under (a) any contract providing for payments based on levels of, or changes in, interest rates, currency exchange rates, stock or other indices, (b) any contract to exchange cash flows or a series of payments, or (c) any contract to hedge payment, currency, rate spread, or similar exposure, including, but not limited, to interest rate cap agreements.

All Senior Obligations (referred to as "Parity Obligations" in the Master Installment Purchase Agreement) are of equal rank with each other without preference, priority, or distinction of any Senior Obligations over any other Senior Obligations. The term "Senior Obligations" is defined in the Master Installment Purchase Agreement as (i) Installment Obligations (as defined herein), (ii) Obligations, the principal of and interest on which are payable on parity with Installment Obligations, and (iii) Reserve Fund Obligations. The term "Installment Obligations" is defined in the Master Installment Purchase Agreement as Obligations consisting of or payable from Installment Payments, which are not subordinated in right of payment to other Installment Payments. The term "Credit Provider" is defined in the Master Installment Purchase Agreement as any municipal bond insurance company, bank, or other financial institution or organization that is performing in all material respects its obligations under any policy of insurance, letter of credit, standby purchase agreement, revolving credit agreement, or other credit arrangement providing credit support or liquidity with respect to Senior Obligations (each, a "Credit Support Instrument"). The term "Reserve Fund Obligations" is defined in the Master Installment

Purchase Agreement as the obligations of the City to pay amounts advanced under any Reserve Fund Credit Facility entered into in accordance with the provisions of the related Issuing Instrument or Supplement, which obligations shall constitute Senior Obligations or Subordinated Obligations, as designated by the City.

Senior Obligations

The pledge and right of payment from Net System Revenues securing the 2018 Subordinated Installment Payments (which, in turn, secure the payment of the 2018 Bonds) will be subordinate to the pledge and right of payment from Net System Revenues securing the Senior SRF Loans, currently Outstanding in the principal amount of $78,332,490, and any Senior Obligations hereinafter incurred by the City. See "INTRODUCTION – Outstanding Senior and Subordinated Obligations" above and "WATER SYSTEM FINANCIAL OPERATIONS – Outstanding Indebtedness." See "WATER SYSTEM FINANCIAL OPERATIONS – Anticipated Additional Obligations." All Senior Obligations are secured by a first priority lien on and pledge of Net System Revenues.

Subordinated Obligations

The Master Installment Purchase Agreement permits the issuance of Obligations secured by a lien on and pledge of Net System Revenues, which lien and pledge is subordinate to the lien on and pledge of Net System Revenues securing Senior Obligations (each, a "Subordinated Obligation"). The pledge and right of payment from Net System Revenues securing the 2018 Subordinated Installment Payments (which, in turn, secure the payment of the 2018 Bonds) will be on parity with the pledge and right of payment from Net System Revenues securing the other Subordinated Obligations incurred in accordance with the Master Installment Purchase Agreement, including the Installment Payments securing the Subordinated Obligations currently Outstanding in the principal amount of $812,654,000, which includes $205,889,000 aggregate principal amount of Commercial Paper Notes, that are on parity with the other Subordinated Obligations, and any Subordinated Obligations hereinafter incurred by the City. Under the Indenture, the aggregate principal amount of Commercial Paper Notes Outstanding at any time may not exceed $250 million, as described below. The Outstanding Subordinated Obligations principal amount does not include the City's borrowing of up to $614 million pursuant to the WIFIA Loan Agreement as the City has not yet requested disbursements of amounts under the WIFIA Loan. See "WATER SYSTEM FINANCIAL OPERATIONS – Outstanding Indebtedness."

In 2017, the City established the Commercial Paper Notes program and authorized the issuance of up to $250 million in Commercial Paper Notes that are secured by Subordinated Installment Payments under the Master Installment Payment Agreement. The Series A Commercial Paper Notes are authorized to be issued in the maximum principal amount of $75 million and are supported by an irrevocable direct-pay letter of credit (the "BotW Letter of Credit") issued by Bank of the West ("BotW"). The Series B Commercial Paper Notes are authorized to be issued in the maximum principal amount of $175 million and are supported by an irrevocable direct-pay letter of credit (the "BofA Letter of Credit") issued by Bank of America, N.A. ("BofA"). Unless extended or terminated sooner in accordance with their terms, the BotW Letter of Credit will expire on January 31, 2020, and the BofA Letter of Credit will expire on January 31, 2019. The City has Outstanding $205,889,000 principal amount of Commercial Paper Notes and $44,111,000 of Commercial Paper Notes that remain to be issued. Although not required by the Commercial Paper Notes issuing instruments, it is the City's policy to obtain City Council authorization for the issuance of Commercial Paper Notes in excess of the $44,111,000 currently remaining under the Commercial Paper Notes program.

Nothing contained in the Master Installment Purchase Agreement limits the ability of the City to grant a lien on and pledge of the Net System Revenues that is subordinate to any liens on and pledges of

Net System Revenues for the benefit of Subordinated Obligations, including the 2018 Subordinated Installment Payments. Pursuant to the WIFIA Loan Agreement, the City shall not issue any additional Obligations having a lower lien priority than the Senior Obligations and the Subordinated Obligations ("Junior Obligations") unless such Junior Obligations are fully subordinated in right of payment and in right of security in the Net System Revenues to the Obligations in respect of the WIFIA Loan, including with respect to payment from revenues and reserves and payment upon default of the applicable Obligations.

Application of Net System Revenues and Other Amounts under the Collateral Agency Agreement

Pursuant to the Collateral Agency Agreement, the Collateral Agent shall make the following withdrawals, transfers, and payments from the accounts established under the Collateral Agency Agreement into which Net System Revenues have been deposited by the City pursuant to the Master Installment Purchase Agreement:

(i) on each Senior Obligation Interest Payment Date and on each other date on which the following amounts shall be due and payable, the Collateral Agent shall pay to the Holders (as such term is defined in the Collateral Agency Agreement) of Senior Obligations, from the Senior Obligations Interest Account, the interest due and payable, including any amounts overdue and payable, on such date to Holders of Senior Obligations; provided that if the amount on deposit in the Senior Obligations Interest Account is insufficient therefor, the Collateral Agent shall pay each Senior Obligation Holder a Pro Rata Amount.

(ii) on each Senior Obligation Principal Payment Date and on each other date on which the following amounts shall be due and payable, the Collateral Agent shall pay to the Holders of Senior Obligations, from the Senior Obligations Principal Account, the principal and mandatory sinking fund redemptions due and payable, including any amounts overdue and payable, on such date to Holders of Senior Obligations; provided that if the amount on deposit in the Senior Obligations Principal Account is insufficient therefor, the Collateral Agent shall pay each Senior Obligation Holder a Pro Rata Amount.

(iii) on each Senior Obligation Interest Payment Date, the Collateral Agent shall transfer to the holder of each Senior Obligations Reserve Fund (if any) the amount set forth in a written direction of the City, which shall be no more than the amount necessary so that the balance therein equals the applicable Reserve Requirement; provided that if the amount on deposit in the Senior Obligations Reserve Account is insufficient therefor, the Collateral Agent shall transfer to each holder of a Senior Obligations Reserve Fund a Pro Rata Amount; and provided further that in the event of any draw on a Reserve Fund Credit Facility held in any Senior Obligations Reserve Fund, there shall be deemed a deficiency in such Senior Obligations Reserve Fund until the amount of the Reserve Fund Credit Facility is restored to its pre-draw amount.

(iv) on each Subordinated Obligation Interest Payment Date and on each other date on which the following amounts shall be due and payable, the Collateral Agent shall pay to the Holders of Subordinated Obligations, from the Subordinated Obligations Interest Account, the interest due and payable, including any amounts overdue and payable, on such date to Holders of Subordinated Obligations; provided that if the amount on deposit in the Subordinated Obligations Interest Account is insufficient therefor, the Collateral Agent shall pay each Subordinated Obligation Holder a Pro Rata Amount.

(v) on each Subordinated Obligation Principal Payment Date and on each other date on which the following amounts shall be due and payable, the Collateral Agent shall pay to the Holders of Subordinated Obligations, from the Subordinated Obligations Principal Account, the principal and mandatory sinking fund redemptions due and payable, including any amounts overdue and payable, on such date to Holders of Subordinated Obligations; provided that if the amount on deposit in the Subordinated Obligations Principal Account is insufficient therefor, the Collateral Agent shall pay each Subordinated Obligation Holder a Pro Rata Amount.

(vi) on each Subordinated Obligation Interest Payment Date, the Collateral Agent shall transfer to the holder of each Subordinated Obligations Reserve Fund (if any) the amount set forth in a written direction of the City, which shall be no more than the amount necessary so that the balance therein equals the applicable Reserve Requirement; provided that if the amount on deposit in the Subordinated Obligations Reserve Account is insufficient therefor, the Collateral Agent shall transfer to each holder of a Subordinated Obligations Reserve Fund a Pro Rata Amount; and provided further that in the event of any draw on a Reserve Fund Credit Facility held in any Subordinated Obligations Reserve Fund, there shall be deemed a deficiency in such Subordinated Obligations Reserve Fund until the amount of the Reserve Fund Credit Facility is restored to its pre-draw amount.

"Pro Rata Amount" means, with respect to any payment to be made to a holder of a Secured Obligation from funds held by the Collateral Agent in the applicable account under the Collateral Agency Agreement, an amount equal to the total amount of funds held by the Collateral Agent in such account and available to make such payment to all holders of Secured Obligations entitled to receive such payment multiplied by the quotient of the amount of such payment due and payable on such date to such holder divided by the amount of such payment due and payable on such date to all holders entitled to receive such payment.

Nothing in the Collateral Agency Agreement or the Master Installment Purchase Agreement affects or diminishes the rights and remedies of the holders of Secured Obligations under their respective Issuing Instruments, including any right in such Issuing Instrument to accelerate amounts due under the applicable Secured Obligations. See "APPENDIX A – SUMMARY OF PRINCIPAL LEGAL DOCUMENTS – Collateral Agency Agreement."

Incurrence of Additional Obligations Under the Master Installment Purchase Agreement

Pursuant to the Master Installment Purchase Agreement, the City may incur additional Obligations, payments with respect to which will be senior to, or on parity with, the City's obligation to make 2018 Subordinated Installment Payments, subject to satisfaction of the conditions specified in the Master Installment Purchase Agreement. See "APPENDIX A – SUMMARY OF PRINCIPAL LEGAL DOCUMENTS – Master Installment Purchase Agreement – System Revenues – Additional Obligations." In addition, in connection with execution of certain of the Senior SRF Loans, the City agreed that incurrence of additional Senior Obligations or Subordinated Obligations is subject to Net System Revenues during any 12-consecutive-month period within the 18 consecutive months ending immediately prior to the issuance of such additional debt being at least 1.1 times the SRF MADS (as defined herein) for existing debt and the proposed additional debt, as evidenced by a certificate of the City.

Further, the WIFIA Loan Agreement provides that the City may incur additional Senior Obligations and additional Subordinated Obligations subject to the satisfaction of certain conditions, including, (i) with respect to additional Senior Obligations, provision of a certificate showing that (1) the Net System Revenues as shown by the books of the City for any twelve (12)-consecutive-month period within the eighteen (18) consecutive months ending immediately prior to the incurring of such additional

Senior Obligations shall have amounted to or exceeded the greater of (I) at least 1.20 times the Maximum Annual Debt Service on all Senior Obligations to be Outstanding immediately after the issuance of the proposed additional Senior Obligations or (II) at least 1.10 times the Maximum Annual Debt Service on all Obligations to be Outstanding immediately after the issuance of the proposed additional Senior Obligations, or (2) the estimated Net System Revenues for the five City Fiscal Years following the earlier of (I) the end of the period during which interest on those additional Senior Obligations is to be capitalized or, if no interest is to be capitalized, the City Fiscal Year in which the additional Senior Obligations are issued, or (II) the date on which substantially all new components to be financed with such additional Senior Obligations are expected to commence operations, will be at least equal to 1.20 times the Maximum Annual Debt Service for all Senior Obligations which will be Outstanding immediately after the issuance of the proposed additional Senior Obligations, and (ii) with respect to additional Subordinated Obligations, provision of a certificate showing (a) the Net System Revenues as shown by the books of the City for any twelve (12)-consecutive-month period within the eighteen (18) consecutive months ending immediately prior to the incurring of such additional Subordinated Obligations shall have amounted to at least 1.10 times the Maximum Annual Debt Service on all Obligations to be Outstanding immediately after the issuance of the proposed additional Subordinated Obligations; or (b) the estimated Net System Revenues for the five City Fiscal Years following the earlier of (I) the end of the period during which interest on those additional Subordinated Obligations is to be capitalized or, if no interest is to be capitalized, the City Fiscal Year in which the additional Subordinated Obligations are issued; or (II) the date on which substantially all new facilities financed with such additional Subordinated Obligations are expected to commence operations, will be at least equal to 1.10 times the Maximum Annual Debt Service on all Obligations to be Outstanding immediately after the issuance of the proposed additional Subordinated Obligations.

Rate Covenant

Master Installment Purchase Agreement. The City has covenanted in the Master Installment Purchase Agreement to fix, prescribe, and collect rates and charges for the Water Service that will be at least sufficient to yield the greater of (i) Net System Revenues sufficient to pay during each Fiscal Year all Obligations (including the 2018 Subordinated Installment Payments and loan payments due on SRF loans) payable in such Fiscal Year or (ii) Adjusted Net System Revenues during each Fiscal Year equal to 120% of the Adjusted Debt Service (which does not include debt service on Subordinated Obligations such as the 2018 Subordinated Installment Obligation) for such Fiscal Year. The City may make adjustments from time to time in such rates and charges and may make such classification thereof as it deems necessary, but the City will not reduce the rates and charges then in effect unless the Net System Revenues from such reduced rates and charges will at all times be sufficient to meet the requirements of the Master Installment Purchase Agreement. The term "Adjusted Net System Revenues" is defined in the Master Installment Purchase Agreement as, for any Fiscal Year, the Net System Revenues for such Fiscal Year, minus an amount equal to earnings from investments in any Reserve Fund securing Senior Obligations for such Fiscal Year. The term "Adjusted Debt Service" is defined in the Master Installment Purchase Agreement as, for any Fiscal Year, Debt Service on Senior Obligations for such Fiscal Year, minus an amount equal to earnings from investments in any Reserve Fund for Senior Obligations for such Fiscal Year. Net System Revenues (and, therefore, Adjusted Net System Revenues) may be increased or reduced by transfers in to or out of the Rate Stabilization Fund or the Secondary Purchase Fund.

Senior SRF Loans. Pursuant to certain of the Senior SRF Loans, the City covenanted to ensure that net revenues are equal to at least 1.1 times maximum annual debt service in each Fiscal Year. For purposes of the affected Senior SRF Loans, "maximum annual debt service" means the maximum amount of debt service due on Water System obligations in any Fiscal Year during the period commencing with the Fiscal Year for which such calculation is made and terminating with the last Fiscal Year in which debt service for any Water System obligations will become due (the "SRF MADS").

WIFIA Loan. Pursuant to the WIFIA Loan Agreement, the City covenanted, to the extent permitted by law, to fix, prescribe and collect rates, fees and charges for the Water System during each Fiscal Year which will be at least sufficient to yield, during each Fiscal Year, Net System Revenues equal to (A) at least one hundred ten percent (110%) of the Debt Service with respect to all Outstanding Obligations for such Fiscal Year and (B) at least one hundred twenty percent (120%) of the Debt Service with respect to all Outstanding Senior Obligations for such Borrower Fiscal Year.

The covenants in the agreements for the Senior SRF Loans and the WIFIA Loan Agreement are not made for the benefit of the Owners of the 2018 Bonds and Owners of the 2018 Bonds do not have a right to enforce such covenants.

See "– Pledge of Net System Revenues" above. For information on the possible limitation on the City's ability to comply with its rate covenants described above as a consequence of Proposition 218, see "RISK FACTORS – Rate-Setting Process Under Proposition 218" and "CONSTITUTIONAL LIMITATIONS ON TAXES AND WATER RATES AND CHARGES – Article XIIIC" and "– Article XIIID." For a description of the reserve funds established by the City within the Water Utility Fund, see "WATER SYSTEM FINANCIAL OPERATIONS – Rate Stabilization Fund; Other Funds and Accounts."

The Collateral Agency Agreement

Pursuant to the Collateral Agency Agreement, the Collateral Agent shall serve as agent of the Trustee and the Owners of Secured Obligations for purposes of receiving payments of Net System Revenues from the City and making payments on Obligations from Net System Revenues. See "SECURITY AND SOURCES OF PAYMENT FOR THE 2018 BONDS - Pledge of Net System Revenues; Payment of Installment Payments." In addition, as provided in the Collateral Agency Agreement, the Collateral Agent shall have the right to exercise all of the rights and remedies described in the Collateral Agency Agreement, on behalf of and for the benefit of Owners of Secured Obligations and any trustee on their behalf, including the Trustee, under the First Amendment, the Indenture and any other Issuing Instrument. Under the Master Installment Purchase Agreement and the Collateral Agency Agreement, the Collateral Agent (rather than the Corporation) shall have all rights, pursuant to the Master Installment Purchase Agreement, the Collateral Agency Agreement or any other Issuing Instrument, (a) as a grantee of a pledge of Net System Revenues, (b) to accelerate or otherwise declare any Obligations immediately due and payable, (c) to exercise any remedies by or on behalf of the Owners of any Obligations or otherwise with respect to the Net System Revenues following an event of default under the Master Installment Purchase Agreement, or (d) to receive and/or apply any Net System Revenues to the payment of any Obligations following an event of default under the Master Installment Purchase Agreement. See "APPENDIX A – SUMMARY OF PRINCIPAL LEGAL DOCUMENTS – Collateral Agency Agreement."

Payment of Bonds Under the Indenture

Senior Bonds. Pursuant to the Indenture, on or before each February 1 and August 1, each date on which Commercial Paper Notes are due and payable, and such other date as provided for in a Supplemental Indenture (each an "Interest Payment Date"), the Trustee shall transfer from the Senior Bonds Payment Fund and deposit in the Senior Bonds Interest Account that amount of money that, together with any money contained in the Senior Bonds Interest Account, equals the aggregate amount of interest becoming due and payable on all Outstanding Senior Bonds on such Interest Payment Date. No deposit need be made in the Senior Bonds Interest Account if the amount contained in the Senior Bonds Interest Account equals at least the aggregate amount of interest becoming due and payable on all Outstanding Senior Bonds on such Interest Payment Date. All money in the Senior Bonds Interest

Account shall be used and withdrawn by the Trustee solely for the purpose of paying the interest on the Senior Bonds as it shall become due and payable (including accrued interest on any Senior Bonds redeemed prior to maturity).

On or before each Principal Payment Date, the Trustee shall transfer from the Senior Bonds Payment Fund and deposit in the Senior Bonds Principal Account that amount of money that, together with any money contained in the Senior Bonds Principal Account, equals the aggregate principal becoming due and payable on all Outstanding Senior Bonds. No deposit need be made in the Senior Bonds Principal Account if the amount contained therein is at least equal to the aggregate amount of principal become due and payable on Outstanding Senior Bonds. All money in the Senior Bonds Principal Account shall be used and withdrawn by the Trustee solely for the purpose of paying the principal of the Senior Bonds as it shall become due and payable. Within the Senior Bonds Payment Fund, there is established a special account designated the "Senior Bonds Redemption Account." All money in the Senior Bonds Redemption Account shall be held in trust by the Trustee and shall be applied, used, and withdrawn to redeem Senior Bonds.

Any delinquent Installment Payments pledged to the Senior Bonds shall be applied first to the Senior Bonds Interest Account for the immediate payment of interest payments past due and to the Senior Bonds Principal Account for immediate payment of principal payments past due on any Senior Bond. Any remaining money representing delinquent Installment Payments pledged to Senior Bonds shall be deposited in the Senior Bonds Payment Fund to be applied in the manner provided therein. There are currently no Outstanding Senior Bonds. See "APPENDIX A – SUMMARY OF PRINCIPAL LEGAL DOCUMENTS."

Subordinated Bonds. Pursuant to the Indenture, except to the extent that payment is made of interest on the Commercial Paper Notes from the proceeds of Commercial Paper Notes or the proceeds of a Draw under the related Subordinated Credit Support Instrument, on or before each Interest Payment Date, the Trustee shall transfer from the Subordinated Bonds Payment Fund and deposit in the Subordinated Bonds Interest Account that amount of money that, together with any money contained in the Subordinated Bonds Interest Account, equals the aggregate amount of interest becoming due and payable on all Outstanding Subordinated Bonds on such Interest Payment Date. No deposit need be made in the Subordinated Bonds Interest Account if the amount contained in the Subordinated Bonds Interest Account equals at least the aggregate amount of interest becoming due and payable on all Outstanding Subordinated Bonds on such Interest Payment Date; provided that the Authority may direct the Trustee to maintain amounts in the Subordinated Bonds Interest Account following payment of all amounts required to be paid under the Indenture to be used for payments on Commercial Paper Notes on future Interest Payment Dates, and in such instance, such additional amount shall not be included as amounts available to pay interest becoming due and payable on Outstanding Subordinated Bonds. All money in the Subordinated Bonds Interest Account shall be used and withdrawn by the Trustee solely for the purpose of paying the interest on the Subordinated Bonds as it shall become due and payable (including accrued interest on any Subordinated Bonds redeemed prior to maturity).

Except to the extent that payment is made of the principal of the Commercial Paper Notes from the proceeds of Commercial Paper Notes or the proceeds of a Draw under the related Subordinated Credit Support Instrument, on or before each "Principal Payment Date" (being each August 1, each date on which Commercial Paper Notes are due and payable, and such other date as provided for in a Supplemental Indenture), the Trustee shall transfer from the Subordinated Bonds Payment Fund and deposit in the Subordinated Bonds Principal Account that amount of money that, together with any money contained in the Subordinated Bonds Principal Account, equals the aggregate principal becoming due and payable on all Outstanding Subordinated Bonds. No deposit need be made in the Subordinated Bonds Principal Account if the amount contained therein is at least equal to the aggregate amount of

principal become due and payable on Outstanding Subordinated Bonds. All money in the Subordinated Bonds Principal Account shall be used and withdrawn by the Trustee solely for the purpose of paying the principal of the Subordinated Bonds as it shall become due and payable.

In addition to the above accounts, the Trustee shall establish and maintain within the Subordinated Bonds Payment Fund a special account designated the "Subordinated Bonds Redemption Account." All money in the Subordinated Bonds Redemption Account shall be held in trust by the Trustee and shall be applied, used, and withdrawn to redeem Subordinated Bonds.

Any delinquent Installment Payments pledged to the Subordinated Bonds shall be applied first to the Subordinated Bonds Interest Account for the immediate payment of interest payments past due and to the Subordinated Bonds Principal Account for immediate payment of principal payments past due on any Subordinated Bond. Any remaining money representing delinquent Subordinated Installment Payments pledged to Subordinated Bonds shall be deposited in the Subordinated Bonds Payment Fund to be applied in the manner provided therein.

On or before each date any Commercial Paper Note matures, the Trustee shall transfer from the Subordinated Bonds Payment Fund to the Issuing and Paying Agent for deposit in the applicable Reimbursement Account that amount of money that equals the aggregate amount of interest or principal becoming due and payable on the Commercial Paper Notes to the extent that payment of such interest on or principal of the Commercial Paper Notes is not made from the proceeds of Commercial Paper Notes but is made from the proceeds of a Draw under the related Subordinated Credit Support Instrument. On or before each date any related Subordinated Credit Provider Reimbursement Obligations become due and payable, the Trustee shall transfer from the Subordinated Bonds Payment Fund and deposit in the applicable Reimbursement Account that amount of money that, together with any amounts transferred pursuant to the preceding sentence, equals the amount of any such Subordinated Credit Provider Reimbursement Obligations when due. See "APPENDIX A – SUMMARY OF PRINCIPAL LEGAL DOCUMENTS – Indenture."

Issuance of Additional Bonds Under the Indenture

Pursuant to the Indenture, the Trustee may, upon Written Request of the Authority, by a supplement to the Indenture, establish one or more other series of bonds, which may include Additional Senior Bonds and Additional Subordinated Bonds (collectively, the "Additional Bonds"). The term "Additional Senior Bonds" means those Bonds authorized and issued pursuant to the Indenture and payable on parity with other Bonds having a first priority lien on Net System Revenues. The term "Additional Subordinated Bonds" means those Bonds authorized and issued pursuant to the Indenture on parity with the 2012A Subordinated Bonds, the 2016A Subordinated Bonds, the 2016B Subordinated Bonds and the 2018 Bonds. See "APPENDIX A – SUMMARY OF PRINCIPAL LEGAL DOCUMENTS – Indenture – Execution and Delivery of Additional Bonds."

Nothing in the Indenture limits in any way the power and authority of the Authority to incur other obligations payable from other lawful sources.

No Debt Service Reserve Fund for the 2018 Bonds

No debt service reserve fund will be created or funded to secure the 2018 Bonds. Debt service reserve funds were created in connection with the issuance of certain of the Authority's Bonds and the incurrence of certain of the City's Obligations, and amounts on deposit in, or to be on deposit in, such debt service reserve funds are not available to secure the 2018 Bonds.

DEBT SERVICE SCHEDULE

The following table sets forth the amounts required in each Fiscal Year for the payment of principal of and interest on Outstanding Senior Obligations and Subordinated Obligations, including the expected issuance of the 2018 Bonds, secured by Net System Revenues. A portion of the proceeds of the 2018 Bonds will be used to pay in full the principal of the Commercial Paper Notes.

TABLE 1
DEBT SERVICE ON ALL OUTSTANDING OBLIGATIONS[1]
(Unaudited)

Fiscal Year	Total Senior Obligations Debt Service[2]	Outstanding Subordinated Obligations Debt Service[3]	2018 Bonds			Total Debt Service on Subordinated Obligations	Total Debt Service
			Principal	Interest	Total Principal and Interest		
2019	$ 2,288,338	$ 15,091,300	-	$ 956,943	$ 956,943	$ 16,048,243	$ 18,336,581
2020	5,547,833	60,746,650	$ 3,815,000	12,208,175	16,023,175	76,769,825	82,317,658
2021	5,735,883	60,760,875	4,010,000	12,012,550	16,022,550	76,783,425	82,519,308
2022	5,735,883	60,753,725	4,215,000	11,806,925	16,021,925	76,775,650	82,511,533
2023	5,735,883	53,562,400	4,435,000	11,590,675	16,025,675	69,588,075	75,323,958
2024	5,735,883	53,561,325	4,660,000	11,363,300	16,023,300	69,584,625	75,320,508
2025	5,735,883	55,597,375	4,900,000	11,124,300	16,024,300	71,621,675	77,357,558
2026	5,735,883	57,071,275	5,155,000	10,872,925	16,027,925	73,099,200	78,835,083
2027	5,735,883	56,472,175	5,415,000	10,608,675	16,023,675	72,495,850	78,231,733
2028	5,735,883	56,492,425	5,690,000	10,331,050	16,021,050	72,513,475	78,249,358
2029	5,735,883	56,480,925	5,985,000	10,039,175	16,024,175	72,505,100	78,240,983
2030	5,735,883	36,193,175	6,290,000	9,732,300	16,022,300	52,215,475	57,951,358
2031	5,735,883	36,199,925	6,615,000	9,409,675	16,024,675	52,224,600	57,960,483
2032	4,732,805	36,203,175	6,955,000	9,070,425	16,025,425	52,228,600	56,961,405
2033	2,580,374	36,199,925	7,310,000	8,713,800	16,023,800	52,223,725	54,804,099
2034	2,580,374	24,370,175	7,685,000	8,338,925	16,023,925	40,394,100	42,974,474
2035	2,580,374	24,365,925	8,080,000	7,944,800	16,024,800	40,390,725	42,971,099
2036	2,580,374	24,366,425	8,495,000	7,530,425	16,025,425	40,391,850	42,972,224
2037	1,727,569	24,364,300	8,930,000	7,094,800	16,024,800	40,389,100	42,116,669
2038	1,727,569	24,367,050	9,385,000	6,636,925	16,021,925	40,388,975	42,116,544
2039	1,727,569	24,362,175	9,865,000	6,155,675	16,020,675	40,382,850	42,110,419
2040	312,487	21,339,550	10,375,000	5,649,675	16,024,675	37,364,225	37,676,712
2041	312,487	2,613,600	10,905,000	5,117,675	16,022,675	18,636,275	18,948,762
2042	312,487	2,612,825	11,465,000	4,558,425	16,023,425	18,636,250	18,948,737
2043	312,487	2,613,875	12,055,000	3,970,425	16,025,425	18,639,300	18,951,787
2044	312,487	2,611,375	12,670,000	3,352,300	16,022,300	18,633,675	18,946,162
2045	312,487	2,613,125	13,340,000	2,685,375	16,025,375	18,638,500	18,950,987
2046	312,487	2,613,750	14,055,000	1,966,256	16,021,256	18,635,006	18,947,493
2047	312,487	-	14,815,000	1,208,419	16,023,419	16,023,419	16,335,906
2048	312,487	-	15,610,000	409,763	16,019,763	16,019,763	16,332,250
2049	312,487	-	-	-	-	-	312,487
2050	312,487	-	-	-	-	-	312,487
Total[4]:	**$94,605,248**	**$914,600,800**	**$243,180,000**	**$222,460,755**	**$465,640,755**	**$1,380,241,555**	**$1,474,846,804**

(1) Includes current debt service on Outstanding Obligations, except for debt service on the outstanding Commercial Paper Notes. Does not include the Equipment Lease (as herein defined), any future indebtedness under the Master Installment Purchase Agreement, the WIFIA Loan or any additional SRF loans. See "WATER SYSTEM FINANCIAL OPERATIONS – Outstanding Indebtedness" and "WATER SYSTEM FINANCIAL OPERATIONS – Anticipated Additional Obligations." In addition, the schedule of debt service assumes that there is no redemption or prepayment of obligations prior to their scheduled maturity.

(2) Debt service on the Senior SRF Loans.

(3) Debt service on the 2012A Subordinated Bonds, the 2016A Subordinated Bonds and the 2016B Subordinated Bonds. Excludes principal of and interest on the Commercial Paper Notes; a portion of the proceeds of the 2018 Bonds will be used to pay in full the principal of the Commercial Paper Notes. Does not include the City's borrowing of up to $614 million pursuant to the WIFIA Loan Agreement as the City has not yet requested disbursements of amounts under the WIFIA Loan and no principal is outstanding under the WIFIA Loan.

(4) Amounts have been rounded; total may not equal the sum of the components.

Source: Debt Management Department, City of San Diego.

WATER SYSTEM ORGANIZATION AND MANAGEMENT

Certain of the information set forth under this caption has been obtained from publicly available sources other than the City, which the City and the Authority have no reason to believe such information to be inaccurate or incorrect, including, without limitation, the comprehensive annual financial reports ("CAFRs") and other public financial documents of the San Diego County Water Authority ("CWA") and The Metropolitan Water District of Southern California ("MWD"). As described herein, typically an average of 85-90% of annual water deliveries are obtained from imported water supplied to the Water System. Accordingly, certain of the information set forth under this caption has been included because it provides additional detail with respect to such sources of supply that may be considered relevant to an informed evaluation and analysis of the 2018 Bonds, the Water System and the Department. However, such information is not guaranteed by the City or the Authority as to its accuracy or completeness and no representation is made as to the absence of material adverse changes in such information subsequent to the date of the respective publicly available source document. Neither CWA nor MWD has participated in the preparation of this Official Statement. Neither CWA nor MWD is obligated in any way to the owners or Beneficial Owners of any 2018 Bonds and neither has pledged any of its moneys, funds or assets toward the payment of any amount due in connection with the 2018 Bonds.

General

The Department provided the approximately 1.4 million people living in the City and the cities of Del Mar, Coronado and Imperial Beach with an average of approximately 155 million gallons per day ("mgd"), or about 174,000 acre feet ("AF") per year ("AFY") of potable water in Fiscal Year 2018 resulting in approximately $536 million in water sales revenue. The balance of the total water sales amount of $15 million was made up of recycled and raw water sales. Based on statistics provided by the San Diego Association of Governments ("SANDAG"), the City's population is projected to increase approximately 22% over the next 20 years. Based on demographic data provided by SANDAG (the "2050 Regional Growth Forecast Update, Series 13"), an assumption of normal weather conditions, and excluding future water conservation interventions by the City (*e.g.*, incentive and rebate programs), the Department's Long-Range Planning and Water Resources Division, with input from other Department staff and its consultants, developed baseline potable water projections through 2040 for all retail water sectors. Cumulative sector demands are forecasted to increase by 36% over the projected period of 2020 to 2040.

The Department has typically provided potable water to its customers primarily from two water sources: (1) by securing, on average, approximately 10 - 15% of its water needs through local supplies, and (2) by purchasing approximately 85 - 90% of its water from CWA. For Fiscal Year 2019, the Department projects supplying 5% of its water demand from local sources. This is lower than the typical 10-15% due to below average rainfall during Rain Year 2018, which is measured from October 1, 2017 to September 30, 2018 (3.34 inches of rainfall occurred in Rain Year 2018; the average annual rainfall is 10.34 inches). For Fiscal Years 2020 and thereafter, Department staff projects satisfying approximately 10% of its annual water demand from local sources. CWA is a wholesale water agency that provided approximately 399,826 AF of imported and desalinated water to its member agencies in the County in Fiscal Year 2018, including 154,584 AF supplied to the Department. CWA currently acquires the majority of its water from three main sources: (i) desalinated water, (ii) independent water purchases as part of the herein described Quantification Settlement Agreement and (iii) MWD, which is comprised of 26 public water agencies. MWD obtains its water from the Colorado River through the United States Bureau of Reclamation and from northern California via the State Water Project (the "SWP"), through the California Department of Water Resources ("DWR"). MWD is one of 29 public water agencies (the "SWP Contractors") that have long-term contracts for water service from DWR (each a "State Water Contract") and it is the largest agency in terms of the number of people it serves (approximately 19

million), the share of SWP water that it has contracted to receive (approximately 50%), and the percentage of total annual payments made to DWR by agencies with State water contracts (historically as high as 60%). In Fiscal Year 2017, MWD sold approximately 1.54 million AF of imported water to its customers. CWA is one of MWD's largest customers, responsible for approximately 19.5% of MWD's total water revenues in Fiscal Year 2017. Both CWA and MWD are developing storage and additional supplies, such as water transfers, to augment their imported water. See "WATER SUPPLY – Current Water Supply."

Governance and Management of Water System

General. The Water System is owned by the City and operated by the City through the Department. The Department is comprised of several branches that are funded by both the Water Utility Fund and the Sewer Revenue Fund, depending upon which system benefits from the tasks completed. Though the different branches cover all tasks required by the Department, separate accounting is kept for each fund. The Department ultimately reports to the Mayor, who has operational authority over the Department and appoints managers and directors who are charged with the operations of the Department. The Director of Public Utilities, who reports to a Deputy Chief Operating Officer, oversees the Department. The day-to-day operational responsibility for the Department rests with four Assistant Directors who manage the following branches: System Management and Operations, Distribution and Collection, Business Support and Pure Water and Quality Assurance. The Department's management team is also comprised of deputy directors who head each of the divisions and program managers who provide program assistance to the management team. The Department also includes a Department Management section and an External Affairs section.

The City Council of the City (the "City Council") has the authority to approve the Department's budget, to set rates and charges of the City utilities, including the Water System, and to approve execution of certain contracts. For information on how the City sets the rates and charges of the Water System see "WATER SYSTEM FINANCIAL OPERATIONS – Establishment, Calculation and Collection of Water Charge Revenue." In accordance with the provisions of the City Municipal Code, the Water System funds are administered in an enterprise account separate from the City's General Fund.

Operational Changes. The Department is undergoing an internal review of the areas of management, internal controls, processes and protocols, employee oversight and public accountability. In addition, the Department is in the process of implementing various changes as a result of the assessments described under "Water Utility Customer Billing Operations, Internal Audits and Other Related Matters." To aid in this effort, as of August 2018, Stacey LoMedico, the City's Assistant Chief Operating Officer, has been assigned to the Department to focus on Department Operations and recommend proposed operational improvements. Ms. LoMedico has served the City since 1986 in a variety of roles, including Director of the City's Parks and Recreation Department, until she was appointed as the Assistant Chief Operating Officer in 2013. As Assistant Chief Operating Officer, Ms. LoMedico oversees four administrative branches of the City: Infrastructure/Public Works; Internal Operations; Neighborhood Services; and Smart and Sustainable Communities, which in total represent nineteen departments, four programs and more than 7,500 employees. Ms. LoMedico holds a Bachelor's Degree in Public Administration from San Diego State University.

Officers. The current Senior Executive officers managing the Department and their respective biographies are as follows:

Johnnie Perkins Jr. Mr. Perkins was recently appointed to serve as the Deputy Chief Operating Officer for Infrastructure/Public Works, where he oversees the branch and the Department's implementation of audit recommendations. He works closely with Department staff on these ongoing

assessments and accompanying reforms. Mr. Perkins has over 28 years of experience in the public and private sector managing transportation, water, recycling and solid waste, land use, healthcare, capital projects, crisis management issues and financial management oversight. Prior to his appointment as Deputy Chief Operating Officer, Mr. Perkins served as the Deputy Director of the City's Environmental Services Department. Mr. Perkins holds a Bachelor of Arts degree in Political Science from the University of California, Los Angeles.

Matthew Vespi. Mr. Vespi serves as the Interim Director of the Department while the nation-wide search for a Director is conducted. Mr. Vespi has served as the City Department of Finance's Assistant Director and as Interim Director of the Financial Management and Risk Management Departments. Mr. Vespi earned a Bachelor of Science degree in Business Administration and a Master of Business Administration from the University of Central Florida.

Rania Amen. Ms. Amen serves as the Assistant Director of the Water System Management and Operations Branch. Ms. Amen's duties include oversight of the day-to-day operations of the Water System Operations Division, Wastewater Treatment and Disposal Division, Engineering and Program Management Division, the Asset Management Program and the Recycled Water Program. Ms. Amen holds a Bachelor of Science degree in Civil Engineering from the University of Alexandria and is a Registered Professional Engineer in the State of California. Her 26-year professional background in engineering services includes the operation, planning, design and construction of water, wastewater, storm water renewable energy facilities, buildings, and transportation.

Stan Griffith. Mr. Griffith serves as the Assistant Director of the Distribution and Collection Branch. Mr. Griffith's duties include oversight of the day-to-day operations of the Wastewater Collection Division and the Water Construction and Maintenance Division. He has been an employee of the City for 30 years and has served in various management capacities including Labor Relations officer for the City and Assistant Deputy Director of the Environmental Monitoring and Technical Services Division. Mr. Griffith earned a Bachelor of Science degree in Education from the University of Wisconsin at Oshkosh and has completed substantial coursework toward a Master's degree in Public Administration.

Lee Ann Jones-Santos. Ms. Jones-Santos serves as the Assistant Director of the Business Support Branch. Ms. Jones-Santos's duties include oversight of the day-to-day operations of the Finance and Information Technology Division, Customer Support Division and Long-Range Planning and Water Resources Division. During her 19-year tenure with the City, Ms. Jones-Santos has gained experience in enterprise financial statement reporting and extensive knowledge of City operations. Ms. Jones-Santos holds a Bachelor of Science degree in Accounting from California State University in San Marcos.

John Helminski. Mr. Helminski serves as the Assistant Director of the Pure Water and Quality Assurance Branch. His duties include oversight of the day-to-day operations of the Employee Services and Quality Assurance Division, Environmental Monitoring and Technical Services Division, and the Pure Water Program. His 27-year professional background also includes experience in Operation and Maintenance of Right of Way Infrastructure and the City's Right of Way Infrastructure Capital Improvement Program. Mr. Helminski holds a Bachelor of Science degree in Civil/Construction Engineering from the New Jersey Institute of Technology, Newark College of Engineering.

Oversight. The Independent Rates Oversight Committee ("IROC") was established by City ordinance in 2007 to oversee and advise on various aspects of the Water System and the Wastewater System. There are 11 members on IROC, appointed by the Mayor and confirmed by the City Council, and two ex-officio members, one representing and appointed by the Metropolitan Wastewater Joint Powers Authority, and one representing and appointed by the ten-member City representatives to the San Diego

County Water Authority. IROC serves as an official advisory body to the Mayor and the City Council on policy issues relating to the oversight of Department operations.

On December 21, 2017, IROC issued its annual report on the Department for Fiscal Year 2017 (the "2017 IROC Report"). The 2017 IROC Report included, among other things, several recommendations with respect to the Pure Water Program, the City's phased, multi-year program to provide one-third of San Diego's water supply locally by 2035 (the "Pure Water Program"), including that the Department release updated costs and timing of expenditures and evaluate the impact of certain activities on future water and wastewater rates and charges. The 2017 IROC Report also recommended that the Department increase funding to replace the aging portions of the water distribution system and provide to IROC various updates on the CIP and Pure Water Program. Pursuant to its responses in March 2018, the Department stated that it agreed with each of the recommendations and provided information on how the recommendations could be implemented. See "WATER SYSTEM CAPITAL IMPROVEMENT PROGRAM" and "– Capital Improvement Financing Plan" under that heading, and "WATER SUPPLY – Pure Water Program."

Water Utility Customer Billing Operations, Internal Audits, and Other Related Matters

In late 2017, some customers of the Department started reporting higher than average water bills. In January 2018, news reports began covering stories of the Department's water customers complaining of high water bills. The Department began the process of reviewing the customer complaints, and took various actions including providing weekly high billing updates to the City Council offices, holding weekly department meetings to discuss and manage progress, and tracking customer billing issues. As of September 11, 2018, more than 1,134 customers have had their account information evaluated. As a result of these evaluations, the Department issued $562,000 in billing adjustments for the period July 1, 2017 to June 30, 2018 (representing 0.1% total Water System Revenues for the same period). In Fiscal Year 2017, the refunds totaled approximately $102,000.

In February 2018, the Office of the City Auditor was asked by the Mayor and City Council President Pro Tem to investigate the reported increase in residents' water bills. This audit was published on July 26, 2018, heard by the City Audit Committee on July 30, 2018 and heard by the City Council on September 10, 2018. The key audit findings include that there were multi-causal factors that contributed to bill increases; review of the single family residential customers in calendar year 2017 showed that less than 1% of bills were adjusted after customers received an incorrect bill, and there were numerous reasons that meter reading was impacting the customer billing. The Department management agreed with all the findings and expects to address a majority of the recommendations by January 2019 and all recommendations by June 2019. The Water Billing Operations audit is being followed by an audit of the Advanced Metering Infrastructure ("AMI"). AMI is an integrated system of smart meters, communications networks, and data management systems that enables two-way communications between utilities and customers. There are currently approximately 15,000 meters in operation. The audit is estimated to be completed by early 2019.

In March 2018, the Department also initiated an operational assessment of its meter-to-cash operations including billing, meter reading, meter testing and smart metering led by West Monroe Partners, a business and operations consulting firm. West Monroe Partners conducted an assessment in March 2018 that included a detailed data analysis, observed office staff and field personnel, conducted discovery interviews, and compared the Department operations to industry peers. West Monroe Partners published the report based on its review on July 26, 2018. West Monroe Partners' key recommendations include improving internal operations, enhancing meter reading controls, becoming a customer centric utility, becoming a data-driven utility, enhancing conservation messaging, revising bill presentment, and accelerating AMI deployment. In August 2018, the Department made a commitment to address all the

recommendations included in the City Auditor Audit and West Monroe Report. The Department has established a high-level Action Plan which involves a detailed schedule of planned activities by month. The schedule provides various details including task descriptions and due dates, staff lead and supporting roles, and other information by audit recommendation number. There are weekly team meetings to monitor progress, discuss open items with the Department management, and to perform internal review of completed tasks/supporting documentation. The Department is expected to provide monthly public updates on their progress to IROC, and City Council.

The City Auditor conducts a risk assessment process to identify, measure, and prioritize the City's potential audits (auditable units) based on the level of risk to City operations. As part of the annual audit work plan, the Office of the City Auditor completed its audit of the Water Meter Cover Replacement Program in August 2018 and the City Audit Committee reviewed the audit on September 12, 2018. The audit's findings concluded that there were delayed responses to box and lid maintenance issues resulting from a lack of management oversight and accountability for this section within the Water Construction Maintenance Division as well as a variety of processing inefficiencies and inadequate planning. A review by the Department showed a backlog of box and lid repairs at 19,341 connections as of September 2018, of which 5,000 were found to be incorrectly coded as needing repair, leaving a balance of 14,341 out of approximately 281,000 connections in the City as of November 15, 2018. The Department agreed with all the audit recommendations and expects to address the issues by April 30, 2019. Additionally, the Office of the City Auditor has also issued an audit start letter on August 24, 2018, for an audit of the Public Utilities Customer Support Division. This audit will focus on the call center section of the division that provides customer service to Department water and sewer customers, handles customer phone interactions via a variety of contact channels, and is responsible for customer billing, payment processing and public information. The current objective of the Office of the City Auditor for this audit is to determine the efficiency and effectiveness of the Customer Support Division call center, including call wait times and customer service.

While the audits, assessments, and investigations revealed areas where Department operations could be improved, they revealed no deficiencies in the Department's delivery of clean and safe water. Department responses to the audits and assessments may include internal operational changes to increase efficiency and effectiveness, but these changes are not expected to result in a material adverse impact on the Department's budget, Net System Revenues, rates or finances.

WATER SYSTEM SERVICE AREA AND FACILITIES

Water System Service Area

The Water System serves the City and certain surrounding areas, providing water to retail, wholesale, and recycled water customers. The Water System's service area covers 404 square miles, including 325 square miles of the City, and a population of approximately 1.4 million people as of January 1, 2018. The map that follows the Table of Contents of this Official Statement shows the boundaries of the service area of the Water System.

Retail Customer Base. The City has five types of potable retail customer groups, consisting of Single Family Residential ("SFR"), Multi-Family Residential ("MFR"), Non-Residential, Irrigation, and Temporary Construction. For information relating to recycled water customers, see "– Reclaimed Water Customer Base" below. For Fiscal Year 2018, retail customers accounted for approximately 92% of total water deliveries and represented approximately 96% of the revenues from total water sales. Wholesale delivery of water accounted for the remaining 8% of water deliveries. Of the Water System's roughly 281,000 retail service connections, approximately 91% are SFR and MFR accounts, which comprised approximately 58% of total water sales revenue in Fiscal Year 2018.

Single Family Residential. SFR refers to individual dwelling units served by a separate meter, and accounted for approximately 38.7% of total water sales revenues in Fiscal Year 2018.

Multi-Family Residential. MFR encompasses multi-family dwellings such as apartment or condominium complexes, in which two or more dwelling units share a meter, and accounted for approximately 19.7% of total water sales revenues in Fiscal Year 2018.

Non-Residential. Non-Residential users are comprised of a diverse group of customers and accounted for 22.3% of total water sales revenues in Fiscal Year 2018. These customers are treated equivalently in cost calculations and are assigned the same peaking factors. These customers also typically have lower peaking factors than residential customers due to their relatively consistent usage trend.

Irrigation. Irrigation customers consist of SFR, MFR, and Non-Residential accounts that are used solely for irrigation. These customers use water primarily to irrigate personal or business landscaping. This diverse group of customers accounted for 12.3% of total water sales revenue for Fiscal Year 2018.

Temporary Construction. Temporary construction refers to meters that are placed on fire hydrants during construction in order to provide water to the construction site until the installation of a permanent meter. Costs for these customers are usually higher than the average customer because of additional administrative costs associated with transient meters. This group of customers generated approximately 0.8% of total water sales revenue for Fiscal Year 2018.

Irrigation and Temporary Construction customers typically have high peak demands characterized by relatively large amounts of water used in short periods of time when compared to average usage. Peak usage is more costly to deliver than constant usage.

The following table sets forth the historical number of retail connections to the Water System for each year from Fiscal Years 2014 through 2018.

TABLE 2
HISTORICAL NUMBER OF RETAIL CONNECTIONS TO WATER SYSTEM
Fiscal Years 2014 through 2018
(Unaudited)

Customer Type	2014	2015	2016	2017	2018
Single Family Residential	223,006	223,629	224,354	224,861	225,158
Multi-Family Residential	30,159	30,202	30,313	30,364	30,406
Non-Residential [(1)]	16,985	17,069	17,056	17,075	17,091
Irrigation	8,130	8,262	7,741	7,787	7,816
Temporary Construction	414	463	505	551	552
Total	278,694	279,625	279,969	280,638	281,023
Percent Growth	0.26%	0.33%	0.12%	0.24%	0.14%

(1) "Non-Residential" consists of customers previously categorized as Commercial, Industrial or Outside City.
Source: Public Utilities Department, City of San Diego.

The following table sets forth the volume of water deliveries, organized by the type and source of water delivered, made by the Department to its customers for Fiscal Years 2014 through 2018.

TABLE 3
WATER DELIVERIES
Fiscal Years 2014 through 2018
(Unaudited; in AF)

Delivery Type	2014	2015	2016	2017	2018
Local Water	31,398.3	315.2	11,226.5	12,459.9	22,035.4
CWA Water	171,252.7	184,493.1	147,490.3	153,495.6	152,192.9
Recycled Water	7,225.0	6,865.7	5,510.6	5,926.8	7,433.1
Total Water Deliveries	209,876.0	191,674.0	164,227.4	171,882.3	181,661.4

Source: Public Utilities Department, City of San Diego.

The following table sets forth the 10 major retail customers of the Water System for Fiscal Year 2018. These customers provided approximately 11% of the total sales revenues for such Fiscal Year.

TABLE 4
MAJOR RETAIL CUSTOMERS
Fiscal Year 2018
(Unaudited)

Customers	Millions of Cubic Feet	Billings	% of Total Sales Revenues
City of San Diego	428.94	$24,498,817	4.44%
United States Navy	197.06	11,359,236	2.06
San Diego Family Housing LLC	86.18	5,790,178	1.05
University of California San Diego	91.21	5,365,597	0.97
San Diego Unified School District	50.57	3,742,532	0.68
Other Federal Agencies [1]	57.09	2,883,495	0.52
The Irvine Co.	38.67	2,538,867	0.46
California Department of Transportation	44.49	2,667,865	0.48
CP Kelco	36.87	2,096,308	0.38
San Diego Zoo	28.37	1,634,525	0.30
Total [2]	**1,059.46**	**$62,577,420**	**11.35%**

(1) Excludes the United States Navy.
(2) Figures may not add to total due to independent rounding.
Source: Public Utilities Department, City of San Diego.

Wholesale Treated Water Customer Base. The City currently sells and delivers potable water on a wholesale basis to the California-American Water Company ("Cal-American") and the Otay Water District (the "OWD"). The City also treats and delivers potable water to the City of Del Mar ("Del Mar"). Del Mar initially purchases untreated water directly from CWA, which water is delivered for the benefit of Del Mar to the City's Miramar Water Treatment Plant. Del Mar then pays its apportioned expenses to the Department for treating and pumping the water to Del Mar's connection. As a result, deliveries to Del Mar are included in the total deliveries of potable water by the City, but are not

considered to be a component of retail water sales. Deliveries to Del Mar totaled 1,065 AF in Fiscal Year 2018.

California-American Water Company (Cal-American). Since 1912, the City has been selling and delivering treated water to Cal-American, which in turn provides water to the cities of Coronado and Imperial Beach, as well as a portion of the City. The City's obligation to sell and deliver water to Cal-American and its customers was assumed by the City upon its original acquisition of the Water System. The City's agreement with Cal-American has been subsequently amended to establish minimum and maximum amounts of treated water that may be purchased by Cal-American from the City, an average system delivery and a supply price methodology, which incorporates all of the City's integrated system-wide costs (*i.e.*, the costs associated with treatment, storage and pumping of the treated water supplied to Cal-American), including 60% of the water purchase replacement costs, 17% of the transmission and distribution costs associated with usage of mains that are 16 inches and larger, and a proportionate share of debt service for capital costs of the Water System. For Fiscal Year 2018, the City made approximately 5.7% of its total water deliveries to Cal-American and such sales represented approximately 3.6% of the revenues from total sales of water. The rates established within the City's agreement with Cal-American are adjusted at the same rate, and for the same period of time, as the rate and term set for City rate payers under the current rate case.

Otay Water District (OWD). In 1999, the City entered into an agreement with OWD to deliver up to 10 mgd of surplus treated water, which deliveries began in November 2005. The City's Otay Water Treatment Plant ("OWTP") is capable of producing treated water in excess of the amounts needed by the Water System customer base traditionally serviced by OWTP. The amounts paid by OWD for such treated water are determined in part by allocating to the City and OWD, based on the amount of treated water produced for each, the projected costs and expenses of all operations, maintenance and overhead, capital improvements, repairs and replacements under $100,000 to be incurred for, or at, OWTP. This cost per AF, as determined pursuant to the preceding sentence, is added to the raw water rate, to determine the projected actual cost to OWD for the next succeeding Fiscal Year. Pursuant to the agreement, OWD may elect to pay its proportional share of costs to expand OWTP to meet its future treated water demands, estimated to be from 10 to 20 mgd. Any expansion would be subject to the City's discretion and the execution of a separate agreement. OWD has historically represented a small portion of the City's total water deliveries. In Fiscal Year 2018, OWD purchased 2.6 AF of potable water, which represents less than 0.001% of total deliveries for the Fiscal Year.

Recycled Water Customer Base. Recycled water (also referred to as reclaimed water) is produced from wastewater processed at water reclamation plants owned and operated by the City as part of the City's Wastewater System. Since 1997, the recycled water produced by the City has been carefully monitored by City and State health officials and water quality-control agencies to ensure that it meets all federal, State, and local water quality standards, including the safety standards applicable to water coming into human contact set forth under Title 22 of the California Code of Regulations, and is suitable for irrigation, industrial, and other non-potable uses. The City has three recycled wholesale customers. The City began billing OWD and the Olivenhain Municipal Water District for recycled water in Fiscal Year 2007. The City also provides recycled water to the City of Poway under the terms of an agreement entered into in 1998. The City has 728 (723 retail and 5 wholesale) Recycled Water System connections. For Fiscal Year 2018, retail and wholesale recycled water customers accounted for approximately 2.7% of the revenues from total sales of water.

Existing Water System Facilities

The Water System consists of nine raw water storage reservoirs, three water treatment plants, 29 treated water storage facilities, and approximately 3,300 miles of water transmission and distribution

lines. Water is transported from the treatment plants through the transmission and distribution system to supply approximately 281,000 metered service connections. The Water System includes 129 pressure zones that are gravity supplied, pressure reduced via 384 pressure regulating stations, or pressure boosted via 49 water-pumping stations.

Raw Water Reservoirs. The City has nine reservoirs with a total capacity of 569,021 AF, of which, the City has rights to 376,042 AF of total storage (the remaining 192,979 AF of capacity belonging to CWA and other local water agencies). As of June 30, 2018, the City has 154,090 AF of water in storage, or 41% of total City storage capacity of 376,042 AF. The following table outlines each of the nine reservoirs' total capacity, City owned capacity, and current City storage. See "Reservoir Storage Rights" immediately following this table.

TABLE 5
RAW WATER RESERVOIRS
(As of June 30, 2018)
(Amounts in AF)

Reservoir	Total Storage Capacity (A)	City Storage Capacity (B)	Current City Storage Levels (C)	Current City Storage Levels to City Storage Capacity (C/B)	Current City Storage Levels to Total Storage Capacity (C/A)
Barrett	34,806	34,806	11,742	34%	34%
El Capitan[1]	112,807	102,807	24,724	24	22
Lake Hodges[1]	30,633	5,317	6,126[3]	115	20
Lake Murray	4,684	4,684	4,045	86	86
Lower Otay	49,849	49,849	32,053	64	64
Miramar	6,682	6,682	5,521	83	83
Morena	50,694	50,694	3,645	7	7
San Vicente[1]	249,358	91,695	53,181	58	21
Sutherland	29,508	29,508	13,053	44	44
Total	**569,021[2]**	**376,042**	**154,090**	**41%**	**27%**

(1) The El Capitan, Lake Hodges, and San Vicente Reservoirs have shared storage rights with other Agencies and Water Districts.
(2) Figure includes approximately 2% - 5% of total amount of water in storage that is inaccessible due to reservoir outlets being abandoned, blind flagged, or silted.
(3) Reflects the temporary storage of water in excess of City contracted capacity; overage is expected to be drawn down.
Source: Public Utilities Department, City of San Diego.

The Lower Otay Reservoir, Barrett Reservoir and Morena Reservoir (135,349 AF combined total capacity) service OWTP in south San Diego; the El Capitan Reservoir, San Vicente Reservoir, Sutherland Reservoir and Lake Murray Reservoir (396,357 AF combined total capacity) service the Alvarado Water Treatment Plant (the "AWTP") in central San Diego; and the Miramar Reservoir (6,682 AF total capacity) services the Miramar Water Treatment Plant (the "MWTP") in north San Diego. Lake Hodges Reservoir can service all three City water treatment plants, and San Vicente Reservoir can also service OWTP and MWTP via CWA aqueduct facilities.

According to City Council policy, the City shall have approximately 7.2 months of the annual (rolling 12 months) requirement of the City's demand available in primary water storage facilities. For Fiscal Year 2019 the requirement ranges from approximately 100,000 to 123,000 AF. This water is to be used during emergencies, in the event of substantial disruption or interruption of imported water service. The City has maintained, and continues to maintain, amounts at or above the requirement.

Reservoir Storage Rights. The City has executed agreements with various water districts and CWA to provide for storage capacity rights at the Lake Hodges Reservoir, San Vicente Reservoir, and the El Capitan Reservoir.

The City's infrastructure for connecting certain of the reservoirs stems in part from the Emergency Storage Project ("ESP") begun by CWA in 1998 to increase local storage and provide a more flexible conveyance system and water reliability to the region. See "WATER SUPPLY – Current Water Supply." The ESP is a system of reservoirs, pipelines and other facilities that connect existing sources of water in San Diego County. The ESP culminated with the completion of the San Vicente Reservoir ("SVR") Dam Raise project in September 2014, which resulted in CWA owning all 157,663 AF of new reservoir capacity while the City retained the original capacity of 91,695 AF. The City maintains rights to all impounded runoff water into San Vicente Reservoir. CWA purchases imported water to fill its capacity in San Vicente Reservoir and is responsible for its share of evaporation and seepage.

CWA's expansion of the SVR and construction of the San Vicente Pipeline ("SVP") and Pump Station ("SVPS"), the Lake Hodges Pipeline and Pump Station, and the Olivenhain Pump Station, together with the City's arrangement with CWA in connection therewith, results in, among other things, the City attaining a larger inlet/outlet facility that allows for more than double the prior rates of inflow and outflow from SVR and the extension of the useful life of the original dam at least 100 years through 2114. In addition, the City continues to receive funding from CWA for a proportionate share of all future costs for operation, maintenance, rehabilitation and replacement of SVR, including the cost of water lost to evaporation and seepage.

In September 2014, an agreement was reached among the City, CWA and the Santa Fe Irrigation District and the San Dieguito Water District (the "SFSD Districts") which established new storage rights allocations in Lake Hodges and requires the SFSD Districts to contribute to their proportionate share of all future costs for operation, maintenance, rehabilitation and replacement expenses in Lake Hodges. The Department operates the reservoir to maximize local water use and typically drafts its full share, often leaving the City's balance near zero. Finally, pursuant to an agreement between the City and Helix Water District ("Helix"), Helix can have in storage up to 10,000 AF of water in El Capitan Reservoir as captured from runoff and water transfers from Cuyamaca Reservoir.

Water Treatment Plants. The Department maintains and operates three water treatment plants with a combined rated capacity of 378 mgd through which potable water is supplied. Supplemental treated supplies from CWA are used to help operate the distribution system reliably and efficiently. While all three plants have been upgraded, only the Alvarado Plant has been permitted to its new rated capacity. The Miramar and Otay plants, although substantially complete, require some additional improvements, studies and certification from the SWRCB's Division of Drinking Water ("DDW") before they can be rated as such. The increased capacity will improve the City's ability to treat raw water, thereby further reducing the need to purchase treated water, while providing capacity for customer growth. Of the total of approximately 154,600 AF of water purchased from CWA during Fiscal Year 2018, approximately 18,460 AF was treated water.

Alvarado Water Treatment Plant (AWTP). The AWTP was originally constructed in 1951. Several hydraulic improvements constructed in the mid-1970's and additional upgrades completed recently increased the plant's rated capacity from 120 mgd to 200 mgd. The AWTP is located next to Lake Murray Reservoir near Interstate 8 and serves the Central City area from National City to the San Diego River.

Miramar Water Treatment Plant (MWTP). The MWTP was originally constructed in 1962 and has a current rated capacity of 144 mgd. The MWTP is located next to Miramar Reservoir off

Interstate 15. The MWTP provides drinking water to an estimated 500,000 people in the general area north of the San Diego River. To address future demands, the various upgrades to the MWTP, with some additional improvements and supporting studies will enable the City to increase the MWTP's capacity to 215 mgd, upon the approval of the DDW. The current rated capacity meets the current demand. Expansion of the raw water aqueducts by CWA has provided the MWTP access to water from San Vicente and Lake Hodges Reservoirs.

Otay Water Treatment Plant (OWTP). OWTP started operations in 1914 with a 15 mgd capacity. In 1971, the City upgraded OWTP with the addition of a clarifier and eight self-backwashing pressure filters. Subsequent improvements to the plant began in 1981 with the replacement of the pressure filters with eight gravity filters and a new operations building. In 1989, OWTP was upgraded to its current configuration and, after major renovations and process improvements, the plant's capacity increased to 34 mgd. OWTP provides water to the southern part of the City of San Diego and water purveyors servicing southern San Diego County. Consideration is being given to upgrading OWTP's rated capacity to 40 mgd. Further studies and additional upgrades may be required to reach the higher rated capacity.

The following table summarizes the capacity and demands of the three Water Treatment Plants.

TABLE 6
CAPACITY AND DEMAND OF WATER SYSTEM WATER TREATMENT PLANTS
(In mgd)
As of June 30, 2018

Water Treatment Plant	Original Design Capacity	Current Rated Capacity	Future Rated Capacity[1]	Current Average Demand[2]	Current Peak/Max Demand[2]
Alvarado	66	200	200	74.86	98.30
Miramar	100	144	215	58.88	92.47
Otay	40	34[3]	40	16.00	26.68
Total	**206**	**378**	**455**	**149.75**	**217.45[4]**

(1) The Otay and Miramar plants require additional improvements, and/or further studies, followed by approval by the DDW to reach their Future Rated Capacity. Additional improvements include the $38 million Miramar Clearwell Project expected to be complete by Fiscal Year 2021.

(2) Current Demand data calculated for Fiscal Year 2018.

(3) The Otay plant is not permitted to operate at its originally designed capacity. Among other things, certain improvements would be necessary to satisfy permitting requirements.

(4) Total is not intended to reflect the aggregate peak/maximum demand supported by all water treatment plants, because such plants do not all reach the peak/maximum demand simultaneously.

Source: Public Utilities Department, City of San Diego.

Treated Water Storage Facilities. The Department maintains and operates 29 treated water storage facilities, including steel tanks, standpipes, concrete tanks, and rectangular concrete reservoirs. These water storage facilities are used to regulate system pressure, provide peaking and emergency supply, and provide level control of pump stations. Capacities vary for these facilities from less than 0.5 million gallons to 35 million gallons and in the aggregate hold a daily total of approximately 280 million gallons.

Delivery System. The Water System consists of approximately 3,300 miles of transmission and distribution pipelines, including transmission lines up to 84 inches in diameter and distribution lines as small as four inches in diameter. Transmission lines are pipelines with larger diameters that convey raw water to the water treatment plants and convey treated water from the water treatment plants to the treated

water storage facilities. Distribution lines are pipelines with smaller diameters that directly service the retail users connected to a meter.

The Department also maintains and operates 49 water pump stations that deliver treated water from the water treatment plants to over 281,000 metered service connections in over 129 different pressure zones. In addition, the Department maintains several emergency connections to and from neighboring water agencies, including the Santa Fe Irrigation District, the Poway Municipal Water District, Cal-American, the Sweetwater Authority ("SWA") and the OWD.

As of June 30, 2018, the City's average daily water use for Fiscal Year 2018, including Del Mar and Cal-American deliveries, was approximately 166 mgd, with peak day demands as high as 218 mgd. These amounts are significantly lower than the recent past due to the unprecedented amount of conservation achieved by the citizens of San Diego brought on by the extended drought. The City's three Water Treatment Plants provided 150 mgd, or 89.7%, of average demand and 217 mgd, or 99.5%, of peak demand. Due to current operational limitations with respect to the distribution system, City average and peak daily water demands are met with a combination of Department-treated water and treated water supplied by CWA primarily through four metered treated water connections.

Utility Costs

The Water System is supplied with gas and electricity by San Diego Gas & Electric Company ("SDG&E"). Although SDG&E's electric rates have increased slightly more than 9% per year since 2014, the Department's overall gas and electric expenses have remained consistent at approximately 1.5% of total operating expenditures. Based on the Fiscal Year 2019 Adopted Budget, such expenditures are budgeted at approximately 1.5% of the total operating budget.

WATER SUPPLY

Certain of the information set forth under this caption has been obtained from publicly available sources other than the City, which the City and the Authority have no reason to believe is not accurate, including, without limitation, CWA's Official Statement, dated June 7, 2016, relating to its Subordinate Lien Water Revenue Refunding Bonds, Series 2016S-1, CWA's Continuing Disclosure Report for fiscal year ended June 30, 2017, reports to CWA's Imported Water Committee, MWD's Official Statement, dated June 5, 2018, relating to its Subordinate Water Revenue Refunding Bonds, 2018 Series A and Subordinate Water Revenue Bonds, 2018 Series B, and the CAFRs and other public financial documents of CWA and MWD. Such information necessarily represents abbreviated and summarized forms of such other sources of information. Such information is not guaranteed by the City or the Authority as to its accuracy or completeness and no representation is made as to the sufficiency of such information for all purposes or the absence of material adverse changes in such information subsequent to the date of the respective publicly available source document. In addition, CWA and MWD each periodically files their respective official statements and disclosure reports with the MSRB in connection with their respective publicly offered bonds. Such official statements and disclosure reports contain, among other things, information on CWA, CWA's water supply and CWA's rates and charges and MWD, MWD's water supply and MWD's rates and charges. Such official statements and disclosure reports are available from the MSRB but are not incorporated by reference herein and none of CWA, MWD or the Underwriters assume any responsibility for the completeness or accuracy thereof. Neither CWA nor MWD has participated in the preparation of this Official Statement. Neither CWA nor MWD is obligated in any manner for the payment of principal of or interest on the 2018 Bonds and neither has provided or will provide any certifications regarding this Official Statement, nor has CWA or MWD made any undertaking for the benefit of the owners and beneficial owners of the 2018 Bonds to file any information with the MSRB.

Current Water Supply

The Water System typically receives approximately 85-90% of its water supply from water provided by CWA, with the balance coming from local runoff, non-potable recycled water and groundwater. As a wholesaling entity, CWA has no retail customers, but serves only its member agencies. CWA's current largest supply source is imported water primarily from the Colorado River. Most of CWA's imported water has historically been purchased from MWD, although CWA's percentage share of water purchases from MWD has been declining. MWD obtains its water supply from two primary sources: the Colorado River and the State Water Project.

CWA also imports proprietary, high-priority Colorado River water supplies directly. These supplies consist of up to 200,000 AFY of conserved agricultural water transferred from the Imperial Irrigation District ("IID"), and an additional 80,000 AFY of conserved water made available through the lining of the Coachella Canal and the All-American Canal. These imported water sources were made available to CWA beginning in 2003 pursuant to the terms of the herein described Quantification Settlement Agreement (the "QSA") and supplies are transported to CWA via MWD's aqueduct pursuant to an exchange agreement for a negotiated wheeling rate that has been disputed by CWA in continuing litigation. The QSA established a slow ramping up of deliveries from IID to CWA, starting with an initial delivery of 10,000 AF in 2003 and culminating with 200,000 AFY beginning in 2021. See "– San Diego County Water Authority – Additional Allocations of Colorado River Water."

Additionally, pursuant to a long-term Water Purchase Agreement between CWA and Poseidon Water, a water project development company, CWA will purchase 48,000 to 56,000 AFY of desalinated seawater from the Carlsbad Desalination Project ("Carlsbad Project"). The Carlsbad Project, which opened on December 14, 2015, further diversifies the region's portfolio with new drought-proof water supplies. Together with the conservation achieved as a result of the 2015-16 emergency conservation regulations, MWD supplies are expected to represent 19% or less of the regional supply portfolio by 2025.

During Calendar Year 2017, out of a total of 411,000 AF of CWA supplies, approximately 181,000 AF (44%) was received from MWD while approximately 180,000 AF came from CWA's conserved water purchases from IID and the canal linings projects undertaken pursuant to the QSA (44%). The remainder of CWA supplies were received from the Carlsbad Project (7%) and previously purchased supplies taken from storage reservoirs (5%). As the water transfers from IID increase to a total of 200,000 AF by 2021 and with the development of local supplies at the retail water supplier level (such as the Pure Water Program), the amount of water purchased from MWD will continue to be reduced as will its percentage of total CWA supplies.

The following table sets forth the City's local water production and CWA supplied water for Fiscal Years 2014 through 2018.

TABLE 7
WATER SUPPLIES FOR THE CITY OF SAN DIEGO
Fiscal Years 2014 through 2018
(In AF)

Fiscal Year	Local Supplies	CWA Water Supplies	Total
2014[1]	38,623	171,253	209,876
2015[2]	7,181	184,493	191,674
2016	16,738	147,490	164,228
2017	18,387	153,496	171,883
2018	29,468	152,193	181,661

(1) 14,770 AF of local supplies was water purchased from CWA, and placed into storage resulting in a net of 23,853 AF of local supply being used.

(2) The 7,181 AF of local supply was purchased earlier in the year from CWA, put into storage, then drafted later in the year to satisfy demand.

Source: San Diego County Water Authority Comprehensive Annual Financial Reports for Fiscal Years 2014 through 2018.

The MWD Act provides a preferential right for the purchase of water by each of its constituent agencies, which includes CWA. This preferential right is calculated using a formula that has been the subject of litigation. Based on the formula, which was revised subsequent to the litigation, CWA has a statutory preferential right to approximately 24.22% of MWD's total supply as of June 30, 2018. CWA estimates that with an MWD reliable supply of 1.75 million acre feet CWA would have access to 423,850 acre feet, which is in excess of CWA's projected needs for reliable supplies in the event of shortages. CWA's official planning forecast of purchases of future MWD water is between 193,000 and 265,000 in 2025 and may be as low as 10,000 AF in 2035, depending upon the amount of future local supply implementation by CWA's member agencies. MWD has represented to CWA that it will provide reliable water supplies notwithstanding preferential rights.

In addition to its efforts to diversify water supply sources, CWA has been increasing local storage of freshwater supplies through the ESP. See "WATER SYSTEM SERVICE AREA AND FACILITIES – Existing Water System Facilities – Reservoir Storage Rights." Completed in 2014, CWA raised the dam at the City's San Vicente reservoir by 117 feet to expand storage at the reservoir by more than 157,000 AF. Despite drought conditions, CWA filled its portion of the reservoir's capacity, in large part due to the success of its long-term supply diversification strategy. See "WATER SYSTEM SERVICE AREA AND FACILITIES – Existing Water System Facilities – Raw Water Reservoirs." The ESP also provided for the construction (in 2003) of additional storage at the Olivenhain reservoir (24,000 AF of emergency storage) and CWA executed an out-of-region groundwater basin storage rights agreement with the Semitropic Water Storage District, one of the largest groundwater banking systems in the world. CWA has storage rights at Semitropic's Original Water Bank (OWB – 30,000 AF) and Semitropic-Rosamond Water Bank Authority (Bank Authority – 40,000 AF). Currently, CWA has 16,117 AF of water stored in the OWB and no water stored in the Bank Authority. Additionally, MWD completed construction of the Diamond Valley Lake reservoir in 1999, providing an additional 810,000 AF of regional storage. The combined increase of water storage in the region along with supply diversification strategies at both the local and regional levels has contributed to much greater water supply reliability in the San Diego region than would have otherwise been possible.

Wholesale Water Rates

CWA charges a volumetric rate that includes both a commodity rate and a transportation rate, both of which have been increasing, as indicated in the table below.

TABLE 8
CWA WATER SUPPLY RATES[1]
Calendar Years 2015 through 2019
(Per AF)

	Municipal & Industrial (M&I) Rates		
Calendar Year	**Untreated**	**Treated**	**Transportation Rate**
2015	$764	$1,042	$101
2016	780	1,060	105
2017	855	1,145	110
2018	894	1,194	115
2019	909	1,185	120

(1) Rates shown are for volumetric charges only and do not include the additional fixed charges displayed in the following table.
Source: San Diego County Water Authority Board Meeting Documents.

In addition to the volumetric charges the City pays for imported water, both CWA and MWD also levy fixed charges on their member agencies. The following table demonstrates the fixed charges, which are component costs of imported water, paid, or to be paid, by the City to CWA and MWD, between calendar years 2015 and 2019.

TABLE 9
MWD AND CWA FIXED WATER SUPPLY COSTS
Calendar Years 2015 through 2019
($ Amounts in Thousands)

Calendar Year	2015	2016	2017	2018	2019
MWD Fixed Charges					
Capacity Reservation	$ 3,912	$ 4,338	$ 3,058	$ 3,330	$ 2,759
Readiness-to-Serve Charge[1]	10,720	9,346	7,910	6,965	6,384
CWA Fixed Charges					
Customer Service	10,170	9,781	9,867	9,928	9,952
Storage Charge	26,730	25,768	26,704	26,714	27,456
Infrastructure Access Charge	13,131	13,173	13,764	14,147	14,190
Supply Reliability Charge[2]	--	10,798	10,313	11,808	12,516
In Lieu Tax Payment[1]	1,898	2,000	2,096	2,238	2,386
Total Fixed Charges	**$ 66,561**	**$ 75,204**	**$ 73,712**	**$ 75,130**	**$ 75,643**

(1) Fiscal Year charge.
(2) A new fixed charge approved by the CWA Board and Member Agencies, designed to increase the fixed portion of CWA's water sales revenues to address their commitments to "Take or Pay" agreements for IID transfers and desalination minimum purchases. This charge acts as a revenue offset to CWA's volumetric charges, *i.e.*, it mitigates the volumetric charge increases, so that the total CWA revenue collected from rates is revenue neutral.
Source: San Diego County Water Authority Board Meeting Documents and Public Utilities Department, City of San Diego.

San Diego County Water Authority

CWA was organized on June 9, 1944, under the County Water Authority Act (the "CWA Act"). The primary mission of CWA is to provide its member agencies with a safe and reliable supply of imported water for domestic, municipal and agricultural uses. Pursuant to the CWA Act, CWA is authorized to acquire water and water rights within or outside the State and to develop, store, and transport such water for beneficial uses and purposes and to provide, sell and deliver water of CWA not needed or required for beneficial purposes of its member agencies to areas outside the boundaries of CWA. The CWA Act also authorizes CWA to exercise the power of eminent domain; to levy and collect taxes; to fix, prescribe, and collect rates or other charges for the delivery of water, use of facilities or property or provisions for service; and to fix in each Fiscal Year a water standby availability charge on land within the boundaries of CWA to which water is made available by CWA.

CWA's 24 member agencies deliver water to approximately 97% of San Diego County's 3.34 million residents throughout a service area that encompasses approximately 951,000 acres (1,486 square miles), covering the foothills and coastal areas of the westerly third of San Diego County. The City represents the largest land area (approximately 22%), the largest population (approximately 42%), and for Fiscal Year 2017 the highest assessed property value (approximately 49%) within CWA's service area. When CWA was established in 1944, its service area consisted of 94,707 acres. Growth has primarily resulted from the addition and annexation of additional service areas by member agencies.

The decision-making body of CWA is its 36-member Board of Directors. Each of the 24 member agencies of CWA has at least one representative on the CWA Board of Directors. Member agencies may appoint one additional representative for each additional 5% of total assessed value of property taxable by CWA within the public agency's boundaries. As a result, the City is entitled to representation by 10 directors (with 48.89% of the assessed property values), with one of those positions historically reserved for the Director of the Department or City Manager.

Under the CWA Act, a member agency's vote is based on its "total financial contribution" to CWA since CWA's organization in 1944. Total financial contribution includes all amounts paid in taxes, assessments, fees, and charges to or on behalf of CWA or MWD. The CWA Act authorizes each CWA Board of Directors member to cast one vote for each $5,000,000, or major fractional part thereof, of the total financial contribution paid by the member agency. Based on this formula, the City is entitled to 39.81% of the total vote as of January 1, 2018. For comparison, the Helix Water District has the second highest voting entitlement, with 6.78% of the vote as of January 1, 2018. It is the City's policy that at full CWA Board meetings, the City's delegates cast a block vote, meaning that all of the City's voting power supports the vote of the majority of its ten delegates.

Additional Allocations of Colorado River Water. Under applicable laws, agreements and treaties governing the use of water from the Colorado River, California is entitled to use 4.4 million AF of Colorado River water annually. The QSA was enacted in October 2003 to provide the State the means to implement water transfers and supply programs that will allow the State to live within the 4.4 million AF basic annual apportionment of Colorado River water. The QSA and its related water transfers and other agreements were signed by the United States Secretary of the Interior and representatives of various Indian tribes, the United States Bureau of Reclamation, the Coachella Valley Water District, the IID, MWD, and CWA. The QSA outlined how the State would reduce its overuse of Colorado River water over a fifteen-year period, however California has not taken any surplus water supplies since 2003, living within its 4.4 million AFY allocation. The QSA establishes Colorado River water use limits for IID, Coachella Valley Water District ("CVWD"), and MWD, provides for specific acquisitions of conserved water and water supply arrangements, for up to 75 years for the CWA/IID water transfer and other transfers, and 110 years for the canal lining water, and allows MWD to take surplus water pursuant to the

terms of Interim Surplus Guidelines that determine when surplus water is available for California, Arizona and Nevada. CWA's Colorado River Program manages the implementation of CWA's agreements under the QSA, including the water transfer agreement with the IID and the concrete lining of portions of the All-American and Coachella Canals. Under the QSA, CWA projects that it will receive 44% of its water supply from the water transfer and canal lining projects in Calendar Year 2017. Starting in 2018, the 100,000 AFY of IID transfers are scheduled to ramp up to 200,000 AFY by 2021. Based on CWA's 2015 UWMP (as herein defined) normal year resources mix, extrapolated to 2021 by taking the incremental difference between 2015 and 2020 and calculating an annual increase in demand in order to use the full QSA supplies capacity as a percentage of 2021 demand, it is projected that combined with the canal lining supplies, total QSA deliveries to CWA will provide 280,000 AFY by 2021, which would represent over 45% of CWA's projected total demand for its service area.

Pursuant to the QSA and its related agreements, CWA will be able to purchase up to 200,000 AFY of conserved water from IID beginning in 2021. The QSA provides that water saved through conservation measures in Imperial Valley will be transferred to CWA. This water is highly reliable because it comes from the IID's Colorado River Water Priority 3 allocation. See the table entitled "Priorities under the 1931 California Seven-Party Agreement" under "– The Metropolitan Water District of Southern California" below. These priorities are higher than MWD's fourth priority allocation of 550,000 AFY. This means that water will likely remain available for transfer even during drought periods. Implementation of the water transfer began in calendar year 2003 with a transfer of 10,000 AF of water. The quantities of water transferred will increase according to an agreed-upon delivery schedule, ultimately providing up to 200,000 AF of water in calendar year 2021. This amount will continue to be transferred between 2021 and as late as 2077. In calendar year 2019, CWA is projected to purchase 160,000 AF from the IID as part of the ramped-up schedule of deliveries.

Also pursuant to the QSA, CWA receives approximately 80,000 AFY of water conserved as a result of recently completed construction projects lining portions of the previously earthen All-American and Coachella Canals. The All-American Canal Lining Project yields approximately 56,200 AF of Colorado River water transfers per year to CWA and the Coachella Canal Lining Project yields approximately 21,500 AFY to CWA. The canal lining projects will reduce the loss of water that occurred through seepage and that conserved water will be delivered to CWA. The Coachella Canal Lining Project was completed in December 2006. The All-American Canal Lining Project began construction in June 2007 and was completed in April 2010, when its full yield of 67,700 AFY was made available to project beneficiaries. The IID has certain limited call rights to a portion of the conserved water, but exercise of call rights would extend the term of the deliveries to CWA. The cost of the canal lining projects was in large part paid by State funds.

Drought Contingency Plan. A drought on the Colorado River has created the possibility of the declaration of a water shortage by the U.S. Department of the Interior. See "WATER SUPPLY – The Metropolitan Water District of Southern California – Development of Lower Basin Drought Contingency Plan." If an "official shortage" is declared that is severe enough to require allocation reductions to IID, CWA would be required, under the CWA/IID water transfer agreement, to take a pro-rata reduction to its water transfer supplies. CWA's QSA supplies, however, will likely be insulated from the impacts of such a shortage because (1) Arizona and Nevada would experience cutbacks before California and (2) should California experience cutbacks, CWA's QSA supplies would benefit from IID's high priority status within California (See the Table below, entitled "Priorities Under the 1931 California Seven-Party Agreement").

The Drought Contingency Plan (the "DCP") described herein provides incentives for water to be left in storage in Lake Mead under what is known as Intentionally Created Surplus ("ICS") to reduce the probability of reaching critical water levels in Lake Mead that would lead to severe reductions to

Colorado River water deliveries. California parties reportedly intend to make DCP contributions through the conversion of existing ICS to DCP ICS. See "WATER SUPPLY – The Metropolitan Water District of Southern California – Development of Lower Basin Drought Contingency Plan." CWA currently lacks a designated storage account to use in making such DCP contributions, but is eligible to participate in the ICS program for up to 280,000 AFY in accordance with agreements with the Secretary of the Interior. CWA is seeking to establish a subaccount through MWD in order to have a mechanism through which to participate in the ICS program. It is expected that CWA would use such a subaccount to store at least some of its QSA supplies in Lake Mead, thereby eliminating the need to transport QSA supplies via MWD and at least temporarily reduce wheeling costs.

Salton Sea. Environmental impacts of QSA water transfers have been mitigated since 2003, with the QSA joint powers authority spending more than $130 million to date on such efforts. The majority of funds have been spent on mitigation water to the Salton Sea to offset salinity and elevation impacts from QSA water transfers under the assumption that on-farm water conservation would result in lower tail-water return flows to the Salton Sea. In accordance with various agreements and permits, mitigation water was a requirement for the first 15 years of QSA water transfers until ending as scheduled in December 2017. It is expected that CWA will seek assurances that the LBDCP (as herein described and defined) will delineate between any environmental impacts to the Salton Sea resulting from QSA water transfers and any impacts resulting from additional programs in connection with the LBDCP.

CWA Action on Supply Costs. On June 11, 2010, CWA filed a complaint, *San Diego County Water Authority v. The Metropolitan Water District of Southern California et al*, alleging that the rates adopted by MWD's Board of Directors on April 13, 2010, misallocate State Water Contract costs to the System Access Rate and the System Power Rate, and thus to charges for transportation of water, and that this results in an overcharge to CWA by at least $24.5 million per year. The complaint also challenged the legality of MWD's Water Stewardship Rate, which funds water conservation and local water supply development programs, as applied to transportation costs, and the constitutionality of MWD's Rate Structure Integrity ("RSI") clause. The RSI clause was incorporated into water conservation and local water supply incentive agreements and required termination of funding under those programs if a party to the contract initiated litigation challenging MWD water rates. MWD utilized the RSI clause in 2011 when it denied CWA and its member agencies access to funding under these programs. CWA subsequently filed lawsuits, containing substantially similar allegations, in 2012, 2014, and 2016, each challenging the validity of MWD's rates and charges effective for the following two calendar years. The 2016 complaint also challenged the legality of MWD's Water Stewardship Rate as applied to all its full service customers and not only in its application to transportation.

In April 2014, San Francisco Superior Court Judge Curtis E.A. Karnow issued a final Statement of Decision in Phase 1 of CWA's legal challenge to rates set by MWD. Judge Karnow ruled that MWD's rates for 2011, 2012, 2013 and 2014 violate the cost of service requirements of California's Constitution, statutes, and common law. Specifically, Judge Karnow determined MWD's rates violate: Proposition 26 (2013-14 rates only); the State wheeling statute: Government Code Section 549997(a); and, common law rules that apply to rate-making. In August 2015, Judge Karnow issued a final Statement of Decision in Phase 2 of the litigation awarding CWA $188,295,602, plus interest, as damages and also determining that CWA is awarded greater preferential rights to MWD water. MWD and its other member agencies filed a notice of appeal of the trial court decision and the California Court of Appeals issued a final ruling on June 21, 2017.

The Court of Appeal upheld the trial court on several substantive issues including CWA's challenge to the Water Stewardship Rate and RSI clause but reversed the trial court on the issue of allocating State Water Project costs to the cost of transportation. On July 31, 2017, CWA filed a petition for review with the California Supreme Court. The California Supreme Court denied the petition on

September 27, 2017. As a result of the decision by the Court of Appeal, CWA member agencies are eligible for conservation and local supply programs funded by MWD and the Water Stewardship Rate while MWD is not charging the Water Stewardship Rate to CWA's QSA supplies for Calendar Years 2019 and 2020. Certain matters are still pending in each of the lawsuits, which have been remanded to the San Francisco Superior Court.

For detailed information on CWA's rate litigation, visit: http://www.sdcwa.org/MWDrate-challenge; provided that nothing contained in such website is incorporated into this Official Statement.

Local supply and storage programs. Both MWD and CWA have encouraged the development of additional water supply projects such as water recycling and groundwater projects by their member agencies. MWD offers incentives of up to $340* per AF for up to 25 years for recycled water and desalinated groundwater and seawater produced and beneficially reused within MWD's service territory through its Local Resources Program ("LRP"). CWA provides similar incentives through its Local Water Supply Development ("LWSD"). The purpose of the LRP and LWSD Programs is to promote the development of cost-effective local supply projects that prevent or reduce the demand for imported water and improve regional water supply reliability. The Programs reimburse member agencies for all or a portion of the difference between the actual per AF cost of producing local supplies, and the revenue generated by the participant through the sale of that AF of recycled water. The City's existing water recycling projects receive incentives from both MWD and CWA programs with contract terms expiring in 2023. CWA stopped accepting new applications for the LWSD program in 2009.

In Fiscal Year 2016, local supplies from recycled water, brackish groundwater recovery and seawater desalination (excluding savings achieved through water conservation) accounted for approximately 16% of the southern California region's water supply portfolio. MWD's LRP incentive continues to be an attractive option for future water supply projects such as the Pure Water Program. In December 2017, the City submitted an application for LRP funding to MWD via CWA for its Pure Water Program Phase 1 project. It is anticipated that MWD staff will present the City's LRP application for authorization by the MWD Board of Directors in Fiscal Year 2019, the timing of which may depend on the outcome of the current CWA rate litigation against MWD and related settlement discussions.

In 2013 (and published March 2014), CWA updated its 2003 Regional Water Facilities Master Plan, which updated anticipated regional demands according to the 20x2020 conservation framework and acknowledged that the next increment of regional water supplies, after the completion of the regional seawater desalination project at Carlsbad, is anticipated to be from potable reuse projects sponsored by its member agencies - primarily the Pure Water Program. As such, CWA's Master Plan identifies no new regional water supply projects until after 2025. However, a pilot seawater desalination project is authorized at the Pendleton Marine Base in the short term to study operational issues associated with subsurface intake of seawater.

The Metropolitan Water District of Southern California

General. CWA is a member agency of MWD. MWD was created in 1928, under authority of the Metropolitan Water District Act (California Statutes 1927, Chapter 429, as reenacted in 1969 as Chapter 209, as amended) (the "MWD Act"). MWD's primary purpose is to provide wholesale imported water to its member agencies. The MWD service area comprises approximately 5,200 square miles and includes portions of the six counties of Los Angeles, Orange, Riverside, San Bernardino, San Diego and Ventura.

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* MWD's LRP incentive amount was increased from $250 to $340 per AF produced in October 2014 for new projects.

There are 26 member agencies of MWD, consisting of 14 cities, 11 municipal water districts and CWA. A Board of Directors, currently numbering 38 members, governs MWD. Each member agency has at least one representative on the MWD Board of Directors. Representation and voting rights are based upon the assessed valuation of property within each member agency. CWA has four members on the MWD Board of Directors and its voting entitlement is 17.48% as of August 15, 2017. Population projections prepared by the Southern California Association of Governments ("SCAG") in 2012 and SANDAG in 2013, as part of their planning process to update regional transportation and land use plans, show expected population growth of about 18% in MWD's service area between 2010 and 2035.

The water supply for MWD's service area is provided in part by MWD and in part by non-MWD sources available to members. Approximately 45% of the water supply for MWD's service area is imported water received by MWD from the Colorado River Aqueduct ("CRA") and the State Water Project. The balance of supplies to Southern California are provided by a variety of locally owned sources. CWA also imports water through the CRA as part of its QSA-related agreements and the City of Los Angeles imports water from the eastern watershed of the Sierra Mountains through the Los Angeles Aqueduct. The balance of water within the region is produced locally, primarily from groundwater supplies, water recycling, and surface runoff.

MWD's member agencies are not required to purchase or use any of the water available from MWD. Some agencies depend on MWD to supply nearly all of their water needs, regardless of the weather. Other agencies, with local surface water reservoirs or aqueducts that capture rain or snowfall, rely on MWD more in dry years than in years with heavy rainfall, while others, with ample groundwater supplies, purchase MWD water only to supplement local supplies and to recharge groundwater basins. The demand for supplemental supplies provided by MWD is dependent on water use at the retail consumer level and the amount of locally supplied and conserved water. Consumer demand and locally supplied water vary from year to year, resulting in variability in water sales. Future reliance on MWD supplies will be dependent, among other things, on local projects and the amount of water, if any, that may be derived from sources other than MWD. In recent years, supplies and demands have been affected by drought, water use restrictions, economic conditions, weather conditions and environmental laws, regulations and judicial decisions.

Historically, CWA has been the largest purchaser of water from MWD, however this is changing as CWA and its member agencies develop proprietary water supplies. In the fiscal year ended June 30, 2017, estimated water purchases, exchanges, and wheeling revenues from CWA represented approximately 19.5% of MWD's total water revenues. In addition, under an exchange agreement, MWD transported about 208,000 AF of CWA's independently obtained Colorado River water to CWA. See the information under the heading "San Diego County Water Authority" above for a discussion of CWA's QSA supplies.

MWD accrued approximately 1.54 million AF in total water transactions for the fiscal year ended June 30, 2017. MWD faces a number of challenges in providing adequate, reliable and high quality supplemental water supplies for Southern California. The City has observed the following, among other factors: (1) population growth within MWD's service area; (2) external competition for MWD's imported water supplies; (3) variable weather conditions, exacerbated by climate change; and (4) increased environmental and other regulations.

Supply deficiencies can occur during periods of drought. MWD'S long-term planning guidelines and strategy are set forth in its Integrated Water Resources Plan and its on-going resource and water supplies management approach is set forth in its Water Surplus and Drought Management Plan ("WSDM"). In times of prolonged or severe shortages, MWD manages its water supplies through implementation of its Water Supply Allocation Plan ("WSAP"), which provides a formula for equitable

distribution of available water supplies in case of extreme water shortages within MWD's service area and has been implemented three times since its adoption in 2008. Most recently, the MWD Board declared a Water Supply Condition 3 on April 14, 2015, and implemented the WSAP at a Level 3 Regional Shortage Level, effective July 1, 2015 through June 30, 2016. Implementation of the WSAP at a Level 3 Regional Shortage Level, and response to the Governor's Order (as herein defined) and related implementing regulations, reduced supplies delivered by MWD to its member agencies to approximately 1.6 million AF in Fiscal Year 2015-16. See "– CWA and MWD Actions in Response to Drought Conditions" below. Due to improved hydrologic conditions, on May 10, 2016, the MWD Board rescinded the WSAP, declared a Condition 2 Water Supply Alert, and decided not to implement the Water Supply Allocation Plan for Fiscal Year 2016-17. In April 2017, the MWD Board declared a Condition 1 Water Supply Watch, reflecting the continued improvement of hydrologic conditions and a forecasted record return of water to MWD's storage reserves. Based upon current hydrologic conditions and current SWP allocation estimates, MWD does not anticipate implementing the WSAP for Fiscal Year 2018-19 at this time.

Colorado River. The Colorado River was MWD's original source of water after MWD's establishment in 1928. MWD has a legal entitlement to receive water from the Colorado River under a permanent service contract with the Secretary of the Interior, resulting from an agreement dated August 18, 1931, among Palo Verde Irrigation District, Imperial Irrigation District, Coachella Valley County Water District, MWD, the City of Los Angeles, the City of San Diego and the County of San Diego. This and subsequent agreements establish respective water rights priorities among users. Water from the Colorado River and its tributaries is also available to other users in California, as well as users in the states of Arizona, Colorado, Nevada, New Mexico, Utah, and Wyoming (the "Colorado River Basin States"), resulting in both competition and the need for cooperation among these holders of Colorado River entitlements.

The CRA, which is owned and operated by MWD, transports water from the Colorado River approximately 242 miles from Lake Havasu to its terminus at Lake Mathews in Riverside County. Up to 1.25 million AFY may be conveyed through the CRA to MWD's member agencies, subject to availability of Colorado River water for delivery as described below.

Under applicable laws, agreements and treaties governing the use of water from the Colorado River, California is entitled to use 4.4 million AF of Colorado River water annually, plus one-half of any surplus that may be available for use collectively in Arizona, California, and Nevada as declared on an annual basis by the United States Secretary of the Interior.

In addition, under a 1944 treaty, Mexico has an allotment of 1.5 million AF of Colorado River water annually that may be curtailed under certain conditions or increased by 200,000 AF if water is available in excess of the requirements in the United States.

PRIORITIES UNDER THE 1931 CALIFORNIA SEVEN-PARTY AGREEMENT[1]

Priority	Description	Acre-Feet Annually
1	Palo Verde Irrigation District gross area of 104,500 acres of land in the Palo Verde Valley	
2	Yuma Project in California not exceeding a gross area of 25,000 acres in California	
3(a)	Imperial Irrigation District and other lands in Imperial and Coachella Valleys [2] to be served by All-American Canal	3,850,000
3(b)	Palo Verde Irrigation District – 16,000 acres of land on the Lower Palo Verde Mesa	
4	Metropolitan Water District of Southern California for use on the coastal plain	550,000
	SUBTOTAL	**4,400,000**
5(a)	Metropolitan Water District of Southern California for use on the coastal plain	550,000
5(b)	Metropolitan Water District of Southern California for use on the coastal plain [3]	112,000
6(a)	Imperial Irrigation District and other lands in Imperial and Coachella Valleys to be served by the All-American Canal	
6(b)	Palo Verde Irrigation District – 16,000 acres of land on the Lower Palo Verde Mesa	300,000
	TOTAL	**5,362,000**
7	Agricultural use in the Colorado River Basin in California	Remaining surplus

(1) Agreement dated August 18, 1931, among Palo Verde Irrigation District, Imperial Irrigation District, Coachella Valley County Water District, MWD, the City of Los Angeles, the City and the County of San Diego. These priorities were memorialized in the agencies' respective water delivery contracts with the Secretary of the Interior.

(2) The Coachella Valley Water District serves Coachella Valley.

(3) In 1946, the City, CWA, MWD and the Secretary of the Interior entered into a contract that merged and added the City and the County of San Diego's rights to storage and delivery of Colorado River water to the rights of MWD.

Source: MWD.

MWD holds the fourth priority right of 550,000 AFY and a fifth priority right of 662,000 AFY (after priority rights to 3,850,000 AF held by Palo Verde Irrigation District, Yuma Project in California, Imperial Irrigation District and the All-American Canal, and Palo Verde Irrigation District). MWD's fourth priority right is within California's basic annual apportionment of 4.4 million AF; however, the fifth priority right is outside of this entitlement and therefore is not considered a firm supply of water. Until 2003, MWD had been able to take full advantage of its fifth priority right as a result of the availability of surplus water and water apportioned to Arizona and Nevada that was not needed by those states. However, during the 1990's Arizona and Nevada increased their use of water from the Colorado River, and by 2002 no unused apportionment was available for California. In addition, severe drought in the Colorado River Basin reduced storage in system reservoirs, ending the availability of surplus deliveries to MWD. Prior to 2003, MWD could divert over 1.25 million AF in any year. Average annual net deliveries for 2008 through 2017 were approximately 959,000 AF, with annual volumes dependent primarily on programs to augment supplies, including transfers of conserved water from agriculture.

MWD has taken steps to augment its share of Colorado River water through agreements with other agencies that have rights to use such water. Under a 1988 water conservation agreement (as

amended, the "1988 Conservation Agreement") between MWD and the IID, MWD provided funding for IID to construct and operate a number of conservation projects that have conserved up to 109,460 AF of water per year that has been provided to MWD. In 2017, 105,000 AF of conserved water was made available by IID to MWD. In August 2004, MWD and the Palo Verde Irrigation District ("PVID") entered an agreement for a Land Management, Crop Rotation and Water Supply Program (the "PVID Program"), under which participating landowners in the PVID service area are compensated for reducing water use, which in turn makes available to MWD up to 133,000 AF of water in certain years. MWD participates in a number of projects related to the Intentionally Created Surplus ("ICS") program, which allows the Colorado River Basin States to store conserved water in Lake Mead.

Colorado River Operations, Shortage, and Surplus Guidelines. The Secretary of the Interior is vested with the responsibility of managing the mainstream waters of the lower Colorado River pursuant to federal law. Each year, the Secretary of the Interior is required to declare the Colorado River water supply availability conditions for the Colorado River Basin States in terms of "normal," "surplus" or "shortage" and has adopted operations criteria in the form of guidelines to determine the availability of surplus or potential shortage allocations among the Colorado River Basin States and reservoir operations for such conditions.

Under the Interim Surplus Guidelines, established by the Secretary of the Interior (as amended, the "Interim Surplus Guidelines") and extending through 2016, MWD initially expected to divert up to 1.25 million AF of Colorado River water annually from 2004 through 2016. However, an extended drought in the Colorado River Basin reduced these initial expectations. Subsequently, the Southern Nevada Water Authority ("SNWA") and MWD entered into an Agreement Relating to Implementation of Interim Colorado River Surplus Guidelines, in which SNWA and MWD agreed to the allocation of unused apportionment as provided in the Interim Surplus Guidelines and on the priority of SNWA for interstate banking of water in Arizona, and a storage and interstate release agreement under which SNWA can request that MWD store unused Nevada apportionment in California. In subsequent years, SNWA may request recovery of the stored water, which is currently 330,000 AF. However, MWD expects that SNWA will not request return of any of the stored water before 2022.

In November 2007, the Bureau of Reclamation issued a Final Environmental Impact Statement regarding new federal guidelines concerning the operation of the Colorado River system reservoirs, particularly during drought and low reservoir conditions. These guidelines, among other things, provide water release criteria from Lake Powell and water storage and water release criteria from Lake Mead during shortage and surplus conditions and provide a mechanism for the storage and delivery of conserved system and non-system water in Lake Mead. The Secretary of the Interior issued the final guidelines through a Record of Decision ("ROD"), which, together with the accompanying agreement among the Colorado River Basin States, protects reservoir levels by reducing deliveries during drought periods, encourages agencies to develop conservation programs and allows the Colorado River Basin States to develop and store new water supplies. The Colorado River Basin Project Act of 1968 insulates California from shortages in all but the most extreme hydrologic conditions. Consistent with these legal protections, under the guidelines, Arizona and Nevada are first subject to the initial annual shortages identified by the Secretary up to 500,000 AF.

The guidelines also created the ICS program, which allows the Colorado River Basin States to store conserved water in Lake Mead. Under this program, ICS water is eligible for storage in Lake Mead by MWD. The Secretary of the Interior delivers the stored ICS water to MWD in accordance with the terms of various delivery agreements between the United States and MWD. As of January 1, 2018, Metropolitan had an estimated 479,000 AF in its ICS accounts. These surplus accounts are made up of water conserved by fallowing in the Palo Verde Valley, projects implemented with IID in its service area, groundwater desalination, the Warren H. Brock Reservoir Project, the Yuma Desalting Plant pilot run,

and Intentionally Created Mexican Allocation converted to Binational ICS, which have not been delivered to the region.

Development of Lower Basin Drought Contingency Plan. CWA's Colorado River Board Representative stated in his October 2018 report to CWA's Imported Water Committee that, due to drought conditions in the Colorado River Basin, flows into Lake Powell fell to approximately one-third of average for the April-through-July period in 2018 and September's inflow was negligible. Federal officials have indicated that the U.S. Interior Department could declare a shortage in 2020. The Interim Surplus Guidelines governing current drought operations expire in 2026 and negotiations for the replacement guidelines are scheduled to begin in 2020.

Under existing legislation and guidelines, California does not face cutbacks due to its high priority rights in the Lower Basin (being the region comprised of those parts of the states of Arizona, California, Nevada, New Mexico, and Utah within and from which waters naturally drain into the Colorado River below Lees Ferry and all parts of these states that are not part of the Colorado River's drainage system but may benefit from water diverted from the Colorado River below Lees Ferry). Discussions amongst the Colorado River Basin States on a Drought Contingency Plan ("DCP"), an overlay to the Interim Surplus Guidelines, began in 2015 to help build elevation in Lake Mead and reduce the chance of a future shortage declaration through additional cutbacks, including to California. Each basin is working on its own DCP documents which will eventually culminate under an additional basin-wide agreement.

Lower Basin parties have formed working groups to resolve remaining issues and finalize numerous intra and interstate agreements and Lower Basin DCP by December 2018. In October 2018, a proposed Lower Basin DCP ("LBDCP") was announced in which California would reduce diversions earlier in a shortage than it would if the Lower Basin states strictly adhered to the water-rights reduction order under the applicable law, guidelines, and agreements regulating the use and management of the Colorado River. LBDCP components include DCP contribution amounts, rules for DCP ICS recovery, ICS flexibility, allowance for interstate banking during shortage years, and a commitment to protect or "backstop" elevation at 1,020 feet in Lake Mead.

Under the proposed DCP, Arizona and Nevada would continue to take the first reductions, which would be larger than outlined in 2007, and California would reduce its river diversions when Lake Mead levels reached 1,045 feet, which is earlier in the shortage than previously provided for, ranging between 200,000 to 350,000 AF depending on Lake Mead elevation. California's reductions are projected to represent a total contribution of 550,000 AF over the lifetime of the DCP through 2026 as determined by the United States Bureau of Reclamation's ("USBR") stress test hydrology modeling (average case) but could be as high as 1,750,000 AF (90th percentile case).

California parties reportedly intend to make DCP contributions through the conversion of existing ICS to DCP ICS. IID's cumulative cap for its share of California's DCP contributions would be 250,000 AF. IID has indicated it plans to cover this amount with existing stored ICS water in Lake Mead and MWD's storage system. In the event that the reductions exceed 250,000 AF, MWD has indicated that it would make the vast majority of additional DCP contributions on behalf of the California agencies. Additionally, the USBR would create 100,000 AF of system water annually. With the finalization of the LBDCP, the Binational Water Scarcity Contingency Plan ("BWSCP") under Minute 323 would also be triggered.

To incentivize additional conservation and storage in Lake Mead, the LBDCP would include greater flexibility for DCP ICS than the current rules for ICS outlined in the Interim Surplus Guidelines, including by increasing the maximum annual ICS creation volume for each Lower Basin state by 200,000

AFY, with sharing of the unused capacity amongst states extended from elevation 1,075 feet down to elevation 1,045 feet. The 1,020 feet "backstop" would be an agreed upon threshold in the LBDCP in which the Lower Basin parties would commit to "individual and collective actions" to prevent Lake Mead from declining below this level. Implementation would be established by the USBR's 24-month study projections. In any two successive years where Lake Mead's elevation is projected to be at or below 1,030 feet, the Lower Basin parties would agree to consult and determine which additional measures should be taken to prevent Lake Med from declining beyond the "backstop" of 1,020 feet.

Environmental Considerations. Several fish species and other wildlife species either directly or indirectly have the potential to affect Colorado River operations, thus changing power operations and the amount of water deliveries to the CRA. A number of species that are on either "endangered" or "threatened" lists under the Federal Endangered Species Act (the "Federal ESA") or the California Endangered Species Act (the "California ESA") are present in the area of the Lower Colorado River. To address this issue, a broad-based state/federal/tribal/private regional partnership, which includes water, hydroelectric power and wildlife management agencies in Arizona, California and Nevada, developed a multi-species conservation plan for the main stem of the Lower Colorado River (the Lower Colorado River Multi-Species Conservation Program or "MSCP"). The MSCP allows MWD to obtain federal and state permits for any incidental take of protected species resulting from current and future water and power operations of its Colorado River facilities and to minimize any uncertainty from additional listings of endangered species. The MSCP also covers operations of federal dams and power plants on the Colorado River.

Seismic Considerations. Portions of the CRA are located near earthquake faults, including the San Andreas Fault. The five pumping plants on the CRA have been buttressed to better withstand seismic events. Other components of the CRA are monitored for any necessary rehabilitation and repair. Supplies are dispersed throughout MWD's service area, and a six-month reserve supply of water normally held in local storage provides reasonable assurance of continuing water supplies during and following seismic events. MWD has developed an emergency plan that calls for specific levels of response appropriate to an earthquake's magnitude and location. However, no assurance can be made that a significant seismic event would not cause damage to project structures, which could thereby interrupt the supply of water from the CRA.

State Water Project. MWD's other major source of water is the SWP. The State-owned SWP is managed and operated by the DWR. The SWP transports Feather River water stored in, and released from Oroville Dam and unregulated flows diverted directly from the San Francisco Bay/Sacramento-San Joaquin Delta Estuary ("Bay-Delta") south via the California Aqueduct to four delivery points to MWD near the northern and eastern boundaries of MWD's service area. The total length of the California Aqueduct is 444 miles. MWD rights to SWP water are set forth in its State Water Contract (as amended, the "State Water Contract") with DWR. The State Water Contract, under a 100% allocation, would provide MWD 1,911,500 AFY. The 100% allocation is referred to as the contracted amount. The quantity of SWP water supply actually available for delivery each year is determined by both hydrology and operational considerations. Water supplies received from the SWP by MWD from 2004 through 2017, including its contracted water, water from water transfers, groundwater banking on the system and exchange programs, varied from a low of approximately 593,000 AF in calendar year 2015 to a high of approximately 1,800,000 AF in calendar year 2004. In calendar year 2017, DWR's allocation to MWD was 1,625,000 AF.

Upon expiration of the State Water Contract term (currently in 2035), MWD has the option to continue service under substantially the same terms and conditions. DWR and the SWP Contractors have signed an Agreement in Principle ("AIP") to extend the contract to 2085 and to make certain changes related to financial management of the SWP in the future. The AIP served as the "proposed project" for

purposes of environmental review under the California Environmental Quality Act (as amended, "CEQA"). DWR issued a Notice of Availability of the Draft Environmental Impact Report ("EIR") for the proposed project on August 17, 2016. The public review period ended October 17, 2016. State law requires DWR to make a presentation to the Legislature at an informational hearing at least 60 days prior to final approval of a State water supply contract extension. That hearing occurred on September 11, 2018. It is anticipated that DWR will certify the final EIR and issue its Notice of Determination.

Late each year, DWR announces an initial allocation estimate for the upcoming year, but may revise the estimate throughout the year if warranted by developing precipitation and water supply conditions. For example, in calendar year 2017, DWR's allocation to State Water Contractors was 85% of contracted amounts, or 1,625,000 AF, for MWD. For calendar year 2018, DWR's initial allocation estimate to SWP Contractors was announced on November 30, 2017, as 15% of contracted amounts, or 286,725 AF, for MWD. On January 29, 2018, DWR increased the allocation estimate to 20%. The allocation was increased again on April 24, 2018, to 30% and then again on May 21, 2018, to 35%. The current allocation estimate of 35% reflects recent precipitation, runoff, and existing storage in SWP conservation reservoirs, as well as other factors such as lower storage levels in Lake Oroville and federally mandated environmental restrictions imposed upon water deliveries from the Bay-Delta, including the biological opinions as discussed below. As in previous dry years, MWD may augment these deliveries using withdrawals from its storage programs along the SWP and through water transfer and exchange programs. In light of current water conditions in California and the estimated 2018 allocation, MWD expects that projected demands will roughly balance with available supplies.

Bay-Delta Regulatory and Planning Activities. In addition to being a source of water for diversion into the SWP, the Bay-Delta is the source of water for local agricultural, municipal and industrial needs, and also supports significant resident and anadromous fish and wildlife resources and important recreational uses of water. Both the SWP's upstream reservoir operations and its Bay-Delta diversions can at times affect these other uses of Bay-Delta water directly, or indirectly, through impacts on Bay-Delta water quality. A variety of proceedings and other activities are ongoing with the participation of various State and federal agencies, as well as California's environmental, urban and agricultural communities, in an effort to develop long-term, collectively-negotiated solutions to the environmental and water management issues concerning the Bay-Delta, and MWD actively participates in these proceedings. MWD cannot predict the ultimate outcome of any of the litigation or regulatory processes described below, but believes that a materially adverse impact on the operation of SWP pumps, MWD's SWP deliveries or MWD's water reserves could result.

The SWRCB is the agency responsible for setting water quality standards and administering water rights throughout California. SWRCB decisions can affect the availability of water to users of SWP water, including MWD. SWRCB exercises its regulatory authority over the Bay-Delta by means of public proceedings leading to regulations and decisions. These include the Bay/Delta Water Quality Control Plan ("WQCP"), which establishes the water quality standards and proposed flow regime of the estuary, and water rights decisions that assign responsibility for implementing the objectives of the WQCP to users throughout the system by adjusting their respective water rights permits. Since 2000, the SWRCB's Water Rights Decision 1641 ("D-1641") has governed the SWP's ability to export water from the Bay-Delta for delivery to MWD and other agencies receiving water from the SWP. See also "– State Water Project Operational Constraints" below.

In 2000, several State and federal agencies released the CALFED Bay Delta Programmatic Record of Decision ("CALFED ROD") and Environmental Impact Report/Environmental Impact Statement that outlined and disclosed the environmental impacts of a 30-year plan to improve the Bay-Delta's ecosystem, water supply reliability, water quality, and levee stability. The CALFED ROD

remains in effect and many of the State, federal, and local projects begun under the CALFED ROD continue.

In 2006, multiple State and federal resource agencies, water agencies, and other stakeholder groups entered into a planning agreement for the Bay-Delta Conservation Plan ("BDCP"). The BDCP was originally conceived as a comprehensive conservation strategy for the Bay-Delta designed to restore and protect ecosystem health, water supply, and water quality within a stable regulatory framework to be implemented over a 50-year time frame with corresponding long-term permit authorizations from fish and wildlife regulatory agencies. The BDCP includes both alternatives for new water conveyance infrastructure and extensive habitat restoration in the Bay-Delta.

In 2015, the State along with federal agencies proposed the "California WaterFix" and "California EcoRestore" as an alternative implementation strategy to the BDCP. California WaterFix is a stand-alone project intended to provide new conveyance facilities for the transportation of SWP and Central Valley Project water from the north Delta, principally from three new intakes through two 30-mile long tunnels running under the Delta, to the existing aqueduct systems in the south Delta. As originally conceived, California WaterFix would include only limited amounts of habitat restoration, generally only what is directly related to construction mitigation, and the associated costs of such mitigation which would be underwritten by the public water agencies participating in the California WaterFix project. Separately, under California EcoRestore, ecosystem improvements and habitat restoration more generally would be undertaken under a more phased approach than previously contemplated by the BDCP and would not be linked with the California WaterFix project or permits. Accelerated restoration actions totaling 30,000 acres of tidal marsh habitat were proposed to be undertaken in the coming decade to provide public benefits for listed fish in the Bay-Delta. Subsequent actions would be based on the proven merits of restoration. Depending on the manner of implementing the project, the benefits to MWD could be materially impacted.

The California WaterFix is expected to improve the reliability of Southern California's water delivery system by updating aging infrastructure. In addition to the more efficient and effective delivery of water supplies through the Delta, DWR has identified other benefits of the California WaterFix, including allowing for more operational flexibility to deliver water through the Delta, and enabling a more natural flow of rivers in the Delta to protect sensitive fish species. The California WaterFix would additionally help reduce the risks from a catastrophic seismic event in the Delta.

DWR estimates that it will take approximately 15 years to substantially complete the California WaterFix after commencement of construction. Completion of California WaterFix is subject to numerous lawsuits and other actions. In July 2017, DWR filed a validation action to legally establish its authority to issue revenue bonds to finance California WaterFix. More than a dozen public agencies and six environmental groups opposed the action. The project is subject to several lawsuits and additional lawsuits may be filed in the future. Additionally, on September 7, 2018, two organizations filed a reverse validation action alleging that the MWD Board's July 2018 authorization of funding for California WaterFix violated, among other things, State Constitutional restrictions on rates and property taxes and certain statutory limitations under MWD's enabling act. DWR has not yet commenced construction of the project. The outcome of the litigation cannot be known and could result in delays, cost increases, or cancellation of the project.

Based on DWR's preliminary estimates, the capital costs of the project will be approximately $17 billion (in 2017 dollars). In July 2018, MWD approved funding of up to 64.6%, approximately $10.8 billion, of the overall capital cost of the project. The MWD Board also approved three forms of financial support: (1) gap funding of the project in an amount up to $86 million, that is anticipated to be reimbursed with interest, (2) the incurrence of installment payment obligations to secure revenue bonds to be issued

by DWR, and (3) authorization to negotiate the acquisition of transfers of SWP water supplies in connection with the project and the acquisition of the remaining 33% unsubscribed capacity in the project from DWR. MWD has projected, based on a number of assumptions that may not comport with actual results, that the resulting impact upon overall water rates will be approximately 2.2% per year over the anticipated construction timeline, or a cumulative 33% after 15 years. The incremental projected costs associated with participation by MWD in the California WaterFix are estimated to increase MWD's long-term projected average 3.0% annual rate increases by approximately 1.1% to 4.1%.

Endangered Species Act Considerations. The listing of several fish species as threatened or endangered under the Federal ESA or the California ESA have adversely impacted SWP operations and limited the flexibility of SWP operations. Currently, five species (the winter-run and spring-run Chinook salmon, Delta smelt, North American green sturgeon and Central Valley steelhead) are listed under the ESAs. In addition, on June 25, 2009, the California Department of Fish and Game, now the California Department of Fish and Wildlife ("CDFW"), declared the longfin smelt a threatened species under the California ESA.

The Federal ESA requires that before any federal agency authorizes funds or carries out an action that may affect a listed species or designated critical habitat, it must consult with the appropriate federal fishery agency to determine whether the action would jeopardize the continued existence of any threatened or endangered species, or adversely modify habitat critical to the species' needs. The result of the consultation is known as a "biological opinion." In the biological opinion the federal fishery agency determines whether the action would cause jeopardy to a threatened or endangered species or adverse modification to critical habitat, and recommends reasonable and prudent alternatives or measures that would allow the action to proceed without causing jeopardy or adverse modification. The biological opinion also includes an "incidental take statement." The incidental take statement allows the action to go forward even though it will result in some level of "take," including harming or killing some members of the species, incidental to the agency action, provided that the agency action does not jeopardize the continued existence of any threatened or endangered species and complies with reasonable mitigation and minimization measures recommended by the federal fishery agency.

The United States Fish and Wildlife Service released a biological opinion on December 15, 2008 on the impacts of the SWP and the federal Central Valley Project on Delta smelt. On June 4, 2009, the National Marine Fisheries Service released a biological opinion for salmonid species. The water supply restrictions imposed by these biological opinions on Delta smelt and salmonid species have a range of impacts on MWD's deliveries from the SWP, depending on hydrologic conditions. The impact on total SWP deliveries to State Water Contractors attributable to the Delta smelt and salmonid species biological opinions combined is estimated to be one million acre-feet in an average year, reducing total SWP deliveries to State Water Contractors from approximately 3.3 million AF to approximately 2.3 million AF for the year under average hydrology. Reductions are estimated to range from 0.3 million AF during critically dry years to 1.3 million AF in above normal water years. Total SWP delivery impacts to MWD for calendar years 2008 through 2017 are estimated to be 2.1 million AF.

State Water Project Operational Constraints. DWR has altered the operations of the SWP to accommodate species of fish listed under the Federal ESA and California ESA. These changes in project operations have limited the flexibility of the SWP and adversely affected SWP deliveries to MWD. SWP operational requirements may be further modified in the future under new biological opinions for listed species under the Federal ESA or by the issuance by the California Department of Fish and Wildlife ("CDFW") of incidental take authorizations under the California ESA. Additionally, new litigation, listings of additional species or new regulatory requirements could further adversely affect SWP operations in the future by requiring additional export reductions, releases of additional water from storage or other operational changes impacting the water supply available for export. Such operational

constraints are likely to continue until long-term solutions to the problems in the Bay-Delta are identified and implemented. Neither the City nor CWA can predict the ultimate outcome of any of the litigation or regulatory processes described above but each believes they could have a materially adverse impact on the availability and cost of SWP and MWD water supplies.

Seismic Considerations. Major portions of the California Aqueduct are located parallel to and near the San Andreas and other faults. All major faults are crossed either by canal at ground level or by pipeline at very shallow depths to ease repair in case of damage from movement along a fault. SWP facilities are designed to withstand earthquakes without major damage. Dams, for example, are designed to accommodate movement along their foundations and to resist earthquake forces on their embankments. Earthquake loads have been taken into consideration in the design of project structures such as pumping and power plants. The location of check structures on the canal allows for hydraulic isolation of the fault-crossing repair. No assurance can be made that a significant seismic event would not cause damage to SWP structures and interrupt the water supply available from the SWP.

Additional MWD Water Supplies and Storage. MWD has a number of water transfer and storage and exchange programs with state, federal, public and private water districts and individuals in order to augment its imported water supplies. MWD has entered into groundwater basin storage agreements with the Arvin Edison Water Storage District and Semitropic Water Storage District, groundwater banking and exchange transfer agreements with the Kern Delta Water District, the Mojave Water Agency, and the Antelope Valley-East Kern Water Agency, and water exchange agreements with San Gabriel Valley Municipal Water District, CVWD and the Desert Water Agency. MWD has additional agreements with other SWP Contractors and water agencies to augment MWD supply.

In addition to making its imported water supplies available for annual consumptive uses, MWD also purchases and stores excess imported water in wet years for use in dry years. MWD reports that its storage capacity is approximately 6.04 million AF, which includes reservoirs, conjunctive use and other groundwater storage programs within its service area, and groundwater and surface storage programs along the SWP and CRA. MWD forecasts that, with anticipated supply reductions from the SWP due to pumping restrictions, it will need to draw down on storage in about seven of ten years and will be able to replenish storage in about three years out of ten. This reduction in available supplies extends the time required for storage to recover from drawdowns and could require MWD to implement its Water Supply Allocation Plan during extended dry periods. After several years of withdrawals from storage, MWD returned water to storage reserves in 2016 and 2017. As of January 1, 2018, MWD had 3.0 million AF in reserves. The actual withdrawal from storage will vary depending on supply conditions and member agencies' response to MWD's call to reduce demand.

CWA and MWD Actions in Response to Drought Conditions

Governor Brown declared a drought state of emergency in California on January 17, 2014, and issued an Executive Order ("Governor's Order") calling for a 25% reduction in consumer water use in response to the historically dry conditions throughout the State on April 1, 2015. The Governor's Order was implemented through an emergency regulation adopted by the SWRCB. The emergency regulation included specific conservation standards that took effect June 1, 2015, and required urban water suppliers to reduce usage through February 2016, as compared to the amount used in 2013. On May 18, 2016, the SWRCB adopted modifications to the emergency regulation which replaced the state-mandated conservation targets with a supply-based approach that mandates urban water supplies take actions to ensure at least a three-year supply of water to their customers under drought conditions. On April 7, 2017, Governor Brown lifted the drought state of emergency in most of California while maintaining water reporting requirements and prohibitions on wasteful practices.

As a wholesale water agency providing a supplemental water supply to its member agencies, MWD was not subject to the requirements of the Governor's Order, which applied to retail water agencies, however MWD's member retail agencies were required to comply with the Governor's Order and water sales declined as a result. To offset reductions in SWP supplies and mitigate the impacts of the drought, MWD met water demands by supplemental water transfers and purchases, drawing on storage reserves, and utilizing limited available supplies from the Colorado River and SWP deliveries.

As a wholesale agency itself, CWA was also not subject to the conservation mandate. However, CWA member retail agencies, including the City were required to reduce their potable urban demands by their specific percentage reduction during the months of June 2015 through February 2016 compared to the same months in 2013.

Since 2014, CWA has taken several actions in response to the drought conditions. A supply and demand analysis for fiscal year 2016, taking into account CWA's estimated available supplies, showed that investments made in the San Diego region for supply reliability projects and programs were able to mitigate the 15% shortfall from MWD. CWA's 20-year diversification strategy was successful in reducing water shortages from MWD due to drought.

In addition to recent regulations and other State actions in response to drought conditions, legislation approved in November 2009 sets a statewide conservation target for urban per capita water use of 20% reductions by 2020 (with credits for existing conservation) at the retail level, providing an additional catalyst for conservation by member agencies and retail suppliers. MWD's water sales projections incorporate an estimate of conservation savings that will reduce retail demands. Current projections include an estimate of additional water use efficiency savings that would result from local agencies reducing their per capita water use in response to the 20% by 2020 conservation savings goals required by recent legislation as well as an estimate of additional conservation that would have to occur to reach MWD's current Integrated Resources Plan goal of reducing overall regional per capita water use by 20% by 2020.

Pursuant to Governor Brown's Executive Order B37-16, new water management planning legislation (SB 606 and AB 1668) was developed and chartered into law in 2018 that establishes guidelines for efficient water use and a framework for the implementation and oversight of new standards expected to be in place by 2022. The two bills strengthen the state's water resiliency in the face of future droughts with provisions that include: establishing an indoor, per person water use goal of 55 gallons per day until 2025, 52.5 gallons from 2025 to 2030 and 50 gallons beginning in 2030, creating incentives for water suppliers to recycle water, requiring both urban and agricultural water suppliers to set annual water budgets and prepare for drought, and setting water use objectives for urban and commercial water suppliers. The new legislation also establishes urban water use objectives and water use reporting requirements, including a requirement that an urban water supplier must calculate an aggregate urban water use objective for the previous calendar year beginning November 2023. Urban water suppliers will also be required to establish urban water use objectives and reporting standards for indoor and outdoor residential and commercial use. Urban water suppliers will be required to submit an annual report to DWR including the urban water use objective and actual water use and the State legislature will hold oversight hearings with the SWRCB and DWR in 2026 to assess compliance.

Although MWD and CWA, as wholesale water agencies, are not required to comply with the water use requirements of the new conservation legislation, the City will be required to comply. Since outdoor water efficiency standards have yet to be established, the City has not calculated whether compliance will require additional water conservation by its customers and whether it will affect water sales revenue.

Locally, total precipitation in the San Diego region was below average for the water year beginning October 1, 2017. Annual rainfall, as measured at Lindbergh Field was at 30% of normal for water year 2018 as of July 31, 2018. However, because of increased rainfall in prior years, reservoir storage in the San Diego region was at 48% of capacity, or just over 355,651 AF as of July 31, 2018. CWA storage accounted for 158,904 AF of the total stored water in San Diego County in 6 different reservoirs.

Investments over the last 20 years to diversify water supply resources, and the regional commitment to conservation have greatly improved supply reliability for the San Diego region. For example, CWA's Colorado River transfers under the QSA increased to 180,256 AF in fiscal year 2014, and the transfer schedule will ramp up to 200,000 AF by 2021. The Carlsbad Desalination Project began commercial production in December 2015, and has the potential to produce up to 56,000 AFY of new drought-proof water supplies. Local retail agency existing and future water recycling and brackish groundwater recovery projects will continue to result in greater reliability and diversification of the region's water supplies and resilience against drought. CWA forecasts that existing local projects combined with implementation of future projects, like the City's Pure Water Program, will result in approximately 178,000 AF of highly reliable local supplies by 2035.

On March 10, 2016, SWRCB staff certified the supply of potable water from the Carlsbad Desalination Plant (the Carlsbad Project herein) as drought-resilient, which allowed each of CWA's member agencies to reduce its conservation standard by an amount up to 8%, but not beyond an 8% minimum conservation standard, with a retroactive application date of March 1, 2016.

City Water Conservation Efforts

The Water Conservation Program was established by the City Council in 1985 and promotes permanent water savings. These savings have been achieved by creating a water conservation ethic, adopting programs, policies, and ordinances designed to promote water conservation practices, and implementing comprehensive public information and education campaigns.

The Department utilizes a broad range of conservation methods, including public outreach, rebate incentives, residential and commercial surveys, use restrictions and enforcement. Over the past few years, City has offered rebate for installation of pressure reducing valves, grey water systems, rain barrels and turf conversion projects. The Department also encourages customers to participate in regional rebate programs to utilize non-city funding while achieving additional conservation. Water Conservation efforts also include free residential and commercial surveys. The surveys are offered to City water customers and provide an in-depth assessment of the customer's water fixtures and usage throughout the property.

The Department works closely with the City's Planning and Development Services Departments to incorporate water conservation requirements into the City's planning and permitting processes to ensure new communities and properties will have water-efficient landscapes. Changes in water conservation technologies may require periodic reassessment of long-range plans and water conservation programs to ensure that savings are realized.

The City continues to exceed the 2020 water use reduction mandate under State law due to the efforts mentioned above and the concerted effort of the public to conserve water.

City Planning and Resource Management

Strategic Plan and 2012 Long-Range Plan. The City has developed and continues to develop strategic plans for the Water System. A principal planning document is the City's 2012 Long-Range

Water Resources Plan ("2012 Long-Range Plan"), which was completed in December 2013. The 2012 Long Range Plan is the City's most recent update to its 1997 Strategic Plan for Water Supply (the "Strategic Plan"), which estimated water demand through 2035 and identified infrastructure requirements necessary to ensure that facilities were in place to store, treat, and distribute required supplies in an efficient and effective manner. The 2012 Long-Range Plan addresses population growth, water resource diversification, climate change and other issues affecting water reliability. The City has begun work on its 2020 Long-Range Water Resources Plan, which will update to the 2012 Long-Range Water Resources Plan. The 2012 Long-Range Plan was developed using an open, participatory planning process, with input from a dedicated 11-member stakeholder committee that represented a wide range of interests and backgrounds and who provided guidance and input on alternative strategies for meeting San Diego's water needs through 2035. The 2012 Long-Range Plan evaluates water supply and conservation options with consideration of multiple planning objectives. The 2012 Long-Range Plan uses the latest projections of water demands, imported water availability, and costs; and evaluates new supply opportunities. Due to heavy reliance on imported water, the plan examined the various risk elements associated with that supply. In addition to imported water concerns, the plan considered key issues regarding development of local water resources.

Due to its high-level and strategic nature, the water supply and conservation options proposed in 2012 Long-Range Plan are considered conceptual in nature. Because no single water supply option can meet all of the goals of the 2012 Long-Range Plan, a range of options were considered to form eight portfolios and diversify the approach to meet the objective of the plan. The eight portfolios were evaluated against more than 20 performance metrics such as water shortages and hydrologic variability. The portfolios were ranked in terms of their cumulative performance. Based on these rankings, and their climate change adaptation benefits, three portfolios consistently ranked highest. All three of the highest ranked portfolios included Potable Reuse (process of using treated wastewater for drinking water) as a common resource option, which is significant. Based on the 2012 Long-Range Plan findings, the following water supply strategies and additional actions were approved by the City Council for implementation to enhance the reliability of the City's water supply:

1. Water supply options to implement (until 2035)

   - Additional Active Conservation – 20,900 AFY (18.7 mgd)
   - Rainwater Harvesting – 420 AFY (0.38 mgd)
   - Groundwater Supply – up to 4,000 AFY (3.57 mgd)
   - Potable Reuse (3 phases) – 92,960 AFY (83 mgd)

2. Assess progress made on near-term implementation of options, and re-assess risk triggers concurrent with the City's Urban Water Management Plan schedule (2020, 2025, 2030, 2035, 2040).

3. Update the 2012 Long-Range Plan in 2020 (and every 10 years thereafter) in order to identify new trends, reliability of imported water, and additional resource options. Work on the 2020 Long-Range Water Resources Plan has begun.

2015 Urban Water Management Plan. The Department is required by the Urban Water Management Planning Act, California Water Code Sections 10610 through 10657, to prepare and adopt an Urban Water Management Plan ("UWMP") every five years. On June 20, 2016 the City Council adopted the 2015 Urban Water Management Plan ("2015 UWMP"). The City's 2015 UWMP describes

long-term resource planning responsibilities to ensure adequate water supplies are available to meet existing and future demands. In preparation of the 2015 UWMP, the Department coordinated with CWA and the local water agencies and cities to which the City sells untreated, potable or recycled water. The 2015 UWMP provides assessments for current demands; supplies over a 20-year planning horizon; and details contingency plans and drought response actions for various drought scenarios. The UWMP serves as the foundation document for Water Supply Assessments and Water Supply Verifications (SB 610/221).

In preparation for the City's 2020 Urban Water Management Plan (the "2020 UWMP"), the Department is coordinating with CWA for consistency of data and receiving regional supply options. The 2020 UWMP will assess current demands; supplies over a 20-year planning horizon; and details contingency plans and drought response actions for various drought scenarios. A draft of the 2020 UWMP is anticipated to be completed in July 2021.

Groundwater. The City has several groundwater basins within its jurisdiction, including San Pasqual Valley in the north; San Diego River System in the center of the City comprised of the Mission Valley Groundwater Basin ("Mission Valley Basin") and the El Monte/Santee Basin; the Tijuana River Valley Basin in the south next to the Mexican border; and the San Diego Coastal Plain, a large geological water bearing formation, underlying the southwestern portion of San Diego County along the coast, roughly sandwiched between Mission Valley Basin and the Tijuana River Valley Basin.

The groundwater from these basins is predominantly brackish. Improved technologies for processing brackish groundwater and severe drought have made using groundwater more attractive when discussing a foreseeable affordable water supply source. These groundwater supply sources are a viable alternative and are an important part of the City's planning and investigative efforts. Local water supply projects using groundwater will benefit City rate payers by alleviating any drought restrictions and allowing the City to locally control its water. The City is assessing the development potential of its groundwater basins.

In 2013, the City and SWA signed a settlement agreement which allows the City to receive up to 50% of any additional potable water produced at SWA's Richard A. Reynolds Desalination Facility. This provides the City with up to 2,600 AFY of potable water. As part of the settlement agreement, the City and SWA will be working together in the development of a groundwater sustainability plan ("GSP") to manage and control groundwater resources for long-term sustainability.

In 2014, Governor Brown signed into legislation the Sustainable Groundwater Management Act ("SGMA") to the California Water Code. The new law grants certain local public agencies the ability to become a Groundwater Sustainability Agency ("GSA") for their groundwater basin or a portion thereof, with broad authority to develop and implement GSPs. The law significantly increases the monitoring and reporting requirements for almost all groundwater users, with non-compliance subject to action by the local GSA and/or the SWRCB. The City is partnered with the County of San Diego on a GSA for San Pasqual Valley and is one of five participating agencies as a GSA for San Diego River Valley. The City has begun development of a GSP for each of the groundwater basins.

While the City is pursuing several groundwater projects, groundwater does not currently provide a significant source of water for the City.

Although all of the aforementioned water supply sources are important to the City's long range water supply goals, the City still relies and will for the foreseeable future, continue to rely heavily on CWA as its main supply source.

Recycled Water. The City has made significant capital investments in the recycled water program, which treats wastewater so that it can be used for purposes other than drinking water. Recycled water usage is seasonal and is primarily used for irrigation. Customers also use the water for dust suppression or soil compaction at construction sites, in cooling towers, ornamental fountains, and for office building toilet and urinal flushing (dual plumbing).

To date, approximately $413.3 million has been spent on two water reclamation plants (consisting of the North City Water Reclamation Plant (the "North City Plant") and the South Bay Water Reclamation Plant (the "South Bay Plant"), distribution systems and related facilities. Approximately $25 million of those costs were covered through State and federal grants.

The 1998 Regional Wastewater Disposal Agreement between the City and the Participating Agencies (the "Participating Agencies") of the Metropolitan Sewerage System ("Metro System") specified that the revenues from the sale of recycled water from the North City Plant should first be used to pay the cost of the distribution system borne by the Water Utility, then the tertiary treatment costs borne by the Metro System; and the agreement was silent on the revenue from sales from the South Bay Plant. The City and the Participating Agencies share South Bay Plant net revenues, *i.e.*, revenues net of operating and capital expenses incurred by the Water Utility Fund for the recycled water system. The Participating Agencies' share of the recycled water revenue from the South Bay Plant will be reflected as a revenue credit and received annually as part of the City's Exhibit E Audit. The Department estimates that the Participating Agencies' share of recycled water revenue will be approximately $1.1 million annually through Fiscal Year 2020.

North City Plant. In Fiscal Year 2018, the plant operated at an average flow rate of approximately 16 mgd. The North City Plant is producing an average of 7.5 mgd of recycled water that is distributed to users through the Northern Water Distribution System. The North City Plant also is capable of providing treatment beyond the tertiary level through the demineralization of a portion of the effluent, to reduce total dissolved solids ("TDS") to meet recycled water customers' needs. The North City Plant limits its production of recycled water to meet demand. Excess treated effluent is returned to the sewer system for conveyance to the Point Loma Plant and ocean outfall. In Fiscal Year 2018, approximately 8.5 mgd was returned to the sewer system.

As of June 30, 2018, the North City Plant produced recycled water that served 728 retail and four wholesale meters. Three of the wholesale meters serve the Olivenhain Municipal Water District and the remaining wholesale meter serves the City of Poway. Revenues from the sale of recycled water are collected by the Department for deposit in the Water Utility Fund and used to pay for the cost of the recycled water distribution system and then operations and maintenance costs for the distribution system.

South Bay Plant. The South Bay Plant includes a demineralization facility to reduce total dissolved solids ("TDS") for a portion of the recycled water to meet a contracted quality of 1,000 parts per million ("ppm") TDS. The Regional Water Board permit criteria for recycled water is 1,200 ppm TDS. The South Bay Plant has a permitted capacity of 15 mgd average daily flow. For Fiscal Year 2018 the plant operated at an average flow rate of approximately 7 mgd. The South Bay Plant produced an average of 3.7 mgd of recycled water that was distributed to one wholesale and three retail meters. The wholesale connection is contracted at City's retail rate and is subject to an annual take or pay minimum recycled water purchase.

Recycled Water Rates. In 2015, the City Council, in accordance with Proposition 218, approved a five Fiscal Year rate case for Fiscal Years 2016 through 2020 (the "2016 Rate Case"), of which the recycled rates were approved to rise to $1.734/HCF beginning January 1, 2016. The new city-wide rate is

in effect through Fiscal Year 2020, when it will be reevaluated via cost of service principles and could be adjusted again.

Pure Water Program

General. The Pure Water Program is the City's program to provide a safe, secure, and sustainable local drinking water supply for the City. Advanced water purification technology will be used to produce potable water from wastewater that has already been treated by traditional wastewater reclamation processes including chemical coagulation, biological treatment and filtration methodologies ("advanced primary treated water"). The City and its regional partners face significant issues with water supply and wastewater treatment. Typically, the Department has provided 85-90% of its customers' water needs from imported sources. The region's reliance on imported water causes the water supply to be vulnerable to impacts from shortages and susceptible to price increases beyond the control of the Department. As sources of local water supply are few, consideration has been given to both non-potable and potable reuse options for treated water. Water reuse has proven to be safe and reliable, and is currently in use in other communities in the United States and around the world.

The Pure Water Program is a significant water and wastewater capital improvement program that is expected, upon full implementation by the end of calendar year 2035, to create at least 83 mgd capacity of locally controlled water. The Pure Water Program is also expected to reduce flows into the Point Loma Wastewater Treatment Plant ("Point Loma Plant"), which would reduce total suspended solids discharged and recycle a valuable and limited resource that is currently discharged to the ocean. Phase 1 of the program is expected to produce up to 30 mgd of purified drinking water by the end of February 2024. See "WATER SYSTEM CAPITAL IMPROVEMENT PROGRAM – Description of Major Projects" and Table 11 under that heading. See, also "RISK FACTORS – Pure Water Program."

Background of Pure Water Program. In 2004, the City Council authorized a comprehensive evaluation of all viable options to maximize the usage of recycled water. In 2006, the City, working in partnership with an Independent Advisory Panel and a City Assembly on Water Reuse, published the "City of San Diego Water Reuse Study" (the "Water Reuse Study"). The Water Reuse Study included analysis and research on the health effects of reuse options and a public participation process. The Water Reuse Study's stakeholders identified reservoir augmentation as their preferred strategy. In 2007, the City Council also recognized such strategy as its preferred alternative and voted to accept the Water Reuse Study and proceed with the Water Purification Demonstration Project (the "Demonstration Project"), which evaluated the feasibility of turning recycled water produced at the North City Plant into drinkable water through the use of Advanced Water Purification ("AWP") technology. The Demonstration Project was completed in 2013. The City Council unanimously voted to accept the Demonstration Project and continue to pursue potable reuse options for the City. The Demonstration Project produces approximately 1 mgd of potable water and remains a valuable pilot site and public education center for the Pure Water Program.

Modified Permit. In 2010, the City received a renewal of the Modified Permit for the Point Loma Plant and agreed to identify opportunities to maximize recycling wastewater for potable and non-potable uses. That permit expired in July 2015 and was administratively continued while the regulatory agencies completed work on the renewal application. In 2017, the EPA, in conjunction with the California Regional Water Quality Control Board ("RWQCB"), issued the final approval renewing the Modified Permit ("5th Renewal") and a waiver from secondary treatment standards for another five years. The permit took effect October 1, 2017 and expires on September 30, 2022. The 5th Renewal was based on compliance with Clean Water Act requirements, progress of the Pure Water Program, and a reduction in permitted emissions from the previous permit level. The Pure Water Program is designed to reduce discharge into the ocean from the Point Loma Plant while providing a new local source of potable water

for the City. It is anticipated that continuation of the Pure Water Program can be reflected in future permits.

Pure Water Program Facilities. The Pure Water Program involves the planning, design, and construction of new advanced water treatment facilities, wastewater treatment facilities, pump stations, transmission lines and pipelines. The Pure Water Program will include property and easement acquisition, discretionary permitting, environmental mitigation, financing, facility startup, testing, maintenance and operation of new facilities, significant public education and community engagement.

The key Pure Water Program facilities can be categorized as treatment, storage, and conveyance. Treatment facilities for Phase 1 include a new North City Pure Water Program Facility and the expansion of the existing North City Plant. Future phases include the potential expansion of the South Bay Water Reclamation Plant, as well as proposed Central Area facilities that would include both reclamation and purified water facilities. Pump station and pipeline facilities are included for conveying different types of flows to and from the treatment facilities for: diverting wastewater flows to advanced water purification facilities; conveying purified water from treatment facilities to a reservoir; and transporting solid wastes from treatment processes to solids handling facilities. All projects will be planned and coordinated with existing operations, and in full compliance with applicable federal, State, and local regulations.

Phase 1 Pure Water Program.

The Phase 1 North City Area component of the Pure Water Program ("Phase 1") incorporates improvements to the City's Water and Wastewater Systems and is expected to produce 30 mgd of purified drinking water by the end of February 2024. The Phase 1 projects include: (1) the North City Plant Expansion and Influent Conveyance which expands the existing North City Plant's capacity from 30 mgd to 52 mgd to provide tertiary-treated water to the future advanced treatment facility with a 42.5-mgd pump station and 1,400 foot pipeline; (2) the new North City Pure Water Program Facility which will treat the tertiary-treated water to purified water standards using ozone and biological activated carbon filters, membrane filtrations, reverse osmosis, and ultraviolet light with advanced oxidation and includes chemical feed systems and an operations building; (3) a new 30-mgd North City Pure Water Program Pump Station, which will convey the purified water to the Miramar Reservoir; (4) a new 8-mile North City Pure Water Program Pipeline at the end of which the purified water will blend with the City's other water supplies and be treated at the adjacent Miramar Water Treatment Plant and distributed to customers; (5) the North City Morena Boulevard Pump Station and Pipeline, comprised of a 37.7 mgd pump station and 10.7 mile, 48-inch forcemain that will convey wastewater from the pump station to the North City Water Reclamation Plant for treatment and a new 10.7-mile pipeline to dispose of the brine generated from the North City Pure Water Program Facility to a new pump station so that it is not recirculated to the North City Plant; and (6) certain Miramar Water Treatment Plant and Miramar Reservoir Pump Station Improvements, which will continuously pump the raw water from the Miramar Reservoir to the Miramar Water Treatment Plant. Additionally, a new power generation facility is expected to be installed on site at the existing North City Water Reclamation Plant. The power generation facility is anticipated to be operational by Fiscal Year 2024 and will produce the majority of power needed for the North City Pure Water Program Facility and expanded North City Water Reclamation Plant. Power generation will be expanded at the North City Water Reclamation Plant and Metro Biosolids Center to generate electricity from captured landfill gas supplemented with natural gas. The project will also include a new landfill gas compressor station and pipeline. This new power generation facility is currently expected to be primarily financed and operated under a Public Private Partnership Agreement. Under the Public Private Partnership Agreement, the Department projects performance payments to the private party, which are included in the Pure Water Program-related maintenance and operation costs projections. The North City Plant Expansion and Influent Conveyance and the North City Morena

Boulevard Pump Station are joint projects of the Water and Wastewater Systems and the costs are allocated to both Water and Wastewater Systems, see cost estimates below for methodology.

In April 2018, the City Council unanimously certified the Phase 1 North City Final Environmental Impact Report and Environmental Impact Statement (the "Phase 1 EIR/EIS"), issued a Site Development Permit and approved two construction management contracts, clearing the way for the design and construction of the Pure Water Program Phase 1 North City Facilities. The Phase 1 EIR/EIS was prepared in accordance with the "CEQA" and the National Environmental Policy Act ("NEPA") to inform public agency decision-makers and the public on the environmental impacts that could result with the approval and implementation of Phase 1, identify possible ways to minimize significant impacts, and evaluate reasonable project alternatives. The Bureau of Reclamation has completed federal agency consultations and is currently routing the Record of Decision, which will complete the NEPA process.

On November 15, 2018, the City Council voted to authorize the bid, award, and execution of construction contracts for the Pure Water Program of up to $1.08 billion, to establish a $103 million contingency pool for Pure Water Program projects, to establish an Owner-Controlled Insurance Program ("OCIP") for Pure Water Program projects, and to negotiate a Reservation of Rights Agreement with SDG&E that provides initial funding to SDG&E to begin design and relocation of existing gas and electrical facilities. See "LITIGATION – SDG&E Dispute".

Based on 100% completed designs and an engineering and constructability review process, Phase 1 is estimated to cost approximately $1.477 billion, assuming an annual inflation rate of 3.1% in costs through the construction period. This amount includes work already completed, soft costs for planning, permitting, and program management, property acquisition costs, and construction costs. The amount also includes the provision of a 5% contingency for field order changes and an additional $103 million contingency pool that Pure Water Program projects can draw on if they experience cost overruns. The Department has determined that costs for the program will be allocated between the Water Utility and Sewer Revenue Funds of the Water System and Wastewater System, respectively, in the following way: all capital and operational costs related to facilities for the conveyance of wastewater and the treatment of the wastewater through secondary treatment would be borne by the Sewer Revenue Fund (including its customers and regional partners); all capital and operational costs related to treatment and conveyance of process water post the secondary phase will be borne by the Water Utility Fund. The Phase 1 North City of the Pure Water Program is anticipated to be operational by end of February 2024.

Based on the cost allocation between the Water and Wastewater Systems, approximately $865 million is allocated to the Water Utility Fund and approximately $612 million is allocated to the Sewer Revenue Fund (including its customers and Participating Agencies, which are required to pay their respective share of the Metropolitan Sub-System maintenance and operation and capital improvement program costs, currently approximately 33% of these total costs). Between both Water and Wastewater Systems, these costs include approximately $261 million in contractual services for program management, treatment process optimization, environmental reports, and design and construction support services. Program management includes schedule and budget control, change and risk management, public outreach support, and as-needed technical studies accounting for $46 million in contractual services. Treatment process optimization efforts have refined operational strategies and account for approximately $10 million of contractual service costs. Approximately $3 million in contractual services have been utilized in support of the preparation and approval of the Phase 1 North City environmental impact report. Further, design and construction support services contracts entered into to date account for $202 million. The program is expected to be funded with various funding sources available to the City. See "WATER SYSTEM CAPITAL IMPROVEMENT PROGRAM – Description of Major Projects" and Table 11 under that heading.

Water rates for Fiscal Year 2021 and beyond are not part of the 2016 Rate Case. Pure Water Program expenditures for the Water Utility Fund are rate dependent. The City anticipates that additional rate capacity will be necessary after Fiscal Year 2020. The City expects to perform a cost of service analysis to prepare a new rate case for recommended rate adjustments for the Water Utility Fund to address future capital program costs, maintenance and operation expenditures, and Pure Water Program capital expenditures.

Based on the project management consultant's projections, the Water System's first full year of annual operating costs associated with Phase 1, projected to begin in Fiscal Year 2024, are estimated at approximately $43 million. These costs will be offset by a decrease in the Department's need to purchase 33,600 AF of water each year, which, based on projected CWA rates, is expected to result in a decrease in expenditures of approximately $45 million annually beginning in Fiscal Year 2024.

Pure Water Program costs as described in this Official Statement are based upon the Department's current estimates. See "RISK FACTORS – Pure Water Program."

Future Pure Water Program Phases. The City continues to review and evaluate future phases of the Pure Water Program, including the methods to be employed to purify water and the locations of the purification facilities.

The City has taken a phased approach to the Pure Water Program's implementation, with full implementation expected by 2035. Phased implementation will allow the City to adapt to changing conditions, and in some cases, to update previous planning assumptions. The remaining 53 mgd of the total 83-mgd Pure Water Program goal were originally planned to be delivered by facilities located in the central and southern areas of the City. Master planning was originally performed in 2012 and is currently being revisited to account for changes in treatment technology, wastewater flows, water demands, and projections of both flows and demands. As part of the current Pure Water Program planning update, other alternatives, including the feasibility of producing all of the remaining 53 mgd in the Central Area (Phase 2), are being evaluated. Thus, the southern area facilities may or may not be utilized. The implementation of Phase 1 is not dependent on implementation of the future Pure Water Program phases.

Future City Water Demand

Table 10 below sets forth water demand projections as currently projected in the City's 2015 UWMP. Although the City continues to promote water conservation, the demand for water within the City's service area was projected to increase. As compared to projections included in the prior UWMP, the projected overall water demand decreased due to the City's conservation efforts, public education, drought response and mandatory water use restrictions. These projections are based on many assumptions that include population growth, weather patterns and economic development, which are subject to change. There can be no assurance that the local demand for the services provided by the Water System will be maintained at levels described below or elsewhere in this Official Statement. See "RISK FACTORS – Water System Demand."

TABLE 10
WATER DEMAND
AS OF THE 2015 URBAN WATER MANAGEMENT PLAN
Fiscal Years 2020 through 2040
(AFY)

2020	2025	2030	2035	2040
200,984	242,038	264,840	273,748	273,408

Source: 2015 Urban Water Management Plan, Public Utilities Department, City of San Diego.

Water System Regulatory Requirements

General. Drinking water that is delivered to customers is subject to numerous regulations enforced by multiple governmental entities, including the federal EPA, SWRCB and RWQCB. Such regulations include Title 22 of the California Code of Regulations and the Federal Safe Drinking Water Act (as amended, the "Safe Drinking Water Act"), which sets forth requirements and standards relating to the protection of drinking water and its sources against both naturally-occurring and man-made contaminants that may be found in drinking water. In addition, the transfer, treatment, storage and discharge of water are subject to additional regulations. These transfers and discharges are regulated under, among other things, the Federal Clean Water Act through National Pollutant Discharge Elimination System ("NPDES") permits issued by the SWRCB and the Porter Cologne Act under the California Water Code. The NPDES permits contain narrative and numeric effluent limitations, monitoring, reporting, and notification requirements for water discharges from the facilities and pipelines of the Water System.

Further, various other permits and licenses are required for operation of the water treatment plants, water impounding system, water quality lab and distribution system. Such permit requirements address issues such as surface water treatment, disinfection and disinfection byproducts rules, regulations governing groundwater to address waterborne disease and microbial contamination, and rules on the monitoring, reporting and treatment requirements of public water systems associated with lead and copper. Among other things, a Water Supply Permit from the DDW (the "Water Supply Permit") applies to operation of the Water System facilities and is required to be amended as changes occur within the Water System, including the capacity and process improvements at the water treatment plants.

The City currently meets all federal and State regulations applicable to drinking water and operates and maintains all water treatment transmission and distribution facilities in compliance with NPDES permit requirements. The City does not anticipate any problems with continued Water System operation under existing permits and licenses.

Compliance Order of the California Department of Public Health/DDW. The Water System is subject to a Compliance Order (as amended to date, the "DDW Compliance Order") issued by DDW (successor to the California Department of Public Health), which is the State regulatory agency responsible for ensuring that water systems meet the federal regulations, as well as additional or stricter State regulations. To address certain deficiencies in the future reliability of various components of the Water System, the DDW Compliance Order, issued in 1997, requires the Department to complete eight pump stations, 10 reservoirs/standpipes, nine treatment-related projects and four pipelines and award 10 miles of distribution (small diameter) cast iron water main replacement per Fiscal Year until all small diameter cast iron water mains within the Water System have been replaced. All of the required projects were completed in calendar 2012. The awarding of distribution pipelines is ongoing and the Department

expects to award the replacement of all remaining small diameter cast iron water mains by calendar year 2021, which will fulfill the final requirement of the DDW Compliance Order. The Department is meeting all other ongoing requirements of the DDW Compliance Order, including the provision to the DDW of quarterly progress reports.

The costs for bidding, constructing and completing the required work fluctuates depending on variables such as changes in the cost of materials and labor. The estimated DDW Compliance Order project costs for Fiscal Years 2019 through 2024 total approximately $56.9 million. The Department anticipates financing such costs with existing net assets, present and future revenues, and financing proceeds secured by System Revenues.

Dam Licensing and Safety Issues. Among the Water System's facilities are thirteen dams that are subject to the jurisdiction of the California Department of Water Resources' Division of Safety of Dams ("DSOD"), which has various inspection and approval authority relative to operation of and improvements to dams. Among the authority granted to DSOD is the power to impose water level restrictions on dams for safety reasons, which may restrict reservoir capacity. These water level restrictions apply to El Capitan Dam, one of the City's earth dams.

In addition, the California Office of Emergency Services has imposed requirements for the review and approval of inundation maps for dams, critical appurtenant structures, and enhanced dam inspection practices. As a result, the City developed a plan for a comprehensive condition assessment of four of the City's "extremely high" hazard dam appurtenant structures: Lake Hodges, Savage, Morena and El Capitan dams. The plan was reviewed and approved by the DSOD. The City is currently preparing 12 inundation studies and developing condition assessment reports to fulfill the DSOD's new requirements.

Proposed Regulations. Laws and regulations governing drinking water, surface water impoundments, groundwater, and discharges from drinking water systems continue to be developed and reviewed by federal, state and local regulators. Regulatory developments at the State and federal level, as well as new and ongoing permit reissuance activities, may increase operations costs and capital needs of the Water System and may have an effect on the Water System and its revenues. The City is actively monitoring the regulatory developments and cannot determine at this time how much increased costs will be associated with complying with the additional regulations. See "RISK FACTORS – Statutory and Regulatory Compliance."

WATER SYSTEM CAPITAL IMPROVEMENT PROGRAM

The Capital Improvement Program

The Water System CIP is established to address current and future system needs in a cost effective manner. The program's principal drivers are: improving infrastructure to reduce pipeline breaks and emergency repairs; improving process technology; expansion of the Water System to accommodate growth; compliance with the Federal Safe Drinking Water Act and the DDW Compliance Order; and implementation of the Pure Water Program. In November 2015, the City Council adopted rate increases for Fiscal Years 2016 through 2020 to pay for the increased cost of purchased water, revenue recovery due to the drought and the State mandated water use cuts, recovery of required debt service coverage levels, the initial phase of the Pure Water Program, and update and improvement of existing infrastructure. The infrastructure improvements consist of water treatment plants, pipelines, reservoirs and pump stations, projects related to anticipated growth within the City's service area, and projects required by or related to applicable State and federal regulations and orders. Additional rate increases are anticipated to complete these projects. See "WATER SYSTEM FINANCIAL OPERATIONS – Establishment of Water Service Charges."

Description of Major Projects

The Department has developed a comprehensive CIP to address current and future Water System needs. See Table 11 below. The CIP projects can be classified into one of eight categories as they relate to the Water System. The following is a brief description of the Water System CIP by categories.

The current cost estimate of CIP projects for the period from Fiscal Years 2019 through 2024, with inflation, is approximately $1.9 billion, and the cost estimates are subject to change. The budget for each project and program is established and approved by the City Council and adjustments to such budget requires approval of the City Council.

Pure Water Program. The Pure Water Program is the Department's program to provide a safe, secure, and sustainable local drinking water supply for San Diego. Advanced water purification technology will be used to produce potable water from advanced primary treated water. See "WATER SUPPLY – Pure Water Program" for additional information on the Pure Water Program. As projected, the expenditures for the Pure Water Program attributable to the Water Utility Fund represent the single largest component – $836 million, or 44% of the overall CIP for Fiscal Years 2019 through 2024. See Table 11 below. Of the $836 million in projected expenditures for the Pure Water Program, $820 million are projected to be expended in Fiscal Years 2019 through 2024 for Phase 1 (North City), $12 million in Fiscal Years 2020 through 2022 for the Central Area Demonstration Facility, and $4 million in Fiscal Year 2024 for Phase 2 (Central Facility).

Transmission Pipelines. Transmission pipelines are designed to transport water from the major supply sources (water treatment plants, pump stations and potable reservoirs) to supply the distribution grid. The CIP provides for the replacement of 16-inch and larger diameter water pipelines at various locations throughout the City, which are in a deteriorated condition or have reached the end of their service life. The Department is also assessing its transmission pipelines and is scheduling the replacement of these pipelines based on the condition of existing facilities, system needs and available funds.

Pipelines. The CIP includes the replacement of distribution water pipelines located throughout the City. Distribution pipelines are supplied by the transmission system and run throughout the City's street grid to supply the customer service connections. The Department plans the awarding of contracts for the replacement of 30 to 35 miles per fiscal year, which includes cast iron pipes mandated by the DDW Compliance Order and high priority asbestos cement pipes based on their high risk of failure and degraded condition.

Water Storage Facilities. The CIP includes projects that will replace and/or make improvements to the existing water outlet structures at Lower Otay and Morena reservoirs to comply with the DSOD seismic requirements as well as the construction of two new clearwells to increase the water storage capacity at the Miramar Water Treatment Plant.

Water Treatment Plants. The CIP provides for upgrades and improvement of the treatment facilities at Alvarado, Miramar, and OWTP.

Pump Stations. The CIP includes projects that will upgrade, rehabilitate and construct pump stations throughout the Water System to improve service reliability and to accommodate current and future water demands.

SDG&E Relocation Advance. The City and SDG&E are currently in dispute over the costs of utility relocations in connection with the Pure Water Program. Absent and until a resolution is reached, to

avoid project delays, the City has included projected costs to advance funding to SDG&E to relocate certain electricity transmission lines. See "LITIGATION – SDG&E Dispute."

Groundwater. The CIP provides for investigation work related to legal, technical, regulatory, and water quality issues; and for the planning, design, and construction of groundwater facilities to increase the local water supply. The groundwater feasibility projects being explored by the City are in San Pasqual, Mission Valley, San Diego Formation and the Santee-El Monte.

Miscellaneous. Other CIP projects include the Chollas building, water security projects at reservoirs and dams, solar projects at Bayview reservoir (a treated water storage tank) and MOC Complex facilities, pressure regulating station replacements, instrumentation and control upgrades at water facilities, and the AMI project (the Department's project to replace all existing meters with automated "Smart Meters" and its associated infrastructure) are contained within this category.

The following table shows categories of projects with the estimated cost of expenditures contained in the CIP for the period of Fiscal Years 2019 through 2024. Final CIP project costs will be refined as the CIP progresses. The budget for each project and program is established and approved by the City Council and adjustments to such budget requires approval of the City Council.

TABLE 11
SUMMARY OF PROJECTED CIP PROJECTS[(1)(2)(3)]
Fiscal Years 2019 through 2024
($ Amounts in Thousands)

	Projected						
Description	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**Total[(4)]**
Pure Water Program[(5)]	$30,124	$197,039	$281,514	$204,494	$106,025	$17,066	$ 836,262
Transmission Pipelines	46,669	67,240	55,731	62,327	63,744	42,322	338,034
Pipelines	71,917	64,344	71,344	36,846	33,823	46,364	324,638
Storage Facilities[(6)]	5,315	9,420	33,143	38,257	30,187	35,018	151,339
Water Treatment Plants	16,513	18,334	6,465	531	268	12	42,124
Pump Stations	15,381	7,507	2,746	8,556	7,905	9,095	51,189
SDG&E Relocation Advance[(7)]	26,835	48,172	0	0	0	0	75,007
Groundwater Projects	235	468	2,643	0	395	1,165	4,906
Recycled Water	175	0	0	0	0	0	175
Miscellaneous Projects[(8)]	27,547	33,610	10,637	2,940	7,981	5,915	88,630
Total[(4)]	**$240,710**	**$446,134**	**$464,223**	**$353,951**	**$250,328**	**$156,957**	**$1,912,304**

(1) Projections as of March 2018 for the Water System Baseline CIP and October 2018 for the Pure Water Program.

(2) Amounts reflect the aggregate costs of all CIP projects required to satisfy the DDW Compliance Order as well as projects related thereto or necessary for the operation thereof. It is the Department's expectation that the final awarding of cast iron distribution line replacement will be completed by Calendar Year 2021, thus fulfilling the requirements of the compliance order. For Fiscal Years 2019 through 2024, approximately 3% of the capital program is mandated by the DDW.

(3) The projected amounts in Fiscal Years 2019 and onward reflect an annual inflation rate of 3.1% due to anticipated increases in construction costs over time and the expected execution of the CIP.

(4) Figures may not add to total due to independent rounding.

(5) Projections are based on expected completion of the Pure Water Program Phase 1 by the end of February 2024 and include only the portion of the Pure Water Program attributable to the Water System.

(6) Storage Facilities include treated and untreated water reservoirs.

(7) Funding for the SDGE Relocation Advance in Fiscal Year 2019 will be provided by the Fiscal Year 2018 unallocated Fund Balance. See "LITIGATION – SDG&E Dispute."

(8) Miscellaneous Projects include water security projects, solar projects, and the AMI Program.

Source: Public Utilities Department, City of San Diego.

Capital Improvement Financing Plan

The Water System CIP includes the costs described in Table 11 above. Table 12 below sets forth the projected sources of funds for the Water System CIP for Fiscal Years 2019 through 2024.

As shown in Table 12, the City anticipates incurring approximately $821 million of additional Obligations in Fiscal Years 2019 through 2024 for Water System Baseline CIP (excluding the Pure Water Program), payments with respect to which will be senior to, or on parity with, the City's obligation to make 2018 Subordinated Installment Payments. This includes $65 million in net proceeds from the 2018 Bonds. Additionally, the City anticipates incurring $712 million of additional Obligations in Fiscal Years 2019 through 2024 for Pure Water Program CIP, payments with respect to which will be on parity with the City's obligation to make 2018 Subordinated Installment Payments, in each case subject to satisfaction of the conditions specified in the Master Installment Purchase Agreement, the proceeds of which will be provided to the City under the Master Installment Purchase Agreement to pay the costs of certain projects in the Water System CIP.

The City anticipates in Fiscal Years 2019 through 2024 to finance the costs of certain projects in the Water System Baseline CIP in the approximate amount of $229 million through SRF loans. This includes approximately $17 million from existing SRF loans for which the City has already applied and $212 million from loans for which the City plans to apply. These proceeds from additional SRF loans will provide funding in Fiscal Years 2019 through 2024. Such SRF loans are expected to be senior in right of payment to the City's obligation to make 2018 Subordinated Installment Payments.

The City anticipates financing approximately $592 million of the Water System Baseline CIP through a combination of revenue bonds and commercial paper. Such Obligations are expected to be senior to, or on parity with, the City's obligation to make 2018 Subordinated Installment Payments. It is expected that $12 million to $14 million in funding for the Water System Baseline CIP will come from capacity fees in Fiscal Years 2019 through 2024. Any remaining costs of the Water System Baseline CIP will be paid on a pay-as-you-go-basis, which are supported by currently approved water rates.

In addition to amounts available under the WIFIA Loan, the Department anticipates financing projects for Phase 1 of the Pure Water Program through revenue bonds, short term instruments such as commercial paper, State loans and grants, and cash. In June 2018, subsequent to the passage of Proposition 68, the "Parks, Environment, and Water Bond," the State allocated a $30 million grant for the Pure Water Program, which will be used to offset the costs attributable to the Water Utility Fund and the Sewer Revenue Fund, respectively. The Water Utility share is estimated at $17.4 million. This State funding allocation is available for encumbrance or expenditure through June 30, 2021. Water Utility Fund Obligations incurred to finance Phase 1 of the Pure Water Program are expected to be on parity with the City's obligation to make 2018 Subordinated Installment Payments. While the City has applied for State funding, there is no assurance that State funding will be available for Phase 1 of the Pure Water Program. See "WATER SYSTEM FINANCIAL OPERATIONS – Financial Projections and Modeling Assumptions." Notwithstanding any contributions from the Sewer Revenue Fund to finance Pure Water Program components of the Water System CIP, amounts from the Sewer Revenue Fund are not available to pay principal of and interest on the 2018 Bonds.

TABLE 12
PROJECTED SOURCES OF FUNDS FOR CAPITAL EXPENDITURES OF THE WATER SYSTEM CAPITAL IMPROVEMENT PROGRAM[1]
Fiscal Years 2019 through 2024
($ Amounts in Thousands)

	2019	2020	2021	2022	2023	2024	Total
Source of Funds for Pure Water Program CIP:							
WIFIA Loan[2]	$28,982	$170,722	$236,399	$161,872	$ 16,025	$ 0	$614,000
Cash[3]	1,142	26,317	45,115	42,622	4,967	4,086	124,249
Commercial Paper/Revenue bonds	0	0	0	0	85,033	12,980	98,013
Total Source of Funds for Pure Water Program CIP	**$30,124**	**$197,039**	**$281,514**	**$204,494**	**$106,025**	**$17,066**	**$836,262**
Source of Funds for Baseline CIP:							
Commercial Paper/Revenue Bonds	$148,506	$138,966	$111,623	$ 67,894	$ 50,000	$ 75,078	$ 592,067
SRF Loans[4]	14,690	53,990	54,828	59,220	38,741	7,348	228,817
Capacity Fees/Cash	47,390	56,139	16,258	22,343	55,562	57,465	255,157
Total Source of Funds for Baseline CIP	**$210,586**	**$249,095**	**$182,709**	**$149,457**	**$144,303**	**$139,891**	**$1,076,041**

(1) Projects are based on expected completion of the Pure Water Program by the end of February 2024.
(2) Assumes periodic draw on the WIFIA Loan. Instead of drawing on the WIFIA Loan, the City could also utilize bridge financing instruments (commercial paper notes and/or bond anticipation notes) for some or all of the construction expenses during this period. See "WATER SYSTEM FINANCIAL OPERATIONS – Anticipated Additional Obligations."
(3) Fiscal Year 2020 Cash amount includes $17.4 million in grant proceeds from the State.
(4) Includes proceeds from existing SRF loans (approximately $17 million), and additional proceeds through Fiscal Year 2024 (approximately $212 million) for SRF loans for which the City plans to apply.
Source: Public Utilities Department, City of San Diego.

Environmental Compliance

The projects contained in the Water System CIP are generally subject to CEQA. Under CEQA, a project which may have a significant effect on the environment and which is to be carried out or approved by a public agency must comply with a comprehensive environmental review process. This review process may require the preparation of an EIR, Mitigated Negative Declaration ("MND"), Negative Declaration (described below) or Notice of Exemption ("NOE") depending on the significance of project impacts on the environment. An EIR reflects not only an independent technical analysis of the project's potential impacts, but also may include comments from other agencies with some form of jurisdiction over the project and comments from interested members of the public. Contents of an EIR include a detailed statement of the project's potentially significant environmental effects; any such effects which cannot be avoided if the project is implemented; mitigation measures proposed to eliminate or minimize such effects; alternatives to the proposed project; and any significant irreversible environmental changes which would result from the project. If the City, as the lead agency, determines that the project itself will not have a significant effect on the environment, it may adopt a written statement (called a "Negative Declaration") to that effect and need not prepare an EIR. An MND is appropriate for projects that could potentially result in a significant environmental impact, but revisions or standard mitigation measures are incorporated into the project that clearly mitigate the impact. Statutory exemptions are activities that are exempt from CEQA. Water System CIP projects can also be exempted if they fit a specific "category" of activities identified by the State Legislature. Once an agency approves or determines to carry out a project, either following an EIR process or after adopting a Negative Declaration or an MND, it must file a NOD. If the NOD is filed within five days, any action or proceeding challenging the agency's determination must be brought within 30 days following the filing of such notice. If the NOD is filed after the five-day period, the statute of limitations for any challenges is 180 days.

As part of its regular planning and budgetary process, the City prepares separate environmental documents for each Water System CIP project and evaluates the project under the City's environmental impact review procedures, which were developed in compliance with federal and State laws and local regulations. The City requires that all environmental documents be finalized prior to any authorization of funding for construction by the City Council or the Mayor.

The Water System CIP involves replacement, upgrading and increasing capacity of existing facilities. There are no current or anticipated environmental considerations that would adversely affect the completion of the Water System CIP within the contemplated budget or current timeline.

Project Management for the Water System Capital Improvement Program

The Department and the City Public Works Department ("Public Works") are responsible for the implementation of the Water System CIP. The Department is responsible for identifying the projects that are included in the Water System CIP. Development of such projects involves, among other things, master planning studies, assessing conditions, hydraulic modeling and forecasting, evaluating regulatory and health and safety requirements, prioritizing and scheduling projects, preparing planning reports, and allocating the budget. Subsequently, the Department transfers to Public Works the proposed projects scope of work, a planning report or 10% design, as appropriate, and the proposed schedule and budget. Public Works is responsible for the design, construction and start-up of the majority of all Water System CIP projects. However, as described below, Public Works will not be responsible for the design, but will oversee daily construction activities and startup of the Pure Water Program.

Each Fiscal Year, the Department and Public Works enter into a Service Level Agreement ("SLA") which outlines the responsibilities of each department as it relates to the planning, design and construction of water improvements with respect to water mains, water pump stations and treatment plants. Pursuant to the SLA, Public Works provides engineering services, including project management, design, environmental, permitting, land acquisition, scheduling, budget and construction management. Public Works implements the Water System CIP from design to completion, including capitalization of the final asset and management of warranty issues, as directed by the Department. The Department provides overall direction and policy for planning, financing and operations and maintenance of the Water System. Further, the Department funds the positions and non-personnel expenses, which are necessary for the service provider of a particular project to fulfill its responsibilities.

Due to the size and scope of the Pure Water Program, the Department has secured an approximately $261 million in contractual services for program management, treatment process optimization, environmental reports, and design and construction support services. The Department will be responsible for the delivery of the Pure Water Program, including project management and construction. See "WATER SUPPLY – Pure Water Program – Phase 1 Pure Water Program."

The City requires the consultant or contractor selected to design or construct a CIP project to provide minimum insurance therefor. Design consultants are required to provide at a minimum commercial general liability insurance of $1 million per occurrence ($2 million aggregate), commercial auto liability insurance of $1 million per occurrence, workers' compensation insurance of $1 million, architect and engineer's professional liability insurance of $1 million per occurrence ($2 million aggregate) and errors and omissions insurance for design-build projects. Construction contractors are required to provide at a minimum, among other things, commercial and general liability insurance aggregate limit of $2 million (other than products/completed operations) and $2 million (products/completed operations), personal injury insurance of $1 million each occurrence, commercial automobile liability insurance of $1 million combined single limit per accident and contractors risk property insurance in an amount equal to 115% of the contract value. Further, depending upon the size

and scope of a project, the City's Risk Management Department may require increased insurance coverage at any time, and from time to time, based upon its assessment of the degree of risk for such project. Through the implementation of an OCIP, the City will furnish workers' compensation, general, excess, pollution liability and builder's risk insurance associated with the construction of Phase 1 of the Pure Water Program. The insurance will cover the City, the prime contractors, and all subcontractors at all tiers. The estimated cost for the OCIP is $17 million. The City is in the process of retaining an OCIP broker to manage the insurance coverage and the OCIP and anticipates issuing the notice-to-proceed in December 2018. Coverage is expected to be in place in the second quarter of Fiscal Year 2019.

WATER SYSTEM FINANCIAL OPERATIONS

Establishment of Water Service Charges

The primary revenue sources of the Water Utility Fund are generated from water sales to single family residential customers and other customer classes, capacity fees, interest earnings from the investments of available funds and rental income. City utility bills include water and sewer charges and storm drain fees but only receipts from water sales are revenues to the Water Utility Fund. The water component is comprised of two parts, a fixed monthly service charge and a commodity charge that is for the volume of water used. Bills are distributed on a bi-monthly basis for most customers and a monthly basis for high consumption residential, non-residential, and irrigation customers.

Periodically, the City will enlist the services of an outside consulting firm to perform a full cost of service ("COS") analysis, typically producing a rate case for two to five years. In 2013, the City conducted a COS analysis that resulted in a two-year rate case and rate increases of 7.25% (for CWA pass through costs) and 7.06% (6.56% for CWA pass-through costs and the remainder for increase in Water system costs) for Fiscal Years 2014 and 2015, respectively. The City last conducted a COS analysis in 2015 (the "2015 COS study"), which produced a five-year rate case (the "2016 Rate Case"). The 2015 COS study was based on comprehensive forecasted annual operation and maintenance and capital costs expenditures including the Pure Water Program for the Fiscal Years 2016 through 2020. The 2016 Rate Case started with the Department's budgeted Fiscal Year 2016 expenditures as its base year. Future years were adjusted for changes since the budget was developed and for anticipated changes in operations and the effect of inflation. See "WATER SYSTEM FINANCIAL OPERATIONS – Operation and Maintenance Expenditures." The 2016 Rate Case incorporated purchased water costs from CWA. With the Department's approved rate increases occurring July 1st of each year, the rate increases that were and will be implemented each fiscal year incorporate the approved CWA rate increase that will be effective in January during each fiscal year.

The 2016 Rate Case, which covered Fiscal Years 2016 through 2020, was approved by the City Council in November 2015 adhering to the Proposition 218 process. The City Council adopted rate increases of 9.8% on January 1, 2016, 6.4% on July 1, 2016, 6.4% on July 1, 2017, 5.0% on July 1, 2018 and 7.0% on July 1, 2019. CWA rate increase impacts to the City were projected to be 2.5% in Fiscal Years 2018 and 2019, and 3.0% in Fiscal Year 2020, which were based on current estimates at the time. Because actual impacts of the CWA pass through increases were different than the projections, the City passed through only the actual CWA pass-through cost impact to its ratepayers. The actual pass through impacts were as follows: Fiscal Year 2017 (2.96%); Fiscal Year 2018 (2.67%); and Fiscal Year 2019 (1.60%). The CWA pass through impact for Fiscal Year 2020 is currently projected to be 2.1%. See Table 13 for the actual rate increases for Fiscal Years 2016 through 2019.

TABLE 13
FIVE-YEAR WATER SERVICE CHARGE HISTORY FOR SINGLE FAMILY RESIDENTIAL, MULTI-FAMILY RESIDENTIAL, NON-RESIDENTIAL, IRRIGATION, AND TEMPORARY CONSTRUCTION
Fiscal Years 2015 through 2019
(Unaudited)

		Fiscal Year 2015 (effective 1/1/2015)	Fiscal Year 2016 (effective 1/1/2016)	Fiscal Year 2017 (effective 8/1/2016)	Fiscal Year 2018 (effective 8/1/2017)	Fiscal Year 2019 (effective 8/1/2018)
CWA pass-through costs:		6.56%	4.50%	2.97%	2.67%	1.60%
Increase in Water System costs[1]:		0.50%	5.30%	4.26%	4.26%	0.55%
Total Increase amount[2]:		**7.06%**	**9.80%**	**7.23%**	**6.93%**	**2.15%**
BASE FEES[3]						
Meter Size:	5/8 inch	$ 20.31	$ 22.26	$ 23.92	$ 24.22	$ 24.74
	3/4 inch	20.31	22.26	23.92	24.22	24.74
	1 inch	27.51	29.50	31.52	32.08	32.77
	1 1/2 inch	43.96	46.04	48.89	50.05	51.13
	2 inch	64.53	66.72	70.60	72.51	74.07
	3 inch	112.86	115.32	121.62	125.28	127.98
	4 inch	181.75	184.59	194.36	200.51	204.83
	6 inch	352.44	356.23	374.57	386.90	395.23
	8 inch	558.10	563.03	591.69	611.46	624.62
	10 inch	798.72	804.98	845.72	874.20	893.02
	12 inch	1,483.55	1,493.60	1,568.73	1,622.00	1,656.92
	16 inch	2,580.72	2,596.85	2,727.07	2,820.05	2,880.76
COMMODITY CHARGE						
Customer Type:						
Single Family Residential						
Tier 1	0-4 HCF[4]	$ 3.896	$ 4.240	$ 4.504	$ 4.842	$ 4.946
Tier 2	5-12 HCF	4.364	4.754	5.044	5.423	5.540
Tier 3	13-18 HCF	6.234	6.791	7.206	7.748	7.915
Tier 4	19+ HCF	8.766	9.550	10.134	10.895	11.130
Typical Single Family Monthly Bill[5]		$ 70.81	$ 77.25	$ 82.29	$ 86.97	$ 88.84
Multi-Family Residential	per HCF[6]	$ 4.650	$ 5.125	$ 5.449	$ 5.860	$ 5.986
Non-Residential[7]	per HCF[6]	4.470	5.020	5.327	5.718	5.841
Irrigation	per HCF[6]	4.947	5.666	6.032	6.496	6.636
Temporary Construction	per HCF[6]	4.947	6.023	6.133	6.607	6.749

(1) Increases in Water System costs due to CIP, implementation of Pure Water Program, and drought.
(2) Percentages reflect the total impact on Department water service charge revenue for the indicated fiscal year. Increased percentage amounts for individual customers may vary depending on the service type provided and actual volume of water delivered. Total Increase amounts for Fiscal Years 2017 to 2019 include additional sums relating to 30-day notice period for CWA-related pass-through costs.
(3) The base fee is dependent on the meter size.
(4) HCF (Hundred Cubic Feet) equals 748 gallons.
(5) Reflects base fee and commodity charge. Based on 12 HCF per month and an average meter size of 3/4 inch.
(6) One rate applies for all usage amounts.
(7) Non-Residential consists of Commercial and Industrial customer types.

Source: Public Utilities Department, City of San Diego.

The City is in the preliminary stages of reviewing various options for rates beginning Fiscal Year 2021. The City has engaged Raftelis Financial Consultants, Inc. to assist in the preparation of the COS analysis. The COS analysis will be based on a comprehensive forecast of maintenance and operation costs and capital expenditures over a multi-year period, including maintenance and operation costs and capital expenditures of the Pure Water Program. The review period of the COS is anticipated to be between three to five years, starting in Fiscal Year 2021. The corresponding cumulative rate increases are preliminarily projected to range from 20% to 28% (including rate increases resulting from both CWA pass throughs and revenue adjustments projected for the Department's maintenance and operations costs and capital expenditures). The COS analysis and Proposition 218 process are expected to be undertaken and completed in Fiscal Year 2020. Any new rates resulting from the COS and subsequent City deliberations are expected to be effective in Fiscal Year 2021. See "WATER SYSTEM FINANCIAL OPERATIONS – Financial Projects and Modeling Assumptions."

Water Service Charges. The Water System's water service charge for all retail user classes includes a fixed monthly service charge (also referred to as a base fee) and a commodity charge that is for the volume of water used. The base fee is determined by the size of a customer's meter, and is charged to the customer regardless of whether the customer uses water. The base fee is based upon the assumption that the Department incurs certain costs in order to be in a position to serve the commodity to the water customer upon demand. Those costs are incurred by the Department regardless of whether the customer uses the commodity or not. They include such costs as the general administrative costs of the Department for billing, payment processing, and account management related to the Water System. The size of the customer's connection provides an approximation of the amount of water the customer conceivably could have delivered to his or her property. While the service charge is charged to each water meter and varies with meter size, the commodity charge is applied to a customer's water usage.

The commodity charge is a set rate charge based upon each HCF of water consumed. The City has a tiered commodity charge structure for SFR customers that is broken down by water usage within each rate block. The remaining retail customers (MFR, Non-Residential, Temporary Construction and Irrigation) are billed under the same uniform commodity charge for their respective customer classification. See Table 13 above for a schedule of commodity charge(s) applicable to each customer class and the base fees for the various water meter sizes in the Water System through Fiscal Year 2019.

Capacity Charges. The term "Capacity Charge" means a charge imposed upon a person, firm, corporation or other entity incident to the granting of a permit for a new water connection or due to an increase in water usage by the addition of any type of dwelling, commercial or industrial unit, which charge is based upon an increase in water consumption as measured by equivalent dwelling units, and the proceeds of which are used to construct, improve and expand the Water System to accommodate the additional business of such added dwellings or commercial or industrial units.

Capacity charges are not treated as operating income for financial reporting purposes but are considered System Revenues and are accounted for in debt service coverage calculations. Pursuant to State law, capacity charges can be applied only for the purpose of paying costs associated with capital expansion, bonds, contracts, or other indebtedness of the Water System related to expansion. Because capacity charges are primarily collected on new construction within the City, revenues obtained from such charges vary based upon construction activity. The current capacity charge is $3,047 per Equivalent Dwelling Unit ("EDU"), and has been unchanged since last adjusted in 2007.

In February 2007, the City Council and Mayor approved raising the capacity charge by 19.5% to $3,047 per EDU, which was estimated to provide for full cost recovery for Water System expansion projects. The City will be undertaking a cost of service study in calendar year 2019 to determine the

amount of the new capacity charge, if necessary. The water available for use for a typical SFR is equated to one EDU and equals 500 gallons per day.

Non-residential customers are charged based upon calculated usage or an inventory of plumbing components that are assigned a number of "fixture units," which are converted to EDU's using a conversion factor that equates 20 fixture units to one EDU. The minimum capacity assigned to any user is one EDU.

The following table sets forth the historical capacity charge revenues from Fiscal Years 2014 through 2018. Aggregate capacity charge revenues may not equal the amount derived by multiplying the water capacity rate by the number of units because of individual customer account characteristics. Since capacity charge revenue is dependent on development activity within the City, capacity charge revenues are impacted by increases and decreases in residential and non-residential construction.

TABLE 14
WATER UTILITY FUND
HISTORICAL CAPACITY CHARGE REVENUES
Fiscal Years 2014 through 2018

Fiscal Year	New Equivalent Dwelling Units[1]	Capacity Charge Revenues[2]
2014	4,803	$ 14,623,833
2015	5,152	15,760,349
2016	4,578	14,452,683
2017	4,998	15,269,582
2018	5,722	17,543,421

(1) Unaudited.
(2) Audited. Amounts include potable and recycled capacity charge revenues. Amounts are not available to pay for operations and maintenance costs.
Source: Department of Finance and Public Utilities Department, City of San Diego.

Collection of Water Service Charges

In order for a person to receive service and be billed for water fees, he or she must contact the Department to have Water Service initiated. The person initiating the service does not have to be the owner of the property to which the water is delivered. Regardless of customer class, the customer has a meter from which the Department measures the amount of the water consumed. The meter is read by the Department to calculate the water fees to be charged to the customer based on his or her customer class.

Pursuant to the approved policies and procedures, 100% of the water used is billed, including water usage that occurred up to three years prior to the date of billing. These policies provide the Department authority to grant one 14-day payment time extension on any invoice to help customers weather short-term financial challenges and time extensions for payment under limited conditions, (*e.g.*, public health and safety, legal negotiations, or to avoid a negative impact to other ratepayers overall). Such policies and procedures also provide the Department the authority to grant a payment plan in only two circumstances: a customer receiving a bill greater than 200% of the usage on their normal bill or a customer being back-billed for services received but previously unbilled. In both cases, the customer is allowed only one payment plan at a time. Further, the approved policies provide that a security deposit, for those customers requiring one, will be equal to two average billing periods and a fee of $25 will be imposed for each payment returned unpaid.

Accounts Receivable

Typically, the Department seeks to collect unpaid bills by: (a) issuing a payment reminder notice 25 days after a bill is issued; (b) issuing a shut-off notice 38 days after a bill is issued; and (c) shutting off the customer's water service 48-54 days after a bill is issued. This procedure results in almost all past due bills being paid. If necessary, the Department establishes a payment plan for customers who are unable to pay a past due amount. Open accounts with an unpaid amount due of $60 or greater are referred to the City Treasurer for collection activities 75 days after the bill is issued. Once referred for collections, unpaid amounts due on subsequent bills issued on the account are referred 16 days after the bill is issued until all referred amounts are paid. An allowance is taken each Fiscal Year for accounts receivable that are not expected to be paid. During Fiscal Years 2014 through 2018, accounts receivable amounts outstanding for more than 120 days ranged from approximately $2.8 million to approximately $5 million. Water service charges to City utility customers are collected on the municipal utility bill, which also includes sewer service charges, storm drain fees and other related fees. Only water charges are revenues to the Water Utility Fund. Bills are distributed on a bi-monthly basis for most customers and a monthly basis for high consumption residential, non-residential, and irrigation customers.

The following table sets forth information related to accounts receivable and number of shut-offs.

TABLE 15
WATER CUSTOMER ACCOUNTS RECEIVABLE
AND SHUT-OFFS BY FISCAL YEAR
Fiscal Years 2014 through 2018
($ Amounts in Thousands)
(Unaudited; except as otherwise noted)

	2014	2015	2016	2017	2018
Water Sales Revenue[1]	$ 434,285	$ 439,744	$ 401,907	$ 488,172	$551,275
Accounts Receivable[2]	$ 76,610	$ 68,630	$ 61,585	$ 68,208	$ 81,812
Accounts Receivable Over 120 Days[2]	$ 4,484	$ 4,593	$ 2,798	$ 2,906	$ 4,966
% of Total Water Sales Revenues[3]	1.03%	1.04%	0.70%	0.60%	0.90%
Number of Shut-Offs[4]	18,066	17,373	16,642	13,479	8,564

(1) Audited.
(2) Amounts are as of June 30 and represent the receivable portion of billed customer accounts as of the end of each Fiscal Year.
(3) Percentage of Accounts Receivable over 120 days as compared to Total Water Sales Revenues.
(4) Shut-Offs for non-payment may include multiple shut-offs associated with the same account throughout the Fiscal Year.
Sources: The City's Comprehensive Annual Financial Reports for the indicated Fiscal Years 2014 through 2018 with respect to "Water Sales Revenue;" Public Utilities Department, City of San Diego, for all other line items.

Revenues

The Water Utility Fund's principal source of revenues is water service charges to City residents and non-residential enterprises as shown below. The following tables set forth the historical sources of water sales revenues of the Water Utility Fund for Fiscal Years 2014 through 2018, followed by the Water Utility Fund's Statements of Revenues, Expenses, and Changes in Fund Net Assets for Fiscal Years 2014 through 2018.

TABLE 16
HISTORICAL SOURCES OF WATER SALES REVENUES
Fiscal Years 2014 through 2018
($ Amounts in Thousands)
(Unaudited; except as otherwise noted)

Sources	2014	2015	2016	2017	2018
Retail					
Single Family Residential	$176,886	$176,841	$157,968	$187,360	$213,131
Multi-Family Residential	83,425	86,096	85,175	98,242	108,545
Non-Residential	95,284	102,237	99,615	117,676	127,011
Irrigation	55,975	50,924	37,136	53,515	67,858
Reclaimed	5,660	5,352	5,755	8,820	10,574
Wholesale to Other Retailers					
Treated[1]	14,711	15,375	13,505	18,367	19,614
Untreated	32	126	380	66	10
Reclaimed	2,312	2,793	2,373	4,126	4,532
Total[2]	**$434,285**	**$439,744**	**$401,907**	**$488,172**	**$551,275**

(1) Primarily reflects wholesale revenues from Cal-American Water Company.
(2) Audited.
Source: Department of Finance, City of San Diego.

TABLE 17
STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN FUND NET POSITION FOR THE WATER UTILITY FUND
(Audited)
($ Amounts in Thousands)

	2014	2015	2016[1]	2017	2018
OPERATING REVENUES					
Sales of Water	$ 434,285	$ 439,744	$ 401,907	$ 488,172	$ 551,275
Charges for Services	4,533	6,432	3,586	4,517	5,218
Revenue from Use of Property	7,007	6,693	6,003	5,850	6,104
Other	1,740	2,353	1,512	2,865	6,927
TOTAL OPERATING REVENUES	$ 447,565	$ 455,222	$ 413,008	$ 501,404	$ 569,524
OPERATING EXPENSES[2]					
Maintenance and Operations[3]	$ 91,357	$ 79,732	$ 84,364	$ 95,874	$ --
Cost of Purchased Water Used	207,721	237,274	201,098	222,555	--
Taxes[4]	1,963	2,117	2,165	2,299	--
Administration	54,498	58,599	72,311	81,730	--
Salary and Benefits	--	--	--	--	89,891
Supplies	--	--	--	--	211,688
Contracts	--	--	--	--	108,325
Information Technology	--	--	--	--	5,658
Energy and Utility	--	--	--	--	13,535
Other Expenses	--	--	--	--	4,334
Depreciation	48,957	51,935	55,882	55,885	57,007
TOTAL OPERATING EXPENSES	$ 404,496	$ 429,657	$ 415,820	$ 458,343	$ 490,438
OPERATING INCOME (LOSS)	$ 43,069	$ 25,565	$ (2,812)	$ 43,061	$ 79,086

(Table continued on next page.)

(Table continued from prior page.)

NONOPERATING REVENUES (EXPENSES)					
Earnings on Investments	$ 3,185	$ 2,714	$ 5,825	$ 749	$2,085
Federal Grant Assistance	109	--	--	3,359	3,126
Other Agency Grant Assistance	575	627	2,264	319	266
Gain (Loss) on Sale/Retirement of Capital Assets	(1,630)	(2,431)	(1,104)	(3,629)	(15,327)
Debt Service Interest Expense	(37,100)	(35,771)	(20,731)	(14,826)	(25,512)
Other	3,839	2,432	11,915	426	4,480
TOTAL NON OPERATING REVENUES (EXPENSES)	$ (31,022)	$ (32,429)	$ (1,831)	$ (13,602)	$ (30,883)
INCOME (LOSS) BEFORE CONTRIBUTIONS AND TRANSFERS	$ 12,047	$ (6,864)	$ (4,643)	$ 29,459	$ 48,203
Capital Contributions	$ 37,250	$ 358,451[5]	$ 24,438	$ 26,150	$ 42,633
Transfers from Other Funds	44	58	90	156	--
Transfers from Governmental Funds	3,608	--	--	12	495
Transfers to Other Funds	(356)	(3,651)	(10,110)	--	(2,228)
Transfer to Governmental Funds	(7,094)	(16)	(16)	(16)	(14)
CHANGE IN NET POSITION	$ 45,499	$ 347,978	$ 9,759	$ 55,761	$ 89,089
Net Position at Beginning of Year	$1,638,417[6]	$1,572,384[7]	$1,920,362	$1,929,938[8]	$1,967,063[9]
NET POSITION AT END OF YEAR	$1,683,916	$1,920,362	$1,930,121	$1,985,699	$2,056,152

(1) Declines in Sales of Water and Cost of Purchased Water Used seen in Fiscal Year 2016 reflect the imposition of statewide water conservation mandates that impacted all California water agencies.

(2) Effective Fiscal Year 2018, the City modified the Operating Expense reporting presentation for Business-Type Funds, including Water Utilities in its CAFR. Cost of Purchase Water Used was divided between Supplies and Contracts, with $198,348 of the cost allocated to Supplies and $32,305 allocated to Contracts for Fiscal Year 2018.

(3) The City's new Operating Expense classifications became effective in Fiscal Year 2018.

(4) Includes annual property taxes and quarterly payments of taxes in-lieu to CWA.

(5) Pursuant to the ESP Agreement between CWA and the City, CWA built various facilities and infrastructure in order to raise the height of the San Vicente Dam and increase the reservoir's capacity. During Fiscal Year 2015, CWA conveyed the facilities and infrastructure related to the expansion, valued at over $330.4 million, to the City, which was the primary cause of the increase in Capital Contribution.

(6) Beginning balance restated due to the net effects of the implementation of GASB Statement No. 65, which became effective after December 15, 2012, and reclassification of worker's compensation.

(7) Beginning balance restated due to the net effects of the implementation of GASB Statement Nos. 68 and 71, which both became effective after June 15, 2014.

(8) Beginning balance restated due to the net effects of GASB Statement No. 73 implementation (see Note 1(v) in City's Fiscal Year 2017 CAFR).

(9) Beginning balance restated due to the net effects of GASB Statement No. 75 implementation (see Note 1(w) in City's Fiscal Year 2017 CAFR and Note 1(x) in the City's Fiscal Year 2018 CAFR).

Source: The City's Comprehensive Annual Financial Reports for Fiscal Years 2014 through 2018.

Management's Discussion and Analysis

The following discussion relates to certain items set forth in Table 17. Some of the following information in connection with the financial condition and results of operations of the Water Utility Fund for Fiscal Year 2018, is unaudited and should be read in conjunction with certain of the information contained in the City's CAFRs for Fiscal Years 2017 and 2018, and specifically the portion of the basic financial statements relating to the operation of the Water Utility Fund, which are available through EMMA and included in this Official Statement as Appendix E, respectively, and incorporated by reference in this Official Statement. See "FINANCIAL STATEMENTS" herein.

Operating Revenues. Total operating revenues for Fiscal Year 2018 were $569.5 million, which represented an increase of $68.1 million from the previous Fiscal Year. This was primarily due to an

increase in water sales revenue, which was the result of a 6.93% water rate increase that became effective on August 1, 2017, as well as an increase in the volume of water sold.

Operating Expenses. Total operating expenses for Fiscal Year 2018 were $490.4 million, an increase of $32.1 million from the previous Fiscal Year. This was primarily the result of the increased pension expenses, a one-time refund payment to the United States Navy, and an increase in the cost to purchase water.

Non-operating Revenues. Non-operating revenues for Fiscal Year 2018 increased by $5.1 million from non-operating revenues received in Fiscal Year 2017. This was primarily due to an increase in investment earnings and a reimbursement from a local agency.

Non-operating Expenses. Non-operating expenses increased by $22.4 million to $40.8 million during Fiscal Year 2018. This was due to a $10.7 million increase in debt service interest expense and a $11.7 million increase in the loss on sale/retirement of capital assets.

Contributions and Transfers. Capital contributions increased in Fiscal Year 2018 from Fiscal Year 2017 by $16.5 million due to recording additional assets related to the ESP Agreement between CWA and the City that raised the height of the San Vicente Dam and increased the reservoir's capacity. Transfers out increased in Fiscal Year 2018 by $2.2 million.

Water Utility Fund Reserves

The City has established accounts within the Water Utility Fund for four reserve funds: the Emergency Operating Reserve ("Operating Reserve"), the Secondary Purchase Reserve, the Rate Stabilization Fund Reserve ("Rate Stabilization Fund"), and the Emergency Capital Reserve ("Capital Reserve"). The Department operates these reserve funds in accordance with the City's reserve policy (the "City Reserve Policy"). The City's goals with respect to the City Reserve Policy are to provide adequate cash balances to ensure that the City meets its cash flow obligations, maximizes earnings on investments, minimizes borrowing costs and supports the high credit ratings on its bonds and other financial obligations. In the event amounts contained in a particular reserve are below the targeted reserve level as stated in the City Reserve Policy, the Mayor is to propose a plan as part of the budget for the subsequent Fiscal Year to replenish such reserve in a reasonable timeframe. The City's Reserve Policy is reviewed biennially. Changes are approved by the City Council and incorporated into City Council Policy. The most recent updates to the City Reserve Policy were approved by the City Council in June 2018. As of June 30, 2018, the Water Utility Fund had estimated total reserves of approximately $130.5 million.

Operating Reserve. The Operating Reserve is intended to be used in the event of a catastrophe that prevents the Water System from operating in its normal course of business. The reserve level is defined as the number of days of operation it could support in the event of a major disruption to the Water System. It is calculated based on the annual operating budget for the Fiscal Year, less the budgeted operating contingency and the budget for water purchases and debt service (including SRF loan repayments). The Operating Reserve target is equivalent to 70 days of operation. This reserve level target of 70 days recognizes that the Water System has a large diversified customer base, a steady and reliable demand for services, and other reserves available for specific needs. Use of the Operating Reserve is restricted to emergency situations, and City Council approval is required to appropriate these reserves. Any request to utilize the Operating Reserve will include a plan and timeline for replenishment, which may be in conjunction with the City Council authorization of a future cost of service study and rate adjustment. As of June 30, 2018, there was an estimated $40.1 million in the Operating Reserve (equivalent to 78.4 days of operation), compared to the target amount of $38.1 million.

Secondary Purchase Reserve. The Secondary Purchase Reserve was established to purchase additional water supply in case of a major drought or unforeseen emergency that diminishes the City's normal supply. The size of the reserve is equal to 6% of the annual water purchase budget (including commodity charge and fixed costs). City Council action is required in order to appropriate this reserve as well. As of June 30, 2018, there was an estimated $15.2 million in the Secondary Purchase Reserve.

Rate Stabilization Fund. The Rate Stabilization Fund was established and is maintained pursuant to the Master Installment Purchase Agreement. Transfers in and out of this fund serve as a revolving mechanism to mitigate potential fluctuations in the rates for the Water System operations, and maintain stable debt service coverage ratios for the Outstanding Obligations. The permitted uses of the Rate Stabilization Fund are limited to the Maintenance and Operation Costs of the Water System. The City Reserve Policy establishes a baseline target for the Rate Stabilization Fund in an amount equal to 5% of the prior Fiscal Year Water System total operating revenues. The funding level in the Rate Stabilization Fund can go up or down depending on year to year changes in the Water System's operating revenues and expenditures.

In Fiscal Year 2016, the Department transferred $7.5 million from the Rate Stabilization Fund to the System's operating funds to offset lower revenues resulting from the Department's extraordinary conservation efforts (which were taken in part to comply with the Governor's and SWRCB's conservation mandates) and to maintain contractually required debt service coverage levels. In Fiscal Years 2017 and 2018, revenues increased due in part to rate increases and the Department contributions of $23.5 million in Fiscal Year 2017 and $8 million in Fiscal Year 2018 to the Rate Stabilization Fund. For Fiscal Year 2018, the $70.1 million balance in the Rate Stabilization Fund exceeded the Department's reserve target by $44 million. See Table 18.

Emergency Capital Reserve. The Capital Reserve is intended to be used for emergency capital needs. The reserve is budgeted annually at $5.0 million in the Water System CIP budget. If the reserve is used to fund unforeseen emergency conditions resulting in the need to immediately repair or replace existing assets, approval from the Chief Financial Officer or the Chief Operating Officer is required. As of June 30, 2018, there was $5.0 million in the Capital Reserve.

TABLE 18
RESERVES AND TOTAL CASH AND CASH EQUIVALENTS
IN WATER UTILITY FUND
Fiscal Years 2014 through 2018[1]
($ Amounts in Thousands)
(Unaudited, except as otherwise noted)

	Actual				
	2014	**2015**	**2016**	**2017**	**2018**
Reserve Funds[2]					
Operating Reserve[3]	$ 30,662	$ 31,696	$ 40,108	$ 40,108	$40,108
Secondary Purchase Reserve	12,544	13,582	13,582	14,344	15,229
Rate Stabilization Fund	38,500	46,117	38,617	62,117	70,117
Capital Reserve[4]	5,000	5,000	5,000	5,000	5,000
Total Reserve Funds	$ 86,706	$ 96,395	$ 97,307	$ 121,569	$130,454
Total Cash and Cash Equivalents in Water Utility Fund[5]	$299,396	$250,477	$ 218,580	$ 218,370	$267,823
Days of Cash on Hand[6]	299	234	214	191	219

(1) Unaudited except for Total Cash and Cash Equivalents in Water Fund for Fiscal Years 2014 through 2018.
(2) Established in accordance with City Reserve Policy.
(3) Described as Emergency Operating Reserve in the City Reserve Policy.
(4) Described as the Emergency Capital Reserve in the City Reserve Policy.
(5) Audited. Includes Cash and Investments (which includes the Reserve totals above), Restricted Cash and Investments, less Investments Not Meeting the Definition of Cash Equivalents.
(6) Days of cash on hand is calculated by: Cash and Investments/(Operating Expenses less Depreciation / 365 days).
Source for Cash and Cash Equivalents: The City's Comprehensive Annual Financial Reports for Fiscal Years 2014 through 2018.
Source for Reserves: Public Utilities Department and Department of Finance, City of San Diego.

The following table sets forth the debt service coverage for the Water Utility Fund for Fiscal Years 2014 through 2018.

TABLE 19
CALCULATION OF HISTORIC DEBT SERVICE COVERAGE
Fiscal Years 2014 through 2018
($ Amounts in Thousands)
(Unaudited)

		Fiscal Year				
		2014	**2015**	**2016**	**2017**	**2018**
All System Revenues prior to Rate Stabilization Fund transfers[1]		$473,908	$475,874	$447,555	$522,020	$597,608
Transfers (to)/from Rate Stabilization Fund		--	(7,600)	7,500	(23,500)	(8,000)
Total System Revenues[1]		**$473,908**	**$468,274**	**$455,055**	**$498,520**	**$589,608**
Total Maintenance & Operation Costs[2]		**(362,989)**	**(381,389)**	**(370,064)**	**(402,475)**	**(435,673)**
Net System Revenues absent transfers to or from the Rate Stabilization Fund	A	$110,919	$ 94,485	$ 77,491	$119,545	$161,935
Net System Revenues	B	**110,919**	**86,885**	**84,991**	**96,045**	**153,935**
Less: Interest Earnings on Reserve Fund[3]		(1,017)	(897)	(4,474)	(4)	(35)
Adjusted Net System Revenues	C	109,902	85,988	80,517	96,041	153,900
Senior Obligations[4]						
Total Senior Debt Service		$ 39,921	$ 40,063	$ 40,993	$ 4,005	$ 4,259
Less: Interest Earnings on Reserve Fund[3]		(1,017)	(897)	(4,474)	(4)	(35)
Adjusted Senior Debt Service	D	38,904	39,166	36,519	4,001	4,224
Adjusted Senior Debt Service Coverage[5][6]	C/D	**2.82x**	**2.20x**	**2.20x**	**24.00x**	**36.43x**
All Obligations[7]						
Total Debt Service	E	$ 66,691	$ 66,835	$ 67,389	$ 61,842	$ 65,613
Aggregate Debt Service Coverage absent transfers to or from the Rate Stabilization Fund	A/E	1.66x	1.41x	1.15x	1.93x	2.47x
Aggregate Debt Service Coverage[6]	B/E	**1.66x**	**1.30x**	**1.26x**	**1.55x**	**2.35x**

(1) "System Revenues," as defined in the Master Installment Purchase Agreement, includes operating and non-operating receipts (i.e. interest earnings, capacity charges, other income) as well as transfers to and from certain funds and the cash-based components of capital contributions. Pursuant to the Master Installment Purchase Agreement, there is deducted from "System Revenues" any amounts transferred into the Rate Stabilization Fund and there is added to "System Revenues" any amounts transferred out of such Rate Stabilization Fund. Amounts in the Rate Stabilization Fund are not included in the calculation of debt service coverage for purposes of the Master Installment Purchase Agreement. The amounts reflected as "All Revenues" are revenues of the Water System prior to any such transfer.

(2) Amounts under Total Maintenance and Operation Costs, in accordance with the Master Installment Purchase Agreement, generally include maintenance and operations, administration, cost of water purchases, transfers to other funds, pension benefits, and retiree health costs, and exclude depreciation.

(3) Interest earnings on the Senior Debt Service Reserve Fund are netted out of both System Revenues and Total Debt Service to calculate Senior Debt Service Coverage Ratios, but are not netted out for Aggregate Debt Service Coverage Ratios.

(4) Senior Obligations consist of Senior Bonds and Senior SRF Loans. Since June 2016, the only Senior Obligations Outstanding are the Senior SRF Loans.

(5) The Adjusted Debt Service Coverage increased significantly in Fiscal Year 2017 because all outstanding Senior Bonds were refunded with proceeds of Subordinated Bonds in June 2016.

(6) Pursuant to Section 6.08(a) of the Master Installment Purchase Agreement, the City shall fix, prescribe and collect rates and charges for the Water Service which will be at least sufficient to yield the greater of (1) Net System Revenues sufficient to pay during each Fiscal Year all Obligations payable in such Fiscal Year or (2) Adjusted Net System Revenues during each Fiscal Year equal to 120% of the Adjusted Debt Service for such Fiscal Year.

(7) All Obligations include Outstanding Senior Obligations and the Outstanding Subordinated Obligations.

Source of Footnotes: Department of Finance and Public Utilities Department, City of San Diego.

Source: Statistical Section (Unaudited) of the City's Comprehensive Annual Financial Reports for Fiscal Years 2014 through 2018 (excluding data under the headings "Net System Revenues absent transfers to or from the Rate Stabilization Fund" and "Aggregate Debt Service Coverage absent transfers to or from the Rate Stabilization Fund"); Department of Finance for data under the headings "Net System Revenues absent transfers to or from the Rate Stabilization Fund" and "Aggregate Debt Service Coverage absent transfers to or from the Rate Stabilization Fund"

Financial Projections and Modeling Assumptions

Table 20 below sets forth the financial forecast for Fiscal Years 2019 through 2024.

The figures incorporate the actual rate increase of 2.15% that went into effect August 1, 2018 and a projected rate increase of 6.1% for Fiscal Year 2020.

For Fiscal Years 2021 through 2024, the financial projections assume rate increases of 4.0% for Departmental needs. Additionally, for Fiscal Years 2021 through 2024, CWA rate increase impacts to the City are projected to be between 2.0% and 2.9%. The City has historically increased water rates over time to adjust to increases in the cost of water purchased from CWA, which increases are generally based on the costs for the infrastructure, maintenance and operation of CWA's water supply system and the cost CWA pays to purchase water from MWD. See "WATER SYSTEM FINANCIAL OPERATIONS – Establishment of Water Service Charges."

The assumed rate increases for Fiscal Years 2021 through 2024 are based on the Department's forecasted annual maintenance and operation costs and capital expenditures. The assumed rates are also intended to maintain the Water Utility's core financial metrics of cash balances, reserves, and financial debt service coverage ratios. These rate increase assumptions are subject to change based on the completion of the COS analysis and actual rate increases will vary. Actual rate increases that are lower than assumed rate increases would result in less favorable financial metrics. Likewise, actual rate increases that are higher than assumed rate increases would result in more favorable financial metrics in those years. In order to achieve desired financial results, the Department may exercise discretion in re-evaluating projected capital expenditures and discretionary maintenance and operation costs.

Net System Revenues are projected to increase by approximately 98% over the period of Fiscal Year 2019 through Fiscal Year 2024, remaining fairly constant for Fiscal Year 2021 through Fiscal Year 2022, and then increasing through Fiscal Year 2024 primarily due to projected water rate increases and declining water purchases in Fiscal Year 2024 as Phase 1 of the Pure Water Program comes online. Maintenance and operation costs are projected to increase by approximately 18% over the period of Fiscal Year 2019 through Fiscal Year 2024 (Department expenditures increase by $50 million, and Water Purchases increase by $46 million through Fiscal Year 2023 before decreasing in Fiscal Year 2024 as Phase 1 of the Pure Water Program comes online).

The forecast for Fiscal Year 2019 through Fiscal Year 2024 incorporates certain assumptions adopted by the Department, including assumed inflation and interest rates. The System Revenues for Fiscal Year 2019 through Fiscal Year 2024 reflect (a) an account growth rate of 0.25% per Fiscal Year for all customer classes except recycled water; (b) an increase of approximately $3.0 million in recycled water revenues for Fiscal Year 2019 through Fiscal Year 2020 due to City Council approved rate increases; and (c) assumed interest rates estimated for projected earnings on fund balance range between 2.21% and 3.25% for Fiscal Year 2019 through Fiscal Year 2024.

The maintenance and operation costs for Fiscal Year 2019 through Fiscal Year 2024 reflect (a) an average increase of 2.8% per Fiscal Year for energy and utilities, 2.7% per Fiscal Year for contracts, and 2.9% per Fiscal Year for supplies; (b) Water Utility Fund personnel expenditure increases related to the approved San Diego Municipal Employees' Association bargaining agreement and the proposed American Federation of State, County, and Municipal Employees Local 127 tentative agreement; and (c) Debt Service for Fiscal Year 2019 and future years include the anticipated issuance of the 2018A Bonds, issuance of commercial paper and a combination of future bond offerings, the WIFIA Loan, and SRF loans secured by installment payments pursuant to the Master Installment Purchase Agreement. See also "WATER SYSTEM FINANCIAL OPERATIONS – Anticipated Additional Obligations."

TABLE 20
PROJECTED NET SYSTEM REVENUES AND DEBT SERVICE COVERAGE
(as of November 15, 2018)
Fiscal Years 2019 through 2024
($ Amounts in Thousands)

DESCRIPTION	Fiscal Year 2019 Projected[1]	Fiscal Year 2020 Projected[2]	Fiscal Year 2021 Projected	Fiscal Year 2022 Projected	Fiscal Year 2023 Projected	Fiscal Year 2024 Projected
System Revenues						
Operating Revenues[2]	$577,281	$612,737	$653,369	$693,089	$734,624	$787,220
Interest Income on Operating Funds	6,261	8,609	10,787	10,227	9,813	10,916
Interest Earnings on Debt Service Reserve Funds[3]	165	165	165	165	165	165
Other Non-Operating Revenues	245	436	436	436	436	436
Capacity Charge Revenue[4]	12,150	14,400	14,400	14,400	14,400	14,400
Grant Proceeds	420	280	0	0	0	0
Transfers (to)/from Rate Stabilization Reserve	0	0	0	0	0	0
Transfers (to)/from Secondary Purchase Reserve	(921)	0	(967)	(877)	(921)	0
Total System Revenues	$595,601	$636,627	$678,190	$717,440	$758,517	$813,137
Maintenance and Operation Costs						
Water Purchases[5]	$269,162	$268,804	$285,274	$299,885	$315,241	$286,366
Water System Expenses[6]	175,800	188,585	193,634	198,121	202,385	206,517
Pure Water Program Expenses[7]	10,469	10,565	10,592	28,202	33,902	43,199
Total Maintenance and Operation Costs	$455,431	$467,954	$489,500	$526,208	$551,528	$536,081
Net System Revenues	$140,170	$168,673	$188,690	$191,232	$206,989	$277,055
Senior Debt Service Coverage						
Adjusted Net System Revenues[8]	$140,149	$168,652	$188,669	$191,211	$206,968	$277,034
Adjusted Senior Debt Service[9][10]	6,245	7,735	10,866	14,980	20,031	27,908
Senior Debt Service Coverage[9]	22.44x	21.80x	17.36x	12.76x	10.33x	9.93x
Aggregate Debt Service Coverage						
Net System Revenues	$140,170	$168,673	$188,690	$191,232	$206,989	$277,055
Senior Debt Service[10]	6,266	7,756	10,887	15,001	20,052	27,930
Subordinate Debt Service[10]	66,608	82,857	92,686	107,311	111,857	120,536
Aggregate Debt Service Coverage[10]	1.92x	1.86x	1.82x	1.56x	1.57x	1.87x

(1) Fiscal Year 2019 projections are based on Fiscal Year 2018 actual results.

(2) Includes City Council approved rate increases through Fiscal Year 2020, and projected rate increases of 6.9%, 6.4%, 6.3%, and 6.0% for Fiscal Years 2021 through 2024, respectively. Projected rate increases for Fiscal Years 2021 through 2024 are subject to change based on the completion of a future COS analysis and City Council approval of the rate case. Debt service coverage in Fiscal Years 2021 through 2024 will be lower than projected if the actual approved rate increases are lower than current projections. See "WATER SYSTEM FINANCIAL OPERATIONS – Establishment of Water Service Charges."

(3) Includes interest earnings on reserve funds for Senior Obligations and Subordinated Obligations.

(4) Capacity Charge revenue is based on projected population growth and building permits.

(5) Water purchase projections incorporate CWA's projected rate increases. See "WATER SYSTEM FINANCIAL OPERATIONS – Establishment of Water Service Charges."

(6) Includes costs of maintenance and operations, administration, pension benefits and retiree health costs, and the projected cost impacts from the recently negotiated labor agreements with employee bargaining organizations. See "Labor Relations" below. This does not include Pure Water Program costs, which are reflected below.

(7) Includes primarily Pure Water Program pre-design and planning costs in Fiscal Years 2019 through 2021, with the ramp up of operating costs for Phase 1 starting in Fiscal Year 2022. Full operating costs begin in Fiscal Year 2024. The operating costs include performance payments to a private party for a new power generation facility at the North City Water Reclamation Plant; performance payments are anticipated to commence in Fiscal Year 2022, with full annual payments of $16 million starting in Fiscal Year 2024. See "WATER SUPPLY – Pure Water Program." Also reflects operating costs for the Central Area Demonstration Facility in Fiscal Year 2023, which is approximately $0.8 million annually, and concludes in Fiscal Year 2026.

(8) Adjusted Net System Revenues is Net System Revenues less earnings from investments in the Common Senior Debt Service Reserve Fund.

(9) Adjusted Senior Debt Service is the Senior Debt Service less earnings from investments in the Common Senior Debt Service Reserve Fund.

(10) Reflects scheduled debt service on outstanding obligations, projected debt service on additional senior lien and subordinate bonds the City assumes to issue, the WIFIA Loan, and additional senior lien SRF loans the City expects to receive from the SWRCB.

Source: Public Utilities Department, City of San Diego.

The Water Utility Fund 2016 Rate Case supports the Fiscal Years 2019-2020 capital program and operational expenditures. The ongoing CIP and operational expenditures are rate dependent, including, particularly, the Water Utility Fund's share of Pure Water Program expenditures in Fiscal Years 2021 through 2024. The City anticipates that additional rate capacity is necessary after Fiscal Year 2020. The City expects to perform cost of service analysis to prepare a new rate case for recommended rate adjustments for the Water Utility Fund for Fiscal Year 2021 and later Fiscal Years.

The Department is currently in the process of preparing a Five-Year Financial Outlook (the "Outlook") for Fiscal Years 2020 through 2024 that will be reviewed by the City Council in early 2019, and will serve as a framework for the development of the Fiscal Year 2020 Proposed Budget for the Water Utility Fund. Assumptions in the Outlook will mirror the assumptions applied in Table 20 above, though the potential for changes to the Outlook's assumptions in outer years exists. Projections used are as of November 2018 and are based on the best information available to the Department.

The achievement of certain results or other expectations contained in Table 20 involve known and unknown risks, uncertainties, and other factors that may cause actual results, performance, or achievements reflected in Table 20 to be materially different from any future results, performance, or achievements expressed or implied in such Table 20. Although, in the opinion of the Department, such projections are reasonable, there can be no assurance that any or all of such projections will be realized or predictive of future results. See also "INTRODUCTION – Forward-Looking Statements."

Outstanding Indebtedness

As of November 15, 2018, Senior Obligations consisted of $78,332,490 principal amount of loans from the Drinking Water State Revolving Fund (the "Senior SRF Loans"). There are no Outstanding Senior Bonds. As of November 15, 2018, there was $812,654,000 aggregate principal amount of Outstanding Subordinated Obligations that are payable from Net System Revenues on parity with the 2018 Subordinated Installment Payments. The Outstanding Subordinated Obligations principal amount does not include the City's borrowing of up to $614 million pursuant to the WIFIA Loan Agreement as the City has not yet requested disbursements of amounts under the WIFIA Loan. See "SECURITY AND SOURCES OF PAYMENT FOR THE 2018 BONDS – Senior Obligations" and "– Subordinated Obligations."

The following table sets forth as of November 15, 2018 the outstanding indebtedness secured by installment payments to be made by the City from Net System Revenues.

TABLE 21
OUTSTANDING DEBT
As of November 15, 2018
(Unaudited)

	Final Maturity	Outstanding Principal Amount as of November 15, 2018
Senior Obligations:		
Senior SRF Loans		
Miramar Water Treatment Plant	July 1, 2031	$ 14,014,250
Alvarado Water Treatment Plant	July 1, 2031	8,409,848
Otay Water Treatment Plant	January 1, 2032	13,099,038
Harbor Drive Pipeline Replacement	January 1, 2036	9,509,547
Lindbergh Field Pipeline Replacement	January 1, 2036	2,932,504
University Ave Pipeline Replacement	January 1, 2039[1]	23,047,417
69th Street and Mohawk Pump Station	January 1, 2050[1]	7,319,886
Total SRF Loans		$ 78,332,490
Total Senior Obligations		$ 78,332,490
Subordinated Obligations[2]:		
2012A Subordinated Bonds	August 1, 2032	$119,360,000
2016A Subordinated Bonds	August 1, 2045	39,115,000
2016B Subordinated Bonds	August 1, 2039	448,290,000
Commercial Paper Notes[3]	Varies (7 – 180 days)	205,889,000
Total Subordinated Obligations		$812,654,000
Total All Obligations		$890,986,490

(1) The project remains under construction. The indicated maturity date and principal amount are based on loan disbursements as of November 15, 2018. The maturity date and principal amount will be finalized upon completion of the project.

(2) Outstanding Subordinated Obligations does not include the City's borrowing of up to $614 million pursuant to the WIFIA Loan Agreement as the City has not yet requested disbursements of amounts under the WIFIA Loan and no principal is outstanding under the WIFIA Loan.

(3) All Outstanding Commercial Paper Notes will be refunded with the 2018 Bonds.

Source: Debt Management Department and Public Utilities Department, City of San Diego.

See "Capital Improvement Financing Plan" above and "Anticipated Additional Obligations" below. Additional obligations are expected to include additional SRF loans received from the SWRCB, payments with respect to which are expected to be senior in right of payment to the City's obligation to make 2018 Subordinated Installment Payments.

In addition, the City has entered into various Master Lease Agreements (the "Equipment Leases") under which the Department has financed certain equipment and vehicles. Lease payments due on a total principal amount of $2.4 million are payable from amounts in the Water Utility Fund, subsequent to the payment of all Senior Obligations and all Subordinated Obligations. The lease payments payable from amounts in the Water Utility Fund are not secured by a pledge of or lien on Net System Revenues and therefore are neither a Senior Obligation nor a Subordinated Obligation. The lease payments allocated to the Water Utility Fund are made from any available moneys in the Water Utility Fund. Final payment of the lease payments is due on July 1, 2022. As of the date of this Official Statement, other than the obligations under the Equipment Leases, the Senior SRF Loans and the WIFIA Loan, the Department has

not entered into any direct bank loans or issued any direct placement debt secured or payable from amounts in the Water Utility Fund.

The City has no general obligation bonds outstanding (for water purposes or otherwise) and has no immediate plans to issue such indebtedness. See "WATER SYSTEM CAPITAL IMPROVEMENT PROGRAM – Capital Improvement Financing Plan."

Anticipated Additional Obligations

Pursuant to the Master Installment Purchase Agreement, the City may incur additional obligations, payments with respect to which will be senior to, or on parity with, the City's obligation to make 2018 Subordinated Installment Payments, subject to satisfaction of the conditions specified in the Master Installment Purchase Agreement. Table 12 sets forth the projected sources and uses of funds for the Water System CIP for Fiscal Years 2019 through 2024.

The City anticipates issuing additional debt in Fiscal Years 2019 through 2024 to finance the costs of certain projects in the Water System Baseline CIP in the approximate amount of $821 million through a combination of SRF loans, revenue bonds, and commercial paper. Of this amount, $17 million is expected from existing SRF loans, $212 million from SRF loans for which the City intends to apply, and $592 from bonds and commercial paper combined. The expected receipt of the additional SRF loan proceeds and bond funds are included in the City's Financial Rate Model. Proceeds from the additional SRF loans will provide funding in Fiscal Years 2019 through 2024, with interest only repayment projected to begin in Fiscal Year 2019 until construction completion of the projects, which vary from Fiscal Year 2019 to Fiscal Year 2024. Any additional SRF loans are assumed to be senior liens, payable on parity with the Net System Revenues securing the Senior Obligations. The lien status of future obligations payable from System Revenues is yet to be determined.

In addition, the City expects to incur additional Obligations in Fiscal Years 2019 through 2024 to finance the costs of the Pure Water Program in the approximate amount of $98 million through a combination of revenue bonds and commercial paper.

See "SECURITY AND SOURCES OF PAYMENT FOR THE 2018 BONDS – Issuance of Additional Obligations Under the Master Installment Purchase Agreement," "WATER SYSTEM CAPITAL IMPROVEMENT PROGRAM – Capital Improvement Financing Plan" and "RISK FACTORS – Pure Water Program."

Labor Relations

Unless otherwise indicated, the information under this heading "Labor Relations" is a discussion of labor relations for all employees of the City.

General. The City's represented employees are represented by six recognized employee organizations. The employee organizations and the number of employees represented by each organization are set forth in the table below. The City also employs a number of employees in the classified service and the unclassified service who are unrepresented. The Fiscal Year 2019 Budget included 578.98 unrepresented positions, excluding elected officials. The Mayor has authorized a 3.3% general salary increase for all unrepresented employees in Fiscal Year 2019.

TABLE 22
CITY OF SAN DIEGO
EMPLOYEE ORGANIZATIONS

Organization[1]	Represented Employees[2]
San Diego Municipal Employees' Association	5,195
American Federation of State, County, and Municipal Employees, Local 127	2,094
San Diego Police Officers Association	2,035
San Diego City Firefighters, International Association of Firefighters, Local 145	944
California Teamsters Local 911	162
Deputy City Attorneys Association of San Diego[3]	155

(1) Represents classified employees, except where otherwise noted.
(2) As of the City's Fiscal Year 2019 Adopted Budget.
(3) Represents unclassified deputy city attorneys.
Source: Fiscal Year 2019 Adopted Budget, Department of Finance, City of San Diego

As provided in the Fiscal Year 2019 Adopted Budget, there are approximately 784 full time equivalent employees of the Department (Water Branch), of which approximately 428 are represented by the MEA, and approximately 302 are represented by AFSCME Local 127. The remaining employees are unrepresented.

Collective Bargaining Agreements. The City has collective bargaining agreements with each of its recognized employee organizations effective through June 30, 2020, except the Deputy City Attorneys Association of San Diego, which has an agreement effective through June 30, 2019. All collective bargaining agreements include pay increases in Fiscal Year 2019 as described below

MEA. The City's collective bargaining agreement with MEA is effective through June 30, 2020. MEA-represented employees received a 3.3% increase in pensionable compensation in Fiscal Year 2019 and will receive another 3.3% increase in pensionable compensation in Fiscal Year 2020. In addition, effective in Fiscal Year 2019 there were special salary adjustments ranging from 4.3% to 7% for certain classifications experiencing recruitment and retention issues. In April 2018, the City Council approved additional special adjustments ranging from 1% to 10% to be implemented on January 1, 2019 and again on January 1, 2020. Additionally, in December 2017, the City Council approved pay increases for certain Fire-Rescue Department dispatchers, who have an Emergency Medical Dispatch Certification, over several years, specifically 5% additional pay on January 1, 2019, 5% on July 1, 2019; and 2.5% on January 1, 2020. On October 16, 2018, the City Council approved pay increases ranging from 4% to 16% to be implemented the first full pay period following January 1, 2019, and 4% to 16% to be implemented the first full pay period following January 1, 2020 for Infrastructure Premium Pay for certain Engineers and Land Surveyor, who have a state registration as an engineer, geologist or land surveyor, or have an Engineer-in-Training, Land Surveyor-in-Training or Geologist-in-Training certification.

AFSCME Local 127. The City's collective bargaining agreement with AFSCME Local 127 is effective through June 30, 2020. AFSME Local 127-represented employees received a 3.3% general salary increase in pensionable compensation in Fiscal Years 2019 and will receive another 3.3% general salary increase in Fiscal Year 2020. In addition, effective in Fiscal Year 2019 there were special salary adjustments ranging from 5% to 10% for certain classifications experiencing recruitment and retention issues. In April 2018, the City Council approved additional special adjustments ranging from 5% to 10%

to be implemented in Fiscal Year 2019 (on January 1, 2019) and again in Fiscal Year 2020 (on January 1, 2020) for certain classifications. The agreement also includes an increase to tool allowances for Carpenters and Apprentices for Fiscal Years 2016 through 2019.

POA. The City's collective bargaining agreement with POA is effective through June 30, 2020. POA-represented sworn officers will receive pensionable general salary increases as follows: 8.3% effective the first full pay period following July 1, 2018, 5% effective the first full pay period following January 1, 2019, 7.3% effective the first full pay period following July 1, 2019, and 5% effective the first full pay period following January 1, 2020, for a total of 25.6% increase by the end of Fiscal Year 2020. In addition, POA-represented sworn officers with 20 or more years of service received an additional 5% pensionable add-on pay effective the first full pay period following July 1, 2019. As part of the agreement reached with POA, the additional Flexible Benefit Plan allotment which was to be received by POA-represented employees in Fiscal Year 2020 of approximately $6,728 per employee was eliminated. Effective the first full pay period in Fiscal Year 2019 there are special assignment pay increases ranging from 3.5% to 5% for certain classifications that perform duties as Tactical Flight Officers and primary pilots. This agreement also includes increases in Fiscal Years 2016 through 2019 to flexible benefits credits for all POA-represented employees with 8 or more years of service as a sworn police officer.

IAFF Local 145. The City's collective bargaining agreement with IAFF Local 145 is effective through June 30, 2020. IAFF Local 145-represented employees received a 3.3% general salary increase in pensionable compensation in Fiscal Year 2019 and will receive another 3.3% general salary increase in pensionable compensation in Fiscal Year 2020.

Teamsters Local 911. The City's collective bargaining agreement with Teamsters Local 911 is effective through June 30, 2020. Teamsters Local 911-represented employees received a 3.3% general salary increase in pensionable compensation in Fiscal Years 2019 and will receive another 3.3% general salary increase in pensionable compensation in Fiscal Year 2020. In addition, beginning in Fiscal Year 2019 new specialty pays ranging from 3% to 5% will be provided for participation on specialty teams or special assignments.

DCAA. The City's collective bargaining agreement with DCAA is effective through June 30, 2019. DCAA-represented employees received a 3.3% general salary increase in pensionable compensation in Fiscal Year 2019. In addition, effective in Fiscal Year 2019 there will be special salary adjustments ranging from 2% to 3% for Deputy II, IV and V due to recruitment and retention issues. The agreement also contains a $500 increase to flexible benefit credits in Fiscal Year 2019 for DCAA-represented employees.

Insurance and Liability Claims

General. The City is self-insured for long term disability. The City is self-insured up to $5 million for workers' compensation with statutory excess limits above that. For liability claims, the City is self-insured up to $3 million per occurrence with a one-time individual member corridor deductible of $2.5 million. The City carries excess liability limits up to $50 million inclusive of the Self-Insured Retention and corridor. The Department is covered by the City's insurance coverage

Property and Flood Insurance. The City participates in the joint purchase of property insurance and flood insurance through the CSAC-EIA pool (policy term March 31, 2018 through March 31, 2019), which includes flood and earthquake coverage for certain scheduled locations, including bond financed locations of the Water System.

This joint purchase of the City's "All Risk" property insurance, insuring approximately $4.8 billion of City property, provides coverage for loss to City property under the primary policy up to $25 million per occurrence, with a $25,000 deductible. Additional excess limits are available as part of the City's insurance property program through CSAC-EIA where coverage "towers" with designated coverage limits are provided. Coverage towers are groups of properties, which are diversified based on ownership (risk-pool members) and geographical location. The City participates in four coverage towers with dedicated coverage limits of $600 million for "All Risk" and Flood. Additional rooftop limits of $200 million for "All Risk" may be accessible. There is no sharing of limits among the City and member counties of the CSAC-EIA pool, unless the City and member counties are mutually subject to losses due to the same occurrence. Limits and coverage may be adjusted periodically in response to requirements of bond financed projects, acquisitions, and in response to changes in the insurance marketplace. The City can give no assurance that any future losses will be covered or that its insurance provider will be able to cover any such losses.

Earthquake Insurance. CSAC-EIA's insurance property program structure of dedicated tower limits applies also to Earthquake coverage. The City participates in four coverage towers. Earthquake coverage is provided for designated buildings/structures in the amount of $100 million under primary policies per tower, and additional excess rooftop limits of $440 million may be accessed. The earthquake coverage is subject to a 2% of total insured values deductible per unit per occurrence, subject to a minimum of $100,000, and a maximum of $50 million effective through March 31, 2019. The City's earthquake coverage is purchased jointly and limits are shared with the member counties in the CSAC-EIA pool. Due to the potential for geographically concentrated earthquake losses, the CSAC-EIA pool is geographically diverse to minimize any potential sharing of coverage in the case of an earthquake. Depending on the availability and affordability of earthquake insurance, the City may elect not to purchase such coverage in the future, or the City may elect to increase the deductible or reduce the coverage from present levels. Depending on availability and affordability of earthquake insurance, the City may elect not to purchase such coverage in the future.

Insurance for the Water System. Coverage under the City's CSAC-EIA policy extends to liability arising out of the operation of the Water System, including, among other assets, treatment plants, pump stations, administration buildings, garages, warehouses, concession buildings, and labs. The City does not maintain any insurance for the pipelines of the Water System because such insurance is not available at commercially reasonable rates. The City is not obligated under the Master Installment Purchase Agreement to procure and maintain, or cause to be procured and maintained, earthquake insurance on the Water System.

See Note 15 "– RISK MANAGEMENT" contained in the City's CAFR for Fiscal Year 2017, which is available through EMMA and is incorporated by reference in this Official Statement, and Note 15 "– RISK MANAGEMENT" contained in the City's CAFR for Fiscal Year 2018, attached as Appendix E, for additional information on the City's insurance coverages. See "FINANCIAL STATEMENTS" herein.

The following table sets forth the liabilities claims budget and expenditures for liability claims of the Water System for Fiscal Years 2013 through 2017.

TABLE 23
WATER UTILITY FUND LIABILITY CLAIMS BUDGET AND EXPENDITURES
Fiscal Years 2014 through 2018
(Unaudited)

Fiscal Year	Budget	Expenditures[1]
2014	$1,295,600	$4,386,039
2015	1,295,600	4,554,115
2016	1,295,600	2,671,028
2017	1,995,600	4,256,340
2018	2,095,600	5,873,310

(1) Over-budget expenditures are paid from the Water Utility Fund balance available for appropriations.

Source: Public Utilities Department and Risk Management Department, City of San Diego.

Investment of Funds

General. Amounts in the funds and accounts of the Water Utility Fund are invested by the City Treasurer in the City Treasurer's Pooled Investment Fund (the "City Pool") described below. The City accounts for such amounts separately from other funds of the City. Approximately 10.7% of the City Pool is allocable to the Water Utility Fund.

City Pool. In accordance with the Charter of the City and authority granted by the City Council, the City Treasurer is responsible for investing the unexpended cash in the City Pool. Responsibility for the daily investment of funds in the City Pool is delegated to the City's Chief Investment Officer and its Investment Officers. The City and certain related entities are the only participants in the City Pool; there are no other participants either voluntary or involuntary in the City Pool. The investment objectives of the City Pool are preservation of capital, liquidity and return.

The following table sets forth the investments in the City Pool as of September 30, 2018.

TABLE 24
CITY OF SAN DIEGO POOLED INVESTMENT FUND
As of September 30, 2018
($ Amounts in Thousands)
(Unaudited)

Investment Instrument	Book Value	Fair Value	Percent of Total[1]
U.S. Treasury Notes	$422,623	$416,882	20.04%
Agency Discount Notes	24,480	24,661	1.16
Agency Notes & Bonds	319,712	315,456	15.16
Supranationals[2]	115,125	113,436	5.46
Commercial Paper	247,027	248,951	11.71
Corporate Notes & Bonds	505,868	500,741	23.98
Local Agency Investment Fund	61,467	61,467	2.91
Asset Backed Securities	413,065	410,956	19.58
TOTAL INVESTMENTS	**$2,109,367**	**$2,092,550**	**100.00%**

(1) Based on book value.
(2) Supranationals are entities formed by two or more central governments through international treaties. Examples are the International Bank for Reconstruction and Development and the Inter-American Development Bank.
Source: Office of the City Treasurer, City of San Diego.

The City Pool is not invested in any structured investment vehicles or mortgage-backed securities. In addition, the City has no outstanding swap arrangements or liquidity facilities.

A summary of the investments held by the City Pool as of June 30, 2018, a description of the City's Investment Policy, as well as a list of investments authorized under the California Government Code and the City's Investment Policy, are set forth in the City's CAFR at note 3, "Cash and Investments."

Oversight and Reporting Requirements. The City Treasurer provides a monthly investment report to the Chief Financial Officer, the Finance Director & City Comptroller, and the City Council and annually presents the City Treasurer's Investment Policy to the Chief Financial Officer, the City Treasurer's Investment Advisory Committee (the "IAC"), the Budget and Government Efficiency Committee, and the City Council. The IAC is comprised of two City employees, currently the Chief Financial Officer and the Director of Debt Management, and three outside investment professionals and is charged with overseeing the review of the City Treasurer's Investment Policy and investment practices of the City Treasurer and recommending changes thereto. Investments in the City Pool are audited annually by an independent firm of certified public accountants as part of the overall audit of the City's financial statements.

The City's Investments Division uses outside services to provide investment portfolio valuations, accounting, and reporting services. These services provide monthly portfolio valuation, investment performance statistics, and other portfolio reports that are distributed to the Office of the City Treasurer Accounting program and the Department of Finance for review and reconciliation. The Office of the City Treasurer's Accounting program prepares a series of monthly reports, including the portfolio market valuation, and distributes these to the Mayor, City Council, Chief Financial Officer, and other officials.

San Diego City Employees' Retirement System – Water Utility Fund Contribution

General. The City faces significant financial challenges in addressing an unfunded pension liability of approximately $2.76 billion as of June 30, 2017. However, the Water Utility Fund's proportionate share of the City's Actuarially Determined Contribution ("ADC") to SDCERS was approximately 5.6% (equal to approximately $17.05 million or 3.7% of the Water System's Maintenance and Operation Costs, based on a City pension payment of $261.1 million in Fiscal Year 2017) for Fiscal Year 2017. The Water Utility Fund's proportionate share of the City's ADC to SDCERS was approximately 6.24% (equal to approximately $20.26 million or 4.1% of the Water System's Maintenance and Operation Costs, based on a City pension payment of $324.5 million) for Fiscal Year 2018 and projected to be approximately 5.0% (equal to approximately $16.21 million or 3.1% of the Water System's Maintenance and Operations Costs, based on a City pension payment of $322.9 million) for Fiscal Year 2019, as included in the Fiscal Year 2019 Adopted Budget.

SDCERS is a public employee retirement system established in Fiscal Year 1927 by the City. SDCERS administers independent, qualified, single employer governmental defined benefit plans and trusts for the City, the San Diego Unified Port District (the "Port") and the San Diego County Regional Airport Authority (the "Airport"). The assets of the three separate plans and trusts are pooled in the SDCERS Group Trust for investment purposes. These plans are administered by the SDCERS Board to provide retirement, disability, death and survivor benefits for its members. Amendments to the City's benefit provisions require City Council approval and amendments to retirement benefits require a majority vote by those SDCERS members who are also eligible City employees or retirees. Benefit increases also require a majority vote of the public. All approved benefit changes are codified in the City's Municipal Code. The plans cover all eligible employees of the City, the Port, and the Airport. All City employees initially hired before July 20, 2012 working half-time or greater, all sworn police officers of the City irrespective of hire date, and full-time employees of the Port and the Airport are eligible for membership and are required to join SDCERS.

As of July 20, 2012, SDCERS is closed to new City employees, except for the Police plan, which will remain open. SDCERS is considered part of the City's financial reporting entity and is included in the City's CAFR as a pension trust fund. See Note 12, "Pension Plans," in the City's Fiscal Year 2017 CAFR and the City's Fiscal Year 2018 CAFR. SDCERS also prepares its own Comprehensive Annual Financial Report, the most recent of which is for Fiscal Year 2018.

The amounts and percentages set forth under this caption relating to SDCERS, including, for example, actuarial accrued liabilities and funded ratios, are based upon numerous demographic and economic assumptions, including investment return rates, inflation rates, salary increase rates, cost of living adjustments, postemployment mortality, active member mortality, and rates of retirement. Prospective purchasers of the 2018 Bonds are cautioned to review and carefully assess the reasonableness of the assumptions set forth in this Official Statement and in the documents that are cited as the sources for the information under this caption. In addition, the prospective purchasers of the 2018 Bonds are cautioned that such sources and the underlying assumptions speak as of their respective dates, and are subject to change. Prospective purchasers of the 2018 Bonds should also be aware that some of the information presented under this caption contains forward-looking statements and the actual results of the pension system may differ materially from the information presented herein.

The information disclosed herein relates solely to the City's participation in SDCERS and not to the participation of the Airport or the Port. City employment classes participating in the City's defined benefit plan are elected officers, general employees and safety employees (including police, fire and lifeguard members). These classes are represented by various unions depending on the type and nature of work performed, except for elected officials, unclassified and unrepresented employees.

TABLE 25
CITY OF SAN DIEGO PLAN MEMBERSHIP
As of June 30, 2018

	General	Safety	Total by Classification
Active Members	3,899	2,068	5,967
Inactive Members	2,276	645	2,921
Retirees	5,426	3,470	8,896
DROP Participants[1]	757	371	1,128
Total Members	12,358	6,554	18,912

[1] Participants in the Deferred Retirement Option Plan ("DROP") no longer accrue service credits and do not make contributions to SDCERS. They continue to work for the City and contribute 3.05% of their salary, with an employer match, into a personal DROP account. Their service retirement benefit is also deposited into their DROP account and they must retire within five years of entering DROP. Employees hired after June 30, 2005 are ineligible for DROP.

Source: SDCERS Comprehensive Annual Financial Report for Fiscal Year 2018.

The City is required to make contributions to the pension system as determined by the SDCERS Board. Pension contributions are authorized and appropriated annually in accordance with the adoption of the City's annual budget. The City's ADC is calculated by the SDCERS' actuary, Cheiron, Inc. ("Cheiron") and approved by the SDCERS Board. Cheiron conducts an actuarial analysis for SDCERS annually, the most recent of which is the June 30, 2017 Annual Actuarial Valuation of SDCERS, dated December 22, 2017 (the "2017 Actuarial Valuation"). The 2017 Actuarial Valuation serves as the basis for the City's pension contribution for Fiscal Year 2019. The City's actual annual pension contribution may differ from the ADC based on a number of factors discussed below, but the pension contribution is not expected to be less than the ADC in any Fiscal Year.

Actuarial Assumptions. The following are the principal actuarial assumptions used by Cheiron in preparing the 2017 Actuarial Valuation. The actuarial assumptions reflect recommendations approved by the SDCERS Board in September 2017.

1. Investment Return Rate: 6.75% net of investment expenses. The assumption is scheduled to decline to 6.50% in the actuarial valuation at June 30, 2018.

2. Inflation Rate: 3.05% per year, compounded annually.

3. Administrative Expense Assumption: Administrative expenses are assumed to be $11.8 million for Fiscal Year 2018 (assuming payment at the beginning of the fiscal year, increasing by 2.50% annually).

4. Interest Credited to Member Contributions: 6.75% compounded annually.

5. Projected Salary Increases Due to Inflation: 0% in Fiscal Years 2013-2018, 3.05% thereafter, with additional merit salary increases of 0.50% to 8.00% based on a participant's years of service and membership group.

6. Cost-of-Living Adjustments: 1.90% per year, compounded annually.

7. Additional Assumptions: Additional assumptions regarding the following were used: cost of living annuity benefit, member refunds of contributions, rates of separation from

active membership, rates of disability, post-retirement mortality, disability mortality, active member mortality, family composition, rates of retirement, spousal continuances, deferred member benefits, and DROP.

Net Pension Liability. Governmental Accounting Standards Board ("GASB") accounting standards require that the City record, in its Statement of Net Position, the Net Pension Liability ("NPL") related to defined benefit retirement plans offered to City employees. The NPL represents the difference between the Total Pension Liability and the fair value of pension assets. An NPL of $2.522 billion is included in the City's CAFR for the Fiscal Year ending June 30, 2018. See Table 27 for the Water Utility Fund's share of the ADC from Fiscal Years 2015 through 2019.

The measurement of the NPL for Fiscal Year 2017 used a long-term expected rate of return of plan investments of 6.75% (the "Discount Rate"). A change in the assumed Discount Rate would have a significant effect on the measurement of the NPL. For Fiscal Year 2017, a 1% decrease in the assumed Discount Rate to 5.75% would increase the NPL by $1.133 billion, or 44.9%; and a 1% increase in the assumed Discount Rate to 7.75% would decrease the NPL by $933 million, or 37%. The Water Utility Fund's share of the NPL is $160 million.

Funding Status. According to the 2017 Actuarial Valuation, at June 30, 2017, the City had a Unfunded Actuarial Liability ("UAL") of $2.757 billion and a funded ratio based on the actuarial value of assets of 71.2%. The UAL increased by $199.6 million over the UAL set forth in the Actuarial Valuation at June 30, 2016 ("2016 Actuarial Valuation"), which was $2.557 billion, and the funded ratio decreased by 0.4%. The UAL in the 2017 Actuarial Valuation was expected to increase by $6.3 million compared to the UAL in the 2016 Actuarial Valuation. The larger than expected increase was primarily driven by the change to the discount rate assumption ($254.0 million). Net asset experience was favorable, decreasing the UAL by $100.5 million. There was a relatively small liability experience loss of $39.9 million, primarily due to salary (promotional increases greater than expected).

The following table sets forth the City's portion of SDCERS historical funding progress for Fiscal Years 2008 through 2017. Additionally, see Note 12, "Pension Plans," in the City's Fiscal Year 2017 CAFR and the City's Fiscal Year 2018 CAFR.

TABLE 26
CITY OF SAN DIEGO
SCHEDULE OF FUNDING PROGRESS
Fiscal Years 2008 through 2017
($ Amounts in Thousands)
(Unaudited)

Valuation Date (June 30)	Actuarial Value of Assets (A)	Market Value of Assets (B)	AL (C)	Funded Ratio (Actuarial)	Funded Ratio (Market)	UAL (Actuarial) (C) – (A)	AL Less Market Value of Assets (C) – (B)	Covered Payroll[1]	UAL to Covered Payroll
2008	$ 4,660,346	$ 4,408,719	$ 5,963,549	78.1%	73.9%	$ 1,303,203	$ 1,554,830	$ 535,774	243.2%
2009	4,175,229	3,479,357	6,281,636	66.5	55.4	2,106,408	2,802,279	536,591	392.6
2010	4,382,047	3,900,537	6,527,224	67.1	59.8	2,145,177	2,626,687	530,238	404.6
2011	4,739,399	4,848,054	6,917,175	68.5	70.1	2,177,776	2,069,121	514,265	423.5
2012	4,982,442	4,799,827	7,261,731	68.6	66.1	2,279,289	2,461,904	511,091	446.0
2013	5,317,778	5,395,158	7,555,527	70.4	71.4	2,237,749	2,160,369	499,463	448.0
2014	5,828,594	6,292,855	7,858,703	74.2	80.1	2,030,110	1,565,848	480,536	422.5
2015	6,204,244	6,387,829	8,205,953	75.6	77.8	2,001,709	1,818,124	480,662	416.4
2016	6,455,378	6,307,412	9,013,130	71.6	70.0	2,557,752	2,705,718	465,100	549.9
2017	6,808,418	7,000,220	9,565,802	71.2	73.2	2,757,384	2,565,582	448,890	614.3

(1) Covered payroll includes all elements of compensation paid to active City employees (who are in the SDCERS defined benefit plan) on which contributions to the pension plan are based.

Source: SDCERS Comprehensive Annual Financial Reports (Valuation Dates 2008-2016) and Cheiron Actuarial Valuation Reports (Valuation Dates 2008-2017) for Actuarial Value of Assets, Market Value of Assets, AL, Funded Ratio (Actuarial), Funded Ratio (Market) (2011-2017), UAL (Actuarial), AL Less Market Value of Assets (2014-2017), Covered Payroll and UAL to Covered Payroll (2008-2016). Department of Finance, City of San Diego for Funded Ratio (Market) (2008-2010), AL Less Market Value of Assets (2008-2013), and UAL to Covered Payroll (2017).

City and Water System Pension Contributions. The following table sets forth the City's ADC and pension contributions, the Water System's share of payments for Fiscal Years 2015 through 2018 and the budgeted and projected amounts for Fiscal Year 2019. Preservation of Benefits ("POB") Plan contributions are made on a monthly basis as payments are owed to beneficiaries. The City does not pay any portion of employee pension contributions.

TABLE 27
CITY OF SAN DIEGO AND WATER UTILITY FUND
PENSION CONTRIBUTION
Fiscal Years 2015 through 2019
($ Amounts in Thousands)
(Unaudited)

Fiscal Year	Pension Plan ADC[1]	POB Plan ARC	Total Plan ADC/ARC[2]	Pension Plan Contribution	POB Plan Contribution	Total Pension Contribution[3]	Water System Contribution[4]	Water System Operating Expenses[5]	Water System Contribution (% of O&M)
2015	$263,600	$876	$264,476	$263,600	$1,399	$264,999	$16,907	$429,657	3.9%
2016	254,900	842	255,742	254,900	1,595	256,495	16,297	415,820	3.9
2017	261,100	--	--	261,100	1,633	262,733	17,049	458,343	3.7
2018	324,500	--	--	324,500	1,430	325,840	20,257	490,438	4.1
2019	322,900	--	--	322,900	1,500	324,400	16,208	525,369	3.1

(1) ADC replaced the Annual Required Contribution ("ARC") starting in Fiscal Year 2015.

(2) See Note 12 in City's Fiscal Year 2017 CAFR and the City's Fiscal Year 2018 CAFR for more information on the POB Plan. Pursuant to IRS guidelines, the City may not pre-fund the POB Plan and POB Plan contributions are in addition to the Pension Plan ADC. As of Fiscal Year 2017, the SDCERS actuary does not calculate a POB Plan ADC, accordingly, an updated POB Plan ADC and Total Plan ADC is not available.

(3) Comprised of the pension plan contribution and the POB Plan contribution; may not sum due to rounding.

(4) In Fiscal Year 2016, the Water System contributed $1.5 million to the Pension Stabilization Reserve in addition to the $16.3 million Water System Contribution to the ADC. In Fiscal Year 2019, the Water System is budgeted to contribute $378,546 to the Pension Stabilization Reserve in addition to the $16.2 million Water System Contribution to the ADC.

(5) Water System Operating Expense amount is based on Fiscal Year 2019 Adopted Budget and includes depreciation based on beginning Fiscal Year 2019 fixed asset inventory. Actuals may vary compared to budgeted amounts.

Source: SDCERS Comprehensive Annual Financial Reports for Pension Plan ADC (2015-2017) and Pension Plan Contribution (2015-2017). Comprehensive Annual Financial Report, Department of Finance, City of San Diego for POB Plan ARC (2015-2016) and POB Plan Contribution (2015-2018). Public Utilities Department, City of San Diego for Water System Contribution as a percent of O&M (2015-2017). Department of Finance, City of San Diego for Pension Plan ADC (2018-2019), Total Plan ADC/ARC, Pension Plan Contribution (2018-2019), POB Plan Contribution (2019), Total Pension Contribution, Water System Contribution (2015-2019), and Water System Contribution as a Percent of O&M (2018-2019).

Proposition B. Proposition B (Pension Reform) ("Proposition B") was approved by voters on June 5, 2012 and implemented by the City in Fiscal Year 2013. Generally, the measure amends the City Charter to provide all new City employees hired on or after July 20, 2012, except sworn police officers, with a 401(a) defined contribution plan instead of a defined benefit plan. The initiative contains other provisions intended to limit pension costs for existing employees by directing the City to seek, through labor negotiations, to limit City employees' compensation used to calculate pension benefits.

On February 11, 2013, a California Public Employment Relations Board ("PERB") administrative law judge ("ALJ") issued a proposed decision finding that the City violated state labor laws by failing to meet and confer with City labor organizations prior to placing Proposition B on the ballot. The City filed exceptions to the proposed decision. On December 29, 2015, PERB issued Decision No. 2464-M (the "PERB Order"), which affirmed and adopted the ALJ's proposed decision with minor modifications. On January 25, 2016, the City filed an appeal with the Fourth District Court of Appeal. On April 11, 2017, the Court of Appeal overturned the ruling by the PERB. On July 26, 2017, the California Supreme Court granted petitions for review filed by both PERB and the labor organizations and held oral arguments in the case on May 29, 2018.

On August 2, 2018, the California Supreme Court overturned the Court of Appeal's decision, finding that the City failed to meet and confer with City labor unions prior to placing Proposition B on the ballot in June 2012. The Supreme Court did not invalidate Proposition B. The Supreme Court remanded the PERB case to the Court of Appeal for further proceedings to consider the appropriate judicial remedy. It is possible that the Court of Appeal will uphold the PERB order issued in 2015 which, in part, required the City to make employees whole for pension benefits lost, offset by the value of new benefits provided to them under Proposition B. Based on the City's preliminary analysis and the actuarial work performed by SDCERS'

Actuary, the City believes that the benefits provided under Proposition B and the pension benefits the affected employees, including employees whose pension benefits are paid from amounts in the Water Utility Fund, would have otherwise received under the City's defined benefit plan have comparable values. Accordingly, the potential cost to the City as relates to the make-whole provision in the PERB order is immaterial. However, PERB did not clearly define how the value of these respective benefits should be calculated. Thus, under the PERB Order, the City is required to negotiate with the labor unions the terms under which affected employees will be made whole. A further consideration in implementing any "make-whole remedy" is compliance with federal tax laws and regulations, which may also restrict the remedies available. In early- to mid-December 2018, the City will be filing a petition for certiorari with the United States Supreme Court seeking review of the Court of Appeal's decision.

Postemployment Healthcare Benefits – Water Utility Fund Contribution

General. The City provides retiree healthcare benefits, also known as other post-employment benefits ("OPEB"), to certain health-eligible retirees and employees who were initially hired prior to July 1, 2005. As a result of a 15-year memorandum of understanding regarding post-employment healthcare benefits ("PEHB MOU") with the City's recognized employee organizations, there are two retiree healthcare plans: a defined benefit OPEB plan ("DB OPEB Plan") and a defined contribution plan ("DC Plan"). See Note 13, "Other Postemployment Benefits," in the City's Fiscal Year 2017 CAFR and the City's Fiscal Year 2018 CAFR for information regarding the City's OPEB plans.

Citywide and Water Utility Fund OPEB Contributions. Pursuant to the PEHB MOU, the City's total retiree healthcare annual contribution ("MOU Contribution") was $62.2 million for Fiscal Year 2018, distributed among the City's pay-go contribution to the DB OPEB Plan ("DB OPEB Pay-go") and its contribution to the DC Plan. The PEHB MOU also requires that certain employees contribute towards the DB OPEB Plan to fund a portion of the DB OPEB Pay-go ("Employee Contributions"). The terms of the PEHB MOU may be renegotiated with a two-thirds vote of the City Council. As of the date of this Official Statement, there are no discussions ongoing to renegotiate the level of funding for the MOU Contribution. The City's net OPEB obligation as of June 30, 2017 was $276.9 million.

The City's annual payment for the DB OPEB Plan and the DC Plan are made on a pay-go basis. For the last five fiscal years, the Water Fund retiree health contribution has been less than $5.0 million annually, which has represented approximately 1.00% of the Water Fund's maintenance and operation expenses.

Net OPEB Liability. GASB accounting standards require that the City record, in its Statement of Net Position, the Net OPEB Liability related to OPEB offered to City employees. The Net OPEB Liability represents the difference between the total OPEB liability and the fair value of OPEB assets. A Net OPEB Liability of $550.4 million is included in the City's CAFR for the Fiscal Year ending June 30, 2018. The measurement of the Net OPEB Liability for Fiscal Year 2017 used a Discount Rate of 6.73%. For Fiscal Year 2017, a 1% decrease in the assumed Discount Rate to 5.73% would increase the Net OPEB Liability by $71.3 million; and a 1% increase in the assumed Discount Rate to 7.73% would decrease the Net OPEB Liability by $60.4 million. The Water Utility Fund's share of the Net OPEB Liability is $42 million.

RISK FACTORS

Investment in the 2018 Bonds involves risks that may not be appropriate for certain investors. The following is a discussion of certain risk factors that should be considered, in addition to other matters set forth herein, in evaluating the 2018 Bonds for investment. The information set forth below does not purport to be an exhaustive listing of the risks and other considerations that may be relevant

to an investment in the 2018 Bonds. In addition, the order in which the following information is presented is not intended to reflect the relative importance of any such risks.

Limited Obligations

The obligation of the City to pay the 2018 Subordinated Installment Payments securing the 2018 Bonds is a limited obligation of the City and is not secured by a legal or equitable pledge or charge or lien upon any property of the City or any of its income or receipts, except the Net System Revenues payable on a basis that is subordinate to the right of payment by the City of its Outstanding Senior Obligations under the Master Installment Purchase Agreement. The obligation of the City to make the 2018 Subordinated Installment Payments does not constitute an obligation of the City to levy or pledge any form of taxation or for which the City has levied or pledged any form of taxation. The City is obligated under the 2018 Supplement to make the 2018 Subordinated Installment Payments solely from Net System Revenues payable Net System Revenues on a basis that is subordinate to the right of payment by the City of its Outstanding Senior Obligations under the Master Installment Purchase Agreement.

No assurance can be made that Net System Revenues, estimated or otherwise, will be realized by the City in amounts sufficient to pay the 2018 Subordinated Installment Payments. Among other matters, drought, general and local economic conditions, and changes in law and government regulations (including initiatives and moratoriums on growth) could adversely affect the amount of Net System Revenues realized by the City. In addition, the realization of future Net System Revenues is subject to, among other things, the capabilities of management of the City, the ability of the City to provide water to its customers, and the ability of the City to meet its covenant to fix, prescribe, and collect rates and charges for the Water Service in amounts sufficient to timely pay the 2018 Subordinated Installment Payments, which could in turn adversely impact the Authority's ability to make payments of the principal of or interest on the 2018 Bonds. The City has covenanted in the Master Installment Purchase Agreement to fix, prescribe, and collect rates and charges for the Water Service which will be at least sufficient to yield the greater of (i) Net System Revenues (as defined herein) sufficient to pay during each Fiscal Year all Obligations payable in such Fiscal Year, or (ii) Adjusted Net System Revenues during each Fiscal Year equal to 120% of the Adjusted Debt Service for such Fiscal Year. Adjusted Debt Service does not include debt service on Subordinated Obligations, such as the 2018 Subordinated Installment Payments. See "WATER SYSTEM FINANCIAL OPERATIONS – Establishment of Water Service Charges."

The 2018 Bonds are limited obligations of the Authority payable solely from and secured solely by the Subordinated Revenues pledged therefor and amounts on deposit in the Subordinated Bonds Payment Fund established under the Indenture. Funds for the payment of the principal of and the interest on the 2018 Bonds are derived solely from the 2018 Subordinated Installment Payments. The Authority has no other source of revenues from which to pay debt service on the 2018 Bonds. The Authority has no taxing power.

Subordinated Obligations

The 2018 Bonds are limited obligations of the Authority payable solely from and secured by the 2018 Subordinated Installment Payments to be received by the Authority and from the amounts on deposit in certain funds held under the Indenture. The 2018 Subordinated Installment Payments are payable from Net System Revenues on a basis that is subordinate to the right of payment by the City of its Outstanding Senior Obligations under the Master Installment Purchase Agreement. In the event of a default under the Indenture, the owners of the Senior Obligations have, in certain circumstances, the right to accelerate the entire principal amount of the Senior Obligations. See "Acceleration; Limitations on Remedies" below. In such circumstances, owners of the 2018 Bonds may not receive scheduled payments of principal of and interest on the 2018 Bonds until all holders of Senior Obligations have been

paid in full. Further, as concerns the Rate Covenant under the Indenture, Adjusted Debt Service does not include debt service on Subordinated Obligations such as the 2018 Subordinated Installment Payments. See "SECURITY AND SOURCES OF PAYMENT FOR THE 2018 BONDS" and "APPENDIX A – SUMMARY OF PRINCIPAL LEGAL DOCUMENTS."

Water System Expenses, Collections, and Future Rates

The maintenance and operation expenditures related to the Water System are expected to increase in the next five years. See "WATER SYSTEM FINANCIAL OPERATIONS – Financial Projections and Modeling Assumptions." However, there can be no assurance that the City's projected future Maintenance and Operation Costs of the Water System will actually be as projected by the Department and described in this Official Statement. In addition, demands on the Water System are expected to increase due to population growth and regulatory requirements in the future. As described herein, the City is in the process of implementing the Long-Range Water Resources Plan and the attendant CIP to provide a framework for meeting future water requirements. Increases in expenses could require a significant increase in rates or charges in order to pay for CIP projects, including those anticipated under the City's Long-Range Water Resources Plan, the Pure Water Program, and to pay the debt service on account of any Obligation senior to or on parity with the Subordinated Installment Payments including, without limitation, the 2018 Subordinated Installment Payments securing the 2018 Bonds. Also, any such rate increases could increase the likelihood of nonpayment by purchasers of water from the City and could also decrease demand from such purchasers and may impact the City's ability to make the 2018 Subordinated Installment Payments, which could in turn adversely impact the Authority's ability to make payments of the principal of and interest on the 2018 Bonds as and when due.

Rates for Fiscal Year 2021 and beyond are not part of the 2016 Rate Case. Related CIP expenditures are rate dependent, including, particularly, Pure Water Program expenditures for the Water Utility Fund. The City anticipates that additional rate capacity is necessary after Fiscal Year 2020. The City expects to perform cost of service analysis to prepare a new rate case for recommended rate adjustments for the Water Utility Fund for Fiscal Year 2021 and later Fiscal Years.

Water System CIP Projects; Pure Water Program

The Water System CIP is a large component of the operations and maintenance of the Water System. The components of the Water System CIP described in this Official Statement are based upon preliminary estimates by the Department, as are projected schedules for the completion of project components, plans and designs, construction costs, and funding sources. Among other things, steel tariffs could adversely impact the construction costs of several components of the Water System CIP, although any such impacts have not been experienced by the City to date. Actual results of the Water System CIP and the projects undertaken thereunder are subject to adjustment and may vary, and costs may be higher or lower than such estimates. See "WATER SYSTEM CAPITAL IMPROVEMENT PROGRAM – Description of Major Projects" and Table 11 under that heading.

The largest portion of the Water System CIP, in terms of cost and scope, is the Pure Water Program. Completion of the Pure Water Program includes certain assumptions (which the Department considers to be reasonable), and Department goals to (a) pursue all options in order to get regulatory certainty that the Pure Water Program will suffice to offset the requirement to move up to secondary treatment and (b) continue outreach efforts to promote the Pure Water Program to all communities within the San Diego region. In the event the costs of the first phase of the Pure Water Program exceed the Department's original estimates, delays or unforeseen obstacles are faced, additional capital contributions may be necessary in order to pay for the total costs of Phase 1 of the Pure Water Program. The exact amount of any such additional capital contributions will depend upon (a) the actual costs of the first phase

of the Pure Water Program incurred to date where costs and funding are different than anticipated, (b) any unanticipated additional costs of the first phase of the Pure Water Program needed to complete the first phase of the Pure Water Program, (c) approval of a rate case to address future capital program costs in Fiscal Years 2021 and later Fiscal Years, and (d) whether any bonds, loans or grants will differ from projected to finance costs of the first phase of the Pure Water Program. Capital costs associated with Phase 1 of the Pure Water Program are approximately $1.477 billion, of which approximately $865 million is allocated to the Water Utility Fund and approximately $612 million is allocated to the Sewer Revenue Fund. The amounts allocated to the Water Utility Fund and the Sewer Revenue Fund are based upon engineering studies and treatment processes. As with each component of the Water System CIP, the achievement of projected results, completion, and other expectations involves known and unknown risks, uncertainties, and other factors that may hinder the Department's ability to meet the CIP schedule set forth herein. See "WATER SUPPLY – Pure Water Program" and "WATER SYSTEM CAPITAL IMPROVEMENT PROGRAM" for additional information on the Pure Water Program.

Water System Demand

There can be no assurance that the local demand for the services provided by the Water System will be maintained at levels described in this Official Statement. Because of changes in demographics within the boundaries of the City, it is possible for the demand for water services to decline over the term of the 2018 Bonds. A significant decline in demand might create a situation in which the City could not increase rates sufficiently to offset the decrease in subscribers or usage. This would reduce the City's ability to make the 2018 Subordinated Installment Payments, which could in turn adversely impact the Authority's ability to make payments of the principal of and interest on the 2018 Bonds as and when due.

Rate-Setting Process Under Proposition 218

Proposition 218, which added Articles XIIIC and XIIID to the State Constitution, affects the City's ability to impose future rate increases and no assurance can be given that future rate increases will not encounter majority protest opposition or be challenged by initiative action authorized under Proposition 218. In the event that future proposed rate increases cannot be imposed as a result of majority protest or initiative, the City might thereafter be unable to generate Net System Revenues in the amounts required by the 2018 Supplement to pay the 2018 Subordinated Installment Payments, which could in turn adversely impact the Authority's ability to make payments of the principal of and interest on the 2018 Bonds. See "CONSTITUTIONAL LIMITATIONS ON TAXES AND WATER RATES AND CHARGES – Article XIIIC" and "– Article XIIID."

Notwithstanding the foregoing, the City has covenanted to fix, prescribe, and collect rates and charges for Water Service at a level at least sufficient to meet its debt requirements for Senior Bonds, as set forth under "SECURITY AND SOURCES OF PAYMENT FOR THE 2018 BONDS – Rate Covenant," and to use its best efforts to effect Water Service rate increases in compliance with Proposition 218. The current water rates approved by the City Council have been imposed in compliance with Proposition 218. See "CONSTITUTIONAL LIMITATIONS ON TAXES AND WATER RATES AND CHARGES – Article XIIIC" and "– Article XIIID."

Statutory and Regulatory Compliance

The Water System is subject to a variety of federal and State statutory and regulatory requirements. Laws and regulations governing treatment and delivery of water are enacted and promulgated by federal, state and local government agencies. Compliance with these laws and regulations is and will continue to be costly and, as more stringent standards are developed to ensure safe drinking water standards and the provision of water for other purposes, such costs will likely increase.

The City's failure to comply with applicable laws and regulations could result in significant fines and penalties. Such claims are payable from assets of the Water System or from other legally available sources. In addition to claims by private parties, changes in the scope and standards for public agency water systems such as that operated by the Department may also lead to administrative orders issued by federal or State regulators. Future compliance with such orders can also impose substantial additional costs on the Water Utility Fund. No assurance can be given that the cost of compliance with such laws, regulations, and orders would not adversely affect the ability of the Water System to generate Net System Revenues sufficient to pay the debt service on account of any Obligation senior to or on parity with the 2018 Subordinated Installment Payments including, without limitation, the 2018 Subordinated Installment Payments, which could in turn adversely impact the Authority's ability to make payments of the principal of and interest on the 2018 Bonds. See "WATER SUPPLY – Water System Regulatory Requirements."

The City has covenanted in the Master Installment Purchase Agreement to fix, prescribe, and collect rates and charges for the Water Service which will be at least sufficient to yield the greater of (i) Net System Revenues (as defined herein) sufficient to pay during each Fiscal Year all Obligations payable in such Fiscal Year, or (ii) Adjusted Net System Revenues during each Fiscal Year equal to 120% of the Adjusted Debt Service for such Fiscal Year. Adjusted Debt Service does not include debt service on Subordinated Obligations, such as the 2018 Subordinated Installment Payments. See "WATER SYSTEM FINANCIAL OPERATIONS – Establishment of Water Service Charges." No assurance can be given that the cost of compliance with such laws and regulations will not materially adversely affect the ability of the Water System to generate Net System Revenues sufficient to pay the 2018 Subordinated Installment Payments.

Risks Relating to the Water Supply

General. There are a variety of factors that can adversely affect the supply of water available to MWD, CWA and the City. See "WATER SUPPLY." Further, among other factors affecting demand, water use is affected by economic conditions. Economic recession and its associated impacts such as job losses, income losses, and housing foreclosures or vacancies affect aggregate levels of water use and the City's water sales. Among other matters, water supply and demand, general and southern California economic conditions and changes in law and government regulations could adversely affect the amount of operating revenues that the Department receives.

Drought Risks. The ability of the Water System to operate effectively can be affected by the water supply available to the City, which is situated in an arid and semi-desert environment. If the water supply decreases significantly, whether by operation of mandatory supply restrictions, prohibitively high water costs or otherwise, Water System sales will diminish and Net System Revenues available to pay the 2018 Subordinated Installment Payments may be adversely affected. Suppliers of water to the City, including CWA and MWD, have planned and managed reserve supplies to account for normal occurrences of drought conditions. See "WATER SUPPLY."

Earthquakes, Wildfires, and Other Natural Disasters. Although the City has not experienced any significant damage from seismic activities, the geographic area in which the City is located is subject to unpredictable seismic activity. Southern California is characterized by a number of geotechnical conditions that represent potential safety hazards, including expansive soils and areas of potential liquefaction and landslide. The San Andreas, Rose Canyon, Elsinore, and San Jacinto fault zones are all capable of producing earthquakes in the San Diego area and beyond. Water conveyance and distribution facilities maintained by DWR, MWD and CWA are all subject to the risk of earthquakes and other natural disasters which could interrupt deliveries to the Water System. Earthquakes or other natural disasters could interrupt operation of the Water System or that of its suppliers and thereby interrupt the ability of the City to realize Net System Revenues sufficient to pay the 2018 Subordinated Installment Payments

securing the payment of principal of and interest on the 2018 Bonds. In anticipation of such potential disasters, the City designs and constructs all facilities of the Water System to the seismic codes in effect at the time of design of the project. The Water System has not experienced any significant losses of facilities or services as a result of earthquakes.

Water conveyance facilities generally consist of pipelines and connections, flow control facilities, and pumping stations, which are not typically vulnerable to damage by wildfires. The above ground facilities within the Water System are designed to be tolerant to damage by wildfires through the use of fire resistant material where possible, such as concrete and masonry blocks. In addition, the Department works closely with the City's fire department to ensure that proper vegetative clearances are maintained in and around the properties and facilities of the Water System. The Department watches for wildfires that may threaten the facilities of the Water System and operations and maintenance crews are dispatched to ensure that all above-ground facilities remain safe and operational. Further, during fires, the Department works closely with the City's fire department and law enforcement officers to monitor and protect facilities of the Water System to ensure continuous operation.

As described under the caption "WATER SYSTEM SERVICE AREA AND FACILITIES – Existing Water System Facilities – Raw Water Reservoirs," the City is also cooperating with CWA on the Emergency Storage Project, pursuant to which a system of reservoirs, interconnected pipelines and pumping stations is being created to improve the availability of water to the San Diego region in the event of an interruption in imported water deliveries. Currently, the pipelines that carry imported water for CWA, a portion of which is purchased by the Department, extend for hundreds of miles and cross several major fault lines along the to the County. A severe earthquake, drought or other significant disaster could cut off the County's imported water supply for up to six months.

Although the City has implemented disaster preparedness plans and made improvements to Water System facilities in connection with such natural disasters, there can be no assurance that these or any additional measures will be adequate in the event that a natural disaster occurs, nor that costs of preparedness measures will be as currently anticipated. Further, damage to components of the Water System could cause a material increase in costs for repairs or a corresponding material adverse impact on Net System Revenues. **The City is not obligated under the Master Installment Purchase Agreement to procure and maintain, or cause to be procured and maintained, earthquake insurance on the Water System.**

Environmental Considerations. Several fish species and other wildlife species either directly or indirectly have the potential to affect SWP and Colorado River operations as well as CWA and MWD supplies and facilities. See "WATER SUPPLY."

Security of the Water System. Military conflicts and terrorist activities may adversely impact the operations and finances of the Water System. The Department continually plans and prepares for emergency situations and immediately responds to ensure the quality and service of water is maintained. The Department prepares for emergencies such as earthquake, fire, power failure, or possible water contamination in a variety of ways, including: extensively monitoring the entire water treatment and distribution system on a routine basis throughout the year, in part by taking thousands of water samples; routinely training staff on critical security and safety; conducting disaster drills to improve coordination efforts throughout the region; collaborating with the DDW, law enforcement and fire-rescue agencies in order to improve multiple agency response to water emergencies; implementing a water quality notification plan to keep customers informed in emergency situations; and implementing additional security measures at all water treatment plants, reservoirs, and other local and remote water facilities. However, there can be no assurance that any existing or additional safety and security measures will prove adequate in the event that terrorist activities are directed against the Water System or that costs of

security measures will not be greater than presently anticipated. Further, damage to certain components of the Water System could require the City to increase expenditures for repairs to the Water System significantly enough to adversely impact the City's ability to make the 2018 Subordinated Installment Payments, which could in turn adversely impact the Authority's ability to make payments of the principal of and interest on the 2018 Bonds. The Water System CIP has made use of and will continue to pursue additional use of Homeland Security grants to enhance security of various facilities throughout the Water System. In addition, the City has established the Operating Reserve, which is currently funded at a minimum 70 days of operating costs which may be used under certain circumstances for repairs to the Water System. See "WATER SYSTEM FINANCIAL OPERATIONS – Rate Stabilization Fund; Other Funds and Accounts."

Suppliers of water to the City have also taken actions to increase the security of water from the CRA and the SWP. MWD conducts ground and air patrols of the CRA and monitoring and testing at all treatment plants and along the CRA. Similarly, DWR has in place security measures to protect critical facilities of the SWP, including both ground and air patrols of the SWP. Although MWD has constructed redundant systems and other safeguards to ensure its ability to continually deliver water to its customers, and DWR has made similar efforts, a terrorist attack or other security breach against water facilities could materially impair MWD's ability to deliver water to its member agencies, including CWA, from which the Department purchases a substantial portion of its water supplies, through the CRA or the SWP, or that costs of security measures will not be greater than presently anticipated, which could adversely impact the City's ability to pay the 2018 Subordinated Installment Payments, which could in turn adversely impact the Authority's ability to make payments of the principal of and interest on the 2018 Bonds.

The safety of the facilities of the Water System is maintained via a combination of regular inspections by City employees, electronic monitoring, and analysis of unusual incident reports. All critical above-ground facilities operated and maintained by the City are controlled access facilities with fencing, gates, closed circuit television systems and security officers at certain points. Critical facilities additionally include monitored closed circuit television systems. Security services are provided at facilities, and this service was recently renewed through a contract awarded in July 2018 for five years, which will continue the consistent and reliable security guard services at Water System Facilities. Smaller, above ground and subterranean pumping stations operated and maintained by the City are locked with padlock or internal locking mechanisms, and most are monitored via access/intrusion alarms. Security improvements are evaluated on an ongoing basis. The electronic operations and controls have been evaluated and exposure reduced through a series of technology systems enhancements and integration.

Utility Costs. Power outages may cause difficulties in receiving an adequate water supply and thus increase the cost of water. No assurance can be given that any future significant reduction or loss of power would not materially adversely affect the operations of the Water System. Also, the Department cannot guarantee that prices for electricity or gas will not increase, which could adversely affect the Water System's financial condition, although the rate increases previously approved by the City for Fiscal Years 2016 through 2020 allow for 9% annual inflation in gas and electric costs. The Department also cannot guarantee that additional increases in water rates charged by CWA, the City's wholesale provider, or other charges imposed by CWA or MWD will not be proposed. Costs for electric power required for operating the pumping systems of CWA, and MWD for CRA and the State Water Project, are a substantial part of their respective expenses. Such increases in water rates and such other charges as well as increases in electricity and gas costs are eligible to be "passed through" to the City's water customers as increased water rates in accordance with the City's Municipal Code. Such "pass-through" rate increases are subject to Proposition 218 notice requirements. See "CONSTITUTIONAL LIMITATIONS ON TAXES AND WATER RATES AND CHARGES – Article XIIIC" and "– Article XIIID."

Acceleration; Limitations on Remedies

The Indenture provides that, upon and during the continuance of an Event of Default thereunder, the Trustee may, subject to certain conditions, declare the principal of all Senior Bonds then Outstanding and the interest accrued thereon to be due and payable immediately. So long as any Senior Bonds remain outstanding under the Indenture, no Owners of Subordinated Bonds shall have the right to declare an Event of Default, to declare any Subordinated Bonds immediately due and payable or to direct the Trustee or waive any Event of Default. The foregoing notwithstanding, the remedy of acceleration is subject to the limitations on legal remedies against public entities in the State, including a limitation on enforcement obligations against funds needed to serve the public welfare and interest. Also, any remedies available to the Owners of the 2018 Bonds upon the occurrence of an Event of Default under the Indenture are in many respects dependent upon judicial actions, which are often subject to discretion and delay and could prove both expensive and time consuming to obtain.

Further, enforceability of the rights and remedies of the Owners of the 2018 Bonds, and the obligations incurred by the City, may become subject to the federal bankruptcy code and applicable bankruptcy, insolvency, receivership, reorganization, moratorium, or similar laws relating to or affecting the enforcement of creditor's rights generally, now or hereafter in effect, equity principles that may limit the specific enforcement under State law of certain remedies, the exercise by the United States of America of the powers delegated to it by the Constitution, the reasonable and necessary exercise, in certain exceptional situations, of the police powers inherent in the sovereignty of the State and its governmental bodies in the interest of serving a significant and legitimate public purpose, and the limitations on remedies against counties in the State. Bankruptcy proceedings, or the exercise of powers by the federal or State government, if initiated, could subject the Owners of the 2018 Bonds to judicial discretion and interpretation of their rights in bankruptcy or otherwise and consequently may entail risks of delay, limitation, or modification of their rights. The opinions to be delivered by Bond Counsel, concurrently with the issuance of the 2018 Bonds, that the 2018 Bonds constitute valid and binding limited obligations of the City and the Indenture constitutes a valid and binding obligation of the City will be subject to such limitations and the various other legal opinions to be delivered concurrently with the issuance of the 2018 Bonds will be similarly qualified. See "APPENDIX B – FORM OF BOND COUNSEL OPINION."

If the City fails to comply with its covenants under the 2018 Supplement to pay the 2018 Subordinated Installment Payments, there can be no assurance of the availability of remedies adequate to protect the interests of the holders of Senior Bonds and, accordingly, the Subordinated Bonds.

Future Legislation

The City is subject to various laws, rules and regulations adopted by the local, State and federal governments and their agencies. The City is unable to predict the adoption or amendment of any such laws, rules or regulations, or their effect on the operations of the Water System or financial condition of the Water Utility Fund.

Potential Impact of Climatic Change

The issue of climate change has become an important factor in water resources planning in the State, and it is being considered during planning for water supplies and systems. Many studies cite evidence that increasing concentrations of greenhouse gases have caused and will continue to cause a rise in temperatures around the world, which will result in a wide range of changes in climate patterns. Moreover, these studies cite evidence that a warming trend occurred during the latter part of the 20th century and will likely continue through the 21st century. These changes could have a direct effect on

water resources in the State, and numerous studies on climate and water in the State have been conducted to determine the potential impacts. Based on these studies, global warming could result in the following types of water resources impacts in the State, including impacts on water supplies and systems:

- Sea level rise and an increase in saltwater intrusion,
- Changes in the timing, intensity, and variability of precipitation, and an increased amount of precipitation falling as rain instead of as snow,
- Reductions in the average annual snowpack due to a rise in the snowline and a shallower snowpack in the low- and medium-elevation zones, and a shift in snowmelt runoff to earlier in the year,
- Long-term changes in watershed vegetation and increased incidence of wildfires that could affect water quality,
- Increased water temperatures with accompanying adverse effects on some fisheries,
- Increases in evaporation and concomitant increased irrigation need, and
- Changes in urban and agricultural water demand.

However, other than the general trends listed above, there is no clear scientific consensus on exactly how global warming will quantitatively affect State water supplies, and current models of State water systems generally do not reflect the potential effects of global warming.

The Climate Change-Related Impacts in the San Diego Region by 2050 Report, released by California Climate Change Center in August 2009, suggested that due to global climate changes, the mean sea level ("MSL") in the year 2050 will rise by 1.5 feet. A review of historical tide data from the National Oceanic and Atmospheric Administration (NOAA) determined that the average high tide rise for the San Diego Region was 6.55 feet. The projected elevation of the 2050 high tide will be the current high tide elevation (6.55 feet) plus the projected rise in sea level by the year 2050 (1.5 feet), which makes the projected San Diego Region 2050 high tide elevation 8.05 feet above MSL. The City performed an analysis based on this information to determine the potential impact on the City's water and wastewater facilities. Based on the analysis, no water pump stations or treatment plants will be affected by this potential sea level change since these facilities are all situated at higher grounds. The City maintains and operates more than 3,300 miles of water lines; less than 22 miles of these water pipes may be impacted by the projected rise in sea level. The impacts on affected water pipes will be limited by the fact that the Water System is under high inner pressure.

Based on these preliminary studies and the results of literature reviews, the potential impacts of global warming on water supplies and systems are going to be limited through 2030. Water system operations may be impacted the most by the need to coordinate local surface and groundwater storage operations and developments with shifting imported water supply availability due to changes in the timing, intensity, and variability of precipitation, and an increased amount of precipitation falling as rain instead of as snow in the watersheds for imported water. City water resource specialists and engineers are involved in ongoing monitoring and research regarding climate change trends and will continue to monitor the changes and predictions, particularly as these changes relate to Water System operations and management of water supplies and systems.

Cybersecurity

The City relies on a complex technology environment to conduct its operations. As a recipient and provider of personal, private, and sensitive information, the City and its departments and offices face multiple cyber threats including, but not limited to, hacking, viruses, malware and other attacks on computers and other sensitive digital networks and systems.

The City's Information Security Office works to protect the City from cyber threats by adopting new technology and ensuring City systems and citizen data are protected. The City's Information Security Office focuses on three core components: an appropriate governance and policy structure; a robust and scalable security architecture and solutions; and an expansive and continuous security awareness program. The Information Security Office follows industry best practices, develops City-wide security policies, provides regular security training to all users and uses best-of-breed security tools to mitigate, prevent, deter and respond to incidents if and when they occur. Additionally, to identify potential vulnerabilities and proactively mitigate them, the City organizes weekly vulnerability scanning of critical systems, annual penetration tests of the information security environment, and regular internal testing of systems and users. These tests are performed by both the City's Information Security Office and contracted third parties.

The City's networking contractor provides secure network devices for the City's computer systems and the City has working relationships and meets regularly with security experts in Federal and state governments, commercial enterprises, academic institutions and law enforcement organizations. By virtue of these relationships, the City stays informed of cyber threats and effectively communicates with proper authorities regarding cyber risks and incidents.

No assurances can be given that the City's security and operational control measures will be successful in guarding against any and each cyber threat and attack. The results of any attack on the City's computer and information technology systems could impact its operations and damage the City's digital networks and systems, and the costs of remedying any such damage could be substantial.

Uncertainties of Projections, Forecasts and Assumptions

Compliance with certain of the covenants contained in the Indenture is based upon assumptions and projections including, but not limited to, those described under "WATER SYSTEM FINANCIAL OPERATIONS – Financial Projections and Modeling Assumptions." Projections and assumptions are inherently subject to significant uncertainties. Inevitably, some assumptions will not be realized and unanticipated events and circumstances may occur and actual results are likely to differ, perhaps materially, from those projected. Accordingly, such projections are not necessarily indicative of future performance, and the City assumes no responsibility for the accuracy of such projections. See also "INTRODUCTION – Forward-Looking Statements."

Absence of Market for the 2018 Bonds

There can be no guarantee that there will ever be a secondary market for purchase or sale of the 2018 Bonds or, if a secondary market exists, that the 2018 Bonds can be sold for any particular price. Occasionally, because of general market conditions or because of adverse history or economic prospects connected with a particular issue, secondary marketing practices in connection with a particular issue are suspended or terminated. Additionally, prices of issues for which a market is being made will depend upon then prevailing circumstances. Such prices could be substantially different from the original purchase price.

Loss of Tax Exemption on 2018 Bonds

As discussed under the caption "TAX MATTERS," interest on the 2018 Bonds could become included in gross income for purposes of federal income taxation, retroactive to the date the 2018 Bonds were issued, as a result of future acts or omissions of the City or the Authority in violation of their respective covenants in the Indenture and the Master Installment Purchase Agreement.

Economic, Political, Social, and Environmental Conditions

Prospective investors are encouraged to evaluate current and prospective economic, political, social, and environmental conditions as part of an informed investment decision. Changes in economic, political, social, or environmental conditions on a local, state, federal, and/or international level may adversely affect investment risk generally. Such conditional changes may include (but are not limited to) fluctuations in business production, consumer prices, or financial markets, unemployment rates, technological advancements, shortages or surpluses in natural resources or energy supplies, changes in law, social unrest, fluctuations in the crime rate, political conflict, acts of war or terrorism, environmental damage, and natural disasters.

CONSTITUTIONAL LIMITATIONS ON TAXES AND WATER RATES AND CHARGES

Article XIIIA

Article XIIIA of the State Constitution provides that the maximum *ad valorem* tax on real property cannot exceed 1% of the "full cash value," which is defined as "the county assessor's valuation of real property as shown on the 1975-76 tax bill under 'full cash value' or, thereafter, the appraised value of real property when purchased, newly constructed, or a change in ownership has occurred after the 1975 assessment," subject to exceptions for certain circumstances of transfer or reconstruction and except with respect to certain voter approved debt. The "full cash value" is subject to annual adjustment to reflect increases, not to exceed 2% per year, or decreases in the consumer price index or comparable local data, or to reflect reduction in property value caused by damage, destruction or other factors.

Article XIIIA requires a vote of two-thirds of the qualified electorate to impose special taxes, while generally precluding the imposition of any additional *ad valorem*, sales or transaction tax on real property. As amended, Article XIIIA exempts from the 1% tax limitation any taxes above that level required to pay debt service on certain voter-approved general obligation bonds for the acquisition or improvement of real property. In addition, Article XIIIA requires the approval of two-thirds of all members of the State Legislature to change any State laws resulting in increased tax revenues.

Under California law, any fee that exceeds the reasonable cost of providing the service for which the fee is charged is a "special tax," which under Article XIIIA must be authorized by a two-thirds vote of the electorate. Under Article XIIID, fees and charges for water, sewer, and refuse collection services are subject to majority protest, but are not subject to the two-third vote requirement of Article XIIIA. The reasonable cost of providing water services has been determined by the State Controller to include depreciation and allowance for the cost of capital improvements. In addition, the California courts have determined to date that fees such as capacity fees will not be special taxes if they approximate the reasonable cost of constructing the water or wastewater capital improvements contemplated by the local agency imposing the fee. See "WATER SYSTEM FINANCIAL OPERATIONS – Revenues."

Article XIIIB

Article XIIIB of the California Constitution limits the annual appropriations of proceeds of taxes by State and local government entities to the amount of appropriations of the entity for the prior fiscal year, as adjusted for changes in the cost of living, changes in population, and changes in services rendered by the entity. User fees and charges are considered proceeds of taxes only to the extent they exceed the reasonable costs incurred by a governmental entity in supplying the goods and services for which such fees and charges are imposed.

To the extent that assessments, fees, and charges collected by the City are used to pay the costs of maintaining and operating the Water System and payments due on the Senior Bonds and the Subordinated Bonds, and including the funding of the Reserve Fund established for the Senior Bonds to the applicable Reserve Fund Requirement and the Common Subordinated Bonds Reserve Fund with respect to the 2012A Bonds to the Common Subordinated Bonds Reserve Requirement, and the funding of the debt service reserve fund established for each SRF loan to its required level, the City believes as of the date hereof that such moneys should not be subject to the annual appropriations limit of Article XIIIB.

Article XIIIC

On November 5, 1996, the voters of the State approved Proposition 218, a constitutional initiative, entitled the "Right to Vote on Taxes Act" ("Proposition 218"). Proposition 218 added Articles XIIIC and XIIID to the California Constitution and contained a number of interrelated provisions affecting the ability of local governments, including the City, to levy and collect both existing and future taxes, assessments, fees, and charges.

Section 1 of Article XIIIC requires majority voter approval for the imposition, extension, or increase of general taxes and Section 2 thereof requires two-thirds voter approval for the imposition, extension, or increase of special taxes. These voter approval requirements of Article XIIIC reduce the flexibility of the City to raise revenues by the levy of general or special taxes and, given such voter approval requirements, no assurance can be given that the City will be able to enact, impose, extend, or increase any such taxes in the future to meet increased expenditure requirements. The City has not enacted, imposed, extended, or increased any tax since the effective date of Proposition 218.

Section 3 of Article XIIIC expressly extends the initiative power to give voters the power to reduce or repeal local taxes, assessments, fees, and charges, regardless of the date such taxes, assessments, fees, or charges were imposed. Section 3 expands the initiative power to include reducing or repealing assessments, fees, and charges, which had previously been considered administrative rather than legislative matters and therefore beyond the initiative power. This extension of the initiative power is not limited by the terms of Article XIIIC to fees imposed after November 6, 1996, the effective date of Proposition 218, and absent other legal authority could result in the reduction in any existing taxes, assessments, or fees and charges imposed prior to November 6, 1996.

"Fees" and "charges" are not expressly defined in Article XIIIC or in SB 919, the Proposition 218 Omnibus Implementation Act enacted in 1997 to prescribe specific procedures and parameters for local jurisdictions in complying with Article XIIIC and Article XIIID ("SB 919"). Such terms are, however, defined in Article XIIID, discussed below. On July 24, 2006, the California Supreme Court ruled in *Bighorn-Desert View Water Agency v. Virjil (Kelley)* (the "*Bighorn Decision*") that charges for ongoing water delivery are property-related fees and charges within the meaning of Article XIIID and are also fees or charges within the meaning of Section 3 of Article XIIIC. The California Supreme Court held that such water service charges may, therefore, be reduced or repealed through a local voter initiative pursuant to Section 3 of Article XIIIC.

In the *Bighorn Decision*, the Supreme Court did state that nothing in Section 3 of Article XIIIC authorizes initiative measures that impose voter-approval requirements for future increases in fees or charges for water delivery. The Supreme Court stated that water providers may determine rates and charges upon proper action of the governing body and that the governing body may increase a charge that was not affected by a prior initiative or impose an entirely new charge.

The Supreme Court further stated in the *Bighorn Decision* that it was not holding that the initiative power is free of all limitations and was not determining whether the initiative power is subject to the statutory provision requiring that water and wastewater service charges be set at a level that will pay debt service on bonded debt and operating expenses. Such initiative power could be subject to the limitations imposed on the impairment of contracts under the contract clause of the United States Constitution. Additionally, SB 919 provides that the initiative power provided for in Proposition 218 "shall not be construed to mean that any owner or beneficial owner of a municipal security, purchased before or after November 5, 1996 (the date of adoption of Proposition 218), assumes the risk of, or in any way consents to, any action by initiative measure that constitutes an impairment of contractual rights" protected by the United States Constitution. No assurance can be given that the voters of the City will not, in the future, approve initiatives that repeal, reduce or prohibit the future imposition or increase of assessments, fees or charges, including the City's Water Service fees and charges, which are the source of Net System Revenues to make Subordinated Installment Payments, including the 2018 Subordinated Installment Payments and, in turn, payments of the principal of and interest on the 2018 Bonds, and other Outstanding Subordinated Obligations.

Notwithstanding the fact that water service charges may be subject to reduction or repeal by voter initiative undertaken pursuant to Section 3 of Article XIIIC, the City has covenanted to levy and charge rates that meet the requirements of the Master Installment Purchase Agreement in accordance with applicable law.

Article XIIID

Article XIIID defines a "fee" or "charge" as any levy other than an *ad valorem* tax, special tax, or assessment, imposed upon a parcel or upon a person as an incident of property ownership, including a user fee or charge for a property-related service. A "property-related service" is defined as "a public service having a direct relationship to a property ownership." As discussed above, in the Bighorn Decision, the California Supreme Court held that a public water agency's charges for ongoing water delivery are fees and charges within the meaning of Article XIIID. Article XIIID requires that any agency imposing or increasing any property-related fee or charge must provide written notice thereof to the record owner of each identified parcel upon which such fee or charge is to be imposed and must conduct a public hearing with respect thereto. The proposed fee or charge may not be imposed or increased if a majority of owners of the identified parcels file written protests against it. As a result, the local government's ability to increase such fee or charge may be limited by a majority protest.

The City's water service charges have two components, a base fee based on meter size and a commodity charge based on the volume of water consumed. The City has ratified prior increases in its water rates and charges, and believes it has complied with the applicable and material notice and protest procedures of Article XIIID for its current water rates and charges. As of the date of this Official Statement, there has not been and there is no pending litigation challenging any of the City's water fees and charges approved since the effective date of Proposition 218. While the City Attorney currently believes, based upon the judicial precedent in place during the period of these prior rate increases, that a reviewing court could reasonably uphold the validity of those increases, neither the City nor the City Attorney can provide any assurances as to the outcome of a challenge to the prior increases in the City's

water rates and charges that were not approved in accordance with the notice and hearing requirements of Article XIIID if one were brought.

In addition, Article XIIID also includes a number of limitations applicable to existing, new, or increased fees and charges, including provisions to the effect that (i) revenues derived from the fee or charge shall not exceed the funds required to provide the property-related service; (ii) such revenues shall not be used for any purpose other than that for which the fee or charge was imposed; (iii) the amount of a fee or charge imposed upon any parcel or person as an incident of property ownership shall not exceed the proportional cost of the service attributable to the parcel; and (iv) no such fee or charge may be imposed for a service unless that service is actually used by, or immediately available to, the owner of the property in question. Property-related fees or charges based on potential or future use of a service are not permitted.

Article XIIID establishes procedural requirements for the imposition of assessments, which are defined as any charge upon real property for a special benefit conferred upon the real property. Standby charges are classified as assessments. Procedural requirements for assessments under Article XIIID include conducting a public hearing and mailed protest procedure, with notice to the record owner of each parcel subject to the assessment. The assessment may not be imposed if a majority of the ballots returned oppose the assessment, with each ballot weighted according to the proportional financial obligation of the affected parcel. To provide guidance to City staff regarding the conduct of Proposition 218 "property-related fee" protest proceedings, the City Council adopted Resolution R-2007-655 in January 2007 establishing additional procedures for submitting protests against proposed increases to water rates, including the provision of notice of a proposed change in water fees to all owners of record on each identified parcel and all water customers of the City as reflected in the billing records of the City at the time the notice is given, and additional procedures for the tabulation of protests against proposed increases to water rates, including guidelines for determining when a valid protest has been submitted.

The City and the City Attorney believe that as of the date of this Official Statement that current water fees and charges that are subject to Proposition 218 materially comply with the provisions thereof. Should it become necessary to increase the water fees and charges above current levels, the City would be required to comply with the requirements of Article XIIID in connection with such proposed increase. Until recently, the City had not had a substantive legal challenge to water rate increases implemented by the City pursuant to Proposition 218 or otherwise. A complaint alleging charges in excess of costs of service, among other things, was filed against the City and other local agencies in December 2015. As of the date of this Official Statement and under existing standards as of such date, the City and the City Attorney believe that rates and charges may be established at levels that are expected to permit deposits to a Rate Stabilization Fund or maintenance of uncommitted cash reserves. See "WATER SYSTEM FINANCIAL OPERATIONS – Financial Projections and Modeling Assumptions." The City and the City Attorney believe that current water capacity fees are not subject to Proposition 218.

The interpretation and application of Proposition 218 will ultimately be determined by the courts or through implementing legislation with respect to a number of the matters described above, and it is not possible at this time to predict with certainty the outcome of such determination or the nature or scope of any such legislation.

Proposition 26

Proposition 26, a State ballot initiative aimed at restricting regulatory fees and charges, was approved by the California voters on November 2, 2010. Proposition 26 broadens the definition of "tax" in Article XIIIC of the California Constitution to include levies, charges and exactions imposed by local governments, except for charges imposed for benefits or privileges or for services or products granted to

the payor (and not provided to those not charged) that do not exceed their reasonable cost; regulatory fees that do not exceed the cost of regulation; fees for the use of local governmental property; fines and penalties imposed for violations of law; real property development fees; and assessments and property-related fees imposed under Article XIIID of the California Constitution. California local taxes are subject to approval by two-thirds of the voters voting on the ballot measure for authorization. Proposition 26 applies to charges imposed or increased by local governments after the date of its approval. The City believes that Proposition 26 does not apply to its water rates and charges because such fees and charges are within various exceptions to Proposition 26.

Initiative, Referendum and Charter Amendments

Under the State Constitution, the voters of the State have the ability to initiate legislation and require a public vote on legislation passed by the State Legislature through the powers of initiative and referendum, respectively. For example, Article XIIIA, Article XIIIB and Articles XIIIC and XIIID and Proposition 26 were adopted pursuant to the State's constitutional initiative process. Under the City Charter, the voters of the City can restrict or revise the powers of the City through the approval of a charter amendment. From time to time, other initiative measures could be adopted or legislative measures could be approved by the Legislature, which may place limitations on the ability of the City to increase revenues or to increase appropriations. Such measures may further affect the City's ability to collect taxes, assessments or fees and charges, which could have an effect on the Department's revenues. The City is unable to predict whether any such initiatives or charter amendments might be submitted to or approved by the voters, the nature of such initiatives or charter amendments, or their potential impact on the City or the Water Utility Fund. See "CONSTITUTIONAL LIMITATIONS ON TAXES AND WATER RATES AND CHARGES – Initiative, Referendum and Charter Amendments."

TAX MATTERS

Opinion of Bond Counsel

In the opinion of Hawkins Delafield & Wood LLP, Bond Counsel to the Authority, under existing statutes and court decisions and assuming continuing compliance with certain tax covenants described herein, (i) interest on the 2018 Bonds is excluded from gross income for federal income tax purposes pursuant to Section 103 of the Internal Revenue Code of 1986, as amended (the "Code") and (ii) interest on the 2018 Bonds is not treated as a preference item in calculating the alternative minimum tax under the Code. In rendering its opinion, Bond Counsel has relied on certain representations, certifications of fact, and statements of reasonable expectations made by the Authority in connection with the 2018 Bonds, and Bond Counsel has assumed compliance by the Authority with certain ongoing covenants to comply with applicable requirements of the Code to assure the exclusion of interest on the 2018 Bonds from gross income under Section 103 of the Code.

In addition, in the opinion of Bond Counsel to the Authority, under existing statutes, interest on the 2018 Bonds is exempt from State of California personal income.

Bond Counsel expresses no opinion as to any other federal, state or local tax consequences arising with respect to the 2018 Bonds, or the ownership or disposition thereof, except as stated above. Bond Counsel renders its opinion under existing statutes and court decisions as of the issue date, and assumes no obligation to update, revise or supplement its opinion to reflect any action thereafter taken or not taken, any fact or circumstance that may thereafter come to its attention, any change in law or interpretation thereof that may thereafter occur, or for any other reason. Bond Counsel expresses no opinion as to the consequence of any of the events described in the preceding sentence or the likelihood of their occurrence. In addition, Bond Counsel expresses no opinion on the effect of any action taken or not

taken in reliance upon an opinion of other counsel regarding federal, state or local tax matters, including, without limitation, exclusion from gross income for federal income tax purposes of interest on the 2018 Bonds.

Certain Ongoing Federal Tax Requirements and Covenants

The Code establishes certain ongoing requirements that must be met subsequent to the issuance and delivery of the 2018 Bonds in order that interest on the 2018 Bonds be and remain excluded from gross income under Section 103 of the Code. These requirements include, but are not limited to, requirements relating to use and expenditure of gross proceeds of the 2018 Bonds, yield and other restrictions on investments of gross proceeds, and the arbitrage rebate requirement that certain excess earnings on gross proceeds be rebated to the federal government. Noncompliance with such requirements may cause interest on the 2018 Bonds to become included in gross income for federal income tax purposes retroactive to their issue date, irrespective of the date on which such noncompliance occurs or is discovered. The Authority has covenanted to comply with certain applicable requirements of the Code to assure the exclusion of interest on the 2018 Bonds from gross income under Section 103 of the Code.

Certain Collateral Federal Tax Consequences

The following is a brief discussion of certain collateral federal income tax matters with respect to the 2018 Bonds. It does not purport to address all aspects of federal taxation that may be relevant to a particular owner of a Bond. Prospective investors, particularly those who may be subject to special rules, are advised to consult their own tax advisors regarding the federal tax consequences of owning and disposing of the 2018 Bonds.

Prospective owners of the 2018 Bonds should be aware that the ownership of such obligations may result in collateral federal income tax consequences to various categories of persons, such as corporations (including S corporations and foreign corporations), financial institutions, property and casualty and life insurance companies, individual recipients of Social Security and railroad retirement benefits, individuals otherwise eligible for the earned income tax credit, and taxpayers deemed to have incurred or continued indebtedness to purchase or carry obligations the interest on which is excluded from gross income for federal income tax purposes. Interest on the 2018 Bonds may be taken into account in determining the tax liability of foreign corporations subject to the branch profits tax imposed by Section 884 of the Code.

Original Issue Discount

"Original issue discount" ("OID") is the excess of the sum of all amounts payable at the stated maturity of a Bond (excluding certain "qualified stated interest" that is unconditionally payable at least annually at prescribed rates) over the issue price of that maturity. In general, the "issue price" of a maturity (a bond with the same maturity date, interest rate, and credit terms) means the first price at which at least 10 percent of such maturity was sold to the public, *i.e.*, a purchaser who is not, directly or indirectly, a signatory to a written contract to participate in the initial sale of the 2018 Bonds. In general, the issue price for each maturity of Bonds is expected to be the initial public offering price set forth on the cover page of the Official Statement. Bond Counsel further is of the opinion that, for any Bonds having OID (a "Discount Bond"), OID that has accrued and is properly allocable to the owners of the Discount Bonds under Section 1288 of the Code is excludable from gross income for federal income tax purposes to the same extent as other interest on the 2018 Bonds.

In general, under Section 1288 of the Code, OID on a Discount Bond accrues under a constant yield method, based on periodic compounding of interest over prescribed accrual periods using a

compounding rate determined by reference to the yield on that Discount Bond. An owner's adjusted basis in a Discount Bond is increased by accrued OID for purposes of determining gain or loss on sale, exchange, or other disposition of such Bond. Accrued OID may be taken into account as an increase in the amount of tax-exempt income received or deemed to have been received for purposes of determining various other tax consequences of owning a Discount Bond even though there will not be a corresponding cash payment.

Owners of Discount Bonds should consult their own tax advisors with respect to the treatment of original issue discount for federal income tax purposes, including various special rules relating thereto, and the state and local tax consequences of acquiring, holding, and disposing of Discount Bonds.

Bond Premium

In general, if an owner acquires a bond for a purchase price (excluding accrued interest) or otherwise at a tax basis that reflects a premium over the sum of all amounts payable on the 2018 Bond after the acquisition date (excluding certain "qualified stated interest" that is unconditionally payable at least annually at prescribed rates), that premium constitutes "bond premium" on that bond (a "Premium Bond"). In general, under Section 171 of the Code, an owner of a Premium Bond must amortize the 2018 Bond premium over the remaining term of the Premium Bond, based on the owner's yield over the remaining term of the Premium Bond determined based on constant yield principles (in certain cases involving a Premium Bond callable prior to its stated maturity date, the amortization period and yield may be required to be determined on the basis of an earlier call date that results in the lowest yield on such bond). An owner of a Premium Bond must amortize the 2018 Bond premium by offsetting the qualified stated interest allocable to each interest accrual period under the owner's regular method of accounting against the 2018 Bond premium allocable to that period. In the case of a tax-exempt Premium Bond, if the 2018 Bond premium allocable to an accrual period exceeds the qualified stated interest allocable to that accrual period, the excess is a nondeductible loss. Under certain circumstances, the owner of a Premium Bond may realize a taxable gain upon disposition of the Premium Bond even though it is sold or redeemed for an amount less than or equal to the owner's original acquisition cost. Owners of any Premium Bonds should consult their own tax advisors regarding the treatment of bond premium for federal income tax purposes, including various special rules relating thereto, and state and local tax consequences, in connection with the acquisition, ownership, amortization of bond premium on, sale, exchange, or other disposition of Premium Bonds.

Information Reporting and Backup Withholding

Information reporting requirements apply to interest paid on tax-exempt obligations, including the 2018 Bonds. In general, such requirements are satisfied if the interest recipient completes, and provides the payor with, a Form W-9, "Request for Taxpayer Identification Number and Certification," or if the recipient is one of a limited class of exempt recipients. A recipient not otherwise exempt from information reporting who fails to satisfy the information reporting requirements will be subject to "backup withholding," which means that the payor is required to deduct and withhold a tax from the interest payment, calculated in the manner set forth in the Code. For the foregoing purpose, a "payor" generally refers to the person or entity from whom a recipient receives its payments of interest or who collects such payments on behalf of the recipient.

If an owner purchasing a Bond through a brokerage account has executed a Form W-9 in connection with the establishment of such account, as generally can be expected, no backup withholding should occur. In any event, backup withholding does not affect the excludability of the interest on the 2018 Bonds from gross income for federal income tax purposes. Any amounts withheld pursuant to

backup withholding would be allowed as a refund or a credit against the owner's federal income tax once the required information is furnished to the Internal Revenue Service.

Miscellaneous

Tax legislation, administrative actions taken by tax authorities, or court decisions, whether at the federal or state level, may adversely affect the tax-exempt status of interest on the 2018 Bonds under federal or state law or otherwise prevent beneficial owners of the 2018 Bonds from realizing the full current benefit of the tax status of such interest. In addition, such legislation or actions (whether currently proposed, proposed in the future, or enacted) and such decisions could affect the market price or marketability of the 2018 Bonds.

Prospective purchasers of the 2018 Bonds should consult their own tax advisors regarding the foregoing matters.

CONTINUING DISCLOSURE

2018 Bonds. Pursuant to the Continuing Disclosure Certificate of the City (the "Disclosure Certificate"), the City has agreed to provide, or cause to be provided, to the Municipal Securities Rulemaking Board in the manner prescribed by the Securities and Exchange Commission certain annual financial information and operating data and notice of certain Notice Events (as described in the Continuing Disclosure Certificate). The form of the Disclosure Certificate is attached hereto as "APPENDIX C – FORM OF CONTINUING DISCLOSURE CERTIFICATE. The annual report to be filed by the City is to be filed not later than April 10 after the end of the City's Fiscal Year (which currently ends June 30), commencing with the report for the fiscal year ending June 30, 2019, and is to include audited financial statements of the City. The City's covenants in the Continuing Disclosure Certificate have been made in order to assist the Underwriters in complying with Rule 15c2-12(b)(5) adopted by the SEC under the Securities Exchange Act of 1934 (the "Rule"). A failure by the City to comply with any of the covenants therein is not an event of default under the Indenture or the Master Installment Purchase Agreement.

The City has established an issuer's page on the MSRB's Electronic Municipal Market Access System ("EMMA") with respect to the Water Utility Bonds and Bank Loans. The City's home page can be accessed at the following Internet address:

http://emma.msrb.org/IssuerHomePage/Issuer?id=0DE785B24DBD675DE053151E0A0AE7C0&type=M

Neither the home page nor any information on the home page is made a part of this Official Statement, nor is it incorporated by reference herein and should not be relied upon in making an investment decision with respect to the 2018 Bonds.

Prior Continuing Disclosure Undertakings. The City is a party to a number of continuing disclosure undertakings with respect to securities payable from the City's General Fund, the Sewer Utility Fund and the Water Utility Fund pursuant to the Rule. The City is also a party to continuing disclosure undertakings with respect to three assessment or reassessment districts formed by the City, one of which remains in effect. The City manages the continuing disclosure undertakings of four community facilities districts formed by the City. The City also manages continuing disclosure undertakings of the City's former redevelopment agency (the "Former RDA") and the successor agency to the Former RDA (the "Successor Agency").

In the last five years, there have been seven instances in which the ratings on certain series of bonds issued by the City's Former RDA were changed as a result of a corresponding change in the rating

of the company insuring such bonds. Neither the City nor the Successor Agency had been notified directly of such changes. Upon becoming aware of such changes, corrected filings were made for those bonds that were outstanding at the time of the corrected filings. In addition, there was one bond issue of the City's Former RDA for which rating upgrades in 2013 and 2015 were not timely filed. Upon becoming aware of such failures, the 2015 rating upgrade was filed, which provided notice of the then current rating.

LITIGATION

As of the date of this Official Statement, there is no litigation pending against the City, the Corporation or the Authority or, to the knowledge of its respective executive officers, threatened, seeking to restrain or enjoin the issuance, sale, execution, or delivery of the 2018 Bonds or in any way contesting or affecting the validity of the 2018 Bonds or the authorizations or any proceedings of the City, the Corporation or the Authority taken with respect to the issuance or sale thereof, or the pledge or application of any moneys or security provided for the payment of the 2018 Bonds or the use of the proceeds of the 2018 Bonds.

There are no pending lawsuits that, in the opinion of the City Attorney, challenge the validity of the 2018 Bonds, the corporate existence of the City, the Corporation or the Authority, or the title of the executive officers thereof to their respective offices. In connection with this review, attention has been given to not only litigation pending against the City, but also litigation pending against the Department. At any given time, including the present, there are certain other claims and lawsuits against the City and the Department that arise in the normal course of operations of the Water System. Such matters could, if determined adversely to the City, affect expenditures by the City, and in some cases, the Water Utility Fund. In the view of the City's management and the Office of the City Attorney, there is no litigation, present or pending, which will individually or in the aggregate materially impair the Authority's ability to service its indebtedness or which will have a material adverse effect on the operations of the Water System, subject to the possible exception of the two matters described below.

UCCF Litigation. On May 9, 2018, the UCCF filed a Complaint for Declaratory Relief and Injunctive Relief and Petition for Mandate under CEQA (the "UCCF Petition"). The UCCF Petition challenges the City's approval of the North City Pure Water Program and certification of the EIR. The UCCF Petition does not provide any specific CEQA claims but makes a generic claim that the project and EIR were illegally approved. While there are no specific CEQA claims in the UCCF Petition, based upon the comments by UCCF's counsel during the administrative process, the UCCF may argue that the City failed to consider a reasonable range of project alternatives and that the City specifically failed to consider alternate pipeline alignments through the University City Community. The City expects that this argument will be unpersuasive because the City did, in fact, study a number of alternatives. However, the UCCF is not confined to this claim and could argue any claim raised in the administrative process. While the City Attorney's Office believes the City would have strong defenses against any such other theories, the City can give no assurance that it will prevail in this action.

In the event that UCCF prevails on an argument regarding the pipeline alignment, the City could experience delays to Pure Water Program projects of up to 2.5 years, increasing costs thereto by an estimated $130 million. This estimated cost increase would be composed mostly of escalation, but also includes the cost of additional environmental analyses and further engineering and design costs. In calculating this estimate, it was assumed that all of the Phase 1 Pure Water Program projects would be delayed based on the requirement that all of the projects must be constructed and proceed through individual functional testing before the full system may be commissioned.

SDG&E Dispute. In June 2018, SDG&E informed the City that it was stopping all design work on utility relocations for the Pure Water Program, pending advance payment for such work from the City. SDG&E argued that it was not responsible for the costs of relocating any of its facilities under its electric or natural gas franchise agreements with the City, on the basis that such work was proprietary and not governmental. The City Attorney's Office responded to SDG&E, expressing the City's strong disagreement with SDG&E's position based on the plain language in those franchise agreements, which the City believes requires SDG&E to relocate its facilities located in the public right-of-way at its own expense when necessary to accommodate City water projects, including the Pure Water Program. Absent and until a resolution with SDG&E is reached, to avoid project delays the Department's budgeted cost of all Water System capital improvement projects including, but not limited to, the Pure Water Program, includes the cost of any relocation of SDG&E facilities. The Department has projected a total of $75.0 million of advance payments to SDG&E for facilities relocations in Fiscal Years 2019 and 2020, which amount is included in the tables presented in this Official Statement under the category, "SDG&E Relocation Advance." The City maintains its position that SDG&E should bear the costs of its facilities relocations for all City water projects pursuant to the franchise agreements and reserves the right to seek reimbursement from SDG&E through all legal means available.

CERTAIN LEGAL MATTERS

The validity of the 2018 Bonds and certain other legal matters are subject to the approving opinion of Hawkins Delafield & Wood LLP, Bond Counsel to the Authority. A complete copy of the proposed form of Bond Counsel opinion is contained in APPENDIX B hereto. Bond Counsel undertakes no responsibility for the accuracy, completeness or fairness of this Official Statement. Hawkins Delafield & Wood LLP, as Disclosure Counsel, will provide certain other legal services for the Authority. Certain legal matters will be passed upon for the Authority and the City by Mara W. Elliott, City Attorney, and for the Underwriters by their counsel, Nixon Peabody LLP, Los Angeles, California.

RATINGS

Fitch and Moody's Investors Service ("Moody's") have assigned their ratings of "AA-" and "Aa3," respectively, to the 2018 Bonds, each with a stable outlook. Such ratings reflect only the views of such organizations and any desired explanation of the significance of such ratings should be obtained from the rating agency furnishing the same, at the following addresses: Fitch Ratings, One State Street Plaza, New York, New York 10004 and Moody's Investors Service, Inc., 7 World Trade Center, 250 Greenwich Street, New York, New York 10007. Generally, a rating agency bases its rating on the information and materials furnished to it and on investigations, studies and assumptions of its own.

There is no assurance such ratings will continue for any given period of time or that such ratings will not be revised downward or withdrawn entirely by the rating agencies, if in the judgment of such rating agencies, circumstances so warrant. Any such downward revision or withdrawal of such ratings may have an adverse effect on the market price of the 2018 Bonds. Neither the City nor the Authority undertakes any obligation to oppose any downward revision, suspension or withdrawal.

UNDERWRITING

The 2018 Bonds are being purchased by the Underwriters named on the cover page of this Official Statement (collectively, the "Underwriters"). Merrill Lynch, Pierce, Fenner & Smith Incorporated is serving as the representative of the Underwriters. The Underwriters have agreed, subject to certain conditions, to purchase the 2018 Bonds at a purchase price of $280,353,555.16 (equal to the original principal amount thereof, plus an original issue premium of $37,512,651.80, less an underwriters' discount of $339,096.64). The Underwriters are committed to purchase all of the 2018 Bonds if any are

purchased. The following paragraphs under this section have been provided by the Underwriters, respectively.

Citigroup Global Markets Inc., an underwriter of the 2018 Bonds, has entered into a retail distribution agreement with Fidelity Capital Markets, a division of National Financial Services LLC (together with its affiliates, "Fidelity"). Under this distribution agreement, Citigroup Global Markets Inc. may distribute municipal securities to retail investors at the original issue price through Fidelity. As part of this arrangement, Citigroup Global Markets Inc. will compensate Fidelity for its selling efforts.

The Underwriters may offer and sell the 2018 Bonds to certain dealers and others at prices lower the public offering price stated on the inside cover page hereof. The offering prices may be changed from time to time by the Underwriters.

MUNICIPAL ADVISOR

KNN Public Finance, a Limited Liability Company, has acted as Municipal Advisor to the City in conjunction with the issuance of the 2018 Bonds. The Municipal Advisor has assisted the City in preparation of this Official Statement and advised in other matters related to the planning, structuring, pricing, issuance and delivery of the 2018 Bonds. The Municipal Advisor will receive compensation contingent upon the sale and delivery of the 2018 Bonds.

The Municipal Advisor has not audited, authenticated or otherwise independently verified the information set forth in the Official Statement, or any other information related to the City with respect to the accuracy or completeness of disclosure of such information.

FINANCIAL STATEMENTS

The City prepares financial statements annually in conformity with generally accepted accounting principles for governmental entities, which are audited by an independent certified public accountant. The City's most recent financial statements, for the Fiscal Year ended June 30, 2017, were audited by Macias Gini & O'Connell LLP (the "Independent Auditor"), independent certified public accountants, as stated in their report. The City's basic financial statements contained in the City's CAFRs include the financial statements of the Water Utility Fund.

The City's CAFR for Fiscal Year 2017, which includes the City's audited basic financial statements as of and for the fiscal year ended June 30, 2017, is available through EMMA at https://emma.msrb.org/ES1102503-ES861503-ES1262644.pdf, the contents of which are incorporated by reference in this Official Statement and shall be deemed to be a part hereof. The City's CAFR for Fiscal Year 2018, which includes the City's audited basic financial statements as of and for the fiscal year ended June 30, 2018, audited by the Independent Auditor, as stated in their report, is attached hereto as APPENDIX E – "CITY OF SAN DIEGO COMPREHENSIVE ANNUAL FINANCIAL REPORT FOR THE FISCAL YEAR ENDED JUNE 30, 2018."

The Independent Auditor did not review this Official Statement. The City did not request the consent of the independent auditors to append the City's financial statements to this Official Statement. Accordingly, the independent auditors did not perform any procedures relating to any of the information in this Official Statement.

MISCELLANEOUS

This Official Statement has been duly approved, executed and delivered by the Authority and the City.

There are appended to this Official Statement a summary of certain provisions of the principal and legal documents, the proposed form of opinion of Bond Counsel, and a general description of the City and a description of the Book-Entry Only System. The Appendices are integral parts of this Official Statement and must be read together with all other parts of this Official Statement.

This Official Statement is not to be construed as a contract or agreement between the Authority or the City and the purchasers or holders of any of the 2018 Bonds. Any statements made in this Official Statement involving matters of opinion, whether or not expressly so stated, are intended merely as an opinion and not as representations of fact. The information and expressions of opinion herein are subject to change without notice and neither the delivery of this Official Statement nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in the financial condition, results of operations, or any other affairs of the City, the Authority, or the Corporation since the date hereof.

PUBLIC FACILITIES FINANCING
AUTHORITY OF THE CITY OF SAN DIEGO

By: /s/ Georgette Gómez
Chair, Board of Commissioners

THE CITY OF SAN DIEGO

By: /s/ Rolando Charvel
Chief Financial Officer

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APPENDIX A

SUMMARY OF PRINCIPAL LEGAL DOCUMENTS

This Appendix A contains only a brief summary of certain of the terms of the Master Installment Purchase Agreement and the Indenture relating to the 2018 Bonds and a full review should be made of the entire Official Statement, including the cover page and the Appendices. References to, and summaries of, provisions of the documents referred to herein do not purport to be complete and such references are qualified in their entirety by reference to the complete provisions. All statements contained in this Appendix A are qualified in their entirety by reference to the entire Official Statement and the complete provisions of the documents referenced.

DEFINITIONS

Additional Bonds

The term "Additional Bonds" means, collectively, Additional Senior Bonds and Additional Subordinate Bonds.

Additional Senior Bonds

The term "Additional Senior Bonds" means those Bonds authorized and issued under the Indenture on a parity with the 2009A Bonds, the 2009B Bonds and the 2010A Bonds (none of which are outstanding), in accordance with the Indenture as summarized herein under the caption "Indenture – Additional Bonds – Proceedings for Execution and Delivery of Additional Bonds."

Additional Subordinated Bonds

The term "Additional Subordinated Bonds" means those Bonds authorized and issued under the Indenture on a parity with the 2012A Bonds and 2016 Bonds, in accordance with the Indenture as summarized herein under the caption "Indenture – Additional Bonds – Proceedings for Execution and Delivery of Additional Bonds."

Acquisition Fund

The term "Acquisition Fund" means the fund by that name established under the Indenture.

Amendment Effective Date

The term "Amendment Effective Date" means the date of delivery of the Fourth Supplemental Indenture and the requisite consent of the Owners of 51% in aggregate principal amount of the Senior Bonds then Outstanding and Owners of 51% in aggregate principal amount of the Subordinated Bonds then Outstanding has been received.

Beneficial Owners

The term "Beneficial Owners" means those individuals, partnerships, corporations or other entities for whom the Participants have caused the Depository to hold Book-Entry Bonds.

Board

The term "Board" means the Board of Commissioners of the Authority.

Bond or Bonds

The term "Bond" or "Bonds" means any of the bonds issued under the Indenture by the Authority, including any Additional Bonds.

Bond Counsel

The term "Bond Counsel" means a firm of attorneys that are nationally recognized as experts in the laws governing and relating to municipal finance.

Book-Entry Bonds

The term "Book-Entry Bonds" means Bonds executed and delivered under the book-entry system described in the Indenture.

Business Day

The term "Business Day" means a day of the year other than a Saturday or Sunday or a day on which banking institutions located in California are required or authorized to remain closed, or on which the New York Stock Exchange is closed. If the date for making any payment or the last date for performance of any act or the exercising of any right, as provided in the Indenture, shall not be a Business Day, such payment may be made or act performed or right exercised on the next succeeding Business Day, with the same force and effect as if done on the nominal date provided in the Indenture, and, unless otherwise specifically provided in the Indenture, no interest shall accrue for the period from and after such nominal date.

Certificate of the City

The term "Certificate of the City" means an instrument in writing signed by the Chief Financial Officer, the Chief Operating Officer, or any of their respective designees.

Charter

The term "Charter" means the Charter of the City as it now exists or may be amended, and any new or successor Charter.

Closing Date

The term "Closing Date" means any date upon which a Series of Bonds is purchased.

Code

The term "Code" means the Internal Revenue Code of 1986, as amended and the regulations thereunder, and any successor laws or regulations.

Commercial Paper Notes Components

The term "Commercial Paper Notes Components" means the Components of the Project specified in Exhibit A to the 2017 Commercial Paper Supplement to Amended and Restated Master Installment Purchase Agreement, dated January 1, 2017, by and between the City and the Corporation, as it may be modified from time to time in accordance with the 2017 Commercial Paper Supplement to Amended and

Restated Master Installment Purchase Agreement, for which the City will be making Commercial Paper Notes Subordinated Installment Payments.

Commercial Paper Notes Subordinated Installment Payments

The term "Commercial Paper Notes Subordinated Installment Payments" means the Installment Payments specified in the 2017 Commercial Paper Supplement to Amended and Restated Master Installment Purchase Agreement for payment of the Purchase Price of the Commercial Paper Notes Components in accordance with the terms hereof.

Common Subordinated Bonds Reserve Fund

The term "Common Subordinated Bonds Reserve Fund" means the fund by that name established under the Indenture.

Common Subordinated Reserve Fund Bonds

The term "Common Subordinated Reserve Fund Bonds" means Subordinated Bonds secured by the Common Subordinated Bonds Reserve Fund.

Common Subordinated Reserve Fund Bonds Maximum Annual Debt Service

The term "Common Subordinated Reserve Fund Bond Maximum Annual Debt Service" means, the maximum amount of principal and interest becoming due on the Common Subordinated Reserve Fund Bonds in the then-current or any future Fiscal Year, calculated by the Authority or by an Independent Certified Public Accountant in accordance with this subsection and provided to the Trustee. For purposes of calculating Common Subordinated Reserve Fund Bonds Maximum Annual Debt Service, the following assumptions shall be used to calculate the principal and interest becoming due in any Fiscal year:

(i) in determining the principal amount due in each Fiscal year, payments shall (except to the extent a different subsection of this definition applies for purposes of determining principal maturities or amortization) be assumed to be made in accordance with any amortization schedule established for such debt, including the amount of any Common Subordinated Reserve Fund Bonds which are or have the characteristics of commercial paper and which are not intended at the time of issuance to be retired from the sale of a corresponding amount of Common Subordinated Reserve Fund Bonds, and including any scheduled mandatory redemption or prepayment of Common Subordinated Reserve Fund Bonds on the basis of accreted value due upon such redemption or prepayment, and for such purposes, the redemption payment or prepayment shall be deemed a principal payment; provided, however, that with respect to Common Subordinated Reserve Fund Bonds which are or have the characteristics of commercial paper and which are intended at the time of issuance to be retired from the sale of a corresponding amount of other Obligations, which other Obligations would not constitute Balloon Indebtedness, each maturity thereof shall be treated as if it were to be amortized in substantially equal installments of principal and interest over a term of 30 years, commencing in the year of such stated maturity; in determining the interest due in each Fiscal Year, interest payable at a fixed rate shall (except to the extent subsection (A)(ii) or (iii) of this definition applies) be assumed to be made at such fixed rate and on the required payment dates;

(ii) if all or any portion or portions of an Outstanding Series of Common Subordinated Reserve Fund Bonds constitute Balloon Indebtedness or if all or any portion or portions of a Series of Common Subordinated Reserve Fund Bonds or such payments then proposed to be issued would constitute Balloon Indebtedness, then, for purposes of determining Common Subordinated Reserve Fund

Bonds Maximum Annual Debt Service, each maturity which constitutes Balloon Indebtedness shall be treated as if it were to be amortized in substantially equal annual installments of principal and interest over a term of 30 years, commencing in the year the stated maturity of such Balloon Indebtedness occurs, the interest rate used for such computation shall be determined as provided in subsection (iv) or (v) below, as appropriate, and all payments of principal and interest becoming due prior to the year of the stated maturity of the Balloon Indebtedness shall be treated as described in subsection (i) above;

(iii) if any Outstanding Series of Common Subordinated Reserve Fund Bonds constitutes Tender Indebtedness or if Common Subordinated Reserve Fund Bonds proposed to be issued would constitute Tender Indebtedness, then for purposes of determining Common Subordinated Reserve Fund Bonds Maximum Annual Debt Service, Tender Indebtedness shall be treated as if the principal amount of such Common Subordinated Reserve Fund Bonds were to be amortized in accordance with the amortization schedule set forth in the Supplemental Indenture for such Tender Indebtedness or in the standby purchase or liquidity facility established with respect to such Tender Indebtedness, or if no such amortization schedule is set forth therein, then such Tender Indebtedness shall be deemed to be amortized in substantially equal annual installments of principal and interest over a term of 30 years commencing in the year in which such Series is first subject to tender, the interest rate used for such computation shall be determined as provided in subsection (iv) or (v) below, as appropriate;

(iv) if any Outstanding Series of Common Subordinated Reserve Fund Bonds constitutes Variable Rate Indebtedness, the interest rate on such Obligations shall be assumed to be 110% of the daily average interest rate on such Common Subordinated Reserve Fund Bonds during the 12 months ending with the month preceding the date of calculation, or such shorter period that such Common Subordinated Reserve Fund Bonds shall have been Outstanding;

(v) if Common Subordinated Reserve Fund Bonds proposed to be issued will be Variable Rate Indebtedness, then such Common Subordinated Reserve Fund Bonds shall be assumed to bear interest at 80% of the average Revenue Bond Index during the calendar quarter preceding the calendar quarter in which the calculation is made, or if that index is no longer published, another similar index selected by the City, or if the City fails to select a replacement index, an interest rate equal to 80% of the yield for outstanding United States Treasury bonds having an equivalent maturity, or if there are no such Treasury bonds having such maturities, 100% of the lowest prevailing prime rate of any of the five largest commercial banks in the United States ranked by assets; and

(vi) if moneys or Permitted Investments have been deposited by the City into a separate fund or account or are otherwise held by the City or by a fiduciary to be used to pay principal of and/or interest on specified Common Subordinated Reserve Fund Bonds, then the principal and/or interest to be paid from such moneys, Permitted Investments or from the earnings thereon shall be disregarded and not included in calculating Maximum Annual Debt Service.

Common Subordinated Bonds Reserve Requirement

The term "Common Subordinated Bonds Reserve Requirement" means, as of any date of computation by the Authority, an amount equal to the least of (i) ten percent (10%) of the proceeds (within the meaning of Section 148 of the Code) of the Common Subordinated Bond Reserve Fund Bonds; (ii) 125% of average annual debt service on the Outstanding Common Subordinated Reserve Fund Bonds; or (iii) Common Subordinated Reserve Fund Bonds Maximum Annual Debt Service; provided, however, that, if, upon issuance of a Series of Subordinated Bonds secured by the Common Subordinated Reserve Fund, such amount would require moneys to be credited to the Common Subordinated Reserve Fund from the proceeds of such Series of Subordinated Bonds in an amount in excess of the maximum amount permitted under the Code, the Common Subordinated Bonds Reserve Requirement shall mean an

amount equal to the sum of the Common Subordinated Bonds Reserve Requirement immediately preceding issuance of such Subordinated Bonds and the maximum amount permitted under the Code to be deposited therein from the proceeds of such Subordinated Bonds, as certified by the Authority; and provided further, that, for purposes of calculating average annual debt service on the Outstanding Common Subordinated Reserve Fund Bonds, the "average annual debt service" of a Series of Subordinated Bonds secured by the Common Subordinated Reserve Fund shall not be greater than the average annual debt service of such Series on the date of issuance of such Series. Upon early redemption of any Subordinated Bonds secured by the Common Subordinated Bonds Reserve Fund, the Authority, at the request of the City, may request the Trustee to recalculate and reduce the Common Subordinated Bonds Reserve Requirement, whereupon any excess in the Common Subordinated Bonds Reserve Fund over and above the Common Subordinated Bonds Reserve Requirement shall be transferred to the Subordinated Bonds Payment Fund.

Note: With respect to the four definitions above, no debt service reserve fund will be created or funded to secure the 2018 Bonds. Debt service reserve funds were created in connection with the issuance of the 2009A Bonds, 2009B Bonds, 2010A Bonds and 2012A Bonds and under the funding agreements for the SRF loans. Amounts on deposit in, or to be on deposit in, such debt service reserve funds are not available to secure the 2018 Bonds. See "SECURITY AND SOURCES OF PAYMENT FOR THE 2018 BONDS – No Debt Service Reserve Fund for 2018 Bonds" in this Official Statement.

Components

The term "Components" means components of the Project for which the City makes Installment Payments or Subordinated Installment Payments pursuant to any Supplement.

Comptroller

The term "Comptroller" means the Comptroller of the City.

Corporate Trust Office of the Trustee

The term "Corporate Trust Office of the Trustee" means the corporate trust office of the Trustee at the address set forth in the Indenture or such other or additional offices as may be specified to the Authority by the Trustee in writing.

Costs of Issuance

The term "Costs of Issuance" means all items of expense directly or indirectly payable by or reimbursable to the City, the Corporation, or the Authority relating to the issuance, sale, and delivery of any Bonds under the Indenture, including, but not limited to, costs of preparation and reproduction of documents; fees and expenses of the Feasibility Consultant; fees and expenses of the Authority (including its counsel); expenses of the City, Authority, and Corporation staff; fees of the City's Financial Advisor; initial fees, expenses, and charges of the Trustee (including its counsel); Rating Agency fees; Underwriters' discount; legal fees and charges of Bond Counsel; Disclosure Counsel; Underwriters' counsel, and the City Attorney; and any other cost, charge, or fee in connection with the issuance and delivery of the Bonds.

Depository

The term "Depository" means the securities depository acting as Depository pursuant to the Indenture.

Draw; Drawn; Drawable

The term "Draw" means any drawing by the Issuing and Paying Agent on a Subordinated Credit Support Instrument; "Drawn" means at any time any Draw theretofore made; and "Drawable" means at any time any Draw that thereafter may be made.

DTC

The term "DTC" means The Depository Trust Company, New York, New York, and its successors.

Event of Default

The term "Event of Default" shall have that meaning set forth in the Indenture or the Master Installment Purchase Agreement, as applicable.

Federal Securities

The term "Federal Securities" means the following securities:

1. United States Treasury Bills, bonds, and notes for which the full faith and credit of the United States are pledged for payment of principal and interest;

2. Direct senior obligations issued by the following agencies of the United States Government: the Federal Farm Credit Bank System, the Federal Home Loan Bank System, the Federal National Mortgage Association, the Federal Home Loan Mortgage Corporation, and the Tennessee Valley Authority;

3. Mortgage Backed Securities (except stripped mortgage securities) issued by the Federal National Mortgage Association, the Federal Home Loan Mortgage Corporation, and the Government National Mortgage Association; and

4. United States Treasury Obligations, State and Local Government Series.

First Supplemental Indenture

The term "First Supplemental Indenture" means the First Supplemental Indenture, dated as of June 1, 2009, by and between the Authority and the Trustee.

Fiscal Year

The term "Fiscal Year" means the fiscal year of the Authority, which, as of the date of the Indenture, is the period from July 1 to and including the following June 30.

Fitch

The term "Fitch" means Fitch Ratings and its successors and, if such company shall for any reason no longer perform the functions of a securities rating agency, "Fitch" shall be deemed to refer to any nationally recognized securities rating agency designated by the Authority and the City.

Fifth Supplemental Indenture

The term "Fifth Supplemental Indenture" means the Fifth Supplemental Indenture, dated as of January 1, 2017, by and between the Authority and the Trustee.

Fourth Supplemental Indenture

The term "Fourth Supplemental Indenture" means the Fourth Supplemental Indenture, dated as of June 1, 2016, by and between the Authority and the Trustee.

Indenture

The term "Indenture" means the Original Indenture, as supplemented and amended by the First Supplemental Indenture, the Second Supplemental Indenture, the Third Supplemental Indenture, the Fourth Supplemental Indenture, the Fifth Supplemental Indenture and the Sixth Supplemental Indenture.

Information Services

The Term "Information Services" being Financial Information, Inc.'s "Daily Called Bond Service," 30 Montgomery Street, 10th Floor, Jersey City, New Jersey 07302, Attention: Editor; Moody's "Municipal and Government," 99 Church Street, 8th Floor, New York, New York 10007, Attention: Municipal News Reports; and Xcitek's "Called Bond Service," 5 Hanover Square, New York, New York 10004, Attention: Bond Redemption Group; provided, however, in accordance with then current guidelines of the Securities and Exchange Commission, Information Services shall mean such other organizations providing information with respect to called bonds as the Authority may designate in writing to the Trustee.

Interest Account

The term "Interest Account" means the account by that name established under the Indenture.

Interest Payment Date

The term "Interest Payment Date" means, with respect to the 2018 Bonds, August 1, 2019, and each February 1 and August 1 thereafter until the Bonds are paid or redeemed in full.

Installment Payments

The term "Installment Payments" means Installment Payments that are Parity Obligations (as defined in the Master Installment Purchase Agreement), scheduled to be paid by the City under and pursuant to any Supplement that has been assigned to the Trustee (as assignee of the Authority) to secure any Bonds.

Issuing and Paying Agency Agreement

The term "Issuing and Paying Agency Agreement" means the Issuing and Paying Agency Agreement, dated as of January 1, 2017, by and between the Authority and the Issuing and Paying Agent, as the same may be amended and supplemented from time to time, or any other issuing and paying agency agreement which the Authority determines to be in replacement thereof as may be entered into by the Authority from time to time with respect to 2017 Commercial Paper Notes.

Issuing and Paying Agent

The term "Issuing and Paying Agent" means U.S. Bank National Association, or any other institution, appointed by the Authority pursuant to the Fifth Supplemental Indenture to serve as Issuing and Paying Agent in accordance with the Issuing and Paying Agency Agreement, or any successor thereto pursuant to this Indenture and the Issuing and Paying Agency Agreement.

Letter of Representations

The term "Letter of Representations" means the letter of the Authority delivered to and accepted by the Depository on or prior to the delivery of any Book-Entry Bonds setting forth the basis on which the Depository serves as depository for such Book-Entry Bonds, as originally executed or as it may be supplemented or revised or replaced by a letter to a substitute Depository.

Master Installment Purchase Agreement

The term "Master Installment Purchase Agreement" means the Master Installment Purchase Agreement, dated as of August 1, 2002, as amended and supplemented by the First Amendment to Amended and Restated Master Installment Purchase Agreement, dated as of November 14, 2018, a 2002 Supplement to Master Installment Purchase Agreement, dated as of August 1, 2002, a 2002 Supplement to Master Installment Purchase Agreement, dated as of October 1, 2002, an Amended and Restated Master Installment Purchase Agreement, dated as of January 1, 2009, a 2009A Supplement to Amended and Restated Master Installment Purchase Agreement, dated as of January 1, 2009, a 2009B Supplement to Amended and Restated Master Installment Purchase Agreement, dated as of June 1, 2009, a 2010A Supplement to Amended and Restated Master Installment Sale Agreement, dated as of June 1, 2010, a 2012A Supplement to Amended and Restated Master Installment Sale Agreement, dated as of April 1, 2012, a 2016 Supplement to Amended and Restated Master Installment Purchase Agreement, dated as of June 1, 2016, a 2017 Commercial Paper Supplement to Amended and Restated Master Installment Purchase Agreement, dated as of January 1, 2017, and the 2018 Supplement to Amended and Restated Master Installment Purchase Agreement, dated as of December 1, 2018, each by and between the City and the Corporation, and as supplemented by the Collateral Agency, Account and Assignment Agreement, dated as of November 14, 2018, by and among the City, the Corporation, the Authority, the United States Environmental Protection Agency, acting by and through the Administrator of the Environmental Protection Agency, and U.S. Bank National Association as collateral agent under the Collateral Agency Agreement and as Trustee under the Indenture, as such Agreement may from time to time be further amended or supplemented by all Supplements executed pursuant to the provisions thereof.

Moody's

The term "Moody's" means Moody's Investors Service, a corporation organized under the laws of the State of Delaware, and its successors, and if such corporation shall for any reason no longer perform the functions of a securities rating agency, "Moody's" shall be deemed to refer to any other nationally recognized securities rating agency designated by the Authority and the City.

Nominee

The term "Nominee" means the nominee of the Depository, which may be the Depository, as determined from time to time pursuant to the Indenture.

Original Indenture

The term "Original Indenture" means the Indenture, dated as of January 1, 2009, by and between the Authority and the Trustee.

Outstanding

The term "Outstanding," means, when used as of any particular time with reference to Bonds, means (subject to the provisions of the Indenture) all Bonds theretofore or thereupon executed by the Authority and authenticated and delivered by the Trustee pursuant to the terms of the Indenture, except:

1. Bonds theretofore cancelled by the Trustee or surrendered to the Trustee for cancellation;

2. Bonds paid or deemed to have been paid within the meaning of the Indenture;

3. Bonds beneficially owned by the City or the Authority; and

4. Bonds in lieu of or in substitution for which other Bonds shall have been executed by the Authority and authenticated and delivered pursuant to the terms of the Indenture.

Owner

The term "Owner" means any person who shall be the registered owner of any Outstanding Bond as shown on the registration books required to be maintained by the Trustee pursuant to the Indenture.

Parity Installment Payments

The term "Parity Installment Payments" means Installment Payments that are Parity Obligations scheduled to be paid by the City under and pursuant to any Supplement that has been assigned to the Trustee (as assignee of the Authority) to secure such Parity Obligations.

Participants

The term "Participants" means those broker-dealers, banks, and other financial institutions from time to time for which the Depository holds Book-Entry Bonds as securities depository.

Payment Fund

The term "Payment Fund" means the fund by that name established under the Indenture.

Permitted Investments

The term "Permitted Investments" means any of the following which, at the time of investment, are legal investments under the laws of the State for the moneys proposed to be invested therein:

(1) Federal Securities;

(2) The following listed obligations of government-sponsored agencies which are not backed by the full faith and credit of the United States of America:

(A) Federal Home Loan Mortgage Corporation (FHLMC) senior debt obligations and Participation certificates (excluded are stripped mortgage securities which are purchased at prices exceeding their principal amounts);

(B) Farm Credit System (formerly Federal Land Banks, Federal Intermediate Credit Banks and Banks for Cooperatives) consolidated system-wide bonds and notes;

(C) Federal Home Loan Banks (FHL Banks) consolidated debt obligations;

(D) Federal National Mortgage Association (FNMA) senior debt obligations and mortgage-backed securities (excluded are stripped mortgage securities which are purchased at prices exceeding their principal amounts);

(E) The senior debt obligations of Resolution Funding Corporation (RFCO), Financing Corporation (FICO) and Tennessee Valley Authority (TVA);

(3) Obligations of any state, territory or commonwealth of the United States of America or any political subdivision thereof or any agency or department of the foregoing, that are rated, at the time of purchase, in the highest Rating Category by two Rating Agencies;

(4) United States dollar denominated senior unsecured unsubordinated obligations issued or unconditionally guaranteed by the International Bank for Reconstruction and Development, International Finance Corporation, or Inter-American Development Bank. Investments under this subdivision shall be rated "AA" or better by a Rating Agency;

(5) Bonds, notes, debentures or other evidences of indebtedness issued or guaranteed by any corporation which are rated, at the time of purchase, "A1/P1/F1" by two Rating Agencies or, if the term of such indebtedness is longer than one year, rated in the highest Rating Category by two Rating Agencies;

(6) Taxable commercial paper or tax-exempt commercial paper with a maturity of not more than 270 days, which are rated, at the time of purchase, "A1/P1/F1" by two Rating Agencies;

(7) Deposit accounts or certificates of deposit, whether negotiable or non-negotiable, issued by a state or national bank (including the Trustee) or a state or federal savings and loan association or a state-licensed branch of a foreign bank; provided, however, that such certificates of deposit or deposit accounts shall be either (A) continuously insured by the Federal Deposit Insurance Corporation; or (B) have maturities of not more than 365 days (including certificates of deposit) and are issued by any state or national bank or a state or federal savings and loan association, the short-term obligations of which are rated, at the time of purchase, in the highest short term rating by two Rating Agencies;

(8) Bills of exchange or time drafts drawn on and accepted by a commercial bank, otherwise known as bankers acceptances, which bank has short-term obligations outstanding which are rated, at the time of purchase, by two Rating Agencies in the highest short-term Rating Category, and which bankers acceptances mature not later than 365 days from the date of purchase;

(9) Any repurchase agreement: (A) with (i) any bank or trust company organized under the laws of any state of the United States or any national banking association (including the Trustee), or a

state-licensed branch of a foreign bank, having a minimum permanent capital of one hundred million dollars ($100,000,000) and having short-term debt which is rated, at the time of the purchase, by two Rating Agencies in one of the three highest short-term Rating Categories; or (ii) any government bond dealer reporting to, trading with, and recognized as a primary dealer by, the Federal Reserve Bank of New York; and (B) which agreement is secured by any one or more of the securities and obligations described in clause (1) or (2) of this definition and having maturities equal to or less than 5 years from the date of delivery, which shall have a market value (valued at least monthly) not less than 102% of the principal amount of such investment and shall be placed with the Trustee or other fiduciary, as custodian for the Trustee, by the bank, trust company, national banking association or bond dealer executing such repurchase agreement. The entity executing each such repurchase agreement required to be so secured shall furnish the Trustee with an undertaking satisfactory to the Trustee that the aggregate market value of all such obligations securing each such repurchase agreement (as valued at least monthly) will be an amount equal to 102% the principal amount of such repurchase agreement, and the Trustee shall be entitled to rely on each such undertaking;

(10) Any cash sweep or similar account arrangement of or available to the Trustee, the investments of which are limited to investments described in clauses (1), (2), (3) and (9) of this definition and any money market fund, the entire investments of which are limited to investments described in clauses (1), (2), (3) and (9) of this definition and which money market fund is rated, at the time or purchase, by at least one Rating Agency in the highest Rating Category;

(11) Any guaranteed investment contract, including forward delivery agreements ("FDAs") and forward purchase agreements ("FPAs"), with a financial institution or insurance company which has (or which is unconditionally guaranteed by a legal entity which has), at the date of execution thereof, an outstanding issue of unsecured, uninsured and unguaranteed debt obligations or a claims-paying ability which is rated, at the time of purchase, by two Rating Agencies in one of two highest long-term Rating Categories. Only Permitted Investments described in clause (1) and (2) of this definition and having maturities equal to or less than 30 years from their date of delivery will be considered eligible for any collateralization/delivery purposes for guaranteed investment contracts, FDAs or FPAs;

(12) Certificates, notes, warrants, bonds or other evidence of indebtedness of the State or of any political subdivision or public agency thereof which are rated, at the time of purchase, by two Rating Agencies in the highest short-term Rating Category or within one of the three highest long-term Rating Categories, but excluding securities that do not have a fixed par value and/or whose terms do not promise a fixed dollar amount at maturity or call date;

(13) For amounts less than $250,000, interest-bearing demand or time deposits (including certificates of deposit) in a nationally or state-chartered bank, or a state or federal savings and loan association in the State, fully insured by the Federal Deposit Insurance Corporation, including the Trustee or any affiliate thereof;

(14) Investments in Constant Net Asset Value taxable money market funds or portfolios restricted to obligations with an average maturity of one year or less and which funds or portfolios are: (A) rated, at the time of purchase, by two Rating Agencies in one of the two highest Rating Categories; or (B) have or are portfolios guaranteed as to payment of principal and interest by the full faith and credit of the United States of America;

(15) Investments in the City Treasurer's pooled investment fund;

(16) Shares of beneficial interest in diversified management companies investing exclusively in securities and obligations described in clauses (1) through (13) of this definition and which companies

are: (A) rated, at the time of purchase, by two Rating Agencies in the highest Rating Category; or (B) have an investment advisor registered with the Securities and Exchange Commission with not less than five years' experience investing in such securities and obligations and with assets under management in excess of five hundred million dollars ($500,000,000);

(17) Shares in a California common law trust established pursuant to Title 1, Division 7, Chapter 5 of the Government Code of the State which consists exclusively of investments permitted by Section 53601 of Title 5, Division 2, Chapter 4 of the Government Code of the State, as it may be amended; and

(18) Any other investment, with confirmation (or other action, satisfactory to the City) from each rating agency that has a current rating on the Bonds at the time of initial purchase thereof, that its rating on the Bonds will not be lowered or withdrawn as a result of such investment.

Person

The term "Person" means any legal entity or natural person, as the context may require.

Pre-Refunded Municipals

The term "Pre-Refunded Municipals" means any bonds or other obligations of any state of the United States of America or of any agency, instrumentality, or local governmental unit of any such state which are not callable at the option of the obligor prior to maturity or as to which irrevocable instructions have been given by the obligor to call on the date specified in the notice.

Principal Account

The term "Principal Account" means the account of that name established under the Indenture.

Principal Payment Date

The term "Principal Payment Date" means, (i) with respect to the 2009A Bonds, each August 1, commencing August 1, 2009, through and including August 1, 2038, (ii) with respect to the 2009B Bonds, each August 1, commencing August 1, 2010, through and including August 1, 2039, (iii) with respect to the 2010A Bonds, each August 1, commencing August 1, 2022, through and including August 1, 2028, (iv) with respect to the 2012A Bonds, each August 1, commencing August 1, 2012, through and including August 1, 2032, (v) with respect to the 2016 Bonds, each August 1, commencing August 1, 2016, through and including August 1, 2045, (vi) with respect to the 2017 Commercial Paper Notes, means each August 1, each date on which 2017 Commercial Paper Notes are due and payable, and such other date as provided for in a Supplemental Indenture; and (vii) with respect to the 2018 Bonds, each August 1, as set forth in the Sixth Supplemental Indenture.

Project

The term "Project" means the acquisition, construction, installation, and improvements to the Water System described in Exhibit A to the Master Installment Purchase Agreement and as modified with respect to Components in conformance with the Master Installment Purchase Agreement.

Project Costs

The term "Project Costs" means the costs of the Project disbursed from time to time by the Comptroller from the Acquisition Fund pursuant to the Indenture.

Purchase Price

The term "Purchase Price" means the principal amount plus interest thereon owed by the City under the terms of the Master Installment Purchase Agreement as provided in the Indenture thereof and as specified in a Supplement.

Rating Agency

The term "Rating Agency" means Fitch, Moody's, or S&P.

Rebate Fund

The term "Rebate Fund" means the fund by that name created under the Indenture and any other accounts thereunder.

Record Date

The term "Record Date" means the fifteenth day of the calendar month immediately preceding an Interest Payment Date, whether or not such day is a Business Day.

Redemption Account

The term "Redemption Account" means the account by that name established under the Indenture.

Reserve Fund

The term "Reserve Fund" means the fund by that name established under the Indenture, in which the Reserve Requirement shall be held and invested.

Reserve Requirement

The term "Reserve Requirement" means, as of any date of calculation, the least of (10%) of the proceeds (within the meaning of section 148 of the Code) of the Bonds; (ii) 125% of average annual debt service on the then-Outstanding Bonds; or (iii) the Maximum Annual Debt Service for that and any subsequent year. Upon early redemption of any of the Bonds, the Authority, at the request of the City, may request the Trustee to recalculate and reduce any Reserve Requirement, whereupon any excess in the Reserve Fund over and above such Reserve Requirement shall be transferred to the Payment Fund.

Note: With respect to the two definitions above, no debt service reserve fund will be created or funded to secure the 2018 Bonds. Debt service reserve funds were created in connection with the issuance of the 2009A Bonds, 2009B Bonds, 2010A Bonds and 2012A Bonds and under the funding agreements for the SRF loans. Amounts on deposit in, or to be on deposit in, such debt service reserve funds are not available to secure the 2018 Bonds. See "SECURITY AND SOURCES OF PAYMENT FOR THE 2018 BONDS – No Debt Service Reserve Fund for 2018 Bonds" in this Official Statement.

Revenues

The term "Revenues" means all Installment Payments received by or due to be paid to the Corporation, and the interest, and the interest or profits from the investment of money in any account or fund (other than the Subordinated Bonds Payment Fund, the Subordinated Bonds Reserve Fund and the Rebate Fund) pursuant to the Indenture.

S&P

The term "S&P" means Standard & Poor's Ratings Group, a division of The McGraw-Hill Companies, Inc., a corporation organized and existing under the laws of the State of New York, and its successors, and if such corporation shall for any reason no longer perform the functions of a securities rating agency, "S&P" shall be deemed to refer to any other nationally recognized securities rating agency designated by the Authority and the City.

Second Supplemental Indenture

The term "Second Supplemental Indenture" means the Second Supplemental Indenture, dated as of June 1, 2010, by and the Authority and the Trustee.

Securities Depository

The term "Securities Depository" means The Depository Trust Company, 55 Water Street, 50th Floor, New York, N.Y. 10041-0099 Attn. Call Notification Department, Fax (212) 855-7232, or, in accordance with then-current guidelines of the Securities and Exchange Commission, such other securities depositories, or no such depositories, as the Authority may indicate in a Written Request of the Authority delivered to the Trustee.

Senior Bonds

The term "Senior Bonds" means the 2009A Bonds, the 2009B Bonds, the 2010A Bonds (none of which are outstanding) and any other Bonds secured by pledge of Revenues on a parity with such Bonds.

Separate Subordinated Bonds Reserve Fund

The term "Separate Subordinated Bonds Reserve Fund" means a reserve fund, if any, created pursuant to a Supplemental Indenture for a Series of Subordinated Bonds that is not part of the Common Subordinated Bonds Reserve Fund.

Separate Subordinated Bonds Reserve Requirement

The term "Separate Subordinated Bonds Reserve Requirement" means the requirement set forth in the Supplemental Indenture establishing a Separate Subordinated Bonds Reserve Fund.

Note: With respect to the two definitions above, no debt service reserve fund will be created or funded to secure the 2018 Bonds. Debt service reserve funds were created in connection with the issuance of the 2009A Bonds, 2009B Bonds, 2010A Bonds and 2012A Bonds and under the funding agreements for the SRF loans. Amounts on deposit in, or to be on deposit in, such debt service reserve funds are not available to secure the 2018 Bonds. See "SECURITY AND SOURCES OF PAYMENT FOR THE 2018 BONDS – No Debt Service Reserve Fund for 2018 Bonds" in this Official Statement.

Sixth Supplemental Indenture

The term "Sixth Supplemental Indenture" means the Sixth Supplemental Indenture, dated as of December 1, 2018, by and between the Authority and the Trustee.

State

The term "State" means the State of California.

Subordinated Bonds

The term "Subordinated Bonds" means the 2012A Bonds and 2016 Bonds and any other Bonds secured by a pledge of Subordinated Revenues on a parity with such Bonds.

Subordinated Bonds Interest Account

The term "Subordinated Bonds Interest Account" means the account by that name established under the Indenture.

Subordinated Bonds Payment Fund

The term "Subordinated Bonds Payment Fund" means the fund by that name established under the Indenture.

Subordinated Bonds Principal Account

The term "Subordinated Bonds Principal Account" means the account by that name established under the Indenture.

Subordinated Bonds Redemption Account

The term "Subordinated Bonds Redemption Account" means the account by that name established under the Indenture.

Subordinated Bonds Reserve Fund

The term "Subordinated Bonds Reserve Fund" means the fund by that name established under the Indenture. No debt service reserve fund will be created or funded to secure the 2018 Bonds. Debt service reserve funds were created in connection with the issuance of the 2009A Bonds, 2009B Bonds, 2010A Bonds and 2012A Bonds and under the funding agreements for the SRF loans. Amounts on deposit in, or to be on deposit in, such debt service reserve funds are not available to secure the 2018 Bonds. See "SECURITY AND SOURCES OF PAYMENT FOR THE 2018 BONDS – No Debt Service Reserve Fund for 2018 Bonds" in this Official Statement.

Subordinated Credit Provider

The term "Subordinated Credit Provider" means the provider or, collectively, providers of a Subordinated Credit Support Instrument for the 2017 Commercial Paper Notes.

Subordinated Credit Support Instrument

The term "Subordinated Credit Support Instrument" means, with respect to a series or subseries of the 2017 Commercial Paper Notes, a Subordinated Credit Support Instrument supporting such 2017 Commercial Paper Notes.

Subordinated Installment Payments

The term "Subordinated Installment Payments" means Installment Payments that are Subordinated Obligations (as defined in the Master Installment Purchase Agreement) scheduled to be paid by the City under and pursuant to any Supplement that has been assigned to the Trustee (as assignee of the Authority) to secure any Subordinated Bonds or Notes.

Subordinated Revenues

The term "Subordinated Revenues" means all Subordinated Installment Payments received by or due to the Corporation pursuant to the Master Installment Purchase Agreement and the interest or profits from the investment of money in the Subordinated Bonds Payment Fund and the Subordinated Bonds Reserve Fund.

Supplement

The term "Supplement" means a supplement to the Master Installment Purchase Agreement providing for the payment of specific Installment Payments as the Purchase Price for Components of the Project, executed and delivered by the City and the Corporation.

Supplemental Indenture

The term "Supplemental Indenture" means any indenture supplemental to or amendatory of the Indenture duly executed and delivered by the Authority and the Trustee as authorized under the Indenture.

Surety Bond

The term "Surety Bond" means a reserve bond, insurance policy, letter of credit, or other similar instrument rated "Aa3" or "AA-" or better by at least two Rating Agencies at the time of purchase or issuance and providing, by its terms, a stated amount as a credit towards or in satisfaction of all or part of the Reserve Requirement, which Surety Bond shall be held by the Trustee in trust pursuant to the Indenture. A Surety Bond shall constitute and qualify as a "Reserve Fund Credit Facility," as such term is defined in the Master Installment Purchase Agreement.

Tax Certificate

The term "Tax Certificate" means the Tax Exemption Certificate delivered with respect to Tax-Exempt Bonds on their Closing Date.

Tax-Exempt Bonds

The term "Tax-Exempt Bonds" means those Bonds that, by their terms, bear interest that is excluded from gross income for federal income tax purposes, pursuant to the Code.

Third Supplemental Indenture

The term "Third Supplemental Indenture" means the Third Supplemental Indenture, dated as of March 1, 2012, by and between the Authority and the Trustee.

Treasurer

The term "Treasurer" means the Office of the City Treasurer of the City of San Diego.

Trustee

The term "Trustee" means U.S. Bank National Association, a national banking association existing under and by virtue of the laws of the United States, or any other bank or trust company that may at any time be substituted in its place as provided in the Indenture.

Underwriters

The term "Underwriters" means, with respect to the 2018 Bonds, collectively, Merrill Lynch, Pierce, Fenner & Smith Incorporated, Citigroup Global Markets Inc., 280 Securities LLC, Hilltop Securities Inc., and UBS Financial Services Inc.

Water System

The term "Water System" means any and all facilities, properties, improvements, and works at any time owned, controlled, or operated by the City as part of the public utility system of the City for water purposes, for the development, obtaining, conservation, production, storage, treatment, transmission, furnishing, and distribution of water and its other commodities or byproducts for public and private use (whether located within or outside the City), and any related or incidental operations designated by the City as part of the Water System, including reclaimed and re-purified water.

Written Request of the Authority

The term "Written Request of the Authority" means instrument in writing signed by the Chair, the Vice Chair, or the Secretary of the Authority, or by any other officer or Commissioner of the Board duly authorized by the Authority for that purpose.

Written Request of the City

The term "Written Request of the City" means an instrument in writing signed by the Chief Operating Officer, the Chief Financial Officer or any of their respective designees, or by any other official of the applicable administrative departments of the City duly authorized by the City for that purpose.

2009A Bonds

The term "2009A Bonds" means the Public Facilities Financing Authority of the City of San Diego Water Revenue Bonds, Series 2009A (Payable Solely From Installment Payments Secured by Net System Revenues of the Water Utility Fund) issued in the aggregate principal amount of $157,190,000 (none of which are outstanding).

2009B Bonds

The term "2009B Bonds" means the Public Facilities Financing Authority of the City of San Diego Water Revenue Bonds, Series 2009B (Payable Solely From Installment Payments Secured by Net System Revenues of the Water Utility Fund) issued in the aggregate principal amount of $328,060,000 (none of which are outstanding).

2010A Bonds

The term "2010A Bonds" means the Public Facilities Financing Authority of the City of San Diego Water Revenue Bonds, Refunding Series 2010A (Payable Solely from Installment Payments Secured by Net System Revenues of the Water Utility Fund), issued under the Indenture in the original aggregate principal amount of $123,075,000 (none of which are outstanding).

2012A Bonds

The term "2012A Bonds" means the Authority's Subordinated Water Revenue Bonds, Refunding Series 2012A (Payable Solely from Subordinated Installment Payments Secured by Net System Revenues of the Water Utility Fund), issued under the Indenture in the original aggregate principal amount of $188,610,000.

2016 Bonds

The term "2016 Bonds" means the 2016A Bonds and the 2016B Bonds.

2016A Bonds

The term "2016A Bonds" means the Authority's Subordinated Water Revenue Bonds, Refunding Series 2016A (Payable Solely from Subordinated Installment Payments Secured by Net System Revenues of the Water Utility Fund), issued under the Indenture.

2016B Bonds

The term "2016B Bonds" means the Authority's Subordinated Water Revenue Bonds, Refunding Series 2016B (Payable Solely from Subordinated Installment Payments Secured by Net System Revenues of the Water Utility Fund), issued under the Indenture.

2017 Commercial Paper Notes

The term "2017 Commercial Paper Notes" means the Authority's Subordinated Water Revenue Commercial Paper Notes (Payable Solely from Subordinated Installment Payments Secured by the Net System Revenues of the Water Utility Fund) issued from time to time under the Indenture.

2018 Bonds

The term "2018 Bonds" means the Authority's Subordinated Water Revenue Bonds, Series 2018A (Payable Solely From Subordinated Installment Payments Secured by the Net System Revenues of the Water Utility Fund of the City of San Diego), issued under the Indenture.

2018 Components

The term "2018 Components" means the Components of the Project specified in the 2018 Supplement, for which the City will be making 2018 Subordinated Installment Payments.

2018 Subordinated Installment Payments

The term "2018 Subordinated Installment Payments" means those Installment Payments scheduled to be paid by the City under the 2018 Supplement.

2018 Supplement

The term "2018 Supplement" means the 2018 Supplement to Amended and Restated Master Installment Purchase Agreement, dated as of December 1, 2018, by and between the City and the Corporation.

INDENTURE

Establishment of Funds; Deposit and Application

Establishment of Funds and Accounts.

(a) Pursuant to the Original Indenture, the Trustee has established the Payment Fund, including the Interest Account, the Principal Account, and the Redemption Account for the Senior Bonds and the Subordinated Bond Payment Fund, including the Subordinated Bonds Interest Account, the Subordinated Bonds Principal Account, and the Subordinated Bonds Redemption Account for the Subordinated Bonds.

(d) Pursuant to the Original Indenture, the Trustee has established the Reserve Fund for the Senior Bonds, and, pursuant to the Third Supplement, the Subordinated Bonds Reserve Fund and the Common Subordinated Bonds Reserve Fund, in order to facilitate compliance by the City with the Tax Certificate and the Master Installment Purchase Agreement.

Subordinated Bonds Payment Fund. The Trustee shall establish and maintain a special trust fund to be designated the "City of San Diego Water System Improvement Project Subordinated Bonds Payment Fund" (the "Subordinated Bonds Payment Fund"). Within the Subordinated Bonds Payment Fund, the Trustee shall establish and maintain a Subordinated Bonds Interest Account (the "Subordinated Bonds Interest Account"), a Subordinated Bonds Principal Account (the "Subordinated Bonds Principal Account"), and a Subordinated Bonds Redemption Account (the "Subordinated Bonds Redemption Account").

Subordinated Bonds Reserve Fund. The Trustee shall establish and maintain a special trust fund to be designated the "City of San Diego Water System Improvement Project Subordinated Bonds Reserve Fund" (the "Subordinated Bonds Reserve Fund"). Within the Subordinated Bonds Reserve Fund, the Trustee shall establish and maintain a Common Subordinated Bonds Reserve Fund (the "Common Subordinated Bonds Reserve Fund") and shall establish and maintain any Separate Subordinated Bonds Reserve Fund required by a Supplemental Indenture to be established and maintained.

(a) The Subordinated Bonds Reserve Fund and, within the Subordinated Bonds Reserve Fund, the Common Subordinated Bonds Reserve Fund and each separate Subordinated Bonds Reserve Fund are each a separate fund held in trust by the Trustee. An amount equal to the Common

Subordinated Bond Reserve Requirement shall be maintained in or credited to the Common Subordinated Bonds Reserve Fund and amounts equal to each Separate Subordinated Bonds Reserve Requirement shall be maintained in or credited to such Separate Subordinated Bonds Reserve Fund at all times, subject to the provisions of subsection (e) of this section, and any deficiency therein shall be replenished from the first available Subordinated Revenues pursuant to paragraph (e) below.

(b) Moneys in or available from the Subordinated Bonds Reserve Fund shall be used solely for the purpose of paying the principal of and interest on the Subordinated Bonds, including the redemption price of the Subordinated Bonds coming due and payable by operation of mandatory sinking fund redemption, in the event that the moneys in the Subordinated Bonds Payment Fund are insufficient therefor. If and during such time as a Surety Bond is in effect for a Series of Subordinated Bonds secured by a Separate Subordinated Reserve Fund, not less than two Business Days prior to each Interest Payment Date, the Trustee shall ascertain the necessity for a draw upon the Surety Bond and, if the draw is necessary, shall provide notice thereof to the provider of the Surety Bond in accordance with the terms of the Surety Bond at least two Business Days prior to each Interest Payment Date. In the event that the amount on deposit in the Subordinated Bonds Payment Fund on any date is insufficient to enable the Trustee to pay in full the aggregate amount of principal of and interest on such Series of Subordinated Bonds secured by a Separate Subordinated Reserve Fund coming due and payable by operation of mandatory sinking fund redemption, the Trustee shall withdraw the amount of such insufficiency from the applicable Separate Subordinated Bonds Reserve Fund of make a draw upon the applicable Surety Bond in the amount of such insufficiency and transfer such amount to the Subordinated Bonds Payment Fund. Amounts on deposit in the Subordinated Bonds Reserve Fund shall not be applied to the payment of Senior Bonds.

(c) In the event that the amount on deposit in the Common Subordinated Bonds Reserve Fund or a Separate Subordinated Bonds Reserve Fund exceeds the Common Subordinated Bonds Reserve Requirement or applicable Separate Subordinated Bonds Reserve Fund Requirement on the fifteenth (15th) calendar day of the month preceding any Interest Payment Date, the amount of such excess shall be withdrawn therefrom by the Trustee and transferred to (a) the Rebate Fund, to the extent required under the Indenture, or (b) the Subordinated Bonds Payment Fund. In any case where a fund in a Separate Subordinated Bonds Reserve Fund is funded with a combination of cash and a Surety Bond, any such withdrawal of excess shall be effected through a withdrawal of cash not a reduction in the amount of the Surety Bond. The remaining balance in any fund in the Subordinated Bonds Reserve Fund may be applied at the direction of the Authority, to the payment of the final maturing principal payments of Subordinated Bonds secured by such fund.

(d) The Authority may replace all or a portion of a Separate Subordinated Bonds Reserve Fund Requirement, originally funded with cash, with one or more Surety Bonds. Upon deposit of any Surety Bond with the Trustee, the Trustee shall transfer to the Acquisition Fund from amounts in the related Separate Subordinated Bonds Reserve Fund an amount equal to the principal of the Surety Bond, which principal shall comprise the Separate Subordinated Bonds Reserve Fund, as applicable, under the Indenture, or make other transfers in accordance with a Written Direction of the City.

In any case where a fund in a Separate Subordinated Bonds Reserve Fund is funded with a combination of cash and a Surety Bond, the Trustee shall deplete all cash balances before drawing on the related Surety Bond. With regard to replenishment, any available moneys provided by the City shall be used first to reinstate the related Surety Bond and second, to replenish the cash in the related Separate Subordinated Bonds Reserve Fund in accordance with subsection (e) of this section. In the event the Surety Bond is drawn upon, the City shall make payment of interest on amounts advanced under the Surety Bond after making any payments pursuant to the Indenture as summarized herein under the

caption "Indenture – Revenues – Maintenance of Accounts for Use of Money in the Subordinated Bonds Payment Fund."

In the event the Surety Bond is scheduled to lapse or expire, the Trustee shall draw upon such Surety Bond prior to its lapsing or expiring in the full amount of such Surety Bond, make deposits from available Subordinated Revenues to the Separate Subordinated Bonds Reserve Fund, as applicable, to increase the amount on deposit therein to the Separate Subordinated Bonds Reserve Fund Requirement, as applicable or substitute such Surety Bond with a Surety Bond that satisfies the requirements of this section.

The Authority acknowledges that the rating on any Surety Bond obtained or provided under the Indenture may change after the date such Surety Bond is purchased or issued. Within twelve (12) months after the date that the Authority obtains actual knowledge that any Surety Bond is no longer rated at least "Aa3" or "AA-" by any Rating Agency, the Authority shall either (i) deposit into the related Separate Subordinated Bonds Reserve Fund, as applicable, money in an amount equal to the stated or principal amount of such Surety Bond or (ii) obtain a substitute Surety Bond that satisfies the provisions of the Indenture.

(e) In the event that the amount on deposit in the Common Subordinated Bonds Reserve Fund or Separate Subordinated Bonds Reserve Fund at any time falls below the Common Subordinated Bonds Reserve Requirement or Separate Subordinated Bonds Reserve Fund Requirement, as applicable, or in the event of a draw on the Surety Bond deposited therein, the Trustee shall promptly notify the City and the Authority of such fact and the Trustee shall promptly (A)(i) withdraw the amount of such insufficiency from available Subordinated Revenues on deposit in the Subordinated Bonds Payment Fund, and (ii) transfer such amount to the Common Subordinated Bonds Reserve Fund or applicable Separate Subordinated Bonds Reserve Fund or (B) withdraw an amount necessary to repay such drawing on the Surety Bond and related expenses. Repayment of draws, expenses and accrued interest (collectively, "Policy Costs") shall commence in the first month following each draw, and each such monthly payment shall be in an amount at least equal to 1/12 of the aggregate of Policy Costs related to such draw.

(f) Notwithstanding any other provision in the Indenture, amounts in deposit in the Common Subordinated Bonds Reserve Fund shall secure and shall be used solely for the purpose of paying the principal of and interest on Common Subordinated Reserve Fund Bonds and amounts on deposit in a Separate Subordinated Bonds Reserve Fund shall secure and shall be used solely for the purpose of paying the principal of and interest on Subordinated Bonds specified in the Supplemental Indenture as secured by such Separate Subordinated Bonds Reserve Fund.

Senior Bonds Reserve Fund.

(a) Within the Reserve Fund, the Trustee shall establish and maintain a Common Senior Bonds Reserve Fund (the "Common Senior Bonds Reserve Fund") and shall establish and maintain any Separate Senior Bonds Reserve Fund required by a Supplemental Indenture to be established and maintained. The Reserve Fund and, within the Reserve Fund, the Common Senior Bonds Reserve Fund and each separate Senior Bonds Reserve Fund are each a separate fund held in trust by the Trustee. An amount equal to the Common Senior Bond Reserve Requirement shall be maintained in or credited to the Common Senior Bonds Reserve Fund and amounts equal to each Separate Senior Bonds Reserve Requirement shall be maintained in or credited to such Separate Senior Bonds Reserve Fund at all times, subject to the provisions of subsection (e) below, and any deficiency therein shall be replenished from the first available Senior Revenues pursuant to (e) below.

(b) Moneys in or available from the Reserve Fund shall be used solely for the purpose of paying the principal of and interest on the Senior Bonds, including the redemption price of the Senior Bonds coming due and payable by operation of mandatory sinking fund redemption, in the event that the moneys in the Senior Bonds Payment Fund are insufficient therefor. If and during such time as a Surety Bond is in effect for a Series of Senior Bonds secured by a Separate Senior Reserve Fund, not less than two Business Days prior to each Interest Payment Date, the Trustee shall ascertain the necessity for a draw upon the Surety Bond and, if the draw is necessary, shall provide notice thereof to the provider of the Surety Bond in accordance with the terms of the Surety Bond at least two Business Days prior to each Interest Payment Date. In the event that the amount on deposit in the Senior Bonds Payment Fund on any date is insufficient to enable the Trustee to pay in full the aggregate amount of principal of and interest on such Series of Senior Bonds secured by a Separate Senior Reserve Fund coming due and payable by operation of mandatory sinking fund redemption, the Trustee shall withdraw the amount of such insufficiency from the applicable Separate Senior Bonds Reserve Fund of make a draw upon the applicable Surety Bond in the amount of such insufficiency and transfer such amount to the Senior Bonds Payment Fund. Amounts on deposit in the Reserve Fund shall not be applied to the payment of Subordinated Bonds.

(c) In the event that the amount on deposit in the Common Senior Bonds Reserve Fund or a Separate Senior Bonds Reserve Fund exceeds the Common Senior Bonds Reserve Requirement or applicable Separate Senior Bonds Reserve Fund Requirement on the fifteenth (15th) calendar day of the month preceding any Interest Payment Date, the amount of such excess shall be withdrawn therefrom by the Trustee and transferred to (a) the Rebate Fund, to the extent required under the Indenture, or (b) the Senior Bonds Payment Fund. In any case where a fund in a Separate Senior Bonds Reserve Fund is funded with a combination of cash and a Surety Bond, any such withdrawal of excess shall be effected through a withdrawal of cash not a reduction in the amount of the Surety Bond. The remaining balance in any fund in the Senior Bonds Reserve Fund may be applied at the direction of the Authority, to the payment of the final maturing principal payments of Senior Bonds secured by such fund.

(d) The Authority may replace all or a portion of a Separate Senior Bonds Reserve Fund Requirement, originally funded with cash, with one or more Surety Bonds. Upon deposit of any Surety Bond with the Trustee, the Trustee shall transfer to the Acquisition Fund from amounts in the related Separate Senior Bonds Reserve Fund an amount equal to the principal of the Surety Bond, which principal shall comprise the Separate Senior Bonds Reserve Fund, as applicable, under the Indenture, or make other transfers in accordance with a Written Direction of the City.

In any case where a fund in a Separate Senior Bonds Reserve Fund is funded with a combination of cash and a Surety Bond, the Trustee shall deplete all cash balances before drawing on the related Surety Bond. With regard to replenishment, any available moneys provided by the City shall be used first to reinstate the related Surety Bond and second, to replenish the cash in the related Separate Senior Bonds Reserve Fund in accordance with subsection (e) of this section. In the event the Surety Bond is drawn upon, the City shall make payment of interest on amounts advanced under the Surety Bond after making any payments pursuant to the Indenture.

In the event the Surety Bond is scheduled to lapse or expire, the Trustee shall draw upon such Surety Bond prior to its lapsing or expiring in the full amount of such Surety Bond, make deposits from available Senior Revenues to the Separate Senior Bonds Reserve Fund, as applicable, to increase the amount on deposit therein to the Separate Senior Bonds Reserve Fund Requirement, as applicable or substitute such Surety Bond with a Surety Bond that satisfies the requirements of this section.

(e) In the event that the amount on deposit in the Common Senior Bonds Reserve Fund or Separate Senior Bonds Reserve Fund at any time falls below the Common Senior Bonds Reserve

Requirement or Separate Senior Bonds Reserve Fund Requirement, as applicable, or in the event of a draw on the Surety Bond deposited therein, the Trustee shall promptly notify the City and the Authority of such fact and the Trustee shall promptly (A)(i) withdraw the amount of such insufficiency from available Senior Revenues on deposit in the Senior Bonds Payment Fund, and (ii) transfer such amount to the Common Senior Bonds Reserve Fund or applicable Separate Senior Bonds Reserve Fund or (B) withdraw an amount necessary to repay such drawing on the Surety Bond and related expenses. Repayment of draws, expenses and accrued interest (collectively, "Policy Costs") shall commence in the first month following each draw, and each such monthly payment shall be in an amount at least equal to 1/12 of the aggregate of Policy Costs related to such draw.

(f) Amounts in deposit in the Common Senior Bonds Reserve Fund shall secure and shall be used solely for the purpose of paying the principal of and interest on Common Senior Reserve Fund Bonds and amounts on deposit in a Separate Senior Bonds Reserve Fund shall secure and shall be used solely for the purpose of paying the principal of and interest on Senior Bonds specified in the Supplemental Indenture as secured by such Separate Senior Bonds Reserve Fund.

(g) In any case where any Common Senior Reserve Fund or Separate Senior Bonds Reserve Fund is funded in whole or in part with a Surety Bond, the Authority acknowledges that the rating on such Surety Bond may change after the date such Surety Bond is purchased or issued. In no event shall the City or the Authority by required to replace such Surety Bond initially delivered under the Indenture with a similar instrument or with cash.

Note: No debt service reserve fund will be created or funded to secure the 2018 Bonds. Debt service reserve funds were created in connection with the issuance of the 2009A Bonds, 2009B Bonds, 2010A Bonds and 2012A Bonds and under the funding agreements for the SRF loans. Amounts on deposit in, or to be on deposit in, such debt service reserve funds are not available to secure the 2018 Bonds. See "SECURITY AND SOURCES OF PAYMENT FOR THE 2018 BONDS – No Debt Service Reserve Fund for 2018 Bonds" in this Official Statement.

Revenues

Pledge of Subordinated Revenues.

(a) All Subordinated Revenues and amounts on deposit in the Subordinated Bonds Payment Fund and the Subordinated Bonds Reserve Fund (if deemed applicable to a Series of Subordinated Bonds) are, as provided in the Indenture, irrevocably pledged to the payment of the interest on and principal of the Subordinated Bonds but only as provided in the Indenture, and the Subordinated Revenues shall not be used for any other purpose while any of the Subordinated Bonds remain Outstanding; provided, that out of the Subordinated Revenues there may be allocated such sums for such purposes as are expressly permitted by the Indenture as summarized herein under the caption "Indenture – Revenues – Maintenance of Accounts for Use of Money in the Subordinated Bonds Payment Fund."

No debt service reserve fund will be created or funded to secure the 2018 Bonds. Debt service reserve funds were created in connection with the issuance of the 2009A Bonds, 2009B Bonds, 2010A Bonds and 2012A Bonds and under the funding agreements for the SRF loans. Amounts on deposit in, or to be on deposit in, such debt service reserve funds are not available to secure the 2018 Bonds. See "SECURITY AND SOURCES OF PAYMENT FOR THE 2018 BONDS – No Debt Service Reserve Fund for 2018 Bonds" in this Official Statement.

(b) The Trustee shall be entitled to and shall receive all of the Subordinated Installment Payments pledged to secure any Subordinated Bond, and any such Subordinated Installment Payments

collected or received by the Authority shall be deemed to be held, and to have been collected or received, by the Authority as agent of the Trustee and shall forthwith be paid by the Authority to the Trustee.

Receipt and Deposit of Revenues in the Subordinated Bonds Payment Fund. To carry out and effectuate the pledge contained in the Indenture, the Authority agrees and covenants that all Subordinated Revenues when and as received shall be received in trust under the Indenture for the benefit of the Owners and shall be deposited when and as received in the Subordinated Bonds Payment Fund. All Subordinated Revenues shall be accounted for through and held in trust in the Subordinated Bonds Payment Fund, and the Authority shall have no beneficial right or interest in any of the Subordinated Revenues except only as provided in the Indenture. All Subordinated Revenues, whether received by the Authority in trust or deposited with the Trustee as provided in the Indenture, shall nevertheless be allocated, applied and disbursed solely to the purposes and uses set forth in the Indenture, and shall be accounted for separately and apart from all other accounts, funds, money or other assets of the Authority.

Maintenance of Accounts for Use of Money in the Subordinated Bonds Payment Fund.

(a) In accordance with the Indenture, all money in the Subordinated Bonds Payment Fund shall be deposited by the Trustee in the following respective special accounts within the Subordinated Bonds Payment Fund (each of which the Trustee has covenanted and agreed to maintain under the Indenture) in the following order of priority:

(i) Subordinated Bonds Interest Account,

(ii) Subordinated Bonds Principal Account, and

(iii) Subordinated Bonds Redemption Account.

All money in each of such Accounts shall be held in trust by the Trustee and shall be applied, used and withdrawn only for the purposes as summarized hereinafter in this section and under the Indenture.

(b) Except to the extent that payment is made of interest on the 2017 Commercial Paper Notes from the proceeds of 2017 Commercial Paper Notes or the proceeds of a Draw under the related Subordinated Credit Support Instrument, on or before each Interest Payment Date, the Trustee shall transfer from the Subordinated Bonds Payment Fund and deposit in the Subordinated Bonds Interest Account that amount of money that, together with any money contained in the Subordinated Bonds Interest Account, equals the aggregate amount of interest becoming due and payable on all Outstanding Subordinated Bonds on such Interest Payment Date. No deposit need be made in the Subordinated Bonds Interest Account if the amount contained in the Subordinated Bonds Interest Account equals at least the aggregate amount of interest becoming due and payable on all Outstanding Subordinated Bonds on such Interest Payment Date; provided that the Authority may direct the Trustee to maintain amounts in the Subordinated Bonds Interest Account following payment of all amounts required to be paid under the Indenture to be used for payments on the 2017 Commercial Paper Notes on future Interest Payment Dates, and in such instance, such additional amount shall not be included as amounts available to pay interest becoming due and payable on Outstanding Subordinated Bonds. All money in the Subordinated Bonds Interest Account shall be used and withdrawn by the Trustee solely for the purpose of paying the interest on the Subordinated Bonds as it shall become due and payable (including accrued interest on any Subordinated Bonds redeemed prior to maturity).

(c) Except to the extent that payment is made of the principal of the 2017 Commercial Paper Notes from the proceeds of 2017 Commercial Paper Notes or the proceeds of a Draw under the related

Subordinated Credit Support Instrument, on or before each Principal Payment Date, the Trustee shall transfer from the Subordinated Bonds Payment Fund and deposit in the Subordinated Bonds Principal Account that amount of money that, together with any money contained in the Subordinated Bonds Principal Account, equals the aggregate principal becoming due and payable on all Outstanding Subordinated Bonds. No deposit need be made in the Subordinated Bonds Principal Account if the amount contained therein is at least equal to the aggregate amount of principal become due and payable on Outstanding Subordinated Bonds. All money in the Subordinated Bonds Principal Account shall be used and withdrawn by the Trustee solely for the purpose of paying the principal of the Subordinated Bonds as it shall become due and payable.

(d) In addition to the above accounts, the Trustee shall establish and maintain within the Subordinated Bonds Payment Fund a special account designated the "Subordinated Bonds Redemption Account." All money in the Subordinated Bonds Redemption Account shall be held in trust by the Trustee and shall be applied, used, and withdrawn to redeem Subordinated Bonds for the purposes authorized in this subsection (d). Any moneys that, pursuant to the terms for prepayment of Installment Payments pursuant to the Master Installment Purchase Agreement and the related provisions of any Supplements, are to be used to redeem Subordinated Bonds shall be deposited by the Trustee in the Redemption Account. The Trustee shall, on the scheduled redemption date, withdraw from the Subordinated Bonds Redemption Account and pay the Owners entitled thereto an amount equal to the redemption price of the Subordinated Bonds to be redeemed on such date.

(e) Any delinquent Subordinated Installment Payments pledged to the Subordinated Bonds shall be applied first to the Subordinated Bonds Interest Account for the immediate payment of interest payments past due and the to the Subordinated Bonds Principal Account for immediate payment of principal payments past due on any Subordinated Bond. Any remaining money representing delinquent Subordinated Installment Payments pledged to Subordinated Bonds shall be deposited in the Subordinated Bonds Payment Fund to be applied in the manner provided therein.

(f) On or before each date any 2017 Commercial Paper Note matures, the Trustee shall transfer from the Subordinated Bonds Payment Fund to the Issuing and Paying Agent for deposit in the applicable Reimbursement Account that amount of money that equals the aggregate amount of interest or principal becoming due and payable on the 2017 Commercial Paper Notes to the extent that payment of such interest on or principal of the 2017 Commercial Paper Notes is not made from the proceeds of 2017 Commercial Paper Notes but is made from the proceeds of a Draw under the related Subordinated Credit Support Instrument. On or before each date any related Subordinated Credit Provider Reimbursement Obligations become due and payable, the Trustee shall transfer from the Subordinated Bonds Payment Fund and deposit in the applicable Reimbursement Account that amount of money that, together with any amounts transferred pursuant to the preceding sentence, equals the amount of any such Subordinated Credit Provider Reimbursement Obligations when due.

Pledge of Revenues.

(a) All Revenues and amounts on deposit in the funds and accounts established under the Indenture (other than amounts on deposit in the Subordinated Bonds Payment Fund, the Subordinated Bonds Reserve Fund and the Rebate Fund created pursuant to the Indenture, and the Reserve Fund if not deemed applicable to a Series of Bonds) are, as provided in the Indenture, irrevocably pledged to the payment of the interest on and principal of the Senior Bonds as provided in the Indenture, and the Revenues shall not be used for any other purpose while any of the Senior Bonds remain Outstanding; provided, that out of the Revenues there may be allocated such sums for such purposes as are expressly permitted by the Indenture.

(b) To secure the pledge of the Revenues contained in this subheading, the Authority transfers, conveys and assigns to the Trustee, for the benefit of the Owners, all of the Authority's rights under the 2018 Supplement and, in connection with any Additional Bonds issued under the Indenture, the Authority's rights under the Supplement(s) executed by the City and the Corporation to secure payment of principal of and interest on such Additional Bonds, including the right to receive Installment Payments from the City, the right to receive any proceeds of insurance maintained thereunder or any condemnation award rendered with respect to the 2018 Components and the right to exercise any remedies provided therein in the event of a default by the City thereunder. The Trustee accepts said assignment for the benefit of the Owners subject to the provisions of the Indenture.

(c) The Trustee shall be entitled to and shall receive all of the 2018 Subordinated Installment Payments and, in connection with any Additional Bonds issued under the Indenture, the Installment Payments made by the City pursuant to the Supplement(s) executed by the City and the Corporation to secure payment of principal of and interest on such Additional Bonds, and any 2018 Subordinated Installment Payments and additional Installment Payments collected or received by the Authority shall be deemed to be held, and to have been collected or received, by the Authority as agent of the Trustee and shall forthwith be paid by the Authority to the Trustee.

Receipt and Deposit of Revenues in the Payment Fund. To carry out and effectuate the pledge contained in the Indenture, the Authority agrees and covenants that all Revenues when and as received shall be received in trust under the Indenture for the benefit of the Owners and shall be deposited when and as received in the Payment Fund. All Revenues shall be accounted for through and held in trust in the Payment Fund, and the Authority shall have no beneficial right or interest in any of the Revenues except only as provided in the Indenture. All Revenues, whether received by the Authority in trust or deposited with the Trustee as provided in the Indenture, shall nevertheless be allocated, applied and disbursed solely to the purposes and uses set forth in the Indenture, and shall be accounted for separately and apart from all other accounts, funds, money, or other assets of the Authority.

Maintenance of Accounts for Use of Money in the Payment Fund.

(a) All money in the Payment Fund shall be deposited by the Trustee in the following respective special accounts within the Payment Fund in the following order of priority:

(i) Interest Account,

(ii) Principal Account, and

(iii) Redemption Account.

All money in each of such Accounts shall be held in trust by the Trustee and shall be applied, used and withdrawn only for the purposes authorized in the Indenture.

(b) On or before each Interest Payment Date, the Trustee shall transfer from the Payment Fund and deposit in the Interest Account that amount of money that, together with any money contained in the Interest Account, equals the aggregate amount of interest becoming due and payable on all Outstanding Senior Bonds on such on such Interest Payment Date. No deposit need be made in the Interest Account if the amount contained in the Interest Account equals at least the aggregate amount of interest becoming due and payable on all Outstanding Senior Bonds on such Interest Payment Date. All money in the Interest Account shall be used and withdrawn by the Trustee solely for the purpose of paying the interest on the Senior Bonds as it shall become due and payable (including accrued interest on any Senior Bonds redeemed prior to maturity).

(c) On or before each Principal Payment Date, the Trustee shall transfer from the Payment Fund and deposit in the Principal Account that amount of money that, together with any money contained in the Principal Account, equals the aggregate principal becoming due and payable on all Outstanding Senior Bonds. No deposit need be made in the Principal Account if the amount contained therein is at least equal to the aggregate amount of principal become due and payable on Outstanding Senior Bonds. All money in the Principal Account shall be used and withdrawn by the Trustee solely for the purpose of paying the principal of the Senior Bonds as it shall become due and payable.

(d) In addition to the above accounts, the Trustee shall establish and maintain within the Payment Fund a special account designated the "Redemption Account." All money in the Redemption Account shall be held in trust by the Trustee and shall be applied, used, and withdrawn either to redeem the Senior Bonds or for the purposes authorized in this subsection (d). Any moneys that, terms for prepayment of Installment Payments pursuant to the Master Installment Purchase Agreement and the related provisions of any Supplements, are to be used to redeem Senior Bonds shall be deposited by the Trustee in the Redemption Account. The Trustee shall, on the scheduled redemption date, withdraw from the Redemption Account and pay the Owners entitled thereto an amount equal to the redemption price of the Senior Bonds to be redeemed on such date.

(e) Any delinquent Installment Payments pledged to the Senior Bonds shall be applied first to the Interest Account for the immediate payment of interest payments past due and the to the Principal Account for immediate payment of principal payments past due on any Senior Bond. Any remaining money representing delinquent Installment Payments pledged to Senior Bonds shall be deposited in the Payment Fund to be applied in the manner provided therein.

Investment of Moneys in Funds and Accounts. Investment of Moneys in Funds and Accounts. Moneys in the Acquisition Fund shall be accounted for by the Comptroller and invested by the Treasurer in any legally permitted investment, including but not limited to the pooled investment fund of the City. In the absence of a Written Request of the City, the Trustee may invest moneys in the funds and accounts held by the Trustee in Permitted Investments described in clause (10) of the definition of Permitted Investments. The obligations in which moneys in the said funds and accounts are invested shall mature prior to the date on which such moneys are estimated to be required to be paid out under the Indenture. For purposes of determining the amount of deposit in any fund or account held under the Indenture, all investments credited to such fund or account shall be valued at the lesser of market value or the cost thereof. The Trustee shall semiannually, on the first (1st) calendar day of the month preceding the Interest Payment dates, and at such times as the Authority shall deem appropriate, value the investments in the funds and accounts under the Indenture on the basis of the lesser of market value or the cost thereof based on accepted industry standards from accepted industry providers. Except as otherwise provided in this section, Permitted Investments representing an investment of moneys attributable to any fund or account under the Indenture and all investment profits or losses thereon shall be deemed at all times to be a part of said fund or account.

Additional Bonds

Execution and Delivery of Additional Bonds. The Trustee shall, upon Written Request of the Authority, by a supplement to the Indenture, establish one or more other series of Bonds secured by the pledge made under the Indenture equally and ratably with any Senior Bonds previously issued and delivered (if such Bonds are to be Senior Bonds) or equally and ratably with any Subordinated Bonds (if such Bonds are to be Subordinated Bonds), in such principal amount as shall be determined by the Authority, but only upon compliance with the provisions of the Indenture, the requirements of the Master Installment Purchase Agreement applicable to the incurrence of Parity Obligations (if such Bonds are to be Senior Bonds) or Subordinated Obligations (if such Bonds are Subordinated Bonds) and any additional

requirements set forth in the applicable Supplemental Indenture, which are, as provided in the Indenture, made conditions precedent to the execution and delivery of Additional Bonds:

(a) No Event of Default shall have occurred and be then continuing;

(b) The Supplemental Indenture providing for the execution and delivery of such Additional Bonds shall specify the purposes for which such Additional Bonds are then proposed to be delivered, which shall be one or more of the following: (i) to provide moneys needed to provide for Project Costs by depositing into the Acquisition Fund the proceeds of such Additional Bonds to be so applied; (ii) to provide for the payment or redemption of Bonds then Outstanding under the Indenture, by depositing with the Trustee moneys and/or investments required for such purpose under the defeasance provisions set forth in the Indenture; or (iii) to provide moneys needed to refund or refinance all or part of any other current or future obligations of the City with respect to the funding of the Water System. Such Supplemental Indenture may, but shall not be required to, provide for the payment of expenses incidental to such purposes, including the Costs of Issuance of such Additional Bonds, capitalized interest with respect thereto for any period authorized under the Code (in the case of Tax-Exempt Bonds) and, in the case of any Additional Bonds intended to provide for the payment or redemption of existing Bonds, or other Obligations of the City, expenses incident to calling, redeeming, paying or otherwise discharging the Obligations to be paid with the proceeds of the Additional Bonds;

(c) The Supplemental Indenture providing for the execution and delivery of such Additional Bonds shall state whether such Additional Bonds shall be Senior Bonds or Subordinated Bonds;

(d) If such Additional Bonds are Subordinated Bonds, the Supplemental Indenture shall specify whether such Additional Bonds shall be secured by the Common Subordinated Bonds Reserve Fund, a Separate Subordinated Bonds Reserve Bonds or no reserve fund;

(e) Prior to the Amendment Effective Date, if such Additional Bonds are Senior Bonds, the Authority shall deliver or cause to be delivered to the Trustee, from the proceeds of such Additional Bonds or from any other lawfully available source of moneys, an amount (or a Surety Bond in an amount) sufficient to increase the balance in the Reserve Fund established for the Senior Bonds to the applicable Reserve Fund Requirement;

(f) After the Amendment Effective Date, if such Additional Bonds are Common Senior Reserve Fund Bonds, the Authority shall deliver or cause to be delivered by the Trustee, from the proceeds of such Additional Bonds or from any other lawfully available source of moneys, an amount sufficient to increase the balance of the Common Senior Bonds Reserve Fund to the Common Senior Bonds Reserve Fund Requirement;

(g) After the Amendment Effective Date, if such Additional Bonds are Senior Bonds to be secured by a Separate Senior Bonds Reserve Fund, the Authority shall deliver or cause to be delivered by the Trustee, from the proceeds of such Additional Bonds or from any other lawfully available source of moneys, an amount (or a Surety Bond in an amount) sufficient to increase the balance in such Separate Senior Bonds Reserve Fund to the Separate Senior Bonds Reserve Fund for such Series of Senior Bonds;

(h) If such Additional Bonds are Common Subordinated Reserve Fund Bonds, the Authority shall deliver or cause to be delivered by the Trustee, from the proceeds of such Additional Bonds or from any other lawfully available source of moneys, an amount sufficient to increase the balance of the Common Subordinated Bonds Reserve Fund to the Common Subordinated Bonds Reserve Fund Requirement;

(i) If such Additional Bonds are Subordinated Bonds to be secured by a Separate Subordinated Bonds Reserve Fund, the Authority shall deliver or cause to be delivered by the Trustee, from the proceeds of such Additional Bonds or from any other lawfully available source of moneys, an amount (or a Surety Bond in an amount) sufficient to increase the balance in such Separate Subordinated Bonds Reserve Fund to the Separate Subordinated Bonds Reserve Fund for such Series of Subordinated Bonds;

(j) The Additional Bonds shall be payable as to principal on such dates as shall be provided for in the Supplemental Indenture, except that the first interest payment due with respect thereto may be for a period of not longer than twelve (12) months;

(k) Fixed serial maturities or mandatory sinking account payments, or any combination thereof, shall be established in amounts sufficient to provide for the retirement of all of the Additional Bonds of such Series on or before their respective maturity dates;

(l) The aggregate principal amount of Bonds and Additional Bonds executed and delivered under the Indenture shall not exceed any limitation imposed by law or by any Supplemental Indenture; and

(m) The Trustee shall be the Trustee for the Additional Bonds.

Nothing in the Indenture shall limit in any way the power and authority of the Authority to incur other obligations payable from other lawful sources.

Covenants of Authority

Punctual Payment and Performance. The Authority shall punctually pay the interest and the principal to become due on every Bond issued under the Indenture in strict conformity with the terms of the Indenture and of the Bonds, and shall faithfully observe and perform all the agreements and covenants contained therein.

Rebate Fund.

(a) The Trustee shall maintain such accounts within the Rebate Fund as it is instructed by the Authority as shall be necessary in order to comply with the applicable Tax Certificate (which is incorporated in the Indenture by reference). The Trustee shall deposit moneys in the Rebate Fund made available by the Authority and/or the City pursuant to a Written Request of the City. All money at any time deposited in the Rebate Fund shall be governed by the Indenture and the Tax Certificate and shall be held by the Trustee in trust, to the extent required to satisfy the amount required to be rebated to the United States under the Code, and none of the City, the Corporation, Authority, the Trustee, or the Owners shall have any rights in or claims to such money. The Trustee shall make information regarding the investments under the Indenture available to the City, shall invest the Rebate Fund in Permitted Investments pursuant to a Written Request of the City that is in conformity with the restrictions set forth in the Tax Certificate and shall deposit income from such Permitted Investments immediately upon receipt thereof into the Rebate Fund. The Trustee agrees to comply with all Written Requests of the City given in accordance with the Tax Certificate.

(b) The City and the Authority shall make or cause to be made the rebate computations respecting all Outstanding Bonds in accordance with the Tax Certificate, as required by the Code, and shall provide to the Trustee written evidence that the computation of the rebate requirement has been made along with a letter from an independent certified public accountant or arbitrage consultant verifying

the accuracy of such calculations. Upon a Written Request of the City, the Trustee shall make deposits into the Rebate Fund from deposits by the City so that the balance of the amount on deposit shall be equal to the rebate requirement. The Trustee shall have no obligation to rebate any amounts required to be rebated pursuant to the Indenture, other than from moneys held in the Rebate Fund or from other moneys provided to it by the City on behalf of itself or the Authority.

(c) Not later than sixty (60) days after the end of the fifth Bond Year as defined in the Tax Certificate and every five (5) years thereafter, the Trustee, upon receipt of a Written Request of the City, shall pay to the United States part or all of the amounts in the Rebate Fund, as so directed. Each payment shall be accompanied by a statement summarizing the determination of the amount to be paid to the United States, as provided by the City. In addition, if the City so directs, then the Trustee shall deposit moneys into or transfer moneys out of the Rebate Fund from or into such accounts or funds as directed by the Written Request of the City. Any amounts remaining in the Rebate Fund following the final payment of the rebate requirement shall be paid to the City. Money, including investment earnings, shall not be transferred from the Rebate Fund except as provided in the Indenture.

(d) Notwithstanding any other provision the Indenture, the obligation to remit the rebate requirement to the United States and to comply with all other requirements of the Indenture and the Tax Certificate shall survive the defeasance or payment in full of the Tax-Exempt Bonds.

(e) The Authority shall not use or permit any proceeds of the Tax-Exempt Bonds or any funds of the Authority, directly or indirectly, to acquire any securities or obligations, and shall not take or permit to be taken any other action or actions, that would cause any Tax-Exempt Bonds to be an "arbitrage bond" within the meaning of the Code or "federally guaranteed" within the meaning of Section 149(b) of the Code and any applicable regulations promulgated from time to time thereunder and under Section 103(c) of the Code. The Authority shall observe and not violate the requirements of Section 148 of the Code and any such applicable regulations. The Authority shall comply with all requirements of Sections 148 and 149(b) of the Code to the extent applicable to the Tax-Exempt Bonds.

(f) The Authority specifically covenants to comply with the provisions and procedures of the Tax Certificate.

(g) The Authority shall not use or permit the use of any proceeds of the Bonds or any funds of the Authority, directly or indirectly, in any manner, and shall not take or omit to take any action that would cause any Tax-Exempt Bonds to be treated as an obligation not described in Section 103(a) of the Code.

(h) Notwithstanding any provisions of the Indenture, if the Authority and the City shall provide to the Trustee an opinion of Bond Counsel to the effect that any specified action required under the Indenture is no longer required or that some further or different action is required to maintain the exclusion from gross income for federal income tax purposes of interest with respect to the Tax-Exempt Bonds, the Trustee, the Authority and the City may conclusively rely on such opinion in complying with the requirements of the Indenture and the covenants under the Indenture shall be deemed to be modified to that extent.

Accounting Records and Reports. The Authority shall keep or cause to be kept proper books of record and accounts in which complete and correct entries shall be made of all transactions relating to the receipts, disbursements, allocation and application of the Revenues and the Subordinated Revenues, and such books shall be available for inspection by the Trustee, at reasonable hours and under reasonable conditions. Not more than 270 days after the close of each Fiscal Year, the Authority shall furnish or cause to be furnished to the Trustee financial statements that include the Water Utility Fund for the

preceding Fiscal Year, prepared in accordance with generally accepted accounting principles, together with a report of an Independent Certified Public Accountant thereon. For purposes of this section, "financial statement" shall mean audited financial statements, if available, or unaudited financial statements, if audited financial statements are not available and unaudited financial statements are available. The Authority shall also keep or cause to be kept such other information as is required under the Tax Certificate.

The City's Budgets. The Authority shall supply to the Trustee, as soon as practicable after the beginning of each Fiscal Year following the effectiveness of the applicable City ordinance but in no event later than six months from the date of effectiveness of such ordinance, a Certificate of the City certifying that the City has made adequate provision in its annual budget for such Fiscal Year for the payment of all Parity Installment Payments, Subordinated Installment Payments, and all other Obligations due under the Master Installment Purchase Agreement in such Fiscal Year. If the amounts so budgeted are not adequate for the payment of all Parity Installment Payments, Subordinated Installment Payments, and all other Obligations due under the Master Installment Purchase Agreement in such Fiscal Year, the Authority shall take such action as may be necessary and within its power to request such annual budget to be amended, corrected, or augmented by the City so as to include therein the amounts required to be paid by the City from Net System Revenues in such Fiscal Year, and shall notify the Trustee of the proceedings then taken or proposed to be by the Authority.

Amendment of Indenture

Amendment of Indenture.

(a) The Indenture and-the rights and obligations of the Authority and of the all Owners of the Bonds may be amended at any time by a Supplemental Indenture, which shall become binding when the written consents of the Owners of 51% in aggregate principal amount of the Senior Bonds then Outstanding and the written consents of the Owner of 51% in aggregate principal amount of the Subordinated Bonds then Outstanding, exclusive of Bonds disqualified as provided in the Indenture, are filed with the Trustee. No such amendment shall (i) permit the creation by the Authority of any pledge of the Revenues or Subordinated Revenues as provided in the Indenture superior to or on a parity with the pledge created under the Indenture for the benefit of any Bond without the written consent of the Owner thereof; (ii) modify any rights or obligations of the Trustee without its prior written assent thereto; or (iii) modify provisions respecting the time or amount of payments on any Bond, without the written consent of the Owner thereof.

(b) The Indenture and the rights and obligations of the Authority and of the Owners may also be amended at any time by a Supplemental Indenture, which shall become binding without the consent of any Owners of Bonds for any one or more of the following purposes:

(i) to make such provisions for the purpose of curing any ambiguity or of correcting, curing or supplementing any defective provision contained in the Indenture in regard to questions arising under the Indenture that the Authority may deem desirable or necessary and not inconsistent with the Indenture and that shall not adversely affect the interests of the Owners; or

(ii) to make any other change or addition thereto that shall not materially adversely affect the interests of the Owners, or to surrender any right or power reserved in the Indenture to or conferred in the Indenture on the Authority; provided, however, that the Owners shall be given prompt notice of any such amendment and shall receive a copy of the final executed Supplemental Indenture making such changes.

Disqualified Bonds. Bonds owned or held by or for the account of the Authority or the City shall not be deemed Outstanding for the purpose of any consent or other action or any calculation of Outstanding Bonds provided in the Indenture, and shall not be entitled to consent to or take any other action provided therein.

Endorsement or Replacement of Bonds After Amendment. After the effective date of any action taken as described above, the Authority may determine that the Bonds may bear a notation by endorsement in form approved by the Authority as to such action, and in that case upon demand of the Owner of any Outstanding Bond and presentation of its Bond for such purpose at the Corporate Trust Office of the Trustee, a suitable notation as to such action shall be made on such Bond. If the Authority shall determine that a Bond shall bear such a notation by endorsement pursuant to the Indenture, a new Bond so modified shall be prepared and executed, and upon demand of the Owner of any Outstanding Bond, such new Bond shall be exchanged at the Corporate Trust Office of the Trustee without cost to such Owner upon surrender of such Bond.

Amendment by Mutual Consent. The provisions of the Indenture shall not prevent any Owner from accepting any amendment as to the particular Bonds owned by him, provided that due notation thereof is made on such Bonds.

Events of Default and Remedies of Holders

Events of Default and Acceleration of Maturities.

(a) The following events shall constitute events of default under the Indenture:

(i) failure in the due and punctual payment of the interest on the Bonds when and as the same shall become due and payable;

(ii) failure in the due and punctual payment of the principal of the Bonds when and as the same shall become due and payable, whether at maturity as therein expressed or by proceedings for redemption;

(iii) failure by the Authority in the performance of any of the other agreements or covenants required in the Indenture to be performed by the Authority, as set forth in the Indenture, and such default shall have continued for a period of 30 days after the Authority and the City shall have been given notice in writing of such default by the Trustee or to the Authority, the City and the Trustee by Owners of 25% or more of the aggregate principal amount of the Bonds then Outstanding; or

(iv) if any event of default shall have occurred and be continuing under the Master Installment Purchase Agreement; or

(v) if the Authority shall file a petition or answer seeking arrangement or reorganization under the federal bankruptcy laws or any other applicable law of the United States of America or any state therein, or if under the provisions of any other law for the relief or aid of debtors any court of competent jurisdiction shall assume custody or control of the Authority or of the whole or any substantial part of its property.

(b) If one or more Events of Default shall occur, then and in each and every such case during the continuance of such Event of Default, the Trustee may by notice in writing to the Authority and the City, declare the principal of all Bonds then Outstanding and the interest accrued thereon to be due and

payable immediately. Upon any such declaration, the same shall become due and payable, anything contained in the Indenture or in the Bonds to the contrary notwithstanding. These provisions are subject to the condition that if at any time after the entire principal amount of the unpaid Bonds and the accrued interest thereon shall have been so declared due and payable and before any judgment or decree for the payment of the moneys due shall have been obtained or entered, there shall be deposited with the Trustee a sum sufficient to pay the unpaid principal amount of the Bonds due prior to such declaration and the accrued interest thereon, with interest on such overdue installments at the rate or rates applicable thereto in accordance with their terms, and the reasonable fees and expenses of the Trustee, and any and all other defaults known to the Trustee (other than in the payment the entire principal amount of the unpaid Bonds and the accrued interest thereon due and payable solely by reason of such declaration) shall have been made good or cured to the satisfaction of the Trustee or provision deemed by the Trustee to be adequate shall have been made therefor, then and in every such case the Trustee, by written notice to the City and the Authority, may rescind and annul such declaration and its consequences; but no such rescission and annulment shall extend to or shall affect any subsequent default or shall impair or exhaust any right or power consequent thereon.

Proceedings by Trustee. Upon the occurrence and continuance of any Event of Default, the Trustee in its discretion may, and at the written request of Owners of 51% or more in aggregate principal amount of Bonds Outstanding shall (but only to the extent indemnified to its satisfaction from fees and expenses, including attorneys fees), do the following:

(a) by mandamus, or other suit, action, or proceeding at law or in equity, enforce all rights of the Owners and require the Authority to enforce all rights of the Owners of the Bonds, including the right to require the Authority to receive and collect Revenues and to enforce its rights under the Master Installment Purchase Agreement and to require the Authority to carry out any other covenant or agreement with Owners of Bonds and to perform its duties under the Indenture;

(b) bring suit upon the Bonds;

(c) by action or suit in equity enjoin any acts or things that may be unlawful or in violation of the rights of the Owners; and

(d) as a matter of right, have receivers appointed for the Revenues and the issues, earnings, income, products and profits thereof, pending such proceedings, with such powers as the court making such appointment shall confer.

Limitation on Rights and Remedies of Holders of Subordinated Bonds. So long as any Senior Bonds remain outstanding, no Owners of Subordinated Bonds shall have the right to declare an Event of Default, to declare any Bonds immediately due and payable, to direct the Trustee with respect to any Event of Default or to waive any Event of Default and, for such purposes, any reference to the Owners of a percentage of the principal amount of "Bonds then Outstanding" shall be deemed to refer to the Owners of such percentage of Senior Bonds then Outstanding.

Effect of Discontinuance or Abandonment. In case any proceeding taken by the Trustee on account of any default or Event of Default shall have been discontinued or abandoned for any reason, or shall have been determined adversely to the Trustee, then and in every such case, the Authority, the Trustee, and the Owners shall be restored to their former positions and rights under the Indenture, respectively, and all rights, remedies and powers of the Trustee shall continue as though no such proceeding had been taken.

Rights of Owners.

(a) Anything in the Indenture to the contrary notwithstanding and subject to the limitations and restrictions as to the rights of the Owners in the Indenture, upon the occurrence and continuance of any Event of Default or the Owners of 51% or more in aggregate principal amount of the Bonds then Outstanding shall have the right upon providing the Trustee security and indemnity reasonably satisfactory to it against the costs, expenses, and liabilities to be incurred therein or thereby, by an instrument in writing executed and delivered to the Trustee, to direct the method and place of conducting all remedial proceedings to be taken by the Trustee under the Indenture.

(b) The Trustee may refuse to follow any direction that conflicts with law or the Indenture or that the Trustee determines is prejudicial to rights of other Owners or would subject the Trustee to personal liability.

Restrictions on Owners' Actions.

(a) In addition to the other restrictions on the rights of Owners to request action upon the occurrence of an Event of Default and to enforce remedies set forth in the Indenture, no Owner of any of the Bonds shall have any right to institute any suit, action, or proceeding in equity or at law for the enforcement of any trust under the Indenture, or any other remedy under the Indenture or on said Bonds, unless:

(i) such Owner previously shall have given to the Trustee written notice of an Event of Default as provided in the Indenture; and

(ii) the Owners of 51% or more in aggregate principal amount of the Bonds then Outstanding shall have made written request of the Trustee to institute any such suit, action, proceeding, or other remedy, after the right to exercise such powers or rights of action, as the case may be, shall have accrued, and shall have afforded the Trustee a reasonable opportunity either to proceed to exercise the powers granted in the Indenture, or to institute such action, suit or proceeding in its or their name; and

(iii) there shall have been offered to the Trustee security and indemnity satisfactory to it against the costs, expenses, and liabilities to be incurred therein or thereby; and

(iv) the Trustee shall not have complied with such request within a reasonable time.

(b) Such notification, request and offer of indemnity are declared in every such case, at the option of the Trustee, to be conditions precedent to the execution of the trusts of the Indenture or for any other remedy under the Indenture. It is understood and intended, subject to the Indenture, that no one or more Owners of the Bonds shall have any right in any manner whatever by his or their action to affect, disturb or prejudice the security of the Indenture, or to enforce any right under the Indenture or under the Bonds, except in the manner therein provided, and that all proceedings at law or in equity shall be instituted, and maintained in the manner therein provided, and for the equal benefit of all Owners of Outstanding Bonds.

Power of Trustee to Enforce. All rights of action under the Indenture or under any of the Bonds secured by the Indenture that are enforceable by the Trustee may be enforced by it without the possession of any of the Bonds, or the production thereof at the trial or other proceedings relative thereto. Any such suit, action, or proceedings instituted by the Trustee shall be brought in its own name, as Trustee, for the equal and ratable benefit of the Owners of the Bonds, subject to the provisions of the Indenture.

Remedies Not Exclusive. No remedy in the Indenture conferred upon or reserved to the Trustee or to the Owners of the Bonds is intended to be exclusive of any other remedy or remedies, and each and every such remedy shall be cumulative, and shall be in addition to every other remedy given under the Indenture or now or hereafter existing at law or in equity or by statute.

Waiver of Events of Default; Effect of Waiver.

(a) The Trustee shall waive any Event of Default under the Indenture and its consequences and rescind any declaration of acceleration, upon the written request of the Owners of 67% or more of the Outstanding Bonds. If any Event of Default shall have been waived as provided in the Indenture, the Trustee shall promptly give written notice of such waiver to the Authority and shall give notice thereof by first class mail, postage prepaid to all Owners of Outstanding Bonds if such Owners had previously been given notices of such Event of Default. No such waiver, rescission and annulment shall extend to or affect any subsequent Event of Default, or impair any right or remedy consequent thereon.

(b) No delay or omission of the Trustee or any Owner of the Bonds to exercise any right or power accruing upon any default or Event of Default shall impair any such right or power or shall be construed to be a waiver of any such default or Event of Default or an acquiescence therein. Every power and remedy given by the Indenture to the Trustee or the Owners of the Bonds, respectively, may be exercised from time to time and as often as may be deemed expedient.

Application of Moneys.

(a) Any moneys received by the Trustee pursuant to the Indenture, together with any moneys that upon the occurrence of an Event of Default are held by the Trustee in any of the funds and accounts under the Indenture (other than the Rebate Fund and other than moneys held for Bonds not presented for payment) shall, after payment of all fees and expenses of the Trustee, and the fees and expenses of its counsel, be applied as follows:

(i) Unless the principal of all of the Outstanding Bonds shall be due and payable:

First – To the payment of the Owners of all installments of interest then due on the Bonds, in the order of the maturity of the installments of such interest and, if the amount available shall not be sufficient to pay in full any particular installment, then to the payment ratably, according to the amounts due on such installment, to the Owners, without any discrimination or privilege;

Second - To the payment of the Owners of the unpaid principal of any of the Bonds that shall have become due (other than Bonds matured or called for redemption for the payment of which moneys are held pursuant to the provisions of the Indenture), in the order of their due dates and, if the amount available shall not be sufficient to pay in full the principal of and premium, if any, on such Bonds due on any particular date, then to the payment ratably, according to the amount due on such date, to the Owners without any discrimination; and

Third – To be held for the payment to the Owners as the same shall become due of the principal of and interest on the Bonds, that may thereafter become due either at maturity or upon call for redemption prior to maturity and, if the amount available shall not be sufficient to pay in full such principal and premium, if any, due on any particular date, together with interest then due and owing thereon, payment shall be made in accordance with the Indenture.

(ii) If the principal of all of the Outstanding Bonds shall be due and payable, to the payment of the principal and interest then due and unpaid upon the Outstanding Bonds without preference or priority of any of principal, or interest over the others or of any installment of interest, or of any Outstanding Bond over any other Outstanding Bond, ratably, according to the amounts due respectively for principal and interest, to the Owners without any discrimination or preference except as to any difference in the respective amounts of interest specified in the Outstanding Bonds.

(b) Whenever moneys are to be applied pursuant to the provisions of the Indenture, such moneys shall be applied at such times, and from time to time, as the Trustee shall determine, having due regard to the amount of such moneys available for application and the likelihood of additional moneys becoming available for such application in the future. The Trustee shall give, by mailing by first-class mail as it may deem appropriate, such notice of the deposit with it of any such moneys.

Defeasance

If the Authority shall pay or cause to be paid to the Owners of all Outstanding Bonds the interest thereon and the principal thereof and the premiums, if any, thereon at the times and in the manner stipulated therein, then the Owners of such Bonds shall cease to be entitled to the pledge of the Revenues as provided in the Indenture, and all agreements, covenants and other obligations of the Authority to the Owners of such Bonds shall cease, terminate and become void and be discharged and satisfied. In such event, the Trustee shall execute and deliver to the Authority all such instruments as may be necessary or desirable to evidence such discharge and satisfaction, and the Trustee shall pay over or deliver to the Authority all money or securities or other property held by it pursuant to the Indenture that are not required for the payment of the interest on and principal of and redemption premiums, if any, on such Bonds.

Subject to the provisions of the above paragraph, when any of the Bonds shall have been paid and if, at the time of such payment, the Authority shall have kept, performed and observed all the covenants and promises in such Bonds and in the Indenture required or contemplated to be kept, performed and observed by the Authority or on its part on or prior to that time, then the Indenture shall be considered to have been discharged in respect of such Bonds and such Bonds shall cease to be entitled to the lien of the Indenture and such lien and all agreements, covenants, and other obligations of the Authority therein shall cease, terminate, and become void and be discharged and satisfied as to such Bonds.

Notwithstanding the satisfaction and discharge of the Indenture or the discharge of the Indenture in respect of any Bonds, those provisions of the Indenture relating to the maturity of the Bonds, interest payments and dates thereof, exchange and transfer of Bonds, replacement of mutilated, destroyed, lost, or stolen Bonds, the safekeeping and cancellation of Bonds, nonpresentment of Bonds, and the duties of the Trustee in connection with all of the foregoing, remain in effect and shall be binding upon the Trustee and the Owners of the Bonds and the Trustee shall continue to be obligated to hold in trust any moneys or investments then held by the Trustee for the payment of the principal of, redemption premium, if any, and interest on the Bonds, to pay to the Owners of Bonds the funds so held by the Trustee as and when such payment becomes due. Notwithstanding the satisfaction and discharge of the Indenture or the discharge thereof in respect of any Bonds, those provisions of the Indenture relating to the compensation of the Trustee shall remain in effect and shall be binding upon the Trustee and the Authority.

Any Outstanding Bonds shall prior to the maturity date or redemption date thereof be deemed to have been paid for purposes of the Indenture if: (i) in case any of such Bonds are to be redeemed on any date prior to their maturity date, the Authority shall have given to the Trustee in form satisfactory to it irrevocable instructions to mail, on a date in accordance with the provisions of the Indenture, notice of

redemption of such Bonds on said redemption date, said notice to be given in accordance with the Indenture; (ii) there shall have been deposited with the Trustee either (A) money in an amount that shall be sufficient; or (B) Federal Securities of which are not subject to redemption prior to maturity except by the holder thereof (including any such Permitted Investments issued or held in book-entry form on the books of the Department of the Treasury of the United States of America) and/or Pre-Refunded Municipals, the interest on and principal of which when due, and without any reinvestment thereof, will provide money that, together with the money, if any, deposited with the Trustee at the same time, shall, as verified by an independent certified public accountant or other independent financial consultant acceptable to the Trustee, be sufficient, to pay when due the interest to become due on such Bonds on and prior to the maturity date or redemption date thereof, as the case may be, and the principal of and interest on such Bonds; and; (iii) in the event such Bonds are not by their terms subject to redemption within the next succeeding 60 days, the Authority shall have given the Trustee in form satisfactory to it irrevocable instructions to mail as soon as practicable, a notice to the Owners of such Bonds and to the Securities Depositories and the Information Services that the deposit required by clause (ii) above has been made with the Trustee and that such Bonds are deemed to have been paid in accordance with the Indenture and stating the maturity date or redemption date upon which money is to be available for the payment of the principal of and interest on such Bonds.

Governing Law

The Indenture will be governed by the laws of the State of California applicable to contracts made and performed in the State.

MASTER INSTALLMENT PURCHASE AGREEMENT

Selected Definitions.

Accountant's Report

The term "Accountant's Report" means a report signed by an Independent Certified Public Accountant.

Adjusted Debt Service

The term "Adjusted Debt Service" means, for any Fiscal Year, Debt Service on Parity Obligations for such Fiscal Year, minus an amount equal to earnings from investments in any Reserve Fund securing Parity Obligations for such Fiscal Year.

Adjusted Net System Revenues

The term "Adjusted Net System Revenues" means, for any Fiscal Year, the Net System Revenues for such Fiscal Year, minus an amount equal to earnings from investments in any Reserve Fund securing Parity Obligations for such Fiscal Year.

Authorizing Ordinance

The term "Authorizing Ordinance" means the ordinance pursuant to which the Master Installment Purchase Agreement was authorized and any additional ordinance or official authorizing act of the council of the City approving execution and delivery of any Supplement to the Master Installment Purchase Agreement or any Issuing Instrument.

Balloon Indebtedness

The term "Balloon Indebtedness" means, with respect to any Series of Obligations twenty-five percent (25%) or more of the principal of which matures on the same date or within a 12-month period (with sinking fund payments on Term Obligations deemed to be payments of matured principal), that portion of such Series of Obligations which matures on such date or within such 12-month period; provided, however, that to constitute Balloon Indebtedness the amount of indebtedness maturing on a single date or over a 12-month period must equal or exceed 150% of the amount of such Series of Obligations which matures during any preceding 12-month period. For purposes of this definition, the principal amount maturing on any date shall be reduced by the amount of such indebtedness which is required, by the documents governing such indebtedness, to be amortized by prepayment or redemption prior to its stated maturity date.

Capacity Charge

The term "Capacity Charge" means a charge imposed upon a person, firm, corporation or other entity incident to the granting of a permit for a new water connection or due to an increase in water usage by the addition of any type of dwelling, commercial or industrial unit, which charge is based upon an increase in water consumption as measured by equivalent dwelling units, and the proceeds of which are used to construct, improve and expand the Water System to accommodate the additional business of such added dwellings or commercial or industrial units.

Consultant

The term "Consultant" means the consultant, consulting firm, engineer, architect, engineering firm, architectural firm, accountant, or accounting firm retained by the City to perform acts or carry out the duties provided for such consultant in the Master Installment Purchase Agreement. Such consultant, consulting firm, engineer, architect, engineering firm, or architectural firm shall be nationally recognized within its profession for work of the character required. Such accountants or accounting firm shall be independent certified public accountants licensed to practice in the State.

Credit Provider

The term "Credit Provider" means any municipal bond insurance company, bank, or other financial institution or organization which is performing in all material respects its obligations under any Credit Support Instrument for some or all of the Parity Obligations.

Credit Provider Reimbursement Obligations

The term "Credit Provider Reimbursement Obligations" means obligations of the City to repay from Net System Revenues, amounts advanced by a Credit Provider as credit support or liquidity for Parity Obligations, which obligations shall constitute Parity Obligations or Subordinated Obligations, as designated by the City.

Credit Support Instrument

The term "Credit Support Instrument" means a policy of insurance, a letter of credit, a standby purchase agreement, revolving credit agreement or other credit arrangement pursuant to which a Credit Provider provides credit support or liquidity with respect to the payment of interest, principal, or the purchase price of any Parity Obligations.

Debt Service

With regard to the issuance of Parity Obligations, the term "Debt Service" means, for any Fiscal Year, the sum of (a) the interest payable during such Fiscal Year on all Outstanding Parity Obligations, assuming that all Outstanding Serial Parity Obligations are retired as scheduled and that all Outstanding Term Parity Obligations are redeemed or paid from sinking fund payments as scheduled (except to the extent that such interest is to be paid from the proceeds of sale of any Parity Obligations), (b) that portion of the principal amount of all Outstanding Serial Parity Obligations maturing on the next succeeding principal payment date which falls in such Fiscal Year (excluding Serial Obligations which at the time of issuance are intended to be paid from the sale of a corresponding amount of Parity Obligations), (c) that portion of the principal amount of all Outstanding Term Parity Obligations required to be redeemed or paid on any redemption date which falls in such Fiscal Year (together with the redemption premiums, if any, thereon); provided that, (1) as to any Balloon Indebtedness, Tender Indebtedness, and Variable Rate Indebtedness, interest thereon shall be calculated as provided in the definition of Maximum Annual Debt Service and principal shall be deemed due at the nominal maturity dates thereof; (2) the amount on deposit in a debt service reserve fund on any date of calculation of Debt Service shall be deducted from the amount of principal due at the final maturity of the Parity Obligations for which such debt service reserve fund was established and in each preceding year until such amount is exhausted; and (3) the amount of payments on account of Parity Obligations which are redeemed, retired, or repaid on the basis of the accreted value due on the scheduled redemption, retirement, or repayment date shall be deemed principal payments, and interest that is compounded and paid as part of the accreted value shall be deemed payable on the scheduled redemption, retirement, or repayment date, but not before.

With regard to the issuance of Subordinated Obligations, the term "Debt Service" means, for any Fiscal Year, the sum of (a) the interest payable during such Fiscal Year on all Outstanding Obligations, assuming that all Outstanding Serial Obligations are retired as scheduled and that all Outstanding Term Obligations are redeemed or paid from sinking fund payments as scheduled (except to the extent that such interest is to be paid from the proceeds of sale of any Obligations), (b) that portion of the principal amount of all Outstanding Serial Obligations maturing on the next succeeding principal payment date which falls in such Fiscal Year (excluding Serial Obligations which at the time of issuance are intended to be paid from the sale of a corresponding amount of other Obligations) (c) that portion of the principal amount of all Outstanding Term Obligations required to be redeemed or paid on any redemption date which falls in such Fiscal Year (together with the redemption premiums, if any, thereon) provided that, (1) as to any Balloon Indebtedness, Tender Indebtedness, and Variable Rate Indebtedness, interest thereon shall be calculated as provided in the definition of Maximum Annual Debt Service and principal shall be deemed due at the nominal maturity dates thereof; (2) the amount on deposit in a Reserve Fund on any date of calculation of Debt Service shall be deducted from the amount of principal due at the final maturity of the Obligations for which such Reserve Fund was established and in each preceding year, until such amount is exhausted; and (3) the amount of payments on account of Obligations which are redeemed, retired, or repaid on the basis of the accreted value due on the scheduled redemption, retirement, or repayment date shall be deemed principal payments, and interest that is compounded and paid as part of the accreted value thereof shall be deemed payable on the scheduled redemption, retirement, or repayment date, but not before.

Default Rate

The term "Default Rate" means the Maximum Rate.

Defaulted Obligations

The term "Defaulted Obligations" means Obligations in respect of which an Event of Default has occurred and is continuing.

Engineer's Report

The term "Engineer's Report" means a report signed by an Independent Engineer.

Fiscal Year

The term "Fiscal Year" means the period beginning on July 1 of each year and ending on the next succeeding June 30, or any other twelve-month period selected and designated as the official Fiscal Year of the City.

Independent Certified Public Accountant

The term "Independent Certified Public Accountant" means any firm of certified public accountants appointed by the City, and each of whom is independent pursuant to the Statement on Auditing Standards No. 1 of the American Institute of Certified Public Accountants.

Independent Engineer

The term "Independent Engineer" means any registered engineer or firm of registered engineers of national reputation generally recognized to be well qualified in engineering matters relating to water systems, appointed and paid by but not under the control of the City.

Installment Payment Date

The term "Installment Payment Date" means any date on which an Installment Payment is due as specified in the Master Installment Purchase Agreement or determined pursuant to a Supplement.

Installment Payments

The term "Installment Payments" means the Installment Payments scheduled to be paid by the City under and pursuant to the Master Installment Purchase Agreement and any supplement to the Master Installment Purchase Agreement as well as any amounts payable by the City on any Obligations under and pursuant to any Issuing Instrument.

Installment Payment Obligations

The term "Installment Payment Obligations" means Obligations consisting of or which are supported in whole by Installment Payments.

Interest Portion

The term "Interest Portion" means the portion of any Installment Payment specified as interest in any Supplement.

Issuing Instrument

The term "Issuing Instrument" means any indenture, trust agreement, loan agreement, lease, installment purchase agreement, or the Master Installment Purchase Agreement, including any Supplement or other instrument under which Obligations are issued or created.

Law

The term "Law" means the Charter and all applicable laws of the State.

Maintenance and Operation Costs of the Water System

The term "Maintenance and Operation Costs of the Water System" means (a) any Qualified Take or Pay Obligation, and (b) the reasonable and necessary costs spent or incurred by the City for maintaining and operating the Water System, calculated in accordance with generally accepted accounting principles, including, without limitation, the costs of the purchase, delivery or storage of water, the reasonable expenses of maintenance and repair and other expenses necessary to maintain and preserve the Water System in good repair and working order, and including administrative costs of the City attributable to the Water System, including the Project and the Master Installment Purchase Agreement, salaries and wages of employees of the Water System, payments to such employees' retirement systems (to the extent paid from System Revenues), overhead, taxes (if any), fees of auditors, accountants, attorneys, or engineers and insurance premiums, and including all other reasonable and necessary costs of the City or charges required to be paid by it to comply with the terms of the Obligations, including the Master Installment Purchase Agreement, including any amounts required to be deposited in the Rebate Fund pursuant to a Tax Certificate, and fees and expenses payable to any Credit Provider (other than in repayment of a Credit Provider Reimbursement Obligation), but excluding in all cases (1) depreciation, replacement and obsolescence charges or reserves therefor, (2) amortization of intangibles or other bookkeeping entries of a similar nature, (3) costs of capital additions, replacements, betterments, extensions or improvements to the Water System which under generally accepted accounting principles are chargeable to a capital account or to a reserve for depreciation, (4) charges for the payment of principal of and interest on any general obligation bond issued for Water System purposes, and (5) charges for the payment of principal of and interest on any debt service on account of any Obligation on a parity with or subordinate to the Installment Payments.

Maximum Annual Debt Service

The term "Maximum Annual Debt Service" means,

(a) with respect to Parity Obligations then Outstanding, the maximum amount of principal and interest becoming due on the Parity Obligations in the then-current or any future Fiscal Year, calculated by the City or by an Independent Certified Public Accountant in accordance with the Master Installment Purchase Agreement and provided to the Trustee. For purposes of calculating Maximum Annual Debt Service, the following assumptions shall be used to calculate the principal and interest becoming due in any Fiscal Year:

(i) in determining the principal amount due in each Fiscal Year, payments shall (except to the extent a different subsection of this definition applies for purposes of determining principal maturities or amortization) be assumed to be made in accordance with any amortization schedule established for such debt, including the amount of any Parity Obligations which or have the characteristics of commercial paper and which not intended at the time of issuance to be retired from the sale of a corresponding amount of Parity Obligations, and including any

scheduled mandatory redemption or prepayment of Parity Obligations on the basis of accreted value due upon such redemption or prepayment, and for such purpose, the redemption payment or prepayment shall be deemed a principal payment; provided, however, that with respect to Parity Obligations which are or have the characteristics of commercial paper and which are intended at the time of issuance to be retired from the sale of a corresponding amount of other Obligations, which other Obligations would not constitute Balloon Indebtedness, each maturity thereof shall be treated as if it were to be amortized in substantially equal installments of principal and interest over a term of 30 years, commencing in the year of such stated maturity; in determining the interest due in each Fiscal Year, interest payable at a fixed rate shall (except to the extent paragraph (A)(ii) or (iii) of this definition applies) be assumed to be made at such fixed rate and on the required payment dates;

(ii) if all or any portion or portions of an Outstanding Series of Parity Obligations constitute Balloon Indebtedness or if all or any portion or portions of a Series of Parity Obligations or such payments then proposed to be issued would constitute Balloon Indebtedness, then, for purposes of determining Maximum Annual Debt Service, each maturity which constitutes Balloon Indebtedness shall be treated as if it were to be amortized in substantially equal annual installments of principal and interest over a term of 30 years, commencing in the year the stated maturity of such Balloon Indebtedness occurs, the interest rate used for such computation shall be determined as provided in paragraph (A)(iv) or (v) below, as appropriate, and all payments of principal and interest becoming due prior to the year of the stated maturity of the Balloon Indebtedness shall be treated as described in paragraph (A)(i) above;

(iii) if any Outstanding Series of Parity Obligations constitutes Tender Indebtedness or if Parity Obligations proposed to be issued would constitute Tender Indebtedness, then for purposes of determining Maximum Annual Debt Service, Tender Indebtedness shall be treated as if the principal amount of such Parity Obligations were to be amortized in accordance with the amortization schedule set forth in the Supplement or Issuing Instrument for such Tender Indebtedness or in the standby purchase or liquidity facility established with respect to such Tender Indebtedness, or if no such amortization schedule is set forth, then such Tender Indebtedness shall be deemed to be amortized in substantially equal annual installments of principal and interest over a term of 30 years commencing in the year in which such Series is first subject to tender, the interest rate used for such computation shall be determined as provided in paragraph (A)(iv) or (v) below, as appropriate;

(iv) if any Outstanding Series of Parity Obligations constitutes Variable Rate Indebtedness, the interest rate on such Obligations shall be assumed to be 110% of the daily average interest rate on such Parity Obligations during the 12 months ending with the month preceding the date of calculation, or such shorter period that such Parity Obligations shall have been Outstanding;

(v) if Parity Obligations proposed to be issued will be Variable Rate Indebtedness, then such Parity Obligations shall be assumed to bear interest at 80% of the average Revenue Bond Index during the calendar quarter preceding the calendar quarter in which the calculation is made, or if that index is no longer published, another similar index selected by the City, or if the City fails to select a replacement index, an interest rate equal to 80% of the yield for outstanding United States Treasury bonds having an equivalent maturity, or if there are no such Treasury bonds having such maturities, 100% of the lowest prevailing prime rate of any of the five largest commercial banks in the United States ranked by assets; and

(vi) if moneys or Permitted Investments have been deposited by the City into a separate fund or account or are otherwise held by the City or by a fiduciary to be used to pay principal of and/or interest on specified Parity Obligations, then the principal and/or interest to be paid from such moneys, Permitted Investments, or from the earnings thereon shall be disregarded and not included in calculating Maximum Annual Debt Service.

(b) with regard to all Obligations then Outstanding, the maximum amount of principal and interest becoming due on the Obligations in the then-current or any future Fiscal Year, calculated by the City or by an Independent Certified Public Accountant in accordance with this subsection and provided to the Trustee. For purposes of calculating Maximum Annual Debt Service, the following assumptions shall be used to calculate the principal and interest becoming due in any Fiscal Year:

(i) in determining the principal amount due in each Fiscal Year, payments shall (except to the extent a different subsection of this definition applies for purposes of determining principal maturities or amortization) be assumed to be made in accordance with any amortization schedule established for such debt, including the amount of any Obligations which are or have the characteristics of commercial paper and which are not intended at the time of issuance to be retired from the sale of a corresponding amount of Obligations, and including any scheduled mandatory redemption or prepayment of Obligations on the basis of accreted value due upon such redemption or prepayment, and for such purpose, the redemption payment or prepayment shall be deemed a principal payment; provided, however, that with respect to Obligations which are or have the characteristics of commercial paper and which are intended at the time of issuance to be retired from the proceeds of sale of a corresponding amount of other Obligations, and which would not constitute Balloon Indebtedness, each maturity thereof shall be treated as if it were to be amortized in substantially equal installments of principal and interest over a term of 30 years, commencing in the year of such stated maturity; in determining the interest due in each Fiscal Year, interest payable at a fixed rate shall (except to the extent paragraph (B)(ii) or (iii) of this definition applies) be assumed to be made at such fixed rate and on the required payment dates;

(ii) if all or any portion or portions of an Outstanding Series of Obligations constitute Balloon Indebtedness or if all or any portion or portions of a Series of Obligations or such payments then proposed to be issued would constitute Balloon Indebtedness, then, for purposes of determining Maximum Annual Debt Service, each maturity which constitutes Balloon Indebtedness shall be treated as if it were to be amortized in substantially equal annual installments of principal and interest over a term of 30 years, commencing in the year the stated maturity of such Balloon Indebtedness occurs, the interest rate used for such computation shall be determined as provided in paragraph (B)(iv) or (v) below, as appropriate, and all payments of principal and interest becoming due prior to the year of the stated maturity of the Balloon Indebtedness shall be treated as described in paragraph (B)(i) above;

(iii) if any Outstanding Series of Obligations constitutes Tender Indebtedness or if Obligations proposed to be issued would constitute Tender Indebtedness, then for purposes of determining Maximum Annual Debt Service, Tender Indebtedness shall be treated as if the principal amount of such Obligations were to be amortized in accordance with the amortization schedule set forth in the Supplement or Issuing Instrument for such Tender Indebtedness or in the standby purchase or liquidity facility established with respect to such Tender Indebtedness, or if no such amortization schedule is set forth, then such Tender Indebtedness shall be deemed to be amortized in substantially equal annual installments of principal and interest over a term of 30 years, commencing in the year in which such Obligations are first subject to tender, the interest rate used for such computation shall be determined as provided in paragraph (B)(iv) or (v) below, as appropriate;

(iv) if any Outstanding Series of Obligations constitute Variable Rate Indebtedness, the interest rate on such Series of Obligations shall be assumed to be 110% of the daily average interest rate on such Series of Obligations during the 12 months ending with the month preceding the date of calculation, or such shorter period that such Series of Obligations shall have been Outstanding;

(v) if Obligations proposed to be issued will be Variable Rate Indebtedness, then such Obligations shall be assumed to bear interest at 80% of the average Revenue Bond Index during the calendar quarter preceding the calendar quarter in which the calculation is made, or if that index is no longer published, another similar index selected by the City, or if the City fails to select a replacement index, an interest rate equal to 80% of the yield for outstanding United States Treasury bonds having an equivalent maturity, or if there are no such Treasury bonds having such maturities, 100% of the lowest prevailing prime rate of any of the five largest commercial banks in the United States ranked by assets; and

(vi) if moneys or Permitted Investments have been deposited by the City into a separate fund or account or are otherwise held by the City or by a fiduciary to be used to pay principal and/or interest on specified Obligations, then the principal and/or interest to be paid from such moneys, Permitted Investments or from the earnings thereon shall be disregarded and not included in calculating Maximum Annual Debt Service.

Maximum Rate

The term "Maximum Rate" means, on any day, the maximum interest rate allowed by law.

Net Proceeds

The term "Net Proceeds" means, when used with respect to any insurance, self-insurance, or condemnation award, the proceeds from such award that are remaining after payment of all expenses (including attorneys' fees) incurred in the collection of such proceeds.

Net System Revenues

The term "Net System Revenues" means, for any Fiscal Year, the System Revenues for such Fiscal Year, less the Maintenance and Operation Costs of the Water System for such Fiscal Year.

Obligations

The term "Obligations" means (a) obligations of the City for money borrowed (such as bonds, notes or other evidences of indebtedness) or as installment purchase payments under any contract (including Installment Payments), or as lease payments under any financing lease (determined to be such in accordance with generally accepted accounting principles), the principal of and interest on which are payable from Net System Revenues; (b) obligations to replenish any debt service reserve funds with respect to such obligations of the City; (c) obligations secured by or payable from any of such obligations of the City; and (d) obligations of the City payable from Net System Revenues under (1) any contract providing for payments based on levels of, or changes in, interest rates, currency exchange rates, stock or other indices, (2) any contract to exchange cash flows or a series of payments, or (3) any contract to hedge payment, currency, rate spread or similar exposure, including but not limited to interest rate cap agreements.

Outstanding

The term "Outstanding," when used as of any particular time with respect to Obligations, means all Obligations theretofore or thereupon executed, authenticated and delivered by the City or any trustee or other fiduciary, except (a) Obligations theretofore cancelled or surrendered for cancellation; (b) Obligations paid or deemed to be paid within the meaning of any defeasance provisions thereof; (c) Obligations owned by the City; and (d) Obligations in lieu of or in substitution for which other Obligations have been executed and delivered.

Owner

The term "Owner" means any person who shall be the registered owner of any certificate or other evidence of a right to receive Installment Payments directly or as security for payment of an Outstanding Obligation.

Parity Installment Obligation

The term "Parity Installment Obligation" means Obligations consisting of or payable from Installment Payments which are not subordinate in right of payment to other Installment Payments.

Parity Obligations

The term "Parity Obligations" means Obligations the payment of which is secured by a first priority lien on and pledge of Net System Revenues pursuant to the caption "Commitment of Net System Revenues" below and the Collateral Agency Agreement.

Parity Obligations Interest Account

The term "Parity Obligations Interest Account" means the account of that name established and maintained by the Collateral Agent under the Collateral Agency Agreement.

Parity Obligations Payment Fund

The term "Parity Obligations Payment Fund" means the fund of that name established and maintained by the Collateral Agent under the Collateral Agency Agreement.

Parity Obligations Principal Account

The term "Parity Obligations Principal Account" means the account of that name established and maintained by the Collateral Agent under the Collateral Agency Agreement.

Payment Fund

The term "Payment Fund" means the fund designated in the Issuing Instrument as the fund into which Installment Payments are to be deposited for the purposes of paying principal of or interest on related Obligations.

Permitted Investments

The term "Permitted Investments" means investments which, pursuant to the Issuing Instrument, are permissible for the investment of funds received from the sale of Obligations pursuant to the Issuing Document or from other funds held pursuant to the Issuing Document.

Principal Portion

The term "Principal Portion" means the portion of any Installment Payment specified as principal in any Supplement.

Purchase Price

The term "Purchase Price" means the principal amount, plus interest thereon, owed by the City to the Corporation under the terms of the Master Installment Purchase Agreement for the purchase of Project Components, as specified in the Master Installment Purchase Agreement or in a Supplement.

Qualified Take or Pay Obligation

The term "Qualified Take or Pay Obligation" means the obligation of the City to make or use any facility, property, or services, or some portion of the capacity thereof, or to pay therefor from System Revenues, or both, whether or not such facilities, properties, or services are ever made available to the City for use, and there is provided to the City a certificate of the City or of an Independent Engineer to the effect that the incurrence of such obligation will not adversely affect the ability of the City to comply with the provisions of the Master Installment Purchase Agreement.

Rate Stabilization Fund

The term "Rate Stabilization Fund" means the fund by that name established pursuant to the Master Installment Purchase Agreement.

Rebate Requirement

The term "Rebate Requirement" shall have the meaning specified in the Tax Certificate.

Reserve Fund

The term "Reserve Fund" shall refer to the fund by that name established under an Issuing Instrument or Supplement.

Reserve Fund Obligations

The term "Reserve Fund Obligations" means the obligations of the City to pay amounts advanced under any Reserve Fund Credit Facility entered into in accordance with the provisions of the related Issuing Instrument or Supplement, which obligations shall constitute Parity Obligations or Subordinated Obligations, as designated by the City.

Reserve Fund Credit Facility

The term "Reserve Fund Credit Facility" means a letter of credit, line of credit, surety bond, insurance policy or similar facility deposited in the Reserve Fund established under an Issuing Instrument in lieu of or in partial substitution for cash or securities on deposit therein.

Reserve Requirement

The term "Reserve Requirement" shall have the meaning given to such term in any Issuing Instrument or Supplement.

Revenue Bond Index

The term "Revenue Bond Index" means the Revenue Bond Index by that name published from time to time in The Bond Buyer.

Secondary Purchase Fund

The term "Secondary Purchase Fund" means any fund by that name established pursuant to the Master Installment Purchase Agreement.

Secured Obligations

The term "Secured Obligations" means Parity Obligations and/or Subordinated Obligations, as the context requires.

Serial Obligations

The term "Serial Obligations" means Obligations for which no sinking fund payments are provided.

Serial Parity Obligations

The term "Serial Parity Obligations" means Serial Obligations which are Parity Installment Payments or are payable on a parity with Parity Installment Obligations.

Series

The term "Series" means Obligations issued at the same time or sharing some other common term or characteristic and designated as a separate Series.

SRF Loan Agreements

The term "SRF Loan Agreements" means Obligations evidenced by agreements by and between the City and the California State Water Resources Control Board or the California State Department of Public Health or any successor lender under any State Revolving Fund loan.

Subordinated Credit Provider

The term "Subordinated Credit Provider" means any municipal bond insurance company, bank, or other financial institution or organization which is performing in all respects its obligations under any Subordinated Credit Support Instrument for some or all of the Subordinated Obligations.

Subordinated Credit Provider Reimbursement Obligations

The term "Subordinated Credit Provider Reimbursement Obligations" means obligations of the City to repay, from Net System Revenues, amounts advanced by a Subordinated Credit Provider as credit support or liquidity for Subordinated Obligations, which obligations shall constitute Subordinated Obligations.

Subordinated Credit Support Instrument

The term "Subordinated Credit Support Instrument" means a policy of insurance, a letter of credit, a standby purchase agreement, revolving credit agreement, or other credit arrangement pursuant to which a Subordinated Credit Provider provides credit support or liquidity with respect to the payment of interest, principal, or the purchase price of any Subordinated Obligations.

Subordinated Obligations

The term "Subordinated Obligations" means Obligations the payment of which is secured by a second priority lien on and pledge of Net System Revenues that is junior and subordinate to the lien on and pledge of Net System Revenues securing Parity Obligations pursuant to the caption "Commitment of the Net System Revenues" below and the Collateral Agency Agreement.

Subordinated Obligation Principal Funding Date

The term "Subordinated Obligation Principal Funding Date" means each Subordinated Obligation Installment Payment Date on which the Principal Portion is due and payable under the Master Installment Purchase Agreement as well as each date on which principal or mandatory sinking fund redemptions are due and payable on any Subordinated Obligation under any other Issuing Instrument.

Subordinated Obligations Interest Account

The term "Subordinated Obligations Interest Account" means the account of that name established and maintained by the Collateral Agent under the Collateral Agency Agreement.

Subordinated Obligations Payment Fund

The term "Subordinated Obligations Payment Fund" means the fund of that name established and maintained by the Collateral Agent under the Collateral Agency Agreement.

Subordinated Obligations Principal Account

The term "Subordinated Obligations Principal Account" means the account of that name established and maintained by the Collateral Agent under the Collateral Agency Agreement.

System Revenues

The term "System Revenues" means all income, rents, rates, fees, charges, and other moneys derived from the ownership or operation of the Water System, including, without limiting the generality of the foregoing:

(a) all income, rents, rates, fees, charges, or other moneys derived by the City from the water services or facilities, and commodities or byproducts, including hydroelectric power, sold, furnished, or supplied through the facilities of or in the conduct or operation of the business of the Water System, and including, without limitation, investment earnings on the operating reserves to the extent that the use of such earnings is limited to the Water System by or pursuant to law, and earnings on any Reserve Fund for Obligations, but only to the extent that such earnings may be utilized under the Issuing Instrument for the payment of debt service for such Obligations;

(b) standby charges and Capacity Charges derived from the services and facilities sold or supplied through the Water System;

(c) the proceeds derived by the City directly or indirectly from the lease of a part of the Water System;

(d) any amount received from the levy or collection of taxes which are solely available and are earmarked for the support of the operation of the Water System;

(e) amounts received under contracts or agreements with governmental or private entities and designated for capital costs for the Water System*; and

(f) grants for maintenance and operations received from the United States of America or from the State; provided, however, that System Revenues shall not include (1) in all cases, customers' deposits or any other deposits or advances subject to refund until such deposits or advances have become the property of the City; and (2) the proceeds of borrowings; but

(g) notwithstanding the foregoing, there shall be deducted from System Revenues any amounts transferred into a Rate Stabilization Fund as contemplated by the Master Installment Purchase Agreement, and any amounts transferred from current System Revenues to the Secondary Purchase Fund as contemplated by the Master Installment Purchase Agreement, and there shall be added to System Revenues any amounts transferred out of such Rate Stabilization Fund or the Secondary Purchase Fund to pay Maintenance and Operation Costs of the Water System.

Tax-Exempt Installment Payment Obligations

The term "Tax-Exempt Installment Payment Obligations" means Installment Payment Obligations, the interest component of which is excluded from gross income pursuant to Section 103 of the Code.

Tender Indebtedness

The term "Tender Indebtedness" means any Obligations or portions of Obligations, a feature of which is an option, on the part of the holders thereof, or an obligation, under the terms of such Obligations, to tender all or a portion of such Obligations to the City, a Trustee or other fiduciary or agent for payment or purchase and requiring that such Obligations or portions of Obligations or that such rights to payments or portions of payments be purchased if properly presented. Tender Indebtedness may consist of either Parity Obligations or Subordinated Obligations.

Term Parity Obligations

The term "Term Parity Obligations" means Term Obligations which are Parity Obligations or are payable on a parity with Parity Installment Obligations.

Term Obligations

The term "Term Obligations" means Obligations which are payable on or before their specified maturity dates from sinking fund payments established for that purpose and calculated to retire such Obligations on or before their specified maturity dates.

Variable Rate Indebtedness

The term "Variable Rate Indebtedness" means any portion of indebtedness evidenced by Obligations, the interest rate for which is subject to adjustment periodically through a remarketing process or according to a stated published index for similar obligations in the municipal markets. Variable Rate Indebtedness may consist of either Parity Obligations or Subordinated Obligations.

Water Service

The term "Water Service" means the collection, conservation, production, storage, treatment, transmission, furnishing, and distribution services made available or provided by the Water System.

Water Utility Fund

The term "Water Utility Fund" means the fund by that name established by the Charter.

2017 Supplement

The term "2017 Supplement" means the 2017 Commercial Paper Supplement to Amended and Restated Master Installment Purchase Agreement, dated as of January 1, 2017, by and between the City and the Corporation.

Installment Payments

Purchase Price.

(a) The City will pay the Purchase Price for any Components being purchased as provided in a Supplement. The Purchase Price to be paid by the City to the Corporation pursuant to any Supplement, solely from Net System Revenues and from no other sources, is the sum of the principal amount of the City's obligations under such Supplement plus the interest to accrue on the unpaid balance of such principal amount from the effective date thereof over the term thereof, subject to prepayment as provided therein.

(b) The principal amount of the Installment Payments to be made by the City under a Supplement shall be paid at least three Business Days prior to the date such Installment Payments are payable as specified in such Supplement or at such other earlier time or times and in the manner or manners as specified in such Supplement. In the event the principal amount of an Installment Payment is not paid by the date the same is due and payable as specified in such Supplement, the same shall bear interest at the Default Rate, commencing on the day the same as due, to, but not including, the payment date.

(c) The interest to accrue on the unpaid balance of such principal amount shall be paid at least three Business Days prior to the date such interest is payable as specified in a Supplement or at such other earlier time or times as specified in such Supplement, and shall be paid by the City as and constitute interest paid in the principal amount of the City's obligations thereunder. Interest shall be payable in an amount not exceeding the Maximum Rate at the time of incurring such obligation, at such intervals and according to such interest rate formulas as shall be specified in a Supplement or by reference to any Issuing Instrument to which such Supplement relates, and shall be payable with such frequency as shall be specified therein. In the event that interest is not paid by the date such interest is payable, to the extent permitted by applicable law, such interest shall thereafter bear interest at the Default Rate, commencing on the day the same is due, to, but not including, the payment date.

Installment Payments; Reserve Fund Payments.

(a) The City shall, subject to any rights of prepayment provided for in a Supplement, pay to the Corporation, solely from Net System Revenues and from no other sources, the Purchase Price in Installment Payments over a period not to exceed the maximum period permitted by law, all as specified in a Supplement.

(b) In the event that a Trustee notifies the City that the amount on deposit in a Reserve Fund or Reserve Account is less than the Reserve Requirement, the City shall deposit or cause to be deposited, solely from Net System Revenues in accordance with the Master Installment Purchase Agreement, in such Reserve Fund or Reserve Account such amounts on a monthly basis as are necessary to increase the amount on deposit therein to the Reserve Requirement in the ensuing twelve months.

(c) The obligation of the City to make the Installment Payments solely from Net System Revenues is absolute and unconditional, and until such time as the Purchase Price shall have been paid in full (or provision for the payment thereof shall have been made pursuant to the Master Installment Purchase Agreement), the City will not discontinue or suspend any Installment Payments required to be made by it under the Master Installment Purchase Agreement when due, whether or not the Project or any part thereof is operating or operable or has been completed, or its use is suspended, interfered with, reduced or curtailed or terminated in whole or in part, and such Installment Payments shall not be subject to reduction whether by offset or otherwise and shall not be conditioned upon the performance or nonperformance by any party of any agreement for any cause whatsoever.

System Revenues

Commitment of the Net System Revenues.

(a) All Parity Obligations, including Parity Installment Payment Obligations, shall be secured by a first priority lien on and pledge of Net System Revenues. The City grants to the Collateral Agent, for the benefit of the holders of Parity Obligations, a first priority lien on and pledge of Net System Revenues to secure Parity Obligations. All Parity Obligations shall be of equal rank with each other without preference, priority or distinction of any Parity Obligations over any other Parity Obligations; provided that a Parity Obligation that by its terms under certain circumstances can require the full amount of the Parity Obligation to become payable in installments over not less than five years from the occurrence of the triggering event shall not be deemed to create any impermissible preference, priority or distinction as to lien or otherwise of such Parity Obligation over any other Parity Obligation.

(b) All Subordinated Obligations, including Subordinated Installment Payment Obligations, shall be secured by a second priority lien on and pledge of Net System Revenues that is junior and subordinate to the lien on and pledge of Net System Revenues securing Parity Obligations. The City grants to the Collateral Agent, for the benefit of the holders of Subordinated Obligations, a second priority lien on and pledge of Net System Revenues to secure Subordinated Obligations. All Subordinated Obligations shall be of equal rank with each other without preference, priority or distinction of any Subordinated Obligations over any other Subordinated Obligations; provided that a Subordinated Obligation that by its terms under certain circumstances can require the full amount of the Subordinated Obligation to become payable in installments over not less than five years from the triggering event shall not be deemed to create any impermissible preference, priority or distinction as to lien or otherwise of such Subordinated Obligation over any other Subordinated Obligation; and provided further that a Subordinated Obligation that by its terms under certain circumstances must be treated as, or becomes, a Parity Obligation shall not be deemed to create any impermissible preference, priority or distinction as to lien or otherwise of such Subordinated Obligation over any other Subordinated Obligation.

(c) The City represents and states that it has not granted any lien or charge on any of the Net System Revenues except as provided in the Master Installment Purchase Agreement, in the Collateral Agency Agreement and in the SRF Loan Agreements; provided, however, that out of Net System Revenues there may be apportioned such sums for such purposes as are expressly permitted by the provisions under the caption "System Revenues" under the Master Installment Purchase Agreement.

(d) Nothing contained in the Master Installment Purchase Agreement shall limit the ability of the City to grant liens on and pledges of the Net System Revenues that are subordinate to the liens on and pledges of Net System Revenues for the benefit of Parity Obligations and Subordinated Obligations contained in the Master Installment Purchase Agreement.

Allocation of System Revenues.

(a) In order to carry out and effectuate the commitment and pledge contained under the caption "Amendments to the Master Installment Purchase Agreement – Commitment of the Net System Revenues" above, the City agrees and covenants that all System Revenues shall be received by the City in trust and shall be deposited when and as received in the Water Utility Fund, which fund the City agrees and covenants to maintain so long as any Obligations remain unpaid, and all moneys in the Water Utility Fund shall be so held in trust and applied and used solely as provided in the Master Installment Purchase Agreement in the amounts, at the times and only for the purposes specified below and in the following order of priority; provided that no amount shall be transferred on any date pursuant to any clause below until amounts sufficient for all the purposes specified under the prior clauses shall have been transferred or set aside; and provided further that in the event there are insufficient Net System Revenues to make all of the payments contemplated in any one clause below, then said transfers, deposits and payments directed by such clause shall be made as nearly as practicable pro rata, based upon the respective unpaid amounts of the Obligations addressed by such clause:

First, the City shall pay from the Water Utility Fund directly or as otherwise required all Maintenance and Operation Costs of the Water System;

Second, on each Parity Obligation Interest Funding Date and on each other date on which the following amounts shall be due and payable, the City shall transfer Net System Revenues from the Water Utility Fund to the Collateral Agent, for deposit in the Parity Obligations Interest Account of the Parity Obligations Payment Fund, the sum of (A) an amount equal to the interest due and payable on all Parity Obligations; plus (B) an amount equal to any continuing shortfall in transfers required to have been made to the Parity Obligations Interest Account on any preceding Parity Obligation Interest Funding Date;

Third, on each Parity Obligation Principal Funding Date and on each other date on which the following amounts shall be due and payable, the City shall transfer Net System Revenues from the Water Utility Fund to the Collateral Agent, for deposit in the Parity Obligations Principal Account of the Parity Obligations Payment Fund, the sum of (A) an amount equal to the principal and mandatory sinking fund redemptions due and payable on all Parity Obligations; plus (B) an amount equal to any continuing shortfall in transfers required to have been made to the Parity Obligations Principal Account on any preceding Parity Obligation Principal Funding Date;

Fourth, on each Parity Obligation Interest Funding Date, the City shall transfer Net System Revenues from the Water Utility Fund to the Collateral Agent, for deposit in any Parity Obligations Reserve Account (if any) the amount necessary so that the balance therein equals the applicable Parity Obligations Reserve Requirement; provided that in the event of any draw on a Reserve Fund Credit Facility held in any Parity Obligations Reserve Account, there shall be deemed a deficiency in such Parity

Obligations Reserve Account until the amount of the Reserve Fund Credit Facility is restored to its pre-draw amount;

Fifth, on each Subordinated Obligation Interest Funding Date and on each other date on which the following amounts shall be due and payable, the City shall transfer Net System Revenues from the Water Utility Fund to the Collateral Agent, for deposit in the Subordinated Obligations Interest Account of the Subordinated Obligations Payment Fund, the sum of (A) an amount equal to the interest due and payable on all Subordinated Obligations; plus (B) an amount equal to any continuing shortfall in transfers required to have been made to the Subordinated Obligations Interest Account on any preceding Subordinated Obligation Interest Funding Date;

Sixth, on each Subordinated Obligation Principal Funding Date and on each other date on which the following amounts shall be due and payable, the City shall transfer Net System Revenues from the Water Utility Fund to the Collateral Agent, for deposit in the Subordinated Obligations Principal Account of the Subordinated Obligations Payment Fund, the sum of (A) an amount equal to the principal and mandatory sinking fund redemptions due and payable on all Subordinated Obligations; plus (B) an amount equal to any continuing shortfall in transfers required to have been made to the Subordinated Obligations Principal Account on any preceding Funding Date; and

Seventh, on each Subordinated Obligation Interest Funding Date, the City shall transfer Net System Revenues from the Water Utility Fund to the Collateral Agent, for deposit in any Subordinated Obligations Reserve Account (if any) the amount necessary so that the balance therein equals the applicable Subordinated Obligations Reserve Requirement; provided that in the event of any draw on a Reserve Fund Credit Facility held in any Subordinated Obligations Reserve Account, there shall be deemed a deficiency in such Subordinated Obligations Reserve Account until the amount of the Reserve Fund Credit Facility is restored to its pre-draw amount.

(b) After the transfers, deposits and payments contemplated by subsection (a) above have been made, any amounts thereafter remaining in the Water Utility Fund may be used for any lawful purpose of the Water System.

Additional Obligations.

(a) The City may not create any Obligations, the payments of which are senior or prior in right to the payment by the City of Parity Obligations.

(b) Without regard to paragraph (c) below, the City may at any time enter into or create an obligation or commitment which is a Reserve Fund Obligation, provided that the Obligation to which the Reserve Fund Obligation relates is permitted to be entered into under the terms of the Master Installment Purchase Agreement.

(c) After the initial issuance of Parity Obligations under the Master Installment Purchase Agreement, the City reserved the right, at any time and from time to time, to issue or create any other Parity Obligations, provided that:

(i) there shall not have occurred and be continuing an Event of Default under the terms of the Master Installment Purchase Agreement, any Issuing Instrument or any Credit Support Instrument; and

(ii) the City obtains or provides a certificate or certificates, prepared by the City or at the City's option by a Consultant, showing that:

(A) the Net System Revenues as shown by the books of the City for any 12-consecutive-month period within the 18 consecutive months ending immediately prior to the incurring of such additional Parity Obligations shall have amounted to or exceeded the greater of (i) at least 1.20 times the Maximum Annual Debt Service on all Parity Obligations to be Outstanding immediately after the issuance of the proposed Parity Obligations or (ii) at least 1.00 times the Maximum Annual Debt Service on all Obligations to be Outstanding immediately after the issuance of the proposed Parity Obligations. For purposes of preparing the certificate or certificates described above, the City or its Consultant may rely upon audited financial statements, or, if audited financial statements for the period are not available, financial statements prepared by the City that have not been subject to audit by an Independent Certified Public Accountant; or

(B) the estimated Net System Revenues for the five Fiscal Years following the earlier of (i) the end of the period during which interest on those Parity Obligations is to be capitalized or, if no interest is to be capitalized, the Fiscal Year in which the Parity Obligations are issued, or (ii) the date on which substantially all new Components to be financed with such Parity Obligations are expected to commence operations, will be at least equal to 1.20 times the Maximum Annual Debt Service for all Parity Obligations which will be Outstanding immediately after the issuance of the proposed Parity Obligations.

(d) For purposes of the computations to be made as described in paragraph (c)(ii)(B) above, the determination of Net System Revenues:

(i) may take into account any increases in rates and charges which relate to the Water System and which have been approved by the City Council, and shall take into account any reduction in such rates and charges which have been approved by the City Council, which will, for purposes of the test described in paragraph (c)(ii)(B) above, be effective during a Fiscal Year ending within the five-Fiscal Year period for which such estimate is being made; and

(ii) may take into account an allowance for any estimated increase in such Net System Revenues from any revenue-producing additions or improvements to or extensions of the Water System to be made with the proceeds of such additional indebtedness or with the proceeds of Parity Obligations previously issued, all in an amount equal to the estimated additional average annual Net System Revenues to be derived from such additions, improvements and extensions during the five-Fiscal Year period contemplated by paragraph (c)(ii)(B) above, all as shown by such certificate of the City or its Consultant, as applicable; and

(iii) for the period contemplated by paragraph (c)(ii)(B), Maintenance and Operation Costs of the Water System shall initially be deemed to be equal to such costs for the 12 consecutive months immediately prior to incurring such other Parity Obligations for the first Fiscal Year of the five-Fiscal Year period, but adjusted if deemed necessary by the City or its Consultant, as applicable, for any increased Maintenance and Operations Costs of the Water System which are, in the judgment of the City or such Consultant, as applicable, essential to maintaining and operating the Water System and which will occur during any Fiscal Year ending within the period contemplated by paragraph (c)(ii)(B) above.

(e) The certificate or certificates described above in paragraph (c)(ii)(B) shall not be required if the Parity Obligations being issued are for the purpose of (1) issuing the Parity Obligations initially issued under the Master Installment Purchase Agreement or (2) refunding (A) any then Outstanding Parity Obligations if at the time of the issuance of such Parity Obligations a certificate of an Authorized City

Representative shall be delivered showing that the sum of Adjusted Debt Service on all Parity Obligations Outstanding for all remaining Fiscal Years after the issuance of the refunding Parity Obligations will not exceed the sum of Adjusted Debt Service on all Parity Obligations Outstanding for all remaining Fiscal Years prior to the issuance of such refunding Parity Obligations; or (B) then Outstanding Balloon Indebtedness, Tender Indebtedness or Variable Rate Indebtedness, but only to the extent that the principal amount of such indebtedness has been put, tendered to or otherwise purchased pursuant to a standby purchase or other liquidity facility relating to such indebtedness.

(f) Without regard to paragraph (c) above, if (A) no Event of Default has occurred and is continuing and (B) no event of default or termination event attributable to an act of or failure to act by the City under any Credit Support Instrument has occurred and is continuing, the City may issue or incur Subordinated Obligations, and such Subordinated Obligations shall be paid in accordance with the provisions of the Master Installment Purchase Agreement, provided that:

(i) City obtains or provides a certificate or certificates, prepared by the City or at the City's option by a Consultant, showing that;

(1) the Net System Revenues as shown by the books of the City for any 12-consecutive-month period within the 18 consecutive months ending immediately prior to the incurring of such additional Subordinated Obligations shall have amounted to at least 1.00 times the Maximum Annual Debt Service on all Obligations to be Outstanding immediately after the issuance of the proposed Subordinated Obligations; or

(2) the estimated Net System Revenues for the five Fiscal Years following the earlier of (i) the end of the period during which interest on those Subordinated Obligations is to be capitalized or, if no interest is to be capitalized, the Fiscal Year in which the Subordinated Obligations are issued; or (ii) the date on which substantially all new facilities financed with such Subordinated Obligations are expected to commence operations, will be at least equal to 1.00 times the Maximum Annual Debt Service on all Obligations to be Outstanding immediately after the issuance of the proposed Subordinated Obligations.

(ii) For purposes of preparing the certificate or certificates described in clause (1) of paragraph (f)(i) above, the City and its Consultant(s) may rely upon audited financial statements or, if audited financial statements for the period are not available, financial statements prepared by the City that have not been subject to audit by an Independent Certified Public Accountant.

(iii) For purposes of the computations to be made as described in clause (2) of paragraph (f)(i) above, the determination of Net System Revenues:

(1) may take into account any increases in rates and charges which relate to the Water System and which have been approved by the City Council and shall take into account any reduction in such rates and charges which have been approved by the City Council, which will, for purposes of the test described in clause (2) of paragraph (f)(i) above, be effective during any Fiscal Year ending within the five-Fiscal Year period for which such estimate is made; and

(2) may take into account an allowance for any estimated increase in such Net System Revenues from any revenue-producing additions or improvements to or extensions of the Water System to be made with the proceeds of such additional indebtedness, with the proceeds of Obligations previously issued or with cash

contributions made or to be made by the City, all in an amount equal to the estimated additional average annual Net System Revenues to be derived from such additions, improvements and extensions during the five-Fiscal Year period contemplated by clause (2) of paragraph (f)(i) above, all as shown by such certificate of the City or its Consultant, as applicable; and

(3) for the period contemplated by clause (2) of paragraph (f)(i) above, shall initially include Maintenance and Operation Costs of the Water System in an amount equal to such costs for any 12-consecutive month period within the 24 consecutive months ending immediately prior to incurring such Subordinated Obligations for the first Fiscal Year of the five-Fiscal Year period, but adjusted if deemed necessary by the City or its Consultant, as applicable, for any increased Maintenance and Operations Costs of the Water System which are, in the judgment of the City or its Consultant, as applicable, essential to maintaining and operating the Water System and which will occur during any Fiscal Year ending within the period contemplated by clause (2) of paragraph (f)(i) above.

(iv) The certificate or certificates described above in paragraph (f)(i) above shall not be required if the Subordinated Obligations being issued are for the purpose of refunding (i) then-Outstanding Parity Obligations or Subordinated Obligations if at the time of the issuance of such Subordinated Obligations a certificate of an Authorized City Representative shall be delivered showing that the sum of Debt Service for all remaining Fiscal Years on all Parity Obligations and Subordinated Obligations Outstanding after the issuance of the refunding Subordinated Obligations will not exceed the sum of Debt Service for all remaining Fiscal Years on all Parity Obligations and Subordinated Obligations Outstanding prior to the issuance of such refunding Subordinated Obligations; or (ii) then-Outstanding Balloon Indebtedness, Tender Indebtedness or Variable Rate Indebtedness, but only to the extent that the principal amount of such indebtedness has been put, tendered to or otherwise purchased by a standby purchase agreement or other liquidity facility relating to such indebtedness.

Covenants of the City

Compliance With Master Installment Purchase Agreement and Ancillary Agreements.

(a) The City will punctually pay Parity Obligations in strict conformity with the terms of the Master Installment Purchase Agreement and thereof; and will faithfully observe and perform all the agreements, conditions, covenants and terms contained in the Master Installment Purchase Agreement required to be observed and performed by it, and will not terminate the Master Installment Purchase Agreement for any cause including, without limiting the generality of the foregoing, any acts or circumstances that may constitute failure of consideration, destruction of or damage to the Project, commercial frustration of purpose, any change in the tax or other laws of the United States of America or of the State or any political subdivision of either or any failure of the Corporation to observe or perform any agreement, condition, covenant or term contained in the Master Installment Purchase Agreement required to be observed and performed by it, whether express or implied, or any duty, liability or obligation arising out of or connected therewith or the insolvency, or deemed insolvency, or bankruptcy or liquidation of the Corporation or any force majeure, including acts of God, tempest, storm, earthquake, war, rebellion, riot, civil disorder, acts of public enemies, blockade or embargo, strikes, industrial disputes, lock outs, lack of transportation facilities, fire, explosion, or acts or regulations of governmental authorities.

(b) The City will faithfully observe and perform all the agreements, conditions, covenants and terms contained in the Master Installment Purchase Agreement, including Supplements, and any Issuing Instrument or Credit Support Instrument relating to Parity Obligations required to be observed and performed by it, and it is expressly understood and agreed by and between the parties to the Master Installment Purchase Agreement that each of the agreements, conditions, covenants and terms contained therein is an essential and material term of the purchase of and payment for each Component by the City pursuant to, and in accordance with, and as authorized under the Law.

(c) The City will faithfully observe and perform all of the agreements and covenants of the City contained in each Authorizing Ordinance and will not permit the same to be amended or modified so as to adversely affect the Owners of Installment Payment Obligations.

(d) The City shall be unconditionally and irrevocably obligated, so long as any Installment Payment Obligations remain Outstanding and unpaid, to take all lawful action necessary or required to continue to entitle the City to collect and deposit such System Revenues in the Water Utility Fund for use as provided in the Master Installment Purchase Agreement; provided, however, that such obligation does not, in any way, limit the City's ability to undertake any and all legal actions, including any appeals, in the defense of a federal court order dictating a water system configuration other than that approved and adopted by the City.

Against Encumbrances. The City will not make any pledge of or place any lien on the Net System Revenues except as otherwise provided or permitted in the Master Installment Purchase Agreement.

Debt Service Reserve Fund. The City will maintain or cause to be maintained each Reserve Fund at the applicable Reserve Requirement. In the event the amount in any such fund or account falls below the applicable Reserve Requirement, the City will replenish such fund or account up to the applicable Reserve Requirement pursuant to the Master Installment Purchase Agreement.

Against Sale or Other Disposition of Property.

(a) The City will not sell, lease or otherwise dispose of the Water System or any part thereof essential to the proper operation of the Water System or to the maintenance of the System Revenues, except as provided in the Master Installment Purchase Agreement. Further, the City will not, except as otherwise provided in the Master Installment Purchase Agreement, enter into any agreement or lease that impairs the operation of the Water System or any part thereof necessary to secure adequate Net System Revenues for the payment of the Parity Obligations or that would otherwise impair the rights of the Corporation with respect to the System Revenues or the operation of the Water System.

(b) The City may dispose of any of the works, plant properties, facilities, or other parts of the Water System, or any real or personal property comprising a part of the Water System, only upon the approval of the City Council and consistent with one or more of the following:

(i) the City in its discretion may carry out such a disposition if the facilities or property being disposed of are not material to the operation of the Water System, or shall have become unserviceable, inadequate, obsolete, or unfit to be used in the operation of the Water System or are no longer necessary, material or useful to the operation of the Water System, and if such disposition will not materially reduce the Net System Revenues and if the proceeds of such disposition are deposited in the Water Utility Fund;

(ii) the City in its discretion may carry out such a disposition if the City receives from the acquiring party an amount equal to the fair market value of the portion of the Water System disposed of. As used in this clause (ii), "fair market value" means that the portion being disposed of should bring in a competitive and open market under all conditions requisite to a fair sale, the willing buyer and willing seller each acting prudently and knowledgeably, and assuming that the price is not affected by coercion or undue stimulus. The proceeds of the disposition shall be used (A) first, promptly to redeem, or irrevocably set aside for the redemption of, Parity Obligations, and second, promptly to redeem, or irrevocably set aside for the redemption of, Subordinated Obligations, and/or (B) to provide for a part of the cost of additions to and betterments and extensions of the Water System; provided, however, that before any such disposition under this clause (2), the City must obtain (i) a certificate of an Independent Engineer to the effect that upon such disposition and the use of the proceeds of the disposition as proposed by the City, the remaining portion of the Water System will retain its operational integrity and the estimated Net System Revenues for the five Fiscal Years following the Fiscal Year in which the disposition is to occur will be equal to or exceed the greater of (i) at least 1.20 times the Adjusted Debt Service on all Outstanding Parity Obligations during the five Fiscal Years following the Fiscal Year in which the disposition is to occur, or (ii) at least 1.00 times the Adjusted Debt Service on all Outstanding Obligations during the first five Fiscal Years following the Fiscal Year in which the disposition is to occur, taking into account (aa) the reduction in revenue resulting from the disposition, (bb) the use of any proceeds of the disposition for the redemption of Parity Obligations and/or Subordinated Obligations, (cc) the Independent Engineer's estimate of revenue from customers anticipated to be served by any additions to and betterments and extensions of the Water System financed in part by the proceeds of the disposition, and (dd) any other adjustment permitted in the preparation of a certificate in accordance with the Master Installment Purchase Agreement as summarized herein in paragraph (c)(2)(B) under the caption "Master Installment Purchase Agreement – System Revenues – Additional Obligations," and (ii) confirmation from the Rating Agencies to the effect that the rating then in effect on any Outstanding Parity Obligations will not be reduced or withdrawn upon such disposition.

(c) The City will operate the Water System in an efficient and economic manner, provided that the City may remove from service on a temporary or permanent basis such part or parts of the Water System as the City shall determine, so long as (1) Net System Revenues are at least equal to the greater of (i) 100% of all Obligations payable in the then-current Fiscal Year or (ii) 120% of Adjusted Debt Service for the then-current Fiscal Year, after giving effect to any defeasance of Parity Obligations and/or Subordinated Obligations occurring incident to such removal, and for each Fiscal Year thereafter to and including the Fiscal Year during which the last Installment Payment is due, after giving effect to such defeasance, as evidenced by (i) an Engineer's Report on file with the City, or (ii) a Certificate of the City, (2) the value of the parts of the Water System to be so removed is less than 5% of the total Water System Plant assets, each as shown on the most recent audited financial statements that include the Water Utility Fund, and (3) the City shall have filed with each Trustee an opinion of Bond Counsel to the effect that the removal of such part or parts of the Water System will not adversely affect the exclusion from-gross income for federal income tax purposes of the interest on Tax-Exempt Installment Payment Obligations.

Prompt Acquisition and Construction. The City shall take all necessary and appropriate steps to construct, acquire and install the Project, as agent of the Corporation, with all practicable dispatch and in an expeditious manner and in conformity with law so as to complete the same as soon as possible.

Maintenance and Operation of the Water System; Budgets. The City shall maintain and preserve the Water System in good repair and working order at all times and shall operate the Water System in an efficient and economical manner and will pay all Maintenance and Operation Costs of the Water System as they become due and payable. The City shall adopt and make available to the

Corporation, on or before the effective date of the Master Installment Purchase Agreement, a budget approved by the City Council of the City setting forth the estimated Maintenance and Operation Costs of the Water System for the period from such date until the close of the then-current Fiscal Year. On or before August 1 of each Fiscal Year, the City shall adopt, and on or before the day that is 120 days after the beginning of the Fiscal Year, make available to the Corporation a budget approved by the City Council of the City setting forth the estimated Maintenance and Operation Costs of the Water System for such Fiscal Year. Any budget may be amended at any time during any Fiscal Year and such amended budget shall be filed by the City with the Corporation.

Amount of Rates and Charges; Rate Stabilization Fund; Other Funds.

(a) The City shall fix, prescribe and collect rates and charges for the Water Service which will be at least sufficient to yield the greater of (1) Net System Revenues sufficient to pay during each Fiscal Year all Obligations payable in such Fiscal Year or (2) Adjusted Net System Revenues during each Fiscal Year equal to 120% of the Adjusted Debt Service for such Fiscal Year. The City may make adjustments from time to time in such rates and charges and may make such classification thereof as it deems necessary, but shall not reduce the rates and charges then in effect unless the Net System Revenues from such reduced rates and charges will at all times be sufficient to meet the requirements of these provisions.

(b) The City may establish, as a fund within the Water Utility Fund, a fund denominated the "Rate Stabilization Fund." From time to time, the City may deposit into the Rate Stabilization Fund, from current System Revenues, such amounts as the City shall determine and the amount of available current System Revenues shall be reduced by the amount so transferred. Amounts may be transferred from the Rate Stabilization Fund solely and exclusively to pay Maintenance and Operation Costs of the Water System, and any amounts so transferred shall be deemed System Revenues when so transferred. All interest or other earnings upon amounts in the Rate Stabilization Fund may be withdrawn therefrom and accounted for as System Revenues.

(c) The City may establish, as a fund within the Water Utility Fund, a fund denominated the "Secondary Purchase Fund." From time to time, the City may deposit into the Secondary Purchase Fund, from any lawful source, which may or may not consist of current System Revenues, such amounts as the City shall determine, and the amount of available System Revenues shall be reduced by the amount so transferred, but only to the extent that amounts so transferred consist of then-current System Revenues. Amounts may be transferred from the Secondary Purchase Fund solely and exclusively to pay Maintenance and Operation Costs of the Water System, and any amounts so transferred shall be deemed System Revenues when so transferred. All interest or other earnings upon amounts in the Secondary Purchase Fund may be withdrawn therefrom and accounted for as System Revenues.

Payment of Claims. The City will pay and discharge any and all lawful claims for labor, materials or supplies which, if unpaid, might become a lien on the System Revenues or any part thereof or on any funds in the hands of the City or the Trustee might impair the security of the Installment Payments, but the City shall not be required to pay such claims if the validity thereof shall be contested in good faith.

Compliance with Contracts. The City will comply with, keep, observe and perform all agreements, conditions, covenants and terms, express or implied, required to be performed by it contained in all contracts for the use of the Water System and all other contracts affecting or involving the Water System to the extent that the City is a party thereto.

Insurance.

(a) The City will procure and maintain or cause to be procured and maintained insurance on the Water System with responsible insurers, in such amounts and against such risks (including accident to or destruction of the Water System) as are usually covered in connection with water systems similar to the Water System, or it will self-insure or participate in an insurance pool or pools with reserves adequate, in the reasonable judgment of the City, to protect the Water System against loss. In the event of any damage to or destruction of the Water System caused by the perils covered by such insurance or self insurance, the Net Proceeds thereof shall be applied to the reconstruction, repair or replacement of the damaged or destroyed portion of the Water System. The City shall begin such reconstruction, repair or replacement promptly after such damage or destruction shall occur, and shall continue and properly complete such reconstruction, repair or replacement as expeditiously as possible, and shall pay out of such Net Proceeds all costs and expenses in connection with such reconstruction, repair or replacement so that the same shall be completed and the Water System shall be free and clear of all claims and liens unless the City determines that such property or facility is not necessary to the efficient or proper operation of the Water System and therefore determines not to reconstruct, repair or replace such project or facility. If such Net Proceeds exceed the costs of such reconstruction, repair or replacement, then the excess Net Proceeds shall be deposited in the Water Utility Fund and be available for other proper uses of funds deposited in the Water Utility Fund.

(b) The City will procure and maintain such other insurance which it shall deem advisable or necessary to protect its interests and the interests of the Corporation, which insurance shall afford protection in such amounts and against such risks as are usually covered in connection with water systems similar to the Water System; provided that any such insurance may be maintained under a self-insurance program so long as such self-insurance is maintained in the amounts and in the manner usually maintained in connection with water systems similar to the Water System.

(c) All policies of insurance required to be maintained under the Master Installment Purchase Agreement shall, to extent reasonably obtainable, provide that the Corporation and each Trustee shall be given 30 days' written notice of any intended cancellation thereof or reduction of coverage provided thereby. The City shall certify to the Corporation and each Trustee annually on or before August 31 that it is in compliance with the insurance requirements under the Indenture.

Accounting Records; Financial Statements and Other Reports.

(a) The City will keep appropriate accounting records in which complete and correct entries shall be made of all transactions relating to the Water System, which records shall be available for inspection by the Corporation and the Trustee at reasonable hours and under reasonable conditions.

(b) The City will prepare and file with the Corporation annually (commencing with the Fiscal Year ending June 30, 2018), within 270 days of the close of each Fiscal Year, financial statements that include the Water Utility Fund for the preceding Fiscal Year prepared in accordance with generally accepted accounting principles, together with an Accountant's Report thereon.

(c) The City will furnish a copy of the financial statements referred to in paragraph (b) above to any Owner of the Certificates requesting a copy thereof, which may be in electronic form.

Payment of Taxes and Compliance with Governmental Regulations. The City shall pay and discharge all taxes, assessments and other governmental charges which may be lawfully imposed upon the Water System or any part thereof or upon the System Revenues when the same shall become due, except that the City may contest in good faith any taxes, assessments and other governmental charges so

long as the City shall have budgeted for the amount being contested and, if appropriate, such amount shall have been included as a Maintenance and Operation Costs of the Water System. The City shall duly observe and conform with all valid regulations and requirements of any governmental authority relative to the operation of the Water System or any part thereof, but the City shall not be required to comply with any regulations or requirements so long as the validity or application thereof shall be contested by the City in good faith.

Collection of Rates and Charges; No Free Service. The City shall have in effect at all times rules and regulations for the payment of bills for Water Service. Such regulations may provide that where the City furnishes water to the property receiving Water Service, the Water Service charges shall be collected together with the water rates upon the same bill providing for a due date and a delinquency date for each bill. In each case where such bill remains unpaid in whole or in part after it becomes delinquent, the City may disconnect such premises from the Water System, and such premises shall not thereafter be reconnected to the Water System except in accordance with City operating rules and regulations governing such situations of delinquency. To the extent permitted by law, the City shall not permit any part of the Water System or any facility thereof to be used or taken advantage of free of charge by any authority, firm or person, or by any public agency (including the United States of America, the State and any city, county, district, political subdivision, public authority or agency thereof).

Eminent Domain Proceeds. If all or any part of the Water System shall be taken by eminent domain proceedings, then subject to the provisions of any Authorizing Ordinance, the Net Proceeds thereof shall be applied to the replacement of the property or facilities so taken, unless the City determines that such property or facility is not necessary to the efficient or proper operation of the Water System and therefore determines not to replace such property or facilities. Any Net Proceeds of such award not applied to replacement or remaining after such work has been completed shall be deposited in the Water Utility Fund and be available for other proper uses of funds deposited in the Water Utility Fund.

Tax Covenants. There shall be included in each Supplement relating to Tax-Exempt Installment Payment Obligations such covenants as are deemed necessary or appropriate by Bond Counsel for the purpose of assuring that interest on such Installment Payment Obligations shall be excluded from gross income under section 103 of the Code.

Subcontracting. Nothing contained in the Master Installment Purchase Agreement to the contrary shall prevent the City from delegating the power to be an operator of some or all of the Water System, even though the City continues to retain ownership of the Water System and its operations, and no such subcontracting arrangement shall relieve the City of any of its obligations under the Indenture. Prior to the effective date of any such delegation, the City shall deliver to the Trustee an opinion of Bond Counsel to the effect that the proposed delegation will not have an adverse effect on the exclusion from gross income for federal income tax purposes of the interest component of Tax-Exempt Installment Payment Obligations.

Additional Covenants Relating to the 2017 Commercial Paper Notes.

(a) The City shall not directly or indirectly use or permit the use of any proceeds of the 2017 Commercial Paper Notes or any other funds of the City or of the 2017 Commercial Paper Notes Components financed with 2017 Commercial Paper Notes or take or omit to take any action that would cause the 2017 Commercial Paper Notes to be "private activity bonds" within the meaning of Section 141 of the Code, or obligations that are "federally guaranteed" within the meaning of Section 149(b) of the Code.

(b) The City covenants that it will not take any action, or fail to take any action, if any such action or failure to take action would adversely affect the exclusion from gross income of the interest on the 2017 Commercial Paper Notes under Section 103 of the Code. The City shall not directly or indirectly use or permit the use of any proceeds of the 2017 Commercial Paper Notes or any other funds of the City, or take or omit to take any action, that would cause the 2017 Commercial Paper Notes to be "arbitrage bonds" within the meaning of Section 148(a) of the Code. To that end, the City shall comply with all requirements of Section 148 of the Code to the extent applicable to the 2017 Commercial Paper Notes. If, at any time, the City is of the opinion that for purposes of this caption it is necessary to restrict or limit the yield on the investment of any moneys held by the Trustee under the Indenture or otherwise, then the City shall so instruct the Trustee in writing, and shall cause the Trustee to take such action as may be necessary in accordance with such instructions.

(c) Without limiting the generality of the foregoing, the City agrees that there shall be paid from time to time all amounts required to be rebated to the United States of America pursuant to Section 148(f) of the Code and any Treasury Regulations promulgated thereunder as may be applicable to the 2017 Commercial Paper Notes from time to time. This covenant shall survive payment in full or defeasance of the 2017 Commercial Paper Notes. The City specifically covenants to pay or cause to be paid to the United States of America at the times and in the amounts determined under this caption the rebate requirement, as described in the Tax Certificate, and to otherwise comply with the provisions of the Tax Certificate executed by the City and the Authority in connection with the execution and delivery of the 2017 Commercial Paper Notes.

(d) Notwithstanding any provision of this caption, if the City provides to the Trustee and the Issuing and Paying Agent an opinion of Bond Counsel to the effect that any action required under this caption is no longer required, or to the effect that some further action is required, to maintain the exclusion from gross income of the interest on the 2017 Commercial Paper Notes pursuant to Section 103 of the Code, then the City may rely conclusively on such opinion in complying with the provisions of this caption, and the covenants under this caption shall be deemed to be modified to that extent.

Prepayments of Installment Payments

Prepayment of Installment Payments. Provisions may be made in any Supplement for the prepayment of Installment Payments, in whole or in part, in such multiples and in such order of maturity and from funds of any source, and with such prepayment premiums and other terms as are specified in the Supplement. Said Supplement shall also provide for any notices to be given relating to such prepayment.

Assignment by Corporation. The Corporation irrevocably and absolutely assigns, transfers and conveys to the Collateral Agent and any successor thereto all of the rights, privileges, duties and obligations of the Corporation under the caption "Prepayment of Installment Payments" above. So long as a Collateral Agency Agreement is in effect, all references to the Corporation under the caption "Prepayment of Installment Payments" shall mean the Collateral Agent.

Events of Default and Remedies of the Corporation

Events of Default and Acceleration of Maturities. If one or more of the following Events of Default shall happen, that is to say:

(a) if default shall be made in the due and punctual payment of or on account of any Parity Obligation as the same shall become due and payable;

(b) if default shall be made by the City in the performance of any of the agreements or covenants required in the Master Installment Purchase Agreement to be performed by it (other than as specified in subsection (a) above), and such default shall have continued for a period of 60 days after the City shall have been given notice in writing of such default by the Corporation or any Trustee;

(c) if any Event of Default specified in any Supplement, Authorizing Ordinance or Issuing Instrument shall have occurred and be continuing; or

(d) if the City shall file a petition or answer seeking arrangement or reorganization under the federal bankruptcy laws or any other applicable law of the United States of America or any state therein, or if a court of competent jurisdiction shall approve a petition filed with the consent of the City seeking arrangement or reorganization under the federal bankruptcy laws or any other applicable law of the United States of America or any state therein, or if under the provisions of any other law for the relief or aid of debtors any court of competent jurisdiction shall assume custody or control of the City or of the whole or any substantial part of its property;

then, and in each and every such case during the continuance of such Event of Default, the Corporation shall upon the written request of the Owners of 25% or more of the aggregate principal amount of all Series of Parity Installment Obligations Outstanding, voting collectively as a single class, by notice in writing to the City, declare the entire unpaid principal amount thereof and the accrued interest thereon to be due and payable immediately, and upon any such declaration the same shall become immediately due and payable, anything contained in the Master Installment Purchase Agreement to the contrary notwithstanding; provided, that with respect to a Series of Parity Installment Obligations that is credit enhanced by a Credit Support Instrument, acceleration shall not be effective unless the declaration is consented to by the related Credit Provider. The foregoing provisions, however, are subject to the condition that if at any time after the entire principal amount of all Parity Installment Obligations and the accrued interest thereon shall have been so declared due and payable and before any judgment or decree for the payment of the moneys due shall have been obtained or entered, the City shall deposit with the Corporation a sum sufficient to pay the unpaid principal amount of all such Parity Installment Obligations and the unpaid payments of any other Parity Obligations referred to in clause (a) above due prior to such declaration and the accrued interest thereon, with interest on such overdue installments at the rate or rates applicable thereto in accordance with their terms, and the reasonable expenses of the Corporation, and any and all other defaults known to the Corporation (other than in the payment of the entire principal amount of the unpaid Parity Installment Obligations and the accrued interest thereon due and payable solely by reason of such declaration) shall have been made good or cured to the satisfaction of the Corporation or provision deemed by the Corporation to be adequate shall have been made therefor, then and in every such case the Corporation, by written notice to the City, may rescind and annul such declaration and its consequences; but no such rescission and annulment shall extend to or shall affect any subsequent default or shall impair or exhaust any right or power consequent thereon.

As provided in the Indenture, so long as any Senior Bonds remain outstanding, no Owners of Subordinated Bonds shall have the right to declare an Event of Default, to declare any Bonds immediately due and payable, to direct the Trustee with respect to any Event of Default or to waive any Event of Default and, for such purposes, any reference to the Owners of a percentage of the principal amount of "Bonds then Outstanding" shall be deemed to refer to the Owners of such percentage of Senior Bonds then Outstanding.

The Owners of Subordinated Obligations may enforce the provisions of the Master Installment Purchase Agreement for their benefit by appropriate legal proceedings. The payment of Subordinated Obligations will be subordinate in right of payment to payment of the Parity Obligations (except for any payment in respect of Subordinated Obligations from the Reserve Fund securing such Subordinated

Obligations). Upon the occurrence and during the continuance of any Event of Default, Owners of Parity Obligations will be entitled to receive payment thereof in full before the Owners of Subordinated Obligations are entitled to receive payment thereof (except for any payment in respect of Subordinated Obligations from the Reserve Fund securing such Subordinated Obligations) and the Owners of the Subordinated Obligations will become subrogated to the rights of the Owners of Parity Obligations to receive payments with respect thereto.

So long as any Senior Bonds remain Outstanding, no amounts, other than amounts in the Subordinated Bonds Payment Fund and the Subordinated Bonds Reserve Fund, shall be applied to the payment of Subordinated Bonds.

Application of Net System Revenues Upon Acceleration. All Net System Revenues received after the date of the declaration of acceleration by the Corporation as provided in the Master Installment Purchase Agreement shall be applied in the following order:

(a) First, to the payment of the costs and expenses of the Corporation and the Trustee, if any, in carrying out the provisions of the Master Installment Purchase Agreement, including reasonable compensation to its accountants and counsel;

(b) Second, to the payment of the entire principal amount of the unpaid Parity Installment Obligations and the unpaid principal amount of all other Parity Obligations and the accrued interest thereon, with interest on the overdue installments at the rate or rates of interest applicable thereto in accordance with their respective terms. In the event there are insufficient Net System Revenues to pay the entire principal amount of and accrued interest on all Parity Obligations, then accrued interest shall first be paid and any remaining amount shall be paid on account of principal, and in the event there are insufficient Net System Revenues to fully pay either interest or principal in accordance with the foregoing, then payment shall be prorated within a priority based upon the total amounts due in that priority; and

(c) Third, to the payment of the entire principal amount of the unpaid Subordinated Obligations and the accrued interest thereon, with interest on the overdue installments at the rate or rates of interest applicable thereto in accordance with their respective terms. In the event there are insufficient Net System Revenues to pay the entire principal amount of and accrued interest on all Subordinated Obligations, then accrued interest shall first be paid and any remaining amount shall be paid on account of principal, and in the event there are insufficient Net System Revenues to fully pay either interest or principal in accordance with the foregoing, then payment shall be prorated within a priority based upon the total amounts due in that priority.

Discharge of Installment Payment Obligations

Discharge of Installment Payment Obligations. If the City shall pay or cause to be paid or there shall otherwise be paid to the Owners all Outstanding Installment Payment Obligations of a Series, the principal thereof and the interest and redemption premiums, if any, thereon or if all such Outstanding Installment Payment Obligations shall be deemed to have been paid at the times and in the manner stipulated in the applicable Issuing Instrument, then, as to any such Series, all agreements, covenants and other obligations of the City under the Indenture shall thereupon cease, terminate and become void and be discharged and satisfied, except for the obligation of the City to pay or cause to be paid all sums due under the Master Installment Purchase Agreement.

Miscellaneous

Liability of Authority Limited to Revenues and Subordinated Revenues.

(a) Notwithstanding anything contained in the Indenture, the Authority shall not be required to advance any money derived from any source of income other than the Revenues and the Subordinated Revenues, as provided in the Indenture for the payment of the interest on, or principal of, or premiums, if any, on the Bonds or for the performance of any agreements or covenants contained in the Master Installment Purchase Agreement. The Authority may, however, advance funds for any such purpose so long as such funds are derived from a source legally available for such purpose without incurring an indebtedness.

(b) The Senior Bonds shall be limited obligations of the Authority and shall be payable solely from the Revenues and amounts on deposit in the funds and accounts established under the Master Installment Purchase Agreement (other than amounts on deposit in the Subordinated Bonds Payment Fund, the Subordinated Bonds Reserve Fund and the Rebate Fund created pursuant to the Indenture). The Subordinated Bonds shall be limited obligations of the Authority and shall be payable solely from the Subordinated Bonds Revenues and amounts on deposit in the Subordinated Bonds Payment Fund and the Subordinated Bonds Reserve Fund. The Bonds do not constitute a debt or liability of the Authority, the City or of the State of California and neither the faith and credit of the Authority, the City nor of the State are pledged to the payment of the principal of or interest on the Bonds.

Amendments.

(a) The Master Installment Purchase Agreement may be amended with respect to a Series of Installment Payment Obligations in writing as may be mutually agreed by the City and the Corporation, with the written consent of any Credit Provider for any Installment Payment Obligations or, as to Installment Obligations for which there is no Credit Support Instrument, the Owners of a majority in aggregate principal amount of such Series of Installment Payment Obligations then Outstanding, provided that no such amendment shall (1) extend the payment date of any Installment Payment, or reduce the amount of any Installment Payment without the prior written consent of the Owner of each Obligation so affected; or (2) reduce the percentage of Installment Payment Obligations the consent of the Owners of which is required for the execution of any amendment of the Master Installment Purchase Agreement without the prior written consent of each of the Owners so affected.

(b) The Master Installment Purchase Agreement and the rights and obligations of the City and the Corporation thereunder may also be amended for supplemented at any time by an amendment or supplement to the Master Installment Purchase Agreement that shall not adversely affect the interests of the Owners of the Installment Payment Obligations and that shall become binding upon execution by the City and the Corporation, without the written consents of any Owner of Installment Payment Obligations or any Credit Provider, but only to the extent permitted by law and only upon receipt of an unqualified opinion of Bond Counsel to the effect that such amendment or supplement is permitted by the provisions of the Master Installment Purchase Agreement and is not inconsistent with the Master Installment Purchase Agreement and does not adversely affect the exclusion of the interest portion of the Installment Payments received by the Owners from gross income for federal income tax purposes, and only for any one or more of the following purposes:

(1) to add to the covenants and agreements of the Corporation or the City contained in the Master Installment Purchase Agreement other covenants and agreements thereafter to be observed or to surrender any right or power in the Master Installment Purchase Agreement reserved to or conferred upon the Corporation or the City;

(2) to cure, correct or supplement any ambiguous or defective provision contained in the Master Installment Purchase Agreement or in regard to questions arising under the Master Installment Purchase Agreement, as the Corporation or the City may deem necessary or desirable;

(3) to make other amendments or modifications that shall not materially adversely affect the interests of the Owners of the Installment Payment Obligations;

(4) to provide for the issuance of Parity Installment Payment Obligations; and

(5) to provide for the issuance of Subordinated Obligations.

Net Contract. The Master Installment Purchase Agreement shall be deemed and construed to be a net contract, and the City shall pay absolutely net during the term thereof the Installment Payments arid all other payments required under the Indenture, free of any deductions and without abatement, diminution or setoff whatsoever.

Governing Law

The Master Installment Purchase Agreement will be governed by the laws of the State of California applicable to contracts made and performed in the State.

FIRST AMENDMENT TO AMENDED AND RESTATED MASTER INSTALLMENT PURCHASE AGREEMENT

The First Amendment to Amended and Restated Master Installment Purchase Agreement (the "First Amendment"), sets forth amendments to the Master Installment Purchase Agreement to clarify certain terms in connection with the appointment of a Collateral Agent to receive and administer the application of Net System Revenues pursuant to the herein described Collateral Agency, Account and Assignment Agreement, among other things. Certain provisions of the First Amendment are given and summarized below.

Role of Collateral Agent – Collection and Payment.

The Collateral Agent shall serve as agent of the Trustee and all Owners of Secured Obligations for purposes of receiving payments of Net System Revenues from the City and making payments on Obligations from Net System Revenues. The obligations of the City to make payments on Secured Obligations, including Installment Payments, to the Corporation, the Authority, the Trustee or any trustee or Owner pursuant to any Issuing Instrument shall be satisfied to the extent of payments made by the Collateral Agent to such entity pursuant to the terms of the Collateral Agency Agreement. In order to effect such payments, the City agrees to henceforth make payments to the Collateral Agent as provided under the caption "Allocation of System Revenues" below. Pursuant to the Collateral Agency Agreement, the Collateral Agent has agreed to allocate Net System Revenues received by it to the Owners of Obligations. Any Installment Payments or other payments on Obligations received by the Corporation shall be received in trust for the benefit of the Collateral Agent and the Corporation agrees to promptly transfer any such amounts received by it to the Collateral Agent.

Role of Collateral Agent – Enforcement.

The Collateral Agent shall have the right to exercise all of the rights and remedies described under "Appendix A – Master Installment Purchase Agreement – Prepayment of Installment Payments" as inuring to the Corporation, on behalf of and for the benefit of all Owners of Secured Obligations and any

trustee on their behalf, including the Trustee, under the First Amendment to Amended and Restated Master Installment Purchase Agreement, the Indenture or any other Issuing Instrument. Notwithstanding anything to the contrary set forth in the Master Installment Purchase Agreement, the Collateral Agency Agreement or any other Issuing Instrument, from and after the date of this First Amendment, the Corporation shall not have any rights, pursuant to the Master Installment Purchase Agreement, the Collateral Agency Agreement or any other Issuing Instrument, (a) as a grantee of a pledge of Net System Revenues, (b) to accelerate or otherwise declare any Obligations immediately due and payable, (c) to exercise any remedies by or on behalf of the Owners of any Obligations or otherwise with respect to the Net System Revenues following an Event of Default or (d) to receive and/or apply any Net System Revenues to the payment of any Obligations following an Event of Default, and any provisions purporting to provide such rights to the Corporation shall be null and void.

No Nullification of Assignments.

Nothing in the First Amendment to Amended and Restated Master Installment Purchase Agreement shall nullify or adversely affect any past, present or future assignment or pledge of the rights of the Corporation under the First Amendment to Amended and Restated Master Installment Purchase Agreement to the Authority or to the Trustee.

COLLATERAL AGENCY, ACCOUNT AND ASSIGNMENT AGREEMENT

The Collateral Agency, Account and Assignment Agreement (the "Collateral Agency Agreement") provides for, among other things, the appointment of a Collateral Agent to receive and apply Net System Revenues to the payment of Obligations of the City and the assignment of all rights and remedies of the Corporation, on behalf of and for the benefit of the Owners of Secured Obligations under the Indenture, the First Amendment, or any other issuing instrument, to the Collateral Agent. Certain definitions and provisions of the Collateral Agency Agreement are given and summarized below.

DEFINITIONS

Account

"Account" means an account established under the caption "Establishment of Funds and Accounts" below.

Borrower

"Borrower" means the City of San Diego, a municipal corporation organized and existing under its Charter duly adopted pursuant to the provisions of the Constitution of the State of California.

Class

"Class" means any group of Holders that, collectively, hold a single series, tranche or other identifiable category of Obligations under a single credit agreement, loan agreement, note purchase agreement, indenture or other evidence of indebtedness.

Collateral

"Collateral" means all of the interests of the Borrower in (a) the Net System Revenues and (b) the Funds, the Accounts and any subaccounts (other than the Parity Obligations Reserve Account and the Subordinated Obligations Reserve Account) including all amounts on deposit therein or credited thereto.

Corporation

"Corporation" means the San Diego Facilities and Equipment Leasing Corporation, a nonprofit public benefit corporation organized and existing under and by virtue of the laws of the State of California.

Counterpart

"Counterpart" means a Counterpart to the Collateral Agency Agreement in the form of Exhibit C attached thereto.

Fund

"Fund" means a fund established under the caption "Establishment of Funds and Accounts" below.

Holder Representative

"Holder Representative" means any agent, trustee or other representative appointed by a Class of Holders to act on their behalf pursuant to the terms of an Issuing Instrument relating to the Obligations held by such Class of Holders.

Holder or Holders

"Holder" or "Holders" means the holders of or lenders under Secured Obligations including, without limitation, any such holder or lender that has executed the Collateral Agency Agreement, but excluding the Corporation and the Authority, and any Person who becomes such a holder or lender under Secured Obligations including, without limitation, any Person that becomes a party to the Collateral Agency Agreement pursuant to execution of a Counterpart; provided, however, that with respect to certain applicable sections of the Collateral Agency Agreement, "Holder" or "Holders" shall mean and refer to the Holder Representative for each Class that has a Holder Representative and not to the individual Holders of such Class.

Master Installment Purchase Agreement

"Master Installment Purchase Agreement" means Amended and Restated Master Installment Purchase Agreement, dated as of January 1, 2009, as amended and supplemented, by and between the City and Corporation.

Net System Revenues

"Net System Revenues" means, for any Fiscal Year, the System Revenues for such Fiscal Year, less the Maintenance and Operation Costs of the Water System for such Fiscal Year.

Parity Obligation Holders

"Parity Obligation Holders" means the holders of or lenders under Parity Obligations.

Parity Obligation Interest Payment Date

"Parity Obligation Interest Payment Date" means the date any interest is due and payable on any Parity Obligation.

Parity Obligation Principal Payment Date

"Parity Obligation Principal Payment Date" means the date any principal or mandatory sinking fund redemptions are due and payable with respect to any Parity Obligation.

Parity Obligations

"Parity Obligations" means Obligations the payment of which is secured by a first priority lien on and pledge of Net System Revenues pursuant to the caption "Amendments to the Master Installment Purchase Agreement – Commitment of the Net System Revenues" under the First Amendment to Amended and Restated Master Installment Purchase Agreement and the caption "Lien and Pledge" below.

Parity Obligations Reserve Account

"Parity Obligations Reserve Account" means the account of that name established and maintained by the Collateral Agent under the caption "Establishment of Funds and Accounts" below.

Parity Obligations Reserve Fund

"Parity Obligations Reserve Fund" means each reserve fund established under an Issuing Instrument and held by a Holder Representative or other trustee, fiscal agent or Person designated by an Issuing Instrument to establish and maintain a reserve account or fund for the benefit of the Holders of Parity Obligations issued or incurred under such Issuing Instrument.

Payment Date

"Payment Date" means each date that is a Parity Obligation Interest Payment Date, a Parity Obligation Principal Payment Date, a Subordinated Obligation Interest Payment Date or a Subordinated Obligation Principal Payment Date.

Person

"Person" means any corporation, partnership, trust, limited liability company, financial institution, insurance company, pension fund, mutual fund, government agency or natural person.

Pro Rata Amount

"Pro Rata Amount" means, with respect to any payment to be made to a Holder under the caption "Application of Net System Revenues and Other Amounts" below from funds held by the Collateral Agent in the applicable Account, an amount equal to the total amount of funds held by the Collateral Agent in such Account and available to make such payment to all Holders entitled to receive such payment multiplied by the quotient of the amount of such payment due and payable on such date to such Holder divided by the amount of such payment due and payable on such date to all Holders entitled to receive such payment.

Required Holders

"Required Holders" has the meaning provided under the caption "Remedies" below.

Reserve Requirement

"Reserve Requirement" means, with respect to each Parity Obligations Reserve Fund (if any) and each Subordinated Obligations Reserve Fund (if any), the amount required to be maintained therein by the Issuing Instrument under which such Parity Obligations Reserve Fund or Subordinated Obligations Reserve Fund is mandated and established.

Subordinated Obligation Holders

"Subordinated Obligation Holders" means the holders of or lenders under Subordinated Obligations.

Subordinated Obligation Interest Payment Date

"Subordinated Obligation Interest Payment Date" means the date any interest is due and payable on any Subordinated Obligation.

Subordinated Obligation Principal Payment Date

"Subordinated Obligation Principal Payment Date" means the date any principal or mandatory sinking fund redemptions are due and payable with respect to any Subordinated Obligation.

Subordinated Obligations

"Subordinated Obligations" means Obligations the payment of which is secured by a second priority lien on and pledge of Net System Revenues that is junior and subordinate to the lien on and pledge of Net System Revenues securing Parity Obligations pursuant to subsection (b) under the caption "Amendments to the Master Installment Purchase Agreement – Commitment of the Net System Revenues" under the First Amendment to Amended and Restated Master Installment Purchase Agreement and the caption "Lien and Pledge" below.

Subordinated Obligations Reserve Account

"Subordinated Obligations Reserve Account" means the account of that name established and maintained by the Collateral Agent under the caption "Establishment of Funds and Accounts" below.

Subordinated Obligations Reserve Fund

"Subordinated Obligations Reserve Fund" means each reserve fund established under an Issuing Instrument and held by a Holder Representative or other trustee, fiscal agent or Person designated by an Issuing Instrument to establish and maintain a reserve account or fund for the benefit of the Holders of Subordinated Obligations issued or incurred under such Issuing Instrument.

WIFIA Lender

"WIFIA Lender" means the United States Environmental Protection Agency, an agency of the United States of America, acting by and through the Administrator of the Environmental Protection Agency.

Except as otherwise defined in the Collateral Agency Agreement, all terms defined in the Master Installment Purchase Agreement shall have the same meaning for the purposes of the Collateral Agency Agreement as in the Master Installment Purchase Agreement.

Appointment.

U.S. Bank National Association is appointed as the collateral agent for the benefit of the Holders. The Collateral Agent accepts such appointment and agrees to act as the Collateral Agent in accordance with the Collateral Agency Agreement and the Master Installment Purchase Agreement.

Each of the Holders authorizes and directs the Collateral Agent to act in strict accordance with the terms of the Collateral Agency Agreement and the Master Installment Purchase Agreement. Subject to the terms of the Collateral Agency Agreement, the Collateral Agent agrees, for the benefit of the Holders, to administer and enforce the Collateral Agency Agreement as Collateral Agent, and, among other remedies, to foreclose upon, collect and dispose of the Collateral and to apply the proceeds therefrom, for the benefit of the Holders, as provided in the Collateral Agency Agreement, and otherwise to perform its duties and obligations as the Collateral Agent under the Collateral Agency Agreement in accordance with its terms.

The Collateral Agent shall be fully justified in failing or refusing to take any action under the Collateral Agency Agreement unless the Collateral Agent shall first receive written direction from the Required Holders and is indemnified by the Borrower to its reasonable satisfaction, including the indemnification from the Borrower pursuant to the provisions under the caption "Collateral Agency Agreement – Liability of the Collateral Agent," from and against any liability or expense related thereto. Subject to the foregoing, the Collateral Agent shall act under the Collateral Agency Agreement in accordance with any written directions by the Required Holders. The Collateral Agent shall not incur any liability for any determination made or instruction or direction given by the Required Holders.

The Collateral Agent may conclusively rely upon the information provided to it by the Borrower pursuant to the Collateral Agency Agreement regarding the identity of the Holders unless a different Holder is identified in writing to the Collateral Agent by the Borrower.

Lien and Pledge.

(a) All Parity Obligations, including Parity Installment Payment Obligations, shall be secured by a first priority lien on and pledge of Net System Revenues. The City grants to the Collateral Agent, for the benefit of the Holders of Parity Obligations, a first priority lien on and pledge of Net System Revenues to secure Parity Obligations. All Parity Obligations shall be of equal rank with each other without preference, priority or distinction of any Parity Obligations over any other Parity Obligations; provided that a Parity Obligation that by its terms under certain circumstances can require the full amount of the Parity Obligation to become payable in installments over not less than five years from the occurrence of the triggering event shall not be deemed to create any impermissible preference, priority or distinction as to lien or otherwise of such Parity Obligation over any other Parity Obligation.

(b) All Subordinated Obligations, including Subordinated Installment Payment Obligations, shall be secured by a second priority lien on and pledge of Net System Revenues that is junior and subordinate to the lien on and pledge of Net System Revenues securing Parity Obligations. The City grants to the Collateral Agent, for the benefit of the Holders of Subordinated Obligations, a second priority lien on and pledge of Net System Revenues to secure Subordinated Obligations. All Subordinated Obligations shall be of equal rank with each other without preference, priority or distinction of any Subordinated Obligations over any other Subordinated Obligations; provided that a Subordinated Obligation that by its terms under certain circumstances can require the full amount of the Subordinated Obligation to become payable in installments over not less than five years from the triggering event shall not be deemed to create any impermissible preference, priority or distinction as to lien or otherwise of such Subordinated Obligation over any other Subordinated Obligation; and provided further that a

Subordinated Obligation that by its terms under certain circumstances must be treated as, or becomes, a Parity Obligation shall not be deemed to create any impermissible preference, priority or distinction as to lien or otherwise of such Subordinated Obligation over any other Subordinated Obligation.

(c) The City grants to the Collateral Agent, for the benefit of the Holders of Parity Obligations, a first priority lien on and pledge of the Funds and Accounts established under the caption "Establishment of Funds and Accounts" below and any and all amounts held therein, or credited thereto, to secure the Parity Obligations; provided that any amounts held in or credited to the Parity Obligations Reserve Account shall be held solely for the benefit of and payment to the Holders of the Class of Obligations for which Parity Obligations Reserve Funds have been established pursuant to the Issuing Instrument under which such Class of Obligations was created. The City grants to the Collateral Agent, for the benefit of the Holders of Subordinated Obligations, a second priority lien on and pledge of the Funds and Accounts established under the caption "Establishment of Funds and Accounts" below and any and all amounts held therein, or credited thereto, to secure the Subordinated Obligations; provided that any amounts held in or credited to the Subordinated Obligations Reserve Account shall be held solely for the benefit of and payment to the Holders of the Class of Obligations for which such Subordinated Obligations Reserve Funds have been established pursuant to the Issuing Instrument under which such Class of Obligations was created.

(d) The Collateral Agent may, but shall not be obligated to, take such action as it deems necessary to perfect or continue the perfection of the security interests on the Collateral held for the benefit of the Holders. The Collateral Agent shall not release any of the Collateral except upon payment in full of all Secured Obligations.

Establishment of Funds and Accounts.

There are established in the custody of the Collateral Agent the following Funds and Accounts to be held and maintained by the Collateral Agent for the benefit of the Holders, in accordance with the Collateral Agency Agreement:

(a) the Parity Obligations Payment Fund, in which there shall be established:

(i) the Parity Obligations Interest Account;

(ii) the Parity Obligations Principal Account; and

(iii) the Parity Obligations Reserve Account; and

(b) the Subordinated Obligations Payment Fund, in which there shall be established:

(i) the Subordinated Obligations Interest Account;

(ii) the Subordinated Obligations Principal Account; and

(iii) the Subordinated Obligations Reserve Account.

The Collateral Agent is further directed to establish within the Funds and Accounts established above such accounts and subaccounts as may be requested in writing by the Borrower for each Class of Obligations. All funds on deposit in the Accounts and the subaccounts therein shall remain uninvested; provided that upon written direction from the Borrower to the Collateral Agent amounts held overnight may be invested in Permitted Investments until applied pursuant to the provisions under the captions

"Collateral Agency Agreement – Application of Net System Revenues and Other Amounts" and "Collateral Agency Agreement – Application of Net System Revenues Upon Acceleration." Earnings on any investment amounts held in each Account under the provisions of this caption shall be credited to such Account. The Collateral Agent shall not be liable for any loss on any investments of amounts held under the provisions of this caption or for complying with any written direction concerning investments which the Collateral Agent reasonably believes to be authorized by the Borrower.

Application of Net System Revenues and Other Amounts.

(a) The Borrower shall collect and deposit all System Revenues when and as received in the Water Utility Fund and shall make each of the transfers of Net System Revenues from the Water Utility Fund to the Collateral Agent for deposit in the Accounts set forth under the caption "Collateral Agency Agreement – Establishment of Funds and Accounts" pursuant to the provisions under the caption "Amendments to the Master Installment Purchase Agreement – Allocation of System Revenues."

(b) The Collateral Agent shall make the following withdrawals, transfers and payments from the Accounts in the amounts, at the times and for the purposes specified in this caption.

(i) Parity Obligations Interest Account. On each Parity Obligation Interest Payment Date and on each other date on which the following amounts shall be due and payable, the Collateral Agent shall pay to the Holders of Parity Obligations, from the Parity Obligations Interest Account, the interest due and payable, including any amounts overdue and payable, on such date to Holders of Parity Obligations; provided that if the amount on deposit in the Parity Obligations Interest Account is insufficient therefor, the Collateral Agent shall pay each Parity Obligation Holder a Pro Rata Amount.

(ii) Parity Obligations Principal Account. On each Parity Obligation Principal Payment Date and on each other date on which the following amounts shall be due and payable, the Collateral Agent shall pay to the Holders of Parity Obligations, from the Parity Obligations Principal Account, the principal and mandatory sinking fund redemptions due and payable, including any amounts overdue and payable, on such date to Holders of Parity Obligations; provided that if the amount on deposit in the Parity Obligations Principal Account is insufficient therefor, the Collateral Agent shall pay each Parity Obligation Holder a Pro Rata Amount.

(iii) Parity Obligations Reserve Account. On each Parity Obligation Interest Payment Date, the Collateral Agent shall transfer to the holder of each Parity Obligations Reserve Fund (if any) the amount set forth in a written direction of the Borrower, which shall be no more than the amount necessary so that the balance therein equals the applicable Reserve Requirement; provided that if the amount on deposit in the Parity Obligations Reserve Account is insufficient therefor, the Collateral Agent shall transfer to each holder of a Parity Obligations Reserve Fund a Pro Rata Amount; and provided further that in the event of any draw on a Reserve Fund Credit Facility held in any Parity Obligations Reserve Fund, there shall be deemed a deficiency in such Parity Obligations Reserve Fund until the amount of the Reserve Fund Credit Facility is restored to its pre-draw amount.

(iv) Subordinated Obligations Interest Account. On each Subordinated Obligation Interest Payment Date and on each other date on which the following amounts shall be due and payable, the Collateral Agent shall pay to the Holders of Subordinated Obligations, from the Subordinated Obligations Interest Account, the interest due and payable, including any amounts overdue and payable, on such date to Holders of Subordinated Obligations; provided that if the

amount on deposit in the Subordinated Obligations Interest Account is insufficient therefor, the Collateral Agent shall pay each Subordinated Obligation Holder a Pro Rata Amount.

(v) Subordinated Obligations Principal Account. On each Subordinated Obligation Principal Payment Date and on each other date on which the following amounts shall be due and payable, the Collateral Agent shall pay to the Holders of Subordinated Obligations, from the Subordinated Obligations Principal Account, the principal and mandatory sinking fund redemptions due and payable, including any amounts overdue and payable, on such date to Holders of Subordinated Obligations; provided that if the amount on deposit in the Subordinated Obligations Principal Account is insufficient therefor, the Collateral Agent shall pay each Subordinated Obligation Holder a Pro Rata Amount.

(vi) Subordinated Obligations Reserve Account. On each Subordinated Obligation Interest Payment Date, the Collateral Agent shall transfer to the holder of each Subordinated Obligations Reserve Fund (if any) the amount set forth in a written direction of the Borrower, which shall be no more than the amount necessary so that the balance therein equals the applicable Reserve Requirement; provided that if the amount on deposit in the Subordinated Obligations Reserve Account is insufficient therefor, the Collateral Agent shall transfer to each holder of a Subordinated Obligations Reserve Fund a Pro Rata Amount; and provided further that in the event of any draw on a Reserve Fund Credit Facility held in any Subordinated Obligations Reserve Fund, there shall be deemed a deficiency in such Subordinated Obligations Reserve Fund until the amount of the Reserve Fund Credit Facility is restored to its pre-draw amount.

(c) For the avoidance of doubt nothing in the Collateral Agency Agreement or the Master Installment Purchase Agreement affects or diminishes the Holders' rights and remedies under their respective Issuing Instruments, including any right in such Issuing Instrument to accelerate amounts due under the applicable Secured Obligations.

Remedies.

During the continuance of an Event of Default under the Master Installment Purchase Agreement, (including, without limitation, any Event of Default specified in any Supplement, Authorizing Ordinance or Issuing Instrument) the Collateral Agent shall upon the written direction of the Holders (or, in the case of any Class that has a Holder Representative, the Holder Representative of such Class) of 25% or more of the aggregate principal amount of all Series of Parity Installment Obligations Outstanding, or after all Parity Installment Obligations have been paid in full, the Holders (or, in the case of any Class that has a Holder Representative, the Holder Representative of such Class) of 25% or more of the aggregate principal amount of all Series of Subordinated Obligations Outstanding (the "Required Holders"), voting collectively as a single class, by notice in writing to the City, declare the entire unpaid principal amount of all Series of Parity Installment Obligations (or all Subordinated Obligations, as the case may be) and the accrued interest thereon to be due and payable immediately, and upon any such declaration the same shall become immediately due and payable, anything contained in the Collateral Agency Agreement or in the Master Installment Purchase Agreement to the contrary notwithstanding; provided, that with respect to a Series of Parity Installment Obligations (or Series of Subordinated Obligations, as the case may be) which is credit enhanced by a Credit Support Instrument, acceleration shall not be effective unless the declaration is consented to by the related Credit Provider. The foregoing provisions, however, are subject to the condition that if at any time after the entire principal amount of all Parity Installment Obligations (or all Subordinated Obligations, as the case may be) and the accrued interest thereon shall have been so declared due and payable and before any judgment or decree for the payment of the moneys due shall have been obtained or entered, the City shall deposit with the Collateral Agent a sum sufficient to pay the unpaid principal amount of all such Parity Installment Obligations (or all such Subordinated Obligations,

as the case may be) and the unpaid payments of any other Parity Obligations (or Subordinated Obligations, as the case may be) due prior to such declaration and the accrued interest thereon, with interest on such overdue installments at the rate or rates applicable thereto in accordance with their terms, and the reasonable fees and expenses of the Collateral Agent including, without limitation fees and expenses of the attorneys, agents and advisors of the Collateral Agent, and any and all other defaults known to the Collateral Agent (other than in the payment of the entire principal amount of the unpaid Parity Installment Obligations (or unpaid Subordinated Obligations, as the case may be) and the accrued interest thereon due and payable solely by reason of such declaration) shall have been made good or cured to the satisfaction of the Collateral Agent or provision deemed by the Collateral Agent to be adequate shall have been made therefor, then and in every such case the Collateral Agent, by written notice to the City, may rescind and annul such declaration and its consequences; but no such rescission and annulment shall extend to or shall affect any subsequent default or shall impair or exhaust any right or power consequent thereon.

Subject to the above provisions, the Holders of Subordinated Obligations may enforce the provisions of the Master Installment Purchase Agreement or the applicable Issuing Instrument for their benefit by appropriate legal proceedings. The payment of Subordinated Obligations will be subordinated in right of payment to payment of the Parity Obligations (except for any payment in respect of Subordinated Obligations from the Reserve Fund securing such Subordinated Obligations). Upon the occurrence and during the continuance of any Event of Default, Holders of Parity Obligations will be entitled to receive payment thereof in full before the Holders of Subordinated Obligations are entitled to receive payment thereof (except for any payment in respect of Subordinated Obligations from the Reserve Fund securing such Subordinated Obligations) and the Holders of the Subordinated Obligations will become subrogated to the rights of the Holders of Parity Obligations to receive payments with respect thereto.

Application of Net System Revenues Upon Acceleration.

After the date of the declaration of acceleration by the Collateral Agent as provided under the caption "Remedies" above, the City shall transfer, promptly upon receipt and after payment of Maintenance and Operation Costs of the Water System then due and payable, all Net System Revenues from the Water Utility Fund to the Collateral Agent, and the Collateral Agent shall promptly apply such Net System Revenues in the following order:

(a) First, to the payment of the fees, costs and expenses of the Collateral Agent, if any, in carrying out the provisions of the Collateral Agency Agreement, including reasonable compensation to its agents, accountants and counsel;

(b) Second, to the payment of the entire principal amount of the unpaid Parity Installment Obligations and the unpaid principal amount of all other Parity Obligations and the accrued interest thereon, with interest on the overdue installments at the rate or rates of interest applicable thereto in accordance with their respective terms. In the event there are insufficient Net System Revenues to pay the entire principal amount of and accrued interest on all Parity Obligations, then accrued interest shall first be paid and any remaining amount shall be paid on account of principal, and in the event there are insufficient Net System Revenues to fully pay either interest or principal in accordance with the foregoing, then payment shall be prorated within a priority based upon the total amounts due in that priority; and

(c) Third, to the payment of the entire principal amount of the unpaid Subordinated Obligations and the accrued interest thereon, with interest on the overdue installments at the rate or rates of interest applicable thereto in accordance with their respective terms. In the event there are insufficient

Net System Revenues to pay the entire principal amount of and accrued interest on all Subordinated Obligations, then accrued interest shall first be paid and any remaining amount shall be paid on account of principal, and in the event there are insufficient Net System Revenues to fully pay either interest or principal in accordance with the foregoing, then payment shall be prorated within a priority based upon the total amounts due in that priority.

Other Remedies of the Collateral Agent.

The Collateral Agent (acting at the direction of the Required Holders) shall have the right:

(a) by mandamus or other action or proceeding or suit at law or in equity to enforce, on behalf of the Holders, the rights of the Holders against the City or any councilmember, officer or employee thereof, and to compel the City or any such councilmember, officer or employee to perform and carry out its or his duties under the Law and the agreements and covenants required to be performed by it or him contained in the Collateral Agency Agreement;

(b) by suit in equity to enjoin any acts or things which are unlawful or violate the rights of the Holders; or

(c) by suit in equity upon the happening of an Event of Default to require the City and its councilmembers, officers and employees to account as the trustee of an express trust.

Non-Waiver.

(a) Nothing in the Collateral Agency Agreement shall affect or impair the obligation of the City, which is absolute and unconditional, to pay the Installment Payments to the Collateral Agent at the respective due dates or upon prepayment from the Net System Revenues and the other funds committed in the Collateral Agency Agreement for such payment, or shall affect or impair the right of the Collateral Agent, which is also absolute and unconditional, to institute suit to enforce such payment by virtue of the contract embodied in the Collateral Agency Agreement.

(b) A waiver of any default or breach of duty or contract by the Collateral Agent shall not affect any subsequent default or breach of duty or contract or impair any rights or remedies of the Collateral Agent or the Holders on any such subsequent default or breach of duty or contract. No delay or omission by the Collateral Agent to exercise any right or remedy accruing upon any default or breach of duty or contract shall impair any such right or remedy or shall be construed to be a waiver of any such default or breach of duty or contract or an acquiescence therein, and every right or remedy conferred upon the Collateral Agent by the Law or by the Collateral Agency Agreement may be enforced and exercised from time to time and as often as shall be deemed expedient by the Collateral Agent.

(c) If any action, proceeding or suit to enforce any right or exercise any remedy is abandoned or determined adversely to the Collateral Agent, the City and the Collateral Agent shall be restored to their former positions, rights and remedies as if such action, proceeding or suit had not been brought or taken.

Remedies Not Exclusive.

No remedy conferred upon or reserved to the Collateral Agent is intended to be exclusive of any other remedy, and each such remedy shall be cumulative and shall be in addition to every other remedy given under the Collateral Agency Agreement or now or hereafter existing in law or in equity or by

statute or otherwise and may be exercised without exhausting and without regard to any other remedy conferred by law.

Assignment by Corporation.

The Corporation irrevocably and absolutely assigns, transfers and conveys to the Collateral Agent and any successor thereto all of the rights, privileges, duties and obligations of the Corporation under the provisions contained in "Appendix A – Master Installment Purchase Agreement – Events of Default and Remedies of the Corporation."

Rights of the Corporation.

Notwithstanding anything to the contrary set forth in the Collateral Agency Agreement, the Master Installment Purchase Agreement or any other Issuing Instrument, from and after the date of the Collateral Agency Agreement, the Corporation shall not have any rights, pursuant to the Collateral Agency Agreement, the Master Installment Purchase Agreement or any other Issuing Instrument, (a) as a grantee of a pledge of Net System Revenues, (b) to accelerate or otherwise declare any Obligations immediately due and payable, (c) to exercise any remedies by or on behalf of the Holders (or Owners) or otherwise with respect to the Net System Revenues following an Event of Default or (d) to receive and/or apply any Net System Revenues to the payment of any Obligations following an Event of Default, and any provisions purporting to provide such rights to the Corporation shall be null and void. The City purchases projects from the Corporation under the Master Installment Purchase Agreement and each Master Installment Purchase Agreement Supplement in consideration of Installment Payments by the City to the Corporation. The Corporation unconditionally, irrevocably and absolutely assigns and transfers to the Authority its rights to such Installment Payments pursuant to Assignment Agreements. Nothing in the Collateral Agency Agreement shall nullify or adversely affect any past, present or future assignment or transfer of the rights of the Corporation to receive Installment Payments under the Master Installment Purchase Agreement or any Master Installment Purchase Agreement Supplement to the Authority or any pledge, assignment or transfer of such rights by the Authority to the Trustee.

Termination.

The Collateral Agency Agreement shall terminate upon the payment in full of all Obligations. Upon termination, any amount remaining in all Funds, Accounts and subaccounts under the Collateral Agency Agreement shall immediately be transferred by the Collateral Agent to the Borrower or its assignees.

Resignation and Removal.

The Collateral Agent may at any time resign by giving at least thirty (30) days written notice to the Borrower and each Holder, and the Collateral Agent may be removed by the Borrower and all Holders at any time with or without cause, but neither such resignation nor removal shall take effect until the appointment of a successor Collateral Agent. In the event of any resignation or removal of the Collateral Agent, a successor Collateral Agent shall be appointed by an instrument in writing executed by the Collateral Agent, the Borrower and each Holder that is a party to the Collateral Agency Agreement. Such successor Collateral Agent shall indicate its acceptance of such appointment by an instrument in writing delivered to the Borrower and each Holder. Upon delivery of such instrument, such successor Collateral Agent shall, without any further act or deed, be fully vested with all the powers, rights, duties and obligations of the Collateral Agent under the Collateral Agency Agreement and the predecessor Collateral Agent shall deliver all moneys and securities held by it under the Collateral Agency Agreement to such successor Collateral Agent.

Assignment by Collateral Agent.

The services to be performed by the Collateral Agent are personal in character and neither the Collateral Agency Agreement nor any duties or obligations under the Collateral Agency Agreement may be assigned or delegated by the Collateral Agent unless first approved by the Borrower and each Holder that is a party to the Collateral Agency Agreement by written instrument executed and approved in the same manner as the Collateral Agency Agreement.

Liability of the Collateral Agent.

(a) The Collateral Agent incurs no liability to make any disbursements pursuant to the Collateral Agency Agreement except from funds held in the Accounts. At all times, whether or not a default by the Borrower shall have occurred and be continuing, the Collateral Agent shall perform only such actions as are expressly set forth in the Collateral Agency Agreement, and no implied duties or responsibilities shall be imposed upon the Collateral Agent. The Collateral Agent may consult with counsel and the advice or opinion of such counsel shall be full and complete authorization and protection in respect of any action taken or suffered under the Collateral Agency Agreement in good faith reliance upon and in accordance with such advice or opinion of counsel.

(b) The Collateral Agent shall not be liable with respect to any action taken, suffered or omitted by it in good faith: (i) reasonably believed by it to be authorized or within the discretion or rights or powers conferred on it by the Collateral Agency Agreement; or (ii) in accordance with any written direction or request of the Borrower or the Holders. In the absence of willful misconduct or gross negligence on its part, the Collateral Agent may conclusively rely, as to the truth of the statements and the correctness of the opinions expressed therein, upon any requisition, note, notice, resolution, consent, facsimile, certificate, affidavit, letter, telegram, teletype message, statement, order or other document which appears on its face to be genuine and correct and to have been signed or sent by the proper person or persons.

(c) No provisions of the Collateral Agency Agreement shall require the Collateral Agent to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties under the Collateral Agency Agreement, or in the exercise of any of its authority. The Collateral Agent shall not be liable for losses on investments made at the direction of the Borrower or otherwise made in accordance with the Collateral Agency Agreement. Before taking any action under the Collateral Agency Agreement, the Collateral Agent shall have the right, but not the obligation, to demand any showings, certificates, opinions, appraisals or other information, or corporate action or evidence thereof, in addition to that required as a condition to such action, deemed desirable by the Collateral Agent in establishing the necessity or appropriateness of such action. The Collateral Agent may rely and be protected in relying on any resolution, certificate, statement, instrument, opinion, report, notice, request, consent, order, or other paper or document believed by it to be genuine and to have been signed or presented by the proper party, and shall not be required to make any investigation into the facts or matters contained therein. If it chooses to make such inquiry, the Collateral Agent shall have access to the books, records or premises of the Borrower, personally or through agents of the Collateral Agent or attorneys, at any reasonable time upon reasonable notice.

(d) The Collateral Agent shall bear no responsibility for the recitals contained in the Collateral Agency Agreement. The Collateral Agent may execute any of its powers or perform its duties through attorneys, agents or receivers. The Collateral Agent shall be under no obligation to exercise any of the rights or powers vested in the Collateral Agent by the Collateral Agency Agreement unless the Collateral Agent has received from the Borrower security or indemnity against the costs, expenses and liabilities which might be incurred by the Collateral Agent in compliance with such request or direction.

In acting as Collateral Agent under the Collateral Agency Agreement, the Collateral Agent acts solely in its capacity as Collateral Agent under the Collateral Agency Agreement and not in its individual or personal capacity. The Collateral Agent shall be entitled to conclusively rely and act upon and in compliance with the written instructions or directions of the Borrower or the Holders, as applicable.

(e) To the extent permitted by law, the Borrower hereby agrees to indemnify the Collateral Agent and its respective officers, employees and agents against any loss, liability, action, suit, judgment, demand or cost (each a "Liability") and to pay or reimburse the Collateral Agent for any expense (including counsel fees and disbursements and, allocated costs of in-house counsel) which may be incurred by the Collateral Agent or any officer, employee or agent thereof by reason of, or in connection with, the Collateral Agent's appointment and its duties as Collateral Agent, except such Liability as shall result from Collateral Agent' gross negligence or willful misconduct in the performance of its other obligations and duties under the Collateral Agency Agreement. The obligation of the Borrower under this paragraph shall survive the resignation or removal of the Collateral Agent.

(f) In no event shall the Collateral Agent be liable for incidental, indirect, special, consequential or punitive damages or penalties (including, but not limited to lost profits), even if the Collateral Agent has been advised of the likelihood of such damages or penalty and regardless of the form of action, except in the case of its own negligence or willful misconduct. The Collateral Agent shall not be responsible for delays or failures in performance resulting from acts beyond its control, including without limitation, acts of God, strikes, lockouts, riots, acts of war or terror, epidemics, fire, communication line failures, computer viruses, intrusions or attacks, power failures, earthquakes or other disasters.

Successors and Assigns.

The Collateral Agency Agreement shall be binding upon, and inure to the benefit of, the parties to the Collateral Agency Agreement and their respective successors, heirs, administrators and assigns, subject to the provisions under the caption "Collateral Agency Agreement – Assignment b Collateral Agent" above in the case of the Collateral Agent.

Non-Liability of Borrower Officials, Employees and Agents.

Notwithstanding anything to the contrary in the Collateral Agency Agreement, no council member, officer, employee or agent of the Borrower shall be personally liable to the Collateral Agent, its successors and assigns, in the event of any default or breach by Borrower or for any amount which may become due to the Collateral Agent, its successors and assigns, or for any obligation of the Borrower under the Collateral Agency Agreement.

Severability.

In the event any provision of the Collateral Agency Agreement shall be held invalid or unenforceable by any court of competent jurisdiction, such holding shall not invalidate or render unenforceable any other provision of the Collateral Agency Agreement.

Amendment.

The Collateral Agency Agreement may not be amended except by a written instrument executed by (i) the Collateral Agent, the Borrower, the Corporation, the Authority and each Holder that is a party to the Collateral Agency Agreement, including any Holder that becomes a party through execution of a Counterpart; and (ii) each other Holder; provided that the consent of any Holder not party to the Collateral Agency Agreement will not be required for any amendment or modification to (a) cure any

ambiguity, defect or inconsistency, (b) make any change that would provide additional rights or benefits to all Holders, (c) make, complete or confirm any grant of Collateral for the benefit of all Holders, (d) correct any typographical errors, drafting mistakes or other similar mistakes that do not modify the rights, benefits and obligations of the parties to the Collateral Agency Agreement, (e) provide for additional obligations of the Borrower or liens on the Collateral securing such obligations to the extent permitted by the terms of the Secured Obligations or (f) upon receipt by the Collateral Agent of an opinion of counsel selected by the Borrower and addressed to the Collateral Agent and the Borrower to the effect that such amendment or modification will not materially adversely affect the interests of the Holders that are not parties to the Collateral Agency Agreement.

Governing Law.

The Collateral Agency Agreement shall be construed in accordance with the laws of the State of California.

Additional Parties.

Any Holder may become a party to the Collateral Agency Agreement upon (i) the execution and delivery by such Holder to the Collateral Agent and the Borrower of a Counterpart and (ii) the acknowledgment and acceptance of such Counterpart by the Collateral Agent and the Borrower. Thereupon, such Holder shall be as fully a party to the Collateral Agency Agreement as if such Holder were an original signatory to the Collateral Agency Agreement. The Collateral Agent shall distribute copies of each executed, acknowledged and accepted Counterpart to each Holder that is a party to the Collateral Agency Agreement and each other Holder that has requested such copies at the address provided to the Collateral Agent for such purpose, including such addresses as are specified in the Collateral Agency Agreement.

Thirty Party Beneficiaries.

All undertakings, agreements, representations and warranties contained in the Collateral Agency Agreement are solely for the benefit of each Holder, including without limitation the Holders executing the Collateral Agency Agreement and any additional Holder that becomes a party thereto pursuant to the caption "Collateral Agency Agreement – Additional Parties" above. Any Holder not executing the Collateral Agency Agreement or a Counterpart is nonetheless entitled to the full rights, privileges and benefits thereof to the same extent as if such Holder were a signatory thereof and shall be a third party beneficiary of the Collateral Agency Agreement. There are no other Persons that are intended to be benefited in any way by the Collateral Agency Agreement.

Permitted Investments.

Amounts held overnight in the Funds and Accounts established under the provisions under the caption "Collateral Agency Agreement – Establishment of Funds and Accounts" may be invested until applied pursuant to the provisions under the captions "Collateral Agency Agreement – Application of Net System Revenues and Other Amounts" and " – Application of Net System Revenues Upon Acceleration" in any cash sweep or similar account arrangement of or available to the Collateral Agent, the investments of which are limited to investments described in clauses (1), (2), (3) and (5) below and any money market fund, the entire investments of which are limited to investments described in clauses (1), (2), (3) and (4) below and which money market fund is rated, at the time of purchase, by at least one national statistical rating organization in its highest rating category (without regard to any refinement or gradation of such rating category by a plus or minus sign or a numeral).

(1) Federal Securities or Federal Certificates where:

"Federal Securities" means direct obligations of the United States of America (including obligations issued or held in book-entry form on the books of the Department of the Treasury) or evidence of ownership in a portion thereof (which may consist of specified portions of interest thereon and obligations of the Resolution Funding Corporation which constitute interest strips) if held by a custodian on behalf of the Collateral Agent; obligations the principal of and interest on which are unconditionally guaranteed by the United States of America; and pre-refunded municipal obligations rated, at the time of purchase, by Moody's Investors Service and Standard & Poor's Ratings Services in their highest rating category (without regard to any refinement or gradation of such rating category by a plus or minus sign or a numeral); provided that "structured securities" (including flip notes, range notes, inverse floaters and step-ups) will not be considered Federal Securities; provided further that floaters (based on single, interest rate based indices) and callable securities of the above-enumerated agencies may be treated as Federal Securities; and

"Federal Certificates" means evidences of indebtedness or ownership of proportionate interests in future principal and interest payments of Federal Securities, including depository receipts thereof, wherein (i) a bank or trust company acts as custodian and holds the underlying Federal Securities; (ii) the owner of the Federal Certificate is a real party in interest with the right to proceed directly and individually against the obligor of the underlying Federal Securities; and (iii) the underlying Federal Securities are held in trust in a special account, segregated from the custodian's general assets, and are not available to satisfy any claim of the custodian or any person claiming through the custodian, or any person to whom the custodian may be obligated.

(2) The following listed obligations of government-sponsored agencies which are not backed by the full faith and credit of the United States of America:

(A) Federal Home Loan Mortgage Corporation (FHLMC) senior debt obligations and Participation certificates (excluded are stripped mortgage securities which are purchased at prices exceeding their principal amounts);

(B) Farm Credit System (formerly Federal Land Banks, Federal Intermediate Credit Banks and Banks for Cooperatives) consolidated system-wide bonds and notes;

(C) Federal Home Loan Banks (FHL Banks) consolidated debt obligations;

(D) Federal National Mortgage Association (FNMA) senior debt obligations and mortgage-backed securities (excluded are stripped mortgage securities which are purchased at prices exceeding their principal amounts);

(E) The senior debt obligations of Resolution Funding Corporation (RFCO), Financing Corporation (FICO) and Tennessee Valley Authority (TVA);

(3) Obligations of any state, territory or commonwealth of the United States of America or any political subdivision thereof or any agency or department of the foregoing, that are rated, at the time of purchase, in the highest rating category (without regard to any refinement or gradation of such rating category by a plus or minus sign or a numeral) by two national statistical rating organizations.

(4) United States dollar denominated senior unsecured unsubordinated obligations issued or unconditionally guaranteed by the International Bank for Reconstruction and Development, International

Finance Corporation, or Inter-American Development Bank. Investments under this subdivision shall be rated "AA" or better by a national statistical rating organization.

(5) Any repurchase agreement: (A) with (i) any bank or trust company organized under the laws of any state of the United States or any national banking association (including the Collateral Agent), or a state-licensed branch of a foreign bank, having a minimum permanent capital of one hundred million dollars ($100,000,000) and having short-term debt which is rated, at the time of the purchase, by two national statistical rating organizations in one of the three highest short-term rating categories; or (ii) any government bond dealer reporting to, trading with, and recognized as a primary dealer by, the Federal Reserve Bank of New York; and (B) which agreement is secured by any one or more of the securities and obligations described in clause (1) or (2) above and having maturities equal to or less than 5 years from the date of delivery, which shall have a market value (valued at least monthly) not less than 102% of the principal amount of such investment and shall be placed with the Collateral Agent or other fiduciary, as custodian for the Collateral Agent, by the bank, trust company, national banking association or bond dealer executing such repurchase agreement. The entity executing each such repurchase agreement required to be so secured shall furnish the Collateral Agent with an undertaking satisfactory to the Collateral Agent that the aggregate market value of all such obligations securing each such repurchase agreement (as valued at least monthly) will be an amount equal to 102% the principal amount of such repurchase agreement, and the Collateral Agent shall be entitled to rely on each such undertaking.

2018 SUPPLEMENT

The 2018 Supplement to Amended and Restated Master Installment Purchase Agreement (the "2018 Supplement"), sets forth certain terms and conditions of the purchase of the 2018 Components of the Project by the City. Certain provisions of the 2018 Supplement are given and summarized below:

Sale and Purchase of 2018 Components.

In consideration of the agreement by the City to make 2018 Subordinated Installment Payments, the Corporation will sell, transfer, and assign the 2018 Components to the City and the City will agree to purchase and accept the 2018 Components.

2018 Subordinated Installment Payments.

In consideration of the payment by the Authority, on behalf of the Corporation, of the proceeds of the 2018 Bonds and the sale of the 2018 Components by the Corporation to the City pursuant to the 2018 Supplement, the City agrees to pay a portion of the Purchase Price on each 2018 Subordinated Installment Payment Date as 2018 Subordinated Installment Payments, solely from Net System Revenues, as provided in the Master Installment Purchase Agreement.

Subordinated Obligations.

The 2018 Subordinated Installment Payments shall be Subordinated Obligations under the Master Installment Purchase Agreement and the payment of the 2018 Subordinated Installment Payments shall be on parity in right of payment to the Subordinated Installment Payments under the Master Installment Purchase Agreement. No Owner of the Obligations shall have any right to take any action or enforce any right that has a materially adverse effect on the interests of the Owners of the Master Installment Payment Obligations.

Additional Covenants Relating to Tax Exemption.

(a) The City shall not directly or indirectly use or permit the use of any proceeds of the 2018 Bonds or any other funds of the City or of the 2018 Components or take or omit to take any action that would cause the 2018 Bonds to be "private activity bonds" within the meaning of Section 141 of the Code, or obligations that are "federally guaranteed" within the meaning of Section 149(b) of the Code.

(b) The City covenants that it will not take any action, or fail to take any action, if any such action or failure to take action would adversely affect the exclusion from gross income of the interest on the 2018 Bonds under Section 103 of the Code. The City shall not directly or indirectly use or permit the use of any proceeds of the 2018 Bonds or any other funds of the City, or take or omit to take any action, that would cause the 2018 Bonds to be "arbitrage bonds" within the meaning of Section 148(a) of the Code. To that end, the City shall comply with all requirements of Section 148 of the Code to the extent applicable to the 2018 Bonds. If, at any time, the City is of the opinion that for purposes of this section it is necessary to restrict or limit the yield on the investment of any moneys held by the Trustee under the Indenture or otherwise, then the City shall so instruct the Trustee in writing, and shall cause the Trustee to take such action as may be necessary in accordance with such instructions.

(c) Without limiting the generality of the foregoing, the City will agree that there shall be paid from time to time all amounts required to be rebated to the United States of America pursuant to Section 148(f) of the Code and any Treasury Regulations promulgated thereunder as may be applicable to the 2018 Bonds from time to time. This covenant shall survive payment in full or defeasance of the 2018 Bonds. The City will covenant to pay or cause to be paid to the United States of America at the times and in the amounts determined under this section the rebate requirement, as described in the Tax Certificate, and to otherwise comply with the provisions of the Tax Certificate executed by the City and the Authority in connection with the execution and delivery of the 2018 Bonds.

(d) Notwithstanding any provision of this caption, if the City provides to the Trustee an opinion of Bond Counsel to the effect that any action required under this section is no longer required, or to the effect that some further action is required, to maintain the exclusion from gross income of the interest on the 2018 Bonds pursuant to Section 103 of the Code, then the City may rely conclusively on such opinion in complying with the provisions of the Indenture, and the covenants under the Installment Purchase Agreement shall be deemed to be modified to that extent.

The Authority covenants and agrees to comply with the terms of that certain Tax Certificate delivered on the 2018 Closing Date with respect to the 2018 Bonds, it being acknowledged and agreed that Bond Counsel will rely upon the same in delivering its opinion respecting the tax status of the 2018 Bonds.

Continuing Disclosure.

The City covenants and agrees in the 2018 Supplement that it will comply with and carry out all of the provisions of the Continuing Disclosure Certificate to be executed and delivered by the City in connection with the issuance of the 2018 Bonds. Notwithstanding any other provision of the 2018 Supplement, failure of the City to comply with the Continuing Disclosure Certificate shall not be considered a default of any kind under the 2018 Supplement; provided, however, that the Trustee may (and, at the request of any participating underwriter or the Owners of at least twenty-five percent (25%) in aggregate principal amount of the Outstanding 2018 Bonds, shall), or any Owner or Beneficial Owner may, take such actions as may be necessary and appropriate, including seeking mandate or specific performance by court order, to cause the City to comply with its obligations under such Continuing Disclosure Certificate. For purposes of this paragraph, "Beneficial Owner" means any person that has or

shares the power, directly or indirectly, to make investment decisions concerning ownership of any 2018 Bond (including, any persons holding any 2018 Bond through nominees, depositories, or other intermediaries).

APPENDIX B

FORM OF APPROVING OPINION OF BOND COUNSEL

Upon the issuance of the 2018 Bonds, Hawkins Delafield & Wood LLP, Bond Counsel to the Authority, is expected to render its final approving opinion with respect to the 2018 Bonds in substantially the following form:

Public Facilities Financing Authority
of the City of San Diego
San Diego, California

The City of San Diego
San Diego, California

Ladies and Gentlemen:

We have acted as Bond Counsel to the Public Facilities Financing Authority of the City of San Diego (the "Authority") in connection with the issuance of $243,180,000 aggregate principal amount of its Subordinated Water Revenue Bonds, Series 2018A (Payable Solely From Subordinated Installment Payments Secured by Net System Revenues of the Water Utility Fund) (the "Bonds") pursuant to Article 4 (commencing with Section 6584, known as the Marks-Roos Local Bond Pooling Act of 1985) of Chapter 5 of Division 7 of Title 1 of the Government Code of the State of California (the "Government Code"), the Indenture, dated as of January 1, 2009 (the "Original Indenture"), as amended and supplemented, including as supplemented by the Sixth Supplemental Indenture, dated as of December 1, 2018 (the "Sixth Supplemental Indenture" and together with the Original Indenture and all other amendments and supplements thereto, the "Indenture"), each by and between the Authority and U.S. Bank National Association, as successor trustee (the "Trustee"), and Resolution No. FA-2018-8 of the Board of Commissioners of the Authority. The Bonds are payable from 2018 Subordinated Installment Payments payable by The City of San Diego, California (the "City") to the San Diego Facilities Equipment Leasing Corporation (the "Corporation") pursuant to the Amended and Restated Master Installment Purchase Agreement, dated as of January 1, 2009 (the "Original Master Installment Purchase Agreement"), as amended and supplemented, including as supplemented by the 2018 Supplement to Amended and Restated Master Installment Purchase Agreement, dated as of December 1, 2018 (the "2018 Supplement" and, together with the Original Master Installment Purchase Agreement and all other amendments and supplements thereto, the "Master Installment Purchase Agreement"), each by and between the City and the Corporation, and other assets pledged therefor under the Indenture.

The Corporation has assigned its rights under the 2018 Supplement to the Authority pursuant to the Assignment Agreement, dated as of December 1, 2018 (the "Assignment Agreement"), by and between the Corporation and the Authority. Capitalized terms not otherwise defined herein shall have the meanings set forth in the Indenture and the Master Installment Purchase Agreement.

In such connection, we have reviewed the Indenture, the Master Installment Purchase Agreement, the Assignment Agreement, the Tax Certificate, dated the date hereof (the "Tax Certificate), executed by the Authority and the City, certificates of the Authority, the City, the Corporation, the Trustee and others, opinions of the City Attorney, General Counsel to the Authority, counsel to the Corporation and others, and such other documents, opinions and matters to the extent we deemed necessary to render the opinions set forth herein.

Certain agreements, requirements and procedures contained or referred to in the Indenture, the Master Installment Purchase Agreement, the Assignment Agreement, the Tax Certificate and other relevant documents may be changed and certain actions (including, without limitation, defeasance of the Bonds) may be taken or omitted under the circumstances and subject to the terms and conditions set forth in such documents. No opinion is expressed herein as to any Bond or the interest thereon if any such change occurs or action is taken or omitted upon the advice or approval of counsel other than ourselves.

We are of the opinion that:

1. The Bonds constitute the valid and binding limited obligations of the Authority, enforceable in accordance with their terms and the terms of the Indenture.

2. The Sixth Supplemental Indenture has been duly executed and delivered by, and constitutes the valid and binding obligation of, the Authority. The Indenture creates a valid pledge, to secure the payment of the principal of and interest on the Bonds, of the Revenues and any other amounts (including proceeds of the sale of the Bonds) held by the Trustee in any fund or account established pursuant to the Indenture, except the Rebate Fund, subject to the provisions of the Indenture permitting the application thereof for the purposes and on the terms and conditions set forth therein.

3. The 2018 Supplement has been duly executed and delivered by, and constitutes the valid and binding obligation of, the City, enforceable against the City in accordance with its terms. The Master Installment Purchase Agreement, including as supplemented by the 2018 Supplement, creates a valid pledge of Net System Revenues to secure the payment of 2018 Subordinated Installment Payments to the Authority, on the terms and conditions set forth therein.

4. Under existing statutes and court decisions and assuming continuing compliance with certain tax covenants described below (a) interest on the Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Internal Revenue Code of 1986, as amended (the "Code") and (b) interest on the Bonds is not treated as a preference item in calculating the alternative minimum tax under the Code.

The Code establishes certain requirements that must be met subsequent to the issuance and delivery of the Bonds in order that, for federal income tax purposes, interest on the Bonds be not included in gross income pursuant to Section 103 of the Code. These requirements include, but are not limited to, requirements relating to the use and expenditure of proceeds of the Bonds, restrictions on the investment of proceeds of the Bonds prior to expenditure and the requirement that certain earnings be rebated to the federal government. Noncompliance with such requirements may cause interest on the Bonds to become subject to federal income taxation retroactive to their date of issue, irrespective of the date on which such noncompliance occurs or is ascertained.

On the date of delivery of the Bonds, the Authority and the City will execute a Tax Certificate containing provisions and procedures pursuant to which such requirements can be satisfied. In executing the Tax Certificate, the Authority and the City covenant that Authority and the City will comply with the provisions and procedures set forth therein and that the Authority and the City will do and perform all acts and things necessary or desirable to assure that interest paid on the Bonds will, for federal income tax purposes, be excluded from gross income.

In rendering the opinion in paragraph 5 hereof, we have relied upon and assumed (a) the material accuracy of the representations, statements of intention and reasonable expectation, and certifications of fact contained in the Tax Certificate with respect to matters affecting the status of interest paid on the

Bonds, and (b) compliance by the Authority and the City with the procedures and covenants set forth in the Tax Certificate as to such tax matters.

5. Under existing statutes, interest on the Bonds is exempt from State of California personal income taxes.

We express no opinion as to any other federal, state or local tax consequences arising with respect to the Bonds or the ownership or disposition thereof, except as stated in paragraphs 4 and 5 above. We render our opinion under existing statutes and court decisions as of the date hereof, and assume no obligation to update, revise or supplement our opinion to reflect any action hereafter taken or not taken, any fact or circumstance that may hereafter come to our attention, any change in law or interpretation thereof that may hereafter occur, or for any other reason. We express no opinion as to the consequence of any of the events described in the preceding sentence or the likelihood of their occurrence. In addition, we express no opinion on the effect of any action taken or not taken in reliance upon an opinion of other counsel regarding federal, state or local tax matters, including, without limitation, exclusion from gross income for federal income tax purposes of interest on the Bonds.

We undertake no responsibility for the accuracy, completeness or fairness of any official statement or other offering materials relating to the Bonds and express herein no opinion relating thereto.

The foregoing opinions are qualified to the extent that the enforceability of the Bonds, the Indenture, the Master Installment Purchase Agreement and the Tax Certificate may be limited by bankruptcy, moratorium, insolvency or other laws affecting creditors' rights or remedies and are subject to general principals of equity (regardless of whether such enforceability is considered in equity or at law), to the exercise of judicial discretion in appropriate cases and to the limitations on legal remedies against public entities in the State of California. In addition, the imposition of certain fees and charges by the City relating to the Water System is subject to the provisions of Articles XIIIC and XIIID of the California Constitution.

This opinion is issued as of the date hereof, and we assume no obligation to update, revise or supplement this opinion to reflect any action hereafter taken or not taken, or any facts or circumstances, or any changes in law or in interpretations thereof, that may hereafter arise or occur, or for any other reason.

Very truly yours,

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APPENDIX C

FORM OF CONTINUING DISCLOSURE CERTIFICATE

This Continuing Disclosure Certificate, dated as of January 1, 2019 (the "Disclosure Certificate"), is executed and delivered by the City of San Diego (the "City") in connection with the issuance by the Public Facilities Financing Authority of the City of San Diego (the "Authority") of $243,180,000 Public Facilities Financing Authority of the City of San Diego Subordinated Water Revenue Bonds, Series 2018A (Payable Solely From Subordinated Installment Payments Secured by Net System Revenues of the Water Utility Fund) (the "Bonds"). The Bonds are being issued pursuant to the Indenture (as defined herein). In connection therewith, the City, as an "obligated person" with respect to the Bonds (within the meaning of the Rule, as defined herein), covenants and agrees as follows:

Section 1. Purpose of the Disclosure Certificate. This Disclosure Certificate is being executed and delivered by the City on behalf of the Authority for the benefit of the Holders and Beneficial Owners of the Bonds and in order to assist the Participating Underwriters in complying with the Rule.

Section 2. Definitions. In addition to the definitions set forth in the Indenture, which apply to any capitalized term used in this Disclosure Certificate unless otherwise defined in this Section, the following capitalized terms shall have the following meanings:

"Annual Report" shall mean any Annual Report provided by the City pursuant to, and as described in, Sections 3 and 4 of this Disclosure Certificate.

"Beneficial Owner" shall mean any person which (a) has the power, directly or indirectly, to vote or consent with respect to, or dispose of ownership of, any Bonds (including persons holding Bonds through nominees, depositories or other intermediaries), or (b) is treated as the owner of any Bonds for federal income tax purposes.

"Dissemination Agent" shall mean the City and any Person designated by the City to serve as Dissemination Agent.

"Holder" shall mean the person in whose name any Bond shall be registered.

"Indenture" shall mean the Indenture, dated as of January 1, 2009, as amended and supplemented by a First Supplemental Indenture, dated as of June 1, 2009, a Second Supplemental Indenture, dated as of June 1, 2010, a Third Supplemental Indenture, dated as of April 1, 2012, a Fourth Supplemental Indenture, dated as of June 1, 2016, a Fifth Supplemental Indenture dated as of January 1, 2017, and a Sixth Supplemental Indenture dated as of January 1, 2019, each by and between the Authority and U.S. Bank National Association, as successor trustee.

"MSRB" shall mean the Municipal Securities Rulemaking Board through its Electronic Municipal Market Access system.

"Notice Event" shall mean any of the events listed in Section 5(a) or (b) of this Disclosure Certificate.

"Official Statement" shall mean the Official Statement, dated December 12, 2018, prepared and distributed in connection with the initial sale of the Bonds.

"Participating Underwriters" shall mean any of the original purchasers of the Bonds required to comply with the Rule in connection with offering of the Bonds.

"Person" shall mean any individual, corporation, partnership, joint venture, association, joint stock company, trust, unincorporated organization or government or any agency or political subdivision thereof.

"Rule" shall mean Rule 15c2-12(b)(5) adopted by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as the same may be amended from time to time, and including any official interpretations thereof issued either before or after the effective date of this Certificate which are applicable to this Certificate.

Section 3. Provision of Annual Reports.

(a) The City shall, or upon written direction, shall cause the Dissemination Agent (if other than the City) to, not later than April 10 after the end of the City's Fiscal Year (which currently ends June 30), or the next succeeding business day if that day is not a business day, commencing with the report for the fiscal year ending June 30, 2019 (each, a "Filing Date"), provide to the MSRB an Annual Report that is consistent with the requirements of Section 4 of this Disclosure Certificate. As of the date of this Disclosure Certificate, the format prescribed by the MSRB is the Electronic Municipal Market Access ("EMMA") system.

The Annual Report may be submitted as a single document or as separate documents comprising a package, and may include by reference other information as provided in Section 4 of this Disclosure Certificate; provided that the audited financial statements of the City may be submitted separately from the balance of the Annual Report, and later than the Filing Date for the filing of the Annual Report if not available by such Filing Date. If the City's Fiscal Year changes, it shall give notice of such change in the same manner as for a Notice Event under Section 5(c) hereof.

(b) Not later than fifteen (15) business days prior to each Filing Date for providing the Annual Report to the MSRB, the City shall provide the Annual Report to the Dissemination Agent (if other than the City). If the City is unable to provide to the MSRB an Annual Report by the Filing Date, the City shall, in a timely manner, send a notice to the MSRB.

(c) The Dissemination Agent (if other than the City) shall:

(i) determine each year prior to the date for providing the Annual Report the format for filing with the MSRB; and

(ii) file a report with the City certifying that the Annual Report has been provided to the MSRB pursuant to this Disclosure Certificate, and stating the date the Annual Report was so provided.

Section 4. Content of Annual Reports. The City's Annual Report shall contain or incorporate by reference the following:

(a) The audited financial statements of the City for the most recently completed Fiscal Year prepared in accordance with generally accepted accounting principles as applicable to state and local governments in the United States of America. If the City's audited financial statements are not available by the time the Annual Report is required to be filed pursuant to Section 3(a), the Annual Report shall contain unaudited financial statements in a format similar to the financial statements contained in the

Official Statement, and the audited financial statements shall be filed in the same manner as the Annual Report when they become available.

(b) Financial information and operating data with respect to the City, as such information and data relate to the City's Public Utilities Department and the Water Utility Fund, for the most recently completed Fiscal Year of the type included in the Official Statement, in the following categories (to the extent not included in the City's audited financial statements):

(i) An update of the information substantially in the form contained in Table 2 (entitled "Historical Number of Retail Connections to Water System") for the most recently completed Fiscal Year;

(ii) An updated of the information substantially in the form contained in Table 3 (entitled "Water Deliveries") for the most recently completed Fiscal Year;

(iii) An update of the information substantially in the form contained in Table 4 (entitled "Major Retail Customers") for the most recently completed Fiscal Year;

(iv) An update of the information substantially in the form contained in Table 5 (entitled "Raw Water Reservoirs") for the most recently completed Fiscal Year;

(v) An update of the information substantially in the form contained in Table 6 (entitled "Capacity and Demand of Water System Water Treatment Plants") for the most recently completed Fiscal Year;

(vi) An update of the information substantially in the form contained in Table 7 (entitled "Water Supplies for the City of San Diego") for the most recently completed Fiscal Year;

(vii) An update of the information substantially in the form contained in Table 8 (entitled "CWA Water Supply Rates") for the most recently completed Fiscal Year;

(viii) An update of the information substantially in the form contained in Table 9 (entitled "MWD and CWA Fixed Water Supply Costs") for the most recently completed Fiscal Year;

(ix) An update of the information substantially in the form contained in Table 13 (entitled "Five-Year Water Service Charge History for Single Family Residential, Multi-Family Residential, Non-Residential, Irrigation, and Temporary Construction") for the most recently completed Fiscal Year;

(x) An update of the information substantially in the form contained in Table 14 (entitled "Water Utility Fund Historical Capacity Charge Revenues") for the most recently completed Fiscal Year;

(xi) An update of the information substantially in the form contained in Table 15 (entitled "Water Customer Accounts Receivable and Shut-Offs by Fiscal Year") for the most recently completed Fiscal Year;

(xii) An update of the information substantially in the form contained in Table 16 (entitled "Historical Sources of Water Sales Revenues") for the most recently completed Fiscal Year;

(xiii) An update of the information substantially in the form contained in Table 17 (entitled "Statements of Revenues, Expenses, and Changes in Fund Net Position for the Water Utility Fund") for the most recently completed Fiscal Year;

(xiv) An update of the information substantially in the form contained in Table 18 (entitled "Reserves and Total Cash and Cash Equivalents In Water Utility Fund") for the most recently completed Fiscal Year;

(xv) An update of the information substantially in the form contained in Table 19 (entitled "Calculation of Historic Debt Service Coverage") for the most recently completed Fiscal Year (will be available in the City's comprehensive annual financial report for the most recently completed fiscal year or updated information will be presented in tabular format comparable to referenced table);

(xvi) An update of the information substantially in the form contained in Table 21 (entitled "Outstanding Debt") for the most recently completed Fiscal Year;

(xvii) An update of the information substantially in the form contained in Table 23 (entitled "Water Utility Fund Liability claims Budget and Expenditures");

(xviii) An update of the information substantially in the form contained in Table 26 (entitled "City of San Diego Schedule of Funding Progress") for the most recently completed Fiscal Year;

(xix) An update of the information substantially in the form contained in Table 27 (entitled "City of San Diego and Water Utility Fund Pension Contribution") for the most recently completed Fiscal Year;

Any or all of the items listed above may be included by specific reference to other documents, including official statements of debt issues of the City or related public entities, which have been submitted to the MSRB. The City shall clearly identify each such other document so included by reference.

The contents, presentation and format of the Annual Reports may be modified from time to time as determined in the judgment of the City to conform to changes in accounting or disclosure principles or practices and legal requirements followed by or applicable to the City or to reflect changes in the business, structure, operations, legal form of the City or any mergers, consolidations, acquisitions or dispositions made by or affecting the City; provided that any such modifications shall comply with the requirements of the Rule.

Section 5. Reporting of Significant Events.

(a) The City shall give, or cause to be given, notice of the occurrence of any of the following events with respect to the Bonds, in a timely manner not later than ten (10) business days after the occurrence of such Notice Event to the MSRB through EMMA:

(i) Principal and interest payment delinquencies;

(ii) Unscheduled draws on debt service reserves reflecting financial difficulties;[1]

(iii) Unscheduled draws on credit enhancements reflecting financial difficulties;

(iv) Substitution of credit or liquidity providers, or their failure to perform;[2]

(v) Adverse tax opinions or issuance by the Internal Revenue Service of proposed or final determination of taxability or of a Notice of Proposed Issue (IRS Form 5701 TEB);

(vi) Tender offers;

(vii) Defeasances;

(viii) Rating changes;[3] or

(ix) Bankruptcy, insolvency, receivership or similar event of the City (such event being considered to occur when any of the following occur: the appointment of a receiver, fiscal agent or similar officer for the City in a proceeding under the U.S. Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of the obligated person, or if such jurisdiction has been assumed by leaving the existing governing body and officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the City).

(b) The City shall give, or cause to be given, notice of the occurrence of any of the following events with respect to the Bonds, if material, not later than ten (10) business days after the occurrence of the such Notice Event to the MSRB through EMMA:

(i) Unless described in paragraph 5(a)(5), other notices or determinations with respect to the tax status of the Bonds or other events affecting the tax status of the Bonds;

(ii) Modifications to rights of holders of the Bonds;

(iii) Bond calls;[4]

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[1] Without limiting its reporting obligation, the City advises that it has not established a debt service reserve fund for the Bonds.

[2] Without limiting its reporting obligation, the City advises that it has not obtained or provided any credit enhancement or credit or liquidity providers for the Bonds.

[3] Does not include rating changes related to credit enhancement added by a Holder. In addition, the City's obligation to provide notice of any rating change shall be deemed to be satisfied if the applicable rating agency files such change with EMMA pursuant to the "automated data feeds" that have been established by the MSRB.

[4] Any scheduled redemption of Bonds pursuant to mandatory sinking fund redemption requirements does not constitute a Notice Event within the meaning of the Rule.

(iv) Release, substitution, or sale of property securing repayment of the Bonds;

(v) Non-payment related defaults;

(vi) The consummation of a merger, consolidation, or acquisition the City or the sale of all or substantially all of the assets thereof, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms; or

(vii) Appointment of a successor or additional trustee or the change of name of a trustee.

(c) If the City learns of the occurrence of a Notice Event described in Section 5(a), or determines that knowledge of a Listed Event described in Section 5(b) would be material under applicable federal securities laws, the City shall promptly file, or cause to be filed, a notice of such event with the MSRB through EMMA. Notwithstanding the foregoing, notice of the Notice Events described in subsections (a)(vii) or (b)(iii) need not be given under this subsection any earlier than the notice (if any) of the underlying event is given to Holders of affected Bonds pursuant to the Indenture.

Section 6. Termination of Reporting Obligation. The City's obligations under this Disclosure Certificate shall terminate upon the legal defeasance, prior redemption, or payment in full of all of the Bonds. If such termination occurs prior to the final maturity of the Bonds, the City shall give notice of such in the same manner as for a Notice Event under Section 5(c).

Section 7. Dissemination Agent. The City may, from time to time, appoint or engage a Dissemination Agent to assist it in carrying out its obligations under this Disclosure Certificate, and may discharge any such Dissemination Agent, with or without appointing a successor Dissemination Agent. The initial Dissemination Agent shall be the City. The Dissemination Agent, if other than the City, shall not be responsible in any manner for the content of any notice or report prepared by the City pursuant to this Disclosure Certificate.

Section 8. Amendment; Waiver. Notwithstanding any other provision of this Disclosure Certificate, the City may amend this Disclosure Certificate and any provision of this Disclosure Certificate may be waived, provided that the following conditions are satisfied:

(a) if the amendment or waiver relates to the provisions of Sections 3(a), 4, or 5(a), it may only be made in connection with a change in circumstances that arises from a change in legal requirements, change in law, or change in the identity, nature, or status of an obligated person with respect to the Bonds, or the type of business conducted;

(b) the undertakings herein, as proposed to be amended or taking in account such waiver, would, in the opinion of nationally recognized bond counsel, have complied with the requirements of the Rule at the time of the primary offering of the Bonds, after taking into account any amendments or interpretations of the Rule, as well as any change in circumstances; and

(c) The amendment or waiver (i) is approved by the Holders majority of outstanding principal amount of the Bonds, in the same manner as provided in the Indenture for amendments to the Indenture with the consent of the Holders, or (ii) does not, in the opinion of nationally recognized bond counsel, materially impair the interests of the Holders or Beneficial Owners of the Bonds.

In the event of any amendment or waiver of a provision of this Disclosure Certificate, the City shall describe such amendment in the next Annual Report, and shall include, as applicable, a narrative explanation of the reason for the amendment or waiver and its impact on the type (or in the case of a change of accounting principles, on the presentation) of financial information or operating data being presented by the City. In addition, if the amendment relates to the accounting principles to be followed in preparing financial statements, (i) notice of such change shall be given in the same manner as for a Notice Event under subsection 5(c), and (ii) the Annual Report for the year in which the change is made should present a comparison (in narrative form and also, if feasible, in quantitative form) between the financial statements as prepared on the basis of the new accounting principles and those prepared on the basis of the former accounting principles.

Section 9. Additional Information. Nothing in this Disclosure Certificate shall be deemed to prevent the City from disseminating any other information, using the means of dissemination set forth in this Disclosure Certificate or any other means of communication, or including any other information in any Annual Report or notice of occurrence of a Notice Event, in addition to that which is required by this Disclosure Certificate. If the City chooses to include any information in any Annual Report or notice of occurrence of a Notice Event in addition to that which is specifically required by this Disclosure Certificate, the City shall have no obligation under this Disclosure Certificate to update such information or include it in any future Annual Report or notice of the occurrence of a Notice Event.

Section 10. Default. In the event of a failure of the City to comply with any provision of this Disclosure Certificate, any Holder or Beneficial Owner of the Bonds may take such actions as may be necessary and appropriate, including seeking mandate or specific performance by court order, to cause the City to comply with its obligations under this Disclosure Certificate; provided that any Beneficial Owner seeking to require the City to comply with this Certificate shall first provide at least 30 days' prior written notice to the City of the City's failure, giving reasonable detail of such failure, following which notice the City shall have 30 days to comply. A default under this Disclosure Certificate shall not be deemed an Event of Default under the Indenture, and the sole remedy under this Disclosure Certificate in the event of any failure of the City to comply with this Disclosure Certificate shall be an action to compel performance, and no person or entity shall be entitled to recover monetary damages under this Certificate.

Section 11. Duties, Immunities and Liabilities of Dissemination Agent. The Dissemination Agent shall have only such duties as are specifically set forth in this Disclosure Certificate.

Section 12. Beneficiaries. This Disclosure Certificate shall inure solely to the benefit of the City, the Dissemination Agent, and Holders and Beneficial Owners from time to time of the Bonds, and shall create no rights in any other person or entity.

Section 13. Governing Law. This Disclosure Certificate shall be governed by the laws of the State of California and the federal securities laws.

IN WITNESS WHEREOF, the City of San Diego has executed this Continuing Disclosure Certificate as of the date first set forth herein.

THE CITY OF SAN DIEGO

By: _____
Chief Financial Officer

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APPENDIX D

INFORMATION REGARDING THE BOOK-ENTRY ONLY SYSTEM

The following description of DTC and its book-entry system has been provided by DTC and has not been verified for accuracy or completeness by the City or the Authority, and neither the City nor the Authority shall have any liability with respect thereto. Neither the City nor the Authority shall have any responsibility or liability for any aspects of the records maintained by DTC relating to or payments made on account of beneficial ownership, or for maintaining, supervising, or reviewing any records maintained by DTC relating to beneficial ownership, of interests in the 2018 Bonds.

The Depository Trust Company ("DTC"), New York, NY, will act as securities depository for the 2018 Bonds. The 2018 Bonds will be issued as fully-registered securities registered in the name of Cede & Co. (DTC's partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered bond will be issued for each issue of the 2018 Bonds, in the aggregate principal amount of such issue, and will be deposited with DTC.

DTC, the world's largest securities depository, is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code, and a "clearing agency" registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC's participants ("Direct Participants") deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants' accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation ("DTCC"). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("Indirect Participants"). DTC has a Standard & Poor's rating of AA+. The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com, provided that nothing contained in such website is incorporated into this Official Statement.

Purchases of 2018 Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the 2018 Bonds on DTC's records. The ownership interest of each actual purchaser of each 2018 Bond ("Beneficial Owner") is in turn to be recorded on the Direct and Indirect Participants' records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the 2018 Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in 2018 Bonds, except in the event that use of the book-entry system for the 2018 Bonds is discontinued.

To facilitate subsequent transfers, all 2018 Bonds deposited by Direct Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of 2018 Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the 2018 Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such 2018 Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Beneficial Owners of 2018 Bonds may wish to take certain steps to augment the transmission to them of notices of significant events with respect to the 2018 Bonds, such as redemptions, tenders, defaults, and proposed amendments to the Indenture and the Master Installment Purchase Agreement. For example, Beneficial Owners of 2018 Bonds may wish to ascertain that the nominee holding the 2018 Bonds for their benefit has agreed to obtain and transmit notices to Beneficial Owners. In the alternative, Beneficial Owners may wish to provide their names and addresses to the registrar and request that copies of notices be provided directly to them.

Redemption notices shall be sent to DTC. If less than all of the 2018 Bonds within an issue are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such issue to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to 2018 Bonds unless authorized by a Direct Participant in accordance with DTC's MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the Authority as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts 2018 Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Redemption proceeds, distributions, and dividend payments on the 2018 Bonds will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from the Authority or the Trustee, on payable dates in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name" and will be the responsibility of such Participant and not of DTC, the Trustee, or the Authority, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of redemption proceeds, distributions, and dividend payments to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the Authority or the Trustee, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.

DTC may discontinue providing its services as depository with respect to the 2018 Bonds at any time by giving reasonable notice to the Authority or the Trustee. Under such circumstances, in the event that a successor depository is not obtained, bonds are required to be printed and delivered. The Authority may decide to discontinue use of the system of book-entry-only transfers through DTC (or a successor securities depository). In that event, bonds will be printed and delivered to DTC.

The information in this Official Statement concerning DTC and DTC's book-entry system has been obtained from sources that the Authority and the City believes to be reliable, but the Authority and the City takes no responsibility for the accuracy thereof.

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APPENDIX E

CITY OF SAN DIEGO COMPREHENSIVE ANNUAL FINANCIAL REPORT FOR THE FISCAL YEAR ENDED JUNE 30, 2018

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The City *of*

SAN DIEGO

State of California

COMPREHENSIVE ANNUAL FINANCIAL REPORT

FISCAL YEAR ENDED JUNE 30, 2018

2018

City of San Diego

State of California

COMPREHENSIVE ANNUAL FINANCIAL REPORT

FISCAL YEAR ENDED JUNE 30, 2018

Prepared Under the Supervision of:

Rolando Charvel, CPA, Chief Financial Officer

Tracy McCraner, Comptroller

Scott Clark, CPA, Assistant Director

Sarah Mayen, CPA, Assistant Director

COVER: Dome of St. Francis Chapel and Bell Tower, Balboa Park, San Diego

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FORWARD-LOOKING STATEMENTS

The Comprehensive Annual Financial Report (CAFR) of the City of San Diego for the fiscal year ended June 30, 2018, including the Letter of Transmittal and Management's Discussion and Analysis, contains forward-looking statements regarding the City of San Diego's (City) business, financial condition, results of operations and prospects. Words such as "expects," "anticipates," "intends," "plans," "believes," "seeks," "estimates" and similar expressions or variations of such words are intended to identify forward-looking statements, but are not the exclusive means of identifying forward-looking statements in the CAFR. Additionally, statements concerning future matters such as City budgets and the financial outlook for future years, the level of City services, California state matters that may impact the City, contingencies, revenue and expense levels, expected completion dates for projects and other statements regarding matters that are not historical are also forward-looking statements.

Although forward-looking statements in the CAFR reflect the City's good faith judgment, such statements can only be based on facts and factors currently known by the City. Consequently, forward-looking statements are inherently subject to risks and uncertainties. The actual results and outcomes may differ materially from the results and outcomes discussed in or anticipated by the forward-looking statements. Readers are urged not to place undue reliance on these forward-looking statements, which speak only as of the date of the CAFR. The City undertakes no obligation to revise or update any forward-looking statements in order to reflect any event or circumstance that may arise after the date of the CAFR. Readers are urged to carefully review and consider the various disclosures made in the CAFR which attempt to advise interested parties of factors that may affect the business, financial condition, results of operations and prospects of the City.

INTRODUCTORY SECTION (UNAUDITED)

Embarcadero Marina Park, San Diego, CA

December 7, 2018

To the Honorable Mayor, Members of the City Council and Residents of the City of San Diego:

We are pleased to submit the Comprehensive Annual Financial Report (CAFR) of the City of San Diego (City) for the fiscal year (FY) ended June 30, 2018, in accordance with Section 111 of the City Charter (Charter).

The CAFR has been prepared in accordance with accounting principles generally accepted in the United States of America. The City's management is responsible for the accuracy of the data, the completeness and fairness of the presentation and the adequacy of its disclosures. This includes the design, implementation and maintenance of internal controls over the preparation and fair presentation of financial statements that are free from material misstatement and for assurance that the assets of the City are protected from loss, theft or misuse. Because the cost of internal controls should not exceed the anticipated benefits, the objective is to provide reasonable, rather than absolute, assurance that the financial statements are free from any material misstatements. We believe that the information presented is complete and reliable in all material respects.

The independent audit firm of Macias Gini & O'Connell LLP has audited the fiscal year 2018 financial statements of the City and has issued an unmodified opinion on the basic financial statements. The independent auditor's report is located at the front of the financial section of this report.

A narrative introduction, overview and analysis of the financial statements can be found in the Management's Discussion and Analysis (MD&A), which immediately follows the independent auditor's report. The MD&A complements this letter of transmittal and both should be read in conjunction. The notes, along with the other financial and operational data included in the City's CAFR, must be read in their entirety to obtain a complete understanding of the City's financial position as of June 30, 2018 and the respective changes in its financial position. Readers of these financial statements should pay particular attention to Notes 12, 13, 17, and 18, concerning Pension Plans, Other Postemployment Benefits, Commitments and Contingencies, respectively. These notes address certain issues underlying the City's financial condition as well as future potential or anticipated expenses/expenditures related to regulatory and environmental costs.

The financial statements included in this report present the balances and activity of the City and its blended, discretely presented and fiduciary component units. Blended component units are presented as funds of the City and include not-for-profit public benefit corporations and other financing authorities. In addition, the CAFR includes the San Diego Housing Commission, a discretely presented component unit. Fiduciary component units include the San Diego City Employees' Retirement System (SDCERS) and the Successor Agency of the Redevelopment Agency of the City of San Diego. See Note 1a of the financial statements for more information on the reporting entities of the City.

It is important to note that the General Fund's presentation in the CAFR is different from the presentation in the City's annual budget. The General Fund in the CAFR incorporates the balances and activity of additional special revenue funds which are not included as part of the General Fund and are reported as separate funds in the budget. All references to the General Fund in the narrative below are based on the General Fund as reported in the CAFR.

PROFILE OF THE CITY OF SAN DIEGO

The City, incorporated in 1850, covers 325 square miles of land area and an additional 47 square miles of water area for an aggregate total 372 square miles. The California Department of Finance estimated the City's population to be 1,419,845 as of January 2018, making it the eighth most populated city in the nation and the second most populated city in California.

The City operates under and is governed by the laws of the State of California and its own Charter, as periodically amended since its adoption by the electorate in 1931. The City operates under a Strong-Mayor form of government. The Mayor is elected at large to serve a four-year term and may serve up to two consecutive terms. The City Council is composed of nine members who are elected to staggered four-year terms and who are limited to two consecutive terms. The City Council is presided over in open meetings by the Council President, who is selected by a majority vote of the City Council. The Mayor presides over closed session meetings of the City Council. The City Attorney, who is elected to a four-year term, serves as the chief legal advisor and attorney for the City and all departments. The City Attorney is also limited to two consecutive terms in office.

Under the Strong-Mayor form of government, the Mayor is the Chief Executive Officer of the City and has direct oversight of all City functions and services except for the City Council, Personnel, City Clerk, Independent Budget Analyst (IBA), City Attorney, Ethics Commission and City Auditor departments. Under this form of government, the Council has legislative authority; however, all City Council resolutions and ordinances are subject to a veto of the Mayor except for certain ordinances including emergency declarations and the City's annual Salary and Appropriations Ordinances. The City Council may override a Mayoral veto with six votes.

CITY SERVICES

The City, with 11,545 budgeted Full-Time Equivalent (FTE) positions in fiscal year 2019, provides a full range of governmental services. The City has been able to restore and enhance services during the past several years, increasing budgeted staff from fiscal year 2014 to fiscal year 2018 by 1,318. In the fiscal year 2019 Adopted Budget, the City added 126 positions. The increase in positions is primarily focused on support for the Clean SD initiative and the City's multi-billion dollar Capital Improvements Program, including progress on the critical Pure Water Program and Storm Water improvements.

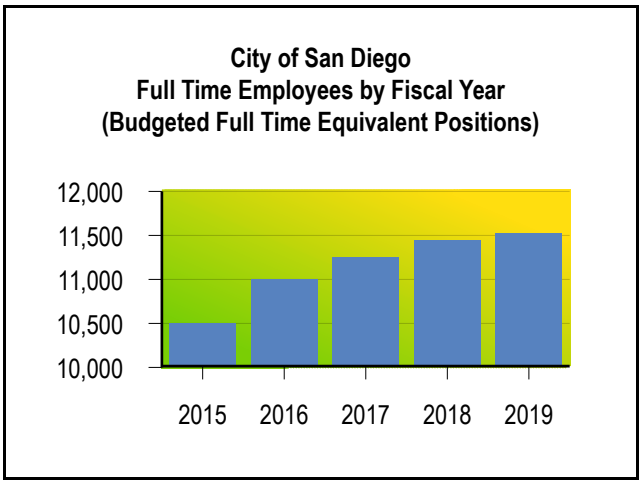

The City provides safety services to its residents and visitors, including police and fire protection, emergency medical treatment and lifeguard services. Neighborhood services include parks and recreation, library, arts and culture, refuse collection, waste management, economic development, and planning. The City operates and maintains the water and sewer utilities, the Montgomery-Gibbs Executive Airport and Brown Field general aviation airports, and the SDCCU Stadium. It also administers the Petco Park joint use and management agreement between the City and the Padres baseball team. The City's public works program improves and adds to the City's existing infrastructure including buildings, parks, roads, sidewalks, street lights, bridges, storm water, and distribution and collection systems for sewer and water.

BUDGETING SYSTEMS AND CONTROLS

The budget is created each fiscal year by the Mayor and presented to the City Council and the public by April 15, as required by the Charter. After a series of public meetings, input from the City Council and City residents, the Mayor proposes revisions to the originally proposed budget, as necessary. The Charter requires that on or before June 15, the City Council approve the budget as submitted by the Mayor or with modifications to the proposed budget. Within five business days of City Council's approval, the Mayor has the discretion to line-item veto any budget modifications

approved by the City Council. In turn, the City Council has five business days within which to override the Mayor's veto. The Appropriation Ordinance that enacts the budget into law is based on the approved budget and the adopted Salary Ordinance. The City Charter requires that City Council adopt the Appropriation Ordinance for the following year by June 30. All subsequent amendments to the adopted budget require City Council approval except as delegated in the Appropriation Ordinance.

Budgetary control is established at the highest level by the Charter and further defined by the City Council through the annual Appropriation Ordinance. Budgetary control is exercised at the department level for the General Fund and at the fund level for all other funds. In addition, the budget authorized for personnel expenditures (salaries and wages) for a fund or department may not be used for non-personnel expenditures. The City's financial system incorporates embedded controls in which non-personnel expenditures cannot be incurred if a budget appropriation is not available. The City also uses an encumbrance system of accounting as a mechanism to accomplish effective budgetary control.

The City's Department of Finance (DoF) monitors fund balances, as well as revenue and expenditure projections throughout the fiscal year. The DoF prepares monthly and periodic reports to the City Council that summarize the year-to-date financial activity of the General Fund and other budgeted funds. Additionally, the DoF prepares an analysis of actual and projected financial activity for the entire fiscal year on a quarterly basis by issuing three budget monitoring reports during the year (First Quarter, Mid-Year, and Year-End Budget Monitoring Reports). Subsequent to the end of the fiscal year, the DoF prepares a report analyzing and explaining variances between year-end projections and unaudited year-end actual revenues and expenditures for the General Fund.

LOCAL ECONOMY

The State of California Employment Development Department (EDD) estimates the total civilian labor force for the San Diego/Carlsbad Metropolitan Statistical Area (MSA), which represents San Diego County, is approximately 1.61 million, of which about 1.49 million are non-farm jobs (see footnote 2 below). Between October 2017 and October 2018, total non-farm employment increased by 26,000 jobs, or 1.8%. The unemployment rate in the San Diego/Carlsbad MSA was 3.3% in October 2018, below the prior year estimate of 3.6%. This compares with an unadjusted unemployment rate of 4.0% for California and 3.5% for the nation during the same period. The following table provides estimates of total annual civilian non-farm employment by number of employees in each major industry category in the San Diego/Carlsbad MSA for 2016 through 2018.

San Diego / Carlsbad MSA [1]
Civilian Non-Farm Labor Force by Industry Sector

Industry Sector	2016	2017	2018	2018
Professional & Business Services	232,000	237,100	253,500	17.0%
Leisure & Hospitality	195,500	198,200	194,200	13.0%
Government				
State & Local Government	199,700	203,000	206,300	13.8%
Federal Government	47,100	49,600	47,100	3.2%
Healthcare & Social Assistance	170,900	176,100	181,100	12.1%
Trade				
Retail Trade	148,000	147,600	148,200	9.9%
Wholesale Trade	48,400	48,100	46,600	3.1%
Manufacturing	109,500	109,500	115,100	7.7%
Financial Activities	73,700	75,200	74,200	5.0%
Construction	81,100	81,100	80,900	5.4%
Other	136,200	140,600	144,900	9.8%
Total Non-Farm [2]	1,442,100	1,466,100	1,492,100	100.0%

[1] Based on California Employment Development Department data for the San Diego/Carlsbad Metropolitan Statistical Area for the month of October of each corresponding year (March 2017 Benchmark). Data excludes military uniformed personnel.
[2] Non-farm jobs exclude self-employed individuals, unpaid family workers, household domestic workers, and workers on strike.

Federal Government employment in the table above includes approximately 24,200 civilians employed by the United States Department of Defense, but excludes military uniformed personnel. In its 2018 Economic Impact Study, the San Diego Military Advisory Council (SDMAC) estimated that the military directly employs approximately 119,000 military uniformed personnel in San Diego County, which is home to one out of every six of the Nation's Sailors as well as over one-fourth of the total United States Marine Corps.

MAJOR INDUSTRIES

San Diego's economic base has evolved from one with a greater reliance on defense spending and tourism to one that includes more high-technology manufacturing and an expanded international trade sector. The City's Economic Development Strategy for 2017 through 2019, prepared by the City's Economic Development Department and adopted by the City Council in December 2016, identified four economic base industries in San Diego: (1) manufacturing and innovation, (2) international trade and logistics, (3) military installations, and (4) tourism. These are sectors that bring money and wealth into the region by exporting goods and services to the rest of the nation and the world.

The City's economic base is anchored by higher education and major scientific research institutions, including the University of California San Diego, San Diego State University, Scripps Research Institute, the Salk Institute for Biological Studies, and the San Diego Supercomputer Center. This provides a research and development foundation that helps create new products, which can then be manufactured in the region, especially in biotech and high-tech. According to the San Diego Regional Economic Development Corporation, scientific research and development impacts more than 100,000 local jobs and generates more than $14.4 billion in economic impact - a third of which stems from research institutes. San Diego's manufacturing sector is diverse, including several manufacturing clusters: biotech; cleantech; defense and security systems; electronics and telecommunications; and food and beverage production.

With its proximity to Mexico and the Pacific Rim, San Diego is in a unique geographical position that creates opportunities for growth in international trade. The proximity of Mexican manufacturing to the United States often makes "near-sourcing" of manufacturing back to Mexico attractive for U.S. companies. The Port of San Diego, built around one of the world's great natural harbors, also facilitates international trade which provides for the importation of a wide variety of bulk products and large equipment. According to the Global Cities Initiative, the San Diego area was the 15th largest merchandise exporter in the U.S. with an export value of $23.8 billion, with a total export-supported job total of 152,680. Annualized growth rates in exports from the San Diego area have increased by 1.7% from 2014 to 2017.

The military continues to play a significant role in the San Diego economy. The San Diego Military Advisory Council (SDMAC) issued a Military Economic Impact Study in November 2018 (SDMAC Study) estimating that in 2018, defense-related activities and spending will generate approximately $50 billion of Gross Regional Product (GRP) for San Diego County, or 22% of the region's total GRP. The military was responsible for approximately 340,000 jobs in the region, or 22% of all employment in the region. The SDMAC Study further estimates that $26 billion in federal defense funds were allocated to San Diego County, an increase of 3.2% from the previous year. This direct spending is estimated to rise approximately 4% in fiscal year 2019.

Tourism is a major economic driver for the City. In 2018, the San Diego Convention Center drew more than 898,000 attendees participating in one of 149 hosted events, and directly spending $673.9 million in the region. According to the San Diego Tourism Authority (SDTA), the hospitality industry employed approximately 194,000 people as of December 2017 throughout the County. The SDTA further states that San Diego hosted 35 million visitors in calendar year 2017 who spent over $10.8 billion at local businesses and generated $289 million in Transient Occupancy Tax for the San Diego region during fiscal year 2017.

FINANCIAL AND ECONOMIC TRENDS

In fiscal year 2018, the General Fund's four major operating revenue sources - property tax, sales tax, transient occupancy tax (TOT), and franchise fees (unrestricted) - made up 69% of total General Fund revenues. Based on revenue projections for the first quarter of fiscal year 2019, major revenues for the General Fund are expected to increase by $64.1 million (6.3%) compared to major revenues reported for the General Fund in the fiscal year 2018 basic financial statements.

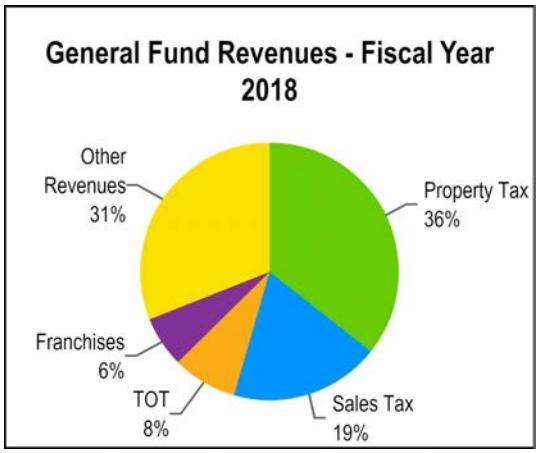

The table below shows historical trends for the General Fund major revenues for the past four fiscal years and revenue projections for fiscal year 2018.

General Fund Major Revenues by Fiscal Year
(Dollars in Thousands)

	2014	2016	2017	2018	2019 [1]
Property Tax	$ 449,244	$ 471,321	$ 506,197	$ 535,481	$ 568,702
Sales Tax [2]	265,295	284,448	280,558	282,321	307,485
TOT [3]	98,138	107,675	116,869	121,904	128,687
Franchise Fees [4]	81,251	81,929	73,080	80,215	79,189
TOTAL	$ 893,928	$ 945,373	$ 976,704	$ 1,019,921	$ 1,084,063

[1] Source: Fiscal Year 2019 First Quarter Budget Monitoring Report - Department of Finance, City of San Diego.

[2] Includes Safety Sales Tax.

[3] Includes the General Fund portion of Transient Occupancy Tax (5.5% of the 10.5% levy). $109.9 million was deposited into the TOT Special Revenue Fund in fiscal year 2018.

[4] Excludes $16.0 million of SDG&E franchise fee revenue restricted by the Charter to preserve and enhance the environment of the City.

Property Tax

Property Tax revenue is the largest revenue source for the General Fund, representing 35.7% of total General Fund revenue recognized in fiscal year 2018. There is a two year lag between the time at which property values are assessed by the County of San Diego and the time the property tax revenue is received by the City. Therefore, the property tax revenue received in fiscal year 2018 and the estimated revenue for fiscal year 2019 are based on assessments from January 1, 2017 and 2018, respectively. The 6.2% growth rate projected for property tax revenue in fiscal year 2019 in the First Quarter Budget Monitoring Report is based on year-over-year increases in the median home price of 10.5% and a decrease in home sales of 3.2%. The fiscal year 2019 assessed valuation of properties not sold or otherwise improved, in accordance with limits established by Proposition 13, is based on the change in the California Consumer Price Index (CCPI) from October 2016 to October 2017. During this period, the CCPI increased by 3.0%. Furthermore, Proposition 13 limits the inflation factor to 2.0%, therefore the assessed valuation of properties not sold or otherwise improved will increase their taxable basis by 2.0%.

Property tax revenue trends have been affected by tax sharing distributions resulting from the dissolution of the former redevelopment agency. The City receives tax sharing distributions in accordance with redevelopment dissolution laws and a proportional share of residual property tax payments of funds remaining in the Redevelopment Property Tax Trust Fund (RPTTF) after Recognized Obligation Payments are made. The amount of these payments has varied over the last four fiscal years. The following graph shows property taxes, net of tax sharing amounts, for

fiscal years 2015 through 2019, and the corresponding tax sharing amounts for each respective fiscal year (projected amounts for fiscal year 2019).

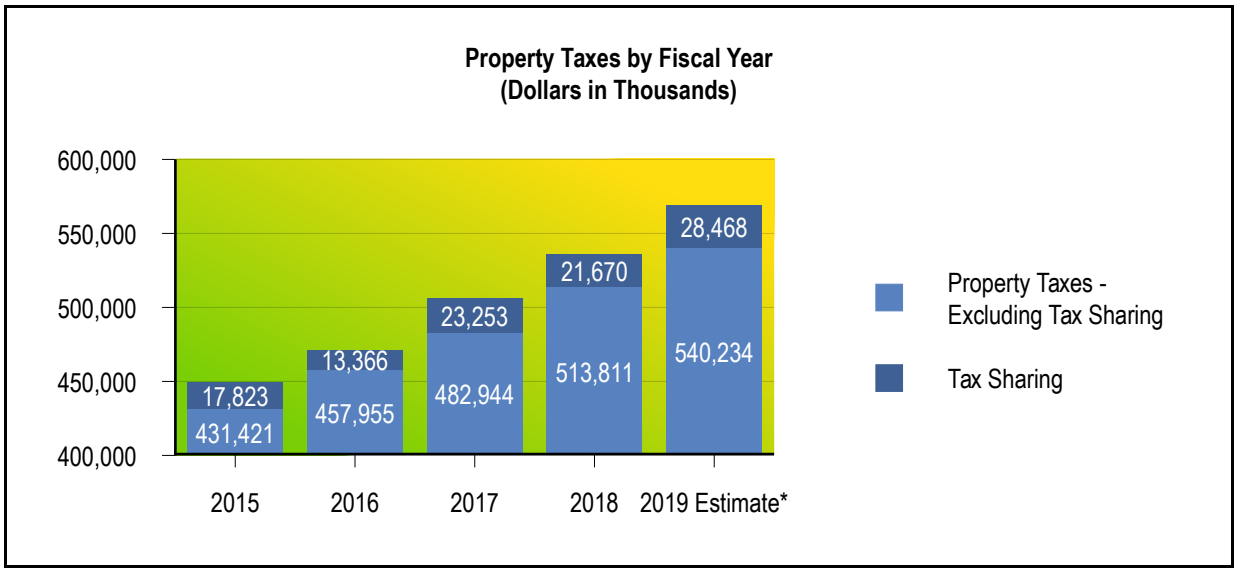

* Source: Fiscal Year 2019 First Quarter Budget Monitoring Report - Department of Finance, City of San Diego

Sales Tax

The City's second largest revenue source for the General Fund is Sales Tax, representing 18.8% of total General Fund revenue recognized in fiscal year 2018. The total citywide sales tax rate in San Diego is 7.75%, of which the City receives approximately 1.0% for general purposes. The City also receives a portion of the 0.5% collected by SANDAG for the TransNet program to fund transportation improvements throughout the City, and a portion of the 0.5% Safety Sales Tax to fund local public safety needs. General purpose and Safety Sales Tax are deposited in the General Fund, while TransNet sales tax revenue is deposited in the TransNet Capital Projects Fund.

The major local economic drivers of the City's Sales Tax revenue include the unemployment rate and consumer confidence. The unemployment rate for the City was 3.3% in October 2018, down from 3.6% in October 2017 and 4.7% in October 2016. A lower local unemployment rate generally improves consumer confidence which, in turn, improves the City's sales tax receipts. In fiscal year 2018, actual sales tax revenue was lower than anticipated, which was primarily due to delayed fiscal year 2018 tax distributions of approximately $14.7 million from the State. While the local economic indicators for sales tax are positive and stable, growth in sales tax will be restrained by online sales. As consumers shift from in-store purchases to online sales, the City receives a smaller portion of sales tax revenues. In another matter, the recent Supreme Court ruling in South Dakota vs. Wayfair, Inc. allows states to require online retailers to collect and remit sales tax, overruling a long-standing physical presence requirement. Although this decision will increase local sales tax revenues, the estimated impact and date of implementation are unknown. Based on the fiscal year 2019 projection, the City estimates a year-over-year increase in Sales Tax revenue of approximately $25.2 million (8.9%) compared to fiscal year 2018 actual revenue recognized.

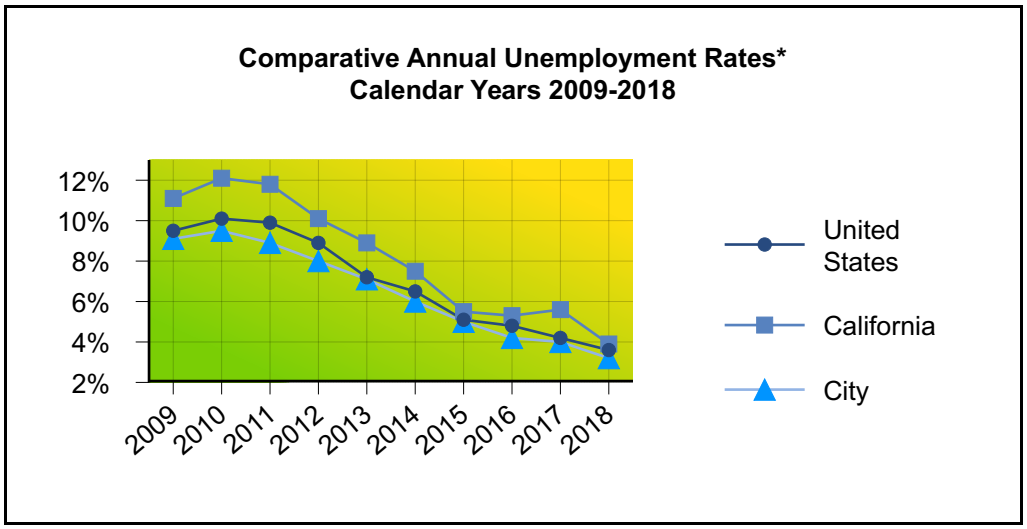

Source: Federal Bureau of Labor Statistics, California Employment Development Department.
* Unemployment rate for 2018 is based on September 2018.

Transient Occupancy Tax

The City's TOT is levied at 10.5% of daily room prices in hotels and motels used by visitors staying in San Diego for fewer than 30 consecutive days. TOT revenue is allocated pursuant to the City Municipal Code. Of the 10.5% collected, 5.5% is allocated to the General Fund and the remaining 5% is allocated to the TOT Special Revenue Fund, 4% of which is allocated to special programs to promote the City's tourism and the remaining 1% is allocated for any purpose approved by the City Council. A portion of the revenue allocated to the TOT special revenue fund can be used to reimburse the General Fund for tourism promotion costs or transferred to the General Fund for any purpose approved by the City Council. TOT allocated to the General Fund of $121.9 million represented 8.1% of total General Fund revenue recognized in fiscal year 2018. In addition, the General Fund received reimbursements and transfers from the TOT Special Revenue Fund of $24.6 million and $26.8 million, respectively, in fiscal year 2018 for a combined total of $173.3 million.

Tourism Information - County of San Diego

	CY 2015	CY 2016	CY 2017	CY 2018 [1]	CY 2019 [1]
Visitors					
Total Visits (millions)	34.3	34.9	35	36.2	37
Overnight Visits (millions)	17.2	17.4	17.6	18.1	18.4
Hotel Sector					
Average Occupancy	76.4%	77.1%	77.3%	77.5%	77.2%
Average Daily Rate	$150.03	$154.87	$160.11	$165.07	$171.64
Revenue PAR [2]	$114.58	$119.38	$123.73	$127.99	$132.44
Room Demand (growth)	3.4%	2.2%	1.3%	2.7%	1.9%

Source: San Diego Tourism Authority and Tourism Economics.

[1] Forecast July 2018- Tourism Economics, Inc.

[2] Revenue per Available Room (Average Occupancy multiplied by Average Daily Rate).

The preceding table reflects the positive trend in tourism growth over the past three calendar years (2015-2017) and the forecast for calendar years 2018 and 2019 for San Diego County. Major economic drivers for TOT revenue include seasonal and non-seasonal tourism, business travel and conventions. Sustained positive tourism growth has occurred since the economic turnaround began in fiscal year 2010, continued through fiscal year 2017, and is expected to continue, though at a slower rate, through fiscal year 2019. The fiscal year 2019 projection estimates a year-over-year increase in General Fund TOT revenue of approximately $6.8 million (5.6%) compared to actual revenue recognized in fiscal year 2018.

Franchise Fees

San Diego Gas and Electric (SDG&E), the single largest generator of franchise fee revenues for the General Fund, remits 3% of the gas and electricity gross sales within the City, 75% of which is unrestricted and 25% of which is restricted by the Charter to preserve and enhance the environment of the City. Both restricted and unrestricted SDG&E franchise fee revenues are recorded in the General Fund. The City also collects 5% of its gross revenues from Cox Communications, Spectrum (formally Time Warner Cable), and AT&T for cable and broadband. Other franchise fee revenues include refuse hauler fees based on the total amount of refuse hauled annually, and fees from the Police Department vehicle tow program. Unrestricted franchise fee revenues of approximately $80.2 million represented 5.3% of total General Fund revenues recognized in fiscal year 2018. The fiscal year 2019 projection estimates a year-over-year decrease of $1.0 million in unrestricted franchise fee revenues.

LONG-TERM FINANCIAL PLANNING AND FINANCIAL POLICIES

FIVE-YEAR OUTLOOK

Each year the City develops a Five-Year Financial Outlook (Outlook), which is the guiding document for long-range fiscal planning and serves as the framework for development of the next adopted budget. The Outlook is published annually and incorporates a range of information on items that influence projected revenues and anticipated appropriation needs over the next five fiscal years. These projections inform the City Council and the public of the long-term costs of programs in the context of the City's overall General Fund budget and projected revenue growth. The Outlook can be obtained online at https://www.sandiego.gov/finance/financialrpts.

MULTI-YEAR CAPITAL IMPROVEMENT PROGRAM AND INFRASTRUCTURE

On January 24, 2018, the City's Public Works Department released its Five-Year Capital Infrastructure Planning Outlook (CIP Outlook) report. The CIP Outlook presents a comprehensive overview of the City's CIP including current driving factors, reviews of service level standards, a discussion of condition assessment impacts, and a cost analysis which spans over multiple fiscal years. The CIP Outlook is released on an annual basis and will be used as a guide in developing the City's Annual Capital Improvement Program Budget.

The CIP Outlook projects capital needs through fiscal year 2023 at approximately $4.37 billion. However, projected available funding is approximately $2.79 billion with an estimated funding gap of $1.58 billion. This does not represent the entire value of all City infrastructure needs since not all capital needs could be reasonably addressed within the next five years. Additionally, the funding gap only relates to General Fund owned assets, as enterprise funds such as water and sewer utilities are considered self-sufficient for capital needs. As the CIP program grows, it is critical to efficiently manage and deliver capital projects, and build organizational capacity in the CIP. As mentioned previously, the fiscal year 2019 Adopted Budget includes additional positions to support the multi-billion dollar CIP program efforts.

The City owns and maintains depreciable assets, including but not limited to, streets, bridges, parks, public facilities, and airports. Over the years, due to competing financial priorities, the City deferred maintenance and capital expenditures related to some of these assets, resulting in deterioration of parts of the City's infrastructure. In addition to deferred capital needs, the City has identified significant storm water capital projects in the Watershed Asset Management Plan needed to comply with more stringent water quality regulations (see Note 17). The City has continued to address the deferred capital costs through its multi-year financing plan and assess the condition of key asset classes.

The City has previously conducted condition assessments on streets, bridges, sidewalks, highest risk storm drains, and most General Fund-owned facilities. These condition assessments are updated on a periodic basis. The current condition assessments and CIP Outlook cover a subset of City assets and represent a portion of the City's deferred maintenance and infrastructure needs. However, as remaining assessments for parks, storm drains, and other essential public infrastructure are conducted, the City will continue to gain a better understanding of funding needs. Generally, the City has discretion on the condition levels at which City assets are maintained. Therefore, deferred maintenance on City assets does not constitute a liability of the City. There are, however, significant commitments and contingent liabilities related to infrastructure spending and other requirements disclosed in Notes 17 and 18. Spending priorities on asset maintenance and infrastructure are reassessed

annually and incorporated into the budget process in order to ensure that condition level goals are met in a manner that is balanced with other budget priorities and spending requirements.

A financial plan for addressing General Fund deferred capital needs and new facilities has been in place over the last several years in part through the issuance of $333 million in Lease Revenue Bonds. Looking forward, $88.5 million in short-term commercial paper notes are anticipated to be issued during fiscal year 2019 as part of the approximately $270 million expected to be financed through fiscal year 2024 towards capital and infrastructure needs. Additionally, the DoF prepares semi-annual CIP Budget Monitoring Reports that highlight the effective cash management and streamlining efforts that enhance internal monitoring and execution of the CIP program. These reports can be obtained at https://www.sandiego.gov/finance/financialrpts.

There are also significant additional revenue sources restricted for capital projects and infrastructure, such as TransNet, Gas Taxes, proceeds from real property sales, developer impact fees, and capital grants that are anticipated to be invested in City infrastructure and deferred maintenance. Additionally, on June 7, 2016, San Diego residents passed Proposition H, a Charter amendment measure that establishes an Infrastructure Fund (Fund) to be used exclusively to pay for capital improvements and repair and maintenance of City infrastructure. Beginning in fiscal year 2018, the City must deposit 50% of major revenue growth over the base year of fiscal year 2016 into the Fund for five years. The full budgeted amount of $17.8 million was deposited in the Fund during fiscal year 2018. The fiscal year 2019 adopted budget for the Fund is $17.1 million. Major revenues are property tax, transient occupancy tax, and unrestricted franchise fees. Thereafter, for the next 20 years, the Infrastructure Fund deposit will be (1) the incremental growth in sales tax from the base year after a CPI allocation to the General Fund, and (2) any savings from a reduction in annual pension payments. Based on forecasted revenue and pension costs used in the 2020-2024 Five Year Outlook, no mandatory deposits are expected in fiscal year 2023 or fiscal year 2024.

RESERVES

Strong financial reserves position the City to weather significant economic downturns more effectively and manage the consequences of outside agency actions that may result in revenue reductions. They also serve to address unexpected emergencies such as natural disasters and catastrophic events, unanticipated critical expenditures or legal judgments against the City. The City's approach to establishing and maintaining strong reserves across the spectrum of City operations, including General Fund, Risk Management and enterprise fund (including sewer and water utilities) operations, is contained in the City's Reserve Policy.

The City's Reserve Policy establishes policy goals, which represent the total reserve level that the City is trying to achieve for each of its reserves (Policy Goal). For those reserves that are not at Policy Goal levels, the City's Reserve Policy establishes incremental funding levels for each fiscal year (Target Goal) until arriving at full funding. The table on the following page identifies the Policy Goal, Target Goal (percentage and dollar), and current reserve levels as of the end of fiscal year 2018 for General Fund, Risk Management and Pension Payment Stabilization Reserves.

Reserve	Policy Goal	FY 18 Target %	FY 18 Target $ (In Millions)	FY 18 Reserve %	FY 18 Reserve $ (In Millions)
General Fund Emergency Reserve [1]	8% of the most recent three year average of annual audited General Fund operating revenues (budgetary basis)	8%	$96.7	8%	$96.7
General Fund Stability Reserve [1]	8.7% of the most recent three year average of annual audited General Fund operating revenues (budgetary basis)	7%	$84.6	7%	$84.6
Public Liability Reserve [2]	50% of outstanding public liability claims based on the annual actuarial liability valuations for the three most recent fiscal years	47%	$32.6	50%	$34.7
Workers' Compensation Reserve [2]	12% of outstanding workers' compensation claims based on the annual actuarial liability valuations for the three most recent fiscal years	12%	$30	12%	$30
Long-Term Disability Reserve [2]	100% of long-term disability claims based on the annual actuarial liability valuations for the three most recent fiscal years	100%	$5.5	100%	$5.5
Pension Payment Stabilization Reserve [3]	8% of the average of the three most recent Actuarially Determined Contributions	—%	$—	—%	$—

[1] For purposes of the General Fund Reserve Policy, the General Fund is the operational fund as presented in the City's annual budget document and excludes other funds which are consolidated with the General Fund for presentation in the CAFR in accordance with GASB 54.

[2] Public Liability, Workers' Compensation, and Long-Term Disability Reserves are based on cash on hand plus contributions receivable balances. The Public Liability Reserve is over its target balance and has met its fiscal year 2019 target in advance.

[3] Reserve was fully utilized during fiscal year 2018. An incremental replenishment plan is included in the Five-Year Outlook beginning in fiscal year 2019.

General Fund Reserves are comprised of two separate components: (1) the Emergency Reserve established for the purpose of sustaining General Fund operations in the case of a public emergency, and (2) the Stability Reserve established to mitigate financial and service delivery risk due to unexpected revenue shortfalls or unanticipated critical expenditures. The Emergency Reserve may be expended only if an event is determined to be a public emergency by a two-thirds vote of the City Council, while appropriations from the Stability Reserve require approval by a simple majority of the City Council.

To determine the reserve dollar amount in accordance with the City's reserve policy, the City calculates the average operating revenues for the General Fund (budgetary basis) based on the three most recent years and applies a percentage to that average. In fiscal year 2017, the City increased its Policy Goal for the Stability Reserve from 6% to 8.7%, while maintaining the Emergency Reserve at 8%, to arrive at the total General Fund Reserve Policy Goal of 16.7%. The City met its Stability Reserve Target Goal for fiscal year 2018 of 7% or $84.6 million.

The General Fund's Emergency Reserve of $96.7 million is reported as restricted fund balance in the financial statements. The General Fund's unassigned fund balance as of June 30, 2018 was $95.4 million, of which $84.6 million represents the General Fund's Stability Reserve. The excess unassigned fund balance may be used upon direction of the City Council. The General Fund also reports an additional $24.7 million of fund balance that has been assigned for expenditures in the fiscal year 2019 budget.

The City also maintains reserves to manage risk, including reserves for the payment of claims and judgments (Public Liability Reserve), a reserve for obligations related to workers' compensation claims (Workers' Compensation Reserve), and a reserve for long-term disability payments for City employees (Long-Term Disability Reserve). As of June 30, 2018, each of these reserves was funded in excess of Policy Goal levels. Balances in excess of the respective targets are evaluated annually to ensure current target levels and anticipated funding needs may be fulfilled as necessary. Public liability and workers' compensation reserves are reported in the financial statements as part of the General Fund's committed fund balance. The Long-Term Disability Reserve is reported as cash in the Miscellaneous Internal Service Fund. Liability claims paid after the end of fiscal year 2018 could reduce risk management reserve balances.

In April 2016, the City created the Pension Payment Stabilization Reserve. The purpose of this reserve is to mitigate service delivery risk by providing a source of funding for unanticipated increases in the Actuarially Determined Contribution (ADC). The ADC is calculated by SDCERS' actuary as part of its annual Actuarial Valuation Report. Unanticipated increases in the ADC could be caused by several factors, such as lower than expected investment returns; changes in actuarial assumptions approved by the SDCERS Board, including a reduction in the discount rate; and other significant liability experience losses. The fiscal year 2018 adopted budget included full utilization of the General Fund and non-General

Fund reserves to minimize the impact from the significant increase in the City's July 1, 2017 ADC payment of $324.5 million. The Fiscal Year 2020-2024 Five-Year Financial Outlook Report included a plan to replenish the Pension Reserve on an incremental basis of 20.0% to achieve the full reserve target by Fiscal Year 2023. The Fiscal Year 2019 Adopted Budget included $3.6 million, or 20.0%, of the Pension Reserve for the General Fund and $1.2 million, or 20.0% of the Pension Reserve for the Enterprise funds, for a total of $4.8 million.

The City also maintains other reserves for the following enterprise funds: the Water and Sewer Utility Funds, Development Services Fund, Environmental Services Fund, and the Golf Course Fund. Other than the pension payment stabilization reserve, the City has made no draws on its primary reserves.

OTHER FINANCIAL POLICIES

In addition to policies related to reserves, budget development, budget monitoring and the Outlook, the City has adopted a comprehensive set of financial policies including policies on debt management, investments, Capital Improvement Program prioritization and transparency, among others. A summary of these policies can be found within the City's current year adopted budget online at https://www.sandiego.gov/finance/annual/vol1.

MAJOR ACCOMPLISHMENTS AND INITIATIVES

On October 29, 2018, the City fulfilled Mayor Faulconer's pledged five-year plan to repair at least 1,000 miles of City streets. The repairs were completed in just over a three-year period, well within the initial pledged period. The City intends to continue its aggressive street repair program in fiscal year 2019 by repairing approximately 390 miles. In addition, a 2016 independent assessment of City streets showed the overall condition index had improved over 20% since a previous 2011 assessment.

The City was honored with a first-of-its-kind national certification for using data to drive effective results for residents. Bloomberg Philanthropies' What Works Cities Initiative recognized San Diego for its use of innovative public outreach tools including resident satisfaction surveys, the Get It Done mobile application and a progressive open data policy. The award, which encourages cities across the country to emulate awardees in their approach to using data and evidence to enhance government effectiveness, was presented to Mayor Faulconer during the U.S. Conference of Mayors in Washington D.C. in January 2018.

Mayor Faulconer recently expanded his Clean SD initiative by directing the clearing of trash and debris from canyons to reduce the risk of canyon fires and keep residents and firefighters safe. The Clean SD program was launched in 2017 to address litter removal, street sweeping, and graffiti removal requests received through the City's Get It Done application. Crews have already removed over 1,400 tons of debris from rivers, creeks, city streets and sidewalks.

On December 5, 2017, the City Council approved an amendment to the San Diego Police Officers Association (POA) labor contract which increased pensionable compensation for represented employees totaling 25.6% to 30.6%, depending upon length of service. This is the largest recruitment and retention package in San Diego Police Department (SDPD) history, and authorizes salary and fringe benefit increases that range from 5% to 8.3%, semi-annually, starting July 1, 2018 through the end of the contract term on June 30, 2020. In June 2018, the City Council approved a professional services contract for marketing services to Police Recruits, including a national recruitment campaign and branding services intended increase the number of police officer recruit candidates. Finally, on December 11, 2018 Council is scheduled to hear another amendment to the POA labor contract focused on Police Officer lateral and recruitment incentive payments. This program approves cash incentives to recruits as they successfully complete various steps in the recruitment, academy and hiring processes. It also allows cash incentive payments to current POA represented employees who successfully recruit new members into SDPD.

In the area of water and wastewater infrastructure, the City is furthering the progress on a plan to implement a potable water reuse program (Pure Water) to provide future water reliability to San Diego residents, making the City a leader in water sustainability technology. In October 2018, the City Council approved a $614 million loan from the U.S. Environmental Protection Agency's Water Infrastructure Finance and Innovation Act (WIFIA) Program. In November 2018, the City Council voted to authorize over $1 billion of construction contracts for Pure Water. See Notes 17 and 24 for more information on Pure Water.

Housing SD is a set of policies and initiatives to increase housing affordability and address the statewide housing crisis at the local level. The Housing SD plan includes a set of housing proposals to increase supply, lower costs, and promote smart growth and the City's Climate Action Plan implementation. The goal of Housing SD is to increase San Diego's housing supply for low and middle-income San Diegans. Initiatives that have been completed since June 2017 include the following: Affordable/Sustainable Expedite Program; municipal code changes to promote companion unit production; Affordable Housing Density Bonus Program; expansion of zones where live/work spaces are allowed; and the production of the first Housing Inventory Report which can be found at https://www.sandiego.gov/sites/default/files/housing-inventory-annual-report.pdf.

As a result of modest positive trends in revenue growth, the fiscal year 2019 Adopted Budget preserves a number of service enhancements added in previous years for residents of San Diego focusing on three strategic goals: achieve safe and livable neighborhoods; create an economically prosperous city; and provide high quality public service. Safe and livable neighborhoods are enhanced through funding for emergency command and data center dispatch, General Fund infrastructure support, police recruitment and retention compensation, and Clean SD. The fiscal year 2019 budget also recognizes important funding for three bridge shelters, affordable housing, and other homeless initiatives. Public service is enhanced through funding of new libraries and parks and recreation facilities, beach trash collection, and sidewalk repair and replacement support.

The City was able to preserve and enhance these core services, fully make its pension payment, and fully fund General Fund and Risk Management reserves to policy targets. Balancing the General Fund fiscal year 2019 budget involved making strategic decisions, which support the City's strong commitment to fiscal sustainability. Effective financial oversight promotes a healthy financial future and the ability to provide outstanding service to communities throughout San Diego.

ACKNOWLEDGMENTS

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a *Certificate of Achievement for Excellence in Financial Reporting* to the City for its CAFR for the fiscal year ended June 30, 2017. In order to be awarded a Certificate of Achievement, the City had to publish an easily readable and efficiently organized CAFR that satisfied both generally accepted accounting principles and applicable program requirements.

A *Certificate of Achievement for Excellence in Financial Reporting* is valid for a period of one year. We believe our current CAFR continues to meet the requirements of the Certificate of Achievement for Excellence in Financial Reporting Program, and we are submitting it to the GFOA to determine its eligibility for another certificate.

The preparation of this report would not have been possible without the dedication and professionalism of the entire staff of the City's Department of Finance. We wish to thank all City departments for their valuable contributions and thank the staff of Civic San Diego, San Diego Convention Center Corporation, San Diego Housing Commission and San Diego City Employees' Retirement System for providing component unit information which has been incorporated into this report. We also want to thank the City's independent auditors, Macias Gini & O'Connell LLP for their work. Finally, we would like to thank Mayor Kevin Faulconer for his support in maintaining the highest standards of professionalism in management of the City and the Audit Committee for their governance role over the audit of the CAFR.

Respectfully submitted,

Rolando Charvel
Chief Financial Officer

Tracy McCraner
Department of Finance Director and
City Comptroller

Scott Clark
Assistant Director, Department of Finance

Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

City of San Diego

California

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

June 30, 2017

Christopher P. Morrill

Executive Director/CEO

City of San Diego Current Elected Officials

(Holding office as of the issuance date of this report)

Mayor Kevin Faulconer

District 1
Councilmember Barbara Bry

District 6
Councilmember Chris Cate

District 2
Councilmember Lorie Zapf

District 7
Councilmember Scott Sherman

District 3
Councilmember Chris Ward

District 8
Councilmember David Alvarez

District 4
Council President Myrtle Cole

District 9
Councilmember Georgette Gómez

District 5
Council President Pro Tem
Mark Kersey

City Attorney
Mara W. Elliott

Other City Officials

Kris Michell, Chief Operating Officer
Rolando Charvel, Chief Financial Officer
Tracy McCraner, Department of Finance Director/City Comptroller
Gail R. Granewich, City Treasurer
Elizabeth Maland, City Clerk
Andrea Tevlin, Independent Budget Analyst
Kyle Elser, Interim City Auditor

The City of SAN DIEGO ORGANIZATION

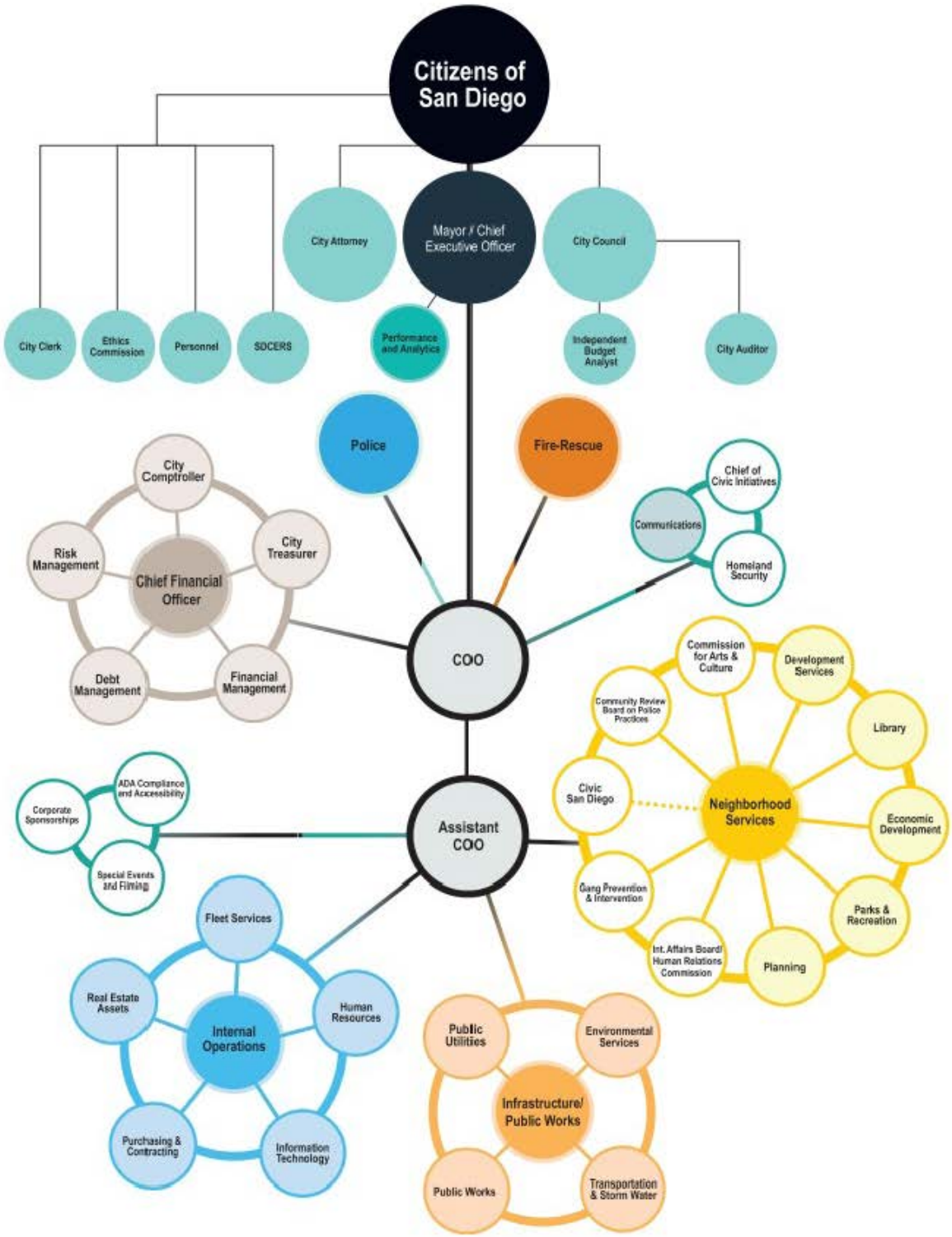

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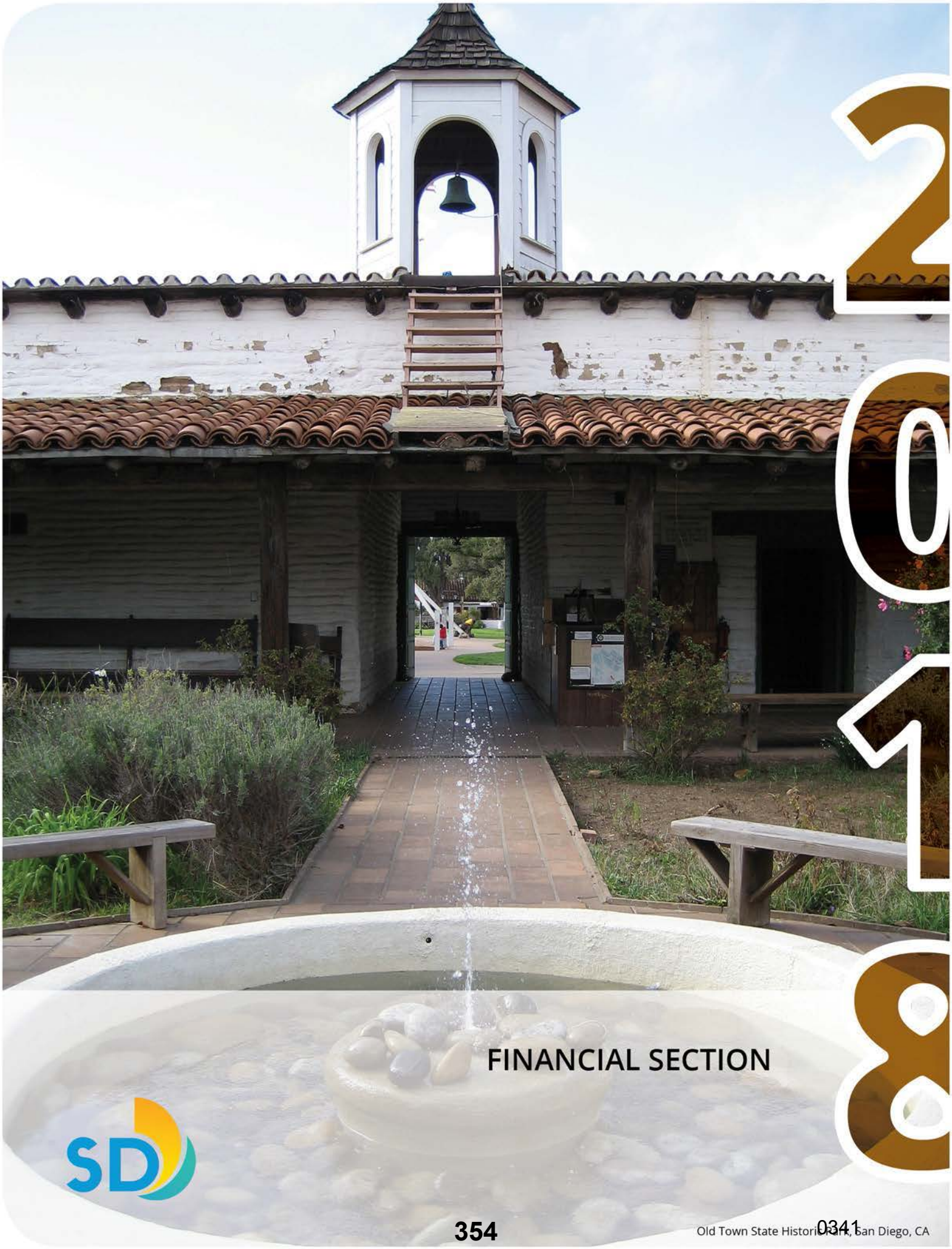

FINANCIAL SECTION

Old Town State Historic Park, San Diego, CA

mGO Certified Public Accountants

Independent Auditor's Report

To the Honorable Mayor and Members of the
City Council of the City of San Diego, California

Report on the Financial Statements

We have audited the accompanying financial statements of the governmental activities, the business-type activities, the discretely presented component unit, each major fund, and the aggregate remaining fund information of the City of San Diego, California (City), as of and for the fiscal year ended June 30, 2018, and the related notes to the financial statements, which collectively comprise the City's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We did not audit the financial statements of the San Diego Housing Commission, a discretely presented component unit, which represents 100% of the assets, net position, and revenues of the discretely presented component unit. Those statements were audited by other auditors whose report has been furnished to us, and our opinion, insofar as it relates to the amounts included for the San Diego Housing Commission, is based solely on the report of the other auditors. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies

used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, based on our audit and the report of other auditors, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities, the business-type activities, the discretely presented component unit, each major fund, and the aggregate remaining fund information of the City as of June 30, 2018, and the respective changes in financial position and, where applicable, cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

As discussed in Notes 1 and 23 to the basic financial statements, effective July 1, 2017, the City adopted the provisions of Governmental Accounting Standards Board (GASB) Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. As a result of the implementation of GASB Statement No. 75, the net position as of July 1, 2017, was restated and reduced, on an opinion unit basis, as follows by: $188.4 million and $54.5 million for the governmental activities and business-type activities, respectively; $19.8 million and $18.6 million for the Sewer Utility and Water Utility major enterprise funds, respectively; and $25.4 million for the aggregated remaining fund information. Our opinions are not modified with respect to this matter.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 33-46; the schedule of changes in net pension liability and related ratios, the preservation of benefits plan schedule of changes in total pension liability, the pension plans schedule of employer contributions, the schedule of changes in the net OPEB liability and related ratios, the OPEB plan schedule of employer contributions on pages 191-194; and the general fund schedule of revenues, expenditures and changes in fund balance - budget and actual (budgetary basis) on page 198, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the City's basic financial statements. The accompanying introductory section, combining and individual fund financial statements and schedules, and statistical section are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The combining and individual fund financial statements and schedules are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the combining and individual fund financial statements and schedules are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The introductory and statistical sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

Other Reporting Required by Government Auditing Standards

In accordance with Government Auditing Standards, we have also issued our report dated December 7, 2018, on our consideration of the City's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the City's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with Government Auditing Standards in considering the City's internal control over financial reporting and compliance.

Macias Gini & O'Connell LLP

San Diego, California
December 7, 2018

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MANAGEMENT'S DISCUSSION AND ANALYSIS (Unaudited)
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

As management of the City of San Diego (City), we offer readers of the City's financial statements this narrative overview and analysis of the financial activities of the City for the fiscal year ended June 30, 2018. We encourage the reader to consider the information presented here in addition to the information presented in the Letter of Transmittal.

OVERVIEW OF THE FINANCIAL STATEMENTS

This discussion and analysis is intended to serve as an introduction to the City's basic financial statements. The City's basic financial statements are comprised of three components: (1) government-wide financial statements; (2) fund financial statements; and (3) notes to the basic financial statements. This report also contains other supplementary information in addition to the basic financial statements.

GOVERNMENT-WIDE FINANCIAL STATEMENTS

The focus of the government-wide financial statements is on reporting the operating results and financial position of the government as an economic entity. These statements are intended to report the City's operational accountability to its readers, giving information about the probable medium and long-term effects of past decisions on the City's financial position.

The Statement of Net Position presents information on all of the City's assets, deferred outflows of resources, liabilities, and deferred inflows of resources, with the residual amount reported as net position. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position of the City is improving or deteriorating.

The Statement of Activities presents information showing changes in the City's net position during the fiscal year. All changes in net position are reported when the underlying event giving rise to the change occurs, regardless of the timing of related cash flows. The focus is on both gross and net costs of City functions, which are supported by general revenues. This statement also distinguishes functions of the City that are principally supported by taxes and intergovernmental revenues (governmental activities) from other functions that are intended to recover all or a significant portion of their costs through user fees and charges (business-type activities). The governmental activities of the City include: General Government and Support; Public Safety-Police; Public Safety-Fire and Life Safety and Homeland Security; Parks, Recreation, Culture and Leisure; Transportation; Sanitation and Health; Neighborhood Services; and Interest on Debt Service. The business-type activities of the City include: Sewer Utility; Water Utility; Airports; Development Services; Environmental Services; Golf Course; Recycling; and the San Diego Convention Center Corporation (SDCCC).

The government-wide financial statements include the City (known as the primary government) and the San Diego Housing Commission (SDHC), a legally separate, discretely presented component unit. Financial information for this component unit is reported separately from the financial information presented for the primary government. The City also reports fiduciary component units which are not included in the government-wide financial statements. Fiduciary component units include the San Diego City Employees' Retirement System (SDCERS) and the Successor Agency of the Redevelopment Agency of the City of San Diego (Successor Agency). Blended component units, also legally separate entities, are a part of the City's operations and are combined with the primary government.

Included within the primary government as blended component units are the following:

- Civic San Diego (CSD)
- Convention Center Expansion Financial Authority (CCEFA)
- Public Facilities Financing Authority (PFFA)
- San Diego Facilities and Equipment Leasing Corporation (SDFELC)
- Tobacco Settlement Revenue Funding Corporation (TSRFC)
- The Otay Mesa Enhanced Infrastructure Financing District Public Financing Authority (EIFDPFA)
- San Diego Convention Center Corporation (SDCCC)

The government-wide financial statements can be found beginning on page 50 of this report.

FUND FINANCIAL STATEMENTS

A fund is a grouping of related accounts that is used to maintain control over resources that have been segregated for specific activities or objectives. The City, like other state and local governments, uses fund accounting to ensure and demonstrate compliance with finance-related legal requirements. All funds of the City can be divided into three categories: governmental funds, proprietary funds, and fiduciary funds.

GOVERNMENTAL FUNDS

Governmental funds are used to account for essentially the same functions reported as governmental activities in the government-wide financial statements. However, unlike the government-wide financial statements, governmental funds financial statements focus on near-term inflows and outflows of spendable resources, as well as balances of spendable resources available at the end of the fiscal year. Such information may be useful in evaluating a government's near-term financing requirements.

Because the focus of governmental funds is narrower than that of the government-wide financial statements, it is useful to compare the information presented for governmental funds with similar information presented for governmental activities in the government-wide financial statements. By doing so, readers may better understand the long-term impact of the government's near-term financing decisions. Both the governmental funds Balance Sheet and the governmental funds Statement of Revenues, Expenditures and Changes in Fund Balances provide a reconciliation to facilitate this comparison between governmental funds and governmental activities.

The City maintains individual governmental funds. Information is presented separately in the governmental funds Balance Sheet and in the governmental funds Statements of Revenues, Expenditures and Changes in Fund Balances for the General Fund, which is a major fund. Data for the other governmental funds are combined into a single, aggregated presentation. Individual fund data for each of these nonmajor governmental funds is provided in the Combining and Individual Fund Financial Statements and Schedules section of this report.

The City adopts an annual appropriated budget for its General Fund. A budgetary comparison schedule has been provided for the General Fund to demonstrate compliance with this budget and is presented as required supplementary information.

The basic governmental funds financial statements can be found beginning on page 54 of this report.

PROPRIETARY FUNDS

The City maintains two different types of proprietary funds, enterprise funds and internal service funds. Enterprise funds are used to report the same functions presented as business-type activities in the government-wide financial statements. The City uses enterprise funds to account for its various business-type activities, such as Sewer and Water Utilities. Internal service funds, such as Central Stores, Fleet Operations, and Publishing Services, are used to report activities that provide centralized supplies and/or services to the City.

Proprietary funds statements provide the same type of information as the government-wide financial statements, only in more detail. The proprietary funds financial statements provide separate information for the Sewer and Water Utility funds, which are considered major funds of the City. Data for the nonmajor enterprise funds are combined into a single, aggregated presentation, and the internal service funds are combined into a single, aggregated presentation as well. Included in the Combining and Individual Fund Financial Statements and Schedules section of this report are individual fund data for the nonmajor enterprise funds and the internal service funds.

The basic proprietary funds financial statements can be found beginning on page 60 of this report.

FIDUCIARY FUNDS

Fiduciary funds are used to account for resources held for the benefit of parties outside the government. Fiduciary funds are not reflected in the government-wide financial statements because the resources of those funds are not available to support the City's operations. The accounting used for fiduciary funds is much like that used for proprietary funds.

The basic fiduciary funds financial statements can be found beginning on page 66 of this report.

NOTES TO THE BASIC FINANCIAL STATEMENTS

The notes provide additional information that is essential to a full understanding of the data provided in the government-wide and fund financial statements. The notes to the basic financial statements can be found beginning on page 69 of this report.

OTHER INFORMATION

In addition to the basic financial statements and accompanying notes, this report presents certain required supplementary information regarding: changes in the City's net pension liability; changes in the City's total pension liability for the Preservation of Benefits (POB) Plan; changes in the City's net other postemployment benefits liability; employer contributions to the pension plan; and employer contributions to the postemployment healthcare benefits plan. The required supplementary information also includes a budgetary comparison schedule for the General Fund. Required supplementary information can be found beginning on page 191 of this report.

The individual fund data referred to earlier in connection with nonmajor governmental funds, nonmajor enterprise funds, internal service funds, and fiduciary funds are presented immediately following the required supplementary information beginning on page 215 of this report.

GOVERNMENT-WIDE FINANCIAL ANALYSIS

CITY OF SAN DIEGO'S CONDENSED STATEMENT OF NET POSITION
(Dollars in Thousands)

	Governmental Activities		Business-Type Activities		Total Primary Government	
	2018	2017 [1]	2018	2017 [1]	2018	2017 [1]
Capital Assets	$ 5,077,307	$ 4,954,394	$ 6,176,556	$ 5,977,870	$ 11,253,863	$ 10,932,264
Other Assets	2,417,166	2,490,292	1,137,582	1,113,995	3,554,748	3,604,287
Total Assets	7,494,473	7,444,686	7,314,138	7,091,865	14,808,611	14,536,551
Deferred Outflows of Resources	671,068	810,822	261,901	304,809	932,969	1,115,631
Net Long-Term Liabilities	3,819,533	3,699,467	2,706,938	2,586,994	6,526,471	6,286,461
Other Liabilities	182,938	187,260	220,200	259,286	403,138	446,546
Total Liabilities	4,002,471	3,886,727	2,927,138	2,846,280	6,929,609	6,733,007
Deferred Inflows of Resources	80,135	—	18,506	2,730	98,641	2,730
Net Position						
Net Investment in Capital Assets	4,308,123	4,220,622	4,383,725	4,246,534	8,691,848	8,467,156
Restricted	1,490,948	1,725,549	7,208	7,790	1,498,156	1,733,339
Unrestricted	(1,716,136)	(1,577,390)	239,462	293,340	(1,476,674)	(1,284,050)
Total Net Position	$ 4,082,935	$ 4,368,781	$ 4,630,395	$ 4,547,664	$ 8,713,330	$ 8,916,445

[1] Fiscal year 2017 amounts have not been restated for the effects of GASB Statement No. 75 implementation, which impacts Net Position variance explanations below.

As noted earlier in the overview of the government-wide financial statements, over time, changes in net position may serve as a useful indicator of a government's financial position. The City's assets and deferred outflows of resources exceeded liabilities and deferred inflows of resources by $8,713,330 as of June 30, 2018, a decrease of $203,115, or approximately 2%, over fiscal year 2017.

The City's net investment in capital assets is $8,691,848. This includes land, construction-in-progress, structures and improvements, equipment, distribution and collections systems, and other infrastructure, less any outstanding debt used to acquire these assets and the related deferred outflows/inflows of resources. The City uses these capital assets to provide services to citizens, and consequently, these assets are not available for future spending. Although the City's investment in capital assets is reported net of related debt, it should be noted that the resources needed to repay this debt must be provided from other sources since the capital assets themselves generally are not used to liquidate these liabilities.

Restricted Net Position is $1,498,156, or approximately 17% of total Net Position, representing resources that are subject to external restrictions on how they may be used. The amount of ($1,476,674) represents the Unrestricted Net Position deficit. This deficit is mainly the result of the combined Pension Liabilities of $2,532,590 reported in accordance with GASB Statement Nos. 68 and 73, and the Net Other Postemployment Benefits (OPEB) Liability of $550,444 reported in accordance with GASB Statement No. 75 (GASB 75). Additional information regarding pension matters, including the City's funding policy, can be found in Note 12, and additional OPEB information can be found in Note 13.

Total Net Position resulting from governmental activities decreased by $285,846, or approximately 7%. The Net Investment in Capital Assets increased by $87,501, or approximately 2%, comprised of a net increase in capital assets for governmental activities of $122,913, a net increase in debt used to acquire these assets of $47,782, and an increase in related deferred outflows of resources of $12,370 (See Notes 4 and 5). Unrestricted Net Position for governmental activities decreased by $138,746, or approximately 9%. This was primarily due to the restatement of Net Position due to the implementation of GASB 75.

Total Net Position resulting from business-type activities increased by $82,731, or approximately 2%. Unrestricted Net Position decreased by $53,878, or approximately 18%, which was primarily attributed to the Sewer and Water Utility Funds' use of Unrestricted Net Position to fund additions to capital projects, combined with the implementation of GASB 75.

CITY OF SAN DIEGO'S CONDENSED STATEMENT OF ACTIVITIES
(Dollars in Thousands)

	Governmental Activities		Business-Type Activities		Total Primary Government	
	2018	2017 [1]	2018	2017 [1]	2018	2017 [1]
Revenues:						
Program Revenues						
Charges for Services	$ 482,981	$ 489,153	$ 1,126,500	$ 1,034,870	$ 1,609,481	$ 1,524,023
Operating Grants and Contributions	134,682	101,426	9,958	10,088	144,640	111,514
Capital Grants and Contributions	26,218	75,694	70,109	56,837	96,327	132,531
General Revenues						
Property Taxes	548,509	520,186	—	—	548,509	520,186
Transient Occupancy Taxes	231,863	222,228	—	—	231,863	222,228
Sales Taxes - Shared State Revenue	323,113	310,935	—	—	323,113	310,935
Franchises	96,313	86,992	—	—	96,313	86,992
Other Local Taxes	52,603	36,310	—	—	52,603	36,310
Investment Income	13,337	7,846	8,435	3,330	21,772	11,176
Other	100,484	164,661	13,758	7,076	114,242	171,737
Total Revenues	2,010,103	2,015,431	1,228,760	1,112,201	3,238,863	3,127,632
Expenses:						
General Government and Support	364,533	344,484	—	—	364,533	344,484
Public Safety-Police	542,128	501,314	—	—	542,128	501,314
Public Safety-Fire and Life Safety and Homeland Security	321,016	290,178	—	—	321,016	290,178
Parks, Recreation, Culture and Leisure	383,122	355,714	—	—	383,122	355,714
Transportation	264,278	239,099	—	—	264,278	239,099
Sanitation and Health	101,440	103,039	—	—	101,440	103,039
Neighborhood Services	91,686	82,384	—	—	91,686	82,384
Interest on Debt Service	36,515	36,943	—	—	36,515	36,943
Sewer Utility	—	—	351,145	339,189	351,145	339,189
Water Utility	—	—	532,056	477,037	532,056	477,037
Airports	—	—	7,415	6,306	7,415	6,306
Development Services	—	—	78,287	69,949	78,287	69,949
Environmental Services	—	—	41,397	34,253	41,397	34,253
Golf Course	—	—	21,072	19,925	21,072	19,925
Recycling	—	—	25,002	19,444	25,002	19,444
San Diego Convention Center Corporation	—	—	37,986	36,760	37,986	36,760
Total Expenses	2,104,718	1,953,155	1,094,360	1,002,863	3,199,078	2,956,018
Change in Net Position Before Transfers	(94,615)	62,276	134,400	109,338	39,785	171,614
Transfers	(2,814)	(3,207)	2,814	3,207	—	—
Change in Net Position	(97,429)	59,069	137,214	112,545	39,785	171,614
Net Position - July 1, as Restated	4,180,364	4,309,712	4,493,181	4,435,119	8,673,545	8,744,831
Net Position - June 30	$ 4,082,935	$ 4,368,781	$ 4,630,395	$ 4,547,664	$ 8,713,330	$ 8,916,445

[1] Fiscal year 2017 amounts have been reclassified to conform with current year presentation. Amounts have not been restated for the effects of GASB Statement No. 75 implementation.

GOVERNMENTAL ACTIVITIES

Governmental activities decreased the City's net position by $97,429 during fiscal year 2018. Variances from fiscal year 2017 of more than 10% and $5,000 are discussed below.

- Operating Grants and Contributions increased by $33,256, or approximately 33%. This was primarily due to increased expenditures for several reimbursement grants, including the Community Development Block Grant (CDBG), HOME Investment Partnerships Grant, and the Defense Industry Adjustment (DIA) Grant.

- Capital Grants and Contributions revenue decreased by $49,476, or approximately 65%, primarily due to a decrease in the amount of land, buildings, and infrastructure conveyed to the City from the Successor Agency.

- Franchise Revenue increased by $9,321, or approximately 11%. This was primarily the result of an increase in San Diego Gas & Electric (SDG&E) and Refuse Collection franchise revenues.

- Other Local Taxes increased by $16,293, or approximately 45%. Pursuant to the Road Repair and Accountability Act of 2017 (also known as SB1), the City adjusted the recognition of gas tax revenue to 60 days, corresponding with the State's updated point of sale transaction information. This resulted in an increased amount of Gas Tax being recorded in fiscal year 2018 compared to 2017. Also contributing to the increase was the receipt of the first of three loan repayments to make up for previous years' shortfalls of gas tax revenue from the State.

- Investment Income increased by $5,491, or approximately 70%, primarily due to the net change in unrealized gains and losses and rising interest rates.

- Other Revenues decreased by $64,177, or approximately 39%. This was primarily the result of a reduction in land sales in fiscal year 2018 compared to 2017, combined with a decrease in Facilities Benefit Assessment (FBA) revenues for several communities including Otay Mesa, North University City, Pacific Highlands Ranch, and Black Mountain Ranch. In addition, there were reductions in insurance reimbursements and legal settlements, as well as a reduction in revenue recognized from the transfer of notes receivables from the Successor Agency to the Low-Moderate Income Housing Fund.

- Public Safety-Fire and Life Safety and Homeland Security expenses increased by $30,838, or approximately 11%, primarily due to amended labor provisions, increased pension expense and air operations support.

- Transportation expenses increased by $25,179, or approximately 11%, primarily due to the receipt of new SB1 gas tax revenue, which allowed the City to take on additional street maintenance projects and continue the Mayor's 1,000 Miles of Street Repair initiative, combined with increased pension expense.

- Neighborhood Services expense increased by $9,302, or approximately 11%. This was primarily attributed to the remittance of program income to the Department of Housing and Urban Development (HUD). In addition, the HOME Investment Partnerships Program grant expenditures increased due to fiscal year 2018 being the final year of the grant.

BUSINESS-TYPE ACTIVITIES

Business-type activities increased the City's net position by $137,214 during fiscal year 2018. Variances from fiscal year 2017 of more than 10% and $5,000 are discussed below.

- Capital Grants and Contributions revenue increased by $13,272, or approximately 23%, primarily due to the Water Utility Fund recording additional donated assets related to the San Vicente Dam's Emergency Storage Project, previously conveyed to the City from the County Water Authority, that raised the height of the dam and increased the reservoir's capacity.

- Investment Income increased by $5,105, or approximately 153%, primarily due to the net change in unrealized gains and losses and rising interest rates.

- Other Revenues increased by $6,682, or approximately 94%, primarily due to the Water Utility Fund receiving reimbursement from the Sweetwater Authority for a prior year payment related to its desalination facility.

- Water Utility expense increased by $55,019, or approximately 12%, due to several factors including: an increase in the retirement of capital assets; an increase in interest expense related to a capitalized interest adjustment; an increase in pension expense; and changes in the City's net OPEB liability (See Note 13).

- Development Services expense increased by $8,338, or approximately 12%, primarily due to changes in the City's net OPEB liability (See Note 13), an increase in office space rent due to the acquisition of 101 West Ash Street, and an increase in pension expense.

- Environmental Services expense increased by $7,144, or approximately 21%, primarily due to an increase in the landfill closure and postclosure care liability, combined with expenses related to landfill odor mitigation.

- Recycling expense increased by $5,558, or approximately 29%, primarily due to increased pension expense.

FINANCIAL ANALYSIS OF THE GOVERNMENT'S FUNDS

As noted earlier, the City uses fund accounting to ensure and demonstrate compliance with finance-related legal requirements.

GOVERNMENTAL FUNDS

The focus of the City's governmental funds is to provide information on near-term inflows, outflows, and balances of spendable resources. Such information is useful in assessing the City's financing requirements. In particular, governmental fund balance classifications comprise a hierarchy based primarily on the extent to which a government is bound to observe constraints imposed upon the use of the resources reported.

As of the end of fiscal year 2018, the City's governmental funds reported combined ending fund balances of $2,008,822, a decrease of $82,932 from fiscal year 2017. The General Fund and Other Governmental Funds had unassigned fund balances of $95,434 and ($43,514), respectively, with a combined unassigned fund balance of $51,920. The General Fund unassigned fund balance of $95,434 includes the Stability Reserve of $84,600. The restricted, committed, and assigned fund balances are (1) to liquidate contracts and purchase orders of the period, (2) to pay debt service, (3) to generate income to pay for the perpetual funding of various programs, (4) for use in the subsequent year's budget, (5) for emergency reserves, or (6) for a variety of other purposes, and are not available for new spending.

The General Fund is the principal operating fund of the City. Total Fund Balance for the General Fund was $353,804. General Fund revenues totaled $1,502,016, which was an increase of $63,122, primarily due to higher revenues from Property Taxes and Other Local Taxes. In addition,

Charges for Current Services increased mainly due to the Transient Occupancy Tax Fund receipts for safety and maintenance of visitor related facilities. General Fund expenditures totaled $1,538,357, which was an increase of $62,722. This was mainly due to an increase in pension related expenditures, offset by a decrease in capital outlay related to the capital lease of 101 West Ash Street in fiscal year 2017.

PROPRIETARY FUNDS

The City's proprietary fund statements provide the same type of information found in business-type activities in the government-wide financial statement, but in more detail.

As of the end of fiscal year 2018, total Net Position for the Sewer Utility Fund was $2,487,916, an increase of $26,178, or approximately 1% over fiscal year 2017. This net increase was comprised of a ($19,810) restatement of Net Position due to the implementation of GASB Statement No. 75 (See Note 23) and an increase in Net Position of $45,988. The Net Investment in Capital Assets increased by $89,756, or approximately 4%. This was comprised of: a net increase in capital assets of $30,154 mainly in the construction-in-progress and infrastructure categories; a net decrease in capital related debt of $69,115; and a decrease in associated deferred outflows of resources of $9,513. Unrestricted Net Position was $139,935, a decrease of $63,765, or approximately 31% from fiscal year 2017. This was primarily due to the use of Unrestricted Net Position to fund additions to capital assets. Total Operating Income was $64,419, an increase of $2,748, or 4% over fiscal year 2017.

The Water Utility Fund had total Net Position of $2,056,152 at the end of fiscal year 2018, an increase of $70,453, or approximately 4% over fiscal year 2017. This net increase was comprised of a ($18,636) restatement of Net Position due to the implementation of GASB Statement No. 75 (See Note 23) and an increase in Net Position of $89,089. The Net Investment in Capital Assets increased by $46,058, or approximately 2%. This was comprised of: a net increase in capital assets of $151,073 primarily in the construction in progress and infrastructure categories; a net increase in capital related debt of $101,632 which was primarily due to the issuance of commercial paper; and a decrease in associated deferred inflows/outflows of resources of $3,383. Unrestricted Net Position was $128,957, an increase of $24,404, or approximately 23% from fiscal year 2017. Total Operating Income was $79,086, an increase of $36,025 over fiscal year 2017. This was primarily due to a 6.9% water rate increase effective in August 2017 and an increase in the volume of water sold as a result of customer account growth, which were partially offset by increases in the cost of water purchased from the San Diego County Water Authority, increased pension expense, and changes in the City's Net OPEB Liability.

GENERAL FUND BUDGETARY HIGHLIGHTS

The following General Fund budgetary highlights include only those funds associated with General Fund operations as reported in the City's budget, and exclude the additional budgeted funds included with the General Fund for GAAP reporting purposes. The final budget for General Fund expenditures and transfers out was $7,293 higher than the original budget due to increases/(decreases) in appropriations primarily attributed to the following:

- $11,600 increase for contractual services for air operations support and overtime expenditures in the Fire-Rescue Department
- $4,040 increase for contractual expenditures associated with the Hepatitis A efforts, bridge shelters, and increased water usage in the Parks and Recreation Department
- $1,400 increase for Transportation and Storm Water contracts related to equipment rental and fleet vehicles
- $1,120 increase to Real Estate Assets Department to cover expenses associated with the unforeseen relocation from the Executive Complex property
- ($13,744) decrease in Citywide Program Expenditures associated with a special election, debt service payments and office space rent

Actual revenues earned in the General Fund were $12,488 higher than budgeted. Franchise Fees were over budget by $5,128, primarily due to increases in SDG&E and refuse hauler franchise fee revenues. Revenue from Use of Money and Property was over budget by $6,846, primarily due to an increase in rent from non-General Fund departments, higher rates of return on investments and higher rent from Mission

Bay Park properties. Revenue from Other Agencies was over budget by $2,568, primarily due to higher than expected reimbursements for fire services and police 911 dispatch services from the State. Other Revenue was over budget by $1,714, primarily due to escheated money being higher than expected. These increases were partially offset by Sales Tax coming in under budget by $2,422 due to delayed distribution from the California Department of Tax and Fee Administration, beyond the City's 60-day accrual policy. Fines, Forfeitures and Penalties also came in under budget by $1,168, primarily due to a decrease in parking citation revenues.

Actual expenditures for the General Fund were $19,562 under budget. General Government and Support was under budget by $15,095 primarily due to lower than anticipated citywide expenses. Public Safety-Fire and Life Safety and Homeland Security was under budget by $1,371 primarily due to lower than anticipated fringe costs in the Fire-Rescue Department. Sanitation and Health was under budget by $1,168 primarily due to lower than anticipated supply costs for Storm Water and lower than anticipated IT expenses in the Environmental Services Department.

CAPITAL ASSET AND DEBT ADMINISTRATION

CITY OF SAN DIEGO'S CAPITAL ASSETS
(Net of Accumulated Depreciation)
(Dollars in Thousands)

	Governmental Activities		Business-Type Activities		Total Primary Government	
	2018	2017	2018	2017	2018	2017
Land and Rights of Way	$ 1,888,957	$ 1,883,487	$ 106,732	$ 97,611	$ 1,995,689	$ 1,981,098
Easements	5,684	5,228	2,157	2,520	7,841	7,748
Artwork/Historical Treasures	5,052	—	1,875	—	6,927	—
Construction in Progress	450,536	462,111	567,009	405,589	1,017,545	867,700
Structures and Improvements	869,978	866,531	1,399,304	1,425,351	2,269,282	2,291,882
Equipment	191,880	166,696	137,013	128,799	328,893	295,495
Intangible Equipment	24,277	14,816	36,056	10,669	60,333	25,485
Distribution and Collection Systems	—	—	3,926,410	3,907,331	3,926,410	3,907,331
Infrastructure	1,640,943	1,555,525	—	—	1,640,943	1,555,525
Totals	$ 5,077,307	$ 4,954,394	$ 6,176,556	$ 5,977,870	$ 11,253,863	$ 10,932,264

CAPITAL ASSETS

In accordance with Governmental Accounting Standards Board (GASB) Statement Nos. 34 and 51, all major assets such as land, structures, streets, signals, bridges, storm drains, distribution and collection systems for water and sewer, and intangible assets are capitalized by the City in the government-wide statements. While capital assets of both governmental and proprietary funds are capitalized at the government-wide level, only the proprietary funds report capital assets at the fund level. Governmental funds are reported on a modified accrual basis. Differences between reporting at the fund level and government-wide level for these governmental assets are explained in both the reconciliation and the accompanying notes to the basic financial statements.

The City's investment in capital assets (including infrastructure) for governmental and business-type activities as of June 30, 2018 was $11,253,863 (net of accumulated depreciation/amortization). There was an overall increase in the City's investment in capital assets over fiscal year 2017 of $321,599. Readers interested in more detailed information on capital asset activity should refer to Note 4.

HIGHLIGHTS OF FISCAL YEAR 2018 CAPITAL IMPROVEMENT PROGRAM (CIP) ACTIVITIES

Governmental Activities

- The asphalt overlay of approximately 88 miles of roads citywide was completed during fiscal year 2018. These projects provided for resurfacing and reconstruction of City streets, in order to maintain the streets in serviceable condition and mitigate roadway deterioration. These projects were funded primarily with lease revenue bonds. Fiscal year 2018 expenditures totaled $26,606.

- The City implemented the Infrastructure Asset Management (IAM) San Diego Project in fiscal year 2018. The IAM San Diego project is a citywide strategic initiative to develop and implement an integrated software solution that will improve the City's management of infrastructure assets. Fiscal year 2018 expenditures for this project totaled $19,885.

- The annual allocation for drainage projects provides for reconstruction and replacement of failing drainage facilities citywide. There are currently over 900 miles of storm drains in the City of San Diego. Fiscal year 2018 expenditures for drainage projects totaled $15,725.

- The annual allocation for Energy Improvement projects provides for energy efficiency improvements in City facilities citywide, including the installation of smart street lights. Fiscal year 2018 expenditures for Energy Improvement projects totaled $14,065.

- Construction began on the Mission Hills-Hillcrest Library, which will provide an approximately 15,000 square-foot library for the local community. This project is expected to be completed during fiscal year 2019. Fiscal year 2018 expenditures for this project totaled $10,787.

- Phase 1 of construction for the SR163/Friars Road Project began in fiscal year 2018 and is anticipated to be completed in fiscal year 2020. This project will provide for the construction of a new southbound 163 to westbound Friars Road off-ramp, and the widening of the Friars Road overcrossing to eight lanes. Fiscal year 2018 expenditures for this project totaled $9,174.

- Construction continued on Cesar Solis Community Park. This project included an acquisition of land during fiscal year 2010, and the design was completed in fiscal year 2011. Construction was delayed due to a pending property acquisition and reimbursement agreement. This park will include fifteen acres with an additional five acres of joint use with the adjacent Ocean View Hills School. Amenities include lighted ball fields, a comfort station, a children's play area, and picnic areas. It is anticipated to be completed in fiscal year 2019. The fiscal year 2018 expenditures for this project totaled $8,202.

Business-Type Activities

- The Sewer Utility Fund incurred capital expenditures of approximately $85,600 related to CIP, of which the Metropolitan System CIP incurred approximately $35,015, and the Municipal System CIP incurred approximately $50,585. The following major projects continued during fiscal year 2018: Surge Protection and Backup Power of Pump Station 2; North City Water Reclamation Plant Expansion; IAM San Diego Project; and the continued replacement of sewer mains and upgrades to the sewer infrastructure. Capital write-offs (net) for fiscal year 2018 totaled approximately $15,363 and were primarily related to losses on abandoned and otherwise expensed projects, and retirements of distribution and collection system assets.

- The Water Utility Fund incurred capital expenditures of approximately $173,000 related to CIP. The following major projects continued during fiscal year 2018: Miramar Clearwell Improvements; North City Pure Water Facility; Upas Street Pipeline Replacement; and the continued replacement of water mains and upgrades to water infrastructure. Capital Asset write-offs (net) for fiscal year 2018 totaled approximately $15,327 and were primarily related to losses on abandoned projects, capitalized interest adjustment, and retirements of equipment and distribution and collection system assets.

- San Diego Convention Center Corporation completed the Sails Pavilion roof fabric replacement project. The fiscal year 2018 expenditures for this project totaled approximately $9,315.

COMMITMENTS AND RESTRICTIONS

The City has contractual commitments related to its CIP program which have been encumbered in the applicable funds. The following table provides a breakdown of these commitments:

General Fund [1]	$ 4,813
Nonmajor Governmental Funds	203,670
Sewer Utility	68,799
Water Utility	161,378
Nonmajor Enterprise Funds	22,727
Internal Service Funds	594
Total Contractual Commitments	$ 461,981

[1] General Fund amount includes funds that do not meet the criteria to be classified as special revenue funds, pursuant to GASB 54.

Total Contractual Commitments increased by $171,390, or 59%, from fiscal year 2017, primarily due to the ramping up of Public Utility projects, including the Pure Water Program, and awarding of contracts related to the West Mission Bay Bridge Replacement Project.

In addition, there are restrictions on City financial resources externally imposed by creditors, grantors, contributors, laws or regulation of other governments, or constraints imposed by law through constitutional provision or enabling legislation, including the City Charter. Note 22 identifies restrictions on governmental fund balances. Additional restrictions exist related to enterprise funds when revenues of the fund can only be used for costs related to the particular enterprise.

LONG-TERM DEBT

CITY OF SAN DIEGO'S OUTSTANDING DEBT
(Dollars in Thousands)

	Governmental Activities		Business-Type Activities		Total Primary Government	
	2018	2017	2018	2017	2018	2017
Capital Lease Obligations	$ 197,649	$ 165,626	$ 4,624	$ 6,091	$ 202,273	$ 171,717
QECB Lease Obligations	7,578	8,429	—	—	7,578	8,429
Contracts Payable	—	—	2,194	2,888	2,194	2,888
Notes Payable	—	—	11	13	11	13
Loans Payable	3,511	4,144	203,273	191,658	206,784	195,802
Section 108 Loans Payable	2,872	3,197	—	—	2,872	3,197
Commercial Paper Notes [1]	—	—	168,213	—	168,213	—
Revenue Bonds/Lease Revenue Bonds	543,195	570,460	1,402,850	1,489,565	1,946,045	2,060,025
Tobacco Settlement Asset-Backed Bonds	89,195	64,570	—	—	89,195	64,570
Totals	$ 844,000	$ 816,426	$ 1,781,165	$ 1,690,215	$ 2,625,165	$ 2,506,641

[1] Pursuant to GASB 62, in fiscal year 2018, Commercial Paper Notes have been recategorized from Short-Term to Long-Term Debt. See Note 6 and Note 8 for more information.

At the end of fiscal year 2018, the City, including blended component units, had total debt outstanding of $2,625,165. This amount represents lease revenue bonds, tobacco settlement asset-backed bonds, contracts payable, notes payable, loans payable, qualified energy conservation bonds (QECBs), commercial paper notes payable, and capital lease obligations.

Governmental Activities

Total principal payments or reductions of long-term debt were $245,841. Included in this amount was $32,945 for outstanding bond principal payments, $196,870 for bond refundings, $958 for loans payable, $851 for qualified energy conservation bonds, and $14,217 for capital lease obligation payments.

Readers interested in more detailed information regarding governmental activities long-term liabilities should refer to Note 5.

Business-Type Activities

The City's Sewer Utility Fund received the following State Revolving Fund (SRF) loan disbursements from the California State Water Resources Control Board:

- $2,908 for the Metro Biosolids Center (MBC) Odor Control Facilities Upgrades Project
- $2,862 for the Pump Station 2 Power Reliability and Surge Protection Project
- $4,541 for the MBC Chemical Systems Improvement, Phase II Project

The City's Water Utility Fund received the following SRF loan disbursements from the California State Water Resources Control Board:

- $10,482 for the University Avenue Pipeline Replacement Project
- $2,564 for the 69th Street and Mohawk Pump Station Project

Total principal payments or reductions of long-term debt were $100,620. Included in this amount was $86,715 for outstanding bond principal payments, $11,742 for loans payable, $1,467 for capital lease obligation payments, $694 for contracts payable, and $2 for SDCCC's notes payable. Readers interested in more detailed information regarding business-type activities long-term liabilities should refer to Note 6.

As of the issuance of this report, the City's Implied General Obligation (GO) / Issuer Credit Ratings and credit ratings on outstanding Lease Revenue Bonds and Revenue Bonds are as follows:

	Fitch Ratings	Moody's Investors Service	Standard & Poor's
Implied GO/Issuer Credit Rating	AA	Aa2	AA
Outlook	Stable	Stable	Positive
Lease Revenue Bonds	AA-	--	AA-
Outlook	Stable		Positive
Wastewater System Bonds (Senior Bonds)	AA	Aa2	AA+
Outlook	Stable	Stable	Stable
Water System Bonds (Subordinate Bonds)	AA-	Aa3	—
Outlook	Stable	Stable	—

Additional information on the City's long-term debt can be found in the accompany notes to the financial statements.

OTHER INFORMATION

Utilization of Pension Payment Stabilization Reserve for Fiscal Year 2018 Actuarially Determined Contribution

The fiscal year 2018 adopted budget included full utilization of the Pension Payment Stabilization Reserve balance of $20,536 to minimize the impact of the significant increase in the City's July 1, 2017 Actuarially Determined Contribution (ADC) of $324,500. This reserve was established in fiscal year 2016 to mitigate service delivery risk due to unanticipated increases in the ADC. The Fiscal Year 2020-2024 Five-Year Financial Outlook Report included a plan to replenish the Pension Reserve on an incremental basis of 20.0% per year to achieve the full reserve target by Fiscal Year 2023. The Fiscal Year 2019 Adopted Budget included $4.8 million, comprising 20.0% of the Pension Reserve for the General Fund ($3.6 million), plus 20.0% of the Pension Reserve for the Enterprise funds ($1.2 million).

San Diego Gas and Electric (SDG&E) Dispute

In June 2018, SDG&E informed the City that it was stopping all design work on utility relocations for the Pure Water Program, pending advance payment for such work from the City. SDG&E argued that it was not responsible for the costs of relocating any of its facilities under its electric or natural gas franchise agreements with the City, on the basis that such work was proprietary and not governmental. The City Attorney's Office responded to SDG&E, expressing the City's strong disagreement with SDG&E's position based on the plain language in those franchise agreements, which the City believes requires SDG&E to relocate its facilities located in the public right-of-way at its own expense when necessary to accommodate City water projects, including the Pure Water Program. Absent and until a resolution with SDG&E is reached, to avoid project delays, the budgeted cost of all Water System capital improvement projects including, but not limited to, the Pure Water Program, includes the cost of any relocation of SDG&E facilities. The Public Utilities Department has projected a total of $75.0 million of advance payments to SDG&E for facilities relocations in fiscal years 2019 and 2020. The City maintains its position that SDG&E should bear the costs of its facilities relocations from the public right-of-way for all City water projects and reserves the right to seek reimbursement from SDG&E through all legal means available.

Election Results

On November 6, 2018, voters in the City of San Diego approved Measure G, "SDSU West Campus Research Center, Stadium, and River Park Initiative". This measure amends the San Diego Municipal Code to authorize the City to sell 132 acres of City-owned real property, which includes SDCCU Stadium, to San Diego State University (SDSU), a California State University, or any SDSU auxiliary organization, entity, or affiliate. Also on November 8, 2018, voters in their respective districts elected new Councilmembers Jennifer Campbell in District 2; Monica Montgomery in District 4, and Vivian Moreno in in District 8. Councilmember Chris Cate was re-elected in District 6.

REQUESTS FOR INFORMATION

This financial report is designed to provide a general overview of the City's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be sent to the Department of Finance at DOF@sandiego.gov. This financial report, and several other finance related reports, is also available on the City's website at www.sandiego.gov, under the Department of Finance. Additional information intended for the investor community is available on the Investor Relations page also located on the City's website listed above.

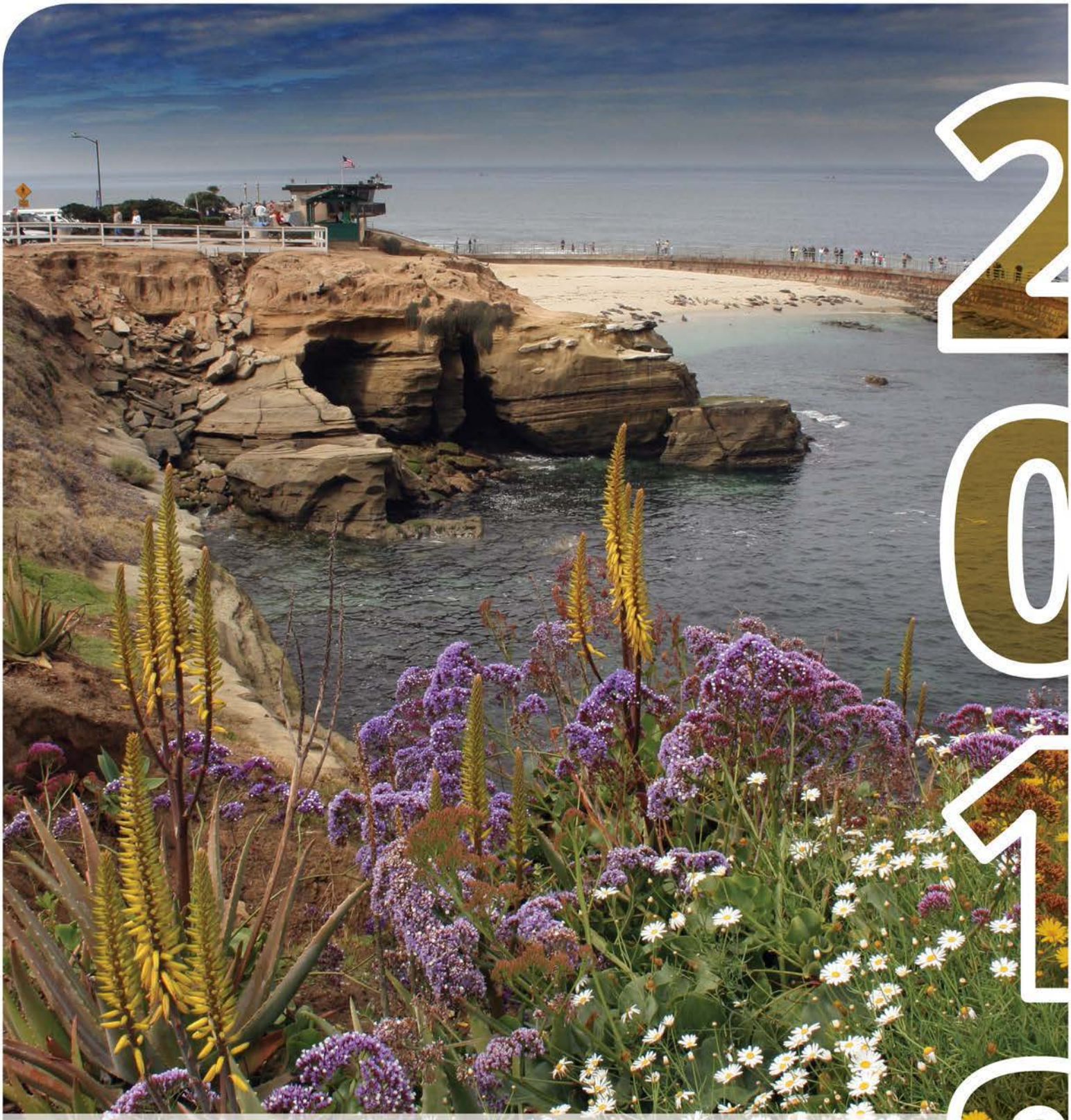

2021

BASIC FINANCIAL STATEMENTS

Children's School, La Jolla, CA

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STATEMENT OF NET POSITION
June 30, 2018
(Dollars in Thousands)

	Primary Government			Component Unit
	Governmental Activities	Business-Type Activities	Total	San Diego Housing Commission
ASSETS				
Cash and Investments	$ 1,553,482	$ 757,566	$ 2,311,048	$ 152,839
Receivables:				
Taxes - Net of Allowance for Uncollectibles	166,019	—	166,019	—
Accounts - Net of Allowance for Uncollectibles	61,023	150,233	211,256	18,417
Claims	30,380	—	30,380	—
Contributions	1,881	—	1,881	—
Special Assessments	121	—	121	—
Notes	265,041	—	265,041	329,263
Loans	180,472	—	180,472	—
Accrued Interest	3,705	4,025	7,730	45,449
Grants	26,475	6,323	32,798	—
From Other Agencies	10,404	—	10,404	—
Advances to Other Agencies	4,394	—	4,394	—
Internal Balances	(227)	227	—	—
Inventories	1,351	66,469	67,820	—
Land Held for Resale	20,778	—	20,778	—
Prepaid Expenses	325	3,223	3,548	12,265
Restricted Cash and Investments	91,542	148,810	240,352	7,475
Other Assets	—	706	706	3,941
Capital Assets - Non-Depreciable	2,350,229	677,773	3,028,002	79,501
Capital Assets - Depreciable	2,727,078	5,498,783	8,225,861	201,908
TOTAL ASSETS	7,494,473	7,314,138	14,808,611	851,058
DEFERRED OUTFLOWS OF RESOURCES				
Loss on Refunding	15,125	128,385	143,510	—
Deferred Outflows Related to Other Postemployment Benefits	23,801	6,579	30,380	—
Deferred Outflows Related to Pensions	632,142	126,937	759,079	—
TOTAL DEFERRED OUTFLOWS OF RESOURCES	671,068	261,901	932,969	—
LIABILITIES				
Accounts Payable	118,850	116,512	235,362	12,602
Accrued Wages and Benefits	33,862	7,223	41,085	1,424
Other Accrued Liabilities	2,665	17,142	19,807	11,707
Interest Accrued on Long-Term Debt	4,939	19,346	24,285	4,367
Long-Term Liabilities Due Within One Year	175,861	132,355	308,216	5,541
Due to Other Agencies	32	—	32	—
Unearned Revenue	22,590	32,589	55,179	2,406

STATEMENT OF NET POSITION
June 30, 2018
(Dollars in Thousands)

	Primary Government			Component Unit
	Governmental Activities	Business-Type Activities	Total	San Diego Housing Commission
LIABILITIES (Continued)				
Liabilities Payable from Restricted Assets:				
Customer Deposits Payable	$ —	$ 19,337	$ 19,337	$ —
Deposits/Advances from Others	—	8,051	8,051	2,110
Long-Term Liabilities Due After One Year:				
Arbitrage Liability	—	1,169	1,169	—
Compensated Absences	33,161	6,448	39,609	—
Liability Claims	288,934	28,013	316,947	—
Reimbursement Agreement Obligations	6,749	—	6,749	—
Capital Lease Obligations	179,851	3,123	182,974	—
QECB Lease Obligations	6,707	—	6,707	—
Contracts Payable	—	1,481	1,481	—
Notes Payable	—	9	9	181,738
Loans Payable	2,860	191,379	194,239	—
Section 108 Loans Payable	2,527	—	2,527	—
Commercial Paper Payable	—	168,213	168,213	—
Net Bonds Payable	636,120	1,525,474	2,161,594	—
Estimated Landfill Closure and Postclosure Care	—	53,003	53,003	—
Net Other Postemployment Benefits Liability	427,481	122,963	550,444	—
Pension Liabilities	2,059,282	473,308	2,532,590	—
TOTAL LIABILITIES	4,002,471	2,927,138	6,929,609	221,895
DEFERRED INFLOWS OF RESOURCES				
Gain on Refunding	—	2,548	2,548	—
Deferred Inflows Related to Other Postemployment Benefits	466	129	595	—
Deferred Inflows Related to Pensions	79,669	15,829	95,498	—
TOTAL DEFERRED INFLOWS OF RESOURCES	80,135	18,506	98,641	—
NET POSITION				
Net Investment in Capital Assets	4,308,123	4,383,725	8,691,848	107,299
Restricted for:				
Capital Projects	462,389	—	462,389	—
Debt Service	—	683	683	—
Low-Moderate Income Housing	338,828	—	338,828	—
Nonexpendable Permanent Endowments	17,836	—	17,836	—
Grants	179,469	—	179,469	—
Other	492,426	6,525	498,951	213,627
Unrestricted	(1,716,136)	239,462	(1,476,674)	308,237
TOTAL NET POSITION	$ 4,082,935	$ 4,630,395	$ 8,713,330	$ 629,163

The accompanying notes are an integral part of the financial statements.

STATEMENT OF ACTIVITIES
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

Functions/Programs	Expenses	Program Revenues: Charges for Services	Program Revenues: Operating Grants and Contributions	Program Revenues: Capital Grants and Contributions
Primary Government:				
Governmental Activities:				
General Government and Support	$ 364,533	$ 176,366	$ 17,341	$ 49
Public Safety - Police	542,128	40,738	5,891	233
Public Safety - Fire and Life Safety and Homeland Security	321,016	43,814	13,805	84
Parks, Recreation, Culture and Leisure	383,122	114,893	9,590	11,599
Transportation	264,278	51,422	59,097	14,193
Sanitation and Health	101,440	15,625	1,431	60
Neighborhood Services	91,686	40,123	27,527	—
Debt Service - Interest	36,515	—	—	—
TOTAL GOVERNMENTAL ACTIVITIES	2,104,718	482,981	134,682	26,218
Business-Type Activities:				
Sewer Utility	351,145	360,710	1,344	22,219
Water Utility	532,056	569,524	3,391	42,615
Airports	7,415	4,888	467	5,057
Development Services	78,287	70,703	—	—
Environmental Services	41,397	34,960	—	—
Golf Course	21,072	23,502	—	—
Recycling	25,002	27,957	1,085	—
San Diego Convention Center Corporation	37,986	34,256	3,671	218
TOTAL BUSINESS-TYPE ACTIVITIES	1,094,360	1,126,500	9,958	70,109
TOTAL PRIMARY GOVERNMENT	$ 3,199,078	$ 1,609,481	$ 144,640	$ 96,327
Component Unit:				
San Diego Housing Commission	$ 255,856	$ 51,311	$ 240,960	$ 3,487

General Revenues:	
Property Taxes	
Transient Occupancy Taxes	
Sales Taxes - Shared State Revenue (Unrestricted)	
Franchises	
Other Local Taxes	
Developer Contributions and Fees	
Grants and Contributions not Restricted to Specific Programs	
Investment Income	
Gain on Sale of Capital Assets	
Miscellaneous	
Transfers, Net	
TOTAL GENERAL REVENUES AND TRANSFERS	
CHANGE IN NET POSITION	
Net Position at Beginning of Year, as Restated	
NET POSITION AT END OF YEAR	

Net Revenue/(Expense) and Changes in Net Position			
Primary Government			Component Unit
Governmental Activities	Business-Type Activities	Total	San Diego Housing Commission
$ (170,777)	$ —	$ (170,777)	$ —
(495,266)	—	(495,266)	—
(263,313)	—	(263,313)	—
(247,040)	—	(247,040)	—
(139,566)	—	(139,566)	—
(84,324)	—	(84,324)	—
(24,036)	—	(24,036)	—
(36,515)	—	(36,515)	—
(1,460,837)	—	(1,460,837)	—
—	33,128	33,128	—
—	83,474	83,474	—
—	2,997	2,997	—
—	(7,584)	(7,584)	—
—	(6,437)	(6,437)	—
—	2,430	2,430	—
—	4,040	4,040	—
—	159	159	—
—	112,207	112,207	—
(1,460,837)	112,207	(1,348,630)	—
—	—	—	39,902
548,509	—	548,509	—
231,863	—	231,863	—
323,113	—	323,113	—
96,313	—	96,313	—
52,603	—	52,603	—
82,883	—	82,883	—
833	—	833	—
13,337	8,435	21,772	10,981
809	—	809	3
15,959	13,758	29,717	—
(2,814)	2,814	—	—
1,363,408	25,007	1,388,415	10,984
(97,429)	137,214	39,785	50,886
4,180,364	4,493,181	8,673,545	578,277
$ 4,082,935	$ 4,630,395	$ 8,713,330	$ 629,163

The accompanying notes are an integral part of the financial statements.

GOVERNMENTAL FUNDS
BALANCE SHEET
JUNE 30, 2018
(Dollars in Thousands)

	General Fund	Other Governmental Funds	Total Governmental Funds
ASSETS			
Cash and Investments	$ 267,033	$ 1,143,882	$ 1,410,915
Receivables:			
Taxes - Net of Allowance for Uncollectibles	106,294	59,725	166,019
Accounts - Net of Allowance for Uncollectibles	37,274	20,795	58,069
Claims	—	30,380	30,380
Special Assessments	—	121	121
Notes	—	265,041	265,041
Loans	—	180,472	180,472
Accrued Interest	1,053	2,460	3,513
Grants	—	26,198	26,198
From Other Funds	27,117	—	27,117
From Other Agencies	10,404	—	10,404
Contributions	968	—	968
Advances to Other Funds	733	—	733
Advances to Other Agencies	—	4,394	4,394
Land Held for Resale	—	20,778	20,778
Prepaid Items	130	195	325
Restricted Cash and Investments	6,087	85,455	91,542
TOTAL ASSETS	$ 457,093	$ 1,839,896	$ 2,296,989
LIABILITIES			
Accounts Payable	$ 42,769	$ 67,297	$ 110,066
Accrued Wages and Benefits	31,647	379	32,026
Other Accrued Liabilities	1,276	1,259	2,535
Due to Other Funds	—	27,117	27,117
Due to Other Agencies	9	23	32
Unearned Revenue	—	22,590	22,590
Advances from Other Funds	—	733	733
TOTAL LIABILITIES	75,701	119,398	195,099
DEFERRED INFLOWS OF RESOURCES			
Unavailable Revenue - Taxes	22,215	32,780	54,995
Unavailable Revenue - Grants	—	19,440	19,440
Unavailable Revenue - Other	5,373	13,260	18,633
TOTAL DEFERRED INFLOWS OF RESOURCES	27,588	65,480	93,068

GOVERNMENTAL FUNDS
BALANCE SHEET
JUNE 30, 2018
(Dollars in Thousands)

	General Fund	Other Governmental Funds	Total Governmental Funds
FUND BALANCES			
Nonspendable	863	18,042	18,905
Restricted	132,307	1,582,579	1,714,886
Committed	100,483	97,911	198,394
Assigned	24,717	—	24,717
Unassigned	95,434	(43,514)	51,920
TOTAL FUND BALANCES	353,804	1,655,018	2,008,822
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND FUND BALANCES	$ 457,093	$ 1,839,896	

Amounts reported for governmental activities in the Statement of Net Position are different because:	
Capital assets used in governmental activities are not financial resources, and therefore, are not reported at the fund level.	4,930,839
Certain assets and deferred outflows of resources are not financial resources (uses), and therefore, are not reported at the fund level.	653,012
Unavailable revenues are not financial resources, and therefore, are reported as deferred inflows of resources.	93,068
Internal service funds are used by management to charge the costs of activities such as Fleet Operations, Central Stores, Publishing Services, and Employee Benefit Programs to individual funds. The assets, deferred outflows of resources, liabilities and deferred inflows of resources of internal service funds are included in governmental activities on the Statement of Net Position.	160,720
Certain liabilities and deferred inflows of resources, including bonds payable, are not due and payable in the current period, and therefore, are not reported in the funds.	(3,763,526)
Net Position of Governmental Activities (page 51)	$ 4,082,935

The accompanying notes are an integral part of the financial statements.

GOVERNMENTAL FUNDS
STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

	General Fund	Other Governmental Funds	Total Governmental Funds
REVENUES			
Property Taxes	$ 535,481	$ 13,389	$ 548,870
Special Assessments	—	63,870	63,870
Sales Taxes - Shared State Revenue	282,321	31,702	314,023
Transient Occupancy Taxes	121,904	109,959	231,863
Franchises	96,208	63,977	160,185
Other Local Taxes	52,608	—	52,608
Licenses and Permits	22,000	86,516	108,516
Fines, Forfeitures and Penalties	30,708	1,449	32,157
Revenue from Use of Money and Property	71,994	31,752	103,746
Revenue from Federal Agencies	2,053	52,283	54,336
Revenue from Other Agencies	10,012	25,658	35,670
Revenue from Private Sources	1,225	8,123	9,348
Charges for Current Services	263,266	26,465	289,731
Other Revenue	12,236	4,068	16,304
TOTAL REVENUES	1,502,016	519,211	2,021,227
EXPENDITURES			
Current:			
General Government and Support	333,591	29,535	363,126
Public Safety - Police	467,555	6,414	473,969
Public Safety - Fire and Life Safety and Homeland Security	273,220	12,347	285,567
Parks, Recreation, Culture and Leisure	167,965	154,502	322,467
Transportation	121,837	54,094	175,931
Sanitation and Health	91,166	4,200	95,366
Neighborhood Services	33,650	64,328	97,978
Capital Outlay	34,602	218,647	253,249
Debt Service:			
Principal Retirement	7,058	33,903	40,961
Cost of Issuance	—	1,500	1,500
Interest	7,713	47,281	54,994
Payment to Refunded Bond Escrow Agent	—	13,125	13,125
TOTAL EXPENDITURES	1,538,357	639,876	2,178,233
DEFICIENCY OF REVENUES UNDER EXPENDITURES	(36,341)	(120,665)	(157,006)

GOVERNMENTAL FUNDS
STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

	General Fund	Other Governmental Funds	Total Governmental Funds
OTHER FINANCING SOURCES (USES)			
Transfers from Proprietary Funds	$ —	$ 61	$ 61
Transfers from Other Funds	47,231	95,769	143,000
Transfers to Proprietary Funds	(1,862)	(1,215)	(3,077)
Transfers to Other Funds	(44,319)	(98,681)	(143,000)
Payment to Refunded Bond Escrow Agent	—	(183,745)	(183,745)
Proceeds from the Sale of Capital Assets	—	2,037	2,037
Capital Lease Proceeds	15,636	16,191	31,827
Lease Revenue Bonds Issued	—	129,320	129,320
Tobacco Settlement Bonds Issued	—	97,855	97,855
Discount on Bonds Issued	—	(204)	(204)
TOTAL OTHER FINANCING SOURCES (USES)	16,686	57,388	74,074
NET CHANGE IN FUND BALANCES	(19,655)	(63,277)	(82,932)
Fund Balances at Beginning of Year	373,459	1,718,295	2,091,754
FUND BALANCES AT END OF YEAR	$ 353,804	$ 1,655,018	$ 2,008,822

The accompanying notes are an integral part of the financial statements.

RECONCILIATION OF THE STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES OF GOVERNMENTAL FUNDS TO THE STATEMENT OF ACTIVITIES
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

Net Change in Fund Balances of Governmental Funds (page 57)	$	(82,932)
Governmental funds report capital outlays as expenditures. However, in the Statement of Activities, the cost of those assets is allocated over their estimated useful lives and reported as depreciation expense. Donated assets are not financial resources, and therefore, are not reported in the funds. This is the amount by which capital outlays and donated assets exceeded depreciation in the current period.		118,646
The net effect of various miscellaneous transactions involving capital assets (e.g., retirements and transfers) is to decrease net position.		(8,121)
Revenues available to liquidate liabilities of the current period were recognized in the governmental funds during the current year; however, such amounts were recognized as revenue in the Statement of Activities in the prior year.		11,436
The issuance of long-term debt (e.g., bonds, leases) provides current financial resources to governmental funds, while the repayment of the principal of long-term debt consumes the current financial resources of governmental funds. Neither transaction, however, has any effect on net position. This amount is the net effect of these differences in the treatment of long-term debt and related items.		(21,171)
Some expenses reported in the Statement of Activities do not require the use of current financial resources (e.g., compensated absences, net pension liability), and therefore are not accrued as expenditures in governmental funds.		(116,063)
Internal service funds are used to charge the costs of activities such as Fleet Operations, Central Stores, Publishing Services, and Employee Benefit Programs to individual funds. The net income of certain internal service activities is reported with governmental activities.		776
Change in Net Position of Governmental Activities (page 53)	$	(97,429)

The accompanying notes are an integral part of the financial statements.

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PROPRIETARY FUNDS
STATEMENT OF FUND NET POSITION
June 30, 2018
(Dollars in Thousands)

	Business-Type Activities - Enterprise Funds				
	Sewer Utility	Water Utility	Other Enterprise Funds	Total	Internal Service Funds
ASSETS					
Current Assets:					
Cash and Investments	$ 320,644	$ 260,037	$ 174,117	$ 754,798	$ 145,335
Receivables:					
Accounts - Net of Allowance for Uncollectibles	49,253	86,118	14,862	150,233	2,954
Contributions	—	—	—	—	913
Accrued Interest	1,758	1,285	969	4,012	205
Grants	—	1,227	5,096	6,323	277
Inventories	—	66,013	38	66,051	1,769
Total Current Assets	371,655	414,680	195,082	981,417	151,453
Non-Current Assets:					
Restricted Cash and Investments	69,772	23,951	55,087	148,810	—
Prepaid Expenses	—	—	3,223	3,223	—
Other Assets	—	—	706	706	—
Capital Assets - Non-Depreciable	210,690	440,538	26,545	677,773	3,849
Capital Assets - Depreciable	2,975,500	2,414,208	109,075	5,498,783	142,619
Total Non-Current Assets	3,255,962	2,878,697	194,636	6,329,295	146,468
TOTAL ASSETS	3,627,617	3,293,377	389,718	7,310,712	297,921
DEFERRED OUTFLOWS OF RESOURCES					
Loss on Refunding	73,293	55,092	—	128,385	—
Deferred Outflows Related to Other Postemployment Benefits	1,949	2,406	2,224	6,579	937
Deferred Outflows Related to Pensions	39,585	48,298	39,054	126,937	17,119
TOTAL DEFERRED OUTFLOWS OF RESOURCES	114,827	105,796	41,278	261,901	18,056

PROPRIETARY FUNDS
STATEMENT OF FUND NET POSITION
June 30, 2018
(Dollars in Thousands)

	Business-Type Activities - Enterprise Funds				
	Sewer Utility	Water Utility	Other Enterprise Funds	Total	Internal Service Funds
LIABILITIES					
Current Liabilities:					
Accounts Payable	$ 23,163	$ 81,376	$ 11,685	$ 116,224	$ 9,072
Accrued Wages and Benefits	2,499	2,204	2,520	7,223	1,836
Other Accrued Liabilities	9,690	4,599	2,853	17,142	130
Interest Accrued on Long-Term Debt	5,547	13,799	—	19,346	233
Long-Term Liabilities Due Within One Year	82,303	44,208	5,844	132,355	14,796
Unearned Revenue	916	3,971	27,702	32,589	—
Current Liabilities Payable from Restricted Assets:					
Customer Deposits Payable	—	7,786	11,551	19,337	—
Total Current Liabilities	124,118	157,943	62,155	344,216	26,067
Non-Current Liabilities:					
Non-Current Liabilities Payable from Restricted Assets:					
Deposits/Advances from Others	—	—	8,051	8,051	—
Arbitrage Liability	—	1,169	—	1,169	—
Compensated Absences	2,079	2,308	2,061	6,448	3,327
Liability Claims	9,770	12,606	5,637	28,013	7,309
Capital Lease Obligations	392	392	2,339	3,123	26,415
Loans Payable	94,008	71,871	25,500	191,379	—
Notes Payable	—	—	9	9	—
Contracts Payable	—	—	1,481	1,481	—
Commercial Paper Payable	—	168,213	—	168,213	—
Net Revenue Bonds Payable	808,558	716,916	—	1,525,474	—
Estimated Landfill Closure and Postclosure Care	—	—	53,003	53,003	—
Net Other Postemployment Benefits Liability	43,714	42,338	36,911	122,963	20,376
Pension Liabilities	167,200	160,404	145,704	473,308	66,417
Total Non-Current Liabilities	1,125,721	1,176,217	280,696	2,582,634	123,844
TOTAL LIABILITIES	1,249,839	1,334,160	342,851	2,926,850	149,911
DEFERRED INFLOWS OF RESOURCES					
Gain on Refunding	—	2,548	—	2,548	—
Deferred Inflows Related to Other Postemployment Benefits	40	46	43	129	18
Deferred Inflows Related to Pensions	4,649	6,267	4,913	15,829	2,190
TOTAL DEFERRED INFLOWS OF RESOURCES	4,689	8,861	4,956	18,506	2,208
NET POSITION					
Net Investment in Capital Assets	2,347,463	1,927,030	109,232	4,383,725	110,383
Restricted for Debt Service	518	165	—	683	—
Restricted for Closure/Postclosure Maintenance	—	—	5,698	5,698	—
Restricted for Other	—	—	827	827	—
Unrestricted (Deficit)	139,935	128,957	(32,568)	236,324	53,475
TOTAL NET POSITION	$ 2,487,916	$ 2,056,152	$ 83,189	4,627,257	$ 163,858
Adjustment to reflect the consolidation of Internal Service Fund activities related to Enterprise Funds				3,138	
Net position of business-type activities (page 51)				$ 4,630,395	

The accompanying notes are an integral part of the financial statements.

PROPRIETARY FUNDS
STATEMENT OF REVENUES, EXPENSES AND CHANGES IN FUND NET POSITION
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

	Business-Type Activities - Enterprise Funds				
	Sewer Utility	Water Utility	Other Enterprise Funds	Total	Internal Service Funds
OPERATING REVENUES					
Sales of Water	$ —	$ 551,275	$ —	$ 551,275	$ —
Charges for Services	353,628	5,218	163,527	522,373	120,464
Revenue from Use of Property	801	6,104	25,209	32,114	—
Other	6,281	6,927	11,201	24,409	73
TOTAL OPERATING REVENUES	360,710	569,524	199,937	1,130,171	120,537
OPERATING EXPENSES					
Salaries and Employee Benefits	98,548	89,891	115,967	304,406	39,940
Materials and Supplies	23,555	211,688	7,204	242,447	21,272
Contractual Services	71,146	108,325	56,430	235,901	10,899
Information Technology	7,278	5,658	4,052	16,988	1,893
Energy and Utilities	19,938	13,535	9,079	42,552	12,422
Depreciation	75,302	57,007	7,817	140,126	20,803
Benefit and Claim Expenses	—	—	—	—	16,944
Other Expenses	524	4,334	9,279	14,137	30
TOTAL OPERATING EXPENSES	296,291	490,438	209,828	996,557	124,203
OPERATING INCOME (LOSS)	64,419	79,086	(9,891)	133,614	(3,666)
NONOPERATING REVENUES (EXPENSES)					
Earnings on Investments	4,275	2,085	2,067	8,427	416
Federal Grant Assistance	1,344	3,126	467	4,937	—
Other Agency Grant Assistance	—	265	1,085	1,350	656
Gain (Loss) on Sale/Retirement of Capital Assets	(15,366)	(15,327)	(587)	(31,280)	728
Debt Service Interest Expense	(38,900)	(25,512)	(766)	(65,178)	(658)
Other	8,230	4,480	1,048	13,758	414
TOTAL NONOPERATING REVENUES (EXPENSES), NET	(40,417)	(30,883)	3,314	(67,986)	1,556
INCOME (LOSS) BEFORE CONTRIBUTIONS AND TRANSFERS	24,002	48,203	(6,577)	65,628	(2,110)
Capital Contributions	22,219	42,633	5,304	70,156	1,300
Transfers from Other Funds	1,228	—	573	1,801	3,000
Transfers from Governmental Funds	563	495	1,771	2,829	248
Transfers to Other Funds	(2,000)	(2,228)	(573)	(4,801)	—
Transfers to Governmental Funds	(24)	(14)	(17)	(55)	(6)
TOTAL CONTRIBUTIONS AND TRANSFERS	21,986	40,886	7,058	69,930	4,542
CHANGE IN NET POSITION	45,988	89,089	481	135,558	2,432
Net Position at Beginning of Year, as Restated	2,441,928	1,967,063	82,708		161,426
NET POSITION AT END OF YEAR	$ 2,487,916	$ 2,056,152	$ 83,189		$ 163,858
Adjustment to reflect the consolidation of Internal Service Fund activities related to Enterprise Funds				1,656	
Change in net position of business-type activities (page 53)				$ 137,214	

The accompanying notes are an integral part of the financial statements.

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PROPRIETARY FUNDS
STATEMENT OF CASH FLOWS
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

	Business-Type Activities - Enterprise Funds				
	Sewer Utility	Water Utility	Other Enterprise Funds	Total	Internal Service Funds
CASH FLOWS FROM OPERATING ACTIVITIES					
Receipts from Customers and Users	$ 359,025	$ 550,071	$ 195,088	$ 1,104,184	$ 25,157
Receipts from Interfund Services Provided	3,265	4,398	3,957	11,620	94,734
Payments to Suppliers	(134,620)	(332,137)	(84,174)	(550,931)	(47,358)
Payments to Employees	(79,553)	(65,541)	(96,445)	(241,539)	(46,118)
Payments for Interfund Services Used	(6,259)	(10,547)	(7,844)	(24,650)	(1,762)
NET CASH PROVIDED BY OPERATING ACTIVITIES	141,858	146,244	10,582	298,684	24,653
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES					
Transfers from Other Funds	1,228	—	573	1,801	3,000
Transfers from Governmental Funds	563	495	1,771	2,829	248
Transfers to Other Funds	(2,000)	(2,228)	(573)	(4,801)	—
Transfers to Governmental Funds	(24)	(14)	(17)	(55)	(6)
Operating Grants	1,344	2,234	1,537	5,115	490
Proceeds from Advances and Deposits	—	416	16	432	—
Payments for Advances and Deposits	—	—	(43)	(43)	—
NET CASH PROVIDED BY NONCAPITAL FINANCING ACTIVITIES	1,111	903	3,264	5,278	3,732
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES					
Proceeds from Loans	10,311	13,046	—	23,357	—
Proceeds from Commercial Paper	—	125,744	—	125,744	—
Proceeds from Capital Contributions	19,545	18,518	413	38,476	—
Proceeds from the Sale of Capital Assets	—	581	31	612	1,300
Loans to Others	—	—	(575)	(575)	—
Acquisition of Capital Assets	(116,786)	(191,701)	(19,000)	(327,487)	(17,971)
Principal Payments on Capital Leases	(185)	(185)	(1,097)	(1,467)	(8,010)
Principal Payments on Loans	(8,922)	(2,820)	—	(11,742)	—
Principal Payments on Notes	—	—	(2)	(2)	—
Principal Payments on Revenue Bonds	(58,310)	(28,405)	—	(86,715)	—
Decrease in Arbitrage Liability	—	33	—	33	—
Interest Paid on Long-Term Debt	(41,967)	(34,399)	(1,249)	(77,615)	(548)
NET CASH USED FOR CAPITAL AND RELATED FINANCING ACTIVITIES	(196,314)	(99,588)	(21,479)	(317,381)	(25,229)
CASH FLOWS FROM INVESTING ACTIVITIES					
Sales of Investments	123,922	88,997	—	212,919	—
Purchases of Investments	(124,648)	(88,522)	(3,544)	(216,714)	—
Proceeds from Restricted Investment	—	—	16,745	16,745	—
Interest Received on Investments	4,431	1,419	1,715	7,565	353
NET CASH PROVIDED BY INVESTING ACTIVITIES	3,705	1,894	14,916	20,515	353
Net Increase (Decrease) in Cash and Cash Equivalents	(49,640)	49,453	7,283	7,096	3,509
Cash and Cash Equivalents at Beginning of Year	375,650	218,370	215,993	810,013	141,826
CASH AND CASH EQUIVALENTS AT END OF YEAR	$ 326,010	$ 267,823	$ 223,276	$ 817,109	$ 145,335
Reconciliation of Cash and Cash Equivalents at End of Year to the Statement of Net Position:					
Cash and Investments	$ 320,644	$ 260,037	$ 174,117	$ 754,798	$ 145,335
Restricted Cash and Investments	69,772	23,951	55,087	148,810	—
Less Investments Not Meeting the Definition of Cash Equivalents	(64,406)	(16,165)	(5,928)	(86,499)	—
TOTAL CASH AND CASH EQUIVALENTS AT END OF YEAR	$ 326,010	$ 267,823	$ 223,276	$ 817,109	$ 145,335

PROPRIETARY FUNDS
STATEMENT OF CASH FLOWS
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

	Business-Type Activities - Enterprise Funds				
	Sewer Utility	Water Utility	Other Enterprise Funds	Total	Internal Service Funds
Reconciliation of Operating Income (Loss) to Net Cash Provided by Operating Activities:					
Operating Income (Loss)	$ 64,419	$ 79,086	$ (9,891)	$ 133,614	$ (3,666)
Adjustments to Reconcile Operating Income (Loss) to Net Cash Provided by Operating Activities:					
Depreciation	75,302	57,007	7,817	140,126	20,803
Other Nonoperating Revenues	8,230	4,480	1,048	13,758	414
(Increase) Decrease in Assets:					
Accounts Receivable - Net	(8,120)	(17,195)	(744)	(26,059)	(979)
Contributions Receivable	—	—	—	—	(80)
Due from Other Funds	3,032	—	—	3,032	—
Inventories	—	604	—	604	(66)
Prepaid Expenses	—	—	935	935	—
Increase (Decrease) in Liabilities and Net Deferred Outflows/Inflows of Resources:					
Accounts Payable	(8,517)	13,073	(1,315)	3,241	2,690
Accrued Wages and Benefits	21	86	180	287	104
Other Accrued Liabilities	—	—	436	436	—
Due to Other Agencies	52	(3,506)	—	(3,454)	—
Unearned Revenue	(1,574)	(2,340)	(1,196)	(5,110)	—
Contract Deposits	12	—	—	12	—
Contracts Payable	—	—	(694)	(694)	—
Compensated Absences	(172)	(50)	(180)	(402)	348
Liability Claims	(301)	2,704	436	2,839	1,153
Estimated Landfill Closure and Postclosure Care	—	—	4,473	4,473	—
Net Other Postemployment Benefits Liability and Related Changes in Deferred Outflows/Inflows of Resources	167	34	51	252	(11)
Pension Liabilities and Related Changes in Deferred Outflows/Inflows of Resources	9,307	12,261	9,226	30,794	3,943
Total Adjustments	77,439	67,158	20,473	165,070	28,319
NET CASH PROVIDED BY OPERATING ACTIVITIES	$ 141,858	$ 146,244	$ 10,582	$ 298,684	$ 24,653
Noncash Investing, Capital, and Financing Activities:					
Capital Assets Acquired through Capital Leases	$ —	$ —	$ —	$ —	$ 14,413
Developer Contributed Assets	2,674	24,097	—	26,771	—
Acquisition of Capital Assets	—	—	1,473	1,473	42
Capital Contributions Related to Grants Receivable	—	—	4,644	4,644	—
Capital Asset Acquisitions Related to Accounts Payable	779	2,477	5,417	8,673	80
Carrying Value of Retired Capital Assets	(15,363)	(15,327)	(574)	(31,264)	(492)
Capitalized Interest and Related Amounts	583	5,695	343	6,621	—
Amortization of Bond Premiums, Discounts and Refundings	2,120	(2,677)	—	(557)	—
Change in Fair Value of Investments	545	(64)	—	481	—
Interest Fund Credits for Debt Service Payments	(396)	(482)	—	(878)	—
Transfers of Capital Assets (To) From Governmental Activities	(3)	14	(1)	10	1,207
Transfers of Capital Assets (To) From Other Funds	(1)	1	29	29	(29)

The accompanying notes are an integral part of the financial statements

FIDUCIARY FUNDS
STATEMENT OF FIDUCIARY NET POSITION
June 30, 2018
(Dollars in Thousands)

	Trust Funds		
	Pension	Private-Purpose	Agency
ASSETS			
Cash and Investments	$ 2,114	$ 88,938	$ 31,979
Cash and Investments with Custodian/Fiscal Agent	288,588	—	—
Investments at Fair Value:			
Domestic Fixed Income Securities	2,043,704	—	—
International Fixed Income Securities	562,128	—	—
Domestic Equity Securities	1,798,974	—	—
International Equity Securities	1,302,229	—	—
Global Equity Securities	394,933	—	—
Real Estate	837,876	—	—
Equity Mutual Funds	799,969	—	—
Fixed Income Mutual Funds	394,379	—	—
Private Equity and Infrastructure	1,143,575	—	—
Receivables:			
Accounts - Net	—	—	762
Special Assessments	—	—	133
Contributions	3,265	—	—
Accrued Interest	8,439	210	22
Notes and Contracts	—	4,015	—
Loans	34,001	—	—
Securities Sold	170,177	—	—
Land Held for Resale	—	2,199	—
Prepaid Expenses	187	157	—
Securities Lending Collateral	171,321	—	—
Restricted Cash and Investments	—	44,001	34,292
Capital Assets - Non-Depreciable	—	13,438	—
Capital Assets - Depreciable	4,958	45,991	—
TOTAL ASSETS	9,960,817	198,949	67,188
DEFFERRED OUTFLOWS OF RESOURCES			
Loss on Refunding	—	25,133	—

FIDUCIARY FUNDS
STATEMENT OF FIDUCIARY NET POSITION
June 30, 2018
(Dollars in Thousands)

	Trust Funds		
	Pension	Private-Purpose	Agency
LIABILITIES			
Accounts Payable	$ 4,514	$ 415	$ 10,764
Accrued Wages and Benefits	672	—	—
Interest Accrued on Long-Term Debt	—	163,096	—
Deposits/Advances from Others	—	—	26
Sundry Trust/Agency Liabilities	—	433	35,113
Due to Bondholders	—	431,244	21,285
Liability Claims	—	68,297	—
Loans Payable	—	39,637	—
Supplemental Benefits Payable	11,788	—	—
Securities Lending Obligations	171,306	—	—
Securities Purchased	468,429	—	—
TOTAL LIABILITIES	656,709	703,122	67,188
DEFFERRED INFLOWS OF RESOURCES			
Gain on Refunding	—	3,321	—
NET POSITION (DEFICIT)			
Restricted for Pension Benefits	9,304,108	—	—
Held in Trust for Other Purposes	—	(482,361)	—
TOTAL NET POSITION (DEFICIT)	$ 9,304,108	$ (482,361)	$ —

The accompanying notes are an integral part of the financial statements.

FIDUCIARY FUNDS
STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

	Trust Funds	
	Pension	Private-Purpose
ADDITIONS		
Employer Contributions	$ 416,355	$ —
Plan Member Contributions:		
Employee Contributions	125,860	—
DROP Contributions	5,521	—
Retiree Contributions	8,040	—
Redevelopment Property Tax Trust Fund	—	94,716
Earnings on Investments:		
Investment Income	166,229	541
Investment Expense	(38,253)	—
Net Appreciation in Fair Value of Investments	597,091	—
Net Investment Income	725,067	95,257
Securities Lending Income:		
Gross Earnings	3,448	—
Borrower Rebates and Bank Charges	(2,459)	—
Net Securities Lending Income	989	—
Capital Contributions	—	1,299
Other Income	999	4,557
TOTAL ADDITIONS	1,282,831	101,113
DEDUCTIONS		
Enforceable Obligation Payments	—	5,199
Interest on Long-Term Debt	—	17,665
DROP Interest Expense	23,008	—
Benefit and Claim Payments	640,757	—
Disposal of Assets	—	896
Administration	12,166	—
Depreciation	—	1,804
TOTAL DEDUCTIONS	675,931	25,564
CHANGE IN NET POSITION	606,900	75,549
Net Position (Deficit) at Beginning of Year	8,697,208	(557,910)
NET POSITION (DEFICIT) AT END OF YEAR	$ 9,304,108	$ (482,361)

The accompanying notes are an integral part of the financial statements.

NOTES TO THE BASIC FINANCIAL STATEMENTS
Fiscal Year Ended June 30, 2018

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Dollars in Thousands)

The City of San Diego (City) adopted its current charter on April 7, 1931 and operates as a municipality in accordance with State laws. Since adoption, the City Charter has been amended many times.

The accounting policies of the City conform to accounting principles generally accepted in the United States of America (GAAP) as applicable to governmental units. The following is a summary of the City's significant accounting policies:

a. Financial Reporting Entity

As required by GAAP, these financial statements present the primary government and its component units. The City is the primary government, while entities for which the primary government is considered to be financially accountable represent its component units. Component units can be blended with the primary government or discretely presented.

A blended component unit is a legally separate entity whose functions are an integral part of the primary government. A component unit is considered to be an integral part of the primary government, and hence a blended component unit, in any of these circumstances: (1) the entity and the primary government substantively have the same governing body and a financial benefit/burden relationship exists; (2) the entity and the primary government substantially have the same governing body and management of the primary government have operational responsibility for the entity; (3) if the entity exists to serve or benefit exclusively (or almost exclusively) the primary government; (4) the total debt of the entity is repayable entirely (or almost entirely) from resources of the primary government; or (5) the entity is organized as a not-for-profit corporation in which the primary government is the sole corporate member, as identified in the entity's articles of incorporation or bylaws. Blended component units are reported as funds of the primary government.

A discretely presented component unit does not function as an integral part of the primary government. It is reported in the government-wide financial statements in a column separate from the primary government. The City also reports fiduciary component units which are not included in the government-wide financial statements. Fiduciary component units are not part of the primary government and are reported as fiduciary funds to account for assets held in a trustee or agency capacity for others that cannot be used to support the government's own programs.

Included within the reporting entity as blended component units are the following:

- Civic San Diego
- Convention Center Expansion Financing Authority
- Public Facilities Financing Authority
- San Diego Convention Center Corporation
- San Diego Facilities and Equipment Leasing Corporation
- Otay Mesa Enhanced Infrastructure Financing District Public Financing Authority
- Tobacco Settlement Revenue Funding Corporation

A brief description of each blended component unit follows:

- Civic San Diego (CSD) is a not-for-profit public benefit corporation established upon dissolution of the former San Diego Redevelopment Agency (RDA). One of CSD's primary functions is providing administrative and advisory services to the City as the Successor Agency. CSD also assists the City with downtown parking management administration and affordable housing development. CSD is governed by a nine member board appointed by the Mayor and City Council. CSD's budget and governing board are approved by the City of San Diego and services primarily benefit the City. CSD is reported as a governmental fund. Financial statements are available at www.civicsd.com.

- The Convention Center Expansion Financing Authority (CCEFA) was established in 1996 by the City and the San Diego Unified Port District (Port) to acquire and construct the expansion of the existing convention center. The CCEFA is governed by a board consisting of the Mayor, the City Manager, the President/CEO of the Port, and a member of the Board of Commissioners for the Port. The current working title of the City Manager is the Chief Operating Officer. The CCEFA provides services which primarily benefit the City. CCEFA is reported as a governmental fund.

- The Public Facilities Financing Authority (PFFA) was established in 1991 by the City and the former RDA to acquire and construct public capital improvements. As of June 30, 2018, the members are the City, the Successor Agency, and the Housing Authority of the City of San Diego. PFFA is governed by a board of commissioners composed of the members of the City Council. PFFA provides services exclusively to the City. Financing for governmental funds is reported as a governmental activity and financing for enterprise funds is reported as a business-type activity.

- San Diego Convention Center Corporation (SDCCC) is a not-for-profit public benefit corporation, originally organized to market, operate, and maintain the San Diego Convention Center. The City is the sole member of SDCCC and acts through the San Diego City Council in accordance with the City Charter and the City's Municipal Code. The City appoints all seven voting members to the Board of Directors of SDCCC. In accordance with the management agreement with SDCCC, the City allocates to SDCCC approved budgetary amounts for marketing, promotion, and capital projects for the Convention Center. SDCCC is reported as an enterprise fund. Complete stand-alone financial statements are available at www.visitsandiego.com.

- The San Diego Facilities and Equipment Leasing Corporation (SDFELC) is a not-for-profit public benefit corporation established in 1987 for the purpose of acquiring and leasing to the City real and personal property to be used in the municipal operations of the City. SDFELC is governed by a three member board consisting of the City Attorney, the Chief Financial Officer, and the Mayor. Services are provided exclusively to the City. Financing provided through SDFELC for governmental funds is reported as a governmental activity and financing for enterprise funds is reported as a business-type activity.

- The Otay Mesa Enhanced Infrastructure Financing District Public Financing Authority (EIFDPFA) was established in 2017 by the City of San Diego to finance certain public infrastructure and community benefit projects authorized under the Enhanced Infrastructure Financing District (EIFD) Law Government Code sections 53398.50 through 53398.88. The Otay Mesa EIFD governing board consists of three members of the City Council and two members of the public, all whom are appointed by the City Council. Services provided primarily benefit the City. Future financing for governmental funds will be reported as a governmental activity.

- The Tobacco Settlement Revenue Funding Corporation (TSRFC) is a not-for-profit public benefit corporation established in 2006 for the purpose of acquiring the tobacco settlement revenues allocated to the City from the State of California, pursuant to the Master Settlement Agreement. TSRFC purchased from the City the rights to receive future tobacco settlement revenues due to the City. TSRFC is governed by a board of directors, which consists of the Chief Operating Officer, the Chief Financial Officer, and one independent director. The independent director, currently vacant, is appointed by the Mayor or the remaining directors. TSRFC is reported as a governmental fund.

There are two fiduciary component units:

- San Diego City Employees' Retirement System (SDCERS) was established in 1927 by the City and administers independent, qualified, single employer governmental defined benefit plans and trusts for the City, the Port and the San Diego County Regional Airport Authority (Airport). SDCERS' Board of Administration (Board) adopted a Declaration of Group Trust, effective July 1, 2007. Under the Group Trust, the City, Port and Airport plans are treated as separate plans, with assets pooled for investment purposes only. SDCERS also processes certain postemployment healthcare activities on behalf of the City. SDCERS is a legally separate, fiduciary component unit of the City. It is governed by a 13 member Board of Administration, eight of which are appointed by the City, and a Pension Administrator who does not report to or work under the direction of the elected officials or appointed managers of the City. As such, the City does not maintain direct operational oversight of SDCERS or its financial reports. SDCERS provides services primarily to the City and is reported as a pension trust fund. Complete stand- alone financial statements are available at www.sdcers.org.

- The Successor Agency of the Redevelopment Agency of the City of San Diego (Successor Agency) is a legally separate entity from the City, reported as a fiduciary component unit. It was established to hold the former RDA's assets until they are distributed to other units of state and local government, or where appropriate, to private parties, and to administer the payments of the former RDA's obligations. Pursuant to ABX1 26, redevelopment agencies and their successor agencies in the State of California generally cannot enter into new projects, obligations or commitments. On January 12, 2012, the City was designated to serve as the Successor Agency subject to control of an oversight board. The Successor Agency is reported as a private-purpose trust fund in the fiduciary funds financial statements.

There is one discretely presented component unit:

- San Diego Housing Commission (SDHC) is a governmental agency, which was formed by the City under Ordinance No. 2515 on December 5, 1978 in accordance with the Housing Authority Law of the State of California. SDHC's priority is to serve low and moderate income persons by providing rental assistance payments, rental housing, loans and grants to families, individuals and not-for-profit organizations to create and preserve affordable housing. SDHC is governed by the San Diego Housing Authority (Housing Authority), which is composed of the nine members of the San Diego City Council. The Housing Authority is assisted by a Board of Commissioners, a seven-member advisory body appointed by the Mayor and confirmed by the City Council. The Housing Authority has final authority over the SDHC's budget and major policy changes. SDHC is discretely presented because the City appoints the voting members of the SDHC Board, is financially accountable for SDHC, and SDHC provides its services directly to the citizens.

  SDHC has seven blended component units and nineteen discretely presented component units which are included in the City's basic financial statements. The discretely presented component units are financially and legally separate entities from SDHC. SDHC's discretely presented component units reflect the financial reporting entity of consolidated Housing Development Partners, which includes the legal entities: Housing Development Partners of San Diego (HDP); HDP Mason Housing Corporation; Casa Colina, LP; Logan Development II, LP; HDP Broadway, LP; HDP Churchill, LP; HDP Parker Kier, LLC; HDP New Palace, LP; Logan Development Management, LLC; HDP Broadway Management, LLC; HDP Churchill, LLC; HDP Island Village, LLC, HDP

New Palace Management, LLC; HDP Village North, LLC; HDP West Park, LP; HDP West Park Management, LLC; HDP Quality Inn, LLC; HDP Town and Country, LP; and HDP Town and Country, LLC, collectively referred to as the "Corporation". Complete stand-alone financial statements are available at www.sdhc.org.

Each blended and discretely presented component unit of the City has a June 30 fiscal year-end, with the exception of SDHC's discretely presented component units, which have a December 31 fiscal year-end.

b. Government-Wide and Fund Financial Statements

The government-wide financial statements (i.e., the Statement of Net Position and the Statement of Activities) report information on all of the non-fiduciary activities of the City and its blended component units. Governmental activities are normally supported by taxes and intergovernmental revenues and are reported separately from business-type activities, which rely to a significant extent on user fees and charges for support. The primary government is reported discretely from SDHC, a legally separate component unit for which the primary government is financially accountable.

The Statement of Activities demonstrates the degree to which the direct expenses of a given function or segment are offset by program revenues. Direct expenses are those that are clearly identifiable to a specific function or segment. Direct expenses reported include administrative and overhead charges. Program revenues include (1) charges to customers or applicants who purchase, use, or directly benefit from goods, services, or privileges provided by a given function or segment and (2) grants and contributions that are restricted to meeting the operational or capital requirements of a particular function or segment. Taxes and other items that do not qualify as program revenues are reported as general revenues.

Separate financial statements are provided for governmental funds, proprietary funds, and fiduciary funds, the latter of which are excluded from the government-wide financial statements. Major individual governmental funds and major individual enterprise funds are reported as separate columns in the fund financial statements.

c. Measurement Focus, Basis of Accounting, and Financial Statement Presentation

Government-wide financial statements are reported using the economic resources measurement focus and the accrual basis of accounting, as are the proprietary and fiduciary funds financial statements. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows. Property taxes are recognized as revenues in the year for which they are levied. Grants and similar items are recognized as revenue as soon as all eligibility requirements imposed by the provider have been met.

As a general rule, the effect of interfund activity has been eliminated from the government-wide financial statements. Exceptions to this general rule are payments-in-lieu of taxes and other interfund services provided and used between functions of the City. Elimination of these charges would distort the direct costs and program revenues reported for the various functions concerned.

Governmental funds financial statements are reported using the current financial resources measurement focus and the modified accrual basis of accounting. Revenues are recognized as soon as they are both measurable and available. Revenues are considered to be available when they are collectible within the current period or soon enough thereafter to pay liabilities of the current period. Revenues which are considered susceptible to accrual include: real and personal property taxes; special assessments collected via property taxes; sales taxes; transient occupancy taxes; other local taxes; franchise fees; fines, forfeitures and penalties; rents and concessions; interest; and state and federal grants and subventions, provided they are received within 60 days from the end of the fiscal year.

Licenses and permits, parking citations, and some miscellaneous revenues are recorded as revenues when received in cash because they generally are not measurable until actually received.

Expenditures are recognized when the related fund liability is incurred except for (1) principal and interest of general long-term debt, which are recognized when due; and (2) employee annual leave and claims and judgments from litigation, which are recorded in the period due and payable since such amounts will not currently be liquidated with expendable available financial resources. General capital asset acquisitions are reported as expenditures in governmental funds.
The governmental funds financial statements do not present long-term debt, but the related debt is shown in the reconciliation of the governmental funds Balance Sheet to the government-wide Statement of Net Position. Issuance of long-term debt, bond premiums, and discounts are reflected as other financing sources (uses) and recognized in the period in which they are issued.

Permanent funds, commonly referred to as endowment funds, are governmental funds used to report resources that are legally restricted to the extent that only earnings, and not principal, may be used for purposes that support City programs. The City has received endowments for various programs, a list of which can be found in the Permanent Funds section of the Combining and Individual Fund Financial Statements and Schedules. The corpus of permanent funds is reported as Nonspendable Fund Balance and investment earnings available for expenditure are reported as Restricted Fund Balance in the fund level financial statements. The endowment principal is reported as Restricted for Nonexpendable Permanent Endowments in the Statement of Net Position. Funds are spent in accordance with the City budget, subject to State law governing the spending of endowment fund investment earnings in California Probate Code Section 18504.

Proprietary funds distinguish operating revenues and expenses from nonoperating items. Operating revenues and expenses generally result from providing services and producing and delivering goods in connection with a proprietary fund's principal ongoing operations. The principal operating revenues of the City's proprietary funds are charges to customers for sales and services. Operating expenses for proprietary funds include the cost of sales and services, administrative expenses, and depreciation on capital assets. All revenues and expenses not meeting this definition are reported as nonoperating revenues and expenses.

Fiduciary funds are used to account for assets held by the City in a trustee capacity or as an agent for individuals, private organizations, and/or other governmental units, and include the pension trust, private-purpose trust, and agency funds. Trust funds are reported using the same measurement focus and basis of accounting as proprietary funds. Agency funds are reported using the accrual basis of accounting and only report assets and liabilities, and therefore, do not have a measurement focus.

The following is the City's only major governmental fund:

General Fund - The General Fund is the principal operating fund of the City. It is used to account for all financial resources, except those required to be accounted for in another fund.

The following are the City's major enterprise funds:

Sewer Utility Fund - The Sewer Utility Fund is used to account for the operation, maintenance and development of the City's sewer system. The City's Sewer Utility Fund includes activities related to the performance of services for several local municipalities and other utility districts (Participating Agencies).

Water Utility Fund - The Water Utility Fund is used to account for operating and maintenance costs, replacements, betterments, expansion of facilities, and payments necessary in obtaining water from the Colorado River, the State Water Project, and local sources, and supplying water to its customers.

The following are the City's other fund types:

Internal Service Funds - These funds account for fleet vehicles and transportation, printing, and storeroom services provided to City departments on a cost-reimbursement basis. Internal service funds also account for energy conservation, risk management, unemployment insurance, unused compensatory time, unused sick leave, and long-term disability programs, which derive revenues from rates charged to benefiting departments.

Pension Trust Funds - These funds account for SDCERS, the Preservation of Benefits Plan, the Postemployment Healthcare Benefit Plan, the Supplemental Pension Savings Plan (SPSP), the 401(a) Plan and the 401(k) Plan.

Private-Purpose Trust Fund - This fund was established to account for the ongoing obligations of the Successor Agency (former RDA).

Agency Funds - These funds account for assets held by the City as an agent for individuals, private organizations, and other governments, including federal and state income taxes withheld from employees, parking citation revenues on behalf of other agencies, certain employee benefit plans, and special assessments.

d. Property Taxes

The County of San Diego (County) assesses, bills, and collects property taxes on behalf of numerous special districts and incorporated cities, including the City of San Diego. The City receives the current year's taxes through periodic apportionments from the County.

The County's tax calendar is from July 1 to June 30. Property taxes attach as a lien on property on January 1. Taxes are levied on July 1, based on the assessed values as of the lien date, are payable in two equal installments on November 1 and February 1, and become delinquent after December 10 and April 10, respectively. Since the passage of California's Proposition 13, beginning with fiscal year ended 1979, general property taxes are based on either (1) a flat 1% rate applied to the 1975-76 full value of the property or (2) 1% of the sales price of any property sold or of the cost of any new construction after the 1975-76 valuation. Taxable values of properties (exclusive of increases related to sales and new construction) can increase by a maximum of 2% per year. The Proposition 13 limitation on general property taxes does not apply to taxes levied to pay the debt service on any indebtedness approved by the voters prior to June 6, 1978 (the date of passage of Proposition 13).

At the government-wide level, property tax revenue is recognized in the fiscal year for which the taxes have been levied. Property taxes received after the fiscal year and which do not meet the 60 day availability criterion are not considered available as a resource that can be used to finance the current year operations of the City and, therefore, are recorded as deferred inflows of resources in the governmental funds. The City provides an allowance for uncollectible property taxes, which is analyzed each year against the most recent data from the County. For fiscal year 2018, the allowance amount was $2,176.

Property owners can appeal the assessment value of their property to the County Assessment Appeals Board. If successful, the County Assessor may reduce the taxable value of a property and/or provide a refund to affected property owners. Reductions of taxable property value within the City of San Diego have a negative impact on future tax collections until assessed valuations increase.

e. Cash and Investments

The City's cash and cash equivalents for the Statement of Cash Flows purposes include cash on hand, demand deposits, restricted cash, and investments held in the City Treasurer's Pooled Investment Fund (pool) and are reported at fair value. Cash equivalents reported in the Statement of Cash Flows for the Water and Sewer Utility Funds do not include restricted investments represented as Restricted Cash and Investments with an original maturity date greater than ninety days from the time of purchase.

The City's cash resources are combined to form a cash and investment pool managed by the City Treasurer. The City is not required to register the pool as an investment company with the Securities and Exchange Commission (SEC). The investment activities of the City Treasurer in managing the pool are governed by California Government Code § 53601 and the City of San Diego City Treasurer's Investment Policy, which is reviewed by the City Treasurer's Investment Advisory Committee and presented annually to the City Council. Interest earned on pooled investments is allocated to participating funds and entities based upon their average daily cash balance during the allocation month. Fair value adjustments to the pool are recorded annually; however, the City Treasury reports on market values monthly. The pool participates in the California State Treasurer's Local Agency Investment Fund (LAIF). Investments in LAIF are governed by State statutes and overseen by a five member Local Investment Advisory Board. The fair value of the City's position in LAIF may be greater or less than the value of the shares. Investments in LAIF are valued in these financial statements using a fair value factor provided by LAIF applied to the value of the City's shares in the investment pool.

Certain governmental funds maintain investments outside of the pool. These funds are supervised and controlled by a five member Funds Commission, which is appointed by the Mayor and confirmed by the City Council. The Funds Commission engages money managers to direct the investments of these funds. Additionally, the City and its component units maintain individual accounts pursuant to bond issuances and major construction contracts, which may or may not be related to debt issuances. The investment of these funds is governed by the policies set forth in the individual indenture and trustee agreements. Certain component units of the City also participate in LAIF separately from the pool.

All City investments are reported at fair value in accordance with Governmental Accounting Standards Board (GASB) Statement No. 31, *Accounting and Financial Reporting for Certain Investments and External Investment Pools* and GASB Statement No. 72, *Fair Value Measurement and Application.* Note 3 contains additional information on permissible investments per the City Treasurer's Investment Policy and other policies applicable to the cash and investments reported herein.

The discharge of fiduciary duties by SDCERS' Board is governed by Section 144 of the City Charter and Article XVI, Section 17 of the California State Constitution. SDCERS' Board has the authority to delegate investment management duties to outside advisors, to seek the advice of outside investment counsel, and to provide oversight and monitoring of the investment managers it hires. Additional discretion beyond the City Charter is provided for under the California State Constitution and other relevant authorities whereby the Board may, at its discretion, invest funds in any form or type of investment, financial instrument, or financial transaction. SDCERS' investment managers manage all investments, which are held in SDCERS' name.

SDCERS' investments are reported at fair value or net asset value (NAV), in accordance with GASB Statement No. 72, in the accompanying Statement of Fiduciary Net Position. SDCERS' custodial bank, State Street Bank & Trust Company, provides the fair values of exchange traded assets. Through its agents, SDCERS also holds investments in non-publicly traded institutional investment funds. These institutional investment funds are comprised of exchange traded securities, the fair values of which are provided by the respective investment managers. Directly-owned real estate assets are stated at appraised values as determined by SDCERS' real estate managers and third party appraisal firms. Private equity and infrastructure assets are measured at fair value using the NAV per share or its equivalent by their respective investment managers, giving consideration to the financial

condition and operating results of the portfolio companies, and other factors deemed relevant. These values are reviewed by SDCERS' investment staff and their real estate, private equity and infrastructure consultants. Where fair value information as of June 30, 2018 was not available at the time of these financial statements, SDCERS has estimated fair value by using the most recent fair value information available from the fund manager/general partner and adding any contributions and/or deducting any distributions to/from the investment from the date of the most recent fair value information to June 30, 2018.

f. Receivables

The City's receivables are comprised mainly of notes, loans, accounts and taxes. Long-term notes and loans receivables consist primarily of former RDA agreements with terms that provide for limited cash flows, e.g. residual receipts from Low and Moderate Housing developer loans. These receivables are reported in the governmental fund statements and are recorded with an offset to restricted fund balance as resources are not available for expenditure. Accounts receivable and taxes receivable are reported net of an allowance for uncollectible amounts. The allowance amounts as of June 30, 2018 are as follows:

Fund	Accounts Receivable Allowance	Taxes Receivable Allowance
General Fund	$ 7,951	$ 2,130
Nonmajor Governmental Funds	3,453	46
Sewer Utility	951	—
Water Utility	1,014	—
Nonmajor Enterprise Funds	2,843	—
Internal Service Funds	1,047	—
Total	$ 17,259	$ 2,176

g. Inventories

Inventories reported in the government-wide financial statements and the proprietary funds financial statements, which consist primarily of water in storage intended for resale, are valued at the lower of cost or market. Such inventories are expensed when consumed using primarily the first-in, first-out (FIFO) and weighted-average methods for inventories of water in storage and supplies, respectively. Inventory supplies of governmental funds are recorded as expenditures when purchased.

h. Land Held for Resale

Land Held for Resale is reported in the government-wide and fund financial statements at the lower of cost or net realizable value. In the governmental funds financial statements, fund balances associated with properties held for resale are reported as restricted fund balances as proceeds from the sale of such properties are restricted for the purpose of affordable housing as codified in the California Health and Safety Code. Land is originally recorded at historical cost and adjusted to net realizable value when a property is impaired, when the determination is made that a property will be sold for less than its cost, or when property values decrease due to market conditions.

i. Deferred Outflows/Inflows of Resources

In addition to assets, the statement of net position reports a separate section for deferred outflows of resources. This separate financial statement element represents the consumption of net position that is applicable to a future reporting period(s) and so will not be recognized as an expense/expenditure until then. The City has three items that qualify for reporting in this category:

loss on refunding, deferred outflows related to pension benefits, and deferred outflows related to other postemployment benefits.

In addition to liabilities, the statement of net position reports a separate section for deferred inflows of resources. This separate financial statement element represents the acquisition of net position that is applicable to a future reporting period(s) and so will not be recognized as a revenue until then. The City has three items that qualify for reporting in this category: gain on refunding, deferred inflows related to pension benefits, and deferred inflows related to other postemployment benefits. Additionally, in the governmental funds financial statements, deferred inflows of resources represent revenues which have been earned but have not met the recognition criteria based on the modified accrual basis of accounting.

j. Capital Assets

Capital assets, when purchased or constructed, are recorded at historical cost or estimated historical cost. Donated capital assets are recorded at acquisition value or estimated acquisition value on the date received. Costs for routine maintenance are expensed as incurred. All capital assets are reported in the applicable Governmental or Business-Type Activities column in the government-wide financial statements, as well as in the proprietary funds and fiduciary funds financial statements.

Non-Depreciable Capital Assets include land, rights of way, easements, and construction in progress. Works of art and historical treasures are also included since they are capitalized, but not depreciated. These assets are maintained for public exhibition, education, or research and are being preserved for future generations. The proceeds from sales of works of art are used to purchase other items for the collection.

Depreciable Capital Assets, which include structures and improvements, equipment, intangible assets, distribution and collection systems, and infrastructure, are reported net of accumulated depreciation/amortization. The City considers capital expenditures those that result in assets that are used in City operations and have a useful life in excess of one year. The following table shows the City's capitalization thresholds for each asset category:

Asset Category	Capitalization Threshold
Non-Depreciable:	
Land and Rights of Way	$ —
Easements (Intangible)	50
Artwork/Historical Treasures	5
Depreciable:	
Buildings	50
Building Improvements	50
Equipment/Vehicles	5
Software (Intangible)	100
Distribution and Collection Systems	25
Infrastructure	25

Interest expense incurred during the construction phase for business-type capital assets is reflected in the capitalized value of the asset constructed. During fiscal year 2018, $6,278 of interest expense incurred was capitalized, which is calculated net of related interest revenue of $10.

Depreciation/amortization of capital assets is computed using the straight-line method over the estimated useful life of the asset as follows:

Asset Category	Useful Life (In Years)
Structures and Improvements	
Buildings	10 - 50
Building Improvements	3 - 50
Equipment	
Vehicles	4 - 20
General Machinery and Office Equipment	2 - 50
Intangible Assets	5 - 25
Distribution and Collection	
Systems Sewer and Water Infrastructure	15 - 75
Dams and Reservoirs	50 - 150
Infrastructure	
Pavement, Sidewalks, and Lighting	12 - 50
Bridges	30 - 75
Flood Control Assets	40 - 75

k. Unearned Revenue

In the government-wide and fund level financial statements, unearned revenue represents amounts received, which have not been earned. Examples include Development Services customer accounts with surplus balances, and grant revenues received in advance.

l. Interfund Transactions

The City has the following types of interfund transactions:

Loans represent amounts provided with a requirement for repayment. Interfund loans are normally reported as interfund receivables (i.e. Due from Other Funds) in lender funds and interfund payables (i.e. Due to Other Funds) in borrower funds. The non-current portions of long-term interfund loans receivable are reported as advances.

Services provided and used represent sales and purchases of goods and services between funds for a price approximating their external exchange value. Interfund services provided and used are reported as revenues in seller funds and expenditures or expenses in purchaser funds.

Reimbursements represent repayments from the funds responsible for particular expenditures or expenses to the funds that initially paid for them. The reimbursement is reported as expenditures or expenses in the reimbursing fund and a reduction of expenditures or expenses in the fund that initially incurred the expense.

Transfers represent flows of assets, such as cash or goods, without equivalent flows of assets in return, and without a requirement for repayment. In governmental funds, transfers are reported as other financing uses in the funds making transfers and as other financing sources in the funds receiving transfers. In proprietary funds, transfers are reported after nonoperating revenues and expenses.

m. Long-Term Liabilities

In the government-wide, proprietary, and fiduciary funds financial statements, long-term debt and other long-term obligations are reported as liabilities in the applicable Statements of Net Position. Capital appreciation bond accretion and bond premiums and discounts are amortized over the life of the bonds using a method which approximates the effective interest method. Net bonds payable reflects unamortized bond discounts and premiums.

n. Compensated Absences

The City provides combined annual leave to cover both vacation and sick leave. It is the City's policy to permit employees to accumulate between 8.75 weeks and 17.5 weeks of earned but unused annual leave, depending on hire date. Accumulation of these earnings will be paid to employees upon separation from service.

The liability for compensated absences reported in the government-wide and proprietary funds financial statements consists of unpaid accumulated vacation balances. The liability has been calculated using the vesting method, in which leave amounts for both employees who currently are eligible to receive termination payments and other employees who are expected to become eligible in the future to receive such payments upon termination are included. The liability has been calculated based on the employees' current salary level and includes salary related costs (e.g. Medicare Tax). The short-term portion is an estimate calculated based on leave taken in the prior year, as a percentage of total outstanding balances. A liability for these amounts is reported in governmental funds only if they have matured, for example, as a result of employee resignations and retirements.

o. Claims and Judgments

The costs of claims and judgments are accrued when incurred and measurable in the government-wide, proprietary and fiduciary funds financial statements. In governmental funds, the costs of claims and judgments are recorded as expenditures when payments are due and payable.

p. Non-Monetary Transactions

The City, as part of approving new development in the community planning process, requires that certain public facilities be constructed per the provisions of community financing plans. These facilities are typically funded in whole or part with impact fees collected from new development. The City often enters into reimbursement agreements with developers to construct the facilities. These agreements provide developers with credits (also referred to as FBA/DIF/RTCIP credits) for future permit fees. These credits are earned by the developer upon successful completion of construction phases and when City engineers have accepted the work. The credits are recognized as permit revenue upon issuance and a corresponding capital asset is recorded in the government-wide financial statements. See Note 5 for additional detail on reimbursement agreements.

q. Pensions

For purposes of measuring the net pension liability, deferred outflows/inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the City's SDCERS plans and additions to/deductions from the Plans' fiduciary net position have been determined on the same basis as they are reported by SDCERS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value or NAV.

r. Other Postemployment Benefits (OPEB)

For purposes of measuring the net OPEB liability, deferred outflows of resources and deferred inflows of resources related to OPEB, and OPEB expense, information about the fiduciary net position of the City's plan (OPEB Plan) and additions to/deductions from the OPEB Plan's fiduciary net position have been determined on the same basis. For this purpose, benefit payments are recognized when currently due and payable in accordance with the benefit terms. Investments are reported at fair value or NAV.

s. Net Position

In the government-wide and proprietary funds financial statements, Net Position is categorized as follows:

- **Net Investment in Capital Assets** consists of capital assets, net of accumulated depreciation, reduced by outstanding debt and deferred outflows/inflows of resources attributed to the acquisition, construction or improvement of these assets.

- **Restricted Net Position** consists of restricted assets reduced by liabilities related to those assets. It is the City's policy to first apply restricted resources when an expense is incurred for purposes for which both restricted and unrestricted net position components are available. As of June 30, 2018, the amount of restricted net position due to enabling legislation was approximately $311,074.

- **Unrestricted Net Position** consists of net position that does not meet the definition of Net Investment in Capital Assets or Restricted Net Position.

t. Fund Balances

In the fund financial statements, governmental funds report fund balances as nonspendable, restricted, committed, assigned or unassigned based on the extent to which the City is bound to observe constraints imposed on the use of resources.

- **Nonspendable fund balance** - amounts that cannot be spent because they are either (a) not spendable in form or (b) legally or contractually required to be maintained intact.

- **Restricted fund balance** - amounts with constraints placed on their use that are either (a) externally imposed by creditors, grantors, contributors or laws or regulations of other governments, or (b) imposed by law through constitutional provisions or enabling legislation.

- **Committed fund balance** - amounts that can only be used for specific purposes imposed by formal action of the City Council. The City Council uses ordinances or resolutions to commit fund balances. Ordinances and resolutions both meet the criteria to establish a commitment since the limitations on the redeployment of those resources for other purposes is the same. Committed amounts cannot be used for other purposes unless City Council removes or changes the specified use by taking the same type of action it employed to previously commit those amounts.

- **Assigned fund balance** - amounts that are constrained by the City's intent to be used for specific purposes, but do not meet the criteria to be classified as restricted or committed. City Council may assign fund balance through approval of budget appropriations. The Mayor and his/her designees are authorized by the City Charter to assign fund balance through the encumbrance process. Designees generally include the Chief Operating Officer, Assistant Chief Operating Officer, Deputy Chief Operating Officers and Department Directors.

- **Unassigned fund balance** - the residual classification for the City's General Fund that includes amounts not included in other classifications. In funds other than the General Fund, the unassigned classification is used only if expenditures incurred for specific purposes exceed the amounts restricted, committed or assigned to those purposes.

When both restricted and unrestricted resources are available for use, it is the City's policy to use restricted resources first, followed by committed, assigned and unassigned as they are needed.

u. Reserves

The City's formal reserve policy, which was adopted in fiscal year 2008 via City Council ordinance, last amended in June 2018, was created in accordance with Charter Section 91 and defines the General Fund Reserve. The City's General Fund Reserve is comprised of two separate components: (1) the Emergency Reserve and (2) the Stability Reserve. For the purpose of the policy, the General Fund is the operational fund as presented in the City's annual budget document.

- **Emergency Reserve** - maintained for the purpose of sustaining General Fund operations in the case of a public emergency such as a natural disaster or other unforeseen catastrophic event. This reserve may be expended when an event is determined to be a public emergency by a two-thirds vote of the City Council, when such expenditures are necessary to ensure the safety of the City's residents and their property. This reserve is reported as restricted fund balance.

- **Stability Reserve** - maintained to mitigate financial and service delivery risk due to unexpected revenue shortfalls or unanticipated critical expenditures. The purpose of this reserve is to provide budgetary stabilization and not serve as an alternative funding source for new programs. Recommendations to appropriate from the Stability Reserve are brought forward by the Mayor and require approval by a majority of the City Council. This reserve is a component of unassigned fund balance.

The policy level for total General Fund Reserves is 16.7% of the most recent three year average of annual General Fund operating revenues (budgetary basis), as reported in the CAFR. The Emergency Reserve is set at a policy level of 8%, and the Stability Reserve is set at a policy level of 8.7%. The City's reserve policy established funding targets for each fiscal year ending 2016 to 2025 to reach policy levels. For fiscal year 2018, the Emergency Reserve funding target was 8%, and the Stability Reserve funding target was 7%. The balances of the Emergency Reserve and the Stability Reserve, as of June 30, 2018, were $96,700 and $84,600, respectively, meeting policy target levels. In the event either reserve component is reduced below the amount established by this policy, the Mayor will develop a plan to replenish the reserve in a reasonable timeframe. Spendable and unassigned fund balance that is not part of General Fund Reserves is available for appropriation.

The Pension Payment Stabilization Reserve was established to mitigate service delivery risk due to increases in the annual pension payment, the Actuarially Determined Contribution (ADC). The purpose of this reserve is to provide a source of funding for the ADC when these conditions occur and the ADC has increased year over year. The Pension Payment Stabilization Reserve is funded at a level equal to 8% of the average of the last three ADCs to the pension system. The fiscal year 2018 adopted budget included full utilization of the reserve in order to minimize the impact of the significant increase in the July 1, 2017 ADC payment of $324,500.

The City also maintains reserves to manage risk including public liability reserves for the payment of claims and judgments, a reserve for obligations related to workers' compensation claims, and a reserve for long-term disability payments for City employees. In addition, the City maintains reserves for the following enterprise funds: the Water and Sewer Utility Funds; Development Services Fund; Environmental Services Fund; and the Golf Course Fund. Information regarding reserves maintained by the City is contained in Council Policy No. 100-20.

v. Participating Agencies Revenue Recognition

The Regional Wastewater Disposal Agreement between the City and the Participating Agencies (PA) in the Metropolitan Sewerage System allows for quarterly invoicing of local area member municipalities and utility districts to collect and process sewage waste using the City's facilities. The invoicing is based on an estimated allocation of costs associated with each PA and may not represent each PA's proportionate allocation of actual maintenance and operating costs of the sewage system, resulting in an overstatement or understatement of revenue reported in the Sewer Utility Statement of Revenues, Expenses and Changes in Fund Net Position.

w. Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Actual results could differ from those estimates. Management believes that the estimates are reasonable.

x. New Governmental Accounting Standards Implemented During Year Ended June 30, 2018

The requirements of the following accounting standards are effective for the purpose of implementation, if applicable to the City, for the year ended June 30, 2018.

In June 2015, GASB issued Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* (GASB 75), which applies to state and local government employers who provide OPEB to employees, such as the City. GASB 75 replaces previously issued statements related to the employer's accounting and financial reporting for OPEB. GASB 75 details the recognition and disclosure requirements for employers with payables to defined benefit OPEB plans that are administered through trusts that meet specific criteria, and for employers whose employees are provided with defined contribution OPEB. For OPEB that is administered through trusts, GASB 75 requires the liability of employers to be measured as the portion of the present value of projected benefit payments to be provided to current active and inactive employees that is attributed to those employees' past periods of service (total OPEB liability), less the amount of the OPEB plan's fiduciary net position. See Note 13 for more information regarding the City's Other Postemployment Benefits.

In March 2017, GASB issued Statement No. 85, *Omnibus 2017.* This statement is to address practice issues that have been identified during implementation and application of certain GASB statements. This statement addresses a variety of topics including issues related to blending component units, goodwill, fair value measurement and application, and postemployment benefits (pensions and other postemployment benefits [OPEB]). The City had no reportable impacts for fiscal year 2018.

In May 2017, GASB issued Statement No. 86, *Certain Debt Extinguishment Issues.* The primary objective of this statement is to improve consistency in accounting and financial reporting for in-substance defeasance of debt by providing guidance for transactions in which cash and other monetary assets acquired with only existing resources-resources other than the proceeds of refunding debt-are placed in an irrevocable trust for the sole purpose of extinguishing debt. This statement also improves accounting and financial reporting for prepaid insurance on debt that is extinguished and notes to financial statements for debt that is defeased in substance. The City had no reportable impacts for fiscal year 2018.

y. Upcoming Governmental Accounting Standards Implementation

The requirements of the following accounting standards become effective in future periods, if applicable to the City. Management is currently in the process of evaluating the potential impacts to the City's basic financial statements.

In November 2016, GASB issued Statement No. 83, *Certain Asset Retirement Obligations*. This statement addresses accounting and financial reporting for certain asset retirement obligations (AROs). An ARO is a legally enforceable liability associated with the retirement of a tangible capital asset. A government that has legal obligations to perform future asset retirement activities related to its tangible capital assets should recognize a liability based on the guidance in this statement. It also establishes criteria for determining the timing and pattern of recognition of a liability and a corresponding deferred outflow of resources for AROs. This statement will become effective in fiscal year 2019.

In January 2017, GASB issued Statement No. 84, *Fiduciary Activities*. This statement establishes criteria for identifying fiduciary activities of all state and local governments. The focus of the criteria generally is on (1) whether a government is controlling the assets of the fiduciary activity and (2) the beneficiaries with whom a fiduciary relationship exists. Separate criteria are included to identify fiduciary component units and postemployment benefit arrangements that are fiduciary activities. This statement will become effective in fiscal year 2020.

In June 2017, GASB issued Statement No. 87, *Leases*. This statement increases the usefulness of governments' financial statements by requiring recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. It establishes a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underlying asset. Under this statement, a lessee is required to recognize a lease liability and an intangible right-to-use the lease asset, and a lessor is required to recognize a lease receivable and a deferred inflow of resources, thereby enhancing the relevance and consistency of information about governments' leasing activities. This statement will become effective in fiscal year 2021.

In April 2018, GASB issued Statement No. 88, *Certain Disclosures Related to Debt, Including Direct Borrowings and Direct Placements*. This statement requires that additional essential information related to debt be disclosed in the notes to the financial statements, including unused lines of credit; assets pledged as collateral for the debt; and terms specific in debt agreements related to significant events of default with finance-related consequences, significant termination events of finance-related consequences, and significant acceleration clauses. This statement also requires that existing and additional information be provided for direct borrowings and direct placements of debt separately from other debt. This statement will become effective in fiscal year 2019.

In June 2018, GASB issued Statement No. 89, *Accounting for Interest Cost Incurred Before the End of a Construction Period*. This statement establishes accounting requirements for interest cost incurred before the end of a construction period. Such interest cost includes all interest that previously was accounted for in accordance with the requirements of paragraphs 5-22 of Statement No. 62, *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements*, which are superseded by this statement. This statement requires that interest cost incurred before the end of a construction period be recognized as an expense in the period in which the cost is incurred for financial statements prepared using the economic resources measurement focus. As a result, interest cost incurred before the end of a construction period will not be included in the historical cost of a capital asset reported in a business-type activity or enterprise fund. This statement will become effective in fiscal year 2021.

In August 2018, GASB issued Statement No. 90, *Majority Equity Interests—an amendment of GASB Statements No. 14 and No. 61.* The primary objectives of this statement are to improve the consistency and comparability of reporting a government's majority equity interest in a legally separate organization and to improve the relevance of financial statement information for certain component units. It defines a majority equity interest and specifies that a majority equity interest in a legally separate organization should be reported as an investment if a government's holding of the equity interest meets the definition of an investment. A majority equity interest that meets the definition of an investment should be measured using the equity method, unless it is held by a special-purpose government entity engaged only in fiduciary activities, a fiduciary fund, or an endowment (including permanent and term endowments) or permanent fund. Those government entities and funds should measure the majority equity interest at fair value. This statement also requires that a component unit in which a government has a 100 percent equity interest account for its assets, deferred outflows of resources, liabilities, and deferred inflows of resources at acquisition value at the date the government acquired a 100 percent equity interest in the component unit. Transactions presented in flows statements of the component unit in that circumstance should include only transactions that occurred subsequent to the acquisition. This statement will become effective in fiscal year 2020.

2. RECONCILIATION OF GOVERNMENT-WIDE AND FUND FINANCIAL STATEMENTS (Dollars in Thousands)

Certain adjustments are necessary to reconcile governmental funds to governmental activities (which includes all internal service funds). The reconciliation of these adjustments is as follows:

a. Explanation of certain differences between the Governmental Funds Balance Sheet and the Government-Wide Statement of Net Position:

The Governmental Funds Balance Sheet includes a reconciliation between "Total Fund Balances" and "Net Position of Governmental Activities" as reported in the Government-Wide Statement of Net Position. One element of the reconciliation states, "Certain assets and deferred outflows of resources are not financial resources (uses), and therefore, are not reported at the fund level." The details of this $653,012 difference are as follows:

Loss on Refunding, July 1, 2017	$ 2,755
Loss on Refunding for Bonds Issued	13,608
Amortization Expense	(1,238)
Loss on Refunding, June 30, 2018	15,125
Deferred Outflows of Resources Related to Other Postemployment Benefits	22,864
Deferred Outflows of Resources Related to Pensions	615,023
Net adjustment to increase "Total Fund Balances" of Governmental Funds to arrive at "Total Net Position" of Governmental Activities	$ 653,012

Another element of the reconciliation states: "Unavailable revenues are not financial resources, and therefore, are reported as deferred inflows of resources." The details of this $93,068 difference are as follows:

Deferred Inflows of Resources - Unavailable Revenue:	
Taxes Receivable	$ 54,995
Grants Receivable	19,440
Special Assessments Receivable	121
Revenue from Other Agencies	4,718
Charges for Services	9,663
Other	4,131
Net adjustment to increase "Total Fund Balances" of Governmental Funds to arrive at "Total Net Position" of Governmental Activities	$ 93,068

Another element of the reconciliation states: “Certain liabilities and deferred inflows of resources, including bonds payable, are not due and payable in the current period, and therefore, are not reported in the funds.” The details of this $(3,763,526) difference are as follows:

Interest Accrued on Long-Term Debt	$ (4,706)
Compensated Absences	(58,580)
Liability Claims	(367,366)
Reimbursement Agreement Obligations	(6,749)
Capital Lease Obligations	(161,564)
QECB Lease Obligation	(7,578)
Loans Payable	(3,511)
Section 108 Loans Payable	(2,872)
Net Bonds Payable	(672,703)
Net Other Postemployment Benefits Liability	(407,105)
Pension Liabilities	(1,992,865)
Total Liabilities	(3,685,599)
Deferred Inflows of Resources:	
Deferred Inflows Related to Other Postemployment Benefits	(448)
Deferred Inflows Related to Pensions	(77,479)
Total Deferred Inflows of Resources	(77,927)
Net adjustment to decrease "Total Fund Balances" of Governmental Funds to arrive at "Total Net Position" of Governmental Activities	$ (3,763,526)

Another element of the reconciliation states: "Internal service funds are used by management to charge the costs of activities such as Fleet Operations, Central Stores, Publishing Services, and Employee Benefit Programs to individual funds. The assets, deferred outflows of resources, liabilities, and deferred inflows of resources of internal service funds are included in the governmental activities in the Statement of Net Position." The details of this $160,720 difference are as follows:

Assets:	
Capital Assets - Non-Depreciable	$ 3,849
Capital Assets - Depreciable	142,619
Internal Balances	(227)
Current Assets	148,254
Total Assets	294,495
Deferred Outflows of Resources	18,056
Liabilities:	
Compensated Absences	(6,535)
Liability Claims	(9,227)
Capital Lease Obligations	(36,085)
Net Other Postemployment Benefits Liability	(20,376)
Pension Liabilities	(66,417)
Current Liabilities	(10,983)
Total Liabilities	(149,623)
Deferred Inflows of Resources	(2,208)
Net adjustment to increase "Total Fund Balances" of Governmental Funds to arrive at "Total Net Position" of Governmental Activities	$ 160,720

b. Explanation of certain differences between the Governmental Funds Statement of Revenues, Expenditures and Changes in Fund Balances and the Government-Wide Statement of Activities:

The Governmental Funds Statement of Revenues, Expenditures and Changes in Fund Balances includes a reconciliation between "Net Change in Fund Balances of Governmental Funds" and "Change in Net Position of Governmental Activities" as reported in the Government-Wide Statement of Activities. One element of that reconciliation explains: "Governmental funds report capital outlays as expenditures. However, in the Statement of Activities, the cost of those assets is allocated over their estimated useful lives and reported as depreciation expense. Donated assets are not financial resources, and therefore, are not reported in the funds." The details of this $118,646 difference are as follows:

Capital Outlay	$ 253,249
Donated Capital Assets	7,785
Depreciation/Amortization Expense	(142,388)
Net adjustment to increase "Net Change in Fund Balances of Governmental Funds" to arrive at "Change in Net Position of Governmental Activities"	$ 118,646

Another element of the reconciliation states: “The net effect of various miscellaneous transactions involving capital assets (e.g., retirements and transfers) is to decrease net position.” The details of this $(8,121) are as follows:

In the Statement of Activities, only the net loss on the sale/retirement of capital assets is reported. However, in the governmental funds, the proceeds from the sale of capital assets increase financial resources. Thus, the change in net position differs from the change in fund balances by the net book value of the capital assets sold/retired.	$ (6,904)
Transfers of capital assets to business-type activities decrease net position on the Statement of Activities, but do not appear in the governmental funds because they are not financial uses.	(1,217)
Net adjustment to decrease "Net Change in Fund Balances of Governmental Funds" to arrive at "Change in Net Position of Governmental Activities"	$ (8,121)

Another element of the reconciliation states: “Internal service funds are used to charge the costs of activities such as Fleet Operations, Central Stores, Publishing Services, and Employee Benefit Programs to individual funds. The net income of certain internal service activities is reported with governmental activities.” The details of this $776 are as follows:

Allocated Operating Loss	$ (2,314)
Nonoperating Revenues:	
Gain on Sale/Retirement of Capital Assets	808
Other Agency Grant Assistance	656
Other Nonoperating Revenues, net	164
Capital Contributions	42
Capital Asset Transfers, net	1,178
Transfers, net	242
Net adjustment to increase "Net Change in Fund Balances of Governmental Funds" to arrive at "Change in Net Position of Governmental Activities"	$ 776

Another element of the reconciliation states: "The issuance of long-term debt (e.g., bonds, leases) provides current financial resources to governmental funds, while the repayment of the principal of long-term debt consumes the current financial resources of governmental funds. Neither transaction, however, has any effect on net position." The details of this $(21,171) difference are as follows:

Debt Issued or Incurred:	
Capital Lease Obligations	$ (31,827)
Lease Revenue Bonds	(129,320)
Tobacco Settlement Asset-Backed Bonds	(97,855)
Total Debt Issued or Incurred	(259,002)
Principal Repayments:	
Capital Lease Obligations	6,207
QECB Lease Obligations	851
Loans Payable	633
Section 108 Loans Payable	325
Lease Revenue Bonds	24,035
Tobacco Settlement Asset-Backed Bonds	8,910
Total Principal Repayments	40,961
Refundings:	
Lease Revenue Bonds	132,550
Tobacco Settlement Asset-Backed Bonds	64,320
Total Refundings	196,870
Net adjustment to decrease "Net Change in Fund Balances of Governmental Funds" to arrive at "Change in Net Position of Governmental Activities"	$ (21,171)

Another element of the reconciliation states: "Some expenses reported in the Statement of Activities do not require the use of current financial resources (e.g., compensated absences, net pension liability), and therefore, are not accrued as expenditures in governmental funds." The details of this $(116,063) difference are as follows:

Compensated Absences	$ 4,047
Liability Claims	(5,735)
Reimbursement Agreement Obligations	10,325
Net Other Postemployment Benefit Obligation and Related Deferred Outflows/Inflows of Resources	(665)
Pension Liabilities and Related Deferred Outflows/Inflows of Resources	(143,376)
Interest Accrued on Long-Term Debt	2,464
Current Year Premiums and Loss on Refunding Less Amortization of Bond Premiums, Discounts, and Loss on Refunding	16,877
Net adjustment to decrease "Net Change in Fund Balances of Governmental Funds" to arrive at "Change in Net Position of Governmental Activities"	$ (116,063)

3. CASH AND INVESTMENTS (Dollars in Thousands)

The following is a summary of the carrying amount of cash and investments as of June 30, 2018:

	Governmental Activities	Business-Type Activities	Fiduciary Funds other than SDCERS	Subtotal	SDCERS Fiduciary Fund	Grand Total
Cash or Equity in Pooled Cash and Investments	$ 1,568,849	$ 814,382	$ 121,457	$ 2,504,688	$ 1,573	$ 2,506,261
Cash and Investments with Custodian, Fiscal Agents, and Trustees	31,327	91,994	78,308	201,629	288,574	490,203
Investments at Fair Value	44,848	—	1,194,348	1,239,196	8,083,419	9,322,615
Securities Lending Collateral	—	—	—	—	171,321	171,321
Total	$ 1,645,024	$ 906,376	$ 1,394,113	$ 3,945,513	$ 8,544,887	$ 12,490,400

a. Cash or Equity in Pooled Cash and Investments

Cash or Equity in Pooled Cash and Investments represents petty cash and cash held with banks in demand deposit and/or savings accounts. Furthermore, it represents equity in pooled cash and investments, which is discussed in further detail below.

As provided for by California Government Code, the cash balances of substantially all funds and certain outside entities are pooled and invested by the City Treasurer for the purpose of increasing interest earnings through investment activities. The respective funds' shares of the total pooled cash and investments are included in the table above, under the caption Cash or Equity in Pooled Cash and Investments.

The following represents a summary of the items included in the Cash or Equity in Pooled Cash and Investments line item:

Cash on Hand - Petty Cash	$ 199
Deposits - Other Cash and Cash Equivalents	16,122
City Treasurer's Pooled Investments and Deposits	2,488,367
SDCERS Cash Deposits	1,573
Total Cash or Equity in Pooled Cash and Investments	$ 2,506,261

A summary of the investments held by the City Treasurer's Investment Pool as of June 30, 2018 is presented in the table below:

Investment	Fair Value	Book Value	Interest Rate % Range	Maturity Range
Agency Discount Notes	$ 104,446	$ 104,370	1.63-2.24% [1]	7/2/2018-4/24/2019
Agency Notes and Bonds	304,559	308,917	0.88-2.50%	6/21/2019-4/13/2021
Asset Backed Securities	383,240	385,982	1.14-2.67%	8/15/2019-1/20/2023
Commercial Paper	548,001	545,036	1.63-2.44%	7/2/2018-12/28/2018
Medium Term Notes and Bonds	481,391	486,521	1.20-3.15%	2/22/2019-6/23/2021
State Local Agency Investment Fund (LAIF) [2]	61,062	61,176	1.51%	1/9/2019
Supranationals	223,175	224,586	1.00-2.13%	7/2/2018-11/9/2020
U.S. Treasury Obligations - Bills	19,997	19,914	1.69%	7/5/2018
U.S. Treasury Obligations - Notes	379,647	384,911	0.75-2.13%	6/15/2019-1/31/2022
Total	$ 2,505,518	$ 2,521,413		

[1] Discount Rates

[2] LAIF - The State Treasurer's pooled investment program values participants' shares based on amortized cost. This has been adjusted to fair value using the LAIF Factor. Maturity range is based on weighted average maturity of 193 days.

b. Cash and Investments with Custodian, Fiscal Agents, and Trustees

Cash and Investments with Custodian, Fiscal Agents, and Trustees include cash and investments held by trustees resulting from bond issuances. These funds represent bond funds, including but not limited to debt service reserve funds, construction funds, costs of issuance funds, and liquid investments held by trustees as legally required by bond issuances. In the Fiduciary Statement of Net Position, Cash with Custodian/Fiscal Agent includes construction contract retention deposits held in escrow accounts and the City's balance for the Preservation of Benefits Plan (POB Plan). The POB Plan is a qualified governmental excess benefit arrangement (QEBA) under Internal Revenue Code (IRC) section 415(m) and is discussed in further detail in Note 12. Additionally, Cash with Custodian/Fiscal Agent includes SDCERS' transaction settlements, held in each investment manager's portfolio, which are invested overnight by SDCERS' custodial bank. Furthermore, it represents the SDCERS portion of funds held as cash collateral for SDCERS' cash overlay program.

c. Investments at Fair Value

Investments at Fair Value represents investments of SDCERS, the Supplemental Pension Savings Plan, 401(a) Plan, 401(k) Plan, investments managed by the City Treasurer (which are not part of the City Treasurer's Investment Pool) and investments managed by the Funds Commission. Investments under the management of the Funds Commission are reported in the Permanent funds (Cemetery Perpetuity Fund, Los Penasquitos Canyon Preserve Fund, and Effie Sergeant Library Fund) and in the Other Special Revenue-Unbudgeted funds (Edwin A. Benjamin Fund, Jane Cameron Estate, and Gladys Edna Peters Fund).

d. Investment Policy

In accordance with City Charter Section 45, the City Treasurer is responsible for the safekeeping and investment of the unexpended cash in the City Treasury. The City Treasurer is also responsible for maintaining the City of San Diego City Treasurer's Investment Policy (Investment Policy), which is presented to City Council annually. This Investment Policy applies to all of the investment activities of the City except for the pension trust funds, the proceeds of certain debt issues (which are managed and invested at the direction of the City Treasurer in accordance with the applicable indenture or by Trustees appointed under indenture agreements or by fiscal agents), and the assets of funds placed in the custody of the Funds Commission by Council ordinance.

City staff reviews the Investment Policy annually and may make revisions based upon changes to the California Government Code and the investment environment. These suggested revisions are presented to the City Treasurer's Investment Advisory Committee (IAC) for review and comment. The IAC consists of two City representatives and three outside financial professionals with market and portfolio expertise not working for the City. The City Council reviews the Investment Policy and considers acceptance on an annual basis.

The Investment Policy is governed by the California Government Code (CGC), § 53600 et seq. The following table presents the authorized investments, requirements, and restrictions per the CGC and the Investment Policy:

	Maximum Maturity [1]		Maximum % of Portfolio		Maximum % with One Issuer		Minimum Rating [9]	
Investment Type	CGC	City Policy	CGC	City Policy	CGC	City Policy	CGC	City Policy
U.S. Treasury Obligations (bills, bonds, or notes)	5 years	5 years	None	None	None	None	None	None
U.S. Agencies	5 years	5 years	None	(2)	None	(2)	None	None
Supranationals [5]	5 years	5 years	30%	30%	30%	10%	AA	AA
Bankers' Acceptances [6]	180 days	180 days	40%	40%	30%	10%	None	(3)
Commercial Paper [6]	270 days	270 days	25%	25%	10%	10%	P-1	P-1
Negotiable Certificates of Deposit [6]	5 years	5 years	30%	30%	None	10%	None	(3)
Repurchase Agreements	1 year	1 year	None	None	None	None	None	None
Reverse Repurchase Agreements [4]	92 days	92 days	20%	20%	None	None	None	None
Local Agency Investment Fund	N/A	N/A	None	None	None	None	None	None
Non-Negotiable Time Deposits [6, 7]	5 years	5 years	None	25%	None	10%	None	(3)
Medium Term Notes/Bonds [6]	5 years	5 years	30%	30%	None	10%	A	A
Municipal Securities of California Local Agencies [6]	5 years	5 years	None	20%	None	10%	None	A
Mutual Funds	N/A	N/A	20%	20%	10%	5%	AAA	AAA
Notes, Bonds, or Other Obligations	5 years	5 years	None	None	None	None	None	AA
Mortgage and Asset-Backed Securities	5 years	5 years	20%	20%	None	None	AA	AAA
Financial Futures [8]	N/A	None	N/A	None	N/A	None	N/A	None

[1] In the absence of a specified maximum, the maximum is 5 years.

[2] No more than one-third of the cost value of the total portfolio at time of purchase can be invested in the unsecured debt of any one agency.

[3] Credit and maturity criteria must be in accordance with Section XII of the City's Investment Policy.

[4] Maximum % of portfolio for Reverse Repurchase Agreements is 20% of base value.

[5] International Bank for Reconstruction and Development, International Finance Corporation, or Inter-American Development Bank.

[6] Investment types with a 10% maximum with one issuer are further restricted per the City's Investment Policy: 5% per issuer and an additional 5% with authorization by the City Treasurer.

[7] Time deposits with the Certificate of Deposit Account Registry Service (CDARS) are further restricted per the City's Investment Policy: 1 year maximum maturity and 2% maximum of the portfolio.

[8] Financial futures transactions would be purchased only to hedge against changes in market conditions for the reinvestment of bond proceeds.

[9] Minimum credit rating categories include modifications (+/-).

In the event a discrepancy exists between the CGC and City Policy, the more restrictive parameters will take precedence. Percentage holding limits listed in the table apply at the time the security is purchased.

According to the Investment Policy, the City may enter into repurchase and reverse repurchase agreements only with primary dealers of the Federal Reserve Bank of New York with which the City has entered into a master repurchase agreement.

Additionally, the Investment Policy authorizes investment in other specific types of securities. The City may invest in floating rate notes with coupon resets based upon a single fixed income index (which would be representative of an eligible investment), provided that security is not leveraged or has a coupon that resets inversely to the underlying index. Structured notes issued by U.S. Government agencies that contain imbedded calls or options are authorized as long as those securities are not inverse floaters, range notes, or interest only strips derived from a pool of mortgages. A maximum of 8% of the "cost value" of the pooled portfolio may be invested in structured notes.

Ineligible investments prohibited from use in the portfolio include, but are not limited to, common stocks and long-term corporate notes/bonds. The Investment Policy is available online at the following website address: www.sandiego.gov/treasurer/investments/invpolicy.shtml.

Other Investment Policies

The City currently has a Funds Commission whose role is to supervise and control all trust, perpetuity, and investment funds of the City and such pension funds as shall be placed in its custody. The statutory authority for the Funds Commission is created in City Charter Article V, Section 41(a). While the duties described in the creation document form broad authority for the Funds Commission, in practice, the Funds Commission only oversees investments related to a small number of permanent endowments. The allowable investments for these funds are different than those as prescribed in the City of San Diego City Treasurer's Investment Policy. Each permanent endowment fund has its own separate investment policy.

The City and its component units have funds invested in accordance with various bond indenture and trustee agreements. The investment of these bond issuances is in accordance with the Permitted Investments section and applicable account restrictions outlined in the Indenture of each bond issuance. The Permitted Investments section in each Indenture will vary based upon the maturity, cash flow demands, and reserve requirements associated with each issuance. In general, the Permitted Investments section of each Indenture will closely resemble the Investment Policy, but may include certain investment options not authorized by applicable law for the Investment Policy (CGC § 53601).

e. Fair Value Hierarchy

The City categorizes its fair value measurements within the fair value hierarchy established by GASB Statement No. 72. The hierarchy is based on the valuation inputs used to measure the fair value of the assets. Level 1 inputs are quoted prices in an active market for identical assets; Level 2 inputs are significant other observable inputs; and Level 3 inputs are significant unobservable inputs. Fair value is defined as the quoted market value on the last trading day of the period. These prices are obtained from various pricing sources by the City's custodian banks. The City does not value any of its investments using Level 3 inputs.

The table below represents the City's fair value hierarchy as of June 30, 2018:

Investment Type	Fair Value	Level 1	Level 2
Asset Backed Securities	$ 383,240	$ —	$ 383,240
Commercial Paper	587,808	—	587,808
Exchange Traded Funds	4,712	4,712	—
Government Mortgage Backed Securities	6	—	6
Medium Term Notes and Bonds	483,440	—	483,440
Mutual Funds	1,205,521	—	1,205,521
Negotiable Certificates of Deposit	1,300	—	1,300
Stocks	3,206	3,206	—
Supranationals	223,175	—	223,175
U.S. Agencies	419,360	—	419,360
U.S. Treasury Obligations - Bills, Bonds and Notes	470,469	—	470,469
Total Investments & Cash Equivalents by Fair Value Level	$ 3,782,237	$ 7,918	$ 3,774,319

Asset backed securities, commercial paper, government mortgage backed securities, medium term notes and bonds, mutual funds, negotiable certificates of deposit, supranationals, investments in U.S. Agencies, and U.S. Treasury bills, bonds and notes are all classified in Level 2 of the fair value hierarchy. These investments are valued using either bid evaluation or matrix pricing techniques. Bid evaluation may include market quotations, yields, maturities, call features, and ratings. Matrix pricing is used to value the securities based on the securities' relationship to benchmark quoted prices which are maintained by various pricing vendors.

Investments in guaranteed investment contracts are valued at cost and exempt from the fair value hierarchy. Investments that are measured at fair value using the net asset value (NAV) per share (or its equivalent) are not classified in the fair value hierarchy. The City values investments in money market mutual funds and repurchase agreements at NAV based on amortized cost. The City also has investments in LAIF which are reported based upon the application of a fair value factor to each one dollar share invested, and therefore are not included in the fair value hierarchy.

City of San Diego - Disclosures for Specific Risks

f. Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Interest rate risk for the City Treasurer's Investment Pool is intended to be mitigated by establishing two portfolios: a liquidity portfolio and a core portfolio. Target durations are based upon the expected short and long-term cash needs of the City. The liquidity portfolio is structured with an adequate mix of highly liquid securities and maturities to meet major cash outflow requirements for at least six months (per CGC § 53646). The liquidity portfolio uses the Bank of America Merrill Lynch 3-6 month Treasury Index as a benchmark with a target duration of plus or minus 40% of benchmark.

The core portfolio uses the Bank of America Merrill Lynch 1-3 year Treasury Index as a benchmark with a target duration of plus or minus 20% of the benchmark. It consists of high quality liquid securities with a maximum maturity of 5 years and is structured to meet the longer-term cash needs of the City. Information about the sensitivity of the fair value of the City's investments to market interest rate fluctuations is presented in the table on the following page.

As of June 30, 2018, the City's investments (dollars in thousands) by maturity are as follows:

	Years				
	Under 1	1-3	3-5	Over 5	Fair Value (In Thousands)
City Treasurer's Investment Pool:					
Asset Backed Securities	$ —	$ 112,416	$ 270,824	$ —	$ 383,240
Commercial Paper	548,001	—	—	—	548,001
Medium Term Notes and Bonds	72,727	408,664	—	—	481,391
State Local Agency Investment Fund	61,062	—	—	—	61,062
Supranationals - IADB [1]	24,676	24,664	—	—	49,340
Supranationals - IBRD [2]	124,709	49,126	—	—	173,835
U.S. Agencies - Federal Farm Credit Bank	20,000	—	—	—	20,000
U.S. Agencies - Federal Home Loan Bank	109,142	73,580	—	—	182,722
U.S. Agencies - Federal Home Loan Mortgage	—	83,524	—	—	83,524
U.S. Agencies - Federal National Mortgage	—	122,759	—	—	122,759
U.S. Treasury Obligations - Bills and Notes	44,648	257,729	97,267	—	399,644
	1,004,965	1,132,462	368,091	—	2,505,518
Non-Pooled Investments with City Treasurer:					
Commercial Paper	9,110	—	—	—	9,110
U.S. Treasury Obligations - Notes	—	13,487	—	—	13,487
	9,110	13,487	—	—	22,597
Investments with Fiscal Agents/Trustees, Funds Commission, and Blended Component Units:					
Commercial Paper	30,697	—	—	—	30,697
Exchange Traded Funds - Equity [3]	1,412	—	—	—	1,412
Exchange Traded Funds - Fixed Income	—	—	987	2,313	3,300
Government Mortgage Backed Securities	—	—	—	6	6
Guaranteed Investment Contracts	—	—	—	9,223	9,223
Medium Term Notes and Bonds	—	764	506	779	2,049
Money Market Mutual Funds	68,312	—	—	—	68,312
Mutual Funds - Equity [3]	807,332	—	—	—	807,332
Mutual Funds - Fixed Income	—	382,637	568	14,984	398,189
Negotiable Certificates of Deposit	1,300	—	—	—	1,300
Repurchase Agreement	1,200	—	—	—	1,200
Stocks - Common Stock [3]	2,854	—	—	—	2,854
Stocks - Preferred Stock [3]	352	—	—	—	352
U.S. Agencies - Federal Home Loan Bank	10,355	—	—	—	10,355
U.S. Treasury Obligations - Bonds and Notes	49,609	7,305	233	191	57,338
	973,423	390,706	2,294	27,496	1,393,919
Total Investments	$ 1,987,498	$ 1,536,655	$ 370,385	$ 27,496	$ 3,922,034
Cash on Hand - Petty Cash					$ 199
Deposits - Other Cash and Cash Equivalents and Cash with Fiscal Agents/Trustees					9,734
Deposits - Cash with Fiscal Agents/Trustees Held in Escrow Accounts					13,546
Total Investments, Cash on Hand, and Deposits					$ 3,945,513

[1] Inter-American Development Bank.

[2] International Bank for Reconstruction and Development.

[3] Equity exchange traded funds, equity mutual funds, and stocks do not have maturities.

g. Credit Risk

Generally, credit risk is the risk that an issuer of an investment will not fulfill their obligation to the holder of the investment. This is measured by the assignment of a rating by a nationally recognized statistical rating organization (NRSRO). The City mitigates credit risk through its Investment Policy. Section d. outlines the authorized investments, requirements, and restrictions per the City's Investment Policy. As of June 30, 2018, the City's investments and corresponding credit ratings are as follows:

	Moody's	S&P	Fair Value	Percentage
City Treasurer's Investment Pool:				
Asset Backed Securities	Aaa	Not Rated	$ 205,416	8.20%
Asset Backed Securities	Not Rated	AAA	177,824	7.10%
Commercial Paper	P-1	Not Provided	548,001	21.87%
Medium Term Notes and Bonds	Aaa	Not Provided	25,017	1.00%
Medium Term Notes and Bonds	Aa1	Not Provided	35,306	1.41%
Medium Term Notes and Bonds	Aa2	Not Provided	24,947	1.00%
Medium Term Notes and Bonds	Aa3	Not Provided	40,525	1.62%
Medium Term Notes and Bonds	A1	Not Provided	170,799	6.82%
Medium Term Notes and Bonds	A2	Not Provided	128,857	5.14%
Medium Term Notes and Bonds	A3	Not Provided	55,940	2.23%
State Local Agency Investment Fund	Not Rated	Not Rated	61,062	2.44%
Supranationals - IADB [2]	Aaa	Not Provided	49,340	1.97%
Supranationals - IBRD [3]	Aaa	Not Provided	49,126	1.96%
Supranationals - IBRD [3]	P-1	Not Provided	124,709	4.98%
U.S. Agencies - Federal Farm Credit Bank	P-1	Not Provided	20,000	0.80%
U.S. Agencies - Federal Home Loan Bank [1]	P-1	Not Provided	84,446	3.37%
U.S. Agencies - Federal Home Loan Bank [1]	Aaa	Not Provided	98,276	3.92%
U.S. Agencies - Federal Home Loan Mortgage Corporation	Aaa	Not Provided	83,524	3.33%
U.S. Agencies - Federal National Mortgage Association	Aaa	Not Provided	122,759	4.90%
U.S. Treasury Obligations - Bills and Notes	Exempt	Exempt	399,644	15.94%
			2,505,518	100.00%
Non-Pooled Investments with City Treasurer:				
Commercial Paper [1]	P-1	Not Provided	9,110	40.32%
U.S. Treasury Obligations - Notes	Exempt	Exempt	13,487	59.68%
			22,597	100.00%

	Moody's	S&P	Fair Value	Percentage
Investments with Fiscal Agents/Trustees, Funds Commission, and Blended Component Units:				
Commercial Paper	P-1	Not Provided	$ 28,852	2.07%
Commercial Paper	Not Provided	A-1+	796	0.06%
Commercial Paper	Not Provided	A-1	1,049	0.08%
Exchange Traded Funds - Equity	Not Rated	Not Rated	1,412	0.10%
Exchange Traded Funds - Fixed Income	Not Rated	Not Rated	3,300	0.24%
Government Mortgage Backed Securities	Not Rated	Not Rated	6	0.01%
Guaranteed Investment Contracts	Not Rated	Not Rated	9,223	0.66%
Medium Term Notes and Bonds	Aa2	Not Provided	304	0.02%
Medium Term Notes and Bonds	Aa3	Not Provided	305	0.02%
Medium Term Notes and Bonds	A1	Not Provided	451	0.03%
Medium Term Notes and Bonds	A2	Not Provided	502	0.04%
Medium Term Notes and Bonds	A3	Not Provided	487	0.03%
Money Market Mutual Funds	Aaa	Not Provided	64,277	4.61%
Money Market Mutual Funds	Not Provided	AAA	1,651	0.12%
Money Market Mutual Funds	Not Rated	Not Rated	2,384	0.17%
Mutual Funds - Equity	Not Rated	Not Rated	807,332	57.91%
Mutual Funds - Fixed Income	Not Rated	Not Rated	398,189	28.56%
Negotiable Certificates of Deposit	Not Rated	A-1+	600	0.04%
Negotiable Certificates of Deposit	Not Rated	A-1	700	0.05%
Repurchase Agreement	Not Rated	AAA	1,200	0.09%
Stocks - Common Stock	Not Rated	Not Rated	2,854	0.20%
Stocks - Preferred Stock	Not Rated	Not Rated	352	0.03%
U.S. Agencies - Federal Home Loan Bank	Aaa	Not Provided	7,611	0.55%
U.S. Agencies - Federal Home Loan Bank	Not Provided	A-1+	2,744	0.20%
U.S. Treasury Obligations - Bonds and Notes	Exempt	Exempt	57,338	4.11%
			1,393,919	100.00%
Total Investments			$ 3,922,034	

"Exempt" - Per GASB Statement No. 40, U.S. Treasury Obligations do not require disclosure of credit quality.

[1] More than 5% of total investments are with Commercial Paper and U.S. Agencies whose debt is not backed by the full faith and credit of the U.S. Government.

[2] Inter-American Development Bank.

[3] International Bank for Reconstruction and Development.

Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the relative size of an investment in a single issuer. GASB Statement No. 40 requires disclosure of certain investments in any one issuer that represents 5% or more of total investments. Investments issued or explicitly guaranteed by the U.S. Government and investments in mutual funds, external investment pools and other pooled investments are exempt. As of June 30, 2018, the City exceeded the 5% limit of total investments in Bayeriche Landesbank and J.P. Morgan Securities Commercial Paper and issuers of various U.S. Agencies. Investments exceeding the 5% limit are referenced in the credit ratings table above.

h. Custodial Credit Risk

Custodial credit risk is the risk that if a financial institution or counterparty fails, the City would not be able to recover the value of its deposits or investments. The City does not have a specific policy relating to custodial credit risk. The City's exposure to custodial credit risk is further discussed below.

Deposits

At June 30, 2018, the carrying amount of the City's cash on hand and deposits was approximately $9,933 and the bank balance was approximately $33,705; the difference is substantially due to outstanding checks. For the balance of cash deposits in financial institutions, approximately $1,755 was covered by federal depository insurance and approximately $31,950 was uninsured. Pursuant to the California Government Code, California banks and savings and loan associations are required to secure the City's deposits not covered by federal depository insurance by pledging government securities as collateral. As such, $31,950 of the City's deposits are pledged at 110% and held by a bank acting as the City's agent in the City's name.

The City also has deposits held in escrow accounts with a carrying amount and bank balance of approximately $13,546. For the balance of deposits in escrow accounts, approximately $2,656 was covered by federal depository insurance. The remaining balance of $10,890 was uninsured, but collateralized and pledged at 110%.

Investments

At June 30, 2018, all of the City's investments were held in the City's name and were not exposed to custodial credit risk.

i. Restricted Cash and Investments

Cash and investments at June 30, 2018 that are restricted by legal or contractual requirements are comprised of the following:

Governmental Funds	
General Fund	$ 6,087
Special Revenue	4,046
Debt Service	12,139
Capital Projects	48,507
Permanent Endowments	20,763
Total Governmental Funds	91,542
Sewer Utility Enterprise Fund	
Interest and Redemption Funds	69,772
Water Utility Enterprise Fund	
Customer Deposits	7,786
Interest and Redemption Funds	16,165
Total Water Utility Enterprise Fund	23,951
Nonmajor Enterprise Funds	
Airports Fund - Deposits and Advances	76
Development Services Fund - Deposits and Advances	7,975
Environmental Services Fund - Funds set aside for landfill site closure and maintenance costs	32,274
Recycling Fund - Customer deposits	11,551
San Diego Convention Center Corporation	3,211
Total Nonmajor Enterprise Funds	55,087
Private-Purpose Trust Fund	44,001
Miscellaneous Agency Funds	
Special Assessment Funds and Retention Held in Escrow Accounts	34,292
Total Restricted Cash and Investments	$ 318,645

Summary of Total Cash and Investments	
Total Unrestricted Cash and Investments	$ 12,171,755
Total Restricted Cash and Investments	318,645
Total Cash and Investments	$ 12,490,400
Total Governmental Activities	$ 1,645,024
Total Business-Type Activities	906,376
Total Fiduciary Activities	9,939,000
Total Cash and Investments	$ 12,490,400

San Diego City Employees' Retirement System (SDCERS) - Disclosures for Policy and Specific Risks

Narratives and tables presented in the following sections (j. through u.) are taken directly from the comprehensive annual financial report of the San Diego City Employees' Retirement System as of June 30, 2018 (certain terms have been modified to conform to the City's CAFR presentation).

Summary of Cash and Investments - SDCERS

Cash on Deposit with Wells Fargo Bank	$ 1,573
Cash and Cash Equivalents on Deposit with Custodial Bank and Fiscal Agents	288,574
Investments at Fair Value:	
Domestic Fixed Income Securities	2,043,704
International Fixed Income Securities	562,128
Domestic Equity Securities	1,798,974
International Equity Securities	1,302,229
Global Equity Securities	394,933
Real Estate	837,876
Private Equity and Infrastructure	1,143,575
Securities Lending Collateral	171,321
Total Cash and Investments for SDCERS	$ 8,544,887

j. Investment Policy and Portfolio Risk

The Board of Administration of SDCERS (Board) has exclusive authority over the administration and investment of SDCERS' Trust Fund assets pursuant to Section 144 of the City Charter and the California State Constitution Article XVI, Section 17. The Board is authorized to invest in bonds, notes or other obligations, common stock, preferred stock, real estate investments, private equity, infrastructure and pooled vehicles. The risks and correlations of each asset class and investment manager are considered relative to an entire portfolio. Investment policies permit the Board to invest in financial futures contracts provided the contracts do not hedge SDCERS' Trust Fund portfolio. Financial futures contracts are recorded at fair value each day and must be settled at expiration date. Changes in the fair value of the contracts result in the recognition of a gain or loss.

Net investment income includes the net appreciation (depreciation) in the fair value of investments, interest income, dividend income, and other income not included in the appreciation (depreciation) in the fair value of investments, less total investment expenses, including investment management and custodial fees and all other significant investment-related costs. SDCERS' net realized gains totaled $260,500 for the year ended June 30, 2018. Realized gains and losses are independent of the calculation of net appreciation (depreciation) in the fair value of investments. Unrealized gains and losses on investments sold in the current year that had been held for more than one year were included in net appreciation (depreciation) in the fair value of the investments reported in the prior year and current year. Pursuant to the City, Port and Airport plan documents, realized gains and losses determine whether certain contingent benefits will be paid each fiscal year. Realized gains and losses are reported in the net appreciation (depreciation) in the fair value of investments in the financial statements.

SDCERS' Policy in regard to the allocation of invested assets is established and may be amended by the Board. The asset allocation policy is reviewed and approved on an annual basis. Through its investment objectives and policies, the Board emphasizes generating a rate of return above inflation and the preservation of capital. Investments are made only after the risk/reward trade-offs are evaluated. SDCERS' assets are managed on a total return basis, which takes into consideration both investment income and capital appreciation. While SDCERS recognizes the importance of preservation of capital, it also adheres to the principle that varying degrees of investment risk are generally rewarded with compensating returns.

The following was SDCERS' adopted asset allocation policy as of June 30, 2018:

Asset Class	Target Allocation
Domestic Equity	18%
International Equity	15%
Global Equity	8%
Domestic Fixed Income	22%
Emerging Market Debt	5%
Real Estate	11%
Private Equity and Infrastructure	13%
Opportunity Fund	8%
Total	100%

For the fiscal year ended June 30, 2018, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense was 8.4%. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

SDCERS' investment portfolio includes fixed income strategies to diversify the investment portfolio. The percentage allocated to these strategies is based on information derived from the Asset/Liability Study performed every three years. The returns of fixed income strategies vary less than equity returns. SDCERS' target asset allocation policy is reviewed each year. SDCERS' long-term target allocation to fixed income strategies as of June 30, 2018 was 27%, which includes domestic fixed income and emerging market debt. The fixed income allocation is externally managed and is comprised as follows: 22% to core domestic fixed income, which is benchmarked to the Barclays Capital Intermediate Aggregate Bond Index; and 5% to emerging market debt, which is benchmarked 40% to JP Morgan Emerging Market Bond Index Global Diversified and 60% to JP Morgan Government Bond Index-Emerging Market Global Diversified. A 2% target allocation to convertible bond securities, which is benchmarked to the Merrill Lynch All Convertibles All Qualities Index, is not included in the fixed income allocation, but instead is included in the domestic equity allocation. However, given that these convertible securities have fixed income attributes, the convertible bond allocation is included in the investment risk disclosures. SDCERS' overall portfolio diversification limits the fixed income invested in the debt security of any one issuer to 10% of the portfolio at the time of the initial commitment, except for U.S. Government obligations (or agencies and instruments of the U.S. Government) to minimize overall market and credit risk.

A copy of the SDCERS' investment policy and additional details on the results of SDCERS' investment activities are available at 401 West A Street, Suite 400, San Diego, CA 92101 or online at: https://www.sdcers.org/Investments/Overview/Policy.aspx.

k. Fair Value Hierarchy

SDCERS categorizes their fair value measurements within the fair value hierarchy established by GAAP set forth in GASB Statement No. 72. The hierarchy is based on the valuation inputs used to measure the fair value of the asset and give the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements).

Level 1: Unadjusted quoted prices for identical instruments in active markets.

Level 2: Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs are observable.

Level 3: Valuations derived from valuation techniques in which significant inputs are unobservable.

Investments that are measured at fair value using the net asset value (NAV) per share (or its equivalent) as a practical expedient are not classified in the fair value hierarchy.

Where inputs used to measure fair value fall into different fair value levels, fair value measurements are categorized based on the lowest level input that is significant to the valuation. SDCERS' assessment of the significance of particular inputs to these fair value measurements requires judgment and considers factors specific to each asset or liability. The table below shows the fair value leveling of the investments for the pension system.

Short-term securities generally include investments in money market-type securities reported at cost plus accrued interest.

The following table represents SDCERS' fair value hierarchy as of June 30, 2018:

Investments	Fair Value	Level 1	Level 2	Level 3
Short-Term Securities	$ (245)	$ —	$ (245)	$ —
Fixed Income Securities:				
Asset-Backed Securities	48,079	—	48,079	—
Commercial Mortgage-Backed Securities	20,310	—	20,310	—
Collateralized Mortgage Obligations	43,470	—	43,470	—
Corporates	473,047	—	473,047	—
Government & Agency Obligations	259,463	—	259,463	—
Mortgage-Backed Securities	363,084	—	363,084	—
Total Fixed Income Securities	1,207,453	—	1,207,453	—
Equity Securities:				
Consumer Discretionary	119,671	119,671	—	—
Consumer Staples	48,259	48,259	—	—
Energy	80,096	80,096	—	—
Financials	148,022	148,022	—	—
Healthcare	172,126	172,126	—	—
Industrials	64,700	64,700	—	—
Information Technology	137,210	137,210	—	—
Materials	22,248	22,248	—	—
Real Estate Investment Trust	11,010	11,010	—	—
Telecommunication Services	19,868	19,868	—	—
Utilities	14,066	14,066	—	—
Total Equity Securities	837,276	837,276	—	—
Real Estate	146,299	—	—	146,299
Investment Derivative Instruments				
Fixed Income Securities:				
Credit Default Swaps	192	—	192	—
Foreign Currency Forwards	1,153	—	1,153	—
Interest Rate Swaps	1,786	—	1,786	—
Options - Fixed Income	(90)	—	(90)	—
Options - Futures	(6)	—	(6)	—
Equity Securities:				
Rights	139	—	139	—
Total Investment Derivative Instruments	3,174	—	3,174	—
Total Investments by Fair Value Level [1]	$ 2,193,957	$ 837,276	$ 1,210,382	$ 146,299

[1] Total Investments measured at fair value plus total investment derivatives differs from the total investments including securities lending collateral on the Fiduciary Statement of Net Position because of investment receivables and payables unrealized gains and losses. Total investments at fair value excludes $64 of unrealized losses.

Equity securities classified in Level 1 are valued using prices quoted in active markets for those securities.

Debt and fixed income derivative securities classified in Level 2 are valued using either a bid evaluation or a matrix pricing technique. Bid evaluations may include market quotations, yields, maturities, call features and ratings. Matrix pricing is used to value securities based on the relationship of the securities to benchmark quoted prices. Index linked fixed income securities are valued by multiplying the external market price by the applicable day's Index Ratio. Level 2 fixed income securities have non-proprietary information that was readily available to market participants, from multiple independent sources, which are known to be actively involved in the market. Equity and equity derivative securities classified in Level 2 are securities whose values are derived daily from associated traded securities.

Real estate assets classified in Level 3 are real estate investments generally valued using the income approach or appraisal approach by SDCERS' real estate managers and third-party appraisal firms. SDCERS' policy is to obtain an external appraisal a minimum of every three years for properties or portfolios that the retirement system has some degree of control or discretion. Appraisals are performed by an independent appraiser with preference for Member Appraisal Institute (MAI) designated appraisers. The appraisals are performed using generally accepted valuation approaches applicable to the property type.

Investments Measured at NAV	NAV	Unfunded Commitments	Redemption Frequency (If Currently Eligible)	Redemption Notice Period
Equity Investments:				
Commingled Domestic Equity Funds	$ 1,409,834	$ —	Daily	0-5 Days
Commingled International Equity Funds	1,057,339	—	Daily, Monthly	0-30 Days
Commingled Global Equity Funds	191,586	—	Daily	None
Total Equity Investments Measured at NAV	2,658,759	—		
Fixed Income Investments:				
Commingled Domestic Fixed Income Funds	833,911	—	Daily	None
Commingled International Fixed Income Funds	561,704	63,721	Daily	0-5 Days
Total Fixed Income Investments Measured at NAV	1,395,615	63,721		
Real Estate Investments:				
Real Estate Limited Partnerships	197,185	208,001	Not Eligible	N/A
Commingled Real Estate Funds	494,392	93,052	Monthly	None
Total Real Estate Investments Measured at NAV	691,577	301,053		
Private Equity & Infrastructure Investments:				
Commingled Private Equity & Infrastructure Funds	1,143,575	796,665	Not Eligible	N/A
Invested Securities Lending Collateral :				
Commingled Equity Securities	22,449	—	Daily	3 Days
Commingled Fixed Income Securities	148,872	—	Daily	3 Days
Total Invested Securities Lending Collateral Measured at NAV	171,321	—		
Total Investments Measured at NAV	$ 6,060,847	$ 1,161,439		

Investments that are measured at NAV are not classified in the fair value hierarchy but are disclosed in the table above.

Commingled Domestic Equity Funds consist of a large cap passive index fund, a large cap growth passive index fund, a small cap growth passive index fund, and a fund that invests in U.S. small cap value equities, and an options trading strategy blended with passive index fund. The Commingled International Equity Funds consist of broad international equity passive index funds with exposure to both developed and emerging markets, two funds that invest in emerging market equities, and two funds that invest in international small cap equities. The Commingled Global Equity Funds consist of two funds that invest in both international and U.S. equities. The fair values of the investments in these types have been determined using the NAV per share (or its equivalent).

The Commingled Domestic Fixed Income Funds consist of three funds that invest in domestic fixed income securities and one broad based domestic fixed income passive index fund. The Commingled International Fixed Income Funds consist of three emerging market debt funds and two funds that invest in global credit strategies. The fair values of the investments in these types have been determined using the NAV per share (or its equivalent).

The Commingled Real Estate Funds consist of seven open-ended commingled funds and 26 real estate limited partnerships that are invested in apartments, retail, industrial, and office assets throughout the United States, Europe and Asia. Although the open-ended commingled funds are private investments, they can be redeemed on a monthly basis, subject to available liquidity, and the fair value of these investments has been determined using the NAV per share (or its equivalent). Investments in the limited partnerships can never be redeemed with the funds. Instead, the nature of these investment funds is that distributions from each investment will be received as the underlying investments are liquidated. Because it is not probable that any individual investment will be sold, the fair value of SDCERS' ownership interest in partner's capital has been determined using the NAV per share (or its equivalent).

The Commingled Private Equity and Infrastructure Funds consist of two limited partnerships that are managed by two discretionary advisors. Generally, the limited partnerships invest in venture capital, growth equity, buyouts, special situations, mezzanine, and distressed debt. These investments are considered illiquid and cannot be redeemed during the lives of the partnerships. Instead, the nature of these investments is that distributions from each investment will be received as the underlying investments are liquidated. Because it is not probable that any individual investment will be sold, the fair value of SDCERS' ownership interest in partner's capital has been determined using the NAV per share (or its equivalent).

I. Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Fixed income portfolios use duration to measure how a change in interest rates will affect the value of the portfolio. SDCERS does not have a general investment policy that addresses interest rate risk. Rather, each investment manager's specific investment guidelines place limits on each portfolio to manage interest rate risk.

Convertible bonds are generally less sensitive to changes in interest rates and more sensitive to the profitability of the underlying issuer. Company fundamentals are the overriding factor in the bond's return, while fluctuations in interest rates have significantly less impact.

The following table identifies the durations of SDCERS' domestic and international fixed income strategies based on portfolio holdings as of June 30, 2018:

Type of Security	Effective Duration (in years)	Fair Value [1]
Asset-Backed Securities	0.33	$ 48,079
Commercial Mortgage-Backed Securities	3.41	20,310
Collateralized Mortgage Obligations [2]	0.47	43,397
Corporate Bonds [3]		
Bank Loans	0.09	10,999
Corporate Bonds	2.21	268,407
Government and Agency Obligations [4]		
Municipal Securities	3.26	4,757
Foreign Securities	0.58	28,641
Treasury Securities	4.68	226,065
Mortgage-Backed Securities	5.15	363,084
Total		$ 1,013,739

[1] Fair Value does not include convertible bonds, mutual funds and derivative instruments of $1,592,093. These securities do not exhibit interest rate risk and/or duration cannot be calculated.

[2] Collateralized Mortgage Obligations do not include bonds of $73 as duration was not available for these

[3] Corporate Bonds do not include convertible securities of $193,641.

[4] Duration could not be calculated for the derivative instruments, short-term instruments and mutual funds of $1,398,379 within the Short-Term/Other category. Although the duration was not available for these securities, the weighted average maturity was calculated for the mutual funds.

The following table depicts the weighted average maturity for the commingled mutual funds:

Name of Institutional Mutual Fund	Fair Value	Weighted Average Maturity (in years)
BlackRock U.S. Debt NL Fund	$ 782,937	5.31
Davidson Kempner Special Opportunities Fund III [1]	35,027	—
Davidson Kempner Special Opportunities Fund IV [1]	4,575	—
GCM WindandSea Fund	154,739	1.90
Investec Emerging Market Debt	126,439	8.87
Metropolitan West Floating Rate	3,662	5.34
Metropolitan West High Yield Bond Fund	3,381	4.31
PIMCO PAPS Short-Term Floating NAV II Portfolio	43,932	0.02
Stone Harbor	128,956	10.27
Wellington Trust Company CIF II Opportunistic	111,967	11.00
Total	$ 1,395,615	

[1] This fund is early in its life cycle and the weighted average maturity is not applicable for the current underlying investments.

m. Investments Highly Sensitive to Interest Rate Changes

Certain terms in fixed income securities may increase the sensitivity of their fair values to changes in interest rates. The Portfolio Duration Analysis table on the previous page discloses the degree to which SDCERS' investments are sensitive to interest rate changes due simply to the remaining term to maturity. The total value of securities, as of June 30, 2018, that are highly sensitive to interest rate changes due to factors other than term to maturity are shown in the following table.

Type of Security	Fair Value	Percent of Fixed Income Portfolio
Adjustable Rate Notes	$ 6,537	0.2%
Asset-Backed Securities	10,276	0.4%
Floating Rate Notes	132,496	5.1%
Range Notes	1,920	0.1%
Total	$ 151,229	5.8%

Although SDCERS does not have an investment policy that pertains directly to investments that are highly sensitive to interest changes, this risk is mitigated by diversification of issuer, credit quality, maturity and security selection.

n. Credit Risk

Credit risk is the risk that an issuer or other underlying borrower to a debt instrument will not fulfill its obligations. Nationally recognized statistical rating organizations (NRSROs) assign ratings to measure credit risk. These rating agencies assess a firm's or government's willingness and ability to repay its debt obligations based on many factors.

SDCERS employs two core bond managers that invest primarily in U.S. fixed income and derivative securities, fixed income mutual funds, and some non-U.S. fixed income securities. SDCERS also invests in three emerging market debt commingled funds, one passive core fixed income index fund, and two opportunistic global credit funds. The investment management agreements between SDCERS and its two core bond managers contain specific investment guidelines that identify permitted fixed income investments. One of SDCERS' domestic core fixed income managers has limited tactical discretion to invest in non-U.S. fixed income securities.

The permitted securities and derivatives for the two domestic core fixed income managers include U.S. Government and agency obligations, collateralized mortgage obligations, U.S. corporate securities, commercial mortgage backed securities, asset backed securities, futures, forwards, options, interest rate swaps and credit default swaps. Investment guidelines include minimum average portfolio quality of AA- rating (fair value weighted) for SDCERS' domestic fixed income manager and minimum average portfolio quality of A+ for SDCERS' domestic fixed income manager with limited tactical discretion to invest in non-U.S. fixed income securities and a minimum credit quality at time of purchase of BBB- for the two domestic fixed income managers.

The permitted securities for SDCERS' domestic convertible bond portfolio include convertible bonds, convertible preferred stocks, common stocks (due to forced conversions) and synthetic convertibles. SDCERS' domestic convertible bond portfolio will generally maintain an average quality rating of at least B.

The following table identifies the credit quality of SDCERS' fixed income strategies based on portfolio holdings as of June 30, 2018.

S&P Quality Rating [4]	Total Fair Value	Asset-Backed Securities	Commercial Mortgage-Backed Securities	Collateralized Mortgage Obligations	Corporates [1]	Government and Agency Obligations [2]	Mortgage-Backed Securities	Short-Term/ Other
U.S. Treasuries	$ 226,065	$ —	$ —	$ —	$ —	$ 226,065	$ —	$ —
GNMA Securities	34,961	—	—	—	—	—	34,961	—
AAA	43,248	20,943	6,580	68	15,657	—	—	—
AA+	340,238	7,810	—	3,308	997	—	328,123	—
AA	6,626	2,372	1,167	445	1,036	1,606	—	—
AA-	20,995	—	894	148	16,537	3,416	—	—
A+	28,768	984	—	1,448	24,842	1,494	—	—
A	40,938	1,313	—	2,135	37,490	—	—	—
A-	41,323	509	885	31	38,907	991	—	—
A-1+	982	982	—	—	—	—	—	—
BBB+	53,489	1,358	—	732	51,328	71	—	—
BBB	54,317	—	—	—	54,317	—	—	—
BBB-	32,187	—	—	—	32,187	—	—	—
BB+	8,559	—	—	—	8,559	—	—	—
BB	314	314	—	—	—	—	—	—
BB-	13,972	—	—	588	10,726	2,658	—	—
B+	9,184	—	—	—	7,568	1,616	—	—
B	2,203	—	—	—	2,203	—	—	—
B-	3,057	—	—	23	3,034	—	—	—
CCC+	6,746	—	—	—	6,746	—	—	—
CCC	1,937	—	—	—	1,937	—	—	—
NR [5]	1,635,723	11,494	10,784	34,544	158,976	21,546	—	1,398,379 [3]
Totals	$ 2,605,832	$ 48,079	$ 20,310	$ 43,470	$ 473,047	$ 259,463	$ 363,084	$ 1,398,379

[1] Corporate Bonds include convertible bonds from SDCERS' convertible bond manager.

[2] Includes international and municipal holdings.

[3] Includes fixed income commingled mutual fund investments of $1,395,615. These institutional quality fund investments are not directly rated by major credit rating agencies.

[4] Credit ratings with qualifiers and rating outlooks have been combined to show the credit rating as of June 30, 2018.

[5] NR represents those securities that are not rated by one of the NRSROs.

Obligations of the U.S. Government or obligations explicitly guaranteed by the U.S. Government are not considered to have credit risk.

o. Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the relative size of an investment in a single issuer. As of June 30, 2018, SDCERS had no single issuer that exceeded 5% of total investments or that exceeded 5% of plan net position (excluding investments issued or explicitly guaranteed by the U.S. Government and investments in mutual funds, external investment pools, and other pooled investments). With respect to the concentration of credit risk by issuer, SDCERS' Investment Policy states that not more than 10% of the fixed income portfolio shall be invested in the debt security of any one issuer at the time of initial commitment, except for U.S. Government and Agency obligations. While SDCERS does not have a general investment policy on the concentration of credit risk by issuer, each manager's specific investment guidelines place limitations on the maximum holdings in any one issuer.

p. Custodial Credit Risk

Custodial credit risk is the risk that if a financial institution or counterparty fails, SDCERS would not be able to recover the value of its deposits, investments, or securities. SDCERS' exposure to custodial credit risk is further discussed in the following paragraphs.

Deposits

As of June 30, 2018 SDCERS' cash balance was $1,600. Cash and cash equivalents on deposit with custodial bank and fiscal agents was $288,600, which includes cash collateral for SDCERS' cash overlay program of $41,700 and residual cash held in each manager's portfolio of $246,900, which is invested overnight by SDCERS' custodial bank. SDCERS does not have a target allocation to cash; any cash or cash equivalent balances on deposit are reserved for paying benefits and SDCERS' operational expenses.

SDCERS' un-invested cash balances held in a demand deposit account (DDA) are subject to custodial credit risk. Such a balance or deposit with the bank establishes a debtor-creditor relationship and is not subject to the protection afforded SDCERS' other investments. Cash balances held in Short-Term Investment Funds (STIF) at State Street Bank and Trust Company (State Street) are held in SDCERS' name and are not subject to custodial credit risk. As of June 30, 2018, SDCERS held $279,900 in STIF and $8,700 on deposit with the custodial bank. SDCERS does not have a specific policy relating to custodial credit risk because the majority of SDCERS' assets are held in SDCERS' name and are not available to satisfy the obligations of State Street to its creditors.

Investments

As of June 30, 2018, 100% of SDCERS' investments were held in SDCERS' name. SDCERS is not exposed to custodial credit risk related to these investments.

Securities Lending Collateral

SDCERS' custodial bank acts as its securities lending agent. SDCERS is exposed to custodial credit risk for the securities lending collateral such that certain collateral is received in the form of letters of credit, tri-party collateral or securities collateral. The fair value of non-cash collateral totaled $151,000 as of June 30, 2018. The non-cash collateral is not held in SDCERS' name and cannot be sold without a borrower default. The cash collateral held by SDCERS' custodian in conjunction with the securities lending program, which totaled $171,300 as of June 30, 2018, is also at risk as it is invested in pooled vehicles managed by the custodian. The investment characteristics of the collateral pools are disclosed in the Securities Lending section of this note.

q. Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or a deposit. The table on the following page represents SDCERS' securities held in a foreign currency as of June 30, 2018.

Local Currency Name	Cash	Equity	Fixed Income	Total
Argentine Peso	$ 79	$ —	$ 605	$ 684
Australian Dollar	289	10,355	—	10,644
Brazilian Real	—	313	2,658	2,971
British Pound	540	71,830	3,879	76,249
Canadian Dollar	771	4,245	3,373	8,389
Danish Krone	1	5,958	15,657	21,616
Euro Currency	(351)	118,304	8,337	126,290
Hong Kong Dollar	24	19,858	—	19,882
Japanese Yen	833	69,605	16,823	87,261
Malaysian Ringgit	—	702	—	702
Mexican Peso	—	1,021	—	1,021
Norwegian Krone	—	592	—	592
South Korean Won	—	2,288	—	2,288
Swedish Krona	1	4,949	—	4,950
Swiss Franc	—	28,834	—	28,834
Taiwanese Dollar	—	393	—	393
Total	$ 2,187	$ 339,247	$ 51,332	$ 392,766

This schedule does not include the foreign currency exposure of three international equity, one global equity, two emerging market equity and two emerging market debt (fixed income) institutional commingled mutual fund investments.

Foreign currency is comprised of international investment proceeds and income to be repatriated into U.S. dollars and funds available to purchase international securities. Foreign currency is not held by SDCERS as an investment. Foreign currency is held temporarily in foreign accounts until it is able to be repatriated or expended to settle trades. An important component of the diversification benefit of non-domestic investments comes from foreign currency exposure. SDCERS does not have a general investment policy in place to manage foreign currency risk or to hedge against fluctuations in foreign currency exposure. Instead, SDCERS' investment managers may hedge currencies at their discretion pursuant to their specific investment guidelines included in each of their investment management agreements.

r. Derivative Instruments

As of June 30, 2018, the derivative instruments held by SDCERS are considered investments and not hedges for accounting purposes. The gains and losses arising from this activity are recognized in the Statement of Changes in Fiduciary Net Position.

SDCERS' investment managers, as permitted by their specific investment guidelines, may enter into transactions involving derivative financial instruments, consistent with the objectives established by the SDCERS' Investment Policy Statement. These instruments include futures, options, swaps, forwards, warrants and rights. By Board policy, these investments may not be used to leverage SDCERS' portfolio, i.e., use derivatives to increase the portfolio's notional exposure to any given asset class. These instruments are used in an attempt to enhance the portfolio's performance and/or reduce the portfolio's risk.

All investment derivatives discussed below are included in the investment risk discussion (section j). Investment derivative instruments are disclosed separately to provide a comprehensive and distinct view of this activity and its impact on the overall investment portfolio.

The following table provides a summary of the derivative instruments outstanding as of June 30, 2018:

	Net Appreciation (Depreciation) in Fair Value	Fair Value at June 30, 2018		
Investment Derivative Instruments	Amount	Classification	Amount	Notional (Dollars)
Credit Default Swaps	$ (32)	Domestic Fixed Income	$ 192	$ 11,934
Fixed Income Futures	(10,813)	Domestic Fixed Income	—	196,593
Fixed Income Options	(57)	Domestic Fixed Income	(90)	(45,000)
Foreign Currency Futures	242	Domestic Fixed Income	—	—
Foreign Currency Options	103	Domestic Fixed Income	—	—
Futures Options	95	Domestic Fixed Income	(6)	(32)
Foreign Currency Forwards	217	Domestic Fixed Income	1,153	91,147
Index Futures	10,208	Domestic Fixed Income	—	20
Interest Rate Swaps	2,682	Domestic Fixed Income	1,786	180,654
Rights	(11)	Domestic Equity	139	1,285
Total Derivative Instruments	$ 2,634		$ 3,174	$ 436,601

Some derivative instruments, such as credit default swaps and interest rate swaps, are not exchange traded and are priced using quarterly Over-the-Counter trading data.

Futures contracts are financial instruments that derive their value from underlying indices or reference rates and are marked-to-market at the end of each trading day. Daily settlement of gains and losses occur on the following business day. As a result, the futures contracts do not have a fair value as of June 30, 2018. Daily settlement of gains and losses is a risk control measure to limit counterparty credit risk. Futures variation margin amounts are settled each trading day and recognized in the financial statements under net appreciation (depreciation) in fair value of investments as they are incurred.

Foreign currency forward contracts are obligations to buy or sell a currency at a specified exchange rate and quantity on a specific future date. The fair value of the foreign currency forwards is the unrealized gain or loss calculated based on the difference between the specified exchange rate and the closing exchange rate at June 30, 2018.

Counterparty Credit Risk

The following table illustrates the counterparty credit ratings of SDCERS' non-exchange traded investment derivative instruments outstanding and subject to loss at June 30, 2018:

Counterparty Name	Fair Value	S&P Rating
Bank of America N.A.	$ 402	A+
BNP Paribas SA	34	A
Citibank N.A.	256	A+
Goldman Sachs International	156	BBB+
HSBC Bank USA	5	AA-
JP Morgan Chase Bank N.A.	86	A+
Morgan Stanley Bank N.A.	133	A+
Morgan Stanley CME	267	BBB+
Morgan Stanley ICE	159	BBB+
Morgan Stanley LCH	1,719	BBB+
Royal Bank of Canada	16	AA-
Societe Generale	143	A
Standard Chartered Bank	23	A
Standard Chartered Bank, London	252	A
Toronto Dominion Bank	9	AA-
UBS AG	52	A+
Total	$ 3,712	

The aggregate fair value of investment derivative instruments in an asset position subject to counterparty credit risk at June 30, 2018 was $3,712. This represents the maximum loss that would be recognized at the reporting date if all counterparties failed to perform as contracted. At June 30, 2018, SDCERS did not have any significant exposure to counterparty credit risk with any single party. SDCERS does not have any specific policies relating to the posting of collateral or master netting agreements.

Custodial Credit Risk

At June 30, 2018, all of SDCERS' investments in derivative instruments were held in SDCERS' name and were not exposed to custodial credit risk.

Interest Rate Risk

At June 30, 2018, SDCERS was exposed to interest rate risk on its investments in interest rate swaps, options, and credit default swaps. The table below illustrates the maturity periods of these derivative instruments.

		Investment Maturities (in Years)			
Investment Type	Fair Value	Less Than 1	1 - 5	6 - 10	More Than 10
Credit Default Swaps	$ 192	$ —	$ 192	$ —	$ —
Fixed Income Options	(90)	(28)	(62)	—	—
Interest Rate Swaps	1,786	—	257	300	1,229
Total	$ 1,888	$ (28)	$ 387	$ 300	$ 1,229

Derivative Instruments Highly Sensitive to Interest Rate Changes

Credit default swaps, fixed income futures, options and interest rate swaps are highly sensitive to changes in interest rates. The table below reflects the fair value and notional amount of these derivative instruments as of June 30, 2018.

Investment Type	Fair Value	Notional
Credit Default Swaps	$ 192	$ 11,934
Fixed Income Futures	—	196,593
Fixed Income Options	(90)	(45,000)
Interest Rate Swaps	1,786	180,654
Total	$ 1,888	$ 344,181

Foreign Currency Risk

At June 30, 2018, SDCERS was exposed to foreign currency risk on its investments in options, currency forward contracts and interest rate swaps denominated in foreign currencies.

		Foreign Currency Forwards			
Currency Name	Options/ Rights/ Warrants	Net Receivables	Net Payables	Swaps	Total
Brazilian Real	$ —	$ (42)	$ 421	$ —	$ 379
Canadian Dollar	—	(26)	68	43	85
Danish Krone	—	1	324	—	325
Euro Currency	139	(3)	54	789	979
Pound Sterling	—	(7)	24	127	144
Japanese Yen	—	(4)	320	(152)	164
Swedish Krona	—	(187)	210	—	23
Subtotal	139	(268)	1,421	807	2,099
Investments Denominated in USD	(96)	—	—	1,171	1,075
Total	$ 43	$ (268)	$ 1,421	$ 1,978	$ 3,174

In addition to the investments listed in the above table, SDCERS has investments in foreign futures contracts with a total notional value of ($9,900) and in foreign index futures with a total notional value of $600. As indicated previously, futures variation margin amounts are settled each trading day and recognized as realized gains/losses as they are incurred. As a result, the foreign futures contracts have no fair value at June 30, 2018.

Contingent Features

At June 30, 2018, SDCERS did not hold any positions in derivatives containing contingent features.

s. Private Equity and Infrastructure

Private Equity assets are generally defined as direct investments in projects or companies that are privately negotiated and typically do not trade in a capital market. The risk is that these instruments are usually equity interests, generally illiquid and long-term in nature.

Infrastructure is a subset of Private Equity, defined as permanent essential assets society requires to facilitate the orderly operation of the economy, such as roads, water supply, sewers, power and telecommunications. The risk is that these investments are usually equity interests that are generally illiquid and long-term in nature.

SDCERS' target allocation to private equity and infrastructure is 13%, with a portfolio composition focused on value and current income producing strategies. Unfunded capital commitments as of June 30, 2018 totaled $796,700 and private equity and infrastructure investments totaled $1,144,000.

t. Real Estate

SDCERS' long-term target allocation to real estate is 11%. In July 2017, the target allocation to real estate was increased to 13% over the next four to five years. The Board has established that the composition of the real estate portfolio is 100% to private real estate investments. The portfolio is diversified with a target of 70% in core real estate and 30% in value-add and opportunistic real estate. No more than 40% of SDCERS' real estate portfolio is allocated to non-U.S. real estate investment opportunities.

Certain real estate investments are leveraged. In those cases, partnerships have been established to purchase properties through a combination of equity contributions from SDCERS, other investors and through the utilization of debt. SDCERS engages real estate advisors and operating partners who are responsible for managing a portfolio's daily activities, performance and reporting. As of June 30, 2018, real estate investments totaled $837,900 and unfunded capital commitments totaled $301,100. Pursuant to a policy, SDCERS has established a maximum leverage limit of 50% at the portfolio level. As of June 30, 2018, SDCERS' real estate portfolio had leverage of 30.9%. SDCERS' share of outstanding debt in the real estate portfolio is $47,400, excluding obligations of limited partnership interests in commingled funds. This balance of debt is comprised of all non-recourse loans that currently bear interest at rates ranging from 3.11% to 4.40% and maturity dates that range from February 2019 through June 2023.

The following table illustrates mortgage loans that SDCERS has outstanding as of June 30, 2018.

Fiscal Year Ending June 30	Principal	Interest	Total
2019	$ 9,511	$ 1,440	$ 10,951
2020	6,851	1,189	8,040
2021	—	980	980
2022	—	980	980
2023	31,000	979	31,979
Total	$ 47,362	$ 5,568	$ 52,930

u. Securities Lending

SDCERS has entered into an agreement with State Street, its custodial bank, to lend domestic and international equity and fixed income securities to broker-dealers and banks in exchange for pledged collateral that will be returned for the same securities plus a fee in the future. All securities loans can be terminated on demand by either the lender or the borrower.

State Street manages SDCERS' securities lending program and receives cash and/or securities as collateral. Borrowers are required to deliver collateral for each loan equal to at least 102% for domestic loans and 105% for international loans. State Street does not have the ability to pledge or sell collateral securities delivered absent a borrower default. During fiscal year 2018, SDCERS had no credit risk exposure to borrowers because the amounts provided to State Street on behalf of SDCERS, in the

form of collateral plus accrued interest, exceeded the amounts broker-dealers and banks owed to State Street on behalf of SDCERS for securities borrowed. State Street has indemnified SDCERS by agreeing to purchase replacement securities or return cash collateral if a borrower fails to return or pay distributions on a loaned security. SDCERS incurred no losses during the fiscal year resulting from any reported default of the borrowers or State Street. Non-cash collateral (securities and letters of credit) are not reported in SDCERS' financial statements.

When lending its securities on a fully collateralized basis, SDCERS may encounter various risks related to securities lending agreements. These risks include operational risk, borrower or counterparty default risk, and collateral reinvestment risk. State Street is required to maintain its securities lending program in compliance with applicable laws of the United States and all countries in which lending activities take place, as well as all rules, regulations, and exemptions from time to time promulgated and issued under the authority of those laws.

As of June 30, 2018, securities on loan collateralized by cash had a fair value of $167,800 and SDCERS received cash collateral of $171,300, which was reported as securities lending obligations in the accompanying Statement of Fiduciary Net Position. As of June 30, 2018, securities on loan collateralized by securities, irrevocable letters of credit, or tri-party collateral had a fair value of $140,500 and a collateral value of $151,000, which were not reported as assets or liabilities in the accompanying Statement of Fiduciary Net Position. The total collateral pledged to SDCERS at June 30, 2018 for its securities lending activities was $322,300.

SDCERS and the borrowers maintain the right to terminate securities lending transactions upon notice. The cash collateral received for lent securities was invested by State Street, together with the cash collateral of other qualified tax-exempt plan lenders, in a collective investment fund, or collateral pool. State Street maintains two collateral pools: a liquidity pool and a duration pool. As of June 30, 2018, these collateral pools were not rated by the NRSROs.

As of June 30, 2018, SDCERS had $170,500 invested in the Quality D liquidity collateral pool, which had an average duration of 27.2 days and an average weighted final maturity of 113.7 days. SDCERS had $800 invested in the Quality D duration pool, which had an average duration of 19.6 days and an average weighted final maturity of 1,666.4 days. Duration is the weighted time average until cash flows are received in the collateral pool and is measured in days. Alternatively, the weighted average final maturity measures when all final maturities in the portfolio will occur. The duration of the investments made with cash collateral does not generally match the duration of the loans. This is because the loans are terminable at any time by SDCERS or the borrower.

Discretely Presented Component Unit - Disclosures for Policy and Specific Risks

Narratives and tables presented in the following section are taken directly from the audited comprehensive annual financial report of the San Diego Housing Commission (SDHC) as of June 30, 2018 (certain terms have been modified to conform to the City's CAFR presentation).

v. San Diego Housing Commission

Cash, cash equivalents, and investments at June 30, 2018 consisted of the following:

	SDHC	Component Units [1]	Total
Deposits and Petty Cash	$ 31,992	$ 10,310	$ 42,302
U.S. Agency Bonds	73,926	—	73,926
Negotiable Certificates of Deposit	4,408	—	4,408
San Diego County Investment Pool	20,999	—	20,999
State Local Agency Investment Fund	11,179	—	11,179
Other	25	—	25
Total cash and investments	142,529	10,310	152,839
Restricted cash and cash equivalents	3,824	3,651	7,475
Total	$ 146,353	$ 13,961	$ 160,314

[1] Disclosures for San Diego Housing Commission's Discretely Presented Component Units are not included in the narratives following this table.

Deposits

The carrying amount of the SDHC's cash deposits and petty cash was $31,992 at June 30, 2018. The bank balances were insured by the Federal Deposit Insurance Corporation (FDIC) up to $250. For amounts over $250, bank balances were collateralized with securities held by the pledging financial institutions in SDHC's name. The California Government Code requires California financial institutions to secure cash deposits of public institutions not covered by federal deposit insurance by pledging securities as collateral. California Government Code states that collateral pledged in this manner shall have the effect of perfecting a security interest in such collateral superior to those of a general creditor. As a result, the collateral for cash deposits is considered to be held in SDHC's name.

The fair value of pledged securities must equal at least 110% of SDHC's cash deposits. California law also allows financial institutions to secure SDHC's deposits by pledging first trust deed mortgage notes having a value of 150% of SDHC's total cash deposits.

Investment Policy

In accordance with state statutes and Housing and Urban Development (HUD) regulations, SDHC has authorized its Chief Financial Officer or designee to invest in obligations of the U.S. Treasury, U.S. Government agencies or other investments as outlined in the SDHC Investment Policy.

SDHC utilizes the services of an experienced financial advisor to aid in making investment decisions. The advisor provides guidance on creating a diversified portfolio and a secure investment mix. The advisor's ongoing role is to provide staff with sound investment opportunities that will maximize liquidity and yield without sacrificing principal value and safety of the investment securities.

Investments in the San Diego County Investment Pool (SDCIP) and California State Local Agency Investment Fund (LAIF) represent SDHC's equity in pooled investments. Other investments such as certificates of deposit, bonds, government agency securities and demand deposit accounts are safe kept with commercial banking institutions.

Investments

As of June 30, 2018, SDHC had investments in agency bonds, negotiable certificates of deposit, SDCIP and LAIF. The following paragraphs provide further detail for each investment.

GASB Statement No. 72, *Fair Value Measurement and Application*, establishes a hierarchy for ranking the quality and reliability of information used to determine fair values of assets and liabilities. SDHC's management has determined, through implementation of GASB Statement No. 72, those investments in SDCIP and LAIF are reported based upon the application of a fair value factor to each one dollar share invested and is not included in the fair value hierarchy. The following table summarizes the valuation of SDHC's fair value measurements in accordance with authoritative guidance at June 30, 2018:

Investment Type	Level 2 Fair Value
U.S. Agency Bonds	$ 73,926
Negotiable Certificates of Deposit	1,468
Total Investments	$ 75,394

Investments in U.S. Agency bonds and negotiable certificates of deposit are classified as Level 2 as there are no quoted market prices published. These investments are traded on a secondary market and thus a fair value is able to be determined using this secondary market value.

SDHC's investments under U.S. Government Agency bonds are Mortgage Backed Security (MBS) bonds and debentures traded on an active secondary market. MBS Bonds are a security or debt obligation that represents a claim on the monthly cash flows from mortgage loans. They represent investments in securities that are backed by pools of high quality consumer or commercial mortgages guaranteed by a government agency or Government Sponsored Enterprises (GSE). Government Agency Debentures are also bonds traded on an active secondary market and represent a security or debt obligation of the issuer. While Standard & Poor's and Moody's do not specifically rate MBS, they carry an implied rating based on the high quality collateral that backs the bonds and the AA+ by Standard & Poor's of the GSE (Fannie Mae/Freddie Mac) that issues/guarantees them. At June 30, 2018, SDHC had $73,926 invested in Agency MBS bonds.

SDHC had a total of $4,408 in in negotiable certificates of deposit in its investment portfolio. Each certificate of deposit is issued through a separate legal entity and purchased in an amount under the FDIC insured limit of $250. As of June 30, 2018, $2,940 of negotiable certificates of deposit are valued at amortized cost.

SDHC voluntarily participates in the SDCIP. SDCIP is a Standard & Poor's AAA rated fund managed by the San Diego County Treasurer-Tax Collector. The fair value of SDCIP's investment portfolio at June 30, 2018 was $8,950,424. The investment portfolio had a weighted average yield to maturity of 1.94%, weighted average days to maturity of 345 days and an effective duration of 0.83 years. As of June 30, 2018, SDHC had $20,999 invested in SDCIP.

In addition to SDCIP, SDHC participates in the State's LAIF. LAIF is part of the State of California Pooled Money Investment Account (PMIA) and is protected by statute ensuring invested funds remain SDHC's assets. PMIA is not registered with the SEC but is required to invest in accordance with California Government Code. As of June 30, 2018, the average maturity of PMIA investments was 193 days and the balance of the investment portfolio of PMIA was approximately $89,000,000. SDHC had $11,179 invested with LAIF as of June 30, 2018.

Investment Risk Factors

SDHC's investment policy allows the agency to invest surplus funds in accordance with the provisions of HUD Notice PIH 96 - 33 and California Government Code Sections 5922 and 53601. The investment policy's foremost objective is the safety of principal, which is achieved by mitigating credit risk and interest rate risk. These risks, along with custodial risk, concentration of credit risk and market risk, all affect the value of investments to a varying degree. Equity and debt securities respond to such factors as economic conditions, individual company earnings performance and market liquidity, while fixed income securities are particularly sensitive to credit risk and changes in interest rates.

Market Risk

Market risk is the risk that the value of an investment will change due to changes in the financial market. Changes in market conditions can increase Interest Rate Risk, Liquidity Risk and Reinvestment Risk.

- *Interest Rate Risk* is the risk associated with declines or rises in interest rates, which cause an investment in a fixed-income security to increase or decrease in value. The terms of a debt investment may cause its fair value to be highly sensitive to interest rate changes. SDHC does not have a formal policy related to interest rate risk.

- *Liquidity Risk* is the risk of being unable to liquidate an investment prior to maturity. Related to liquidity risk is the concept of marketability, or the ability to sell an instrument on short notice without incurring a meaningful loss in price.

- *Reinvestment Risk* is the risk that the proceeds from a fixed income security cannot be reinvested at less than the same rate of return currently generated by that holding. This risk is common with securities that are callable.

In accordance with its investment policy, SDHC manages market risk by matching portfolio maturities to projected liabilities and monitoring the weighted average maturity of its portfolio. This is done by maintaining a portion of the portfolio in readily available funds and investing in securities with limited call features and an active secondary market. These measures ensure that appropriate liquidity is maintained in order to meet ongoing operations, maximize return and limit exposure to changing market conditions.

SDHC's exposure to interest rate risk as of June 30, 2018 is shown in the following table:

	Maturities as of June 30, 2018			
	Less Than 3 Months	4-12 Months	1-5 Years	Total Fair Value
Cash and Cash Equivalents: [1]				
Deposits	$ 31,982	—	—	$ 31,982
Petty Cash	10	—	—	10
Restricted Cash and Cash Equivalents	3,824	—	—	3,824
Total Cash and Cash Equivalents	35,816	—	—	35,816
Short-Term Investments:				
U.S. Agency Bonds	888	4,670	—	5,558
Negotiable Certificates of Deposit	979	489	—	1,468
Other	25	—	—	25
San Diego County Investment Pool	—	20,999	—	20,999
State Local Agency Investment Fund	—	11,179	—	11,179
Total Short-Term Investments	1,892	37,337	—	39,229
Long-Term Investments:				
U.S. Agency Bonds	—	—	68,368	68,368
Negotiable Certificates of Deposit	—	—	2,940	2,940
Total Long-Term Investments	—	—	71,308	71,308
Total Cash, Cash Equivalents, and Investments	$ 37,708	$ 37,337	$ 71,308	$ 146,353

[1] Cash and Cash Equivalents do not have maturities.

Credit Risk

Fixed income securities are subject to credit risk, which is the risk that an issuer will fail to pay interest or principal in a timely manner or that negative perceptions of the issuer's ability to make these payments will cause security prices to decline. Certain fixed income securities, including obligations of the U.S. Government or those explicitly guaranteed by the U.S. Government are considered to have minimal credit risk. SDHC minimizes credit risk by limiting investments to those listed in the investment policy. In addition, SDHC pre-qualifies the financial institutions, broker/dealers, intermediaries, and advisors with which SDHC will do business in accordance with the investment policy. SDHC diversifies the investment portfolio to minimize potential losses from any one type of security or issuer.

Concentration of Credit Risk

Concentration of credit risk is the risk associated with a lack of diversification, such as having substantial investments in a few individual issuers, thereby exposing SDHC to greater risks resulting from adverse economic, political, regulatory, geographic, or credit developments. Investments issued or guaranteed by the U.S. government and investments in external investment pools such as LAIF and SDCIP are not considered subject to concentration of credit risk.

Custodial Credit Risk

Custodial credit risk is the risk that, in the event of the failure of the custodian, the investments may not be returned. All bonds are purchased through SDHC's primary financial institution's clearing account in SDHC's name where all securities are held in safekeeping.

The exposure of SDHC's debt securities to credit risk as of June 30, 2018 is as follows:

	Standard & Poor's Credit Rating		
	AAA	Rating Not Provided	Total Fair Value
Short-Term Investments			
U.S. Agency Bonds[1]	$ —	$ 5,558	$ 5,558
Negotiable Certificates of Deposit	—	1,468	1,468
San Diego County Investment Pool	20,999	—	20,999
State Local Agency Investment Fund	—	11,179	11,179
Other	25	—	25
Total Short-Term Investments	21,024	18,205	39,229
Long-Term Investments			
U.S. Agency Bonds[1]	—	68,368	68,368
Negotiable Certificates of Deposit	—	2,940	2,940
Total Long-Term Investments	—	71,308	71,308
Total Investments	$ 21,024	$ 89,513	$ 110,537

[1] As of June 30, 2018, SDHC exceeded the 5% limit of total investments for issuers of various U.S. Agency Bonds.

4. CAPITAL ASSETS (Dollars in Thousands)

Capital asset activities for the year ended June 30, 2018 are as follows:

	Primary Government				
	Beginning Balance	Increases	Decreases	Transfers	Ending Balance
GOVERNMENTAL ACTIVITIES					
Non-Depreciable Capital Assets:					
Land and Rights of Way	$ 1,883,487	$ 5,018	$ (1,363)	$ 1,815	$ 1,888,957
Easements (Intangible)	5,228	718	(50)	(212)	5,684
Artwork/Historical Treasures	—	7	—	5,045	5,052
Construction in Progress	462,111	193,071	(1,622)	(203,024)	450,536
Total Non-Depreciable Capital Assets	2,350,826	198,814	(3,035)	(196,376)	2,350,229
Depreciable Capital Assets:					
Structures and Improvements	1,473,733	23,854	(15,945)	20,151	1,501,793
Equipment	431,294	37,654	(21,940)	18,470	465,478
Equipment (Intangible)	50,549	5,075	(151)	5,571	61,044
Infrastructure	3,903,618	28,145	(9,009)	152,135	4,074,889
Total Depreciable Capital Assets	5,859,194	94,728	(47,045)	196,327	6,103,204
Less Accumulated Depreciation:					
Structures and Improvements	(607,202)	(39,703)	14,985	105	(631,815)
Equipment	(264,598)	(30,156)	21,158	(2)	(273,598)
Equipment (Intangible)	(35,733)	(1,109)	75	—	(36,767)
Infrastructure	(2,348,093)	(92,223)	6,463	(93)	(2,433,946)
Total Accumulated Depreciation	(3,255,626)	(163,191)	42,681	10	(3,376,126)
Total Depreciable Capital Assets - Net of Depreciation	2,603,568	(68,463)	(4,364)	196,337	2,727,078
Governmental Activities Capital Assets, Net	$ 4,954,394	$ 130,351	$ (7,399)	$ (39)	$ 5,077,307
BUSINESS-TYPE ACTIVITIES					
Non-Depreciable Capital Assets:					
Land and Rights of Way	$ 97,611	$ 8,864	$ (3)	$ 260	$ 106,732
Easements (Intangible)	2,520	337	(205)	(495)	2,157
Artwork/Historical Treasures	—	—	—	1,875	1,875
Construction in Progress	405,589	277,701	(10,749)	(105,532)	567,009
Total Non-Depreciable Capital Assets	505,720	286,902	(10,957)	(103,892)	677,773
Depreciable Capital Assets:					
Structures and Improvements	2,047,867	2,888	(16,799)	16,503	2,050,459
Equipment	454,707	9,800	(12,993)	12,476	463,990
Equipment (Intangible)	22,987	11,522	—	16,976	51,485
Distribution and Collection Systems and Other Infrastructure	5,206,030	59,770	(23,492)	57,986	5,300,294
Total Depreciable Capital Assets	7,731,591	83,980	(53,284)	103,941	7,866,228
Less Accumulated Depreciation:					
Structures and Improvements	(622,516)	(39,494)	11,042	(187)	(651,155)
Equipment	(325,908)	(13,940)	12,048	823	(326,977)
Equipment (Intangible)	(12,318)	(2,534)	—	(577)	(15,429)
Distribution and Collection Systems and Other Infrastructure	(1,298,699)	(84,158)	9,042	(69)	(1,373,884)
Total Accumulated Depreciation	(2,259,441)	(140,126)	32,132	(10)	(2,367,445)
Total Depreciable Capital Assets - Net of Depreciation	5,472,150	(56,146)	(21,152)	103,931	5,498,783
Business-Type Activities Capital Assets, Net	$ 5,977,870	$ 230,756	$ (32,109)	$ 39	$ 6,176,556

Depreciation expense was charged to functions/programs of the primary government as follows:

GOVERNMENTAL ACTIVITIES	
General Government and Support	$ 8,570
Public Safety - Police	11,412
Public Safety - Fire and Life Safety and Homeland Security	8,570
Parks, Recreation, Culture and Leisure	45,030
Transportation	80,361
Sanitation and Health	9,127
Neighborhood Services	121
Total Depreciation Expense	$ 163,191
BUSINESS-TYPE ACTIVITIES	
Sewer Utility	$ 75,302
Water Utility	57,007
Airports	2,211
Development Services	30
Environmental Services	1,303
Golf Course	1,833
Recycling	125
San Diego Convention Center Corporation	2,315
Total Depreciation Expense	$ 140,126

Capital asset activities for the City's Successor Agency for the fiscal year ended June 30, 2018 are as follows:

	Successor Agency Private-Purpose Trust Fund			
	Beginning Balance	Increases	Decreases	Ending Balance
Non-Depreciable Capital Assets:				
Land and Rights of Way	$ 13,279	$ —	$ —	$ 13,279
Construction in Progress	—	159	—	159
Total Non-Depreciable Capital Assets	13,279	159	—	13,438
Depreciable Capital Assets:				
Structures and Improvements	63,899	382	—	64,281
Equipment	819	—	—	819
Total Depreciable Capital Assets	64,718	382	—	65,100
Less Accumulated Depreciation for:				
Structures and Improvements	(16,486)	(1,804)	—	(18,290)
Equipment	(819)	—	—	(819)
Total Accumulated Depreciation	(17,305)	(1,804)	—	(19,109)
Total Depreciable Capital Assets - Net of Depreciation	47,413	(1,422)	—	45,991
Capital Assets, Net	$ 60,692	$ (1,263)	$ —	$ 59,429

Discretely Presented Component Unit - San Diego Housing Commission

Capital asset activities for SDHC for the fiscal year ended June 30, 2018 are as follows:

	Discretely Presented Component Unit - San Diego Housing Commission			
	Beginning Balance	Increases	Decreases	Ending Balance
Non-Depreciable Capital Assets:				
Land	$ 69,341	$ 1,999	(1,259)	$ 70,081
Construction in Progress	2,772	13,966	(15,860)	878
Total Non-Depreciable Capital Assets	72,113	15,965	(17,119)	70,959
Depreciable Capital Assets:				
Structures and Improvements	165,292	13,523	6,628	185,443
Equipment	4,821	462	(536)	4,747
Total Depreciable Capital Assets	170,113	13,985	6,092	190,190
Less Accumulated Depreciation for:				
Structures and Improvements	(38,737)	(6,889)	191	(45,435)
Equipment	(4,119)	(326)	536	(3,909)
Total Accumulated Depreciation	(42,856)	(7,215)	727	(49,344)
Total Depreciable Capital Assets - Net of Depreciation	127,257	6,770	6,819	140,846
Capital Assets, Net	$ 199,370	$ 22,735	$ (10,300)	$ 211,805

Capital assets for the discretely presented component units of SDHC as of December 31, 2017 are as follows:

Non-Depreciable Capital Assets:	
Land	$ 2,914
Construction in Progress	5,628
Total Non-Depreciable Capital Assets	8,542
Depreciable Capital Assets:	
Structures and Improvements	69,631
Equipment	1,743
Total Depreciable Capital Assets	71,374
Less Accumulated Depreciation	(10,312)
Total Depreciable Capital Assets - Net of Depreciation	61,062
Capital Assets, Net	$ 69,604

5. GOVERNMENTAL ACTIVITIES LONG-TERM LIABILITIES (Dollars in Thousands)

a. Long-Term Liabilities

The composition of the governmental long-term liabilities as of June 30, 2018 is reflected in the table below:

Type of Obligation	Interest Rates	Fiscal Year Maturity Date	Original Amount	Balance Outstanding June 30, 2018
Compensated Absences				$ 65,115
Liability Claims				376,593
Reimbursement Agreement Obligations				6,749
Capital Lease Obligations:				
Equipment Vehicle Financing Program (EVFP)	1.26- 2.69%	2029		71,135
101 Ash, LLC	5.55	2037	$ 77,440	74,130
CCP 1200, LLC	6.47	2035	44,000	42,385
Other Capital Leases	0.0-2.29	2032	11,600	9,999
Total Capital Lease Obligations				197,649
Qualified Energy Conservation Bonds (QECB) Lease Obligation	6.16 [1]	2026	13,142	7,578
Loans Payable - California Energy Resources Conservation and Development Commission:				
Issued January 2007	3.95	2019	2,154	208
Issued December 2011	3.0	2024	2,987	1,741
Issued December 2012	1.0	2029	1,986	1,562
Total Loans Payable				3,511
Section 108 Loans Payable		2025	5,910	2,872
Lease Revenue Bonds:				
CCEFA Refunding Bonds, Series 2012A	2.0 - 5.0 [2]	2028	140,440	98,245
PFFA CIP Bonds, Series 2012A	2.0 - 5.0 [2]	2042	72,000	64,985
PFFA Fire and Life Safety Refunding Bonds, Series 2012B	2.0 - 5.0 [2]	2032	18,745	14,790
PFFA CIP/Old Town Light Rail Extension Refunding Bonds, Series 2013A	3.0 - 5.0 [2]	2043	43,245	36,165
PFFA Balboa Park/Mission Bay Park Refunding Bonds, Series 2013B	3.0 - 5.0 [2]	2024	6,285	3,820
PFFA CIP Bonds, Series 2015A	5.0	2045	62,260	62,260
PFFA CIP Bonds, Series 2015B	5.0	2033	45,030	39,960
PFFA Ballpark Refunding Bonds, Series 2016	2.0 - 5.0 [2]	2032	103,255	93,650
PFFA Refunding Bonds, Series 2018A	2.57 - 4.23 [2]	2039	129,320	129,320
Total Lease Revenue Bonds				543,195
Tobacco Settlement Bonds:				
TSRFC Bonds, Series 2018A	2.13-4.02 [2]	2028	70,510	64,365
TSRFC Bonds, Series 2018B	2.75	2027 [3]	2,000	—
TSRFC Bonds, Series 2018C	4.0	2032 [4]	25,345	24,830
Total Tobacco Settlement Bonds				89,195
Total Bonds Payable				632,390
Net Other Postemployment Benefits Liability				427,481
Net Pension Liability (Retirement)				2,049,676
Total Pension Liability (POB)				9,606
Total Governmental Activities Long-Term Liabilities				$ 3,779,220

[1] Nominal interest rate of 6.16% with a net effective rate of 2.66% inclusive of QECB federal subsidy and 6.6% subsidy sequestration calculated by the Federal Office of Management and Budget for fiscal year 2018.

[2] Interest rates are fixed and reflect the range of coupon rates for various maturities from the date of issuance to maturity.

[3] Issued and redeemed in FY 2018.

[4] Final maturity date is June 1, 2032. The date listed reflects final turbo redemption payment date projected at the time of issuance.

Liability claims are primarily liquidated by the General Fund, Long-Term Disability Internal Service Fund, and Enterprise Funds. Compensated absences are generally liquidated by the General Fund, Enterprise Funds, and certain Internal Service Funds. Pension and other postemployment healthcare liabilities are paid out of operating funds based on a percentage of covered payroll.

Reimbursement Agreements have contractual provisions whereby a developer either constructs or provides funding towards a public improvement project, which is included as part of an approved City Public Facilities Financing Plan. Typical improvements constructed under this program are transportation projects, parks, fire stations and libraries. A developer is obligated to provide the infrastructure and is later reimbursed with cash or provided program credits against future Facilities Benefit Assessment (FBA), Development Impact Fees (DIF), or Regional Transportation Congestion Improvement Program (RTCIP) payments up to the amount of the eligible infrastructure costs as stated in an approved reimbursement agreement. Reimbursement agreements do not have annual repayment schedules and instead only allow for FBA/DIF/RTCIP cash reimbursement based on the availability of funds.

Taxable QECBs were issued pursuant to the American Recovery and Reinvestment Act of 2009. QECB financing is eligible for the direct interest subsidy payment from the U.S. Department of the Treasury within Section 54(D)a of the Internal Revenue Code of 1986, as amended. The QECBs were issued to fund the Broad Spectrum Street Lighting Conversion Program and are paid from annual appropriations of any source of legally available funds.

Loans Payable represent obligations owed for energy conservation loans received for qualifying energy efficiency retrofits and improvements for certain City facilities. Repayments are secured from the departments that benefit from the facility improvements.

Section 108 loans are the loan guarantee provisions of the Community Development Block Grant (CDBG) program. Section 108 loans provide the community with a source of financing for economic development, housing rehabilitation, public facilities, and capital improvement and infrastructure projects. The loans are arranged through the U.S. Department of Housing and Urban Development (HUD) and a fixed repayment schedule is provided that allocates a portion of the total obligation issued to each borrower, including the City, as well as other municipalities. Although no interest rate is stated on the repayment schedule, the City pays a portion of the interest as allocated by HUD.

Lease revenue bonds are lease obligations secured by a lease-back arrangement with a public entity. The general operating revenues are pledged to make the lease payments, which are in turn used to pay debt service on the bonds. Lease revenue bonds provide long-term financing through a lease agreement, installment sales agreement, or loan agreement that does not constitute indebtedness under the state constitutional debt limitation and is not subject to other statutory requirements applicable to bonds.

Tobacco Settlement Bonds are limited obligations of the Tobacco Settlement Revenue Funding Corporation (TSRFC), which is a separate legal entity established by the City. TSRFC purchased from the City the rights to receive future tobacco settlement revenues (TSRs) due to the City. The Tobacco Settlement Bonds are payable from and secured solely by pledged TSRs.

b. Amortization Requirements

The annual requirements to amortize such long-term debt outstanding as of June 30, 2018, including interest payments to maturity, are as follows:

Year Ending June 30	Equipment Vehicle Financing Program (EVFP)		101 Ash, LLC		CCP 1200, LLC		Other Capital Leases	
	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest
2019	$ 13,745	$ 1,164	$ 2,365	$ 4,052	$ 776	$ 2,720	$ 912	$ 158
2020	12,958	1,182	2,499	3,916	918	2,666	1,196	296
2021	10,646	938	2,642	3,775	1,071	2,602	566	276
2022	9,059	728	2,792	3,624	1,237	2,528	587	256
2023	8,206	537	2,951	3,466	1,417	2,443	608	235
2024-2028	15,635	922	17,471	14,613	10,315	10,478	3,382	829
2029-2033	886	12	23,040	9,044	17,450	6,076	2,748	199
2034-2037	—	—	20,370	2,088	9,201	611	—	—
Total	$ 71,135	$ 5,483	$ 74,130	$ 44,578	$ 42,385	$ 30,124	$ 9,999	$ 2,249

Year Ending June 30	Qualified Energy Conservation Bonds (QECB) Lease Obligation		Loans Payable		Section 108 Loans Payable		Lease Revenue Bonds	
	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest
2019	$ 871	$ 467	$ 651	$ 71	$ 345	$ 159	$ 26,235	$ 23,623
2020	892	413	453	55	364	139	26,450	23,407
2021	913	358	464	44	385	117	27,850	22,261
2022	935	302	475	33	406	94	29,090	21,014
2023	957	244	486	22	430	69	29,710	19,707
2024-2028	3,010	375	959	26	942	57	157,300	77,496
2029-2033	—	—	23	—	—	—	98,270	46,157
2034-2038	—	—	—	—	—	—	74,790	26,822
2039-2043	—	—	—	—	—	—	60,370	9,940
2044-2048	—	—	—	—	—	—	13,130	665
Total	$ 7,578	$ 2,159	$ 3,511	$ 251	$ 2,872	$ 635	$ 543,195	$ 271,092

Year Ending June 30	Tobacco Settlement Bonds	
	Principal [1]	Interest
2019	$ 6,045	$ 3,209
2020	6,070	3,052
2021	6,175	2,882
2022	6,290	2,692
2023	6,420	2,489
2024-2028	33,365	8,917
2029-2032	24,830	3,973
Total	$ 89,195	$ 27,214

[1] The Tobacco Settlement Bonds principal debt service requirements are based upon final turbo redemption payments projected at time of issuance.

c. Change in Long-Term Liabilities

The following is a summary of changes in governmental activities long-term liabilities for the year ended June 30, 2018. The effect of bond issuance premiums and discounts are reflected as adjustments to the carrying value of long-term liabilities.

	Governmental Activities				
	Beginning Balance, as Restated [1]	Additions	Reductions	Ending Balance	Due Within One Year
Compensated Absences	$ 68,814	$ 59,062	$ (62,761)	$ 65,115	$ 31,954
Liability Claims	369,705	72,472	(65,584)	376,593	87,659
Reimbursement Agreement Obligations	17,074	16,275	(26,600)	6,749	—
Capital Lease Obligations:					
Equipment Vehicle Financing Program (EVFP)	44,281	37,540	(10,686)	71,135	13,745
101 Ash, LLC	76,367	—	(2,237)	74,130	2,365
CCP 1200, LLC	43,030	—	(645)	42,385	776
Other Capital Leases [2]	1,948	8,700	(649)	9,999	912
Total Capital Lease Obligations	165,626	46,240	(14,217)	197,649	17,798
QECB Lease Obligation	8,429	—	(851)	7,578	871
Loans Payable	4,144	—	(633)	3,511	651
Section 108 Loans Payable	3,197	—	(325)	2,872	345
Lease Revenue Bonds	570,460	129,320	(156,585)	543,195	26,235
Unamortized Bond Premiums and Discounts	44,820	—	(4,507)	40,313	4,303
Net Lease Revenue Bonds	615,280	129,320	(161,092)	583,508	30,538
Tobacco Settlement Bonds	64,570	97,855	(73,230)	89,195	6,045
Net Other Postemployment Benefits Liability	427,197	28,412	(28,128)	427,481	—
Net Pension Liability (Retirement)	2,156,830	458,506	(565,660)	2,049,676	—
Total Pension Liability (POB)	10,723	927	(2,044)	9,606	—
Total	$ 3,911,589	$ 909,069	$ (1,001,125)	$ 3,819,533	$ 175,861

[1] Beginning balance for Net OPEB Liability has been restated due to the implementation of GASB Statement No. 75. See Note 23 for additional information.

[2] Other Capital Leases include GE Government Finance Lease.

Under the Master Lease agreement with Banc of America Public Capital Corp, dated October 9, 2015 and amended April 27, 2016, the City lease-purchased twelve fire engines, three brush rigs, and one Hazmat truck in the amount of $9,660 to be financed over a seven-year period at 1.96%. Under the Master Lease agreement dated May 18, 2018, the City lease-purchased a fire helicopter in the amount of $15,636 to be financed over a ten-year period at 2.67%. The remaining additions to EVFP are for various agreements with Banc of America Public Capital Corp for the lease purchase of vehicles, vessels and software, totaling $12,244, to be financed over 5 to 7 year periods at 2.04% to 2.69%.

On February 10, 2017, the City executed a GE Government Finance, Inc. (GEGF) California Master Lease Agreement for a tax exempt equipment lease-purchase financing of the GE Intelligent Cities Project for energy efficient street lighting and adaptive controls. Proceeds of approximately $30,274 will be used to reimburse previously incurred eligible project expenses. The lease term is for thirteen years at a fixed interest rate that reflects the ten-year swap rate less 0.68%. On June 27, 2018, the City received $9,420 for eligible project expenditures. Under a special financing promotion, the City received a credit of $720 on June 27, 2018, with the remaining $8,700 payable in semi-annual installments beginning January 1, 2019 through the term of the lease.

On March 13, 2018, TSRFC issued $70,510 of Tobacco Settlement Bonds, Series 2018A (the Series 2018 Senior Bonds) (federally taxable), $2,000 Tobacco Settlement Bonds, Series 2018B (the Series 2018B Subordinate Bonds) (federally taxable) and $25,345 Tobacco Settlement Bonds, Series 2018C (the Series 2018C Subordinate Bonds) to refund on a current basis the outstanding Tobacco Settlement Asset-Backed Bonds, Series 2006 (the Series 2006 Bonds) and to fund certain capital improvements of the City. The Bonds are limited obligations of TSRFC and are payable solely from the pledged TSRs and other collateral pledged under the Indenture. The pledged TSRs are the right, title, and interest of TSRFC in and to 100% of the Tobacco Assets.

On June 21, 2018, PFFA issued $129,320 of Lease Revenue Refunding Bonds, Series 2018A (Series 2010A Refunding) (federally taxable) to refund the outstanding Lease Revenue Bonds, Series 2010A (Master Refunding Project). The series 2018A Bonds are payable from revenues derived from Base Rental Payments paid by the City for the use and occupancy of the leased property and certain funds established under the indenture.

d. Defeasance and Redemption of Debt

During fiscal year 2018, the Tobacco Settlement Bonds, Series 2018A (the Series 2018 Senior Bonds) (federally taxable) and Tobacco Settlement Bonds, Series 2018B (the Series 2018B Subordinate Bonds) (federally taxable) were issued to refund on a current basis the outstanding Tobacco Settlement Asset-Backed Bonds, Series 2006 (the Series 2006 Bonds). The final maturity date for the Series 2018A Bonds is June 1, 2028. The Series 2018B Bonds were redeemed prior to June 30, 2018. The Series 2006 Bonds were fully redeemed prior to June 30, 2018 and the liability has been removed from the Statement of Net Position. The refunding transaction resulted in a total economic gain of approximately $1,517 and a difference in cash flows of approximately ($5,807).

During fiscal year 2018, the Lease Revenue Refunding Bonds Series 2018A (Series 2018A Refunding) were issued to refund the Authority's outstanding Lease Revenue Refunding Bonds, Series 2010A (Master Refunding Project). The final maturity date for the Series 2018A Bonds is October 15, 2038. The refunded bonds are defeased and the corresponding liability has been removed from the Statement of Net Position. As of March 13, 2018 (closing date), the refunding transaction resulted in a projected total economic gain of approximately $5,699 and a difference in cash flows of approximately $15,311. The 2010A Refunding Bonds will be fully redeemed on September 1, 2020.

As of June 30, 2018, principal amounts payable from escrow funds established for defeased bonds are as follows:

Defeased Bonds	Amount
Lease Revenue Refunding Bonds Series 2010A	$ 132,550

e. Long-Term Pledged Liabilities

Governmental long-term pledged liabilities as of June 30, 2018 are comprised of the following:

Type of Pledged Revenue	Fiscal Year Maturity Date	Pledged Revenue to Maturity	Debt Principal & Interest Paid	Pledged Revenue Recognized
Pledged Development Impact Fee (DIF) Revenue:				
Quarry Falls (Civita) Neighborhood Parks Reimbursement Agreement		$ 3,616	$ 12,308	$ 12,308
Pledged Facilities Benefit Assessment (FBA) Revenue:				
Facilities Financing Reimbursement Agreement Obligations		2,391	13,077	13,077
Pledged Regional Transportation Congestion Improvement Program (RTCIP):				
Quarry Falls (Civita) Neighborhood Parks Reimbursement Agreement		742	1,215	1,215
Naval Training Center Civic, Arts and Cultural Center (Section 108)	2025	3,507	503	503
Pledged Tobacco Settlement Revenue:				
TSRFC Asset-Backed Bonds, Series 2006	2023 [1]	—	2,550	—
TSRFC Bonds, Series 2018 A,B,C	2032 [1]	116,409	9,400	9,400
Total Pledged Tobacco Settlement Revenue		116,409	11,950	9,400
Total		$ 126,665	$ 39,053	$ 36,503

[1] During Fiscal Year 2018, Tobacco Bonds Series 2006 were refunded and Tobacco Bonds Series 2018B were issued and subsequently redeemed.

6. BUSINESS-TYPE ACTIVITIES LONG-TERM LIABILITIES (Dollars in Thousands)

a. Long-Term Liabilities

Business-type activities long-term liabilities as of June 30, 2018 are comprised of the following:

Type of Obligation	Interest Rates	Fiscal Year Maturity Date	Original Amount [3]	Balance Outstanding June 30, 2018
Arbitrage Liability				$ 1,169
Compensated Absences				13,752
Liability Claims				33,670
Equipment Vehicle Financing Program (EVFP) Capital Lease Obligations	1.67% - 1.84% [1]	2022	$ 2,590	1,160
Other Capital Lease Obligations	2.6 [1]	2021	5,694	3,464
Contracts Payable	2.6 [1]	2021	3,606	2,194
Notes Payable	—	2023	22	11
Loans Payable:				
San Diego Convention Center Corporation (SDCCC)				
California Infrastructure and Economic Development Bank (I-Bank)	3.59 [1]	2042	25,500	25,500
Sewer Utility - State Water Resources Control Board				
Point Loma Digesters 7 and 8, February 9, 2000	1.80 [2]	2020	10,606	1,240
Point Loma Central Boilers, February 9, 2000	1.80 [2]	2022	6,684	1,536
South Bay Water Reclamation Plant, March 30, 2001	1.80 [2]	2022	33,720	7,731
South Bay Sewers and Pump Station, May 17, 2001	1.80 [2]	2022	7,742	1,777
Point Loma Main Building Expansion, May 17, 2001	1.80 [2]	2021	860	150
South Bay Water Reclamation Plant, June 11, 2001	1.80 [2]	2021	2,525	438
South Bay Sewers and Pump Station, October 3, 2002	1.99 [2]	2020	3,767	488
Point Loma Digesters Project C1 and C2, October 3, 2002	1.80 [2]	2023	8,068	2,293
Environment Monitoring and Technical Svcs, December 14, 2005	1.89 [2]	2024	10,093	3,585
Point Loma 4th Sludge Pump Project, October 15, 2006	1.99 [2]	2024	3,858	1,441
Point Loma Digesters S1 and S2, February 28, 2007	1.89 [2]	2026	11,068	5,143
Point Loma Digesters Grit Processing, February 17, 2012	2.70 [1]	2036	31,514	29,012
Sewer Pipeline Rehab Project MNOP, July 10, 2012	2.20 [1]	2033	18,914	12,629
Metro Biosolids Center Storage Silos, August 6, 2015	1.70 [1]	2035	7,204	6,274
MBC Odor Control Facilities Upgrades, July 15, 2015	1.70 [1]	2035	6,840	6,243
MBC Dewatering Centrifuge Replacement, July 8, 2015	1.70 [1]	2039	7,120	7,120
Sewer Pipeline Rehab Project-Q, June 26, 2013	2.20 [1]	2034	4,792	2,014
Sewer Pipeline Rehab Project-RS, August 22, 2013	2.20 [1]	2034	8,924	6,802
Sewer Pipeline Rehab Project-T, July 12, 2016	1.70 [1]	2036	2,314	2,097
MBC Chemical Systems Improvement Phase II, July 12, 2016	1.70 [1]	2037	5,284	5,003
Total Sewer Loans Payable				103,016
Water Utility - State Water Resources Control Board				
Alvarado Water Treatment Plant, May 30, 2011	2.31% [1]	2032	12,000	8,686
Miramar Water Treatment Plant, September 26, 2011	2.31 [1]	2032	20,000	14,474
Otay Water Treatment Plant, December 22, 2011	2.50 [1]	2032	18,000	13,506
Harbor Drive Pipeline Replacement Project, January 29, 2013	2.09 [1]	2036	10,561	9,734
Lindbergh Field Pipeline Replacement Project, January 29, 2013	2.09 [1]	2036	3,262	3,000
University Avenue Pipeline Replacement Project, June 7, 2016	2.09 [1]	2039	22,793	22,793
69th Street & Mohawk Pump Station Project, June 14, 2018	1.70 [1]	2050	2,564	2,564
Total Water Loans Payable				74,757
Total Loans Payable				203,273

Type of Obligation	Interest Rates	Fiscal Year Maturity Date	Original Amount [3]	Balance Outstanding June 30, 2018
Commercial Paper Notes 2017	1.25-1.88 [1]	2019	$ 168,213	$ 168,213
Revenue Bonds Payable:				
Senior Sewer Revenue Bonds, Series 2009 A	2.0-5.36 [1]	2019	453,775	9,435
Senior Sewer Revenue Refunding Bonds, Series 2009 B	3.0-5.5 [1]	2019	634,940	51,775
Subordinated Water Revenue Bonds, Refunding Series 2012 A	2.0-5.0 [1]	2033	188,610	125,150
Senior Sewer Revenue Refunding Bonds, Series 2015	2.0-5.0 [1]	2027	313,620	308,435
Senior Sewer Revenue Refunding Bonds, Series 2016 A	4.0-5.0 [1]	2039	403,280	396,605
Subordinated Water Revenue Bonds, Series 2016 A	3.0-5.0 [1]	2046	40,540	39,845
Subordinated Water Revenue Bonds, Refunding Series 2016 B	5.0 [1]	2040	523,485	471,605
Total Revenue Bonds Payable				1,402,850
Estimated Landfill Closure and Postclosure Care				53,003
Net Other Postemployment Benefits Liability				122,963
Net Pension Liability (Pension)				472,381
Total Pension Liability (POB)				927
Total Business-Type Activities Long-Term Liabilities				$ 2,479,030

[1] Interest rates are fixed and reflect the range of rates for various maturities from the date of issuance to maturity.

[2] Effective rate.

[3] Original Amount is based on the amount disbursed to date and may include capitalize interest.

b. Amortization Requirements

Annual requirements to amortize long-term debt as of June 30, 2018, including interest payments to maturity, are as follows:

Year Ending June 30	Equipment Vehicle Financing Program (EVFP) Capital Lease Obligations		Other Capital Lease Obligations		Contracts Payable		Notes Payable	
	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest
2019	$ 376	$ 18	$ 1,125	$ 90	$ 713	$ 57	$ 2	$ —
2020	382	12	1,154	61	731	39	2	—
2021	389	5	1,185	31	750	20	2	—
2022	13	—	—	—	—	—	2	—
2023	—	—	—	—	—	—	2	—
2024-2028	—	—	—	—	—	—	1	—
Total	$ 1,160	$ 35	$ 3,464	$ 182	$ 2,194	$ 116	$ 11	$ —

Year Ending June 30	Commercial Paper Notes		Loans Payable		Revenue Bonds Payable	
	Principal	Interest	Principal	Interest	Principal	Interest
2019	$ —	$ —	$ 11,894	$ 4,103	$ 91,045	$ 67,830
2020	—	—	12,873	3,832	92,430	63,381
2021	—	—	12,263	3,553	96,850	58,981
2022	—	—	12,311	3,301	101,795	54,383
2023	—	—	9,708	3,013	101,345	49,732
2024-2028	—	—	44,419	11,773	407,400	180,484
2029-2033	—	—	42,635	6,379	238,610	97,999
2034-2038	—	—	18,655	2,114	194,620	47,391
2039-2043	—	—	6,038	352	71,475	6,101
2044-2048	—	—	—	—	7,280	558
Unscheduled [1]	168,213	—	32,477	—	—	—
Total	$ 168,213	$ —	$ 203,273	$ 38,420	$ 1,402,850	$ 626,840

[1] Commercial Paper Notes in the amount of $168,213 do not have fixed annual repayment schedules. Loans payable to the State Water Resources Control Board in the amount of $32,477 do not have fixed annual repayment schedules until construction of the projects are completed and final billing submitted.

c. Change in Long-Term Liabilities

The following is a summary of changes in long-term liabilities for the year ended June 30, 2018. The effect of bond premiums and discounts are reflected as adjustments to long-term liabilities.

	Business-Type Activities				
	Beginning Balance, as Restated [1]	Additions	Reductions	Ending Balance	Due Within One Year
Arbitrage Liability	$ 1,136	$ 33	$ —	$ 1,169	$ —
Compensated Absences	14,154	13,109	(13,511)	13,752	7,304
Liability Claims	30,831	13,426	(10,587)	33,670	5,657
Capital Lease Obligations:					
Equipment Vehicle Financing Program (EVFP)	1,530	—	(370)	1,160	376
Other Capital Lease Obligations	4,561	—	(1,097)	3,464	1,125
Total Capital Lease Obligations	6,091	—	(1,467)	4,624	1,501
Contracts Payable	2,888	—	(694)	2,194	713
Notes Payable	13	—	(2)	11	2
Loans Payable	191,658	23,357	(11,742)	203,273	11,894
Commercial Paper Notes	—	168,213	—	168,213	—
Revenue Bonds Payable	1,489,565	—	(86,715)	1,402,850	91,045
Unamortized Bond Premiums and Discounts	245,601	—	(17,693)	227,908	14,239
Net Revenue Bonds Payable	1,735,166	—	(104,408)	1,630,758	105,284
Estimated Landfill Closure/Postclosure Care	48,530	4,473	—	53,003	—
Net Other Postemployment Benefits Liability [1]	122,884	7,938	(7,859)	122,963	—
Net Pension Liability (Pension)	493,724	92,245	(113,588)	472,381	—
Total Pension Liability (POB)	1,024	81	(178)	927	—
Totals	$ 2,648,099	$ 322,875	$ (264,036)	$ 2,706,938	$ 132,355

[1] Beginning balances for Net OPEB Liability have been restated due to the implementation of GASB Statement No. 75. See Note 23 for additional information.

On October 30, 2017, the City's Water Utility Fund executed State Revolving Fund (SRF) loan agreement with the SWRCB in the amount of $15,000 for the 69th Street and Mohawk Pump Station Project. This project will include the installation of six pumps with 18 million gallons per day (MGD) total capacity, the installation of approximately 7,000 feet of new pipelines, and provide structural improvements to meet seismic code. The obligation is secured by revenues of the Water Utility Fund. The interest rate on the loan is 1.7% and the repayment period is 30 years from completion of construction, which is estimated to be May 1, 2020. As of June 30, 2018, $2,564 was received into the City's Water Utility Fund for this project. The remaining additions to loans payable of $20,793 resulted from various State Revolving Loan Fund proceeds received by the Sewer and Water Utility Funds.

d. Defeasance of Debt

As of June 30, 2018, principal amounts payable from escrow funds established for defeased bonds are as follows:

Water Revenue Defeased Bonds 2016 Escrow (June 23, 2016)	Amount	Redemption Date
Water Revenue Bonds, Refunding Series 2009A	$ 117,260	August 1, 2018
Water Revenue Bonds, Series 2009B	280,645	August 1, 2019
Water Revenue Bonds, Refunding Series 2010A	123,075	August 1, 2020
Total Defeased Bonds Outstanding	$ 520,980	
Sewer Revenue Defeased Bonds 2015 Escrow (September 24, 2015)		
Senior Sewer Revenue Bonds, Series 2009A	$ 70,575	May 15, 2019
Senior Sewer Revenue Bonds, Refunding Series 2009B	148,820	May 15, 2019
Senior Sewer Revenue Bonds, Refunding Series 2010A	99,075	May 15, 2020
Total Defeased Bonds Outstanding	$ 318,470	
Sewer Revenue Defeased Bonds 2016 Escrow (March 30, 2016)		
Senior Sewer Revenue Bonds, Series 2009A	$ 254,065	May 15, 2019
Senior Sewer Revenue Bonds, Refunding Series 2009B	112,340	May 15, 2019
Senior Sewer Revenue Bonds, Refunding Series 2010A	62,855	May 15, 2020
Total Defeased Bonds Outstanding	$ 429,260	

e. Long-Term Pledged Liabilities

Business-type activities long-term pledged liabilities as of June 30, 2018 are comprised of the following:

Type of Pledged Revenue	Fiscal Year Maturity Date	Pledged Revenue to Maturity	Debt Principal & Interest Paid	Pledged Revenue Recognized
Pledged Net Sewer Systems Revenue:				
Loans - State Water Resources Control Board				
Point Loma Digesters 7 and 8, February 9, 2000	2020	$ 1,273	$ 636	$ 636
Point Loma Central Boilers, February 9, 2000	2022	1,605	401	401
South Bay Water Reclamation Plant, March 30, 2001	2022	8,099	2,025	2,025
South Bay Sewers and Pump Station, May 17, 2001	2022	1,858	465	465
Point Loma Main Building Expansion, May 17, 2001	2021	154	51	51
South Bay Water Reclamation Plant, June 11, 2001	2021	454	151	151
South Bay Sewers and Pump Station, October 3, 2002	2020	503	251	251
Point Loma Digesters Project C1 and C2, October 3, 2002	2023	2,421	484	484
Environment Monitoring and Technical Svs, December 14, 2005	2024	3,825	637	637
Point Loma 4th Sludge Pump Project, October 15, 2006	2024	1,544	258	258
Point Loma Digesters S1 and S2, February 28, 2007	2026	5,592	699	699
Point Loma Digesters Grit Processing, February 17, 2012	2036	37,014	2,056	2,056
Sewer Pipeline Rehab Project MNOP, July 10, 2012	2033	14,963	997	997
Metro Biosolids Center-Storage Silos, August 6, 2015	2035	7,276	428	428
MBC Odor Control Facilities Upgrades, July 15, 2015	2035	7,241	426	426
MBC Dewatering Centrifuge Replacement, July 8, 2015	2039	7,120	—	—
Sewer Pipeline Rehab Project-Q, June 26, 2013	2034	2,411	151	151
Sewer Pipeline Rehab Project-RS, August 22, 2013	2034	8,143	509	509
Sewer Pipeline Rehab Project-T, July 12, 2016	2036	2,453	136	136
MBC Chemical Systems Improvement Phase II, July 12, 2016	2037	5,896	310	310
Revenue Bonds				
Senior Sewer Revenue Bonds, Series 2009 A	2019	9,836	9,841	9,651
Senior Sewer Revenue Refunding Bonds, Series 2009 B	2019	54,301	54,298	54,093
Senior Sewer Revenue Refunding Bonds, Series 2015	2027	394,912	14,659	14,659
Senior Sewer Revenue Refunding Bonds, Series 2016 A	2039	610,368	19,315	19,315
Total Pledged Net Sewer Systems Revenue		1,189,262	109,184	108,789
Pledged Net Water Systems Revenue:				
Loans - State Water Resources Control Board				
Alvarado Water Treatment Plant, May 30, 2011	2032	10,159	753	753
Miramar Water Treatment Plant, September 26, 2011	2032	16,924	1,254	1,254
Otay Water Treatment Plant, December 22, 2011	2032	16,091	1,150	1,150
Harbor Drive Pipeline Replacement Project, January 29, 2013	2036	11,733	652	592
Lindbergh Field Pipeline Replacement Project, January 29, 2013	2036	3,617	201	101
University Avenue Pipeline Replacement Project, June 7, 2016	2039	22,793	250	250
69th Street & Mohawk Pump Station Project, June 14, 2018	2050	2,564	—	—
Commercial Paper Notes 2017	2019	168,213	595	595
Revenue Bonds				
Subordinated Water Revenue Bonds, Refunding Series 2012 A	2033	177,483	11,831	11,410
Subordinated Water Revenue Bonds, Series 2016 A	2046	73,162	2,612	2,552
Subordinated Water Revenue Bonds, Refunding Series 2016 B	2040	709,628	46,315	46,315
Total Pledged Net Water Systems Revenue		1,212,367	65,613	64,972
Total Pledged Revenues		$ 2,401,629	$ 174,797	$ 173,761

7. DISCRETELY PRESENTED COMPONENT UNIT LONG-TERM LIABILITIES (Dollars in Thousands)

Narratives and tables presented in the following sections are taken from the audited comprehensive annual financial report of the San Diego Housing Commission as of June 30, 2018.

San Diego Housing Commission

Long-term liabilities of SDHC as of June 30, 2018 are comprised of the following:

Type of Obligation	Interest Rate	Fiscal Year Maturity Date	Original Amount	Balance Outstanding June 30, 2018 [1]	Due Within One Year
Compensated Absences				$ 2,352	$ 2,352
Notes Payable:					
Debts of SDHC:					
Key Bank Real Estate Capital (Smart Corner) dated November 2011[2]	6.08%	2027	$ 15,000	5,234	880
City of San Diego Successor Agency, dated March 1992	0.00 forgivable	2022	696	696	—
City of San Diego Successor Agency, dated March 18, 2010	1.00 forgivable	2065	6,095	6,080	—
State of California, Housing Loan Conversion Program dated March 10, 2013	3.00	2068	4,555	4,555	—
Red Capital Mortgage, LLC-Courtyard Apartments	4.92	2030	4,169	4,169	62
Debts of the LLCs:					
Greystone Servicing Corp, Inc. FNMA (Belden)	7.32	2040	12,320	11,002	217
Greystone Servicing Corp, Inc. FNMA (Northern)	7.32	2040	10,810	9,654	191
Greystone Servicing Corp, Inc. FNMA (Central)	7.32	2040	14,010	12,511	247
PNC Bank, NA FHA (Southern)	3.76	2046	25,017	21,913	471
PNC Bank, NA FHA (Northern)	3.76	2046	17,500	15,328	329
PNC Bank, NA FHA (Central)	3.65	2046	15,726	13,762	299
Total Notes Payable				104,904	2,696
Less: unamortized debt issuance costs				(1,535)	—
Total Notes Payable, Net				103,369	2,696
Total Long-Term Liabilities				$ 105,721	$ 5,048

[1] Long-term liabilities of the discrete component units of SDHC are not included

[2] Converts to variable interest rate after November 2021

As of June 30, 2018, the current portion of notes payable was $2,696 and the noncurrent portion was $102,208.

Debt issuance costs associated with the LLC loans totaled $2,120, less accumulated amortization of $585 at June 30, 2018. For fiscal year 2018, amortization totaled $74. Under guidance issued by the GASB, these fees would be expensed as incurred. However, as the LLCs are not governmental agencies, they follow the standards issued by the Financial Accounting Standards Board. In accordance with ASU 2015-13, debt issuance costs are capitalized and presented as a direct deduction to notes payable. In addition, the debt issuance costs are amortized over the life of the loan using the effective interest method.

In May 2018, SDHC entered into a $4,169 loan agreement with Red Capital Mortgage, LLC to leverage Courtyard Apartments, which is a 37-unit, affordable rent, property owned by SDHC. The proceeds from the loan funded numerous rehabilitation projects within SDHC's real estate portfolio and administrative costs associated with these projects. The term of the loan is for 12 years, amortized over 30 years, with a fixed interest rate of 4.92% for the life of the loan through the maturity date of June 1, 2030 at which time the unpaid principal balance becomes due and payable.

The American Recovery and Reinvestment Act of 2009 created the new Build America Bond (BABs) program. State and local governments receive subsidy payments directly from the U.S. Treasury for a portion of their borrowing costs on BABs equal to 35% of the total coupon interest paid less reductions in federal appropriations. The subsidy stream is paid for the full term of the bonds. The Belden SDHC FNMA, LLC, the Northern SDHC FHA, LLC and the Southern SDHC FHA, LLC loans have been approved as qualified direct subsidy BABs loans. SDHC received subsidy payments of $722 in fiscal year 2018.

The projected annual principal and interest payment requirements for all of SDHC's notes payable are noted in the table below.

Year Ending June 30	Principal	Interest	Total
2019	$ 2,696	$ 4,799	$ 7,495
2020	2,846	4,648	7,494
2021	3,006	4,488	7,494
2022	3,175	4,318	7,493
2023	3,354	4,138	7,492
2024-2028	13,313	18,519	31,832
2029-2033	19,893	14,041	33,934
2034-2038	21,754	8,461	30,215
2039-2043	17,047	2,742	19,789
2044-2048	6,488	359	6,847
2049-2068	4,556	6,947	11,503
Subtotal	98,128	73,460	171,588
Forgivable loans [1]	6,776	—	6,776
Total Notes Payable	$ 104,904	$ 73,460	178,364
Less: unamortized debt issuance costs			(1,535)
Total Notes Payable, Net			$ 176,829

[1] This amount includes forgivable loans of $696 and $6,080 which are forgiven at maturity in 2022 and 2065, respectively. There was accrued interest of $0 and $198, respectively, as of June 30, 2018.

Discretely Presented Component Units of the San Diego Housing Commission

The long-term liabilities for the discretely presented component units of SDHC as of December 31, 2017 are as follows:

Type of Obligation	Interest Rate	Maturity Date	Original Amount	Balance Outstanding December 31, 2017	Due Within One Year
Notes Payable:					
HDP Mason Housing Corporation:					
SDHC	3.00%	2068	$ 2,365	$ 2,365	$ —
City of San Diego Successor Agency	5.00	2057	1,319	1,319	—
California Housing Finance Agency	3.00	2066	1,181	1,181	—
SDHC	3.00	2057	226	69	—
SDHC - Debt Forgiveness	0.00	2023	230	115	23
Casa Colina, L.P. :					
Red Mortgage Capital, Inc	5.68	2039	3,465	2,807	71
SDHC	3.00	2059	1,600	1,410	—
Logan Development II, L.P.:					
Housing Authority of the City of San Diego / Serviced by JP Morgan Chase, N.A.	5.58	2032	5,300	3,130	54
SDHC	6.00	2050	1,400	1,400	—
City of San Diego Successor Agency	3.00	2050	150	150	—
HDP Broadway, L.P. :					
Housing Authority of the City of San Diego / Serviced by Berkadia Commercial Mortgage	4.49	2044	17,825	17,150	246
HDP Churchill, LP:					
SDHC	3.00	2071	3,800	3,712	—
City of San Diego Successor Agency	3.00	2070	3,000	2,964	—
California Housing Finance Agency	3.00	2070	1,800	1,800	—
SDHC	3.00	2071	2,307	2,125	—
HDP New Palace, L.P.:					
Housing Authority of the City of San Diego / Serviced by Citibank	4.42	2050	2,107	2,107	—
SDHC	4.00	2073	2,945	2,945	—
California Housing Finance Agency	3.00	2072	2,240	2,240	—
HDP Town & Country L.P.:					
Housing Authority of the City of San Diego / Serviced by Citibank	4.54	2057	11,487	11,487	—
SDHC	6.80	2073	13,250	13,250	—
HDP Village North LLC:					
Red Mortgage Capital, LLC	4.54	2033	9,100	9,100	99
Housing Development Partners (New Palace Hotel):					
Local Initiative Support Cooperation	2.60-6.00	2017	5,200	—	—
Local Initiative Support Cooperation	5.25	2017	599	—	—
Total Notes Payable				82,826	493
Less: unamortized debt issuance costs				(1,268)	—
Total Notes Payable, Net				$ 81,558	$ 493

Debt issuance costs total $1,506 less accumulated amortization of $238 as of December 31, 2017. The future principal payments on the notes payable are as follows:

Year Ending December 31	Principal
2018	$ 493
2019	525
2020	761
2021	802
2022	840
Thereafter	79,405
Total Notes Payable	82,826
Less: unamortized debt issuance costs	(1,268)
Total Notes Payable, Net	$ 81,558

8. SHORT-TERM LIABILITIES (Dollars In Thousands)

On December 16, 2016, the City adopted a resolution authorizing the issuance of $250,000 tax-exempt subordinate water revenue commercial notes in one or more series. The 2017 Commercial Paper Notes (Water CP Notes), of which the first note was issued on January 31, 2017, are payable from subordinate installment payments by revenues of the City's Water Utility Fund. The notes are secured by irrevocable direct-pay letters of credit (LOCs) from the Bank of the West which expire on January 31, 2020, and Bank of America, N.A. which expires on January 31, 2019. Under this program, PFFA is able to issue notes at prevailing short-term interest rates for periods of maturity of up to 270 days. Upon maturity, the notes can be rolled over for additional intervals of 270 days with new short-term interest rates until the notes are refinanced using a long-term bond or cash repayment option. The funds from the Water CP Notes are used to (i) provide short-term financing for design, acquisition, construction, installation and improvements of components of the City's water system, (ii) reimburse the City's Water Utility Fund for eligible expenditures in accordance with the reimbursement resolution and (iii) pay costs of issuance for the Water CP Notes.

On September 27, 2018, the City adopted a resolution authorizing the issuance and sale by PFFA of one or more series of water revenue bonds (2018 Water Bonds) in an amount not to exceed $283,000 to provide funds for the financing of projects, including refunding all outstanding Water CP Notes. The City has met the conditions prescribed in GASB Statement No. 62, *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements*, as (a) the City intends to refinance the Water CP Notes on a long-term basis and (b) the City has the ability to consummate the refinancing. The outstanding balance of $168,213 of Water CP Notes as of June 30, 2018 has been reclassified as a long-term obligation in the Water Utility financial statements.

	Beginning Balance	Additions	Reductions [1]	Ending Balance
Water Revenue Commercial Paper Notes	$ 42,469	$ 125,744	$ 168,213	$ —

[1] Reclassified as a long-term obligation. See Note 6 for more information regarding the outstanding Water Revenue Commercial Paper Notes.

See Note 24 for more information regarding Commercial Paper Program activity.

9. JOINT VENTURES AND JOINTLY GOVERNED ORGANIZATIONS (Dollars in Thousands)

San Diego Geographic Information Source (SanGIS)

SanGIS was created in 1997 as a joint powers agreement between the City and the County of San Diego. The agreement was amended and restated in 2016 to update its provisions and to reflect the current status of the structure and operations of SanGIS. SanGIS objectives are to create and maintain a geographic information system, to market and license digital geographic data and software, to provide technical services, and to publish geographical and land-related information for the City and County, other public agencies, and the private sector. SanGIS is governed by a Board of Directors consisting of one voting member from the City and one from the County. The Board approves the annual budget and fiscal audit, sets long range plans and strategic goals, and authorizes major project funding. All initiatives and decisions must be approved by a consensus of both members of the Board before being implemented. The SanGIS fiscal year 2018 annual budget of $1,429 was funded primarily by equal contributions from the City and County. In its latest audited report, SanGIS reported a decrease in net position of $67 and an ending net position of $259 for the fiscal year ended June 30, 2017. Complete stand-alone financial statements are available at www.sangis.org.

San Diego Workforce Partnership (SDWP)

In 1974 the City and County of San Diego jointly formed a Consortium to provide regional employment and training services throughout San Diego County. In 2016, a revised Joint Powers Authority (JPA) agreement was approved to achieve compliance with Workforce Innovation and Opportunity Act federal legislation. The City and County jointly govern the Consortium. The Consortium's Board of Directors consists of two members of the City Council, two members from the County Board of Supervisors, and one member of a charitable organization. The Consortium is empowered to make applications for and receive grants from governmental or private sources. The Board assigned the non-profit San Diego Workforce Partnership, Inc. as the grant recipient and administrative entity to operate the Consortium. To the extent that law mandates any responsibility upon the City and County for debt obligation or liability, the City and the County have agreed to share equally the payment of such an obligation. In its latest audited report, SDWP reported an increase in net position of $319 and ending net position of $620 for the fiscal year ended June 30, 2017. Complete stand-alone financial statements can be requested from San Diego Workforce Partnership, Inc. 3910 University Avenue, Suite 400, San Diego, CA 92105.

San Dieguito River Valley Regional Open Space Park

The San Dieguito River Valley Regional Open Space Park Joint Powers Authority (JPA) was formed in 1989 by the City and County of San Diego and the Cities of Del Mar, Escondido, Poway, and Solana Beach to create, preserve and enhance the San Dieguito River Valley Regional Open Space Park for the benefit of the public. In 2015 an amended and restated agreement was executed, continuing the JPA for fifty years. The JPA Board is composed of two elected officials each from the County and the City, one elected official each from the Cities of Del Mar, Escondido, Poway, and Solana Beach, and one public member representing the Citizens Advisory Committee. The JPA's funding is primarily comprised of operating grants, contributions, and agency assessments based on population and jurisdictional area. The JPA's fiscal year 2018 annual budget for agency contributions was $986, of which the City's share was $316, or 32%. In its latest audited report, for the fiscal year ended June 30, 2017, the JPA reported a decrease in net position of $585 and an ending net position of $55,805. The debts, liabilities, or obligations of the JPA belong to the JPA, and not the agencies. Upon termination of the agreement or existence of the JPA, real property owned by the JPA will be distributed to the jurisdiction on which the land is located, while remaining assets and liabilities will be divided among the agencies based on the contribution calculation percentages. Complete stand-alone financial statements are available at www.sdrp.org.

10. LEASE COMMITMENTS (Dollars in Thousands)

The City leases various properties and equipment. Leased property having elements of ownership are recorded as capital leases and reported as capital assets in the government-wide and proprietary funds financial statements, along with a corresponding capital lease obligation. Leased property that does not have elements of ownership is reported as an operating lease and is expensed when paid.

Capital Leases

The City has entered into various capital leases for equipment, structures, infrastructure, and intangible assets. These capital leases have maturity dates ranging from July 1, 2018 through December 31, 2036 and interest rates ranging from 0.00% to 6.47%. A schedule of future minimum lease payments under capital leases as of June 30, 2018 is provided in Notes 5 and 6. The value of the City's capital leased assets as of June 30, 2018 is $208,676, net of accumulated depreciation of $40,051. These amounts are categorized by fund type and major asset class in the table below.

Values of Capital Leased Assets by Major Asset Class

	Gross Value	Depreciation	Net Book Value
Governmental			
Structures & Improvements	$ 83,457	$ (3,285)	$ 80,172
Equipment	98,541	(36,000)	62,541
Land	33,049	—	33,049
Construction in Process	17,281	—	17,281
Equipment (Intangible)	9,278	(316)	8,962
Total Governmental	$ 241,606	$ (39,601)	$ 202,005
Business-Type			
Construction in Progress	$ 4,871	$ —	$ 4,871
Infrastructure	2,250	(450)	1,800
Total Business-Type	$ 7,121	$ (450)	$ 6,671

Operating Leases

The City's operating leases consist primarily of rental property occupied by City departments. Lease obligations for City-leased space include rent, utility charges, common area maintenance, storage, and parking. If a department pays for parking, storage, etc. that is not contracted for in the lease, those charges are not included. Departments are allocated charges based on the percentage of the total leased space occupied. The following is a schedule of future minimum rental payments required under operating leases entered into by the City for property that has initial or remaining non-cancelable lease terms in excess of one year as of June 30, 2018:

Year Ending June 30	Amount
2019	$ 20,292
2020	17,920
2021	10,509
2022	9,784
2023	9,424
2024-2028	35,355
2029-2033	33,962
2034-2038	26,113
Total	$ 163,359

Rent expense, as related to operating leases, was $20,721 for the year ended June 30, 2018, of which $12,091 was reported as governmental activities, and $8,630 as business-type activities.

Lease Revenues

The City has operating leases for certain land, buildings, and facilities with tenants and concessionaires. Leased capital asset carrying values of approximately $178,028, as well as depreciation, are reported in Note 4 and are consolidated with non-leased assets. This amount includes $60,186 for Petco Park, which is subject to the Joint Use Management Agreement reported in Note 21. Minimum annual lease revenues are reported in the following schedule:

Year Ending June 30	Amount
2019	$ 45,467
2020	44,141
2021	41,559
2022	40,113
2023	39,267
2024-2028	186,357
2029-2033	172,320
2034-2038	161,159
2039-2043	146,631
2044-2048	133,781
2049-2053	58,414
2054-2058	30,991
2059-2063	16,799
2064-2068	9,146
Total	$ 1,126,145

This amount does not include contingent rentals, which may be received under certain leases of property on the basis of percentage returns. Rental income as related to operating leases was $75,759 for the year ended June 30, 2018, which includes contingent rentals of $30,814.

11. DEFERRED COMPENSATION PLAN (Dollars in Thousands)

The City, SDCCC, and SDHC each offer their employees a deferred compensation plan, created in accordance with Internal Revenue Service Code Section 457, State and Local Government Deferred Compensation Plans. These plans permit eligible employees to defer, pre-tax, a portion of their salary until future years. Deferred compensation is not available to employees until termination, retirement, death, disability, or an unforeseeable emergency. All assets and income of the deferred compensation plans are held in trust for the exclusive benefit of plan participants and their beneficiaries.

In accordance with GASB Statement No. 32, *Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans,* the deferred compensation plans are not considered part of the City's financial reporting entity.

12. PENSION PLANS (Dollars in Thousands)

The City has a defined benefit pension plan and various defined contribution pension plans covering substantially all of its employees. The defined benefit pension plan (Pension Plan) is closed to new City employees hired on or after July 20, 2012 except for sworn police officers who continue to participate in the Pension Plan.

An initiative titled "Comprehensive Pension Reform of San Diego" (Proposition B) was approved by voters on June 5, 2012 and implemented by the City in fiscal year 2013. Generally, the measure amended the City Charter to provide all new City employees hired on or after July 20, 2012, except sworn police officers, with a 401(a) defined contribution plan instead of a defined benefit plan. The initiative contains other provisions intended to limit pension costs for existing employees by directing the City to seek, through labor negotiations, to limit City employees' compensation used to calculate pension benefits. This limitation on the City's negotiating authority was in effect until June 30, 2018. Pensionable pay increases may be authorized with a two-thirds vote of the City Council following preparation of an actuarial report that discloses the impact of any proposed increases in compensation or benefits on the City's Pension Plan.

In fiscal year 2013, the City reached five-year agreements with each of the employees' collective bargaining units for non-pensionable compensation increases for fiscal years 2014 through 2018. The agreements freeze pensionable pay and cost-of-living increases for the same period (pensionable pay ranges were frozen, but pensionable pay within those ranges continues to increase for some employees based on years of service in salary classes and promotions as specified by the 2011 salary ordinance). The labor agreements could have been reopened at the option of employee organizations in fiscal years 2017 and 2018, but only for changes in non-pensionable compensation. On October 15, 2015, the San Diego Municipal Employee Association (MEA), the labor group that represents technical, office, professionals, and supervisory City employees, voted to ratify a tentative labor agreement between MEA and the City for fiscal years 2017 through 2020. Likewise, on or about April 22, 2016, the City reached agreements with American Federation of State, County and Municipal Employees (AFSCME) Local 127, Fire Local 145, Deputy City Attorneys Association of San Diego (DCAA) and Teamsters Local 911 effective for fiscal years 2017 through 2020 (with the exception of DCAA which expires at the end of fiscal year 2019). On December 5, 2017, the City Council ratified an agreement with the San Diego Police Officers Association (POA) to increase pensionable compensation for represented employees totaling 25.6% to 30.6%, depending on the length of sworn service, beginning July 1, 2018. Increases range from 5.0% to 8.3% semi-annually through the end of the term on June 30, 2020. Each non-POA labor agreement increased pensionable pay for fiscal years 2019 and 2020 by 3.3% for each fiscal year, with DCAA only for fiscal year 2019.

Proposition B is the subject of ongoing litigation. On February 11, 2013, a Public Employee Relations Board (PERB) administrative law judge issued a proposed decision finding that the City violated state labor laws by failing to meet and confer with City labor organizations prior to placing Proposition B on the ballot. The City filed exceptions to the proposed decision. On December 29, 2015, PERB issued Decision No. 2464 M (PERB Decision), which affirmed and adopted the proposed decision with minor modifications. The City had filed an appeal with the Fourth District California Court of Appeal, and on April 11, 2017, the Court found the City did not violate state labor laws, however, on July 27, 2017, the California Supreme Court announced they have agreed to review the Fourth District Court of Appeal ruling on Proposition B. The litigation could potentially repeal or unwind the implementation of some requirements of Proposition B. Proposition B closed the defined benefit retirement plan to newly-hired City employees except sworn police officers. Other employees hired after the effective date of Proposition B participate in a defined contribution plan. Since its passage, the City has assumed the validity of Proposition B and has complied with its requirements in all respects. All actual outcomes are dependent on the negotiations with the employee organizations and actual financial impacts are unknown. Notwithstanding the PERB litigation, the actuarial valuation as of June 30, 2017 assumes the validity of Proposition B that the City has fully implemented its requirements as it relates to the City's Pension Plan, and that the City intends to comply with those requirements under the terms specified in the initiative. See Note 24 for more information regarding further developments of Proposition B after the fiscal year reporting date.

DEFINED BENEFIT PLAN

a. Pension Plan Description and Benefits Provided

SDCERS is a public employee retirement system established in fiscal year 1927 by the City, authorized by Article IX of the City Charter. SDCERS administers independent, qualified, single employer governmental defined benefit plans and trusts for the City, the San Diego Unified Port District (Port), and the San Diego County Regional Airport Authority (Airport). The assets of the three separate plans and trusts are pooled in the SDCERS Group Trust for investment purposes. These plans are administered by the SDCERS Board (Board) to provide retirement, disability, death and survivor benefits for its members. Amendments to the City's benefit provisions require City Council approval and amendments to retirement benefits require a majority vote by those SDCERS members who are also eligible City employees or retirees. Benefit increases also require a majority vote of the public. All approved benefit changes are codified in the City's Municipal Code.

The plans cover all eligible employees of the City, the Port, and the Airport. All City employees initially hired before July 20, 2012 working half-time or greater, all sworn police officers of the City irrespective of hire date, and full-time employees of the Port and Airport are eligible for membership and are required to join SDCERS. The Port and Airport are not component units of the City; however, the financial statements of the SDCERS Pension Trust do include the Port and Airport activity and are reported in the fiduciary funds section of this report.

The information disclosed in this note relates solely to the City's participation in SDCERS. City employment classes participating in the City's Pension Plan are elected officers, general employees and safety employees (including police, fire and lifeguard members). These classes are represented by various unions depending on the type and nature of work performed, except for elected officials, unclassified and unrepresented employees.

As a defined benefit plan, retirement benefits are determined under the Pension Plan primarily by a member's class, hire date, age at retirement, number of years of creditable service, and the member's final compensation. The Pension Plan provides annual cost-of-living adjustments not to exceed 2% to retirees, which is factored into the actuarial assumptions. Increases in retirement benefits due to cost-of-living adjustments do not require voter approval.

Final compensation is based upon either the highest salary earned over a consecutive twelve month period, the highest average salary earned over three one-year periods, or the highest salary earned over a consecutive 36 month period, depending on the member's hire date. To qualify for a service retirement benefit, the Pension Plan requires ten years of service at age 62 for general members (55 for safety members) or 20 years of service at age 55 for general members (50 for safety members), which could include certain service purchased or service earned at a reciprocating government entity. Under Proposition B, sworn police officers hired after July 1, 2013 have a reduction of 3.0% per year if retiring earlier than age 55. Retirement benefits are awarded at various rates, ranging from 1.0% to 3.5% per year of service multiplied by final compensation depending on the member's plan and hire date. The actual percentage of final compensation per year served component of the calculation rises as the employee's retirement age increases, with the exception of some safety employees and all elected officials, and depends on the retirement option selected by the employee. Some safety members also have the option to elect 3.0% per year of service at age 50 and above, not to exceed 90% of final compensation, as part of the formula to calculate their retirement benefits. The maximum percentage of final compensation per year served is 2.8% for general members, 3.0% for safety members and 3.5% for elected officers. Depending on the number of years of service, participants of the Elected Officer's Retirement Pension component of the Pension Plan can retire earlier than the age of 55; however, their retirement allowance is reduced by 2.0% for each year under the age of 55.

At June 30, 2017, the most recent actuarial valuation, the following employees were covered by the benefit terms:

Inactive Employees or Beneficiaries Currently Receiving Benefits [1]	9,768
Inactive (Terminated) Employees Entitled to but not yet Receiving Benefits	2,851
Active Employees	6,388
Total	19,007

[1] Inactive employees include Disabled, Retired, and DROP participants.

Deferred Retirement Option Plan (DROP)

DROP is a program designed to allow members an alternate method of accruing additional retirement benefits from the Pension Plan while they continue to work for the City. Only members hired before July 1, 2005 are eligible to participate in DROP. A member must be eligible for a service retirement to enter DROP. In addition, the member may only participate in the program up to a maximum of five years. Members of Local 145 are permitted to extend the five year period by that amount of post-2002 annual leave not converted to service credits. A DROP participant must agree to end employment with the City on or before the end of the selected DROP participation period. The member's decision to enter DROP is irrevocable.

Upon entering DROP, the participant stops making pension contributions to SDCERS and stops earning service credit. Instead, amounts equivalent to the participant's retirement benefit plus additional DROP contributions are credited to an interest bearing individual account held in the participant's name. While participants were employed by the City, the quarterly interest credited to the DROP participant accounts was 1.5% in the first half of fiscal year 2018 and 2.0% in the second half. When the participant leaves DROP and retires from City service, the participant's DROP account balance may be paid in a lump sum, rolled over to another plan, or converted to monthly payments. The DROP annuity factor used to calculate the monthly payments for fiscal year 2018 was 2.8%. During the period of participation, the participant continues to receive employer offered benefits available to regular employees with exception to earning service credit, as previously discussed.

Purchase of Service Credits

Pension Plan members hired prior to July 1, 2005 are permitted to purchase service credits to be used in determining retirement allowances. Members hired after July 1, 2005 are only permitted to purchase service credits related to certain employee absences such as military leave, long-term disability leave and leave taken under the Family and Medical Leave Act. The cost of purchased service credits is determined by the SDCERS Board consistent with the requirements of the San Diego Municipal Code (SDMC).

Supplemental Cost-of-Living Benefit

On August 5, 2013, the City Council amended the San Diego Municipal Code to provide a method for funding a supplemental cost-of-living benefit (the "Supplemental COLA") previously given to a closed group of retirees who retired on or before June 30, 1982. SDCERS holds a reserve within the plan assets, and pays Supplemental COLA benefits from this reserve. On a yearly basis, the City cash funds the Supplemental COLA reserve based on an estimate of benefits to be paid during the fiscal year. In fiscal year 2018, the City contributed $1,872 towards the Supplemental COLA reserve and paid approximately $1,842 in benefits. As of June 30, 2018, the City's Supplemental COLA reserve had an unspent balance of $147.

b. Funding Policy and Contribution Rates

City Charter Article IX Section 143 requires employees and employers to contribute to the Pension Plan. The Charter section stipulates that funding obligations of the City shall be determined by the Board of SDCERS and are not subject to modification by the City. The section also stipulates that under no circumstances may the City and Board enter into any multi-year funding agreements that delay full funding of the Pension Plan. The City's Actuarially Determined Contribution (ADC) is calculated by SDCERS' actuary and approved by the SDCERS Board. The Charter requires that employer contributions for normal retirement allowances be substantially equal to employee contributions.

Pursuant to the Charter, City employer contribution rates, adjusted for payment at the beginning of the year, are actuarially determined rates and are expressed as a fixed ADC The administrative component was assumed to be $11.5 million for fiscal year 2018, reflecting the final year of a three year phase-in. For fiscal year 2018 and all fiscal years following, 100% of the expected administrative expenses will be added to the ADC. The administrative component is assumed to increase by 2.5% per year.

The following table shows the City's contribution rates (weighted average of each employee group) for fiscal year 2018, based on the June 30, 2016 actuarial valuation, expressed as percentages of expected payroll:

	Employer Contribution Rates	
	Non-Safety Members	Safety Members
Normal Cost [1]	10.35%	15.54%
Amortization Payment [2]	58.43%	70.03%
Administrative Expense [3]	2.53%	3.14%
Normal Cost Adjusted for Amortization Payment [3]	71.31%	88.71%
City Contribution Rates Adjusted for Payment at the Beginning of the Year	68.96%	85.75%

[1] Normal Cost = The actuarial present value of pension plan benefits allocated to the current year actuarial cost method.

[2] Amortization Payment = The portion of the pension plan contribution, which is designed to pay interest on and amortize the unfunded actuarial accrued liability.

[3] Rates assume that contributions are made uniformly during the Plan year.

Members are required to contribute a percentage of their annual salary to the Pension Plan on a biweekly basis. Rates vary according to entry age. For fiscal year 2018, the City employee weighted average contribution rates as a percentage of annual covered payroll were 9.80% for general members and 14.92% for safety members.

In accordance with Chapter 2, Article 4, Division 15 of the SDMC, earnings in excess of the assumed actuarial rate of return are distributed to various SDCERS system reserves and contingent benefits. The order of distribution and a more detailed discussion of each distribution follows: 1) Pension Plan assets are used to credit interest, at a rate determined by the SDCERS Board, which was 7.00% for fiscal year 2018, to the Employer and Employee Contribution Reserves and between 1.50% - 2.00% to the DROP member accounts; and 2) Pension Plan assets are distributed for supplemental or contingent payments or transfers to reserves. These items include in priority order: 1) Annual Supplement Benefit Payment (13th Check) paid to retirees and their continuances, which ranges from $30 (whole dollars) times the number of years of service credit; 2) Corbett Settlement Payment paid to retirees who terminated employment prior to July 1, 2000 (Corbett Settlement payments not paid in any one year accrue and remain an obligation of SDCERS until paid); and 3) Crediting interest to the Reserve for Supplemental Cost-of-Living Adjustment (SCOLA).

c. Net Pension Liability

The City has relied on the work of the SDCERS actuary to determine the City's Net Pension Liability, and considers the underlying assumptions used by the actuary to be reasonable. The Net Pension Liability is measured as of June 30, 2017, based on the plan net position as of June 30, 2017 and the Total Pension Liability as of the valuation date, June 30, 2016, updated to June 30, 2017. On November 13, 2015, the SDCERS Board approved a change in the long-term discount rate to include in the June 30, 2016 actuarial valuation. The discount rate was lowered from 7.125% to 7.00% for the June 30, 2016 valuation, and to 6.75% for the June 30, 2017 valuation. On September 8, 2017, the SDCERS Board approved further changes to actuarial assumptions, including: a) reductions in the pension system's long-term discount rate from 7.00% to 6.75% effective with the July 1, 2017 actuarial valuation, and from 6.75% to 6.50% effective thereafter; and b) a smoothing of future payments requiring higher City contributions from 2029 to 2033. SDCERS Board decisions are subject to further consideration with other assumptions in the following year's Board approval process. There were changes in assumptions as of the measurement date so the update procedures include the addition of service cost and interest cost offset by actual benefit payments, plus an adjustment due to the assumption changes.

A summary of the updated actuarial assumptions as of the June 30, 2016 actuarial valuation, and the economic experience study is shown below:

Description	Actuarial Assumption
Valuation Date	June 30, 2016
Measurement Date	June 30, 2017
Actuarial Funding Method	Entry Age Normal (EAN)
Amortization Method	Closed; Level % (Police), Level $ (non-Police)
Annual Rate of Return on Investments [1]	6.75% net of investment expense
Inflation Rate	3.05% per year, compounded annually
Cost of Living Adjustment	1.9% per year, compounded annually
Projected Salary Increases due to Inflation [2]	0% FY16-FY18, 3.05% thereafter
Mortality	Healthy retired members use CalPERS Mortality Tables

[1] Represents nominal rate of return on investments (includes inflation factor).

[2] Additional merit salary increases of 0.50% to 8.00% based on a participant's years of service, and membership group are also assumed.

The actuarial assumptions used to determine the total pension liability as of June 30, 2017 measurement date were based on the results of a full actuarial experience study performed by the SDCERS actuary for the period July 1, 2010 through June 30, 2015 and adopted by the SDCERS Board in September 2016, and the results of an economic experience study performed by the SDCERS actuary and presented to the SDCERS Board in November 2015.

GASB 68 permits the use of the assumed annual rate of return on investments (6.75%) as the discount rate to measure the projected benefit payments used to calculate the Net Pension Liability, without regard to the funding level of the pension system, if (i) the pension plan's fiduciary net position is projected to be sufficient to make projected benefit payments and (ii) pension plan assets are expected to be invested using a strategy to achieve that return. In determining whether condition (i) is satisfied, the actuary can incorporate all projected cash flows for contributions from the City and from current active employees.

To determine the Pension Plan's projected fiduciary net position, SDCERS' actuary has assumed that employees will continue to contribute to SDCERS at the current rates and that the City will continue its historical practice (since 2006) of contributing to

SDCERS based on an actuarially determined contribution. Accordingly, the City has calculated its Net Pension Liability using a discount rate of 6.75%.

d. Long-Term Expected Real Rate of Return

The target allocation and the best estimates for long-term expected real rates of return for each major asset class of the Pension Plan, as of the June 30, 2017 measurement date, are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Domestic Equity	21.0%	4.4%
International Equity	15.0%	5.2%
Global Equity	5.0%	5.0%
Domestic Fixed Income	22.0%	1.3%
Emerging Market Debt	5.0%	3.7%
Real Estate	11.0%	3.1%
Private Equity and Infrastructure	13.0%	6.2%
Opportunity Fund	8.0%	4.3%
Total	100.0%	

Source: SDCERS CAFR, fiscal year 2017

Expected return estimates for equity and fixed income were developed using a geometric (long-term compounded) building block approach: 1) expected returns are based on observable information in the equity and fixed income markets and consensus estimates for major economic and capital market inputs, such as earnings and inflation, and 2) where necessary, judgment-based modifications are made to these inputs. Return assumptions for other asset classes are based on historical results, current market characteristics, and professional judgment from SDCERS' general investment consultant specialist research teams.

e. Changes in the Net Pension Liability

The following table shows the changes in Net Pension Liability based on the actuarial information provided to the City:

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Postition (b)	Net Pension Liability (a) - (b)
Balances at June 30, 2016	$ 8,946,660	$ 6,296,106	$ 2,650,554
Changes for the Year:			
Service Cost	106,878	—	106,878
Interest	613,530	—	613,530
Differences Between Expected and Actual Experience	71,123	—	71,123
Changes of assumptions	249,740	—	249,740
Contributions - Employer	—	265,572	(265,572)
Contributions - Employee	—	57,050	(57,050)
Net Investment Income	—	857,923	(857,923)
Benefit Payments, Including Refunds of Employee Contributions	(477,039)	(477,039)	—
Administrative Expense	—	(10,778)	10,778
Net Changes	564,232	692,728	(128,496)
Balances at June 30, 2017	$ 9,510,892	$ 6,988,834	$ 2,522,058

The required schedule of changes in the net pension liability and related ratios immediately following the notes to the financial statements presents the beginning and ending balances of the total pension liability, the plan net position available for pension benefits, and the net pension liability, as well as the itemized changes in those amounts during the fiscal year. The schedule also reports a ratio of plan fiduciary net position divided by the total pension liability, the payroll amount for current employees in the plan (covered payroll), and a ratio of the net pension liability divided by covered payroll. Four years of information is presented and will build to 10 years of information on a prospective basis.

The required schedule of employer contributions immediately following the notes to the financial statements presents the City's actuarially determined contribution to the Pension Plan, the City's actual contribution, the difference between the actual and actuarially determined contributions, and a ratio of actual contributions divided by covered payroll.

Sensitivity of the Net Pension Liability to Changes in the Discount Rate - Pursuant to GASB 68, the following table presents the Net Pension Liability of the City, calculated using the discount rate of 6.75% as well as what it would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher than the current rate:

	1% Decrease (5.75%)	Discount Rate (6.75%)	1% Increase (7.75%)
Total Pension Liability	$ 10,643,690	$ 9,510,892	$ 8,578,170
Plan Fiduciary Net Position	6,988,834	6,988,834	6,988,834
Net Pension Liability	$ 3,654,856	$ 2,522,058	$ 1,589,336

Pension Plan Fiduciary Net Position - Detailed information about the Pension Plan's Fiduciary Net Position is available in the separately issued SDCERS financial reports available at www.sdcers.org.

f. Pension Expenses and Deferred Outflows/Inflows of Resources Related to Pensions

For the year ended June 30, 2018, the City recognized pension expense of $507,551. At June 30, 2018, the City reported deferred outflows of resources and deferred inflows of resources from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Pension Contributions Subsequent to Measurement Date	$ 328,922	$ —
Differences Between Expected and Actual Experience	54,511	—
Changes in Assumptions	373,264	—
Net Difference Between Projected and Actual Earnings on Pension Plan Assets	—	95,104
Total	$ 756,697	$ 95,104

Pursuant to GASB 68, $328,922 reported as deferred outflows of resources related to pension contributions made subsequent to the measurement date of June 30, 2017, will be recognized as a reduction of the net pension liability in the year ending June 30, 2019. Other amounts reported as deferred outflows of resources and deferred inflows of resources will be recognized as pension expense in subsequent measurement periods as follows:

Measurement Year Ending June 30	Amount
2018	$ 262,192
2019	155,433
2020	(2,237)
2021	(82,717)

g. Preservation of Benefits (POB) Plan

The POB Plan is a qualified governmental excess benefit arrangement (QEBA) under IRC section 415(m), which was created by Congress to allow the payment of promised pension benefits that exceed the IRC section 415(b) limits (and therefore cannot be paid from a qualified retirement plan). As provided in SDMC Section 24.1606 and required by federal tax law, the POB Plan is unfunded within the meaning of the federal tax laws. The City may not pre-fund the POB Plan to cover future liabilities beyond the current year as it can with an IRC section 401(a) pension plan. Because POB Plan is not administered through trusts that meet the criteria specified in GASB 68, it is reported in accordance with requirements of GASB 73, implemented by the City in fiscal year 2017. The requirements of GASB 73 extend the approach to accounting and financial reporting established in GASB 68 to pension plans that are not administered through trusts and meet specific criteria. SDCERS facilitates the payment of these benefits on a pay-as-you-go basis, which is funded by the City. The number of participants in any given year for the POB Plan is determined by the number of Pension Plan participants who exceed the current year's section 415(b) limitations as calculated by SDCERS' actuary. The maximum annual participant payment from a defined benefit plan for calendar year 2017 was $215.

Preservation of Benefit Total Pension Liability

The City's POB Plan pension cost for June 30, 2018 is based on the June 30, 2017 measurement date and on a valuation date of June 30, 2016, updated to June 30, 2017 as prepared by the SDCERS actuary. The Total Pension Liability (TPL) is the actuarial liability calculated under the entry age actuarial cost method. There were changes in the assumptions as of the measurement date, to include the addition of service cost and interest cost offset by actual benefit payments, plus the adjustment due to assumption changes.

A summary of the updated actuarial assumptions as of the June 30, 2016 actuarial valuation and economic experience study is shown below:

Description	Actuarial Assumption
Valuation Date	June 30, 2016
Measurement Date	June 30, 2017
Actuarial Funding Method	Entry Age Actuarial Cost
Amortization Method	Closed; Level % (Police), Level $ (non-Police)
Inflation Rate	3.05% per year, compounded annually
Cost of Living Adjustment	1.9% per year, compounded: Active and Deferred Vested
	2.0% per year, compounded: Members in Payment Status
Projected Salary Increases due to Inflation [1]	0% FY16-FY18, 3.05% thereafter
Mortality	Healthy retired members use CalPERS Mortality Tables

[1] Additional merit salary increases of 0.50% to 8.00% based on a participant's years of service, and membership group are also assumed.

GASB 73 allows for a discount rate of a yield or index rate for a 20-year, tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher. The Municipal Bond yield for the Bond Buyer 20 year GO index was 2.85% as of the measurement date of June 30, 2016 and 3.58% as of June 30, 2017.

Changes in the Total Pension Liability

The following table shows the changes in the total pension liability for POB based on the actuarial information provided to the City (dollars in thousands):

	Total Pension Liability
Balances at June 30, 2016	$ 11,747
Changes for the Year:	
Service Cost	60
Interest	312
Differences Between Expected and Actual Experience	635
Changes in assumptions	(589)
Benefit Payments	(1,633)
Net Changes	(1,215)
Balances at June 30, 2017	$ 10,532

The required schedule of changes in the total pension liability immediately following the notes to the financial statements presents the beginning and ending balances of the total pension liability as well as the itemized changes in those amounts during the fiscal year. The schedule also reports the payroll amount for current employees in the plan (covered payroll), and a ratio of the net pension liability divided by covered payroll. Two years of information is presented, and will build to 10 years of information on a prospective basis.

Sensitivity of the Total Pension Liability to Changes in the Discount Rate - Pursuant to GASB 73, the following table presents the Net Pension Liability of the City, calculated using the discount rate of 3.58%, as well as what it would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher than the current rate:

	1% Decrease (2.58%)	Discount Rate (3.58%)	1% Increase (4.58%)
Total Pension Liability	$ 11,361	$ 10,532	$ 9,844

Pension Expense and Deferred Outflows/Inflows of Resources Related to POB

For the year ended June 30, 2018, the City recognized pension expense of $917. At June 30, 2018, the City reported deferred outflows of resources and deferred inflows of resources from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
POB Contributions Subsequent to Measurement Date	$ 1,430	$ —
Differences Between Expected and Actual Experience	423	—
Changes in assumptions	529	394
Total	$ 2,382	394

Pursuant to GASB 73, $1,430 reported as deferred outflows of resources related to pension contributions made subsequent to the measurement date of June 30, 2017, will be recognized as a reduction of the total pension liability in the year ending June 30, 2019. Other amounts reported as deferred outflows of resources and deferred inflows of resources will be recognized as pension expense in subsequent measurement periods as follows:

Measurement Year Ending June 30	Amount
2018	$ 544
2019	14

DEFINED CONTRIBUTION PLANS

a. Supplemental Pension Savings Plan - City

Pursuant to the City's withdrawal from the Federal Social Security System effective January 8, 1982, the City established the Supplemental Pension Savings Plan (SPSP). Pursuant to the Federal Government's mandate of a Social Security Medicare tax for all employees not covered by Social Security hired on or after April 1, 1986, the City established the Supplemental Pension Savings Plan-Medicare (SPSP-M). The SPSP and SPSP-M were merged into a single plan (SPSP) on November 12, 2004 for administrative simplification, without a change in benefits. Pursuant to the requirements of the Omnibus Budget Reconciliation Act of 1990 (OBRA-90) requiring employee coverage under a retirement system in lieu of coverage under the Federal Insurance Contributions Act (FICA) effective July 1, 1991, the City Council established the Supplemental Pension Savings Plan-Hourly (SPSP-H). These supplemental plans are defined contribution plans administered by Wells Fargo to provide pension benefits for eligible employees. The City Council can amend any provisions of the plans that are not part of any employee's vested retirement benefit. If the City amends any non-legally mandated provisions, it must first comply with procedural requirements, including collective bargaining under the Meyers-Milias-Brown Act and for the SPSP plan, after approval by a simple majority vote of all active members. There are no plan members who belong to an entity other than the City. In a defined contribution plan, benefits depend solely on amounts contributed to the plan plus investment earnings, less investment losses. The City's general members, lifeguard members and elected officers participate in the plan. Eligible employees may participate from the date of employment; however, the SPSP plan was closed to general and lifeguard members hired on or after July 1, 2009 and January 1, 2011, respectively. The following table details plan participation as of June 30, 2018:

Plan	Participants
SPSP	5,882
SPSP-H	8,141

The SPSP requires that both the employee and the City contribute an amount equal to 3% of the employee's total salary each pay period. Participants in the plan hired before July 1, 1986 may voluntarily contribute up to an additional 4.5% and participants hired on or after July 1, 1986 may voluntarily contribute up to an additional 3.05% of total salary, with the City matching each. Hourly employees contribute 3.75% on a mandatory basis, which is matched by City contributions except for employees represented by the MEA and the California Teamsters Local 911. The match for these employees was 6% during fiscal year 2018. Under the SPSP, the City's contributions for each employee (and interest allocated to the employee's account) are fully vested after five years of continuous service at a rate of 20% for each year of service. Hourly employees are immediately 100% vested. The unvested portion of City contributions and interest forfeited by employees who leave employment before five years of service are used to reduce the City's SPSP cost.

401(a) Plan Under Proposition B - Proposition B amended the City Charter to provide all new City employees initially hired on or after July 20, 2012, except sworn police officers, with a 401(a) plan that is administered along with SPSP but with different contribution rates, vesting periods and employer match. Non-public safety employees contribute an amount equal to 9.2% of salary, and firefighters, lifeguards, and police recruits contribute 11% of salary (including overtime) on a mandatory basis. The City matches all such contributions and contributions are fully vested immediately upon employment. Police recruits participate in SDCERS upon acceptance of full-time police employment. Due to ongoing litigation regarding Proposition B, the City has not established a new plan for eligible employees. Instead, the City has contributed funds to SPSP-H, an existing 401(a) plan, to eligible employees in accordance with the SPSP-H plan provisions. The City will continue to contribute funds for such employees through the SPSP-H, pending resolution of Proposition B litigation.

In fiscal year 2018, the City and the covered employees contributed $32,830 and $32,443, respectively, including contributions made under the 401(a) Plan under Proposition B. As of June 30, 2018, the plan fiduciary net position totaled $811,758. SPSP, which includes SPSP-H, is considered part of the City's financial reporting entity and is reported as a pension trust fund.

b. 401(a) Plan - City

The City Council established a 401(a) Plan for all General Member employees hired on or after July 1, 2009 and before July 20, 2012. The 401(a) Plan is a defined contribution plan administered by Wells Fargo to provide pension benefits for eligible employees. Employees are eligible to participate from the date of employment and are immediately 100% vested. Employees contribute 1% on a mandatory basis, which is matched by City contributions. Additionally, employees can make voluntary contributions to their 401(a) Plan accounts through payroll deductions not to exceed IRS limits. Voluntary contributions to the plan are not matched by the City. The City Council can amend any provisions of the plan that are not part of any employee's vested retirement benefit. However, if the City amends any non-vested provisions, it must first comply with procedural requirements, including collective bargaining under the Meyers-Milias-Brown Act.

The City and employees contributed $374 and $554, respectively, during the year ended June 30, 2018. As of June 30, 2018, the plan fiduciary net position totaled $6,189. The 401(a) Plan is considered part of the City's financial reporting entity and is reported as a pension trust fund.

c. 401(k) Plan - City

The City Council established a 401(k) Plan effective July 1, 1985. The 401(k) Plan is a defined contribution plan administered by Wells Fargo to provide retirement benefits for eligible employees. Employees are eligible to participate from the date of employment. Employees make contributions to their 401(k) Plan accounts through payroll deductions. The City Council can amend any provisions of the plan that are not part of any employee's vested retirement benefit. However, if the City amends any non-vested provisions, it must first comply with procedural requirements, including collective bargaining under the Meyers-Milias-Brown Act.

The employees' 401(k) contributions are based on IRS calendar year limits. Employees contributed $30,433 during the year ended June 30, 2018. There is no City contribution towards the 401(k) Plan. As of June 30, 2018, the plan fiduciary net position totaled $410,943. The 401(k) Plan is considered part of the City's financial reporting entity and is reported as a pension trust fund.

Narratives presented in the following sections (d. through g.) are taken directly from the fiscal year 2018 annual financial reports of the corresponding entity (certain terms have been modified to conform to the City's CAFR presentation).

d. Pension Plan - Civic San Diego

CSD sponsors a 403(b) tax deferred retirement plan (Plan) of the Internal Revenue Code of 1986, which is provided to all full-time regular employees. The Plan is a defined contribution plan under which benefits depend solely on amounts contributed to the Plan by the employer and the employees, plus investment earnings. All full-time regular employees are eligible to participate on their first day of employment with an employer contribution amount equal to 7.5% of their eligible bi-weekly compensation.

Effective on the first payroll following three months of employment, CSD contributes an amount equal to 12% of the total eligible bi-weekly compensation for all full-time regular employees. CSD's contributions for each employee are fully vested at the time of contribution. CSD's total payroll (excluding benefits) for fiscal year 2018 was $3,525. CSD's contributions were calculated

based on the Plan's total defined compensation amounts for all eligible employees, which totaled $2,960. CSD made its required contribution amounting to $352 for fiscal year 2018.

The fiduciary responsibilities of CSD consist of making timely contributions and remitting deposits collected. The Plan is not a component unit of CSD and is therefore not reported in the City's basic financial statements.

CSD defined that an eligible participant is a permanent and full-time employee that normally works at least 30 hours per week. An employee is considered to work at least 30 hours per week, if for the 12-month period beginning on the date the employee's employment commenced, CSD reasonably expects the employee to work at least 1,500 service hours and, for each Plan year ending after the close of that 12-month period, the employee has worked at least 1,500 service hours.

e. Pension Plan - San Diego Convention Center Corporation

The SDCCC Money Purchase Pension Plan (SDCCC Plan) is a governmental plan under IRC section 414(d), which was established effective January 1, 1986, by SDCCC's Board of Directors. The SDCCC Plan is administered by SDCCC through a Defined Contribution Committee, represented by the SDCCC Board and staff, who act by a majority of its members in office to carry out the general administration of the plan. Any recommended plan amendments are subject to the approval and adoption by SDCCC's Board of Directors. As part of the SDCCC Plan, SDCCC through Board action selected Wells Fargo & Company as Trustee, to hold and administer plan assets subject to the terms of the SDCCC Plan. The SDCCC Plan is a qualified defined contribution plan and as such, benefits depend on amounts contributed to the plan plus investment earnings less allowable plan expenses. The SDCCC Plan covers all employees who have completed at least 1,000 or more hours of service in one year and are not covered through a union retirement plan.

Full-time employees are eligible to participate in the SDCCC Plan on the first day of the month after completion of 1,000 hours of service and receive contributions on a bi-weekly basis thereafter. Part-time employees are eligible to participate in the SDDCC Plan after completion of 1,000 hours and and receive contributions annually once they meet the 1,000 hours threshold requirement each year. For each Plan year, SDCCC contributes 10% of compensation paid after the employee becomes an eligible participant, which is transferred to the trustee on behalf of each qualifying individual.

SDCCC's Plan year is defined as a calendar year. The balance in the SDCCC Plan for each eligible employee is vested gradually over five years of continuing service with an eligible employee becoming fully vested after five years. Forfeitures and SDCCC Plan expenses are allocated in accordance with SDCCC Plan provisions. For the year ended June 30, 2018, pension expense amounted to $1,247, with no employee contributions made to the SDCCC Plan. Included in pension expense were forfeitures in the amount of $19. SDCCC records pension expense during the fiscal year based upon employee compensation that is included in qualified gross compensation.

The City does not act in a trustee or agency capacity for the SDCCC Plan; therefore, these assets are not reported within the City's basic financial statements.

f. Pension Plan - San Diego Housing Commission

SDHC provides a pension plan through a defined contribution plan intended to be a "governmental plan" as defined by Section 411(s) (1)(A) and 414(d) of the IRC and Section 3(32) of the Employee Retirement Income Security Act of 1974, as amended (ERISA). The SDHC pension plan covers all SDHC employees classified as permanent full time and permanent part time hired to work a minimum of 20 hours per week.

In a defined contribution plan, benefits depend solely on amounts contributed to the plan plus investment earnings. Eligible employees participate on their day of hire. SDHC contributes 14% of defined earnings each pay period for each eligible employee. Contributions (and interest allocated to the employee's account) vest ratably over four years of service, with a year of service defined as an employee completing at least 1,000 hours of service. Any forfeited SDHC contributions and related interest are used to fund a future SDHC pay period contribution. For the fiscal year ended June 30, 2018, covered payroll was $22,492. Pension expense related to SDHC's required contribution was $3,149 and plan members contributed $193 for the fiscal year ended June 30, 2018.

At June 30, 2018, there were 408 employees in the plan, including: 2 inactives receiving benefits, 106 inactives not yet receiving benefits and 300 active employees.

The retirement pension benefit is available at normal retirement age (62nd birthday) or upon termination or disability. The retirement pension benefits are determined based upon the vested value of the participant's accumulation accounts at the time of distribution. Distributions must commence no later than April 1st of the calendar year following the calendar year in which the participant attains age seventy and one-half (70½) years of age.

The SDHC pension plan has a third party fiduciary, Retirement Benefits Group, and a third party recordkeeper, Transamerica. SDHC has the authority to establish and amend the provisions of the Plan including the contribution requirements with the approval of the Board of Commissioners. The SDHC pension plan is audited by an outside firm, and a copy of theaudit report can be obtained by contacting the San Diego Housing Commission at 1122 Broadway, Suite 300, San Diego, California 92101.

The City does not act in a trustee or agency capacity for the SDHC pension plan; therefore, these assets are not reported within the City's basic financial statements.

13. OTHER POSTEMPLOYMENT BENEFITS (Dollars in Thousands)

The City provides postemployment healthcare benefits, also known as other postemployment benefits (OPEB), to qualifying general, safety and elected members through a variety of defined benefit and defined contribution plans. OPEB benefits are established pursuant to the San Diego Municipal Code (SDMC). Plan determination is based on several factors including hire date, termination date and individual employee election as provided for in SDMC Sections 24.1201 through 24.1204 and 29.0101 through 29.0105 (OPEB Plan).

In fiscal year 2012, the City entered into a 15-year memorandum of understanding with employees' collective bargaining units through fiscal year 2027 (Healthcare MOU). Pursuant to the Healthcare MOU, members retiring after April 1, 2012 were required to make an irrevocable election between three retiree healthcare benefit plan options, Options A, B, and C. Options A and B are defined benefit plans and Option C is a defined contribution plan. A significant group of participants elected Option C, substantially reducing the City's OPEB Plan's unfunded actuarially accrued liability in fiscal year 2012. Beginning in fiscal year 2015, the terms of the Healthcare MOU could be renegotiated by either the City or the employees' collective bargaining units, subject to a six-vote approval by the City Council. Any modification of the Healthcare MOU would apply only to active employees and not to retirees or those who have already had the Option C defined contribution plan funded by the City. As of June 30, 2018, the Healthcare MOU has not been renegotiated.

The City's defined benefit plans and the Option C defined contribution plan are closed to employees hired on or after July 1, 2005. For general members hired on or after July 1, 2009, the City established a new defined contribution plan through a trust vehicle (Retiree Medical Trust Plan).

As of the June 30, 2017 actuarial valuation, the following table shows the active and retired employee composition of the defined benefit OPEB Plan:

Inactive Employees or Beneficiaries Currently Receiving Benefits	6,218
Inactive (Terminated) Employees Entitled to but not yet Receiving Benefits	408
Active Employees	542
Total	7,168

The City has pre-funded future postemployment healthcare benefits for defined benefit plan costs through the California Employers' Retiree Benefit Trust (CERBT), an investment trust administered by the California Public Employees' Retirement System (CalPERS). The CERBT is an agent multiple-employer plan as defined by GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans,* with pooled administrative and investment functions. The purpose of the trust is to receive contributions from participating employers and establish separate employer prefunding accounts to pay for retiree healthcare benefits in accordance with the terms of the participating employer's plans, including the City's defined benefit plans. Contributions to the CERBT are voluntarily determined by each participating employer, and there are no long-term contracts for contributions to the CERBT. CalPERS issues a publicly available CAFR that includes financial statements and required supplementary information for the CERBT, which can be found online at www.calpers.ca.gov. The City's OPEB Plan does not issue a separate annual financial report.

DEFINED BENEFIT PLANS

a. Plan Description

Pursuant to the SDMC, SDCERS processes health insurance premium payments and healthcare reimbursement requests pertaining to the City's retiree healthcare defined benefit plans for eligible retirees. This activity and related balances are reported in the SDCERS basic financial statements as an agency fund. Postemployment healthcare benefits for members retiring from City employment are based on their health eligibility status. Members receiving defined retiree healthcare benefits can be categorized into four main groups as described below:

I. Limited Retiree Health Benefit - Members who retired before October 6, 1980 and are eligible to receive a retirement allowance from SDCERS are entitled to be reimbursed up to $1,200[1] per year for health insurance costs. The retired members are not reimbursed more than the actual health premium or medical costs he or she incurs. This amount does not increase.

II. Plan for members who retired between 1980 and 2012 - Members who retired between October 6, 1980 and March 31, 2012 require 10 years of service with the City to receive 50% of the retiree health reimbursement allowance and receive an additional 5% per year of service in excess of 10 years, resulting in a maximum benefit of 100% at 20 years of service. Reimbursement allowances vary based on retirement date and Medicare eligibility. Medicare eligible retirees under this plan are entitled to receive reimbursement of healthcare premiums, ranging from approximately $8,400[1] to $13,100[1] per year. Retirees who are not eligible for Medicare are entitled to receive reimbursement of healthcare premiums, ranging from approximately $8,900[1] to $13,900[1] per year. Retirees under this plan can obtain health insurance coverage with the plan of their choice, including any City sponsored, union sponsored, or privately secured health plan. Reimbursements for certain retirees under this plan are adjusted annually based upon the projected increase for National Health Expenditures by the Centers for Medicare and Medicaid Services (Annual Inflator). Annual adjustments may not exceed 10% for any plan year. In addition, 100% of Medicare Part B premiums are reimbursed, including income related increases to the standard Part B premium amount. Disabled retirees are eligible for the maximum allowance regardless of years of eligible service credit.

III. Option A Plan - Members not retired by April 1, 2012 who elected Option A under the Healthcare MOU are paid or reimbursed for health insurance premiums by the City up to $9,808[1] annually. Option A was available only to those members who had 25 years of service or were eligible to retire as of April 1, 2012. This benefit amount increases 2% per year. Employees under the Option A Plan are required to pay bi-weekly contributions annually totaling $835[1] for General Members and $877[1] for Safety Members while active or in DROP status in order to receive retiree medical benefits. Employee contribution amounts do not change and cannot be refunded.

IV. Option B Plan - Members not retired by April 1, 2012 who elected Option B under the Healthcare MOU are paid or reimbursed for health insurance premiums by the City up to $5,500[1] annually. The benefit amount for Option B does not change. Option B retirees with 10 years of service receive 50% of the retiree health reimbursement allowance and receive an additional 5% per year of service in excess of 10 years, resulting in a maximum benefit of 100% at 20 years of service. Employees under the Option B Plan are required to pay bi-weekly contributions annually totaling $417[1] for General Members and $443[1] for Safety Members while active or in DROP status in order to receive retiree medical benefits. Employee contribution amounts do not change and cannot be refunded.

[1] Reported as whole dollars.

b. Contributions and Reserves

In accordance with SDMC Section 24.1204, postemployment healthcare benefits are to be paid directly by the City from any source available to it other than the Pension Plan. Each year, the City establishes a retiree healthcare employer contribution amount through the annual budgetary process (Annual Employer Contribution), allocating these costs to various City funds based on employee payroll. Member contributions for the Option A and Option B Plans are collected by the City and deposited in the Postemployment Healthcare Benefit Plan trust fund. Member contributions are not refundable and can be used by the City to cover a portion of the City's defined benefit plan costs.

Other than the amounts pre-funded through the CERBT, the City pays for retiree healthcare costs on a pay-as-you-go basis. If the Annual Employer Contribution and employee contributions for the Option A and B Plans do not fully cover the annual costs of the defined benefit plans and Option C Plan, the City withdraws funds from the CERBT to cover the difference.

In fiscal year 2018, the City's Annual Employer Contribution was $62,225. The following table provides the fiscal year 2018 contribution breakdown by fund:

General Fund	$ 46,166
Nonmajor Governmental Funds	744
Sewer Utility	3,971
Water Utility	4,903
Nonmajor Enterprise Funds	6,441
Total Healthcare MOU Contributions	$ 62,225

Contributions from the various City funds are recorded in the Postemployment Healthcare Benefit Plan trust fund to pay for defined benefit plan costs or in the Employee Benefits agency fund to pay for Option C plan costs (Retiree Medical Trust Plan contributions are funded separately). In fiscal year 2018, employees contributed $577 for Options A and B.

As of June 30, 2018, the fair value of the City's investments in the CERBT was approximately $112,763. This balance is net of all plan activity during fiscal year 2018, including net annual investment earnings and administrative expenses amounting to approximately $7,385 and $104, respectively.

The following table summarizes the sources used to satisfy fiscal year 2018 pay-as-you-go costs of the defined benefit plans, including a portion of the Annual Employer Contribution, Option A and B contributions from employees and a withdrawal from the CERBT:

Annual Employer Contribution [1]	$ 30,380
Employee Contributions - Options A&B	577
CERBT Withdrawal	10,403
Total Defined Benefit Pay-as-you-go Costs [2]	$ 41,360

[1] The remaining $31,845 of the total $62,225 Annual Employer Contribution is used for Option C Plan costs, which is a defined contribution plan.

[2] Includes administrative costs of $584.

c. Net OPEB Liability

The City's net OPEB liability was measured as of June 30, 2017 and the total OPEB used to calculate the net OPEB liability was determined by an actuarial valuation dated June 30, 2016 that was rolled forward to determine the June 30, 2017 total OPEB liability, based on the following actuarial methods and assumptions:

Description	June 30, 2017
Actuarial Cost Method	Entry Age Normal, Level Percent of Pay
Amortization Method/Period	Closed 20 Year Period
Discount Rate	6.73%
Inflation	2.75%
Salary Increases	3.05%
Healthcare Cost Trend Rates	8.0% pre-65 and 5.3% post-65 initial trend rates for fiscal year 2017. Decreasing 0.5% per year pre-65 and 0.2% per year post-65 until ultimate is reached in fiscal year 2024 pre-65 and fiscal year 2021 post-65.
Mortality	The base mortality rates are based on an experience study performed for SDCERS in June 2011. These rates are projected on a fully generational basis using Scale BB to reflect more recently published information about future mortality improvement.

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future. Actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future. Actuarial calculations are based on the benefits provided under the terms of the substantive plan in effect at the time of each valuation and on the pattern of sharing costs between the City and plan members through June 30, 2017. Additionally, actuarial calculations reflect a long-term perspective and include methods and assumptions that are designed to reduce short-term volatility of actuarial accrued liabilities and the relative value of plan assets. The City has relied on the work of the City's actuary to determine the City's net OPEB Liability, and considers the underlying assumptions used by the actuary to be reasonable.

To determine the OPEB Plan's projected fiduciary net position, the City's actuary has assumed that the City will continue to contribute to the OPEB Plan at the current rates defined in the Healthcare MOU until additional funding for the defined benefits valued in the actuarial report is no longer needed. At this point the projected City contribution will be reduced to the projected contribution required for Option C participants.

d. Long-Term Expected Rate of Return

The valuation uses a discount rate of 6.73% per year, net of investment expenses and including inflation. This is the long-term rate of return assumption on plan assets. This rate is based on the general inflation rate and expected real rate of return required for CalPERS reporting for use by employers who elect certain investment strategies as participants in CERBT. The target allocation and best estimates for long-term expected real rates of return for each major asset class, as of the June 30, 2017 measurement date, are summarized in the following table:

Asset Class	Target Allocation	Long-Term Real Rate of Return
Public Equity	40.0%	5.71%
Fixed Income	39.0%	2.4%
REITs	8.0%	7.88%
TIPS	10.0%	2.25%
Commodities	3.0%	4.95%
Total	100.0%	

Source: CERBT

e. Changes in the Net OPEB Liability

The following table shows the changes in the Net OPEB Liability as of the measurement date of June 30, 2017, based on the actuarial information provided to the City. The OPEB Plan's Fiduciary Net Position (FNP) as a percentage of the Total OPEB Liability is 17.39%.

	Increase/Decrease		
	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a) - (b)
Balances at June 30, 2016	$ 666,671	$ 116,590	$ 550,081
Changes for the Year:			
Service Cost	1,237	—	1,237
Interest	43,617	—	43,617
Differences between Expected and Actual Experience	(4,915)	—	(4,915)
Changes in Assumptions	—	—	—
Contributions - Employer	—	30,326	(30,326)
Contributions - Employee	—	719	(719)
Net Investment Income	—	8,590	(8,590)
Benefit Payments	(40,280)	(40,280)	—
Administrative Expense	—	(59)	59
Net Changes	(341)	(704)	363
Balances at June 30, 2017	$ 666,330	$ 115,886	$ 550,444

The required schedule of changes in the net OPEB liability and related ratios immediately following the notes to the financial statements presents the beginning and ending balances of the total OPEB liability, the plan fiduciary net position available for OPEB benefits, and the net OPEB liability, as well as the itemized changes in those amounts during the fiscal year. The schedule also reports a ratio of plan fiduciary net position as a percentage of the total OPEB liability, the payroll amount for current employees in the plan (covered-employee payroll), and a ratio of the net OPEB liability as a percentage of the covered-employee payroll. One year of information is presented and will build to 10 years of information on a prospective basis.

The required schedule of employer contributions immediately following the notes to the financial statements presents the City's actuarially determined contribution to the OPEB Plan, the City's actual contribution, the difference between the actual and actuarially determined contributions, and a ratio of actual contributions as a percentage of covered-employee payroll.

Sensitivity of the Net OPEB Liability to Changes in the Discount Rate - Pursuant to GASB 75, the following table presents the net OPEB liability of the City, calculated using the current discount rate of 6.73% as well as what it would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher than the current rate:

	1% Decrease (5.73%)	Current Discount Rate (6.73%)	1% Increase (7.73%)
Net OPEB Liability	$ 621,715	$ 550,444	$ 490,005

Sensitivity of the Net OPEB Liability to Changes in the Health Care Cost Trend Rate - Pursuant to GASB 75, the following table presents the net OPEB liability of the City, calculated using the current health care cost trend rate of 8.00% as well as what it would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher than the current rate:

	1% Decrease	Current Healthcare Cost Trend Rate	1% Increase
	(7.00% pre-65 / 4.30% post-65 decreasing to 3.50% pre-65 / post-65)	(8.00% pre-65 / 5.3% post-65 decreasing to 4.50% pre-65 / post-65)	(9.00% pre-65 / 6.30% post-65 decreasing to 5.50% pre-65 / post-65)
Net OPEB Liability	$ 496,882	$ 550,444	$ 607,424

f. OPEB Expenses and Deferred Outflows/Inflows of Resources Related to OPEB

For the year ended June 30, 2018, the City recognized OPEB expense of $31,286. At June 30, 2018, the City reported deferred outflows of resources and deferred inflows of resources from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
OPEB Contributions Subsequent to Measurement Date	$ 30,380	$ —
Net Difference Between Projected and Actual Investment Earnings	—	595
Total	$ 30,380	$ 595

Pursuant to GASB 75, $30,380 reported as deferred outflows of resources related to OPEB contributions made subsequent to the measurement date of June 30, 2017, will be recognized as a reduction of the net OPEB liability during the fiscal year ending June 30, 2019. Other amounts reported as deferred inflows of resources will be recognized as OPEB expense as follows:

Year Ending June 30	Amount
2019	$ 149
2020	149
2021	149
2022	148

DEFINED CONTRIBUTION PLAN

The City provides two defined contribution plans to eligible employees as described below:

a. Option C Plan - For employees hired prior to July 1, 2005 and who elected to participate in the Option C Plan, the City provides a lump sum distribution, estimated by an actuary to yield approximately $8,500 (whole dollars) annually during the member's life expectancy after retirement. The distribution is made when the member first becomes eligible to retire, based on age and Service Credit. There is no member contribution to this plan. Retirees with 10 years of service receive 50% of the distribution, with additional City annual contributions each year thereafter until reaching 20 years. Contributions to the Option C Plan are reported in an agency fund, as the City does not administer them and simply passes through contribution amounts to the plan administrators. Option C is administered by various third parties depending on employee classification and/or membership in employee collective bargaining units. Total City contributions for the Option C Plan in fiscal year 2018 were $31,845.

b. Retiree Medical Trust Plan - For general members hired on or after July 1, 2009, the City established a trust vehicle for a defined contribution plan, which requires a mandatory employee contribution of 0.25% of gross salary with a corresponding 0.25% match by the City. Contributions to the Retiree Medical Trust Plan are reported in an agency fund, as the City does not administer them and simply passes through contribution amounts to the plan administrators. The Retiree Medical Trust Plan is administered by Voya Financial on behalf of the City. Elected and safety members are ineligible for this plan. The City and employees each contributed $435 to the Retiree Medical Trust Plan in fiscal year 2018.

c. Southern California Firefighters Benefit Trust - The City and International Association of Firefighters ("IAFF") Local 145 agreed to amend the Post-Employment Health Benefits MOU for the purpose of adding a City contribution of $25 per pay period for each active IAFF Local 145 member (except Fire Recruits) to the Southern California Firefighters Benefit Trust ("Firefighters Benefit Trust"), effective July 1, 2016. The Firefighters Benefit Trust is not managed by the City. The City contributed $591 to the Firefighters Benefit Trust in Fiscal Year 2018.

14. INTERFUND RECEIVABLES, PAYABLES AND TRANSFERS (Dollars in Thousands)

Interfund receivable and payable balances are the result of short-term loans between funds that are expected to be repaid during the next fiscal year, as well as amounts due for services provided. The $27,117 balance is comprised of several items, including a loan of $3,418 from the General Fund to the PFFA capital projects fund, in order to fund expenditures related to the PFFA Lease Revenue Bonds until eligible costs are reimbursed from the trustee held funds, and a loan of $4,913 from General Fund to the TOT Fund was made to cover a cash deficit. In addition, a loan was made from the General Fund to the Grants Special Revenue Fund and the Capital Grants Fund of $15,986 and $2,781, respectively, in order to cover negative cash resulting from deferred inflows of resources (unavailable grant revenue).

	Benefiting Fund (Payable)
Contributing Fund (Receivable)	Nonmajor Governmental
General Fund	$ 27,117

Interfund Working Capital Advance (WCA) balances are the result of loans between funds (recorded as advances to/from other funds) that are expected to be repaid in excess of one year. The $733 balance consists of an advance from the General Fund to Civic San Diego, mainly for administrative costs.

	Benefiting Fund (Payable)
Contributing Fund (Receivable)	Nonmajor Governmental
General Fund	$ 733

Interfund transfers result from the transfer of assets without the expectation of repayment. Transfers are most commonly used to (1) move revenues from the fund in which it is legally required to collect them into the fund which is legally required to expend them, including TOT and TransNet funds collected in said funds but legally spent within the General Fund, (2) utilize unrestricted revenues collected in the General Fund to finance various programs accounted for in other funds, in accordance with budgetary authorizations, and (3) move tax revenues collected in the special revenue funds to capital projects and debt service funds to pay for the capital projects and debt service needs during the fiscal year. Interfund transfer balances for the year ended June 30, 2018 are as follows:

	Benefiting Fund						
Contributing Fund	General Fund	Nonmajor Governmental	Sewer Utility	Water Utility	Nonmajor Enterprise	Internal Service	Total
General Fund	$ —	$ 44,319	$ 563	$ 495	$ 556	$ 248	$ 46,181
Nonmajor Governmental	47,231	51,450	—	—	1,215	—	99,896
Sewer Utility	—	24	—	—	—	2,000	2,024
Water Utility	—	14	1,228	—	—	1,000	2,242
Nonmajor Enterprise	—	17	—	—	573	—	590
Internal Service	—	6	—	—	—	—	6
Total	$ 47,231	$ 95,830	$ 1,791	$ 495	$ 2,344	$ 3,248	$ 150,939

15. RISK MANAGEMENT (Dollars in Thousands)

The City is exposed to various risks of loss related to torts, including theft of, damage to, and destruction of assets, errors and omissions, injuries to employees, and natural disasters. The City is self-insured for general liability, workers' compensation and long-term disability (LTD) claims, and also maintains contracts with various insurance companies to manage excessive risks.

The City's Self Insurance Retention (SIR) amount for general liability is $3,000 per occurrence. Above the SIR, the City has a $2,000 individual corridor deductible (annual aggregate). The City maintains excess general liability insurance policies in collaboration with a statewide joint powers authority risk pool, the California State Association of Counties-Excess Insurance Authority (CSAC-EIA) for amounts up to $50,000 per occurrence (inclusive of the $3,000 self-insured retention for the public liability).

The City is fully self-insured for its workers' compensation and long-term disability (LTD) programs. Workers' compensation activity is reported within the General Fund. All operating funds of the City contribute an amount equal to a specified rate multiplied by the gross salaries of the fund. These payments are treated as operating expenses in the contributing funds and operating revenues in the General Fund. The Long-Term Disability Fund is reported in the Miscellaneous Internal Service Fund. Similarly, all operating departments of the City contribute an amount equal to a specified rate multiplied by the gross salaries of the fund. These payments are treated as operating expenses in the contributing funds and operating revenues in the Miscellaneous Internal Service Fund.

Estimated liabilities for general liability, workers' compensation, and long-term disability as of June 30, 2018 were determined based on the results of independent actuarial valuations and include amounts for claims incurred but not reported. Claims liabilities were calculated considering the effects of inflation, recent claim settlement trends including frequency and amount of payouts, and other economic and social factors. Non-incremental claims adjustment expenses have been included in the actuarial calculations for general liability. Estimated liabilities for general liability claims have been reported in the government-wide financial statements, Sewer Utility Fund, Water Utility Fund, and the Successor Agency Private-Purpose Trust Fund. Estimated liabilities for workers' compensation claims have been recorded in the government-wide financial statements, the Water Utility Fund, Sewer Utility Fund, Nonmajor Enterprise Funds, and Internal Service Funds. Estimated liabilities for long-term disability claims are recorded in the Miscellaneous Internal Service Fund.

A reconciliation of total liability claims for the City's general liability, workers' compensation, and long-term disability obligations, showing current and prior year activity is presented below:

	General Liability	Workers' Compensation & Long-Term Disability	Total
Balance, July 1, 2016	$ 198,362	$ 259,739	$ 458,101
Claims and Changes in Estimates	39,678	40,766	80,444
Claim Payments	(37,174)	(31,928)	(69,102)
Balance, June 30, 2017	200,866	268,577	469,443
Claims and Changes in Estimates	44,552	41,346	85,898
Claim Payments	(44,336)	(32,445)	(76,781)
Balance, June 30, 2018	$ 201,082	$ 277,478	$ 478,560

The City, in collaboration with CSAC-EIA, maintains an "All Risk" policy, which includes flood coverage for amounts up to $25,000 per occurrence under the primary policy and with access to additional excess limits. The policy is subject to a $25 deductible. Additional excess limits are available as part of the City's insurance property program through CSAC-EIA, where coverage "towers" with designated coverage limits are provided. Coverage towers are groups of properties, which are diversified based on occupancy (risk-pool members) and geographical location. The City participates in four coverage towers with dedicated coverage limits of $300,000 for "All Risk" and Flood. If tower limits are exhausted, additional coverage may be accessible by any of the towers in the risk-pool. These additional coverage limits are shared by all towers in the risk-pool and may not exceed an aggregate amount of $300,000 for "All Risk" and Flood, for all claims made by all towers during the coverage period. Limits include coverage for business interruption losses for designated leased properties for various financings. There is no sharing of limits among the City and member counties of the CSAC-EIA pool, unless the City and member counties are mutually subject to losses from the same occurrence. Limits and coverage may be adjusted periodically in response to the requirements of bond financed projects, grant requirements, acquisitions, and in response to changes in the insurance marketplace.

CSAC-EIA's insurance property program structure of dedicated tower limits also applies to earthquake coverage. The City participates in four coverage towers. Earthquake coverage is provided for designated buildings/structures in the amount of $100,000 under primary policies per tower. If tower limits are exhausted, additional coverage may be accessible by any of the towers in the risk pool. The additional coverage limits are shared by all towers in the risk-pool and may not exceed an aggregate amount of $440,000 for all claims made by all towers during the coverage period, including coverage for business interruption caused by earthquake at certain designated locations. Earthquake coverage is subject to a deductible of 2% of total insured values per unit per occurrence, subject to a $100 minimum. The City's earthquake coverage is purchased jointly and limits are shared with the member counties in the CSAC-EIA pool. Due to the potential for geographically concentrated earthquake losses, the CSAC-EIA pool is geographically diverse to minimize any potential sharing of coverage in the case of an individual earthquake occurrence. Depending upon the availability and affordability of earthquake insurance, the City may elect not to purchase such coverage in the future, or the City may elect to increase the deductible or reduce the coverage from present levels.

The City is a public agency subject to liability for the dishonest and negligent acts or omissions of its officers and employees acting within the scope of their duty ("employee dishonesty" and "faithful performance"). The City participates in the joint purchase of insurance covering employee dishonesty and faithful performance through the CSAC-EIA pool. Coverage is provided in the amount of $15,000 per occurrence, subject to a $25 deductible.

During fiscal year 2018, there were no significant reductions in insurance coverage from the prior year. For each of the past three fiscal years, settlements which were covered by insurance have not exceeded the City's insurance coverage limits. However, some losses may not be covered by insurance and would need to be funded by the City. The City can give no assurance that particular losses will be covered or that coverage providers will be able to pay recorded losses. See Note 18 for additional information.

16. FUND BALANCE / NET POSITION DEFICITS (Dollars in Thousands)

The Capital Grants Capital Projects Fund has a fund balance deficit of $2,209, which represents deferred inflows of resources related to grant revenue which did not meet the City's availability criteria.

The implementation of GASB 68 and GASB 75 resulted in a significant impact to the net position of most proprietary funds. The Development Services Fund has a net position deficit of $67,973. The Central Stores and Publishing Services Internal Service Funds have net position deficits of $2,951 and $1,221, respectively. These deficits are primarily due to the Net Pension Liability (NPL) and Net Other Postemployment Benefits Liability (OPEB) expected to be repaid over the long-term. Generally, the NPL is reduced annually as the City continues to fully pay its ADC for the Pension Plan, which includes amortized payments of the unfunded portion of the accrued liability (see Note 12). Similarly, the City continues to pay the annual defined benefit OPEB allocation per the authorized agreement (see Note 13). The cost recovery rates for these funds are developed to fully fund the respective Pension ADC and OPEB obligation on a yearly basis. As the City continues to fully pay its ADC for the Pension Plan, the net position deficit of these funds will be corrected over the long-term.

The Private-Purpose Trust Fund (Successor Agency) has a net position deficit of $482,361, which represents unfunded liabilities of the former RDA, primarily related to long-term debt obligations. On an annual basis, the Successor Agency submits funding requests to the County of San Diego, through Recognized Obligation Payment Schedules (ROPS). Funding is then allocated to the Successor Agency from the County's Redevelopment Property Tax Trust Fund (RPTTF) to satisfy obligations of the corresponding twelve month period. As obligations are funded twice annually and liabilities are paid, the net position deficit will continue to decrease. Once all the obligations of the Successor Agency are fully satisfied, the deficit will be eliminated.

17. COMMITMENTS (Dollars in Thousands)

Encumbrances

The City uses encumbrances to control expenditures for the year which generate contractual and regulatory commitments that will result in expenses/expenditures in future years. Encumbrances represent commitments related to contracts not fully performed and purchase orders not yet filled. It is the City's policy to pay for operating encumbrances remaining at the end of the fiscal year from the following year's appropriations, not from fund balance. Encumbrances related to capital projects are funded through the current year appropriated budget, which carries over to the following fiscal year. Operating and capital contractual commitments for which funds have been encumbered as of June 30, 2018 are reflected in the table below.

General Fund	$ 29,866
Nonmajor Governmental Funds	261,773
Sewer Utility	90,410
Water Utility	201,882
Nonmajor Enterprise Funds	67,534
Total Contractual Commitments	$ 651,465

California Regional Water Quality Control Board Administrative Proceeding - Municipal Storm Water Permit

The State Water Resources Control Board (SWRCB) is the State agency charged with implementing the federal Clean Water Act (Clean Water Act). The SWRCB delegates its authority to nine regional boards, who implement the Clean Water Act and the California Water Code in their respective regions. The Regional Water Quality Control Board San Diego Region (RWQCB) has jurisdiction over the San Diego area. The RWQCB issues the Municipal Storm Water National Pollutant Discharge Elimination System Permit (Municipal Permit) as required by the Clean Water Act. Under the Municipal Permit, the City must comply with water quality requirements established by the RWQCB by maintaining and operating storm drain systems, eliminating dry weather flows and reducing pollutants in storm water runoff. The RWQCB has established specific numeric limitations on the maximum amount of pollutants that can be received by some of the City's six watersheds. The RWQCB periodically conducts water quality tests to determine if the receiving waters are meeting water quality requirements.

The Municipal Permit also requires the City to develop Water Quality Improvement Plans (Improvement Plans) to identify and address the highest priority water quality problems, including all of the City's existing storm water quality regulatory deadlines between fiscal year 2012 and fiscal year 2035 for each of the six watersheds within the City's jurisdiction. These Improvement Plans were reviewed and accepted by the RWQCB in March 2016. In November 2018, the City updated its estimate for implementation costs for the period between fiscal years 2019-2035 as follows:

Operating Cost Estimate	$ 1,249,265
Capital Cost Estimate	1,879,160
Total	$ 3,128,425

These estimates could be higher or lower depending on numerous factors, including but not limited to, changes in regulatory standards; science and technology advancements; and new impairments that could be identified by the RWQCB as future water quality tests are conducted. In June 2017 the RWQCB adopted Order No. R9-2017-0077 which directs Municipal Permit holders to control trash discharges to water bodies (State Trash Policy). The State Trash Policy will be included in the next Municipal Permit reissuance, which is anticipated to be adopted in fiscal year 2020, and estimated funding needs to comply range from a combined total of $12,000

to $17,000 over 10 years beginning in fiscal year 2020. Most of these compliance activities represent pollution prevention or control obligations with respect to current storm water operations and are not subject to accrual in the basic financial statements.

The City Storm Water Division's estimated costs to implement the Improvement Plans are higher compared to current spending levels and projected budget allocations. Estimated operating expenses budgeted for fiscal year 2019 are approximately $52,100. The estimated allocated Capital Improvement Program budget for fiscal year 2019 is approximately $39,424, which is funded primarily with General Fund revenues, TransNet, development impact fees, and debt financing proceeds. The City's storm water fees of 95 cents per month per residence generated approximately $5,809 in fiscal year 2018 and cover only a small portion of the City's annual storm water expenses.

The City is employing a multi-faceted strategy to comply with Municipal Permit requirements and reduce estimated costs to implement the Improvement Plans. First, the City is continuing to work collaboratively with the RWQCB to evaluate, and where justified with scientific data, amend regulations to reduce or eliminate certain program elements that are not needed to meet water quality targets. The City is also evaluating the possibility of extending compliance schedules to reduce annual funding needs through the U.S. Environmental Protection Agency's (USEPA) Integrated Planning Framework (IPF) program. Extending the compliance schedules may likely increase the costs of implementing the Improvement Plans. The IPF program provides a framework for municipalities to extend compliance schedules and focus on the highest priority water quality issues when Clean Water Act funding need obligations exceed specified ratepayer affordability thresholds. The RWQCB retains discretion whether to allow municipalities to utilize the IPF program, therefore the City is actively seeking RWQCB approval to incorporate the IPF program into the next five-year Municipal Permit issuance expected to be adopted during summer 2019. Subsequent to adoption of the Municipal Permit, the City must develop, submit, and obtain RWQCB approval of an Integrated Plan before any compliance schedules can be extended. Second, the City is pursuing a combination of alternative funding and financing strategies, such as grants and State Revolving Fund loans. Third, the City continues to implement pilot studies, such as studies of street sweeping, storm drain cleaning and business inspection programs, to identify cost-saving improvements to operations. Absent an increase in storm water fees or other new funding sources discussed above, the unfunded or increased compliance funding needs would continue to be paid from the General Fund.

The Municipal Permit imposes numerous obligations and requirements on the City, including requirements to ensure that the City's various waterbodies, and the storm drains discharging into them, do not contain pollutants in excess of USEPA and State-mandated numeric limits. These numeric limits, referred to as "receiving water limitations" are enforced without regard to fault, and the City can be held liable if samples collected in waterbodies downstream of any City storm drain outfalls exhibit exceedances of these receiving water limitations. Both the RWQCB and citizen stakeholders can file enforcement actions and lawsuits for violations of the receiving water limitations, with penalties for state lawsuits not to exceed $10 per violation, per day, and penalties for federal lawsuits not to exceed $54 per violation per day. Additionally, the Municipal Permit contains several regulatory deadlines through fiscal year 2035. The City has met or is projected to meet the first three regulatory deadlines, but is currently not projected to meet certain regulatory deadlines related to the Bacteria Total Maximum Daily Load (TMDL) in fiscal year 2021 due to insufficient funding and the time requirements to implement capital projects. Additionally, the City will not be able to meet interim deadlines for the Chollas Creek TMDL while the SWRCB and USEPA reviews revisions to critical calculations related to compliance. These revisions were approved by the RWQCB in February 2017, however they must also be approved by the SWRCB, the California Office of Administrative Law (CAOAL), and the USEPA before they can be fully adopted. It is anticipated that the SWRCB will adopt these revisions by April 2019, after which they will be routed to the CAOAL to confirm that all public noticing requirements were met, and lastly to the USEPA for final approval (anticipated July 2019). The City is projected to meet the Chollas Creek TMDL interim compliance deadlines given these revisions, however the City will be exposed to litigation from third parties during the time period between the first deadline (October 22, 2018) and final approval of the revisions (anticipated March 2019). As discussed above, the City is currently pursuing a multi-faceted strategy to meet these regulatory deadlines that includes seeking regulatory adjustments, pursuing alternative funding sources, and reducing funding needs through program improvements. If the City does not meet these required storm water regulations by the compliance deadlines, it is possible that the RWQCB could levy fines and penalties on the City of $10 per day per violation and the USEPA could levy penalties of up to $52 per day per violation. Each storm drain outfall that flows to a receiving water body may be assessed as a

separate violation and therefore there could be more than one violation on any particular day. Additionally, should the City fall out of compliance, it could be exposed to litigation from third parties.

California Department of Public Health Compliance Order

In 1997, the State of California Department of Public Health (DDW) issued a Compliance Order requiring the City to correct operational deficiencies and begin necessary capital improvements related to the City's water system. The Compliance Order was last amended in May of 2007 and included additional items that were not in the original Compliance Order. As amended, the Compliance Order will remain in effect until the projects and pipeline replacement requirements are completed.

The Public Utility Department expects to award the remaining water system projects by calendar year 2021, which will fulfill the final requirements of the Compliance Order. For fiscal years 2019 through 2021, the City estimates Compliance Order project costs to total approximately $56,900. The Public Utilities Department expects to fund these commitments through a combination of existing net position, present and future system revenues, and financing proceeds secured by system revenues.

Agreement Relative to Modified Permit for the Point Loma Wastewater Treatment

In June 2010, the City received a renewal of the Modified Permit for the Point Loma Wastewater Treatment Plant (Pt. Loma) and agreed to identify opportunities to maximize recycling wastewater for potable and non-potable uses. That permit expired in July 2015 and was administratively continued while the regulatory agencies completed work on the renewal application. In August 2017, the USEPA, in conjunction with the RWQCB, issued the final approval renewing the Modified Permit and the waiver from secondary treatment standards for another 5 years. The permit term took effect October 1, 2017 and expires on September 30, 2022.

The Modified Permit renewal was based on the compliance with the Clean Water Act requirements, progress of the Pure Water San Diego Program (Program), and a reduction in permitted emissions from the previous permit level. The Program is designed to reduce discharge into the ocean from Pt. Loma while providing a new local source of potable water for the City. The renewal recognized the value of the Program in the early phases of implementation, and it is anticipated that Program continuance can be reflected in future permits. The first phase of the Program is estimated to cost approximately $1,477,000 of which, approximately $612,000 will be allocated to the Sewer Utility Fund, and approximately $865,000 will be allocated to the Water Utility Fund. The first phase of the Program is anticipated to be operational by early calendar year 2024.

18. CONTINGENCIES (Dollars in Thousands)

FEDERAL AND STATE GRANTS

The City recognizes as revenue grant monies received as reimbursement for costs incurred related to certain Federal and State programs it administers. Although the City's Federal grant programs are audited in accordance with the requirements of the Federal Single Audit Act of 1984, the Single Audit Act Amendments of 1996, and the related U.S. Office of Management and Budget Circular A-133 and 2 CFR 200 Uniform Guidance as applicable based on the date of the award, these programs may be subject to financial and compliance audits by the reimbursing agencies. The amount, if any, of expenditures which may be disallowed by the granting agencies cannot be determined at this time. The Single Audit for fiscal year 2018 is in process.

LITIGATION AND REGULATORY ACTIONS

The City is a defendant in lawsuits pertaining to material matters, including claims asserted, which are incidental to performing routine governmental and other functions. This litigation includes, but is not limited to: actions commenced and claims asserted against the City arising out of alleged torts; alleged breaches of contracts; alleged violations of law; and condemnation proceedings. The City received 2,121 notices of claims in fiscal year 2018.

As of June 30, 2018, the City estimates the amount of tort and non-tort liabilities to be $201,082, which has been reported in the government-wide statement of net position, the proprietary funds financial statements, and the fiduciary funds financial statements. The liability was actuarially determined and was supplemented by information provided by the City Attorney with respect to certain large individual claims and proceedings. The liability recorded is the City's best estimate based on information available as of the issuance of this report. The City Attorney also estimates that in the event of an adverse ruling, certain pending lawsuits and claims have a reasonable possibility of resulting in an additional liability, in the aggregate, ranging from $0 to $213,382. However, the potential liabilities related to these claims are not individually accrued because it is not probable that a loss has been incurred as of June 30, 2018.

Additional information on litigation regarding the Pension Plan can be found in the introductory section of Note 12.

POLLUTION REMEDIATION OBLIGATIONS

A pollution remediation obligation is an obligation to address the current or potential detrimental effects of existing pollution by participating in remediation activities. The following items are contingent matters concerning the City. More information regarding Commitments of the City may be found in the preceding Note 17.

Los Peñasquitos Lagoon Sedimentation Total Maximum Daily Load (TMDL)

The City is a listed responsible party regarding the sedimentation of Los Peñasquitos Lagoon. This TMDL was adopted by the State of California in July 2014. The TMDL included requirements for sediment reductions in the Los Peñasquitos Watershed and the establishment of 84 acres of new salt marsh habitat in the Los Peñasquitos Lagoon by July 2034. The habitat restoration requirements associated with the establishment of 84 acres of salt marsh habitat represent pollution remediation obligations; however any estimated costs cannot be reasonably determined at this time pending the development of the final concept design for the restoration of Los Peñasquitos Lagoon.

Chollas Creek Mouth Sediment Investigative Order

On October 26, 2015, the Regional Water Quality Control Board (RWQCB) released the Chollas Creek Mouth Sediment Investigative Order (SIO) R9-2015-0058. The order names the City as one of the responsible parties to determine if sediment contamination at the

mouth of Chollas Creek in San Diego Bay and potential sediment contamination of the tidal prism of Chollas Creek has occurred. The responsible parties submitted a Phase I monitoring work plan to the Regional Board to evaluate the current nature and extent of impairment related to contaminated sediments in the mouth of Chollas Creek and the Chollas Creek tidally influenced area. Source identification studies of any potential sediment contamination within the investigation area were conducted. The Order required the development of the Phase 2 work plan, which was submitted on August 30, 2017, and monitoring was performed to identify the sources of impairment found during Phase 1. The final monitoring report was submitted to the RWQCB on March 15, 2018, and their final determination is pending as of this report date. Costs of remediation cannot be estimated until the RWQCB determines if there are problems, and if so, the cleanup levels will be negotiated with and ultimately imposed by the RWQCB. In addition, the responsible parties will then need to negotiate the allocation of clean up responsibilities.

Boat Channel at Naval Training Center (NTC)

The old Naval Training Center (NTC) was closed and, with the exception of the Boat Channel, the property was conveyed to the City under the Base Realignment and Closure (BRAC) process that culminated in a Memorandum of Agreement (MOA) between the City and the U.S. government (Navy) in 2000. NTC was redeveloped as Liberty Station by the Corky McMillin Companies. The transfer of the NTC Boat Channel was excluded from the conveyance because it was polluted. The MOA requires the Navy to remediate the Boat Channel and obtain appropriate regulatory site closure prior to conveyance. The Navy has completed a limited clean-up of the Boat Channel. It is in the process of finalizing reports and seeking RWQCB approval of the clean-up. The City believes the clean-up is deficient for a number of reasons including (i) that the original site investigation and characterization were inadequate, (ii) the remediation did not address the entirety of the Boat Channel property, and (iii) the remediation did not clean up the Boat Channel to current regulatory standards. The City has repeatedly made these objections known to the Navy and the RWQCB. The Navy claims the City is partly responsible for discharges which polluted the channel and therefore is responsible to pay a portion of the remediation costs. The City denies the Navy's claim for a number of reasons, including the terms of the MOA and the fact that military facilities (both NTC and the Marine Corps Recruit Depot) surrounded the channel for decades, and most if not all pollutant discharges were Navy-originated. The City cannot estimate its apportioned responsibility for such remediation costs, if any, at this time.

San Diego Bay's Laurel Hawthorne Central and East Embayment Draft Sediment Investigative Orders R9-2018-033,34,35

On July 25, 2018, the RWQCB released three draft Investigative Orders (IOs) for the assessment of the Laurel Hawthorne Embayment (LHE). The City was named on one of the three IOs as a responsible party to determine the extent and magnitude of sediment contamination in LHE at the terminus of the City's 84-inch outfall. It is anticipated the final IO will be issued in the winter of 2019 requiring the development of a draft work plan for both land and water investigations is due within 180 days of final IO issuance. Costs of the remediation cannot be estimated until the investigations are completed to determine if there are problems, and if so, the cleanup levels will be negotiated with and ultimately imposed by the RWQCB. In addition, the responsible parties will then need to negotiate the allocation of clean up responsibilities.

San Diego Bay Adjacent to Tenth Avenue Marine Terminal Draft Sediment Investigative Order R9-2017-0081 and
San Diego Bay Adjacent to Continental Maritime Draft Sediment Investigative Order R9-2017-0082

On August 4, 2017, the RWQCB issued the final IO requiring the responsible parties to submit a Sediment Chemistry Assessment Work Plan in 180 days evaluating the current nature and extent of impairment. On January 31, 2018, the responsible parties submitted the work plans for both land and water that were accepted by the RWQCB. The waterside monitoring occurred in July 2018, and the landside monitoring occurred in the Fall of 2018 and will occur in the Spring of 2019. The monitoring reports are due to the RWQCB within 180 days after the date of the last scheduled work plan activity. Costs of remediation cannot be estimated until the investigations are completed to determine if there are problems, and if so, the cleanup levels will be negotiated with and ultimately imposed by the RWQCB. In addition, the responsible parties will then need to negotiate the allocation of clean up responsibilities.

San Diego River Draft Investigative Order, R9-2018-0021

On May 21, 2018, the RWQCB released the draft IO R9-2018-0021 that named the City as one of ten responsible parties to identify and quantify the relative contributions of human fecal material in discharges to the San Diego River, how it is transported, and improvements to implementation procedures. Costs to improve water quality cannot be estimated until the investigation is completed to determine if there are problems, and if so, the cleanup efforts will be negotiated with and ultimately imposed by the RWQCB.

19. DEBT WITHOUT GOVERNMENT COMMITMENT (Dollars in Thousands)

The City and/or the former RDA of the City have authorized the issuance of certain Special Assessment/Special Tax Bonds, Parking Revenue Bonds, Tax Allocation Bonds, and Loans. The City has no legal obligation to make payment on these bonds or loans and has not pledged any City assets as a guarantee to the bondholders/lenders. These bonds and loans do not constitute indebtedness of the City. The bonds are payable solely from payments made on and secured by a pledge of the acquired funds, other monies held for the benefit of the bondholders pursuant to the bond indentures, property liens and other loans. Accordingly, no liability has been recorded in the City's government-wide statement of net position. Long-term liabilities of the former RDA are reported in the Successor Agency Private-Purpose Trust Fund.

The following sections describe the outstanding debt without government commitment:

a. Special Assessment/Special Tax Bonds

The City, on behalf of the Special Assessment Districts (AD) and the Community Facilities Districts (CFD), have issued debt to finance infrastructure improvements and facilities necessary to facilitate development of the properties within the respective districts located in the City. The special assessment and special tax bonds are secured by special assessment and special tax liens, respectively, on the real property within the districts and are not direct liabilities of the City. The City has no fiscal obligation beyond the balances in designated AD and CFD funds for any related bond payments. If delinquencies occur beyond the amounts held in the reserve funds created from bond proceeds, the City has no duty to pay the delinquency out of any available funds of the City. The City acts solely as the agent in the collection and remittance of the assessments and special taxes for these ADs and CFDs and initiates foreclosure proceedings as required under the bond covenants.

As of June 30, 2018, the status of each of the special assessment/special tax bonds issued is as follows:

	Original Amount	Balance Outstanding June 30, 2018
Community Facilities District No.2 (Santaluz), Improvement Area No. 1, Series 2011 A	$ 51,680	$ 37,915
Community Facilities District No.1 (Miramar Ranch North), Series 2012	24,795	10,160
Community Facilities District No.3 (Liberty Station), Series 2013	15,770	13,820
Assessment District No.4096 (Piper Ranch), Issued July 2013	3,830	3,295
Community Facilities District No.2 (Santaluz), Improvement Area No. 3, Series 2015	3,380	3,015
Community Facilities District No.2 (Santaluz), Improvement Area No. 4, Series 2015	6,215	5,740
Community Facilities District No.4 (Black Mountain Ranch Villages), Series 2016	16,435	15,790
Total Special Assessment / Special Tax Bonds	$ 122,105	$ 89,735

b. Parking Revenue and Tax Allocation Bonds

The former RDA issued parking revenue bonds for the purpose of financing certain public parking facilities and tax allocation bonds in order to finance or refinance redevelopment activities. The parking revenue and tax allocation bonds are secured by certain pledged revenues of the former RDA and are not direct liabilities of the City. In no event will the bonds be payable out of any funds or properties other than those of the Successor Agency or former RDA, along with any monies held by the Trustee in the funds and accounts established under the Indentures, and any amounts, including proceeds of the sale of the bonds, held in any fund or account established pursuant to the Indentures.

As of June 30, 2018, the status of each of the parking revenue and tax allocation bonds issued is as follows:

	Original Amount	Balance Outstanding June 30, 2018
Revenue Bonds:		
Centre City Parking, Series 1999 A	$ 12,105	$ 5,275
Centre City Parking, Series 2003 B	20,515	6,100
Total Revenue Bonds	32,620	11,375
Tax Allocation Bonds:		
Centre City Redevelopment Project, Series 2001 A	58,425	11,181
Successor Agency Redevelopment Refunding, Series 2016 A	145,080	133,740
Successor Agency Redevelopment Refunding, Series 2016 B	30,105	27,445
Successor Agency Redevelopment Refunding, Series 2017 A	64,565	64,565
Successor Agency Redevelopment Refunding, Series 2017 B	155,400	155,400
Total Tax Allocation Bonds	453,575	392,331
Total Bonds	$ 486,195	$ 403,706
Accreted Interest Payable on Tax Allocation Bonds:		
Centre City Redevelopment Project, Series 2001 A		$ 16,221

c. Loans Payable

The former RDA issued loans for the purpose of financing redevelopment activities. The loans are secured by certain pledged revenues of the former RDA. Senate Bill 107 Local Government Section 34173 (h)(1) states "Repayment of loans created under this subdivision shall be applied first to principal, and second interest, and shall be subordinate to other approved enforceable obligations. As of June 30, 2018, the remaining balance of $10,696 of which $3,689 was for interest was fully paid off on the Naval Training Center Loan. Additional principal payment of $9,156 was paid towards the Naval Training Center Section 108 Loan and $10,000 towards Miscellaneous Loans.

	Original Amount	Balance Outstanding June 30, 2018
Loans Payable:		
City of San Diego - Naval Training Center Section 108, Dated June 2004	$ 5,910	$ 1,608
City of San Diego - HUD Settlement Agreement, Various Dates	45,311	10,768
City of San Diego - Miscellaneous, Various Dates	45,761	27,261
City of San Diego - Naval Training Center, Dated April 2002	8,300	—
Total Loans Payable	$ 105,282	$ 39,637
Accrued Interest Payable:		
City San Diego - Naval Training Center Section 108	$ 1,899	$ 1,899
City San Diego - HUD Settlement Agreement	33,476	33,204
City of San Diego - Miscellaneous	105,733	105,733
City of San Diego - Naval Training Center	3,689	—
Total Accrued Interest Payable	$ 144,797	$ 140,836

d. Amortization Requirements

The annual requirements to amortize the private-purpose trust fund long-term debt outstanding as of June 30, 2018, including interest payments to maturity, are as follows:

Year Ending June 30	Loans Payable		Revenue Bonds	
	Principal	Interest	Principal	Interest
2019	$ 21,271	$ 16,801	$ 1,545	$ 614
2020	—	—	1,635	524
2021	—	—	1,640	431
2022	—	—	1,730	336
2023	—	—	1,005	256
2024-2028	—	—	3,820	392
2029-2033	—	—	—	—
Unscheduled [1]	18,366	124,035	—	—
Total	$ 39,637	$ 140,836	$ 11,375	$ 2,553

Year Ending June 30	Tax Allocation Bonds		
	Principal	Unaccreted Appreciation [2]	Interest
2019	$ 28,562	$ 918	$ 15,040
2020	29,576	2,159	14,215
2021	28,078	2,297	13,262
2022	24,017	2,443	12,300
2023	22,084	2,576	11,386
2024-2028	114,964	13,716	42,494
2029-2033	73,175	—	22,906
2034-2038	42,180	—	10,777
2039-2043	29,695	—	1,892
Total	392,331	24,109	144,272
Add: Accreted Appreciation through June 30, 2018	16,221	—	—
Total	$ 408,552	$ 24,109	$ 144,272

[1] The loans payable to the City in the amount of $18,366 and the associated accrued interest of $124,035 are payable dependent on each annual approved Recognized Obligation Payment

[2] Unaccreted Appreciation represents the amount to be accreted in future years regardless of the timing of cash flows.

e. Change in Long-Term Liabilities

The following is a summary of changes in long-term liabilities reported in the private-purpose trust fund for the year ended June 30, 2018. The effects of bond accretion, bond premiums and discounts are reflected as adjustments to long-term liabilities.

	Beginning Balance	Additions	Reductions	Ending Balance
Liability Claims	$ 68,907	$ —	$ (610)	$ 68,297
Loans Payable	66,303	—	(26,666)	39,637
Revenue Bonds	12,840	—	(1,465)	11,375
Unamortized Bond Premiums and Discounts	(47)	—	5	(42)
Net Revenue Bonds	12,793	—	(1,460)	11,333
Tax Allocation Bonds	407,007	—	(14,676)	392,331
Interest Accretion	15,614	1,456	(849)	16,221
Balance with Accretion	422,621	1,456	(15,525)	408,552
Unamortized Bond Premiums and Discounts	29,420	175	(2,015)	27,580
Net Tax Allocation Bonds	452,041	1,631	(17,540)	436,132
Interest Accrued on City Loans	144,525	—	(3,689)	140,836
Total	$ 744,569	$ 1,631	$ (49,965)	$ 696,235

f. Defeased Debt

On September 1, 2017, the Centre City Series 2008A bonds were redeemed and on October 1, 2017, the PFFA Series 2007A&B bonds were redeemed. As of June 30, 2018, the principal amounts payable from escrow funds established for refunding bonds are as follows:

Successor Agency Bonds Refunded in 2017 Escrow Accounts (February 9, 2017)	Amount	Redemption Date
North Park Redevelopment Project Subordinate Tax Allocation Bonds, 2009 Series A	$ 13,930	November 1, 2019
City Heights Redevelopment Project Tax Allocation Bonds, 2010 Series A (Tax Exempt)	5,635	September 1, 2020
City Heights Redevelopment Project Tax Allocation Bonds, 2010 Series B (Taxable)	9,590	September 1, 2020
Crossroads Redevelopment Project Tax Allocation Bonds, 2010 Series B (Taxable)	4,540	September 1, 2020
Naval Training Center Redevelopment Project Tax Allocation Bonds, 2010 Series A	17,280	September 1, 2020
San Ysidro Redevelopment Project Tax Allocation Bonds, 2010 Series A (Tax Exempt)	2,900	September 1, 2020
San Ysidro Redevelopment Project Tax Allocation Bonds, 2010 Series B (Taxable)	4,275	September 1, 2020
Housing Set-Aside Tax Allocation Bonds, 2010 Series A (Taxable)	55,930	September 1, 2020
Total Tax Allocation Financing Bonds	$ 114,080	

20. CLOSURE AND POSTCLOSURE CARE COST (Dollars in Thousands)

State and federal laws and regulations require that the City place a final cover on its Miramar Landfill site when it stops accepting waste and to perform certain maintenance and monitoring functions at the site for thirty years after closure. In addition, federal and state regulations require that the City set aside funds annually to fund closure costs and to demonstrate financial resources sufficient to meet certain corrective actions.

Closure and Postclosure Care Liability

The City is currently permitted by the State to keep the landfill open through fiscal year 2025. However, based on recent changes in recycling policies and compaction methods, the City projects the life expectancy of the landfill will be extended through 2030. Although closure and postclosure care costs will be paid only near or after the date that the landfill stops accepting waste, the City reports a portion of these closure and postclosure care costs as an operating expense in each period based on landfill capacity used as of each financial statement date.

The $53,003 reported as landfill closure and postclosure care liability as of June 30, 2018 represents the cumulative amount reported to date based on the use of 87% of the estimated capacity of the landfill. The City will recognize the remaining estimated cost of closure and postclosure care of $7,693 as the remaining estimated capacity is filled. These amounts are based on what it would cost to perform all closure and postclosure care as of June 30, 2018. These cost estimates are subject to changes resulting from inflation, deflation, technology, or changes in applicable laws or regulations.

Funding Requirements

As of June 30, 2018, the City is in compliance with state and federal laws and regulations requiring annual contributions to finance closure costs. At the end of fiscal year 2018, cash or equity in pooled cash and investments of $30,668 was held for this purpose. The closure/postclosure care liability amount of $53,003 reported in the Environmental Services Enterprise Fund includes $26,719 for closure costs. The amount by which the restricted cash exceeds the closure liability, or $3,949, is included as a component of restricted net position in the Environmental Services Enterprise Fund. The City has pledged its greenery recycling revenues as financial assurance for postclosure maintenance costs and is not required to advance fund postclosure care costs.

As of June 30, 2018, the City is in compliance with state and federal laws and regulations to demonstrate financial resources sufficient to conduct corrective action for all known or reasonably foreseeable releases from the Miramar Landfill site, meeting the cost estimate approved by the San Diego Regional Water Quality Control Board. At the end of fiscal year 2018, cash or equity in pooled cash and investments of $1,606 was held for this purpose. This amount is reported as restricted net position in the Environmental Services Fund.

For both closure/postclosure care and corrective action, the City expects that future inflation costs will be paid from interest earnings on these annual contributions. However, if interest earnings are inadequate or additional closure/postclosure care requirements are imposed (due to changes in technology or applicable laws or regulations, for example), these costs may need to be paid by charges to future landfill users or from other sources. At the end of fiscal year 2018, accrued interest of $143 is included as a component of restricted net position in the Environmental Services Fund.

21. OPERATING AGREEMENTS (Dollars in Thousands)

City of San Diego and Padres L.P.

On February 1, 2000, the City entered into a Joint Use and Management Agreement (Agreement) with the San Diego Padres baseball team (Padres) governing the rights and duties of the City and Padres with respect to the use and operation of the Petco Park Ballpark Facility (Facility). The Padres own 30% and the City owns 70% of the Facility, which is shown as a capital asset on the City's statement of net position. The occupancy agreement expires on December 14, 2033 and includes the right of the Padres to exercise two five-year extensions. Upon expiration, the Padres' ownership interest will automatically transfer to the City. Under the terms of the Agreement, the Padres are responsible for Facility operation and management, including maintenance, repairs and security required to preserve its condition. The City is responsible for paying certain expenses associated with the operation and maintenance of the Facility, subject to certain inflationary adjustments. In fiscal year 2018, the City paid approximately $4,589 related to the operation and maintenance of the Facility.

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22. FUND BALANCES (Dollars in Thousands)

The following table provides additional detail regarding the City's governmental fund balances:

	General Fund	Other Governmental Funds	Total Governmental Funds
NONSPENDABLE			
Legally/Contractually Required to be Maintained Intact	$ —	$ 17,836	$ 17,836
Not in Spendable Form	863	206	1,069
Total Nonspendable	863	18,042	18,905
RESTRICTED			
Low and Moderate Income Housing	—	338,825	338,825
Facilities Benefit Assessments	—	267,244	267,244
Grants [1]	243	179,469	179,712
Underground Surcharge	—	174,094	174,094
Impact Fees	—	147,939	147,939
Capital Outlay - Unbudgeted [1]	—	116,897	116,897
Emergency Reserve	96,700	—	96,700
Capital Outlay - Budgeted	—	84,609	84,609
Developer Contributions	—	37,521	37,521
Tobbacco Settlement Revenue Funding Corporation	—	35,700	35,700
Parking Meter Districts	—	34,757	34,757
Tourism Marketing Districts	—	34,328	34,328
Maintenance Assessment Districts	—	22,726	22,726
TransNet	—	21,960	21,960
Special Gas Tax Street Improvement	12,057	—	12,057
Environmental Growth	9,392	—	9,392
Traffic Congestion Relief (Prop 42)	—	6,964	6,964
Fiesta Island Sludge Mitigation	—	6,824	6,824
Civic San Diego	—	5,723	5,723
Jane Camerson Estate	—	5,721	5,721
Library Donations	—	5,637	5,637
Infrastructure Fund (Prop H)	5,351	—	5,351
Parks & Recreation Districts	—	4,417	4,417
Citizens Option for Public Safety (COPS)	—	4,403	4,403
Public Facilities Financing Authority	—	4,260	4,260
6th & K Operating Fund	—	3,854	3,854
Section 108	—	3,512	3,512
Road Maintenance & Rehabilitation	3,248	—	3,248
Library Improvement	3,185	—	3,185
Miscellaneous Donations	—	2,606	2,606
Los Penasquitos Trust	—	2,342	2,342
Successor Agency Property Management	—	2,219	2,219
Seized Assets	—	2,128	2,128
Downtown PBID	—	1,880	1,880
Animal Shelter Campaign	—	1,672	1,672
Public Safety Training	—	1,660	1,660
Mt. Hope Pre-Need Trust	—	1,457	1,457
Tierrasanta Ordinance	—	1,335	1,335
San Diego Regional Revolving Loan Fund	—	1,246	1,246
Disability Surcharge (SB1186)	—	1,145	1,145
Abandoned Vehicle Abatement (AVA)	—	1,087	1,087
Other [2]	2,131	14,418	16,549
Total Restricted	132,307	1,582,579	1,714,886

	General Fund	Other Governmental Funds	Total Governmental Funds
COMMITTED			
Public Liability	$ 52,639	$ —	$ 52,639
Capital Outlay - Unbudgeted	—	45,772	45,772
Workers' Compensation	40,051	—	40,051
SDCCU Stadium Operations	—	9,499	9,499
Trench Cut Fees	—	8,330	8,330
Civil Penalty Enforcement	—	6,569	6,569
Transient Occupancy Tax	—	6,130	6,130
City TV	—	5,548	5,548
Public Art	—	3,572	3,572
SAP Support	2,595	—	2,595
Low-Income Housing Lease Revenue	—	2,366	2,366
Economic & Workforce Development	—	2,160	2,160
Information Technology	1,611	—	1,611
Automated Refuse Containers	—	1,381	1,381
Retirement UAAL SDCERS Reserve	1,212	—	1,212
Other [2]	2,375	6,584	8,959
Total Committed	100,483	97,911	198,394
ASSIGNED			
Budgeted Fund Balance	24,717	—	24,717
UNASSIGNED	95,434	(43,514)	51,920
TOTAL FUND BALANCE	$ 353,804	$ 1,655,018	$ 2,008,822

[1] Restricted Fund Balance for Grants and Capital Outlay-Unbudgeted includes $176,965 and $30,380 respectively, for long-term receivables due from the Successor Agency. These amounts are not available to satisfy liabilities of the current period.

[2] The amounts reported as "Other" are composed of a variety of restrictions and commitments less than $1,000.

23. RESTATEMENTS OF NET POSITION (Dollars in Thousands)

Implementation of GASB Statement No. 75

The City implemented GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* (GASB 75), which applies to state and local government employers who provide OPEB to employees. The accounting changes adopted to conform to the provisions of this statement were applied retroactively by restating the City's beginning net position for its Governmental Activities, Business-Type Activities, and Proprietary Funds. The restatements include the reversal of the Net OPEB Obligation under the former GASB standard, and establishing the Net OPEB Liability and prior year contribution reclassification pursuant to GASB 75. The restatement resulted in a net decrease to beginning net position of $188,417 for Governmental Activities, $54,483 for Business-Type Activities, and $63,801 for Proprietary Funds. See Note 13 for more information regarding the City's OPEB Plan.

The tables below summarize the net position restatements:

	Primary Government	
	Governmental Activities	Business-Type Activities
Net Position as of June 30, 2017, as Previously Reported	$ 4,368,781	$ 4,547,664
GASB Statement No. 75 Adjustments:		
To reverse Net OPEB Obligation	215,076	61,778
To establish Net OPEB Liability	(427,197)	(122,884)
To reclassify FY2017 OPEB Contributions to Deferred Outlows of Resources	23,704	6,623
Net Position as of June 30, 2017, as Restated	$ 4,180,364	$ 4,493,181

	Proprietary Funds			
	Sewer Utility	Water Utility	Other Enterprise	Internal Service
Net Position as of June 30, 2017, as Previously Reported	$ 2,461,738	$ 1,985,699	$ 98,745	$ 170,744
GASB Statement No. 75 Adjustments:				
To reverse Net OPEB Obligation	21,828	21,309	18,641	10,150
To establish Net OPEB Liability	(43,689)	(42,310)	(36,885)	(20,366)
To reclassify FY2017 OPEB Contributions to Deferred Outlows of Resources	2,051	2,365	2,207	898
Net Position as of June 30, 2017, as Restated	$ 2,441,928	$ 1,967,063	$ 82,708	$ 161,426

24. SUBSEQUENT EVENTS (Dollars in Thousands)

The following information describes certain events that occurred after the end of the fiscal year.

Loan Agreements

On August 30, 2018, the City's Sewer Utility Fund received an additional $960 from a $12,000 State Revolving Fund (SRF) Loan agreement with the California State Water Resources Control Board (SWRCB) for the MBC Centrifuge Project. Amendment No.4 executed on August 20, 2018 revised the loan from $12,425 to $12,000 and extended the completion of the construction to February 28, 2019. The interest rate on the loan is 1.7% and the repayment period for the loan is 20 years, beginning one year after completion of construction of the project, which is currently projected for February 2020.

On September 5, 2018, the City's Water Utility Fund received an additional disbursement of $2,124 from a $15,000 SRF Loan agreement with the SWRCB for the 69th Street and Mohawk Pump Station Project. The interest rate on the loan is 1.7% and the repayment period for the loan is 30 years, beginning one year after completion of construction of the project, which is currently projected for May 2020.

On September 12, 2018, the City's Sewer Utility Fund received the first disbursement of $3,217 from a $70,000 SRF Loan agreement with the SWRCB for the Pump Station 2 Power Reliability and Surge Protection Project. The interest rate on the loan is 1.8% and the repayment period for the loan is 30 years, beginning one year after completion of construction of the project, which is currently projected for November 2022.

On October 11, 2018, the City's Water Utility Fund received an additional disbursement of $2,632 from a $15,000 SRF Loan agreement with the SWRCB for the 69th Street and Mohawk Pump Station Project. The interest rate on the loan is 1.7% and the repayment period for the loan is 30 years, beginning one year after completion of construction of the project, which is currently projected for May 2020.

Pure Water Program

In October 2018, the City Council approved a loan that will finance nearly half of the first phase of Pure Water. The $614 million loan comes from the USEPA Water Infrastructure Finance and Innovation Act (WIFIA) Program and will cover a significant portion of the $1.47 billion project. The first phase of the project is scheduled to begin construction in 2019 and will expand potable water production capacity to produce 30 million gallons per day to reduce the use of imported water by early calendar year 2024.

On November 15, 2018, the City Council voted to authorize the bid, award, and execution of construction contracts for Pure Water of up to $1.08 billion, to establish a $103 million contingency pool for Pure Water projects, to establish an Owner-Controlled Insurance Program ("OCIP") for Pure Water projects, and to negotiate a Reservation of Rights Agreement with SDG&E that provides initial funding to SDG&E to begin design and relocation of existing gas and electrical facilities. See Note 17 for more information regarding Pure Water.

Commercial Paper Notes

On May 22, 2018, the City adopted a resolution authorizing the City of San Diego Lease Revenue Commercial Paper Program (General Fund CP) in an amount not-to-exceed $80,500. On August 14, 2018, the City adopted a resolution increasing the not-to-exceed amount to $88,500. PFFA adopted a resolution to effectuate the same increase on October 30, 2018.

Funds from the General Fund Commercial Paper notes (General Fund CP Notes) issued will be used to finance the costs of the acquisition, design, construction, installation, improvement, replacement, and equipping of certain capital improvement projects of the City and to pay costs of issuance. The General Fund CP Notes are payable from the Base Rental Payments to be made by the City pursuant to the Lease between the City and the PFFA and amounts in the funds and accounts pledged under the Indenture. The General Fund CP Notes are secured by an irrevocable transferable direct-pay letter of credit (LOC) issued by Wells Fargo Bank, National Association and will mature on such dates as determined by the City, but no later than 270 days from the date of their issuance or the date which is two business days prior to the termination date of the LOC. The LOC has an initial stated amount of $92,864, which is the sum of the principal component of $88,500 and interest component of $4,364, and a stated expiration date of November 26, 2021, unless extended or terminated sooner in accordance with its terms.

On October 26, 2018, PFFA issued tax-exempt Water CP Notes in the amount of $37,676 to finance the design, acquisition, construction, installation and improvements of components of the City's water system. The interest rates on the issued Water CP Notes were 1.68-1.70%.

On November 5, 2018, a resolution was adopted approving the proposed form and content of the offering memorandum and financing documents, and the issuance, delivery, and sale of the General Fund CP Notes.

On November 27, 2018, PFFA issued a tax-exempt General Fund CP Note in the amount of $6,868. The interest rate on the note is 1.72%.

Water Revenue Bonds

On September 27, 2018, the City adopted an ordinance authorizing the issuance and sale by PFFA of its 2018 Water Revenue Bonds in an amount not to exceed $283,000 to provide funds for the financing of projects, including refunding all outstanding Water CP Notes. On November 20, 2018, the City and PFFA adopted a resolution approving and authorizing the execution of a Bond Purchase Agreement, approving the form of a Preliminary Official Statement (POS) relating to the 2018 Water Revenue Bonds and the execution, delivery, and distribution of the final Official Statement (OS). On November 29, 2018, the City released the POS and expects to close the Water Revenue Bonds in early January 2019.

California Supreme Court Ruling on Proposition B

On August 2, 2018, the California Supreme Court overturned the Court of Appeal's decision finding that the City failed to meet and confer with City labor unions prior to placing Proposition B on the ballot in June 2012. The Supreme Court did not invalidate Proposition B, but instead remanded the PERB case to the Court of Appeal for further proceedings. It is possible that the Court of Appeal will uphold the PERB order issued in 2015 which, in part, required the City to make employees whole for pension benefits lost, offset by the value of new benefits provided to them under Proposition B. Based on the City's preliminary analysis and the actuarial work performed by the San Diego City Employees' Retirement System, the City believes that the benefits provided under Proposition B and the pension benefits the affected employees would have otherwise received under the City's defined benefit plan have comparable values; meaning the potential cost to the City as it relates to the "make-whole" provision in the PERB order is inconsequential . However, PERB did not clearly define how the value of these respective benefits should be calculated. Thus, under the PERB Order, the City

is required to negotiate with the labor unions the terms under which affected employees will be made whole. As a result, the ultimate cost to the City (if any) will be the product of these negotiations. A further consideration in implementing any “make-whole remedy” is compliance with federal tax laws and regulations, which may also restrict the remedies available through labor negotiations.

Update to Actuarial Valuation of Net Pension Liability (NPL)

On November 16, 2018, the SDCERS actuary released the GASB 67/68 report identifying changes to the City’s NPL as of the measurement date of June 30, 2018. The report indicates the NPL is $2,613,519, an increase of $91,462 primarily due to the net results of investment gains offset with a change in assumptions and an actuarial liability loss during fiscal year 2018. The City reports its NPL one year in arrears, using the measurement date of June 30, 2017. The results of the new report will be reported in the fiscal year 2019 financial statements.

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REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)

DEFINED BENEFIT PENSION PLANS AND OPEB PLAN

Torrey Pines Golf Course, La Jolla, CA

REQUIRED SUPPLEMENTARY INFORMATION (Unaudited)
June 30, 2018
(Dollars in Thousands)

GASB 67 and 68 Reporting for June 30, 2017 Measurement Date
Schedule of Changes in Net Pension Liability and Related Ratios

Total Pension Liability	FYE 2017	FYE 2016	FYE 2015	FYE 2014
Service Cost (Middle of Year)	$ 106,877	$ 93,804	$ 102,688	$ 107,003
Interest (Includes Interest on Service Cost)	613,529	573,760	554,988	537,875
Differences Between Expected and Actual Experience	71,123	21,285	46,416	—
Changes in Assumptions	249,740	620,314	—	—
Benefit Payments, Including Refunds of Member Contributions	(477,039)	(452,781)	(429,238)	(384,980)
Net Change in Total Pension Liability	564,230	856,382	274,854	259,898
Total Pension Liability, Beginning	8,946,661	8,090,279	7,815,425	7,555,527
Total Pension Liability, Ending	9,510,891	8,946,661	8,090,279	7,815,425
Plan Fiduciary Net Position				
Contributions-Employer	265,572	259,543	268,061	279,659
Contributions-Member	57,050	59,377	59,042	65,467
Net Investment Income	857,923	64,155	207,653	935,051
Benefit Payments, Including Refunds of Member Contributions	(477,039)	(452,781)	(429,238)	(384,980)
Administrative Expense	(10,778)	(10,900)	(8,693)	(10,467)
Net Change in Plan Fiduciary Net Position	692,728	(80,606)	96,825	884,730
Plan Fiduciary Net Position, Beginning	6,296,107	6,376,713	6,279,888	5,395,158
Plan Fiduciary Net Position, Ending	6,988,835	6,296,107	6,376,713	6,279,888
Net Pension Liability, Ending	$ 2,522,056	$ 2,650,554	$ 1,713,566	$ 1,535,537
Plan Fiduciary Net Position as a Percentage of the Total Pension Liability	73.48%	70.37%	78.82%	80.35%
Covered Pensionable Payroll	$ 465,100	$ 480,662	$ 480,536	$ 499,463
Net Pension Liability as a Percentage of Covered Payroll	542.26%	551.44%	356.59%	307.44%

GASB 73 Reporting for June 30, 2017 Measurement Date
Preservation of Benefits Plan Schedule of Changes in Total Pension Liability

Total Pension Liability	FYE 2017	FYE 2016
Service Cost (Middle of Year)	$ 60	$ 36
Interest (Includes Interest on Service Cost)	312	406
Differences Between Expected and Actual Experience	635	—
Changes in Assumptions	(589)	1,588
Benefit Payments	(1,633)	(1,596)
Net Change in Total Pension Liability	(1,215)	434
Total Pension Liability, Beginning	11,747	11,313
Total Pension Liability, Ending	$ 10,532	$ 11,747
Covered Pensionable Payroll	$ 465,100	$ 480,662
Total Pension Liability as a Percentage of Covered Payroll	2.26%	2.44%

Pension Plans Schedule of Employer Contributions

Last 10 Fiscal Years (Dollars in Thousands)

	2018	2017	2016	2015	2014
Actuarially Determined Contribution	$ 324,500	$ 261,100	$ 254,900	$ 263,600	$ 275,400
Contributions in Relation to the Actuarially Determined Contribution	324,500	261,100	254,900	263,600	275,400
Contribution Deficiency/(Excess)	$ —	$ —	$ —	$ —	$ —
Covered Payroll [1]	$ 448,890	$ 465,100	$ 480,662	$ 480,536	$ 499,463
Contributions as a Percentage of Covered Payroll	72.29%	56.14%	53.03%	54.86%	55.14%

	2013	2012	2011	2010	2009
Actuarially Determined Contribution	$ 231,100	$ 231,200	$ 229,100	$ 154,200	$ 161,700
Contributions in Relation to the Actuarially Determined Contribution	231,143	231,200	229,297	192,533	162,475
Contribution Deficiency/(Excess)	$ (43)	$ —	$ (197)	$ (38,333)	$ (775)
Covered Payroll [1]	$ 511,091	$ 514,265	$ 530,238	$ 536,591	$ 535,774
Contributions as a Percentage of Covered Payroll	45.23%	44.96%	43.24%	35.88%	30.33%

Valuation Date: 6/30/2016

Key Methods and Assumptions Used to Determine Contributions:

Actuarial Cost Method	Entry Age Normal.
Asset Valuation Method	Expected Value Method. The actuarial value of assets was set to the market rate for the 2006 valuation, with the new smoothing method first applying to investment experience for the 2007 fiscal year.
Amortization Method	Closed periods. Payments are a level percentage of payroll (Police) or level dollar (non-Police). In the 2007 valuation, the amortization period was reduced from 27 to 20 years, with subsequent gains or losses amortized over different periods depending on the source. In the 2012 valuation, as a result of Proposition B, the UAL for the non-Police portion of the plan was re-amortized over a closed 15-year period with level dollar payments.
Discount Rate	7.00%. The discount rate was reduced from 8.00% to 7.75% in the 2008 valuation, from 7.75% to 7.50% in the 2011 valuation, from 7.50% to 7.25% in the 2013 valuation, from 7.25% to 7.125% in the 2015 valuation, and 7.125% to 7.00% in the 2016 valuation.
Amortization Growth Rate	3.05%. Same pattern of changes described below for salary increase assumption (excluding freezes).
Wage Inflation	3.05%. Same pattern of changes described below for salary increase assumption.
Salary Increases	3.05% (following assumed freezes in fiscal years 2013-2018) plus merit component based on employee classification and years of service. The across-the-board salary increase assumption was reduced from 4.25% to 4.00% in the 2008 valuation, from 4.00% to 3.75% in the 2011 valuation, and from 3.75% to 3.30% in the 2013 valuation, from 3.30% to 3.175% in the 2015 valuation, and from 3.175% to 3.05% in the 2016 valuation. In the 2011 valuation, a two-year salary freeze assumption (for fiscal years 2013-2014) was added and in the 2013 valuation an additional four-year freeze was assumed (fiscal years 2015-2018).
Cost-Of-Living Adjustments	1.9%, combined annually. The COLA assumption was reduced from 2.0% to 1.9% in the 2016 valuation.
Mortality	Retired healthy members use the CalPERS Post-Retirement Healthy Mortality Table base rates from the CalPERS January 2014 Experience Study, with a 10% increase to female rates, with projection for improvement. From 2005-2007 (valuation years),the UP-1994 table was used, with a two-year setback for males and females. From 2008-2010, the RP-2000 Combined Mortality Table was used, with a two-year set forward for males and females. From 2011-2015, healthy retired members used the RP-2000 Combined Mortality Table (male and female), with rates set forward one year for Safety female members.

A complete description of the methods and assumptions used to determine contribution rates for the year ended June 30, 2018 can be found in the June 30, 2016 Actuarial Valuation Report.

The annual money-weighted rate of return on pension plan investments can be found in the separately issued SDCERS financial report available at www.sdcers.org.

[1] Covered Payroll is pensionable payroll for SDCERS members as of the beginning of the measurement year.

OPEB TRUST FUND

GASB 75 Reporting for June 30, 2017 Measurement Date
Schedule of Changes in the Net OPEB Liability and Related Ratios (Dollars in Thousands)

Total OPEB Liability	FYE 2017
Service Cost	$ 1,237
Interest on the Total OPEB Liability	43,617
Differences Between Expected and Actual Experience	(4,915)
Benefit Payments	(40,280)
Net Change in Total OPEB Liability	(341)
Total OPEB Liability, Beginning	666,671
Total OPEB Liability, Ending	$ 666,330
Plan Fiduciary Net Position	
Contributions-Employer	$ 30,326
Contributions-Member	719
Net Investment Income	8,590
Benefit Payments	(40,280)
Administrative Expense	(59)
Net Change in Plan Fiduciary Net Position	(704)
Plan Fiduciary Net Position, Beginning	116,590
Plan Fiduciary Net Position, Ending	115,886
Net OPEB Liability, Ending	$ 550,444
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	17.39%
Covered-Employee Payroll	$ 61,397
Net OPEB Liability as a Percentage of Covered-Employee Payroll	896.53%

OPEB Plan Schedule of Employer Contributions
Last 10 Fiscal Years (Dollars in Thousands)

	2018	2017	2016	2015	2014
Actuarially Determined Contribution	$ 51,084	$ 48,475	$ 46,976	$ 41,740	$ 38,097
Contributions in Relation to the Actuarially Determined Contributions	30,380	30,326	39,254	31,515	31,540
Contribution Deficiency/(Excess)	$ 20,704	$ 18,149	$ 7,722	$ 10,225	$ 6,557
Covered-Employee Payroll [1]	$ 51,483	$ 61,397	$ 74,002	$ 87,252	$ 98,742
Contributions as a Percentage of Covered-Employee Payroll	59.01%	49.39%	53.04%	36.12%	31.94%

	2013	2012	2011	2010	2009
Actuarially Determined Contribution	$ 35,348	$ 49,061	$ 120,324	$ 113,426	$ 104,475
Contributions in Relation to the Actuarially Determined Contributions	37,464	23,857	33,868	31,689	33,868
Contribution Deficiency/(Excess)	$ (2,116)	$ 25,204	$ 86,456	$ 81,737	$ 70,607
Covered-Employee Payroll [1]	$ 112,782	$ 124,675	$ 455,537	$ 472,561	$ 549,012
Contributions as a Percentage of Covered-Employee Payroll	33.22%	19.14%	7.43%	6.71%	6.17%

Valuation Date: June 30, 2017

Key Methods and Assumptions Used to Determine Contributions:

Actuarial Cost Method	Entry Age Normal, Level Dollar
Asset Valuation Method	Market Value.
Amortization Method/Period	Closed 20 year period.
Discount Rate	6.73%.
Inflation	2.75%
Health Care Cost Trend Rates	8.00% pre-65 and 5.30% post-65 initial trend rates for FY 2017. Decreasing 0.5% per year pre-65 and 0.2% per year post-65 until ultimate is reached in FY 2024 pre-65 and FY 2021 post-65.
Retirement Age	Varies by age, service, and type of employee. Rates are based on an experience study performed for the San Diego City Employees' Retirement System in June 2011.
Mortality	The base mortality rates are based on an experience study performed for the San Diego City Employees' Retirement System in June 2011. These rates are projected on a fully generational basis using Scale BB to reflect more recently published information about future mortality improvement.

[1] Covered-Employee Payroll includes payroll for active employees in Options A and B only.

A complete description of the methods and assumptions used to determine the contribution for the fiscal year ended June 30, 2017 can be found in the June 30, 2016 Actuarial Valuation Report.

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)

GENERAL FUND

Spanish Village Art Center, Balboa Park, San Diego, CA

General Fund

The General Fund is the chief operating fund of the City. It is used to account for all financial resources except those required to be accounted for in another fund.

General Fund revenues are derived from such sources as: Taxes; Franchise Fees, Licenses and Permits; Fines, Forfeitures, and Penalties; Revenue from the Use of Money and Property; Revenue from Federal and Other Agencies; Revenue from Private Sources; Charges for Current Services; and Other Revenue.

Current expenditures are classified by the following functions: General Government and Support; Public Safety - Police; Public Safety - Fire and Life Safety and Homeland Security; Parks, Recreation, Culture and Leisure; Transportation; Sanitation and Health; Neighborhood Services; Capital Outlay; and Debt Service Principal and Interest. This fund is appropriated annually.

CITY OF SAN DIEGO
GENERAL FUND
SCHEDULE OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE
BUDGET AND ACTUAL (BUDGETARY BASIS)
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

	Original Budget	Final Budget	Actual Amounts [1]	Variance with Final Budget Positive (Negative)
REVENUES				
Property Taxes	$ 534,621	$ 534,621	$ 535,481	$ 860
Sales Taxes	275,308	275,308	272,886	(2,422)
Transient Occupancy Taxes	121,055	121,055	121,904	849
Franchise Fees	75,087	75,087	80,215	5,128
Other Local Taxes	10,069	10,069	10,719	650
Licenses and Permits	21,663	21,663	22,000	337
Fines, Forfeitures and Penalties	31,852	31,852	30,684	(1,168)
Revenue from Use of Money and Property	58,443	58,443	65,289	6,846
Revenue from Federal Agencies	220	1,720	1,483	(237)
Revenue from Other Agencies	4,263	5,622	8,190	2,568
Revenue from Private Sources	2,147	2,147	1,225	(922)
Charges for Current Services	152,804	156,888	155,173	(1,715)
Other Revenue	2,428	2,428	4,142	1,714
TOTAL REVENUES	1,289,960	1,296,903	1,309,391	12,488
EXPENDITURES				
Current:				
General Government and Support	269,320	250,622	235,527	15,095
Public Safety - Police	468,251	475,795	475,795	—
Public Safety - Fire and Life Safety and Homeland Security	258,246	273,814	272,443	1,371
Parks, Recreation, Culture and Leisure	161,995	166,673	166,590	83
Transportation	65,677	66,216	65,287	929
Sanitation and Health	91,508	96,006	94,838	1,168
Neighborhood Services	30,602	28,987	28,762	225
Capital Outlay	1,553	2,801	2,742	59
Debt Service:				
Principal Retirement	4,478	5,618	5,618	—
Interest	962	8,307	7,675	632
TOTAL EXPENDITURES	1,352,592	1,374,839	1,355,277	19,562
DEFICIENCY OF REVENUES UNDER EXPENDITURES	(62,632)	(77,936)	(45,886)	32,050
OTHER FINANCING SOURCES (USES)				
Transfers from Other Funds	117,789	116,281	118,110	1,829
Transfers to Proprietary Funds	(20,572)	(200)	(200)	—
Transfers to Other Funds	(60,660)	(66,078)	(62,737)	3,341
TOTAL OTHER FINANCING SOURCES (USES)	36,557	50,003	55,173	5,170
NET CHANGE IN FUND BALANCE	(26,075)	(27,933)	9,287	37,220
FUND BALANCE AT BEGINNING OF YEAR	218,205	218,205	218,205	—
FUND BALANCE AT END OF YEAR	$ 192,130	$ 190,272	$ 227,492	$ 37,220

See accompanying note to required supplementary information.

[1] Amounts include funds associated with General Fund operations as reported in the City's budget. Financial statements prepared on a GAAP basis include additional funds that do not meet the criteria to be classified as special revenue funds, pursuant to GASB Statement No. 54.

NOTE TO REQUIRED SUPPLEMENTARY INFORMATION
Fiscal Year Ended June 30, 2018

SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Budgetary Data

Each year, the Mayor submits to the City Council and the public a proposed operating and capital improvements budget by April 15 for the fiscal year commencing July 1. This budget includes annual budgets for the following governmental funds:

- **General Fund**
- **Special Revenue Funds**
  - City of San Diego:
    - Acquisition, Improvement and Operations
    - SDCCU Stadium Operations
    - Transient Occupancy Tax
    - Underground Surcharge
    - Zoological Exhibits
    - Other Special Revenue
  - Civic San Diego
- **Capital Projects Funds**
  - City of San Diego:
    - TransNet
    - Capital Outlay

Included in the budget are funds that include appropriations for personnel expenses and capital projects and certain funds that collect restricted or committed revenue sources. For those funds not specifically included in the budget, the Appropriation Ordinance includes authorization to appropriate funds for the purpose established by applicable laws and/or in accordance with provisions of agreements authorized by the City Council.

Public hearings are conducted to obtain residents' comments on the proposed budget. A budget resolution legally adopting the budget for the next fiscal year is passed prior to June 15. During the month of July, the Appropriation Ordinance is passed by the City Council, appropriating funds according to the budget resolution. Budgets are prepared on the modified accrual basis of accounting, with the exception that any increase/decrease in advances to other funds and agencies are considered as additions/deductions of expenditures. The City budget is prepared excluding unrealized gains or losses resulting from the change in fair value of investments.

Budgetary control is established at the highest level by the City Charter and further defined by the City Council in the Appropriation Ordinance. The level of budgetary control for all City funds is exercised at the salaries and wages and non-personnel expenditures level. Budgetary control for the General Fund is at the department level, while control for other budgeted funds, including those of certain component units, is maintained at the total fund appropriation level. All amendments to the adopted budget require City Council approval except as delegated in the Appropriation Ordinance.

Reported budget figures are as originally adopted or subsequently amended. Appropriations lapse at year-end to the extent that they have not been expended except for those of a capital nature, which continue to subsequent years.

The following is a reconciliation of the net change in fund balance for the General Fund prepared on a GAAP basis to that prepared on the budgetary basis for the year ended June 30, 2018 (dollars in thousands):

	General Fund
Net Change in Fund Balance - GAAP Basis	$ (19,655)
Add (Deduct):	
Unrealized Loss, June 30, 2018	2,529
Unrealized Loss, June 30, 2017	(855)
Advances to Other Funds, June 30, 2018	(733)
Advances to Other Funds, June 30, 2017	782
Other Perspective Differences [1,2]	(5,639)
Other Fund Activity [3]	32,858
Net Change in Fund Balance - Budgetary Basis	$ 9,287

[1] In fiscal year 2015, the General Fund accrued expenditures of $5,053, in the Statement of Revenues, Expenditures and Changes in Fund Balance (GAAP Basis), for low flow diversion capacity charges due to the Sewer Utility Fund. The City budgeted the remaining balance ($3,032) in fiscal year 2018. The City considers this to be a perspective difference between the GAAP basis and the budgetary basis of accounting.

[2] The City budgets and expends property management fees annually at a set monthly amount. This amount is then reconciled to monthly expenses for the property on a GAAP basis.

[3] The General Fund budgetary schedule includes funds associated with General Fund operations as reported in the City's budget. General Fund financial statements prepared on a GAAP basis include additional funds that do not meet the criteria to be classified as a special revenue fund, pursuant to GASB Statement No. 54. The City administers a number of these funds as separate budgetary entities.

COMBINING AND INDIVIDUAL FUND FINANCIAL STATEMENTS AND SCHEDULES

Star of India, Harbor Drive, San Diego, CA

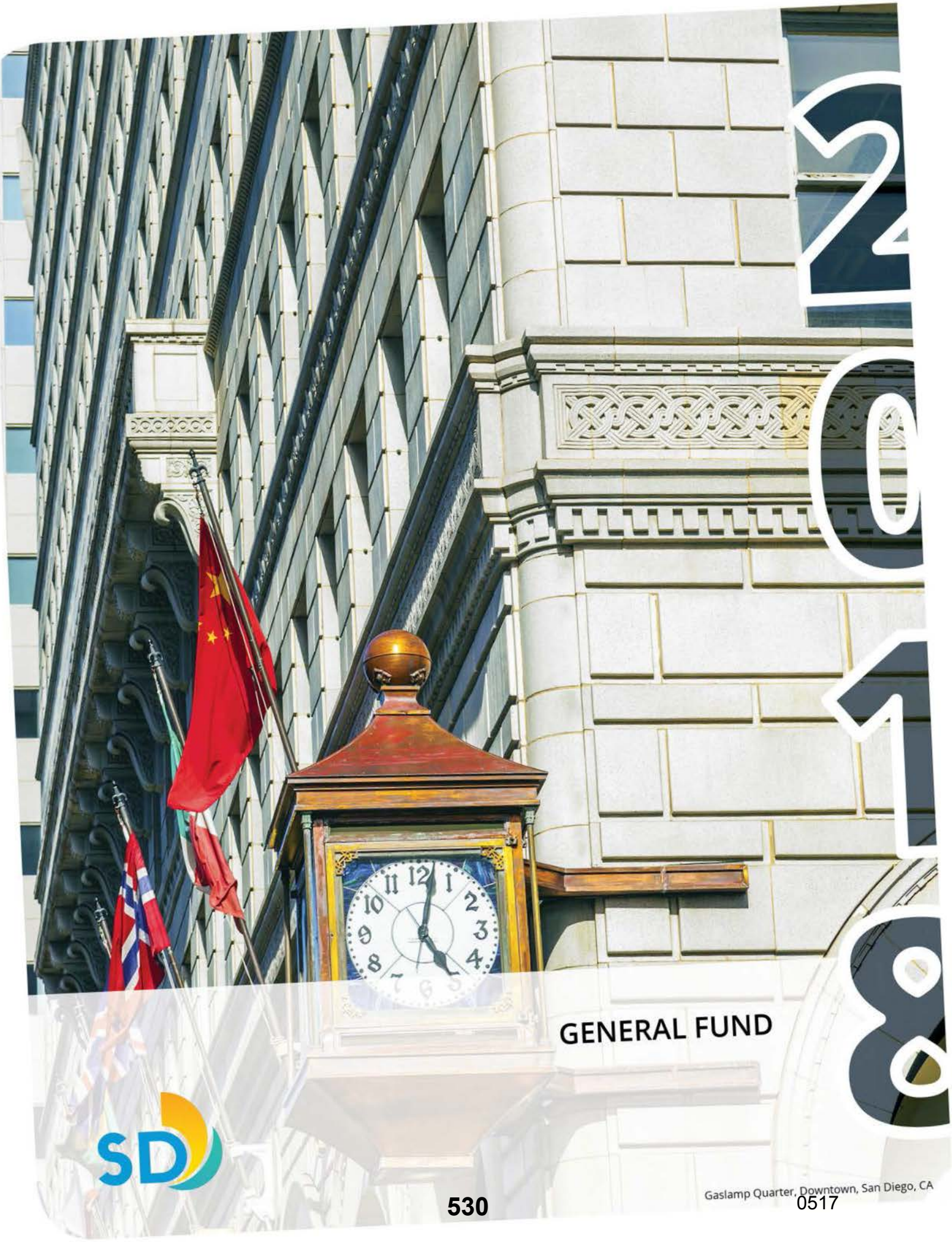

2018

GENERAL FUND

Gaslamp Quarter, Downtown, San Diego, CA

GENERAL FUND
SCHEDULE OF REVENUES AND TRANSFERS
BUDGET AND ACTUAL (BUDGETARY BASIS)
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

	Actual on Budgetary Basis	Final Budget	Variance with Final Budget Positive (Negative)
PROPERTY TAXES			
Current Year - Secured (One Percent Allocation)	$ 342,398	$ 372,031	$ (29,633)
Current Year Supplemental - Secured	5,223	—	5,223
Current Year - Unsecured	10,584	—	10,584
Current Unsecured Supplemental Roll	50	—	50
Homeowners' Exemptions - Secured	2,495	—	2,495
Homeowners' Exemptions - Unsecured	2	—	2
Prior years' - Secured	586	—	586
Prior years' - Unsecured	(279)	—	(279)
In-Lieu Vehicle License Fees	137,534	135,761	1,773
Interest and Penalties on Delinquent Taxes	940	—	940
Escapes - Secured	5,685	—	5,685
Escapes - Unsecured	754	—	754
Other Property Taxes	22,820	26,829	(4,009)
State Secured Unitary	6,689	—	6,689
TOTAL PROPERTY TAXES	535,481	534,621	860
SALES TAXES	272,886	275,308	(2,422)
TRANSIENT OCCUPANCY TAXES	121,904	121,055	849
FRANCHISE FEES	80,215	75,087	5,128
OTHER LOCAL TAXES			
Property Transfer Tax	10,719	10,069	650
LICENSES AND PERMITS			
General Business Licenses	7,391	7,501	(110)
Refuse Collection Business Licenses	1,218	1,100	118
Rental Unit Tax	7,279	7,460	(181)
Other Licenses and Permits	6,112	5,602	510
TOTAL LICENSES AND PERMITS	22,000	21,663	337
FINES, FORFEITURES AND PENALTIES			
California Vehicle Code Violations	26,925	27,694	(769)
Other City Ordinance Code Violations	3,759	4,158	(399)
TOTAL FINES, FORFEITURES AND PENALTIES	30,684	31,852	(1,168)
REVENUE FROM USE OF MONEY AND PROPERTY			
Interest on Investments	2,258	671	1,587
Balboa Park Rents and Concessions	343	284	59
Mission Bay Park Rents and Concessions	32,574	31,158	1,416
Other Rents and Concessions	30,114	26,330	3,784
TOTAL REVENUE FROM USE OF MONEY AND PROPERTY	65,289	58,443	6,846
REVENUE FROM FEDERAL AGENCIES	1,483	1,720	(237)

(Continued on Next Page)

GENERAL FUND
SCHEDULE OF REVENUES AND TRANSFERS
BUDGET AND ACTUAL (BUDGETARY BASIS)
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

	Actual on Budgetary Basis	Final Budget	Variance with Final Budget Positive (Negative)
REVENUE FROM OTHER AGENCIES			
State Motor Vehicle License Fees	$ 741	$ —	$ 741
Local Relief	78	110	(32)
Other	7,371	5,512	1,859
TOTAL REVENUE FROM OTHER AGENCIES	8,190	5,622	2,568
REVENUE FROM PRIVATE SOURCES	1,225	2,147	(922)
CHARGES FOR CURRENT SERVICES			
Cemetery Revenue	846	694	152
Fire Services	13,326	13,354	(28)
Library Revenue	1,020	1,202	(182)
Police Services	8,896	7,202	1,694
Swimming Pools Revenue	1,062	1,156	(94)
Miscellaneous Recreation Revenue	4,562	5,383	(821)
Other Services	2,466	2,641	(175)
Services Rendered to Other Funds for:			
General Government and Financial	122,730	124,924	(2,194)
Miscellaneous Services	265	332	(67)
TOTAL CHARGES FOR CURRENT SERVICES	155,173	156,888	(1,715)
OTHER REVENUE			
Other Refunds of Prior Years' Expenditures	404	210	194
Repairs and Damage Recoveries	474	454	20
Sale of Personal Property	64	67	(3)
Miscellaneous Revenue	3,200	1,697	1,503
TOTAL OTHER REVENUE	4,142	2,428	1,714
TOTAL REVENUES	1,309,391	1,296,903	12,488
TRANSFERS FROM OTHER FUNDS			
Special Revenue Funds:			
City of San Diego:			
Interfund Transfers	70,888	69,059	1,829
Acquisition, Improvement and Operations	700	700	—
SDCCU Stadium Operations	8,500	8,500	—
Transient Occupancy Tax	26,819	26,819	—
Other Special Revenue - Unbudgeted	1,133	1,133	—
Capital Projects Funds:			
TransNet - Budgeted	9,644	9,644	—
Permanent Funds:			
Cemetery Perpetuity	426	426	—
TOTAL TRANSFERS FROM OTHER FUNDS	118,110	116,281	1,829
TOTAL REVENUE AND TRANSFERS	$ 1,427,501	$ 1,413,184	$ 14,317

GENERAL FUND
SCHEDULE OF EXPENDITURES AND TRANSFERS
BUDGET AND ACTUAL (BUDGETARY BASIS)
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

	Actual on Budgetary Basis	Final Budget	Variance with Final Budget (Negative)
GENERAL GOVERNMENT AND SUPPORT			
Office of the Mayor			
Salaries and Wages	$ 2,266	$ 2,266	$ —
Non-Personnel	2,094	2,252	158
Total Office of the Mayor	4,360	4,518	158
City Council District 1			
Salaries and Wages	560	607	47
Non-Personnel	537	589	52
Total City Council District 1	1,097	1,196	99
City Council District 2			
Salaries and Wages	634	634	—
Non-Personnel	618	748	130
Total City Council District 2	1,252	1,382	130
City Council District 3			
Salaries and Wages	606	617	11
Non-Personnel	416	506	90
Total City Council District 3	1,022	1,123	101
City Council District 4			
Salaries and Wages	564	631	67
Non-Personnel	594	676	82
Total City Council District 4	1,158	1,307	149
City Council District 5			
Salaries and Wages	555	669	114
Non-Personnel	402	508	106
Total City Council District 5	957	1,177	220
City Council District 6			
Salaries and Wages	586	669	83
Non-Personnel	377	454	77
Total City Council District 6	963	1,123	160
City Council District 7			
Salaries and Wages	712	712	—
Non-Personnel	478	505	27
Total City Council District 7	1,190	1,217	27
City Council District 8			
Salaries and Wages	645	645	—
Non-Personnel	610	747	137
Total City Council District 8	1,255	1,392	137
City Council District 9			
Salaries and Wages	605	632	27
Non-Personnel	676	760	84
Total City Council District 9	1,281	1,392	111
Council Administration			
Salaries and Wages	1,257	1,257	—
Non-Personnel	1,143	1,322	179
Total Council Administration	2,400	2,579	179

(Continued on Next Page)

GENERAL FUND
SCHEDULE OF EXPENDITURES AND TRANSFERS
BUDGET AND ACTUAL (BUDGETARY BASIS)
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

	Actual on Budgetary Basis	Final Budget	Variance with Final Budget (Negative)
City Clerk			
Salaries and Wages	$ 2,343	$ 2,343	$ —
Non-Personnel	3,125	3,224	99
Total City Clerk	5,468	5,567	99
Independent Budget Analyst			
Salaries and Wages	1,124	1,124	—
Non-Personnel	869	1,022	153
Total Independent Budget Analyst	1,993	2,146	153
City Attorney			
Salaries and Wages	28,692	28,692	—
Non-Personnel	25,130	25,912	782
Total City Attorney	53,822	54,604	782
Personnel			
Salaries and Wages	4,544	4,544	—
Non-Personnel	4,360	4,410	50
Total Personnel	8,904	8,954	50
Ethics Commission			
Salaries and Wages	555	555	—
Non-Personnel	572	674	102
Total Ethics Commission	1,127	1,229	102
Office of the City Auditor			
Salaries and Wages	2,071	2,071	—
Non-Personnel	1,793	1,918	125
Total Office of the City Auditor	3,864	3,989	125
Assistant Chief Operating Officer			
Salaries and Wages	906	906	—
Non-Personnel	740	906	166
Total Assistant Chief Operating Officer	1,646	1,812	166
Performance and Analytics			
Salaries and Wages	1,311	1,311	—
Non-Personnel	1,078	1,188	110
Total Performance and Analytics	2,389	2,499	110
Human Resources			
Salaries and Wages	2,641	2,641	—
Non-Personnel	2,660	2,761	101
Total Human Resources	5,301	5,402	101
Department of Information Technology			
Non-Personnel	232	232	—
Office of the Chief Operating Officer			
Salaries and Wages	873	873	—
Non-Personnel	743	743	—
Total Office of the Chief Operating Officer	1,616	1,616	—
Internal Operations			
Salaries and Wages	233	233	—
Non-Personnel	249	249	—
Total Internal Operations	482	482	—

GENERAL FUND
SCHEDULE OF EXPENDITURES AND TRANSFERS
BUDGET AND ACTUAL (BUDGETARY BASIS)
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

	Actual on Budgetary Basis	Final Budget	Variance with Final Budget (Negative)
Communications			
Salaries and Wages	$ 2,031	$ 2,031	$ —
Non-Personnel	1,925	1,925	—
Total Communications	3,956	3,956	—
Chief Financial Officer			
Salaries and Wages	313	313	—
Non-Personnel	284	306	22
Total Chief Financial Officer	597	619	22
City Comptroller			
Salaries and Wages	5,876	5,876	—
Non-Personnel	6,153	6,187	34
Total City Comptroller	12,029	12,063	34
Debt Management			
Salaries and Wages	1,618	1,618	—
Non-Personnel	1,289	1,498	209
Total Debt Management	2,907	3,116	209
Financial Management			
Salaries and Wages	2,318	2,318	—
Non-Personnel	1,676	1,949	273
Total Financial Management	3,994	4,267	273
Purchasing and Contracting			
Salaries and Wages	3,061	3,061	—
Non-Personnel	2,763	2,763	—
Total Purchasing and Contracting	5,824	5,824	—
City Treasurer			
Salaries and Wages	6,344	6,344	—
Non-Personnel	8,954	8,954	—
Total City Treasurer	15,298	15,298	—
Neighborhood Services			
Salaries and Wages	642	642	—
Non-Personnel	361	413	52
Total Neighborhood Services	1,003	1,055	52
Real Estate Assets			
Salaries and Wages	2,334	2,334	—
Non-Personnel	4,440	4,573	133
Total Real Estate Assets	6,774	6,907	133
General Services			
Salaries and Wages	8,055	8,055	—
Non-Personnel	11,049	11,498	449
Total General Services	19,104	19,553	449
Public Works/Infrastructure			
Salaries and Wages	473	473	—
Non-Personnel	424	487	63
Total Public Works/Infrastructure	897	960	63
Public Works - Contracts			
Salaries and Wages	1,179	1,179	—
Non-Personnel	851	1,068	217
Total Public Works - Contracts	2,030	2,247	217

(Continued on Next Page)

GENERAL FUND
SCHEDULE OF EXPENDITURES AND TRANSFERS
BUDGET AND ACTUAL (BUDGETARY BASIS)
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

	Actual on Budgetary Basis	Final Budget	Variance with Final Budget (Negative)
Citywide Expenses			
Non-Personnel	$ 57,335	$ 67,819	$ 10,484
TOTAL GENERAL GOVERNMENT AND SUPPORT	235,527	250,622	15,095
PUBLIC SAFETY - POLICE			
Salaries and Wages	217,904	217,904	—
Non-Personnel	257,891	257,891	—
TOTAL PUBLIC SAFETY - POLICE	475,795	475,795	—
PUBLIC SAFETY - FIRE AND LIFE SAFETY AND HOMELAND SECURITY			
Fire - Rescue			
Salaries and Wages	133,895	133,895	—
Non-Personnel	135,778	137,084	1,306
Total Fire - Rescue	269,673	270,979	1,306
Office of Homeland Security			
Salaries and Wages	1,289	1,289	—
Non-Personnel	1,481	1,546	65
Total Office of Homeland Security	2,770	2,835	65
TOTAL PUBLIC SAFETY - FIRE AND LIFE SAFETY AND HOMELAND SECURITY	272,443	273,814	1,371
PARKS, RECREATION, CULTURE AND LEISURE			
Library			
Salaries and Wages	20,210	20,210	—
Non-Personnel	31,594	31,594	—
Total Library	51,804	51,804	—
Parks and Recreation			
Salaries and Wages	36,920	36,920	—
Non-Personnel	75,218	75,300	82
Total Parks and Recreation	112,138	112,220	82
Reservoir Concessions			
Non-Personnel	2,648	2,649	1
TOTAL PARKS, RECREATION, CULTURE AND LEISURE	166,590	166,673	83
TRANSPORTATION			
Salaries and Wages	21,688	21,688	—
Non-Personnel	43,599	44,528	929
TOTAL TRANSPORTATION	65,287	66,216	929
SANITATION AND HEALTH			
Environmental Services			
Salaries and Wages	8,374	8,374	—
Non-Personnel	32,122	32,642	520
Total Environmental Services	40,496	41,016	520
Storm Water			
Salaries and Wages	10,976	10,976	—
Non-Personnel	43,366	44,014	648
Total Storm Water	54,342	54,990	648
TOTAL SANITATION AND HEALTH	94,838	96,006	1,168

GENERAL FUND
SCHEDULE OF EXPENDITURES AND TRANSFERS
BUDGET AND ACTUAL (BUDGETARY BASIS)
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

	Actual on Budgetary Basis	Final Budget	Variance with Final Budget (Negative)
NEIGHBORHOOD SERVICES			
Development Services			
Salaries and Wages	$ 3,612	$ 3,612	$ —
Non-Personnel	3,106	3,106	—
Total Development Services	6,718	6,718	—
Economic Development			
Salaries and Wages	4,074	4,074	—
Non-Personnel	8,638	8,694	56
Total Economic Development	12,712	12,768	56
Planning			
Salaries and Wages	4,384	4,384	—
Non-Personnel	4,948	5,117	169
Total Planning	9,332	9,501	169
TOTAL NEIGHBORHOOD SERVICES	28,762	28,987	225
CAPITAL OUTLAY	2,742	2,801	59
DEBT SERVICE			
Principal Retirement	5,618	5,618	—
Interest	7,675	8,307	632
TOTAL DEBT SERVICE	13,293	13,925	632
TOTAL EXPENDITURES	1,355,277	1,374,839	19,562
TRANSFERS TO PROPRIETARY FUNDS			
Enterprise Funds:			
Development Services	200	200	—
TRANSFERS TO OTHER FUNDS			
Special Revenue Funds:			
City of San Diego:			
Interfund Transfers	20,536	23,877	3,341
Acquisition, Improvement and Operations	1,000	1,000	—
SDCCU Stadium Operations	1,000	1,000	—
Transient Occupancy Tax	4,214	4,214	—
Grants	9	9	—
Other Special Revenue - Unbudgeted	2,902	2,902	—
Total Special Revenue Funds	29,661	33,002	3,341
Debt Service Funds:			
Public Facilities Financing Authority	15,505	15,505	—
Capital Projects Funds:			
City of San Diego:			
Capital Outlay - Budgeted	12,637	12,637	—
Capital Grants	52	52	—
Capital Outlay - Unbudgeted	4,882	4,882	—
Total Capital Projects Funds	17,571	17,571	—
TOTAL TRANSFERS TO OTHER FUNDS	62,737	66,078	3,341
TOTAL EXPENDITURES AND TRANSFERS	$ 1,418,214	$ 1,441,117	$ 22,903

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NONMAJOR GOVERNMENTAL FUNDS

Alcazar Garden, Balboa Park, San Diego, CA

NONMAJOR GOVERNMENTAL FUNDS
COMBINING BALANCE SHEET
June 30, 2018
(Dollars in Thousands)

	Special Revenue	Debt Service	Capital Projects	Permanent	Total Nonmajor Governmental Funds
ASSETS					
Cash and Investments	$ 484,718	$ 5	$ 659,159	$ —	$ 1,143,882
Receivables:					
Taxes - Net of Allowance for Uncollectibles	26,973	—	32,752	—	59,725
Accounts - Net of Allowance for Uncollectibles	10,810	4,718	5,267	—	20,795
Claims	—	—	30,380	—	30,380
Special Assessments	121	—	—	—	121
Notes	265,041	—	—	—	265,041
Loans	180,472	—	—	—	180,472
Accrued Interest	1,058	12	1,376	14	2,460
Grants	22,272	—	3,926	—	26,198
Advances to Other Agencies	4,383	—	11	—	4,394
Land Held for Resale	20,778	—	—	—	20,778
Prepaid Items	195	—	—	—	195
Restricted Cash and Investments	4,046	12,139	48,507	20,763	85,455
TOTAL ASSETS	$ 1,020,867	$ 16,874	$ 781,378	$ 20,777	$ 1,839,896
LIABILITIES					
Accounts Payable	$ 37,673	$ —	$ 29,620	$ 4	$ 67,297
Accrued Wages and Benefits	379	—	—	—	379
Other Accrued Liabilities	1,259	—	—	—	1,259
Due to Other Funds	20,918	—	6,199	—	27,117
Due to Other Agencies	10	—	13	—	23
Unearned Revenue	4,815	—	17,775	—	22,590
Advances from Other Funds	733	—	—	—	733
TOTAL LIABILITIES	65,787	—	53,607	4	119,398
DEFERRED INFLOWS OF RESOURCES					
Unavailable Revenue - Taxes	222	—	32,558	—	32,780
Unavailable Revenue - Grants	17,231	—	2,209	—	19,440
Unavailable Revenue - Other	6,194	4,718	2,348	—	13,260
TOTAL DEFERRED INFLOWS OF RESOURCES	23,647	4,718	37,115	—	65,480
FUND BALANCES					
Nonspendable	206	—	—	17,836	18,042
Restricted	896,338	12,156	671,148	2,937	1,582,579
Committed	52,139	—	45,772	—	97,911
Unassigned	(17,250)	—	(26,264)	—	(43,514)
TOTAL FUND BALANCES	931,433	12,156	690,656	20,773	1,655,018
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND FUND BALANCES	$ 1,020,867	$ 16,874	$ 781,378	$ 20,777	$ 1,839,896

NONMAJOR GOVERNMENTAL FUNDS
COMBINING STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

	Special Revenue	Debt Service	Capital Projects	Permanent	Total Nonmajor Governmental Funds
REVENUES					
Property Taxes	$ 13,389	$ —	$ —	$ —	$ 13,389
Special Assessments	63,870	—	—	—	63,870
Sales Taxes	—	—	31,702	—	31,702
Transient Occupancy Taxes	109,959	—	—	—	109,959
Franchises	63,977	—	—	—	63,977
Licenses and Permits	14,521	—	71,995	—	86,516
Fines, Forfeitures and Penalties	1,449	—	—	—	1,449
Revenue from Use of Money and Property	24,286	658	6,073	735	31,752
Revenue from Federal Agencies	42,177	—	10,106	—	52,283
Revenue from Other Agencies	4,990	10,952	9,716	—	25,658
Revenue from Private Sources	4,852	—	2,593	678	8,123
Charges for Current Services	26,261	—	77	127	26,465
Other Revenue	3,338	—	730	—	4,068
TOTAL REVENUES	373,069	11,610	132,992	1,540	519,211
EXPENDITURES					
Current:					
General Government and Support	25,604	—	3,931	—	29,535
Public Safety - Police	6,414	—	—	—	6,414
Public Safety - Fire and Life Safety and Homeland Security	12,347	—	—	—	12,347
Parks, Recreation, Culture and Leisure	147,276	—	7,202	24	154,502
Transportation	33,110	—	20,984	—	54,094
Sanitation and Health	3,548	—	581	71	4,200
Neighborhood Services	64,251	—	77	—	64,328
Capital Outlay	45,026	—	173,621	—	218,647
Debt Service:					
Principal Retirement	325	32,945	633	—	33,903
Cost of Issuance	—	1,500	—	—	1,500
Interest	178	47,013	90	—	47,281
Payment to Refunded Bond Escrow Agent	—	13,125	—	—	13,125
TOTAL EXPENDITURES	338,079	94,583	207,119	95	639,876
EXCESS (DEFICIENCY) OF REVENUES OVER (UNDER) EXPENDITURES	34,990	(82,973)	(74,127)	1,445	(120,665)
OTHER FINANCING SOURCES (USES)					
Transfers from Proprietary Funds	—	—	61	—	61
Transfers from Other Funds	25,127	51,710	18,932	—	95,769
Transfers to Proprietary Funds	(1,215)	—	—	—	(1,215)
Transfers to Other Funds	(80,339)	(661)	(17,140)	(541)	(98,681)
Payment to Refunded Bond Escrow Agent	—	(183,745)	—	—	(183,745)
Proceeds from the Sale of Capital Assets	—	—	2,037	—	2,037
Capital Lease Proceeds	—	—	16,191	—	16,191
Revenue Bonds Issued	—	129,320	—	—	129,320
Tobacco Settlement Bonds Issued	—	73,784	24,071	—	97,855
Discount on Bonds Issued	—	(204)	—	—	(204)
TOTAL OTHER FINANCING SOURCES (USES)	(56,427)	70,204	44,152	(541)	57,388
NET CHANGE IN FUND BALANCES	(21,437)	(12,769)	(29,975)	904	(63,277)
Fund Balances at Beginning of Year	952,870	24,925	720,631	19,869	1,718,295
FUND BALANCES AT END OF YEAR	$ 931,433	$ 12,156	$ 690,656	$ 20,773	$ 1,655,018

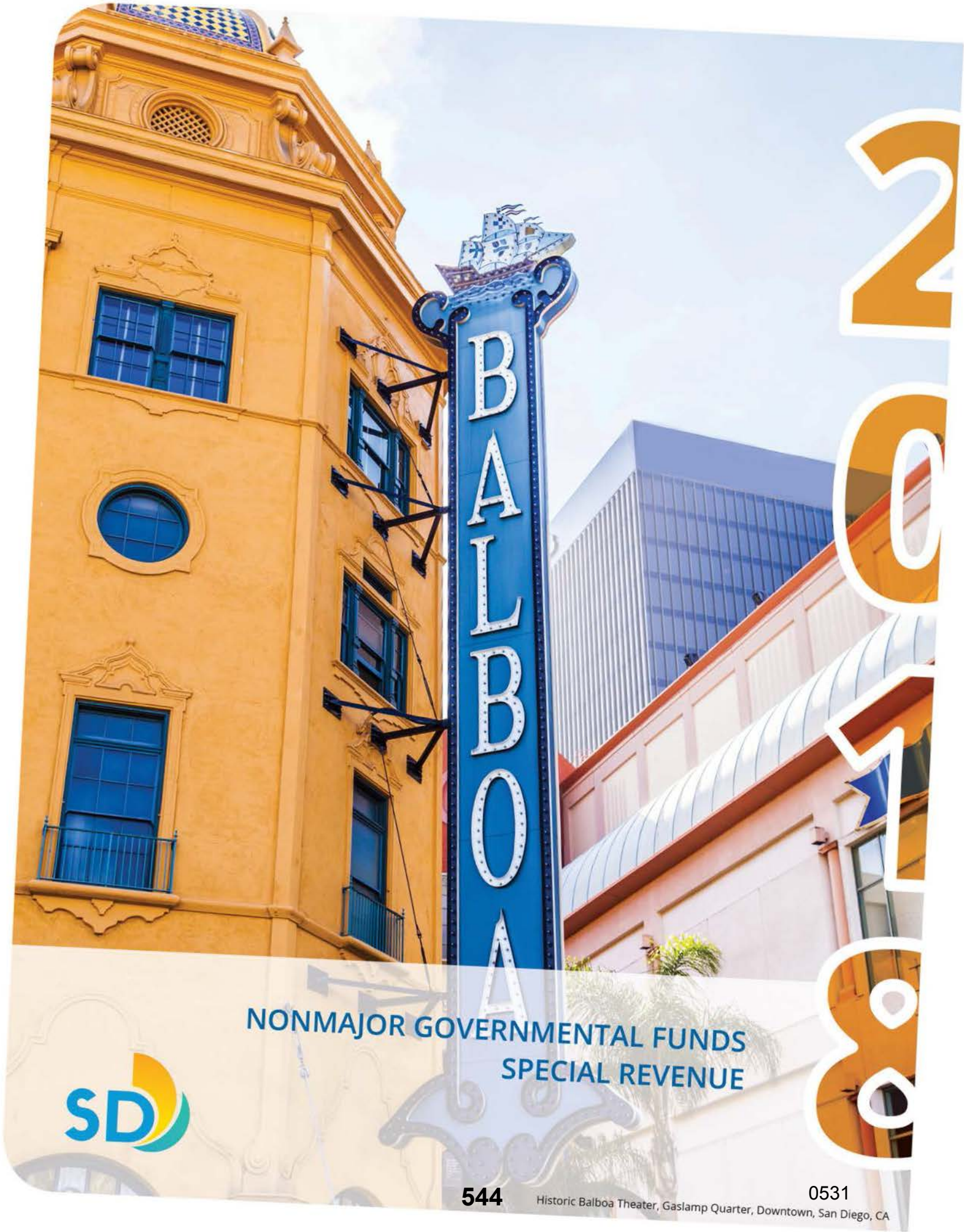

NONMAJOR GOVERNMENTAL FUNDS
SPECIAL REVENUE

Historic Balboa Theater, Gaslamp Quarter, Downtown, San Diego, CA

SPECIAL REVENUE FUNDS

Special revenue funds are used to account for the proceeds of specific revenue sources (other than those for debt service or major capital projects) that are restricted or committed to expenditures for specified purposes.

CITY OF SAN DIEGO

ACQUISITION, IMPROVEMENT AND OPERATIONS - BUDGETED
This fund accounts for various operating activities including business improvement areas, lighting and landscape maintenance areas, facilities financing, and the City's public art program. Revenues are derived from business tax surcharges, special assessments on property, various rents, concessions and fees.

SDCCU STADIUM OPERATIONS - BUDGETED
This fund accounts for the operations of the SDCCU Stadium. The Stadium is host to San Diego State University Aztecs football, the San Diego County Credit Union Holiday Bowl, and other special events. Revenues are derived from rents, concessions, parking, and advertising.

TRANSIENT OCCUPANCY TAX - BUDGETED
This fund was established to receive and expend transient occupancy taxes. Since 1964, a tax has been imposed on transients of hotel and motel rooms in the City of San Diego. Effective since August 1994, the tax rate is 10.5%.

UNDERGROUND SURCHARGE - BUDGETED
This fund was established to account for activities related to the undergrounding of utilities. This fund receives and disburses undergrounding surcharge revenue in accordance with the City's franchise agreements with SDG&E.

ZOOLOGICAL EXHIBITS - BUDGETED
This fund was established to collect monies from a fixed property tax levy authorized by Section 77a of the City Charter for the maintenance of zoological exhibits. These funds are remitted in accordance with a contractual agreement with the San Diego Zoological Society, a not-for-profit corporation independent from the City.

OTHER SPECIAL REVENUE - BUDGETED
This fund was established to account for revenues derived specifically for a variety of budgeted special programs administered by City departments such as Development Services, Planning and Police. Revenues in this fund are derived from service charges, revenues from other agencies, and fines.

GRANTS - UNBUDGETED
This fund was established to account for revenue received from federal, state and other governmental agencies. Expenditures are made and accounted for as prescribed by appropriate grant provisions/agreements.

LOW-MODERATE INCOME HOUSING - UNBUDGETED
This fund was established to account for affordable housing assets transferred from the Successor Agency to the Successor Housing Entity, which is the City, as required by California Health and Safety Code Section 34176(d), due to the dissolution of the Redevelopment Agency. This fund will also account for any future revenues generated from the housing assets.

OTHER SPECIAL REVENUE - UNBUDGETED

This fund was established to account for revenues earmarked for a variety of special programs administered by such City departments as Economic Development, Libraries, Parks and Recreation, and Police. Revenues in this fund are derived from such sources as parking fees, service charges, contributions from other agencies and private sources, and interest earnings.

BLENDED COMPONENT UNITS

CIVIC SAN DIEGO

Civic San Diego (CSD) is a not-for-profit public benefit corporation resulting from restructuring and reorganizing the former Centre City Development Corporation (CCDC) and the Southeastern Economic Development Corporation (SEDC) into a single corporation. CCDC and SEDC were originally established to administer certain redevelopment project areas throughout the City. Upon dissolution of the former San Diego Redevelopment Agency (former RDA), CSD's main function is now focused on providing administrative and advisory services to the City as the Successor Agency. CSD also assists the City with downtown parking management administration and affordable housing development.

TOBACCO SETTLEMENT REVENUE FUNDING CORPORATION

This fund was established to account for the activities of the TSRFC. TSRFC was established for the purpose of acquiring the tobacco settlement revenues allocated to the City from the State of California, pursuant to the Master Settlement Agreement. The TSRFC's special revenue fund is used to account for the expenditures incurred for administrative services provided by the City.

NONMAJOR GOVERNMENTAL FUNDS - SPECIAL REVENUE
COMBINING BALANCE SHEET
June 30, 2018
(Dollars in Thousands)

	City of San Diego	Civic San Diego	Tobacco Settlement Revenue Funding Corporation	Total
ASSETS				
Cash and Investments	$ 477,709	$ 7,009	$ —	$ 484,718
Receivables:				
Taxes - Net of Allowance for Uncollectibles	26,973	—	—	26,973
Accounts - Net of Allowance for Uncollectibles	7,234	3,576	—	10,810
Special Assessments	121	—	—	121
Notes	265,041	—	—	265,041
Loans	180,472	—	—	180,472
Accrued Interest	1,058	—	—	1,058
Grants	22,272	—	—	22,272
Advances to Other Agencies	4,373	10	—	4,383
Land Held for Resale	20,778	—	—	20,778
Prepaid Items	192	3	—	195
Restricted Cash and Investments	3,846	—	200	4,046
TOTAL ASSETS	$ 1,010,069	$ 10,598	$ 200	$ 1,020,867
LIABILITIES				
Accounts Payable	$ 37,673	$ —	$ —	$ 37,673
Accrued Wages and Benefits	379	—	—	379
Other Accrued Liabilities	65	1,194	—	1,259
Due to Other Funds	20,918	—	—	20,918
Due to Other Agencies	10	—	—	10
Unearned Revenue	2,721	2,094	—	4,815
Advances from Other Funds	—	733	—	733
TOTAL LIABILITIES	61,766	4,021	—	65,787
DEFERRED INFLOWS OF RESOURCES				
Unavailable Revenue - Taxes	222	—	—	222
Unavailable Revenue - Grants	17,231	—	—	17,231
Unavailable Revenue - Other	6,194	—	—	6,194
TOTAL DEFERRED INFLOWS OF RESOURCES	23,647	—	—	23,647
FUND BALANCES				
Nonspendable	192	14	—	206
Restricted	890,415	5,723	200	896,338
Committed	51,299	840	—	52,139
Unassigned	(17,250)	—	—	(17,250)
TOTAL FUND BALANCES	924,656	6,577	200	931,433
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND FUND BALANCES	$ 1,010,069	$ 10,598	$ 200	$ 1,020,867

NONNONMAJOR GOVERNMENTAL FUNDS - SPECIAL REVENUE
COMBINING STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

	City of San Diego	Civic San Diego	Tobacco Settlement Revenue Funding	Total
REVENUES				
Property Taxes	$ 13,389	$ —	$ —	$ 13,389
Special Assessments	63,870	—	—	63,870
Transient Occupancy Taxes	109,959	—	—	109,959
Franchises	63,977	—	—	63,977
Licenses and Permits	14,521	—	—	14,521
Fines, Forfeitures and Penalties	1,449	—	—	1,449
Revenue from Use of Money and Property	24,276	9	1	24,286
Revenue from Federal Agencies	42,177	—	—	42,177
Revenue from Other Agencies	4,470	520	—	4,990
Revenue from Private Sources	4,852	—	—	4,852
Charges for Current Services	16,965	9,296	—	26,261
Other Revenue	3,335	3	—	3,338
TOTAL REVENUES	363,240	9,828	1	373,069
EXPENDITURES				
Current:				
General Government and Support	15,365	10,197	42	25,604
Public Safety - Police	6,414	—	—	6,414
Public Safety - Fire and Life Safety and Homeland Security	12,347	—	—	12,347
Parks, Recreation, Culture and Leisure	147,276	—	—	147,276
Transportation	33,110	—	—	33,110
Sanitation and Health	3,548	—	—	3,548
Neighborhood Services	64,251	—	—	64,251
Capital Outlay	44,725	301	—	45,026
Debt Service:				
Principal Retirement	325	—	—	325
Interest	178	—	—	178
TOTAL EXPENDITURES	327,539	10,498	42	338,079
EXCESS (DEFICIENCY) OF REVENUES OVER (UNDER) EXPENDITURES	35,701	(670)	(41)	34,990
OTHER FINANCING SOURCES (USES)				
Transfers from Other Funds	24,927	—	200	25,127
Transfers to Proprietary Funds	(1,215)	—	—	(1,215)
Transfers to Other Funds	(80,180)	—	(159)	(80,339)
TOTAL OTHER FINANCING SOURCES (USES)	(56,468)	—	41	(56,427)
NET CHANGE IN FUND BALANCES	(20,767)	(670)	—	(21,437)
Fund Balances at Beginning of Year	945,423	7,247	200	952,870
FUND BALANCES AT END OF YEAR	$ 924,656	$ 6,577	$ 200	$ 931,433

NONMAJOR GOVERNMENTAL FUNDS - SPECIAL REVENUE
COMBINING SCHEDULE OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
BUDGET AND ACTUAL (BUDGETARY BASIS)
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

	City of San Diego		Civic San Diego	
	Actual on Budgetary Basis	Final Budget	Actual on Budgetary Basis	Final Budget
REVENUES				
Property Taxes	$ 13,253	$ 13,188	$ —	$ —
Special Assessments	16,589	16,579	—	—
Sales Taxes	9,435	9,204	—	—
Transient Occupancy Taxes	109,959	110,828	—	—
Franchises	79,864	74,594	—	—
Other Local Taxes	41,889	38,638	—	—
Licenses and Permits	14,521	14,053	—	—
Fines, Forfeitures and Penalties	17	—	—	—
Revenue from Use of Money and Property	15,765	10,174	3	1
Revenue from Federal Agencies	271	3,340	—	—
Revenue from Other Agencies	3,441	195	520	1,100
Revenue from Private Sources	3,129	1,430	—	—
Charges for Current Services	151,818	168,799	10,067	25,704
Other Revenue	1,246	1,464	—	—
TOTAL REVENUES	461,197	462,486	10,590	26,805
EXPENDITURES				
Current:				
General Government and Support	121,058	135,050	10,372	26,469
Public Safety - Police	3,197	4,832	—	—
Public Safety - Fire and Life Safety and Homeland Security	6,486	8,998	—	—
Parks, Recreation, Culture and Leisure	121,258	148,081	—	—
Transportation	78,786	164,985	—	—
Sanitation and Health	2,166	7,533	—	—
Neighborhood Services	4,794	5,366	—	—
Capital Outlay	38,263	—	301	301
Debt Service:				
Principal Retirement	1,440	1,441	—	—
Interest	38	38	—	—
TOTAL EXPENDITURES	377,486	476,324	10,673	26,770
EXCESS (DEFICIENCY) OF REVENUES OVER (UNDER) EXPENDITURES	83,711	(13,838)	(83)	35
OTHER FINANCING SOURCES (USES)				
Transfers from Other Funds	34,901	36,828	—	—
Transfers to Other Funds	(117,703)	(121,737)	—	—
TOTAL OTHER FINANCING SOURCES (USES)	(82,802)	(84,909)	—	—
NET CHANGE IN FUND BALANCES	909	(98,747)	(83)	35
Prior Year Encumbrances	5,235	5,235	—	—
Fund Balances at Beginning of Year	236,656	236,656	6,571	6,571
FUND BALANCES AT END OF YEAR	$ 242,800	$ 143,144	$ 6,488	$ 6,606

CITY OF SAN DIEGO
NONMAJOR GOVERNMENTAL FUNDS - SPECIAL REVENUE
COMBINING BALANCE SHEET
June 30, 2018
(Dollars in Thousands)

	Budgeted			
	Acquisition, Improvement and Operations	SDCCU Stadium Operations	Transient Occupancy Tax	Underground Surcharge
ASSETS				
Cash and Investments	$ 27,835	$ 9,816	$ 3,028	$ 165,933
Receivables:				
Taxes - Net of Allowance for Uncollectibles	—	—	11,162	15,479
Accounts - Net of Allowance for Uncollectibles	234	446	2,016	—
Special Assessments	93	—	—	—
Notes	—	—	—	—
Loans	—	—	—	—
Accrued Interest	59	29	5	383
Grants	—	—	—	—
Advances to Other Agencies	542	—	—	—
Land Held for Resale	—	—	—	—
Prepaid Items	—	—	6	—
Restricted Cash and Investments	—	—	—	—
TOTAL ASSETS	$ 28,763	$ 10,291	$ 16,217	$ 181,795
LIABILITIES				
Accounts Payable	$ 2,053	$ 261	$ 3,808	$ 7,649
Accrued Wages and Benefits	132	82	44	52
Other Accrued Liabilities	44	3	—	—
Due to Other Funds	—	—	4,913	—
Due to Other Agencies	—	—	—	—
Unearned Revenue	—	—	—	—
TOTAL LIABILITIES	2,229	346	8,765	7,701
DEFERRED INFLOWS OF RESOURCES				
Unavailable Revenue - Taxes	—	—	—	—
Unavailable Revenue - Grants	—	—	—	—
Unavailable Revenue - Other	234	446	1,316	—
TOTAL DEFERRED INFLOWS OF RESOURCES	234	446	1,316	—
FUND BALANCES				
Nonspendable	—	—	6	—
Restricted	22,726	—	—	174,094
Committed	3,574	9,499	6,130	—
Unassigned	—	—	—	—
TOTAL FUND BALANCES	26,300	9,499	6,136	174,094
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND FUND BALANCES	$ 28,763	$ 10,291	$ 16,217	$ 181,795

		Unbudgeted			
Zoological Exhibits	Other Special Revenue	Grants	Low-Moderate Income Housing	Other Special Revenue	Total
$ 8,166	$ 21,413	$ 2,460	$ 53,958	$ 185,100	$ 477,709
332	—	—	—	—	26,973
—	44	1	—	4,493	7,234
—	—	—	—	28	121
—	—	—	262,773	2,268	265,041
—	—	176,965	—	3,507	180,472
—	63	30	123	366	1,058
—	—	22,272	—	—	22,272
—	—	—	—	3,831	4,373
—	—	—	20,778	—	20,778
—	—	—	3	183	192
—	—	2,294	1,552	—	3,846
$ 8,498	$ 21,520	$ 204,022	$ 339,187	$ 199,776	$ 1,010,069
$ 8,166	$ 4,329	$ 6,096	$ 358	$ 4,953	$ 37,673
—	69	—	—	—	379
—	—	—	1	17	65
—	—	15,986	—	19	20,918
—	—	10	—	—	10
—	—	2,460	—	261	2,721
8,166	4,398	24,552	359	5,250	61,766
222	—	—	—	—	222
—	—	17,231	—	—	17,231
—	44	—	—	4,154	6,194
222	44	17,231	—	4,154	23,647
—	—	—	3	183	192
110	14,578	179,469	338,825	160,613	890,415
—	2,500	—	—	29,596	51,299
—	—	(17,230)	—	(20)	(17,250)
110	17,078	162,239	338,828	190,372	924,656
$ 8,498	$ 21,520	$ 204,022	$ 339,187	$ 199,776	$ 1,010,069

CITY OF SAN DIEGO
NONMAJOR GOVERNMENTAL FUNDS - SPECIAL REVENUE
COMBINING SCHEDULE OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

	Budgeted			
	Acquisition, Improvement and Operations	SDCCU Stadium Operations	Transient Occupancy Tax	Underground Surcharge
REVENUES				
Property Taxes	$ —	$ —	$ —	$ —
Special Assessments	16,589	—	—	—
Transient Occupancy Taxes	—	—	109,959	—
Franchises	—	—	—	63,872
Licenses and Permits	53	5	58	—
Fines, Forfeitures and Penalties	—	—	7	—
Revenue from Use of Money and Property	183	6,407	2,335	1,204
Revenue from Federal Agencies	—	—	—	—
Revenue from Other Agencies	—	—	—	—
Revenue from Private Sources	711	—	1,103	1,315
Charges for Current Services	5,278	1	—	—
Other Revenue	553	264	1	—
TOTAL REVENUES	23,367	6,677	113,463	66,391
EXPENDITURES				
Current:				
General Government and Support	3,574	—	—	—
Public Safety - Police	—	—	—	—
Public Safety - Fire and Life Safety and Homeland Security	—	—	—	—
Parks, Recreation, Culture and Leisure	17,637	10,040	63,065	—
Transportation	—	—	5	29,636
Sanitation and Health	—	—	—	—
Neighborhood Services	2,715	—	—	—
Capital Outlay	399	7	150	9,784
Debt Service:				
Principal Retirement	—	—	—	—
Interest	—	—	—	—
TOTAL EXPENDITURES	24,325	10,047	63,220	39,420
EXCESS (DEFICIENCY) OF REVENUES OVER (UNDER) EXPENDITURES	(958)	(3,370)	50,243	26,971
OTHER FINANCING SOURCES (USES)				
Transfers from Other Funds	2,045	7,091	4,216	2
Transfers to Proprietary Funds	—	—	—	—
Transfers to Other Funds	(700)	(13,230)	(56,449)	—
TOTAL OTHER FINANCING SOURCES (USES)	1,345	(6,139)	(52,233)	2
NET CHANGE IN FUND BALANCES	387	(9,509)	(1,990)	26,973
Fund Balances at Beginning of Year	25,913	19,008	8,126	147,121
FUND BALANCES AT END OF YEAR	$ 26,300	$ 9,499	$ 6,136	$ 174,094

		Unbudgeted			
Zoological Exhibits	Other Special Revenue	Grants	Low-Moderate Income Housing	Other Special Revenue	Total
$ 13,253	$ —	$ —	$ —	$ 136	$ 13,389
—	—	—	—	47,281	63,870
—	—	—	—	—	109,959
—	—	—	—	105	63,977
—	14,405	—	—	—	14,521
—	—	—	—	1,442	1,449
—	284	249	3,363	10,251	24,276
—	271	41,906	—	—	42,177
—	3,171	1,297	—	2	4,470
—	—	—	92	1,631	4,852
—	2,011	—	—	9,675	16,965
—	13	756	1,474	274	3,335
13,253	20,155	44,208	4,929	70,797	363,240
—	4,881	5,469	—	1,441	15,365
—	3,197	2,840	—	377	6,414
—	604	11,638	—	105	12,347
13,897	262	161	—	42,214	147,276
—	3,309	139	—	21	33,110
—	2,093	1,432	—	23	3,548
—	2,079	36,532	1,902	21,023	64,251
—	6,274	23,899	—	4,212	44,725
—	—	—	—	325	325
—	—	—	—	178	178
13,897	22,699	82,110	1,902	69,919	327,539
(644)	(2,544)	(37,902)	3,027	878	35,701
—	166	2,000	—	9,407	24,927
—	—	—	—	(1,215)	(1,215)
—	(6,505)	—	—	(3,296)	(80,180)
—	(6,339)	2,000	—	4,896	(56,468)
(644)	(8,883)	(35,902)	3,027	5,774	(20,767)
754	25,961	198,141	335,801	184,598	945,423
$ 110	$ 17,078	$ 162,239	$ 338,828	$ 190,372	$ 924,656

CITY OF SAN DIEGO
NONMAJOR GOVERNMENTAL FUNDS - SPECIAL REVENUE
COMBINING SCHEDULE OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCES
BUDGET AND ACTUAL (BUDGETARY BASIS)
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

	Acquisition, Improvement and Operations			SDCCU Stadium Operations		
	Actual on Budgetary Basis	Final Budget	Variance with Final Budget Positive (Negative)	Actual on Budgetary Basis	Final Budget	Variance with Final Budget Postitive (Negative)
REVENUES						
Property Taxes	$ —	$ —	$ —	$ —	$ —	$ —
Special Assessments	16,589	16,579	10	—	—	—
Sales Taxes	—	—	—	—	—	—
Transient Occupancy Taxes	—	—	—	—	—	—
Franchises	—	—	—	—	—	—
Other Local Taxes	—	—	—	—	—	—
Licenses and Permits	53	50	3	5	8	(3)
Fines, Forfeitures and Penalties	—	—	—	—	—	—
Revenue from Use of Money and Property	283	80	203	6,446	2,973	3,473
Revenue from Federal Agencies	—	—	—	—	—	—
Revenue from Other Agencies	—	—	—	—	—	—
Revenue from Private Sources	711	—	711	—	—	—
Charges for Current Services	5,278	5,513	(235)	1	49	(48)
Other Revenue	633	—	633	264	1	263
TOTAL REVENUES	23,547	22,222	1,325	6,716	3,031	3,685
EXPENDITURES						
Current:						
General Government and Support	3,574	4,293	719	—	—	—
Public Safety - Police	—	—	—	—	—	—
Public Safety - Fire and Life Safety and Homeland Security	—	—	—	—	—	—
Parks, Recreation, Culture and Leisure	17,851	36,415	18,564	10,040	11,422	1,382
Transportation	—	—	—	—	—	—
Sanitation and Health	—	—	—	—	—	—
Neighborhood Services	2,715	2,716	1	—	—	—
Capital Outlay	399	—	(399)	7	—	(7)
Debt Service:					—	
Principal Retirement	—	—	—	—	—	—
Interest	—	—	—	—	—	—
TOTAL EXPENDITURES	24,539	43,424	18,885	10,047	11,422	1,375
EXCESS (DEFICIENCY) OF REVENUES OVER (UNDER) EXPENDITURES	(992)	(21,202)	20,210	(3,331)	(8,391)	5,060
OTHER FINANCING SOURCES (USES)						
Transfers from Other Funds	2,045	1,983	62	7,091	10,814	(3,723)
Transfers to Other Funds	(700)	(892)	192	(13,230)	(13,255)	25
TOTAL OTHER FINANCING SOURCES (USES)	1,345	1,091	254	(6,139)	(2,441)	(3,698)
NET CHANGE IN FUND BALANCES	353	(20,111)	20,464	(9,470)	(10,832)	1,362
Prior Year Encumbrances	438	438	—	—	—	—
Fund Balances at Beginning of Year	25,077	25,077	—	19,050	19,050	—
FUND BALANCES AT END OF YEAR	$ 25,868	$ 5,404	$ 20,464	$ 9,580	$ 8,218	$ 1,362

CITY OF SAN DIEGO
NONMAJOR GOVERNMENTAL FUNDS - SPECIAL REVENUE
COMBINING SCHEDULE OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCES
BUDGET AND ACTUAL (BUDGETARY BASIS)
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

	Transient Occupancy Tax			Underground Surcharge		
	Actual on Budgetary Basis	Final Budget	Variance with Final Budget Positive (Negative)	Actual on Budgetary Basis	Final Budget	Variance with Final Budget Positive (Negative)
REVENUES						
Property Taxes	$ —	$ —	$ —	$ —	$ —	$ —
Special Assessments	—	—	—	—	—	—
Sales Taxes	—	—	—	—	—	—
Transient Occupancy Taxes	109,959	110,828	(869)	—	—	—
Franchises	—	—	—	63,872	59,750	4,122
Other Local Taxes	—	—	—	—	—	—
Licenses and Permits	58	75	(17)	—	—	—
Fines, Forfeitures and Penalties	7	—	7	—	—	—
Revenue from Use of Money and Property	2,346	1,852	494	1,955	814	1,141
Revenue from Federal Agencies	—	—	—	—	—	—
Revenue from Other Agencies	—	—	—	—	—	—
Revenue from Private Sources	1,103	1,430	(327)	1,315	—	1,315
Charges for Current Services	—	—	—	—	—	—
Other Revenue	1	—	1	—	—	—
TOTAL REVENUES	113,474	114,185	(711)	67,142	60,564	6,578
EXPENDITURES						
Current:						
General Government and Support	—	—	—	—	2,289	2,289
Public Safety - Police	—	—	—	—	—	—
Public Safety - Fire and Life Safety and Homeland Security	—	—	—	—	—	—
Parks, Recreation, Culture and Leisure	63,065	66,022	2,957	—	—	—
Transportation	5	5	—	29,636	84,324	54,688
Sanitation and Health	—	—	—	—	—	—
Neighborhood Services	—	—	—	—	—	—
Capital Outlay	150	—	(150)	14,660	—	(14,660)
Debt Service:						
Principal Retirement	—	—	—	—	—	—
Interest	—	—	—	—	—	—
TOTAL EXPENDITURES	63,220	66,027	2,807	44,296	86,613	42,317
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	50,254	48,158	2,096	22,846	(26,049)	48,895
OTHER FINANCING SOURCES (USES)						
Transfers from Other Funds	4,216	4,671	(455)	2	—	2
Transfers to Other Funds	(56,449)	(56,938)	489	—	—	—
TOTAL OTHER FINANCING SOURCES (USES)	(52,233)	(52,267)	34	2	—	2
NET CHANGE IN FUND BALANCES	(1,979)	(4,109)	2,130	22,848	(26,049)	48,897
Prior Year Encumbrances	—	—	—	4,797	4,797	—
Fund Balances at Beginning of Year	8,132	8,132	—	142,324	142,324	—
FUND BALANCES AT END OF YEAR	$ 6,153	$ 4,023	$ 2,130	$ 169,969	$ 121,072	$ 48,897

(Continued on Next Page)

CITY OF SAN DIEGO
NONMAJOR GOVERNMENTAL FUNDS - SPECIAL REVENUE
COMBINING SCHEDULE OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCES
BUDGET AND ACTUAL (BUDGETARY BASIS)
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

	Zoological Exhibits			Other Special Revenue [1]		
	Actual on Budgetary Basis	Final Budget	Variance with Final Budget Positive (Negative)	Actual on Budgetary Basis	Final Budget	Variance with FInal Budget Positive (Negative)
REVENUES						
Property Taxes	$ 13,253	$ 13,188	$ 65	$ —	$ —	$ —
Special Assessments	—	—	—	—	—	—
Sales Taxes	—	—	—	9,435	9,204	231
Transient Occupancy Taxes	—	—	—	—	—	—
Franchises	—	—	—	15,992	14,844	1,148
Other Local Taxes	—	—	—	41,889	38,638	3,251
Licenses and Permits	—	—	—	14,405	13,920	485
Fines, Forfeitures and Penalties	—	—	—	10	—	10
Revenue from Use of Money and Property	—	—	—	4,735	4,455	280
Revenue from Federal Agencies	—	—	—	271	3,340	(3,069)
Revenue from Other Agencies	—	—	—	3,441	195	3,246
Revenue from Private Sources	—	—	—	—	—	—
Charges for Current Services	—	—	—	146,539	163,237	(16,698)
Other Revenue	—	—	—	348	1,463	(1,115)
TOTAL REVENUES	13,253	13,188	65	237,065	249,296	(12,231)
EXPENDITURES						
Current:						
General Government and Support	—	—	—	117,484	128,468	10,984
Public Safety - Police	—	—	—	3,197	4,832	1,635
Public Safety - Fire and Life Safety and Homeland Security	—	—	—	6,486	8,998	2,512
Parks, Recreation, Culture and Leisure	13,897	13,897	—	16,405	20,325	3,920
Transportation	—	—	—	49,145	80,656	31,511
Sanitation and Health	—	—	—	2,166	7,533	5,367
Neighborhood Services	—	—	—	2,079	2,650	571
Capital Outlay	—	—	—	23,047	—	(23,047)
Debt Service:					—	
Principal Retirement	—	—	—	1,440	1,441	1
Interest	—	—	—	38	38	—
TOTAL EXPENDITURES	13,897	13,897	—	221,487	254,941	33,454
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	(644)	(709)	65	15,578	(5,645)	21,223
OTHER FINANCING SOURCES (USES)						
Transfers from Other Funds	—	—	—	21,547	19,360	2,187
Transfers to Other Funds	—	—	—	(47,324)	(50,652)	3,328
TOTAL OTHER FINANCING SOURCES (USES)	—	—	—	(25,777)	(31,292)	5,515
NET CHANGE IN FUND BALANCES	(644)	(709)	65	(10,199)	(36,937)	26,738
Prior Year Encumbrances	—	—	—	—	—	—
Fund Balances at Beginning of Year	754	754	—	41,319	41,319	—
FUND BALANCES AT END OF YEAR	$ 110	$ 45	$ 65	$ 31,120	$ 4,382	$ 26,738

[1] Amounts include funds that do not meet the criteria to be classified as special revenue funds pursuant to GASB Statement No. 54, which are included with the General Fund in the Governmental Funds financial statements prepared on a GAAP basis.

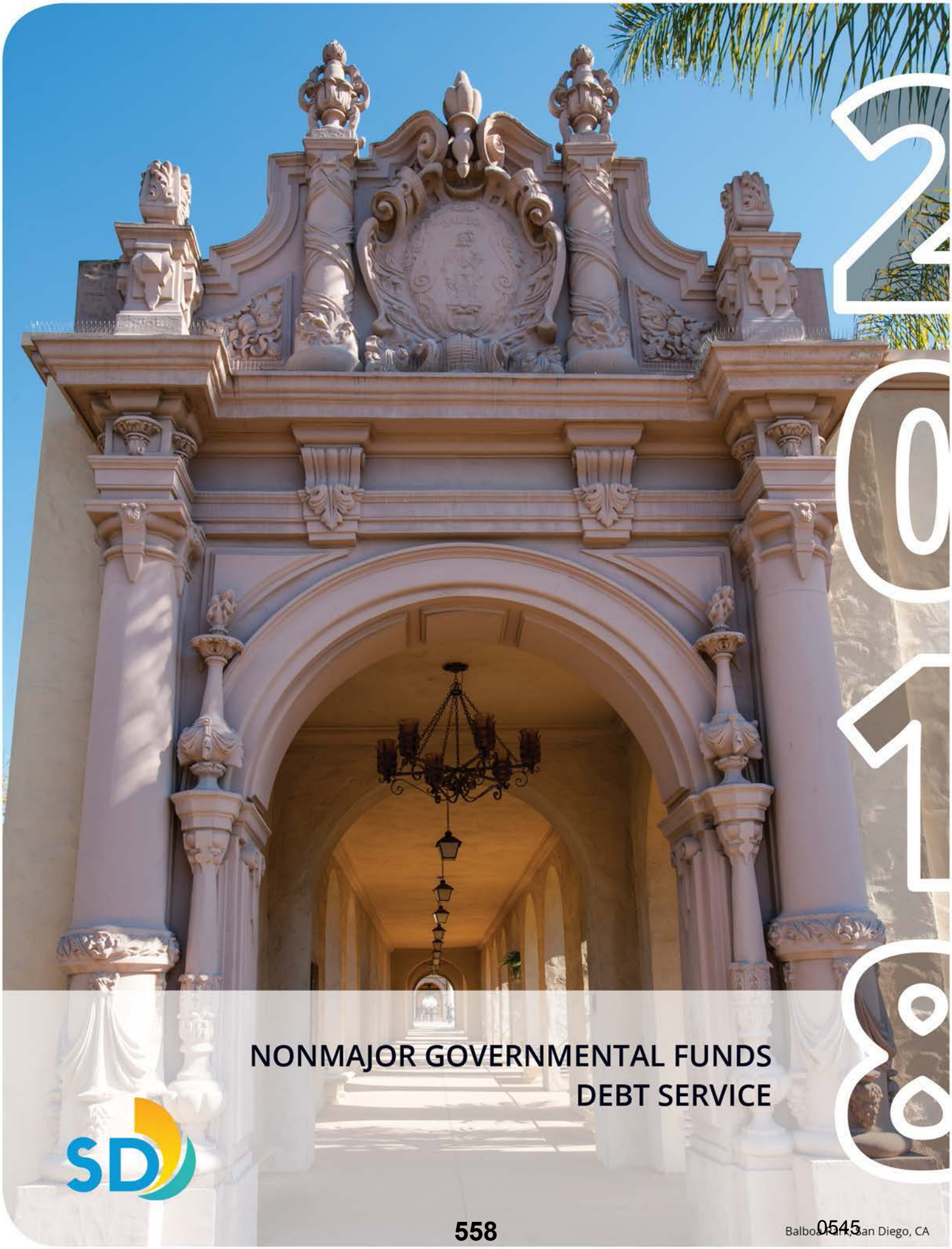

NONMAJOR GOVERNMENTAL FUNDS DEBT SERVICE

Balboa Park, San Diego, CA

DEBT SERVICE FUNDS

Debt service funds are used to account for and report financial resources that are restricted, committed, or assigned to expenditure for general long-term debt principal, interest, and related costs.

BLENDED COMPONENT UNITS

CONVENTION CENTER EXPANSION FINANCING AUTHORITY (CCEFA)

This fund was established to account for the debt service activities of the CCEFA. CCEFA, created by the City and the Port of San Diego, facilitates the financing, acquisition and construction of an expansion to the San Diego Convention Center. CCEFA's debt service fund is used to account for the payment of long-term debt principal and interest.

PUBLIC FACILITIES FINANCING AUTHORITY (PFFA)

This fund was established to account for the debt service activities of the PFFA. PFFA, a joint powers authority consisting of the City, the Successor Agency and the Housing Authority of the City of San Diego, facilitates the financing, acquisition and construction of public capital facility improvements. PFFA's debt service fund is used to account for the payment of long-term debt principal and interest.

TOBACCO SETTLEMENT REVENUE FUNDING CORPORATION (TSRFC)

This fund was established to account for the debt service activities of the TSRFC. TSRFC was established for the purpose of acquiring the tobacco settlement revenues allocated to the City from the State of California, pursuant to the Master Settlement Agreement. The TSRFC's debt service fund is used to account for the payment of long-term debt principal and interest.

NONMAJOR GOVERNMENTAL FUNDS - DEBT SERVICE
COMBINING BALANCE SHEET
June 30, 2018
(Dollars in Thousands)

	Convention Center Expansion Financing Authority	Public Facilities Financing Authority	Tobacco Settlement Revenue Funding Corporation	Total
ASSETS				
Cash and Investments	$ —	$ 4	$ 1	$ 5
Receivables:				
Accounts	—	—	4,718	4,718
Accrued Interest	—	10	2	12
Restricted Cash and Investments	—	213	11,926	12,139
TOTAL ASSETS	$ —	$ 227	$ 16,647	$ 16,874
DEFERRED INFLOWS OF RESOURCES				
Unavailable Revenue - Other	$ —	$ —	$ 4,718	$ 4,718
FUND BALANCES				
Restricted	—	227	11,929	12,156
TOTAL DEFERRED INFLOWS OF RESOURCES AND FUND BALANCES	$ —	$ 227	$ 16,647	$ 16,874

NONMAJOR GOVERNMENTAL FUNDS - DEBT SERVICE
COMBINING STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

	Convention Center Expansion Financing Authority	Public Facilities Financing Authority	Tobacco Settlement Revenue Funding Corporation	Total
REVENUES				
Revenue from Use of Money and Property	$ —	$ 138	$ 520	$ 658
Revenue from Other Agencies	—	—	10,952	10,952
TOTAL REVENUES	—	138	11,472	11,610
EXPENDITURES				
Debt Service:				
Principal Retirement	7,510	16,525	8,910	32,945
Cost of Issuance	—	438	1,062	1,500
Interest	5,046	31,660	10,307	47,013
Payment to Refunded Bond Escrow Agent	—	13,125	—	13,125
TOTAL EXPENDITURES	12,556	61,748	20,279	94,583
DEFICIENCY OF REVENUES UNDER EXPENDITURES	(12,556)	(61,610)	(8,807)	(82,973)
OTHER FINANCING SOURCES (USES)				
Transfers from Other Funds	12,556	38,995	159	51,710
Transfers to Other Funds	—	—	(661)	(661)
Payment to Refunded Bond Escrow Agent	—	(119,425)	(64,320)	(183,745)
Revenue Bonds Issued	—	129,320	—	129,320
Tobacco Settlement Bonds Issued	—	—	73,784	73,784
Discount on Bonds Issued	—	(204)	—	(204)
TOTAL OTHER FINANCING SOURCES (USES)	12,556	48,686	8,962	70,204
NET CHANGE IN FUND BALANCES	—	(12,924)	155	(12,769)
Fund Balances at Beginning of Year	—	13,151	11,774	24,925
FUND BALANCES AT END OF YEAR	$ —	$ 227	$ 11,929	$ 12,156

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NONMAJOR GOVERNMENTAL FUNDS
CAPITAL PROJECTS

Japanese Garden, Balboa Park, San Diego, CA

CAPITAL PROJECTS FUNDS

Capital projects funds are used to account for and report financial resources that are restricted, committed, or assigned to expenditure for the acquisition or construction of major capital facilities.

CITY OF SAN DIEGO

TRANSNET - BUDGETED

This fund was established to account for transportation improvements funded by the 2009 extension of a local sales tax approved by voters in the County of San Diego. Funds are used to relieve traffic congestion, increase safety, and improve air quality by performing repairs, restorations, and construction of needed facilities within the public rights-of-way.

CAPITAL OUTLAY - BUDGETED

This fund was established to account for capital improvements per Sections 55.2 and 77 of the City Charter. This fund includes a variety of capital projects including, but not limited to, building improvements to city facilities, park improvements, and street improvements. Revenues in this fund are derived from the sale of City-owned real property and Mission Bay Park lease revenues.

CAPITAL GRANTS - UNBUDGETED

This fund was established to account for capital grants from Federal, State and other governmental agencies.

PARKS & RECREATION DISTRICTS - UNBUDGETED

This fund was established to account for park fees collected at the time of subdivision or permit issuance and is mandated per the City of San Diego Municipal Code. Fee assessments are only to be used for park purposes within a Community Park Service District to purchase land, facilities, or reimburse those who have donated more than their proportionate responsibilities.

FACILITIES BENEFIT ASSESSMENTS - UNBUDGETED

This fund was established to account for building permit fees collected at the time of permit issuance and is mandated by the City Charter. Fee assessments are only to be used in the community the assessments are collected and are the primary source of project funding, excluding maintenance costs.

IMPACT FEES - UNBUDGETED

This fund was established to account for building permit fees collected at the time of permit issuance and has specific State reporting requirements. Fee assessments are only to be used in the community the assessments are collected and are not the primary source of project funding and exclude maintenance costs.

SPECIAL ASSESSMENT/SPECIAL TAX BONDS - UNBUDGETED

This fund was established to account for Community Facilities Districts and Special Assessment Districts, which under various sections of State law, issue limited obligation bonds to finance infrastructure facilities and other public improvements necessary to facilitate development of the properties within each district. The bonds are secured solely by the properties within each district, and are repaid through revenues generated by the annual levy of special taxes or special assessments on the benefiting properties.

TRANSNET - UNBUDGETED

This fund was established to account for transportation improvements funded by local sales tax approved by voters in the County of San Diego, as well as developer impact fees under the SANDAG administered TransNet Program. Funds are used to relieve traffic congestion, increase safety, and improve air quality by performing repairs, restorations, and construction of needed facilities within the public rights-of-way.

CAPITAL OUTLAY - UNBUDGETED

This fund was established to account for the acquisition, construction and completion of permanent public improvements and real property. This fund also accounts for a variety of capital projects including, but not limited to, park and street improvements, and the construction of public facilities in new development areas. Revenues in this fund are derived from developer contributions, private donations, special assessments, special taxes, fees, leases, and interest derived there from.

BLENDED COMPONENT UNITS

PUBLIC FACILITIES FINANCING AUTHORITY (PFFA)

This fund was established to account for the capital improvement acquisition and construction activities of the Public Facilities Financing Authority (PFFA). PFFA, which was created by the City and the former Redevelopment Agency, facilitates the financing and construction of public capital improvements. PFFA's current members are the City, the Successor Agency and the Housing Authority of the City of San Diego. Revenues are derived from the issuance of bonds and interest earnings on investments.

TOBACCO SETTLEMENT REVENUE FUNDING CORPORATION (TSRFC)

This fund was established to account for the capital improvement activities of the TSRFC. TSRFC was established for the purpose of acquiring the tobacco settlement revenues allocated to the City from the State of California, pursuant to the Master Settlement Agreement.

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NONMAJOR GOVERNMENTAL FUNDS - CAPITAL PROJECTS
COMBINING BALANCE SHEET
June 30, 2018
(Dollars in Thousands)

	City of San Diego	Public Facilities Financing Authority	Tobacco Settlement Revenue Funding Corporation	Total
ASSETS				
Cash and Investments	$ 658,259	$ —	$ 900	$ 659,159
Receivables:				
Taxes - Net of Allowance for Uncollectibles	32,752	—	—	32,752
Accounts - Net of Allowance for Uncollectibles	5,267	—	—	5,267
Claims	30,380	—	—	30,380
Loans	—	—	—	—
Accrued Interest	1,295	7	74	1,376
Grants	3,926	—	—	3,926
Advances to Other Agencies	11	—	—	11
Restricted Cash and Investments	16,654	9,256	22,597	48,507
TOTAL ASSETS	$ 748,544	$ 9,263	$ 23,571	$ 781,378
LIABILITIES				
Accounts Payable	$ 26,335	$ 3,285	$ —	$ 29,620
Due to Other Funds	2,781	3,418	—	6,199
Due to Other Agencies	13	—	—	13
Unearned Revenue	17,775	—	—	17,775
TOTAL LIABILITIES	46,904	6,703	—	53,607
DEFERRED INFLOWS OF RESOURCES				
Unavailable Revenue - Taxes	32,558	—	—	32,558
Unavailable Revenue - Grants	2,209	—	—	2,209
Unavailable Revenue - Other	2,348	—	—	2,348
TOTAL DEFERRED INFLOWS OF RESOURCES	37,115	—	—	37,115
FUND BALANCES				
Restricted	643,544	4,033	23,571	671,148
Committed	45,772	—	—	45,772
Unassigned	(24,791)	(1,473)	—	(26,264)
TOTAL FUND BALANCES	664,525	2,560	23,571	690,656
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND FUND BALANCES	$ 748,544	$ 9,263	$ 23,571	$ 781,378

NONMAJOR GOVERNMENTAL FUNDS - CAPITAL PROJECTS
COMBINING STATEMENT OF REVENUES, EXPENDITURES AND FUND BALANCES
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

	City of San Diego	Public Facilities Financing Authority	Tobacco Settlement Revenue Funding Corporation	Total
REVENUES				
Sales Taxes	$ 31,702	$ —	$ —	$ 31,702
Licenses and Permits	71,995	—	—	71,995
Revenue from Use of Money and Property	5,558	409	106	6,073
Revenue from Federal Agencies	10,106	—	—	10,106
Revenue from Other Agencies	9,716	—	—	9,716
Revenue from Private Sources	2,593	—	—	2,593
Charges for Current Services	77	—	—	77
Other Revenue	730	—	—	730
TOTAL REVENUES	132,477	409	106	132,992
EXPENDITURES				
Current:				
General Government and Support	3,931	—	—	3,931
Parks, Recreation, Culture and Leisure	7,202	—	—	7,202
Transportation	20,982	2	—	20,984
Sanitation and Health	580	1	—	581
Neighborhood Services	77	—	—	77
Capital Outlay	129,613	43,402	606	173,621
Debt Service:				
Principal Retirement	633	—	—	633
Interest	90	—	—	90
TOTAL EXPENDITURES	163,108	43,405	606	207,119
DEFICIENCY OF REVENUES UNDER EXPENDITURES	(30,631)	(42,996)	(500)	(74,127)
OTHER FINANCING SOURCES (USES)				
Transfers from Proprietary Funds	61	—	—	61
Transfers from Other Funds	18,932	—	—	18,932
Transfers to Other Funds	(15,695)	(1,445)	—	(17,140)
Proceeds from the Sale of Capital Assets	2,037	—	—	2,037
Capital Lease Proceeds	16,191	—	—	16,191
Tobacco Settlement Bonds Issued	—	—	24,071	24,071
TOTAL OTHER FINANCING SOURCES (USES)	21,526	(1,445)	24,071	44,152
NET CHANGE IN FUND BALANCES	(9,105)	(44,441)	23,571	(29,975)
Fund Balances at Beginning of Year	673,630	47,001	—	720,631
FUND BALANCES AT END OF YEAR	$ 664,525	$ 2,560	$ 23,571	$ 690,656

CITY OF SAN DIEGO
NONMAJOR GOVERNMENTAL FUNDS - CAPITAL PROJECTS
COMBINING BALANCE SHEET
June 30, 2018
(Dollars in Thousands)

	Budgeted	
	TransNet	Capital Outlay
ASSETS		
Cash and Investments	$ 4,159	$ 85,721
Receivables:		
Taxes - Net of Allowance for Uncollectibles	32,752	—
Accounts - Net of Allowance for Uncollectibles	—	1,565
Claims	—	—
Accrued Interest	11	102
Grants	—	—
Advances to Other Agencies	—	—
Restricted Cash and Investments	—	—
TOTAL ASSETS	$ 36,922	$ 87,388
LIABILITIES		
Accounts Payable	$ 4,314	$ 2,779
Due to Other Funds	—	—
Due to Other Agencies	—	—
Unearned Revenue	—	—
TOTAL LIABILITIES	4,314	2,779
DEFERRED INFLOWS OF RESOURCES		
Unavailable Revenue - Taxes	32,558	—
Unavailable Revenue - Grants	—	—
Unavailable Revenue - Other	—	—
TOTAL DEFERRED INFLOWS OF RESOURCES	32,558	—
FUND BALANCES		
Restricted	50	84,609
Committed	—	—
Unassigned	—	—
TOTAL FUND BALANCES (DEFICIT)	50	84,609
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND FUND BALANCES	$ 36,922	$ 87,388

Unbudgeted							
Capital Grants	Parks & Recreation Districts	Facilities Benefit Assessments	Impact Fees	Special Assessment/ Special Tax Bonds	TransNet	Capital Outlay	Total
$ 26	$ 4,411	$ 270,670	$ 149,596	$ 477	$ 22,208	$ 120,991	$ 658,259
—	—	—	—	—	—	—	32,752
—	—	—	41	—	17	3,644	5,267
—	—	—	—	—	—	30,380	30,380
—	10	621	341	1	50	159	1,295
3,926	—	—	—	—	—	—	3,926
—	—	—	—	—	—	11	11
—	—	—	—	—	—	16,654	16,654
$ 3,952	$ 4,421	$ 271,291	$ 149,978	$ 478	$ 22,275	$ 171,839	$ 748,544
$ 1,132	$ 4	$ 4,047	$ 1,998	$ —	$ 99	$ 11,962	$ 26,335
2,781	—	—	—	—	—	—	2,781
13	—	—	—	—	—	—	13
26	—	—	—	—	249	17,500	17,775
3,952	4	4,047	1,998	—	348	29,462	46,904
—	—	—	—	—	—	—	32,558
2,209	—	—	—	—	—	—	2,209
—	—	—	41	—	17	2,290	2,348
2,209	—	—	41	—	17	2,290	37,115
—	4,417	267,244	147,939	478	21,910	116,897	643,544
—	—	—	—	—	—	45,772	45,772
(2,209)	—	—	—	—	—	(22,582)	(24,791)
(2,209)	4,417	267,244	147,939	478	21,910	140,087	664,525
$ 3,952	$ 4,421	$ 271,291	$ 149,978	$ 478	$ 22,275	$ 171,839	$ 748,544

CITY OF SAN DIEGO
NONMAJOR GOVERNMENTAL FUNDS - CAPITAL PROJECTS
COMBINING STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

	Budgeted	
	TransNet	Capital Outlay
REVENUES		
Sales Taxes	$ 31,702	$ —
Licenses and Permits	—	—
Revenue from Use of Money and Property	46	429
Revenue from Federal Agencies	—	—
Revenue from Other Agencies	—	—
Revenue from Private Sources	—	—
Charges for Current Services	—	—
Other Revenue	—	—
TOTAL REVENUES	31,748	429
EXPENDITURES		
Current:		
General Government and Support	289	—
Parks, Recreation, Culture and Leisure	—	6,962
Transportation	6,244	—
Sanitation and Health	—	1
Neighborhood Services	—	—
Capital Outlay	19,079	5,548
Debt Service:		
Principal Retirement	—	—
Interest	—	—
TOTAL EXPENDITURES	25,612	12,511
EXCESS (DEFICIENCY) OF REVENUES OVER EXPENDITURES	6,136	(12,082)
OTHER FINANCING SOURCES (USES)		
Transfers from Proprietary Funds	—	—
Transfers from Other Funds	—	12,637
Transfers to Other Funds	(9,644)	(6,051)
Proceeds from the Sale of Capital Assets	—	2,037
Capital Lease Proceeds	—	—
TOTAL OTHER FINANCING SOURCES (USES)	(9,644)	8,623
NET CHANGE IN FUND BALANCES	(3,508)	(3,459)
Fund Balances (Deficit) at Beginning of Year	3,558	88,068
FUND BALANCES (DEFICIT) AT END OF YEAR	$ 50	$ 84,609

Unbudgeted							
Capital Grants	Parks & Recreation Districts	Facilities Benefit Assessments	Impact Fees	Special Assessment/ Spcial Tax Bonds	TransNet	Capital Outlay	Total
$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ 31,702
—	—	33,451	32,159	—	6,312	73	71,995
—	39	2,268	1,184	4	169	1,419	5,558
10,106	—	—	—	—	—	—	10,106
8,425	—	—	—	—	—	1,291	9,716
—	—	—	—	—	—	2,593	2,593
—	—	—	—	—	—	77	77
—	—	—	—	—	—	730	730
18,531	39	35,719	33,343	4	6,481	6,183	132,477
—	—	1,404	1,694	—	122	422	3,931
—	—	52	21	—	—	167	7,202
—	—	663	—	—	20	14,055	20,982
—	—	106	—	—	—	473	580
—	—	8	—	—	—	69	77
11,137	334	28,588	15,839	—	4,890	44,198	129,613
—	—	—	—	—	—	633	633
—	—	—	—	—	—	90	90
11,137	334	30,821	17,554	—	5,032	60,107	163,108
7,394	(295)	4,898	15,789	4	1,449	(53,924)	(30,631)
—	—	—	—	—	—	61	61
52	—	—	—	—	—	6,243	18,932
—	—	—	—	—	—	—	(15,695)
—	—	—	—	—	—	—	2,037
—	—	—	—	—	—	16,191	16,191
52	—	—	—	—	—	22,495	21,526
7,446	(295)	4,898	15,789	4	1,449	(31,429)	(9,105)
(9,655)	4,712	262,346	132,150	474	20,461	171,516	673,630
$ (2,209)	$ 4,417	$ 267,244	$ 147,939	$ 478	$ 21,910	$ 140,087	$ 664,525

CITY OF SAN DIEGO
NONMAJOR GOVERNMENTAL FUNDS - CAPITAL PROJECTS
COMBINING SCHEDULE OF REVENUES, EXPENDITURES AND FUND BALANCES
BUDGET AND ACTUAL (BUDGETARY BASIS)
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

	TransNet			Capital Outlay		
	Actual on Budgetary Basis	Final Budget	Variance with Final Budget Positive (Negative)	Actual on Budgetary Basis	Final Budget	Variance with Final Budget Positive (Negative)
REVENUES						
Sales Taxes	$ 31,702	$ 32,473	$ (771)	$ —	$ —	$ —
Revenue from Use of Money and Property	62	—	62	622	—	622
TOTAL REVENUES	31,764	32,473	(709)	622	—	622
EXPENDITURES						
Current:						
General Government and Support	289	307	18	—	11,109	11,109
Public Safety - Fire and Life Safety and Homeland Security	—	—	—	—	1,595	1,595
Parks, Recreation, Culture and Leisure	—	2,570	2,570	6,962	63,606	56,644
Transportation	6,244	48,999	42,755	—	4,010	4,010
Sanitation and Health	—	6,230	6,230	1	2,727	2,726
Neighborhood Services	—	(10)	(10)	—	8	8
Capital Outlay	31,546	—	(31,546)	15,142	—	(15,142)
TOTAL EXPENDITURES	38,079	58,096	20,017	22,105	83,055	60,950
DEFICIENCY OF REVENUES UNDER EXPENDITURES	(6,315)	(25,623)	19,308	(21,483)	(83,055)	61,572
OTHER FINANCING SOURCES (USES)						
Transfers from Other Funds	—	—	—	12,637	11,157	1,480
Transfers to Other Funds	(9,644)	(9,644)	—	(6,051)	(6,051)	—
Proceeds from the Sale of Capital Assets	—	—	—	2,037	—	2,037
TOTAL OTHER FINANCING SOURCES (USES)	(9,644)	(9,644)	—	8,623	5,106	3,517
NET CHANGE IN FUND BALANCES	(15,959)	(35,267)	19,308	(12,860)	(77,949)	65,089
Prior Year Encumbrances	8,465	8,465	—	2,854	2,854	—
Fund Balances (Deficit) at Beginning of Year	(4,907)	(4,907)	—	85,214	85,214	—
FUND BALANCES (DEFICIT) AT END OF YEAR	$ (12,401)	$ (31,709)	$ 19,308	$ 75,208	$ 10,119	$ 65,089

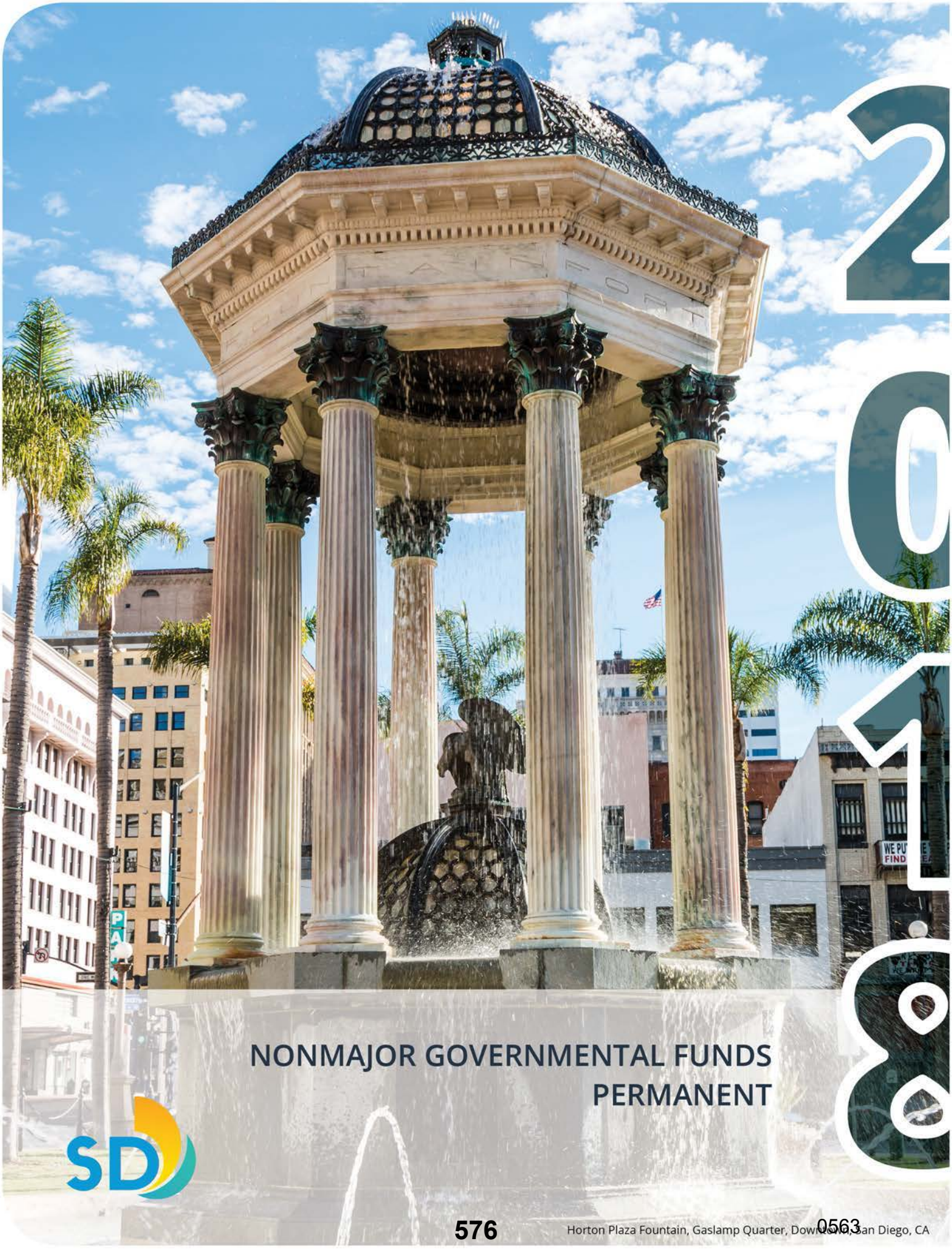

NONMAJOR GOVERNMENTAL FUNDS
PERMANENT

Horton Plaza Fountain, Gaslamp Quarter, Downtown, San Diego, CA

PERMANENT FUNDS

Permanent funds are used to account for and report resources that are restricted to the extent that only earnings, and not principal, may be used for purposes that support the City's programs (i.e., for the benefit of the City or its citizens).

CARROLL CANYON VERNAL POOL MITIGATION

This fund was established to account for an endowment from the San Diego Unified School District (The District). The endowment is to be used to implement a Memorandum of Understanding between the City and the District for biological mitigation, park land and joint use facilities involving Salk Elementary School, McAuliffe Community Park, and the Carroll Canyon Vernal Pool Preserve.

CEMETERY PERPETUITY

This fund was established to account for the Mt. Hope Cemetery endowment. Investment earnings derived from the endowment supplement grave sales revenues in order to finance cemetery operations.

LIBRARY ENDOWMENTS

This fund includes the Effie Sergeant endowment, which was established to account for donations to benefit the North Park library branch, and the Scripps Ranch Library endowment. Investment earnings are used to finance library services and programs.

LOS PENASQUITOS CANYON

This fund was established to account for the Los Penasquitos Canyon Preserve Trust Fund. Investment earnings are used to finance operations, land acquisitions, historical restoration, and maintenance of the Penasquitos Preserve Park.

OTHER ENDOWMENTS

This fund includes several miscellaneous endowments, including, Carmel Valley Sewer Maintenance, Crescent Heights Habitat Management, Environmental Trust Bankruptcy Endowment, Figg Estate, Phillip Green Memorial Trust, Sycamore Estates, and the Zoological Society-Mission Trails.

CITY OF SAN DIEGO
NONMAJOR GOVERNMENTAL FUNDS - PERMANENT
COMBINING BALANCE SHEET
June 30, 2018
(Dollars in Thousands)

	Carroll Canyon Vernal Pool Mitigation	Cemetery Perpetuity	Library Endowments	Los Penasquitos Canyon	Other Endowments	Total
ASSETS						
Receivables:						
Accrued Interest	$ 5	$ 4	$ 1	$ —	$ 4	$ 14
Restricted Cash and Investments	2,564	12,149	864	3,342	1,844	20,763
TOTAL ASSETS	$ 2,569	$ 12,153	$ 865	$ 3,342	$ 1,848	$ 20,777
LIABILITIES						
Accounts Payable	$ —	$ —	$ 4	$ —	$ —	$ 4
FUND BALANCES						
Nonspendable	2,482	12,153	388	1,000	1,813	17,836
Restricted	87	—	473	2,342	35	2,937
TOTAL FUND BALANCES	2,569	12,153	861	3,342	1,848	20,773
TOTAL LIABILITIES AND FUND BALANCES	$ 2,569	$ 12,153	$ 865	$ 3,342	$ 1,848	$ 20,777

COMBINING STATEMENT OF REVENUES, EXPENDITURES AND FUND BALANCES
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

	Carroll Canyon Vernal Pool Mitigation	Cemetery Perpetuity	Library Endowments	Los Penasquitos Canyon	Other Endowments	Total
REVENUES						
Revenue from Use of Money and Property	$ 21	$ 461	$ 40	$ 209	$ 4	$ 735
Revenue from Private Sources	—	—	—	—	678	678
Charges for Current Services	—	127	—	—	—	127
TOTAL REVENUES	21	588	40	209	682	1,540
EXPENDITURES						
Current:						
Parks, Recreation, Culture and Leisure	—	—	22	2	—	24
Sanitation and Health	—	71	—	—	—	71
TOTAL EXPENDITURES	—	71	22	2	—	95
EXCESS OF REVENUES OVER EXPENDITURES	21	517	18	207	682	1,445
OTHER FINANCING USES						
Transfers to Other Funds	—	(426)	—	(115)	—	(541)
NET CHANGE IN FUND BALANCES	21	91	18	92	682	904
Fund Balances at Beginning of Year	2,548	12,062	843	3,250	1,166	19,869
FUND BALANCES AT END OF YEAR	$ 2,569	$ 12,153	$ 861	$ 3,342	$ 1,848	$ 20,773

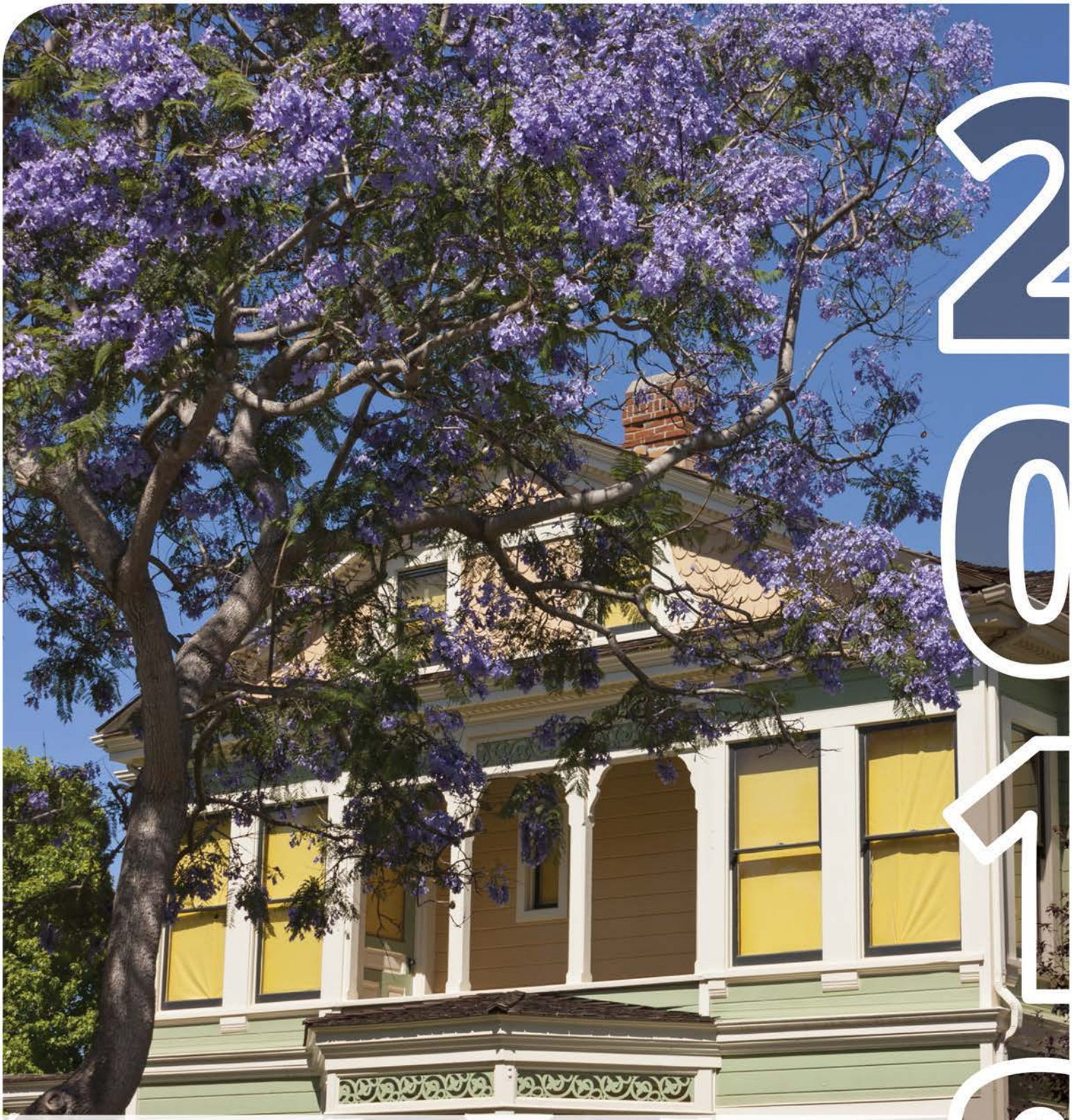

NONMAJOR BUSINESS-TYPE FUNDS
ENTERPRISE

Historic House, Old Town Heritage Park, San Diego, CA

ENTERPRISE FUNDS

Enterprise funds are used to account for any activity for which a fee is charged to external users for goods or services. These funds use full accrual accounting.

CITY OF SAN DIEGO

AIRPORTS
This fund was established to account for the operation, maintenance and development of both City-owned airports: Montgomery-Gibbs Executive Airport and Brown Field Municipal Airport. Airports Fund revenues are derived from such sources as rent/lease revenue, usage fees, earnings on investments, and aid from other governmental agencies.

DEVELOPMENT SERVICES
This fund was established to account for construction management, development project review, permitting, and inspection services for the City.

ENVIRONMENTAL SERVICES
This fund was established to account for refuse disposal, resource management, and other environmental programs.

GOLF COURSE
This fund was established to operate, maintain, and improve physical conditions and initiate capital improvement programs for Torrey Pines, Mission Bay, and Balboa golf courses. Revenues are derived from green fees and leases.

RECYCLING
This fund was established to account for the planning, implementation, operation and management of City recycling and waste diversion programs. Revenues are derived from the recycling fee on all waste generated in the City or disposed of at the City landfill.

BLENDED COMPONENT UNIT

SAN DIEGO CONVENTION CENTER CORPORATION
SDCCC is a not-for-profit public benefit corporation, originally organized to market, operate, and maintain the San Diego Convention Center. Revenues are derived mainly from building rents, food and beverage concessions, ancillary services, and contributions from the City of San Diego. Expenses include maintenance, operations, and capital projects for the Convention Center.

NONMAJOR BUSINESS-TYPE FUNDS - ENTERPRISE
COMBINING STATEMENT OF FUND NET POSITION
June 30, 2018
(Dollars in Thousands)

	Airports	Development Services	Environmental Services	Golf Course	Recycling	San Diego Convention Center Corporation	Total
ASSETS							
Current Assets:							
Cash and Investments	$ 14,544	$ 23,119	$ 60,655	$ 26,836	$ 31,638	$ 17,325	$ 174,117
Receivables:							
Accounts - Net of Allowance for Uncollectibles	948	1,946	1,076	645	3,700	6,547	14,862
Accrued Interest	68	132	438	133	198	—	969
Grants	4,909	—	—	—	187	—	5,096
Inventories	—	—	—	—	—	38	38
Total Current Assets	20,469	25,197	62,169	27,614	35,723	23,910	195,082
Non-Current Assets:							
Restricted Cash and Investments	76	7,975	32,274	—	11,551	3,211	55,087
Prepaid Expenses	—	2,626	—	—	—	597	3,223
Other Assets	—	—	—	—	—	706	706
Capital Assets - Non-Depreciable	2,286	5,640	13,107	2,541	—	2,971	26,545
Capital Assets - Depreciable	30,034	419	16,311	27,133	1,578	33,600	109,075
Total Non-Current Assets	32,396	16,660	61,692	29,674	13,129	41,085	194,636
TOTAL ASSETS	52,865	41,857	123,861	57,288	48,852	64,995	389,718
DEFERRED OUTFLOWS OF RESOURCES							
Deferred Outflows Related to Other Postemployment Benefits	60	1,227	388	278	271	—	2,224
Deferred Outflows Related to Pensions	742	21,560	8,354	3,393	5,005	—	39,054
TOTAL DEFERRED OUTFLOWS OF RESOURCES	802	22,787	8,742	3,671	5,276	—	41,278
LIABILITIES							
Current Liabilities:							
Accounts Payable	4,849	1,310	1,747	550	1,020	2,209	11,685
Accrued Wages and Benefits	54	1,508	435	241	282	—	2,520
Other Accrued Liabilities	—	—	—	—	—	2,853	2,853
Long-Term Liabilities Due Within One Year	62	3,253	645	270	414	1,200	5,844
Unearned Revenue	—	17,317	—	52	601	9,732	27,702
Current Liabilities Payable from Restricted Assets:							
Customer Deposits Payable	—	—	—	—	11,551	—	11,551
Total Current Liabilities	4,965	23,388	2,827	1,113	13,868	15,994	62,155

NONMAJOR BUSINESS-TYPE FUNDS - ENTERPRISE
COMBINING STATEMENT OF FUND NET POSITION
June 30, 2018
(Dollars in Thousands)

	Airports	Development Services	Environmental Services	Golf Course	Recycling	San Diego Convention Center Corporation	Total
Non-Current Liabilities:							
Non-Current Liabilities Payable from Restricted Assets:							
Deposits/Advances from Others	$ 76	$ 7,975	$ —	$ —	$ —	$ —	$ 8,051
Compensated Absences	47	1,271	404	170	169	—	2,061
Liability Claims	109	1,394	1,741	712	1,681	—	5,637
Capital Lease Obligations	—	2,339	—	—	—	—	2,339
Loans Payable	—	—	—	—	—	25,500	25,500
Notes Payable	—	—	—	—	—	9	9
Contracts Payable	—	1,481	—	—	—	—	1,481
Estimated Landfill Closure and Postclosure Care	—	—	53,003	—	—	—	53,003
Net Other Postemployment Benefits Liability	916	16,601	8,748	5,224	5,422	—	36,911
Pension Liabilities	2,755	75,439	32,640	15,001	19,869	—	145,704
Total Non-Current Liabilities	3,903	106,500	96,536	21,107	27,141	25,509	280,696
TOTAL LIABILITIES	8,868	129,888	99,363	22,220	41,009	41,503	342,851
DEFERRED INFLOWS OF RESOURCES							
Deferred Inflows Related to Other Postemployment Benefits	1	24	6	5	7	—	43
Deferred Inflows Related to Pensions	98	2,705	740	429	941	—	4,913
TOTAL DEFERRED INFLOWS OF RESOURCES	99	2,729	746	434	948	—	4,956
NET POSITION (DEFICIT)							
Net Investment in Capital Assets	32,320	2,595	29,418	29,674	1,578	13,647	109,232
Restricted for Closure/Postclosure Maintenance	—	—	5,698	—	—	—	5,698
Restricted for Other	—	—	—	—	—	827	827
Unrestricted (Deficit)	12,380	(70,568)	(2,622)	8,631	10,593	9,018	(32,568)
TOTAL NET POSITION (DEFICIT)	$ 44,700	$ (67,973)	$ 32,494	$ 38,305	$ 12,171	$ 23,492	$ 83,189

NONMAJOR BUSINESS-TYPE FUNDS - ENTERPRISE
COMBINING STATEMENT OF REVENUES, EXPENSES AND CHANGES IN FUND NET POSITION
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

	Airports	Development Services	Environmental Services	Golf Course	Recycling	San Diego Convention Center Corporation	Total
OPERATING REVENUES							
Charges for Services	$ 169	$ 69,361	$ 33,964	$ 21,801	$ 22,613	$ 15,619	$ 163,527
Revenue from Use of Property	4,701	—	161	1,533	177	18,637	25,209
Other	18	1,342	835	168	5,167	3,671	11,201
TOTAL OPERATING REVENUES	4,888	70,703	34,960	23,502	27,957	37,927	199,937
OPERATING EXPENSES							
Salaries and Employee Benefits	2,139	54,153	16,339	8,961	12,673	21,702	115,967
Materials and Supplies	177	1,968	1,617	1,369	1,467	606	7,204
Contractual Services	2,411	17,261	14,833	6,318	9,765	5,842	56,430
Information Technology	197	2,401	864	157	393	40	4,052
Energy and Utilities	205	731	1,274	2,024	734	4,111	9,079
Depreciation	2,211	30	1,303	1,833	125	2,315	7,817
Other Expenses	7	1,388	5,033	38	21	2,792	9,279
TOTAL OPERATING EXPENSES	7,347	77,932	41,263	20,700	25,178	37,408	209,828
OPERATING INCOME (LOSS)	(2,459)	(7,229)	(6,303)	2,802	2,779	519	(9,891)
NONOPERATING REVENUES (EXPENSES)							
Earnings on Investments	150	232	900	248	372	165	2,067
Federal Grant Assistance	467	—	—	—	—	—	467
Other Agency Grant Assistance	—	—	—	—	1,085	—	1,085
Loss on Sale/Retirement of Capital Assets	(62)	(1)	(161)	(351)	(6)	(6)	(587)
Debt Service Interest Expense	—	(194)	—	—	—	(572)	(766)
Other	1	2	133	11	90	811	1,048
TOTAL NONOPERATING REVENUES (EXPENSES), NET	556	39	872	(92)	1,541	398	3,314
INCOME (LOSS) BEFORE CONTRIBUTIONS AND TRANSFERS	(1,903)	(7,190)	(5,431)	2,710	4,320	917	(6,577)
Capital Contributions	5,057	—	29	—	—	218	5,304
Transfers from Other Funds	—	—	—	—	573	—	573
Transfers from Governmental Funds	9	1,514	108	45	95	—	1,771
Transfers to Other Funds	—	—	(573)	—	—	—	(573)
Transfers to Governmental Funds	(1)	—	(16)	—	—	—	(17)
TOTAL CONTRIBUTIONS AND TRANSFERS	5,065	1,514	(452)	45	668	218	7,058
CHANGE IN NET POSITION	3,162	(5,676)	(5,883)	2,755	4,988	1,135	481
Net Position (Deficit) at Beginning of Year, as Restated	41,538	(62,297)	38,377	35,550	7,183	22,357	82,708
NET POSITION (DEFICIT) AT END OF YEAR	$ 44,700	$ (67,973)	$ 32,494	$ 38,305	$ 12,171	$ 23,492	$ 83,189

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NONMAJOR BUSINESS-TYPE FUNDS - ENTERPRISE
COMBINING STATEMENT OF CASH FLOWS
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

	Airports	Development Services	Environmental Services	Golf Course	Recycling	San Diego Convention Center Corporation	Total
CASH FLOWS FROM OPERATING ACTIVITIES							
Receipts from Customers and Users	$ 4,474	$ 68,487	$ 33,511	$ 23,002	$ 25,935	$ 39,679	$ 195,088
Receipts from Interfund Services Provided	27	1,474	1,615	—	841	—	3,957
Payments to Suppliers	(3,065)	(22,923)	(19,794)	(10,531)	(15,145)	(12,716)	(84,174)
Payments to Employees	(1,822)	(45,133)	(13,358)	(7,006)	(7,722)	(21,404)	(96,445)
Payments for Interfund Services Used	(397)	(6,519)	(514)	(215)	(199)	—	(7,844)
NET CASH PROVIDED BY (USED FOR) OPERATING ACTIVITIES	(783)	(4,614)	1,460	5,250	3,710	5,559	10,582
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES							
Transfers from Other Funds	—	—	—	—	573	—	573
Transfers from Governmental Funds	9	1,514	108	45	95	—	1,771
Transfers to Other Funds	—	—	(573)	—	—	—	(573)
Transfers to Governmental Funds	(1)	—	(16)	—	—	—	(17)
Operating Grants Received	638	—	—	—	899	—	1,537
Proceeds from Advances and Deposits	1	—	—	—	15	—	16
Payments for Advances and Deposits	—	(43)	—	—	—	—	(43)
NET CASH PROVIDED BY (USED FOR) NONCAPITAL FINANCING ACTIVITIES	647	1,471	(481)	45	1,582	—	3,264
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES							
Proceeds from Capital Contributions	413	—	—	—	—	—	413
Proceeds from Sale of Capital Assets	—	—	—	—	—	31	31
Loans to Others	—	—	—	—	—	(575)	(575)
Acquisition of Capital Assets	(1,635)	(591)	(851)	(1,311)	(117)	(14,495)	(19,000)
Principal Payments on Capital Leases	—	(1,097)	—	—	—	—	(1,097)
Principal Payments on Notes	—	—	—	—	—	(2)	(2)
Interest Paid on Long-Term Debt	—	(194)	—	—	—	(1,055)	(1,249)
NET CASH USED FOR CAPITAL AND RELATED FINANCING ACTIVITIES	(1,222)	(1,882)	(851)	(1,311)	(117)	(16,096)	(21,479)
CASH FLOWS FROM INVESTING ACTIVITIES							
Purchase of Investments	—	—	—	—	—	(3,544)	(3,544)
Proceeds from Restricted Investments	—	—	—	—	—	16,745	16,745
Interest Received on Investments	129	199	743	184	294	166	1,715
NET CASH PROVIDED BY INVESTING ACTIVITIES	129	199	743	184	294	13,367	14,916
Net Increase (Decrease) in Cash and Cash Equivalents	(1,229)	(4,826)	871	4,168	5,469	2,830	7,283
Cash and Cash Equivalents at Beginning of Year	15,849	35,920	92,058	22,668	37,720	11,778	215,993
CASH AND CASH EQUIVALENTS AT END OF YEAR	$ 14,620	$ 31,094	$ 92,929	$ 26,836	$ 43,189	$ 14,608	$ 223,276

NONMAJOR BUSINESS-TYPE FUNDS - ENTERPRISE
COMBINING STATEMENT OF CASH FLOWS
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

	Airports	Development Services	Environmental Services	Golf Course	Recycling	San Diego Convention Center Corporation	Total
Reconciliation of Cash and Cash Equivalents at End of Year to the Statement of Net Position:							
Cash and Investments	$ 14,544	$ 23,119	$ 60,655	$ 26,836	$ 31,638	$ 17,325	$ 174,117
Restricted Cash and Investments	76	7,975	32,274	—	11,551	3,211	55,087
Less Investments not meeting the definition of cash equivalents	—	—	—	—	—	(5,928)	(5,928)
TOTAL CASH AND CASH EQUIVALENTS AT END OF YEAR	$ 14,620	$ 31,094	$ 92,929	$ 26,836	$ 43,189	$ 14,608	$ 223,276
Reconciliation of Operating Income (Loss) to Net Cash Provided by (Used For) Operating Activities:							
Operating Income (Loss)	$ (2,459)	$ (7,229)	$ (6,303)	$ 2,802	$ 2,779	$ 519	$ (9,891)
Adjustments to Reconcile Operating Income (Loss) to Net Cash Provided By (Used For) Operating Activities:							
Depreciation	2,211	30	1,303	1,833	125	2,315	7,817
Other Nonoperating Revenue	1	2	133	11	90	811	1,048
(Increase) Decrease in Assets:							
Accounts Receivable - Net	(388)	(217)	33	(494)	(1,504)	1,826	(744)
Prepaid Expenses	—	901	—	—	—	34	935
Increase (Decrease) in Liabilities and Net Deferred Outflows/Inflows of Resources:							
Accounts Payable	(295)	(1,347)	165	75	(560)	647	(1,315)
Accrued Wages and Benefits	(1)	64	59	41	17	—	180
Other Accrued Liabilities	—	—	—	—	—	436	436
Unearned Revenue	—	(527)	—	(17)	233	(885)	(1,196)
Contracts Payable	—	(694)	—	—	—	—	(694)
Compensated Absences	18	(70)	(52)	25	43	(144)	(180)
Liability Claims	(23)	(151)	273	84	253	—	436
Estimated Landfill Closure and Postclosure Care	—	—	4,473	—	—	—	4,473
Net Other Postemployment Benefits Liability and Related Deferred Outflows/Inflows of Resources	5	20	(51)	(15)	92	—	51
Pension Liabilities and Related Deferred Outflows/ Inflows of Resources	148	4,604	1,427	905	2,142	—	9,226
Total Adjustments	1,676	2,615	7,763	2,448	931	5,040	20,473
NET CASH PROVIDED BY (USED FOR) OPERATING ACTIVITIES	$ (783)	$ (4,614)	$ 1,460	$ 5,250	$ 3,710	$ 5,559	$ 10,582
Noncash Investing, Capital, and Financing Activities:							
Acquisition of Capital Assets	$ —	$ 1,255	$ —	$ —	$ —	$ 218	$ 1,473
Capital Contributions Related to Grants Receivable	4,644	—	—	—	—	—	4,644
Capital Asset Acquisitions Related to Accounts Payable	4,524	—	184	125	(62)	646	5,417
Carrying Value of Retired Capital Assets	(62)	—	(161)	(351)	(6)	6	(574)
Capitalized Interest and Related Amounts	—	—	—	—	—	343	343
Transfers of Capital Assets to Governmental Activities	—	(1)	—	—	—	—	(1)
Transfers of Capital Assets From Other Funds	—	—	29	—	—	—	29

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INTERNAL SERVICE FUNDS

Balboa Park, San Diego, CA

INTERNAL SERVICE FUNDS

Internal service funds are used to account for the financing of goods or services provided by one department or agency to other departments or agencies of the City, or to other governmental units and/or funds.

CITY OF SAN DIEGO

FLEET OPERATIONS
This fund was established to account for the acquisition, replacement, maintenance and fueling of the City's motive equipment.

CENTRAL STORES
This fund was established to provide centralized storeroom services to all City departments.

PUBLISHING SERVICES
This fund was established to provide printing and reproduction services to all City departments.

MISCELLANEOUS INTERNAL SERVICE
This fund accounts for various administrative activities including risk management administration, energy conservation, public utilities inventory, and administration and operation of various employee related programs such as unused compensatory time, unused sick leave, unemployment insurance, and long-term disability. Revenues are derived from rates or fees charged to the departments for specific services rendered. All miscellaneous funds are reported with governmental activities in the government-wide financial statements, with the exception of the public utilities inventory fund, which is reported with business-type activities.

INTERNAL SERVICE FUNDS
COMBINING STATEMENT OF FUND NET POSITION
June 30, 2018
(Dollars in Thousands)

	Fleet Operations	Central Stores	Publishing Services	Miscellaneous Internal Service	Total
ASSETS					
Current Assets:					
Cash and Investments	$ 110,052	$ 389	$ 1,393	$ 33,501	$ 145,335
Receivables:					
Accounts - Net of Allowance for Uncollectibles	2,915	—	2	37	2,954
Contributions	—	—	—	913	913
Accrued Interest	45	3	5	152	205
Grants	—	—	—	277	277
Inventories	—	1,351	—	418	1,769
Total Current Assets	113,012	1,743	1,400	35,298	151,453
Non-Current Assets:					
Capital Assets - Non-Depreciable	3,073	—	—	776	3,849
Capital Assets - Depreciable	140,868	128	103	1,520	142,619
Total Non-Current Assets	143,941	128	103	2,296	146,468
TOTAL ASSETS	256,953	1,871	1,503	37,594	297,921
DEFERRED OUTFLOWS OF RESOURCES					
Deferred Outflows Related to Other Postemployment Benefits	565	61	31	280	937
Deferred Outflows Related to Pensions	10,572	911	395	5,241	17,119
TOTAL DEFERRED OUTFLOWS OF RESOURCES	11,137	972	426	5,521	18,056
LIABILITIES					
Current Liabilities:					
Accounts Payable	6,981	612	238	1,241	9,072
Accrued Wages and Benefits	697	46	25	1,068	1,836
Other Accrued Liabilities	—	—	—	130	130
Interest Accrued on Long-Term Debt	233	—	—	—	233
Long-Term Liabilities Due Within One Year	10,803	57	36	3,900	14,796
Total Current Liabilities	18,714	715	299	6,339	26,067
Non-Current Liabilities:					
Compensated Absences	464	24	26	2,813	3,327
Liability Claims	4,536	226	68	2,479	7,309
Capital Lease Obligations	26,415	—	—	—	26,415
Net Other Postemployment Benefits Liability	13,295	1,182	926	4,973	20,376
Pension Liabilities	42,154	3,532	1,776	18,955	66,417
Total Non-Current Liabilities	86,864	4,964	2,796	29,220	123,844
TOTAL LIABILITIES	105,578	5,679	3,095	35,559	149,911
DEFERRED INFLOWS OF RESOURCES					
Deferred Inflows Related to Other Postemployment Benefits	11	1	1	5	18
Deferred Inflows Related to Pensions	1,349	114	54	673	2,190
TOTAL DEFERRED INFLOWS OF RESOURCES	1,360	115	55	678	2,208
NET POSITION (DEFICIT)					
Net Investment in Capital Assets	107,856	128	103	2,296	110,383
Unrestricted (Deficit)	53,296	(3,079)	(1,324)	4,582	53,475
TOTAL NET POSITION (DEFICIT)	$ 161,152	$ (2,951)	$ (1,221)	$ 6,878	$ 163,858

INTERNAL SERVICE FUNDS
COMBINING STATEMENT OF REVENUES, EXPENSES AND CHANGES IN FUND NET POSITION
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

	Fleet Operations	Central Stores	Publishing Services	Miscellaneous Internal Service	Total
OPERATING REVENUES					
Charges for Services	$ 79,261	$ 9,022	$ 3,695	$ 28,486	$ 120,464
Other	—	45	—	28	73
TOTAL OPERATING REVENUES	79,261	9,067	3,695	28,514	120,537
OPERATING EXPENSES					
Salaries and Employee Benefits	24,531	2,007	990	12,412	39,940
Materials and Supplies	13,803	7,059	293	117	21,272
Contractual Services	5,078	1,164	2,078	2,579	10,899
Information Technology	571	67	91	1,164	1,893
Energy and Utilities	12,189	107	101	25	12,422
Depreciation	20,732	18	11	42	20,803
Benefit and Claim Expenses	—	—	—	16,944	16,944
Other Expenses	5	—	—	25	30
TOTAL OPERATING EXPENSES	76,909	10,422	3,564	33,308	124,203
OPERATING INCOME (LOSS)	2,352	(1,355)	131	(4,794)	(3,666)
NONOPERATING REVENUES (EXPENSES)					
Earnings on Investments	62	10	8	336	416
Other Agency Grant Assistance	—	—	—	656	656
Gain (Loss) on Sale/Retirement of Capital Assets	872	—	—	(144)	728
Debt Service Interest Expense	(658)	—	—	—	(658)
Other	321	16	75	2	414
TOTAL NONOPERATING REVENUES (EXPENSES), NET	597	26	83	850	1,556
INCOME (LOSS) BEFORE CONTRIBUTIONS AND TRANSFERS	2,949	(1,329)	214	(3,944)	(2,110)
Capital Contributions	1,300	—	—	—	1,300
Transfers from Other Funds	—	—	—	3,000	3,000
Transfers from Governmental Funds	207	14	5	22	248
Transfers to Governmental Funds	(2)	—	(4)	—	(6)
TOTAL CONTRIBUTIONS AND TRANSFERS	1,505	14	1	3,022	4,542
CHANGE IN NET POSITION	4,454	(1,315)	215	(922)	2,432
Net Position (Deficit) at Beginning of Year, as Restated	156,698	(1,636)	(1,436)	7,800	161,426
NET POSITION (DEFICIT) AT END OF YEAR	$ 161,152	$ (2,951)	$ (1,221)	$ 6,878	$ 163,858

INTERNAL SERVICE FUNDS
COMBINING STATEMENT OF CASH FLOWS
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

	Fleet Operations	Central Stores	Publishing Services	Miscellaneous Internal Service	Total
CASH FLOWS FROM OPERATING ACTIVITIES					
Receipts from Customers and Users	$ —	$ —	$ —	$ 25,157	$ 25,157
Receipts from Interfund Services Provided	78,614	9,083	3,769	3,268	94,734
Payments to Suppliers	(31,096)	(7,545)	(2,736)	(5,981)	(47,358)
Payments to Employees	(18,198)	(1,546)	(726)	(25,648)	(46,118)
Payments for Interfund Services Used	(609)	(643)	(55)	(455)	(1,762)
NET CASH PROVIDED BY (USED FOR) OPERATING ACTIVITIES	28,711	(651)	252	(3,659)	24,653
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES					
Transfers from Other Funds	—	—	—	3,000	3,000
Transfers from Governmental Funds	207	14	5	22	248
Transfers to Governmental Funds	(2)	—	(4)	—	(6)
Operating Grants Received	—	—	—	490	490
NET CASH PROVIDED BY NONCAPITAL FINANCING ACTIVITIES	205	14	1	3,512	3,732
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES					
Proceeds from the Sale of Capital Assets	1,300	—	—	—	1,300
Acquisition of Capital Assets	(17,064)	(1)	(32)	(874)	(17,971)
Principal Payments on Capital Leases	(8,010)	—	—	—	(8,010)
Interest Paid on Long-Term Debt	(548)	—	—	—	(548)
NET CASH USED FOR CAPITAL AND RELATED FINANCING ACTIVITIES	(24,322)	(1)	(32)	(874)	(25,229)
CASH FLOWS FROM INVESTING ACTIVITIES					
Interest Received on Investments	52	11	6	284	353
NET CASH PROVIDED BY INVESTING ACTIVITIES	52	11	6	284	353
Net Increase (Decrease) in Cash and Cash Equivalents	4,646	(627)	227	(737)	3,509
Cash and Cash Equivalents at Beginning of Year	105,406	1,016	1,166	34,238	141,826
CASH AND CASH EQUIVALENTS AT END OF YEAR	$ 110,052	$ 389	$ 1,393	$ 33,501	$ 145,335

INTERNAL SERVICE FUNDS
COMBINING STATEMENT OF CASH FLOWS
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

	Fleet Operations	Central Stores	Publishing Services	Miscellaneous Internal Service	Total
Reconciliation of Operating Income (Loss) to Net Cash Provided by (Used For) Operating Activities:					
Operating Income (Loss)	$ 2,352	$ (1,355)	$ 131	$ (4,794)	$ (3,666)
Adjustments to Reconcile Operating Income (Loss) to Net Cash Provided By (Used For) Operating Activities:					
Depreciation	20,732	18	11	42	20,803
Other Nonoperating Revenue	321	16	75	2	414
(Increase) Decrease in Assets:					
Accounts Receivable - Net	(968)	—	(1)	(10)	(979)
Contributions Receivable	—	—	—	(80)	(80)
Inventories	—	352	—	(418)	(66)
Increase (Decrease) in Liabilities and Net Deferred Outflows/Inflows of Resources:					
Accounts Payable	2,290	77	(85)	408	2,690
Accrued Wages and Benefits	67	7	1	29	104
Compensated Absences	(30)	9	(2)	371	348
Liability Claims	1,418	15	(24)	(256)	1,153
Net Other Postemployment Benefits Liability and Related Deferred Outflows/Inflows of Resources	6	(1)	1	(17)	(11)
Pension Liabilities and Related Deferred Outflows/Inflows of Resources	2,523	211	145	1,064	3,943
Total Adjustments	26,359	704	121	1,135	28,319
NET CASH PROVIDED BY (USED FOR) OPERATING ACTIVITIES	$ 28,711	$ (651)	$ 252	$ (3,659)	$ 24,653
Noncash Investing, Capital, and Financing Activites:					
Capital Assets Acquired through Capital Leases	$ 14,413	$ —	$ —	$ —	$ 14,413
Acquisition of Capital Assets	42	—	—	—	42
Capital Asset Acquisitions Related to Accounts Payable	(29)	—	—	109	80
Carrying Value of Retired Capital Assets	(428)	—	—	(64)	(492)
Transfers of Capital Assets (To) From Governmental Activities	1,258	—	—	(51)	1,207
Transfers of Capital Assets To Other Funds	—	—	—	(29)	(29)

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FIDUCIARY FUNDS

Harbor Drive Pedestrian Bridge, Downtown San Diego, CA

FIDUCIARY FUNDS

Fiduciary funds are used to account for resources held for the benefit of parties outside the government. The resources of fiduciary funds are not available to support the City's programs. The accounting used for fiduciary funds is much like that used for proprietary funds.

CITY OF SAN DIEGO

PENSION TRUST FUNDS

PRESERVATION OF BENEFITS PLAN
The Preservation of Benefits Plan is a qualified governmental excess benefit plan under IRC section 415(m), which was created by Congress to allow for the payment of promised pension benefits that exceed the IRC section 415(b) limits and therefore can't be paid from the City's Pension and Employee Savings Trust Fund. This fund is maintained by the SDCERS Board of Administration to reflect all amounts the City contributes for payment of pension benefits that exceed IRC section 415(b) limits.

POSTEMPLOYMENT HEALTHCARE BENEFIT PLAN
Retiree Health Insurance Trust fund is a separate trust fund used solely for providing retiree health benefits. It is maintained by the Retirement Board of Administration to reflect all amounts the City and retirees contribute to pay retiree health benefits.

SUPPLEMENTAL PENSION SAVINGS PLAN
This fund is used to account for a defined contribution plan, where benefits depend solely on amounts contributed to the plan by both the City and employees, plus investment earnings. Disbursements are made from the fund for terminations, retirements, allowable yearly withdrawals, and loans.

401(a) PLAN
This fund is used to account for a defined contribution plan, where benefits depend solely on amounts contributed to the plan by the City, employees and investment earnings. Disbursements are made from the fund for terminations, retirements, allowable yearly withdrawals, and loans.

401(k) PLAN
This fund is used to account for a defined contribution plan, where benefits depend solely on amounts contributed to the plan by City employees, plus investment earnings. Disbursements are made from the fund for terminations, retirements, allowable yearly withdrawals, and loans.

AGENCY FUNDS

These funds were established to account for assets held by the City as an agent for individuals, private organizations, other governments and/or funds, including federal and state income taxes withheld from employees, parking citation revenues, employee benefit plans and special assessments.

FIDUCIARY COMPONENT UNIT

CITY EMPLOYEES' RETIREMENT SYSTEM
SDCERS provides retirement, disability, and death benefits. SDCERS is a defined benefit plan, whereby funds are accumulated from City and employee contributions, plus earnings from fund investments. Currently SDCERS also administers the Port of San Diego and the San Diego County Regional Airport Authority defined benefit plans. It also performs certain administrative functions on other post-employment benefits on behalf of the City.

FIDUCIARY FUNDS
PENSION TRUST FUNDS
COMBINING STATEMENT OF FIDUCIARY NET POSITION
June 30, 2018
(Dollars in Thousands)

	City Employees' Retirement System		
	City of San Diego	Unified Port District	Airport Authority
ASSETS			
Cash and Investments	$ 1,268	$ 121	$ 184
Cash and Investments with Custodian/Fiscal Agent	214,296	31,051	43,227
Investments at Fair Value:			
Domestic Fixed Income Securities	1,898,282	107,934	37,488
International Fixed Income Securities	521,541	30,013	10,574
Domestic Equity Securities (Stocks)	1,671,653	94,731	32,590
International Equity Securities (Stocks)	1,210,041	68,673	23,515
Global Equity Securities	367,001	20,950	6,982
Real Estate	777,915	44,403	15,558
Equity Mutual Funds	—	—	—
Fixed Income Mutual Funds	—	—	—
Private Equity and Infrastructure	1,060,111	61,382	22,082
Receivables:			
Contributions	2,887	310	68
Accrued Interest	7,865	434	140
Loans	—	—	—
Securities Sold	158,116	8,970	3,091
Prepaid Expenses	175	10	2
Securities Lending Collateral	158,009	9,438	3,874
Capital Assets - Depreciable	4,603	269	86
TOTAL ASSETS	8,053,763	478,689	199,461
LIABILITIES			
Accounts Payable	4,206	229	79
Accrued Wages and Benefits	614	39	19
Supplemental Benefits Payable	11,449	285	54
Securities Lending Obligations	157,998	9,436	3,872
Securities Purchased	434,607	24,888	8,934
TOTAL LIABILITIES	608,874	34,877	12,958
NET POSITION			
Restricted for Pension Benefits	$ 7,444,889	$ 443,812	$ 186,503

Preservation of Benefits Plan	Postemployment Healthcare Benefit Plan	Supplemental Pension Savings Plan	401(a) Plan	401(k) Plan	Total
—	—	$ 539	$ 1	$ 1	$ 2,114
14	—	—	—	—	288,588
—	—	—	—	—	2,043,704
—	—	—	—	—	562,128
—	—	—	—	—	1,798,974
—	—	—	—	—	1,302,229
—	—	—	—	—	394,933
—	—	—	—	—	837,876
—	—	517,718	6,007	276,244	799,969
—	—	271,269	181	122,929	394,379
—	—	—	—	—	1,143,575
—	—	—	—	—	3,265
—	—	—	—	—	8,439
—	—	22,232	—	11,769	34,001
—	—	—	—	—	170,177
—	—	—	—	—	187
—	—	—	—	—	171,321
—	—	—	—	—	4,958
14	—	811,758	6,189	410,943	9,960,817
—	—	—	—	—	4,514
—	—	—	—	—	672
—	—	—	—	—	11,788
—	—	—	—	—	171,306
—	—	—	—	—	468,429
—	—	—	—	—	656,709
$ 14	$ —	$ 811,758	$ 6,189	$ 410,943	$ 9,304,108

FIDUCIARY FUNDS
PENSION TRUST FUNDS
COMBINING STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

	City Employees' Retirement System		
	City of San Diego	Unified Port District	Airport Authority
ADDITIONS			
Employer Contributions	$ 326,372	$ 17,718	$ 7,247
Plan Member Contributions:			
Employee Contributions	55,387	3,374	3,092
DROP Contributions	5,099	279	143
Retiree Contributions	—	—	—
Earnings on Investments:			
Investment Income	77,909	4,632	1,846
Investment Expense	(35,317)	(2,099)	(837)
Net Appreciation in Fair Value of Investments	551,340	32,746	13,005
Net Investment Income	593,932	35,279	14,014
Securities Lending:			
Gross Earnings	3,183	189	76
Borrower Rebates and Bank Charges	(2,270)	(135)	(54)
Net Securities Lending Income	913	54	22
Other Income	—	—	—
TOTAL ADDITIONS	981,703	56,704	24,518
DEDUCTIONS			
DROP Interest Expense	22,462	496	50
Benefit and Claim Payments	492,616	24,863	4,413
Administration	10,570	659	350
TOTAL DEDUCTIONS	525,648	26,018	4,813
CHANGE IN NET POSITION	456,055	30,686	19,705
Net Position at Beginning of Year	6,988,834	413,126	166,798
NET POSITION AT END OF YEAR	$ 7,444,889	$ 443,812	$ 186,503

Preservation of Benefits Plan	Postemployment Healthcare Benefit Plan	Supplemental Pension Savings Plan	401(a) Plan	401(k) Plan	Total
$ 1,434	$ 30,380	$ 32,830	$ 374	$ —	$ 416,355
—	577	32,443	554	30,433	125,860
—	—	—	—	—	5,521
—	8,040	—	—	—	8,040
—	—	53,054	420	28,368	166,229
—	—	—	—	—	(38,253)
—	—	—	—	—	597,091
—	—	53,054	420	28,368	725,067
—	—	—	—	—	3,448
—	—	—	—	—	(2,459)
—	—	—	—	—	989
—	—	655	—	344	999
1,434	38,997	118,982	1,348	59,145	1,282,831
—	—	—	—	—	23,008
1,430	38,413	55,160	172	23,690	640,757
3	584	—	—	—	12,166
1,433	38,997	55,160	172	23,690	675,931
1	—	63,822	1,176	35,455	606,900
13	—	747,936	5,013	375,488	8,697,208
$ 14	$ —	$ 811,758	$ 6,189	$ 410,943	$ 9,304,108

FIDUCIARY FUNDS
AGENCY FUNDS
COMBINING STATEMENT OF FIDUCIARY NET POSITION
June 30, 2018
(Dollars in Thousands)

	Employee Benefits	Other Miscellaneous Agency	Total
ASSETS			
Cash and Investments	$ 11,011	$ 20,968	$ 31,979
Receivables:			
Accounts - Net of Allowance for Uncollectibles	96	666	762
Special Assessments	—	133	133
Accrued Interest	—	22	22
Restricted Cash and Investments	—	34,292	34,292
TOTAL ASSETS	$ 11,107	$ 56,081	$ 67,188
LIABILITIES			
Accounts Payable	$ —	$ 10,764	$ 10,764
Deposits/Advances from Others	—	26	26
Sundry Agency Liabilities	11,107	24,006	35,113
Due to Bondholders	—	21,285	21,285
TOTAL LIABILITIES	$ 11,107	$ 56,081	$ 67,188

FIDUCIARY FUNDS
AGENCY FUNDS
COMBINING STATEMENT OF CHANGES IN ASSETS AND LIABILITIES
Fiscal Year Ended June 30, 2018
(Dollars in Thousands)

	Beginning Balance	Additions	Deductions	Ending Balance
Employee Benefits				
ASSETS				
Cash and Investments	$ 8,900	$ 172,307	$ 170,196	$ 11,011
Receivables:				
Accounts - Net of Allowance for Uncollectibles	110	3,431	3,445	96
TOTAL ASSETS	$ 9,010	$ 175,738	$ 173,641	$ 11,107
LIABILITIES				
Accounts Payable	$ 39	$ 89,743	$ 89,782	—
Sundry Agency Liabilities	8,971	174,932	172,796	11,107
TOTAL LIABILITIES	$ 9,010	$ 264,675	$ 262,578	$ 11,107
Other Miscellaneous Agency				
ASSETS				
Cash and Investments	$ 14,960	$ 244,334	$ 238,326	$ 20,968
Receivables:				
Accounts - Net of Allowance for Uncollectibles	1,079	10,998	11,411	666
Special Assessments	160	132	159	133
Accrued Interest	15	22	15	22
Restricted Cash and Investments	29,661	40,149	35,518	34,292
TOTAL ASSETS	$ 45,875	$ 295,635	$ 285,429	$ 56,081
LIABILITIES				
Accounts Payable	$ 3,975	$ 166,790	$ 160,001	$ 10,764
Deposits/Advances from Others	151	—	125	26
Sundry Agency Liabilities	19,848	69,580	65,422	24,006
Due to Bondholders	21,901	46,248	46,864	21,285
TOTAL LIABILITIES	$ 45,875	$ 282,618	$ 272,412	$ 56,081
Total Agency Funds				
ASSETS				
Cash and Investments	$ 23,860	$ 416,641	$ 408,522	$ 31,979
Receivables:				
Accounts - Net of Allowance for Uncollectibles	1,189	14,429	14,856	762
Special Assessments	160	132	159	133
Accrued Interest	15	22	15	22
Restricted Cash and Investments	29,661	40,149	35,518	34,292
TOTAL ASSETS	$ 54,885	$ 471,373	$ 459,070	$ 67,188
LIABILITIES				
Accounts Payable	$ 4,014	$ 256,533	$ 249,783	$ 10,764
Deposits/Advances from Others	151	—	125	26
Sundry Agency Liabilities	28,819	244,512	238,218	35,113
Due to Bondholders	21,901	46,248	46,864	21,285
TOTAL LIABILITIES	$ 54,885	$ 547,293	$ 534,990	$ 67,188

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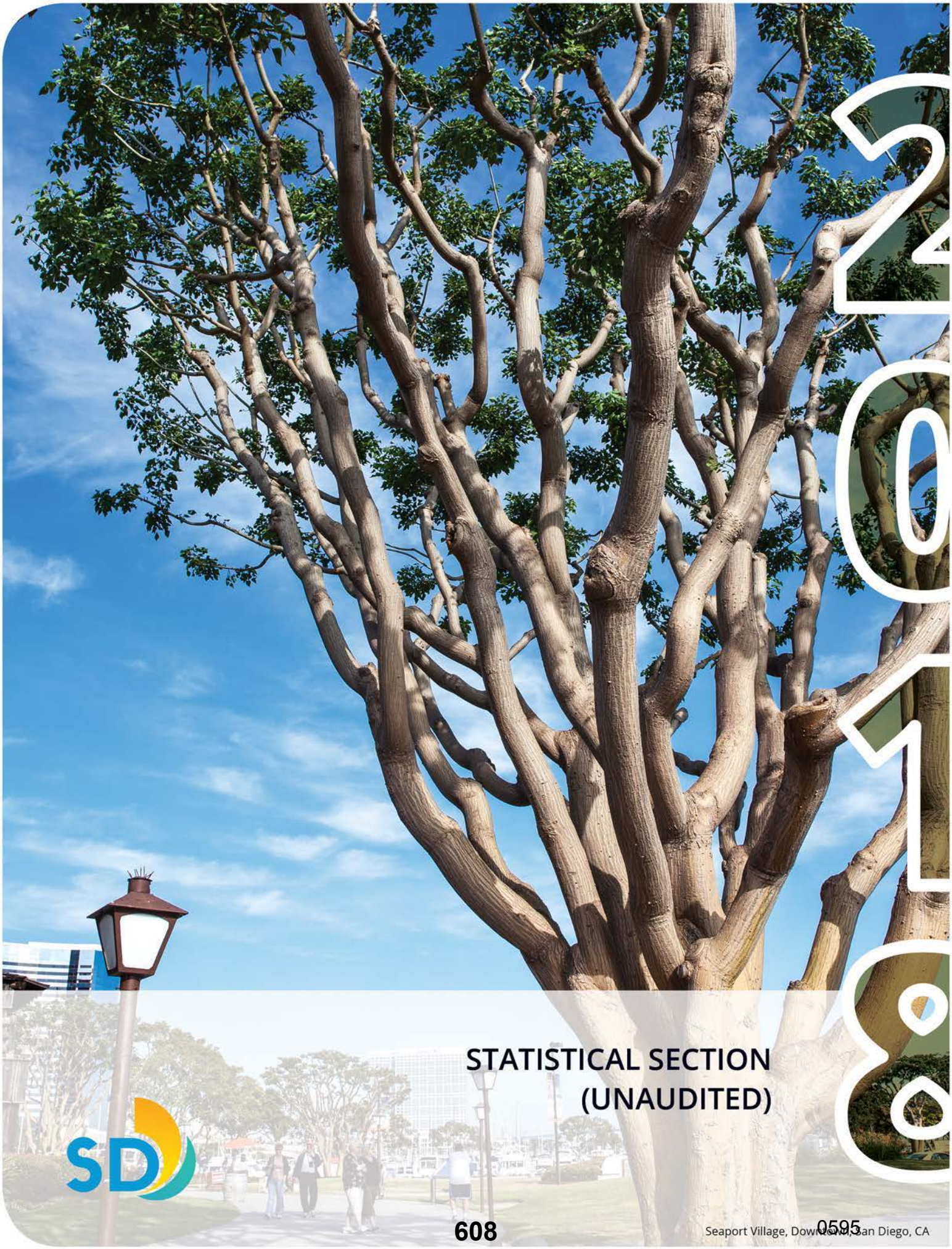

STATISTICAL SECTION (UNAUDITED)

Seaport Village, Downtown, San Diego, CA

STATISTICAL SECTION

The Statistical Section presents information as required by GASB Statement No. 44. In addition to utilizing the basic financial statements, notes to the basic financial statements, and required supplementary information, the statistical data presented in this section helps users assess the City's economic condition. Ten-year trend information has been provided when available. The statistical tables are footnoted to indicate sources and when accounting data or other information is unavailable.

CONTENTS

FINANCIAL TRENDS

Tables 1 through 4 contain information to help the reader understand how the City's financial performance and well-being have changed over time.

REVENUE CAPACITY

Tables 5 through 9 contain information to help the reader assess the City's ability to generate its most significant local revenue source, property tax.

DEBT CAPACITY

Tables 10 through 15 present information to help the reader assess the affordability of the City's current levels of certain outstanding debt categories.

DEMOGRAPHIC AND ECONOMIC INFORMATION

Tables 16 and 17 offer demographic and economic indicators to help the reader understand the environment in which the City's financial activities take place and to provide comparisons over time with other governments.

OPERATING INFORMATION

Tables 18 through 20 contain information about the City's resources and operations to help the reader understand how the City's financial report relates to the services provided and activities performed by the City.

*Additional financial information (audited and statistical) on the Sewer and Water Utilities can be obtained in the Annual Report Disclosure filings submitted to the Municipal Securities Rulemaking Board, http://emma.msrb.org.

CITY OF SAN DIEGO
NET POSITION BY CATEGORY (UNAUDITED)
Last Ten Fiscal Years
(Dollars in Thousands)
(Accrual Basis of Accounting)

	Fiscal Year			
	2009	2010	2011	2012
Governmental Activities				
Net Investment in Capital Assets	$ 3,530,937	$ 3,780,474	$ 3,812,560	$ 3,835,923
Restricted for:				
Capital Projects	293,284	260,754	654,126	521,015
Low-Moderate Income Housing	135,581	162,514	84,260	50,988
Nonexpendable Permanent Endowments	13,280	17,514	15,670	18,780
Grants	—	—	—	232,249
Other	122,460	131,600	195,171	157,462
Unrestricted	162,661	2,189	(392,384)	(278,413)
Total Governmental Activities Net Position	4,258,203	4,355,045	4,369,403	4,538,004
Business-type Activities				
Net Investment in Capital Assets	2,970,351	3,035,924	3,094,788	3,131,831
Restricted for:				
Debt Service	4,372	8,443	11,129	13,346
Other	38,113	43,747	45,217	24,462
Unrestricted	587,443	643,275	685,666	826,386
Total Business-type Activities Net Position	3,600,279	3,731,389	3,836,800	3,996,025
Primary Government				
Net Investment in Capital Assets	6,501,288	6,816,398	6,907,348	6,967,754
Restricted for:				
Capital Projects	293,284	260,754	654,126	521,015
Debt Service	4,372	8,443	11,129	13,346
Low-Moderate Income Housing	135,581	162,514	84,260	50,988
Nonexpendable Permanent Endowments	13,280	17,514	15,670	18,780
Grants	—	—	—	232,249
Other	160,573	175,347	240,388	181,924
Unrestricted	750,104	645,464	293,282	547,973
Total Primary Government Net Position	$ 7,858,482	$ 8,086,434	$ 8,206,203	$ 8,534,029

Source: Comprehensive Annual Financial Reports

Table 1

Fiscal Year					
2013	2014	2015	2016	2017	2018
$ 3,963,306	$ 3,988,284	$ 3,988,396	$ 4,129,002	$ 4,220,622	$ 4,308,123
456,874	459,115	575,798	598,215	723,855	462,389
251,655	277,139	286,129	319,022	335,801	338,828
19,689	24,307	21,300	19,900	20,264	17,836
75,462	68,206	67,230	219,216	204,527	179,469
202,705	277,586	358,647	450,885	441,102	492,426
(341,390)	(274,916)	(1,493,831)	(1,418,869)	(1,577,390)	(1,716,136)
4,628,301	4,819,721	3,803,669	4,317,371	4,368,781	4,082,935
3,378,535	3,526,979	3,902,396	4,042,983	4,246,534	4,383,725
7,893	1,880	1,531	2,790	505	683
24,822	25,404	26,245	7,010	7,285	6,525
701,760	637,889	380,283	364,762	293,340	239,462
4,113,010	4,192,152	4,310,455	4,417,545	4,547,664	4,630,395
7,341,841	7,515,263	7,890,792	8,171,985	8,467,156	8,691,848
456,874	459,115	575,798	598,215	723,855	462,389
7,893	1,880	1,531	2,790	505	683
251,655	277,139	286,129	319,022	335,801	338,828
19,689	24,307	21,300	19,900	20,264	17,836
75,462	68,206	67,230	219,216	204,527	179,469
227,527	302,990	384,892	457,895	448,387	498,951
360,370	362,973	(1,113,548)	(1,054,107)	(1,284,050)	(1,476,674)
$ 8,741,311	$ 9,011,873	$ 8,114,124	$ 8,734,916	$ 8,916,445	$ 8,713,330

CITY OF SAN DIEGO
CHANGES IN NET POSITION (UNAUDITED)
Last Ten Fiscal Years
(Dollars in Thousands)
(Accrual Basis of Accounting)

	Fiscal Year			
	2009	2010	2011	2012
Expenses				
Governmental Activities				
General Government and Support	$ 303,581	$ 395.344	$ 361.098	$ 294.198
Public Safety - Police	418,549	402,222	427,724	409,374
Public Safety - Fire and Life Safety and Homeland Security	220,787	214,975	223,174	233,635
Parks, Recreation, Culture and Leisure	258,038	266,343	248,668	270,199
Transportation	239,305	190,054	191,402	224,187
Sanitation and Health	77,447	78,171	74,639	73,299
Neighborhood Services	116,735	137,971	85,588	219,499
Debt Service:				
Interest	84,070	72,672	77,443	58,838
Cost of Issuance	—	—	—	—
Total Governmental Activities Expenses	1,718,512	1,757,752	1,689,736	1,783,229
Business-type Activities				
Sewer Utility	314,125	338,688	315,591	311,367
Water Utility	329,748	365,683	362,830	382,314
Airports	5,140	5,671	4,297	3,614
City Store	321	—	—	—
Development Services	47,260	36,640	43,552	43,842
Environmental Services	35,718	33,955	34,904	36,357
Golf Course	11,864	14,618	15,503	15,217
Recycling	20,067	19,265	19,611	18,105
San Diego Convention Center Corporation	—	—	—	—
Total Business-type Activities Expenses	764,243	814,520	796,288	810,816
Total Primary Government Expenses	2,482,755	2,572,272	2,486,024	2,594,045
Program Revenues				
Governmental Activities				
Charges for Services:				
General Government and Support	152,630	179,461	185,696	193,766
Public Safety - Police	42,178	39,636	44,879	38,367
Public Safety - Fire and Life Safety and Homeland Security	20,449	19,916	30,655	31,724
Parks, Recreation, Culture and Leisure	80,795	61,495	65,033	80,673
Transportation	18,360	31,485	27,304	56,742
Sanitation and Health	9,306	11,788	11,784	14,452
Neighborhood Services	21,814	25,959	27,013	22,699
Operating Grants and Contributions	93,244	71,829	81,159	62,181
Capital Grants and Contributions	110,802	60,139	51,674	46,770
Total Governmental Activities Program Revenues	549,578	501,708	525,197	547,374

Table 2

Fiscal Year					
2013	2014	2015	2016	2017	2018
$ 313,800	$ 286,798	$ 271,094	$ 303,802	$ 344,484	$ 364,533
429,849	441,803	380,344	412,571	501,314	542,128
241,029	253,741	221,446	233,688	290,178	321,016
270,540	267,523	263,127	311,372	355,714	383,122
202,376	192,928	198,242	224,620	239,099	264,278
67,623	89,448	92,833	99,079	103,039	101,440
89,354	70,191	80,299	65,994	82,384	91,686
37,942	35,226	33,790	41,537	36,943	36,515
—	518	—	—	—	—
1,652,513	1,638,176	1,541,175	1,692,663	1,953,155	2,104,718
322,431	326,437	316,465	296,422	339,189	351,145
420,809	443,453	466,552	437,304	477,037	532,056
4,759	4,663	3,740	4,824	6,306	7,415
—	—	—	—	—	—
46,024	50,825	50,244	54,002	69,949	78,287
32,205	33,724	30,939	54,385	34,253	41,397
15,689	16,423	15,827	16,182	19,925	21,072
18,895	20,475	17,200	18,036	19,444	25,002
—	—	—	—	36,760	37,986
860,812	896,000	900,967	881,155	1,002,863	1,094,360
2,513,325	2,534,176	2,442,142	2,573,818	2,956,018	3,199,078
191,256	198,856	249,241	213,490	176,696	176,366
44,723	42,976	40,304	46,238	45,126	40,738
22,539	34,984	33,547	36,645	32,491	43,814
72,297	51,721	53,093	74,531	133,451	114,893
28,759	30,262	34,459	44,555	47,655	51,422
13,790	15,342	14,269	14,730	16,629	15,625
35,792	36,339	49,825	32,982	37,105	40,123
82,760	60,591	49,049	65,173	46,476	134,682
152,193	120,538	106,237	140,408	75,694	26,218
644,109	591,609	630,024	668,752	611,323	643,881

(Continued on Next Page)

CITY OF SAN DIEGO
CHANGES IN NET POSITION (UNAUDITED)
Last Ten Fiscal Years
(Dollars in Thousands)
(Accrual Basis of Accounting)

	Fiscal Year			
	2009	2010	2011	2012
Program Revenues (Continued)				
Business-type Activities				
Charges for Services:				
Sewer Utility	$ 322,571	$ 382,125	$ 357,731	$ 370,299
Water Utility	342,719	376,461	371,515	408,119
Airports	4,929	4,849	4,749	4,188
City Store	242	—	—	—
Development Services	37,310	37,338	45,743	44,557
Environmental Services	31,726	26,342	28,246	25,123
Golf Course	16,201	15,671	15,715	17,428
Recycling	16,027	16,946	18,592	17,323
San Diego Convention Center Corporation	—	—	—	—
Operating Grants and Contributions	1,739	3,289	8,355	2,939
Capital Grants and Contributions	60,863	45,738	30,692	75,194
Total Business-type Activities Program Revenues	834,327	908,759	881,338	965,170
Total Primary Government Program Revenues	1,383,905	1,410,467	1,406,535	1,512,544
Net (Expense)/Revenue:				
Governmental Activities	(1,168,934)	(1,256,044)	(1,164,539)	(1,235,855)
Business-type Activities	70,084	94,239	85,050	154,354
Total Primary Government Net Expense	(1,098,850)	(1,161,805)	(1,079,489)	(1,081,501)
General Revenues and Other Changes in Net Position				
Governmental Activities				
Property Taxes	607,857	579,410	560,577	508,938
Transient Occupancy Taxes	140,657	123,332	140,752	148,184
Sales Taxes - Shared State Revenue	229,651	244,406	246,452	253,624
Franchises	—	—	—	—
Other Local Taxes	161,485	183,694	158,797	173,954
Developer Contributions and Fees	16,148	21,022	14,131	55,635
Grants and Contributions not Restricted to Specific Programs	8,488	18,065	10,320	115
Investment Income	75,245	30,472	25,488	15,708
Gain on Sale of Capital Assets	1,922	1,854	133	—
Miscellaneous	33,528	20,458	16,207	36,086
Transfers	(1,225)	(1,218)	6,040	16,739
Total Governmental Activities General Revenues and Transfers	1,273,756	1,221,495	1,178,897	1,208,983
Business-type Activities				
Investment Income	31,004	22,332	13,717	11,519
Miscellaneous	8,257	13,321	12,684	8,225
Transfers	1,225	1,218	(6,040)	(16,739)
Total Business-type Activities General Revenues and Transfers	40,486	36,871	20,361	3,005
Total Primary Government General Revenues and Transfers	1,314,242	1,258,366	1,199,258	1,211,988
Extraordinary Gain (Loss)				
Governmental Activities	—	—	—	195,473
Business-type Activities	—	—	—	1,866
Change in Net Position:				
Governmental Activities	104,822	(34,549)	14,358	168,601
Business-type Activities	110,570	131,110	105,411	159,225
Total Primary Government Change in Net Position	$ 215,392	$ 96,561	$ 119,769	$ 327,826

Source: Comprehensive Annual Financial Reports

Table 2

Fiscal Year					
2013	2014	2015	2016	2017	2018
$ 361,637	$ 364,548	$ 364,467	$ 346,950	$ 353,488	$ 360,710
414,508	447,565	455,222	413,008	501,404	569,524
4,906	4,371	4,618	4,691	5,307	4,888
—	—	—	—	—	—
50,006	52,402	56,395	59,808	64,699	70,703
24,607	26,043	30,477	33,048	32,194	34,960
18,367	19,764	20,116	17,987	18,087	23,502
18,056	19,046	20,305	23,203	23,186	27,957
—	—	—	—	36,505	34,256
1,761	1,531	1,044	2,629	10,088	9,958
91,878	70,739	386,952	59,226	56,837	70,109
985,726	1,006,009	1,339,596	960,550	1,101,795	1,206,567
1,629,835	1,597,618	1,969,620	1,629,302	1,713,118	1,850,448
(1,008,404)	(1,046,567)	(911,151)	(1,023,911)	(1,341,832)	(1,460,837)
124,914	110,009	438,629	79,395	98,932	112,207
(883,490)	(936,558)	(472,522)	(944,516)	(1,242,900)	(1,348,630)
421,894	470,905	460,948	489,548	520,186	548,509
158,105	173,376	182,466	200,612	222,228	231,863
269,504	282,345	296,837	319,030	310,935	323,113
—	—	—	—	141,942	96,313
166,548	186,747	208,970	204,387	36,310	52,603
66,312	47,765	86,440	104,516	99,075	82,883
705	674	653	1,045	700	833
9,220	13,627	8,786	16,075	7,846	13,337
—	—	—	—	28,005	809
14,471	32,482	47,071	37,751	36,881	15,959
20,012	15,269	(150)	(733)	(3,207)	(2,814)
1,126,771	1,223,190	1,292,021	1,372,231	1,400,901	1,363,408
2,429	8,489	8,012	13,742	3,330	8,435
11,520	12,096	21,285	13,220	7,076	13,758
(20,012)	(15,269)	150	733	3,207	2,814
(6,063)	5,316	29,447	27,695	13,613	25,007
1,120,708	1,228,506	1,321,468	1,399,926	1,414,514	1,388,415
(28,070)	(14,828)	—	165,382	—	—
(1,866)	—	—	—	—	—
90,297	161,795	380,870	513,702	59,069	(97,429)
116,985	115,325	468,076	107,090	112,545	137,214
$ 207,282	$ 277,120	$ 848,946	$ 620,792	$ 171,614	$ 39,785

CITY OF SAN DIEGO
FUND BALANCES OF GOVERNMENTAL FUNDS (UNAUDITED)
Last Ten Fiscal Years
(Dollars in Thousands)
(Modified Accrual Basis of Accounting)

	Pre-GASB 54 Fiscal Year	
	2009	2010
General Fund:		
Reserved	$ 33,895	$ 7,996
Unreserved	80,497	107,027
Total General Fund	$ 114,392	$ 115,023
Nonmajor Governmental Funds:		
Reserved	$ 706,971	$ 776,324
Unreserved, reported in:		
Special Revenue Funds	221,089	219,394
Debt Service Funds	265,236	159,737
Capital Projects Funds	430,479	368,860
Permanent Funds	2,625	2
Total Nonmajor Governmental Funds	$ 1,626,400	$ 1,524,317

[1] Starting in fiscal year 2011, data is reported in accordance with GASB Statement No. 54.

Source: Comprehensive Annual Financial Reports

Table 3

	Post-GASB 54 [1] Fiscal Year							
	2011	2012	2013	2014	2015	2016	2017	2018
General Fund:								
Nonspendable	$ —	$ 22,140	$ —	$ 1,248	$ 849	$ 2,502	$ 783	$ 863
Spendable:								
Restricted	145,880	102,104	60,507	104,885	140,358	146,228	116,253	132,307
Committed	1,183	44,831	40,953	147,053	130,891	109,474	116,497	100,483
Assigned	38,153	—	8,717	5,575	6,162	11,189	28,869	24,717
Unassigned	60,532	109,475	112,321	91,353	99,555	106,508	111,057	95,434
Total General Fund	$ 245,748	$ 278,550	$ 222,498	$ 350,114	$ 377,815	$ 375,901	$ 373,459	$ 353,804
Nonmajor Governmental Funds:								
Nonspendable	$ 21,093	$ 19,502	$ 115,806	$ 24,326	$ 21,427	$ 19,917	$ 20,299	$ 18,042
Spendable:								
Restricted	1,378,184	876,460	866,750	1,011,875	1,288,739	1,573,516	1,617,147	1,582,579
Committed	92,783	114,722	87,655	140,268	108,239	106,851	114,692	97,911
Unassigned	(29,569)	(43,841)	(22,578)	(15,156)	(11,287)	(27,289)	(33,843)	(43,514)
Total Nonmajor Governmental Funds	$ 1,462,491	$ 966,843	$ 1,047,633	$ 1,161,313	$ 1,407,118	$ 1,672,995	$ 1,718,295	$ 1,655,018

CITY OF SAN DIEGO
CHANGES IN FUND BALANCES OF GOVERNMENTAL FUNDS (UNAUDITED)
Last Ten Fiscal Years
(Dollars in Thousands)
(Modified Accrual Basis of Accounting)

	Fiscal Year		
	2009	2010	2011
Revenues			
Property Taxes	$ 603,574	$ 584,342	$ 569,009
Special Assessments	63,500	45,606	42,823
Sales Taxes - Shared State Revenue	233,140	192,665	232,077
Transient Occupancy Taxes	140,657	123,879	139,545
Franchises	—	—	—
Other Local Taxes	171,192	183,696	158,797
Licenses and Permits	39,349	33,088	42,668
Fines, Forfeitures and Penalties	34,406	31,836	33,356
Revenue from Use of Money and Property	107,784	91,227	86,720
Revenue from Federal Agencies	70,386	54,056	86,113
Revenue from Other Agencies	52,456	56,136	54,628
Revenue from Private Sources	21,593	21,689	29,126
Charges for Current Services	203,432	191,769	204,782
Other Revenue	25,711	23,187	32,807
Total Revenues	1,767,180	1,633,176	1,712,451
Expenditures			
Current:			
General Government and Support	344,930	391,680	339,782
Public Safety - Police	406,657	399,914	402,328
Public Safety - Fire and Life Safety and Homeland Security	225,696	210,730	210,539
Parks, Recreation, Culture and Leisure	211,759	228,357	205,219
Public Transportation	162,969	117,545	115,168
Sanitation and Health	78,260	78,351	70,274
Neighborhood Services	73,785	75,772	88,826
Capital Outlay	138,634	134,426	142,136
Debt Service:			
Principal Retirement	57,209	65,928	114,774
Cost of Issuance	1,001	1,881	1,552
Interest	78,659	74,825	73,093
Payment to Refunded Bond Escrow Agent	—	4,172	—
Total Expenditures	1,779,559	1,783,581	1,763,691
Excess (Deficiency) of Revenues Over Expenditures	(12,379)	(150,405)	(51,240)
Other Financing Sources (Uses)			
Transfers In	8,246	7,706	7,444
Transfers Out	(6,590)	(13,444)	(6,564)
Payment to Refunded Bond Escrow Agent	—	(161,194)	—
Contracts, Notes, and Loans Issued	12,583	48,710	478
Bonds Issued	115,236	183,396	104,857
Other Sources	32,392	15,341	13,924
Total Other Financing Sources (Uses)	161,867	80,515	120,139
Extraordinary Gain (Loss)	—	—	—
Net Change in Fund Balances	$ 149,488	$ (69,890)	$ 68,899
Debt Service as a Percentage of Noncapital Expenditures	8.3%	8.5%	11.6%

Source: Comprehensive Annual Financial Reports

Table 4

Fiscal Year						
2012	2013	2014	2015	2016	2017	2018
$ 512,178	$ 422,617	$ 470,960	$ 460,515	$ 489,664	$ 519,386	$ 548,870
46,964	50,510	50,796	57,343	54,304	61,736	63,870
265,057	269,929	278,564	293,929	333,821	319,343	314,023
148,795	159,494	170,475	186,690	204,559	222,228	231,863
—	—	—	—	—	141,942	160,185
173,954	166,548	186,747	208,907	204,450	36,304	52,608
41,906	51,662	53,329	57,388	78,595	125,087	108,516
64,816	31,261	31,363	33,832	41,465	32,480	32,157
77,654	80,994	87,212	92,452	103,307	97,902	103,746
70,132	59,863	52,504	45,217	44,529	35,149	54,336
46,604	57,770	39,804	87,364	35,748	56,267	35,670
38,451	71,280	78,875	71,581	87,739	13,286	9,348
215,914	189,551	207,101	238,516	260,933	267,708	289,731
41,446	20,829	33,890	49,200	39,718	37,846	16,304
1,743,871	1,632,308	1,741,620	1,882,934	1,978,832	1,966,664	2,021,227
279,663	265,489	299,739	305,594	334,883	335,344	363,126
396,098	406,599	431,531	430,411	445,027	441,999	473,969
226,623	228,128	245,650	254,603	252,608	255,451	285,567
228,255	225,411	216,635	228,157	276,730	293,083	322,467
149,344	120,594	108,836	120,102	144,145	147,397	175,931
72,980	65,969	83,128	92,907	94,982	99,012	95,366
218,724	81,559	63,846	82,812	79,745	90,673	97,978
193,727	158,460	118,187	185,018	194,957	290,550	253,249
70,614	46,323	66,534	42,812	37,077	36,428	40,961
880	814	518	1,140	712	28	1,500
56,695	37,399	36,070	34,135	40,330	39,108	54,994
—	1,572	—	—	3,811	—	13,125
1,893,603	1,638,317	1,670,674	1,777,691	1,905,007	2,029,073	2,178,233
(149,732)	(6,009)	70,946	105,243	73,825	(62,409)	(157,006)
274,458	302,999	192,049	253,570	173,710	138,412	143,061
(286,274)	(294,922)	(173,249)	(253,139)	(174,166)	(140,795)	(146,077)
(152,936)	(18,973)	(16,025)	—	(122,186)	—	(183,745)
2,700	—	761	1,512	—	—	—
153,964	94,808	51,713	121,200	123,294	—	226,971
12,058	7,477	29,747	45,120	24,104	107,650	33,864
3,970	91,389	84,996	168,263	24,756	105,267	74,074
(317,084)	(60,642)	(21,067)	—	165,382	—	—
$ (462,846)	$ 24,738	$ 134,875	$ 273,506	$ 263,963	$ 42,858	$ (82,932)
7.5%	5.7%	6.6%	4.8%	4.5%	4.3%	5.0%

Table 5

CITY OF SAN DIEGO
ASSESSED VALUE AND ESTIMATED VALUE OF TAXABLE PROPERTY (UNAUDITED)
Last Ten Fiscal Years
(Dollars in Thousands)

	City				Successor Agency [1]				
Fiscal Year Ended June 30	Secured	Unsecured	Less: Exemptions	Taxable Assessed Value	Secured	Unsecured	Less: Exemptions	Taxable Assessed Value	Total Direct Tax Rate
2009	$ 162,580,727	$ 7,880,341	$ (6,795,274)	$ 163,665,794	$ 17,769,284	$ 918,239	$ (1,139,942)	$ 17,547,581	0.172%
2010	161,637,831	8,164,394	(7,157,357)	162,644,868	17,353,633	912,524	(1,289,122)	16,977,035	0.172%
2011	158,803,280	7,873,095	(7,411,231)	159,265,144	17,676,415	953,539	(1,465,748)	17,164,206	0.172%
2012	160,568,111	7,614,792	(7,713,035)	160,469,868	17,354,546	967,108	(1,610,637)	16,711,017	0.172%
2013	159,731,138	7,784,851	(7,883,818)	159,632,171	17,571,696	977,717	(1,683,396)	16,866,017	0.172%
2014	166,492,182	8,229,813	(8,321,763)	166,400,232	18,265,071	984,082	(1,712,162)	17,536,991	0.172%
2015	176,702,157	8,671,311	(8,592,636)	176,780,832	19,634,360	1,015,145	(1,694,855)	18,954,650	0.172%
2016	187,297,981	8,906,099	(9,002,912)	187,201,168	21,169,427	1,032,849	(1,795,081)	20,407,195	0.172%
2017	197,932,308	8,861,982	(9,478,879)	197,315,411	22,939,735	1,078,149	(1,814,669)	22,203,215	0.172%
2018	210,056,793	9,316,411	(9,765,866)	209,607,338	24,856,106	1,127,636	(2,011,257)	23,972,485	0.172%

[1] Pursuant to ABX1 26, the former Redevelopment Agency (RDA) dissolved as of February 1, 2012, at which time the City, as Successor Agency, received the former RDA's assets and assumed the responsibility for winding down the former RDA's operations.

Sources: Avenu Insights and Analytics, LLC and San Diego County Assessor Data

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CITY OF SAN DIEGO
ASSESSED VALUE OF PROPERTY BY USE CODE / ASSESSED VALUE BY MAJOR COMPONENT (UNAUDITED)
Last Ten Fiscal Years
(Dollars in Thousands)

	Fiscal Year			
Category	2009	2010	2011	2012
Residential	$ 124,443,699	$ 120,621,778	$ 119,784,031	$ 122,014,996
Commercial	22,625,089	24,076,649	22,994,996	22,615,974
Industrial	11,437,742	11,844,884	11,628,925	11,578,295
Institution	1,573,962	1,567,379	1,629,550	1,618,090
Recreation	1,378,998	1,446,525	1,287,482	1,341,813
Government	—	—	—	—
Agriculture	10,721	10,837	12,882	14,116
Rural	300,506	267,128	260,106	243,543
Vacant	3,023,483	2,942,888	2,947,884	2,892,284
Unknown	15,555,812	16,213,396	15,933,839	15,603,546
Gross Secured Value	180,350,012	178,991,464	176,479,695	177,922,657
Unsecured	8,798,579	9,076,918	8,826,634	8,581,900
Less Exemptions	(7,935,216)	(8,446,479)	(8,876,979)	(9,323,672)
Net Taxable Value	$ 181,213,375	$ 179,621,903	$ 176,429,350	$ 177,180,885

Use code categories are based on San Diego County Assessor's data.

Source: Avenu Insights and Analytics, LLC

Table 6

Fiscal Year					
2013	2014	2015	2016	2017	2018
$ 121,392,331	$ 126,493,049	$ 135,781,072	$ 144,566,532	$ 153,836,389	$ 163,783,938
23,337,037	24,553,545	25,423,193	26,788,688	42,781,822	45,175,379
11,564,607	11,753,860	12,258,818	12,786,249	13,716,011	14,580,784
1,626,508	1,688,359	1,733,140	1,738,339	4,177,303	4,455,194
1,346,278	1,383,655	1,344,234	1,384,431	1,657,970	3,219,104
—	—	—	—	1,198,602	1,659,558
14,853	15,155	16,607	17,989	472,200	1,308,936
239,073	199,226	205,324	239,901	202,834	530,505
2,622,931	2,588,138	2,611,582	3,023,596	2,826,026	198,630
15,159,216	16,082,265	16,962,545	17,921,683	2,886	871
177,302,834	184,757,252	196,336,515	208,467,408	220,872,043	234,912,899
8,762,568	9,213,896	9,686,457	9,938,948	9,940,131	10,444,047
(9,567,214)	(10,033,925)	(10,287,491)	(10,797,993)	(11,293,548)	(11,777,123)
$ 176,498,188	$ 183,937,223	$ 195,735,481	$ 207,608,363	$ 219,518,626	$ 233,579,823

CITY OF SAN DIEGO
DIRECT AND OVERLAPPING PROPERTY TAX RATES (UNAUDITED)
Last Ten Fiscal Years
($1 Per $100 of Assessed Value)

	Fiscal Year			
Basic City and County Direct Rates	2009	2010	2011	2012
County of San Diego	0.15731%	0.15731%	0.15731%	0.15731%
City of San Diego	0.17213%	0.17213%	0.17213%	0.17213%
San Diego Unified School District	0.44679%	0.44679%	0.44679%	0.44679%
San Diego Community College District	0.06463%	0.06463%	0.06463%	0.06463%
County School Service	0.00748%	0.00748%	0.00748%	0.00748%
County School Service - Capital Outlay	0.00189%	0.00189%	0.00189%	0.00189%
Childrens Institution Tuition	0.00160%	0.00160%	0.00160%	0.00160%
Regional Occupational Center	0.00477%	0.00477%	0.00477%	0.00477%
Carlsbad Project	0.00010%	0.00010%	0.00010%	0.00010%
Educational Revenue Augmentation Fund (ERAF)	0.14330%	0.14330%	0.14330%	0.14330%
Total Basic City and County Direct Rates [1]	1.00000%	1.00000%	1.00000%	1.00000%
Overlapping Rates				
City of San Diego	0.01038%	0.01043%	0.00986%	0.00870%
Education	0.07396%	0.09152%	0.09164%	0.10410%
Total Overlapping	0.08434%	0.10195%	0.10150%	0.11280%
Total Direct and Overlapping Tax Rates	1.08434%	1.10195%	1.10150%	1.11280%

[1] Property tax rates in California do not utilize millage rates. Proposition 13, enacted by the voters in 1978-79, held property tax to a maximum of 1% of the assessed value. Rates over 1% are allowable only for voter approved bond indebtedness.

Sources: Avenu Insights and Analytics, LLC and San Diego County Auditor/Controller Data

Table 7

Fiscal Year					
2013	**2014**	**2015**	**2016**	**2017**	**2018**
0.15731%	0.15731%	0.15731%	0.15731%	0.15731%	0.15731%
0.17213%	0.17213%	0.17213%	0.17213%	0.17213%	0.17213%
0.44679%	0.44679%	0.44679%	0.44679%	0.44679%	0.44679%
0.06463%	0.06463%	0.06463%	0.06463%	0.06463%	0.06463%
0.00748%	0.00748%	0.00748%	0.00748%	0.00748%	0.00748%
0.00189%	0.00189%	0.00189%	0.00189%	0.00189%	0.00189%
0.00160%	0.00160%	0.00160%	0.00160%	0.00160%	0.00160%
0.00477%	0.00477%	0.00477%	0.00477%	0.00477%	0.00477%
0.00010%	0.00010%	0.00010%	0.00010%	0.00010%	0.00010%
0.14330%	0.14330%	0.14330%	0.14330%	0.14330%	0.14330%
1.00000%	1.00000%	1.00000%	1.00000%	1.00000%	1.00000%
0.00850%	0.00850%	0.00850%	0.00850%	0.00850%	0.00850%
0.10303%	0.17427%	0.17051%	0.16609%	0.16582%	0.16117%
0.11153%	0.18277%	0.17901%	0.17459%	0.17432%	0.16967%
1.11153%	1.18277%	1.17901%	1.17459%	1.17432%	1.16967%

Table 8

CITY OF SAN DIEGO
PRINCIPAL PROPERTY TAX PAYERS (UNAUDITED)
Current Year and Nine Years Ago
(Dollars in Thousands)

Property Tax Payer	Taxable Assessed Value	Percent of Total City Taxable Assessed Value
For the Fiscal Year Ended June 30, 2018		
Irvine Company, LLC	$ 2,432,936	1.04%
Qualcomm, Inc.	1,992,117	0.85%
Kilroy Realty, LP	1,081,589	0.46%
Host Hotels & Resorts, LP	972,194	0.42%
Kaiser Foundation Health Plan	887,182	0.38%
One Park Boulevard, LLC	681,905	0.29%
Fashion Valley Mall, LLC	589,085	0.25%
BEX Portfolio, LLC	507,697	0.22%
ARE-SD Region, LLC	504,284	0.22%
Illumina Inc.	464,301	0.20%
For the Fiscal Year Ended June 30, 2009		
Irvine Company, LLC	1,857,690	1.03%
Qualcomm, Inc.	1,331,526	0.73%
Kilroy Realty, LP	1,267,152	0.70%
Manchester Resorts, LP	903,950	0.50%
Pfizer, Inc.	520,855	0.29%
Fashion Valley Mall, LLC	477,578	0.26%
San Diego Family Housing, LLC	447,698	0.25%
Trizec 701 B Street, LLC	444,676	0.25%
Seaworld Parks Entertainment	431,351	0.24%
Host Hotels & Resorts, LP	402,693	0.22%

Sources: Avenu Insights and Analytics, LLC and San Diego County Assessor Data

Table 9

CITY OF SAN DIEGO
PROPERTY TAX LEVIES AND COLLECTIONS (UNAUDITED)
Last Ten Fiscal Years
(Dollars in Thousands)

Fiscal Year Ended June 30	Taxes Levied for the Fiscal Year [1, 2]	Collected within the Fiscal Year of Levy		Delinquent Collections [3]	Total Collections to Date	
		Amount Collected [2]	Percent of Levy		Amount	Percent of Levy
2009	$ 303,593	$ 290,480	95.68%	$ 10,424	$ 300,904	99.11%
2010	297,217	286,303	96.33%	7,661	293,964	98.91%
2011	293,624	285,913	97.37%	4,783	290,696	99.00%
2012	296,007	289,530	97.81%	4,014	293,544	99.17%
2013	299,332	293,577	98.08%	2,805	296,382	99.01%
2014	315,060	308,606	97.95%	2,523	311,129	98.75%
2015	331,187	325,794	98.37%	2,637	328,431	99.17%
2016	330,483	327,903	99.22%	2,140	330,043	99.87%
2017	349,650	346,510	99.10%	2,249	348,759	99.75%
2018	370,127	367,047	99.17%	—	367,047	99.17%

[1] Property tax levies and collections for the General Fund and Zoological Exhibits Fund.

[2] Taxes levied and collected for the year include local assessment only.

[3] Delinquent Collections amounts do not include penalties and interest.

Source: County of San Diego

CITY OF SAN DIEGO
RATIOS OF OUTSTANDING DEBT BY TYPE (UNAUDITED)
Last Ten Fiscal Years
(Dollars in Thousands)

	Governmental Activities				
Fiscal Year Ended June 30	Capital Lease Obligations	Qualified Energy Conservation Bonds/Lease Obligation	Notes Payable	Loans Payable	General Obligation Bonds
2009	$ 89,519	$ —	$ 4,786	$ 78,347	$ 6,315
2010	84,561	—	3,301	110,891	4,340
2011	68,018	13,142	—	52,963	2,240
2012	69,638	12,392	—	38,748	—
2013	65,369	11,637	—	27,268	—
2014	58,094	10,864	—	17,633	—
2015	92,539	10,071	—	9,568	—
2016	86,500	9,259	—	8,480	—
2017	165,626	8,429	—	7,341	—
2018	197,649	7,578	—	6,383	—

	Business-Type Activities				
Fiscal Year Ended June 30	Capital Lease Obligations	Contracts Payable	Notes Payable	Loans Payable	Commercial Paper Notes
2009	$ —	$ —	$ —	$ 90,326	$ —
2010	—	—	—	84,673	—
2011	—	—	—	91,025	—
2012	—	—	—	125,406	—
2013	—	—	—	145,330	—
2014	2,590	—	—	161,360	—
2015	2,250	—	—	158,241	—
2016	7,588	3,606	—	162,194	—
2017	6,091	2,888	13	191,658	—
2018	4,624	2,194	11	203,273	168,213

[1] Personal income is disclosed in Table 16.

[2] Debt per Capita is calculated using population data, which is disclosed in Table 16.

Source: Comprehensive Annual Financial Reports

Table 10

Pooled Financing Bonds	Lease/ Bonds Net Debt	Tax Bonds Gross Debt	Tobacco Settlement-Asset Backed Bonds	Total Government Activities
$ 33,352	$ 575,468	$ 554,607	$ 95,380	$ 1,437,774
32,690	545,082	551,029	92,350	1,424,244
31,938	529,536	637,247	89,600	1,424,684
—	492,532	—	86,195	699,505
—	546,884	—	81,635	732,793
—	572,008	—	77,785	736,384
—	670,977	—	73,705	856,860
—	641,832	—	69,440	815,511
—	615,280	—	64,570	861,246
—	583,508	—	89,195	884,313

Revenue Bonds Payable Net	Total Business-Type Activities	Total Primary Government	Percentage of Personal Income [1]	Debt Per Capita [2]
$ 2,207,986	$ 2,298,312	$ 3,736,086	8.72%	$ 2.80
2,127,382	2,212,055	3,636,299	8.36%	2.68
2,060,529	2,151,554	3,576,238	8.87%	2.73
1,989,104	2,114,510	2,814,015	6.58%	2.13
1,915,775	2,061,105	2,793,898	6.42%	2.11
1,851,771	2,015,721	2,752,105	6.00%	2.04
1,771,085	1,931,576	2,788,436	6.02%	2.04
1,843,259	2,016,647	2,832,158	5.94%	2.04
1,735,166	1,935,816	2,797,062	5.53%	1.99
1,630,758	2,009,073	2,893,386	5.33%	2.04

Table 11

CITY OF SAN DIEGO
RATIOS OF GENERAL BONDED DEBT OUTSTANDING (UNAUDITED)
Last Ten Fiscal Years

Fiscal Year Ended June 30	General Obligation Bonds (Thousands)	Assessed Valuation (Thousands)	Percentage of Assessed Value [1]	Population	Debt Per Capita [2]
2009	$ 6,315	$ 163,665,794	0.004%	1,333,617	$ 4.74
2010	4,340	162,644,868	0.003%	1,359,132	3.19
2011	2,240	159,265,144	0.001%	1,311,882	1.71
2012	—	160,469,868	—	1,321,315	—
2013	—	159,632,171	—	1,326,238	—
2014	—	166,400,232	—	1,345,895	—
2015	—	176,780,832	—	1,368,061	—
2016	—	187,201,168	—	1,391,676	—
2017	—	197,315,411	—	1,406,318	—
2018	—	209,607,338	—	1,419,845	—

Details regarding the City's outstanding debt can be found in the notes to the basic financial statements.

[1] Ratio is calculated using assessed property values.

[2] Ratio is calculated using population data.

Sources: Avenu Insights and Analytics, LLC, California Department of Finance, and Comprehensive Annual Financial Reports

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CITY OF SAN DIEGO
DIRECT AND OVERLAPPING DEBT (UNAUDITED)
June 30, 2018
(Dollars in Thousands)

	Total Debt June 30, 2018	% Applicable [1]	City's Share of Debt June 30, 2018
DIRECT AND OVERLAPPING TAX AND ASSESSMENT DEBT:			
Metropolitan Water District	$ 60,600	8.574%	$ 5,196
Palomar Community College District	627,826	23.756%	149,146
San Diego Community College District	1,326,815	99.932%	1,325,913
Poway Unified School District School Facilities Improvement District No. 2002-1 & 2007-1	316,736	55.491, 56.185%	176,987
San Diego Unified School District	3,486,782	99.934%	3,484,481
San Dieguito Union High School District	336,955	33.328%	112,300
San Ysidro School District	124,119	82.740%	102,696
Other School, High School and Community College Districts	2,325,079	Various	236,893
Grossmont Healthcare District	261,328	8.026%	20,974
Palomar Pomerado Health System	436,359	28.031%	122,316
City of San Diego Special Assessment/Special Tax Bonds [2]	89,735	100%	89,735
Del Mar Unified School District Community Facilities District No. 99-1 & 95-1	23,340	100%	23,340
North City West School District Community Facilities District	50,418	100%	50,418
Poway Unified School District Community Facilities Districts	344,297	100%	344,297
San Dieguito Union High School District Community Facilities Districts	55,746	81.063-100%	50,862
Sweetwater Union High School District Community Facilities Districts	11,400	8.935-100%	8,504
Solana Beach School District Community Facilities Districts	30,980	100%	30,980
Other Special District 1915 Act Bonds	31,731	Various	21,317
TOTAL DIRECT AND OVERLAPPING TAX AND ASSESSMENT DEBT			$ 6,356,355
DIRECT AND OVERLAPPING DEBT:			
San Diego County General Fund Obligations	$ 273,220	47.393%	$ 129,487
San Diego County Pension Obligations	558,525	47.394%	264,702
San Diego Superintendent of Schools Certificates of Participation	10,785	47.394%	5,111
Palomar Community College District General Fund Obligations	555	21.228%	118
Poway Unified School District Certificates of Participation	61,719	64.758%	39,968
Sweetwater Union High School District Certificates of Participation	41,745	19.373%	8,087
Chula Vista School District General Fund Obligations	144,905	5.155%	7,470
San Ysidro School District Certificates of Participation	54,235	82.740%	44,874
Other School, High School and Community College District Certificates of Participation	138,960	Various	5,391
City of San Diego Obligations [3]	884,313	100%	884,313
TOTAL DIRECT AND OVERLAPPING DEBT			$ 1,389,521
TOTAL OVERLAPPING TAX INCREMENT DEBT	$ 428,920	1.108-100%	$ 392,736
TOTAL DIRECT DEBT			884,313
TOTAL OVERLAPPING DEBT			7,254,299
COMBINED TOTAL DEBT			8,138,612

Table 12

Ratios to 2017-18 Assessed Valuations ($235,048,440):	
Total Overlapping Tax and Assessment Debt	2.70%
Total Direct Debt ($884,313)	0.38%
Combined Total Debt	3.46%
Ratios to Successor Agency Incremental Valuation ($24,038,926)	
Total Overlapping Tax Increment Debt	1.63%

[1] The percentage of overlapping debt applicable to the City is estimated using taxable assessed property value. Applicable percentages were estimated by determining the portion of the overlapping district's assessed value that is within the boundaries of the City divided by the district's total taxable assessed value.

[2] Amounts reconcile to Note 19, Total Special Assessment / Special Tax Bonds.

[3] Amounts for Total Debt reconcile to Note 5, Total Lease Revenue Bonds, Total QECB Obligations, Total Loans Payable, Section 108 Loans Payable, EVFP Capital Lease Obligations, Tobacco Settlement Asset Backed Bonds, and Other Capital Lease Obligations.

[4] Excludes Tax and Revenue Anticipation Notes, Enterprise Revenue, Mortgage Revenue and Non-Bonded Capital Lease Obligations. Qualified Zone Academy Bonds are included based on principal due at maturity.

Sources: Avenu Insights and Analytics, LLC and Comprehensive Annual Financial Reports

CITY OF SAN DIEGO
LEGAL DEBT MARGIN SCHEDULE (UNAUDITED)
Last Ten Fiscal Years
(Dollars in Thousands)

	Fiscal Year			
	2009	2010	2011	2012
Assessed valuation	$ 163,665,794	$ 162,644,868	$ 159,265,144	$ 160,469,868
Conversion percentage [1]	25%	25%	25%	25%
Adjusted assessed valuation	40,916,449	40,661,217	39,816,286	40,117,467
Debt limit percentage [2]	25%	25%	25%	25%
Debt limit [3]	10,229,112	10,165,304	9,954,072	10,029,367
Total net debt applicable to limit:				
General Obligation Bonds	6,315	4,340	2,240	—
Legal debt margin	10,222,797	10,160,964	9,951,832	10,029,367
Total debt applicable to the limit as a percentage of the debt limit	0.06%	0.04%	0.02%	—

[1] The Government Code of the State of California provides for a legal debt limit of 15% of gross assessed valuation. However, this provision was enacted when assessed valuation was based upon 25% of market value. Effective in fiscal year 1982, each parcel is now assessed at 100% of market value. The calculations shown above present a conversion of assessed valuation data for each fiscal year from the current 100% valuation to the 25% level that was in effect at the time the legal debt margin was enacted.

[2] Section 90 of the City Charter provides that the bonded indebtedness for the development, conservation, and furnishings of water shall not exceed 15% of the last preceding assessed valuation of all real and personal property of the City subject to direct taxation, and that the bonded indebtedness for other municipal improvements shall not exceed 10% of such valuation.

[3] The current debt limitation for Water is 15% of the Adjusted Assessed Valuation, or $7,860,275 and the debt limitation for other purposes is 10% of the Adjusted Assessed Valuation, or $5,240,184.

Sources: Avenu Insights and Analytics, LLC and Comprehensive Annual Financial Reports

Table 13

Fiscal Year					
2013	2014	2015	2016	2017	2018
$ 159,632,171	$ 166,400,232	$ 176,780,832	$ 187,201,168	$ 197,315,411	$ 209,607,338
25%	25%	25%	25%	25%	25%
39,908,043	41,600,058	44,195,208	46,800,292	49,328,853	52,401,835
25%	25%	25%	25%	25%	25%
9,977,011	10,400,015	11,048,802	11,700,073	12,332,213	13,100,459
—	—	—	—	—	—
9,977,011	10,400,015	11,048,802	11,700,073	12,332,213	13,100,459
—	—	—	—	—	—

CITY OF SAN DIEGO
PLEDGED-REVENUE COVERAGE - WATER OBLIGATIONS (UNAUDITED)
Last Ten Fiscal Years
(Dollars in Thousands)

Fiscal Year Ended June 30	Total System Revenues	Total Maintenance and Operation Costs	Net System Revenues [1]	Less: Interest Earnings on Reserve Fund-Senior Obligations	Adjusted Net System Revenues [2]
2009	$ 364,413	$ 263,280	$ 101,133	$ (2,668)	$ 98,465
2010	394,948	287,361	107,587	(3,767)	103,820
2011	397,755	285,059	112,696	(1,436)	111,260
2012	431,188	307,465	123,723	(1,919)	121,804
2013	444,751	342,989	101,762	(363)	101,399
2014	473,908	362,989	110,919	(1,017)	109,902
2015	468,274	381,389	86,885	(897)	85,988
2016	455,055	370,064	84,991	(4,474)	80,517
2017	498,520	402,475	96,045	(4)	96,041
2018 [6]	589,608	435,673	153,935	(35)	153,900

[1] As defined in the Amended and Restated Master Installment Purchase Agreement (MIPA), Net System Revenues are defined as "System Revenues" less "Maintenance and Operation Costs" of the Water System for the fiscal year.

[2] As defined in the MIPA, Adjusted Net System Revenues are the "Net System Revenues" less "an amount equal to earnings from investments in any Reserve Fund or Reserve Account" for the fiscal year.

[3] Includes Senior Bonds and State Revolving Fund (SRF) Loans. Utilizes definitions in accordance with the MIPA. Significant decrease in Adjusted Debt Service and increase in Adjusted Debt Service Coverage in FY 2017 because all outstanding Senior Bonds were refunded on a Subordinate lien in June 2016.

[4] All Obligations consist of Senior and Subordinate Bonds and State Revolving Fund (SRF) Loans. Utilizes definitions in accordance with the MIPA. Effective FY 2017, All Obligations includes debt service paid on Subordinate Commercial Paper Notes program. See Note 6.

[5] The coverage calculation as presented in Table 14 is pursuant to the MIPA coverage requirements such as maintaining minimum debt service coverage equal to at least equal to 1.20 for Senior Obligations and 1.00 for All Obligations. Additionally, there are various outstanding State Revolving Loans (SRF Loans) agreements pursuant to which the City has covenanted to maintain other coverage requirements such as maintaining minimum debt service coverage equal to at least 1.10 times the maximum annual debt service for All Obligations each Fiscal Year.

[6] Total System Revenues and affected coverage ratios are net of an approximate $8,000 transfer to the Water Rate Stabilization Fund. Aggregate Debt Service coverage before the transfer was approximately 2.47.

Source: City of San Diego, Department of Finance

Table 14

Senior Obligations [3]						All Obligations [4]	
Principal	Interest	Total	Less: Senior Interest Earnings	Adjusted Debt Service	Adjusted Debt Service Coverage [5]	Total Debt Service	Aggregate Debt Service Coverage [5]
$ 9,065	$ 12,289	$ 21,354	$ (2,668)	$ 18,686	5.27	$ 49,600	2.04
1,035	27,268	28,303	(3,767)	24,536	4.23	56,978	1.89
6,355	27,760	34,115	(1,436)	32,679	3.40	62,784	1.79
7,164	30,354	37,518	(1,919)	35,599	3.42	66,191	1.87
8,719	30,988	39,707	(363)	39,344	2.58	64,210	1.58
8,986	30,935	39,921	(1,017)	38,904	2.82	66,691	1.66
9,330	30,733	40,063	(897)	39,166	2.20	66,835	1.30
10,580	30,413	40,993	(4,474)	36,519	2.20	67,389	1.26
2,703	1,302	4,005	(4)	4,001	24.00	61,842	1.55
2,820	1,439	4,259	(35)	4,224	36.43	65,613	2.35

Table 15

CITY OF SAN DIEGO
PLEDGED-REVENUE COVERAGE - SEWER OBLIGATIONS (UNAUDITED)
Last Ten Fiscal Years
(Dollars in Thousands)

Fiscal Year Ended June 30	Total System Revenues	Total Maintenance and Operation Costs (Excludes Depreciation)	Net System Revenues [1]	Senior Obligations [2]			Senior Debt Service Coverage [4]	All Obligations [3]	
				Principal	Interest	Total		Total Debt Service	Aggregate Debt Service Coverage [4]
2009	$ 353,446	$ 197,379	$ 156,067	$ 31,700	$ 45,356	$ 77,056	2.03	$ 94,305	1.65
2010	406,076	220,701	185,375	43,320	59,909	103,229	1.80	109,288	1.70
2011	380,575	198,773	181,802	42,620	59,868	102,488	1.77	108,547	1.67
2012	391,587	202,132	189,455	44,230	58,253	102,483	1.85	108,542	1.75
2013	385,211	205,215	179,996	46,120	56,368	102,488	1.76	108,547	1.66
2014	396,042	210,981	185,061	48,821	54,473	103,294	1.79	109,353	1.69
2015	382,164	195,358	186,806	51,576	52,461	104,037	1.80	110,096	1.70
2016	368,195	192,185	176,010	66,187	34,633	100,820	1.75	106,879	1.65
2017	382,599	218,336	164,263	58,455	43,974	102,429	1.60	108,489	1.51
2018 [5]	388,395	223,013	165,382	61,751	41,376	103,127	1.60	109,185	1.51

[1] As defined in the Master Installment Purchase Agreement (MIPA), Net System Revenues are defined as "System Revenues" less "Maintenance and Operation Costs" of the Wastewater System for the fiscal year.

[2] Includes all Senior Bonds and State Revolving Fund (SRF) Loans and utilizes the definitions in accordance with the MIPA.

[3] All Obligations consist of Senior Bonds, Senior State Revolving Fund (SRF) Loans and Subordinate SRF Loans. Utilizes definitions in accordance with the MIPA.

[4] The coverage calculation as presented in Table 15 is pursuant to the MIPA, which requires a minimum debt service coverage should be at least equal to 1.20 for Senior Obligations and 1.00 for All Obligations. Additionally, there are various outstanding State Revolving Fund Loans (SRF Loans) agreements pursuant to which the City has covenanted to maintain other coverage requirements such as maintaining minimum debt service coverage equal to at least 1.20 the maximum annual debt service for Senior Obligations and 1.10 the maximum annual debt service for All Obligations in each Fiscal Year.

[5] Total System Revenues and affected coverage ratios are net of an approximate $7,500 transfer to the Sewer Rate Stabilization Fund. Aggregate Debt Service coverage before the transfer was approximately 1.58.

Source: City of San Diego, Department of Finance

Table 16

CITY OF SAN DIEGO
DEMOGRAPHIC AND ECONOMIC STATISTICS (UNAUDITED)
Last Ten Fiscal Years

Fiscal Year Ended June 30	Population [1]	Personal Income (Thousands)	Per Capita Personal Income [2]	City Unemployment Rate [3]
2009	1,333,617	$ 42,857,116	$ 32,136	6.0%
2010	1,359,132	43,522,125	32,022	9.7%
2011	1,311,882	40,336,436	30,747	10.2%
2012	1,321,315	42,754,529	32,358	9.5%
2013	1,326,238	43,540,765	32,830	8.9%
2014	1,345,895	45,869,488	34,081	6.1%
2015	1,368,061	46,297,920	33,842	4.6%
2016	1,391,676	47,718,552	34,289	4.9%
2017	1,406,318	50,542,056	35,939	4.4%
2018	1,419,845	54,274,285	38,225	3.1%

[1] Population projections are provided by the California Department of Finance Projections.

[2] Income data is provided by the United States Census Bureau.

[3] Unemployment Data is provided by the California Employment Development Department's Bureau of Labor Statistics Department.

Sources: Avenu Insights and Analytics, LLC and California Department of Finance

Table 17

CITY OF SAN DIEGO
PRINCIPAL EMPLOYERS (UNAUDITED)
Current Year and Nine Years Ago

Employer	Number of Employees	Percentage of Total Employment [1]
For the Fiscal Year Ended June 30, 2018		
Naval Base San Diego [2]	38,729	5.42%
University of California, San Diego [3]	37,412	5.24%
Sharp Health Care [4]	18,364	2.57%
County of San Diego	18,132	2.54%
San Diego Unified School District	13,815	1.93%
Scripps Health [5]	12,000	1.68%
City of San Diego [6]	11,538	1.61%
Qualcomm Inc [7]	10,700	1.50%
Kaiser Permanente [8]	9,599	1.34%
San Diego Community College District [9]	6,447	0.90%
Total Top Employers	176,736	24.73%
For the Fiscal Year Ended June 30, 2009		
Naval Base San Diego [2]	55,300	7.91%
San Diego Unified School District	21,959	3.14%
University of California San Diego [3]	19,435	2.78%
County of San Diego	17,900	2.56%
Sharp Health Care [4]	14,724	2.11%
City of San Diego [6]	10,799	1.54%
Kaiser Permanente [8]	7,220	1.03%
University of San Diego	6,086	0.87%
Qualcomm Inc [7]	6,000	0.86%
UC San Diego Medical Center	5,300	0.76%
Total Top Employers	164,723	23.56%

[1] Percentage based on total employment of 714,300 and 699,100 for fiscal years 2018 and 2009, respectively.

[2] Includes Active Duty Navy and Marine, and Civil Services employees.

[3] Includes full and part-time, academic and support, and UCSD Medical Center, School of Medicine.

[4] Employee count is countywide.

[5] Scripps Health employees within city limits, not including Mercy Hospital in Chula Vista.

[6] As of the last pay-period of the fiscal year.

[7] Excludes temps and interns.

[8] Includes physicians.

[9] Excludes out of state military instructors.

Sources: Avenu Insights and Analytics, LLC and City of San Diego, Department of Finance - Payroll Division

CITY OF SAN DIEGO
FULL-TIME AND PART-TIME CITY EMPLOYEES BY FUNCTION (UNAUDITED) [1]
Last Ten Fiscal Years

Table 18

	Fiscal Year									
Function	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
General Government and Support	2,248	2,217	2,143	2,101	2,058	2,134	2,283	2,433	2,569	2,611
Public Safety - Police	2,674	2,547	2,409	2,402	2,427	2,489	2,519	2,577	2,540	2,564
Public Safety - Fire, Life Safety, Homeland Security	1,304	1,331	1,265	1,208	1,235	1,283	1,397	1,428	1,433	1,450
Parks, Recreation, Culture and Leisure	1,682	1,675	1,556	1,525	1,646	1,720	1,871	1,908	1,976	1,896
Transportation	279	282	280	276	298	325	337	376	409	403
Sanitation and Health	164	156	153	132	121	135	139	144	128	127
Neighborhood Services	145	132	137	127	141	152	162	172	169	185
Airports	16	16	17	17	18	16	18	21	19	17
Development Services	329	258	259	268	293	332	367	408	415	426
Environmental Services	168	172	160	157	153	145	154	145	139	103
Golf Course	97	93	89	100	98	106	106	108	102	114
Recycling	100	97	87	94	97	104	93	85	83	126
Sewer Utility	817	781	762	731	721	775	693	694	660	653
Water Utility	776	742	734	703	720	695	829	888	841	863
Total Employees	10,799	10,499	10,051	9,841	10,026	10,411	10,968	11,387	11,483	11,538

[1] As of the last pay-period of the fiscal year.

Source: City of San Diego, Department of Finance - Payroll Division

CITY OF SAN DIEGO
OPERATING INDICATORS BY FUNCTION (UNAUDITED)
Last Ten Fiscal Years

Function	Fiscal Year 2009	2010	2011	2012
Public Safety - Police				
Calls for Police Services Dispatched	668,989	653,086	633,328	583,629
Calls for 9-1-1 Emergencies	506,738	501,094	542,010	572,808
Public Safety - Fire and Life Safety and Homeland Security				
Fire Department:				
Emergency Calls - Fire	3,868	2,740	2,559	2,557
Emergency Calls - Medical/Rescue	94,422	97,049	100,460	104,086
Emergency Calls - Other	13,671	14,295	15,245	16,478
Lifeguard:				
Water Rescues	5,233	5,066	4,187	6,011
Other Rescues	4,813	5,002	5,574	6,094
Beach Attendance	21,166,884	25,774,465	22,186,170	24,558,435
Parks, Recreation, Culture and Leisure				
Parks and Recreation:				
Number of Aquatic Users	311,173	303,200	299,145	304,900
Number of Youth Served in After School Program Sites	84,140	89,790	92,035	78,500
Library:				
Circulation	7,651,619	7,706,431	7,129,443	6,973,727
Total Attendance - All Libraries	6,601,210	6,143,281	5,771,767	5,602,380
Sewer Utility				
Average Daily Sewage Flow (millions of gallons)	171	166	170	164
Average Daily Peak - Maximum Sewage Flow (millions of gallons)	268	288	410	226
System Daily Capacity (millions of gallons)	255	255	255	255
Water Utility				
Average Daily Production (millions of gallons)	194	179	171	172
Maximum Daily Production (millions of gallons)	283	243	239	247
Total Water Consumption (millions of gallons)	70,893	59,567	56,760	60,944
Total Water Production (millions of gallons)	77,014	65,644	62,511	63,240

[1] Number of Calls for 9-1-1 emergencies is missing calls received during June 4th through June 30th, 2014.
[2] Number of calls for police dispatch is unavailable for FY18 due to a new computer aided dispatch system implementation.

Source: City Departments

Table 19

Fiscal Year					
2013	2014	2015	2016	2017	2018
570,628	583,556	562,360	529,564	515,351	(2)
605,015	583,391 [1]	626,694	615,158	595,309	622,696
3,659	3,184	5,591	5,639	5,845	6,288
112,864	113,858	124,189	136,750	138,632	140,704
12,698	12,838	12,748	11,875	12,024	11,531
5,482	5,299	6,673	7,835	8,611	8,830
6,714	5,486	6,281	5,584	5,265	4,829
23,403,527	23,414,313	24,928,079	17,939,665	16,266,398	17,723,916
308,025	296,000	311,788	304,125	321,751	315,315
81,889	109,670	107,515	108,160	128,774	147,516
6,956,000	6,877,913	6,923,853	6,840,359	6,322,664	77,439,703
5,818,941	6,170,931	6,654,351	6,940,237	6,591,169	6,772,535
160	155	149	146	156	146
207	196	187	220	298	196
255	255	255	255	255	255
181	188	171	150	158	166
249	267	243	215	220	218
62,501	65,552	60,474	54,702	49,209	52,015
66,167	68,457	62,289	54,875	57,709	60,532

CITY OF SAN DIEGO
CAPITAL ASSET STATISTICS BY FUNCTION (UNAUDITED)
Last Ten Fiscal Years

Function	Fiscal Year 2009	2010	2011	2012
Public Safety - Police				
Stations [1]	10	10	10	10
Public Safety - Fire and Life Safety and Homeland Security				
Fire Stations	47	47	47	47
Parks, Recreation, Culture and Leisure				
Parks and Recreation Sites	384	385	385	387
Transportation				
Miles of Streets - Concrete and Asphalt [2]	2,721	2,774	2,774	2,774
Airports				
Municipal Airports	2	2	2	2
Golf Course				
Municipal Golf Courses [3]	10	10	10	10
Sewer Utility				
Miles of Sewers	3,023	2,991	3,146	3,017
Sewer Service Laterals	273,438	273,587	274,464	274,788
Water Utility				
Miles of Water Distribution Mains	3,281	3,294	3,190	3,277
Water Meters in Service	274,310	276,217	274,310	276,478
Fire Hydrants	25,023	25,044	25,060	25,098

[1] Includes Headquarters and Traffic.

[2] Numbers for 2016 - 2018 includes alleys.

[3] Includes City operated as well as leased golf courses.

Sources: Comprehensive Annual Financial Reports and City Departments

Table 20

Fiscal Year					
2013	2014	2015	2016	2017	2018
10	11	11	11	11	11
47	47	47	48	48	49
387	387	387	387	390	395
2,777	2,777	2,778	2,981	2,964	2,996
2	2	2	2	2	2
10	10	10	10	10	10
3,021	3,020	3,026	3,031	3,031	3,032
275,404	261,632	261,837	264,652	262,275	262,252
3,294	3,376	3,384	3,295	3,294	3,295
276,998	278,241	279,625	280,631	283,751	284,202
25,157	25,195	25,364	25,492	25,533	25,534

County of San Diego

Department of Environmental Health
Land and Water Quality Division
www.sdcdeh.org

San Diego Office
5500 Overland Avenue, Suite 210
San Diego, CA 92123
(858) 565-5173

San Marcos Office
151 E. Carmel Street
San Marcos, CA 92078
(760) 471-0730

State Approved Laboratories for Water Quality Analysis

Below is a listing of state approved laboratories for drinking water and/or wastewater analysis. The following list is provided for information only. The County of San Diego does not endorse the businesses listed. A more comprehensive listing can be found at http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx.

Drinking Water and Wastewater Analysis			
Name	**Address**	**Phone/Email**	**Field of Test (FOT)**
Analytical Chemical Labs, Inc.	1123 West Morena Blvd. San Diego, CA 92110	(619) 276-1558	101-103,108,109
Associated Laboratories	806 N. Batavia Orange, CA 92868	(714) 771-6900 www.associatedlabs.com	101-105,107-111, 113
ATS Laboratories	104 South 8th Street Brawley, CA 92227	(760) 344-2532	101,102,107,108
Clarkson Lab & Supply, Inc.	350 Trousdale Drive Chula Vista, CA 91910	(619) 425-1993 www.clarksonlab.com	101,102,108,109
Clinical Laboratory of San Bernardino	21881 Barton Road Grand Terrace, CA 92313	(909) 825-7693 www.clinical-lab.com	101-110,112
D-Tek Analytical Laboratories	2722 Loker Avenue W, Ste. B Carlsbad, CA 92010	(760) 930-2555 www.dteklabs.com	101-103,107-109, 111
Enviromatrix Analytical, Inc.	4340 Viewridge Ave., Ste. A San Diego, CA 92123	(858) 560-7717 www.enviromatrixinc.com	101-103,107-111
IEH Environmental Engineering Laboratory	3538 Hancock St. San Diego, CA 92110	(619) 298-6131 www.ieheel.com	101,102,106-109,113
MWH Laboratories	750 Royal Oaks Dr., Ste. 100 Monrovia, CA 91016-3629	(626) 386-1100 www.mwhlabs.com	101-106,110
Pat-Chem Laboratories SD	8525 Gibbs Dr, Ste 301 San Diego, CA 92123	858-505-0835 X104 www.pat-chem.com	101,107
TestAmerica	1014 E. Cooley Dr., Ste A-F Colton, CA 92324	(909) 370-4667 www.testamericainc.com	101,104,105,107,108
Wastewater Analysis Only			
Name	**Address**	**Phone/Email**	**Field of Test (FOT)**
Motile Laboratory Services	537 Vine Street Oceanside, CA 92054	(760) 840-0577	107
Western Solutions, Inc.	2433 Impala Drive Carlsbad, CA 92008	(760) 795-6900 www.westonsolutions.com	107,113

Fields of Testing (FOT):
101 – Microbiology of Drinking Water
102 – Inorganic Chemistry of Drinking Water
103 – Toxic Chemical Elements of Drinking Water
104 – Volatile Organic Chemistry of Drinking Water
105 – Semi-volatile Organic Chemistry of Drinking Water
106 – Radiochemistry of Drinking Water
107 - Microbiology of Wastewater
108 - Inorganic Chemistry of Wastewater
109 - Toxic Chemical Elements of Wastewater
110 - Volatile Organic Chemistry of Wastewater
111 - Semi-volatile Organic Chemistry of Wastewater
112 - Radiochemistry of Wastewater
113 – Whole Effluent Toxicity of Wastewater

AMENDED AND RESTATED
MASTER INSTALLMENT PURCHASE AGREEMENT

by and between the

CITY OF SAN DIEGO

and the

SAN DIEGO FACILITIES AND EQUIPMENT LEASING CORPORATION

Dated as of January 1, 2009

Relating To

INSTALLMENT PAYMENTS PAYABLE FROM
NET SYSTEM REVENUES OF
THE WATER UTILITY FUND
OF THE CITY OF SAN DIEGO, CALIFORNIA

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AMENDED AND RESTATED
MASTER INSTALLMENT PURCHASE AGREEMENT

This AMENDED AND RESTATED MASTER INSTALLMENT PURCHASE AGREEMENT (the "Installment Purchase Agreement"), made and entered into as of January 1, 2009, by and between the CITY OF SAN DIEGO, a municipal corporation organized and existing under a charter duly adopted pursuant to the provisions of the Constitution of the State of California (the "City"), and the SAN DIEGO FACILITIES AND EQUIPMENT LEASING CORPORATION, a nonprofit public benefit corporation duly organized and existing under and by virtue of the laws of the State of California (the "Corporation"),

WITNESSETH:

WHEREAS, the City proposes to undertake the acquisition, construction, installation and improvement of its water system (the "Water System") as more fully described in Exhibit A hereof and as modified from time to time (the "Project" and, initially, the "1998 Project");

WHEREAS, the Corporation has agreed to assist the City by financing the construction of the Project for the City;

WHEREAS, the City has determined that its purchase of improvements to the Water System by undertaking the Project is necessary and proper for City uses and purposes;

WHEREAS, the Corporation proposes to sell components of the Project from time to time to the City and the City desires to purchase components of the Project from the Corporation upon the terms and conditions set forth herein;

WHEREAS, since the date upon which the Master Installment Purchase Agreement was initially executed by the City and the Corporation, being August 1, 1998 (the "Original MIPA"), the City and the Corporation, with the prior written consent of the appropriate Credit Providers (as defined herein), entered into certain supplements thereto, the effect of which was to amend certain substantive provisions of the Original MIPA (collectively, the "Amendatory Supplements"); and

WHEREAS, the Amendatory Supplements were entered into in full compliance with the provisions of Section 10.03(a) of the Original MIPA; and

WHEREAS, the City and the Corporation have determined for administrative purposes to consolidate the Amendatory Supplements with the Original MIPA and to make certain clarifications and corrections to the Original MIPA in connection therewith; and

WHEREAS, the City and the Corporation have duly authorized the execution of this Installment Purchase Agreement;

WHEREAS, all acts, conditions and things required by law to exist, to have happened and to have been performed precedent to and in connection with the execution and delivery of this Installment Purchase Agreement do exist, have happened and have been performed in

regular and due time, form and manner as required by law, and the parties hereto are now duly authorized to execute and enter into this Installment Purchase Agreement;

NOW, THEREFORE, IN CONSIDERATION OF THESE PREMISES AND OF THE MUTUAL AGREEMENTS AND COVENANTS CONTAINED HEREIN AND FOR OTHER VALUABLE CONSIDERATION, THE PARTIES HERETO DO HEREBY AGREE AS FOLLOWS:

ARTICLE I

DEFINITIONS

SECTION 1.01. Definitions. Unless the context otherwise requires, the terms defined in this Section shall for all purposes hereof and of any amendment hereof or supplement hereto and of any report or other document mentioned herein or therein have the meanings defined herein, all of the following definitions shall be equally applicable to both the singular and plural forms of any of the terms defined herein:

Accountant's Report

The term "Accountant's Report" means a report signed by an Independent Certified Public Accountant.

Acquisition Fund

The term "Acquisition Fund" means the fund by that name established pursuant to any Issuing Instrument.

Adjusted Debt Service

The term "Adjusted Debt Service" means, for any Fiscal Year, Debt Service on Parity Obligations for such Fiscal Year, minus an amount equal to earnings from investments in any Reserve Fund securing Parity Obligations for such Fiscal Year.

Adjusted Net System Revenues

The term "Adjusted Net System Revenues" means, for any Fiscal Year, the Net System Revenues for such Fiscal Year, minus an amount equal to earnings from investments in any Reserve Fund securing Parity Obligations for such Fiscal Year.

Authorized City Representative

The term "Authorized City Representative" means the Chief Financial Officer of the City or such other officer or employee of the City or other person who has been designated in writing as such representative by the Chief Financial Officer.

Authorizing Ordinance

The term "Authorizing Ordinance" means the ordinance pursuant to which this Installment Purchase Agreement was authorized and any additional ordinance or official authorizing act of the council of the City approving execution and delivery of any Supplement to this Installment Purchase Agreement or any Issuing Instrument.

Balloon Indebtedness

The term "Balloon Indebtedness" means, with respect to any Series of Obligations twenty-five percent (25%) or more of the principal of which matures on the same date or within a 12-month period (with sinking fund payments on Term Obligations deemed to be payments of matured principal), that portion of such Series of Obligations which matures on such date or within such 12-month period; provided, however, that to constitute Balloon Indebtedness the amount of indebtedness maturing on a single date or over a 12-month period must equal or exceed 150% of the amount of such Series of Obligations which matures during any preceding 12-month period. For purposes of this definition, the principal amount maturing on any date shall be reduced by the amount of such indebtedness which is required, by the documents governing such indebtedness, to be amortized by prepayment or redemption prior to its stated maturity date.

Bond Counsel

The term "Bond Counsel" means a firm of attorneys which is nationally recognized in the area of municipal finance selected by the City.

Capacity Charge

The term "Capacity Charge" means a charge imposed upon a person, firm, corporation or other entity incident to the granting of a permit for a new water connection or due to an increase in water usage by the addition of any type of dwelling, commercial or industrial unit, which charge is based upon an increase in water consumption as measured by equivalent dwelling units, and the proceeds of which are used to construct, improve and expand the Water System to accommodate the additional business of such added dwellings or commercial or industrial units.

Charter

The term "Charter" means the Charter of the City as it now exists or may hereafter be amended, and any new or successor Charter.

City

The term "City" means the City of San Diego, a municipal corporation organized and existing under the Charter and the Constitution of the State of California.

Code

The term "Code" means the Internal Revenue Code of 1986, and the regulations thereunder, as amended, and any successor provisions of law.

Components

The term "Components" means components of the Project specified on Exhibit A or in a Supplement.

Consultant

The term "Consultant" means the consultant, consulting firm, engineer, architect, engineering firm, architectural firm, accountant or accounting firm retained by the City to perform acts or carry out the duties provided for such consultant in this Installment Purchase Agreement. Such consultant, consulting firm, engineer, architect, engineering firm or architectural firm shall be nationally recognized within its profession for work of the character required. Such accountants or accounting firm shall be independent certified public accountants licensed to practice in the State of California.

Comptroller

The term "Comptroller" means the Comptroller of the City.

Corporation

The term "Corporation" means the San Diego Facilities and Equipment Leasing Corporation, a nonprofit public benefit corporation duly organized and existing under and by virtue of the laws of the State.

Credit Provider

The term "Credit Provider" means any municipal bond insurance company, bank or other financial institution or organization which is performing in all material respects its obligations under any Credit Support Instrument for some or all of the Parity Obligations.

Credit Provider Reimbursement Obligations

The term "Credit Provider Reimbursement Obligations" means obligations of the City to repay, from Net System Revenues, amounts advanced by a Credit Provider as credit support or liquidity for Parity Obligations, which obligations shall constitute Parity Obligations or Subordinated Obligations, as designated by the City.

Credit Support Instrument

The term "Credit Support Instrument" means a policy of insurance, a letter of credit, a standby purchase agreement, revolving credit agreement or other credit arrangement pursuant to

which a Credit Provider provides credit support or liquidity with respect to the payment of interest, principal or the purchase price of any Parity Obligations.

Debt Service

With regard to the issuance of Parity Obligations, the term "Debt Service" means, for any Fiscal Year, the sum of (a) the interest payable during such Fiscal Year on all Outstanding Parity Obligations, assuming that all Outstanding Serial Parity Obligations are retired as scheduled and that all Outstanding Term Parity Obligations are redeemed or paid from sinking fund payments as scheduled (except to the extent that such interest is to be paid from the proceeds of sale of any Parity Obligations), (b) that portion of the principal amount of all Outstanding Serial Parity Obligations maturing on the next succeeding principal payment date which falls in such Fiscal Year (excluding Serial Obligations which at the time of issuance are intended to be paid from the sale of a corresponding amount of Parity Obligations), (c) that portion of the principal amount of all Outstanding Term Parity Obligations required to be redeemed or paid on any redemption date which falls in such Fiscal Year (together with the redemption premiums, if any, thereon); provided that, (1) as to any Balloon Indebtedness, Tender Indebtedness and Variable Rate Indebtedness, interest thereon shall be calculated as provided in the definition of Maximum Annual Debt Service and principal shall be deemed due at the nominal maturity dates thereof; (2) the amount on deposit in a debt service reserve fund on any date of calculation of Debt Service shall be deducted from the amount of principal due at the final maturity of the Parity Obligations for which such debt service reserve fund was established and in each preceding year until such amount is exhausted; and (3) the amount of payments on account of Parity Obligations which are redeemed, retired or repaid on the basis of the accreted value due on the scheduled redemption, retirement or repayment date shall be deemed principal payments, and interest that is compounded and paid as part of the accreted value shall be deemed payable on the scheduled redemption, retirement or repayment date, but not before.

With regard to the issuance of Subordinated Obligations, the term "Debt Service" means, for any Fiscal Year, the sum of (a) the interest payable during such Fiscal Year on all Outstanding Obligations, assuming that all Outstanding Serial Obligations are retired as scheduled and that all Outstanding Term Obligations are redeemed or paid from sinking fund payments as scheduled (except to the extent that such interest is to be paid from the proceeds of sale of any Obligations), (b) that portion of the principal amount of all Outstanding Serial Obligations maturing on the next succeeding principal payment date which falls in such Fiscal Year (excluding Serial Obligations which at the time of issuance are intended to be paid from the sale of a corresponding amount of other Obligations) (c) that portion of the principal amount of all Outstanding Term Obligations required to be redeemed or paid on any redemption date which falls in such Fiscal Year (together with the redemption premiums, if any, thereon) provided that, (1) as to any Balloon Indebtedness, Tender Indebtedness and Variable Rate Indebtedness, interest thereon shall be calculated as provided in the definition of Maximum Annual Debt Service and principal shall be deemed due at the nominal maturity dates thereof; (2) the amount on deposit in a Reserve Fund on any date of calculation of Debt Service shall be deducted from the amount of principal due at the final maturity of the Obligations for which such Reserve Fund was established and in each preceding year, until such amount is exhausted; and (3) the amount of payments on account of Obligations which are redeemed, retired or repaid on the basis of the accreted value due on the scheduled redemption, retirement or repayment date shall be deemed

principal payments, and interest that is compounded and paid as part of the accreted value thereof shall be deemed payable on the scheduled redemption, retirement or repayment date, but not before.

Default Rate

The term "Default Rate" means the Maximum Rate.

Defaulted Obligations

The term "Defaulted Obligations" means Obligations in respect of which an Event of Default has occurred and is continuing.

Engineer's Report

The term "Engineer's Report" means a report signed by an Independent Engineer.

Event of Default

The term "Event of Default" means any occurrence or event described in Section 8.01 hereof.

Feasibility Report

The term "Feasibility Report" means a report of a Consultant with special expertise on the construction and operation of water systems similar to the Water System, delivered in connection with the incurrence of Additional Obligations.

Fiscal Year

The term "Fiscal Year" means the period beginning on July 1 of each year and ending on the next succeeding June 30, or any other twelve-month period selected and designated as the official Fiscal Year of the City.

Independent Certified Public Accountant

The term "Independent Certified Public Accountant" means any firm of certified public accountants appointed by the City, and each of whom is independent pursuant to the Statement on Auditing Standards No. 1 of the American Institute of Certified Public Accountants.

Independent Engineer

The term "Independent Engineer" means any registered engineer or firm of registered engineers of national reputation generally recognized to be well qualified in engineering matters relating to water systems, appointed and paid by but not under the control of the City.

Installment Payment Date

The term "Installment Payment Date" means any date on which an Installment Payment is due as specified herein or determined pursuant to a Supplement.

Installment Payments

The term "Installment Payments" means the Installment Payments scheduled to be paid by the City under and pursuant hereto and any Supplement.

Installment Payment Obligations

The term "Installment Payment Obligations" means Obligations consisting of or which are supported in whole by Installment Payments.

Installment Purchase Agreement

The term "Installment Purchase Agreement" means this Amended and Restated Master Installment Purchase Agreement, by and between the City and the Corporation, dated as of January 1, 2009, as originally executed and as it may from time to time be amended or supplemented in accordance herewith.

Issuing Instrument

The term "Issuing Instrument" shall mean any indenture, trust agreement, loan agreement, lease, installment purchase agreement or this Installment Purchase Agreement, including any Supplement or other instrument under which Obligations are issued or created.

Law

The term "Law" means the Charter and all applicable laws of the State.

Maintenance and Operation Costs of the Water System

The term "Maintenance and Operation Costs of the Water System" means (a) any Qualified Take or Pay Obligation, and (b) the reasonable and necessary costs spent or incurred by the City for maintaining and operating the Water System, calculated in accordance with generally accepted accounting principles, including, without limitation, the costs of the purchase, delivery or storage of water, the reasonable expenses of maintenance and repair and other expenses necessary to maintain and preserve the Water System in good repair and working order, and including administrative costs of the City attributable to the Water System, including the Project and this Installment Purchase Agreement, salaries and wages of employees of the Water System, payments to such employees' retirement systems (to the extent paid from System Revenues), overhead, taxes (if any), fees of auditors, accountants, attorneys or engineers and insurance premiums, and including all other reasonable and necessary costs of the City or charges required to be paid by it to comply with the terms of the Obligations, including this Installment Purchase Agreement, including any amounts required to be deposited in the Rebate Fund pursuant to a Tax Certificate, and fees and expenses payable to any Credit Provider (other

than in repayment of a Credit Provider Reimbursement Obligation), but excluding in all cases (1) depreciation, replacement and obsolescence charges or reserves therefor, (2) amortization of intangibles or other bookkeeping entries of a similar nature, (3) costs of capital additions, replacements, betterments, extensions or improvements to the Water System which under generally accepted accounting principles are chargeable to a capital account or to a reserve for depreciation, (4) charges for the payment of principal of and interest on any general obligation bond heretofore or hereafter issued for Water System purposes, and (5) charges for the payment of principal of and interest on any debt service on account of any Obligation on a parity with or subordinate to the Installment Payments.

Maximum Annual Debt Service

The term "Maximum Annual Debt Service" means,

(A) with respect to Parity Obligations then Outstanding, the maximum amount of principal and interest becoming due on the Parity Obligations in the then-current or any future Fiscal Year, calculated by the City or by an Independent Certified Public Accountant in accordance with this subsection and provided to the Trustee. For purposes of calculating Maximum Annual Debt Service, the following assumptions shall be used to calculate the principal and interest becoming due in any Fiscal Year:

(i) in determining the principal amount due in each Fiscal Year, payments shall (except to the extent a different subsection of this definition applies for purposes of determining principal maturities or amortization) be assumed to be made in accordance with any amortization schedule established for such debt, including the amount of any Parity Obligations which are or have the characteristics of commercial paper and which are not intended at the time of issuance to be retired from the sale of a corresponding amount of Parity Obligations, and including any scheduled mandatory redemption or prepayment of Parity Obligations on the basis of accreted value due upon such redemption or prepayment, and for such purpose, the redemption payment or prepayment shall be deemed a principal payment; provided, however, that with respect to Parity Obligations which are or have the characteristics of commercial paper and which are intended at the time of issuance to be retired from the sale of a corresponding amount of other Obligations, which other Obligations would not constitute Balloon Indebtedness, each maturity thereof shall be treated as if it were to be amortized in substantially equal installments of principal and interest over a term of 30 years, commencing in the year of such stated maturity; in determining the interest due in each Fiscal Year, interest payable at a fixed rate shall (except to the extent subsection (A)(ii) or (iii) of this definition applies) be assumed to be made at such fixed rate and on the required payment dates;

(ii) if all or any portion or portions of an Outstanding Series of Parity Obligations constitute Balloon Indebtedness or if all or any portion or portions of a Series of Parity Obligations or such payments then proposed to be issued would constitute Balloon Indebtedness, then, for purposes of determining Maximum Annual Debt Service, each maturity which constitutes Balloon Indebtedness shall

be treated as if it were to be amortized in substantially equal annual installments of principal and interest over a term of 30 years, commencing in the year the stated maturity of such Balloon Indebtedness occurs, the interest rate used for such computation shall be determined as provided in subsection (A)(iv) or (v) below, as appropriate, and all payments of principal and interest becoming due prior to the year of the stated maturity of the Balloon Indebtedness shall be treated as described in subsection (A)(i) above;

(iii) if any Outstanding Series of Parity Obligations constitutes Tender Indebtedness or if Parity Obligations proposed to be issued would constitute Tender Indebtedness, then for purposes of determining Maximum Annual Debt Service, Tender Indebtedness shall be treated as if the principal amount of such Parity Obligations were to be amortized in accordance with the amortization schedule set forth in the Supplement or Issuing Instrument for such Tender Indebtedness or in the standby purchase or liquidity facility established with respect to such Tender Indebtedness, or if no such amortization schedule is set forth, then such Tender Indebtedness shall be deemed to be amortized in substantially equal annual installments of principal and interest over a term of 30 years commencing in the year in which such Series is first subject to tender, the interest rate used for such computation shall be determined as provided in subsection (A)(iv) or (v) below, as appropriate;

(iv) if any Outstanding Series of Parity Obligations constitutes Variable Rate Indebtedness, the interest rate on such Obligations shall be assumed to be 110% of the daily average interest rate on such Parity Obligations during the 12 months ending with the month preceding the date of calculation, or such shorter period that such Parity Obligations shall have been Outstanding;

(v) if Parity Obligations proposed to be issued will be Variable Rate Indebtedness, then such Parity Obligations shall be assumed to bear interest at 80% of the average Revenue Bond Index during the calendar quarter preceding the calendar quarter in which the calculation is made, or if that index is no longer published, another similar index selected by the City, or if the City fails to select a replacement index, an interest rate equal to 80% of the yield for outstanding United States Treasury bonds having an equivalent maturity, or if there are no such Treasury bonds having such maturities, 100% of the lowest prevailing prime rate of any of the five largest commercial banks in the United States ranked by assets; and

(vi) if moneys or Permitted Investments have been deposited by the City into a separate fund or account or are otherwise held by the City or by a fiduciary to be used to pay principal of and/or interest on specified Parity Obligations, then the principal and/or interest to be paid from such moneys, Permitted Investments or from the earnings thereon shall be disregarded and not included in calculating Maximum Annual Debt Service.

(B) with regard to all Obligations then Outstanding, the maximum amount of principal and interest becoming due on the Obligations in the then-current or any future Fiscal Year, calculated by the City or by an Independent Certified Public Accountant in accordance with this subsection and provided to the Trustee. For purposes of calculating Maximum Annual Debt Service, the following assumptions shall be used to calculate the principal and interest becoming due in any Fiscal Year:

(i) in determining the principal amount due in each Fiscal Year, payments shall (except to the extent a different subsection of this definition applies for purposes of determining principal maturities or amortization) be assumed to be made in accordance with any amortization schedule established for such debt, including the amount of any Obligations which are or have the characteristics of commercial paper and which are not intended at the time of issuance to be retired from the sale of a corresponding amount of Obligations, and including any scheduled mandatory redemption or prepayment of Obligations on the basis of accreted value due upon such redemption or prepayment, and for such purpose, the redemption payment or prepayment shall be deemed a principal payment; provided, however, that with respect to Obligations which are or have the characteristics of commercial paper and which are intended at the time of issuance to be retired from the proceeds of sale of a corresponding amount of other Obligations, and which would not constitute Balloon Indebtedness, each maturity thereof shall be treated as if it were to be amortized in substantially equal installments of principal and interest over a term of 30 years, commencing in the year of such stated maturity; in determining the interest due in each Fiscal Year, interest payable at a fixed rate shall (except to the extent subsection (B)(ii) or (iii) of this definition applies) be assumed to be made at such fixed rate and on the required payment dates;

(ii) if all or any portion or portions of an Outstanding Series of Obligations constitute Balloon Indebtedness or if all or any portion or portions of a Series of Obligations or such payments then proposed to be issued would constitute Balloon Indebtedness, then, for purposes of determining Maximum Annual Debt Service, each maturity which constitutes Balloon Indebtedness shall be treated as if it were to be amortized in substantially equal annual installments of principal and interest over a term of 30 years, commencing in the year the stated maturity of such Balloon Indebtedness occurs, the interest rate used for such computation shall be determined as provided in subsection (B)(iv) or (v) below, as appropriate, and all payments of principal and interest becoming due prior to the year of the stated maturity of the Balloon Indebtedness shall be treated as described in subsection (B)(i) above;

(iii) if any Outstanding Series of Obligations constitutes Tender Indebtedness or if Obligations proposed to be issued would constitute Tender Indebtedness, then for purposes of determining Maximum Annual Debt Service, Tender Indebtedness shall be treated as if the principal amount of such Obligations were to be amortized in accordance with the amortization schedule set forth in the Supplement or Issuing Instrument for such Tender Indebtedness or

in the standby purchase or liquidity facility established with respect to such Tender Indebtedness, or if no such amortization schedule is set forth, then such Tender Indebtedness shall be deemed to be amortized in substantially equal annual installments of principal and interest over a term of 30 years, commencing in the year in which such Obligations are first subject to tender, the interest rate used for such computation shall be determined as provided in subsection (B)(iv) or (v) below, as appropriate;

(iv) if any Outstanding Series of Obligations constitute Variable Rate Indebtedness, the interest rate on such Series of Obligations shall be assumed to be 110% of the daily average interest rate on such Series of Obligations during the 12 months ending with the month preceding the date of calculation, or such shorter period that such Series of Obligations shall have been Outstanding;

(v) if Obligations proposed to be issued will be Variable Rate Indebtedness, then such Obligations shall be assumed to bear interest at 80% of the average Revenue Bond Index during the calendar quarter preceding the calendar quarter in which the calculation is made, or if that index is no longer published, another similar index selected by the City, or if the City fails to select a replacement index, an interest rate equal to 80% of the yield for outstanding United States Treasury bonds having an equivalent maturity, or if there are no such Treasury bonds having such maturities, 100% of the lowest prevailing prime rate of any of the five largest commercial banks in the United States ranked by assets; and

(vi) if moneys or Permitted Investments have been deposited by the City into a separate fund or account or are otherwise held by the City or by a fiduciary to be used to pay principal and/or interest on specified Obligations, then the principal and/or interest to be paid from such moneys, Permitted Investments or from the earnings thereon shall be disregarded and not included in calculating Maximum Annual Debt Service.

Maximum Rate

The term "Maximum Rate" means, on any day, the maximum interest rate allowed by law.

Moody's

The term "Moody's" means Moody's Investors Service, Inc., a Delaware corporation, and its successors, and if such corporation shall for any reason no longer perform the functions of a securities rating agency, "Moody's" shall be deemed to refer to any other nationally recognized securities rating agency designated by the City.

Net Proceeds

The term "Net Proceeds" means, when used with respect to any insurance, self-insurance or condemnation award, the proceeds from such award that are remaining after payment of all expenses (including attorneys' fees) incurred in the collection of such proceeds.

Net System Revenues

The term "Net System Revenues" means, for any Fiscal Year, the System Revenues for such Fiscal Year, less the Maintenance and Operation Costs of the Water System for such Fiscal Year.

Obligations

The term "Obligations" means (a) obligations of the City for money borrowed (such as bonds, notes or other evidences of indebtedness) or as installment purchase payments under any contract (including Installment Payments), or as lease payments under any financing lease (determined to be such in accordance with generally accepted accounting principles), the principal of and interest on which are payable from Net System Revenues; (b) obligations to replenish any debt service reserve funds with respect to such obligations of the City; (c) obligations secured by or payable from any of such obligations of the City; and (d) obligations of the City payable from Net System Revenues under (1) any contract providing for payments based on levels of, or changes in, interest rates, currency exchange rates, stock or other indices, (2) any contract to exchange cash flows or a series of payments, or (3) any contract to hedge payment, currency, rate spread or similar exposure, including but not limited to interest rate cap agreements.

Outstanding

The term "Outstanding," when used as of any particular time with respect to Obligations, means all Obligations theretofore or thereupon executed, authenticated and delivered by the City or any trustee or other fiduciary, *except* (a) Obligations theretofore cancelled or surrendered for cancellation; (b) Obligations paid or deemed to be paid within the meaning of any defeasance provisions thereof; (c) Obligations owned by the City; and (d) Obligations in lieu of or in substitution for which other Obligations have been executed and delivered.

Owner

The term "Owner" means any person who shall be the registered owner of any certificate or other evidence of a right to receive Installment Payments directly or as security for payment of an Outstanding Obligation.

Parity Installment Obligation

The term "Parity Installment Obligation" means Obligations consisting of or payable from Installment Payments which are not subordinated in right of payment to other Installment Payments.

Parity Obligations

The term "Parity Obligations" means (a) Parity Installment Obligations, (b) Obligations, the principal of and interest on which are payable on a parity with Parity Installment Obligations, and (c) Reserve Fund Obligations.

Payment Fund

The term "Payment Fund" means the fund designated in the Issuing Instrument as the fund into which Installment Payments are to be deposited for the purposes of paying principal of or interest on related Obligations.

Permitted Investments

The term "Permitted Investments" means investments which pursuant to an Issuing Instrument are permissible for the investment of funds received from the sale of Obligations pursuant to the Issuing Document or from other funds held pursuant to the Issuing Instrument.

Project; 1998 Project

The term "Project" means the construction, replacement and improvements to the Water System described in Exhibit A hereto, as it may be modified from time to time in conformance with Section 3.02 hereof. The term "1998 Project" means the Components of the Project initially financed hereunder.

Purchase Price

The term "Purchase Price" means the principal amount, plus interest thereon, owed by the City to the Corporation under the terms hereof for the purchase of Project Components, as provided in Section 4.01 and as specified herein or in a Supplement.

Qualified Take or Pay Obligation

The term "Qualified Take or Pay Obligation" means the obligation of the City to make use of any facility, property or services, or some portion of the capacity thereof, or to pay therefor from System Revenues, or both, whether or not such facilities, properties or services are ever made available to the City for use, and there is provided to the City a certificate of the City or of an Independent Engineer to the effect that the incurrence of such obligation will not adversely affect the ability of the City to comply with the provisions of Section 6.08(a).

Rate Stabilization Fund

The term "Rate Stabilization Fund" means the fund by that name established pursuant to Section 6.08 hereof.

Rating Agencies

The term "Rating Agencies" means Moody's and S&P, or whichever of them and any other rating agency that is then rating Obligations.

Rebate Fund

The term "Rebate Fund" means the fund by that name established pursuant to any Issuing Instrument.

Rebate Requirement

The term "Rebate Requirement" shall have the meaning specified in any Tax Certificate.

Reserve Fund

The term "Reserve Fund" shall refer to the fund by that name established under in an Issuing Instrument or Supplement.

Reserve Fund Obligations

The term "Reserve Fund Obligations" means the obligations of the City to pay amounts advanced under any Reserve Fund Credit Facility entered into in accordance with the provisions of the related Issuing Instrument or Supplement, which obligations shall constitute Parity Obligations or Subordinated Obligations, as designated by the City.

Reserve Fund Credit Facility

The term "Reserve Fund Credit Facility" shall mean a letter of credit, line of credit, surety bond, insurance policy or similar facility deposited in the Reserve Fund established under an Issuing Instrument in lieu of or in partial substitution for cash or securities on deposit therein.

Reserve Requirement

The term "Reserve Requirement" shall have the meaning given to such term in any Issuing Instrument or Supplement.

Revenue Bond Index

The term "Revenue Bond Index" means the Revenue Bond Index by that name published from time to time in *The Bond Buyer*.

S&P

The term "S&P" means Standard & Poor's, a division of the McGraw-Hill Companies, a New York corporation, and its successors, and if such corporation shall for any reason no longer perform the functions of a securities rating agency, "S&P" shall be deemed to refer to any other nationally recognized securities rating agency designated by the City.

Secondary Purchase Fund

The term "Secondary Purchase Fund" means the fund by that name established pursuant to Section 6.08 hereof.

Serial Obligations

The term "Serial Obligations" means Obligations for which no sinking fund payments are provided.

Serial Parity Obligations

The term "Serial Parity Obligations" means Serial Obligations which are Parity Installment Payments or are payable on a parity with Parity Installment Obligations.

Series

The term "Series" means Obligations issued at the same time or sharing some other common term or characteristic and designated as a separate Series.

State

The term "State" means the State of California.

Subordinated Credit Provider

The term "Subordinated Credit Provider" means any municipal bond insurance company, bank or other financial institution or organization which is performing in all respects its obligations under any Subordinated Credit Support Instrument for some or all of the Subordinated Obligations.

Subordinated Credit Provider Reimbursement Obligations

The term "Subordinated Credit Provider Reimbursement Obligations" means obligations of the City to repay, from Net System Revenues, amounts advanced by a Subordinated Credit Provider as credit support or liquidity for Subordinated Obligations, which obligations shall constitute Subordinated Obligations.

Subordinated Credit Support Instrument

The term "Subordinated Credit Support Instrument" means a policy of insurance, a letter of credit, a standby purchase agreement, revolving credit agreement or other credit arrangement pursuant to which a Subordinated Credit Provider provides credit support or liquidity with respect to the payment of interest, principal or the purchase price of any Subordinated Obligations.

Subordinated Obligations

The term "Subordinated Obligations" means any Obligations, the payment of which is subordinated in right of payment to Parity Obligations.

Supplement

The term "Supplement" means a supplement to this Installment Purchase Agreement providing for the payment of specific Installment Payments as the Purchase Price for additional Components of the Project, executed and delivered by the City and the Corporation.

System Revenues

The term "System Revenues" means all income, rents, rates, fees, charges and other moneys derived from the ownership or operation of the Water System, including, without limiting the generality of the foregoing:

(a) all income, rents, rates, fees, charges, or other moneys derived by the City from the water services or facilities, and commodities or byproducts, including hydroelectric power, sold, furnished or supplied through the facilities of or in the conduct or operation of the business of the Water System, and including, without limitation, investment earnings on the operating reserves to the extent that the use of such earnings is limited to the Water System by or pursuant to law, and earnings on any Reserve Fund for Obligations, but only to the extent that such earnings may be utilized under the Issuing Instrument for the payment of debt service for such Obligations;

(b) standby charges and Capacity Charges* derived from the services and facilities sold or supplied through the Water System;

(c) the proceeds derived by the City directly or indirectly from the lease of a part of the Water System;

(d) any amount received from the levy or collection of taxes which are solely available and are earmarked for the support of the operation of the Water System;

(e) amounts received under contracts or agreements with governmental or private entities and designated for capital costs for the Water System;* and

(f) grants for maintenance and operations received from the United States of America or from the State of California; provided, however, that System Revenues shall not include: (1) in all cases, customers' deposits or any other deposits or advances subject to refund until such deposits or advances have become the property of the City; and (2) the proceeds of borrowings; but

(g) notwithstanding the foregoing, there shall be deducted from System Revenues any amounts transferred into a Rate Stabilization Fund as contemplated by

* These items of System Revenue may not be used to pay Maintenance and Operation Costs of the Water System.

Section 6.08(b) hereof, and any amounts transferred from current System Revenues to the Secondary Purchase Fund as contemplated by Section 6.08(c) hereof, and there shall be added to System Revenues any amounts transferred out of such Rate Stabilization Fund or the Secondary Purchase Fund to pay Maintenance and Operation Costs of the Water System.

Tax Certificate

The term "Tax Certificate" shall mean any certificate delivered with respect to the maintenance of the tax-exempt status of Tax-Exempt Installment Payment Obligations.

Tax-Exempt Installment Payment Obligations

The term "Tax-Exempt Installment Payment Obligations" means Installment Payment Obligations, the interest component of which is excluded from gross income pursuant to Section 103 of the Code.

Tender Indebtedness

The term "Tender Indebtedness" means any Obligations or portions of Obligations, a feature of which is an option, on the part of the holders thereof, or an obligation, under the terms of such Obligations, to tender all or a portion of such Obligations to the City, a Trustee or other fiduciary or agent for payment or purchase and requiring that such Obligations or portions of Obligations or that such rights to payments or portions of payments be purchased if properly presented. Tender Indebtedness may consist of either Parity Obligations or Subordinated Obligations.

Term Parity Obligations

The term "Term Parity Obligations" means Term Obligations which are Parity Installment Obligations or are payable on a parity with Parity Installment Obligations.

Term Obligations

The term "Term Obligations" means Obligations which are payable on or before their specified maturity dates from sinking fund payments established for that purpose and calculated to retire such Obligations on or before their specified maturity dates.

Trustee

The term "Trustee" means a financial institution acting in its capacity as Trustee under and pursuant to any Issuing Instrument, or its successors and assigns.

Variable Rate Indebtedness

The term "Variable Rate Indebtedness" means any portion of indebtedness evidenced by Obligations, the interest rate for which is subject to adjustment periodically through a remarketing process or according to a stated published index for similar obligations in the

municipal markets. Variable Rate Indebtedness may consist of either Parity Obligations or Subordinated Obligations.

Water Service

The term "Water Service" means the collection, conservation, production, storage, treatment, transmission, furnishing and distribution services made available or provided by the Water System.

Water System

The term "Water System" means any and all facilities, properties, improvements and works at any time owned, controlled or operated by the City as part of the public utility system of the City for water purposes, for the development, obtaining, conservation, production, storage, treatment, transmission, furnishing and distribution of water and its other commodities or byproducts for public and private use (whether located within or without the City), and any related or incidental operations designated by the City as part of the Water System, including reclaimed and re-purified water.

Water Utility Fund

The term "Water Utility Fund" means the fund by that name established under the Charter.

ARTICLE II

REPRESENTATIONS AND WARRANTIES

SECTION 2.01. Representations by the City. The City makes the following representations:

(a) The City is a municipal corporation organized and existing under the Charter, which was duly adopted pursuant to the provisions of the Constitution of the State of California.

(b) The City has full legal right, power and authority to enter into this Installment Purchase Agreement and carry out its obligations hereunder, to carry out and consummate all transactions contemplated by this Installment Purchase Agreement, and the City has complied with the provisions of the Law in all matters relating to such transactions.

(c) By proper action, the City has duly authorized the execution, delivery and due performance of this Installment Purchase Agreement.

(d) The execution and delivery of this Installment Purchase Agreement and the consummation of the transactions herein contemplated will not violate any provision of law, any order of any court or other agency of governments or any indenture, material agreement or other instrument to which the City is now a party or by which it or any of its properties or assets is bound, or be in conflict with, result in a breach of or constitute a default (with due notice or the

passage of time or both) under any such indenture, agreement or other instrument, or result in the creation or imposition of any prohibited lien, charge or encumbrance of any nature whatsoever upon any of the properties or assets of the City.

(e) The City has determined that it is necessary and proper for the City uses and purposes within the terms of the Law that the City acquire the Project in the manner provided for in this Installment Purchase Agreement, in order to provide essential services and facilities to the persons residing in the City.

(f) The City will comply with the provisions of the Tax Certificate so that the interest components of Tax-Exempt Installment Payment Obligations will not be includable in the gross income of the Owners of such Obligations for federal income tax purposes.

SECTION 2.02. Representations and Warranties by the Corporation. The Corporation makes the following representations and warranties:

(a) The Corporation is duly organized and existing under the laws of the State of California.

(b) The Corporation has full legal right, power and authority to enter into this Installment Purchase Agreement and to carry out and consummate all transactions contemplated by this Installment Purchase Agreement.

(c) By proper action, the Corporation has duly authorized the execution, delivery and due performance of this Installment Purchase Agreement.

(d) The execution and delivery of this Installment Purchase Agreement and the consummation of the transactions herein contemplated will not violate any provision of law, any order of any court or other agency of government, or any indenture, material agreement or other instrument to which the Corporation is now a party or by which it or any of its properties or assets is bound, or be in conflict with, result in a breach of or constitute a default (with due notice or the passage of time or both) under any such indenture, agreement or other instrument, or result in the creation or imposition of any prohibited lien, charge or encumbrance of any nature whatsoever upon any of the properties or assets of the Corporation.

ARTICLE III

ACQUISITION AND CONSTRUCTION OF THE PROJECT

SECTION 3.01. Acquisition and Construction of the Project; Components. (a) The Corporation hereby agrees to cause the Project to be constructed, acquired and installed by the City, as agent of the Corporation. The City shall enter into contracts and provide for, as agent of the Corporation, the complete construction, acquisition and installation of the Project. The City hereby agrees that it will cause the construction, acquisition and installation of the Project to be diligently performed.

(b) It is hereby expressly understood and agreed that, except to the extent of proceeds of Obligations which are deposited in an Acquisition Fund, the Corporation shall be

under no liability of any kind or character whatsoever for the payment of any cost of any Components. In the event the proceeds of Obligations deposited in an Acquisition Fund are insufficient to complete the construction, acquisition and installation of the designated Components, the City shall cause to be deposited in such Acquisition Fund (or shall otherwise appropriate and encumber) from and to the extent of available amounts on deposit in the Water Utility Fund (or other lawfully available moneys) an amount equal to that necessary to complete the construction, acquisition and installation of such Components.

(c) The Corporation will not undertake to cause any Component of the Project to be constructed, acquired or installed unless and until the City and the Corporation have entered into a Supplement specifying the Components of the Project to be installed, the date of completion, the purchase price to be paid by the City hereunder for that Component of the Project, and the Installment Payments or the method of calculating Installment Payments.

SECTION 3.02. Changes to the Project. (a) From time to time and at any time, subject to the restrictions set forth in subsection (b) below, the City may modify or amend the description of the Project, to eliminate any part thereof and/or to add or substitute another Component or Components, all without obtaining any consent, by filing an amended Exhibit A with the Corporation and the Trustee under the related Issuing Instrument; provided however, that no such amendment shall add or substitute a Component or Components which are not to be accounted for as an asset of the Water Utility Fund or shall in any way impair the obligations of the City contained in any Supplement executed and delivered prior to any such amendment.

(b) The City may substitute other improvements for those listed as Components in any Supplement, but only if the City first files with the Corporation and the Trustee a certificate of an Authorized City Representative:

(1) identifying the Components to be substituted and the Components they replace;

(2) stating that the substituted Components will be accounted for as an asset of the Water Utility Fund; and

(3) stating that with respect to Components financed with Tax-Exempt Installment Payment Obligations, the estimated costs of construction, acquisition and installation of the substituted improvements are not less than such costs for the improvements previously included in such Supplement, that any excess amounts will be applied to the payment of principal evidenced by the related Obligations or any Additional Obligations, and that said substitution will not violate any provision of the related Tax Certificate.

(c) Substituted Components may include or consist of an undivided interest in such Components, in which event the costs associated with the substituted Components over and above the undivided interest need not be deposited in the Acquisition Fund (or otherwise appropriated and encumbered); provided, however, that the certificate of an Authorized City Representative specifies that the funds necessary to complete the substituted Components are on deposit in the Acquisition Fund or otherwise appropriated and encumbered.

ARTICLE IV

INSTALLMENT PAYMENTS

SECTION 4.01. Purchase Price. (a) The City will pay the Purchase Price for any Components being purchased as provided in a Supplement. The Purchase Price to be paid by the City to the Corporation pursuant to any Supplement hereto, solely from Net System Revenues and from no other sources, is the sum of the principal amount of the City's obligations under such Supplement plus the interest to accrue on the unpaid balance of such principal amount from the effective date thereof over the term thereof, subject to prepayment as provided therein.

(b) The principal amount of the Installment Payments to be made by the City under a Supplement shall be paid at least three Business Days prior to the date such Installment Payments are payable as specified in such Supplement or at such other earlier time or times and in the manner or manners as specified in such Supplement. In the event the principal amount of an Installment Payment is not paid by the date the same is due and payable as specified in such Supplement, the same shall bear interest at the Default Rate, commencing on the day the same as due, to, but not including, the payment date.

(c) The interest to accrue on the unpaid balance of such principal amount shall be paid at least three Business Days prior to the date such interest is payable as specified in a Supplement or at such other earlier time or times as specified in such Supplement, and shall be paid by the City as and constitute interest paid on the principal amount of the City's obligations thereunder. Interest shall be payable in an amount not exceeding the Maximum Rate at the time of incurring such obligation, at such intervals and according to such interest rate formulas as shall be specified in a Supplement or by reference to any Issuing Instrument to which such Supplement relates, and shall be payable with such frequency as shall be specified therein. In the event that interest is not paid by the date such interest is payable, to the extent permitted by applicable law, such interest shall thereafter bear interest at the Default Rate, commencing on the day the same is due, to, but not including, the payment date.

SECTION 4.02. Installment Payments; Reserve Fund Payments. (a) The City shall, subject to any rights of prepayment provided for in a Supplement, pay to the Corporation, solely from Net System Revenues and from no other sources, the Purchase Price in Installment Payments over a period not to exceed the maximum period permitted by law, all as specified in a Supplement.

(b) In the event that a Trustee notifies the City that the amount on deposit in a Reserve Fund or Reserve Account is less than the Reserve Requirement, the City shall deposit or cause to be deposited, solely from Net System Revenues in accordance with Section 5.02(b) hereof, in such Reserve Fund or Reserve Account such amounts on a monthly basis as are necessary to increase the amount on deposit therein to the Reserve Requirement in the ensuing twelve months.

(c) The obligation of the City to make the Installment Payments solely from Net System Revenues is absolute and unconditional, and until such time as the Purchase Price shall have been paid in full (or provision for the payment thereof shall have been made pursuant

to Article IX hereof), the City will not discontinue or suspend any Installment Payments required to be made by it under this section when due, whether or not the Project or any part thereof is operating or operable or has been completed, or its use is suspended, interfered with, reduced or curtailed or terminated in whole or in part, and such Installment Payments shall not be subject to reduction whether by offset or otherwise and shall not be conditioned upon the performance or nonperformance by any party of any agreement for any cause whatsoever.

ARTICLE V

SYSTEM REVENUES

SECTION 5.01. Commitment of the Net System Revenues. (a) All Parity Obligations, including Parity Installment Payment Obligations, shall be secured by a first priority lien on and pledge of Net System Revenues. The City does hereby grant such first priority lien on and pledge of Net System Revenues to secure Parity Obligations. All Parity Obligations shall be of equal rank with each other without preference, priority or distinction of any Parity Obligations over any other Parity Obligations.

(b) All Subordinated Obligations shall be secured by a second priority lien on and pledge of Net System Revenues that is junior and subordinate to the lien on and pledge of Net System Revenues securing Parity Obligations. The City does hereby grant such second priority lien on and pledge of Net System Revenues to secure Subordinated Obligations. All Subordinated Obligations shall be of equal rank with each other without preference, priority or distinction of any Subordinated Obligations over any other Subordinated Obligations.

(c) The City hereby represents and states that it has not granted any lien or charge on any of the Net System Revenues except as provided herein; provided, however, that out of Net System Revenues there may be apportioned such sums for such purposes as are expressly permitted by this Article V.

(d) Nothing contained herein shall limit the ability of the City to grant liens on and pledges of the Net System Revenues that are subordinate to the liens on and pledges of Net System Revenues for the benefit of Parity Obligations and Subordinated Obligations contained herein.

SECTION 5.02. Allocation of System Revenues. (a) In order to carry out and effectuate the commitment and pledge contained in Section 5.01, the City agrees and covenants that all System Revenues shall be received by the City in trust and shall be deposited when and as received in the Water Utility Fund, which fund the City agrees and covenants to maintain so long as any Installment Payment Obligations remain unpaid, and all moneys in the Water Utility Fund shall be so held in trust and applied and used solely as provided herein. The City shall pay from the Water Utility Fund: (1) directly or as otherwise required all Maintenance and Operation Costs of the Water System; and (2) to the Trustee, for deposit in the Payment Fund for Parity Obligations, including Reserve Fund Obligations that are Parity Obligations, the amounts specified in any Issuing Instrument, as payments due on account of Parity Obligations (including any Credit Provider Reimbursement Obligations that are Parity Obligations). In the event there are insufficient Net System Revenues to make all of the payments contemplated by clause (2) of

the immediately preceding sentence, then said payments should be made as nearly as practicable, *pro rata*, based upon the respective unpaid principal amounts of said Parity Obligations.

(b) After the payments contemplated by subsection (a) above have been made, and in any event not less frequently than January 15 and July 15 of each year, any remaining Net System Revenues shall be used to make up any deficiency in the Reserve Funds for Parity Obligations. Notwithstanding the use of a Reserve Fund Credit Facility in lieu of depositing funds in the related Reserve Fund for Parity Obligations, in the event of any draw on the related Reserve Fund Credit Facility, there shall be deemed a deficiency in such Reserve Fund for Parity Obligations until the amount of the Reserve Fund Credit Facility is restored to its pre-draw amount. In the event there are insufficient Net System Revenues to make up all deficiencies in all Reserve Funds for Parity Obligations, such payments into the Reserve Funds shall be made as nearly as practicable *pro rata* based on the respective unpaid principal amount of all Parity Obligations. Any amounts thereafter remaining in the Water Utility Fund may from time to time be used to pay the amounts specified in any Issuing Instrument as payments due on account of Subordinated Obligations (including any Reserve Fund Obligations for Subordinated Obligations, any Credit Provider Reimbursement Obligations that are Subordinated Obligations and any Subordinated Credit Provider Reimbursement Obligations), provided the following conditions are met:

(1) all Maintenance and Operation Costs of the Water System are being and have been paid and are then current; and

(2) all deposits and payments contemplated by clause (2) of subsection (a) above shall have been made in full and no deficiency in any Reserve Fund for Parity Obligations shall exist, and there shall have been paid, or segregated within the Water Utility Fund, the amounts payable during the current month pursuant to clause (2) of subsection (a) above.

After deposits contemplated by this Section have been made, any amounts thereafter remaining in the Water Utility Fund may be used for any lawful purpose of the Water System.

SECTION 5.03. <u>Additional Obligations</u>. (a) The City may not create any Obligations, the payments of which are senior or prior in right to the payment by the City of Parity Obligations.

(b) Without regard to subsection (c) below, the City may at any time enter into or create an obligation or commitment which is a Reserve Fund Obligation, provided that the Obligation to which the Reserve Fund Obligation relates is permitted to be entered into under the terms of this Section.

(c) After the initial issuance of Parity Obligations hereunder, the City may at any time and from time to time issue or create any other Parity Obligations, provided that:

(1) there shall not have occurred and be continuing an Event of Default under the terms of this Installment Purchase Agreement, any Issuing Instrument or any Credit Support Instrument; and

(2) the City obtains or provides a certificate or certificates, prepared by the City or at the City's option by a Consultant, showing that:

(A) the Net System Revenues as shown by the books of the City for any 12-consecutive-month period within the 18 consecutive months ending immediately prior to the incurring of such additional Parity Obligations shall have amounted to or exceeded the greater of (i) at least 1.20 times the Maximum Annual Debt Service on all Parity Obligations to be Outstanding immediately after the issuance of the proposed Parity Obligations or (ii) at least 1.00 times the Maximum Annual Debt Service on all Obligations to be Outstanding immediately after the issuance of the proposed Parity Obligations. For purposes of preparing the certificate or certificates described above, the City or its Consultant may rely upon audited financial statements, or, if audited financial statements for the period are not available, financial statements prepared by the City that have not been subject to audit by an Independent Certified Public Accountant; or

(B) the estimated Net System Revenues for the five Fiscal Years following the earlier of (i) the end of the period during which interest on those Parity Obligations is to be capitalized or, if no interest is to be capitalized, the Fiscal Year in which the Parity Obligations are issued, or (ii) the date on which substantially all new Components to be financed with such Parity Obligations are expected to commence operations, will be at least equal to 1.20 times the Maximum Annual Debt Service for all Parity Obligations which will be Outstanding immediately after the issuance of the proposed Parity Obligations.

(d) For purposes of the computations to be made as described in subsection (c)(2)(B) above, the determination of Net System Revenues:

(1) may take into account any increases in rates and charges which relate to the Water System and which have been approved by the City Council, and shall take into account any reduction in such rates and charges which have been approved by the City Council, which will, for purposes of the test described in subsection (c)(2)(B) above, be effective during a Fiscal Year ending within the five-Fiscal Year period for which such estimate is being made; and

(2) may take into account an allowance for any estimated increase in such Net System Revenues from any revenue-producing additions or improvements to or extensions of the Water System to be made with the proceeds of such additional indebtedness or with the proceeds of Parity Obligations previously issued, all in an amount equal to the estimated additional average annual Net System Revenues to be derived from such additions, improvements and extensions during the five-Fiscal Year period contemplated by subsection (c)(2)(B) above, all as shown by such certificate of the City or its Consultant, as applicable; and

(3) for the period contemplated by subsection (c)(2)(B), Maintenance and Operation Costs of the Water System shall initially be deemed to be equal to such

costs for the 12 consecutive months immediately prior to incurring such other Parity Obligations for the first Fiscal Year of the five-Fiscal Year period, but adjusted if deemed necessary by the City or its Consultant, as applicable, for any increased Maintenance and Operations Costs of the Water System which are, in the judgment of the City or such Consultant, as applicable, essential to maintaining and operating the Water System and which will occur during any Fiscal Year ending within the period contemplated by subsection (c)(2)(B) above.

(e) The certificate or certificates described above in subsection (c)(2)(B) shall not be required if the Parity Obligations being issued are for the purpose of (1) issuing the Parity Obligations initially issued under this Installment Purchase Agreement or (2) refunding (A) any then Outstanding Parity Obligations if at the time of the issuance of such Parity Obligations a certificate of an Authorized City Representative shall be delivered showing that the sum of Adjusted Debt Service on all Parity Obligations Outstanding for all remaining Fiscal Years after the issuance of the refunding Parity Obligations will not exceed the sum of Adjusted Debt Service on all Parity Obligations Outstanding for all remaining Fiscal Years prior to the issuance of such refunding Parity Obligations; or (B) then Outstanding Balloon Indebtedness, Tender Indebtedness or Variable Rate Indebtedness, but only to the extent that the principal amount of such indebtedness has been put, tendered to or otherwise purchased pursuant to a standby purchase or other liquidity facility relating to such indebtedness.

(f) Without regard to subsection (c) above, if (i) no Event of Default has occurred and is continuing and (ii) no event of default or termination event attributable to an act of or failure to act by the City under any Credit Support Instrument has occurred and is continuing, the City may issue or incur Subordinated Obligations, and such Subordinated Obligations shall be paid in accordance with the provisions of Section 5.02(b) hereof, provided that:

(1) City obtains or provides a certificate or certificates, prepared by the City or at the City's option by a Consultant, showing that:

(A) the Net System Revenues as shown by the books of the City for any 12-consecutive-month period within the 18 consecutive months ending immediately prior to the incurring of such additional Subordinated Obligations shall have amounted to at least 1.00 times the Maximum Annual Debt Service on all Obligations to be Outstanding immediately after the issuance of the proposed Subordinated Obligations; or

(B) the estimated Net System Revenues for the five Fiscal Years following the earlier of (i) the end of the period during which interest on those Subordinated Obligations is to be capitalized or, if no interest is to be capitalized, the Fiscal Year in which the Subordinated Obligations are issued; or (ii) the date on which substantially all new facilities financed with such Subordinated Obligations are expected to commence operations, will be at least equal to 1.00 times the Maximum Annual Debt Service on all Obligations to be Outstanding immediately after the issuance of the proposed Subordinated Obligations.

(2) For purposes of preparing the certificate or certificates described in clause (A) of subsection (f)(1) above, the City and its Consultant(s) may rely upon audited financial statements or, if audited financial statements for the period are not available, financial statements prepared by the City that have not been subject to audit by an Independent Certified Public Accountant.

(3) For purposes of the computations to be made as described in clause (B) of subsection (f)(1) above, the determination of Net System Revenues:

(A) may take into account any increases in rates and charges which relate to the Water System and which have been approved by the City Council and shall take into account any reduction in such rates and charges which have been approved by the City Council, which will, for purposes of the test described in clause (B) of subsection (f)(1) above, be effective during any Fiscal Year ending within the five-Fiscal Year period for which such estimate is made; and

(B) may take into account an allowance for any estimated increase in such Net System Revenues from any revenue-producing additions or improvements to or extensions of the Water System to be made with the proceeds of such additional indebtedness, with the proceeds of Obligations previously issued or with cash contributions made or to be made by the City, all in an amount equal to the estimated additional average annual Net System Revenues to be derived from such additions, improvements and extensions during the five-Fiscal Year period contemplated by clause (B) of subsection (f)(1) above, all as shown by such certificate of the City or its Consultant, as applicable; and

(C) for the period contemplated by clause (B) of subsection (f)(1) above, shall initially include Maintenance and Operation Costs of the Water System in an amount equal to such costs for any 12-consecutive month period within the 24 consecutive months ending immediately prior to incurring such Subordinated Obligations for the first Fiscal Year of the five-Fiscal Year period, but adjusted if deemed necessary by the City or its Consultant, as applicable, for any increased Maintenance and Operations Costs of the Water System which are, in the judgment of the City or its Consultant, as applicable, essential to maintaining and operating the Water System and which will occur during any Fiscal Year ending within the period contemplated by clause (B) of subsection (f)(1) above.

(4) The certificate or certificates described above in subsection (f)(1) above shall not be required if the Subordinated Obligations being issued are for the purpose of refunding (i) then-Outstanding Parity Obligations or Subordinated Obligations if at the time of the issuance of such Subordinated Obligations a certificate of an Authorized City Representative shall be delivered showing that the sum of Debt Service for all remaining Fiscal Years on all Parity Obligations and Subordinated Obligations Outstanding after the issuance of the refunding Subordinated Obligations will not exceed the sum of Debt Service for all remaining Fiscal Years on all Parity Obligations and

Subordinated Obligations Outstanding prior to the issuance of such refunding Subordinated Obligations; or (ii) then-Outstanding Balloon Indebtedness, Tender Indebtedness or Variable Rate Indebtedness, but only to the extent that the principal amount of such indebtedness has been put, tendered to or otherwise purchased by a standby purchase agreement or other liquidity facility relating to such indebtedness.

ARTICLE VI

COVENANTS OF THE CITY

SECTION 6.01. Compliance With Installment Purchase Agreement and Ancillary Agreements. (a) The City will punctually pay Parity Obligations in strict conformity with the terms hereof and thereof; and will faithfully observe and perform all the agreements, conditions, covenants and terms contained herein required to be observed and performed by it, and will not terminate this Installment Purchase Agreement for any cause including, without limiting the generality of the foregoing, any acts or circumstances that may constitute failure of consideration, destruction of or damage to the Project, commercial frustration of purpose, any change in the tax or other laws of the United States of America or of the State of California or any political subdivision of either or any failure of the Corporation to observe or perform any agreement, condition, covenant or term contained herein required to be observed and performed by it, whether express or implied, or any duty, liability or obligation arising out of or connected herewith or the insolvency, or deemed insolvency, or bankruptcy or liquidation of the Corporation or any force majeure, including acts of God, tempest, storm, earthquake, war, rebellion, riot, civil disorder, acts of public enemies, blockade or embargo, strikes, industrial disputes, lock outs, lack of transportation facilities, fire, explosion, or acts or regulations of governmental authorities.

(b) The City will faithfully observe and perform all the agreements, conditions, covenants and terms contained in this Installment Purchase Agreement, including Supplements, and any Issuing Instrument or Credit Support Instrument relating to Parity Obligations required to be observed and performed by it, and it is expressly understood and agreed by and between the parties to this Installment Purchase Agreement that, subject to Section 10.07 hereof, each of the agreements, conditions, covenants and terms contained herein and therein is an essential and material term of the purchase of and payment for each Component by the City pursuant to, and in accordance with, and as authorized under the Law.

(c) The City will faithfully observe and perform all of the agreements and covenants of the City contained in each Authorizing Ordinance and will not permit the same to be amended or modified so as to adversely affect the Owners of Installment Payment Obligations.

(d) The City shall be unconditionally and irrevocably obligated, so long as any Installment Payment Obligations remain Outstanding and unpaid, to take all lawful action necessary or required to continue to entitle the City to collect and deposit such System Revenues in the Water Utility Fund for use as provided in this Installment Purchase Agreement; provided, however, that such obligation does not, in any way, limit the City's ability to undertake any and

all legal actions, including any appeals, in the defense of a federal court order dictating a water system configuration other than that approved and adopted by the City.

SECTION 6.02. Against Encumbrances. The City will not make any pledge of or place any lien on the Net System Revenues except as otherwise provided or permitted herein.

SECTION 6.03. Debt Service Reserve Fund. The City will maintain or cause to be maintained each Reserve Fund at the applicable Reserve Requirement. In the event the amount in any such fund or account falls below the applicable Reserve Requirement, the City will replenish such fund or account up to the applicable Reserve Requirement pursuant to Section 5.02 hereof.

SECTION 6.04. Against Sale or Other Disposition of Property. (a) The City will not sell, lease or otherwise dispose of the Water System or any part thereof essential to the proper operation of the Water System or to the maintenance of the System Revenues, except as provided in Sections 6.04(b) and Section 6.19 hereof. Further, the City will not, except as otherwise provided herein, enter into any agreement or lease which impairs the operation of the Water System or any part thereof necessary to secure adequate Net System Revenues for the payment of the Parity Obligations or which would otherwise impair the rights of the Corporation with respect to the System Revenues or the operation of the Water System.

(b) The City may dispose of any of the works, plant properties, facilities or other parts of the Water System, or any real or personal property comprising a part of the Water System, only upon the approval of the City Council and consistent with one or more of the following:

(1) the City in its discretion may carry out such a disposition if the facilities or property being disposed of are not material to the operation of the Water System, or shall have become unserviceable, inadequate, obsolete or unfit to be used in the operation of the Water System or are no longer necessary, material or useful to the operation of the Water System, and if such disposition will not materially reduce the Net System Revenues and if the proceeds of such disposition are deposited in the Water Utility Fund;

(2) the City in its discretion may carry out such a disposition if the City receives from the acquiring party an amount equal to the fair market value of the portion of the Water System disposed of. As used in this clause (2), "fair market value" means the most probable price that the portion being disposed of should bring in a competitive and open market under all conditions requisite to a fair sale, the willing buyer and willing seller each acting prudently and knowledgeably, and assuming that the price is not affected by coercion or undue stimulus. The proceeds of the disposition shall be used (A) *first*, promptly to redeem, or irrevocably set aside for the redemption of, Parity Obligations, and *second*, promptly to redeem, or irrevocably set aside for the redemption of, Subordinated Obligations, and/or (B) to provide for a part of the cost of additions to and betterments and extensions of the Water System; provided, however, that before any such disposition under this clause (2), the City must obtain (i) a certificate of an Independent Engineer to the effect that upon such disposition and the use of the

proceeds of the disposition as proposed by the City, the remaining portion of the Water System will retain its operational integrity and the estimated Net System Revenues for the five Fiscal Years following the Fiscal Year in which the disposition is to occur will be equal to or exceed the greater of (i) at least 1.20 times the Adjusted Debt Service on all Outstanding Parity Obligations during the five Fiscal Years following the Fiscal Year in which the disposition is to occur, or (ii) at least 1.00 times the Adjusted Debt Service on all Outstanding Obligations during the first five Fiscal Years following the Fiscal Year in which the disposition is to occur, taking into account (aa) the reduction in revenue resulting from the disposition, (bb) the use of any proceeds of the disposition for the redemption of Parity Obligations and/or Subordinated Obligations, (cc) the Independent Engineer's estimate of revenue from customers anticipated to be served by any additions to and betterments and extensions of the Water System financed in part by the proceeds of the disposition, and (dd) any other adjustment permitted in the preparation of a certificate under Section 5.03(c)(2)(B) of this Installment Purchase Agreement, and (ii) confirmation from the Rating Agencies to the effect that the rating then in effect on any Outstanding Parity Obligations will not be reduced or withdrawn upon such disposition.

(c) The City will operate the Water System in an efficient and economic manner, *provided* that the City may remove from service on a temporary or permanent basis such part or parts of the Water System as the City shall determine, so long as (1) Net System Revenues are at least equal to the greater of (i) 100% of all Obligations payable in the then-current Fiscal Year or (ii) 120% of Adjusted Debt Service for the then-current Fiscal Year, after giving effect to any defeasance of Parity Obligations and/or Subordinated Obligations occurring incident to such removal, and for each Fiscal Year thereafter to and including the Fiscal Year during which the last Installment Payment is due, after giving effect to such defeasance, as evidenced by (i) an Engineer's Report on file with the City, or (ii) a Certificate of the City, (2) the value of the parts of the Water System to be so removed is less than 5% of the total Water System Plant assets, each as shown on the most recent audited financial statements that include the Water Utility Fund, and (3) the City shall have filed with each Trustee an opinion of Bond Counsel to the effect that the removal of such part or parts of the Water System will not adversely affect the exclusion from gross income for federal income tax purposes of the interest on Tax-Exempt Installment Payment Obligations.

SECTION 6.05. Covenant Regarding State Orders. The City covenants and agrees that it shall comply in all material respects with the provisions of the existing compliance orders of the State of California Department of Public Health applicable to the Water System initially issued in January 1997 and most recently amended on May 11, 2007, through and including Amendment 11.

SECTION 6.06. Prompt Acquisition and Construction. The City shall take all necessary and appropriate steps to construct, acquire and install the Project, as agent of the Corporation, with all practicable dispatch and in an expeditious manner and in conformity with law so as to complete the same as soon as possible.

SECTION 6.07. Maintenance and Operation of the Water System; Budgets. The City shall maintain and preserve the Water System in good repair and working order at all times

and shall operate the Water System in an efficient and economical manner and will pay all Maintenance and Operation Costs of the Water System as they become due and payable. The City shall adopt and make available to the Corporation, on or before the effective date hereof, a budget approved by the City Council of the City setting forth the estimated Maintenance and Operation Costs of the Water System for the period from such date until the close of the then-current Fiscal Year. On or before August 1 of each Fiscal Year, the City shall adopt, and on or before the day that is 120 days after the beginning of the Fiscal Year, make available to the Corporation a budget approved by the City Council of the City setting forth the estimated Maintenance and Operation Costs of the Water System for such Fiscal Year. Any budget may be amended at any time during any Fiscal Year and such amended budget shall be filed by the City with the Corporation.

SECTION 6.08. Amount of Rates and Charges; Rate Stabilization Fund; Other Funds.

(a) The City shall fix, prescribe and collect rates and charges for the Water Service which will be at least sufficient to yield the greater of (1) Net System Revenues sufficient to pay during each Fiscal Year all Obligations payable in such Fiscal Year or (2) Adjusted Net System Revenues during each Fiscal Year equal to 120% of the Adjusted Debt Service for such Fiscal Year. The City may make adjustments from time to time in such rates and charges and may make such classification thereof as it deems necessary, but shall not reduce the rates and charges then in effect unless the Net System Revenues from such reduced rates and charges will at all times be sufficient to meet the requirements of this subsection.

(b) The City may establish, as a fund within the Water Utility Fund, a fund denominated the "Rate Stabilization Fund." From time to time, the City may deposit into the Rate Stabilization Fund, from current System Revenues, such amounts as the City shall determine and the amount of available current System Revenues shall be reduced by the amount so transferred. Amounts may be transferred from the Rate Stabilization Fund solely and exclusively to pay Maintenance and Operation Costs of the Water System, and any amounts so transferred shall be deemed System Revenues when so transferred. All interest or other earnings upon amounts in the Rate Stabilization Fund may be withdrawn therefrom and accounted for as System Revenues.

(c) The City may establish, as a fund within the Water Utility Fund, a fund denominated the "Secondary Purchase Fund." From time to time, the City may deposit in the Secondary Purchase Fund, from any lawful source, which may or may not consist of current System Revenues, such amounts as the City shall determine, and the amount of available System Revenues shall be reduced by the amount so transferred, but only to the extent that amounts so transferred consist of then-current System Revenues. Amounts may be transferred from the Secondary Purchase Fund solely and exclusively to pay Maintenance and Operation Costs of the Water System, and any amounts so transferred shall be deemed System Revenues when so transferred. All interest or other earnings upon amounts in the Secondary Purchase Fund may be withdrawn therefrom and accounted for as System Revenues.

SECTION 6.09. Payment of Claims. The City will pay and discharge any and all lawful claims for labor, materials or supplies which, if unpaid, might become a lien on the

System Revenues or any part thereof or on any funds in the hands of the City or the Trustee might impair the security of the Installment Payments, but the City shall not be required to pay such claims if the validity thereof shall be contested in good faith.

SECTION 6.10. Compliance with Contracts. The City will comply with, keep, observe and perform all agreements, conditions, covenants and terms, express or implied, required to be performed by it contained in all contracts for the use of the Water System and all other contracts affecting or involving the Water System to the extent that the City is a party thereto.

SECTION 6.11. Insurance. (a) The City will procure and maintain or cause to be procured and maintained insurance on the Water System with responsible insurers, in such amounts and against such risks (including accident to or destruction of the Water System) as are usually covered in connection with water systems similar to the Water System, or it will self-insure or participate in an insurance pool or pools with reserves adequate, in the reasonable judgment of the City, to protect the Water System against loss. In the event of any damage to or destruction of the Water System caused by the perils covered by such insurance or self insurance, the Net Proceeds thereof shall be applied to the reconstruction, repair or replacement of the damaged or destroyed portion of the Water System. The City shall begin such reconstruction, repair or replacement promptly after such damage or destruction shall occur, and shall continue and properly complete such reconstruction, repair or replacement as expeditiously as possible, and shall pay out of such Net Proceeds all costs and expenses in connection with such reconstruction, repair or replacement so that the same shall be completed and the Water System shall be free and clear of all claims and liens unless the City determines that such property or facility is not necessary to the efficient or proper operation of the Water System and therefore determines not to reconstruct, repair or replace such project or facility. If such Net Proceeds exceed the costs of such reconstruction, repair or replacement, then the excess Net Proceeds shall be deposited in the Water Utility Fund and be available for other proper uses of funds deposited in the Water Utility Fund.

(b) The City will procure and maintain such other insurance which it shall deem advisable or necessary to protect its interests and the interests of the Corporation, which insurance shall afford protection in such amounts and against such risks as are usually covered in connection with water systems similar to the Water System; provided that any such insurance may be maintained under a self-insurance program so long as such self-insurance is maintained in the amounts and in the manner usually maintained in connection with water systems similar to the Water System.

(c) All policies of insurance required to be maintained herein shall, to extent reasonably obtainable, provide that the Corporation and each Trustee shall be given 30 days' written notice of any intended cancellation thereof or reduction of coverage provided thereby. The City shall certify to the Corporation and each Trustee annually on or before August 31 that it is in compliance with the insurance requirements hereunder.

SECTION 6.12. Accounting Records; Financial Statements and Other Reports. (a) The City will keep appropriate accounting records in which complete and correct entries shall be made of all transactions relating to the Water System, which records shall be available for

inspection by the Corporation and the Trustee at reasonable hours and under reasonable conditions.

(b) The City will prepare and file with the Corporation annually (commencing with the Fiscal Year ending June 30, 1998), within 270 days of the close of each Fiscal Year, financial statements that include the Water Utility Fund for the preceding Fiscal Year prepared in accordance with generally accepted accounting principles, together with an Accountant's Report thereon.

(c) The City will furnish a copy of the financial statements referred to in subsection (b) above to any Owner of the Certificates requesting a copy thereof, which may be in electronic form.

SECTION 6.13. Protection of Security and Rights of the Corporation. The City will preserve and protect the security hereof and the rights of the Corporation to the Installment Payments hereunder and will warrant and defend such rights against all claims and demands of all persons.

SECTION 6.14. Payment of Taxes and Compliance with Governmental Regulations. The City shall pay and discharge all taxes, assessments and other governmental charges which may hereafter be lawfully imposed upon the Water System or any part thereof or upon the System Revenues when the same shall become due, except that the City may contest in good faith any taxes, assessments and other governmental charges so long as the City shall have budgeted for the amount being contested and, if appropriate, such amount shall have been included as Maintenance and Operation Costs of the Water System. The City shall duly observe and conform with all valid regulations and requirements of any governmental authority relative to the operation of the Water System or any part thereof, but the City shall not be required to comply with any regulations or requirements so long as the validity or application thereof shall be contested by the City in good faith.

SECTION 6.15. Collection of Rates and Charges; No Free Service. The City shall have in effect at all times rules and regulations for the payment of bills for Water Service. Such regulations may provide that where the City furnishes water to the property receiving Water Service, the Water Service charges shall be collected together with the water rates upon the same bill providing for a due date and a delinquency date for each bill. In each case where such bill remains unpaid in whole or in part after it becomes delinquent, the City may disconnect such premises from the Water System, and such premises shall not thereafter be reconnected to the Water System except in accordance with City operating rules and regulations governing such situations of delinquency. To the extent permitted by law, the City shall not permit any part of the Water System or any facility thereof to be used or taken advantage of free of charge by any authority, firm or person, or by any public agency (including the United States of America, the State of California and any city, county, district, political subdivision, public authority or agency thereof).

SECTION 6.16. Eminent Domain Proceeds. If all or any part of the Water System shall be taken by eminent domain proceedings, then subject to the provisions of any Authorizing Ordinance, the Net Proceeds thereof shall be applied to the replacement of the property or

facilities so taken, unless the City determines that such property or facility is not necessary to the efficient or proper operation of the Water System and therefore determines not to replace such property or facilities. Any Net Proceeds of such award not applied to replacement or remaining after such work has been completed shall be deposited in the Water Utility Fund and be available for other proper uses of funds deposited in the Water Utility Fund.

SECTION 6.17. Tax Covenants. There shall be included in each Supplement relating to Tax-Exempt Installment Payment Obligations such covenants as are deemed necessary or appropriate by Bond Counsel for the purpose of assuring that interest on such Installment Payment Obligations shall be excluded from gross income under section 103 of the Code.

SECTION 6.18. Further Assurances. The City shall adopt, deliver, execute and make any and all further assurances, instruments and resolutions as may be reasonably necessary or proper to carry out the intention or to facilitate the performance hereof and for the better assuring and confirming unto the Corporation of the rights and benefits provided to it herein.

SECTION 6.19. Subcontracting. Nothing herein to the contrary shall prevent the City from delegating the power to be an operator of some or all of the Water System, even though the City continues to retain ownership of the Water System and its operations, and no such subcontracting arrangement shall relieve the City of any of its obligations hereunder. Prior to the effective date of any such delegation, the City shall deliver to the Trustee an opinion of Bond Counsel to the effect that the proposed delegation will not have an adverse effect on the exclusion from gross income for federal income tax purposes of the interest component of Tax-Exempt Installment Payment Obligations.

SECTION 6.20. Additional Covenants. The City may provide additional covenants pursuant to any Supplement, including covenants relating to any Credit Support obtained for Installment Payment Obligations; provided, however, that such additional covenants do not materially and adversely affect the right of Owners of Outstanding Obligations issued prior to the effective date of any such Supplement.

ARTICLE VII

PREPAYMENT OF INSTALLMENT PAYMENTS

SECTION 7.01. Prepayment of Installment Payments. Provisions may be made in any Supplement for the prepayment of Installment Payments, in whole or in part, in such multiples and in such order of maturity and from funds of any source, and with such prepayment premiums and other terms as are specified in the Supplement. Said Supplement shall also provide for any notices to be given relating to such prepayment.

ARTICLE VIII
EVENTS OF DEFAULT AND REMEDIES OF THE CORPORATION

SECTION 8.01. Events of Default and Acceleration of Maturities. If one or more of the following Events of Default shall happen, that is to say:

(a) if default shall be made in the due and punctual payment of or on account of any Parity Obligation as the same shall become due and payable;

(b) if default shall be made by the City in the performance of any of the agreements or covenants required herein to be performed by it (other than as specified in subsection (a) above), and such default shall have continued for a period of 60 days after the City shall have been given notice in writing of such default by the Corporation or any Trustee;

(c) if any Event of Default specified in any Supplement, Authorizing Ordinance or Issuing Instrument shall have occurred and be continuing; or

(d) if the City shall file a petition or answer seeking arrangement or reorganization under the federal bankruptcy laws or any other applicable law of the United States of America or any state therein, or if a court of competent jurisdiction shall approve a petition filed with the consent of the City seeking arrangement or reorganization under the federal bankruptcy laws or any other applicable law of the United States of America or any state therein, or if under the provisions of any other law for the relief or aid of debtors any court of competent jurisdiction shall assume custody or control of the City or of the whole or any substantial part of its property;

then, and in each and every such case during the continuance of such Event of Default, the Corporation shall upon the written request of the Owners of 25% or more of the aggregate principal amount of all Series of Parity Installment Obligations Outstanding, voting collectively as a single class, by notice in writing to the City, declare the entire unpaid principal amount thereof and the accrued interest thereon to be due and payable immediately, and upon any such declaration the same shall become immediately due and payable, anything contained herein to the contrary notwithstanding; provided, that with respect to a Series of Parity Installment Obligations which is credit enhanced by a Credit Support Instrument, acceleration shall not be effective unless the declaration is consented to by the related Credit Provider. The foregoing provisions, however, are subject to the condition that if at any time after the entire principal amount of all Parity Installment Obligations and the accrued interest thereon shall have been so declared due and payable and before any judgment or decree for the payment of the moneys due shall have been obtained or entered, the City shall deposit with the Corporation a sum sufficient to pay the unpaid principal amount of all such Parity Installment Obligations and the unpaid payments of any other Parity Obligations referred to in clause (a) above due prior to such declaration and the accrued interest thereon, with interest on such overdue installments at the rate or rates applicable thereto in accordance with their terms, and the reasonable expenses of the Corporation, and any and all other defaults known to the Corporation (other than in the payment of the entire principal amount of the unpaid Parity Installment Obligations and the accrued interest thereon due and payable solely by reason of such declaration) shall have been made good or cured to the satisfaction of the Corporation or provision deemed by the Corporation to be

adequate shall have been made therefor, then and in every such case the Corporation, by written notice to the City, may rescind and annul such declaration and its consequences; but no such rescission and annulment shall extend to or shall affect any subsequent default or shall impair or exhaust any right or power consequent thereon.

Subject to this Section, the Owners of Subordinated Obligations may enforce the provisions of this Installment Purchase Agreement for their benefit by appropriate legal proceedings. The payment of Subordinated Obligations will be subordinated in right of payment to payment of the Parity Obligations (except for any payment in respect of Subordinated Obligations from the Reserve Fund securing such Subordinated Obligations). Upon the occurrence and during the continuance of any Event of Default, Owners of Parity Obligations will be entitled to receive payment thereof in full before the Owners of Subordinated Obligations are entitled to receive payment thereof (except for any payment in respect of Subordinated Obligations from the Reserve Fund securing such Subordinated Obligations) and the Owners of the Subordinated Obligations will become subrogated to the rights of the Owners of Parity Obligations to receive payments with respect thereto.

SECTION 8.02. Application of Net System Revenues Upon Acceleration. All Net System Revenues received after the date of the declaration of acceleration by the Corporation as provided in Section 8.01 hereof shall be applied in the following order:

(a) First, to the payment of the costs and expenses of the Corporation and the Trustee, if any, in carrying out the provisions of this Article VIII, including reasonable compensation to its accountants and counsel;

(b) Second, to the payment of the entire principal amount of the unpaid Parity Installment Obligations and the unpaid principal amount of all other Parity Obligations and the accrued interest thereon, with interest on the overdue installments at the rate or rates of interest applicable thereto in accordance with their respective terms. In the event there are insufficient Net System Revenues to pay the entire principal amount of and accrued interest on all Parity Obligations, then accrued interest shall first be paid and any remaining amount shall be paid on account of principal, and in the event there are insufficient Net System Revenues to fully pay either interest or principal in accordance with the foregoing, then payment shall be prorated within a priority based upon the total amounts due in that priority; and

(c) Third, to the payment of the entire principal amount of the unpaid Subordinated Obligations and the accrued interest thereon, with interest on the overdue installments at the rate or rates of interest applicable thereto in accordance with their respective terms. In the event there are insufficient Net System Revenues to pay the entire principal amount of and accrued interest on all Subordinated Obligations, then accrued interest shall first be paid and any remaining amount shall be paid on account of principal, and in the event there are insufficient Net System Revenues to fully pay either interest or principal in accordance with the foregoing, then payment shall be prorated within a priority based upon the total amounts due in that priority.

SECTION 8.03. Other Remedies of the Corporation. The Corporation shall have the right:

(a) by mandamus or other action or proceeding or suit at law or in equity to enforce its rights against the City or any councilmember, officer or employee thereof, and to compel the City or any such councilmember, officer or employee to perform and carry out its or his duties under the Law and the agreements and covenants required to be performed by it or him contained herein;

(b) by suit in equity to enjoin any acts or things which are unlawful or violate the rights of the Corporation; or

(c) by suit in equity upon the happening of an Event of Default to require the City and its councilmembers, officers and employees to account as the trustee of an express trust.

SECTION 8.04. Non-Waiver. (a) Nothing in this Article VIII or in any other provision hereof shall affect or impair the obligation of the City, which is absolute and unconditional, to pay the Installment Payments to the Corporation at the respective due dates or upon prepayment from the Net System Revenues and the other funds herein committed for such payment, or shall affect or impair the right of the Corporation, which is also absolute and unconditional, to institute suit to enforce such payment by virtue of the contract embodied herein.

(b) A waiver of any default or breach of duty or contract by the Corporation shall not affect any subsequent default or breach of duty or contract or impair any rights or remedies on any such subsequent default or breach of duty or contract. No delay or omission by the Corporation to exercise any right or remedy accruing upon any default or breach of duty or contract shall impair any such right or remedy or shall be construed to be a waiver of any such default or breach of duty or contract or an acquiescence therein, and every right or remedy conferred upon the Corporation by the Law or by this Article VIII may be enforced and exercised from time to time and as often as shall be deemed expedient by the Corporation.

(c) If any action, proceeding or suit to enforce any right or exercise any remedy is abandoned or determined adversely to the Corporation, the City and the Corporation shall be restored to their former positions, rights and remedies as if such action, proceeding or suit had not been brought or taken.

SECTION 8.05. Remedies Not Exclusive. No remedy herein conferred upon or reserved to the Corporation is intended to be exclusive of any other remedy, and each such remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing in law or in equity or by statute or otherwise and may be exercised without exhausting and without regard to any other remedy conferred by law.

ARTICLE IX

DISCHARGE OF INSTALLMENT PAYMENT OBLIGATIONS

SECTION 9.01. Discharge of Installment Payment Obligations. If the City shall pay or cause to be paid or there shall otherwise be paid to the Owners all Outstanding Installment Payment Obligations of a Series, the principal thereof and the interest and redemption premiums, if any, thereon or if all such Outstanding Installment Payment Obligations shall be deemed to have been paid at the times and in the manner stipulated in the applicable Issuing Instrument, then, as to any such Series, all agreements, covenants and other obligations of the City hereunder shall thereupon cease, terminate and become void and be discharged and satisfied, except for the obligation of the City to pay or cause to be paid all sums due hereunder.

ARTICLE X

MISCELLANEOUS

SECTION 10.01. Liability of City Limited to System Revenues.

(a) Notwithstanding anything contained herein, the City shall not be required to advance any moneys derived from any source of income other than the Net System Revenues and the other funds provided herein for the payment of the Installment Payments or for the performance of any other agreements or covenants required to be performed by it contained herein. The City may, however, but in no event shall be obligated to, advance moneys for any such purpose so long as such moneys are derived from a source legally available for such purpose and may be legally used by the City for such purpose.

(b) The obligation of the City to make the Installment Payments is a special obligation of the City payable solely from such Net System Revenues and other funds provided for herein, and does not constitute a debt of the City or of the State of California or of any political subdivision thereof within the meaning of any constitutional or statutory debt limitation or restriction.

SECTION 10.02. Benefits of Installment Purchase Agreement Limited to Parties. Nothing contained herein, expressed or implied, is intended to give to any person other than the City, the Corporation or the assigns of the Corporation and any Credit Provider any right, remedy or claim under or pursuant hereto, and any agreement or covenant required herein to be performed by or on behalf of the City or the Corporation shall be for the sole and exclusive benefit of the other party.

SECTION 10.03. Amendments. (a) This Installment Purchase Agreement may be amended with respect to a Series of Installment Payment Obligations in writing as may be mutually agreed by the City and the Corporation, with the written consent of any Credit Provider for any Installment Payment Obligations or, as to Installment Obligations for which there is no Credit Support Instrument, the Owners of a majority in aggregate principal amount of such Series of Installment Payment Obligations then Outstanding, provided that no such amendment shall (1) extend the payment date of any Installment Payment, or reduce the amount of any

Installment Payment without the prior written consent of the Owner of each Obligation so affected; or (2) reduce the percentage of Installment Payment Obligations the consent of the Owners of which is required for the execution of any amendment of this Installment Purchase Agreement without the prior written consent of each of the Owners so affected.

(b) This Installment Purchase Agreement and the rights and obligations of the City and the Corporation hereunder may also be amended or supplemented at any time by an amendment hereof or supplement hereto which shall not adversely affect the interests of the Owners of the Installment Payment Obligations and which shall become binding upon execution by the City and the Corporation, without the written consents of any Owner of Installment Payment Obligations or any Credit Provider, but only to the extent permitted by law and only upon receipt of an unqualified opinion of Bond Counsel to the effect that such amendment or supplement is permitted by the provisions of this Installment Purchase Agreement and is not inconsistent with this Installment Purchase Agreement and does not adversely affect the exclusion of the interest portion of the Installment Payments received by the Owners from gross income for federal income tax purposes, and only for any one or more of the following purposes:

(1) to add to the covenants and agreements of the Corporation or the City contained in this Installment Purchase Agreement other covenants and agreements thereafter to be observed or to surrender any right or power herein reserved to or conferred upon the Corporation or the City;

(2) to cure, correct or supplement any ambiguous or defective provision contained in this Installment Purchase Agreement or in regard to questions arising under this Installment Purchase Agreement, as the Corporation or the City may deem necessary or desirable;

(3) to make other amendments or modifications which shall not materially adversely affect the interests of the Owners of the Installment Payment Obligations;

(4) to provide for the issuance of Parity Installment Payment Obligations; and

(5) to provide for the issuance of Subordinated Obligations.

SECTION 10.04. Successor Is Deemed Included in all References to Predecessor. Except as otherwise provided herein, whenever either the City or the Corporation is named or referred to herein, such reference shall be deemed to include the successor to the powers, duties and functions that are presently vested in the City or the Corporation, and all agreements and covenants required hereby to be performed by or on behalf of the City or the Corporation shall bind and inure to the benefit of the respective successors thereof whether so expressed or not.

SECTION 10.05. Waiver of Personal Liability. No official, officer or employee of the City shall be individually or personally liable for the payment of the Installment Payments, but nothing contained herein shall relieve any official, officer or employee of the City from the performance of any official duty provided by any applicable provisions of law or hereby.

SECTION 10.06. Article and Section Headings, Gender and References. The headings or titles of the several articles and sections hereof and the table of contents appended hereto shall be solely for convenience of reference and shall not affect the meaning, construction or effect hereof, and words of any gender shall be deemed and construed to include all genders. All references herein to "Articles," "Sections" and other subdivisions or clauses are to the corresponding Articles, Sections, subdivisions or clauses hereof; and the words "hereby," "herein," "hereof," "hereto," "herewith" and other words of similar import refer to the Installment Purchase Agreement as a whole and not to any particular Article, Section, subdivision or clause hereof.

SECTION 10.07. Partial Invalidity. If any one or more of the agreements or covenants or portions thereof required hereby to be performed by or on the part of the City or the Corporation shall be contrary to law, then such agreement or agreements, such covenant or covenants or such portions thereof shall be null and void and shall be deemed separable from the remaining agreements and covenants or portions thereof and shall in no way affect the validity hereof

SECTION 10.08. Assignment. This Installment Purchase Agreement and any rights hereunder may be assigned by the Corporation, as a whole or in part, without the necessity of obtaining the prior consent of the City. The assignment of the Installment Purchase Agreement or rights hereunder or under a Supplement to a Trustee is solely in its capacity as Trustee and the duties, powers and liabilities of the Trustee in acting hereunder shall be subject to the provisions of the Issuing Instrument.

SECTION 10.09. Net Contract. This Installment Purchase Agreement shall be deemed and construed to be a net contract, and the City shall pay absolutely net during the term hereof the Installment Payments and all other payments required hereunder, free of any deductions and without abatement, diminution or setoff whatsoever.

SECTION 10.10. California Law. This Installment Purchase Agreement shall be construed and governed in accordance with the laws of the State of California.

SECTION 10.11. Notices. All written notices to be given hereunder shall be given by first class mail, postage prepaid, courier or hand delivery to the party entitled thereto at its address set forth below, or at such other address as such party may provide to the other party in writing from time to time, namely:

If to the City: City of San Diego
City Administration Bldg.
202 C Street, Mail Station 9B
San Diego, California 92101
Attn: Chief Financial Officer

If to the Corporation:	San Diego Facilities and Equipment Leasing Corporation c/o Office of the City Attorney 1200 Third Street, Suite 1100, Mail Station 59 San Diego, California 92101 Attn: Deputy City Attorney
With a copy to:	City of San Diego 202 C Street, Mail Station 9A San Diego, California 92101 Attn: Chief Financial Officer

SECTION 10.12. **Effective Date**. This Installment Purchase Agreement shall become effective as to Installment Payments provided for in a Supplement upon the execution and delivery of such Supplement or as otherwise specified therein, and shall terminate as to such Supplement when the Installment Payments contemplated by such Supplement shall have been fully paid or prepaid (or provision for the payment thereof shall have been made as provided herein).

SECTION 10.13. **Execution in Counterparts**. This Installment Purchase Agreement and each Supplement may be executed in several counterparts, each of which shall be deemed an original, and all of which shall constitute but one and the same instrument.

SECTION 10.14. **Exhibits**. All exhibits referenced herein are incorporated into and made a part of this Installment Purchase Agreement.

SECTION 10.15. **Sole Instrument**. This Installment Purchase Agreement (together with the exhibits attached hereto) shall embody and constitute the sole and entire agreement between the parties hereto with respect to the subject matter hereof.

IN WITNESS WHEREOF, the parties hereto have executed and attested this Installment Purchase Agreement by their officers thereunto duly authorized as of the day and year first written above.

THE CITY OF SAN DIEGO

By _____
Chief Financial Officer

(SEAL)

Attest:

_____
City Clerk

SAN DIEGO FACILITIES AND EQUIPMENT LEASING CORPORATION

By _____
President

Attest:

_____
Secretary/Treasurer

APPROVED AS TO FORM:

JAN I. GOLDSMITH,
City Attorney of the City of San Diego

By _____
Deputy City Attorney

EXHIBIT A

DESCRIPTION OF 1998 PROJECT

Pursuant to Section 3.02 of the Installment Purchase Agreement, this Exhibit A may be amended from time to time and at any time to modify or amend the description of the Project, to eliminate any part thereof and/or to substitute a Component or Components, all without obtaining any consent, by filing an amended Exhibit A with the Corporation and the affected Trustee; provided, however, that no such amendment shall in any way impair the obligations of the City contained in any Supplement executed and delivered prior to any such amendment.

732290 *65th & Herrick Water Pump Plant*

This project includes the construction of a new pump plant equipped with three variable speed pumps and one backup pump and motor. The new facility will be constructed of concrete with architectural treatment to blend well into the surrounding environment. Each pump will be able to pump water within a range of 550 gpm to 1,300 gpm with a total dynamic head (TDH) of 80 feet to 150 feet, respectively.

$1,817,032 or 100% of the total cost of this project is funded from current bond issue (including reimbursement).

733101 *AA – Corrosion*

This is an annual allocation to fund the installation of corrosion protection facilities (such as "anode beds" and "deep well anodes") to extend the service life of existing facilities.

$822,586 or 13% of the total cost of this project is funded from current bond issue (including reimbursement).

730018 *AA – Reclaimed Water Extension*

Extensions of the north City reclaimed water distribution pipeline network beyond the sphere of influence of the existing north City area and improving the reclaimed water distribution system as the demands for reclaimed water increase.

$2,710,796 or 34% of the total cost of this project is funded from current bond issue (including reimbursement).

73083 *AAA – Water Main Replacements*

Water mains that were installed in the City's water distribution system in the 1930's to the late 1940's were made of cast iron. The intended service life of these lines was 50 years, and they have gradually deteriorated due to the corrosive soils. In the 1960's, the Water Department began a systematic effort to identify and replace aging cast iron water mains. At that time there were approximately 600 miles of cast iron lines installed throughout the system. Today, approximately 214 miles of cast iron pipes remain which must be replaced. This project continues the funding to replace those mains. At the present time, approximately 80 percent of

the City's annual water main breaks are attributed to cast iron mains, yet they comprise only 7 percent of the entire water delivery infrastructure. In 1997, approximately 19 miles were completed. An additional 67 miles were in various stages of design and the balance of 147 miles remains in planning and project development. The cast iron water main replacement program included in this bond program is estimated to complete a total of 96 miles through the year 2008. The balance of 118 miles is scheduled for completion in subsequent capital programs.

Under current City policy, concrete sewer and cast iron water mains situated in the same public right-of-way are replaced at the same time to avoid an additional $65 million in costs for twice-repeated service disruptions, street resurfacings, traffic impacts, and contractual actions.

$55,321,064 or 63% of the total cost of this project is funded from current bond issue (including reimbursement).

732630 ***AA – Water Pump Plant Relocation***

Two water pump plants have been identified for rehabilitation under this CIP. They are the Catalina Water Pump Plant and the Del Cerro Highlands Water Pump Plant. See SubCIP No. 738424 for more detailed information of the Del Cerro Highlands Water Pump Plant.

0% of the total cost of this project is funded from current bond issue (including reimbursement).

733330 ***Air Valve Adjustments***

This activity includes raising approximately 429 existing air and vacuum release valve vents and air release valves from below grade vaults to above-ground vaults, enclosed in 3/16" steel cylinders and mounted on concrete pads (in accordance with City of San Diego Standard Drawing No. SDW-117).

$906,323 or 58% of the total cost of this project is funded from current bond issue (including reimbursement).

732610 ***Alvarado Filtration Plant Expansion***

This project is the expansion of the existing Alvarado Water Treatment Plant in two or three phases from the current treatment capacity of 120 mgd to 210 mgd, and improve the plants operating performance to comply with improved treatment standards. The Alvarado Filtration Plant was constructed in 1951 for an initial capacity rating of 66 million gallons per day (mgd) with future expansion capability to 100 mgd. It was expected that one additional flocculation & sedimentation basin and four additional filters would be constructed at some later date to achieve the 100 mgd capacity. Several hydraulic improvements were made in the mid-1970's to increase the plant's hydraulic capacity from the initial 66 mgd to the current 120 mgd without constructing the additional basin and filters. The recent peak water demand day has approached 130 mgd which exceeds the maximum plant capacity.

The initial phase of the expansion program will increase the capacity from 120 mgd to 150 mgd which will meet the projected water demand through 2015. The plant will also be upgraded to meet the Safe Drinking Water Act standards and rehabilitated to restore deteriorated facilities.

The expansion, upgrade and rehabilitation work will involve: rapid mix facility, existing filters, raw water chemical building, finish water chemical building, operation building, Lake Murray and College Ranch Pump Stations, main switchgear building, yard piping, instrumentation and control, electrical and civil/site work, ozone facilities, existing flocculation and sedimentation basins, new flocculation and sedimentation basins, new tillers, and sludge handling facilities (see attached sheet with proposed system upgrades and expansions).

$89,926,365 or 64% of the total cost of this project is funded from current bond issue (including reimbursement).

732581 ***Alvarado JT Lab – HVAC Ventilation***

Upgrade of Heating Ventilating & Air Conditioning system at the Alvarado Joint Water Quality Laboratory.

$383,137 or 84% of the total cost of this project is funded from current bond issue (Including reimbursement).

732611 ***Alvarado Phase II – Operations Building***

Design services for project which involves renovation to existing Operations Building, to be constructed as part of the Alvarado Phase II Project.

$31,206 or 100% of the total cost of this project is funded from current bond issue (including reimbursement).

732612 ***Alvarado Phase III – Lake Murray***

Design services for expansion of the Lake Murray Pump Station, to be constructed as part of the Alvarado Phase I project.

$44,708 or 100% of the total cost of this project is funded from current bond issue including reimbursement).

733270 ***Alvarado Water Pump Plant – Upgrade***

The existing pump plant, built in 1965, consists of 4 Byron Jackson pumps rated at 3,500 gpm and 130-feet TDH. Motors are General Electric 150 horsepower. This pump station provides emergency supply to portions of the Miramar system including Kearny Mesa and Tierrasanta.

This project includes replacing the existing pumps, electrical system and control system and rehabilitating the existing building.

$296,986 or 51% of the total cost of this project is funded from current bond issue (including reimbursement).

733170 *Barrett Reservoir Outlet Tower Upgrade*

The existing Barrett Reservoir dam is a concrete gravity structure with a 120-foot high outlet tower and 26 automatic flash gates located on the spillway.

The required outlet tower repairs include:

Replace 3 each 30-inch gate valves. New valves to include motor operators. Provide hand-off switches located at top of tower. (Existing power to the tower is adequate for the proposed motor operators). Replace 3 each 30-inch cast iron, fabricated "saucer valves" on the exterior of the tower.

Replace 30-inch diameter piping Inside outlet tower including approximately 120 feet of pipe and 4 TEE's. Replace 3 each, operating platforms, 14-feet, 8-inch diameter at the level of each gate valve. Replace motorized winch, sheaves and cable.

Required spillway repairs include replacing or repairing 26 each 6.5-foot wide by 9-foot high spillway flash gates. Existing gates are fabricated of 3/16-inch plate with stiffeners, water stops, trunnions and other appurtenances. Protective coatings and cathodic protection needed for either repairs or replacement.

0% of the total cost of this project is funded from current bond issue (including reimbursement).

732360 *Bayview Reservoir*

This project consists of replacing an existing 10-million gallon, partially buried concrete reservoir with a new reservoir with the same capacity at the same site. The existing reservoir has deteriorated and is failing.

$6,055,446 or 50% of the total cost of this project is funded from current bond issue (including reimbursement).

732650 *Bayview Water Pump Plant*

This project is the construction of a new pump plant at the Bayview Reservoir and installing 522 linear feet of 20-inch CML&C welded steel pipe to serve as a reservoir by-pass line. Also included in the project are minor paving and landscaping restorations to the site.

$783,509 or 100% of the total cost of this project is funded from current bond issue (including reimbursement).

732160 *Black Mountain Reservoir*

This project consists of the construction and funding of a 15 million gallon reservoir by developers near the City's No. 10 water connection to the County Water Authority's Second Aqueduct, immediately west of Rancho Penasquitos.

$9,424,779 or 96% of the total cost of this project is funded from current bond issue (including reimbursement).

709200 ***Bonita Pipeline – Phase II***

This project involves the replacement of the existing 24-inch diameter Bonita Pipeline north of Imperial Avenue with new 36-inch diameter cement mortar lined and coated (CML&C) welded steel pipe along Churchward Street and Hilltop Drive. The installation will be within the City of San Diego street right-of-way. The majority of construction will be open cut trench installation, with the installation of four 500-foot long, 46-inch diameter steel casings under Interstate 805 and Interstate 15, using tunneling/pipe jacking techniques.

$1,058,931 or 11% of the total cost of this project is funded from current bond issue (including reimbursement).

759105 ***Catalina Standpipe Connection / Navy***

This project consisted of installing a connection from the Catalina Standpipe to the water distribution network on the Naval base. The work was completed by the Navy.

0% of the total cost of this project is funded from current bond issue (including reimbursement).

734006 ***Catalina Standpipe Renovation***

The Catalina Standpipe is 73 feet tall, 59 foot in diameter, has a storage capacity of 1.5 million gallons, and was built in 1954. This project will provide additional anchor bolts between the existing tank and foundation mat to resolve seismic problems.

$132,515 or 100% of the total cost of this project is funded from current bond issue (including reimbursement).

733094 ***Chesterton Standpipe***

The Chesterton Standpipe has a storage capacity of 1 million gallons, and was constructed 1953. It is no longer in service nor beneficial to the operation of the water transmission and distribution system and consequently is to be demolished.

$334,752 or 100% of the total cost of this project is funded from current bond issue (including reimbursement).

733350 ***Dams & Appurtenances Mod Study***

This project consists of making repairs and improvements at the existing dams. There are 429 identified projects, each very small, and no formal designs are required. Replacement and repairs have been initiated with work being done by City forces. It Is anticipated that a combination of City forces and contractors will complete the projects. The maximum design effort anticipated for each valve will be two 8-1/2 by 11-inch sketches with the City's Standard Drawing for Air and Vacuum Valve Enclosure.

$1,059,524 or 71% of the total cost of this project is funded from current bond Issue (including reimbursement).

732680 ***Deerfield Water Pump Plant***

This project Includes replacing the existing underground Hillandale Pump Plant with a new water pump plant located on Mission Gorge Road across from Deerfield Street. Land for this purpose was acquired in 1995. The project includes a pump plant rated at 9,000 gallons per minute(gpm) and 13,000 linear feet of 24-inch diameter pipe to connect the pump plant to the San Carlos area water system. The pump plant Includes: four (4) vertical turbine pumps (each 2,500 gpm @ 350 ft. head), on-site suction and discharge piping including valves, power and I&C system, and a concrete masonry unit building (50 ft, x 42 ft.). The work also Includes demolition of the existing Hillandale Water Pump Plant.

$6,158,218 or 100% of the total cost of this project is funded from current bond issue (including reimbursement).

738424 ***Del Corm Highlands Pump Plant***

The existing buried pump station (22 feet x 12 feet, plus stair well) will be expanded to 50 feet x 12 feet, plus stairwell. In the newly expanded space, two 75 horsepower vertical turbine pumps and two 25 horsepower vertical turbine pumps will be installed. The 25 horsepower pumps will have variable speed drives. A 140 Kw, natural gas driven engine/generator will be installed in the existing pump room after removal of the existing pumps to assure continued operation during emergencies. Floor elevation of new structure is 14 feet below grade. Structure will be located predominately in parkway with piping connections within the street.

$458,175 or 75% of the total cost of this project is funded from current bond issue (including reimbursement).

733091 ***Del Cerro Reservoir Upgrade***

The Del Cerro Reservoir is a covered concrete reservoir with a storage capacity of 0.5 Million gallons, constructed in 1956. A 1992 report recommended that a number of improvements to the facility and site be made. Recommendations included improvements to the site safety conditions, sanitary facilities, interior and exterior surfaces as well as structural upgrades.

$884,118 or 98% of the total cost of this project is funded from current bond issue (including reimbursement).

732510 ***Del Mar Heights Road Pipeline***

The project is the installation of 8,000 linear feet of 24-inch diameter cement mortar lined & coated (CML&C) welded steel pipe along a new section of Del Mar Heights Road.

$0 or 0% of the total cost of this project is funded from current bond issue (including reimbursement).

722910 ***Eichenlaub Ranch Acquisition***

The subject parcel is sought for the following reasons: watershed preservation, access to facilities at Barrett Reservoir, to enhance wildlife and habitat values, and to provide possible environmental mitigation credit. This acquisition which involves six contiguous parcels, totaling 1,339 acres, would ensure that. the property will remain undeveloped in perpetuity. In addition, the City's main access to facilities at Barrett Reservoir is a road that crosses this property (the "Wilson Creek Road"). The City's right to use this road is suspect, and has come under question in the past. This situation would be eliminated with the acquisition of the parcel.

$4,600,000 or 100% of the total cost of this project is funded from current bond issue (including reimbursement).

733190 ***El Capitan Reservoir Rd Improvements***

Approximately 2.5 miles of access road, starting at the base of the dam and proceeding counterclockwise around the reservoir to the southern tip of the lake will be repaired and portions need widening in this project. Three existing observation wells on the downstream face have badly corroded casings and do not function. They will be replaced with three new observation wells with 4-inch casings and the following depths: 175-feet, 150-feet and 125-feet deep. The top 10 to 30 feet of the wells must be drilled through hand placed boulders. Each well will be equipped with piezometers to measure water levels, with signals transmitted to existing radio towers.

$294,108 or 54% of the total cost of this project is funded from current bond issue (including reimbursement).

733097 ***Emerald Hills Standpipe Upgrade***

The Emerald Hills Standpipe is located on an alleyway between Eider Street and Scimitar Drive. The standpipe sits along a ridge, with single-family housing immediately adjacent to and below the structure. Built in 1962, the standpipe is 52 feet in diameter with a steel shell height of 96 feet and a conical roof extending 2 feet above the shell. This project includes seismic retrofit work to withstand substantial earthquakes.

$104,066 or 77% of the total cost of this project is funded from current bond issue (including reimbursement).

734000 ***Encanto Standpipe***

This project entails the demolition of the existing standpipe, relocation of existing utilities, site improvements, and installation of a new sprinkler system for the existing landscaping.

$304,632 or 100% of the total cost of this project is funded from current bond issue (including reimbursement).

709110 *Genesee Avenue Subsystem*

This system will distribute reclaimed water from the North City Water Reclamation Plant to areas west of the plant, particularly Torrey Pines Golf Course, Caltrans right-of-way, and UCSD. The pipe commences as a 36-inch diameter pipe starting at the west portal of the North City Tunnel Connector west of interstate 805, then proceeding northwesterly to and along Executive Drive. The pipeline continues as a 24-inch pipe and proceeds northerly along Regents Road to Genesee Avenue, then westerly along Genesee Avenue across Interstate 5 to the intersection of Genesee Avenue and North Torrey Pines Road. A 16-inch pipe proceeds northerly to the North Course meter at Torrey Pines Golf Course, and southerly to the South Course meter connection.

Turnouts to Caltrans right-of-way at Interstate 5 and Genesee Avenue and UCSD will be provided along the pipe alignment.

$8,260,669 or 100% of the total cost of this project is funded from current bond issue (including reimbursement).

733360 *Joint Lab Standby Emergency Power*

Install a 275 Kw (preliminary size estimate) emergency engine/generator for the Joint Laboratory at the Alvarado Filtration Plant. The generator will provide power to five labs (M-10, J-11, P-10, R-10 and R-30), the north air handler and two exhaust fans. In the event of any electrical power failure. The engine/generator will be installed outside with concrete screen walls (retaining wall may be required) for aesthetics and sound dampening.

$8,300 or 0% of the total cost of this project is funded from current bond issue (including reimbursement).

733010 *Kearny Mesa Pumps*

This project is the construction of a new water pump plant with three 5 mgd pumps. The pump plant will pump water from the Alvarado Zone (536) to the Northwest Mesa Zone (currently 559, but wilt be raised to 600). Emergency power will be provided by portable, engine-generator sets. The pump plant will connect to the existing 36-inch Keamy Mesa Pipeline.

$137,618 or 7% of the total cost of this project is funded from current bond issue (including reimbursement).

734002 *La Jolla Country Club Reservoir*

The La Jolla Country Club Reservoir is a concrete reservoir, with a storage capacity of 0.5 million gallons, and was constructed in 1927. This project includes repairs to the facility to improve safety, sanitation, appurtenances, and exterior and interior surfaces.

$25,629 or 31% of the total cost of this project is funded from current bond issue (including reimbursement).

734008 *La Jolla Exchange Place Reservoir*

The La Jolla Exchange Place Reservoir is a covered concrete reservoir, with a storage capacity of 0.99 million gallons. It was constructed in 1955.

This project includes repairs required for site improvements, safety, sanitation, appurtenances, and exterior and interior protective coatings.

$11,200 or 10% of the total cost of this project is funded from current bond issue (including reimbursement).

734007 *La Jolla View Reservoir*

The La Jolla View Reservoir is a steel tank, measuring 70-feet in diameter by 25-feet high, with a storage capacity of 0.72 million gallons. It was built in 1949. This project includes repairs and site improvements to improve safety, sanitation, appurtenances, exterior and interior protective surfaces, and structural integrity.

$20,901 or 8% of the total cost of this project is funded from current bond issue (including reimbursement).

732830 *Lakeside Pump Plant*

This project involves the upgrade of the existing Lakeside Pump Plant by replacing the existing pumps and motors to increase the capacity to 110 MGD @ 165 feet of head as a result of the City's Reservoir Management Study (May 1995). Design and construction of the major renovation items will include new pumps, motor starters, valves, metering devices, facilities, and the complete automation of the pump plant in coordination with the Alvarado Treatment Plant.

$950,935 or 9% of the total cost of this project is funded from current bond issue (including reimbursement).

733098 *Lomita Village Standpipe Removal*

The Lomita Village Standpipe is located at the corner of Skyline Drive and Bowie Street. The Standpipe is 38 feel in diameter, with a steel shell height of 95 feet, and an umbrella roof extending 2 feet above the shell. This reservoir, which was built in 1953, will be demolished under this program.

$300,414 or 99% of the total cost of this project is funded from current bond issue (including reimbursement).

733430 *Lower Otay Reservoir*

The existing Savage Dam backs up Lower Otay Reservoir. At the present time, fifty-six days are required for 10 percent draw down of the reservoir through the existing 40-inch (48-inch prior to slip lining) outlet pipe. State regulation requires 10 percent draw down in 10 days.

This project will increase the draw down capacity by installing dual 48-Inch drain pipes through the existing auxiliary spillway (in addition to existing 40-inch described above). Installation will include two 48-inch butterfly valves and 48-inch flap gates on the spillway bulkheads and intake screens on the upstream end. Length of each pipe will be 70-feet. Maximum existing grade over the pipes is approximately 10-feet above the intended drain pipe invert.

$56,700 or 17% of the total cost of this project is funded from current bond issue (including reimbursement).

732460 ***Mid-City Pipeline***

The original scope of work for this project included the Installation of 24,955 linear feet of new 48-inch diameter cement mortar lined & coated (CML&C) steel pipe primarily along El Cajon Boulevard and 37th Street.

Following a Value Engineering Study and the conclusions from a recent Mid-City Planning Study (April 1998), portions of the pipeline alignment have been modified. The changes include:

the pipeline between Highland Avenue and Marlborough Avenue, a total of 2,300 linear feet, has been reduced from 48-inch diameter to 24-inch;

the pipeline between Marlborough Avenue to Cherokee Avenue, total length of 3,492 linear feet, has been reduced from 48-inch diameter to 20-inch;

3,860 linear feet of pipeline on 37th St. and two pressure reducing valves (PRV) stations located at Myrtle & 37th St. and Wightman & 37th St. were; and

approximately 1,300 linear feet of 48-inch pipeline and a PRV station on Highland Avenue between El Cajon Boulevard and Polk Avenue have been added.

$19,695,901 or 99% of the total cost of this project is funded from current bond issue (including reimbursement).

733140 ***Mid-City Water Pump Plant***

This project is the construction of a pump plant to feed the Mid-City Pipeline from the Alvarado Water Treatment Plant. This pump plant is part of a proposed Mid-City Pipeline to provide required redundancy for, and to relieve the capacity load on, the existing Trojan Pipeline which is the "backbone" transmission facility of the Alvarado water supply system. To avoid the high cost of crossing Interstate 8 (I-8), the pump plant discharge pipe will be connected to the San Diego County Water Authority's (SDCWA's) Pipeline 4B at a location north of Interstate 8, water will be taken out of Pipeline 4B south of Interstate 8 at the future Mid-City Pipeline connection.

The pump plant will have a total capacity of 155 cubic feet per second (cfs). The project flow rate at the Mid-City Pipeline is 93 cfs and the balance, 62 cfs will be used by the SDCWA. An emergency generator and fuel tank with secondary containment system will also be provided.

Approximately 1,000 feet of 72-inch diameter steel pipe will be installed to transmit water from the Alvarado Filtration Plant into the SDCWA's La Mesa/Lemon Grove Pipeline.

$13,331,823 or 89% of the total cost of this project is funded from current bond issue (including reimbursement).

709105 ***Miramar Pipeline Improvements – Phase III***

This project consists of replacing and/or rehabilitating 14,400 linear feet of existing 51-inch cylinder pipe on Mira Mesa Boulevard between Stadium Street and Weston Hill Drive. It is expected that the project will be a combination of pipe replacement with 54-inch diameter cement mortar lined & coated (CML&C) steel pipe and/or rehabilitation of the existing pipe. The rehabilitation will include the installation of a welded steel liner, grouted into position and cement mortar lined. The existing pipeline can only be shut down during the winter months (November through April) and all construction work must be conducted at night to minimize impact to traffic and business impacts along Mira Mesa Boulevard. The City will be establishing an Inspection Program to ascertain the existing pipe condition. Dependent upon the outcome of the inspection, this project may be modified.

$1,869,520 or 17% of the total cost of this project is funded from current bond issue (including reimbursement).

709106 ***Miramar Pipeline Improvements – Phase IV***

This project includes the replacement of/or rehabilitation of 12,470 linear feet of existing 51-inch diameter prestressed concrete cylinder pipe along Mira Mesa Boulevard and Scripps Lake Drive. Preliminary planning includes a combination of pipe replacement with 54-inch diameter cement mortar lined & coated (CML&C) steel pipe and/or rehabilitation. The rehabilitation will consist of the Installation of a welded steel liner, grouted into position and cement mortar lined. The existing pipeline can only be shut down during the winter months (November through April) and all construction work must be conducted during that period and at night to minimize impact to traffic and businesses along Mira Mesa Boulevard. The City will establish an Inspection Program to ascertain the existing pipe condition end determine where rehabilitation is appropriate. The project scope may change depending on the study findings.

$1,516 or 0% of the total cost of this project is funded from current bond issue (including reimbursement).

709102 ***Miramar Pipeline Improvements – Phase I***

This project included studies and design for the rehabilitation of the Miramar Pipeline from the Miramar Water Treatment Plant to Interstate 805. This activity is complete.

$185,516 or 9% of the total cost of this project is funded from current bond issue (including reimbursement).

709103 ***Miramar Pipeline Improvements – Phase II***

This project includes the installation of approximately 4,389 linear feet of 54-inch diameter cement mortar lined & coated (CML&C) steel pipe to replace existing deteriorated pipe between Carroll Canyon Road and Mira Mesa Boulevard and the rehabilitation of approximately 400 linear feet of 51-inch diameter pipe along Mira Mesa Boulevard. It is anticipated that the replacement will be accomplished through traditional open cut trench and cover techniques along Pacific Heights Boulevard and 1,000 linear feet of Mira Mesa Boulevard. The pipe rehabilitation will include the installation of a welded steel liner, grouted into position and cement mortar lined. Shut-down of the existing pipeline for rehabilitation is limited to winter months (November through April) and all work will be conducted at night to limit the impact to traffic and businesses along Mira Mesa Boulevard. (Note: The City will internally inspect the pipeline to determine its current condition. Dependent upon the findings of the inspection, the scope of work may change to replace more or less pipe.)

$4,729,056 or 99% of the total cost of this project is funded from current bond issue (including reimbursement).

733370 ***Miramar Pipeline No. 2A***

This project includes the installation of a new transmission pipeline to deliver potable water to the northern coastal and north City areas to accommodate growth in the north City area, ensure system reliability and reduce imported filtered water purchases from the SDCWA.

The pipeline will consist of 11,100 linear feet of 90-inch diameter, 4,500 linear feet of 78-inch diameter, 3,360 linear feet of 66-inch diameter and 9,890 linear feet of 36-inch diameter cement mortar lined & coated (CML&C) welded steel or steel cylinder rod-wrapped pipeline.

The 90-inch diameter section of the pipeline will pass under the Interstate 15 freeway along Carroll Canyon Road and be placed in the extremely congested right-of-way along Scripps Lake Drive between Scripps Ranch Boulevard and the Miramar Pump Station.

$340,537 or 12% of the total cost of this project is funded from current bond issue (including reimbursement).

730017 ***Miramar Road Pipeline***

This project consists of installing 24-Inch diameter 24,000 linear feet of cement mortar lined and coated (CML&C) welded steel pipe along Miramar Road to parallel the existing Miramar Road Pipeline. All of the installation will be within the City of San Diego street right-of-way. Construction will be by traditional open cut trench techniques and pipe jacking/tunneling under major intersections.

$500,296 or 10% of the total cost of this project is funded from current bond issue (including reimbursement).

709120 *Miramar Road Subsystem*

The Miramar Road Subsystem involves a portion of the reclaimed water distribution subsystem that will ultimately connect to pipelines serving users along the Interstate 15 corridor to the north. The 48-inch diameter pipe will start at the southerly limits of the North City Water Reclamation Plant. The pipeline proceeds easterly along Miramar Road to Its terminus at the prolongation of Rigel Avenue. A turnout will be provided at Production Avenue for future northerly users.

$10,669,064 or 25% of tile total cost of this project is funded from current bond Issue (including reimbursement).

709160 *Miramar Road Subsystem Extension*

This Miramar Road Subsystem Extension will distribute reclaimed water to users along the interstate 15 corridor to the north. Preliminary alignment for the approximately 17,500 feet of 42-inch pipeline is described as follows: commencing at the terminus of the Miramar Road Subsystem, the pipeline runs east across Interstate 15, then along Pomerado Road to Willow Creed Road, then northward along Willow Creek Road, Business Park Avenue, and Carroll Canyon Road terminating at Scripps Ranch Boulevard.

$10,166,179 or 39% of the total cost of this project is funded from current bond issue (including reimbursement).

709170 *Miramar Storage Tank and Raw Water Connection*

This system will serve the reclamation needs of the Scripps Ranch North area with subsequent connections to pipelines serving users along the Interstate 15 corridor northward. Preliminary alignment for the approximately 2,500 feet of 42-inch pipeline is described as follows: commencing at the terminus of the Miramar Road Subsystem Extension, then north along Scripps Ranch Boulevard and east to its terminus at a storage facility located at the eastern end of Meanley Drive. This also includes design of an 8 million gallon storage tank. A 2,500 linear foot, 24-inch raw water connection from Miramar Lake to the storage facility is also included.

$11,916,498 or 35% of the total cost of this project is funded from current bond issue (including reimbursement).

732840 *Miramar Water Treatment Plant*

The Miramar Water Treatment Plant requires upgrades to the facility and treatment process to comply with Safe Drinking Water Act standards, and to meet increasing water demands. This project includes rehabilitation work and new construction. The summer demands now exceed the existing capacity of 140 million gallons per day. The need for increased capacity, deterioration at existing plant facilities, compliance with the standards, and the goal of both the City and the San Diego County Water Authority (SDCWA) to dissolve the City's reliance upon imported filtered water supplies, have all combined to create the need to expand plant capacity to meet projected water demands through 2015, rehabilitate the plant's aging 36-year-old treatment facilities, and upgrade treatment processes including the addition of an ozonation process.

$8,812,743 or 9% of the total cost of this project is funded from current bond Issue (including reimbursement).

733300 *Mission Valley Aquaculture Facility Demolition*

Demolition of a demonstration pilot water reclamation treatment plant which used water hyacinth and other alternative methods to remove pollutants.

$103,696 or 16% of the total cost of this project is funded from current bond issue (including reimbursement).

733210 *Morena Reservoir Outlet Tower Upgrade*

The existing Morena Dam is a rock embankment dam with a parapet wall height of 171 feet above the original stream bed. The outlet tower is 132 feet from the operating floor to the center line of the outlet tunnel. The piping and mechanical system of the outlet tower will be replaced or repaired. A granite boulder and fissure grotto was formed beneath granite blocks by water erosion and carved into a crack in the bedrock. This grotto is approximately 800-feet long and on the order of 20-feet wide and 60-feet high, and extends below the dam. The following repairs are included in the project:

replace each of five 24-inch gate valves with motor operated valves;

refurbish or replace each of three 24-inch square sluice gates;

replace piping including 70-feet of 30-inch pipe, 60-feet of 24-inch pipe, five 30-inch T's, and appurtenances;

replace four valve operating platforms;

provide electrical energy from existing power lines on the shore located a few hundred feet away; and

conduct grotto repairs: grout that portion of grotto located below the dam.

$0 or 0% of the total cost of this project is funded from current bond issue (including reimbursement).

733380 *Operation Center Relocation*

Develop a Central Water Department Operations Station on an approximately 25-acre site in the Kearney Mesa area to accommodate 640 employees, 340 vehicles and equipment currently located at Cholles Operations Station, Rose Canyon Operations Station, Alvarado Operations Yard and the Comerica Bank Building downtown.

Required facilities:

Office space for 261 employees; 80,000 to 100,00 square feet.

Vehicle Repair Facility; 25,000 square feet of roofed space.

Warehouse Space; 55,000 square feet,

Parking lots and storage yards; 400,000 square feet.

Fuel island and wash racks; 2 - 20,000 gal tanks, 14 dispenser, 7 islands and 3 wash racks.

Site development, utilities, improvements, landscape and irrigation are also required.

$33,629,526 or 60% of the total cost of this project is funded from current bond issue (including reimbursement).

732862 ***Otay 2nd Pipeline – North of SR-94***

This project includes the installation of approximately 6,725 linear feet of 42-inch diameter cement mortar lined & coated (CML&C) steel pipe north of State Route 94 to replace a section of the existing 36-Inch diameter Otay Second Pipeline built in 1928. The majority of the pipe to be, replaced will be within the City of San Diego street right-of-way, with some canyon crossings requiring permanent easements. In some locations, the right-of-way may be relocated due to the occurrence of environmentally sensitive habitat. Construction will be mostly open cut trench with some pipe jacking or tunneling under major intersections.

$951,520 or 33% of the total cost of this project is funded from current bond issue (including reimbursement).

732860 ***Otay 2nd Pipeline – Phases 1 thru 6***

This project includes the installation of approximately 30,000 linear feet of 54-inch diameter cement mortar lined & coated (CML&C) steel pipe between Telegraph Canyon Road and State Route 54 to replace that portion of the existing 36-inch and 40-inch diameter Otay Second Pipeline built in 1928. A majority of the installation will be within the City of Chula Vista street right-of-way, with some canyon crossings requiring permanent easements. It is anticipated that construction will be open cut trench and cover with some pipe jacking and/or micro tunneling at major intersections. In some instances the right-of-way may have to be relocated due to occurrence of environmentally sensitive habitat in the existing right-of-way.

$3,216,894 or 13% of the total cost of this project is funded from current bond issue (including reimbursement).

732500 ***Otay Mesa Reservoir***

The Otay Water Treatment Plant does not have a clear well reservoir for chlorine contact time and storage capacity for peak demands. This project is to provide clear well storage capacity to meet rapidly growing needs and will enable the treated water to comply with mandated minimum chlorine contact times for the nearest consumer.

$449,459 or 13% of the total cost of this project is funded from current bond issue (including reimbursement).

733150 ***Otay Plant Raw Water Connection***

An amendment to an existing contract to install additional valves in the flow control facility (metering station) to accommodate the San Diego County Water Authority's conversion of its Pipeline No. 3 from treated to raw water. Pipeline No. 3 conveys water to the Otay Water Filtration Plant. The Otay Water Filtration Plant will now have another source of raw water in addition to its local surface water supply (Otay, Barrett and Morena Lakes).

$181,924 or 41% of the total cost of this project is funded from current bond issue (including reimbursement).

709100 ***Otay Reservoir Raw Water Pipeline***

Engineering and construction services for the rehabilitation of 1,480 linear feet of 48-inch concrete-lined, steel outlet tunnel from the lake, structural modifications to the raw water outlet tower platform, replacement of 36-inch butterfly valve with 48-inch butterfly valve and installation of 48-inch saucer valve and elbow at the base of the outlet tower. Installation of bypass pumping system to provide water to the filtration plant during outlet tower/tunnel work.

$2,078,107 or 99% of the total cost of this project is funded from current bond issue (including reimbursement).

733390 ***Otay WTP Basin Corrosion Repairs***

Repair the existing sedimentation basins, flocculation basins and influent channel at the Otay Filtration Plant. Over 59,000 square feet of concrete in these facilities will be repaired end coated as a part of this project.

$1,031,199 or 100% of the total cost of this project is funded from current bond issue (including reimbursement).

732850 ***Otay WTP Expansion***

This project will upgrade the existing Otay Water Treatment Plant to comply with Safe Drinking Water Act standards (Phase I). Also, depending on the outcome of future studies, it may be expanded from the current 40 mgd capacity to 60 mgd to accommodate water demands (Phase II) in the Otay Mesa area. Only the upgrade is proposed at this time.

The Phase 1 project will include: ozonation facilities (ozone generator and ozone contactors) to provide pre-and post-ozonation; GAC filter caps for existing filters; wash water recovery system; sludge handling; electrical & instrumentation system; and other improvements including site work, yard piping and provision for future facilities.

$151,807 or 1% of the total cost of this project is funded from current bond issue (including reimbursement).

733220 *Otay WTP Raw Water Pump Conversion*

The existing Pump Station consists of one 8 mgd pump, three 15 mgd pumps, and platforms for two additional pumps.

This project entails installation of a variable speed drive to one of the existing 15 mgd, 300 Hp pumps.

$253,238 or 60% of the total cost of this project is funded from current bond issue (including reimbursement).

73277D *Pacific Beach Reservoir*

The Pacific Beach Reservoir is currently disconnected from the water system because of severe leakage. It is currently a dry reservoir. A planning study will be prepared to determine if this reservoir can be taken out of service permanently or if the reservoir should be rehabilitated and connected beck to the water system.

$201 or 0% of the total cost of this project is funded from current bond issue (including reimbursement).

733099 *Paradise Hills Standpipe*

The Paradise Hills Standpipe will be demolished under this program.

$562,906 or 100% of the total cost of this project is funded from current bond Issue (including reimbursement).

733460 *Paradise Mesa Pump Plants 1 & 2 Upgrade*

The existing Paradise Mesa Pump Plant No. 1, built in 1964, and the Paradise Mesa Pump Plant No. 2, built in 1971, each consist of three vertical turbine pumps each rated at 2,250 or 2,275 gallons per minute. Each of the pumps are 100 horsepower and each were manufactured by a different company. These pump plants serve an area of approximately 30,000 residents.

This project entails upgrading existing pump plants to allow substitution of San Diego City water for San Diego County Water Authority (SDCWA) water now provided via the SDCWA #19 (Old # 13) Paradise Mesa Crosstie tandem, which is currently the primary supply of water to the Paradise Mesa 610 Pressure Zone. The estimated size of each pump station after upgrade will be 600 Hp.

$136,861 or 12% of the total cost of this project is funded from current bond issue (including reimbursement).

734005 *Paradise Mesa Standpipe*

The Paradise Mesa Standpipe was erected in 1979. It is 120-feet tall and has a diameter of 64-feet, with a capacity of 2.5 million gallons. This standpipe services the 610 Pressure Zone.

Current seismic standards require that the standpipe be retrofitted at the foundation to reduce the chances of failure in the event of an earthquake. Also, due to health risks, the lead-based interior and exterior coatings require removal. Other work will include upgrades to the access road and appurtenances.

$530,823 or 100% of the total cost of this project is funded from current bond issue (including reimbursement).

749251 ***Penasquitos Reservoir Upgrade***

The Penasquitos Reservoir is a post-tensioned concrete lank, with a storage capacity of 5 million gallons. It is 34 feet high by 160-feet diameter, and was constructed in 1966.

This project includes minor repairs to existing appurtenances, an investigation of the physical condition of prestressed wire by removal of exterior shotcrete covering, and provision of flexible pipe connections at base of tank wall for seismic resistance.

$31,500 or 12% of the total cost of this project is funded from current bond issue (including reimbursement).

732092 ***Point Loma Reservoir***

Point Loma Reservoir is a partially buried, 21-feet deep concrete reservoir with a 1.5 acre surface area. It has a storage capacity of 10 million gallons. A recent study identified the following needed improvements: remove and replace the wood roof; install a Hypalon lining; provide site improvements; provide skin improvements; and install a concrete Shear Wall System.

$3,109,378 or 100% of the total cost of this project is funded from current bond issue (including reimbursement).

734004 ***Pomerado Park Reservoir Upgrade***

The Pomerado Park Tank has a capacity of 5.2 million gallons, and was constructed in 1969. This project includes safety, sanitation, appurtenance, exterior and interior surface, and structural improvements.

$37,079 or 8% of the total cost of this project is funded from current bond issue (including reimbursement).

732480 ***Pomerado Pipeline No. 2***

This project consists of purchasing the existing Pomerado Pipeline, which runs between the Miramar Filtration Plant and the Tierrasanta area, from the San Diego County Water Authority (SDCWA). The Pomerado Pipeline, originally installed by the City in the late 1960's, was sold to the SDCWA to function as an imported water transmission pipeline in their aqueduct system. Subsequently, as a result of the installation of a metered connection to their filtered water aqueduct system, the City became totally reliant upon the SDCWA to supply the southern

reaches of the Miramar distribution system. Through a cooperative effort, both the City and the SDCWA have agreed to eliminate this reliance through the City's repurchase of this pipeline. The pipeline will be returned to its original function as a gravity supply from the Miramar Filtration Plant.

$1,938,563 or 66% of the total cost of this project is funded from current bond issue (including reimbursement).

733400 ***Potable Water Storage Recirculation***

Eight existing potable water storage facilities of one-million gallon capacity or more will be equipped with a water recirculation system consisting of pumps and piping capable of exchanging the entire volume of the reservoir with water from an adjacent water main once every 10 days. The pumps will run continuously at a small flow rate to slowly exchange the entire volume of the reservoir. The reservoirs being considered for this project are: Redwood Village, Emerald Hills, University Heights, Point Lorna, La Jolla Exchange Place, La Jolla View, Bayview and Paradise Mesa. .

$265,730 or 16% of the total cost of this project is funded from current bond issue (including reimbursement).

733470 ***Program Management (Parsons)***

Under this CIP number, the Water Department CIP Program team is augmented with engineers and other specialized personnel to complete the implementation of projects on schedule. Those services are being provided by Parsons Infrastructure and Technology, Inc. The personnel provided by Parsons are integrated into the CIP staff and provide engineering, scheduling, cost estimating and environmental compliance services.

$12,952,317 or 35% of the total cost of this project is funded from current bond issue (including reimbursement).

733410 ***Rancho Bernardo Pipeline No. 2***

This project includes the installation of 1,700 linear feet of 48-inch diameter cement mortar lined & coated (CML&C) welded steel pipe along Scripps Ranch Boulevard, 2,800 linear feet of 48-inch diameter CML&C steel pipe along Mira Mesa Boulevard, 6,850 linear feet of 48-inch diameter CML&C steel pipe along Westview Parkway, 1,600 linear feet of 48-inch and 7,550 linear feet of 42-inch diameter CML&C steel pipe along Black Mountain Road, and 4,750 linear feet of 42-inch diameter CML&C steel pipe along Twin Trails Drive.

$1,354,898 or 10% of the total cost of this project is funded from current bond issue (including reimbursement).

733420 ***Rancho Bernardo Pump Plant No. 2***

Construct a new 15 mgd pump station with a Total Dynamic Head of 200-feet.

$521,607 or 15% of the total cost of this project is funded from current bond issue (including reimbursement).

734280 ***Rancho Bernardo Reservoir Upgrade***

This project includes the rehabilitation of the existing 10.1 million gallon, earth embankment, concrete-roofed, Rancho Bernardo reservoir. Inside dimensions of the reservoir at the control line are 322' x 250' x 26' deep and 216' x 144' at the base. Roof structure is pre-cast prestressed columns, beams and girders with a post-tensioned concrete roof slab. The lateral loads are carried by concrete shear walls with a plan view "H" shape. The floor is asphalt paved and butyl rubber lined. The perimeter stern wall is approximately 3 feet high.

The improvements to the reservoir include the removal of the damaged coating from most concrete surfaces including both sides of roof, beams, 72 columns and shear walls. Repair spalled concrete, remove the existing liner from floor and walls and replace with 86,000 square feet of Hypalon liner and geotech material. Two new 24-inch modulating valves will also be installed in an adjacent vault. Install new vault with 36-inch propeller flow meter, increase the thickness of the shear walls, and make repairs to various electrical equipment and appurtenances.

$495,616 or 16% of the total cost of this project is funded from current bond issue (including reimbursement).

733096 ***Redwood Village Standpipe – Phase I***

Redwood Village Standpipe, Phase I (construction is complete).

The Redwood Village Standpipe is a circular steel standpipe constructed in 1964 with a capacity of 2 million gallons. The facility upgrade included seismic retrofit and general-improvement of the facility piping. This project was completed in early 1998.

$1,634,614 or 0% of the total cost of this project is funded from current bond issue (including reimbursement),

738472 ***Redwood Village Standpipe – Phase II***

The Redwood Village Standpipe, Phase II project will incorporate additional work at the site, mainly related to replacing pipe and upgrading the pipe connection to the standpipe to avoid shearing off at the tank during an earthquake.

$0 or 0% of the total cost of this project is funded from current bond issue (including reimbursement).

799999 ***Replacement of Water Service Meters***

This project consists of replacing 632 3-inch, 4-inch and 6-inch commercial meters with Metron-Farnier low flow water meters throughout the water system. Two hundred of the targeted meters had already been replaced by October 3, 1997. City forces will replace the

remaining 432 meters and install remote read devices. Backflow protection devices will be installed on the remaining flow meters.

$1,516,422 or 41% of the total cost of this project is funded from current bond issue (including reimbursement).

749252 ***San Carlos Reservoir Upgrade***

The San Carlos Reservoir is a prestressed concrete tank with domed roof. It has a storage capacity of 5.0 million gallons, is 33 feet high by 160 feet diameter, end was constructed in 1963. This project includes removal of the existing interior coating and recoat; debris removal, seismic retrofit of wall to footing linkage; repair of loose concrete; upgrade access, paving, lighting, etc.; inspect/repair post tensioning and pre-stressing wire; and replace submerged metallic structures.

$91,155 or 34% of the total cost of this project is funded from current bond issue (including reimbursement).

732910 ***San Vicente Water Quality System***

The depth and physical geometry of the San Vicente Reservoir cause it to stratify, creating layers of water with different temperatures. The lower depths are typically being cold and low in oxygen. This project is being evaluated using completed studies and available information, and will address the ultimate use of the lake itself which includes the possible introduction of reclaimed water. Depending on the final decision a hypolimnetic aeration system may be installed to improve the water quality for treatment in the water treatment plants.

$328,603 or 76% of the total cost of this project is funded from current bond issue (including reimbursement).

709210 ***Scripps Poway Parkway Subsystem***

The Scripps Poway Parkway Subsystem consists of approximately 10,000 linear feet of 18-inch pipeline and a booster pump station located near its western end, that will convey Title 22 tertiary effluent. Preliminary alignment for this project is described as follows: commencing at a tee connection east of the intersection of Scripps Poway Parkway and Interstate 15 (the terminus of Reclaimed Water Distribution System Package V), the pipeline runs easterly along Scripps Poway Parkway to a point approximately 4,000 feet west of the City of Poway/San Diego boundary, where the pipeline will connect to an existing 10-inch reclaimed waterline.

$7,506,516 or 56% of the total cost of this project is funded from current bond issue (including reimbursement).

709180 ***Scripps Ranch Blvd / I-15 Subsystem***

This system will serve the reclamation needs of Scripps Ranch and Interstate 15 corridor areas and ultimately connect to pipelines serving users to the north. Preliminary alignment for the approximately 15,000 feet of 30-inch pipeline is described as follows: commencing at the

Miramar Storage Tank, the pipeline runs along Scripps Ranch Boulevard to Erma Road, where it turns west and continues along Erma Road to the street terminus. The pipeline continues north through the vicinity of the old Frontage Road on the east side of Interstate 15, terminating in a tee connection east of the intersection of Interstate 15 and Scripps Poway Parkway/Mercy Road.

$6,414,913 or 72% of the total cost of this project is funded from current bond issue (including reimbursement).

734003 ***Scripps Ranch Reservoir***

This project includes the removal of lead grout paint, repainting the structure and providing general improvements to the reservoir and site.

$982,324 or 96% of the total cost of this project is funded from current bond issue (including reimbursement).

73246B ***SD 18 Flow Control Facility***

City funds will be used to support the design and construction of the Mid-City Meter Facility (SD-18). This facility will be designed, constructed, owned and operated by the San Diego County Water Authority (SDCWA). Completion of SD-18 will enable treated City water from the Alvarado Treatment Plant (placed in the SDCWA aqueduct through pump station SD-17) to flow into the new Mid-City Pipeline, Flows up to 93 cfs will be taken out of the SDCWA aqueduct and delivered to the new Mid-City Pipeline.

$2,239,316 or 100% of the total cost of this project is funded from current bond issue (including reimbursement).

732720 ***Soledad Reservoir***

The existing Soledad reservoir, a 1.5-million gallon, concrete reservoir built in 1958, it is in a deteriorated condition, and is in danger of failure. The reservoir is 113 feet in diameter, 19'-9" high with a concrete roof. The project is the rehabilitation of the reservoir by lining the interior walls and floors with steel plate.

$1,642,635 or 97% of the total cost of this project is funded from current bond issue (including reimbursement).

709340 ***Sorrento Valley Subsystem***

This project package involves a portion of the RWD system serving users in the southwest Mira Mesa and northwest Miramar portions of the Northern Service Area. This package consists of two segments with a total length of approximately 21,000 linear feet of 10- to 18-inch diameter pipeline. The preliminary alignment for the first segment is as follows: commencing at a tee connection located at Miramar Road and Production Ave (Package 2), the pipeline heads north to Carroll Road, then west along Carroll Road, then along Carroll Canyon Road to the vicinity of the Youngstown Way Intersection. The preliminary alignment for the second segment is as

follows: commencing at a tee connection at Carroll Road and Fenton Road, the pipeline heeds east along Fenton Road for approximately 8,000 linear feet.

$5,410,376 or 22% of the total cost of this project is funded from current bond issue (including reimbursement).

709101 ***Sorrento Valley Water Main Replacement***

This project has been completed and is included in the bond program for reimbursement.

$1,905,148 or 34% of the total cost of this project is funded from current bond issue (including reimbursement).

732490 ***South San Diego Pipeline No. 2***

This project consists of the installation of approximately 24,300 linear feet of 42-inch diameter pipeline from the Coronado wye (east of the South San Diego Reservoir) to Interstate 805 and Palm Avenue in the South San Diego/Otay Mesa water service area. This project will be designed and constructed through a participation agreement with TMP Homes, Inc.,

$13,644,840 or 92% of the total cost of this project is funded from current bond issue (including reimbursement).

733440 ***South San Diego Reservoir No. 2***

This project will consist of constructing a new 12.7 million-gallon reservoir located at the site of the existing South San Diego Reservoir and serving the 490 pressure zone.

$653,520 or 11% of the total cost of this project is funded from current bond issue (including reimbursement).

749254 ***South San Diego Reservoir Upgrade***

This project includes the removal of 85,235 square feet of existing lead based interior coating and replace with high solids epoxy coating system. Replacement of one column and minor repairs on other columns. Replacement of 400 linear feet of 0.75 inch tie rods, and installation of a concrete dividing wall.

$327,581 or 10% of the total cost of this project is funded from current bond issue (including reimbursement).

733080 ***Telem Control Sys – SCADA Phase I***

Install centralized state-of-the-art electronic monitoring and control facilities for the water storage, transmission, and system.

$1,472,285 or 82% of the total cost of this project is funded from current bond issue (including reimbursement).

733081 ***Telem Control Sys – SCADA – Phase II***

Install centralized state-of-the-art monitoring and control facilities for the water storage and transmission system. This Phase is the final step to install the complete facilities for telemetry control of the entire system.

$522,233 or 39% of the total cost of this project is funded from current bond issue (including reimbursement).

733290 ***Tierrasanta Norte Water Pump Plant***

This project includes the installation of four end-suction centrifugal pumps inside the existing, unused SD #16 flow control facility. The existing building is 18-feet by 17-feet 8-inches by 10-feet 5.5-inches high. One pump will be a 25 hp (1,200 gpm at 65 feet TDH) and three pumps are 50 hp (2,150 gpm at 65 feet TDH). Roof hatches will be added to the existing building for future installation and removal of the pumps and motors.

$0 or 0% of the total cost of this project is funded from current bond issue (including reimbursement).

709270 ***University City Subsystem***

This package consists of four segments with a total length of approximately 23,400 linear feet of 6- to 24-inch diameter pipeline. The preliminary alignment for the first segment is as follows: commencing at the Executive Drive and Regents Road tee connection, the pipeline runs south along Regents Road, then east along Arriba Street, then north along Cargill Avenue, and terminates at the intersection of Cargill Avenue and Camino Ticino. The preliminary alignment for the second segment is as follows: commencing at the Regents Road and Nobel Drive tee connection (hook-up from the second segment), the pipeline heads west along Nobel Drive and terminates at the intersection of Nobel Drive and Lebon Drive. Preliminary alignment for the third segment is as follows: commencing at the tee connection at the intersection of Regents Road and Nobel Drive (Hook-up from the first segment), the pipeline heads east along Nobel Drive and terminates at its terminus. The preliminary alignment for the fourth segment is as follows: commencing at the terminus of the turn out from the NSPF/RI 52 pipeline (Package III) at the end of Governor Drive, the pipeline runs west under I-805, then along Governor Drive to Erlanger Street, then south along Erlanger Street and terminates at the western end of Erlanger Street where it will connect to the State Route irrigation system.

$7,029,883 or 47% of the total cost of this project is funded from current bond issue (including reimbursement).

734001 ***University Heights Elevated Tank***

The University Heights Elevated Tank is located at the same location as the University Heights reservoir. The elevated tank has not been used for a number of years. Due to it's historical significance, it is being considered for nomination as a historical monument. If it is named as a historical monument, then it will receive seismic retrofitting and general upgrades. If it is not named as a historical monument, then it will be demolished.

$0 or 0% of the total cost of this project is funded from current bond issue (including reimbursement).

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GOVERNMENT CODE - GOV

TITLE 2. GOVERNMENT OF THE STATE OF CALIFORNIA [8000 - 22980] *(Title 2 enacted by Stats. 1943, Ch. 134.)*

DIVISION 4. FISCAL AFFAIRS [16100 - 17700] *(Division 4 added by Stats. 1945, Ch. 119.)*

PART 7. STATE-MANDATED LOCAL COSTS [17500 - 17630] *(Part 7 added by Stats. 1984, Ch. 1459, Sec. 1.)*

CHAPTER 4. Identification and Payment of Costs Mandated by the State [17550 - 17617] *(Chapter 4 added by Stats. 1984, Ch. 1459, Sec. 1.)*

ARTICLE 1. Commission Procedure [17550 - 17571] *(Article 1 added by Stats. 1984, Ch. 1459, Sec. 1.)*

17550. Reimbursement of local agencies and school districts for costs mandated by the state shall be provided pursuant to this chapter.

(Added by Stats. 1984, Ch. 1459, Sec. 1.)

17551. (a) The commission, pursuant to the provisions of this chapter, shall hear and decide upon a claim by a local agency or school district that the local agency or school district is entitled to be reimbursed by the state for costs mandated by the state as required by Section 6 of Article XIII B of the California Constitution.

(b) Except as provided in Sections 17573 and 17574, commission review of claims may be had pursuant to subdivision (a) only if the test claim is filed within the time limits specified in this section.

(c) Local agency and school district test claims shall be filed not later than 12 months following the effective date of a statute or executive order, or within 12 months of incurring increased costs as a result of a statute or executive order, whichever is later.

(d) The commission, pursuant to the provisions of this chapter, shall hear and decide upon a claim by a local agency or school district filed on or after January 1, 1985, that the Controller has incorrectly reduced payments to the local agency or school district pursuant to paragraph (2) of subdivision (d) of Section 17561.

(Amended by Stats. 2007, Ch. 329, Sec. 3. Effective January 1, 2008.)

17552. This chapter shall provide the sole and exclusive procedure by which a local agency or school district may claim reimbursement for costs mandated by the state as required by Section 6 of Article XIII B of the California Constitution.

(Amended by Stats. 1986, Ch. 879, Sec. 3.)

17553. (a) The commission shall adopt procedures for receiving claims filed pursuant to this article and Section 17574 and for providing a hearing on those claims. The procedures shall do all of the following:

(1) Provide for presentation of evidence by the claimant, the Department of Finance, and any other affected department or agency, and any other interested person.

(2) Ensure that a statewide cost estimate is adopted within 12 months after receipt of a test claim, when a determination is made by the commission that a mandate exists. This deadline may be extended for up to six months upon the request of either the claimant or the commission.

(3) Permit the hearing of a claim to be postponed at the request of the claimant, without prejudice, until the next scheduled hearing.

(b) All test claims shall be filed on a form prescribed by the commission and shall contain at least the following elements and documents:

(1) A written narrative that identifies the specific sections of statutes or executive orders and the effective date and register number of regulations alleged to contain a mandate and shall include all of the following:

(A) A detailed description of the new activities and costs that arise from the mandate.

(B) A detailed description of existing activities and costs that are modified by the mandate.

(C) The actual increased costs incurred by the claimant during the fiscal year for which the claim was filed to implement the alleged mandate.

(D) The actual or estimated annual costs that will be incurred by the claimant to implement the alleged mandate during the fiscal year immediately following the fiscal year for which the claim was filed.

(E) A statewide cost estimate of increased costs that all local agencies or school districts will incur to implement the alleged mandate during the fiscal year immediately following the fiscal year for which the claim was filed.

(F) Identification of all of the following:

(i) Dedicated state funds appropriated for this program.

(ii) Dedicated federal funds appropriated for this program.

(iii) Other nonlocal agency funds dedicated for this program.

(iv) The local agency's general purpose funds for this program.

(v) Fee authority to offset the costs of this program.

(G) Identification of prior mandate determinations made by the Commission on State Mandates or a predecessor agency that may be related to the alleged mandate.

(H) Identification of a legislatively determined mandate pursuant to Section 17573 that is on the same statute or executive order.

(2) The written narrative shall be supported with declarations under penalty of perjury, based on the declarant's personal knowledge, information, or belief, and signed by persons who are authorized and competent to do so, as follows:

(A) Declarations of actual or estimated increased costs that will be incurred by the claimant to implement the alleged mandate.

(B) Declarations identifying all local, state, or federal funds, or fee authority that may be used to offset the increased costs that will be incurred by the claimant to implement the alleged mandate, including direct and indirect costs.

(C) Declarations describing new activities performed to implement specified provisions of the new statute or executive order alleged to impose a reimbursable state-mandated program. Specific references shall be made to chapters, articles, sections, or page numbers alleged to impose a reimbursable state-mandated program.

(D) If applicable, declarations describing the period of reimbursement and payments received for full reimbursement of costs for a legislatively determined mandate pursuant to Section 17573, and the authority to file a test claim pursuant to paragraph (1) of subdivision (c) of Section 17574.

(3) (A) The written narrative shall be supported with copies of all of the following:

(i) The test claim statute that includes the bill number or executive order, alleged to impose or impact a mandate.

(ii) Relevant portions of state constitutional provisions, federal statutes, and executive orders that may impact the alleged mandate.

(iii) Administrative decisions and court decisions cited in the narrative.

(B) State mandate determinations made by the Commission on State Mandates or a predecessor agency and published court decisions on state mandate determinations made by the Commission on State Mandates are exempt from this requirement.

(4) A test claim shall be signed at the end of the document, under penalty of perjury by the claimant or its authorized representative, with the declaration that the test claim is true and complete to the best of the declarant's personal knowledge, information, or belief. The date of signing, the declarant's title, address, telephone number, facsimile machine telephone number, and electronic mail address shall be included.

(c) If a completed test claim is not received by the commission within 30 calendar days from the date that an incomplete test claim was returned by the commission, the original test claim filing date may be disallowed, and a new test claim may be accepted on the same statute or executive order.

(d) In addition, the commission shall determine whether an incorrect reduction claim is complete within 10 days after the date that the incorrect reduction claim is filed. If the commission determines that an incorrect reduction claim is not complete, the commission shall notify the local agency and school district that filed the claim stating the reasons that the claim is not complete. The local agency or school district shall have 30 days to complete the

claim. The commission shall serve a copy of the complete incorrect reduction claim on the Controller. The Controller shall have no more than 90 days after the date the claim is delivered or mailed to file any rebuttal to an incorrect reduction claim. The failure of the Controller to file a rebuttal to an incorrect reduction claim shall not serve to delay the consideration of the claim by the commission.

(Amended by Stats. 2007, Ch. 329, Sec. 4. Effective January 1, 2008.)

17554. With the agreement of all parties to the claim, the commission may waive the application of any procedural requirement imposed by this chapter or pursuant to Section 17553. The authority granted by this section includes the consolidation of claims and the shortening of time periods.

(Amended by Stats. 2004, Ch. 890, Sec. 13. Effective January 1, 2005.)

17555. (a) Not later than 30 days after hearing and deciding upon a test claim pursuant to subdivision (a) of Section 17551, and determining the amount to be subvened to local agencies and school districts for reimbursement pursuant to subdivision (a) of Section 17557, the commission shall notify the appropriate Senate and Assembly policy and fiscal committees, the Legislative Analyst, the Department of Finance, and the Controller of that decision.

(b) For purposes of this section, the "appropriate policy committee" means the policy committee that has jurisdiction over the subject matter of the statute, regulation, or executive order, and in which bills relating to that subject matter would have been heard.

(Amended by Stats. 2007, Ch. 179, Sec. 13. Effective August 24, 2007.)

17556. The commission shall not find costs mandated by the state, as defined in Section 17514, in any claim submitted by a local agency or school district, if, after a hearing, the commission finds any one of the following:

(a) The claim is submitted by a local agency or school district that requests or previously requested legislative authority for that local agency or school district to implement the program specified in the statute, and that statute imposes costs upon that local agency or school district requesting the legislative authority. A resolution from the governing body or a letter from a delegated representative of the governing body of a local agency or school district that requests authorization for that local agency or school district to implement a given program shall constitute a request within the meaning of this subdivision. This subdivision applies regardless of whether the resolution from the governing body or a letter from a delegated representative of the governing body was adopted or sent prior to or after the date on which the statute or executive order was enacted or issued.

(b) The statute or executive order affirmed for the state a mandate that has been declared existing law or regulation by action of the courts. This subdivision applies regardless of whether the action of the courts occurred prior to or after the date on which the statute or executive order was enacted or issued.

(c) The statute or executive order imposes a requirement that is mandated by a federal law or regulation and results in costs mandated by the federal government, unless the statute or executive order mandates costs that exceed the mandate in that federal law or regulation. This subdivision applies regardless of whether the federal law or regulation was enacted or adopted prior to or after the date on which the state statute or executive order was enacted or issued.

(d) The local agency or school district has the authority to levy service charges, fees, or assessments sufficient to pay for the mandated program or increased level of service. This subdivision applies regardless of whether the authority to levy charges, fees, or assessments was enacted or adopted prior to or after the date on which the statute or executive order was enacted or issued.

(e) The statute, executive order, or an appropriation in a Budget Act or other bill provides for offsetting savings to local agencies or school districts that result in no net costs to the local agencies or school districts, or includes additional revenue that was specifically intended to fund the costs of the state mandate in an amount sufficient to fund the cost of the state mandate. This subdivision applies regardless of whether a statute, executive order, or appropriation in the Budget Act or other bill that either provides for offsetting savings that result in no net costs or provides for additional revenue specifically intended to fund the costs of the state mandate in an amount sufficient to fund the cost of the state mandate was enacted or adopted prior to or after the date on which the statute or executive order was enacted or issued.

(f) The statute or executive order imposes duties that are necessary to implement, or are expressly included in, a ballot measure approved by the voters in a statewide or local election. This subdivision applies regardless of whether the statute or executive order was enacted or adopted before or after the date on which the ballot measure was approved by the voters.

(g) The statute created a new crime or infraction, eliminated a crime or infraction, or changed the penalty for a crime or infraction, but only for that portion of the statute relating directly to the enforcement of the crime or infraction.

(Amended by Stats. 2010, Ch. 719, Sec. 31. (SB 856) Effective October 19, 2010.)

17557. (a) If the commission determines there are costs mandated by the state pursuant to Section 17551, it shall determine the amount to be subvened to local agencies and school districts for reimbursement. In so doing it shall adopt parameters and guidelines for reimbursement of any claims relating to the statute or executive order. The successful test claimants shall submit proposed parameters and guidelines within 30 days of adoption of a statement of decision on a test claim. The proposed parameters and guidelines may include proposed reimbursable activities that are reasonably necessary for the performance of the state-mandated program. At the request of a successful test claimant, the commission may provide for one or more extensions of this 30-day period at any time prior to its adoption of the parameters and guidelines. If proposed parameters and guidelines are not submitted within the 30-day period and the commission has not granted an extension, then the commission shall notify the test claimant that the amount of reimbursement the test claimant is entitled to for the first 12 months of incurred costs will be reduced by 20 percent, unless the test claimant can demonstrate to the commission why an extension of the 30-day period is justified.

(b) In adopting parameters and guidelines, the commission may adopt a reasonable reimbursement methodology.

(c) The parameters and guidelines adopted by the commission shall specify the fiscal years for which local agencies and school districts shall be reimbursed for costs incurred. However, the commission shall not specify in the parameters and guidelines any fiscal year for which payment could be provided in the annual Budget Act.

(d) (1) A local agency, school district, or the state may file a written request with the commission to amend the parameters or guidelines. The commission may, after public notice and hearing, amend the parameters and guidelines. A parameters and guidelines amendment submitted within 90 days of the claiming deadline for initial claims, as specified in the claiming instructions pursuant to Section 17561, shall apply to all years eligible for reimbursement as defined in the original parameters and guidelines. A parameters and guidelines amendment filed more than 90 days after the claiming deadline for initial claims, as specified in the claiming instructions pursuant to Section 17561, and on or before the claiming deadline following a fiscal year, shall establish reimbursement eligibility for that fiscal year.

(2) For purposes of this subdivision, the request to amend parameters and guidelines may be filed to make any of the following changes to parameters and guidelines, consistent with the statement of decision:

(A) Delete any reimbursable activity that has been repealed by statute or executive order after the adoption of the original or last amended parameters and guidelines.

(B) Update offsetting revenues and offsetting savings that apply to the mandated program and do not require a new legal finding that there are no costs mandated by the state pursuant to subdivision (e) of Section 17556.

(C) Include a reasonable reimbursement methodology for all or some of the reimbursable activities.

(D) Clarify what constitutes reimbursable activities.

(E) Add new reimbursable activities that are reasonably necessary for the performance of the state-mandated program.

(F) Define what activities are not reimbursable.

(G) Consolidate the parameters and guidelines for two or more programs.

(H) Amend the boilerplate language. For purposes of this section, "boilerplate language" means the language in the parameters and guidelines that is not unique to the state-mandated program that is the subject of the parameters and guidelines. Any amendment that does not increase or decrease reimbursable costs shall limit the eligible filing period commencing with the fiscal year in which the amended parameters and guidelines were adopted.

(e) A test claim shall be submitted on or before June 30 following a fiscal year in order to establish eligibility for reimbursement for that fiscal year. The claimant may thereafter amend the test claim at any time, but before the test claim is set for a hearing, without affecting the original filing date as long as the amendment substantially relates to the original test claim.

(f) In adopting parameters and guidelines, the commission shall consult with the Department of Finance, the affected state agency, the Controller, the fiscal and policy committees of the Assembly and Senate, the Legislative Analyst, and the claimants to consider a reasonable reimbursement methodology that balances accuracy with simplicity.

(Amended by Stats. 2011, Ch. 144, Sec. 1. (SB 112) Effective January 1, 2012.)

17557.1. (a) Notwithstanding any other provision of this part, within 30 days of the commission's adoption of a statement of decision on a test claim, the test claimant and the Department of Finance may notify the executive director of the commission in writing of their intent to follow the process described in this section to develop a reasonable reimbursement methodology and statewide estimate of costs for the initial claiming period and budget year for reimbursement of costs mandated by the state in accordance with the statement of decision. The letter of intent shall include the date on which the test claimant and the Department of Finance will submit a plan to ensure that costs from a representative sample of eligible local agency or school district claimants are considered in the development of a reasonable reimbursement methodology.

(b) This plan shall also include all of the following information:

(1) The date on which the test claimant and Department of Finance will provide to the executive director an informational update regarding their progress in developing the reasonable reimbursement methodology.

(2) The date on which the test claimant and Department of Finance will submit to the executive director the draft reasonable reimbursement methodology and proposed statewide estimate of costs for the initial claiming period and budget year. This date shall be no later than 180 days after the date the letter of intent is sent by the test claimant and Department of Finance to the executive director.

(c) At the request of the test claimant and Department of Finance, the executive director may provide for up to four extensions of this 180-day period.

(d) The test claimant or Department of Finance may notify the executive director at any time that the claimant or Department of Finance no longer intends to develop a reasonable reimbursement methodology pursuant to this section. In this case, paragraph (2) of subdivision (a) of Section 17553 and Section 17557 shall apply to the test claim. Upon receipt of this notification, the executive director shall notify the test claimant of the duty to submit proposed parameters and guidelines within 30 days under subdivision (a) of Section 17557.

(Added by Stats. 2007, Ch. 329, Sec. 5. Effective January 1, 2008.)

17557.2. (a) A reasonable reimbursement methodology developed pursuant to Section 17557.1 or a joint request for early termination of a reasonable reimbursement methodology shall have broad support from a wide range of local agencies or school districts. The test claimant and Department of Finance may demonstrate broad support from a wide range of local agencies or school districts in different ways, including, but not limited to, obtaining endorsement by one or more statewide associations of local agencies or school districts and securing letters of approval from local agencies or school districts.

(b) No later than 60 days before a commission hearing, the test claimant and Department of Finance shall submit to the commission a joint proposal that shall include all of the following:

(1) The draft reasonable reimbursement methodology.

(2) The proposed statewide estimate of costs for the initial claiming period and budget year.

(3) A description of the steps the test claimant and the Department of Finance undertook to determine the level of support by local agencies or school districts for the draft reasonable reimbursement methodology.

(4) An agreement that the reasonable reimbursement methodology developed and approved under this section shall be in effect for a period of five years unless a different term is approved by the commission, or upon submission to the commission of a letter indicating the Department of Finance and test claimant's joint interest in early termination of the reasonable reimbursement methodology.

(5) An agreement that, at the conclusion of the period established in paragraph (4), the Department of Finance and the test claimant will consider jointly whether amendments to the methodology are necessary.

(c) The commission shall approve the draft reasonable reimbursement methodology if review of the information submitted pursuant to Section 17557.1 and subdivision (b) of this section demonstrates that the draft reasonable reimbursement methodology and statewide estimate of costs for the initial claiming period and budget year have been developed in accordance with Section 17557.1 and meet the requirements of subdivision (a). The commission thereafter shall adopt the proposed statewide estimate of costs for the initial claiming period and budget year. Statewide cost estimates adopted under this section shall be included in the report to the Legislature required under Section 17600 and shall be reported by the commission to the appropriate Senate and Assembly policy and fiscal committees, the Legislative Analyst, and the Department of Finance not later than 30 days after adoption.

(d) Unless amendments are proposed pursuant to this subdivision, the reasonable reimbursement methodology approved by the commission pursuant to this section shall expire after either five years, any other term approved by the commission, or upon submission to the commission of a letter indicating the Department of Finance's and test claimant's joint interest in early termination of the reasonable reimbursement methodology.

(e) The commission shall approve a joint request for early termination of a reasonable reimbursement methodology if the request meets the requirements of subdivision (a). If the commission approves a joint request for early termination, the commission shall notify the test claimant of the duty to submit proposed parameters and guidelines to the commission pursuant to subdivision (a) of Section 17557.

(f) At least one year before the expiration of a reasonable reimbursement methodology, the commission shall notify the Department of Finance and the test claimant that they may do one of the following:

(1) Jointly propose amendments to the reasonable reimbursement methodology by submitting the information described in paragraphs (1), (3), and (4) of subdivision (b), and providing an estimate of the mandate's annual cost for the subsequent budget year.

(2) Jointly propose that the reasonable reimbursement methodology remain in effect.

(3) Allow the reasonable reimbursement methodology to expire and notify the commission that the test claimant will submit proposed parameters and guidelines to the commission pursuant to subdivision (a) of Section 17557 to replace the reasonable reimbursement methodology.

(g) The commission shall either approve the continuation of the reasonable reimbursement methodology or approve the jointly proposed amendments to the reasonable reimbursement methodology if the information submitted in accordance with paragraph (1) of subdivision (d) demonstrates that the proposed amendments were developed in accordance with Section 17557.1 and meet the requirements of subdivision (a) of this section.

(Added by Stats. 2007, Ch. 329, Sec. 6. Effective January 1, 2008.)

17558. (a) The commission shall submit the adopted parameters and guidelines or a reasonable reimbursement methodology approved pursuant to Section 17557.2 to the Controller. As used in this chapter, a "reasonable reimbursement methodology" approved pursuant to Section 17557.2 includes all amendments to the reasonable reimbursement methodology. When the Legislature declares a legislatively determined mandate in accordance with Section 17573 in which claiming instructions are necessary, the Department of Finance shall notify the Controller.

(b) Not later than 90 days after receiving the adopted parameters and guidelines, a reasonable reimbursement methodology from the commission, or notification from the Department of Finance, the Controller shall issue claiming instructions for each mandate that requires state reimbursement, to assist local agencies and school districts in claiming costs to be reimbursed. In preparing claiming instructions, the Controller shall request assistance from the Department of Finance and may request the assistance of other state agencies. The claiming instructions shall be derived from the test claim decision and the adopted parameters and guidelines, reasonable reimbursement methodology, or statute declaring a legislatively determined mandate.

(c) The Controller shall, within 90 days after receiving amended parameters and guidelines, an amended reasonable reimbursement methodology from the commission or other information necessitating a revision of the claiming instructions, prepare and issue revised claiming instructions for mandates that require state reimbursement that have been established by commission action pursuant to Section 17557, Section 17557.2, or after any decision or order of the commission pursuant to Section 17559, or after any action by the Legislature pursuant to Section 17573. In preparing revised claiming instructions, the Controller may request the assistance of other state agencies.

(Amended by Stats. 2011, Ch. 144, Sec. 2. (SB 112) Effective January 1, 2012.)

17558.5. (a) A reimbursement claim for actual costs filed by a local agency or school district pursuant to this chapter is subject to the initiation of an audit by the Controller no later than three years after the date that the actual reimbursement claim is filed or last amended, whichever is later. However, if no funds are appropriated or no payment is made to a claimant for the program for the fiscal year for which the claim is filed, the time for the Controller to initiate an audit shall commence to run from the date of initial payment of the claim. In any case, an audit shall be completed not later than two years after the date that the audit is commenced.

(b) The Controller may conduct a field review of any claim after the claim has been submitted, prior to the reimbursement of the claim.

(c) The Controller shall notify the claimant in writing within 30 days after issuance of a remittance advice of any adjustment to a claim for reimbursement that results from an audit or review. The notification shall specify the claim components adjusted, the amounts adjusted, interest charges on claims adjusted to reduce the overall reimbursement to the local agency or school district, and the reason for the adjustment. Remittance advices and other notices of payment action shall not constitute notice of adjustment from an audit or review.

(d) The interest rate charged by the Controller on reduced claims shall be set at the Pooled Money Investment Account rate and shall be imposed on the dollar amount of the overpaid claim from the time the claim was paid

until overpayment is satisfied.

(e) Nothing in this section shall be construed to limit the adjustment of payments when inaccuracies are determined to be the result of the intent to defraud, or when a delay in the completion of an audit is the result of willful acts by the claimant or inability to reach agreement on terms of final settlement.

(Amended by Stats. 2004, Ch. 890, Sec. 18. Effective January 1, 2005.)

17558.6. It is the intent of the Legislature that the Commission on State Mandates review its process by which local agencies may appeal the reduction of reimbursement claims on the basis that the reduction is incorrect in order to provide for a more expeditious and less costly process.

(Added by Stats. 1998, Ch. 681, Sec. 3. Effective September 22, 1998.)

17558.7. (a) If the Controller reduces a claim approved by the commission, the claimant may file with the commission an incorrect reduction claim pursuant to regulations adopted by the commission.

(b) A claimant eligible to file an incorrect reduction claim may file a consolidated incorrect reduction claim on behalf of other claimants whose claims for reimbursement under the same mandate are alleged to have been incorrectly reduced if all of the following apply:

(1) The method, act, or practice that the claimant alleges led to the reduction has led to similar reductions of other parties' claims, and all of the claims involve common questions of law or fact.

(2) The common questions of law or fact among the claims predominate over any matter affecting only an individual claim.

(3) The consolidation of similar claims by individual claimants would result in consistent decisionmaking by the commission.

(4) The claimant filing the consolidated claim would fairly and adequately protect the interests of the other claimants.

(c) A claimant that seeks to file a consolidated incorrect reduction claim shall, at the time it files an incorrect reduction claim, on a form provided by the commission, notify the commission of its intent to file a consolidated incorrect reduction claim.

(d) Within 10 days after receipt of an incorrect reduction claim and notice of intent to consolidate, the commission shall request that the Controller provide the commission and the claimant with a list of claimants for whom the Controller has reduced similar claims under the same mandate. Upon receipt of this list from the Controller, the claimant may notify the claimants on the list and other interested parties of its intent to file a consolidated incorrect reduction claim.

(e) Within 30 days of receipt of the notice of intent to consolidate from the original claimant, on a form provided by the commission, any other eligible claimant shall file with the commission its notice of intent to join the consolidated incorrect reduction claim, which shall include a copy of the remittance advice or other notice from the Controller of the claim reduction, and one copy of the reimbursement claims for which an incorrect reduction is alleged.

(f) The commission shall notify each claimant that files an intent to join the consolidated incorrect reduction claim that it may opt out of the consolidated claim and not be bound by any determination made on that consolidated claim. A claimant may opt out of a consolidated claim no later than 15 days after the state agency files comments on the consolidated claim. A claimant that opts out of the consolidated claim, in order to preserve its right to challenge a reduction made by the Controller on that same mandate, shall file an individual incorrect reduction claim pursuant to commission requirements, no later than one year after opting out or within the statute of limitations under the commission's regulations.

(g) The commission shall adopt regulations establishing procedures for receiving a consolidated incorrect reduction claim pursuant to this section and for providing a hearing on a consolidated claim.

(Added by Stats. 2006, Ch. 168, Sec. 1. Effective January 1, 2007.)

17558.8. (a) The commission may, on its own initiative, consolidate incorrect reduction claims filed with the commission by different claimants under the same mandate if all of the following apply:

(1) The same method, act, or practice is alleged to have led to the reduction in each claim, and all of the claims involve common questions of law or fact.

(2) The common questions of law or fact among the claims predominate over any matter affecting only an individual claim.

(3) The consolidation of similar claims by individual claimants would result in consistent decisionmaking by the commission.

(b) The commission shall adopt regulations establishing procedures for consolidation of incorrect reduction claims pursuant to this section and for providing a hearing on a consolidated claim.

(Amended by Stats. 2007, Ch. 130, Sec. 119. Effective January 1, 2008.)

17559. (a) The commission may order a reconsideration of all or part of a test claim or incorrect reduction claim on petition of any party. The power to order a reconsideration or amend a test claim decision shall expire 30 days after the statement of decision is delivered or mailed to the claimant. If additional time is needed to evaluate a petition for reconsideration filed prior to the expiration of the 30-day period, the commission may grant a stay of that expiration for no more than 30 days, solely for the purpose of considering the petition. If no action is taken on a petition within the time allowed for ordering reconsideration, the petition shall be deemed denied.

(b) A claimant or the state may commence a proceeding in accordance with the provisions of Section 1094.5 of the Code of Civil Procedure to set aside a decision of the commission on the ground that the commission's decision is not supported by substantial evidence. The court may order the commission to hold another hearing regarding the claim and may direct the commission on what basis the claim is to receive a rehearing.

(Amended by Stats. 1999, Ch. 643, Sec. 4. Effective January 1, 2000.)

17560. Reimbursement for state-mandated costs may be claimed as follows:

(a) A local agency or school district may, by February 15 following the fiscal year in which costs are incurred, file an annual reimbursement claim that details the costs actually incurred for that fiscal year.

(b) In the event revised claiming instructions are issued by the Controller pursuant to subdivision (c) of Section 17558 between November 15 and February 15, a local agency or school district filing an annual reimbursement claim shall have 120 days following the issuance date of the revised claiming instructions to file a claim.

(Amended by Stats. 2008, 3rd Ex. Sess., Ch. 6, Sec. 3. Effective February 16, 2008.)

17561. (a) The state shall reimburse each local agency and school district for all "costs mandated by the state," as defined in Section 17514 and for legislatively determined mandates in accordance with Section 17573.

(b) (1) For the initial fiscal year during which these costs are incurred, reimbursement funds shall be provided as follows:

(A) Any statute mandating these costs shall provide an appropriation therefor.

(B) Any executive order mandating these costs shall be accompanied by a bill appropriating the funds therefor, or alternatively, an appropriation for these costs shall be included in the Budget Bill for the next succeeding fiscal year. The executive order shall cite that item of appropriation in the Budget Bill or that appropriation in any other bill that is intended to serve as the source from which the Controller may pay the claims of local agencies and school districts.

(2) In subsequent fiscal years appropriations for these costs shall be included in the annual Governor's Budget and in the accompanying Budget Bill. In addition, appropriations to reimburse local agencies and school districts for continuing costs resulting from chaptered bills or executive orders for which claims have been awarded pursuant to subdivision (a) of Section 17551 shall be included in the annual Governor's Budget and in the accompanying Budget Bill.

(c) The amount appropriated to reimburse local agencies and school districts for costs mandated by the state shall be appropriated to the Controller for disbursement.

(d) The Controller shall pay any eligible claim pursuant to this section by October 15 or 60 days after the date the appropriation for the claim is effective, whichever is later. The Controller shall disburse reimbursement funds to local agencies or school districts if the costs of these mandates are not payable to state agencies, or to state agencies that would otherwise collect the costs of these mandates from local agencies or school districts in the form of fees, premiums, or payments. When disbursing reimbursement funds to local agencies or school districts, the Controller shall disburse them as follows:

(1) For initial reimbursement claims, the Controller shall issue claiming instructions to the relevant local agencies and school districts pursuant to Section 17558. Issuance of the claiming instructions shall constitute a notice of the right of the local agencies and school districts to file reimbursement claims, based upon parameters and guidelines adopted by the commission, the reasonable reimbursement methodology approved by the commission pursuant to

Section 17557.2, or statutory declaration of a legislatively determined mandate and reimbursement methodology pursuant to Section 17573.

(A) When claiming instructions are issued by the Controller pursuant to Section 17558 for each mandate determined pursuant to Section 17551 or 17573 that requires state reimbursement, each local agency or school district to which the mandate is applicable shall submit claims for initial fiscal year costs to the Controller within 120 days of the issuance date for the claiming instructions.

(B) When the commission is requested to review the claiming instructions pursuant to Section 17571, each local agency or school district to which the mandate is applicable shall submit a claim for reimbursement within 120 days after the commission reviews the claiming instructions for reimbursement issued by the Controller.

(C) If the local agency or school district does not submit a claim for reimbursement within the 120-day period, or submits a claim pursuant to revised claiming instructions, it may submit its claim for reimbursement as specified in Section 17560. The Controller shall pay these claims from the funds appropriated therefor, except the Controller may take either of the following actions:

(i) Audit the records of any local agency or school district to verify the actual amount of the mandated costs, the application of a reasonable reimbursement methodology, or application of a legislatively enacted reimbursement methodology under Section 17573.

(ii) Reduce any claim that the Controller determines is excessive or unreasonable.

(2) In subsequent fiscal years each local agency or school district shall submit its claims as specified in Section 17560. The Controller shall pay these claims from funds appropriated therefor except as follows:

(A) The Controller may audit any of the following:

(i) Records of any local agency or school district to verify the actual amount of the mandated costs.

(ii) The application of a reasonable reimbursement methodology.

(iii) The application of a legislatively enacted reimbursement methodology under Section 17573.

(B) The Controller may reduce any claim that the Controller determines is excessive or unreasonable.

(C) The Controller shall adjust the payment to correct for any underpayments or overpayments that occurred in previous fiscal years.

(3) When paying a timely filed claim for initial reimbursement, the Controller shall withhold 20 percent of the amount of the claim until the claim is audited to verify the actual amount of the mandated costs. All initial reimbursement claims for all fiscal years required to be filed on their initial filing date for a state-mandated local program shall be considered as one claim for the purpose of computing any late claim penalty. Any claim for initial reimbursement filed after the filing deadline shall be reduced by 10 percent of the amount that would have been allowed had the claim been timely filed. The Controller may withhold payment of any late claim for initial reimbursement until the next deadline for funded claims unless sufficient funds are available to pay the claim after all timely filed claims have been paid. In no case may a reimbursement claim be paid if submitted more than one year after the filing deadline specified in the Controller's claiming instructions on funded mandates.

(e) (1) Except as specified in paragraph (2), for the purposes of determining the state's payment obligation under paragraph (1) of subdivision (b) of Section 6 of Article XIII B of the Constitution, a mandate that is "determined in a preceding fiscal year to be payable by the state" means any mandate for which the commission adopted a statewide cost estimate pursuant to this part during a previous fiscal year or that were identified as mandates by a predecessor agency to the commission, or that the Legislature declared by statute to be a legislatively determined mandate, unless the mandate has been repealed or otherwise eliminated.

(2) If the commission adopts a statewide cost estimate for a mandate during the months of April, May, or June, the state's payment obligation under subdivision (b) of Section 6 of Article XIII B shall commence one year after the time specified in paragraph (1).

(Amended by Stats. 2009, 3rd Ex. Sess., Ch. 4, Sec. 4. Effective February 20, 2009.)

17561.5. The payment of an initial reimbursement claim by the Controller shall include accrued interest at the Pooled Money Investment Account rate, if the payment is being made more than 365 days after adoption of the statewide cost estimate for an initial claim. Interest shall begin to accrue as of the 366th day after adoption of the statewide cost estimate for the initial claim. Payment of a subsequent claim that was reported to the Legislature pursuant to paragraph (2) of subdivision (b) of Section 17562 shall include accrued interest at the Pooled Money Investment Account rate for any unpaid amount remaining on August 15 following the filing deadline. Interest shall begin to accrue on August 16 following the filing deadline.

(Amended by Stats. 2007, Ch. 179, Sec. 17. Effective August 24, 2007.)

17561.6. A budget act item or appropriation pursuant to this part for reimbursement of claims shall include an amount necessary to reimburse any interest due pursuant to Section 17561.5.

(Amended by Stats. 2004, Ch. 890, Sec. 21. Effective January 1, 2005.)

17562. (a) The Legislature hereby finds and declares that the increasing revenue constraints on state and local government and the increasing costs of financing state-mandated local programs make evaluation of state-mandated local programs imperative. Accordingly, it is the intent of the Legislature to increase information regarding state mandates and establish a method for regularly reviewing the costs and benefits of state-mandated local programs.

(b) (1) The Controller shall submit a report to the Joint Legislative Budget Committee and fiscal committees by October 31 of each fiscal year beginning with the 2007–08 fiscal year. This report shall summarize, by state mandate, the total amount of claims paid per fiscal year and the amount, if any, of mandate deficiencies or surpluses. This report shall be made available in an electronic spreadsheet format.

(2) The Controller shall submit a report to the Joint Legislative Budget Committee, the applicable fiscal committees, and the Director of Finance by April 30 of each fiscal year. This report shall summarize, by state mandate, the total amount of unpaid claims by fiscal year that were submitted before April 1 of that fiscal year. The report shall also summarize any mandate deficiencies or surpluses. It shall be made available in an electronic spreadsheet, and shall be used for the purpose of determining the state's payment obligation under paragraph (1) of subdivision (b) of Section 6 of Article XIII B of the California Constitution.

(c) After the commission submits its second semiannual report to the Legislature pursuant to Section 17600, the Legislative Analyst shall submit a report to the Joint Legislative Budget Committee and legislative fiscal committees on the mandates included in the commission's reports. The report shall make recommendations as to whether the mandate should be repealed, funded, suspended, or modified.

(d) In its annual analysis of the Budget Bill and based on information provided pursuant to subdivision (b), the Legislative Analyst shall report total annual state costs for mandated programs and, as appropriate, provide an analysis of specific mandates and make recommendations on whether the mandate should be repealed, funded, suspended, or modified.

(e) (1) A statewide association of local agencies or school districts or a Member of the Legislature may submit a proposal to the Legislature recommending the elimination or modification of a state-mandated local program. To make such a proposal, the association or member shall submit a letter to the Chairs of the Assembly Committee on Education or the Assembly Committee on Local Government, as the case may be, and the Senate Committee on Education or the Senate Committee on Local Government, as the case may be, specifying the mandate and the concerns and recommendations regarding the mandate. The association or member shall include in the proposal all information relevant to the conclusions. If the chairs of the committees desire additional analysis of the submitted proposal, the chairs may refer the proposal to the Legislative Analyst for review and comment. The chairs of the committees may refer up to a total of 10 of these proposals to the Legislative Analyst for review in any year. Referrals shall be submitted to the Legislative Analyst by December 1 of each year.

(2) The Legislative Analyst shall review and report to the Legislature with regard to each proposal that is referred to the office pursuant to paragraph (1). The Legislative Analyst shall recommend that the Legislature adopt, reject, or modify the proposal. The report and recommendations shall be submitted annually to the Legislature by March 1 of the year subsequent to the year in which referrals are submitted to the Legislative Analyst.

(f) It is the intent of the Legislature that the Assembly Committee on Local Government and the Senate Committee on Local Government hold a joint hearing each year regarding the following:

(1) The reports and recommendations submitted pursuant to subdivision (e).

(2) The reports submitted pursuant to Sections 17570, 17600, and 17601.

(3) Legislation to continue, eliminate, or modify any provision of law reviewed pursuant to this subdivision. The legislation may be by subject area or by year or years of enactment.

(Amended by Stats. 2012, Ch. 728, Sec. 72. (SB 71) Effective January 1, 2013.)

17563. Any funds received by a local agency or school district pursuant to the provisions of this chapter may be used for any public purpose.

(Added by Stats. 1986, Ch. 879, Sec. 8.)

17564. (a) No claim shall be made pursuant to Sections 17551, 17561, or 17573, nor shall any payment be made on claims submitted pursuant to Sections 17551 or 17561, or pursuant to a legislative determination under Section

17573, unless these claims exceed one thousand dollars ($1,000). However, a county superintendent of schools or county may submit a combined claim on behalf of school districts, direct service districts, or special districts within their county if the combined claim exceeds one thousand dollars ($1,000) even if the individual school district's, direct service district's, or special district's claims do not each exceed one thousand dollars ($1,000). The county superintendent of schools or the county shall determine if the submission of the combined claim is economically feasible and shall be responsible for disbursing the funds to each school, direct service, or special district. These combined claims may be filed only when the county superintendent of schools or the county is the fiscal agent for the districts. All subsequent claims based upon the same mandate shall only be filed in the combined form unless a school district, direct service district, or special district provides to the county superintendent of schools or county and to the Controller, at least 180 days prior to the deadline for filing the claim, a written notice of its intent to file a separate claim.

(b) Claims for direct and indirect costs filed pursuant to Section 17561 shall be filed in the manner prescribed in the parameters and guidelines or reasonable reimbursement methodology and claiming instructions.

(c) Claims for direct and indirect costs filed pursuant to a legislatively determined mandate pursuant to Section 17573 shall be filed and paid in the manner prescribed in the Budget Act or other bill, or claiming instructions, if applicable.

(Amended by Stats. 2007, Ch. 329, Sec. 9. Effective January 1, 2008.)

17565. If a local agency or a school district, at its option, has been incurring costs which are subsequently mandated by the state, the state shall reimburse the local agency or school district for those costs incurred after the operative date of the mandate.

(Added by Stats. 1986, Ch. 879, Sec. 10.)

17567. In the event that the amount appropriated for reimbursement purposes pursuant to Section 17561 is not sufficient to pay all of the claims approved by the Controller, the Controller shall prorate claims in proportion to the dollar amount of approved claims timely filed and on hand at the time of proration. The Controller shall adjust prorated claims if supplementary funds are appropriated for this purpose. Notwithstanding any other law, if one thousand dollars ($1,000) or less is appropriated for a program, the Controller shall determine the most cost-effective allocation method.

(Amended by Stats. 2013, Ch. 77, Sec. 1. (AB 392) Effective January 1, 2014.)

17568. If a local agency or school district submits an otherwise valid reimbursement claim to the Controller after the deadline specified in Section 17560, the Controller shall reduce the reimbursement claim in an amount equal to 10 percent of the amount that would have been allowed had the reimbursement claim been timely filed, provided that the amount of this reduction shall not exceed ten thousand dollars ($10,000). In no case shall a reimbursement claim be paid that is submitted more than one year after the deadline specified in Section 17560.

(Amended by Stats. 2008, 3rd Ex. Sess., Ch. 6, Sec. 4. Effective February 16, 2008.)

17570. (a) For purposes of this section the following definitions shall apply:

(1) "Mandates law" means published court decisions arising from state mandate determinations by the State Board of Control or the Commission on State Mandates, or that address this part or Section 6 of Article XIII B of the California Constitution. "Mandates law" also includes statutory amendments to this part and amendments to Section 6 of Article XIII B of the California Constitution.

(2) "Subsequent change in law" is a change in law that requires a finding that an incurred cost is a cost mandated by the state, as defined by Section 17514, or is not a cost mandated by the state pursuant to Section 17556, or a change in mandates law, except that a "subsequent change in law" does not include the amendments to Section 6 of Article XIII B of the California Constitution that were approved by the voters on November 2, 2004. A "subsequent change in law" also does not include a change in the statutes or executive orders that impose new state-mandated activities and require a finding pursuant to subdivision (a) of Section 17551.

(3) "Test claim decision" means a decision of the Commission on State Mandates on a test claim filed pursuant to Section 17551 or a decision of the State Board of Control on a claim for state reimbursement filed pursuant to Article 1 (commencing with Section 2201), Article 2 (commencing with Section 2227), and Article 3 (commencing with Section 2240) of Chapter 3 of Part 4 of Division 1 of the Revenue and Taxation Code prior to January 1, 1985.

(b) The commission may adopt a new test claim decision to supersede a previously adopted test claim decision only upon a showing that the state's liability for that test claim decision pursuant to subdivision (a) of Section 6 of Article XIII B of the California Constitution has been modified based on a subsequent change in law.

(c) A local agency or school district, statewide association of local agencies or school districts, or the Department of Finance, the Controller, or other affected state agency may file a request with the commission to adopt a new test claim decision pursuant to this section.

(d) The commission shall adopt procedures for receiving requests to adopt a new test claim decision pursuant to this section and for providing notice and a hearing on those requests. The procedures shall do all of the following:

(1) Specify that all requests for adoption of a new test claim decision shall be filed on a form prescribed by the commission that shall contain at least the following elements and documents:

(A) The name, case number, and adoption date of the prior test claim decision.

(B) A detailed analysis of how and why the state's liability for mandate reimbursement has been modified pursuant to subdivision (a) of Section 6 of Article XIII B of the California Constitution based on a subsequent change in law.

(C) The actual or estimated amount of the annual statewide change in the state's liability for mandate reimbursement pursuant to subdivision (a) of Section 6 of Article XIII B of the California Constitution based on a subsequent change in law.

(D) Identification of all of the following, if relevant:

(i) Dedicated state funds appropriated for the program.

(ii) Dedicated federal funds appropriated for the program.

(iii) Fee authority to offset the costs of the program.

(iv) Federal law.

(v) Court decisions.

(vi) State or local ballot measures and the corresponding date of the election.

(E) All assertions of fact shall be supported with declarations made under penalty of perjury, based on the declarant's personal knowledge, information, or belief, and be signed by persons who are authorized and competent to do so, including, but not limited to, the following:

(i) Declarations of actual or estimated annual statewide costs that will or will not be incurred to implement the alleged mandate.

(ii) Declarations identifying all local, state, or federal funds, or fee authority that may or may not be used to offset the increased costs that will or will not be incurred by claimants to implement the alleged mandate or result in a finding of no costs mandated by the state pursuant to Section 17556.

(iii) Declarations describing new activities performed to implement specific provisions of the test claim statute or executive order alleged to impose a reimbursable state-mandated program.

(F) Specific references shall be made to chapters, articles, sections, or page numbers that are alleged to impose or not impose a reimbursable state-mandated program.

(2) Require that a request for the adoption of a new test claim decision be signed at the end of the document, under penalty of perjury, by the requester or its authorized representative, along with a declaration that the request is true and complete to the best of the declarant's personal knowledge, information, or belief. The procedures shall also require that the date of signing, the declarant's title, address, telephone number, facsimile machine telephone number, and electronic mail address be included.

(3) Provide that the commission shall return a submitted request that is incomplete to the requester and allow the requester to remedy the deficiencies. The procedures shall also provide that the commission may disallow the original filing if a complete request is not received by the commission within 30 calendar days from the date that the incomplete request was returned to the requester.

(4) Establish a two-step hearing process to consider requests for adoption of a new test claim decision pursuant to this section. As the first step, the commission shall conduct a hearing to determine if the requester has made a showing that the state's liability pursuant to subdivision (a) of Section 6 of Article XIII B of the California Constitution has been modified based on a subsequent change in law. If the commission determines that the requester has made this showing, then pursuant to the commission's authority in subdivision (b) of this section, the commission shall notice the request for a hearing to determine if a new test claim decision shall be adopted to supersede the previously adopted test claim decision.

(5) Provide for presentation of evidence and legal argument at the hearings by the requester, interested parties, the Department of Finance, the Controller, any other affected state agency, and interested persons.

(6) Permit a hearing to be postponed at the request of any party, without prejudice, until the next scheduled hearing.

(e) To implement the procedures described in subdivision (d), the commission shall initially adopt regulations as emergency regulations and, for purposes of Section 11349.6, the adoption of the regulations shall be considered by the Office of Administrative Law to be necessary for the immediate preservation of the public peace, health and safety, and general welfare. Notwithstanding subdivision (e) of Section 11346.1, the regulations shall be repealed within 180 days after their effective date, unless the commission complies with Chapter 3.5 (commencing with Section 11340) of Part 1 as provided in subdivision (e) of Section 11346.1.

(f) A request for adoption of a new test claim decision shall be filed on or before June 30 following a fiscal year in order to establish eligibility for reimbursement or loss of reimbursement for that fiscal year.

(g) The commission shall notify interested parties, the Controller, the Department of Finance, affected state agencies, and the Legislative Analyst of any complete request for the adoption of a new test claim decision that the commission receives.

(h) If the commission determines that the requester has made a showing that the state's liability pursuant to subdivision (a) of Section 6 of Article XIII B of the California Constitution has been modified based on a subsequent change in law, and the commission notices the request for a hearing to determine whether a new test claim decision shall be adopted that supersedes a prior test claim decision, the Controller shall notify eligible claimants that the request has been filed with the commission and that the original test claim decision may be superseded by a new decision adopted by the commission. The notification may be included in the next set of claiming instructions issued to eligible claimants.

(i) If the commission adopts a new test claim decision that supersedes the previously adopted test claim decision, the commission shall adopt new parameters and guidelines or amend existing parameters and guidelines or reasonable reimbursement methodology pursuant to Sections 17557, 17557.1, and 17557.2.

(j) Any new parameters and guidelines adopted or amendments made to existing parameters and guidelines or a reasonable reimbursement methodology shall conform to the new test claim decision adopted by the commission.

(k) The Controller shall follow the procedures in Sections 17558, 17558.5, 17560, 17561, and 17561.5, as applicable, for a new test claim decision adopted by the commission pursuant to this section.

(l) If the commission adopts a new test claim decision that will result in reimbursement pursuant to Section 6 of Article XIII B of the California Constitution because a cost is a cost mandated by the state, as defined in Section 17514, the commission shall determine the amount to be subvened to local agencies and school districts by adopting a new statewide cost estimate pursuant to Section 17557.

(m) In addition to the reports required pursuant to Sections 17600 and 17601, the commission shall notify the Legislature within 30 days of adopting a new test claim decision that supersedes a prior test claim decision and determining the amount to be subvened to local agencies and school districts for reimbursement pursuant to this section.

(Added by Stats. 2010, Ch. 719, Sec. 33. (SB 856) Effective October 19, 2010.)

17570.1. As part of its review and consideration pursuant to Sections 17581 and 17581.5, the Legislature may, by statute, request that the Department of Finance consider exercising its authority pursuant to subdivision (c) of Section 17570.

(Added by Stats. 2010, Ch. 719, Sec. 34. (SB 856) Effective October 19, 2010.)

17571. The commission, upon request of a local agency or school district, shall review the claiming instructions issued by the Controller or any other authorized state agency for reimbursement of mandated costs. If the commission determines that the claiming instructions do not conform to the parameters and guidelines, the commission shall direct the Controller to modify the claiming instructions and the Controller shall modify the claiming instructions to conform to the parameters and guidelines as directed by the commission.

(Amended by Stats. 1999, Ch. 643, Sec. 7. Effective January 1, 2000.)

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HEALTH AND SAFETY CODE - HSC

DIVISION 101. ADMINISTRATION OF PUBLIC HEALTH [100100 - 101997] *(Division 101 added by Stats. 1995, Ch. 415, Sec. 3.)*

PART 1. CALIFORNIA DEPARTMENT OF HEALTH SERVICES [100100 - 100922] *(Part 1 added by Stats. 1995, Ch. 415, Sec. 3.)*

CHAPTER 4. Regulation of Laboratory Services [100700 - 100922] *(Chapter 4 added by Stats. 1995, Ch. 415, Sec. 3.)*

ARTICLE 3. Environmental Laboratories [100825 - 100920.5] *(Article 3 added by Stats. 1995, Ch. 415, Sec. 3.)*

100825. (a) This article shall be known, and may be cited, as the Environmental Laboratory Accreditation Act.

(b) Laboratories that perform analyses on any combination of environmental samples, or raw or processed agricultural products for regulatory purposes shall obtain a certificate of accreditation pursuant to this article.

(c) Unless the express language or context requires otherwise, the definitions in this article shall govern the construction of the article.

(1) "Accreditation" means the recognition of a laboratory by the state board to conduct analyses of environmental samples for regulatory purposes.

(2) "Assessor body" means the organization that actually executes the accreditation process, including receiving and reviewing applications, documents, PT sample results, and onsite assessments.

(3) "Certificate" means a document issued by the state board to a laboratory that has received accreditation pursuant to this article.

(4) "Department" means the state board.

(5) "ELAP" means state accreditation program established under this article.

(6) "Environmental samples" means potable and nonpotable surface waters or groundwaters, soils and sediments, hazardous wastes, biological materials, or any other sample designated for regulatory purposes.

(7) "Proficiency testing (PT)" is a means of evaluating a laboratory's performance under controlled conditions relative to a given set of criteria through analysis of unknown samples provided by an external source.

(8) "PT sample" means a sample used for proficiency testing.

(9) "Regulatory purposes" means a statutory or regulatory requirement of a state board, office, or department, or of a division or program that requires a laboratory certified under this article or of any other state or federal agency that requires a laboratory to be accredited.

(10) "Revocation" means the permanent loss of a certificate of accreditation, including all units and fields of accreditation for state accreditation and all fields of accreditation for TNI accreditation.

(11) "State accreditation" means accreditation of a laboratory, that has met the requirements of this article and regulations adopted by the state board pursuant to this article.

(12) "State board" means the State Water Resources Control Board.

(13) "Suspension" means the temporary loss of a certificate of accreditation or a unit or field of accreditation.

(14) "TNI" means The NELAC Institute, a nonprofit corporation created to combine the functions of the National Environmental Laboratory Accreditation Conference and the Institute for National Environmental Laboratory Accreditation.

(15) "TNI accreditation" means the accreditation of a laboratory that has met the requirements of TNI standards, and the requirements of this article.

(16) "TNI accredited laboratory" means a laboratory that has met the standards of TNI and has been accredited by a primary or secondary TNI-recognized accrediting body.

(17) "TNI-recognized accrediting body" means a state agency that is authorized by TNI to accredit laboratories.

(18) "TNI-recognized primary accrediting authority" means a state agency that is responsible for the accreditation of environmental laboratories within that state or that performs the primary accreditation of a lab from a non-TNI state or where the laboratory's home state does not offer accreditation in a given field of accreditation.

(19) "TNI-recognized secondary accrediting authority" means a state agency that is authorized by TNI to accredit environmental laboratories within that state that have been accredited by a TNI-approved accrediting authority in another state.

(20) "TNI standards" means the laboratory standards adopted by TNI.

(Amended by Stats. 2017, Ch. 327, Sec. 1. (AB 1438) Effective January 1, 2018.)

100827. A laboratory accredited by the department shall report, in a timely fashion and in accordance with the request for analysis, the full and complete results of all detected contaminants and pollutants to the person or entity that submitted the material for testing. The department may adopt regulations to establish reporting requirements for this section.

(Added by Stats. 2005, Ch. 406, Sec. 3. Effective January 1, 2006.)

100829. The State Water Resources Control Board may do all of the following related to accrediting environmental laboratories in the state:

(a) Offer both state accreditation and TNI accreditation, which shall be considered equivalent for regulatory activities covered by this article.

(b) Adopt regulations to establish the accreditation procedures for both types of accreditation.

(c) Retain exclusive authority to grant TNI accreditation.

(d) Accept certificates of accreditation from laboratories that have been accredited by other TNI-recognized accrediting authorities.

(e) Adopt regulations to establish procedures for recognizing the accreditation of laboratories located outside California for activities regulated under this article.

(f) (1) Adopt a schedule of fees to recover costs incurred for the accreditation of environmental laboratories. Consistent with Section 3 of Article XIII A of the California Constitution, the state board shall set the fees under this section in an amount sufficient to recover all reasonable regulatory costs incurred for the purposes of this article.

(2) The state board shall set the amount of total revenue collected each year through the fee schedule at an amount equal to the amount appropriated by the Legislature in the annual Budget Act from the Environmental Laboratory Improvement Fund for expenditure for the administration of this article, taking into account the reserves in the Environmental Laboratory Improvement Fund. The state board shall review and revise the fees each fiscal year as necessary to conform with the amounts appropriated by the Legislature. If the state board determines that the revenue collected during the preceding year was greater than, or less than, the amounts appropriated by the Legislature, the state board may further adjust the fees to compensate for the over or under collection of revenue.

(3) The state board shall adopt the schedule of fees by emergency regulation. The emergency regulations may include provisions concerning the administration and collection of the fees. Any emergency regulations adopted pursuant to this section, any amendment to those regulations, or subsequent adjustments to the annual fees, shall be adopted by the state board in accordance with Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code. The adoption of these regulations is an emergency and shall be considered by the Office of Administrative Law as necessary for the immediate preservation of the public peace, health, safety, and general welfare. Notwithstanding Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code, any emergency regulations adopted by the state board, or adjustments to the annual fees made by the state board pursuant to this section, are not subject to review by the Office of Administrative Law and remain in effect until revised by the state board.

(4) Fees shall be set for the two types of accreditation provided for in subdivision (a), including application fees.

(5) Programs operated under this article shall be fully fee-supported.

(Amended by Stats. 2017, Ch. 327, Sec. 2. (AB 1438) Effective January 1, 2018.)

100830. The department may do all of the following:

(a) Adopt regulations establishing requirements for both types of accreditation. The regulations shall include, but not be limited to, all of the following:

(1) Laboratory personnel.

(2) Quality assurance procedures.

(3) Laboratory equipment.

(4) Facilities.

(5) Standard operating procedures.

(6) Proficiency testing.

(7) Onsite assessments.

(8) Recordkeeping.

(9) Units and fields of accreditation.

(b) Adopt regulations establishing conditions under which the department may issue, deny, renew, or suspend a certificate of accreditation for individual units or fields. Suspension and denial of units or fields of accreditation shall be based on a laboratory's failure to comply with this article and regulations adopted thereunder.

(Repealed and added by Stats. 2005, Ch. 406, Sec. 6. Effective January 1, 2006.)

100832. All regulations adopted by the department pursuant to this article, as they read immediately preceding January 1, 2006, shall remain in full force and effect until repealed or amended by the department in accordance with the rulemaking provisions of the Administrative Procedure Act, Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code.

(Repealed and added by Stats. 2005, Ch. 406, Sec. 9. Effective January 1, 2006.)

100837. The state board may contract with approved third-party laboratory assessor bodies in accordance with the criteria developed by the TNI or a federal agency.

(Amended by Stats. 2017, Ch. 327, Sec. 3. (AB 1438) Effective January 1, 2018.)

100840. Any laboratory requesting ELAP certification or TNI accreditation under this article shall file with the state board an application on forms prescribed by the state board containing all of the following:

(a) The names of the applicant and the laboratory.

(b) The location of the laboratory.

(c) A list of fields of testing for which the laboratory is seeking certification.

(d) Evidence satisfactory to the state board that the applicant has the ability to comply with this article and the regulations adopted under this article.

(e) Any other information required by the state board for administration or enforcement of this article or regulations adopted under this article.

(Amended by Stats. 2017, Ch. 327, Sec. 4. (AB 1438) Effective January 1, 2018.)

100845. (a) Each certificate issued pursuant to this article for ELAP certification shall be issued to the owner of the laboratory and shall expire 24 months from the date of issuance. An application for renewal shall be filed with the department prior to the expiration date of the certificate. Failure to make timely application for renewal shall result in expiration of the certificate.

(b) A certificate shall be forfeited by operation of law prior to its expiration date when one of the following occurs:

(1) The owner sells or otherwise transfers the ownership of the laboratory, except that the certificate shall remain in force 90 calendar days if the department receives written assurance and appropriate documentation within 30 calendar days after the change has occurred that one or more of the conditions in subdivision (c) are met. The department shall accept or reject the assurance in writing within 30 calendar days after it has been received.

(2) There is a change in the location of the laboratory (except a mobile laboratory) or structural alteration that may affect adversely the quality of analysis in the fields of testing for which the laboratory has been certified or is seeking certification, without written notification to the department within 30 calendar days.

(3) The certificate holder surrenders the certificate to the department.

(c) Upon change of ownership of a laboratory, the department may extend a certificate to the expiration date of the original certificate upon written assurance by the new owner that the operation of the laboratory will continue so as not to adversely affect the conditions regulated by this article.

(d) The department shall be notified in writing within 30 calendar days whenever there is a change of director or other person in charge of a laboratory certified under this article. The notification shall include documentation of the qualifications of the new director or other person in charge of the laboratory.

(Amended by Stats. 2002, Ch. 215, Sec. 4. Effective January 1, 2003.)

100847. (a) The period of accreditation for TNI accredited laboratories shall be 12 months. An application for renewal shall be filed with the state board prior to the expiration date of the accreditation. Failure to make timely application for renewal shall result in expiration of the accreditation.

(b) The accrediting authority shall be notified in writing within 30 calendar days of the sale or other transfer of ownership of a TNI accredited laboratory.

(c) The accrediting authority shall be notified in writing within 30 calendar days of the change in location of a TNI accredited laboratory, other than a mobile laboratory.

(d) The accrediting authority shall be notified within 30 calendar days whenever there is a change of laboratory director, or other individual in charge of the laboratory.

(e) TNI accredited laboratories shall conspicuously display their most recent TNI accreditation certificate or their accreditation fields of testing, or both, in a permanent place in their laboratory.

(f) TNI accredited laboratories shall not use their TNI accreditation document or their accreditation status to imply any endorsement by the accrediting authority.

(Amended by Stats. 2017, Ch. 327, Sec. 5. (AB 1438) Effective January 1, 2018.)

100850. (a) Upon the filing of an application for ELAP certification or TNI accreditation and after a finding by the state board that there is full compliance with this article and regulations adopted under this article, the state board shall issue to the owner certification or accreditation in the fields of testing for which the laboratory is seeking certification and with respect to which the state board has determined there is full compliance.

(b) The state board shall deny or revoke a certificate if it finds any of the following:

(1) The laboratory fails to report acceptable results in the analysis of proficiency testing samples.

(2) The laboratory fails to analyze proficiency testing samples.

(3) The laboratory submits, as its own, proficiency testing sample results generated by another laboratory.

(4) The laboratory fails to pass an onsite assessment.

(5) The laboratory is not in compliance with any other provision of this article or regulations adopted under this article.

(c) Upon the filing of a complete application for certification or accreditation pursuant to subdivision (a) and Section 100870, the state board may issue to a laboratory interim certification or accreditation pending the completion of onsite assessment. Interim certification and accreditation shall be nonrenewable and shall remain in effect until certification and accreditation is either granted under subdivision (a) or denied under subdivision (b), but not later than one year after the date of issuance.

(Amended by Stats. 2017, Ch. 327, Sec. 6. (AB 1438) Effective January 1, 2018.)

100851. (a) An application for TNI accreditation or renewal of TNI accreditation shall be denied by the accrediting body for any of the following reasons:

(1) Failure to submit all information necessary to determine the laboratory's eligibility for its accreditation or continued compliance with this section or regulations adopted thereunder.

(2) Failure of the laboratory staff to meet TNI standards for personnel requirements. These qualifications may include education, training, and experience requirements.

(3) Failure to successfully analyze and report proficiency testing samples.

(4) Failure to respond to a deficiency report from the onsite assessment with a corrective action report within 30 calendar days of the receipt of the report.

(5) Failure to implement the corrective actions detailed in the corrective action report within the specified amount of time.

(6) Misrepresentation of any material fact pertinent to receiving or maintaining TNI accreditation.

(b) The TNI-recognized accrediting body may suspend the accreditation of a TNI-accredited laboratory, in whole or in part, for failure to correct the deficiencies, within a specified amount of time, as identified in the onsite assessment. The laboratory shall retain those areas of accreditation where it continues to meet the requirements of the accrediting body. A suspended TNI-accredited laboratory shall not be required to reapply for accreditation if the causes for suspension are corrected within six months.

(c) The TNI-approved accrediting body shall suspend a TNI accreditation, in whole or in part for the following reasons:

(1) Failure to complete proficiency testing studies.

(2) Failure to maintain a history of at least two successful, out of the most recent three, proficiency testing studies for each affected accreditation field of testing, subgroup, or analyte for which the laboratory is accredited.

(3) Failure to successfully analyze and report proficiency testing sample results pursuant to TNI standards.

(4) Failure to submit an acceptable corrective action report in response to a deficiency report and failure to implement corrective action related to deficiencies found during laboratory assessments within the required time period, as required by the TNI standards.

(5) Failure to notify the accrediting body of any changes in key accreditation criteria, as required by TNI standards.

(6) Failure to perform all accredited tests in accordance with TNI standards.

(7) Failure to meet all applicable quality system requirements in TNI standards.

(d) A suspended laboratory shall not be required to reapply for TNI accreditation if the causes for suspension are corrected within six months. A suspended laboratory shall not continue to analyze samples for the affected fields of testing for which it holds accreditation. A suspended laboratory shall remain suspended without a right to appeal if the suspension is caused by unacceptable proficiency testing sample results.

(e) If a laboratory is unable to correct the reason for suspension, the laboratory's accreditation shall be revoked in whole or in part.

(f) A laboratory's accreditation shall not be suspended without the right to due process, as set forth in TNI standards.

(Amended by Stats. 2018, Ch. 92, Sec. 146. (SB 1289) Effective January 1, 2019.)

100852. (a) Notwithstanding any other law, the state board may issue a certificate to the owner of a laboratory in a field of testing or method adopted by the federal Environmental Protection Agency pursuant to Part 136 of Title 40 of the Code of Federal Regulations, as amended September 11, 1992, as published in the Federal Register (57 FR 41830), or Part 141 of Title 40 of the Code of Federal Regulations, as amended July 17, 1992, as published in the Federal Register (57 FR 31776), and as subsequently amended and published in the Code of Federal Regulations.

(b) As a TNI-recognized accrediting body, the state board shall accept performance-based measurement system methods, when mandated methods are indicated. A fee, as specified in regulations adopted by the state board, may be charged for the review of each performance-based measurement system method.

(c) Notwithstanding any other law, the state board shall not be required to meet the requirements of Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code in order to issue a certificate pursuant to subdivision (a).

(Amended by Stats. 2018, Ch. 92, Sec. 147. (SB 1289) Effective January 1, 2019.)

100855. Upon the denial of an application for ELAP certification or TNI accreditation, the state board shall immediately notify the applicant or organization by certified mail, return receipt requested, of the action and the reasons for the action. The owner of a laboratory may petition for reconsideration under Section 116701.

(Repealed and added by Stats. 2017, Ch. 327, Sec. 10. (AB 1438) Effective January 1, 2018.)

100860.1. (a) At the time of application for ELAP certification and annually thereafter, from the date of the issuance of the certificate, a laboratory shall pay an ELAP certification fee, according to the fee schedule established by the State Water Resources Control Board pursuant to Section 100829.

(b) State and local government-owned laboratories in California performing work only in a reference capacity as a reference laboratory are exempt from the payment of the fees prescribed pursuant to Section 100829.

(c) In addition to the payment of fees authorized by Section 100829, laboratories certified or applying for certification shall pay directly to the designated proficiency testing provider the cost of the proficiency testing

study.

(d) For the purpose of this section, a reference laboratory is a laboratory owned and operated by a governmental regulatory agency for the principal purpose of analyzing samples referred by another governmental regulatory agency or another laboratory for confirmatory analysis.

(Amended by Stats. 2016, Ch. 340, Sec. 26. (SB 839) Effective September 13, 2016.)

100862. (a) At the time of application for TNI accreditation and annually thereafter, from the date of the issuance of the accreditation, a laboratory shall pay a TNI accreditation fee, according to the fee schedule established by the state board pursuant to Section 100829.

(b) In addition to the payment of fees authorized by Section 100829, laboratories accredited or applying for accreditation shall pay directly to the designated proficiency testing provider the cost of the proficiency testing studies.

(Amended by Stats. 2017, Ch. 327, Sec. 11. (AB 1438) Effective January 1, 2018.)

100863. The department shall appoint a multidisciplinary committee to assist, advise, and make recommendations regarding technical, scientific, and administrative matters concerning the accreditation or certification of environmental laboratories. Appointments to the committee shall be made from lists of nominees solicited by the department, and shall provide adequate representation of interested parties and environmental laboratories subject to this chapter. Subcommittees of the committee may be appointed consisting of committee members and other persons having particular knowledge of a subject area, for the purpose of assisting the department on special problems and making recommendations to the committee for consideration in the establishment of rules and regulations. The department shall determine the terms of office of appointees to the committee and any subcommittee. Members of the committee and of any subcommittee shall serve without compensation and shall pay their own expenses incurred as a result of attending meetings or engaging in any other activity pursuant to this section.

(Added by Stats. 1999, Ch. 372, Sec. 16. Effective January 1, 2000.)

100865. (a) In order to carry out the purpose of this article, any duly authorized representative of the state board may do the following:

(1) Enter and inspect a laboratory that is ELAP certified or TNI accredited pursuant to this article or that has applied for ELAP certification or TNI accreditation.

(2) Inspect and photograph any portion of the laboratory, equipment, any activity, or any samples taken, or copy and photograph any records, reports, test results, or other information related solely to certification under this article or regulations adopted pursuant to this article.

(3) Require an owner of a laboratory to provide, within 15 days of receiving a request from a duly authorized representative of the state board, reports, test results, and other information required to implement this article, including, but not limited to, applicable standard operating procedures, quality control or quality assurance manuals, quality control or quality assurance data, employee qualifications, training records, or information relating to accreditation with another state or agency. The state board may require a laboratory to conduct proficiency testing in any of the laboratory's accredited fields of testing.

(b) It shall be a misdemeanor for any person to prevent, interfere with, or attempt to impede in any way, any duly authorized representative of the state board from undertaking the activities authorized by this section.

(c) If a laboratory that is seeking ELAP certification, TNI accreditation, ELAP recertification, or TNI reaccreditation refuses entry of a duly authorized representative during normal business hours for either an announced or unannounced onsite assessment, the certification, accreditation, recertification, or reaccreditation shall be denied or revoked.

(d) Refusal of a request by a TNI approved accrediting authority, the state board, or any employee, agent, or contractor of the state board, for permission to inspect, pursuant to this section, the laboratory and its operations and pertinent records during the hours the laboratory is in operation shall result in denial or revocation of ELAP certification or TNI accreditation.

(Amended by Stats. 2017, Ch. 327, Sec. 12. (AB 1438) Effective January 1, 2018.)

100870. (a) Any laboratory that is ELAP certified or holds TNI accreditation or has applied for ELAP certification or TNI accreditation or for renewal of ELAP certification or TNI accreditation under this article shall analyze proficiency testing samples, if these testing samples are available. The state board shall have the authority to contract with

third parties for the provision of proficiency testing samples for those laboratories that hold or are applying for ELAP certification. The samples shall be tested by the laboratory according to methods specifically approved for this purpose by the United States government or the state board, or alternate methods of demonstrated adequacy or equivalence, as determined by the state board. Proficiency testing sample sets shall be provided, when available, not less than twice, nor more than four times, a year to each certified laboratory that performs analyses of food for pesticide residues.

(b) (1) The state board may provide, directly or indirectly, proficiency testing samples to a laboratory for the purpose of determining compliance with this article with or without identifying the state board.

(2) When the state board identifies itself, all of the following shall apply:

(A) The results of the testing shall be submitted to the state board on forms provided by the state board on or before the date specified by the state board, and shall be used in determining the competency of the laboratory.

(B) There shall be no charge to the state board for the analysis.

(3) When the state board does not identify itself, the state board shall pay the price requested by the laboratory for the analyses.

(c) If a certified or TNI accredited laboratory submits proficiency testing sample results generated by another laboratory as its own, the certification or TNI accreditation shall be immediately revoked.

(d) Laboratories shall obtain their proficiency testing samples from proficiency testing sample providers that meet TNI standards. Laboratories shall bear the cost of any proficiency testing study fee charged for participation. Each laboratory shall authorize the providers of proficiency testing samples to release the report of the study results directly to the state board, as well as to the laboratory.

(Amended by Stats. 2017, Ch. 327, Sec. 13. (AB 1438) Effective January 1, 2018.)

100872. (a) An ELAP certified laboratory shall successfully analyze proficiency testing samples for those fields of testing for which they are certified, not less than once a year, where applicable. Proficiency testing procedures shall be approved by the United States government or by the state board.

(b) A TNI accredited laboratory shall participate in, and meet the success rate for, proficiency testing studies as required in the TNI standards.

(c) The ELAP certified or TNI accredited laboratory shall discontinue the analyses of samples for the fields of testing or subgroups which have been suspended for failure to comply with the proficiency testing requirements in this section.

(Amended by Stats. 2017, Ch. 327, Sec. 14. (AB 1438) Effective January 1, 2018.)

100875. Whenever the state board determines that any laboratory has violated or is violating this article or any certificate, regulation, or standard issued or adopted pursuant to this article, any officer or employee of the state board delegated such authority may issue an order directing compliance forthwith or directing compliance in accordance with a time schedule set by the state board. The owner of a laboratory issued an order under this section may petition for reconsideration under Section 116701.

(Amended by Stats. 2017, Ch. 327, Sec. 15. (AB 1438) Effective January 1, 2018.)

100880. If the state board determines that a laboratory is in violation of this article or any regulation or order issued or adopted pursuant to this article, the state board may, in addition to suspension, denial, or revocation of the certificate or TNI accreditation, issue a citation to the owner of the laboratory. It shall be the function of the recognized accrediting authority to issue citations. The Legislature finds and declares that since TNI is a standard setting body, it cannot, as such, enforce civil or criminal penalties.

(a) The citation shall be served personally or by registered mail.

(b) Each citation shall be in writing and shall describe with particularity the nature of the violation, including a reference to the statutory provision, order, or regulation alleged to have been violated.

(c) The citation shall fix the earliest feasible time for elimination or correction of the condition constituting the violation.

(d) Citations issued pursuant to this section shall specify a civil penalty for each violation, not to exceed one thousand dollars ($1,000), for each day that the violation occurred.

(e) If the owner fails to correct a violation within the time specified in the citation, the state board may assess a civil penalty as follows:

(1) For failure to comply with any citation issued for a violation of this article or a regulation, an amount not to exceed two hundred fifty dollars ($250) for each day that the violation continues beyond the date specified for correction in the citation.

(2) For failure to comply with any citation issued for violation of any state board-issued order, an amount not to exceed two hundred dollars ($200) for each day the violation continues beyond the date specified for correction in the citation.

(f) The owner of a laboratory issued a citation under this section or assessed a penalty under subdivision (e) may petition for reconsideration under Section 116701.

(Amended by Stats. 2017, Ch. 327, Sec. 16. (AB 1438) Effective January 1, 2018.)

100885. (a) Any person who operates a laboratory that performs work that requires certification or TNI accreditation under Section 25198, 25298.5, 25358.4, 110490, or 116390 of this code, or Section 13176 of the Water Code, who is not certified or TNI accredited to do so, may be enjoined from so doing by any court of competent jurisdiction upon suit by the state board.

(b) When the state board determines that any person has engaged in, or is engaged in, any act or practice that constitutes a violation of this article, or any regulation or order issued or adopted thereunder, the state board may bring an action in the superior court for an order enjoining these practices or for an order directing compliance and affording any further relief that may be required to ensure compliance with this article.

(Amended by Stats. 2017, Ch. 327, Sec. 17. (AB 1438) Effective January 1, 2018.)

100886. Any person who operates a laboratory for the purposes specified in Section 25198, 25298.5, 25358.4, or 116390 of this code, or Section 13176 of the Water Code, shall report the full and complete results of all detected contamination and pollutants to the person or entity that submitted the material for testing.

(Added by Stats. 1997, Ch. 814, Sec. 9. Effective January 1, 1998.)

100890. (a) Any person who knowingly makes any false statement or representation in any application, record, or other document submitted, maintained, or used for purposes of compliance with this article, may be liable, as determined by the court, for a civil penalty not to exceed five thousand dollars ($5,000) for each separate violation or, for continuing violations, for each day that violation continues.

(b) Any person who operates a laboratory for purposes specified pursuant to Section 25198, 25298.5, 25358.4, 110490, or 116390 of this code, or Section 13176 of the Water Code that requires certification, who is not certified by the department pursuant to this article, may be liable, as determined by the court, for a civil penalty not to exceed five thousand dollars ($5,000) for each separate violation or, for continuing violations, for each day that violation continues.

(c) A laboratory that advertises or holds itself out to the public or its clients as having been certified for any field of testing without having a valid and current certificate in each field of testing identified by the advertisement or other representation may be liable, as determined by the court, for a civil penalty not to exceed one thousand dollars ($1,000) or, for continuing violations, for each day that violation continues.

(d) Each civil penalty imposed for any separate violation pursuant to this section shall be separate and in addition to any other civil penalty imposed pursuant to this section or any other provision of law.

(Amended by Stats. 2017, Ch. 327, Sec. 18. (AB 1438) Effective January 1, 2018.)

100895. (a) Any person who knowingly does any of the following acts may, upon conviction, be punished by a fine of not more than twenty-five thousand dollars ($25,000) for each day of violation, by imprisonment in a county jail not to exceed one year, or by both that fine and imprisonment:

(1) Makes any false statement or representation in any application, record, report, or other document submitted, maintained, or used for the purposes of compliance with this article.

(2) Has in his or her possession any record required to be maintained pursuant to this article that has been altered or concealed.

(3) Destroys, alters, or conceals any record required to be maintained pursuant to this article.

(4) Withholds information regarding an imminent and substantial danger to the public health or safety when the information has been requested by the state board in writing and is required to carry out the state board's responsibilities pursuant to this article.

(b) A second or subsequent violation of subdivision (a) is punishable by imprisonment pursuant to subdivision (h) of Section 1170 of the Penal Code for 16, 20, or 24 months or in a county jail for not more than one year, by a fine of not less than two thousand dollars ($2,000) or more than fifty thousand dollars ($50,000) per day of violation, or by both that imprisonment and fine.

(c) An ELAP certified or TNI accredited laboratory, upon suspension, revocation, or withdrawal of its ELAP certification or TNI accreditation, shall do all of the following:

(1) Discontinue use of all catalogs, advertising, business solicitations, proposals, quotations, or their materials that contain reference to their past certification or accreditation status.

(2) Return its ELAP certificate or its TNI accreditation to the state board.

(3) Cease all testing of samples for regulatory purposes.

(d) The penalties cited in subdivisions (a) and (b) shall also apply to TNI accredited laboratories.

(Amended by Stats. 2017, Ch. 327, Sec. 19. (AB 1438) Effective January 1, 2018.)

100900. The remedies provided by this article are cumulative and shall not be construed as restricting any remedy, provisional or otherwise, provided by law for the benefit of any party, and no judgment under this article shall preclude any party from obtaining additional relief based upon the same facts.

(Added by Stats. 1995, Ch. 415, Sec. 3. Effective January 1, 1996.)

100905. The department may suspend or revoke any certificate issued under of this article for any of the following reasons:

(a) Violation by the owner of the laboratory of any of the provisions of this article or any regulation adopted under this article.

(b) Aiding, abetting, or permitting the violation of any provision of this article or regulations adopted under this article.

(c) Proof that the certificateholder or owner has made false statements in any material regard on the application for certification.

(d) Conviction of an owner of the laboratory of any crime that is substantially related to the qualifications or duties of that owner and that is related to the functions of the laboratory. For purposes of this subdivision, a "conviction" means a plea or verdict of guilty or a conviction following a plea of nolo contendere. Action to revoke or suspend the certificate may be taken when: (1) the time for appeal has elapsed, or (2) the judgment of conviction has been affirmed on appeal, or (3) when an order granting probation is made suspending the imposition of sentence, notwithstanding a subsequent order pursuant to Section 1203.4 of the Penal Code permitting withdrawal of a plea of guilty and entry of a plea of not guilty, or (4) setting aside a verdict of guilty, or (5) dismissing the accusation, information, or indictment. The department shall take into account all judicial decisions on rehabilitation furnished by the owner of the laboratory.

(Added by Stats. 1995, Ch. 415, Sec. 3. Effective January 1, 1996.)

100907. (a) The state board shall revoke, in whole or in part, the accreditation of a TNI accredited laboratory for either of the following reasons:

(1) Failure to submit an acceptable corrective action report in response to a deficiency report, and failure to implement corrective action related to any deficiencies found during a laboratory assessment. The laboratory may submit two corrective actions within the time limits specified by the accrediting authority.

(2) Failure to successfully analyze and report proficiency testing sample results pursuant to TNI standards.

(b) The state board shall revoke, in whole, the accreditation of a TNI accredited laboratory for any of the following reasons:

(1) Failure to respond with a corrective action report within the required 30-day period.

(2) Failure to participate in the proficiency testing program, as required by TNI standards.

(3) Submittal of proficiency test sample results generated by another laboratory as its own.

(4) Misrepresentation of any material fact pertinent to receiving or maintaining accreditation.

(5) Denial of entry during normal business hours for an onsite assessment, as required by TNI standards.

(6) Conviction of charges for the falsification of any report of, or that relates to, a laboratory analysis.

(c) The state board may also revoke, in whole, a laboratory's accreditation for failure to remit the accreditation fees within the time limit established by the accrediting authority.

(d) After correcting the reason or reasons for revocation, the TNI accredited laboratory may reapply for accreditation no sooner than six months from the official date of revocation.

(e) A laboratory's TNI accreditation shall not be revoked without the right to due process, in accordance with Section 100910.

(Amended by Stats. 2017, Ch. 327, Sec. 20. (AB 1438) Effective January 1, 2018.)

100910. (a) The state board, after providing notice to the owner of the laboratory and opportunity for a hearing, may suspend or revoke an ELAP certification or TNI accreditation issued pursuant to this article. The notice shall inform the owner of the laboratory that the owner may request a hearing not later than 20 days from the date on which the notice is received, and shall contain a statement of facts and information that show a basis for the suspension or revocation. If the owner submits a timely request for a hearing, the hearing shall be before the state board or a member of the state board, in accordance with Section 183 of the Water Code and the rules for adjudicative proceedings adopted under Section 185 of the Water Code. If the owner does not submit a timely request for a hearing, the state board may suspend or revoke the permit without a hearing.

(b) If the certification or accreditation at issue has been temporarily suspended pursuant to Section 100915, the notice shall be provided within 15 days of the effective date of the temporary suspension order. The hearing shall be commenced as soon as practicable, but no later than 60 days after the effective date of the temporary suspension order, unless the owner requests an extension of the 60-day period.

(Repealed and added by Stats. 2017, Ch. 327, Sec. 22. (AB 1438) Effective January 1, 2018.)

100915. (a) (1) The state board may temporarily suspend, in whole or in part, ELAP certification or TNI accreditation prior to any hearing, when it has determined that this action is necessary to protect the public. The state board shall notify the owner of the temporary suspension and the effective date of the suspension. The notice shall inform the owner of the laboratory that the owner may request a hearing not later than 20 days from the date on which the notice is received, and shall contain a statement of facts and information that show a basis for the suspension.

(2) (A) If the owner submits a timely request for a hearing, the hearing shall be commenced as soon as possible but no later than 30 calendar days after receipt of the notice or 15 calendar days after the request for a hearing is submitted, whichever is later, unless the owner requests a later date for the hearing. The hearing shall deal only with the issue of whether the temporary suspension shall remain in place pending a hearing under Section 100910.

(B) The hearing shall be conducted under the rules for adjudicative proceedings adopted by the state board under Section 185 of the Water Code.

(C) The temporary suspension shall remain in effect until the hearing is completed and the state board has made a final determination on the merits under Section 100910. However, the temporary suspension shall be deemed vacated if the state board fails to make a final determination on the merits within 60 calendar days after the hearing under Section 100910 has been completed. Vacation of the temporary suspension does not deprive the state board of jurisdiction to proceed with a hearing on the merits under Section 100910.

(b) During the suspension, the laboratory shall discontinue the analysis of samples for the fields of testing specified in the notice.

(Repealed and added by Stats. 2017, Ch. 327, Sec. 24. (AB 1438) Effective January 1, 2018.)

100920. Fees and civil penalties collected under this article shall be deposited in the Environmental Laboratory Improvement Fund, that is hereby created. Moneys in the fund shall be available for expenditure by the department for the purposes of this article, upon appropriation by the Legislature.

(Added by Stats. 1995, Ch. 415, Sec. 3. Effective January 1, 1996.)

100920.5. (a) Within 30 days after service of a copy of a decision or order issued by the state board under this chapter, an aggrieved party may file with the superior court a petition for a writ of mandate for review of the order.

(b) Except as otherwise provided in this section, subdivisions (e) and (f) of Section 1094.5 of the Code of Civil Procedure shall govern proceedings pursuant to this section. For the purposes of subdivision (c) of Section 1094.5 of the Code of Civil Procedure, the court shall uphold the findings of the state board if those findings are supported by substantial evidence in light of the whole record.

(c) If no aggrieved party petitions for a writ of mandate within the time provided by this section, the decision or order of the state board is not subject to review by any court.

(Added by Stats. 2017, Ch. 327, Sec. 25. (AB 1438) Effective January 1, 2018.)

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HEALTH AND SAFETY CODE - HSC

DIVISION 104. ENVIRONMENTAL HEALTH [106500 - 119406] *(Division 104 added by Stats. 1995, Ch. 415, Sec. 6.)*

PART 12. DRINKING WATER [116270 - 117130] *(Part 12 added by Stats. 1995, Ch. 415, Sec. 6.)*

CHAPTER 4. California Safe Drinking Water Act [116270 - 116755] *(Chapter 4 added by Stats. 1995, Ch. 415, Sec. 6.)*

ARTICLE 8. Violations [116625- 116625.] *(Article 8 added by Stats. 1995, Ch. 415, Sec. 6.)*

116625. (a) The state board, after providing notice to the permittee and opportunity for a hearing, may suspend or revoke any permit issued pursuant to this chapter if the state board determines pursuant to the hearing that the permittee is not complying with the permit, this chapter, or any regulation, standard, or order issued or adopted thereunder, or that the permittee has made a false statement or representation on any application, record, or report maintained or submitted for purposes of compliance with this chapter. If the permittee does not request a hearing within the period specified in the notice, the state board may suspend or revoke the permit without a hearing. If the permittee submits a timely request for a hearing, the hearing shall be before the state board or a member of the state board, in accordance with Section 183 of the Water Code and the rules for adjudicative proceedings adopted under Section 185 of the Water Code. If the permit at issue has been temporarily suspended pursuant to subdivision (b), the notice shall be provided within 15 days of the effective date of the temporary suspension order. The commencement of the hearing under this subdivision shall be as soon as practicable, but no later than 60 days after the effective date of the temporary suspension order, unless the state board grants an extension of the 60 day period upon request of the permittee.

(b) The state board may temporarily suspend any permit issued pursuant to this chapter before any hearing when the action is necessary to prevent an imminent or substantial danger to health. The state board shall notify the permittee of the temporary suspension and the effective date of the temporary suspension and, at the same time, notify the permittee that a hearing has been scheduled. The hearing shall be held as soon as possible, but not later than 15 days after the effective date of the temporary suspension unless the state board grants an extension of the 15-day period upon request of the permittee, and shall deal only with the issue of whether the temporary suspension shall remain in place pending a hearing under subdivision (a). The hearing shall be conducted under the rules for adjudicative proceedings adopted by the state board under Section 185 of the Water Code. The temporary suspension shall remain in effect until the hearing under this subdivision is completed and the state board has made a final determination on the temporary suspension, which shall be made within 15 days after the completion of the hearing unless the state board grants an extension of the 15-day period upon request of the permittee. If the determination is not transmitted within 15 days after the hearing is completed, or any extension of this period requested by the permittee, the temporary suspension shall be of no further effect. Dissolution of the temporary suspension does not deprive the state board of jurisdiction to proceed with a hearing on the merits under subdivision (a).

(Amended by Stats. 2018, Ch. 92, Sec. 153. (SB 1289) Effective January 1, 2019.)

KeyCite Red Flag - Severe Negative Treatment
Overruled in Part by Graves v. People of State of New York ex rel. O'Keefe, U.S.N.Y., March 27, 1939

57 S.Ct. 495
Supreme Court of the United States

BRUSH
v.
COMMISSIONER OF INTERNAL REVENUE.

No. 451.
|
Argued Feb. 4, 1937.
|
Decided March 15, 1937.

Synopsis
On Writ of Certiorari to the United States Circuit Court of Appeals for the Second Circuit.

Petition by William Whitlock Brush to review an order of the Board of Tax Appeals redetermining a deficiency in the tax imposed by the Commissioner of Internal Revenue. The decree of the Board was affirmed (85 F.(2d) 32), and the petitioner brings certiorari.

Reversed.

Mr. Justice ROBERTS and Mr. Justice BRANDEIS dissenting.

West Headnotes (6)

[1] Internal Revenue
Governments and subdivisions

The acquisition and distribution by a city of a supply of water involves the exercise of an essential "governmental function," and the salary of the chief engineer of the city's bureau of water supply is not subject to federal income taxation, especially when a considerable part of the water is used to supply public schools, public sewers, fire departments, etc.

57 Cases that cite this headnote

[2] States
Status under Constitution of United States, and relations to United States in general

States are as independent of the general government as that government within its sphere is independent of the states.

1 Cases that cite this headnote

[3] Taxation
United States entities, property, and securities

A state government may not tax the governmental means and instrumentalities of the federal government.

2 Cases that cite this headnote

[4] Federal Courts
Taxation

Whether municipal activities are subject to federal tax is a question of national scope to be resolved in harmony with implied constitutional principles of general application, and is not controlled by the local law as to governmental and corporate functions respecting municipal liability for torts.

46 Cases that cite this headnote

[5] Internal Revenue
Governments and subdivisions

That a city in supplying water to its inhabitants makes a charge for the water, or realizes a profit, does not deprive the service of its governmental character as respects liability of a municipal officer to federal income taxation.

23 Cases that cite this headnote

[6] Internal Revenue
Public property and institutions

The federal government may not tax the governmental means and instrumentalities of the state government.

Cases that cite this headnote

Attorneys and Law Firms

****495** ***353** Messrs. Boykin C. Wright, of Augusta, Ga., and Charles C. Parlin, of New York City, for petitioner.

Mr. Paul Windels, of New York City (Messrs. Oscar S. Cox and Paxton Blair, both of New York, City, of counsel), argued for the City of New York, as amicus curiae, by special leave of court.

***356** Mr. Julius Henry Cohen, of New York City (Mr. John J. Bennett. Jr., Atty. Gen., of New York, and Mr. Henry Epstein, Sol Gen. of New York, of Albany, of counsel), argued for the State of New York, as amicus curiae, by special leave of court.

***359** Mr. J. Joseph Lilly, of New York City, for certain employees of the City of New York, amicus curiae.

Messrs. James H. Howard and Charles C. Cooper, Jr., both of Los Angeles, Cal., for certain employees of the Metropolitan Water District of Southern California, amicu curiae.

Messrs. Stanley Reed, Sol. Gen., of Washington, D.C., Robert H. Jackson, Asst. Atty. Gen., and Sewall Key, John Paul Jackson, and Berryman Green, Sp. Assts. to Atty. Gen., for respondents.

Opinion

Mr. Justice SUTHERLAND delivered the opinion of the Court.

[1] The question brought here for determination is whether the salary of petitioner as chief engineer of the bureau of water supply of the city of New York is a part of his taxable income for the purposes of the federal income ***360** tax law. The answer depends upon whether the water system of the city was created and is conducted in the exercise of the city's governmental functions. If so, its operations are immune from federal taxation and, as a necessary corollary, 'fixed salaries and compensation paid to its officers and employees in their capacity as such are likewise immune.' People of State of New York ex rel. Rogers v. Graves, 299 U.S. 401, 57 S.Ct. 269, 272, 81 L.Ed. 306 (January 4, 1937).

Petitioners holds his office as chief engineer by statutory authority, with a fixed annual salary of $14,000. He exercises supervision over the engineering details connected ****496** with the supplying of water for public purposes and for consumption by the inhabitants of the city; supervises the protection of the water supply from pollution; and generally exercises control over the operation of the water system, its personnel, expenditure of money, and other matters relating thereto.

In the early history of the city, water was furnished by private companies; but a century or more ago, the city itself began to take over the development and distribution. In 1831, the board of aldermen declared its dissatisfaction with the private control, and resolved that the powers then vested in private hands should be repealed by the Legislature and vested exclusively in the corporation of the city of New York. This, in effect, was initiated in 1833 (Laws 1833, c. 36); and, soon thereafter, the city constructed municipal waterworks, and, with slight exceptions, private control and operation ceased. The sources of water supply furnished by such companies as remain is approaching exhaustion, and the water furnished is of a quality inferior to that supplied by the municipality. From 1833 to the present time, additions to the water supply and system have been steadily made until the cost has mounted to more than $500,000,000; and it is estimated that additional expenditures of a quarter of a billion dollars will be necessary. ***361** The cost of bringing water from the Catskills alone amounted to approximately $200,000,000. The municipal outstanding bonded indebtedness incurred for supplying the city with water amounts to an enormous sum. More than half the entire population of the state is found within the municipal boundaries. The action of the city from the beginning has been taken under legislative authority.

The Commissioner of Internal Revenue having assessed a deficiency tax against petitioner in respect of his salary, petitioner sought a redetermination at the hands of the Board of Tax Appeals. That board sustained the commissioner and decreed a deficiency against petitioner of $256.27 for the year 1931. Upon review, the court below affirmed the decree of the board. (C.C.A.) 85 F. (2d) 32. While the sum involved is small, we granted the

writ of certiorari because of the obvious importance of the question involved. 299 U.S. 536, 57 S.Ct. 190, 81 L.Ed. 395.

The phrase 'governmental functions,' as it here is used, has been qualified by this court in a variety of ways. Thus, in South Carolina v. United States, 199 U.S. 437, 461, 26 S.Ct. 110, 50 L.Ed. 261, 4 Ann.Cas. 737, it was suggested that the exemption of state agencies and instrumentalities from federal taxation was limited to those which were of a strictly governmental character, and did not extend to those used by the state in carrying on an ordinary private business. In Flint v. Stone Tracy Co., 220 U.S. 107, 172, 31 S.Ct. 342, 55 L.Ed. 389, Ann.Cas.1912B, 1312, the immunity from taxation was related to the essential governmental functions of the state. In Helvering v. Powers, 293 U.S. 214, 225, 55 S.Ct. 171, 173, 79 L.Ed. 291, we said that the state 'cannot withdraw sources of revenue from the federal taxing power by engaging in businesses which constitute a departure from usual governmental functions and to which, by reason of their nature, the federal taxing power would normally extend.' And immunity is not established because the state has the power to engage ***362** in the business for what the state conceives to be the public benefit. Id. In United States v. People of State of California, 297 U.S. 175, 185, 56 S.Ct. 421, 424, 80 L.Ed. 567, the suggested limit of the federal taxing power was in respect of activities in which the states have traditionally engaged.

In the present case, upon the one side, stress is put upon the adjective 'essential,' as used in the Flint v. Stone Tracy Co. Case, while, on the other side, it is contended that this qualifying adjective must be put aside in favor of what is thought to be the greater reach of the word 'usual,' as employed in the Powers Case. But these differences in phraseology, and the others just referred to, must not be too literally contradistinguished. In neither of the cases cited was the adjective used as an exclusive or rigid delimitation. For present purposes, however, we shall inquire whether the activity here in question constitutes an essential governmental function within the proper meaning of that term; and in that view decide the case.

There probably is no topic of the law in respect of which the decisions of the state courts are in greater conflict and confusion than that which deals with the differentiation between the governmental and corporate powers of municipal corporations. This ****497** condition of conflict and confusion is confined in the main to decisions relating to liability in tort for the negligence of officers and agents of the municipality. In that field, no definite rule can be extracted from the decisions.[1] It is true that ***363** in most of the state courts, including those in the state of New York, it is held that the operation of waterworks falls within the category of corporate activities; and the city's liability is affirmed in tort actions arising from negligence in such operation. But the rule in respect of such cases, as we pointed out in Trenton v. New Jersey, 262 U.S. 182, 192, 43 S.Ct. 534, 538, 67 L.Ed. 937, 29 A.L.R. 1471, has been 'applied to escape difficulties, in order that injustice may not result from the recognition of technical defenses based upon the governmental character of such corporations'; and the rule is hopelessly indefinite, probably for that very reason.

This is not, however, an action for personal injuries sounding in tort, but a proceeding which seeks in effect to determine whether immunity from federal taxation, in respect of the activity in question, attaches in favor of a state-created municipality—an objective so different in character from that sought in a tort action as to suggest caution in applying as the guide to a decision of the former a local rule of law judicially adopted in order to avoid supposed injustices which would otherwise result in the latter. We have held, for example, that the sale of motorcycles to a municipal corporation for use in its police service is not subject to federal taxation, because the maintenance of such a service is a governmental function. Indian Motorcycle Co. v. United States, 283 U.S. 570, 579, 51 S.Ct. 601, 604, 75 L.Ed. 1277. And while it is true that the weight of authority in tort actions accords with that view, there are state decisions which affirm the liability of a municipality for personal injury resulting from the negligence of its police officials under the circumstances presented in the respective cases dealt with.[2] Nevertheless, our ***364** decision in the Indian Motorcycle Case did not rest in the slightest degree upon a consideration of the state rule in respect of tort actions, but upon a broad consideration of the implied constitutional immunity arising from the dual character of our national and state governments.

[2] **[3]** **[4]** The rule in respect of municipal liability in tort is a local matter; and whether it shall be strict or liberal or denied altogether is for the state which created the municipality alone to decide (Detroit v. Osborne, 135 U.S. 492, 497, 498, 10 S.Ct. 1012, 34 L.Ed. 260)—provided, of course, the Federal Constitution be not infringed. But a federal tax in respect of the activities

of a state or a state agency is an imposition by one government upon the activities of another, and must accord with the implied federal requirement that state and local governmental functions be not burdened thereby. So long as our present dual form of government endures, the states, it must never be forgotten, 'are as independent of the general government as that government within its sphere is independent of the States.' The Collector v. Day, 11 Wall. 113, 124, 20 L.Ed. 122. And, as it was said in Texas v. White, 7 Wall. 700, 725, 19 L.Ed. 227, and often has been repeated, 'the preservation of the States, and the maintenance of their governments, are as much within the design and care of the Constitutions as the preservation of the Union and the maintenance of the National government.' The unimpaired existence of both governments ****498** is equally essential. It is to that high end that this court has recognized the rule, which rests upon necessary implication, that neither may tax the governmental means and instrumentalities of the other. The Collector v. Day, supra, 11 Wall. 113, at page 127, 20 L.Ed. 122. In the light of these considerations, it follows that the question here presented is not controlled by local law, but is a question of national scope to be resolved in harmony with implied constitutional prin ***365** ciples of general application. Compare Workman v. New York City, Mayor etc., 179 U.S. 552, 557, 21 S.Ct. 212, 45 L.Ed. 314. This indicated dissimilarity constitutes a distinction which is fundamental; and we put aside the state decisions in tort actions as inapposite. Compare Atlantic Cleaners & Dyers v. United States, 286 U.S. 427, 43 et seq., 52 S.Ct. 607, 608, 76 L.Ed. 1204.

We thus come to a situation, which the courts have frequently been called upon to meet, where the issue cannot be decided in accordance with an established formula, but where points along the line 'are fixed by decisions that this or that concrete case falls on the nearer or farther side.' Hudson County Water Co. v. McCarter, 209 U.S. 349, 355, 28 S.Ct. 529, 531, 52 L.Ed. 828, 14 Ann.Cas. 560. We are, of course, quite able to say that certain functions exercised by a city are clearly governmental—that is, lie upon the nearer side of the line—while others are just as clearly private or corporate in character, and lie upon the farther side. But between these two opposite classes, there is a zone of debatable ground within which the cases must be put upon one side or the other of the line by what this court has called the gradual process of historical and judicial 'inclusion and exclusion.' Continental Illinois Nat. Bank & Trust Co. v. Chicago, Rock Island & P. Ry. Co., 294 U.S. 648, 670, 55 S.Ct. 595, 603, 79 L.Ed. 1110, and cases cited.

We think, therefore, that it will be wise to confine, as strictly as possible, the present inquiry to the necessities of the immediate issue here involved, and not, by an attempt to formulate any general test, risk embarrassing the decision of cases in respect of municipal activities of a different kind which may arise in the future. Cf. Euclid v. Ambler Realty Co., 272 U.S. 365, 397, 47 S.Ct. 114, 121, 71 L.Ed. 303, 54 A.L.R. 1016; Metcalf & Eddy v. Mitchell, 269 U.S. 514, 523, 46 S.Ct. 172, 174, 70 L.Ed. 384. In the case last named we had occasion to point out the difficulty, albeit the necessity, as cases arise within the doubtful zone, of drawing the line which separate those activities which have some relation to government but are subject to taxation from those which are immune. 'Experience has shown,' ***366** we said, 'that there is no formula by which that line may be plotted with precision in advance. But recourse may be had to the reason upon which the rule rests, and which must be the guiding principle to control its operation. Its origin was due to the essential requirement of our constitutional system that the federal government must exercise its authority within the territorial limits of the states; and it rests on the conviction that each government in order that it may administer its affairs within its own sphere, must be left free from undue interference by the other.'

The public interest in the conservation and distribution of water for a great variety of purposes—ranging from ordinary agricultural, domestic, and sanitary uses, to the preservation of health and of life itself—is obvious and well settled. For the modern city, such conservation and distribution of water in sufficient quantity and in a state of purity is as vital as air. And this vital necessity becomes more and more apparent and pressing as cities increase in population and density of population. It has found, so far, its culminating point in the vast and supreme needs of the city of New York.

One of the most striking illustrations of the public interest in the use of water and the governmental power to deal with it is shown in legislation and judicial pronouncement with respect to the arid-land states of the far west. In some of them, the State Constitution asserts public ownership of all unappropriated nonnavigable waters. In Utah, while it was still a territory, a statute conferred the right upon individual land owners to condemn rights of way across the lands of others in order to convey water to the

former for irrigation purposes, and declared that such condemnation was for a 'public use.' This court upheld the statute. Clark v. Nash, 198 U.S. 361, 25 S.Ct. 676, 49 L.Ed. 1085, 4 Ann.Cas. 1171. We said that what is a public use may depend upon ***367** the facts surrounding ****499** the subject; pointed out the vital need of water for irrigation in the aridland states, a need which did not exist in the states of the east and where, consequently, a different rule obtained; and held that the court must recognize the difference of climate and soil which rendered necessary differing laws in the two groups of states.

Many years ago, Congress, recognizing this difference, passed the Desert Land Act (chapter 107, 19 Stat. 377), by which, among other things, the waters upon the public domain in the arid-land states and territories were dedicated to the use of the public for irrigation and other purposes. Following this act, if not before, all nonnavigable waters then on and belonging to that part of the national domain became publici juris, subject to the plenary control of the aridland states and territories with the right to determine to what extent the rule of appropriation or the common-law rule in respect of riparian rights should obtain. California Oregon Power Co. v. Cement Co., 295 U.S. 142, 155 et seq., 55 S.Ct. 725, 728, 79 L.Ed. 1356. And in Kansas v. Colorado, 206 U.S. 46, 94, 27 S.Ct. 655, 51 L.Ed. 956, this court entertained and decided a controversy between two states involving the right of private appropriators in Colorado to divert waters for the irrigation of lands in that state from a river naturally and customarily flowing into the state of Kansas. It was held (206 U.S. 46, at page 99, 27 S.Ct. 655, 668, 51 L.Ed. 956) that such a controversy rises 'above a mere question of local private right and involves a matter of state interest, and must be considered from that standpoint.' Cf. Hudson County Water Co. v. McCarter, 209 U.S. 349, 355, 28 S.Ct. 529, 52 L.Ed 828, 14 Ann.Cas. 560; New Orleans Gas Light Co. v. Drainage Comm., 197 U.S. 453, 460, 25 S.Ct. 471, 49 L.Ed. 831; Houck v. Little River Drainage District, 239 U.S. 254, 261, 36 S.Ct. 58, 60 L.Ed. 266.

In New Orleans v. Morris, 105 U.S. 600, 602, 26 L.Ed. 1184, the city had conveyed its waterworks to a corporation formed for the purpose of maintaining and enlarging them. ***368** The city received as consideration shares of stock, which a state statute declared should not be liable to seizure for the debts of the city. It was held the statute did not impair the obligation of any contract, since the shares represented the city's ownership in the waterworks which had, before the enactment of the statute, been exempted from seizure and sale. This ruling was put upon the ground that the waterworks were of such public utility and necessity that they were held in trust for the use of the citizens the same as public parks and public buildings.

While these do not decide, they plainly suggest, that municipal watwrworks created and operated in order to supply the needs of a city and its inhabitants are public works and their operation essentially governmental in character. Other decisions of this court, however, more directly support that conclusion.

We recently have held that the bankruptcy statutes could not be extended to municipalities or other political subdivisions of a state. Ashton v. Cameron County Water Imp. Dist., 298 U.S. 513, 56 S.Ct. 892, 895, 80 L.Ed. 1309. The respondent there was a water-improvement district organized by law to furnish water for irrigation and domestic uses. We said (298 U.S. 513, at pages 527, 528, 56 S.Ct. 892, 80 L.Ed. 1309) that respondent was a political subdivision of the state 'created for the local exercise of her sovereign powers. * * * Its fiscal affairs are those of the state, not subject to control or interference by the national government, unless the right so to do is definitely accorded by the Federal Constitution.' In support of that holding, former decisions of this court with respect to the immunity of states and municipalities from federal taxation were relied upon as apposite. The question whether the district exercised governmental or merely corporate functions was distinctly in issue. The petition in bankruptcy alleged that the district was created with power to perform 'the proprietary and/or corporate function of furnishing ***369** water for irrigation and domestic uses. * * *' The district judge (In re Cameron County Water Imp. Dist. No. 1, 9 F.Supp. 103) held that the district was created for the local exercise of state sovereign powers; that it was exercising 'a governmental function'; that its property was public property; that it was not carrying on private business, but public business. That court, having denied the petition for want of jurisdiction, the district submitted a motion for a new trial in which it assigned, among other things, that the court erred in holding that petitioner was created for the purpose of performing governmental functions, 'for the reason that the Courts of ****500** Texas, as well as the other Courts in the Nation, have uniformly held that the furnishing of water for irrigation was purely a proprietary function. * * *' Substantially the same thing was repeated in other assignments of error. In the petition

for rehearing in this court (299 U.S. 619, 57 S.Ct. 5, 81 L.Ed. 457), the district challenged our determination that respondent was a political subdivision of the state 'created for the local exercise of her sovereign powers,' and asserted to the contrary that the facts would demonstrate that 'respondent is a corporation organized for essentially proprietary purposes.' It is not open to dispute that the statements quoted from our opinion in the Ashton Case were made after due consideration, and the case itself of the and the rehearing denied in the light of the issue thus definitely presented. Compare Binghmam v. United States, 296 U.S. 211, 218, 219, 56 S.Ct. 180, 181, 80 L.Ed. 160.

'No higher police duty rests upon municipal authority,' this court said in Columbus v. Mercantile Trust Co., 218 U.S. 645, 658, 31 S.Ct. 105, 109, 54 L.Ed. 1193, 'than that of furnishing an ample supply of pure and wholesome water for public and domestic uses. The preservation of the health of the community is best obtained by the discharge of this duty, to say nothing of the preservation of property from fire, so constant an attendant upon crowded conditions of municipal life.'

***370** In Dunbar v. City of New York, 251 U.S. 516, 40 S.Ct. 250, 251, 64 L.Ed. 384, we sustained a charter provision giving a lien for water charges upon a building in which the water had been used, although the charges had been incurred by tenants and not by the owner, saying, 'And as a supply of water is necessary it is only an ordinary and elgal exertion of government to provide means for its compulsory compensation.'

In German Alliance Ins. Co. v. Homewater Supply Co., 226 U.S. 220, 33 S.Ct. 32, 57 L.Ed. 195, 42 L.R.A.(N.S.) 1000, the city of Spartanburg had entered into a contract with the respondent by which the latter was empowered to supply the city and its inhabitants with water suitable for fire, sanitary, and domestic purposes. The petitioner had issued a policy of fire insurance upon certain property, which was destroyed by fire. It paid the amount of the loss, and took an assignment from the insured of all claims and demands against any person arising from or connected with the loss. It brought suit against the respondent on the ground that the fire could easily have been extinguished if respondent had complied with its contract. This court held that the action was not maintainable for reasons which appear in the opinion. The city, it was said, was under no legal obligation to furnish water; and it did not subject itself to a new or greater liability because it voluntarily undertook to do so (226 U.S. 220, at pages 227, 228, 33 S.Ct. 32, 34, 57 L.Ed. 195, 42 L.R.A. (N.S.) 1000). 'It acted in a governmental capacity, and was no more responsible for failure in that respect than it would have been for failure to furnish adequate police protection.'

We conclude that the acquisition and distribution of a supply of water for the needs of the modern city involve the exercise of essential governmental functions, and this conclusion is fortified by a consideration of the public uses to which the water is put. Without such a supply, public schools, public sewers so necessary to preserve health, fire departments, street sprinkling and cleaning, public buildings, parks, playgrounds, and public baths ***371** could not exist. And this is equivalent, in a very real sense, to saying that the city itself would then disappear. More than one-fourth of the water furnished by the city of New York, we are told by the record, is utilized for these public purposes. Certainly, the maintenance of public schools, a fire department, a system of sewers, parks, and public buildings, to say nothing of other public facilities and uses, calls for the exercise of governmental functions. And so far as these are concerned, the water supply is a necessary auxiliary, and, therefore, partakes of their nature. People of State of New York ex rel. Rogers v. Graves, 299 U.S. 401, 57 S.Ct. 269, 81 L.Ed. 306 (January 4, 1937). Moreover, the health and comfort of the city's population of 7,000,000 souls, and in some degree their very existence, are dependent upon and adequate supply of pure and wholesome water. It may be, as it is suggested, that private corporations would be able and willing to undertake to provide a supply of water for all purposes; but if the state and city of New York be of opinion, as they evidently are, that the service should not be intrusted to private hands, but should be rendered by the city itself as an appropriate means of discharging its duty to protect the health, safety, and lives of its inhabitants, we do not ****501** doubt that it may do so in the exercise of its essential governmental functions.

We find nothing that detracts from this view in the fact that in former times the business of furnishing water to urban communities, including New York, in fact was left largely, or even entirely, to private enterprise. The tendency for many years has been in the opposite direction, until now in nearly all the larger cities of the country the duty has been assumed by the municipal authorities. Governmental functions are not to be regarded as nonexistent because they are held in abeyance, or because they lie dormant, for a time. If they

be by their nature governmental, they are none the less so because the use of them has had a recent beginning.

***372** The principle finds illustration in our decision in Shoemaker v. United States, 147 U.S. 282, 297, 13 S.Ct. 361, 389, 37 L.Ed. 170, where it was held that land taken by an exercise of the power of eminent domain for the establishment of Rock Creek Park in the District of Columbia was taken for a public use, and that the amount required to be paid was validly assessed upon lands in the district specially benefited thereby. At the beginning of the opinion in that case, this court said: 'In the memory of men now living, a proposition to take private property, without the consent of its owner, for a public park, and to assess a proportionate part of the cost upon real estate benefited thereby, would have been regarded as a novel exercise of legislative power.' It was pointed out that Central Park in New York was the first place provided for the inhabitants of any city or town in the United States as a pleasure ground for rest and exercise in the open air, but that in 1892, when the opinion was written, there was scarcely a city of any considerable size in the country that did not have, or had not projected, such parks.

[5] Respondent contends that the municipality, in supplying water to its inhabitants, is engaged in selling water for profit; and seems to think that this, if true, stamps the operation as private and not governmental in character. We first pause to observe that the overhead due to the enormous cost of the system, and the fact that so large a proportion of the water is diverted for public use, rather plainly suggests that no real profit is likely to result. And to say that, because the city makes a charge for furnishing water to private consumers, it follows that the operation of the water works is corporate and not governmental, is to beg the question. What the city is engaged in doing in that respect is rather rendering a service than selling a commodity. If that service be governmental, it does not become private because a charge is made for it, or a profit realized. A state, for example, ***373** constructs and operates a highway. It may, if it choose, exact compensation for its use from those who travel over it (see Bingaman v. Golden Eagle Western Lines, 297 U.S. 626, 628, 56 S.Ct. 624, 80 L.Ed. 928); but this does not destory the claim that the maintenance of the highway is a public and governmental function. The state or the city may exact a tuition charge for instruction in the public schools; but thereby the maintenance of the public schools does not cease to be a function of the government. The state exacts a fee for issuing a license or granting a permit; for recording a deed; for rendering a variety of services in the judicial department. Do these various services thereby lose their character as governmental functions? The federal Post Office Department charges for its services; but no one would question the fact that its operation calls into exercise a governmental function.

The contention is made that our decisions in South Carolina v. United States, 199 U.S. 437, 461, 462, 26 S.Ct. 110, 50 L.Ed. 261, 4 Ann.Cas. 737, and Flint v. Stone Tracy Co., 220 U.S. 107, 172, 31 S.Ct. 342, 55 L.Ed. 389, Ann.Cas.1912B, 1312, are to the effect that the supplying of water is not a governmental function; but in neither case was that question in issue, and what was said by the court was wholly unnecessary to the disposition of the cases and merely by way of illustration. Expressions of that kind may be respected, but do not control in a subsequent case when the precise point is presented for decision. Osaka Shosen Kaisha Line v. United States, 300 U.S. 98, 57 S.Ct. 356, 81 L.Ed. 532 (February 1, 1937), and authorities cited. The prcise point is presented here, has been fully considered, and is decided otherwise. Neither Ohio v. Helvering, 292 U.S. 360, 54 S.Ct. 725, 78 L.Ed. 1307, nor Helvering v. Powers, 293 U.S. 214, 55 S.Ct. 171, 79 L.Ed. 291, relied upon by respondent, is in point. What has already been said distinguishes those cases from the one now under consideration.

****502** We have not failed to give careful consideration to Blair v. Byers (C.C.A.) 35 F.(2d) 326, and Denman v. Com'r Int. Rev. (C.C.A.) 73 F.(2d) 193, both of which take a view contrary ***374** to that which we have expressed. To the extent of this conflict, those cases are disapproved. Both rely on South Carolina v. United States and Flint v. Stone Tracy Co., supra, which we have already distinguished.

Reversed.

Mr. Justice STONE and Mr. Justice CARDOZO, concurring in the result:

We concur in the result upon the ground that the petitioner has brought himself within the terms of the exemption prescribed by Treasury Regulation 74, Article 643, which for the purposes of this case may be accepted as valid, its validity not being challenged by counsel for the government.

In the absence of such a challenge, no opinion is expressed as to the need for revision of the doctrine of implied immunities declared in earlier decisions.

We leave that subject open.

Mr. Justice ROBERTS, dissenting.

I regret that I am unable to concur in the opinion of the court. I think that the judgment should be affirmed.

There is no occasion now to discuss the dual character of our form of government, and the consequent dual allegiance of a citizen of a state to his state and to the United States, to elaborate the thesis that the integrity of each government is to be maintained against invasions by the other or to reiterate that the implied immunity of the one from taxation by the other springs from the necessity that neither shall, by the exercise of the power to tax, burden, hinder, or destory the operation or existence of the other. There is universal recognition of the truth of these tenets, and of their fundamental relation to the preservation of the constitutional framework of the nation. Our difficulties arise, not in their statement as guiding principles, but, as in this instance, in their application to specific cases.

***375** The frank admissions of counsel at the bar concerning the confusion and apparent inconsistency in administrative rulings as to the taxability of compensation of municipal employees seem to call for an equally candid statement that our decisions in the same field have not furnished the executive a consistent rule of action. The need of equitable and uniform administration of tax laws, national and state, and the just demand of the citizen that the rules governing the enforcement of those laws shall be ascertainable require an attempt at rationalization and restatement.

It seems to me that the reciprocal rights and immunities of the national and a state government may be safeguarded by the observance of two limitations upon their respective powers of taxation. These are that the exactions of the one must not discriminate against the means and instrumentalities of the other and must not directly burden the operations of that other. To state these canons otherwise, an exaction by either government which hits the means or instrumentalities of the other infringes the principle of immunity if it discriminates against them and in favor of private citizens or if the burden of the tax be palpable and direct rather than hypothetic and remote. Tested by these criteria the imposition of the challenged tax in the instant case was lawful.

The petitioner is a citizen of New York. By virtue of that status, he is also a citizen of the United States. He owes allegiance to each government. He derives income from the exercise of his profession. His obligation as a citizen is to contribute to the support of the governments under whose joint protection he lives and pursues his calling. His liability to fulfill that obligation to the national government by payment of income tax upon his salary would be unquestioned were it not for the character of his employer. If the water works of New York ***376** City were operated by a private corporation under a public franchise and if the petitioner held a like position with the corporation, there could be no question that the imposition of a federal income tax, measured by his compensation, would be justified. If petitioner, instead of holding a so-called official position under the municipal goverment of New York City, were consulted from time to time with respect to its water problems his compensation would be subject to income tax. Metchlf & Eddy v. Mitchell, 269 U.S. 514, 46 S.Ct. 172, 70 L.Ed. 384. He is put into an untaxable class upon the theory that as an official of the municipality, which in turn is an arm of the state, he is an 'instrumentality' ****503** of the state, and to tax him upon his salary is to lay a burden upon the state government which, however trifling, is forbidden by the implied immunity of the state from burdens imposed by the United States. The petitioner seeks to show the reality of the supposed burden by the suggestion that if his salary and the compensation of others employed by the city is subject to federal income tax, the municipality will be compelled to pay higher salaries in order to obtain the services of such persons and the consequent aggregate increase in outlay will entail a heavy financial load. We know, however, that professional services are offered in the industrial and business field; and that while there is no hard and fast standard of compensation, and men bargain for their rewards, salaries do bear some relation to experience and ability. There is a market in which a professional man offers his services and municipalities are bidders in that market. We know further that those in private employment holding positions comparable to that of the petitioner pay a tax equal to that levied upon him. It is clear that any consideration of the petitioner's immunity from federal income tax would be altogether remote, impalpable, and unascertainable in influencing

***377** him to accept a position under the municipality rather than under a private employer.

In reason and logic it is difficult to differentiate the present case from that of a private citizen who furnishes goods, performs work, or renders service to a state or a municipality under a contract or an officer or employee of a corporation which does the same. Income tax on the compensation paid or the profit realized is a necessary cost incident to the performance of the contract and as such must be taken into account in fixing the consideration demanded of the city government. In quite as real a sense, as in this case, the taxation of income of such persons and, as well, the taxation of the corporation itself, lays a burden upon the funds of the state or its agency. Nevertheless, the courts have repeatedly declared that the doctrine of immunity will not serve to exempt such persons or corporations from the exaction.

The importance of the case arises out of the fact that the claimed exemption may well extend to millions of persons (whose work nowise differs from that of their fellows in private enterprise) who are employed by municipal subdivisions and districts throughout the nation and that, on the other hand, the powers of the states to tax may be inhibited in the case of hundreds of thousands of similar employees of federal agencies of one sort or another. Such exemptions from taxation ought to be strictly limited. They are essentially unfair. They are unsound because federal or state business ought to bear its proportionate share of taxation in order that comparison may be made between the cost of conducting public and private business.

We are here concerned only with the question of the taxation of salaries or compensation received by those rendering to a municipality services of the same kind as are rendered to private employers and need not go be ***378** yond the precise issue here presented. We have no concern with the exaction of a sales tax by the federal goverment on sales to a state government or one of its subdivisions, or the reverse; we are not called upon to define the power to levy taxes upon real property owned by a state or by the national government. We have no occasion to discuss the power of either government to impose excise taxes upon transactions of the other or upon the evidence of such transactions. Nor are we called upon here to determine the validity of a nondiscriminatory tax upon the salary of a governmental officer whose duties and functions have no analogue in the conduct of a business or the pursuit of a profession, but are both peculiar to and essential to the operation of government. The sole question here is whether one performing work or rendering service of a type commonly done or rendered in ordinary commercial life for gain is exempt form the normal burden of a tax on that gain for the support of the national government because his compensation is paid by a state agency instead of a private employer. I think the imposition of a tax upon such gain where, as here, the tax falls equally upon all employed in like occupation, and where the supposed burden of the tax upon state government is indicrect, remote, and imponderable, is not inconsistent with the principle of immunity inherent in the constitutional relation of state and nation.

Mr. Justice BRANDEIS joins in this opinion.

All Citations

300 U.S. 352, 57 S.Ct. 495, 81 L.Ed. 691, 108 A.L.R. 1428, 37-1 USTC P 9175, 18 A.F.T.R. 1156, 1937-1 C.B. 217

Footnotes

1 This is brought out in a careful and detailed review by Professor Borchard in that portion of his general discussion of 'Government Liability in Tort' dealing with municipal corporations, to be found in 1924-5) 34 Yale L.J. 129—143, 229—258, in the course of which the courts 129): 'Disagreement among the courts as to many customary muncipal acts and functions may almost be said to be more common than agreement and the elaboration of the varying justifications for their classification is even less satisfying to any demand for principle in the law. Indeed, so hopeless did the effort of the courts to make an appropriate classification of functions appear to the Supreme Court of South Carolina that they determined to abandon the distinction between governmental and corporate acts.'

2 See Herron v. Pittsburg, 204 Pa. 509, 513, 54 A. 311, 93 Am.St.Rep. 798; Jones v. City of Sioux City, 185 Iowa, 1178, 1185, 170 N.W. 445, 10 A.L.R. 474; Twist v. City of Rochester, 37 App.Div. 307; 55 N.Y.S. 850. Compare Kunz v. City of Troy, 104 N.Y. 344, 348, 10 N.E. 442, 58 Am.Rep. 508, with Altvater v. Mayor, etc., of Baltimore, 31 Md. 462.

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Called into Doubt by Rolapp v. Federal Bldg. & Loan Ass'n, Cal.App. 1 Dist., January 21, 1936

209 Cal. 105, 287 P. 475

THE CITY OF SAN DIEGO (a Municipal Corporation), Plaintiff and Appellant,
v.
CUYAMACA WATER COMPANY (a Corporation) et al., Defendants and Appellants;
THE CITY OF EL CAJON (a Municipal Corporation) et al., Interveners and Appellants.

Supreme Court of California.
L. A. No. 10171.
March 21, 1930.

[1]
MUNICIPAL CORPORATIONS—CITY OF SAN DIEGO—ACT OF INCORPORATING—CONSTRUCTION—PUEBLO OF SAN DIEGO.
The use of the word "presidio" in the act of 1850 incorporating "the city of San Diego" instead of the word "pueblo" was a mistake and said city succeeded to the rights of the former pueblo of San Diego.

[2]
ID.—WATERS AND WATER RIGHTS—RIGHTS OF CITY AS SUCCESSOR OF PUEBLO.
The pueblo of San Diego, by virtue of its organization as such, became entitled, under the Spanish and Mexican laws, to a prior or preferential right to the waters of San Diego River passing above or underground through the arena constituting the pueblo lands.

[3]
ID.—RULE OF PROPERTY—STARE DECISIS.
The proposition decided by a long line of decisions of the Supreme Court of California that Spanish or Mexican pueblos organized in California under the laws, institutions or regulations of Spain or Mexico during their successive governments thereof, and the successors of such pueblos, have a prior and paramount right to the use of waters of rivers and streams flowing through the territory which constituted the pueblo necessary for ordinary municipal purposes and the use of inhabitants, has become a rule of property which, under the rule of *stare decisis,* cannot be disturbed.

[4]
ID.—TRANSFER OF MISSION OF SAN DIEGO—CONSTRUCTION OF INSTRUMENT.
The document executed by the viceroy of the King of Spain over Mexico dated the seventeenth day of December, 1773, approving the removal of the Mission of San Diego from its former location near the presidio on San Diego Bay to a new site, did not purport to transfer the waters of San Diego River to the Mission of San Diego.

[5]
ID.—PRESIDIOS, PUEBLOS AND MISSIONS—ORIGINAL PLANS.
Under the original Spanish plans for the settlement of Alta California provision was made for the foundation and development of presidios, pueblos and missions, which were to function harmoniously within their respective jurisdictions, the presidios being purely military foundations, the pueblos civil and political and the missions purely ecclesiastical.

[6]
ID.—ESTABLISHMENT OF PUEBLO OF SAN DIEGO—VESTING OF WATER RIGHTS.
Upon the establishment of the pueblo of San Diego in the year 1843 it became invested with whatever land and water rights it was entitled to under the laws, institutions and regulations of Spain and Mexico, which rights were not interfered with by similar or superior rights in the Mission of San Diego, which had then ceased or was about to cease.

[7]
ID.—MISSION LANDS—TITLE—LACK OF CONFIRMATION BY LAND COMMISSIONERS.
Any claim to land through the Mission of San Diego lapsed and ceased to exist by reason of the additional fact that no claim thereto was ever presented to the Board of Land Commissioners as required by the act of Congress of March 3, 1851.

[8]
ID.—ARGUELLO GRANT—RIGHTS UNDER.

Lands of the Mission San Diego which became a part of the public domain by their secularization and thereafter were conveyed by the government by private grant to Santiago Arguello, the title being confirmed by the federal land commission, which grant was subsequent to the establishment of the pueblo of San Diego, were subject to the right of said pueblo in the waters of the San Diego River passing through its area.

[9]
ID.—"GOVERNMENTAL" RIGHTS.
The rights of the City of San Diego, as the successor of the pueblo of San Diego, in the waters of the San Diego River, required for the needs of the pueblo and the city and the inhabitants of each, were essentially "governmental" in character, as distinguished from "proprietary" rights.

[10]
ID.—ACT OF CONGRESS OF JULY 26, 1866, AND JANUARY 12, 1891— CONSTRUCTION.
The act of Congress of July 26, 1866, and the supplementary act of January 12, 1891, being subsequent to the vesting in the City of San Diego of whatever rights in the waters of San Diego River it had succeeded to from the pueblo of San Diego, conferred no rights superior to the already vested rights of said city.

[11]
ID.—PRESCRIPTIVE RIGHTS IN WATER—ADVERSE USER.
A prescriptive right in the waters of a flowing stream arises primarily by the adverse user of the waters by the claimant under a claim of right which has been acquiesced in for the required term of years by the person otherwise entitled to the same.

[12]
ID.—INVASION OF RIGHT—TITLE BY PRESCRIPTION.
In order to establish a right by prescription in the waters of a stream, the acts by which it is sought to establish it must operate as an invasion of the right of the party against whom it is set up, and the enjoyment relied upon must be of such a character as to afford ground for an action by the other party; and while there is sufficient water in a flowing river to supply the wants and demands of all parties claiming rights in it, its use by one of them could not be an invasion of the right of any other.

[13]
ID.—DEFENSES OF PRESCRIPTION AND LACHES—RULE.
With reference to the defenses of prescription and laches, it is a general rule that no invasion of the rights of property which are held by a public or municipal corporation in perpetual trust for public uses can be held sufficient to furnish the basis of a defense based solely upon prescription or laches; and the right of the City of San Diego in the waters of the San Diego River, being a trust, cannot be lost by adverse user or laches.

[14]
ID.—ESTOPPEL—NATURE OF.
The defense of estoppel rests upon the doctrine that a right conceded for the purposes of such defense to exist in a party, he shall not be permitted to assert against another to the latter's injury because of the existence and proof of certain facts and conditions which would render its assertion inequitable.

[15]
ID.—PREFERENTIAL RIGHTS—KNOWLEDGE OF—PRESUMPTION.
The defendants in this case, as a matter of law, are held to have had knowledge of the existence in the City of San Diego of its prior and preferential rights in and to varying amounts of water in the San Diego River according to its expanding needs, not only because all persons are held to a knowledge of the law, but because the Supreme Court from an early date and at different intervals down to the commencement of the present action uniformly held that cities founded upon previous pueblos had a prior and preferential right to the waters of streams flowing through them.

[16]
ID.—PUBLIC TRUST—MUNICIPAL CORPORATION—ESTOPPEL.
Even if it be conceded that a right based upon estoppel could arise by virtue of mere acquiescence in its assertion as between private parties, no such right would come into being as against a municipal corporation, founded upon its mere acquiescence or that of its officials in the diversion

by any number of appropriators, or even of upper riparian owners of the waters of a stream to the use of which such public or municipal corporation was entitled as a portion of its public rights to properties held in perpetual trust for a public use.

[17]
ID.—TREATY OF GUADALUPE-HIDALGO—CONSTRUCTION—PROPERTY RIGHTS—STATUTES OF SPAIN AND MEXICO.
The United States in taking over the territory known as Alta California, under the treaty of Guadalupe-Hidalgo, agreeing therein to recognize the interests and protect the ownership of certain land titles within said territory, did not take over and agree to adopt the statutes of limitations of either Spain or Mexico as applicable to the lands or waters devoted to a public use.

[18]
ID.—ESTOPPEL IN PAIS—KNOWLEDGE OF FACTS—RELIANCE UPON.
It is of the essence of an estoppel *in pais* that the party asserting such estoppel should not only have been ignorant of the true statement of the facts, but that he should have relied upon the representation or admission of the adverse party; and it is held in this action that the elements of estoppel are entirely lacking.

[19]
ID.—ACTION FOR DECLARATORY JUDGMENT—JURISDICTION.
Where the plaintiff merely seeks to establish a prior and paramount right in certain waters for municipal uses and the uses of its inhabitants, the action is declaratory in character and it was error for the court to attempt to give its determination an effect beyond a declaratory judgment.

APPEAL from a judgment of the Superior Court of San Diego County. M. W. Conkling, Judge. Modified and affirmed.

The facts are stated in the opinion of the court.

***108** Shelley J. Higgins and Jas. E. O'Keefe, City Attorneys, Arthur F. H. Wright and Harry S. Clark, Deputies City Attorney, and Hunsaker, Britt & Cosgrove for Plaintiff and Appellant.
Crouch & Sanders, Hugh A. Sanders, Sweet, Sterns & Forward, Philip Storer Thacher, E. V. Winnek, Sterns, ***109** Luce & Forward, O'Melveny, Tuller & Myers, W. A. Sloane and Sloane & Sloane for Defendants, Interveners and Appellants.

RICHARDS, J.

A rehearing was granted herein after the decision of this cause by the court in bank in order that an even more full and careful consideration might be given to the important questions involved in this appeal. Upon such consideration we have concluded to reaffirm the conclusions arrived at in our former decision, and to adopt the language of such decision, with such emendations as may be required in view of the further light which has been shed upon the subject by former and further counsel for the respective parties, as well as by the briefs of *amici curiae* filed herein.

This action was instituted by the City of San Diego, a municipal corporation, having for its purpose the determination of the question of its title to certain rights in and to the waters of the San Diego River to which the original defendants in said action were asserting and exercising certain adverse claims. The precise nature of this action was aptly described in certain earlier appeals to this court. In the case of *Cuyamaca Water Co. v. Superior Court,* 193 Cal. 584, 588 [33 A. L. R. 1316, 226 Pac. 604, 605], it was thus stated: "In the pending quiet title action it will not, of course, be determined that the city is or is not entitled to any particular quantity of water. If the litigation terminates favorably to the plaintiff the only right which will be established and determined to be vested in the city will be a right to the water and the use thereof prior and paramount to the defendants' rights therein, and then only to the extent necessary for the needs of the city and its inhabitants. The amount needed is necessarily uncertain and conjectural and dependent upon conditions such as rainfall and other established sources of supply. The subject matter of the action is the establishment of the priority of right and not the quantity of water to be taken." In the case of *City of San Diego v. Andrews et al.,* 195 Cal. 111 [231 Pac. 726], which was a proceeding in *mandamus* to compel the respondent judge of the Superior Court of the county of San Diego to proceed to hear and determine the present cause, this court restated in substance the purpose of the instant

case. The importance of the foregoing clear concept of ***110** the nature and purpose of the present action will appear as we proceed with the consideration of the several issues involved therein. The original defendants in this action were Cuyamaca Water Company, a corporation; Cuyamaca Water Company, a copartnership, and certain individuals and the survivors and personal representatives of the members of said copartnership. The action was commenced in the early part of the year 1923, the amended complaint therein being served and filed on June 9, 1923. The defendants united in filing their demurrer to said amended complaint on June 18, 1923, said demurrer being both general and special and being based upon thirteen alleged grounds of demurrer. The demurrer was upon hearing overruled; whereupon and in December, 1923, said defendants served and filed their answer, embracing seventeen separate defenses presented by the defendants jointly, and also a number of special defenses urged on the part of certain of said defendants individually. The defendants also presented and filed at the same time their cross-complaint, wherein they asserted affirmatively the particular foundation of their adverse claims to certain portions of the waters of the San Diego River over which the plaintiff was undertaking to have established its alleged prior and preferential right. To the defendants' answers and cross-complaint the plaintiff on December 21, 1923, served and filed its demurrer upon forty-two specified grounds. Thereafter and while said demurrer was pending and undisposed of, certain other parties appeared separately in the action with applications for leave to intervene. These were one Carroll H. Smith, who in his proffered complaint in intervention alleged himself to be a resident, citizen and taxpayer of the city of La Mesa in the county of San Diego, and also an owner of property within the La Mesa Lemon Grove and Spring Valley Irrigation District in said county, which said city and said irrigation district had for the sole source of water supply of each the waters of the San Diego River, which said waters they and each of them were receiving under and by virtue of an agreement with the defendant Cuyamaca Water Company, a copartnership, with which copartnership and the surviving members thereof the said petitioner wished to join in resisting the claim of prior and preferential right thereto asserted by said plaintiff. The ***111** said Carroll H. Smith also alleged himself to be the owner of certain lands within the so-called Ex-Mission Rancho and to be thereby entitled to certain paramount and exclusive rights to the use of the waters of said river derived from grants of said rancho to his predecessors made by and under the Spanish crown. The La Mesa Lemon Grove and Spring Valley Irrigation District also and at the same time presented its application for leave to intervene in the action, basing its alleged right so to do upon its proffered complaint in intervention, wherein were set forth substantially the same averments as were embodied in the complaint in intervention of said Smith. In addition to these, the city of El Cajon, a municipal corporation, situate in the county of San Diego, also petitioned for leave to intervene, making substantially the same allegations as to the source and right of water supply from the waters of the San Diego River as were set forth by said other applicants for leave to intervene. The court upon a hearing permitted the several parties to file their respective complaints in intervention, and in due course the plaintiff, City of San Diego, presented and filed its several demurrers thereto. Thereafter the demurrers of the plaintiff to the answer and cross-complaint of the original defendants and also to the complaints in intervention of said several interveners were submitted to the trial court for decision; and the court in ruling thereon sustained the said plaintiff's demurrer to certain specified portions of the original defendants' answer and cross-complaint without leave to amend, and also sustained the demurrer of the plaintiff to certain other specified portions of said defendants' answer and cross-complaint with leave to amend. The trial court also at the same time overruled the plaintiff's demurrers to the several complaints in intervention. The effect of these several rulings by the trial court was that of determining as a matter of law that the City of San Diego had by virtue of its incorporation and right of succession become the successor and owner of those certain prior and preferential rights to the waters of the San Diego River with which, from its inception the pueblo of San Diego, as established in the year 1834, had become invested by virtue of its formation under the laws of Spain and Mexico. The question as to whether as a matter of law the plaintiff City of San Diego had originally become ***112** invested with these prior and preferential rights in and to the waters of the San Diego River by virtue of its succession to whatever rights of that nature existed in the pueblo of San Diego is thus presented upon this appeal, involving as it does the correctness of the aforesaid rulings of the trial court touching that point upon demurrer. As to the issues presented by those other specified portions of the original defendants' answer and cross-complaint, and which involve the question as to whether the plaintiff had lost its original superior right to the waters of the San Diego River derived from

said source, by prescription, or by laches or by estoppel operating in favor of some or all of said defendants and their successors in interest, the trial court permitted said defendants to present amended pleadings, and upon their doing so overruled the plaintiff's later demurrers thereto; and having already overruled the plaintiff's demurrers to the several complaints in intervention, and the interveners having also amended their pleadings so as to embrace and conform to the defendants' amended answer and cross-complaint, and the plaintiff having answered the interveners' complaints and the amended cross-complaint of the defendants, the cause was thus brought to issue and proceeded to trial upon the disputed questions of fact thus presented. The cause was tried without a jury; a large mass of evidence was presented involving the testimony of many witnesses and the introduction of numerous exhibits, thus creating a record of unusual proportions, upon which were superimposed briefs and arguments of counsel evincing extraordinary effort, diligence and research. The cause was finally submitted to the trial court for its decision and in due course the findings and conclusions of law of the trial court were filed, the correctness and sufficiency of which furnish the weighty burden laid upon this court in its determination of the merits of the several appeals which have been taken and are being prosecuted by all of the parties to this action.

(1) At the outset of our re-examination of the questions thus submitted to our determination it has been strenuously insisted by counsel for certain of the interveners herein that the City of San Diego did not by the terms of its incorporation under the new dominion become the successor to the rights of the former pueblo of San Diego, for the reason, ***113** as urged by counsel, that by the first act of its incorporation, adopted by the legislature of California in the year 1850, it was only "the Presidio of San Diego" which was purported to be thereby incorporated and known as "the City of San Diego." It is true that in the body of said act of incorporation the area to be covered thereby is described as being "known as the Presidio of San Diego." But it is also true that the area to be included within such incorporation embraced those lands which were "included in the survey made by Lieutenant Cave J. Couts, First Dragoons, U. S. A., for the ayuntamiento," and which embraced an area of ten square miles. It is a series of significant facts that said area included the then existing pueblo of San Diego, of which the ayuntamiento referred to therein was the ayuntamiento, or in other words the town council composed of the alcaldes, the regidores and certain other municipal officers which were strictly the officers of the pueblo and none of whom were officers of a presidio, which was purely a military as distinguished from a civil foundation. The act further provided that in limiting the area to be known as the City of San Diego to ten square miles it was not to be construed so as "to divest or in any manner prejudice any rights or privileges which the presidio may hold to any land beyond the limits of the charter," and it was further provided that the corporation created by this act "shall succeed to all the legal rights and claims of the Presidio of San Diego and shall be subject to all the liabilities incurred and the obligations created by the ayuntamiento of said Presidio." These references should make it sufficiently plain that the use of the term presidio instead of pueblo in said act of incorporation was a misnomer, and that it was the intention of the act of incorporation to impose certain civil and political rights under the new dominion upon the area which was already, by virtue of its pueblo origin, in the enjoyment of certain civil and political rights under the old dominion. It may be fairly surmised that this blunder in the way of designation was presently discovered and was promptly sought to be remedied, since we find that the act of incorporation above referred to was repealed by the legislature in 1852 (Stats. 1852, p. 223) and that by said act another form of incorporation was provided, to be known as "the Trustees of the City of San ***114** Diego"; and that by an act of the same legislature (Stats. 1852, p. 225) the said "Trustees of the City of San Diego" were declared to be a body corporate under the style of "The President and Trustees of the City of San Diego," and were authorized and directed by such corporate name and style to "present before the board of land commissioners created by act of congress for the settlement of land titles in this state, or any court before which it may be necessary to appear for the purpose of prosecuting or defending the right or claim which the City or Pueblo of San Diego may have to land known as the common lands of San Diego." It further appears that, pursuant to such direction, the aforesaid officials of the City of San Diego, purporting to represent it in its capacity as the successor of the pueblo of San Diego, did duly present before the aforesaid congressional commission the claim of said city for the confirmation of its title "to the pueblo lands of San Diego" and that according to the recitals of the certified copy of the patent to the City of San Diego presented in evidence herein (Plaintiff's Exhibit No. 7), it was adjudged, in the course of the proceedings before said commission, "that the claim

of said petitioner is valid and it is, therefore, decreed that the same be confirmed. The land of which confirmation is made is situated in the county of San Diego and is known as the pueblo or town lands of San Diego." It further appears from the record herein that the state legislature from time to time adopted certain special acts authorizing the board of trustees of the City of San Diego to deal in different ways with the pueblo lands of said city (Stats. 1855, p. 206; Stats. 1861, p. 270; Stats. 1867-68, p. 8), and it still further appears that the legislature in 1870 re-established the boundaries and areas of the City of San Diego as comprising "all that tract of land known as the Pueblo of San Diego," etc., and that in the same year the legislature adopted "An act to legalize, ratify and confirm deeds of conveyance and grants of land within the pueblo lands of San Diego." And it yet further appears that upon several occasions from the year 1872 on, the state legislature has adopted successive acts re-incorporating the City of San Diego, in each of which it is expressly stated that "all that tract of land known as the Pueblo of San Diego … shall henceforth be known as the City of San Diego." (Stats. ***115** 1871-72, p. 285; Stats. 1875-76, p. 806; Stats. 1889, p. 302.) It would seem to sufficiently appear from the foregoing statements of both law and fact that the findings and conclusions of law of the trial court were supported by an amplitude of evidence, wherein it expressly found and determined:

That about the year 1834 there was founded, and until about the year 1850 there continued to exist upon what is now the site of the City of San Diego, a certain Mexican pueblo then designated as the Pueblo of San Diego; that the location and site of said Mexican Pueblo of San Diego at the time the same was founded, was, ever since has been, and now is, situated and located upon the banks of a certain unnavigable river or stream, then, ever since and now known as the San Diego river; that said stream at the time of the organization of said Pueblo of San Diego and at all times thereafter during its existence flowed into and through said pueblo, and the banks and bed of said stream from the mouth to the easterly territorial limits of said pueblo a distance of approximately five miles, were located and lay entirely within the territorial limits and formed a part of the lands and waters of said Pueblo of San Diego.

That said Pueblo of San Diego and the inhabitants thereof from its organization during the entire term of its existence, enjoyed, asserted and exercised a preference or prior right to the use of the waters of said San Diego river for the benefit of said pueblo and the inhabitants thereof.

That said preference or prior right of said pueblo and of the inhabitants thereof to the use of all the waters of said river necessary to supply the domestic wants of the inhabitants of said pueblo, to irrigate the lands thereof, and for other municipal purposes within the general limits of said pueblo, was a right, and the distribution of said waters for such purposes by the pueblo authorities was a trust created, imposed and recognized by the laws, orders and decrees of the government of the Kingdom of Spain and the Republic of Mexico.

That the plaintiff herein, The City of San Diego, was incorporated on or about March 27, 1850, and thereupon became the successor and ever since has been the successor of said Mexican Pueblo of San Diego, and as such successor to said Mexican Pueblo succeeded to and acquired all the rights and privileges theretofore held or exercised by said ***116** Pueblo of San Diego and in particular as the successor of said Mexican Pueblo of San Diego The City of San Diego succeeded to and acquired all the rights and privileges theretofore enjoyed, asserted and exercised by said Pueblo of San Diego in and to the waters of said San Diego river; that since said incorporation said The City of San Diego, as the successor to said Mexican Pueblo, has at all times enjoyed, asserted and exercised a right of priority in and to the use of all the waters of said San Diego river necessary or convenient for the use of said The City of San Diego and the inhabitants thereof, and has not in any manner, nor to any extent, surrendered, forfeited or abandoned said right, save and except in the manner and to the extent hereinafter found and declared.

"That the San Diego river is an unnavigable natural stream of water located wholly within the county of San Diego, state of California, and takes its rise in the Cuyamaca Mountains in said county on the southerly and westerly slopes thereof, and flows in a southwesterly direction approximately fifty miles from its source until it reaches the easterly boundary of The City of San Diego, formerly the easterly boundary of said Pueblo of San Diego, from which point said river flows westerly through said The City of San Diego a distance of approximately five miles, discharging its waters into the Pacific Ocean through Mission Bay in said city and county."

It will thus indisputably appear that by the foregoing findings of the trial court, supported by sufficient evidence, the City of San Diego was as to all of its property rights and powers placed within the same category as the other several cities of California which were founded upon the sites of the former pueblos thereof, and which by virtue of their said foundation became and have since remained the successors of those property rights and powers with relation thereto which were possessed by said pueblos.

(2) The appellants, however, undertake to argue that the trial court was in error in holding as a matter of law that the pueblo of San Diego, by virtue of its organization as such, became entitled, under the Spanish and Mexican laws, to any prior or preferential right to the waters of the San Diego River passing above and underground through the allotted leagues which were to constitute the area of the pueblo lands. In ***117** support of this argument counsel for said appellants would have us go back even prior to the Christian era and consider in our review the history of civilization in so far as the same relates to the slow, involved, and obscure development of the civil and religious institutions of ancient and medieval Spain. If for the first time in the history of our California jurisprudence such a review was being asked, or such an elaborate argument as these appellants now urge was being presented we might be disposed to consider as persuasively as we have now read interestingly the pages upon pages of Spanish history collated in that behalf. But the difficulty with the situation which appellants' diligent counsel now seek to have us reconsider is that the same question has already on several occasions, early and late, been presented to and passed upon by this court in decisions which are uniformly adverse to the appellants' present contention. While there were other and earlier cases in the courts of this state and even in the Supreme Court of the United States which touched upon the subject of the formation of pueblos under the laws, institutions and regulations of Spain applicable to the settlement and development of lands in what had become known as "New Spain and the Indies," the great leading case upon the subject applying these laws, institutions and regulations particularly to those pueblos which had come into existence in California under both the Spanish and Mexican dominion, is the case of *Hart v. Burnett,* 15 Cal. 530, to 624, wherein Mr. Justice Baldwin, Mr. Chief Justice Stephen J. Field concurring, discussed at great length and with much learning the nature and extent of the rights which inhered in such pueblos by virtue of their foundation in those lands which lay within their immediate vicinage and beyond this to the extent of the additional four leagues of surrounding lands allotted to such pueblos as a result of their formal establishment as civil governments or *quasi* municipalities. It is not necessary to further refer to this leading case in other terms than those in which it has been referred to and commented upon by later decisions of the courts of this state and of the United States. In the case of *Townsend v. Greeley,* 5 Wall. (U. S.) 326, 336 [18 L. Ed. 547, see, also, Rose's U. S. Notes], the effect of that earlier decision was briefly but clearly stated by Mr. Justice Field, who wrote the latter decision, ***118** and his language as used therein was quoted approvingly by this court in the case of *Hale v. Akers,* 69 Cal. 160, 166 [10 Pac. 385], which was presently to hand down its decision in the case of *Lux v. Haggin* in the following month of the same year and which is reported in 69 Cal. 255, 454 [4 Pac. 919, 10 Pac. 674, 715]. in this latter decision, which is the longest and most exhaustively treated cause in the history of California jurisprudence, Mr. Justice McKinstry, who wrote the opinion, went over the entire ground of the land and water rights of the owners of each in California whose title thereto looked for their derivation to the laws, institutions and regulations of Spain and Mexico. In the course of his most learned and comprehensive dissertation he referred approvingly to the decision in *Hart v. Burnett, supra,* as to the right and title which the pueblo had to land within its general limits. The court then proceeded to say: "By analogy and in conformity with the principles of that decision, we hold the pueblos had a species of property in the flowing waters within their limits, or 'a certain right or title' in their use, in trust to be distributed to the common lands, and to the lands originally set apart to the settlers, or subsequently granted by the municipal authorities. It may be conceded that such authorities were not authorized to make concessions to individuals of the perpetual and exclusive use of portions of the waters, without reference to the needs of the other inhabitants; or that such concessions would be an abuse of the trust. But they had a species of right or title in the waters and their use, subject to the public trust of continuously distributing the use in just proportion. … Each pueblo was *quasi* a public corporation. By the scheme of the Mexican law it was treated as an entity, or person, having a right as such, and by reason of its title to the four leagues of land, to the use of the waters of the river on which it was situated, while as a political body, it was vested with power, by ordinance, to provide for a distribution

of the waters to those for whose benefit the right and power were conferred." After quoting certain passages from Escriche, an eminent Spanish authority upon the subject, the court further proceeded to say: "From the foregoing it appears that the riparian proprietor could not appropriate water in such manner as should interfere with the common use or destiny which a ***119** pueblo on a stream should have given to the waters; and *semble* that the pueblos *had a preference or prior right to consume the waters even as against an upper riparian proprietor."* The court, however, suggested that it "is not necessary here to decide that the pueblos had the preference above suggested; nor is it necessary here to speak of the relative rights of two or more municipalities on the same stream." In the next and later case of *Vernon Irr. Co. v. Los Angeles,* 106 Cal. 237, 251 [39 Pac. 762], the question directly arose. In that case the Vernon Irrigation District, a corporation, owned a tract of land riparian to the upper reaches of the Los Angeles River, and commenced its action to enjoin the city of Los Angeles, which was and is the successor of the pueblo of Los Angeles, and certain other defendants, from so diverting the waters of the Los Angeles River as to interfere with the plaintiff's riparian right therein. The city of Los Angeles by its answer put forth the claim that by virtue of its succession to the rights of the pueblo of Los Angeles, founded in 1786, it possessed the prior and preferential right to take all of the waters of the Los Angeles River. The trial was prolonged and the findings of the trial court voluminous, in the course of which it was found and decreed that the city of Los Angeles, by virtue of its succession to rights of said pueblo, was the absolute owner of all of the water flowing in the Los Angeles River for the use of its inhabitants and for all other municipal purposes. From the judgment in its favor based upon this finding the plaintiff took an appeal and thus presented to this tribunal for determination the correctness of the aforesaid finding of the trial court. This court, Mr. Justice Temple writing the opinion, gave its most careful and exhaustive consideration to the determination of this question, in the course of which he quoted exhaustively from the Spanish and Mexican laws, approving the principles enunciated in the case of *Hart v. Burnett, supra,* and which were adopted by this court in *Lux v. Haggin, supra,* and quoted also with approval the language of the latter case above referred to and wherein it had been suggested, though not in that case found necessary to be decided, that the pueblos had a preferred right to the waters of rivers flowing through their lands, which could be asserted to the extent needed to supply the wants of their inhabitants. There ***120** were other questions presented in that case not necessary to be here considered, but it must be conceded that the question as to the prior and preferential right of a pueblo to the waters of a river passing through it to the extent above indicated was therein squarely presented and fully upheld by the terms and scope of that decision, and that the later formed municipality organized as the successor of the pueblo fully succeeded to these rights to which the pueblo had become entitled by virtue of its creation under the Spanish and Mexican laws. The next case wherein this question arose was that of *City of Los Angeles v. Pomeroy,* 124 Cal. 597, 650 [57 Pac. 585], which was an action in which the city of Los Angeles undertook to condemn certain lands lying in the San Fernando Valley along the Los Angeles River and to which stream said lands were riparian, for the purpose of utilizing the same in collecting and conserving the waters of said stream for delivery to the main supply pipe and distributing system of said city. The plaintiff based its claim of right to condemn the land in question for the utilization of its asserted right to the waters of said river, in part at least, upon the averments of its amended complaint to the effect that the city, as the successor of the pueblo, was the exclusive owner of all of the waters of said river for the purpose of supplying water for the irrigation of the irrigable lands embraced in the four square leagues of the pueblo, and for other municipal uses. These averments were traversed by the defendants. The cause was tried before a jury, to which the court gave the following instruction: "The city of Los Angeles is situated on the river below these lands, and is the owner of the right to take from the Los Angeles river all the water that is reasonably necessary to give an ample supply for the use of its inhabitants and for all municipal uses and purposes for which the city may require water. This right is measured by the necessity, and if the needs increase in the future the right *will expand to include all that the needs require. This right of the city is paramount and superior to the rights of the defendants in the waters of the river."* This court upon appeal, Mr. Chief Justice Beatty writing the opinion, fully sustained said instruction in so far as it correctly stated the paramount and superior rights of the city to whatever expanding uses of the waters of said river the ***121** pueblo by virtue of its formation possessed, and in so doing expressly approved in principle the case of *Vernon Irr. Co. v. Los Angeles, supra;* the court, however, held that the instruction was erroneous in according to the city of Los Angeles greater rights to the waters of said river than those which, as the successor

of the pueblo, it had received from it, the area of the modern city having expanded so as to embrace territory not within that of the pueblo lands. The next case in which the same question controversially arose was that of *City of Los Angeles v. Los Angeles Farming & Milling Co.,* 152 Cal. 645 [93 Pac. 869, 871, 1135], wherein the city of Los Angeles asserted its prior and paramount ownership of the use of the waters of the Los Angeles River from its source to the city and from the surface to bedrock in so far as it was necessary to supply water for the use of its inhabitants, by virtue of its successorship to the pueblo and against the asserted riparian rights of the defendant, based upon its ownership of riparian lands lying along said river some ten miles above said city. The trial court accorded the plaintiff such right and upon appeal this court, Mr. Justice McFarland writing the opinion, after stating that the only question in the case was as to whether "under the general law of the locality the old pueblo of Los Angeles and the respondent herein as its successor had and has as against appellant the prior and paramount ownership of the use of so much of the water of the Los Angeles river as is necessary for its inhabitants and for general municipal purposes," proceeded to state that "this question need not be discussed as an original one, for it has been answered in the affirmative by former decisions of this court." The cases which are above referred to are there reviewed at length and expressly approved, and after such review and approval it is said: "The foregoing decisions are determinative of the prior and paramount right of the pueblo and of plaintiff as its successor to the use of the water of the river necessary for its inhabitants and for ordinary municipal purposes. The question as to what extent the right goes, a question somewhat considered in the Pomeroy case—that is, for the use of the inhabitants of what territory and for what municipal purposes can the water be taken as against a riparian owner—does not arise and need not be considered in the case at bar." Neither, it may be said, does this latter question ***122** arise in the present case. The law and the attitude of this court toward the law upon this subject stood as above stated during the twenty years which preceded the presentation of the same question to this court in the case of *Cuyamaca Water Co. v. Superior Court, supra,* which was a prior proceeding in the instant case, and in which the issues primarily involved were those quoted from in that decision in the earlier stages of the present opinion.

(3) The appellants herein contended in the trial court and here contend that they were and are entitled to have reconsidered and relitigated the question as to whether or not a Spanish or Mexican pueblo organized in California under the laws, institutions and regulations of Spain or Mexico during their successive governments thereof, became possessed by virtue of such laws, institutions and regulations of a prior and paramount right to the use of the waters or rivers or streams passing through and over or under the surface of their allotted lands so far as may be or become necessary for the pueblo and its inhabitants, and as to whether or not a municipality organized under American rule as the successor of such pueblo succeeded to such pueblo rights. We are of the opinion that by virtue of the foregoing long line of cases, and particularly of the decision of this court in the case of the *City of Los Angeles v. Los Angeles Farming & Milling Co., supra,* wherein the cases preceding it were specifically reviewed and held to be determinative of this question, the subject is no longer an open one for further consideration and review before this court, and that by said decisions, so long and uniformly followed and adhered to, the proposition that the prior and paramount right of such pueblos and their successors to the use of the waters of such rivers and streams necessary for their inhabitants and for ordinary municipal purposes, has long since become a rule of property in this state, which at this late date in the history and development of those municipalities which became the successors of such pueblos we are not permitted, under the rule of *stare decisis,* to disturb.

(4) We are not unmindful of the contention elaborately presented and argued by counsel for appellants that the pueblo of San Diego, even if conceded to have been regularly established as such in the year 1834, never became entitled to any prior, preferential or other rights in or to ***123** the waters of the San Diego River for the reason that long prior to the alleged establishment of said pueblo the entire and exclusive right to the use and benefit of the waters of said river had been granted by the viceroy of Spain to the mission of San Diego. In support of this contention the appellants introduced in evidence before the trial court and have here presented for our inspection and interpretation a photostatic copy of such purported grant. It bears the date, according to the translation thereof with which we have been kindly furnished, of the 17th of December, 1773, and the signature, by secretary, of Bucarely, the then viceroy of the King of Spain over Mexico. It purports to approve the removal of the mission of San Diego from its former location near the presidio on the shore of the bay of San Diego to a new site

several miles up the arroyo, and in order to facilitate such removal and the development of the then small and in a sense still speculative and quite problematical success of the first mission established in Alta California, it proceeded to suggest the cultivation of its surrounding lands through the use of water from the stream, and for that purpose directs the "Reverend Fathers of the Mission to acquire and administer this concession and Royal grant (privilegio) to the waters of this arroyo referred to for the common benefit of all the nation, whether Gentile or converted, who dwell to-day or in the future in the province of the mission of San Diego de Acala. This concession and the fruits also shall be held (ser tener) as to these children and their children and successors forever." The document proceeds to state in immediate connection with the foregoing that "Although a Presidio is thus placed near to the entrance of this stream near to the Port of San Diego there can be no prejudice in this respect because there is always sufficient water for the service of the soldiers, and in the topography and report of Sr. Don Miguel Castro there is evident to the south of this place a worthy river and a torrent smaller in flow and some smaller arroyos from which to drain (disaguas) the Rancho del Rey where their cattle may wander under the vigilant eye of the herdsmen." We are loathe to believe that the viceroy of Mexico, framing this document in the then far-distant capital of New Spain ever intended by its terms to confer upon this primitive and as yet largely experimental mission settlement any ***124** such enlarged, prior, paramount or exclusive rights in and to the waters of the San Diego River as the appellants herein claim for it. Its language does not so import and it may be said to be doubtful, to say the least of it, whether even the viceroy of the kingdom of Spain in making such a concession would not have done violence to those laws, institutions and regulations of Spain which provided for the establishment of civil governments of the sort known as pueblos in new lands so as to take away from these the whole of those water rights in rivers traversing their allotment of land which would be essential to the cultivation of such lands when occupied by civil settlement.

(5) We learn from public history, of which we take judicial notice, that the civil settlement of Alta California was coequally contemplated by those who were officially in charge of the primary expedition which only four years before this purported grant had been put forth and provisioned for the discovery and occupancy of Alta California through the joint effort of Padre Junipero Serra and of Jose de Galvez, visitor-general of New Spain. In the broad and detailed plans and express decrees of the latter, precise provision was made for the foundation and development of presidios, pueblos and missions in the as yet unknown region, and these three forms of occupation were expected, as nearly as possible, to proceed simultaneously as a result of the joint military, civil and religious expedition then about to set forth. It may be fairly assumed that these joint settlements designed to be established simultaneously were also intended to function harmoniously and not to become involved in disputes over the respective jurisdiction and property rights of each. This will appear to be plain when the nature, functions and purposes of each of these foundations is considered both historically and in the light of the Spanish and Mexican laws and regulations relative to each. Presidios were purely military foundations to be occupied by soldiers, and to exist for the establishment of order and for the protection of the pueblo and mission foundations. The pueblos, on the other hand, were purely civil and political foundations, as the term itself implies, being equivalent to the English word "town" and signifying a civic body corporate and politic, and intended, through the cultivation of the lands with which under the ***125** Spanish and Mexican laws it was by virtue of its foundation to be invested, to furnish sustenance for its own inhabitants and for the presidios. Mission settlements, on the contrary, were purely ecclesiastical foundations, made or to be made, in Alta California by monks or padres of the Franciscan Order, and existing and being conducted by these for the sole purpose of bringing the blessings and fruits of Christian civilization to the Indian population of Alta California, theretofore in a state of barbarism. A mission foundation in its inception possessed and exercised none of the ordinary forms or properties of civil government, but was, and was for a time at least to be, purely paternal in character, with such material possessions as were required for the maintenance and exercise of its ecclesiastical development. The lands which were to be occupied by the missions were to be held in possession by the priests for the purpose of carrying forward the main object of the mission foundation, but these lands were to be possessed, occupied and cultivated only by permission and were to be and remain the property of the nation and to be subject at all times to grants under the laws of Spain and Mexico relating to colonization. So said the Supreme Court of the United States in the case of *United States v. Ritchie,* 17 How. (U. S.) 525, 540 [15 L. Ed. 236, see,

also, Rose's U. S. Notes]. It was thus upon this theory and assumption that the so-called secularization of the missions of Alta California by officials of the Mexican government, to which we shall presently refer, was ordered and carried forward to its disastrous conclusion. We are referred upon this subject, by counsel representing both sides of the instant controversy as an authority, to the very interesting pamphlet entitled "The Colonial History of San Francisco" and embracing the argument of John W. Dwinelle, Esq., in the case of the *City of San Francisco v. United States* in the District Court of the United States for the Northern District of California. We do not, however, in this case find it necessary to finally determine the scope and intent of Bucarely's concession to the mission of San Diego in respect to its new location. The reason we are not called upon to do so is that, according to the evidence educed herein, the mission of San Diego was in or about the year 1834 secularized by Governor Figueroa of Alta California and his official coadjutors, purporting ***126** or pretending to act in so doing under decrees of the Mexican government enacted in the preceding year. It is not necessary for us to herein determine whether or not the secularization of the mission San Diego, put into effective operation in that and the following year or two, was in all or in any of its aspects lawful. It is sufficient to note that by the consensus of both the civil and ecclesiastical historians of the time and event it was successful and that within a very few years at most the spoliation of the mission was so far completed that its productive activities had ceased, its Indians and its priesthood had departed, the former to relapse into their aboriginal condition, and the latter to seek and find other fields of labor. The mission life in fact was destroyed and the mission lands, which by virtue of their secularization were to become part of the public domain, were within a decade thereafter conveyed by private land grant executed by Governor Pico to one Santiago Arguello, whose grant of the same was subsequently confirmed by the board of commissioners for the settlement of private land claims created by the United States government in 1851, and a patent therefor issued to said grantee a few years later. It has not been seriously, as it could not be successfully, contended herein that any of the original rights of the mission or of its founders or their successors derived from Bucarely's concession either survived the secularization of the mission or passed to Arguello or his successors by virtue of his private land grant and the confirmation thereof by the government of the United States.

(6) It follows necessarily that upon the establishment of the pueblo of San Diego in the year 1834, as found by the trial court, it became invested with whatever land and water rights it was entitled to under the laws, institutions and regulations of Spain and Mexico, and that in the possession and continued exercise of those rights it was nowise impeded or impaired by the existence of any similar or even superior rights in the mission of San Diego which either had ceased or would presently cease to be. There is, therefore, no merit in the contention of the defendants herein that they or any of them by virtue of their occupancy of the former mission lands are to be held the successors of whatever rights the mission had, since the entire right ***127** and title of the present occupants of such lands relate as to their origin solely to the Arguello grant.

(7) As to the claim of title to the so-called mission lands, whether derived from the foundation of the mission itself and its occupancy of said lands, or from the Bucarely concession, it is clear that such rights, if any existed, either prior or subsequent to the secularization of the mission, ceased to exist for the additional reason that such claim was never presented to the board of land commissioners as required by the act of Congress of March 3, 1851 (9 Stat. 631), and therefore lapsed and ceased to exist, under the authority of *Hihn v. Santa Cruz,* 170 Cal. 436, 444 [150 Pac. 62], and *Botiller v. Dominguez,* 130 U. S. 238 [32 L. Ed. 926, 9 Sup. Ct. Rep. 535, see, also, Rose's U. S. Notes].

(8) As to the Arguello grant, which was, as we have seen, confirmed, it stood upon no other footing as to the rights in the lands and water within its area than that of the several thousand other private land grants in California and having been made subsequent to the establishment of the pueblo of San Diego and to its right and title to the lands and waters embraced within its allotted area, and which were also confirmed, was necessarily subject thereto, and hence in no way available in aid of the contention of the appellants and interveners herein.

We have thus, we think, disposed of every vital question presented by the defendants as appellants affecting that portion of the judgment of the trial court as to which the plaintiff herein is the respondent, and it only remains for us to consider and dispose of those portions of said judgment as to which all of the parties herein have presented their separate appeals. In that portion of the findings of the trial court which are quoted in the earlier

passages of this opinion it will be seen that the prior and preferential rights of the City of San Diego as the successor of the pueblo were made subject to certain exceptions to be in said findings subsequently set forth. In these, its later findings, the trial court deals with those special defenses of said defendants and also of said interveners wherein it is pleaded and sought to be proven that whatever prior or preferential rights in and to the waters of the San Diego River the City of San Diego had or acquired by virtue of its succession to the ***128** pueblo of San Diego it has subsequently and either wholly or partly lost by prescription or by laches or has become estopped to assert as against these defendants and interveners through certain alleged affirmative action on the part of itself or its authorized officials.

On the threshold of the discussion as to the nature of these several defenses and, if available at all to the defendants, the extent to which they or any of them should be given application to the instant case, it will be well to recur to the statement made by this court upon the former hearing in *Cuyamaca Water Co. v. Superior Court,* 193 Cal. 584, 588 [33 A. L. R. 1316, 226 Pac. 604], and which is quoted in the early pages of the present opinion, and from which it will appear that the plaintiff herein is not seeking by this action to have it determined that it is entitled to any particular quantity of water, based upon its prior or present use of the waters of the San Diego River, to the extent of its asserted prior and paramount rights therein. The plaintiff in its pleadings asserts no such use of said waters in the past by either its predecessor, the pueblo, or itself, further than such use thereof under such claim of right as was from time to time necessary for the needs of the pueblo and its successor the city. On the other hand, the defendants and interveners herein have both by their pleadings, their proofs and their argument, asserted and shown that neither the pueblo nor the City of San Diego ever did, prior to the institution of the present action, make actual use of any considerable amount of the waters of the San Diego River for any public or municipal or other purpose whatever, and that during the entire history of both pueblo and city the larger part of the waters of the San Diego River, except for the uses thereof undertaken by the defendants and interveners herein, would have flowed through and past said plaintiff and gone unused to the sea. In the findings of the trial court no finding is made and no estimate given as to the quantity of the waters of said river which the plaintiff or its predecessor had made use of, or could have made use of to the full extent necessary for the needs of the city or its inhabitants from time to time in the course of the development and growth of the pueblo and the city's civic life, nor is there to be found in the findings of the court or in the evidence in the case anything tending to establish ***129** that whatever actual uses or diversions of the waters of said river the defendants and interveners herein, or any of them, are shown to have made, ever resulted in a diminution in any appreciable degree of the amount of flow of the waters of said river which the plaintiff herein or its inhabitants were from time to time putting to actual use under or in pursuance of the exercise of the city's aforesaid prior and preferential right to the waters of said river. On the contrary, the undisputed evidence in this case discloses the following facts with relation to the uses heretofore made of the waters of the San Diego River by the respective parties hereto: The maximum amount of water which the City of San Diego has annually required in order to fully supply its public needs and the needs of its inhabitants between the year 1890 and the year 1921 is disclosed by an exhibit (No. 22) introduced by the defendants herein showing the total amount of water delivered to the City of San Diego from all sources during the aforesaid series of years, from which it appears that during the year 1918 there was so delivered to said city a total of 3,634,205,289 gallons of water. This amount appears to denote the peak of the city's requirement for all of its aforesaid needs during the years immediately preceding the institution of the present action, and it may fairly be taken, therefore, to exemplify the full amount which the City of San Diego would have required to fully satisfy its prior and preferential right to the waters of the San Diego River to annually supply its aforesaid needs and uses, and hence the full amount of the waters of the San Diego River to which under its prior and preferential right it would have been entitled at and during the several years prior to the institution of this action. The evidence herein further discloses, according to a report which the Cuyamaca Water Company made and filed with the Railroad Commission, purporting to show the amount of water which it had sold and delivered to its consumers between the years 1913 and 1921 that the total amount of the waters of the San Diego River extracted therefrom and actually applied by it to such uses amounted during the year 1921 to 1,762,435,542 gallons. There is not to be found in the record herein any definite statement or evidence showing, with any degree of accuracy, the total annual outflow of water from the San Diego River; but that it is from ***130** year to year far in excess of the amount which would be represented in the aggregate of

the foregoing figures would seem to have been made sufficiently plain during the long controversy between the parties hereto over the use of said waters. Counsel for the defendants and appellants herein have presented to this court, in support of their plea of estoppel, an interesting document in the form of a resolution adopted by the common council of the City of San Diego on August 30, 1918, in response to an anxious inquiry from the city of La Mesa, and which will be more particularly adverted to hereafter, and from which resolution it is made to appear that "during the past twenty years eighty-four per cent of the water of said San Diego river has gone to waste in the Pacific ocean," and, further, "that the undeveloped waters of the San Diego river would, if impounded, prove entirely adequate to meet all present and reasonably probable future demands of the City of San Diego and of the neighboring communities adjacent to the San Diego river watershed." It is important that the foregoing facts relative to the volume and use of the waters of the San Diego River should be borne in mind dealing with the questions which we are about to consider touching the respective rights of the parties hereto to the waters of said river as affected by the defenses of prescription, laches and estoppel urged by the defendants and appellants herein. In dealing with these defenses it is also important to bear in mind the nature of each and the differences, if any, between them.

(9) It should at the outset be understood and stated that the pueblo rights, and hence the rights of its successor, the City of San Diego, to whatever of the waters of the San Diego River were from time to time required for the needs of the pueblo and of the city and of the inhabitants of each, were rights which were essentially "governmental" in character, as much so in fact as were the rights of the ancient pueblo and modern city to the public squares or streets, and that the term "proprietary," as employed with reference to certain commercialized uses made by municipalities and other public bodies, of water, light and power, for example, has no application to the fundamental rights of the plaintiff herein to its ownership of its foregoing classes of property dedicated and devoted to public uses. (***131** *Ames v. City of San Diego,* 101 Cal. 390, 394 [35 Pac. 1005].) It should also be noted upon the threshold of the impending discussion that the questions which might arise upon any attempted use of the waters of the San Diego River by the plaintiff herein for the supply thereof to the inhabitants of areas outside of the corporate limits of the original pueblo, whether such areas were or were not within the four league square allotment of lands to said pueblo, are not presented or presentable in the instant case, and hence that whatever authorities may have been cited bearing upon such questions are inapplicable, since, as was aptly stated in our earlier decision (193 Cal. 584 [33 A. L. R. 1316, 226 Pac. 604, 605]) "the subject matter of the action is the establishment of the priority of right and not the quantity of water to be taken."

(10) It should also be noted at this stage of the discussion that whatever rights the original defendants herein are entitled to claim and assert in the waters of the San Diego River, or any portion thereof, are rights and claims which rest for their support upon the several appropriations made of such waters by the Cuyamaca Water Company, a copartnership, or by the members thereof, and by the San Diego Flume Company, their predecessor and original appropriator of such waters, to the extent of the use thereof. We hold to be without merit the contention of these defendants that they derive their rights to such waters from a higher source, viz.: from certain rights acquired by them, or certain of them, under the congressional act of July 26, 1866 (14 Stat. 253, chap. 263, sec. 9), and the supplementary act of January 12, 1891 (26 Stat. 714, chap. 65, sec. 8), and that such rights derived from such source are superior to any right whatever in the waters of said river held by the City of San Diego, as the successor of such pueblo. We find from an examination of these congressional acts, without going into further detail, that they consisted in certain action taken by the United States government at a time subsequent to the vesting in the City of San Diego of whatever rights it possessed and still possesses in the waters of San Diego River by virtue of its successorship to the rights and interests of such pueblo and which were confirmed by the action of the aforesaid commission, and that whatever permissive grants of rights of way to private persons over public lands lying along the upper reaches of the San Diego ***132** River were made were subordinate and not superior to the already vested rights of the plaintiff herein, derived from its succession to the pueblo. (*Los Angeles Farming & Milling Co. v. City of Los Angeles,* 217 U. S. 217 [54 L. Ed. 736, 30 Sup. Ct. Rep. 452, see, also, Rose's U. S. Notes, and cases cited.) With these preliminary observations we pass to a discussion of the remaining questions presented for our determination by the original defendants and by their successors in interest, the interveners herein.

The first of these questions relates to the defense of prescription.

(11) The nature of the right claimed to have been acquired in the waters of a flowing stream by prescription rests as a prime essential upon an adverse use thereof by the claimant under a claim of right which has, to the extent thereof and for the required term of years, been acquiesced in by the person or persons otherwise entitled to the ownership and enjoyment of the waters thus adversely abstracted from said stream and to enforce those rights by appropriate action. It is needless to cite authorities to a proposition thus deeply grounded in the law of waters; but there are certain instructive cases which bear directly upon the situation of the parties to this action as disclosed by the record herein. The first of these is that of *Anaheim Water Co. et al. v. Semi-Tropic Water Co.,* 64 Cal. 185 [30 Pac. 623]. This was a case which involved certain alleged conflicting riparian rights to the diversion of the waters of the Santa Ana River, which formed the dividing line between two ranchos, from the owners of one of which the plaintiffs had derived by grant the right to use a certain definite amount of the waters of said river, to which the lands of the grantors were riparian, and of the other of which the defendant was the owner and was entitled to all of the riparian rights incident to such owner, unless the same or some portion thereof had been lost by prescription. The trial court found that the plaintiffs for many years had openly, notoriously and continuously appropriated and used the waters of said river to the full capacity of their ditch, claiming the right so to do adversely to all the world; but the court also found that prior to a year or so before the commencement of the action such diversion and use on the part of the plaintiffs, even though thus claimed to have ***133** been done adversely, had never interfered with the use which defendant during the same time was making of said waters, and that with the exception of the aforesaid brief time before the commencement of the action there had at all other times been sufficient water flowing in the river to supply the wants and demands of all of the parties to the action. In dealing with that situation this court (p. 192 of 64 Cal. *supra*) said: In the face of such facts as these, how can we be expected to hold that as against the owners of the Santiago Rancho the plaintiffs have established any prescriptive right?

(12) In order to establish a right by prescription, the acts by which it is sought to establish it must operate as an invasion of the right of the party against whom it is set up. The enjoyment relied upon must be of such a character as to afford ground for an action by the other party. This is thoroughly settled. Now it is very clear that while there was sufficient water flowing in the river to supply the wants and demands of all the parties, its use by one could not be an invasion of any right of any other; and as the court below found, as a fact, that until within a year or two prior to the commencement of the action, there was sufficient water flowing in the river to supply the wants and demands of all the parties, it is plain that the plaintiffs as against the owners of the Santiago Rancho have acquired no right by prescription. The next case to which we would refer is that of *Faulkner v. Rondoni,* 104 Cal. 147 [37 Pac. 883], wherein (without stating the facts of the case) we find that the doctrine above announced was expressly approved, the trial court having found that during the period claimed to have given rise to the prescription there had been sufficient water in the stream for the uses of all of the parties to the action and that, therefore, there had been no such invasion of the rights of one which could form the basis of a prescriptive right in the other. In the quite recent case of *Pabst v. Finmand,* 190 Cal. 128 [211 Pac. 11, 13], the doctrine above quoted from *Anaheim Water Co. et al. v. Semi-Tropic Water Co., supra,* was again approved, the court saying that the use by the adverse claimant "was not hostile unless there was an actual clash between the rights of the respective owners. While there was sufficient water flowing down the stream to supply the wants of all parties, its use by one was not an invasion of the rights of the ***134** other." It is also true, as stated in the concluding paragraph of *Pabst v. Finmand, supra,* that "the exercise of a mere riparian right can never be hostile to the land below. Where, however, the use is under such circumstances as to be adverse and under a claim of right asserted against lower riparian owners it may ripen into prescriptive title." For the most recent statement of this principle see *Scott v. Fruit Growers' Supply Co.,* 202 Cal. 47 [258 Pac. 1095], where the same principle is enunciated. It is contended by the appellants and interveners herein, however, that the foregoing several cases and the principles decided therein have no application to the contentions of the respective parties in the instant case, for the reason that each and all of these cases relate to the respective rights of riparian owners in the several streams to which they refer, and that said rights differ essentially from those which are asserted by the respective parties in the instant case. It is true that as between contesting riparian owners, and even

as between riparian owners and upper appropriators, the rights of each to the proportion to which each is entitled in the waters of the particular stream differ materially from the rights which the parties to this action assert or deny. But conceding this to be true, the misconception of the appellants herein consists in emphasizing these differences and in losing sight of the uniformity of application of the principles upon which prescription rests and which, as we have seen, require, both in the cases cited and in the case at bar, the presence of an adverse use as the essential basis of its assertion. It is for this reason that the principle enunciated in the foregoing cases has direct application to the situation presented in the case at bar. The City of San Diego by virtue of that prior and preferential right which it derived from the pueblo "to the use of all of the waters of the San Diego river necessary to supply the domestic wants of the inhabitants of said pueblo, to irrigate the lands thereof and for other municipal purposes within the general limits of said pueblo," has never thus far in its history possessed and is not now asserting any right of action to prevent the actual diversion of any quantity of the waters along the upper reaches of the San Diego River or its tributaries, whether undertaken by the defendants and interveners herein or their predecessors, or any other persons whatever, which has not at any ***135** particular time interfered with such exercise of its aforesaid rights in the waters of said river as from time to time in the course of its growth and history as a municipality it became possessed of. The right of said city was thus always "uncertain and conjectural," depending upon the particular needs of the city or its inhabitants at each particular stage in its development as a municipality, and it would be the height of unreason to hold that the pueblo in its primitive beginnings and the city in the infancy of its corporate life should have been bound to be continually taking arms against users of the upper waters of the stream to an extent which constituted no interference with its present use or right to use such waters at the time of such diversion. It follows that for this reason, also, no right by prescription exists or has ever existed in favor of these defendants and interveners, or either or any of them, arising out of their asserted adverse use of the waters of the San Diego River. The city is not in this action asserting a present right to any such remedy, but, on the contrary, and in the language of our earlier opinion, "the subject of the action is the establishment of the priority of right and not the quantity of water to be taken." It thus appears that the present action is not in any sense remedial but is purely declaratory in its nature and in the relief which, in so far as the plaintiff is concerned, is sought thereby.

(13) Finally, and with direct reference to the defense of prescription, it may be stated as a general rule that no invasion of the rights of property which are held by a public or municipal corporation in perpetual trust for public uses can be held sufficient to furnish the basis of a defense based solely upon prescription. The cases fully supporting this general principle have already been cited, but will be further referred to in considering the subjects of laches and estoppel, to which we shall now address ourselves.

With respect to the defense of laches which the defendants and interveners present and urge, little need be said, since what has immediately heretofore been stated fully applies to such defense. The City of San Diego and its officials could not in reason be charged with laches in the assertion of something with respect to which no right of assertion existed and with respect to which no adverse invasion has thus far occurred. There would seem to be another ***136** and all sufficient reason why the defense of prescription and of laches ought not to be available to the defendants as against the plaintiff in the present action. The right which the Pueblo of San Diego and the plaintiff herein, as its successor, acquired in the waters of San Diego River by virtue of the pueblo foundation was essentially a public right and, to employ the language of the findings of the trial court, "was a right and the distribution of such waters by the pueblo authorities was a trust created, imposed and recognized by the laws, orders and decrees of the Kingdom of Spain and the Republic of Mexico." In the case of *Cuyamaca Water Co. v. Superior Court, supra*, this court adopted the language upon this subject in *Lux v. Haggin, supra,* wherein it was stated that "the occupants of lands within the city, the pueblo's successor, are beneficiaries only to the extent that they are entitled to the use of such water and at such times as accords with the laws regulating the public and municipal trust." In the case of *Vernon Irr. Co. v. Los Angeles,* 106 Cal. 237 [39 Pac. 762, 765], it was stated with special reference to the rights to the waters of the Los Angeles River which the city had derived from the pueblo of Los Angeles that "the waters of all rivers were, under the Spanish and Mexican rule, public property for the use of the inhabitants." If this be true, it follows necessarily that the public right and public trust which the pueblo and its successor, the City of San Diego, had in these waters in no respect differed

from those other public rights and properties which the state and its various subdivisions and agencies possess and administer; and it has been uniformly held that such public rights cannot be lost nor the public trust as to their administration and exercise be destroyed either by adverse possession or by laches or other negligence on the part of the agents of the state or municipality who may from time to time be invested with the duty of their protection and administration. (*People v. Kerber*, 152 Cal. 731-733 [125 Am. St. Rep. 93, 93 Pac. 878], and cases cited.) The case of *Ames v. City of San Diego,* 101 Cal. 390-392 [35 Pac. 1005], will, when carefully examined, be found to fully uphold this view. We are, therefore, of the opinion that for the above additional reason the defense of prescription and laches urged by the defendants and interveners herein cannot be upheld.

***137** (14) The defense of estoppel, however, rests upon an entirely different foundation in both law and fact from that underlying the foregoing two defenses. The defense of estoppel rests upon the doctrine that a right conceded for the purpose of such defense to exist in a party, he shall not be permitted to assert against another to the latter's injury because of the existence and proof of certain facts and conditions which would render its assertion inequitable. The question as to the application of this well-defined legal proposition as between the parties to an action in the nature of things depends upon the facts of each particular case. Whether the facts of this particular case are such as to permit the application of this doctrine to the plaintiff in its capacity as a municipal corporation and with respect to the latter's "prior and preferential right to the waters of the San Diego river" as above defined, is the problem to which we must finally devote our attention. The essential facts as developed in the evidence educed herein, bearing upon this problem, are not, with certain exceptions to be noted, the subject of material dispute. The original defendants in this action were Cuyamaca Water Company, a copartnership, and certain parties alleged to be surviving members of the legal representatives of certain deceased members thereof; also, Cuyamaca Water Company, a corporation, which does not seem to have much to do with the case. The evidence in the case, stated as concisely as possible, discloses that in the year 1885 the San Diego Flume Company was organized for the purpose of developing the water supply along the upper reaches of the San Diego River and its tributaries which had theretofore been undeveloped and largely unused, with a view to conserving and utilizing the same upon the region lying between the City of San Diego and the mountains, wherein that stream and its tributaries had their source, and the lands of which region prior to said time, being semi-arid, had been but thinly populated and little used. In the course of this development and during the next few years the San Diego Flume Company expended large sums of money, estimated by the trial court to have been in excess of one million dollars, in the creation of dams, diversion works, pumping plants, ditches and flumes for the diversion and distribution of said waters to an extent hereinafter to be stated. The Cuyamaca Water Company, ***138** a copartnership, ere long succeeded to the rights and property of the San Diego Flume Company and during the intervening years between 1889 and the date of the institution of this action has augmented the expenditures, continued and extended the activities and administered the resources thus derived from its predecessor, with the resultant effect that within the wide region reached and benefited by the aforesaid development and distribution of the waters of said river, to the extent hereafter to be noted, an extensive productivity has been attained; orchards, vineyards, farms and homes have been created, and cities and towns have been established, such as the city of La Mesa, the city of Lemon Grove, the city of El Cajon and other growing communities containing as a whole several thousand inhabitants and constituting prosperous centers of civic and community life, and all of which have, during all the years of their creation and growth, received their water supply from the waters of said river as thus developed and distributed by or through the Cuyamaca Water Company. Of recent years certain irrigation districts have been formed and are being operated within said region and one of these, to wit, the La Mesa, Lemon Grove and Spring Valley Irrigation District, has recently secured an option upon, if not actually acquired, all of the rights and properties of the Cuyamaca Water Company, and has thus become the principal party in interest in the eventuality of the present action, in so far as the defendants and interveners are concerned. The legal foundation of the San Diego Flume Company and also of its successor, the Cuyamaca Water Company, rested originally in certain formal appropriations located in due course of the laws permitting the same along the course of said river and its tributaries, and to an amount in the volume of water claimed to be as hereinafter stated. In pursuance of these appropriations certain quantities of said waters have been diverted and distributed, to an extent also hereinafter to be designated. It would seem, also, that certain of the defendants put forth certain claims

of right herein, depending upon their alleged ownership of certain lands riparian to said stream. During all of the earlier years of the activities of the San Diego Flume Company and of the Cuyamaca Water Company in the appropriation to the extent thereof of the waters of said river and also ***139** of the diversion and distribution thereof to the volume and extent thereof; and during all of the earlier years of the settlement, development and growth of the region and of the several corporate communities therein as a direct result of the application of said waters to said otherwise semi-arid region, the City of San Diego regarded quiescently, and in fact it may be said approvingly, the foregoing development of its "back country" through the aforesaid appropriation, diversion and use of the waters of the San Diego River. It had every reason so to do and it had no reason to do otherwise, since its own advancement, progress and prosperity in both business and population were being greatly enhanced thereby, and since, also, its own actual uses of the waters of said river were being in nowise diminished or impaired. It is true, as averred by the defendants and interveners herein and as found by the trial court, that the City of San Diego on various occasions in its municipal history and through its successive legislative bodies has granted certain rights and privileges to private persons and corporations to develop water by wells and works of various kinds within the limits of the former pueblo lands, and has even contracted to purchase such works when constructed and such water when developed for the use and benefit of the inhabitants of said city; but it is also true, as found by the trial court, that none of these arrangements was made with any predecessor of the defendants or interveners herein so as to entitle the latter to claim that acts and efforts on the part of the city to have developed its own water supply within its limits and for the use of its inhabitants amounted to such an admission of the validity of the appropriation and uses which the defendants and interveners were undertaking upon the upper reaches of the San Diego River as would operate to constitute an estoppel. The essential elements of an estoppel, even as between private persons, were thus far, and up to at least the year 1914, entirely lacking. The defendants and their predecessors, the San Diego Flume Company, in entering upon and prosecuting their plans for the appropriation and diversion of the waters along the upper reaches of the San Diego River and its tributaries cannot lay claim to having been misled as to their rights as a matter of law to thus appropriate and use the waters of said river, since they must be held to have known, both as ***140** a matter of fact and as a matter of law, of the existence in the City of San Diego of the aforesaid prior and preferential right of the city to such waters and to the assertion thereof whenever the expanding needs of the city or its inhabitants required such assertion. With respect to the knowledge which the predecessor of the defendants and appellants herein—and by which knowledge they are bound— had upon this subject as a matter of fact, the evidence in this case sufficiently shows that the San Diego Flume Company, from the date of its organization and first appropriation of the waters of the San Diego River, was fully informed as to the prior and paramount right of the City of San Diego to the use of the waters of the San Diego River, and that upon the advice of its attorney it caused to be inserted in its contracts with the consumers express provisions protecting it, as to its said consumers, against the assertion of such right by said city; and at as early a date as the year 1900, when certain litigation was instituted against the San Diego Flume Company by or on behalf of its consumers to enjoin said company from preferring the City of San Diego pursuant to its said rights in the matter of the water supply from said river then being furnished to said city, the San Diego Flume Company expressly pleaded in its answer the existence of the paramount right of said city and the terms of its said consumers' contracts inserted in recognition thereof. The evidence further discloses that at various times during the decade or more of controversy preceding the institution of the present action the Cuyamaca Water Company, a copartnership, through its most active and aggressive member, Mr. Fletcher, was fully advised from time to time as to the existence of the aforesaid prior and paramount claim of right on the part of said city. The findings of the trial court based upon the foregoing state of the record herein are full and ample and are as follows:

"It is not true that the plaintiff has been guilty of any carelessness or any culpable negligence resulting in the defendants, or any of them, being misled as to the state of the plaintiff's title as set forth in its amended complaint. Neither is it true that the defendants were at all times ignorant, or were at any time ignorant of the claim of the plaintiff to the prior and paramount right to the use of the water ***141** of the San Diego river. Neither is it true that the defendants had no convenient or ready means of acquiring knowledge respecting the prior and paramount right of the plaintiff in and to the waters of the San Diego river, but, on the contrary, it is true that the defendants and their predecessors in interest at all times

had convenient and ready means of acquiring knowledge respecting such right, and at all times knew of plaintiff's claim to such right. It is not true that such acts, omissions and declarations of the plaintiff as are herein found to have been performed, were said or done through fraud, and it is not true that any act or omission or declaration of the plaintiff constituted a fraud upon the defendants or any of them, and it is not true that any act or omission or declaration herein found to have been done or declared by the plaintiff has injured the defendants or any of them, or justified the defendants or any of them in believing that the plaintiff did not own or claim to own an estate in the waters of the San Diego river as alleged in said amended complaint; neither is it true that the defendants nor any of them relying or acting upon any belief fraudulently induced by the plaintiff have expended any money in the development of the waters of the San Diego river. Neither is it true that the defendants nor any of them, or their predecessors in interest, relying or acting upon the belief that the City of San Diego did not own the prior and paramount right to the use of the waters of the San Diego river, expended large or any sums of money in developing said waters and acquiring an estate therein."

(15) That said defendants and appellants, as a matter of law, must be held to have had knowledge of the existence in the City of San Diego of its prior and preferential rights in and to varying amounts of water of the San Diego River, according to its expanding needs, may be said to rest not only upon the general proposition that all persons are held to a knowledge of the law, but may be said to also rest upon the fact that this court from a date as early as the decision of the case of *Hart v. Burnett, supra,* and at intervals during the intervening years between that early time and the institution of the present action was engaged in uniformly upholding the prior and preferential right of cities founded upon a previous pueblo existence to the waters of ***142** such streams as flowed through them. The record herein discloses that the San Diego Flume Company was fully advised by astute and able counsel of the existence of such prior rights in the City of San Diego as a matter of law. In the light of the foregoing findings of the trial court with respect to the knowledge of the aforesaid rights of the City of San Diego, which these appellants are held to have possessed as a matter of fact, and by which knowledge they must also be held to be bound as a matter of law, and in the light of the further fact of the total absence from this record of any showing on their part that whatever acts of diversion and use of the waters of the San Diego River they or their predecessors therein have thus far engaged in have in any degree constituted an invasion of the vested rights of said city in and to the waters of said river, the following cases are instructive. The first of these is the case of *Anaheim Water Co. v. Semi-Tropic Water Co., supra,* to which reference has been made with relation to rights to be gained by prescription, and wherein also the subject of estoppel is considered, the court saying: "With respect to the estoppel, relied on by the plaintiffs, it is sufficient to say that, as the findings of the court below show that there was sufficient water flowing in the river in 1857 and for nearly twenty years thereafter to supply the wants and demands of the owners of each of the ranchos bordering on the stream, the owners of the Santiago Rancho were neither called upon to object to the diversion and appropriation by the predecessors of the plaintiffs, nor had they any right to object thereto. No right of theirs was interfered with; nor does it appear that there was any fraud, misrepresentation or concealment of any kind practiced upon the predecessors of the plaintiffs by the owners of the Rancho Santiago." In certain cases, hereinafter to be noted, and also in the case just cited, we have had occasion to quote with approval what was held in the case of *Biddle Boggs v. Merced Min. Co.,* 14 Cal. 368: "There must be some degree of turpitude in the conduct of a party before a court of equity will estop him from the assertion of his title—the effect of the estoppel being to forfeit his property and transfer its enjoyment to another." It is to be noted in this immediate connection that the claim of estoppel which the upper appropriator of the waters of a stream undertakes ***143** to assert against a lower claimant thereto, based upon the latter's acquiescence, must be founded not upon the amplitude of the former's claim as set forth in his recorded appropriation of such waters, nor by the carrying capacity of his ditches or flumes, but upon the actual diversion and use of said waters and only to the extent thereof. (*Pabst v. Finmand*, 190 Cal. 124, 133 [211 Pac. 11]; *Haight v. Constanich,* 184 Cal. 426 [194 Pac. 26]; *Northern California P. Co. v. Flood,* 186 Cal. 301 [199 Pac. 315].) We understand the foregoing authorities to state the settled law as declared in this state touching this subject, notwithstanding the array of authorities presented by the appellants and interveners herein from other jurisdictions apparently laying down a different rule.

(16) Even, however, if it were to be conceded that a right based upon estoppel could arise by virtue of mere

acquiescence in its assertion as between private persons, we are satisfied that no such claim of right could come into being as against a municipal corporation, founded upon its mere acquiescence or that of its officials in the diversion by any number of upper appropriators, or even of upper riparian owners of the waters of a stream, to the use of the waters of which such public or municipal corporation was entitled as a portion of its public rights and properties held in perpetual trust for public use. The general rule upon this subject is stated in volume 10, California Jurisprudence, page 650, and cases cited, as well as certain limited exceptions to the rule. The defendants and interveners, appellants herein, have referred us to no case wherein the mere passive acquiescence of a public corporation or its officials in the invasion of its rights of property, however long continued, has been held to operate as an estoppel against its assertion of those rights. They have, however, called our attention to certain cases which are claimed to constitute exceptions to the operation of the general rule, and to which we shall presently refer. It is sufficient at this point in the discussion to state that in so far as, prior to the year 1914, the plaintiff herein may have passively acquiesced in the acts of the defendants and interveners in the diversion and use of the upper waters of the San Diego River no estoppel *in pais* can be predicated thereon to any extent whatever in favor of the defendants and interveners herein for the ***144** several reasons above set forth. Among the cases above referred to are *City of Los Angeles v. Cohn*, 101 Cal. 373 [35 Pac. 1002], wherein the principle of estoppel in pais was given application to an action brought by the city of Los Angeles to recover possession of a small tract of land lying at the intersection of Spring and Main Streets in said city, and which was claimed by it to be a part of a public street. That, however, as the court stated in its decision, was an exceptional case from the fact not only that the defendants had been in possession of the property in question adversely and exclusively for almost forty years, during which time they had erected substantial buildings thereon, but that the city, through its officers, had affirmatively and at the time of the erection of such buildings misled the defendants into the belief that the city laid no claim to the premises in question, and that acting upon such belief and assurance the defendants had erected their structures upon the property and occupied the same undisturbed for many years. This case bears no similitude to the case at bar. Counsel also direct our attention to the case of *Ames v. City of San Diego,* 101 Cal. 390 [35 Pac. 1005]; but a reading of that case discloses that a clear distinction was drawn therein between the two classes of pueblo lands which the City of San Diego holds in succession from the former pueblo, namely, those held in trust for a specific public use, such as a park, which cannot be alienated and the title to which cannot be lost by adverse possession; and those lands, such as house lots, which the city, as successor to the pueblo, held, and which might be alienated by it, and which it was held, for that reason, might be lost by adverse possession. There is no comfort for the defendants herein in the decision of this court in that case.

(17) Counsel for the defendants and interveners further insist that under the Spanish and Mexican laws pueblo lands might be lost by prescription. It is needless to follow this argument or the authorities cited therein further than to state that the United States in taking over the territory known as Alta California under the treaty of Guadalupe-Hidalgo, ageeing therein to recognize the existence and protect the ownership of certain land titles within said territory, did not also take over and agree to adopt the statutes of limitation of either Spain or Mexico as applicable to lands or waters devoted to a public use.

***145** It may be well, in addition to what has been heretofore stated, to deal, with somewhat more of particularity, with the events transpiring between the years 1914 and the date of the institution of the present action inclusive, in so far as these affected the relations and respective rights and claims of the original parties to this action and to the use of the waters of San Diego River. The record herein discloses that in the early part of the year 1914 the city attorney of the City of San Diego, acting in obedience to a resolution theretofore adopted by the common council thereof, requesting him to make an investigation of the rights of the city in and to the waters of the San Diego River and submit an opinion thereon, presented to that body a formal report upon that subject, going with much of detail into the history of the pueblo foundation, and citing and quoting at length from the decisions of the state and federal courts touching the nature and extent of the water rights of pueblos in and to the waters of streams passing through them, and making particular application of these decisions to the nature and extent of the water rights of the pueblo and City of San Diego in and to the waters of the San Diego River. This opinion was published in pamphlet form at or shortly after the date of its presentation, and was admittedly brought to the attention of both the defendants and the interveners herein about that time. It would seem

to follow of necessity that if the asserted rights of the defendants and interveners, to whatever extent, if any, we may find them to have been assertable, had not up to that time ripened into rights resting in the doctrine of estoppel, no later assertion of these rights and no later acts in the way of a further appropriation or diversion of said waters could be made the basis for a claim of right which did not then exist, unless these could be held to find their support in some very definite withdrawal of the claim of the city to that prior and preferential right to the use of such waters which was thus definitely set forth by the foregoing report the city attorney made in the month of January, 1914, and then or shortly thereafter brought to the notice and knowledge of the defendants and interveners herein. In the year 1917, however, the City of San Diego took a very definite step in the direction of making available to itself certain of the ***146** waters of the San Diego River not as yet conserved or appropriated to any beneficial use. In that year a bill was introduced in the United States Congress, at the instance of the City of San Diego, purporting by its title "to grant rights-of-way over government lands for reservoir purposes for the conservation and storage of water to be used by the City of San Diego, California, and adjacent communities." The text of the measure thus presented in Congress had reference to a proposed reservoir to be constructed along the upper reaches of the San Diego River and upon lands which formed a portion of an Indian reservation, the title to which was in the United States. While this measure was pending before certain committees of Congress during that and the following year the passage thereof was strenuously opposed by certain representatives of the defendants and interveners herein, their contention being that the grant of such reservoir rights, with the resultant construction of the proposed reservoir, would constitute a serious interference with the already vested rights of the defendants and interveners to the beneficial use of the waters of the San Diego River. In furtherance of the urge of these opponents and in an effort to so far limit the scope and purpose of said grant and the exercise of whatever reservoir rights and uses were to be asserted thereunder, it was sought to have the City of San Diego, through its officials then in charge of its municipal affairs, adopt certain resolutions disclaiming any intent on the part of said city to interfere with the uses then being made of the waters of the San Diego River by the defendants and interveners herein, and in pursuance thereof certain resolutions were adopted by the then governing body of said city touching this subject. A considerable portion of the record consists of details of this proceeding in Congress, and there is considerable discussion in the brief of counsel with respect to the attitude thus taken by the City of San Diego with relation thereto. It would seem, however, that the trial court fully set forth and adequately and correctly considered and treated this entire episode in its findings of fact herein, and that with particular reference to the resolutions adopted by the governing body of the City of San Diego, having reference to the aforesaid controversy, correctly stated therein that "It is not true that by ***147** said resolutions, or by any resolution, or act of said common council, the plaintiff herein, acting by or through its legislative body, has expressly or impliedly admitted the ownership by the defendants or any of them, of the right to use and develop the waters or any of the waters of the San Diego river prior, superior or paramount to the rights of the plaintiff." With respect to the action of the Congress of the United States as to the form and scope of said proposed legislation, in view of the developed opposition of the defendants and interveners herein to the passage thereof, the trial court found that: "It is not true that the public lands committee of Congress, or any other congressional body, or any member of Congress, upon receiving or noting the protest of defendants, or any of them, or of any city or community served by Cuyamaca Water Company, or for any other reason, refused to adopt said proposed bill or house resolution unless or excepting this plaintiff admitted either expressly or impliedly an ownership and estate of these defendants, or any of them, in or to the waters or the use of the waters of the San Diego river. On the contrary, it is true that the Congress of the United States and the public lands committee of the Senate and House of Representatives, and each of them, and the members thereof, explicitly and unequivocally set forth in said bill, and insisted in setting forth in said bill, a provision declaring that nothing therein contained should be construed as affecting or intending to affect, or in any way to interfere with, the laws of the state of California relating to the control, appropriation, use or distribution of water used in irrigation or for municipal or other uses, or any vested rights acquired therein, and that the secretary of the interior and the City of San Diego, in carrying out the provisions of said act, should proceed in conformity with the laws of said state of California." The foregoing findings of the trial court based, as they are, on much probative evidence, which fully supports them, would seem to set at rest the question as to whether the plaintiff had lost, by its affirmative action, or by way of

estoppel, whatever rights we have found it to be possessed of prior to the year 1914, to the assertion of its paramount use whenever required of the waters of the San Diego River. There is, however, the further finding of the trial court already ***148** adverted to, which would seem to be conclusive as to the existence of any right whatever resting in estoppel on the part of the defendants and interveners herein to a superior right to that of the plaintiff in the use of the waters of the San Diego River, and which we deem it apt to requote, as follows: "It is not true that the plaintiff has been guilty of any carelessness or any culpable negligence resulting in the defendants, or any of them, being misled as to the state of the plaintiff's title as set forth in its amended complaint. Neither is it true that the defendants were at all times ignorant, or were at any time ignorant, of the claim of the plaintiff to the prior and paramount right to the use of the water of the San Diego river. Neither is it true that the defendants had no convenient or ready means of acquiring knowledge respecting the prior and paramount right of the plaintiff in and to the waters of the San Diego river, but, on the contrary, it is true that the defendants and their predecessors in interest at all times had convenient and ready means of acquiring knowledge respecting such right, and at all times knew of plaintiff's claim to such right. It is not true that such acts, omissions and declarations of the plaintiff as are herein found to have been performed, were said or done through fraud, and it is not true that any act or omission or declaration of the plaintiff constituted a fraud upon the defendants or any of them, and it is not true that any act or omission or declaration herein found to have been done or declared by the plaintiff has injured the defendants, or any of them, or justified the defendants or any of them, in believing that the plaintiff did not own or claim to own an estate in the waters of the San Diego river as alleged in said amended complaint; neither is it true that the defendants nor any of them relying or acting upon any belief fraudulently induced by the plaintiff have expended any money in the development of the waters of the San Diego river. Neither is it true that the defendants, nor any of them, or their predecessors in interest, relying or acting upon the belief that the City of San Diego did not own the prior and paramount right to the use of the waters of the San Diego river, expended large or any sums of money in developing said waters and acquiring an estate therein."

***149** (18) When we come to consider the essential and elementary basis of the doctrine and plea of estoppel in the light of the foregoing facts and findings of the trial court the conclusion would seem to be inevitable that the elements of estoppel are entirely lacking in this case. These elements of estoppel are all embraced in the definition thereof found in subdivision 3 of section 1962 of the Code of Civil Procedure, which reads as follows: "Whenever a party has, by his own declaration, act or omission, intentionally and deliberately led another to believe a particular thing true, and to act upon such belief, he cannot, in any litigation arising out of such declaration, act or omission, be permitted to falsify it." This court has frequently been called upon to interpret and apply the foregoing provision of the code. It is necessary to cite but two of the most recent cases in which it has done so. One of these is *Mercantile Trust Co. v. Sunset etc. Co.*, 176 Cal. 461, 472 [168 Pac. 1037, 1041], wherein this court said: "It is of the essence of an estoppel *in pais* that the party asserting such estoppel should not only have been ignorant of the true state of the facts, but that he should have relied upon the representation or admission of the adverse party." The other case is that of *Staniford v. Trombly*, 181 Cal. 372, 378 [186 Pac. 599, 601], wherein it was said with reference to the facts of that case: "There was an absence of the essential elements of estoppel, namely, false statements or concealments, or conduct amounting to false statements or concealments, with reference to the boundary made by one having knowledge, actual or virtual, of the facts, to one ignorant of the truth, with the intention, resulting in consummation, that he should act upon such false statements or concealments, or equivalent conduct."

In the presence of the foregoing findings of fact as made by the trial court, and in the light of the indispensable elements as thus stated by this court essential to be proven in order to the formation of a basis for the defense of estoppel, it is as difficult to understand as it is impossible to uphold the further findings and conclusions of the trial court to the effect that the defendants and interveners are entitled to the benefit of their plea of estoppel to the extent of their diversion and use of the waters of the San Diego River in the amount of twenty-seven cubic feet per second, ***150** or in any other amount, and that as against such right resting solely in such use the City of San Diego is estopped to assert its prior paramount right to the use of the waters of the San Diego River. That this conclusion may be fraught with certain disturbing consequences, affecting chiefly the interveners herein, and which have been insistently and even passionately urged by their

counsel in the presentation of this prolonged controversy, can be held to furnish no reason for a deprival of the plaintiff herein of its ancient, prior and paramount right to the use of the waters of the San Diego River as defined by this court upon the former hearing. It if be true, as the trial court expressly found it to be, that the San Diego Flume Company and its successor, the Cuyamaca Water Company, entered upon and prosecuted their plan for the diversion of the waters of the San Diego River with full knowledge as a matter of law, and also with full means of knowledge as a matter of fact, as to the existence of the prior and paramount right of the plaintiff as the successor of the pueblo to the use of the waters of the San Diego River, as such right is set forth and defined in our former opinion, and if it be further true, as it must be conceded to be, that the interveners are entitled to assert and insist upon no further rights or equities in respect to the use of said waters than those which were possessed by their predecessor in interest, the Cuyamaca Water Company, we are unable to perceive upon what principle of equitable application the public trust in which the City of San Diego holds its prior and paramount right to the use of the waters of said river to the full extent which the needs of the expanding city from time to time require, is to be subverted for the simple and only reason that other persons or other communities along the upper reaches of the river, with full knowledge of the aforesaid prior and paramount rights of the plaintiff, may have undertaken, at a considerable expenditure of money, to make a beneficial and profitable use of such waters.

(19) The only remaining question for our determination upon these appeals relates to that portion of the judgment of the trial court wherein it purported to enjoin the defendants and interveners from the doing of certain constructive work in connection with their conservation and diversion of the waters of the San Diego River except in subordination ***151** to the prior and paramount rights of the plaintiff therein, and also purporting to restrain the defendants and interveners from the assertion of any claims of right or title in or to the waters of the San Diego River except in subordination to the paramount rights of the plaintiff therein, and save and except in the amounts and to the extent in said judgment specified. In respect to the aforesaid portions of the judgment it is clear that the trial court has gone beyond the scope and issues of the instant action. This, as we have seen, and as this court has already decided upon the former proceeding, is an action purely declaratory in character and is one wherein the plaintiff has neither pleaded nor attempted to prove any facts which would entitle it to any other or affirmative relief beyond that of having its prior and paramount right to the use of the waters of the San Diego River established. This being so, the trial court was in error in attempting to give to its determination of this matter any other or further effect than that of a declaratory judgment.

It follows from the foregoing conclusions that the judgment herein must be and is hereby modified so as to read as follows:

It is adjudged, ordered and decreed that the plaintiff the City of San Diego was at the time of the commencement of this action and now is the owner in fee simple of the prior and paramount right to the use of all the water (surface and underground), of the San Diego River, including its tributaries, from its source to its mouth, for the use of said the City of San Diego and of its inhabitants, for all purposes, and that said defendants, and each of said defendants, said cross-complainants, and each of said cross-complainants, and said interveners, and each of said interveners, have not, and no one or more of them have any estate, right, title or interest in or to said waters; or any part thereof, or in or to the use of the same, or any right to take or use said waters, or any part thereof, save in subordination and subject to said prior and paramount right of the plaintiff, the City of San Diego, and that the plaintiff is entitled to no other or further relief herein than that afforded by the remedy of the declaratory judgment above set forth, and that the judgment herein, as thus modified, is affirmed, and ***152** that each party hereto shall pay its own costs upon these appeals.

Shenk, J., Seawell, J., Waste, C. J., Langdon, J., Curtis, J., and Preston, J., concurred.
Rehearing denied.

All the Justices present concurred.

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KeyCite Yellow Flag - Negative Treatment
Called into Doubt by Lawson v. Superior Court, Cal.App. 4 Dist., January 11, 2010

263 Cal.App.2d 655, 69 Cal.Rptr. 788

PETRA DATIL et al., Plaintiffs and Appellants,
v.
CITY OF LOS ANGELES,
Defendant and Respondent.

Civ. No. 31745.
Court of Appeal, Second District, Division 4, California.
July 2, 1968.

HEADNOTES

(1)
Municipal Corporations § 436--Torts.
In a wrongful death action against a city by the widow and children of one under arrest killed by a fellow arrestee, the trial court properly found that both the deceased and the one who struck the fatal blow were prisoners within the meaning of Gov. Code, § 844.6, providing that a public entity is not liable for injury proximately caused by a prisoner or for an injury to a prisoner, even though at the time no complaint had been filed, no arraignment had been had, and no plea had been entered by either man, where both had been arrested by city police for intoxication, and where both had been booked and were at the time of the assault in the process of transfer from one city jail to another.

See **Cal.Jur.2d,** Municipal Corporations, § 50; **Am.Jur.,** Municipal Corporations (1st ed § 577).

(2)
State of California § 57--LiabilityMunicipal Corporations § 436--Torts.
The California Tort Claims Act does not violate the due process clause of U.S. Const., Fourth Amend., either as to the immunity thereby granted the state itself or that granted to subordinate public entities; the act, in effect, abolishes all governmental tort liability except as specifically provided by statute so that cases which were decided with respect to legal principles, statutes, and judicial decisions which had effective application prior to the enactment are no longer valid.

SUMMARY

APPEAL from a judgment of the Superior Court of Los Angeles County. Robert H. Patton, Judge. Affirmed.

Action against a city for wrongful death of person under arrest killed by fellow arrestee. Judgment for defendant affirmed.

COUNSEL
Joseph W. Fairfield and Ethelyn F. Black for Plaiantiffs and Appellants.
Roger Arnebergh, City Attorney, John A. Daly, Assistant City Attorney, and Arthur Y. Honda, Deputy City Attorney, for Defendant and Respondent.

COLLINS, J pro tem. *

This is an action for wrongful death against the City of Los Angeles, a municipal corporation, brought by the widow of Alejandro Datil, on behalf of herself and as guardian ad litem for the six minor children of Alejandro and herself.

The facts are these:

On March 30, 1964, Alejandro Datil, while celebrating his birthday consumed too much liquor, became intoxicated and unable to care for himself. He was picked up by a police officer of the City of Los Angeles and charged with violating section 647, subdivision (f), of the Penal Code (drunk in a public place). On the same day, at about the same time, one Rufus Rhines was also arrested for being drunk and was charged with the same offense. His criminal record which was in the files of the Los Angeles Police Department, but not known to the arresting officers, showed over 30 prior arrests.

Both Datil and Rhines were booked [1] at the Central Jail Division (150 North Los Angeles Street, Los Angeles) and then placed in a police bus with several other prisoners for transfer to the Main Jail Division (known as Lincoln Heights Jail, located at 401 North Avenue 19, Los Angeles). While ***657** en route to the main jail, Datil was loud and boisterous and appeared to be verbally abusive toward Rhines who was seated next to him. Datil spoke only in Spanish, which Rhines did not understand,

but there was no physical altercation between the two men while on the bus. When the bus arrived at the main jail, Rhines got off first and sat down on a bench in the hallway near the receiving section of the jail along with several other prisoners. Datil got off the bus and began walking down the hallway, crying or speaking very loudly in Spanish when suddenly without any warning or provocation Rhines jumped up and struck Datil in the face with his fist. Rhines' blow felled Datil, causing the latter to strike his head against the concrete floor, suffering a skull fracture and rendering him unconscious. He never regained consciousness. He was removed to the Los Angeles County General Hospital where he died on April 11, 1964, as a result of the injury. Later Rhines pleaded guilty to a charge of manslaughter (Pen. Code, § 192).

Thereafter plaintiff widow, on behalf of herself and children, filed with the City a claim for $1,000,000 which was rejected, following which the present action was commenced. The complaint alleged that the city police department was negligent and careless in supervising inmates and prisoners of the jail, and that as a proximate result thereof Alejandro Datil sustained the injury which resulted in his death. Defendant's answer denies the foregoing allegations and by way of affirmative defenses charged that Alejandro was guilty of negligence in that he was intoxicated, belligerent, antagonistic and combative with his fellow prisoners, that he failed to take care to avoid injury to himself, and that his injuries resulted solely from his own misconduct. Defendant also pleaded, as a special defense, the provisions of Government Code, section 844.6. That section, added in 1963, provides that, except in instances not applicable here, '... a public entity is not liable for: (1) An injury proximately caused by any prisoner. (2) An injury to any prisoner.'

Section 845.2 provides that (except as provided in other instances) 'neither a public entity nor a public employee is liable for failure to provide a prison, jail or penal or correctional facility or, if such facility is provided, for failure to provide sufficient equipment, personnel or facilities therein.'

Section 844 defines 'Prisoner' as follows: 'As used in this chapter, 'prisoner' includes an inmate of a prison, jail or penal or correctional facility.' ***658**

The trial before a judge sitting without a jury was had on the basis of a written stipulation of facts, augmented by reports of various municipal departments, payroll records, and the deposition of the plaintiff widow.

The court prepared findings of fact which included one that both the deceased, Alejandro Datil, and Rufus Rhines, who assaulted him, were prisoners in the custody of the Main Jail Division of the Los Angeles Police Department at the time of the assault, that Datil's death was not caused by negligence of the city in failing to provide him adequate protection. The court concluded that the action was barred by Government Code, sections 844.6 and 845.2, as to the defendant City and that the sole proximate cause of Datil's death was the act of Rhines.

This appeal presents three separate grounds for reversal: (1) Alejandro Datil and Rufus Rhines were not 'prisoners' at the time Rhines struck Datil. (2) The defendant City was guilty of negligence in not providing Datil adequate protection. (3) The California Tort Claims Act of 1963, of which Government Code sections 844.6 and 845.2 are a part, is unconstitutional to the extent that it extends immunity from liability to public entities and agencies below the level of the State of California itself.

() In support of their first ground of appeal, namely, that neither Datil nor Rhines was a 'prisoner' at the time of the assault by Rhines, plaintiffs contend that at that time no complaint had been filed, no arraignment had, and no plea to any charge entered by either man. Alluding to the statutory definition of prisoner in section 844, plaintiffs concede that the word 'includes' (as used in the phrase ' 'prisoner' includes an inmate') is a word of enlargement and not of limitation. (*Oil Workers Intl. Union v. Superior Court,* 103 Cal.App.2d 512, 570 [230 P.2d 71]; *People v. Western Air Lines, Inc.,* 42 Cal.2d 621, 639 [268 P.2d 723].) Nevertheless plaintiffs insist that the definition is controlled by the word 'inmate' which means 'a resident, dweller, lodger, at least with some degree of permanency,' and that the term 'prisoner' is to be construed in its narrow and technical sense as a 'person deprived of his liberty by virtue of a judicial or other lawful process; ...' (Plaintiffs cite 72 C.J.S. Prisoner, p. 847; 39 Cal.Jur.2d, Prisons and Prisoners, § 3, p. 638; 41 Am.Jur., Prisons and Prisoners, § 2, p. 886.) Quite understandably plaintiffs cite no authority for this novel synthesis of the statutory language; our own research has uncovered no ***659** such authority. On the contrary,

almost every popular dictionary as well as law dictionary and encyclopaedic work, states in words or substance that a prisoner is a person 'under arrest,' 'in custody,' 'in jail,' 'in prison'; in short, one who is being restrained involuntarily. The test is not whether he has been informed against, indicted, arraigned, tried or convicted. In this case the record shows that both Datil and Rhines had been booked (as provided in Pen. Code, § 7, subd. 21) and were in the process of transit from one jail to another. Clearly they were not being transferred in the course of a voluntary tour of city penal institutions, or otherwise as civic guests of the City of Los Angeles. An incarcerated, love-struck poet might sing out euphorically, but certainly not accurately, that

'Stone walls do not a prison make Nor iron bars a cage.' [2]

But here the two inebriates could have had no such illusion as to their temporary status.

It is of no significance that the lethal blow was struck while the men were in the receiving room as distinguished from a corridor, recreation area, locker room, mess hall or cell block. Datil and Rhines were prisoners in jail by any sensible intendment of the English language. [3] We find plaintiffs' first ground of appeal entirely without merit.

The second ground of appeal is that the city police were negligent in not protecting Datil from injury. This ground apparently implies municipal liability for acts of its police as having some vicarious basis. In passing, it is noted that the complaint did not join as defendants any police officer or jail employee or plead any alternative theory of liability. [4] In any case, the claim, so far as this case is concerned, need not be ***660** separately discussed for it is governed by our disposition of the remaining ground of appeal.

() The third ground of appeal is that the California Tort Claims Act of 1963 is unconstitutional. Plaintiff cites a number of cases which were decided with respect to legal principles, statutes and judicial decisions which had effective application prior to the enactment of the Tort Claims Act in 1963 and in some instances related to special legislation or arose under very dissimilar contexts. Thus they do not require individual consideration here.

At common law the distinction between purely governmental functions and proprietary functions of public entities was recognized as a basis for determining immunity or nonimmunity from tort liability. Under that test the function of maintaining and operating jails and prisons was recognized as a governmental function.

However, in recent times, the immunities attaching to governmental functions has progressively eroded as a result of special legislation and court interpretations of ameliorative statutes, culminating in the case of *Muskopf v. Corning Hospital Dist.* (1961) 55 Cal.2d 211 [11 Cal.Rptr. 89, 359 P.2d 457], which virtually abrogated the doctrine of governmental immunity in California. Following that decision and relying largely on the study and report by the California Law Revision Commission, the Legislature enacted the California Tort Claims Act of 1963. The result is that today there is no common law governmental tort liability in this State and '[e]xcept as otherwise provided by statute' there is no liability on the part of a public entity for any act or omission of itself, a public employee or any other person. (Gov. Code, § 815.)

It is plaintiffs' specific contention that the California Tort Claims Act violates the due process clause of the Fourteenth Amendment to the United States Constitution in that it illegally grants an immunity from liability for torts to subordinate public entities, which results in unequal protection of the law. As we read plaintiffs' brief, they concede that immunity at the state level violates no constitutional rights of the private citizen, but that when the state undertakes to 'delegate' its own immunity to subordinate entities, such as counties and cities, unconstitutionality is the result.

We are unable to follow, much less accept, plaintiffs' argument. For present purposes it is enough to observe that in all of the cases in which the Tort Claims Act of 1963 has been ***661** subjected to constitutional attack to date, the appellate courts have upheld its constitutionality. (See *County of Los Angeles v. Superior Court* (1965) 62 Cal.2d 839 [44 Cal.Rptr. 796, 402 P.2d 868]; *Reed v. City & County of San Francisco* (1965) 237 Cal.App.2d 23 [46 Cal.Rptr. 543].)

We find plaintiffs' third ground of appeal to be lacking in merit.

The judgment is affirmed.

A petition for a rehearing was denied July 18, 1968, and appellants' petition for a hearing by the Supreme Court was denied August 28, 1968.

Files, P. J., and Jefferson, J., concurred.

Footnotes

* Assigned by the Chairman of the Judicial Council.

FN1 Penal Code, section 7, subdivision 21, defines ‘book‘ as used in this context, as follows:

‘21. To 'book’ signifies the recordation of an arrest in official police records, and the taking by the police of fingerprints and photographs of the person arrested, or any of these acts following an arrest.‘

2 Richard Lovclace (1618-1657) ‘To Althea From Prison.‘ Compare ‘Stone Walls a Prison Make, But Not A Slave‘-Wm. Wordsworth (1770-1850) ‘Humanity.‘ See also: ‘Ballads of Reading Gaol‘-by Oscar Wilde.

3 Jail and ‘gaol‘ are synonymous. In England the archaic spelling ‘gaol‘ still persists chiefly due to statutory and official tradition, but it is considered obsolete in present-day literary and spoken form. In the United States ‘jail‘ has always been both the official and popular mode of spelling. See The Oxford English Dictionary-(Clarendon Press, Oxford) Vol. 5, 1933.

4 This case is not based on any claim under Government Code, section 845.6, that the defendant city or its employees failed to summon medical care, knowing, or having reason to know, that the prisoner was in immediate need of such care. Thus, the cited case of *Hart v. County of Orange* (1967) 254 Cal.App.2d 302 [62 Cal.Rptr. 73] has no relevancy here.

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Distinguished by Vater v. Glenn County, Cal.App. 3 Dist., April 12, 1957

66 Cal.App. 693, 227 P. 243

STANLEY DAVIE, Appellant,
v.
BOARD OF REGENTS, UNIVERSITY OF CALIFORNIA, et al., Respondents.

Civ. No. 4536.
District Court of Appeal, First District, Division 1, California.
April 24, 1924.

HEADNOTES

(1)
MUNICIPAL CORPORATIONS--DOUBLE CHARACTER--LIABILITY FOR TORTS.
A municipal corporation has a double character-the one governmental, legislative or public; and the other proprietary or private-and, when acting in a private capacity, its liabilities arising out of either contract or tort are the same as those of natural persons or private corporations.

See 18 **Cal. Jur.** 1000, 1092, 1096; 19 **R. C. L.** 1106 et seq.

(2)
UNIVERSITIES--MAINTENANCE OF INFIRMARY--GOVERNMENTAL FUNCTION--LIABILITY FOR TORTS.
The maintenance by the Board of Regents of the University of California of an infirmary for the sole purpose of safeguarding and protecting the health of the student body constitutes the exercise of a duty involving governmental functions in the highest degree, and is authorized by article IX, section 9, of the constitution; and, it being in no sense an organization for profit, the imposition upon each student of a small infirmary fee does not convert such governmental function into a proprietary one, so as to render the Board of Regents liable in damages for the negligent acts of its agents and servants in the conduct of the infirmary.

(3)
PLEADING--DEMURRER--GROUNDS--APPEAL.
Upon appeal from a judgment entered upon the failure of plaintiff to amend his complaint, after demurrer sustained, the appellate court is free to consider each ground of defendant's demurrer to the complaint, and if the demurrer is well taken on any ground properly specified in the demurrer the judgment of the trial court must be affirmed, even though the trial court may have deemed it sufficient in that respect and may in its order have declared it defective only in some particular in which the appellate court holds it to be good.

See 2 **Cal. Jur.** 811; 2 **R. C. L.** 191.

(4)
UNIVERSITIES--MALPRACTICE BY PHYSICIAN IN INFIRMARY--REMEDY OF STUDENT.
While it is unfortunate that a student at the University of California should suffer through the negligence or misconduct of the physician entrusted with the care of administering the affairs of the infirmary of that institution, and the condition of such student brought about through the malpractice of such physician is a great hardship upon him, it is one which cannot be remedied by giving him damages at the expense of the institution, but he is left to his remedy against those through whose fault he was injured.

See 18 **Cal. Jur.** 980; **R. C. L.** 484; 19 **R. C. L.** 922.

(1) 28 **Cyc.**, pp. 1257, 1258. (2) 11 **C. J.**, p. 1000, sec. 42 (1926 Anno.). (3) 4 **C. J.**, p. 664, sec. 2557. (4) 30 **C. J.**, p. 469, sec. 14.

SUMMARY

APPEAL from a judgment of the Superior Court of Alameda County. Jos. S. Koford, Judge. Affirmed.

The facts are stated in the opinion of the court.

COUNSEL
McGee, Sapiro & Thomson, McGee & Corgiat and Richard N. Mather for Appellant.
J. M. Mannon, Jr., for Respondents.

TYLER, P. J.

This action was brought to recover damages for personal injuries alleged to have resulted in consequence of the negligence of a physician in charge of an infirmary

maintained by defendant at the University of California at Berkeley. A demurrer, both general and special, was interposed to the complaint primarily upon the ground that it shows defendant to be a state agency in charge of a governmental function, and that the infirmary, ***695** being maintained in connection with and as a part of this educational institution, defendant is not liable for the alleged torts of its agents in the operation thereof. The demurrer was sustained, and upon plaintiff's failure to amend judgment was entered in favor of defendants, and plaintiff appeals.

The complaint alleges that prior to and after the third day of April, 1920, plaintiff was a duly enrolled and attending student in one of the courses at the University of California; that it is one of the rules and regulations of the university that before a person can become a regularly enrolled student he must pay an infirmary fee of three dollars, and thereafter semi-annually, which fee the plaintiff paid, and had thereby become entitled to consultation and medical and hospital care at the infirmary thus operated by defendant corporation. There is no charge, so it is alleged, beyond the infirmary fee for ordinary hospital and medical services; but if a surgical operation or special nurse is required the cost thereof must be borne by the patient. The complaint, proceeding, recites that defendant corporation collected the infirmary fee above referred to from several thousands of students each year and held the same as its own funds, and that the students of said university, including plaintiff, did not acquire any interest in the money so paid by them, and that defendant thereby realized a large profit in the administration of the infirmary conducted by it through the collection and retention of such fees required to be paid by all the students. Then follow allegations to the effect that the infirmary is wholly maintained and supported by the fees and charges paid by those entitled to receive treatment, and is so conducted and maintained by defendant separate and apart from its duties as the governing body of the University of California. Further recitals are to the effect that defendant for an adequate and valuable consideration in addition to the infirmary fee mentioned undertook and agreed to perform an operation upon the plaintiff for the removal of his tonsils, and undertook and agreed to render all necessary medical and surgical treatment incident thereto. It is charged that in the course of said operation defendant used negligent, careless and improper methods and treatment, resulting ultimately in a dislocation of the jaw-bone and a fracture of the left side ***696** of the posterior arch of the atlas vertebrae of plaintiff's neck, which injuries, it is claimed, are permanent. Damages in the sum of $151,433.35 are prayed for.

The main contention of appellant and the one chiefly relied upon for a reversal is that the complaint shows that defendant has undertaken to do something separate and apart from any educational function, and in consequence thereof has become liable for the alleged tortious act. In support thereof it is argued that the defendant corporation, The Regents of the University of California, has a dual character-governmental and also proprietary and private; and when acting in the latter capacity its liabilities arising out of either contract or tort are the same as those of natural persons or private corporations, and he invokes the application in his favor of the rule established by the decisions of this state, that a municipal corporation is liable for torts of its agents committed in the performance of activities or functions purely private and proprietary in their nature.

Respondent, on the other hand, contends that the pleading shows on its face that the infirmary is maintained as a part of the University of California, operated only in connection with the educational functions thereof, and this being so, it is not liable for the torts of its agents committed in connection therewith. It further contends as a matter of law that the distinction in actions of this character between governmental and proprietary functions is limited in its application to municipal corporations, and does not extend to state agencies, such as counties, school districts, road districts and The Regents of the University of California, and that this distinction between torts committed in the course of the exercise of public and governmental functions on the one hand, and of private and proprietary activities on the other, has never been applied to any but municipal corporations; for which reason it claims that the rule invoked has no application to the instant case.

We will proceed to a consideration and discussion of the first contention, namely, whether the allegations of the complaint establish the fact that defendant, in the operation of the infirmary, conducts a private and proprietary enterprise, or whether it shows that the infirmary was in reality a ***697** department of the university conducted by respondent as an educational, and therefore public, activity.

In support of his position appellant claims that it is apparent from the various organic and legislative acts that the legislature had in contemplation two separate kinds of property which the Board of Regents were entitled to manage and control: First, that which belonged to the state outright and which the Regents could not alienate; second, that class of property which the board acquired by gift for investment and reinvestment, and which is separate and distinct from the properties donated by the state for the general purpose of its creation; that as to this class the board acquired such property for business purposes; that it operates the same for such purposes separate and apart from any educational function and derives revenue and profits therefrom, and, therefore, should, like an individual, become liable to third persons for its torts-partaking in this respect of the dual character of municipal corporations considered from the point of view of their twofold activities.

[1] That a municipal corporation has a double character and, when acting in a private capacity, its liabilities arising out of either contract or tort are the same as those of natural persons or private corporations has long since been definitely settled and established. In treating of this subject Judge Dillon in his work on Municipal Corporations lays down the rule that a municipal corporation possesses a double character-the one governmental, legislative or public; the other in a sense proprietary or private, and says that the distinction between these is sometimes, indeed very often, difficult to trace. In its governmental or public character the corporation is made by the state one of its instruments or the local depositary of certain limited and prescribed political powers, to be exercised for the public good. But in its proprietary or private character the theory is that the powers are supposed not to be conferred primarily or chiefly from considerations connected with the government of the state at large, but rather for the private advantage of the compact community which is incorporated as a distinct legal personality or corporate individual; and as to such powers and to property acquired thereunder and contracts made with reference thereto, the corporation is to ***698** be regarded as private in character (Dillon on Mun. Corp., 5th ed., sec. 109).

This doctrine has received general recognition in this state. Accordingly, it has been held that a municipal corporation when acting in a private or proprietary capacity is liable for its tort (*Chafour v. Long Beach*, 174 Cal. 478 [Ann. Cas. 1918D, 106, L. R. A. 1917E, 685, 163 Pac. 670]).

The question, however, as to whether or not the maintenance of a hospital by a municipality is a governmental function is with us one of first impression. Cases dealing with the liability of municipal corporations growing out of the operation and maintenance of different activities, however, are numerous; and they are illuminating as they discuss and determine the difference between governmental and proprietary functions.

In *Sherbourne v. Yuba County*, 21 Cal. 113 [81 Am. Dec. 151], it was sought to hold a county liable to one who while an inmate of a hospital suffered injuries from unskillful treatment. It was there held that a *quasi* corporation such as a county is not liable for acts of officers or employees which it appoints in the exercise of a portion of the sovereign power of the state by the requirement of a public law, simply for the public benefit and from which the county as a corporation derives no benefit. This case, however, was decided upon the ground that defendant county exercised exclusively governmental functions.

In *Davoust v. City of Alameda*, 149 Cal. 69 [9 Ann. Cas. 847, 5 L. R. A. (N. S.) 536, 84 Pac. 760], the defendant city was operating an electric light plant for the purpose of lighting the city and furnishing electric light to its inhabitants for domestic use. This activity was held not to be a governmental function.

In *Chafour v. Long Beach*, 174 Cal. 478 [Ann. Cas. 1918D, 106, L. R. A. 1917E, 685, 163 Pac. 670], the question was again presented and discussed. There plaintiff's intestate was killed by the collapse of a platform in an auditorium erected and maintained by the city. The maintenance of the auditorium was by virtue of a permissive statute which contemplated that the hall should be let for profit. It was not devoted to any educational or governmental purpose. Its operation was therefore held to be a private and proprietary activity. In the opinion it is stated ***699** that a municipality is protected from liability only while exercising the delegated functions of sovereignty, which consist of those pertaining to the making and enforcing of police regulations, to prevent crime, to preserve the public health, to prevent fires, the caring of the poor and the education of the young (*County of Alameda v. Chambers*, 35 Cal. App. 537 [170 Pac. 650]).

In *Keller v. Los Angeles*, 179 Cal. 605 [178 Pac. 505], the complaint demurred to alleged that the municipality maintained a summer camp outside of its corporate limits under authorization of certain provisions of its charter for the purpose of giving the children of the city a vacation, at certain prescribed charges to be paid by them to the city. The demurrer was sustained upon the ground that the city was, in the operation of this activity, engaged purely in the exercise of its governmental function pertaining to the health of the children of the city, and was, therefore, not liable for injuries suffered by the plaintiff by reason of the negligence of its servants in caring for such plaintiff after he had been accidentally injured while an inmate of such camp. It is there further held that the activities involved were referable to the duty of maintaining the public health, and had nothing of the nature of an ordinary business enterprise.

Direct authority, however, upon the precise question is not wanting in other states. Many cases may be found in the various jurisdictions upon the subject, where it is generally held that in the absence of statutory provision to the contrary a hospital created and existing for purely governmental purposes and under the control of the municipality or state is not liable for injuries to a patient caused by the negligence or misconduct of its employees, although a statute, as here, may declare it to be a corporation which may sue and be sued. The maintenance of such hospitals is held to be for the public welfare and the advancement of public health; and in the operation thereof municipalities or the state exercise governmental or political functions. (30 Cyc. 465.) Thus, in *Brouder v. City of Henderson*, 182 Ky. 771 [207 S. W. 479], it is said that the power or even the duty on the part of a municipal corporation to make provision for the public health and for the care of the sick appertains to it in its governmental or public capacity, and ***700** that no element of safety is more important than those pertaining to public health; and accordingly it is there held that where a city establishes a hospital it is not responsible to persons injured by reason of the misconduct of its agents or employees. (See, also, 19 Ruling Case Law, 1122; 7 Cal. Jur., 518; *Tollefson Admx. v. City of Ottawa*, 228 Ill. 134 [11 L. R. A. (N. S.) 990, 81 N. E. 823]; *Summers v. Board of Commissioners*, 103 Ind. 262 [53 Am. Rep. 512, 2 N. E. 725]; *Zummo v. Kansas City*, 285 Mo. 222 [225 S. W. 934].)

We do not deem an extensive review of the authorities from the other states essential, and it would answer no useful purpose. Suffice it to say that they generally hold that the maintenance of a hospital by a municipality is a governmental function, and that in the conduct thereof the municipality is not liable for the tortious acts of its employees.

[2] Reading the complaint in the present action from its four corners it conclusively appears therefrom that the infirmary in question is conducted by the defendant corporation for the exclusive use of the students, and that it is so conducted by it for the sole purpose of safeguarding and protecting the health of the student body. This being so, it is in no sense an organization for profit, and the imposition of the small fee does not convert this governmental function into a proprietary one (*Melvin v. State*, 121 Cal. 16 [53 Pac. 416]; *Kellar v. City of Los Angeles*, 179 Cal. 605 [178 Pac. 505]; *Manning v. City of Pasadena*, 58 Cal. App. 672 [209 Pac. 253]). Nor does the further recital that the respondent conducts it separate and apart from its duties as a governing body have this effect, for this is a mere conclusion of the pleader, and it is negatived by the other allegations of the complaint.

This being so, the promotion and welfare of the students in this respect must be held to be the exercise of a duty involving governmental functions in the highest degree.

The reason for the rule that the policy of the law denies liability of a state or municipality for negligence of its servants and physicians is that such an activity being a governmental agency, to permit such liability would result in enormous public burdens (*Jenkins v. Charleston Gen. Hospital*, 90 W. Va. 230 [22 A. L. R. 323, 110 S. E. 560]). ***701**

That respondent had the power to establish and maintain the infirmary there can be no question. The constitution provides: "The corporation shall also have all the powers necessary or convenient for the effective administration of its trust." (Const., art. IX, sec. 9.)

That the maintenance of the health of the students is an educational activity is indicated not only by the cases cited but also by section 1618a of the Political Code (Stats. 1919, p. 128), which provides that school trustees and county boards of education may provide for proper health supervision in the public schools.

Our attention is called to the cases of *Bloom v. City and County of San Francisco*, 64 Cal. 503 [3 Pac. 129], and *Lundy v. Delmas*, 104 Cal. 655 [26 L. R. A. 651, 38 Pac. 445], as holding contrary to the views herein expressed. The Bloom case has to do with the maintenance of a nuisance. It therefore presents an exception to the general rule. Where a municipality maintains a nuisance it is liable in damages, and cannot escape such liability on the ground that it is exercising a governmental function. (*Perkins v. Blauth*, 163 Cal. 782 [127 Pac. 50].) *Lundy v. Delmas* merely holds that the regents of the university are not individually liable for the negligence of the corporation in failing to properly maintain a telegraph line belonging to it. It does not hold the corporation to be liable for the torts of its agents.

Other cases cited deal with the personal liability of agents, and when exceeding their powers. A discussion of these cases is unnecessary, for even conceding that certain language used therein might be construed as supporting appellant's contention, we could not follow them in view of the generally accepted doctrine.

The conclusion we have reached renders unnecessary a discussion of the further question presented by respondent, namely, that defendant is a state agency, and therefore immune from liability irrespective of any distinction between the twofold activities of municipalities.

As above recited, the demurrer interposed was both general and special. The minute order of the trial court was "that the demurrer of the defendant The Regents of the University of California be sustained." Defendant by special demurrer pointed out, among other things, that the ***702** complaint was ambiguous and unintelligible for the reason that it failed to state in what manner the infirmary was conducted separate and apart by defendant from its duties as governing body of the University of California.

It is manifest, and indeed it is not otherwise contended, that the gravamen of plaintiff's action is that defendant in the operation of the infirmary was conducting a private enterprise. **[3]** It is here claimed by appellant that any defect in his pleading in this particular cannot here be availed of, for the reason that the action of the trial court was bottomed upon the general demurrer only, for which reason we are restricted in a review of the decision to consideration of the propriety of the action of the trial court in sustaining the general demurrer to the complaint.

We do not so understand the law. In reviewing an order sustaining a demurrer the appellate court is not so limited in its action. If the complaint is insufficient upon any ground properly specified in the demurrer the order must be sustained though the lower court may have deemed it sufficient in that respect and may in its order have declared it defective only in some particular in which we hold it to be good (*Burk v. Maguire*, 154 Cal. 456 [98 Pac. 21]; *Sechrist v. Rialto Irrigation District*, 129 Cal. 240 [62 Pac. 261]). In other words, this court is free to consider each ground of respondent's demurrer to the complaint; and if the demurrer was well taken on any ground the judgment below must be affirmed. If we are correct in our conclusion that the allegations of the complaint show that the infirmary was conducted by respondent as part of the activities of the educational institution, an amendment would avail plaintiff nothing. However this may be, uncertainties in this particular were pointed out to plaintiff under the demurrer; he elected to stand upon his complaint for obvious reasons. Having done so, the judgment on demurrer will not be reversed merely in order to allow an amendment (2 Cal. Jur. 995; 4 Corpus Juris, 1195).

[4] In conclusion it may be said that it is indeed unfortunate that plaintiff should suffer through the negligence or misconduct of the physician entrusted with the care of administering the affairs of the infirmary, and the condition of plaintiff brought about through the alleged malpractice of such physician (assuming the allegations to be true) is ***703** a great hardship upon plaintiff; but it is one which cannot be remedied by giving him damages at the expense of the institution in question. Whatever our personal inclination might be, we are bound to take the law as we find it. For such damages a claimant is left to his remedy against those through whose fault he was injured (*Maia v. Eastern State Hospital*, 97 Va. 507 [47 L. R. A. 577, 34 S. E. 617]).

For the reasons given we are of the opinion that the demurrer of respondent corporation to the amended complaint was properly sustained, and the judgment rendered thereon should be and it is hereby affirmed.

St. Sure, J., and Knight, J., concurred.

A petition by appellant to have the cause heard in the supreme court, after judgment in the district court of appeal, was denied by the supreme court on June 23, 1924.

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108 Cal.App.2d 669, 239 P.2d 656

THOMAS E. DAVIS, Appellant,
v.
CITY OF SANTA ANA, etc., et al., Respondents.

Civ. No. 4420.
District Court of Appeal, Fourth District, California.
Jan. 15, 1952.

HEADNOTES

(1)
Municipal Corporations § 131--Police Power--Garbage.
Collection and disposal of garbage and trash by a city of the fifth class constitute a valid exercise of police power.

Validity of regulations as to garbage, notes, 72 **A.L.R.** 520; 135 **A.L.R.** 1305. See, also, **Cal.Jur.,** Municipal Corporations, § 149; **Am.Jur.,** Municipal Corporations, § 298.

(2)
Municipal Corporations § 97--Governmental Functions.
Collection and disposal of garbage and trash by a city of the fifth class constitute a governmental function which the city may exercise in all reasonable ways to guard the public health.

(3)
Municipal Corporations § 131--Police Power--Garbage.
A city of the fifth class may itself collect and dispose of garbage, grant exclusive collection and disposal privileges to one or more persons by contract, or permit private collectors to make private contracts with private citizens, the gathering of garbage and trash being a matter which public agencies are authorized to pursue by the best means in their possession to protect the public health.

(4)
Municipal Corporations § 356--Contracts--Bids.
In the absence of a charter or statutory requirement, municipal contracts need not be let under competitive bidding.

(5)
Municipal Corporations § 351--Contracts--Letting of Contracts.
Not all public contracts are contemplated by Gov. Code, §§ 37901-37903, relating to letting contracts by cities of the fifth and sixth classes.

(6)
Municipal Corporations § 351--Contracts--Collection of Garbage.
Gov. Code §§ 37901-37903, do not contemplate a contract whereby a city of the fifth class authorizes private individuals to collect the city garbage.

(7a, 7b)
Municipal Corporations § 373--Property--Disposition.
Where a city is required by ordinance to secure bids on sale of its surplus property but is authorized by statute to sell its property without bids, it will be presumed that before certain property was sold without bids the council determined it not to be surplus, that it should be sold, and that the sale would be for the city's benefit.

(8)
Municipal Corporations § 205--Council--Delegation of Power.
A council may not delegate authority, which it holds under a statute and under an ordinance controlling sale of surplus municipal property, to determine whether certain property is surplus and whether a sale thereof was for the city's common benefit.

See **Cal.Jur.,** Municipal Corporations, § 199; **Am.Jur.** Municipal Corporations, § 53.

(9)
Municipal Corporations § 373--Property--Disposition--Repurchase on Cancellation of Contract.
The council of a city which contracted with individuals for the collection by them of the city garbage and sold its collecting equipment to them, with a proviso for repurchase on cancellation of the contract for unsatisfactory service, was justified in determining the equipment to be not surplus, where the councilmen may have recognized a shortage of such equipment and that they would be derelict in their duty should the city be without equipment in event the contract were cancelled.

(10)
Municipal Corporations § 373--Property--Disposition--Power of Council.
The legislative body of a city of the fifth class is vested with the free and unrestricted discretionary power to determine what personal property shall be disposed of and when and how the disposition shall be made, the only restriction imposed by the general basic law being that the disposition shall be for the benefit of the city and its constituents. (Gov. Code, §§ 37350, 37351.)

(11)
Municipal Corporations § 373--Property--Disposition--Power of Council--Judicial Interference.
Courts should not interfere with a city council's action in conditionally selling, without calling for bids, the city's garbage collection equipment to individuals as part of a contract whereby they assumed the duty of collecting the city garbage, where fraud is not charged, and the council is not shown to have exceeded its authority or to have acted arbitrarily, oppressively or unjustly, and where failure to sell the equipment to such individuals could render performance of the contract impossible and thereby create an unhealthy condition in the city.

(12)
Judgments § 12--Declaratory Judgments--Pleading.
A complaint for declaratory relief is sufficient if it sets forth facts showing the existence of an actual controversy relating to the legal rights and duties of the parties under a written instrument, and requests that these rights and duties be adjudged.

(13)
Judgments § 14--Declaratory Judgments--Refusal of Relief.
It is not an abuse of discretion to deny declaratory relief, where the only controversy alleged is fully presented by the pleadings and ruled on adversely to plaintiff.

See **Cal.Jur. 10-Yr.Supp.,** Declaratory Relief, § 23; **Am.Jur.,** Declaratory Judgments, § 14.

(14)
Pleading § 243--Motion for Judgment on Pleadings.
Where a general demurrer is incorrectly overruled and this fact called to the court's attention by presentation of additional authorities, the court is authorized to grant a judgment on the pleadings, if proper, the ruling on the demurrer being deemed an irregularity.

(15)
Pleading § 242--Motion for Judgment on Pleadings.
A motion by defendant for judgment on the pleadings operates as a general demurrer to the complaint and the averments of the complaint, for the purpose of the motion, must be treated as true.

(16)
Pleading § 243--Motion for Judgment on Pleadings.
A motion by defendant for judgment on the pleadings should be granted where no material issue requiring proof is joined.

(17)
Municipal Corporations § 373--Property--Disposition--Actions Involving.
In an action attacking the validity of a city's contract whereby it authorized individuals to collect the city garbage and agreed to sell them its garbage collecting equipment, it is proper to grant a motion to strike evidence aimed at proving the city would suffer damage from selling the equipment other than at public auction, where fraud is not alleged and it is not shown that the council abused its discretion or acted illegally or arbitrarily

(18)
Appeal and Error § 1483--Harmless Error--Pleading--Judgment on Pleadings.
A plaintiff is not prejudiced by the court's action in ordering a judgment on the pleadings pursuant to defendant's motion for a nonsuit, where the same result would have obtained had the motion been for judgment on the pleadings, and where the appellate court could have ordered entry of such a judgment.

SUMMARY

APPEAL from a judgment of the Superior Court of Orange County. Robert Gardner, Judge. Affirmed.

Action to enjoin city from complying with terms of a contract, and for declaratory relief. Judgment for defendants on the pleadings, affirmed.

COUNSEL
Forgy, Reinhaus & Forgy and Mark A. Soden for Appellant.
Z. B. West, R. M. Crookshank, Harvey, Rimel & Johnston and Jack J. Rimel for Respondents.

GRIFFIN, J.

Plaintiff, on behalf of himself and other taxpayers of the city of Santa Ana, brought this action against the defendants, city of Santa Ana, a municipal corporation of the fifth class, its mayor, councilmen, city clerk and city treasurer (hereinafter referred to as defendant city), and against defendants Paul M. Johnson and associates (hereinafter referred to as the Johnsons) to enjoin the defendant city and defendants Johnson from paying or receiving any money from the city treasurer under the terms of a contract and supplemental agreement for the disposal of the city trash and garbage, and enjoining the city from selling or transferring to defendants Johnson any equipment used by said city in such operation.

In the second count of the complaint, wherein plaintiff repeats and realleges the allegations set forth in the first count, he asks that the rights of the respective parties be declared.

The complaint sets up the contract (Exhibit A) entered into on November 2, 1950 (a copy of which is incorporated therein by reference) which recites generally that:

"Whereas ... the City has handled garbage and trash collections within its exterior boundaries as a corporate function and now wishes to relieve itself of said duty by granting to private persons ... a contract for said collections and,

"Whereas, second parties have filed with the City their bid and proposal in writing to perform said functions for and on behalf of the City, as a private operation upon certain terms and conditions.

"Now, Therefore, ... it is agreed ...

"That the City shall grant to the second parties the right, privilege and duty to collect and dispose of all trash and garbage ... for a period of four (4) years. ...

"That as consideration ... the City agrees to pay to the second parties ninety cents (90¢) per month for each water meter record. ...

"... the second parties shall have the right to sell or otherwise dispose of garbage collected. ...

"The second parties further agree to purchase from the City the equipment now being used by the City in its trash and ***673** garbage operations consisting of some ten (10) pieces of rolling stock at the Blue-Book value, or at the valuation set by a board of appraisal. ...

"That should either party to this agreement fail or refuse to carry out the terms of this contract ... the other party may cancel the same. ...

"In the event of cancellation of this contract by either party, ... the City shall have the right to repurchase from the second parties all rolling stock sold to said second parties, still in use, under the same terms and conditions as said rolling stock was sold to second parties."

On November 6, 1950, a supplemental agreement (Exhibit B) was executed by the parties, modifying the terms of the first agreement to the extent that the city would allow the Johnsons to continue storing the garbage trucks at the city yard at a fixed rate and that they would pay $100 per month to a city employee for accepting complaints regarding failure of garbage collection.

The complaint further alleges that the purported contract was entered into by the city, without notice inviting bids, and that the contract was not let to the lowest responsible bidder after notice; that the contract provides for an expenditure of city funds exceeding $1,000 and that by reason thereof the contract and supplemental agreement were illegal and void; that the city did not comply with a certain specified city ordinance No. 1296, in respect to the sale of the equipment. This ordinance, set forth in the pleadings, provides generally that when a department head determines that there is personal property in his department which has "no present or prospective use to which the city of Santa Ana may put said property" and is "surplus," he must report that fact to the city council. Reports of surplus property must be read at council meetings and the property cannot be sold until the council approves the report and declares the property surplus. The property is not to be sold if another department has a use

for the personal property for a city purpose. When the council determines that sufficient surplus has accumulated it shall fix the date for the sale, which shall be at public auction for cash.

It is then alleged that since the city did not comply with the provisions of this ordinance, it had no power to sell the city-owned equipment to the Johnsons, and for this additional reason that portion of the contract relating to the sale was illegal and void. ***674**

General demurrers were filed on behalf of all defendants (except two councilmen who were not present and voting when the contracts were authorized) claiming that the complaint did not state a cause of action on either count. These demurrers were overruled. Answers were filed by the demurring defendants in which they denied generally that the contract or subsequent agreement was invalid for the reasons claimed. They set up the official minute entries of the City Council which recited that the mayor and clerk were "authorized to execute the agreement" dated November 2d, 1950, with the Johnsons, as well as the minutes of November 6, 1950, authorizing the mayor and clerk to execute the supplemental agreement. They admitted that these contracts were entered into and executed by the city "without notice inviting bids" and that the expenditures involved exceeded $1,000. They set out ordinance No. 1296 in its entirety, admitted the sale of the rolling stock equipment provided for in the contract was not made in accordance with the procedure prescribed in that ordinance; claim that the city was not required to follow such procedure; and that at the time of the execution of the contracts the city did have and still has a "prospective use" for such equipment. They deny that the contract of sale was void or illegal or in violation of law. As to the second count, they reallege the allegations set forth in their answer to the first count and deny the remaining allegations of that count. The case came on for trial. Three witnesses were sworn on behalf of plaintiff. At the conclusion of plaintiff's case defendants moved to strike all of the testimony offered by plaintiff upon the ground that the complaint did not state a cause of action, and moved for a "judgment of nonsuit" upon the "ground set forth in sec. 581 Code of Civil Procedure." The court granted defendant's motion to strike and granted a "motion for judgment on the pleadings," after stating that defendants had erroneously "entitled" it "a motion for a nonsuit."

The principal question to determine upon this appeal is whether the city was obligated, under sections 37901-37903 of the Government Code to advertise and give notice inviting bids to let the contract for disposal of rubbish and garbage to the lowest responsible bidder. Section 37902 provides that:

"When the expenditure required for a *public project* exceeds one thousand dollars ($1000.00) it shall be contracted for and let to the lowest responsible bidder after notice." (Italics ours.) ***675**

Section 37901 defines a "public project" as:

"(a) A project for the erection, improvement and repair of public buildings and works.

"(b) Work in or about streams, bays, water fronts, embankments, or other work for protection against overflow.

"(c) Street or sewer work except maintenance or repair.

"(d) Furnishing supplies or materials for any such project, including maintenance or repair of streets or sewers."

As will be noted, there is nothing in the section which states that the letting of a contract for the collection of city rubbish and garbage is a "public project." Counsel for plaintiff insists that the historical background of these sections indicates that such a contract was intended by the Legislature to be classified as a "public project," and cites Stats. 1883, chap. VI, article III, section 777, page 258. This section contained the marginal note: "Public work to be contracted for." It provided in part that:

"In the erection, improvement, and repair of all public buildings and works, in all street and sewer work, and in all work in or about streams, bays, or water fronts, or in or about embankments, or other works for protection against overflow, and in furnishing any supplies or materials for the same, when the expenditure required for the same exceeds the sum of one hundred dollars, the same shall be done by contract, and shall be let to the lowest responsible bidder, after due notice. ..."

Also cited is the amendment to that section in Statutes 1915, chapter 663, section 1, page 1304, wherein the amount was increased to $300, and the caption or

preamble in that amendment referred to contracts "for public works" in cities of the fifth class. Also cited in Statutes 1941, chapter 741, section 2, page 2260, where the amount was raised to $1,000, with a similar preamble in the title. It is therefore argued that when the Legislature used the term "public project" in section 37902, it meant "public work"; that since the collection of garbage is a governmental function (citing *Glass v. City of Fresno,* 17 Cal.App.2d 555, 558 [62 P.2d 765]; *Pittam v. City of Riverside,* 128 Cal.App. 57, 62 [16 P.2d 768]; 18 California Jurisprudence, page 1096, section 345; and 7 McQuillin, Municipal Corporations, 3d edition, page 77, section 24.242) one can assume that to perform such function constitutes the doing of work, and that the doing of that governmental work, being for a public purpose, it is, as a matter of fact and law, "a public work." In this connection plaintiff cites *McKim v.* ***676** *Village of South Orange,* 133 N.J.L. 470 [44 A.2d 784, 786]; and *State v. Butler,* 178 Mo. 272 [77 S.W. 560], and relies on these out of state cases for the proposition that a contract for the removal of the city's garbage is a "public work" under the statutes there involved. He also cites 35 Words and Phrases, 435; 43 American Jurisprudence, page 744, section 3; 92 American Law Reports, 837; and 50 Corpus Juris, page 867, section 97. Therein, the above-mentioned cases are cited as authority for this statement.

Statutes of 1949, chapter 79, section 1, page 165, codifies section 777, *supra,* into the present code sections above indicated. Therein, the words "public work" are no longer mentioned. The term "public project" is used in all instances and the new section clearly defines this term. This definition is not inconsistent with the provisions of the original act or the amendments thereto. The better argument would be that the Legislature intended to remove any doubt as to the meaning of the previous enactments on the subject and intended to exclude from that definition a contract for the disposal of garbage.

Lelande v. Lowery, 26 Cal.2d 224, 227 [157 P.2d 639, 175 A.L.R. 1109], relied upon by plaintiff, is not opposed to this construction. Under article XI, section 11 of the California Constitution, "Any ... city ... may make and enforce within its limits all such local, police, sanitary, and other regulations as are not in conflict with general laws." Section 38793 of the Government Code provides:

"In addition to other powers, the legislative body of a fifth class City may provide for the prevention and summary removal of all filth and garbage in the city."

Section 4250 of the Health and Safety Code provides:

"The legislative body of any incorporated city may contract for the collection or disposal, or both, of garbage, ... under such terms and conditions as may be prescribed by the legislative body of any such city by a resolution or ordinance."

The accumulation of garbage and trash within a city is deleterious to public health and safety. (,) The collection and disposal of garbage and trash by the city constitutes a valid exercise of police power and a governmental function which the city may exercise in all reasonable ways to guard the public health. () It may elect to collect and dispose of the garbage itself or it may grant exclusive collection and disposal privileges to one or more persons by contract, or it may permit private collectors to make private contracts with private citizens. ***677** The gathering of garbage and trash is considered to be a matter which public agencies are authorized to pursue by the best means in their possession to protect the public health. (*In re Santos,* 88 Cal.App. 691 [264 P. 281]; *Miller v. City of Palo Alto,* 208 Cal. 74 [280 P. 108]; *Manning v. City of Pasadena,* 58 Cal.App. 666 [209 P. 253].)

() In the absence of some specific charter or statutory requirement, municipal contracts need not be let under competitive bidding. (McQuillin, Municipal Corporations, 3d ed., vol. 10, p. 272, § 29.31.) The only statutory requirement in California brought to our attention pertaining to competitive bidding on contracts by a city of the fifth class consists of the provisions of the Government Code mentioned. () It is obvious from the mere reading of these sections that not all public contracts are included, but only those which constitute "public projects" as that term is therein defined and limited. This point is well illustrated in the case of *Electric Light & Power Co. v. City of San Bernardino,* 100 Cal. 348 [34 P. 819], where the city, without following any competitive bidding procedure, entered into a contract with the plaintiff light company wherein the light company agreed to install and furnish street lighting to the city for one year at a cost of over $500. The question involved was the construction to be placed upon section 777, *supra,* which section then required competitive bidding

procedure where the expenditure was to exceed $100 "In the erection, improvement and repair of all public buildings and works, in all street and sewer work, and in all work ... in or about embankments or other works for protection against overflow, and in furnishing any supplies or materials for the same. ..." The Supreme Court, in construing this section, held that the contract in question was not within the statute and that competitive bidding was not required. It said, at pages 351-352:

"Does the lighting of streets as here described come with the term 'street work', as used in the foregoing provision of the statute? ... The provision fairly construed by all rules of construction does not bring the subject of this litigation within the term 'street work'. ...

"There can be no question as to the sound policy of a law requiring municipal corporations to enter into contracts, for the payment of money, only after full notice and opportunity for competition; but that is not a matter for our consideration here. We must take the statute as we find it. We can neither ***678** add to it nor subtract from it. It is our duty alone to construe it as it stands enacted."

In *Swanton v. Corby,* 38 Cal.App.2d 227 [100 P.2d 1077], a sixth class city, without any competitive bidding procedure, purchased materials, labor and supplies in the open market and had constructed for the city a two-way short wave radio. The complete cost was over $900. The statute then in effect required competitive bidding procedure by sixth class cities where the expenditure exceeded $500 "In the erection, improvement and repair of all public buildings and works. ..." The question on which that case turned was the construction of the phrase quoted. This court held that the erection of the radio did not constitute a public work within the meaning of the statute, and said that:

"It is well settled in California that a municipality may purchase supplies and materials and hire labor without advertising for bids if the law or charter under which it is organized and exists does not require the contract for such supplies, materials or labor to be let to the lowest bidder after advertising for bids." (Citing cases.) See, also, 22 Cal.Jur. p. 74, § 2; and *Matthews v. Town of Livermore,* 156 Cal. 294 [104 P. 303].

As pointed out by the trial judge, this attack is made purely on the question of the procedure followed, and there is no allegation of fraud or dishonesty. The question of the wisdom or discretion of the city council in awarding the contract without accepting bids is not before the court. () In the absence of some legislative authority indicating that such a contract as here involved comes within the definition of a "public project," the courts are powerless to include it therein, no matter how reasonable plaintiff's argument of justification may seem.

() The second question is whether ordinance No. 1296 was applicable under the facts pleaded and established. It is defendant's contention, in this respect, first, that from a mere reading of the contract here in controversy and as pleaded by plaintiff, it shows on its face that the garbage and trash collection equipment was not surplus property within the intended meaning of the ordinance; second, that the city council, which was the ultimate judge of the fact whether the equipment was or was not surplus, did not consider it to be such; and third, that since the pleadings do not allege fraud or abuse of discretion in connection with said determination, the courts are powerless to disturb such determination by that body. There is merit to the argument. Under the terms of ***679** the ordinance in question only *surplus property* need be sold at public auction. The ordinance itself defines surplus property as property for which the city has no present or *prospective use.* As will be noted, the city council is not precluded by the ordinance from selling or disposing of *any* of its personal property without obtaining bids therefor. The provision applies only to surplus property for which the city has no present or prospective use. () The city council was the ultimate judge, both under the ordinance and under the statute authorizing the sale of its personal property without bid, to determine whether said property was or was not surplus and whether a sale made by it under either theory was or was not for the common benefit of the city. Such authority cannot be delegated to any other municipal officer. (19 R.C.L. p. 896, § 195, 37 Am.Jur. p. 667, § 53; *Bolton v. Gilleran,* 105 Cal. 244 [38 P. 881, 45 Am.St.Rep. 33]; *Truckee & T. T. Road Co. v. Campbell,* 44 Cal. 89, 91.)

() The record conclusively shows that the sale was made without resort to bid, and the equipment was never declared to be surplus property by the head of any department or by the city council. The presumption is that the city council made a determination that it was not surplus; that it should be sold; and that the contemplated sale was for the benefit of the city. (*Truckee & T. T. Road*

Co. v. Campbell, supra; Code Civ. Proc., § 1963, subds. 15 and 33.)

In *Southlands Company v. City of San Diego,* 211 Cal. 646 [297 P. 521], our Supreme Court held that where the city council had the power to exercise a discretion as to whether the building of a bridge or causeway was reasonably necessary in the construction of a highway, in the absence of fraud, its finding that such a bridge was necessary was conclusive and not subject to review. (See, also, *In re Sumida,* 177 Cal. 388 [170 P. 823]; *Odd Fellows' Cemetery Assn. v. San Francisco,* 140 Cal. 226 [73 P. 987].) The discretionary powers of municipal authorities will not be interfered with in a suit by a taxpayer for an injunction in the absence of fraud or palpable abuse. Matters in which questions as to judgment, wisdom or policy alone are involved are not subject to control by injunction. (64 C.J.S. p. 958, § 2142; 64 C.J.S. p. 969, § 2147c.)

California Reduction Co. v. Sanitary Reduction Works of San Francisco, 126 F. 29, involved a suit in equity by a third party (as here) to obtain an injunction against defendant company testing the validity of an exclusive contract ***680** for the removal of garbage in the city of San Francisco, for a period of 50 years. The court held that since the Consolidation Act (Stats. 1863, p. 540, chap. 352) empowered the board of supervisors "by regulation or order" to provide for the prevention and summary removal of all nuisances, etc. the board, having power under such provisions, to itself regulate the removal and disposition of all garbage and refuse matter, the municipality had the power to contract with others for such removal or disposition, and that an order granting an exclusive franchise or privilege to a person to receive and destroy the garbage and refuse collected in the city for a term of 50 years was within the authority granted, as well as within the police power of the state. It then held that the validity of the grant of such privilege, which amounts to a contract, and under which the grantee is acting, cannot be collaterally attacked by a private party in a suit in equity on the ground of *irregularity* in the exercise of its power by the municipality, nor because of the alleged failure of the grantee to perform the conditions imposed, the nonperformance of which it was provided would work a forfeiture, such matters being determined only at suit of the granting authority. Although defendants do not raise the point on this appeal, an action to test the question as to whether a city council errs in exercising its rightful authority in awarding an exclusive franchise for the removal of garbage must be by quo warranto. (*Gurtz v. City of San Bruno,* 8 Cal.App.2d 399 [48 P.2d 142].) Continuing further, the court, in the California Reduction Company case, then said, at page 38:

"The question as to the reasonableness of granting the exclusive franchise for 50 years is one upon which there may be honest differences of opinion. Courts cannot, in the determination of this question, run a race of opinion upon points of reason and expediency with the law-making power. No iron- clad rule can be laid down to determine where the discretion of the board ceases and where the power and authority of the court to declare the action of the board unreasonable begins. The border line must be ascertained by the facts, conditions, and circumstances surrounding the subject-matter in every particular case. ... It was authorized by the laws of the state to make the contract in question. It was required to act with sound discretion as to the methods and terms. With the honest and reasonable exercise of this authority a court has no right to interfere, although the ***681** board may not have chosen the best method or made the most advantageous contract in relation to the subject-matter. It is only in cases where it clearly appears that the board has exceeded its authority, or acted arbitrarily, oppressively, and unjustly in the exercise of its discretion, that a court is called upon to act."

() In the instant case it appears that the contract carried a cancellation clause permitting the city to cancel the contract by giving 30 days' written notice if the service was not satisfactory. It was entered into in November, 1950, at which time the existing conflict with Korea and Red China was in progress. The city council might well have recognized that a shortage of critical materials, such as specialized garbage and trash equipment existed, and that if it did not provide for a means of collecting garbage itself in case the service should prove to be unsatisfactory and the contract was cancelled, it would be derelict in its duty. It clearly appears from the agreement itself that there might well have been a prospective use for the equipment by the city. Under such circumstances the city council was justified in not classifying it as surplus.

Defendants present the additional argument that the city council could not, by ordinance, limit, restrict, nor otherwise divest itself of the discretionary power vested in it by the general law to dispose of city-owned

property. McQuillin, Municipal Corporations, volume 10, 3d edition, § 29.37, page 284, recites:

"Where the statutes governing a municipality do not require that its contracts be let under competitive bidding but the manner of awarding them is left to the discretion of the mayor and council, it is held that such officials cannot restrict their future conduct nor limit the discretion vested in them by passing an ordinance requiring competitive bidding for subsequent contracts. Such ordinance will not prevent them from contracting in good faith in the future in some other manner." (Citing cases.)

However, in connection with this statement there is a statement which reads:

"While there is authority which apparently points to a contrary conclusion, it has frequently been held that although neither charter nor applicable statute prescribes competitive bidding, or a method for letting contracts, an ordinance providing for such bidding must be observed, otherwise ***682** the contract cannot be enforced against the municipality."

Several Missouri and Pennsylvania cases are cited in support of this latter rule. (See *Kirksville v. Harrington,* 225 Mo.App. 309 [35 S.W.2d 614]; *Flynn v. Philadelphia,* 258 Pa. 355 [102 A. 24]; *Bunker v. City of Hutchison,* 74 Kan. 651 [87 P. 884]; and *Cimarron Utilities Co. v. Guymon,* 171 Okla. 344 [43 P.2d 143].)

Plaintiff concedes under the general rule that the city council was given power to purchase and sell personal property, but argues that any such sale must be for the "benefit of the City" and that since the city council attempted to set up a standard procedure or policy relating to the selling of its property by ordinance, it was bound to follow that procedure. In this connection it is also argued that ordinances passed by a city council, within the scope of its authority, have the same force and effect within the limits of the city as a statute has throughout the state, citing *Wheeler v. Gregg,* 90 Cal.App.2d 348, 370 [203 P.2d 37]; *Monterey Club v. Superior Court,* 48 Cal.App.2d 131, 137 [119 P.2d 349]; and *Marculescu v. City Planning Com.,* 7 Cal.App.2d 371, 373 [46 P.2d 308].

It is also contended by plaintiff that in executing the contract pertaining to the sale of the equipment, the city council was acting in an *administrative* capacity; that when it adopted the ordinance, it was acting in a *legislative* capacity; that when acting in an administrative capacity, the city council was bound by those ordinances passed when acting in a legislative capacity and must conform to the procedure outlined therein. There is authority for this latter statement in *Hopping v. City Council of the City of Richmond,* 170 Cal. 605, 615 [150 P. 977]; *Earl v. Bowen,* 146 Cal. 754, 761 [81 P. 133]; and *Strauch v. San Mateo Junior College Dist.,* 104 Cal.App. 462, 464 [286 P. 173].

There is neither pleading nor showing made by the plaintiff that the actions of the city council were not made "for the benefit of the City."

() As distinguished from a charter city, the general basic law of a fifth class city is to be found in the Constitution and in the laws and codes adopted by the state Legislature. Government Code, sections 37350, 37351, provide that:

"A city may purchase ... real and personal property and control and dispose of it for the common benefit," and "The legislative body may purchase ... such personal property ***683** ... as is necessary or proper for municipal purposes. It may control, dispose of, and convey such property for the benefit of the city. ..."

It therefore appears that the legislative body of the city is vested with the free and unrestricted discretionary power to determine what personal property shall be disposed of, and when and how that disposition shall be made. The only restriction imposed by the general basic law is that such disposition shall be for the benefit of the city and its constituents. The basic law does not require the city to follow competitive bidding procedure. It does not require the city council to establish any rules, regulations or procedure for the disposal of personal property as a condition precedent to the exercise of the power of disposal.

While it may appear that there are several California cases affirming the rule that the city council cannot, by adopting an ordinance, divest itself of, or restrict itself in, the free exercise of the broad discretionary power and duty which the general basic law has imposed upon and delegated to the city council (*Briare v. Matthews,* 202 Cal. 1 [258 P. 939]; *Higgins v. Cole,* 100 Cal. 260 [34 P. 678]; and *Thompson v. Board of Trustees,* 144 Cal. 281 [77 P. 951]) yet some exception seems to be indicated when such ordinance applies to acts which may be classified

as administrative functions. (See 18 Cal.Jur. p. 893, §§ 188-189, and cases cited.) Since we have concluded that the city council was within its rights in disposing of the trucks and equipment under the first theory, it becomes unnecessary to determine this last question.

() It should be kept in mind that we are here dealing with a contract for the collection and disposal of garbage of a city. The city council has the responsibility of protecting the health of the inhabitants of the city by collecting and disposing of such garbage, either with its own equipment or by letting contracts for that purpose. The agreement for the conditional sale of the equipment to the defendants Johnson was a part of the consideration of the contract and was an integral part of the agreement for, in all probability, without the use of the equipment, the Johnsons would have been unable to obtain other equipment or perform their agreement. To subject such specialized equipment to a forced sale, to the highest bidder, for cash, may well have defeated the purpose of the agreement, and may have created a serious ***684** unhealthy condition in the city. We conclude that in the absence of some pleading or showing of fraud or that the city council exceeded its authority, acted arbitrarily, oppressively and unjustly in the exercise of its discretion, the courts should not interfere with the discretionary power vested in the city council in this respect.

Plaintiff next contends that since the prayer of the complaint also seeks declaratory relief, based on the same allegations heretofore mentioned, the court erred in its ruling ordering judgment for defendants on the pleadings. He cites such cases as *Essick v. City of Los Angeles,* 34 Cal. 2d 614, 624 [213 P.2d 492]; and *Maguire v. Hibernia Sav. & Loan Society,* 23 Cal.2d 719, 728 [146 P.2d 673, 151 A.L.R. 1062].

() It is true that a complaint for declaratory relief is legally sufficient if it sets forth facts showing the existence of an actual controversy relating to the legal rights and duties of the respective parties under a written instrument and requests that these rights and duties be adjudged by the court. (*Maguire v. Hibernia Sav. & Loan Society, supra.*) However, the pleadings must set forth facts which show an actual controversy. () Under the statement of facts here presented the only controversy claimed is whether the contract for the handling of garbage was void because bids were not called for, and whether the conditional agreement to sell the equipment was void because such sale was not made at public auction. These questions were fully presented by the pleadings and plaintiff has suffered an adverse ruling on these subjects. He is not prejudiced by the ruling of the trial court which, in effect, denies declaratory relief. No abuse of discretion appears in the action of the court in refusing to entertain such complaint. (*Orloff v. Metropolitan Trust Co.,* 17 Cal.2d 484, 489 [110 P.2d 396]; *Ermolieff v. R.K.O. Radio Pictures,* 19 Cal.2d 543, 549 [122 P.2d 3]; *Chas. L. Harney, Inc. v. Contractors' State License Board,* (Cal.App.)* 238 P.2d 637; 16 Am.Jur. p. 288, § 14; Code Civ. Proc., § 1061; *City of Alturas v. Gloster,* 16 Cal.2d 46, 48 [104 P.2d 810].)

Complaint is made that the court's ruling on the demurrer that the complaint stated a cause of action was inconsistent with its ruling granting a judgment on the pleadings. () When a general demurrer is incorrectly overruled and this fact is called to the attention of the trial court by presentation of additional authorities, as was done here, the court ***685** is authorized to grant a judgment on the pleadings, if proper. In such case the ruling on the demurrer may be deemed an irregularity. (*Electric Light & Power Co. v. City of San Bernardino,* 100 Cal. 348 [34 P. 819]; *De Courcey v. Cox,* 94 Cal. 665 [30 P. 95]; 21 Cal.Jur. 241, § 166.)

The final complaint is that the court committed prejudicial error in granting a judgment on the pleadings when the motion before the court was for a "judgment of nonsuit" under "Section 581 C. C. P." because "the plaintiff has not sufficiently proved his case." The court endeavored to account for this discrepancy upon the theory that defendants erroneously denominated the motion a motion for nonsuit. The language of the motion does not so indicate. The only question is whether plaintiff suffered prejudicial error by the judgment entered.

(,) A motion by defendant for judgment on the pleadings operates as a general demurrer to the complaint, and the averments of the complaint, for the purpose of the motion, must be treated as true, and the motion should be granted where no material issue is joined which it is necessary to prove. (21 Cal.Jur. 234, § 163.) A motion for nonsuit should be made as provided in section 581, Code of Civil Procedure, and if granted, such judgment operates as an adjudication upon the merits unless the court, in its order for judgment, otherwise specifies.

(,) The city engineer testified that actually, 13 trucks were transferred to the Johnsons under the contract; that after the letting of the contract the sanitary department, he "imagined ... would have no use for them" except for two or three that might be used for "stand-by purposes"; and that if the contract with the Johnsons were terminated, the city would have immediate need for the trucks. Thereafter, the court sustained an objection to an offer of plaintiff to prove that the city would suffer damage by the sale of the trucks to the Johnsons because they could have been sold for more if sold at public auction to the highest bidder. Thereafter, plaintiff rested his case. A motion to strike all of the evidence was granted upon the ground that the complaint did not state facts sufficient to constitute a cause of action. The motion for nonsuit followed. The judgment on the pleadings was ordered. For the reasons stated, the motion to strike the testimony was proper since there was no allegation of fraud in connection with the transaction, and for the further reason that there was no showing that the city council acted illegally, ***686** arbitrarily, or that it abused the discretionary power with which it was vested.

If the judgment, as entered, may be considered as a ruling on the motion for nonsuit it did, in effect, operate as an order granting a dismissal of plaintiff's complaint, and since it did not otherwise specify, it operated as an adjudication upon the merits. The same result would have obtained had the motion been for a judgment on the pleadings. This court might well have ordered that the trial court enter a judgment on the pleadings. (*Electric Light & Power Co. v. City of San Bernardino, supra.*) We conclude that plaintiff was not prejudicially injured by the irregularity mentioned.

Judgment affirmed.

Barnard, P. J., and Mussell, J., concurred.
Appellant's petition for a hearing by the Supreme Court was denied March 13, 1952. Schauer, J., was of the opinion that the petition should be granted.

Footnotes

* A hearing was granted by the Supreme Court on February 7, 1952.

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101 Cal.App. 769, 282 P. 820

ABRAM C. DENMAN, Jr., Appellant,
v.
CITY OF PASADENA et al., Respondents.

Civ. No. 7111.
District Court of Appeal, First
District, Division 2, California.
November 14, 1929.

HEADNOTES

(1)
APPEAL--PLEADING--AMENDMENTS--DISCRETION.
When an appeal is from a judgment following an order sustaining a demurrer without leave to amend, and the appellant urges as one of his grounds that the trial court abused its discretion in denying leave to amend, it is incumbent on the appellant to show error in that regard.

(2)
NEGLIGENCE--COLLAPSE OF GRANDSTAND--PERSONAL INJURIES--LIABILITY FOR--PLEADING.
A person suffering personal injuries from the collapse of a temporary wooden grandstand erected by a private individual upon private property cannot hold an association, its officers and members liable for such injuries upon the theory that it staged a festival in a city, invited people to the festival, and conducted a parade in said city which was viewed by people occupying grandstands, where his complaint also shows that said association had nothing to do with the use of the private property upon which the particular grandstand was erected or with the construction, maintenance or operation of said grandstand, and that it had no supervision over the sale of seats in the grandstand, no direction or control over the number of people permitted to occupy it, and no participation in the profits from seat sales.

(3)
ID.--PROXIMATE CAUSE.
If injury has resulted in consequence of a certain unlawful act or omission, but only through or by means of some intervening cause, and from which last cause the injury followed as a direct and immediate consequence, the law will refer the damage to the last or proximate cause, and refuse to trace it to that which was more remote.

See 19 **Cal. Jur.** 568; 22 **R. C. L.** 134.

(4)
ID.--ESTABLISHED MODE OF CONDUCT.
When through a long period of years a particular mode of conduct has been followed as the proper and reasonable mode for a prudent man to follow under particular circumstances one cannot be charged with negligence in following that mode of conduct alone.

See 19 **Cal. Jur.** 582; 20 **R. C. L.** 27.

(5)
ID.--PLEADING.
In such a case, the allegation in plaintiff's complaint that such association, its officers and members knew "or should have known" that the particular grandstand was unsafe is not sufficient to attach a liability for his injuries on said parties, where, aside from inconsistencies in the allegation itself, specific facts are pleaded that the grandstand was erected, maintained and controlled by a private individual on private property for "his own pecuniary benefit and profit."

(6)
ID.--CONCLUSIONS--SPECIAL FACTS--PLEADING.
Where a conclusion is alleged and also the special facts from which the conclusion is drawn, if the special facts are inconsistent with and do not support the conclusion, the former control, and the sufficiency of the complaint is to be determined from the special facts pleaded.

See 21 **Cal. Jur.** 50.

(7)
ID.--PLEADING.
In such a case, the allegation in plaintiff's complaint that "the said defendants" *caused* the grandstand to be constructed and to remain in a dangerous condition is insufficient in charging liability against the association, its officers and members, where such allegation follows the paragraphs which are definitely tied down to the city and

its officers, and the expression "said defendants" has no reference to said association, its officers or members, and the allegation is in direct conflict with the pleading that a private individual "caused" the particular grandstand to be erected "for his own pecuniary benefit and profit and had the right and authority to control the construction, use and seating capacity thereof."

(8)
ID.--MUNICIPAL CORPORATIONS--GOVERNMENTAL FUNCTIONS--LIABILITY OF OFFICERS AND EMPLOYEES.
The granting of a permit to construct a grandstand on private property and the supervision and inspection of its construction is a governmental function, and a municipality is not liable for the carelessness of its officers or employees under such conditions.

See 18 **Cal. Jur.** 1094.

(9)
ID.--LIABILITY OF CITY FOR INJURY--PLEADING.
In such a case, the allegation that the city in permitting the association to conduct its parade along the public streets indirectly invited the pedestrians to purchase seats in the grandstand the better to view the spectacle, and that the parade was the inducement for the spectators to purchase tickets for a football game, in the sale of which tickets the city had a direct financial interest, is insufficient to charge the city with any liability for plaintiff's injuries, where the positive allegations of the complaint negative the idea that the city had some part in the construction and use of the grandstand.

(10)
ID.--PARTIES--APPEAL.
In such a case, where there is not a word in plaintiff's briefs defending his action in joining city officials and employees as parties defendant, and the complaint does not pretend to state any cause of action against them, the point will be treated as having been abandoned because the duty is on plaintiff (the appellant) to show that error has been committed.

SUMMARY

APPEAL from a judgment of the Superior Court of Los Angeles County. Ruben S. Schmidt, Judge. Affirmed.

The facts are stated in the opinion of the court.

COUNSEL
Bertrand J. Wellman, Geo. W. Padgham and A. G. Alm for Appellant.
Harry M. Ticknor, Roland Maxwell, John Perry Wood and Paul Sandmeyer for Respondents Tournament of Roses Association.
R. C. McAllaster and Harold P. Huls, City Attorneys, for Respondent City of Pasadena.

NOURSE, J.

The plaintiff sued for damages for personal injuries resulting from the collapse of a temporary wooden "grandstand" erected for the convenience of spectators at festivities known as the "Tournament of Roses," held in the City of Pasadena. Demurrers to the complaint were sustained without leave to amend. A motion for leave to amend was later denied and judgment was entered for the defendants. The plaintiff has appealed from the judgment upon a typewritten transcript.

The plaintiff sued the City of Pasadena, its "Board of Directors," the city manager, chief of police and the chief inspector; the Tournament of Roses Association, a corporation, its directors, and all members of the association; Paul F. Mahoney, who constructed the grandstand under permit of the city authorities, and E. H. Lockwood, the owner of the land upon which the grandstand was erected and maintained. The defendant city officials (other than the chief inspector) joined with the City of Pasadena in a demurrer to the complaint. The directors and members of the Tournament of Roses Association joined with the corporation in a demurrer to the complaint. The other defendants named in the complaint do not appear to have been served with process and are out of the case so far as this appeal is concerned. ***772**

The two demurrers mentioned came on for hearing at the same time and both were sustained without leave to amend. The plaintiff then moved for leave to file an amended complaint and this motion was denied. The respondents argue that on this appeal we may not consider the substance of the proposed amended complaint because the appellant has failed to follow the settled rule of section

953c of the Code of Civil Procedure, requiring the printing of such portions of the typewritten record as are desired to be called to the attention of the court.

[1] When the appeal is from a judgment following an order sustaining a demurrer without leave to amend, and the appellant urges as one of his grounds that the trial court abused its discretion in denying leave to amend, it is incumbent on the appellant to show error in that regard. Here the appellant, without claiming or making any showing of an abuse of discretion, merely argues that the trial court "should have" granted leave to amend. But with no record to support the argument we cannot say that error was committed. (*Stewart v. Douglass*, 148 Cal. 511, 512 [83 Pac. 699]; *Philbrook v. Randall*, 195 Cal. 95, 104 [231 Pac. 739]; *Duvall v. White*, 46 Cal. App. 305, 307 [189 Pac. 324]; *Farber v. Greenberg*, 98 Cal. App. 675 [277 Pac. 534, 538].)

But aside from the absence of affirmative evidence of error in this respect we are unable to perceive how the appellant could amend his complaint to state a cause of action against any of these respondents if the facts alleged in his complaint be true. This seems to be conceded by the appellant in his reply brief, wherein he states that the proposed amended complaint was no different than the original "except as to a more correct statement therein of the defendant City's financial interests." Thus as to all defendants other than the City of Pasadena the issues here are confined to the propriety of the order sustaining their demurrer to the original complaint. The virtue of the proposed amendment as to the city alone can be considered more logically in the discussion of the pleadings in relation to that defendant.

[2] The demurrer of the Tournament of Roses Association, and of the members thereof, who joined with the corporation, was properly sustained without leave to amend. The complaint plainly fails to state a cause of action against ***773** any of them, and, assuming, as we must do, that the facts alleged therein are true, no cause could be pleaded by amendment. The facts alleged are that the grandstand was erected by a private individual upon private property with the consent of the property owner. The Tournament Association had nothing to do with the use of this private property, nor with the construction, maintenance or operation of the grandstand. It had no supervision over the sale of seats in the grandstand, no direction or control over the number of people permitted to occupy it, and no participation in the profits from seat sales.

Briefly, the appellant sought to fix liability for his injuries on these respondents by the allegations that they had staged the tournament festival; that through their efforts a large number of people were invited to and did come into the city to view the spectacle and to attend a football contest which was conducted in a stadium constructed by the association for that purpose; that the financial interest of these respondents in the tournament was in the large profit they received from this contest; that prior to the football game, and as an inducement to people to purchase tickets therefor, these respondents conducted a spectacular parade through certain designated streets of the city; that, by occupying the entire width of these streets for the purposes of this parade, these respondents forced and "invited" spectators to purchase tickets for seats on the viewing grandstands; and that these respondents knew or "should have known" that this particular grandstand was dangerous, a public nuisance, and a menace to the lives and safety of those who occupied it.

Aside from the allegations of knowledge, or means of knowledge, of the unsafe condition of this particular grandstand, every other allegation of the complaint relating to these respondents pleads this and nothing more-a situation whereby these respondents made it possible for the appellant to put himself in a position in which, wholly through the act of another, he was injured. Thus the complaint merely pleads facts which would tend to charge these respondents with the remote cause of appellant's injuries while also pleading facts which show beyond doubt that another's acts were the sole proximate cause of such injuries. **[3]** The rule is settled that "if injury has resulted in consequence ***774** of a certain unlawful act or omission, but only through or by means of some intervening cause, from which last cause the injury followed as a direct and immediate consequence, the law will refer the damage to the last or proximate cause, and refuse to trace it to that which was more remote." (Cooley on Torts, 2d ed., p. 73, quoted in *Trice v. Southern Pacific Co.*, 174 Cal. 89, 96 [161 Pac. 1144].) The reason for such a rule is well illustrated by the efforts of appellant to attach liability upon these respondents. Their "act of negligence" was in inviting a large concourse of people into the city and in leading a parade along a city street in front of the lot on which this grandstand was erected. But if, without having any supervision or control over the grandstand,

they are to be held responsible for any injuries caused by the negligence of the owners thereof they would likewise be liable for all injuries arising out of the negligence of all railroads and other public conveyances bringing people into the city on this same "invitation." Likewise, it is possible that people stood upon the housetops of private dwellings and that many hung out of private windows to see the spectacle. Some boys might have climbed trees or telephone poles to get a better view. Would there be any reason in a contention that these respondents would be liable for injuries resulting under such circumstances? In *Wright v. City of Pasadena*, 37 Fed. (2d) 902 (U. S. Dist. Court, Aug. 19, 1929), Judge McCormick, in sustaining a demurrer to a complaint identical with the proposed amendment filed herein, held that it failed to allege any act or acts of the association which operated to cause the injuries complained of as a proximate cause, and that "it appears to the court that every merchant of Pasadena who financially contributed to the success of the Tournament of Roses and every property owner thereof who shared in the emoluments of such event would be liable to plaintiff for damages if the theory of liability as set forth in the amended complaint were tenable." We might add what is a matter of common knowledge, that public fairs, festivals and celebrations have been held in this country since the days of the first Indian war dance. That many of these affairs have been conducted for profit while many (as the complaint alleges was the case here) have been conducted to advertise or "boost" a particular locality. ***775** Likewise, football games have been held for the financial profit of the management and as a means of education and training of the participants, and these have attracted large crowds of people. It is also a matter of common knowledge that in many of these events accidents have occurred to the guests while either going to or returning from the place of amusement. If those managing such events are legally liable for personal injuries to their guests which are received on private property over which the management has no control, and which are the result of the negligence of private individuals over whom the management has no supervision or control, we would expect to find some judicial expression recognizing such liability. As appellant has failed to cite any decision in support of his theory, and as we have found none, we may assume that the point should be decided on the general principle that liability rests on negligence, that negligence is "the want of such care as a person of ordinary prudence would exercise under the circumstances of the case" (19 Cal. Jur., p. 548); and that a person of ordinary prudence under these circumstances would not assume the burden of controlling the activities of every property owner in the locality, nor would he hold himself out as an insurer of the safety of all visitors while engaged in their private amusements. **[4]** Therefore, when through a long period of years a particular mode of conduct has been followed as the proper and reasonable mode for a prudent man to follow under particular circumstances one cannot be charged with negligence in following that mode of conduct alone. The proper conduct of "a person of ordinary prudence" may thus be established by long approved practice and custom and this becomes just as potent as a standard of conduct prescribed by law. Manifestly a complaint which merely alleges that a defendant had done the very acts which the law prescribes he must do under the circumstances fails therein to charge negligence on his part. And since "the test of negligence with respect to instrumentalities, methods, etc., is the ordinary usage and custom of mankind" (20 R. C. L., p. 27), a complaint which discloses that the parties merely followed such recognized usage and custom and which does not plead any departure therefrom or any other act or omission which a prudent person would not have done or omitted under the same circumstances does ***776** not state a cause of action for negligence. The rule of law is succinctly stated in *Tallman v. Nelson*, 141 Mo. App. 478, [125 S. W. 1181, 1183], as follows: "If one does what the great body of other prudent men do, in a like situation, he is not negligent." And in *Brands v. St. Louis Car Co.*, 213 Mo. 698 [18 L. R. A. (N. S.) 701, 112 S. W. 511, 514], it is said: "No jury can be permitted to say that the usual and ordinary way commonly adopted by those in the same business is a negligent way for which liability shall be imposed."

[5] But it is argued that as these respondents knew "or should have known" that this particular grandstand was unsafe they come within the rule of *Indianapolis St. Car Co. v. Dawson*, 31 Ind. App. 605 [68 N. E. 909]. In that case the street-car company was held liable for injuries to a colored man and woman whom they had conveyed to a park where they were assaulted by whites. Liability was attached to the car company because it knew that there was an intense feeling against colored people at the park, but failed to impart this information to its passengers. This rule simply goes back to the general principles which we have been discussing. An ordinarily prudent person would not invite, urge or carry another into a known place of danger without warning. But the difficulty with the complaint in this respect is that it is so inconsistent

and contradictory in its allegations that it does not come within the rule. To say that the defendant knew this grandstand was unsafe is more or less a conclusion of the pleader; but to say in the same sentence that he "should have known" it is to say that he did not know. Further inconsistencies appear from the allegations of specific facts which contradict this general allegation of knowledge. Thus it is alleged that this grandstand was erected, maintained and controlled by a private individual on private property for "his own pecuniary benefit and profit," pursuant to license therefor by the municipal government, and subjected to inspection as to its safety by the proper public officials. To plead generally in face of these specific facts that these respondents should have known that this grandstand was unsafe compels us to presume, contrary to the legal presumptions found in the code, that these public duties were not performed and that the public officials were guilty of fraud. **[6]** But "where a ***777** conclusion is alleged and also the special facts from which the conclusion is drawn, if the special facts are inconsistent with and do not support the conclusion, the former control, and the sufficiency of the complaint is to be determined from the special facts pleaded." (*Little v. Union Oil Co. of Cal.*, 73 Cal. App. 612, 619 [238 Pac. 1066, 1068], where many cases are cited.)

[7] It is argued that the averment that "the said defendants" *caused* the grandstand to be constructed and to remain in a dangerous condition is broad enough to include the Tournament Association, its officers and members. But this allegation follows the paragraphs which are definitely tied down to the City of Pasadena and its officers, and the expression "said defendants" has no reference to the association, its officers or members. Furthermore, this general averment is in direct conflict with the pleading that the defendant Lockwood "caused" this particular grandstand to be erected "for his own pecuniary benefit and profit and had the right and authority to control the construction, use and seating capacity thereof." Here again the averment of specific facts must control over the general conclusions of the pleader. Taking these allegations together it is apparent that the pleader means that the association by staging the festival and inviting guests to witness the parade offered an inducement to Lockwood to obtain pecuniary profit by constructing the grandstand, but that the latter did this for his own benefit and had sole supervision and control over it. Here again these respondents are merely charged with the remote cause of the injury to appellant while the proximate cause is definitely laid to others over whom these respondents had no control.

Appellant cites a large number of cases, generally referred to in the briefs as the "Bathing Beach," and "Amusement Park" cases, holding that those conducting such places of amusement are liable for injuries to patrons on the premises. Some of these cases hold that the owner is liable where the injury is the result of the negligence of a concessionaire. It would serve no purpose to refer to these cases other than to say that without exception they place liability on the party who had the supervision and control of the premises and upon whom rested the legal duty to keep the premises in a safe condition. Thus, in *Johnstone v. Panama-Pacific* ***778** *I. E. Co.*, 187 Cal. 323, 329 [202 Pac. 34, 36], it is said "there was a duty imposed upon respondent (Exposition Company) to use ordinary care to keep *its grounds*, including the thoroughfare, in a safe condition for its invitees." In that case the exposition company had granted a concession to another to rent electric vehicles to visitors to be operated by the party renting them throughout the exposition grounds. The plaintiff, while walking along one of the paths maintained in the grounds by the exposition company for pedestrians, was injured by being struck by another visitor while operating one of these electric vehicles. The ruling followed the great weight of authority-that the owner was responsible for the premises under its control. This rule is clearly stated in *Thornton v. Maine State Agr. Soc.*, 97 Me. 108 [94 Am. St. Rep. 488, 493, 53 Atl. 979, 981], where it was said: "Therefore, having invited the public to its fair, it was the duty of the defendant to use reasonable care to keep its grounds and the usual approaches to them, so far as the approaches were under its control, in a safe condition, safe for all who were invited." The bathing beach cases follow the same principle. Even where the injury occurred in the public water of the ocean it was held that the proprietor of the beach resort was bound to exercise reasonable care for the safety of those he invited to patronize his resort. But none of the cases cited supports the theory of appellant that the owner or proprietor is liable for injuries arising beyond the premises and on private property over which another has full supervision and control.

What has been said concerning the allegations relating to the Tournament Association applies equally to its directors and members and the demurrer on their behalf was properly sustained.

The demurrer of the City of Pasadena involves a consideration of the capacity in which it was acting at the time of the injury. Appellant takes the position that the city was financially interested in the tournament and hence was acting in a proprietary capacity. The argument is that the proprietary capacity of the city is disclosed in the averments of the complaint that the city received a large annual profit from pay features of the festival, including the football game, and that the tournament parade and the football ***779** game were held "for the immediate financial benefit and profit of said defendant City of Pasadena's citizenry and tradespeople, ... and for the future and ultimate pecuniary profit of its landholding and real estate property owning class." But it is also alleged that said city issued permits for the building of grandstands to seat the guests and "supervised, inspected and approved the security, safety and carrying capacity of said grandstands." We may concede that the complaint is sufficient to charge the city with acting in a proprietary capacity in conducting the football game and other pay features of the festival, but so far the city is merely charged with the remote cause of appellant's injuries-furnishing the occasion whereby the appellant found himself in the city on the day of the injury. The proximate cause of these injuries-the collapse of the grandstand-is alleged to have been due to the city's employment of unskilled and incompetent inspectors.

[8] Manifestly the granting of a permit to construct a grandstand on private property and the supervision and inspection of its construction is a governmental function. That a municipality is not liable for the carelessness of its officers or employees under such conditions is settled by the authorities. (*Wikstrom v. City of Laramie*, 37 Wyo. 389 [262 Pac. 22, 23]; *Miller v. City of Palo Alto*, 208 Cal. 74 [280 Pac. 108].)

[9] Through the maze of inconsistencies and contradictions in the complaint the real charge against the municipality is that in permitting the Tournament Association to conduct its parade along the public streets it indirectly invited the pedestrians to purchase seats in the grandstand the better to view the spectacle. The parade is said to be the inducement for the spectators to enter the stadium and purchase tickets for the football game. In the sale of these tickets the city is said to have had a direct financial interest. The positive allegations that the grandstand which collapsed was erected and maintained for the pecuniary profit and benefit of the defendant Lockwood, who had the control over its construction and use, negatives the general innuendoes that the city had some part in the construction and use of it.

Thus, so far as the city is sought to be charged with any liability for the injuries in its proprietary capacity, the ***780** complaint pleads the most remote cause that might be imagined. If the city is liable under such conditions then the doctrine of proximate cause becomes a mere shadow. It might as well be said that one holding a ticket to this football game and injured while traveling on the public highway hundreds of miles from the place of the contest could hold the city liable because he had been induced to travel by the city's advertisement of its New Year's climate.

In answer to the city's demurrer the appellant again cites a number of "Bathing Beach" and "Amusement Park" cases. In the former the owner of the resort is held liable for injuries to his guests received while bathing in the waters adjoining the resort. The rule of these cases is that because the patrons paid for the privilege of bathing in the adjoining waters, the proprietor owed them the duty of keeping the waters reasonably safe or of providing life guards or other means of protecting the patrons from injury. The rule of the amusement park cases is stated in *Stickel v. Riverview etc. Park Co.*, 250 Ill. 452 [34 L. R. A. (N. S.) 659, 95 N. E. 445, 446], where it is said: "In amusement places where space is granted for conducting attractions ... there is unanimity of authority that the owner assumes an obligation that the devices and attractions operated by the concessioners are reasonably safe for the purposes for which the public is invited to use them." In each group of cases there is authority holding that the owner of private property is liable for injuries received on public property adjoining when the use of such public property is a necessary incident to the use of the private property. But none of the cases hold the converse of this-that the public as the owner of the public property is liable for injuries received on private property over the use of which the public had no control.

It is argued that the rose festival was a joint enterprise and that, because the city expected some profit from the football game, it must be held to have been jointly interested with Lockwood and Mahoney in this grandstand. The answer to the argument is that the specific allegations are that the city did not have any such interest. If the general allegations of the complaint are true

all "florists, hostelries, theatres, sweet shops, cafes, food venders, drink dispensers ... vacant lot owners ... and real property ***781** owning class" would be jointly interested in the enterprise because it is alleged the *festival* was held for their "immediate financial benefit and profit." But if the city were held liable for every act of negligence of its citizens under such circumstances, then it would become an insurer of the safety of the individual far beyond anything contemplated in its incorporation.

[10] As to the city officials and employees who are joined as parties defendant, the complaint does not pretend to state any cause of action against them. There is not a word in appellant's briefs defending his action in joining them and we may, therefore, treat the point as having been abandoned because the duty is on appellant to show that error has been committed. (*Etienne v. Kendall*, 202 Cal. 251, 257 [259 Pac. 752].)

The judgment as to all defendants is affirmed.

Koford, P. J., and Sturtevant, J., concurred.
A petition for a rehearing of this cause was denied by the District Court of Appeal on December 12, 1929, and a petition by appellant to have the cause heard in the Supreme Court, after judgment in the District Court of Appeal, was denied by the Supreme Court on January 13, 1930.

All the Justices concurred.

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KeyCite Yellow Flag - Negative Treatment
Distinguished by City and County of San Francisco v. Western Air Lines, Inc., Cal.App. 1 Dist., May 28, 1962

17 Cal.App.2d 555, 62 P.2d 765

WILLIAM GLASS, as Finance Commissioner, etc., Plaintiff,
v.
CITY OF FRESNO (a Municipal Corporation) et al., Respondents; THE CHURCH COMPANY (a Corporation), Appellant.

Civ. No. 10273.
District Court of Appeal, First District, Division 1, California.
November 18, 1936.

HEADNOTES

(1)
Municipal Corporations--Garbage--Collection and Disposal--Governmental Function--Public Utility.
In this proceeding to enjoin a municipality from engaging in the collection and disposal of garbage, where the city resolved that garbage collection was a governmental function and omitted to take the steps prescribed by its charter for the acquisition or operation of a public utility, and there was evidence that although it intended to collect a fee for collection of garbage, it was not going to operate the system for profit, and a city could, as a matter of law, collect garbage in the exercise of a governmental function as part of its police power to preserve public health, the claim that the work could be enjoined because it constituted a public utility and the charter provisions had not been followed could not be sustained.

Validity of statutory or municipal regulations as to garbage, note, 72 **A. L. R.** 520. See, also, 18 **Cal. Jur.** 849.

(2)
Municipal Corporations--Ordinances--Motives--Revenue.
In said proceeding, where the ordinance and resolution of the city commissioners recited that it was the city's intention to collect and dispose of garbage in its governmental capacity, and there was evidence that it was to perform the service without profit, the motives of the commissioners could not be inquired into for the purpose of showing that the service was really intended for making a profit; and the fact that the city charged a fee and that some incidental revenue would come to it did not convert the ordinance into a revenue measure.

(3)
Municipal Corporations--Parties.
In said proceeding, where it appeared that the city had in a legal manner, and in the exercise of a governmental function, undertaken the collection of garbage, the absence of a taxpayer seeking to enjoin the city from the litigation was immaterial.

SUMMARY

APPEAL from a judgment of the Superior Court of Fresno County. H. S. Shaffer, Judge Presiding. Affirmed.

The facts are stated in the opinion of the court.

COUNSEL
Lawrence W. Young for Appellant. ***556**
Claude L. Rowe for Respondents.

McNutt, J., *pro tem.*

Having become dissatisfied with, as insanitary, the collection and disposal of garbage by private enterprise, the City of Fresno decided to itself undertake the work as a governmental activity. After it had embarked upon the performance of this service suit was instituted by William Glass, as Finance Commissioner of the city, against the municipality and other defendant respondents to enjoin further work and to vacate the proceedings. The Church Company, a corporation, appellant here, as a taxpayer moved the trial court for an order setting aside the judgment, and to be made a party to the suit, and it has appealed from the order of the trial court, to the end that the judgment rendered herein may be vacated.

Fresno, as a city, operates under a charter, section 108 whereof requires that, before the city may establish, acquire or operate a public or a *quasi*-public utility, an ordinance must be enacted by the affirmative vote of four members of the commission and be submitted to the electors of the city for its affirmance. The main contention made on this appeal is that the collection and disposal of garbage by a city constitutes the acquisition and operation

of a public or a *quasi*-public utility, and that in such work the municipality is not acting in the performance of a governmental function. The city, having resolved that garbage collection was a governmental function, and not the prosecution of work by it as a public utility, omitted to take the steps prescribed by the charter in the latter behalf, but merely, by a resolution and ordinance about to be adverted to, undertook to collect garbage in its governmental capacity rather than to permit the work to be further continued by the private enterprise.

In March, 1934, the city commission adopted a resolution favoring municipal ownership of garbage disposal and directing its proper officials to take over that work at the expiration of the then existing franchise. Some months of research followed with a view of ascertaining the best method of collection and disposal of garbage. After the city had refused to purchase the records and equipment of the old concern because it regarded the price demanded excessive, it ***557** adopted Resolution No. 825 and Ordinance No. 2078 which provide, in substance; Resolution No. 825, that public health and safety require the city to exclusively handle the disposition of the garbage, and declaring the intention of the city to exclusively dispose of the same within the city limits, in its governmental capacity. It is recited that the method theretofore in operation had proved unsatisfactory and detrimental to the health and welfare of the city, in that large accumulations of garbage and rubbish had caused influx of rats and other disease carrying rodents, and that the proper sanitation of the city required that it collect and dispose of garbage. After such steps had been taken as were necessary to permit the city to dispose of garbage as a governmental enterprise-and those additional steps having been omitted which were necessary in the event such work was a utility rather than a governmental function-the City Commissioner brought suit in the superior court to halt the operations, urging, as ground of illegality, that the commission, in voting to do the work, had not secured the vote of four members thereof in the enactment of the ordinance, and that thereafter no election of the electors of said city was held to approve the collection and disposal of garbage by the city.

The argument advanced against the method pursued is, in the main, that the city had gone into this work for a profit, and hence, was not acting in its governmental capacity, but was acting as a utility, and to show that it was engaged in a profitable enterprise evidence of the receipts and disbursements of the private company was received, from which it appeared, so says the appellant, that the private concern had made 9 per cent plus upon a capital investment of $96,881.24, and that since the city had been authorized to expend, $40,000 upon its equipment, it would be profiting to the extent of some 20 per cent on its invested capital.

At the conclusion of the trial the court found: 1, that the city intended to collect a fee for collection; 2, that it was not true that the city was going to operate the system for profit; 3, that the city intended to operate the garbage collection system in its governmental capacity.

() If it appears that a municipality may, as a matter of law, collect garbage in the exercise of a governmental function, and that there was evidence before the trial court sufficient to sustain the findings above set forth, it would ***558** seem that, upon the merits, the judgment below should be sustained. It is well settled in this state that in collecting garbage, trash and similar refuse and disposing of the same a municipality exercises a governmental function. (*Pittam v. City of Riverside,* 128 Cal. App. 57 [16 Pac. (2d) 768].) "In the collection and disposal of garbage a municipal corporation exercises governmental functions." (*Miller v. City of Palo Alto,* 208 Cal. 74 [280 Pac. 108].) To the same effect is *In re Santos,* 88 Cal. App. 691 [264 Pac. 281]. It has further been held that the authority of a city to perform such work is derived from section 11 of article XI of the state Constitution. (*In re Zhizhuzza,* 147 Cal. 328 [81 Pac. 955]; *In re Pedrosian,* 124 Cal. App. 692 [13 Pac. (2d) 389].)

No citation of authority is necessary, though, of course, they are multitudinous, to establish that the collection and disposal of garbage are matters so intimately connected with the preservation of public health that the regulation thereof is the proper exercise of police power, and it would naturally follow as a corollary thereto that it would have the right to dispose of garbage itself, and it has been so held.

The ordinance pursuant to which this garbage collecting is undertaken provides that the city is to act in a governmental capacity, and, further, that, while certain fees are to be charged for the work, free collection of 60 cubic yards of rubbish monthly from its customers was provided for, which would be an extra cost to the city of not less than $10,000 a year.

The evidence in the case disclosed, through the examination of Mr. Glass, that the private company lost $29,000, more or less, the first nine months of its operation. In the franchise of the private company there was no provision for free collection of any rubbish such as is found in Ordinance No. 2078 (reporter's transcript, page 49, lines 23-26); and that the cost of the city of the free collections would be at least $10,000 a year. (Reporter's transcript, page 91, lines 1-4, and lines 13-22.) The testimony of Mr. Glass, the plaintiff, further reveals that, upon starting this work, the city would, of course, be embarking upon a new enterprise, without any customers and without buying out the operating company, that it would be starting out just as had the Fresno disposal company, its predecessor, when "they lost $29,000 ***559** in the business." (Reporter's transcript, page 194, lines 11-19.) In short, Mr. Glass testified that "financially and otherwise we will have disaster". (Reporter's transcript, page 195, lines 13-22.)

That the trial court was justified in making the findings which appellant claims are without support in the evidence seems apparent from the following considerations: It can hardly be said that the city was undertaking the collection of garbage for profit in the face of the recitals in the ordinance that it was about to do the same in its governmental capacity. It is alleged in the answer as well that the city intended to collect "and dispose of garbage within the city of Fresno as a governmental function" (Clerk's transcript, page 19, lines 5-8), the trial court finding "that said Resolution No. 825 and said Ordinance No. 2078 set forth in detail the manner in which the City of Fresno, a municipal corporation, will collect and/or dispose of garbage within the City of Fresno as a governmental function". (Clerk's transcript, page 44, lines 8-12.) The trial court found "the court finds that it is untrue that said City of Fresno intends to and/or is going to collect and/or dispose of ... garbage for profit". (Clerk's transcript, page 40, lines 24-26.) It is not pointed out by appellant wherein the evidence does not sustain the findings of the trial court, and this burden rests upon it. (2 Cal. Jur. 730.)

() The argument is advanced that, notwithstanding the resolution and ordinance adverted to, it was the purpose of the commission to collect garbage for profit. The legislative enactments themselves contain recitals to the contrary, and there is evidence to the contrary, and it seems to be settled law that considerations which motivated municipal corporations to pass ordinances will not be impugned or inquired into (43 C. J. 297). "Nor can an ordinance be declared invalid because of the bad motives ... of the legislative body which enacted it." *Ex parte Sumida,* 177 Cal. 388 [170 Pac. 823], where it is held, among other things, that "the title of the ordinance declares, and its terms show ... its purpose. ... There may have been other designs in the minds of the Board of Trustees of the town in adopting the ordinance. But that question cannot be inquired into in this manner, nor can an ordinance be declared invalid because of the bad motives of the members ***560** of the legislative body which enacted it". Further it is held there can be no intent, not expressed in words, and no intent upon the part of the framers of an ordinance which does not find expression in their language. (*Ex parte Goodrich,* 160 Cal. 410 [117 Pac. 451, Ann. Cas. 1913A, 56]; 18 Cal. Jur. 927; 43 C. J. 570.) Where ordinances or by-laws have been enacted pursuant to competent authority they will be supported by every reasonable intendment, and reasonable doubts as to their validity will be resolved in their favor. Courts are bound to uphold municipal ordinances and by-laws unless they manifestly transcend the powers of the enacting body. (43 C. J. 570; *Ex parte Haskell,* 122 Cal. 412 [44 Pac. 725, 32 L. R. A. 527]; *In re Bruce,* 54 Cal. App. 280 [201 Pac. 789].) The power to regulate the collection of garbage comes directly from section 11 of article XI of the state Constitution. (*In re Zhizhuzza, supra.*) This provision is self-executing and contains a direct grant of power.) (*Denton v. Vann,* 8 Cal. App. 677 [97 Pac. 675].) The charter of Fresno could not in any manner detract from such power. (5 Cal. Jur. 576.) Because the city charges a fee and it may be hence argued that some incidental revenue would come to the municipality does not convert the ordinance into a revenue measure. (*Cornelius v. City of Seattle,* 123 Wash. 550 [213 Pac. 17].) Collection and disposal of refuse gathered by the city resulting in some small incidental revenue creates no municipal liability. (*Scibilia v. Philadelphia,* 279 Pa. 549 [124 Atl. 273, 32 A. L. R. 981].)

In a word, the evidence elicited from the plaintiff who had urged, among other things, that the collection of garbage was to be undertaken for profit and that no submission to the electors of the city had been undertaken, as is necessary for the institution of a utility, to wit: that disaster, financial and otherwise, would result from the enterprise, justifies the findings which have been hereinabove set forth.

() The plaintiff has not appealed, but counsel for appellant, former attorney for plaintiff, seeks to reverse the judgment below because the trial court denied the right of the taxpayer to interpose as a party, and denied, as well, his prayer that the proceedings looking toward the collection be vacated. In this behalf it may be said that if, upon the merits of the case as the same were developed by the immediate parties to the suit, it appears that the city had in ***561** a legal manner, and in the exercise of a governmental function, undertaken the collection of garbage, and that in so doing it was in all respects within the law, the presence or absence of the taxpayer appellant from the litigation becomes inconsequential.

The record (Clerk's transcript, pages 48 and 49) shows that appellant challenges the judgment: (a) insufficiency of the evidence to justify the decision and judgment; (b) the decision and judgment as against the law. The case of *City of Madera v. Black,* 181 Cal. 306 [184 Pac. 397], relied upon by appellant, involves a situation in which the city was denied the right to conduct a sewage system for profit, the reasoning of that case being that, since all persons in the tax unit were not receiving sewer service, the profits derived from the service and paid by the few taxpayers went into the general revenues of the city, and, hence, lightened the tax burdens on those who did not pay for sewer service. The circumstances of differentiation of the Madera and the instant cases are that the evidence before the trial court warranted the findings that the city was not collecting garbage for profit, that not only such was not its purpose, but that profit or an enhancement of the general revenues at the expense of some that were not receiving the service did not result.

The judgment should be and therefore is affirmed.

Tyler, P. J., and Knight, J., concurred.

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KeyCite Yellow Flag - Negative Treatment
Distinguished by City of Detroit v. Murray Corp. of America, 6th Cir. (Mich.), June 16, 1956

59 S.Ct. 595
Supreme Court of the United States

GRAVES et al.
v.
PEOPLE OF STATE OF
NEW YORK ex rel. O'KEEFE.

No. 478.
|
Argued March 6, 1939.
|
Decided March 27, 1939.

Synopsis
On Writ of Certiorari to the Supreme Court of the State of New York.

Certiorari proceeding by the People of the State of New York, upon the relation of James B. O'Keefe, against Mark Graves and others, as commissioners constituting the State Tax Commission of the State of New York, to review a final determination of the State Tax Commission denying relator's application for the refund of income tax. To review a judgment of the Court of Appeals of New York, 278 N.Y. 691, 16 N.E.2d 404, which affirmed an order of the Supreme Court, Appellate Division, 253 App.Div. 91, 1 N.Y.S.2d 195, determining that the relator's salary was not subject to tax, the State Tax Commission brings certiorari.

Reversed.

Mr. Justice BUTLER and Mr. Justice McREYNOLDS, dissenting.

West Headnotes (11)

[1] Constitutional Law
United States Constitution

The federal government derives its authority wholly from the powers granted to it by the Constitution, and its every action within its constitutional power is "governmental action."

8 Cases that cite this headnote

[2] Taxation
United States Entities, Property, and Securities

All activities of the federal government constitutionally authorized by Congress must stand on a parity with respect to their constitutional immunity from taxation.

2 Cases that cite this headnote

[3] Taxation
United States Entities, Property, and Securities

When the federal government lawfully acts through a corporation which it owns and controls, those activities are "governmental functions" entitled to whatever tax immunity attaches to those functions when carried on by the government itself through its departments.

36 Cases that cite this headnote

[4] Constitutional Law
Nature and Scope in General

The federal government is one of delegated powers in the exercise of which Congress is supreme so that every agency which Congress can constitutionally create is a "governmental agency."

16 Cases that cite this headnote

[5] Constitutional Law
Nature and Scope in General

The power of Congress to create an agency includes the implied power to do whatever is needful or appropriate, if not expressly prohibited, to protect the agency.

1 Cases that cite this headnote

[6] Taxation

United States Entities, Property, and Securities

There is no basis for implying a purpose of Congress to exempt the federal government or its agencies from tax burdens which are unsubstantial or which courts are unable to discern, so far as the implication rests upon the purpose to avoid interference with the functions of the taxed government or the imposition upon it of the economic burden of the tax.

24 Cases that cite this headnote

[7] **Taxation**

United States Entities, Property, and Securities

When exemption from state taxation is claimed on the ground that the federal government is burdened by the tax and Congress has disclosed no intention with respect to the claimed immunity, the nature and effect of the alleged burden may be considered, and, if it appears that there is no ground for implying a constitutional immunity, there is equally a want of ground for assuming any purpose of Congress to create an immunity.

25 Cases that cite this headnote

[8] **Taxation**

Nature of Tax

A tax on income is not legally or economically a tax on its source.

6 Cases that cite this headnote

[9] **Internal Revenue**

Public Property and Institutions

Taxation

United States Entities, Property, and Securities

The implied immunity of a government, either federal or state, and its agencies from taxation by the other should, as a principle of constitutional construction, be narrowly restricted.

26 Cases that cite this headnote

[10] **Taxation**

Compensation of United States Officers and Employees

A nondiscriminatory income tax laid by state of New York upon salary of New York resident employed by the Federal Home Owners' Loan Corporation, a corporate instrumentality of the federal government, does not impose an unconstitutional burden upon the federal government, where Congress had not given any intimation of any purpose either to grant or withhold immunity from state taxation of the salary of the corporation's employees. Home Owners' Loan Act 1933, 12 U.S.C.A. § 1461 et seq.; Tax Law N.Y. § 359, subd. 2f.

147 Cases that cite this headnote

[11] **Internal Revenue**

Power to Impose

Taxation

Compensation of United States Officers and Employees

So much of the burden of a nondiscriminatory general tax upon the income of employees of a government, state or national, as may be passed on economically to that government through the effect of the tax on the price level of labor or materials, is but the normal incident of the organization within the same territory of two governments, each possessing the taxing power, and the burden is one which the constitution presupposes and it cannot rightly be deemed to be within an implied restriction upon the taxing power of the national and state governments.

54 Cases that cite this headnote

Attorneys and Law Firms

****596 *467** Mr. Henry Epstein, of Albany, N.Y., for petitioner.

***472** Mr. Robert H. Jackson, Sol. Gen., for the United States, as amicus curiae, by special leave of Court.

***468** Mr. Daniel McNamara, Jr., of Brooklyn, N.Y., for respondent.

Opinion

Mr. Justice STONE delivered the opinion of the Court.

We are asked to decide whether the imposition by the State of New York of an income tax on the salary of an employee of the Home Owners' Loan Corporation places an unconstitutional burden upon the federal government.

Respondent, a resident of New York, was employed during 1934 as an examining attorney for the Home Owners' Loan Corporation at an annual salary of $2,400. In his income tax return for that year he included his salary as subject to the New York state income tax imposed by Art. 16 of the Tax Law of New York (Consol. Laws, c. 60). Subdivision 2f of s 359, since repealed, exempted from the tax 'Salaries, wages and other compensation received from the United States of officials or employees thereof, including persons in the military or naval forces of the United States. * * *' Petitioners, ***476** New York State Tax Commissioners, rejected respondent's claim for a refund of the tax based on the ground that his salary was constitutionally exempt from state taxation because the Home Owners' Loan Corporation is an instrumentality of the United States Government and that he, during the taxable year, was an employee of the federal government engaged in the performance of a governmental function.

On review by certiorari the Board's action was set aside by the Appellate Division of the Supreme Court of New York, People ex rel. O'Keefe v. Graves, 253 App.Div. 91, 1 N.Y.S.2d 195, whose order was affirmed by the Court of Appeals. 278 N.Y. 691, 16 N.E.2d 404. Both courts held respondent's salary was free from tax on the authority of New York ex rel. Rogers v. Graves, 299 U.S. 401, 57 S.Ct. 269, 81 L.Ed. 306, which sustained the claim that New York could not constitutionally tax the salary of an employee of the Penama Rail Road Company, a wholly-owned corporate instrumentality of the United States. We granted certiorari December 19, 1938, 305 U.S. 592, 59 S.Ct. 252, 83 L.Ed. 374, the constitutional question presented by the record being of public importance.

The Home Owners' Loan Corporation was created pursuant to s 4(a) of the Home Owners' Loan Act of 1933, 48 Stat. 128, 12 U.S.C. s 1461 et seq., 12 U.S.C.A. s 1461 et seq., which was enacted to provide emergency relief to home owners, particularly to assist them with respect to home mortgage indebtedness. The corporation, which is authorized to lend money to home owners on mortgages and to refinance home mortgage loans within the purview of the Act, is declared by s 4(a), 12 U.S.C.A. s 1463(a), to be an instrumentality of the United States. Its shares of stock are wholly government-owned. s 4(b). Its funds are deposited in the Treasury of the United States, and the compensation of its employees is paid by drafts upon the Treasury.

***477** **[1]** **[2]** **[3]** For the purposes of this case we may assume that the creation of the Home Owners' Loan Corporation was a constitutional exercise of the powers of the federal government. Cf. Kay v. United States, 303 U.S. 1, 58 S.Ct. 468, 82 L.Ed. 607. As that government derives its authority wholly from powers delegated to it by the Constitution, its every action within its constitutional power is governmental action, and since Congress is made the sole judge of what powers within the constitutional grant are to be exercised, all activities ****597** of government constitutionally authorized by Congress must stand on a parity with respect to their constitutional immunity from taxation. McCulloch v. Maryland, 4 Wheat. 316, 432, 4 L.Ed. 579; Van Brocklin v. Tennessee, 117 U.S. 151, 158-159, 6 S.Ct. 670, 674, 29 L.Ed. 845; South Carolina v. United States, 199 U.S. 437, 451, 452, 26 S.Ct. 110, 112, 50 L.Ed. 261, 4 Ann.Cas. 737; Helvering v. Gerhardt, 304 U.S. 405, 412-415, 58 S.Ct. 969, 971-973, 82 L.Ed. 1427. And when the national government lawfully acts through a corporation which it owns and controls, those activities are governmental functions entitled to whatever tax immunity attaches to those functions when carried on by the government itself through its departments. See McCulloch v. Maryland, supra, pages 421, 422 of 4 Wheat.; Smith v. Kansas City Title Co., 255 U.S. 180, 208, 41 S.Ct. 243, 248, 65 L.Ed. 577; Federal Land Bank v. Crosland, 261 U.S. 374, 43 S.Ct. 385, 67 L.Ed. 703, 29 A.L.R. 1; New York ex rel. Rogers v. Graves, supra.

The single question with which we are now concerned is whether the tax laid by the state upon the salary of respondent, employed by a corporate instrumentality of the federal government, imposes an unconstitutional

burden upon that government. The theory of the tax immunity of either government, state or national, and its instrumentalities, from taxation by the other, has been rested upon an implied limitation on the taxing power of each, such as to forestall undue interference, through the exercise of that power, with the governmental ***478** activities of the other. That the two types of immunity may not, in all respects, stand on a parity has been recognized from the beginning, McCulloch v. Maryland, supra, pages 435, 436 of 4 Wheat., and possible differences in application, deriving from differences in the source, nature and extent of the immunity of the governments and their agencies, were pointed out and discussed by this Court in detail during the last term. Helvering v. Gerhardt, supra, pages 412, 413, 416, 58 S.Ct. pages 972, 973.

[4] **[5]** So far as now relevant, those differences have been thought to be traceable to the fact that the federal government is one of delegated powers in the exercise of which Congress is supreme; so that every agency which Congress can constitutionally create is a governmental agency. And since the power to create the agency includes the implied power to do whatever is needful or appropriate, if not expressly prohibited, to protect the agency, there has been attributed to Congress some scope, the limits of which it is not now necessary to define, for granting or withholding immunity of federal agencies from state taxation. See Van Allen v. Assessors, 3 Wall. 573, 583, 585, 18 L.Ed. 229; Bank of New York v. Supervisors of New York County, 7 Wall. 26, 30, 31, 19 L.Ed. 60; Thomson v. Union Pacific Railroad, 9 Wall. 579, 588, 590, 19 L.Ed. 792; People of New York v. Weaver, 100 U.S. 539, 543, 25 L.Ed. 705; Mercantile Bank v. New York, 121 U.S. 138, 154, 7 S.Ct. 826, 834, 30 L.Ed. 895; Owensboro National Bank v. Owensboro, 173 U.S. 664, 668, 19 S.Ct. 537, 538, 43 L.Ed. 850; Shaw v. Gibson-Zahniser Oil Corp., 276 U.S. 575, 581, 48 S.Ct. 333, 335, 72 L.Ed. 709; Oklahoma v. Barnsdall Refineries, 296 U.S. 521, 525, 526, 56 S.Ct. 340, 342, 80 L.Ed. 366; Baltimore National Bank v. State Tax Comm., 297 U.S. 209, 211, 212, 56 S.Ct. 417, 419, 80 L.Ed. 586; British-American Company v. Board of Equalization, 299 U.S. 159, 57 S.Ct. 132, 81 L.Ed. 95; James v. Dravo Contracting Co., 302 U.S. 134, 161, 58 S.Ct. 208, 221, 82 L.Ed. 155, 114 A.L.R. 318; Helvering v. Gerhardt, supra, pages 411, 412, 417, 58 S.Ct. pages 971, 974; cf. United States v. Bekins, 304 U.S. 27, 52, 58 S.Ct. 811, 815, 82 L.Ed. 1137. Whether its power to grant tax exemptions as an incident to the exercise of powers specifically granted by the Constitution can ever, in any circumstances, extend beyond the constitutional ***479** immunity of federal agencies which courts have implied, is a question which need not now be determined.

Congress has declared in s 4 of the Act that the Home Owners' Loan Corporation is an instrumentality of the United States and that its bonds are exempt, as to principal and interest, from federal and state taxation, except surtaxes, estate, inheritance and gift taxes. The corporation itself, 'including its franchise, its capital, reserves and surplus, and its loans and income,' is likewise exempted from taxation; its real property is subject to tax to the same extent as other real property. ****598** But Congress has given no intimation of any purpose either to grant or withhold immunity from state taxation of the salary of the corporation's employees, and the Congressional intention is not to be gathered from the statute by implication. Cf. Baltimore National Bank v. State Tax Comm., supra.

[6] **[7]** It is true that the silence of Congress, when it has authority to speak, may sometimes give rise to an implication as to the Congressional purpose. The nature and extent of that implication depend upon the nature of the Congressional power and the effect of its exercise. [1] But ***480** there is little scope for the application of that doctrine to the tax immunity of governmental instrumentalities. The constitutional immunity of either government from taxation by the other, where Congress is silent, has its source in an implied restriction upon the powers of the taxing government. So far as the implication rests upon the purpose to avoid interference with the functions of the taxed government or the imposition upon it of the economic burden of the tax, it is plain that there is no basis for implying a purpose of Congress to exempt the federal government or its agencies from tax burdens which are unsubstantial or which courts are unable to discern. Silence of Congress implies immunity no more than does the silence of the Constitution. It follows that when exemption from state taxation is claimed on the ground that the federal government is burdened by the tax, and Congress has disclosed no intention with respect to the claimed immunity, it is in order to consider the nature and effect of the alleged burden, and if it appears that there is no ground for implying a constitutional immunity, there is equally a want of any ground for assuming any purpose on the part of Congress to create an immunity.

[8] The present tax is a non-discriminatory tax on income applied to salaries at a specified rate. It is not in

form or substance a tax upon the Home Owners' Loan Corporation or its property or income, nor is it paid by the corporation or the government from their funds. It is measured by income which becomes the property of the taxpayer when received as compensation for his services; and the tax laid upon the privilege of receiving it is paid from his private funds and not from the funds of the government, either directly or indirectly. The theory, which once won a qualified approval, that a tax on income is legally or economically a tax on its source, is no longer tenable, New York ex rel. Cohn v. Graves, 300 U.S. 308, 313, 314, 57 S.Ct. 466, 467, 81 L.Ed. 666, 108 A.L.R. 721; Hale v. State Board, 302 U.S. 95, 108, 58 S.Ct. 102, 106, 82 L.Ed. 72; ***481** Helvering v. Gerhardt, supra; cf. Metcalf & Eddy v. Mitchell, 269 U.S. 514, 46 S.Ct. 172, 70 L.Ed. 384; Fox Film Corp. v. Doyal, 286 U.S. 123, 52 S.Ct. 546, 76 L.Ed. 1010; James v. Dravo Contracting Co., supra, page 149, 58 S.Ct. page 216; Helvering v. Mountain Producers Corp., 303 U.S. 376, 58 S.Ct. 623, 82 L.Ed. 907, and the only possible basis for implying a constitutional immunity from state income tax of the salary of an employee of the national governmentor of a governmental agency is that the economic burden of the tax is in some way passed on so as to impose a burden on the national government ****599** tantamount to an interference by one government with the other in the performance of its functions.

In the four cases in which this Court has held that the salary of an officer or employee of one government or its instrumentality was immune from taxation by the other, it was assumed, without discussion, that the immunity of a government or its instrumentality extends to the salaries of its officers and employees.[2] This assumption, made with respect to the salary of a governmental officer ***482** in Dobbins v. Commissioners of Erie County, 16 Pet. 435, 10 L.Ed. 1022, and in Collector v. Day, 11 Wall. 113, 20 L.Ed. 122, was later extended to confer immunity on income derived by a lessee from lands leased to him by a government in the performance of a governmental function, Gillespie v. Oklahoma, 257 U.S. 501, 42 S.Ct. 171, 66 L.Ed. 338; Burnet v. Coronado Oil & Gas Co., 285 U.S. 393, 52 S.Ct. 443, 76 L.Ed. 815, and cases cited, although the claim of a like exemption from tax on the income of a contractor engaged in carrying out a government project was rejected both in the case of a contractor with a state, ***483** Metcalf & Eddy v. Mitchell, supra, and of a contractor with the national government, James v. Dravo Contracting Co., supra.

[9] The ultimate repudiation in ****600** Helvering v. Mountain Producers Corp., supra, of the doctrine that a tax on the income of a lessee derived from a lease of government owned or controlled lands is a forbidden interference with the activities of the government concerned led to the reexamination by this Court, in the Gerhardt case, of the theory underlying the asserted immunity from taxation by one government of salaries of employees of the other. It was there pointed out that the implied immunity of one government and its agencies from taxation by the other should, as a principle of constitutional construction, be narrowly restricted. For the expansion of the immunity of the one government correspondingly curtails the sovereign power of the other to tax, and where that immunity is invoked by the private citizen it tends to operate for his benefit at the expense of the taxing government and without corresponding benefit to the government in whose name the immunity is claimed. See Metcalf & Eddy v. Mitchell, supra, pages 523, 524, 46 S.Ct. page 174; James v. Dravo Contracting Co., supra, pages 156-158, 58 S.Ct. pages 219, 220. It was further pointed out that, as applied to the taxation of salaries of the employees of one government, the purpose of the immunity was not to confer benefits on the employees by relieving them from contributing their share of the financial support of the other government, whose benefits they enjoy, or to give an advantage to that government by enabling it to engage employees at salaries lower than those paid for like services by other employers, public or private,[3] but to ***484** prevent undue interference with the one government by imposing on it the tax burdens of the other.

In applying these controlling principles in the Gerhardt case the Court held that the salaries of employees of the New York Port Authority, a state instrumentality created by New York and New Jersey, were not immune from federal income tax, even though the Authority be regarded as not subject to federal taxation. It was said that the taxpayers enjoyed the benefit and protection of the laws of the United States and were under a duty, common to all citizens, to contribute financial support to the government; that the tax laid on their salaries and paid by them could be said to affect or burden their employer, the Port Authority, or the states creating it, only so far as the burden of the tax was economically passed on to

the employer; that a non-discriminatory tax laid on the income of all members of the community could not be assumed to obstruct the function which New York and New Jersey had undertaken no perform, or to cast an economic burden upon them, more than does the general taxation of property and income which, to some extent, incapable of measurement by economists, may tend to raise the price level of labor and materials.[4] The Court concluded ***485** that the claimed immunity would do no more than relieve the taxpayers from the duty of financial support to the national government in order to secure to the state a theoretical advantage, speculative in character and measurement and too unsubstantial to form the basis of an implied ****601** constitutional immunity from taxation.

The conclusion reached in the Gerhardt case that in terms of constitutional tax immunity a federal income tax on the salary of an employee is not a prohibited burden on the employer makes it imperative that we should consider anew the immunity here claimed for the salary of an employee of a federal instrumentality. As already indicated, such differences as there may be between the implied tax immunity of a state and the corresponding immunity of the national government and its instrumentalities may be traced to the fact that the national government is one of delegated powers, in the exercise of which it is supreme. Whatever scope this may give to the national government to claim immunity from state taxation of all instrumentalities which it may constitutionally create, and whatever authority Congress may possess as incidental to the exercise of its delegated powers to grant or withhold immunity from state taxation, Congress has not sought in this case to exercise such power. Hence these distinctions between the two types of immunity cannot affect the question with which we are now concerned. The burden on government of a non-discriminatory income tax applied to the salary of the employee of a government or its instrumentality is the same, whether a state or national government is concerned. The determination in the Gerhardt case that the federal income tax imposed on the employees of the Port Authority was not a burden on the Port Authority made it unnecessary to consider whether the Authority itself was immune from federal taxation; the claimed immunity failed because even if the Port Authority were ***486** itself immune from federal income tax, the tax upon the income of its employees case upon it no unconstitutional burden.

[10] Assuming, as we do, that the Home Owners' Loan Corporation is clothed with the same immunity from state taxation as the government itself, we cannot say that the present tax on the income of its employees lays any unconstitutional burden upon it. All the reasons for refusing to imply a constitutional prohibition of federal income taxation of salaries of state employees, stated at length in the Gerhardt case, are of equal force when immunity is claimed from state income tax on salaries paid by the national government or its agencies. In this respect we perceive no basis for a difference in result whether the taxed income be salary or some other form of compensation, or whether the taxpayer be an employee or an officer of either a state or the national government, or of its instrumentalities. In no case is there basis for the assumption that any such tangible or certain economic burden is imposed on the government concerned as would justify a court's declaring that the taxpayer is clothed with the implied constitutional tax immunity of the government by which he is employed. That assumption, made in Collector v. Day, supra, and in New York ex rel. Rogers v. Graves, supra, is contrary to the reasoning and to the conclusions reached in the Gerhardt case and in Metcalf & Eddy v. Mitchell, supra; Group No. 1 Oil Corporation v. Bass, 283 U.S. 279, 51 S.Ct. 432, 75 L.Ed. 1032; James v. Dravo Contracting Co., supra; Helvering v. Mountain Producers Corp., supra; McLoughlin v. Commissioner, 303 U.S. 218, 58 S.Ct. 539, 82 L.Ed. 758. In their light the assumption can no longer be made. Collector v. Day, supra, and New York ex rel. Rogers v. Graves, supra, are overruled so far as they recognize an implied constitutional immunity from income taxation of the salaries of officers or employees of the national or a state government or their instrumentalities.

***487** **[11]** So much of the burden of a nondiscriminatory general tax upon the incomes of employees of a government, state or national, as may be passed on economically to that government, through the effect of the tax on the price level of labor or materials, is but the normal incident of the organization within the same territory of two governments, each possessing the taxing power. The burden, so far as it can be said to exist or to affect the government in any indirect or incidental way, is one which the Constitution presupposes, and hence it cannot rightly be deemed to be within an implied restriction upon the taxing power of the national and state governments which the Constitution has expressly granted to one and has confirmed to the other. The immunity is

not one to be implied from the Constitution, because if allowed it would impose to an inadmissible **602 extent a restriction on the taxing power which the Constitution has reserved to the state governments.

Reversed.

Mr. Chief Justice HUGHES concurs in the result.

Mr. Justice FRANKFURTER, concurring.

I join in the Court's opinion but deem it appropriate to add a few remarks. The volume of the Court's business has long since made impossible the early healthy practice whereby the Justices gave expression to individual opinions.[1] But the old tradition still has relevance when an important shift in constitutional doctrine is announced after a reconstruction in the membership of the Court. Such shifts of opinion should not derive from mere private judgment. They must be duly mindful of the necessary demands of continuity in civilized society. *488 A reversal of a long current of decisions can be justified only if rooted in the Constitution itself as an historic document designed for a developing nation.

For one hundred and twenty years this Court has been concerned with claims of immunity from taxes imposed by one authority in our dual system of government because of the taxpayer's relation to the other. The basis for the Court's intervention in this field has not been any explicit provision of the Constitution. The States, after they formed the Union, continued to have the same range of taxing power which they had before, barring only duties affecting exports, imports, and on tonnage.[2] Congress, on the other hand, to lay taxes in order 'to pay the Debts and provide for the common Defence and general Welfare of the United States', Art. 1, Sec. 8, U.S.C.A.Const., can reach every person and every dollar in the land with due regard to Constitutional limitations as to the method of laying taxes. But, as is true of other great activities of the state and national governments, the fact that we are a federalism raises problems regarding these vital powers of taxation. Since two governments have authority within the same territory, neither through its power to tax can be allowed to cripple the operations of the other. Therefore state and federal governments must avoid exactions which discriminate against each other or obviously interfere with one another's operations. These were the determining considerations that led the great Chief Justice to strike down the Maryland statute as an unambiguous measure of discrimination against the use by the United States of the Bank of the United States as one of its instruments of government.

The arguments upon which McCulloch v. Maryland, 4 Wheat. 316, 4 L.Ed. 579, rested had their roots in actuality. But they have been distorted by sterile refinements unrelated *489 to affairs. These refinements derived authority from an unfortunate remark in the opinion in McCulloch v. Maryland. Partly as a flourish of rhetoric and partly because the intellectual fashion of the times indulged a free use of absolutes, Chief Justice Marshall gave currency to the phrase that 'the power to tax involves the power to destroy.' Id., at page 431 of 4 Wheat. This dictum was treated as though it were a constitutional mandate. But not without protest. One of the most trenchant minds on the Marshall court, Justice William Johnson, early analyzed the dangerous inroads upon the political freedom of the States and the Union within their respective orbits resulting from a doctrinaire application of the generalities uttered in the course of the opinion in McCulloch v. Maryland.[3] The seductive cliche that the power to tax involves the power to destroy was fused with another assumption, likewise not to be found in the Constitution itself, namely the doctrine that the immunities are correlative-because the existence of the national government implies immunities from state taxation, the existence of state governments implies equivalent immunities from federal taxation. When this doctrine was first applied Mr. Justice Bradley registered a powerful dissent,[4] the force of which **603 gathered rather than lost strength with time. imes indulged a free use of absolutes, Chief Justice M.

*490 All these doctrines of intergovernmental immunity have until recently been moving in the realm of what Lincoln called 'pernicious abstractions'. The web of unreality spun from Marshall's famous dictum was brushed away by one stroke of Mr. Justice Holmes's pen: 'The power to tax is not the power to destroy while this Court sits'. Panhandle Oil Co. v. Mississippi, 277 U.S. 218, 223, 48 S.Ct. 451, 453, 72 L.Ed. 857, 56 A.L.R. 583 (dissent). Failure to exempt public functionaries from the universal duties of citizenship to pay for the costs of government was hypothetically transmuted into hostile action of one government against the other. A succession of decisions thereby withdrew from the taxing power

of the States and Nation a very considerable range of wealth without regard to the actual workings of our federalism,[5] and this, too, when the financial needs of all governments began steadily to mount. These decisions have encountered increasing dissent.[6] In view of the powerful pull of our decisions upon the courts charged with maintaining the constitutional equilibrium of the two other great English federalisms, the Canadian and the Australian courts were at first inclined to follow the earlier doctrines of this Court regarding intergovernmental immunity.[7] ***491** Both the Supreme Court of Canada and the High Court of Australia on fuller consideration-and for present purposes the British North America Act, 30 & 31 Vict., c. 3, and the Commonwealth of Australia Constitution Act, 63 & 64 Vict., c. 12, raise the same legal issues as does our Constitution[8]-have completely rejected the doctrine of intergovernmental immunity.[9] In this Court dissents have gradually become majority opinions, and even before the present decision the rationale of the doctrine had been undermined.[10]

****604** The judicial history of this doctrine of immunity is a striking illustration of an occasional tendency to encrust unwarranted interpretations upon the Constitution and thereafter to consider merely what has been judicially said about the Constitution, rather than to be primarily controlled by a fair conception of the Constitution. Judicial exegesis is unavoidable with reference to an organic act like our Constitution, drawn in many particulars with purposed vagueness so as to leave room for the unfolding future. But the ultimate touchstone of constitutionality is the Constitution itself and not what we ***492** have said about it.[11] Neither Dobbins v. Commissioners of Erie County, 16 Pet. 435, 10 L.Ed. 1022, and its offspring, nor Collector v. Day, supra, and its, can stand appeal to the Constitution and its historic purposes. Since both are the starting points of an interdependent doctrine, both should be, as I assume them to be, overruled this day. Whether Congress may, by express legislation, relieve its functionaries from their civic obligations to pay for the benefits of the State governments under which they live is matter for another day.

Mr. Justice BUTLER, dissenting.

Mr. Justice McREYNOLDS and I are of opinion that the Home Owners' Loan Corporation, being an instrumentality of the United States heretofore deemed immune from state taxation, 'it necessarily results,' as held in New York ex rel. Rogers v. Graves, 1937, 299 U.S. 401, 57 S.Ct. 269, 272, 81 L.Ed. 306, 'that fixed salaries and compensation paid to its officers and employees in their capacity as such are likewise immune'; and that the judgment of the state court, unquestionably required by that decision, should be affirmed.

From the decision just announced, it is clear that the Court has overruled Dobbins v. Commissioners of Erie County, 1842, 16 Pet. 435, 10 L.Ed. 1022, Collector v. Day, 1871, 11 Wall. 113, 20 L.Ed. 122, New York ex rel. Rogers v. Graves, supra, and Brush v. Commissioner, 1937, 300 U.S. 352, 57 S.Ct. 495, 81 L.Ed. 691, 108 A.L.R. 1428. Thus now it appears that the United States has always had power to tax salaries of state officers and employees and that ***493** similarly free have been the States to tax salaries of officers and employees of the United States. The compensation for past as well as for future service to be taxed and the rates prescribed in the exertion of the newly disclosed power depend on legislative discretion not subject to judicial revision. Futile indeed are the vague intimations that this Court may protect against excessive or destructive taxation. Where the power to tax exists, legislatures may exert it to destroy, to discourage, to protect or exclusively for the purpose of raising revenue. See e.g. Veazie Bank v. Fenno, 8 Wall. 533, 548, 19 L.Ed. 482; McCray v. United States, 195 U.S. 27, 53 et seq., 24 S.Ct. 769, 775, 49 L.Ed. 78, 1 Ann.Cas. 561; Magnano Co. v. Hamilton, 292 U.S. 40, 44 et seq., 54 S.Ct. 599, 601, 78 L.Ed. 1109; Cincinnati Soap Co. v. United States, 301 U.S. 308, 57 S.Ct. 764, 81 L.Ed. 1122.

Appraisal of lurking or apparent implications of the Court's opinion can serve no useful end for, should occasion arise, they may be ignored or given direction differing from that at first seemingly intended. But safely it may be said that presently marked for destruction is the doctrine of reciprocal immunity that by recent decisions here has been so much impaired.

All Citations

306 U.S. 466, 59 S.Ct. 595, 83 L.Ed. 927, 120 A.L.R. 1466, 39-1 USTC P 9411, 22 A.F.T.R. 290, 1939-1 C.B. 129

Footnotes

1 The failure of Congress to regulate interstate commerce has generally been taken to signify a Congressional purpose to leave undisturbed the authority of the states to make regulations affecting the commerce in matters of peculiarly local concern, but to withhold from them authority to make regulations affecting those phases of it which, because of the need of a national uniformity, demand that their regulation, if any, be prescribed by a single authority. Cooley v. Board of Wardens, 12 How. 299, 319, 13 L.Ed. 996; Minnesota Rate Cases, 230 U.S. 352, 399, 400, 33 S.Ct. 729, 739, 57 L.Ed. 1511, 48 L.R.A.,N.S., 1151, Ann.Cas.1916A, 18; Kelly v. Washington, 302 U.S. 1, 14, 58 S.Ct. 87, 94, 82 L.Ed. 3; South Carolina State Highway Dept. v. Barnwell Brothers, 303 U.S. 177, 184, 185, 58 S.Ct. 510, 513, 82 L.Ed. 734; Milk Control Board v. Eisenberg Farm Products, 306 U.S. 346, 59 S.Ct. 528, 83 L.Ed. 752, decided February 27, 1939. As to the implications from Congressional silence in the field of state taxation of interstate commerce and its instrumentalities, see Western Live Stock v. Bureau of Revenue, 303 U.S. 250, 58 S.Ct. 546, 82 L.Ed. 823, 115 A.L.R. 944; Gwin, White & Prince, Inc. v. Henneford, 305 U.S. 434, 59 S.Ct. 325, 83 L.Ed. 272, decided January 3, 1939.

2 In Dobbins v. Commissioners of Erie County, 16 Pet. 435, 10 L.Ed. 1022, a Pennsylvania tax, nominally laid upon the office of the captain of a federal revenue cutter, but roughly measured by the salary paid to the officer, ws held invalid. The Court seems to have rested its decision in part on the ground that a tax on the emoluments of his office was the equivalent of a tax upon an activity of the national government, and in part on the ground that it was an infringement of the implied superior power of Congress to fix the compensation of government employees without diminution by state taxation.

'In Collector v. Day, 11 Wall. 113, 20 L.Ed. 122, this Court held that the salary of a state probate judge was constitutionally immune from federal income tax on the grounds that the salary of an officer of a state is exempt from federal taxation if the function he performs as an officer is exempt, citing Dobbins v. Commissioner of Erie County, supra, and that there was an implied constitutional restriction upon the power of the national government to tax a state in the exercise of those functions which were essential to the maintenance of state governments as they were organized at the time when the Constitution was adopted. The possibility that a non-discriminatory tax upon the income of a state officer did not involve any substantial interference with the functioning of the state government was not discussed either in this or the Dobbins case.

In New York ex rel. Rogers v. Graves, 299 U.S. 401, 57 S.Ct. 269, 81 L.Ed. 306, the question was whether the salary of the general counsel of the Panama Rail Road Company was exempt from state income tax because the railroad company was an instrumentality of the federal government. The sole question raised by the taxing state was whether the railroad company was a government instrumentality. The Court, having found that the railroad company was such an instrumentality, disposed of the matter of tax exemption of the salary of its employees by declaring: 'The railroad company being immune from state taxation, it necessarily results that fixed salaries and compensation paid to its officers and employees in their capacity as such are likewise immune.' New York ex rel. Rogers v. Graves, supra, page 408, 57 S.Ct. page 272.

In Brush v. Commissioner, 300 U.S. 352, 57 S.Ct. 495, 81 L.Ed. 691, 108 A.L.R. 1428, the applicable treasury regulation upon which the government relied exempted from federal income tax the compensation of 'state officers and employees' for 'services rendered in connection with the exercise of an essential governmental function of the State.' The Court held that the maintenance of the public water system of New York City was an essential governmental function, and in determining whether the salary of the engineer in charge of that project was subject to federal income tax the Court declared, citing New York ex rel. Rogers v. Graves, supra, page 408, 57 S.Ct. page 272: 'The answer depends upon whether the water system of the city was created and is conducted in the exercise of the city's governmental functions. If so, its operations are immune from federal taxation and, as a necessary corollary, 'fixed salaries and compensation paid to its officers and employees in their capacity as such are likewise immune.'' Brush v. Commissioner, supra, page 360, 57 S.Ct. page 495.

3 The fact that the expenses of the one government might be lessened if all those who deal with it were exempt from taxation by the other was thought not to be an adequate basis for tax immunity in Metcalf & Eddy vs not to confer benefits on the employees by relieving the Group No. 1 Oil Corp. v. Bass, 283 U.S. 279, 51 S.Ct. 432, 75 L.Ed. 1032; Burnet v. Jergins Trust, 288 U.S. 508, 53 S.Ct. 439, 77 L.Ed. 925; James v. Dravo Contracting Co., 302 U.S. 134, 58 S.Ct. 208, 82 L.Ed. 155, 114 A.L.R. 318; Helvering v. Mountain Producers Corp., 303 U.S. 376, 58 S.Ct. 623, 82 L.Ed. 907.

4 That the economic burden of a tax on salaries is passed on to the employer or that employees will accept a lower government salary because of its tax immunity, are formulas which have not won acceptance by economists and cannot be judicially assumed. As to the 'passing on' of the economic burden of the tax, see Seligman, Income Tax, VII Encyclopedia of Social Sciences, 626-638; Plehn, Public Finance (5th Ed.), p. 320; Buehler, Public Finance, p. 240; Lutz, Public Finance (2d Ed.), p. 336, and see Indian Motocycle Co. v. United States, 283 U.S. 570, 581, footnote 1, 51 S.Ct.

601, 603, 75 L.Ed. 1277. As to preference for government employment because the salary is tax exempt, see Dickinson, Compensating Industrial Effort (1937), pp. 7-8; Douglas, The Reality of Non-Commercial Incentives in Industrial Life, c. V of The Trend of Economics (1924); Vol. I, Fetter, Economic Principles (1915), p. 203.

1 The state of the docket of the High Court of Australia and that of the Supreme Court of Canada still permits them to continue the classic practice of seriatim opinions.

2 Article 1, Sec. 10, U.S.Constitution, U.S.C.A.

3 Weston v. City Council of Charleston, 2 Pet. 449, 472, 473, 7 L.Ed. 481.

4 'I dissent from the opinion of the court in this case, because it seems to me that the general government has the same power of taxing the income of officers of the state governments as it has of taxing that of its own officers. * * * In my judgment, the limitation of the power of taxation in the general government, which the present decision establishes, will be found very difficult to control. Where are we to stop in enumerating the functions of the state governments which will be interfered with by Federal taxation? * * * How can we now tell what the effect of this decision will be? I cannot but regard it as founded on a fallacy, and that it will lead to mischievous consequences.' 11 Wall. 113, 128, 129.

5 E.g., Gillespie v. Oklahoma, 257 U.S. 501, 42 S.Ct. 171, 66 L.Ed. 338; Panhandle Oil Co. v. Mississippi, 277 U.S. 218, 48 S.Ct. 451, 72 L.Ed. 857, 56 A.L.R. 583; Macallen Co. v. Massachusetts, 279 U.S. 620, 49 S.Ct. 432, 73 L.Ed. 874, 65 A.L.R. 866; Indian Motocycle Co. v. United States, 283 U.S. 570, 51 S.Ct. 601, 75 L.Ed. 1277; Burnet v. Coronado Oil & Gas Co., 285 U.S. 393, 52 S.Ct. 443, 76 L.Ed. 815; New York ex rel. Rogers v. Graves, 299 U.S. 401, 57 S.Ct. 269, 81 L.Ed. 306; Brush v. Commissioner of Internal Revenue, 300 U.S. 352, 57 S.Ct. 495, 81 L.Ed. 691, 108 A.L.R. 1428.

6 E.g., Mr. Justice Brandeis, dissenting, in Jaybird Mining Co. v. Weir, 271 U.S. 609, 615, 46 S.Ct. 592, 594, 70 L.Ed. 1112; Justice Holmes, dissenting, in Panhandle Oil Co. v. Mississippi, 277 U.S. 218, 222, 48 S.Ct. 451, 452, 72 L.Ed. 857, 56 A.L.R. 583; Mr. Justice Stone, dissenting, in Indian Motocycle Co. v. United States, 283 U.S. 570, 580, 51 S.Ct. 601, 604, 75 L.Ed. 1277; Mr. Justice Roberts, dissenting, in Brush v. Commissioner of Internal Revenue, 300 U.S. 352, 374, 57 S.Ct. 495, 502, 81 L.Ed. 691, 108 A.L.R. 1428. See, also, Mr. Justice Black, concurring, in Helvering v. Gerhardt, 304 U.S. 405, 424, 58 S.Ct. 969, 977, 82 L.Ed. 1427.

7 Bank of Toronto v. Lambe, 12 App.Cas. 575; D'Emden v. Pedder, 1 C.L.R. 91.

8 Especially is this true of the Australian Constitution. One of its framers, who afterwards became one of the most distinguished of Australian judges, Mr. Justice Higgins, characterized it as having followed our Constitution with 'pedantic imitation.' Australasian Temperance and General Mutual Life Assurance Co., Ltd., v. Howe, 31 C.L.R. 290, 330.

9 Abbott v. City of St. John, 40 Can.Sup.Ct. 597; Caron v. The King, (1924) A.C. 999; Amalgamated Society of Engineers v. Adelaide Steamship Co., Ltd., 28 C.L.R. 129; West v. Commissioner of Taxation, 56 C.L.R. 657.

10 E.g., James v. Dravo Contracting Co., 302 U.S. 134, 58 S.Ct. 208, 82 L.Ed. 155, 114 A.L.R. 318; Helvering v. Mountain Producers Corp., 303 U.S. 376, 58 S.Ct. 623, 82 L.Ed. 907; Helvering v. Gerhardt, 304 U.S. 405, 58 S.Ct. 969, 82 L.Ed. 1427.

11 Compare Taney, C.J., in Passenger Cases, 7 How. 283, 470, 12 L.Ed. 702: 'I * * * am quite willing that it be regarded as the law of this court, that its opinion upon the construction of the Constitution is always open to discussion when it is supposed to have been founded in error, and that its judicial authority should hereafter depend altogether on the force of the reasoning by which it is supported.'

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223 N.C.App. 26
Court of Appeals of North Carolina.

Richard HORNE and wife, Meredith Horne, Parker Horne, by and through his GAL, Scott W. Heintzelman, Plaintiffs,
v.
TOWN OF BLOWING ROCK d/b/a Blowing Rock Park, Defendant.

No. COA12–196.
|
Oct. 2, 2012.

Synopsis
Background: Minor and his parents brought personal injury against town after minor was injured when he stepped into a drain hole in municipal recreation area. The District Court, Watauga County, R. Greg Horne, J., converted town's motion to dismiss into a motion for summary judgment and denied the motion, and town appealed.

Holdings: The Court of Appeals, McCullough, J., held that:

[1] order was appealable in part;

[2] court appropriately converted motion for judgment on the pleadings into a motion for summary judgment; and

[3] genuine issue of material fact as to whether town's operation of municipal recreation area was a proprietary or a governmental function precluded summary judgment on grounds of governmental immunity.

Affirmed.

West Headnotes (8)

[1] Appeal and Error
On motion for dismissal or nonsuit

Trial court's interlocutory order denying town's motion to dismiss on grounds of sovereign immunity was immediately appealable to the extent the motion alleged a failure to state a claim or sought judgment on the pleadings, which was converted to a motion for summary judgment; however, the order was not immediately appealable to the extent the trial court denied town's motion to dismiss due to lack of subject matter jurisdiction. Rules Civ.Proc., Rule 12(b)(1, 6), (c), West's N.C.G.S.A. § 1A–1.

4 Cases that cite this headnote

[2] Appeal and Error
On motion for dismissal or nonsuit

The denial of a motion to dismiss for lack of subject matter jurisdiction is not immediately appealable, even where the defense of sovereign immunity is raised. Rules Civ.Proc., Rule 12(b)(1), West's N.C.G.S.A. § 1A–1.

2 Cases that cite this headnote

[3] Judgment
Motion or Other Application

Trial court appropriately converted town's motion for judgment on the pleadings into a motion for summary judgment in light of its consideration of additional documents submitted by town in connection with the motion that were not in accident victim's complaint, including an endorsement which disputed accident victim's arguments concerning waiver of sovereign immunity based on purchase of insurance and the affidavit of an insurance adjuster, as well its consideration of the arguments presented by counsel. Rules Civ.Proc., Rules 12(c), 56, West's N.C.G.S.A. § 1A–1.

3 Cases that cite this headnote

[4] Judgment
Motion or Other Application
Pleading
Construction, operation, and effect in general

Pleading
Matters considered

If documents are attached to and incorporated within a complaint, they become part of the complaint, and therefore may be considered in connection with a motion for judgment on the pleadings without converting it into a motion for summary judgment; a document attached to the moving party's pleading may not be considered in connection with a motion for judgment on the pleadings unless the nonmoving party has made admissions regarding the document. Rules Civ.Proc., Rule 12(c), West's N.C.G.S.A. § 1A–1.

6 Cases that cite this headnote

[5] **Municipal Corporations**
Performance of governmental or corporate functions in general

Generally a municipal corporation is immune to suit for negligence of its agents in the performance of its governmental functions.

Cases that cite this headnote

[6] **Municipal Corporations**
Corporate powers in general

A municipality may be liable for negligence, despite governmental immunity, if the injury occurs while the agents of the municipality are performing a proprietary rather than a governmental function.

Cases that cite this headnote

[7] **Municipal Corporations**
Parks and public squares and places

A municipality's operation and maintenance of free public parks for the recreation of its citizens is traditionally a governmental function for which governmental immunity will ordinarily apply; but a municipality may waive such governmental immunity when revenue is derived either from the operation of the park itself or from the conduct of activities within the park, which can render the park's operation and maintenance a proprietary function. West's N.C.G.S.A. § 160A–351.

Cases that cite this headnote

[8] **Judgment**
Existence of defense

Genuine issue of material fact as to whether town's operation of municipal recreation area was a proprietary or a governmental function, and thus whether town had governmental immunity, precluded summary judgment on personal injury claims brought by minor and his family after minor stepped in a drain hole in the recreation area. West's N.C.G.S.A. § 160A–351.

Cases that cite this headnote

****615** Appeal by defendant from order entered 22 November 2011 by Judge R. Greg Horne in Watauga County District Court. Heard in the Court of Appeals 16 August 2012.

Attorneys and Law Firms

The Roberts Law Firm, P.A., Gastonia, by Scott W. Roberts, for plaintiff appellees.

Cranfill Sumner & Hartzog LLP, by Patrick H. Flanagan, Charlotte, and Kelly Beth Smith, for defendant appellant.

Opinion

McCULLOUGH, Judge.

***27** The Town of Blowing Rock, d/b/a Blowing Rock Park ("defendant") appeals from an order of the trial court converting its Rule 12(c) motion to dismiss into a motion for summary judgment and denying its motion to dismiss plaintiffs' action on the basis of governmental immunity. We affirm.

I. Background

Blowing Rock Park is a municipal recreation area located in Blowing Rock, North Carolina, and is maintained by the Town of Blowing Rock. On 25 February 2011, plaintiffs filed a complaint against defendant alleging that on 20 June 2011, the minor plaintiff Parker Horne was walking through Blowing Rock Park when he "stepped into a drain hole that was completely obscured from his view by overgrown grass and grass clippings," which caused him to sustain injuries to his left ankle and other portions of his body. Plaintiffs asserted, *inter alia,* that defendant was negligent in failing to inspect the park's premises, failing to warn visitors of hidden perils or unsafe conditions, and failing to properly maintain the grass around the drain hole. Plaintiffs Richard and Meredith Horne, parents of the minor plaintiff, sought recovery for all medical bills incurred on behalf of the minor, and the minor plaintiff Parker Horne sought a money judgment for his pain and suffering.

In their complaint, plaintiffs alleged that defendant had "waived its immunity for the suit by the purchase of liability insurance." On 26 April 2011, defendant filed an answer and motion to dismiss pursuant to Rules 12(b)(1), 12(b)(6), and 12(c) of the North Carolina Rules of Civil Procedure. In its motion to dismiss, defendant asserted that it was entitled to governmental immunity, and therefore plaintiffs' claims were barred. In support of its motion to dismiss based on governmental immunity, defendant attached a copy of an endorsement clause contained in its insurance policy titled "Sovereign Immunity Non–Waiver Endorsement," as well as an affidavit from its insurance adjuster, Laurie Scheel ("Scheel"), attesting to the authenticity of the insurance policy and its endorsement clause. The endorsement clause at issue states that "[n]othing in this policy, coverage part or ***28** coverage form waives sovereign immunity for any insured[,]" and that the policy provides "no coverage" for any claim or suit for which defendant would otherwise have no liability because of sovereign immunity.

On 19 September 2011, a hearing was held on defendant's motion to dismiss. On 22 November 2011, the trial court entered an order stating that "[b]ased on receipt of the affidavit [of Scheel], the court will treat Defendant's Rule 12(c) motion as a motion for summary judgment (Rule 56)." Based on its "review of the pleadings, the sole affidavit and exhibit tendered, and arguments of counsel[,]" ****616** the trial court granted partial summary judgment in favor of defendant as to plaintiffs' claim that defendant had waived its governmental immunity by the purchase of liability insurance. However, citing this Court's opinion in *Estate of Williams v. Pasquotank County,* — N.C.App. —, 711 S.E.2d 450 (2011), *vacated and remanded,* — N.C. —, 732 S.E.2d 137 (2012), the trial court found there remained genuine issues of material fact and denied the remainder of defendant's motion to dismiss. On 22 December 2011, defendant gave timely written notice of appeal to this Court from the trial court's order.

II. Appealability

[1] Because defendant appeals the trial court's denial of its motion to dismiss pursuant to Rules 12(b)(1), 12(b)(6) and 12(c), an interlocutory order, we must first address the issue of appealability. *See Data Gen. Corp. v. Cty. of Durham,* 143 N.C.App. 97, 100, 545 S.E.2d 243, 245 (2001) (noting that the denial of a motion to dismiss is interlocutory and ordinarily is not immediately appealable). Plaintiffs argue defendant's appeal should be dismissed as interlocutory, since defendant is admittedly appealing the trial court's denial of its motion to dismiss pursuant to Rule 12(b)(1), and this Court has expressly held that "the denial of a motion to dismiss pursuant to Rule 12(b)(1) for lack of subject matter jurisdiction is not immediately appealable." *Id.* at 100, 545 S.E.2d at 246.

To the contrary, defendant argues that this Court has consistently allowed immediate appellate review of "orders denying dispositive motions grounded on the defense of governmental immunity," as they affect a substantial right. *Hedrick v. Rains,* 121 N.C.App. 466, 468, 466 S.E.2d 281, 283 (1996). Our review of relevant case law reveals defendant's assertion is correct in the context of appeals from orders denying a party's motion to dismiss under Rules 12(b)(2) (personal ***29** jurisdiction), 12(b)(6) (failure to state a claim), and 12(c) (judgment on the pleadings), and for summary judgment under Rule 56(c). *See, e.g., Transportation Servs. of N.C., Inc. v. Wake Cnty. Bd. of Educ.,* 198 N.C.App. 590, 593, 680 S.E.2d 223, 225 (2009) (allowing interlocutory review of trial court's denial of motion to dismiss under Rules 12(b)(2) and 12(b)(6)); *Davis v. Dibartolo,* 176 N.C.App. 142, 144, 625 S.E.2d 877, 879 (2006) ("The denial of a 12(b)(6) motion to dismiss for failure to state a claim is immediately appealable where the motion raises the

defense of sovereign immunity."); *Hedrick,* 121 N.C.App. at 468, 466 S.E.2d at 283 (allowing interlocutory review of denial of Rule 12(c) motion for judgment on the pleadings asserting governmental immunity); *Owen v. Haywood Cnty.,* 205 N.C.App. 456, 458, 697 S.E.2d 357, 358–59 (denial of motion for summary judgment on grounds of governmental immunity is immediately appealable as affecting a substantial right), *disc. review denied,* 364 N.C. 615, 705 S.E.2d 361 (2010).

[2] However, as plaintiffs correctly contend, this Court has expressly held that "the denial of a 12(b)(1) motion to dismiss for lack of subject matter jurisdiction is not immediately appealable, even where the defense of sovereign immunity is raised." *Davis,* 176 N.C.App. at 144–45, 625 S.E.2d at 880 (citing *Data Gen. Corp.,* 143 N.C.App. at 100, 545 S.E.2d at 246). In *Meherrin Indian Tribe v. Lewis,* 197 N.C.App. 380, 677 S.E.2d 203 (2009), this Court reiterated this point in holding that "defendants' appeal from the denial of their Rule 12(b)(1) motion based on sovereign immunity is neither immediately appealable pursuant to N.C. Gen.Stat. § 1–277(b), nor affects a substantial right." *Id.* at 385, 677 S.E.2d at 207.

Here, defendant's motion to dismiss was asserted pursuant to Rules 12(b)(1), 12(b)(6), and 12(c). We may properly review the trial court's denial of defendant's motion to dismiss under Rule 12(b)(6) or Rule 12(c). However, in light of this Court's holdings in *Data Gen. Corp., Davis,* and *Lewis,* an interlocutory review of the trial court's order denying defendant's motion to dismiss pursuant to Rule 12(b)(1) is not properly before this Court.

We note that in its brief, defendant first asserts that the trial court erred in denying its Rule 12(b)(1) motion to dismiss. Throughout its argument on the issue, however, defendant simply argues the trial court erred in denying its "motion to dismiss," without specifying under which Rule, and at ****617** times, defendant asserts the trial court erred in denying summary judgment in its favor on the grounds of governmental immunity. Given this Court's preference for reaching ***30** the merits of an appeal, *see Dogwood Dev. & Mgmt. Co., LLC v. White Oak Transp. Co.,* 362 N.C. 191, 199, 657 S.E.2d 361, 366 (2008), and in light of the trial court's order converting defendant's Rule 12(c) motion into a motion for summary judgment we will allow defendant's appeal and consider defendant's argument as contending the trial court erred either in denying its motion to dismiss under Rule 12(c) or in denying summary judgment in its favor on the grounds of governmental immunity.

III. Conversion of Motion to Dismiss Into Motion for Summary Judgment

[3] Defendant's first argument on appeal is that the trial court erred in converting its Rule 12(c) motion to dismiss into a Rule 56 motion for summary judgment. We disagree.

[4] Rule 12(b) provides that a motion to dismiss for failure to state a claim under Rule 12(b)(6) "shall be treated as one for summary judgment and disposed of as provided in Rule 56" where "matters outside the pleading are presented to and not excluded by the court" in ruling on the motion. N.C. Gen.Stat. § 1A–1, Rule 12(b) (2011); *see also Data Gen. Corp.,* 143 N.C.App. at 102, 545 S.E.2d at 247. Rule 12(c) contains an identical provision, stating that "[i]f, on a motion for judgment on the pleadings, matters outside the pleadings are presented to and not excluded by the court, the motion shall be treated as one for summary judgment and disposed of as provided in Rule 56[.]" N.C. Gen.Stat. § 1A–1, Rule 12(c) (2011).

> The general rules about which documents can be considered on a Rule 12(c) motion are as follows: if documents are attached to and incorporated within a complaint, they become part of the complaint. They may, therefore, be considered in connection with a Rule ... 12(c) motion without converting it into a motion for summary judgment. A document attached to the moving party's pleading may not be considered in connection with a Rule 12(c) motion unless the nonmoving party has made admissions regarding the document.

Estate of Means v. Scott Elec. Co., Inc., 207 N.C.App. 713, 717, 701 S.E.2d 294, 297 (2010) (ellipsis in original) (internal quotation marks and citations omitted).

Our case law has consistently treated submission of affidavits as a matter outside the pleadings. *See Town of Bladenboro v. McKeithan,* 44 N.C.App. 459, 460, 261 S.E.2d 260, 261 (1980) (treating ***31** motion for summary judgment as Rule 12(c) motion where the record "contains no affidavits"); *Minor v. Minor,* 70 N.C.App. 76, 78, 318 S.E.2d 865, 867 (1984) (Rule 12(c) motion must be treated as summary judgment motion where record "contains affidavits"); *Groves v. Community Hous. Corp.,* 144 N.C.App. 79, 86, 548 S.E.2d 535, 540 (2001) (trial court's summary judgment order treated as order for judgment on pleadings under Rule 12(c) where record "contains no affidavits, answers to interrogatories, or transcripts of arguments by counsel"); *Lambert v. Cartwright,* 160 N.C.App. 73, 75–76, 584 S.E.2d 341, 343 (2003) (trial court properly considered pleadings and attached exhibits in ruling on Rule 12(c) motion, noting that "[n]o affidavits were submitted to the trial court, and no evidence was taken"). In addition to affidavits, in both *Minor* and *Groves,* this Court indicated that arguments by counsel are likewise considered "matters outside the pleadings." *Minor,* 70 N.C.App. at 78, 318 S.E.2d at 867; *Groves,* 144 N.C.App. at 86, 548 S.E.2d at 540.

Here, the trial court's order plainly indicates it considered the affidavit of Scheel submitted by defendant, the moving party, as well as "arguments of counsel." Defendant relies on *Eastway Wrecker Serv., Inc. v. City of Charlotte,* 165 N.C.App. 639, 599 S.E.2d 410 (2004), for its contention that its attachments can be considered as incorporated into plaintiffs' complaint because plaintiffs alleged the existence of defendant's liability insurance policy and that such policy was the "subject of plaintiffs' complaint." *Eastway Wrecker* is inapposite, however, because in that case, the plaintiff incorporated the exhibits at issue into the complaint and expressly referenced those exhibits in the complaint. ****618** *Id.* at 642, 599 S.E.2d at 412. As we explained above, exhibits incorporated into a plaintiff's complaint are proper for consideration in ruling on a Rule 12(c) motion without converting the motion into a motion for summary judgment. Here, however, plaintiffs simply alleged that "[u]pon information and belief, [defendant] has waived its immunity for the suit by the purchase of liability insurance." Even if such an allegation could be considered an admission as to the existence of defendant's liability insurance policy, defendant did not simply attach a copy of the insurance policy as an exhibit to its answer. Rather, defendant attached only an endorsement that disputed plaintiffs' arguments concerning defendant's liability, in addition to the affidavit of its insurance adjuster. In light of its consideration of the additional documents submitted by defendant, the moving party, as well as arguments presented by counsel, the trial court did not err in converting defendant's Rule 12(c) motion into a motion for summary judgment.

***32** *IV. Applicability of Governmental Immunity*

A. Standard of Review

The standard of review for a trial court's ruling on a motion for summary judgment is *de novo. Forbis v. Neal,* 361 N.C. 519, 524, 649 S.E.2d 382, 385 (2007). "Under a *de novo* standard of review, this Court considers the matter anew and freely substitutes its own judgment for that of the trial court." *Reese v. Mecklenburg Cnty.,* 200 N.C.App. 491, 497, 685 S.E.2d 34, 38 (2009).

> The entry of summary judgment is appropriate where the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that any party is entitled to a judgment as a matter of law. All inferences of fact from the proofs offered at the hearing must be drawn against the movant and in favor of the party opposing the motion. Summary judgment is proper when an essential element of the opposing party's claim does not exist, cannot be proven at trial, or would be barred by an affirmative defense.

Owen, 205 N.C.App. at 458–59, 697 S.E.2d at 359 (internal quotation marks, citations, and ellipses omitted); *see also* N.C. Gen.Stat. § 1A–1, Rule 56 (2011).

B. Governmental Immunity

Defendant's primary contention on appeal is whether the trial court erred in denying summary judgment in its

favor on the basis of governmental immunity. Defendant argues the operation of a public park is a governmental function, thereby entitling it to governmental immunity from plaintiffs' action, because (1) the legislature has established that operation of a public park is a governmental function, (2) there is no evidence in the record showing that operation of the park at issue was a proprietary function, and (3) public policy favors a ruling that defendant's operation of a public park is a governmental function thereby triggering governmental immunity.

[5] **[6]** It is well-established that "generally a municipal corporation is immune to suit for negligence of its agents in the performance of its governmental functions. However, the rule is subject to this modification: A [municipality] may be liable if the injury occurs while the agents of the [municipality] are performing a proprietary rather than a governmental function." *Rich v. City of Goldsboro,* 282 N.C. 383, 385, 192 S.E.2d 824, 826 (1972). Our Supreme Court has explained ***33** that a governmental function is an activity that is "discretionary, political, legislative, or public in nature and performed for the public good in behalf of the State rather than for itself [.]" *Britt v. City of Wilmington,* 236 N.C. 446, 450, 73 S.E.2d 289, 293 (1952). On the other hand, a proprietary function is an activity that is "commercial or chiefly for the private advantage of the compact community [.]" *Id.* Thus, our Supreme Court has held that " [w]hen a municipality is acting 'in behalf of the State' in promoting or protecting the health, safety, security, or general welfare of its citizens, it is an agency of the sovereign. When it engages in a public enterprise essentially for the benefit of the compact community, it is acting within its proprietary powers." *Id.* at 450–51, 73 S.E.2d at 293.

****619** Our Supreme Court has recently announced that "the threshold inquiry in determining whether a function is proprietary or governmental is whether, and to what degree, the legislature has addressed the issue." *Estate of Williams v. Pasquotank Cnty. Parks & Rec. Dep't,* —N.C. ——, ——, 732 S.E.2d 137, —— (2012). Like the present case, the defendant in *Williams* asserted that N.C. Gen.Stat. § 160A–351, North Carolina's Recreation Enabling Law, is dispositive. *Id.* Section 160A–351 provides:

> The lack of adequate recreational programs and facilities is a menace to the morals, happiness, and welfare of the people of this State. Making available recreational opportunities for citizens of all ages is a subject of general interest and concern, and a function requiring appropriate action by both State and local government. The General Assembly therefore declares that the public good and the general welfare of the citizens of this State require adequate recreation programs, that *the creation, establishment, and operation of parks and recreation programs is a proper governmental function,* and that it is the policy of North Carolina to forever encourage, foster, and provide these facilities and programs for all its citizens.

N.C. Gen.Stat. § 160A–351 (2011) (emphasis added). In *Williams,* our Supreme Court noted this statute is "clearly relevant" to the question of whether the defendant's conduct in maintaining and operating a swimming area within a public park is a governmental or proprietary endeavor. *Williams,* —— N.C. at ——, 732 S.E.2d at ——. Nonetheless, our Supreme Court declined to hold that the statute is ultimately determinative of the issue. *Id.* Rather, our Supreme Court explained that "even if the operation of a parks and recreation program is a governmental function by statute, the question ***34** remains whether the specific operation of the [swimming area] component of [the public recreation area], in this case and under these circumstances, is a governmental function." *Id.*

In *Williams,* our Supreme Court further recognized that "not every nuanced action that could occur in a park or other recreational facility has been designated as governmental or proprietary in nature by the legislature[,]" and stated that "[w]hen the legislature has not directly resolved whether a specific activity is governmental or proprietary in nature, other factors are relevant." *Id.* at ——, 732 S.E.2d at ——. These factors include whether the undertaking is one in which only a governmental agency could engage, whether the undertaking is traditionally one provided by a governmental entity, whether a substantial fee is charged for the service provided, and whether that fee does more

than simply cover the operating costs of the service provider. *Id.* at ——, 732 S.E.2d at ——. Ultimately, "the proper designation of a particular action of a county or municipality is a fact intensive inquiry, turning on the facts alleged in the complaint, and may differ from case to case." *Id.* at ——, 732 S.E.2d at ——.

In *Glenn v. City of Raleigh,* 246 N.C. 469, 98 S.E.2d 913 (1957), our Supreme Court considered a factual scenario similar to the present case. In *Glenn,* the minor plaintiff was severely injured when a rock thrown from a lawn mower struck him in the head while he was sitting at a table in a public park operated by the City of Raleigh. *Id.* at 470, 98 S.E.2d at 913–14. On appeal, our Supreme Court determined the City did not have governmental immunity from the plaintiff's action due to the income the City was deriving from the operation of the park, noting that "[i]n order to deprive a municipal corporation of the benefit of governmental immunity, ... the act or function must involve special corporate benefit or pecuniary profit inuring to the municipality." *Id.* at 476–77, 98 S.E.2d at 918–19 (internal quotation marks and citation omitted).

[7] Our Supreme Court later clarified that "[t]he holding in *Glenn* was based upon the fact [that] the evidence showed the city operated the park as a business enterprise rather than in the governmental capacity of providing recreation for its citizens." *Rich,* 282 N.C. at 387, 192 S.E.2d at 827. In *Rich,* our Supreme Court considered "whether Goldsboro is liable in damages for the negligent acts of its officers or agents in failing to ****620** inspect, discover defects, and keep in good repair the playground equipment in Herman Park, the city's public ***35** playground." *Id.* at 385, 192 S.E.2d at 826. Considering the minimal income the City of Goldsboro derived from operation of its train ride within the park, our Supreme Court in *Rich* upheld summary judgment in favor of the City on the basis of governmental immunity. *Id.* at 387–88, 192 S.E.2d at 827. Thus, prior cases in this State reveal that a municipality's operation and maintenance of free public parks for the recreation of its citizens is traditionally a governmental function for which governmental immunity will ordinarily apply; but a municipality may waive such governmental immunity when revenue is derived either from the operation of the park itself or from the conduct of activities within the park, which can render the park's operation and maintenance a proprietary function. *See Hickman v. Fuqua,* 108 N.C.App. 80, 82–84, 422 S.E.2d 449, 451–52 (1992).

[8] Here, defendant asserts there is no evidence in the record indicating it charged a fee for use of Blowing Rock Park or that the Town of Blowing Rock received a profit or derived substantial income from the operation of Blowing Rock Park. Plaintiffs contend that this assertion is precisely why the trial court correctly denied summary judgment and/or defendant's motion to dismiss, as such issues are material facts that cannot be ascertained from the record.

We agree with plaintiffs, given our Supreme Court's holdings in *Glenn* and *Rich,* which considered the relevant factors reiterated by our Supreme Court in *Williams.* None of these factors appear to be addressed by the record before us. In order for the trial court to grant summary judgment in favor of defendant, there must be no remaining issues of material fact. The burden is on the movant, here defendant, to "show that no material issue of fact exists and that he is clearly entitled to judgment." *Ragsdale v. Kennedy,* 286 N.C. 130, 137, 209 S.E.2d 494, 499 (1974). We recognize our statutes and case law, in addition to the case law of other jurisdictions, generally favor the application of governmental immunity in the operation and maintenance of public parks, particularly in cases where there is no income derived by the municipality in operating and maintaining the park. *See generally, Liability of municipal corporations for injuries due to conditions in parks,* 142 A.L.R. 1340 (1943). Here, however, as the trial court properly found, there remain issues of fact as to the revenue or income derived, if any, from defendant's operation of the park. We note that, although plaintiffs attempt to distinguish the particular activity of lawn maintenance from the general undertaking of operating the public park here, such distinction is meaningless, as lawn maintenance of a public park is an indispensable aspect of establishing and operating such park.

***36** Although *Williams* indicates the trial court should consider the relevant factors outlined above in light of the facts alleged in the complaint, we note that in both *Glenn* and *Rich,* evidence of the income derived by the municipality in its operation of the park at issue came to light either through trial testimony, *see Glenn,* 246 N.C. at 471–72, 98 S.E.2d at 914–15, or through answers to interrogatories, *see Rich,* 282 N.C. at 384, 192 S.E.2d at 825, prior to the defendant's moving for summary judgment. Here, we note the factual allegations

in plaintiffs' complaint do not address the factors to be considered by the trial court in making a determination on whether defendant's operation of Blowing Rock Park is a governmental or proprietary function. However, given the procedural posture in this case, in which the trial court converted defendant's motion to dismiss into a motion for summary judgment without taking further evidence, and the trial court's recognition that discovery is ongoing in this case, we conclude plaintiffs' failure to allege such relevant facts in their complaint is not dispositive. Rather, such facts could have, and can be, easily resolved through discovery and presented to the trial court with a subsequent motion for summary judgment. Nonetheless, under the present circumstances, summary judgment is not proper on this record, where all the relevant factors in determining the application of governmental immunity have not been addressed by the parties and considered by the trial court.

****621** Finally, we note that, although plaintiffs briefly contend the endorsement contained in defendant's liability insurance policy violates statutory law, plaintiffs nonetheless state, twice, that such contention is "not an issue on appeal," and plaintiffs have not appealed from the trial court's grant of summary judgment in favor of defendant on the issue of whether defendant waived governmental immunity by the purchase of its liability insurance policy. Nonetheless, in light of this Court's discussion in *Owen v. Haywood County,* 205 N.C.App. 456, 459–61, 697 S.E.2d 357, 359–60, *disc. review denied,* 364 N.C. 615, 705 S.E.2d 361 (2010), and the line of cases discussed therein addressing this issue, the trial court did not err in granting summary judgment in favor of defendant on this issue.

V. Conclusion

The question of governmental immunity is a substantial right allowing for interlocutory appellate review, but only for denial of a motion to dismiss under Rules 12(b)(2), 12(b)(6), and 12(c), or a motion for summary judgment under Rule 56. We cannot review a trial court's order denying a motion to dismiss under Rule 12(b)(1). ***37** Although defendant argues the trial court erred in denying its Rule 12(b)(1) motion, the trial court also denied its Rule 12(b)(6) and Rule 12(c) motions, as well as summary judgment, on the basis of governmental immunity, which we may review.

Given the trial court's consideration of defendant's attached exhibits, including an affidavit, as well as the arguments of counsel, the trial court did not err in converting defendant's Rule 12(c) motion into a motion for summary judgment. The trial court properly found there remain issues of defendant's operation of the park. Accordingly, summary judgment is not proper on this record, and the trial court properly denied summary judgment in favor of defendant on the issue of governmental immunity.

Affirmed.

Judges CALABRIA and STROUD concur.

All Citations

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196 Cal. 43, 235 P. 1004

In the Matter of the Issuance of the Bonds of OROSI PUBLIC UTILITY DISTRICT, in the County of Tulare, State of California. OROSI PUBLIC UTILITY DISTRICT, Respondent,
v.
J. F. MCCUAIG, Appellant.

Supreme Court of California.
Sac. No. 3682.
April 15, 1925.

[1]
PUBLIC UTILITY DISTRICTS—PUBLIC IMPROVEMENTS—BOUNDARIES—BENEFITS—RIGHT TO HEARING.
The legislature itself may create a district to be assessed for the benefit of a public improvement, and determine its boundaries, either by describing them or by laying down a fixed rule by which they may be determined. If it does so, the property owners are not entitled to a hearing on the question of benefits to the land included within the district, for they are conclusively presumed to have been heard through their representatives in the legislature.

[2]
ID.—FORMATION OF DISTRICTS—GENERAL PLAN—DETERMINATION OF BOUNDARIES—HEARING ON BENEFITS.
Instead of creating a district to be assessed for public improvements by a special act, the legislature may, by a general law, provide for its formation, and may delegate to some board, commission, or tribunal the determination of what lands shall be included within its boundaries. In the event that the district be formed under such an act, the inquiry becomes judicial in its nature to such an extent that property owners are entitled to a hearing, or an opportunity to be heard, on the question of benefits before their lands are included, as to whether their lands should be assessed at all and as to the amount of the tax to be assessed against them.

[3]
ID.—SPECIAL ASSESSMENTS—RIGHT OF TAXPAYER TO NOTICE.
Somewhere during the process of arriving at the amount of any special assessments which may be levied on property the taxpayer must have an opportunity to be heard as to the validity and extent of the tax, and notice and opportunity must be provided as an essential part of the statutory provision.

[4]
ID.—ASSESSMENT DISTRICTS—QUASI-MUNICIPAL CORPORATIONS—DIFFERENCE IN.
There is an obvious distinction to be drawn between an act providing for the formation of an assessment district, which practically authorizes property owners without notice to place burdens on the property of others for the sole purpose of improving their own property, and an act providing for the formation of a *quasi*-municipal corporation or a municipality.

[5]
ID.—SPECIAL ASSESSMENT DISTRICTS.
Districts such as those formed for the purpose of draining, irrigating, reclaiming, or otherwise directly benefiting the lands affected thereby are created for the purpose generally of some special local improvement, and may exercise only such powers as may be conferred by the legislature in the line of the object of their creation, and the exactions which they may enforce are in the nature of assessments, or taxes for local benefits, to be spread on the property in the districts in proportion to the peculiar advantage accruing to each parcel from the improvement; and such districts are not municipal corporations in the contemplation of the constitution.

[6]
ID.—MUNICIPAL CORPORATIONS—ARTICLE XI, SECTION 6, CONSTITUTION.
The provision in article XI, section 6 of the constitution that "corporations for municipal purposes shall not be created by special laws" does not imply that the legislature must, by any general law, provide a plan in which shall be prescribed a mode under which all municipal corporations must be organized and the powers they can exercise.

[7]

ID.—AMENDMENT OF 1911 TO ARTICLE XI OF CONSTITUTION.

The amendment of 1911 to article XI of the constitution (Const., art. XI, sec. 19), providing that any municipal corporation may establish and operate public works for supplying its inhabitants with light, water, power, heat, transportation, telephone service, or other means of communication, definitely settled and removed all doubt as to the right of cities and towns to own and operate the kind of public utilities therein designated.

[8]

ID.—PUBLIC UTILITY DISTRICTS IN UNINCORPORATED TERITORY—ACT OF 1921—PURPOSE OF.

The intention of the legislature in passing the act of 1921 (Stats. 1921, p. 906), providing for the organization of public utility districts in unincorporated territory, was to make provision whereby the inhabitants of the state living outside the limits of cities and towns may serve their own purposes through the operation of the same kind of utilities, as the constitution provides that municipalities may establish for themselves, and it was the intention to provide for the creation of public corporations of a *quasi*-municipal character, with power to carry on the particular functions committed to them.

[9]

ID.—OROSI PUBLIC UTILITY DISTRICT—POWERS.

It is not necessary that a district like the Orosi Public Utility District shall exercise all the powers of local self-government which usually pertain to municipal corporations. All that was required was that the legislature should vest them, when properly organized, with such governmental powers as in its judgment were necessary to be exercised and appropriate to carry out the purposes for which the districts may have been organized. And it may enlarge or restrict their powers, direct the mode and manner of their exercise, and define what acts they may or may not perform.

[10]

ID.—MUNICIPAL CORPORATIONS—OBJECT OF.

The creation of municipal corporations does not have for its sole object the formation of political subdivisions of the state for governmental purposes, but there is also the association of the members of the particular community for the administration of their local business and affairs in matters largely outside of the sphere of government as such; and it is apparent that the legislature had in view such association of the people living in the outlying districts when it enacted the statute for the formation of public utility districts in the unincorporated territory of the state, and it thereby provided for the creation of public agencies or *quasi*-municipal corporations, the declared purpose of the act being to extend to the inhabitants of such districts, when properly organized, advantages in the use and benefit of certain utilities which they might not be able to obtain in any other way, and which tend to promote the general welfare of the people of the state, and the power of the legislature so to do cannot be denied.

[11]

ID.—MUNICIPALITIES—FUNCTIONS—TAXATION.

While a municipality, which undertakes to supply those of its inhabitants who will pay therefor with utilities and facilities of urban life, is performing a function not governmental, but more often committed to private corporations or persons with whom it may come into competition, it is, in fact, engaging in business upon municipal capital, and for municipal purposes; and any tax thereafter levied and collected for the purpose of supplying such municipal capital is not a tax or assessment on property directly benefited by the construction of some local improvement, but is a general tax levied just as, and for the same purpose that, any general municipal tax is imposed for carrying on the governmental functions and utilitarian objects of duly incorporated cities or towns.

[12]

ID.—ACT OF 1921—CONSTITUTIONALITY OF.

As the act of 1921, providing for the incorporation of public utility districts in unincorporated territory (Stats. 1921, p. 906), provides for the formation of a public or *quasi*-municipal corporation, inhabitants and property owners of which are subject to tax by the district for municipal purposes only, the act is not unconstitutional.

[13]

ID.—FORMATION OF PUBLIC UTILITY DISTRICTS—DUE PROCESS—NOTICE AND HEARING FOR LAND OWNER.

The requirement as to due process of law does not give a property owner an absolute right to notice and hearing

before his property may be included within the limits of a municipality or *quasi*-municipal corporation, by reason of the creation of which his property will be subjected only to the burden of a general tax for the purposes for which the district was formed, in contradistinction to a tax or assessment for some local benefit; and a property owner is not entitled to a notice and opportunity to be heard on the question of benefits to his land before it can be included within the boundaries of a public utility district created under the act of 1921 (Stats. 1921, p. 906).

APPEAL from a judgment of the Superior Court of Tulare County. W.B. Wallace, Judge. Affirmed.

The facts are stated in the opinion of the court.

***46** Walter C. Haight for Appellant.
Fred C. Scott and Leroy McCormick for Respondent.
Edward F. Treadwell, *Amicus Curiae.*

WASTE, J.

The Orosi Public Utility District was organized under the provisions of an act providing for the incorporation ***47** of public utility districts in unincorporated territory. (Stats. 1921, p. 906.) The board of directors of the district brought an action in the superior court of the county of Tulare to determine the validity of an $18,000 bond issue voted by the people of the district for the purpose of raising money for developing, pumping, storing, and distributing water. John F. McCuaig, a resident freeholder and taxpayer, answered the petition, alleging that all proceedings in relation to the issuance of the bonds were null and void for the reason that the utility district was not duly organized and incorporated, because the act of the legislature under which it was formed was unconstitutional. The trial court determined all issues in favor of the due organization and incorporation of the district, and the legality of the bonds, and entered its decree affirming their validity. The taxpayer has appealed on the judgment-roll alone.

The act providing for the incorporation of public untility districts in unincorporated territory states that whenever electors equal in number to fifteen per cent of all the votes cast for all candidates for Governor within such unincorporated territory at the last preceding general election, at which a Governor was elected, desire to organize such a district, they shall sign a petition setting forth the boundaries of the proposed district, and present same to the board of supervisors of the county in which the unincorporated territory is situated. The board of supervisors shall, within fifteen days after the presentation of the petition, publish a copy thereof, together with a statement that the proposition involved therein, which shall be briefly specified, will be submitted by it to the qualified electors of the unincorporated territory at a special election, after publication of the required notice. Within five days after the result of the election is ascertained, if it appears that a majority of the votes cast is in favor of the incorporation of the district, the board of supervisors shall so declare, and shall in a proper order state the name and boundaries of the district, and that such utility district is formed under the provisions of the act (*supra*). After the date of the filing of certain certificates with the Secretary of State, the territory described in the petition shall be deemed incorporated as a public utility district, under the provisions of the statute, with all the rights, privileges, and powers set forth therein.

***48** Under the provisions of the act, any public utility district so formed shall have power to have perpetual succession, to sue and be sued, to adopt and alter a seal, to acquire, hold, and dispose of real and personal property necessary to the full and continued exercise of its power, to acquire, construct, own, operate, control, or use works for supplying the inhabitants of the district with light, water, power, heat, transportation, telephone service, or other means of communication, or means for the disposition of garbage, sewage, or refuse matter, and to do all things necessary or convenient to the full exercise of the powers granted by the act. Whenever there is a surplus of water, light, heat or power above that which may be required by the inhabitants or municipalities within the district, the district may sell or otherwise dispose of the surplus outside of the district. It also may exercise the right of eminent domain for the condemnation of private property for public use, and may construct its works across or along any street or highway, or over the lands and property of the state, and in that connection is given the same rights and privileges as are granted to municipalities. It may borrow money and issue bonds or other evidence of indebtedness within certain limitations, levy and collect, or cause to be levied or collected, taxes for the purpose of carrying on its operations and paying its obligations, and may make contracts, employ labor, and do all acts necessary or convenient for the full exercise of the powers granted to it, which are to be exercised by a board of

directors elected by the voters in the district, which board may act by ordinance or resolution signed by its president and attested by the secretary. The act further provides (section 39) that if from any cause the revenues of the district shall be inadequate to pay the principal or interest on any bonded debt as it becomes due, or if funds are needed to carry out the objects and purposes of the district, which cannot be provided for out of the revenues of the district, the board of directors may levy a tax for that purpose on the taxable property situated in the district. It may by ordinance, the provisions of which shall be conformable to the general law, provide the mode and manner of assessing, correcting or equalizing assessments, and the levying and collecting of taxes which may be by actions or legal proceedings; or it may elect to avail itself of the assessment ***49** made by the county assessor of the county in which the district is situated. All taxes levied under the provisions of the act are a lien on the property on which they are levied, and the enforcement of the collection of the taxes may be had in the same manner and by the same means as provided by law for the enforcement of liens for state and county taxes.

The act of 1921, as originally enacted, and as it stood when the respondent district was formed, did not provide for any notice of the hearing of the petition for the formation of the district. The property owners within the proposed district were not given an opportunity to protest against having their property included within its boundaries, nor were they accorded an opportunity to be heard as to whether their property was or could be benefited by being included within such boundaries. For that reason, the appellant takes the position that the act is unconstitutional and in contravention of the fourteenth amendment of the federal constitution, and contrary to similar provisions in the constitution of the state, in that it provides for a taking of his property without due process of law. It follows, he argues, that all proceedings taken for the organization of the district, and the subsequent proceedings relating to the issue of the bonds, which are dependent upon the validity of the organization of the district, are null and void, and, as a necessary consequence, the bonds sought to be validated by this proceeding are invalid. After the proceedings involved in this case were had, the act was amended (Stats. 1923, p. 299) to provide for a notice and a hearing by the board of supervisors of the petition for the formation of a utility district. It is now provided that the board must hear all competent and relevant testimony offered in support of, or in opposition to, the petition. It shall make such changes as it may deem advisable in, and shall define and establish the proposed boundaries. At the time the proceedings for the formation of the Orosi District were taken no discretionary power whatever was vested in any legislative body. Upon presentation of the petition therefor, the board of supervisors was compelled to immediately submit the question of the formation of the district to the voters residing within the described limits. The question whether or not the exact territory described in the petition should be included in, and constitute the utility district, was made to depend solely ***50** upon an affirmative vote of the body of the electorate residing therein. Appellant contends that to permit a district, formed under such a statute, to levy a tax on property for nonpayment of which the property may be sold, is to subject the property owner to deprivation of his property without due process of law.

It is not contended that any of the steps leading to the formal declaration by the board of supervisors of Tulare County that the respondent district was in fact created were omitted, or that they were not properly taken. The sole question to be determined on appeal relates to the constitutionality of the act under which the district was created. Our first consideration is, therefore, directed to the nature of the district which may be formed under its provisions. If it be one formed for the primary purpose of assessing upon the lands within its boundaries benefits to be derived by the lands from some public improvement for which purpose the district is created, we must hold with appellant, and declare the act unconstitutional as violating the "due process clause" of the federal constitution. Such districts can be legally created in but two ways, neither of which was followed in this case.

(1) The legislature itself may create a district to be assessed for the benefit of a public improvement, and determine its boundaries, either by describing them or by laying down a fixed rule by which they may be determined. If it does so, the property owners are not entitled to a hearing on the question of benefits to the land included within the district, for they are conclusively presumed to have been heard through their representatives in the legislature. (*Tarpey v. McClure,* 190 Cal. 593, 604 [213 Pac. 983]; *Miller & Lux, Inc., v. Drainage Dist.,* 182 Cal. 252, 265 [187 Pac. 1041]; *Fallbrook Irr. Dist. v. Bradley,* 164 U.S. 112, 174 [41 L. Ed. 369, 17 Sup. Ct. Rep. 56, see, also, Rose's U. S. Notes].)

(2) Instead of creating the district by special act, the legislature may, by a general law, provide for its formation, and may delegate to some board, commission or tribunal the determination of what lands shall be included within its boundaries. In the event that the district be formed under such an act, the inquiry becomes judicial in its nature to such an extent that property owners are entitled to a hearing, or an opportunity to be heard, on the question of benefits before their lands are included. ***51** If the district be formed under this method of delegated power, it is essential that the property owners whose property is to be included shall be given a hearing upon the question whether their lands should be assessed at all, that is to say, whether or not such lands would be benefited by the proposed improvement, and also a hearing upon the amount of the tax to be assessed against the property. (*Spencer v. Merchant,* 125 U. S. 345, 356 [31 L. Ed. 763, 8 Sup. Ct. Rep. 921, see, also, Rose's U. S. Notes]; *Fallbrook Irr. Dist. v. Bradley, supra,* p. 174; *Brookes v. City of Oakland,* 160 Cal. 423, 431 [117 Pac. 433]; *Miller & Lux v. Board of Supervisors,* 189 Cal. 254, 261 [208 Pac. 304].)

(3) Somewhere during the process of arriving at the amount of any special assessments which may be levied on property the taxpayer must have an opportunity to be heard as to the validity and extent of the tax, and that notice and opportunity must be provided as an essential part of the statutory provision. (*Security Trust Co. v. Lexington,* 203 U. S. 323, 333 [51 L. Ed. 204, 27 Sup. Ct. Rep. 87, see, also, Rose's U. S. Notes]; *Central of Georgia By. v. Wright,* 207 U. S. 127, 138 [12 Ann. Cas. 463, 52 L. Ed. 134, 28 Sup. Ct. Rep. 47].) The respondent district was not created by the legislature itself, and the act providing for its formation makes no provision for the submission of the question, as to what lands should be included within its boundaries, to any tribunal before which the property owners, whose lands were included in the petition, might have a hearing.

(4) The rule laid down in *Fallbrook Irr. Dist. v. Bradley, supra,* which has been so constantly adhered to by this court in its application to assessment districts formed for the purpose of assessing upon private lands the benefits to accrue from the particular public improvement for the construction of which the district was formed (*Miller & Lux v. Board of Supervisors,* 189 Cal. 254, 267 [208 Pac. 304]), does not apply to every kind of public or *quasi*-public corporation. There is an obvious distinction to be drawn between an act providing for the formation of an assessment district, and which practically authorizes property owners, without notice, to place burdens on the property of others for the sole purpose of improving their own property, and an act providing for the formation of a *quasi*-municipal corporation or a municipality. (***52** *People v. Ontario,* 148 Cal. 625, 632 [84 Pac. 205]; *Wilcox v. Engebretsen,* 160 Cal. 288, 293 [116 Pac. 750].) That distinction, it was pointed out in the latter case, is to be made between the proceedings of a board, acting in pursuance of some delegated legislative authority in creating a political subdivision of the state, as a county or a city, a proceeding which does not directly affect private property, and proceedings which do directly charge or affect such property. The respondent takes the position that it is a public corporation, and that any burden, by way of taxation, to be laid on the inhabitants residing within its boundaries is but a tax for municipal purposes. In view of the distinction, pointed out by this court (*supra*), between the acts providing for the formation, on the one hand, of public or *quasi*-public corporations, in the nature of taxing districts, and of municipal corporations, on the other, and in view of the contention of the respondent, the problem which confronts us lies in determining whether or not the act under which the respondent district was created provides for the organization of a district which is in its nature a public corporation, the inhabitants and property owners of which are subject to taxation for municipal purposes without any hearing as to the benefits to be derived from the creation and conduct of such a corporation, or is an assessment district created for the primary purpose of assessing upon private lands the benefits to be derived thereby from the public improvements for which purpose the district is formed. (*Miller & Lux v. Board of Supervisors, supra,* p. 267.)

(5) The purposes for which the Orosi District was formed, the appellant contends, are not municipal, and a district formed for such purposes does not possess the essential characteristics of a municipal corporation. If the authorities cited by him were strictly in point, there would be an end to the controversy; but they are not. They deal with questions arising in connection with districts formed for the purpose of draining, irrigating, reclaiming, or otherwise directly benefiting the lands affected thereby. (*People v. Reclamation Dist. No. 551,* 117 Cal. 114, 121 [48 Pac. 1016]; *People v. Levee Dist. No. 6,* 31 Cal. 30, 34 [63 Pac. 676]; *People v. Sacramento Drainage Dist.,* 155 Cal. 373, 382 [103 Pac. 207]; *Pixley v. Saunders,* 168 Cal. 152,

160 [141 Pac. 815]; *In re Werner,* 129 Cal. 567, 572 [62 Pac. 97].) When ***53** related to that class of districts, the cases cited are clearly in point. The improvements contemplated by the acts under which they were formed cannot be considered "municipal purposes." (*In re Madera Irr. Dist.,* 92 Cal. 296, 344 [27 Am. St. Rep. 106, 14 L. R. A. 755, 28 Pac. 675] [on rehearing].) One of the distinguishing features of such districts is that they are created for the purpose, generally, of some special local improvement, and may exercise only such powers as may be conferred by the legislature in the line of the object of their creation. They are merely special state organizations for state purposes, created to perform certain work which the policy of the state requires or permits to be done, and to which the state has given a certain degree of discretion in making the improvements contemplated. The other distinguishing feature is that the exactions which such districts may enforce in order to carry out their purposes are in the nature of assessments or taxes for local benefits, to be spread on the property in the districts in proportion to the peculiar advantage accruing to each parcel from the improvement. (*Pasadena Park Imp. Co. v. Lelande,* 175 Cal. 511, 512 [166 Pac. 341].) Such an exaction is generally in the form of a special assessment, but even if it is in the form of a tax it is nevertheless an assessment for local benefits. (*City of San Diego v. Linda Vista Irr. Dist.,* 108 Cal. 189, 199 [41 Pac. 291].)

Districts of the nature just discussed are not municipal corporations in the contemplation of the constitution. (*People v. Sacramento Drainage Dist., supra,* p. 382; *Reclamation Dist. No. 551 v. County of Sacramento,* 134 Cal. 477, 478 [66 Pac. 668].)

(6) But the provision in article XI, section 6, that "corporations for municipal purposes shall not be created by special laws" does not imply that the legislature must, by any general law, provide a plan in which shall be prescribed the mode under which all municipal corporations must be organized and the powers they can exercise. Of interest in this connection is the language of the court in *In re Madera Irr. Dist.,* 92 Cal. 296 [27 Am. St. Rep. 106, 14 L. R. A. 755, 28 Pac. 272], where, at page 317, it says: "Such corporations are but the agents or representatives of the state in the particular locality in which they exist. They are organized for the purpose of carrying out the purposes of the legislature in its desire to provide ***54** for the general welfare of the state, and in the accomplishment of which legislative convenience or constitutional requirements have made them essential. Although in this state the legislature is required to provide such agencies under general laws, it is authorized, under its general power of legislation, to invest such corporations, when created, with the same powers which, without such restriction, it could itself have exercised; and in providing for such organizations it need confer upon them only such powers as, in its judgment, are proper to be exercised by them in the discharge of the particular functions of government which may be conferred upon them. Being the representatives of the legislature in the various localities of the state, the requirements for organization, as well as the powers to be exercised, vary with the character of the purpose for which they may be created. Hence the general laws which the legislature may enact for the organization of public corporations may be as numerous as the objects for which such corporations may be created. For each of these objects the law is the same, but there would be a manifest impropriety in requiring that the organization of a levee district or an irrigation district should be conducted in the same manner as the organization of a corporation for the management of a public park or the control of the school department. Whether the districts to which such general laws are applicable, or in which the people thereof may avail themselves of the privilege conferred, be many or few, is immaterial. Even if there be but a single district to which the law is applicable, at the time of its enactment, the legislature would be justified, under its legislative power, to pass general laws in making such provision for that district. Whenever a special district of the state requires special legislation therefor, it is competent for the legislature, by general law, to authorize the organization of such district into a public corporation, with such powers of government as it may choose to confer upon it. It is not necessary that such public corporation should be vested with all governmental powers, but the legislature may clothe it with such as, in its judgment, are proper to be exercised within and for the benefit of such district. Being created for the purpose of discharging only one public purpose, it is not requisite that it have power not necessary therefor, or which would be appropriate to a ***55** corporation organized for some other purpose. Neither is it requisite that such corporation should have legislative or judicial powers conferred upon it. It may be organized for the mere purpose of exercising executive and administrative functions, with the added power of making such prudential rules and regulations as may be necessary for the exercise of the particular functions entrusted to its charge."

(7) With this power of the legislature understood, the nature of the districts contemplated by the act under which the Orosi Public Utility District was created is more clearly discerned. In 1911 the constitution of California was amended to provide that "any municipal corporation may establish and operate public works for supplying its inhabitants with light, water, power, heat, transportation, telephone service, or other means of communication. Such works may be acquired by original construction, or by the purchase of existing works, including their franchises, or both." (Const., art XI, sec. 19.) The amended section is radically different from the one it replaced. In the statement of legislative reasons for the adoption of the amendment, printed and transmitted to the voters by the Secretary of State, it is stated that the conditions which prevailed in this state with regard to the operation of public utilities in cities at the time of the adoption of the new constitution of 1879 had materially changed, and an entirely new situation existed regarding the subject to which the section related. "The proposed amendment," the statement continues, "is designed to provide for conditions as they now are, and as they will doubtless continue to be in the future." After a discussion of the situation arising during the period following 1879, and a declaration that the result "has been a distinct disappointment, like many other attempts to remedy economic conditions by force of statutes, … the true remedy, so far as any substantial benefit to the people is concerned," the statement declares, "is to encourage the furnishing of these public necessities by municipal corporations themselves." The adoption of the amendment definitely settled and removed all doubt from the question of the right of cities and towns to own and operate the kind of public utilities designated by the constitution.

(8) In enacting the statute here in question, the legislature has made provision whereby the inhabitants of the state living outside the limits of cities and ***56** towns may serve their own purposes through the operation of the same kind of utilities, when organized for that purpose.

That such was the intention of the legislature may be gleaned from a reading of the provision declaring the purposes for which public utility districts may be created in unincorporated territory. They are the acquisition, construction, and use of works for supplying the inhabitants of the district with light, water, power, heat, transportation, telephone service, or other means of communication, or means for the disposition of garbage, sewage, or refuse matter. It has the power to do all things necessary or convenient to the full exercise of the powers granted by the act. It is significant that, when the legislature came to pass the act extending to the inhabitants outside of incorporated cities and towns the privileges in regard to the acquisition and use of their own public utilities that are granted by the state constitution to municipalities, it should have followed so closely the language of the constitutional amendment of 1911 in the statement of the purposes for which the districts may be created. We are convinced that it was its intention to provide for the creation of public corporations of a *quasi*-municipal character, with power to carry on the particular functions committed to them.

"A city or purely municipal corporation is perhaps the highest type of corporation created for municipal purposes, because it is a miniature government, having legislative, executive and judicial powers, but there is another class of corporation, such as counties, school districts, road districts, etc., which, though varying in application and peculiar features, are but so many agencies or instrumentalities of the state to promote the convenience of the public at large, and are, in the broadest use of the term, for municipal purposes." (*Cook v. Port of Portland,* 20 Or. 580, 583 [13 L. R. A. 533, 27 Pac. 263].)

(9) It is not necessary, therefore, that a district like the Orosi Public Utility District shall exercise all the powers of local self-government which usually pertain to municipal corporations. All that was required was that the legislature should vest them, when properly organized, with such governmental powers as in its judgment were necessary to be exercised and appropriate to carry out the purposes for which the districts may have ***57** been organized. (*In re Madera Irr. Dist., supra.*) It may enlarge or restrict their powers, direct the mode and manner of their exercise, and define what acts they may or may not perform. (*San Francisco v. Canavan,* 42 Cal. 541, 552.)

(10) The creation of municipal corporations does not have for its sole object the formation of political subdivisions of the state for governmental purposes, but there is also the association of the members of the particular community for the administration of their local business and affairs in matters largely outside of the sphere of government as such. (*Union Stone Co. v. Board of Freeholders of*

Hudson Co., 71 N. J. Eq. 657, 664 [65 Atl. 466, 469]. See, also, *Wilson v. Board of Trustees,* 133 Ill. 443, 464 [27 N. E. 203].) It is quite apparent to us that the legislature had in view such association of the people living in the outlying districts, when it enacted the statute providing for the formation of public utility districts in the unincorporated territory of the state. It thereby provided for the creation of public agencies or *quasi*-municipal corporations, the declared purpose of the act being to extend to the inhabitants of such districts, when properly organized, advantages in the use and benefit of certain utilities which they might not be able to obtain in any other way, and which, from common experience, we know tend to promote the general welfare of the people of the state. That it had the power to do so cannot be denied. While the proposed constitutional amendment was pending in 1911, this court held that there was no provision in the state constitution which either expressly or by implication forbade the acquisition, ownership, or operation of public utilities by a municipality, or which prohibited the legislature from granting a municipality the power to acquire, own, and operate them. (*Clark v. Los Angeles,* 160 Cal. 30, 46 [116 Pac. 722].) Activities, once regarded as being of a strictly private nature, are now considered municipal affairs, e. g., the sale and distribution of electrical energy manufactured by a city, the supplying of water to its own inhabitants or to outside territory, the construction of a reservoir by a city on its own land and to be used for the benefit of its inhabitants, and the establishment and operation of transportation service. (*Los Angeles G. & E. Corp. v. Los Angeles,* 188 Cal. 307, 317 [205 Pac. 125]; *Heilbron v. Sumner,* 186 Cal. 648, 651 [200 Pac. 409]; ***58** *South Pasadena v. Pasadena Land & Water Co.,* 152 Cal. 579, 594 [93 Pac. 490]; *Williams v. City of Vallejo,* 36 Cal. App. 133, 139 [171 Pac. 834]; *United Railroads v. San Francisco,* 249 U. S. 517, 520 [63 L. Ed. 739, 39 Sup. Ct. Rep. 361, see, also, Rose's U. S. Notes Supp.].) The people of the state, by the amendment to the constitution, placed other public utilities in the same category.

(11) We take it to be now a generally accepted proposition that, while a municipality, which undertakes to supply those of its inhabitants who will pay therefor with utilities and facilities of urban life, is performing a function not governmental, but more often committed to private corporations or persons with whom it may come into competition, it is, in fact, engaging in business upon municipal capital, and for municipal purposes. (28 Cyc. 125.) Any tax, therefore, levied and collected for the purpose of supplying such municipal capital is not a tax or assessment on property directly benefited by the construction of some local improvement, but is a general tax levied just as, and for the same purpose that, any general municipal tax is imposed for carrying on the governmental functions and utilitarian objects of duly incorporated cities or towns.

The conclusion we have reached, on the general consideration of the act under which the respondent district was formed, is confirmed by an examination of the provision of the statute relating to the necessary revenue for conducting the affairs of such public corporations. It is provided (section 38) that only revenue-producing utilities shall be acquired, owned, or operated, "the intention being … that each public utility owned and operated by the district shall be self-sustaining." To that end, it is provided that, so far as possible, the board of directors shall fix such charges for commodities or service furnished by its revenue-producing utilities as will pay the administrative expenses of the government of the district, the operating cost of the utilities, the interest on any bonded indebtedness, and, in addition, provide a sinking fund for the retirement of the principal of the debt, and an appropriate fund for repairs, replacements and betterments. These provisions clearly establish the contention that the essential purpose of the act is to form a *quasi*-municipal corporation which may acquire and operate public utilities and pay for their operation from ***59** rates to be paid by those enjoying the service. When the cost of any public utility to be acquired, completed, or constructed can be paid out of the revenues of the district derived from the operation of its public utilities, in addition to the other necessary expenses of the district, the board of directors must determine the cost of such utility, the method and manner of payment therefor, and submit the question of its acquisition upon such terms to the electors. If the cost cannot be met in that way, a district bonded indebtedness may be incurred in the manner provided by the act. It is only when the revenues of the district shall be inadequate to pay the principal or interest of any bonded debt, as it becomes due, that the board of directors must, or, when funds are needed to carry out the objects and purposes of the district which cannot be provided for out of its revenues, that the board of directors may levy a tax for such purposes (section 39). These provisions make it clear that the "primary purpose" of the act (*Miller & Lux v. Board of Supervisors, supra*) was

not that of assessing upon private lands the benefits to be derived from the acquisition of public utilities.

(12) From our conclusion that the act, under which the respondent district was created, provides for the formation of a public or *quasi*-municipal corporation, the inhabitants and property owners of which are subject to tax by the district for municipal purposes only, it follows that the attack here made on the constitutionality of the act must fail. The public utility districts provided for by its terms have as their sole purpose the welfare and prosperity of the people of the state—matters which rest within the will of the people themselves. In *People v. Town of Ontario,* 148 Cal. 625 [84 Pac. 205], this court considered the constitutionality of the act providing for the annexation of territory to incorporated towns and cities. (Stats. 1889, p. 358.) By the terms of the act, upon receipt of a proper petition, signed by the requisite number of electors of the municipality and exactly describing the territory desired to be annexed, the legislative body of the municipality is compelled to submit the question of annexation to the electors of the town, and also to those of the outside territory. No notice, or opportunity to be heard on the question, is afforded residents or property owners of either the town or the territory ***60** which it is proposed to annex, and the legislative body has no power to change or fix the boundaries. The sole question whether or not the exact territory described in the petition shall be annexed and thereby subjected to the burden of taxation for municipal purposes is made to depend entirely upon an affirmative vote of the electors at the election called for the purpose. That is the exact situation as to the boundaries of public utility districts in unincorporated territory, created under the act as it was when the respondent district was formed. The court pointed out the "obvious distinction" between those acts practically authorizing property owners, without notice, to place burdens upon the property of others for the sole purpose of improving their own property, and one providing for the formation of municipalities. It held that, as the legislature cannot itself declare the precise boundaries of a municipality, for it can act in such matter only by general laws, it might, in the absence of any constitutional inhibition, confer that power on the electors of the district to be affected, such declaration to be made at an election held after due notice. (See, also, *People ex rel. Rhodes v. Fleming,* 10 Colo. 553 [16 Pac. 298]; *Ford v. North Des Moines,* 80 Iowa, 626 [45 N. W. 1031].) The constitution does not attempt to limit the power of the legislature in providing for the determination of the question as to what shall constitute municipal territory. Consequently, in the matter of forming cities or towns, questions as to population, extent, and character of territory to be included are matters left entirely with the legislative department. (*People ex rel. Russell v. Town of Loyalton,* 147 Cal. 774, 778 [82 Pac. 620].)

(13) In the instant case the district has been formed within the strict letter of the law, and in the manner provided by the legislative enactment. We have been cited to no authorities which hold that the requirement as to due process of law gives a property owner an absolute right to notice and hearing before his property may be included within the limits of a municipality or a *quasi*-municipal corporation, by reason of the creation of which his property will be subjected only to the burden of a general tax for the purposes for which the district was formed, in contradistinction to a tax or assessment for some local benefit. Appellant was not, therefore, entitled to notice and opportunity to be ***61** heard on the question of benefits to his land before it could be included within the boundaries of the respondent district. The act under which it was formed directs that in the event it becomes necessary to levy a tax for carrying out the objects and purposes of the district, the board of directors may, by ordinance, provide the manner and mode of assessing, and of correcting and equalizing assessments upon, the taxable property situated within the district, and may provide for the collection of delinquent taxes by actions or legal proceedings, *provided* that the provisions of such ordinance shall be conformable to general law, or it may accept the assessment for district purposes made by the county assessor (section 39). Whatever may be the method of assessment that shall be adopted, if provision be made for the correction of errors committed by the assessor, through a board of revision or equalization, with power to hear, after notice, complaints respecting the justice of the assessment, the proceeding by which the valuation is determined, though it may be followed, if the tax is not paid, by a sale of the delinquent's property, is due process of law. (*Hagar v. Reclamation Dist. No. 108,* 111 U. S. 701, 710 [28 L. Ed. 569, 4 Sup. Ct. Rep. 663, see, also, Rose's U. S. Notes]; *Fallbrook Irr. Dist. v. Bradley, supra,* at p. 175; *People v. Town of Ontario, supra,* at p. 633.)

We deem it unnecessary to further discuss the decisions of this court and those of other jurisdictions so strongly relied on by appellant. Many of them have already been

referred to and their distinguishing features pointed out. We have carefully examined every one of them, and many others, and have not found one that is exactly in point. The reason for the dearth of precise judicial decision on the important question we have been called on to decide in this case is that public utility districts are new to the law of California, and the furnishing of what may be called public utility service is an extension of municipal functions of comparatively recent times. After a critical study of the authorities, we have found nothing that destroys our confidence in the conclusion we have reached in this case. The case cited by appellant, and which, on first reading, seems nearest in point to the question here involved (*People ex rel. Amestoy Estate Co. v. Van Nuys Lighting Dist.,* 173 Cal. 792 [Ann. Cas. ***62** 1918D, 255, 162 Pac. 97]), is readily distinguishable on the facts given by the court as the foundation for its decision.

The judgment of the lower court is affirmed.

Myers, C. J., Seawell, J., Richards, J., Shenk, J., Lawlor, J., and Lennon, J., concurred.

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KeyCite Yellow Flag - Negative Treatment
Distinguished by Burton v. Salt Lake City, Utah, November 10, 1926

179 Cal. 605, 178 P. 505

WILLIAM HENRY KELLAR,
Guardian, etc., Appellant,
v.
CITY OF LOS ANGELES et al., Respondents.

Supreme Court of California.
L. A. No. 4294.
January 28, 1919.

MUNICIPAL CORPORATIONS—PERSONAL INJURIES—NEGLIGENCE OF SERVANTS—LIABILITY.
A municipal corporation, in the absence of a statute imposing the liability, is not liable for personal injuries due to the negligence of the corporation's officers and employees, unless the negligence was in the matter of the exercise of functions private and proprietary in their nature as distinguished from functions purely governmental in nature.

ID.—MAINTENANCE OF SUMMER CAMP FOR CITY CHILDREN—GOVERNMENTAL FUNCTION— INJURIES TO INMATE—NEGLIGENCE OF SERVANTS—NONLIABILITY OF CITY.
A municipal corporation in conducting under authorization of certain provisions of its charter a summer camp outside the corporation's limits, for the purpose of giving the children of the city a vacation at certain prescribed charges to be paid by them to the city, is engaged purely in the exercise of its governmental function of maintaining the health of the children of the city, and is not liable for injuries accruing to a minor by reason of the negligence of its servants in the matter of caring for such minor after he had accidentally been injured while an inmate of such camp.

ID.—LOCATION OF SUMMER CAMP—CHARGE FOR PRIVILEGES—NATURE OF FUNCTION NOT CHANGED.
There is no material difference between a children's playground established and maintained by the city within the city limits and a summer camp for the children of the city established without such limits, in so far as the liability of the city for the negligent acts of its servants is concerned, nor does the fact that a small charge is made for the privileges of the camp change the situation.

ID.—MAINTENANCE OF CHILDREN'S PLAYGROUNDS—GOVERNMENTAL FUNCTION.
Children's playgrounds and recreation centers established and maintained by a city for the general use of the children of the city, where so conducted as to partake in no degree of the nature of a private business enterprise, do not substantially differ from a public park in so far as the question of liability of the city for personal injuries due to the negligence of its servants are concerned, since, like such parks, they are referable solely to the duty of maintaining the public health, and have nothing of the nature of an ordinary business enterprise.

ID.—CITY OF LOS ANGELES—MAINTENANCE OF SUMMER CAMP FOR CHILDREN—PRIVATE CAPACITY—CHARTER.
The city of Los Angeles is not authorized by its charter to maintain a summer camp for the children of the city in any proprietary or private capacity.

APPEAL from a judgment of the Superior Court of Los Angeles County. Frank G. Finlayson, Judge. Affirmed.

The facts are stated in the opinion of the court.

***606** C. Ibeson Sweet, for Appellant.
Albert Lee Stephens, City Attorney, Wm. P. Mealey, Deputy City Attorney, and Wm. D. Spaulding, Deputy City Attorney, for Respondents.

***607** ANGELLOTTI, C. J.

This is an appeal from a judgment entered in favor of the defendants upon sustaining their demurrer to plaintiff's third amended complaint. The only question presented by the briefs is as to the liability of the city of Los Angeles upon the facts stated in the complaint. It was sought by the action to hold the city liable for injuries accruing to the minor, a boy sixteen years of age, by reason of the alleged negligence of its officers and employees in the matter of caring for him after he had accidentally been injured while

an inmate of a summer camp maintained by the city, through its board of playground commissioners, in the San Bernardino Mountains, "for the purpose of giving any children of said city, at certain prescribed charges to be paid by said children to said city, a vacation with care, board and lodging at said camp." The boy had gone to the camp under an agreement by which, in consideration of $3.75 per week to be paid by him, he was to be received and cared for, boarded and lodged for two consecutive weeks. While there he accidentally fell and broke his arm. The alleged negligence was a failure to provide necessary care and attention in view of his injury, occasioning, it is alleged, very serious results.

It is thoroughly settled in this state that in the absence of a statute imposing the liability, a municipality is not liable on account of acts such as those here complained of, unless the negligence was in the matter of the exercise of functions private and proprietary in their nature as distinguished from functions purely governmental in nature. We have no statute imposing any such liability. There thus arises the question whether the city, in the operation of this summer camp, was acting in its governmental capacity, or in a private and proprietary capacity. The decisions, both of this court and of the courts of last resort in other jurisdictions, show that it is not always an easy matter to determine in which of these capacities a city is acting, and that it is extremely difficult, if indeed not impossible, to prescribe the test so exactly by general rule as to always clearly show to which class a particular activity of a municipality belongs.

The summer camp was conducted by the city under authorization of certain provisions of its charter. It is provided therein that the city shall have power "to provide … and to establish, own, equip, maintain, conduct and operate libraries, ***608** readings rooms, … parks, playgrounds, gymnasiums, baths, public toilets …; also any and all buildings, establishments, institutions and places, whether situated inside or outside of the city limits, which are necessary or convenient for the transaction of public business or for promoting the health, morals, education or welfare of the inhabitants of the city, or for their amusement, recreation, entertainment or benefit." (Charter, subd. 4, sec. 2, art. I.) In article XXVI of the charter, entitled "Playground Department," we find section 263, establishing a department of government, to be known as the playground department, under the management and control of a board of five commissioners, to be known as the board of playground commissioners. Section 267, contained in this article, provides: "All children's playgrounds, recreation centers and summer camps now or hereafter owned or controlled by the City of Los Angeles, either within or without its limits, shall be under the exclusive control and management of the Board of Playground Commissioners." Other sections of the article provide for the acceptance and use in acquiring, establishing, improving and maintaining of playgrounds, which, of course, includes children's recreation centers and summer camps, donations, legacies and bequests given for those purposes, and also that the city council may appropriate annually such amount as may be necessary therefor.

It seems to us that the function in which the city was thus engaged was purely in the exercise of the governmental power and the discharge of the governmental duty of maintaining the health of the children of the city, and was, therefore, essentially governmental in nature. It will not be questioned that a city is charged with such a duty of sovereignty as that of maintaining the public health, and that in any measures it may adopt solely for that purpose which are reasonably adapted to that end, it is acting strictly in a governmental capacity. In this connection certain language in the prevailing opinion in our recent decision in *Chafor v. City of Long Beach,* 174 Cal. 478, 487, [Ann. Cas. 1918D, 106, L. R. A. 1917E, 685, 163 Pac. 670], is in point. It was said: "Nor is it difficult to set forth the definition of governmental functions as applied to a city. Under the theory of the common law, that the municipality is protected from liability only ***609** while exercising the delegated functions of sovereignty, the governmental powers of a city are those pertaining to the making and enforcing of police regulations, to prevent crime, to preserve the public health, to prevent fires, the caring for the poor, and the education of the young; and in the performance of these functions all buildings and instrumentalities connected therewith come under the application of the principle."

Children's playgrounds and recreation centers established and maintained by a city for the general use of the children of the city, where so conducted as to partake in no degree of the nature of a private business enterprise, do not substantially differ from a public park in so far as the question here involved is concerned. Like the public parks, they are referable solely to the duty of maintaining the public health, and have nothing of the nature of an

ordinary business enterprise. While our attention has not been called to any decision of this court expressly deciding the question, it is clear, as was held in *Harper v. City of Topeka,* 92 Kan. 11, [51 L. R. A. (N. S.) 1032, 139 Pac. 1018], that the maintenance of a park by a city for the sole benefit of the public, and not for any profit or benefit to the municipal corporation, is a governmental or public function. (See, also, *Hibbard v. City of Wichita,* 98 Kan. 498, [L. R. A. 1917A, 399, 159 Pac. 399]; *Board of Park Commissioners v. Prinz,* 127 Ky. 460, [105 S. W. 948]; *Mayor etc. of Nashville v. Burns,* 131 Tenn. 281, [L. R. A. 1915D, 1108, 174 S. W. 1111]; *Nelson v. City of Spokane,* 104 Wash. 219, [176 Pac. 149]; *Blair v. Grainger,* 24 R. I. 17, [51 Atl. 1042].) As said in *Board of Park Commissioners v. Prinz,* 127 Ky. 460, [105 S. W. 948]: "They are essentially public places established for purely public purposes." In so far as any question here involved is concerned, there is no material difference between a children's playground established and maintained by the city within the city limits and the summer camp for the children of the city established without the city limits in the mountain region some distance therefrom. It is substantially in the nature of a children's playground for the benefit of the children of the city, located as it is for the purpose of giving the children the advantages of recreation under different conditions from those existing in the city. By reason of its remoteness from the city it is essential to its enjoyment by the children that board and lodging be furnished to those enjoying ***610** the privileges thus afforded. This in no degree changes its nature. It rests on precisely the same basis as children's playgrounds and public parks within the city limits. It is conducted for the sole purpose of promoting the public interest by maintaining the public health, and has nothing of the character of a business enterprise. That a small charge is made upon those children going to and staying at the camp for the purpose of assisting in defraying the cost of maintenance of such children while at the camp does not change the situation. (See *Denning v. State,* 123 Cal. 316, [55 Pac. 1000]; *Melvin v. State,* 121 Cal. 16, 22, [53 Pac. 416]; *Blair v. Grainger,* 24 R. I. 17, [51 Atl. 1042].)

It may further be said that we do not think that the city of Los Angeles is authorized by its charter to maintain such an institution as this summer camp in any proprietary or private capacity. Any fair, reasonable, substantial doubt concerning the existence of power in a municipality as to such a matter as this must be resolved by courts against the municipality. (Dillon on Municipal Corporations, secs. 237, 239.) As we read subdivision 4 of section 2 of article I of the charter, it has to do with power granted for the purpose of the exercise of governmental functions alone. This is the result of a fair reading of the provision, and consideration of other subdivisions of the same section specifying matters in the nature of business enterprises in which the city may engage shows the correctness of this construction. Where it was thought advisable to confer a power as to any such matter it was carefully and specifically prescribed. And in subdivision 50 of the section, added by amendment in 1913, conferring most sweeping general power as to such matters, it was expressly provided "that under the authorization of this subdivision the City of Los Angeles shall not engage in any purely commercial or industrial enterprise not now engaged in by the city, except on the approval of a majority of the electors voting thereon at an election." It is not suggested that there was any provision for a summer camp prior to the adoption of this provision, or that the electors have ever authorized the maintenance of any institution of the nature of this summer camp, except as the same is authorized as a governmental function by subdivision 4 of the section.

***611** In view of what we have said, we are of the opinion that there is no liability on the part of the city of Los Angeles on account of the matters alleged in the complaint.

The judgment is affirmed.

Sloss, J., Richards, J., *pro tem.,* Wilbur, J., Shaw, J., and Melvin, J., concurred.

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KeyCite Yellow Flag - Negative Treatment
Declined to Extend by Bircoll v. Miami-Dade County, 11th Cir.(Fla.), March 7, 2007

118 S.Ct. 1952
Supreme Court of the United States

PENNSYLVANIA DEPARTMENT OF CORRECTIONS, et al., Petitioners,
v.
Ronald R. YESKEY.

No. 97–634.
|
Argued April 28, 1998.
|
Decided June 15, 1998.

Synopsis
State prison inmate, who was denied admission to prison boot camp program due to history of hypertension, sued Pennsylvania Department of Corrections and several officials under the Americans With Disabilities Act (ADA). The United States District Court for the Middle District of Pennsylvania, William W. Caldwell, J., dismissed for failure to state a claim, and inmate appealed. The Court of Appeals for the Third Circuit, 118 F.3d 168, reversed and remanded. Certiorari was granted. The Supreme Court, Justice Scalia, held that Title II of the ADA, prohibiting "public entity" from discriminating against "qualified individual with a disability" on account of that individual's disability, applied to inmates in state prisons.

Court of Appeals affirmed.

West Headnotes (6)

[1] Civil Rights
Prisons

ADA's Title II, prohibiting "public entity" from discriminating against "qualified individual with a disability" on account of that individual's disability, covered inmates in state prisons, thus allowing state inmate to maintain ADA claim based on his exclusion, for health reasons, from prison boot camp program, the successful completion of which would have led to his early release; text of ADA was not ambiguous, and it unmistakeably included state prisons and prisoners within its coverage. Americans with Disabilities Act of 1990, §§ 201(1)(B), 202, 42 U.S.C.A. §§ 12131(1)(B), 12132; 61 P.S. § 1123.

1555 Cases that cite this headnote

[2] Statutes
What constitutes ambiguity;how determined

Fact that statute can be applied in situations not expressly anticipated by Congress does not demonstrate ambiguity, but, rather, it demonstrates breadth.

65 Cases that cite this headnote

[3] Constitutional Law
Avoidance of doubt

Doctrine of constitutional doubt, requiring court to interpret statutes to avoid grave and doubtful constitutional questions, enters in only where statute is susceptible of two constructions.

7 Cases that cite this headnote

[4] Statutes
Titles, headings, and captions

Title of statute cannot limit plain meaning of the text; for interpretive purposes, it is of use only when it sheds light on some ambiguous word or phrase.

142 Cases that cite this headnote

[5] Federal Courts
Presentation of Questions Below or on Review;Record;Waiver

Supreme Court would not address whether application of ADA to state prisons was constitutional exercise of Congress's power under Commerce Clause or under Fourteenth Amendment enforcement clause, where petitioners raised question in their brief,

but it was addressed by neither the district court nor the Court of Appeals. U.S.C.A. Const. Art. 1, § 8, cl. 3; Amend. 14, § 5; Americans with Disabilities Act of 1990, §§ 201, 202, 42 U.S.C.A. §§ 12131, 12132.

426 Cases that cite this headnote

[6] Federal Courts
Presentation of Questions Below or on Review;Record;Waiver

Where issues are neither raised before nor considered by Court of Appeals, Supreme Court will not ordinarily consider them.

7 Cases that cite this headnote

****1953 *206** *Syllabus* *

Respondent Yeskey was sentenced to 18 to 36 months in a Pennsylvania correctional facility, but was recommended for placement in a Motivational Boot Camp for first-time offenders, the successful completion of which would have led to his parole in just six months. When he was refused admission because of his medical history of hypertension, he sued petitioners, Pennsylvania's Department of Corrections and several officials, alleging that the exclusion violated the Americans with Disabilities Act of 1990 (ADA), Title II of which prohibits a "public entity" from discriminating against a " qualified individual with a disability" on account of that disability, 42 U.S.C. § 12132. The District Court dismissed for failure to state a claim, holding the ADA inapplicable to state prison inmates, but the Third Circuit reversed.

Held: State prisons fall squarely within Title II's statutory definition of "public entity," which includes "any ... instrumentality of a State ... or local government." § 12131(1)(B). Unlike the situation that obtained in *Gregory v. Ashcroft,* 501 U.S. 452, 111 S.Ct. 2395, 115 L.Ed.2d 410, there is no ambiguous exception that renders the coverage uncertain. For that reason the plain-statement requirement articulated in *Gregory,* if applicable to federal intrusion upon the administration of state prisons, has been met. Petitioners' attempts to derive an intent not to cover prisons from the statutory references to the "benefits" of programs and to "qualified individual" are rejected; some prison programs, such as this one, have benefits and are restricted to qualified inmates. The statute's lack of ambiguity also requires rejection of petitioners' appeal to the doctrine of constitutional doubt. The Court does not address the issue whether applying the ADA to state prisons is a constitutional exercise of Congress's power under either the Commerce Clause or the Fourteenth Amendment because it was addressed by neither of the lower courts. Pp. 1954–1956.

118 F.3d 168, affirmed.

SCALIA, J., delivered the opinion for a unanimous Court.

Attorneys and Law Firms

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Donald Specter, Washington, DC, for respondent.

Irving L. Gornstein, Washington, DC, for U.S. as amicus curiae, by special leave of Court.

Opinion

***208** Justice SCALIA delivered the opinion of the Court.

[1] The question before us is whether Title II of the Americans with Disabilities Act of 1990 (ADA), 104 Stat. 337, 42 U.S.C. § 12131 *et seq.,* which prohibits a "public entity" from discriminating against a "qualified individual with a disability" on account of that individual's disability, see § 12132, covers inmates in state prisons. Respondent Ronald Yeskey was such an inmate, sentenced in May 1994 to serve 18 to 36 months in a Pennsylvania correctional facility. The sentencing court recommended that he be placed in Pennsylvania's Motivational Boot Camp for first-time offenders, the successful completion of which would have led to his release on parole in just six months. See Pa. Stat. Ann., Tit. 61, § 1121 *et seq.* (Purdon Supp.1998). Because of his medical history of hypertension, however, he was refused admission. He filed this suit against petitioners, the Commonwealth of Pennsylvania's Department of Corrections and several department officials, alleging that his exclusion from the Boot Camp violated the ADA. The District Court dismissed for failure to state a claim, Fed. Rule Civ. Proc. 12(b)(6), holding the ADA inapplicable to inmates in state prisons; the Third Circuit reversed, 118 F.3d 168 (1997);

we granted certiorari, 522 U.S. 1086, 118 S.Ct. 876, 139 L.Ed.2d 865 (1998).

Petitioners argue that state prisoners are not covered by the ADA for the same reason we held in *Gregory v. Ashcroft,* 501 U.S. 452, 111 S.Ct. 2395, 115 L.Ed.2d 410 (1991), that state judges were not covered by the Age Discrimination in Employment Act of 1967 (ADEA), 29 U.S.C. § 621 *et seq. Gregory* relied on the canon of construction that absent an "unmistakably clear" expression of intent to "alter the usual constitutional balance between the ***209** States and the Federal Government," we will interpret a statute to preserve rather than destroy the States' "substantial sovereign powers." 501 U.S., at 460–461, 111 S.Ct., at 2400–2401 (citations and internal quotation marks omitted). It may well be that exercising ultimate control over the management of state prisons, like establishing the qualifications of state government officials, is a traditional and essential state function subject to the plain-statement rule of *Gregory.* "One of the primary functions of government," we have said, "is the preservation of societal order through enforcement of the criminal law, and the maintenance of penal institutions is an essential part of that task." *Procunier v. Martinez,* 416 U.S. 396, 412, 94 S.Ct. 1800, 1811, 40 L.Ed.2d 224 (1974), overruled on other grounds, *Thornburgh v. Abbott,* 490 U.S. 401, 414, 109 S.Ct. 1874, 1882, 104 L.Ed.2d 459 (1989). "It is difficult to imagine an activity in which a State has a stronger interest," *Preiser v. Rodriguez,* 411 U.S. 475, 491, 93 S.Ct. 1827, 1837, 36 L.Ed.2d 439 (1973).

Assuming, without deciding, that the plain-statement rule does govern application of the ADA to the administration of state prisons, we think the requirement of the rule is amply met: the statute's language unmistakably includes State prisons and prisoners within its coverage. The situation here is not comparable to that in *Gregory.* There, although the ADEA plainly covered state employees, it contained an exception for " 'appointee[s] on the policymaking level' " which made it impossible for us to "conclude that the statute plainly cover[ed] appointed state judges." 501 U.S., at 467, 111 S.Ct., at 2404. Here, the ADA plainly covers state institutions *without* any exception that could cast the coverage of prisons into doubt. Title II of the ADA provides:

> "Subject to the provisions of this subchapter, no qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of the services, programs, or activities of a public entity, or be subjected to discrimination by any such entity." 42 U.S.C. § 12132.

***210** State prisons fall squarely within the statutory definition of "public entity," which includes "any department, agency, special purpose district, or other instrumentality of a ****1955** State or States or local government." § 12131(1)(B).

Petitioners contend that the phrase "benefits of the services, programs, or activities of a public entity," § 12132, creates an ambiguity, because state prisons do not provide prisoners with "benefits" of "programs, services, or activities" as those terms are ordinarily understood. We disagree. Modern prisons provide inmates with many recreational "activities," medical "services," and educational and vocational "programs," all of which at least theoretically "benefit" the prisoners (and any of which disabled prisoners could be "excluded from participation in"). See *Block v. Rutherford,* 468 U.S. 576, 580, 104 S.Ct. 3227, 3229–3230, 82 L.Ed.2d 438 (1984) (referring to "contact visitation program"); *Hudson v. Palmer,* 468 U.S. 517, 552, 104 S.Ct. 3194, 3214, 82 L.Ed.2d 393 (1984) (discussing "rehabilitative programs and services"); *Olim v. Wakinekona,* 461 U.S. 238, 246, 103 S.Ct. 1741, 1745–1746, 75 L.Ed.2d 813 (1983) (referring to "appropriate correctional programs for all offenders"). Indeed, the statute establishing the Motivational Boot Camp at issue in this very case refers to it as a "program." Pa. Stat. Ann., Tit. 61, § 1123 (Purdon Supp.1998). The text of the ADA provides no basis for distinguishing these programs, services, and activities from those provided by public entities that are not prisons.

We also disagree with petitioners' contention that the term "qualified individual with a disability" is ambiguous insofar as concerns its application to state prisoners. The statute defines the term to include anyone with a disability

> "who, with or without reasonable modifications to rules, policies, or practices, the removal of architectural, communication, or transportation barriers, or the provision of auxiliary aids and services, meets the essential eligibility requirements for the receipt of services or the participation in programs or activities provided by a public entity." 42 U.S.C. § 12131(2).

***211** Petitioners argue that the words "eligibility" and "participation" imply voluntariness on the part of an

applicant who seeks a benefit from the State, and thus do not connote prisoners who are being held against their will. This is wrong on two counts: First, because the words do not connote voluntariness. See, *e.g.,* Webster's New International Dictionary 831 (2d ed. 1949) ("eligible": "Fitted or qualified to be chosen or elected; legally or morally suitable; as, an *eligible* candidate"); *id.,* at 1782 ("participate": "To have a share in common with others; to partake; share, as in a debate"). While "eligible" individuals "participate" voluntarily in many programs, services, and activities, there are others for which they are "eligible" in which "participation" is mandatory. A drug addict convicted of drug possession, for example, might, as part of his sentence, be required to "participate" in a drug treatment program for which only addicts are "eligible." And secondly, even if the words did connote voluntariness, it would still not be true that all prison "services," "programs," and "activities" are excluded from the ADA because participation in them is not voluntary. The prison law library, for example, is a service (and the use of it an activity), which prisoners are free to take or leave. Cf. *Gabel v. Lynaugh,* 835 F.2d 124, 125, n. 1 (C.A.5 1988) *(per curiam)* ("pro se civil rights litigation has become a recreational activity for state prisoners"). In the very case at hand, the governing law makes it clear that participation in the Boot Camp program is voluntary. See Pa. Stat. Ann., Tit. 61, § 1126(a) (Purdon Supp.1998) ("An eligible inmate may make an application to the motivational boot camp selection committee for permission to participate in the motivational boot camp program"); § 1126(c) ("[c]onditio[n]" of "participa [tion]" is that applicant "agree to be bound by" certain "terms and conditions").

[2] Finally, petitioners point out that the statute's statement of findings and purpose, 42 U.S.C. § 12101, does not mention prisons and prisoners. That is perhaps questionable, since the provision's reference to discrimination "in such critical ***212** areas as ... institutionalization," § 12101(a)(3), can be thought to include penal institutions. But assuming it to be true, and assuming further that it proves, as petitioners contend, that Congress did not "envisio[n] that the ADA would be applied to state prisoners," Brief for Petitioners ****1956** 13–14, in the context of an unambiguous statutory text that is irrelevant. As we have said before, the fact that a statute can be " 'applied in situations not expressly anticipated by Congress does not demonstrate ambiguity. It demonstrates breadth.' " *Sedima, S.P.R.L. v. Imrex Co.,* 473 U.S. 479, 499, 105 S.Ct. 3275, 3286, 87 L.Ed.2d 346 (1985) (citation omitted).

[3] **[4]** Our conclusion that the text of the ADA is not ambiguous causes us also to reject petitioners' appeal to the doctrine of constitutional doubt, which requires that we interpret statutes to avoid "grave and doubtful constitutional questions," *United States ex rel. Attorney General v. Delaware & Hudson Co.,* 213 U.S. 366, 408, 29 S.Ct. 527, 535–536, 53 L.Ed. 836 (1909). That doctrine enters in only "where a statute is susceptible of two constructions," *ibid.* And for the same reason we disregard petitioners' invocation of the statute's title, "Public Services," 104 Stat. 337. "[T]he title of a statute ... cannot limit the plain meaning of the text. For interpretive purposes, [it is] of use only when [it] shed[s] light on some ambiguous word or phrase." *Trainmen v. Baltimore & Ohio R. Co.,* 331 U.S. 519, 528–529, 67 S.Ct. 1387, 1392, 91 L.Ed. 1646 (1947).

[5] **[6]** We do not address another issue presented by petitioners: whether application of the ADA to state prisons is a constitutional exercise of Congress's power under either the Commerce Clause, compare *Printz v. United States,* 521 U.S. 898, 117 S.Ct. 2365, 138 L.Ed.2d 914 (1997), with *Garcia v. San Antonio Metropolitan Transit Authority,* 469 U.S. 528, 105 S.Ct. 1005, 83 L.Ed.2d 1016 (1985), or § 5 of the Fourteenth Amendment, see *City of Boerne v. Flores,* 521 U.S. 507, 117 S.Ct. 2157, 138 L.Ed.2d 624 (1997). Petitioners raise this question in their brief, see Brief for Petitioners 22–23, but it was addressed by neither the District Court nor the Court of Appeals, where petitioners raised only the *Gregory* plain-statement issue. "Where ***213** issues are neither raised before nor considered by the Court of Appeals, this Court will not ordinarily consider them." *Adickes v. S.H. Kress & Co.,* 398 U.S. 144, 147, n. 2, 90 S.Ct. 1598, 1602, n. 2, 26 L.Ed.2d 142 (1970) (citations omitted). See also *Dothard v. Rawlinson,* 433 U.S. 321, 323, n. 1, 97 S.Ct. 2720, 2724, n. 1, 53 L.Ed.2d 786 (1977); *Duignan v. United States,* 274 U.S. 195, 200, 47 S.Ct. 566, 568, 71 L.Ed. 996 (1927). We decline to do so here.

* * *

Because the plain text of Title II of the ADA unambiguously extends to state prison inmates, the judgment of the Court of Appeals is affirmed.

It is so ordered.

All Citations

524 U.S. 206, 118 S.Ct. 1952, 141 L.Ed.2d 215, 163 A.L.R. Fed. 671, 66 USLW 4481, 8 A.D. Cases 201, 12 NDLR P 195, 98 Cal. Daily Op. Serv. 4562, 98 Daily Journal D.A.R. 6224, 98 CJ C.A.R. 3093, 11 Fla. L. Weekly Fed. S 640

Footnotes

* The syllabus constitutes no part of the opinion of the Court but has been prepared by the Reporter of Decisions for the convenience of the reader. See *United States v. Detroit Timber & Lumber Co.,* 200 U.S. 321, 337, 26 S.Ct. 282, 287, 50 L.Ed. 499.

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Not Followed as Dicta Lee v. Willey, 6th Cir.(Mich.), October 17, 2013

117 S.Ct. 2100
Supreme Court of the United States

Daryll RICHARDSON and John Walker, Petitioners,
v.
Ronnie Lee McKNIGHT.

No. 96-318.
|
Argued March 19, 1997.
|
Decided June 23, 1997.

Synopsis
Inmate brought § 1983 action against two prison guards who were employees of private, for-profit corporation which had a contract with state to manage correctional center, alleging that restraints used on him by guards caused him serious injury which required hospitalization. The United States District Court for the Middle District of Tennessee, Thomas A. Higgins, J., found that guards were not entitled to qualified immunity from liability, and they appealed. The Court of Appeals for the Sixth Circuit, 88 F.3d 417, affirmed, and guards petitioned for certiorari. The Supreme Court, Justice Breyer, held that prison guards who are employees of a private prison management firm are not entitled to qualified immunity from suit by prisoners charging a violation of § 1983, considering that history does not reveal a firmly rooted tradition of immunity applicable to privately employed prison guards, and that immunity doctrine's purposes do not warrant immunity for private prison guards.

Affirmed.

Justice Scalia filed dissenting opinion in which Chief Justice Rehnquist and Justices Kennedy and Thomas joined.

West Headnotes (5)

[1] Civil Rights
Purpose and Construction in General

Section 1983 basically seeks to deter state actors from using the badge of their authority to deprive individuals of their federally guaranteed rights and to provide related relief. 42 U.S.C.A. § 1983.

24 Cases that cite this headnote

[2] Civil Rights
Private Persons or Corporations, in General

Section 1983, which imposes liability only where a person acts "under color" of a state "statute, ordinance, regulation, custom, or usage" can sometimes impose liability upon a private individual. 42 U.S.C.A. § 1983.

39 Cases that cite this headnote

[3] Civil Rights
Privilege or Immunity;Good Faith and Probable Cause

History and purposes that underlie government employee immunity determine whether private individuals enjoy qualified immunity from suit under § 1983. 42 U.S.C.A. § 1983.

223 Cases that cite this headnote

[4] Civil Rights
Privilege or Immunity;Good Faith and Probable Cause

Mere performance of a governmental function does not entitle private person to qualified immunity under § 1983, especially one who performs a job without government supervision or direction. 42 U.S.C.A. § 1983.

203 Cases that cite this headnote

[5] Civil Rights
Privilege or Immunity;Good Faith and Probable Cause

Civil Rights
Prisons, Jails, and Their Officers;Parole and Probation Officers

Prison guards who are employees of a private prison management firm are not entitled to qualified immunity from suit by prisoners charging a violation of § 1983, considering that history does not reveal a firmly rooted tradition of immunity applicable to privately employed prison guards, and that immunity doctrine's purposes do not warrant immunity for private prison guards. 42 U.S.C.A. § 1983.

282 Cases that cite this headnote

****2100** *Syllabus* *

Respondent McKnight, a prisoner at a Tennessee correctional center whose management had been privatized, filed this constitutional tort action under 42 U.S.C. § 1983 for physical injuries inflicted by petitioner prison guards. The District Court denied petitioners' motion to dismiss, finding that, since they were employed by a private prison management firm, they were not entitled to qualified immunity from § 1983 lawsuits. The Court of Appeals affirmed.

Held: Prison guards employed by a private firm are not entitled to a qualified immunity ****2101** from suit by prisoners charging a § 1983 violation. Pp. 2103-2108.

(a) Four aspects of *Wyatt v. Cole,* 504 U.S. 158, 112 S.Ct. 1827, 118 L.Ed.2d 504-in which this Court found no § 1983 immunity for private defendants charged with invoking state replevin, garnishment, and attachment statutes later declared unconstitutional-are instructive here. First, § 1983-which deters state actors from depriving individuals of their federally protected rights-can sometimes impose liability upon private individuals. Second, a distinction exists between an immunity from suit-which frees one from liability whether or not he acted wrongly-and other legal defenses-which may well involve the essence of the wrong. Third, history and the purposes underlying § 1983 immunity determine whether private defendants enjoy protection from suit. Fourth, the *Wyatt* holding was limited to the narrow question before the Court and is not applicable to *all* private individuals. Pp. 2103-2104.

(b) History does not reveal a firmly rooted tradition of immunity applicable to privately employed prison guards. While *government*-employed prison guards may have enjoyed a kind of immunity defense arising out of their status as public employees at common law, see *Procunier v. Navarette,* 434 U.S. 555, 561-562, 98 S.Ct. 855, 859-860, 55 L.Ed.2d 24, correctional functions have never been exclusively public. In the 19th century both private entities and government itself carried on prison management activities. There is no conclusive evidence of a historical tradition of immunity for private parties carrying out these functions. Pp. 2104-2105.

(c) The immunity doctrine's purposes also do not warrant immunity for private prison guards. Mere performance of a governmental function does not support immunity for a private person, especially one who ***400** performs a job without government supervision or direction. Petitioners' argument to the contrary overlooks certain important differences that are critical from an immunity perspective. First, the most important special government immunity-producing concern-protecting the public from unwarranted timidity on the part of public officials-is less likely present when a private company subject to competitive market pressures operates a prison. A firm whose guards are too aggressive will face damages that raise costs, thereby threatening its replacement by another contractor, but a firm whose guards are too timid will face replacement by firms with safer and more effective job records. Such marketplace pressures are present here, where the firm is systematically organized, performs independently, is statutorily obligated to carry insurance, and must renew its first contract after three years. And they provide the private firm with incentives to avoid overly timid job performance. To this extent, the employees differ from government employees, who act within a system that is responsible through elected officials to the voters and that is often characterized by civil service rules providing employee security but limiting the government departments' flexibility to reward or punish individual employees. Second, privatization helps to meet the immunity-related need to ensure that talented candidates are not deterred by the threat of damages suits from entering public service. Comprehensive insurance coverage increases the likelihood of employee indemnification and to that extent reduces the employment-discouraging fear of unwarranted liability. Since a private firm is also freed from many civil service restraints, it, unlike a government department, may offset increased employee liability risk with higher pay or extra benefits. Third, while lawsuits

may distract private employees from their duties, the risk of distraction alone cannot be sufficient grounds for an immunity. Tennessee, which has decided not to extend sovereign immunity to private prison operators, can, moreover, be understood to have anticipated a certain amount of distraction. Pp. 2105-2108.

(d) The Court closes with three caveats. First, the focus has been on § 1983 immunity, not liability. Second, the immunity question **2102 has been answered narrowly, in the context in which it arose, and, thus, does not involve a private individual briefly associated with a government body, serving as an adjunct to government in an essential governmental activity, or acting under close official supervision. Third, no opinion is expressed on the issue whether petitioners might assert not immunity, but a special good-faith defense. Pp. 2107-2108.

88 F.3d 417, affirmed.

BREYER, J., delivered the opinion of the Court, in which STEVENS, O'CONNOR, SOUTER, and GINSBURG, JJ., joined. SCALIA, J., filed a dissentingopinion, *401 in which REHNQUIST, C.J., and KENNEDY and THOMAS, JJ., joined, *post,* p. 2108.

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Edwin S. Kneedler, Washington, DC, for the United States as amicus curiae by special leave of the Court.

Opinion

Justice BREYER delivered the opinion of the Court.

The issue before us is whether prison guards who are employees of a private prison management firm are entitled to a qualified immunity from suit by prisoners charging a violation of 42 U.S.C. § 1983. We hold that they are not.

I

Ronnie Lee McKnight, a prisoner at Tennessee's South Central Correctional Center (SCCC), brought this federal constitutional tort action against two prison guards, Darryl Richardson and John Walker. He says the guards injured him by placing upon him extremely tight physical restraints, thereby unlawfully "subject[ing]" him "to the deprivation of" a right "secured by the Constitution" of the United States. Rev. Stat. § 1979, 42 U.S.C. § 1983. Richardson *402 and Walker asserted a qualified immunity from § 1983 lawsuits, see *Harlow v. Fitzgerald,* 457 U.S. 800, 807, 102 S.Ct. 2727, 2732, 73 L.Ed.2d 396 (1982), and moved to dismiss the action. The District Court noted that Tennessee had "privatized" the management of a number of its correctional facilities, and that consequently a private firm, not the state government, employed the guards. See Tenn.Code Ann. § 41-24-101 *et seq.* (1990 and Supp.1996); see generally Cody & Bennett, The Privatization of Correctional Institutions: The Tennessee Experience, 40 Vand. L.Rev. 829 (1987) (outlining State's history with private correctional services). The court held that, because they worked for a private company rather than the government, the law did not grant the guards immunity from suit. It therefore denied the guards' motion to dismiss. The guards appealed to the Sixth Circuit. See *Mitchell v. Forsyth,* 472 U.S. 511, 530, 105 S.Ct. 2806, 2817-2818, 86 L.Ed.2d 411 (1985) (permitting interlocutory appeals of qualified immunity determinations); see also *Johnson v. Jones,* 515 U.S. 304, 115 S.Ct. 2151, 132 L.Ed.2d 238 (1995); *Behrens v. Pelletier,* 516 U.S. 299, 116 S.Ct. 834, 133 L.Ed.2d 773 (1996). That court also ruled against them. *McKnight v. Rees,* 88 F.3d 417, 425 (C.A.6 1996). The Court of Appeals conceded that other courts had reached varying conclusions about whether, or the extent to which, private sector defendants are entitled to immunities of the sort the law provides governmental defendants. See, *e.g., Eagon v. Elk City,* 72 F.3d 1480, 1489-1490 (C.A.10 1996); *Williams v. O'Leary,* 55 F.3d 320, 323-324 (C.A.7), cert. denied, 516 U.S. 993, 116 S.Ct. 527, 133 L.Ed.2d 434 (1995); *Frazier v. Bailey,* 957 F.2d 920, 928-929 (C.A.1 1992). But the court concluded, primarily for reasons of "public policy," that the privately employed prison guards were not entitled to the immunity provided their governmental counterparts. **2103 88 F.3d, at 425. We granted certiorari to review this holding. We now affirm.

II

A

We take the Court's recent case, *Wyatt v. Cole,* 504 U.S. 158, 112 S.Ct. 1827, 118 L.Ed.2d 504 (1992), as pertinent authority. The Court there considered whether private defendants, charged with § 1983 liabilityfor ***403** "invoking state replevin, garnishment, and attachment statutes" later declared unconstitutional were "entitled to qualified immunity from suit." *Id.,* at 159, 112 S.Ct., at 1827. It held that they were not. *Id.,* at 169, 112 S.Ct., at 1834. We find four aspects of *Wyatt* relevant here.

[1] **[2]** First, as *Wyatt* noted, § 1983 basically seeks "to deter *state* actors from using the badge of their authority to deprive individuals of their federally guaranteed rights" and to provide related relief. *Id.,* at 161, 112 S.Ct., at 1829-1830 (emphasis added) (citing *Carey v. Piphus,* 435 U.S. 247, 254-257, 98 S.Ct. 1042, 1047-1049, 55 L.Ed.2d 252 (1978)); see also *Owen v. Independence,* 445 U.S. 622, 654, 100 S.Ct. 1398, 1417, 63 L.Ed.2d 673 (1980). It imposes liability only where a person acts "under color" of a state "statute, ordinance, regulation, custom, or usage." 42 U.S.C. § 1983. Nonetheless, *Wyatt* reaffirmed that § 1983 can *sometimes* impose liability upon a private individual. 504 U.S., at 162, 112 S.Ct., at 1830; see also *Lugar v. Edmondson Oil Co.,* 457 U.S. 922, 924, 102 S.Ct. 2744, 2746-2747, 73 L.Ed.2d 482 (1982).

Second, *Wyatt* reiterated that after *Harlow, supra,* and this Court's reformulation of the qualified immunity doctrine, see *Anderson v. Creighton,* 483 U.S. 635, 645, 107 S.Ct. 3034, 3042, 97 L.Ed.2d 523 (1987), a distinction exists between an "immunity from suit" and other kinds of legal defenses. 504 U.S., at 166-167, 112 S.Ct., at 1832-1833; see also *Mitchell, supra,* at 526, 105 S.Ct., at 2815-2816. As the *Wyatt* concurrence pointed out, a legal defense may well involve "the essence of the wrong," while an immunity frees one who enjoys it from a lawsuit whether or not he acted wrongly. 504 U.S., at 171-172, 112 S.Ct., at 1835-1836 (Kennedy, J., concurring).

Third, *Wyatt* specified the legal source of § 1983 immunities. It pointed out that although § 1983 " 'creates a species of tort liability that on its face admits of no immunities,' " *id.,* at 163, 112 S.Ct., at 1831 (quoting *Imbler v. Pachtman,* 424 U.S. 409, 417, 96 S.Ct. 984, 989-990, 47 L.Ed.2d 128 (1976)), this Court has nonetheless accorded immunity where a

> " 'tradition of immunity was so firmly rooted in the common law and was supported by such strong policy reasons that "Congress would have specifically so provided had it wished to abolish the doctrine." ' " 504 U.S., at 164, 112 S.Ct., at 1831 (quoting *Owen v. Independence, supra,* at 637, 100 S.Ct., at 1408-1409).

***404** *Wyatt* majority, in deciding whether or not the private defendants enjoyed immunity, looked both to history and to "the special policy concerns involved in suing government officials." 504 U.S., at 167, 112 S.Ct., at 1833; see also *Mitchell, supra,* at 526, 105 S.Ct., at 2815-2816; *Harlow, supra,* at 807, 102 S.Ct., at 2732; *Imbler v. Pachtman, supra,* at 424, 96 S.Ct., at 992. And in this respect-the relevant *sources* of the law-both the *Wyatt* concurrence and the dissent seemed to agree. Compare 504 U.S., at 169-171, 112 S.Ct., at 1834-1835 (KENNEDY, J., concurring) (existence of immunity depends upon "historical origins" and "public policy"), with *id.,* at 175-176, 112 S.Ct., at 1837-1838 (REHNQUIST, C.J., dissenting) ("immunity" recognized where "similarly situated defendant would have enjoyed an immunity at common law" or "when important public policy concerns suggest the need for an immunity").

Fourth, *Wyatt* did not consider its answer to the question before it as one applicable to *all* private individuals-irrespective of the nature of their relation to the government, ****2104** position, or the kind of liability at issue. Rather, *Wyatt* explicitly limited its holding to what it called a "narrow" question about "private persons ... who conspire with state officials," *id.,* at 168, 112 S.Ct., at 1834, and it answered that question by stating that private defendants "faced with § 1983 liability for invoking a state replevin, garnishment, or attachment statute" are *not* entitled to immunity, *id.,* at 168-169, 112 S.Ct., at 1833-1834.

[3] *Wyatt,* then, did not answer the legal question before us, whether petitioners-two employees of a private prison management firm-enjoy a qualified immunity from suit under § 1983. It does tell us, however, to look both to history and to the purposes that underlie government employee immunity in order to find the answer. *Id.,* at 164, 112 S.Ct., at 1831; see also *Newport v. Fact Concerts, Inc.,* 453 U.S. 247, 259, 101 S.Ct. 2748, 2755-2756, 69 L.Ed.2d 616 (1981); *Owen, supra,* at 638, 100 S.Ct., at 1409; *Imbler, supra,* at 424, 96 S.Ct., at 992.

B

History does *not* reveal a "firmly rooted" tradition of immunity applicable to privately employed prison guards. ***405** Correctional services in the United States have undergone various transformations. See D. Shichor, Punishment for Profit 33, 36 (1995) (Shichor). *Government*-employed prison guards may have enjoyed a kind of immunity defense arising out of their status as public employees at common law. See *Procunier v. Navarette,* 434 U.S. 555, 561-562, 98 S.Ct. 855, 859-860, 55 L.Ed.2d 24 (1978) (extending qualified immunity to state prison guards). But correctional functions have never been exclusively public. Shichor 33, 36. Private individuals operated local jails in the 18th century, G. Bowman, S. Hakim, & P. Seidenstat, Privatizing the United States Justice System 271, n. 1 (1992), and private contractors were heavily involved in prison management during the 19th century. Shichor 33, 36.

During that time, some States, including southern States like Tennessee, leased their entire prison systems to private individuals or companies which frequently took complete control over prison management, including inmate labor and discipline. G. Bowman, S. Hakim, & P. Seidenstat, Privatizing Correctional Institutions 42 (1993); see generally B. McKelvey, American Prisons: A Study in American Social History Prior to 1915, pp. 172-180 (1968) (describing 19th-century American prison system); see also Shichor 34; G. de Beaumont & A. de Tocqueville, On the Penitentiary System in the United States and Its Application in France 35 (1833) (describing more limited prison contracting system in Massachusetts and Pennsylvania). Private prison lease agreements (like inmate suits) seem to have been more prevalent after § 1983's enactment, see generally M. Mancini, One Dies, Get Another (1996), but we have found evidence that the common law provided mistreated prisoners in prison leasing States with remedies against mistreatment by those private lessors. See, *e.g., Dade Coal Co. v. Haslett,* 83 Ga. 549, 550-551, 10 S.E. 435, 435-436 (1889) (convict can recover from contractor for injuries sustained while on lease to private company); *Boswell v. Barnhart,* 96 Ga. 521, 522-523, 23 S.E. 414, 415 (1895) (wife can recover from contractor for chain-gang-relatedd ***406** death of husband); *Dalheim v. Lemon,* 45 F. 225, 228-230 (1891) (contractor liable for convict injuries); *Tillar v. Reynolds,* 96 Ark. 358, 360-361, 365-366, 131 S.W. 969, 970, 971-972 (1910) (work farm owner liable for inmate beating death); *Weigel v. Brown,* 194 F. 652 (C.A.8 1912) (prison contractor liable for unlawful whipping); see also *Edwards v. Pocahontas,* 47 F. 268 (CC Va. 1891) (inmate can recover from municipal corporation for injuries caused by poor jail conditions); *Hall v. O'Neil Turpentine Co.,* 56 Fla. 324, 47 So. 609 (1908) (private prison contractor and subcontractor liable to municipality for escaped prisoner under lease agreement); see generally Mancini, *supra* (discussing abuses of 19th-century private lease system). Yet, we have found no evidence that the law gave purely private companies or their employees any special immunity from such suits. Cf. ****2105** *Almango v. Board of Supervisors of Albany County,* 32 N.Y.Sup.Ct. 551 (1881) (no cause of action against private contractor where contractor designated state instrumentality by statute). The case on which the dissent rests its argument, *Williams v. Adams,* 85 Mass. 171 (1861) (which could not-without more-prove the existence of such a tradition and does not, moreover, clearly involve a private prison operator) actually supports our point. It suggests that no immunity from suit would exist for the type of intentional conduct at issue in this case. See *ibid.* (were "battery" at issue, the case would be of a different "character" and "the defendant might be responsible"); see *id.,* at 176 (making clear that case only involves claim of ordinary negligence for lack of heat and other items, not "gross negligence," "implied malice," or "intention to do the prisoner any bodily injury"); cf. *Tower v. Glover,* 467 U.S. 914, 921, 104 S.Ct. 2820, 2825, 81 L.Ed.2d 758 (1984) (concluding that state public defenders do not enjoy immunity from suit where conduct intentional and no history of immunity for intentional conduct was established).

Correctional functions in England have been more consistently public, see generally 22 Encyclopedia Brittanica, ***407** "Prison" 361-368 (11th ed.1911); S. Webb & B. Webb, English Prisons Under Local Government (1922) (Webb), but historical sources indicate that England relied upon private jailers to manage the detention of prisoners from the Middle Ages until well into the 18th century. Shichor 21; see also Webb 4-5; 1 E. Coke, Institutes 43 (1797). The common law forbade those jailers to subject " 'their prisoners to any pain or torment,' " whether through harsh confinement in leg irons, or otherwise. See *In re Birdsong,* 39 F. 599, 601 (S.D.Ga.1889); 1 Coke, *supra,* at 315, 316, 381; 2 C. Addison, A Treatise on the Law of Torts § 1016, pp. 224-225 (1876); see also 4 Geo. IV, ch. 64, § X Twelfth.

And it apparently authorized prisoner lawsuits to recover damages. 2 Addison, *supra,* § 1016. Apparently the law *did* provide a kind of immunity for certain private defendants, such as doctors or lawyers who performed services at the behest of the sovereign. See *Tower, supra,* at 921, 104 S.Ct., at 2825; J. Bishop, Commentaries on Non-Contract Law §§ 704, 710 (1889). But we have found no indication of any more general immunity that might have applied to private individuals working for profit.

Our research, including the sources that the parties have cited, reveals that in the 19th century (and earlier) sometimes private contractors and sometimes government itself carried on prison management activities. And we have found no conclusive evidence of a historical tradition of immunity for private parties carrying out these functions. History therefore does not provide significant support for the immunity claim. Cf. *Briscoe v. LaHue,* 460 U.S. 325, 330-334, 103 S.Ct. 1108, 1112-1115, 75 L.Ed.2d 96 (1983) (immunity for witnesses); *Pierson v. Ray,* 386 U.S. 547, 554-555, 87 S.Ct. 1213, 1217-1218, 18 L.Ed.2d 288 (1967) (immunity for judges and police officers); *Tenney v. Brandhove,* 341 U.S. 367, 372-376, 71 S.Ct. 783, 786-788, 95 L.Ed. 1019 (1951) (immunity for legislators).

C

Whether the immunity doctrine's *purposes* warrant immunity for private prison guards presents a closer question. *Wyatt,* consistent with earlier precedent, described the doctrine's ***408** purposes as protecting "government's ability to perform its traditional functions" by providing immunity where "necessary to preserve" the ability of government officials "to serve the public good or to ensure that talented candidates were not deterred by the threat of damages suits from entering public service." 504 U.S., at 167, 112 S.Ct., at 1833. Earlier precedent described immunity as protecting the public from unwarranted timidity on the part of public officials by, for example, "encouraging the vigorous exercise of official authority," *Butz v. Economou,* 438 U.S. 478, 506, 98 S.Ct. 2894, 2911, 57 L.Ed.2d 895 (1978), by contributing to " 'principled and fearless decision-making,' " *Wood v. Strickland,* 420 U.S. 308, 319, 95 S.Ct. 992, 999, 43 L.Ed.2d 214 (1975)(quoting *Pierson, supra,* at 554, 87 S.Ct., at 1217-1218), and by responding to ****2106** the concern that threatened liability would, in Judge Hand's words, " 'dampen the ardour of all but the most resolute, or the most irresponsible,' " public officials, *Harlow,* 457 U.S., at 814, 102 S.Ct., at 2736 (quoting *Gregoire v. Biddle,* 177 F.2d 579, 581 (C.A.2 1949) (L.Hand, J.), cert. denied, 339 U.S. 949, 70 S.Ct. 803, 94 L.Ed. 1363 (1950)); see also *Mitchell,* 472 U.S., at 526, 105 S.Ct., at 2815 (lawsuits may "distrac [t] officials from their governmental duties").

[4] The guards argue that those purposes support immunity whether their employer is private or public. Brief for Petitioners 35-36. Since private prison guards perform the same work as state prison guards, they say, they must require immunity to a similar degree. To say this, however, is to misread this Court's precedents. The Court has sometimes applied a functional approach in immunity cases, but only to decide which type of immunity-absolute or qualified-a public officer should receive. See, *e.g., Buckley v. Fitzsimmons,* 509 U.S. 259, 113 S.Ct. 2606, 125 L.Ed.2d 209 (1993); *Burns v. Reed,* 500 U.S. 478, 111 S.Ct. 1934, 114 L.Ed.2d 547 (1991); *Forrester v. White,* 484 U.S. 219, 108 S.Ct. 538, 98 L.Ed.2d 555 (1988); *Cleavinger v. Saxner,* 474 U.S. 193, 106 S.Ct. 496, 88 L.Ed.2d 507 (1985); *Harlow, supra.* And it never has held that the mere performance of a governmental function could make the difference between unlimited § 1983 liability and qualified immunity, see, *e.g.,* ***409** *Tower,* 467 U.S., at 922-923, 104 S.Ct., at 2825-2826, especially for a private person who performs a job without government supervision or direction. Indeed a purely functional approach bristles with difficulty, particularly since, in many areas, government and private industry may engage in fundamentally similar activities, ranging from electricity production, to waste disposal, to even mail delivery.

Petitioners' argument also overlook certain important differences that, from an immunity perspective, are critical. First, the most important special government immunity-producing concern-unwarranted timidity-is less likely present, or at least is not special, when a private company subject to competitive market pressures operates a prison. Competitive pressures mean not only that a firm whose guards are too aggressive will face damages that raise costs, thereby threatening its replacement, but also that a firm whose guards are too timid will face threats of replacement by other firms with records that demonstrate their ability to do both a safer and a more effective job.

These ordinary marketplace pressures are present here. The private prison guards before us work for a large, multistate private prison management firm. C. Thomas, D. Bolinger, & J. Badalamenti, Private Adult Correctional Facility Census 1 (10th ed.1997) (listing the Corrections Corporation of America as the largest prison management concern in the United States). The firm is systematically organized to perform a major administrative task for profit. Cf. Tenn.Code Ann. § 41-24-104 (Supp.1996) (requiring that firms contracting with the State demonstrate a history of successful operation of correctional facilities). It performs that task independently, with relatively less ongoing direct state supervision. Compare § 41-4-140(c)(5) (exempting private jails from certain monitoring) with § 41-4-116 (requiring inspectors to examine publicly operated county jails once a month or more) and § 41-4-140(a) (requiring Tennessee Correctional ***410** Institute to inspect public correctional facilities on an annual basis and to report findings of such inspections). It must buy insurance sufficient to compensate victims of civil rights torts. § 41-24-107. And, since the firm's first contract expires after three years, § 41-24-105(a), its performance is disciplined, not only by state review, see §§ 41-24-105(c)-(f), 41-24-109, but also by pressure from potentially competing firms who can try to take its place. Cf. § 41-24-104(a)(4) (permitting State, upon notice, to cancel contract at any time after first year of operation); see also §§ 41-24-105(c) and (d) (describing standards for renewal of contract).

In other words, marketplace pressures provide the private firm with strong incentives ****2107** to avoid overly timid, insufficiently vigorous, unduly fearful, or "nonarduous" employee job performance. And the contract's provisions-including those that might permit employee indemnification and avoid many civil-service restrictions-grant this private firm freedom to respond to those market pressures through rewards and penalties that operate directly upon its employees. See § 41-24-111. To this extent, the employees before us resemble those of other private firms and differ from government employees.

This is not to say that government employees, in their efforts to act within constitutional limits, will always, or often, sacrifice the otherwise effective performance of their duties. Rather, it is to say that government employees typically act within a *different* system. They work within a system that is responsible through elected officials to voters who, when they vote, rarely consider the performance of individual subdepartments or civil servants specifically and in detail. And that system is often characterized by multidepartment civil service rules that, while providing employee security, may limit the incentives or the ability of individual departments or supervisors flexibly to reward, or to punish, individual ***411** employees. Hence a judicial determination that "effectiveness" concerns warrant special immunity-type protection in respect to this latter (governmental) system does not prove its need in respect to the former. Consequently, we can find no *special* immunity-related need to encourage vigorous performance.

Second, "privatization" helps to meet the immunity-related need "to ensure that talented candidates" are "not deterred by the threat of damages suits from entering public service." *Wyatt,* 504 U.S., at 167, 112 S.Ct., at 1833; see also *Mitchell,* 472 U.S., at 526, 105 S.Ct., at 2815-2816 (citing *Harlow,* 457 U.S., at 816, 102 S.Ct., at 2737). It does so in part because of the comprehensive insurance-coverage requirements just mentioned. The insurance increases the likelihood of employee indemnification and to that extent reduces the employment-discouraging fear of unwarranted liability potential applicants face. Because privatization law also frees the private prison-management firm from many civil service law restraints, Tenn.Code Ann. § 41-24-111 (1990), it permits the private firm, unlike a government department, to offset any increased employee liability risk with higher pay or extra benefits. In respect to this second government-immunity-related purpose then, it is difficult to find a *special* need for immunity, for the guards' employer can operate like other private firms; it need not operate like a typical government department.

Third, lawsuits may well " 'distrac[t]' " these employees " 'from their ... duties,' " *Mitchell, supra,* at 526, 105 S.Ct., at 2815 (quoting *Harlow,* 457 U.S., at 816, 102 S.Ct., at 2737), but the risk of "distraction" alone cannot be sufficient grounds for an immunity. Our qualified immunity cases do not contemplate the complete elimination of lawsuit-based distractions. Cf. *id.,* at 818-819, 102 S.Ct., at 2738-2739 (officials subject to suit for violations of clearly established rights). And it is significant that, here, Tennessee law reserves certain important discretionary tasks-those related to prison discipline, to parole, and to good time-for state officials. ***412** Tenn.Code Ann. § 41-24-110 (1990). Given a

continual and conceded need for deterring constitutional violations and our sense that the firm's tasks are not enormously different in respect to their importance from various other publicly important tasks carried out by private firms, we are not persuaded that the threat of distracting workers from their duties is enough virtually by itself to justify providing an immunity. Moreover, Tennessee, which has itself decided not to extend sovereign immunity to private prison operators (and arguably appreciated that this decision would increase contract prices to some degree), § 41-24-107, can be understood to have anticipated a certain amount of distraction.

D.

[5] Our examination of history and purpose thus reveals nothing special enough about the job or about its organizational structure that would warrant providing these private prison guards with a governmental ****2108** immunity. The job is one that private industry might, or might not, perform; and which history shows private firms did sometimes perform without relevant immunities. The organizational structure is one subject to the ordinary competitive pressures that normally help private firms adjust their behavior in response to the incentives that tort suits provide-pressures not necessarily present in government departments. Since there are no special reasons significantly favoring an extension of governmental immunity, and since *Wyatt* makes clear that private actors are not *automatically* immune (*i.e.,* § 1983 immunity does not automatically follow § 1983 liability), we must conclude that private prison guards, unlike those who work directly for the government, do not enjoy immunity from suit in a § 1983 case. Cf. *Forrester v. White,* 484 U.S., at 224, 108 S.Ct., at 542 (Officers "who seek exemption from personal liability have the burden of showing that such an exemption is justified"); see also *Butz,* 438 U.S., at 506, 98 S.Ct., at 2910-2911.

***413** III

We close with three caveats. First, we have focused only on questions of § 1983 immunity and have not addressed whether the defendants are liable under § 1983 even though they are employed by a private firm. Because the Court of Appeals assumed, but did not decide, § 1983 liability, it is for the District Court to determine whether, under this Court's decision in *Lugar v. Edmondson Oil Co.,* 457 U.S. 922, 102 S.Ct. 2744, 73 L.Ed.2d 482 (1982), defendants actually acted "under color of state law."

Second, we have answered the immunity question narrowly, in the context in which it arose. That context is one in which a private firm, systematically organized to assume a major lengthy administrative task (managing an institution) with limited direct supervision by the government, undertakes that task for profit and potentially in competition with other firms. The case does not involve a private individual briefly associated with a government body, serving as an adjunct to government in an essential governmental activity, or acting under close official supervision.

Third, *Wyatt* explicitly stated that it did not decide whether or not the private defendants before it might assert, not immunity, but a special "good-faith" defense. The Court said that it

> "d[id] not foreclose the possibility that private defendants faced with § 1983 liability under *Lugar v. Edmondson Oil Co.,* 457 U.S. 922, 102 S.Ct. 2744, 73 L.Ed.2d 482 (1982), could be entitled to an affirmative defense based on good faith and/or probable cause or that § 1983 suits against private, rather than governmental, parties could require plaintiffs to carry additional burdens." *Wyatt,* 504 U.S., at 169, 112 S.Ct., at 1834.

But because those issues were not fairly before the Court, it left "them for another day." *Ibid.* Similarly, the Court of Appeals in this case limited its holding to the question of immunity. It said specifically that it

> "may be that the appropriate balance to be struck here is to permit the correctional officers to assert a good ***414** faith defense, rather than qualified immunity.... However, that issue is not before this Court in this interlocutory appeal." 88 F.3d, at 425.

Like the Court in *Wyatt,* and the Court of Appeals in this case, we do not express a view on this last-mentioned question.

For these reasons the judgment of the Court of Appeals is

Affirmed.

Justice SCALIA, with whom THE CHIEF JUSTICE, Justice KENNEDY, and Justice THOMAS join, dissenting.

In *Procunier v. Navarette,* 434 U.S. 555, 98 S.Ct. 855, 55 L.Ed.2d 24 (1978), we held that state prison officials, including both supervisory and subordinate officers, are entitled to qualified immunity in a suit brought under 42 U.S.C. § 1983. Today the Court declares that this immunity is unavailable to employees of private prison management firms, who perform the same duties as state-employed correctional officials, who exercise the most palpable form of state police power, and who may be sued for acting "under color of state law." This holding is supported neither by ****2109** common-law tradition nor public policy, and contradicts our settled practice of determining § 1983 immunity on the basis of the public function being performed.

I

The doctrine of official immunity against damages actions under § 1983 is rooted in the assumption that that statute did not abolish those immunities traditionally available at common law. See *Buckley v. Fitzsimmons,* 509 U.S. 259, 268, 113 S.Ct. 2606, 2612-2613, 125 L.Ed.2d 209 (1993). I agree with the Court, therefore, that we must look to history to resolve this case. I do not agree with the Court, however, that the petitioners' claim to immunity is defeated if they cannot provide an actual case, antedating or contemporaneous with the enactment of § 1983, in which immunity was successfully asserted by a private prison ***415** guard. It is only the absence of such a case, and not any explicit rejection of immunity by any common-law court, that the Court relies upon. The opinion observes that private jailers existed in the 19th century, and that they were successfully sued by prisoners. But one could just as easily show that government-employed jailers were successfully sued at common law, often with no mention of possible immunity, see Schellenger, Civil liability of sheriff or other officer charged with keeping jail or prison for death or injury of prisoner, 14 A.L.R.2d 353 (1950) (annotating numerous cases where sheriffs were held liable). Indeed, as far as my research has disclosed, there may be more case-law support for immunity in the private-jailer context than in the government-jailer context. The only pre-§ 1983 jailer-immunity case of any sort that I am aware of is *Williams v. Adams,* 85 Mass. 171 (1861), decided only 10 years before § 1983 became law. And that case, which explicitly acknowledged that the issue of jailer immunity was "novel," *ibid., appears to have conferred immunity upon an independent contractor.* [1]

The truth to tell, *Procunier v. Navarette, supra,* which established § 1983 immunity for state prison guards, did not trouble itself with history, as our later § 1983 immunity opinions ***416** have done, see, *e.g., Burns v. Reed,* 500 U.S. 478, 489-490, 111 S.Ct. 1934, 1940-1941, 114 L.Ed.2d 547 (1991); *Tower v. Glover,* 467 U.S. 914, 920, 104 S.Ct. 2820, 2824-2825, 81 L.Ed.2d 758 (1984), but simply set forth a policy prescription. At this stage in our jurisprudence it is irrational, and productive of harmful policy consequences, to rely upon lack of case support to create an artificial limitation upon the scope of a doctrine (prison-guard immunity) that was itself not based on case support. I say an artificial limitation, because the historical *principles* on which common-law immunity was based, and which are reflected in our jurisprudence, plainly cover the private prison guard if they cover the nonprivate. Those principles are two: (1) immunity is determined by function, not status, and (2) even more specifically, private status is not disqualifying.

"[O]ur cases clearly indicate that immunity analysis rests on functional categories, not on the status of the defendant." *Briscoe v. LaHue,* 460 U.S. 325, 342, 103 S.Ct. 1108, 1119, 75 L.Ed.2d 96 (1983). Immunity "flows not from rank or title or 'location within the Government,' ... but from the nature of the responsibilities of the individual official." *Cleavinger v. Saxner,* 474 U.S. 193, 201, 106 S.Ct. 496, 501, 88 L.Ed.2d 507 (1985), quoting *Butz v. Economou,* 438 U.S. 478, 98 S.Ct. 2894, 57 L.Ed.2d 895 (1978). "Running through our cases, with fair consistency, is a 'functional' approach to immunity ques ****2110** tions.... Under that approach, we examine the nature of the functions with which a particular official or class of officials has been lawfully entrusted, and we seek to evaluate the effect that exposure to particular forms of liability would likely have on the appropriate exercise of those functions." *Forrester v. White,* 484 U.S. 219, 224, 108 S.Ct. 538, 542, 98 L.Ed.2d 555 (1988). See also *Buckley, supra,* at 269, 113 S.Ct., at 2613-2614; *Burns, supra,* at 484-486, 111 S.Ct., at 1938-1939; *Malley v. Briggs,* 475 U.S. 335, 342-343, 106 S.Ct. 1092, 1096-1097, 89 L.Ed.2d 271 (1986); *Harlow v. Fitzgerald,* 457 U.S. 800, 810-811, 102 S.Ct. 2727, 2734-2735, 73 L.Ed.2d

396 (1982); *Imbler v. Pachtman,* 424 U.S. 409, 420-429, 96 S.Ct. 984, 990-994, 47 L.Ed.2d 128 (1976). The parties concede that petitioners perform a prototypically governmental function (enforcement of state-imposed deprivation of liberty), and one that gives rise to qualified immunity.

***417** The point that function rather than status governs the immunity determination is demonstrated in a prison-guard case virtually contemporaneous with the enactment of § 1983. *Alamango v. Board of Supervisors of Albany Cty.,* 32 N.Y. Sup.Ct. 551 (1881), held that supervisors charged under state law with maintaining a penitentiary were immune from prisoner lawsuits. Although they were not formally state officers, the court emphasized the irrelevance of this fact:

> "The duty of punishing criminals is inherent in the Sovereign power. It may be committed to agencies selected for that purpose, but such agencies, while engaged in that duty, stand so far in the place of the State and exercise its political authority, and do not act in any private capacity." *Id.,* at 552. [2]

Private individuals have regularly been accorded immunity when they perform a governmental function that qualifies. We have long recognized the absolute immunity of grand jurors, noting that like prosecutors and judges they must "exercise a discretionary judgment on the basis of evidence presented to them." *Imbler,* 424 U.S., at 423, n. 20, 96 S.Ct., at 991, n. 20. "It is the functional comparability of [grand jurors'] judgments to those of the judge that has resulted in [their] being referred to as 'quasi-judicial' officers, and their immunities being termed 'quasi-judicial' as well." *Ibid.* Likewise, witnesses ***418** who testify in court proceedings have enjoyed immunity, regardless of whether they were government employees. "[T]he common law," we have observed, "provided absolute immunity from subsequent damages liability for all persons-*governmental or otherwise*-who were integral parts of the judicial process." *Briscoe, supra,* at 335, 103 S.Ct., at 1115-1116 (emphasis added). I think it highly unlikely that we would deny prosecutorial immunity to those private attorneys increasingly employed by various jurisdictions in this country to conduct high-visibility criminal prosecutions. See, *e.g.,* Kaplan, State Hires Private Lawyer for Bryant Family Trial, Los Angeles Times, Apr. 28, 1993, p. B4, col. 2; Estrich, On Building the Strongest Possible Prosecution Team, Los Angeles Times, July 10, 1994, p. M1, col. 1. There is no more reason for treating private prison guards differently.

II

Later in its opinion, the Court seeks to establish that there are policy reasons for denying to private prison guards the immunity accorded to public ones. As I have indicated above, I believe that history and not judicially analyzed policy governs this matter-but even on its own terms the Court's ****2111** attempted policy distinction is unconvincing. The Court suggests two differences between civil-service prison guards and those employed by private prison firms which preclude any "special" need to give the latter immunity. First, the Court says that "unwarranted timidity" on the part of private guards is less likely to be a concern, since their companies are subject to market pressures that encourage them to be effective in the performance of their duties. If a private firm does not maintain a proper level of order, the Court reasons, it will be replaced by another one-so there is no need for qualified immunity to facilitate the maintenance of order.

This is wrong for several reasons. First of all, it is fanciful to speak of the consequences of "market" pressures in a ***419** regime where public officials are the only purchaser, and other people's money the medium of payment. Ultimately, one prison-management firm will be selected to replace another prison-management firm only if a decision is made by some *political* official not to renew the contract. See Tenn.Code Ann. §§ 41-24-103 to 105 (Supp.1996). This is a government decision, not a market choice. If state officers turn out to be more strict in reviewing the cost and performance of privately managed prisons than of publicly managed ones, it will only be because they have *chosen* to be so. The process can come to resemble a market choice only to the extent that political actors *will* such resemblance-that is, to the extent that political actors (1) are willing to pay attention to the issue of prison services, among the many issues vying for their attention, and (2) are willing to place considerations of cost and quality of service ahead of such political considerations as personal friendship, political alliances, in-state ownership of the contractor, etc. Secondly and more importantly, however, if one assumes a political regime that *is* bent on emulating the market in its purchase of prison services, it is almost certainly the case that, short

of mismanagement so severe as to provoke a prison riot, *price* (not discipline) will be the predominating factor in such a regime's selection of a contractor. A contractor's price must depend upon its costs; lawsuits increase costs [3] ; and "fearless" maintenance of discipline increases lawsuits. The incentive to down-play discipline will exist, moreover, even in those States where the politicians' zeal for market emulation and budget cutting has waned, and where prison-management ***420** contract renewal is virtually automatic: the more cautious the prison guards, the fewer the lawsuits, the higher the profits. In sum, it seems that "market-competitive" private prison managers have even greater need than civil-service prison managers for immunity as an incentive to discipline.

The Court's second distinction between state and private prisons is that privatization "helps to meet the immunity-related need to ensure that talented candidates are not deterred by the threat of damages suits from entering public service" as prison guards. *Ante,* at 2107 (internal quotation marks omitted). This is so because privatization brings with it (or at least has brought with it in the case before us) (1) a statutory requirement for insurance coverage against civil-rights claims, which assertedly "increases the likelihood of employee indemnification," and (2) a liberation "from many civil service law restraints" which prevent increased employee risk from being "offset ... with higher pay or extra benefits," *ibid.* As for the former (civil-rights liability insurance): surely it is the *availability* of that protection, rather than its actual presence in the case at hand, which decreases (if it does decrease, which I doubt) the *need* for immunity protection. (Otherwise, the Court would have to say that a private prison-management firm that is not required to purchase insurance, and does not do so, is more entitled to immunity; and that a government-run prison system that *does* purchase insurance is *less* entitled to immunity.) And of course civil-rights liability insurance ****2112** is no less *available* to public entities than to private employers. But the second factor-liberation from civil-service limitations-is the more interesting one. First of all, simply as a philosophical matter it is fascinating to learn that one of the prime justifications for § 1983 immunity should be a phenomenon (civil-service laws) that did not even exist when § 1983 was enacted and the immunity created. Also as a philosophical matter, it is poetic justice (or poetic revenge) that the Court ***421** should use one of the principal economic benefits of "prison out-sourcing"-namely, the avoidance of civil-service salary and tenure encrustations-as the justification for a legal rule rendering out-sourcing more expensive. Of course the savings attributable to out-sourcing will not be wholly lost as a result of today's holding; they will be transferred in part from the public to prisoner-plaintiffs and to lawyers. It is a result that only the American Bar Association and the American Federation of Government Employees could love. But apart from philosophical fascination, this second factor is subject to the same objection as the first: governments *need not* have civil-service salary encrustations (or can exempt prisons from them); and hence governments, no more than private prison employers, have any *need* for § 1983 immunity.

There is one more possible rationale for denying immunity to private prison guards worth discussing, albeit briefly. It is a theory so implausible that the Court avoids mentioning it, even though it was the primary reason given in the Court of Appeals decision that the Court affirms. *McKnight v. Rees,* 88 F.3d 417, 424-425 (C.A.6 1996). It is that officers of private prisons are more likely than officers of state prisons to violate prisoners' constitutional rights because they work for a profit motive, and hence an added degree of deterrence is needed to keep these officers in line. The Court of Appeals offered no evidence to support its bald assertion that private prison guards operate with different incentives than state prison guards, and gave no hint as to how prison guards might possibly increase their employers' profits by violating constitutional rights. One would think that private prison managers, whose § 1983 damages come out of their own pockets, as compared with public prison managers, whose § 1983 damages come out of the public purse, would, if anything, be more careful in training their employees to avoid constitutional infractions. And in fact, States having experimented with prison privatization commonly report ***422** that the overall caliber of the services provided to prisoners has actually improved in scope and quality. Matters Relating To The Federal Bureau Of Prisons: Hearing before the Subcommittee on Crime of the House Committee on the Judiciary, 104th Cong., 1st Sess., 110 (1995).

* * *

In concluding, I must observe that since there is no apparent *reason,* neither in history nor in policy, for making immunity hinge upon the Court's distinction between public and private guards, the precise *nature* of

that distinction must also remain obscure. Is it privity of contract that separates the two categories-so that guards paid directly by the State are "public" prison guards and immune, but those paid by a prison-management company "private" prison guards and not immune? Or is it rather "employee" versus "independent contractor" status-so that even guards whose compensation is paid directly by the State are not immune if they are not also supervised by a state official? Or is perhaps state supervision alone (without direct payment) enough to confer immunity? Or is it (as the Court's characterization of *Alamango,* see n. 2, *supra,* suggests) the formal designation of the guards, or perhaps of the guards' employer, as a "state instrumentality" that makes the difference? Since, as I say, I see no sense in the public-private distinction, neither do I see what precisely it consists of.

Today's decision says that two sets of prison guards who are indistinguishable in the ultimate source of their authority over prisoners, indistinguishable in the powers that they possess over prisoners, and indistinguishable in the duties that they owe toward prisoners, are to be treated quite differently in the matter of their financial liability. The only sure effect of today's decision-and the only purpose, as far as I can tell-is that it will artificially raise the cost of privatizing ****2113** prisons. Whether this will cause privatization to be prohibitively expensive, or instead simply divert state funds ***423** that could have been saved or spent on additional prison services, it is likely that taxpayers and prisoners will suffer as a consequence. Neither our precedent, nor the historical foundations of § 1983, nor the policies underlying § 1983, support this result.

I respectfully dissent.

All Citations

521 U.S. 399, 117 S.Ct. 2100, 138 L.Ed.2d 540, 70 Empl. Prac. Dec. P 44,784, 65 USLW 4579, 97 Cal. Daily Op. Serv. 4813, 97 Daily Journal D.A.R. 7889, 97 CJ C.A.R. 1009, 11 Fla. L. Weekly Fed. S 64

Footnotes

* The syllabus constitutes no part of the opinion of the Court but has been prepared by the Reporter of Decisions for the convenience of the reader. See *United States v. Detroit Timber & Lumber Co.,* 200 U.S. 321, 337, 26 S.Ct. 282, 287, 50 L.Ed. 499.

1 *Williams* held that prisoners could not recover damages for negligence against the master of a house of correction. That official seems to have been no more a "public officer" than the head of a private company running a prison. For example, the governing statute provided that he was to be paid by the prisoners for his expenses in supporting and employing them, and in event of their default he was given an action *indebitatus assumpsit* for the sum due, "which shall be deemed to be his own proper debt." Mass. Gen.Stat., ch. 143, § 15 (1835). If he failed to distribute to the prisoners those "rations or articles of food, soap, fuel, or other necessaries" directed by the county commissioner (or the mayor and aldermen of Boston), he was subject to a fine. *Id.,* § 45. The opinion in *Williams* says that "[t]he master of the house of correction is not an independent public officer, having the same relations to those who are confined therein that a deputy sheriff has to the parties to a writ committed to him to serve." 85 Mass., at 173.

2 The Court cites *Alamango* for the proposition that there is "no cause of action against [a] private contractor where [the] contractor [is] designated [a] state instrumentality by statute." *Ante,* at 2105. The opinion in *Alamango,* however, does not cite any statutory designation of the supervisors as a "state instrumentality," and does not rely on such a designation for its holding. It does identify the Board of Supervisors as "a mere instrumentality selected by the State," 32 N.Y. Sup.Ct., at 552, but the same could be said of the prison management firm here (or the master of the house of corrections in *Williams v. Adams,* 85 Mass. 171 (1861), see n. 1, *supra*). If one were to accept the Court's distinguishing of this case, all that would be needed to change the outcome in the present suit is the pointless formality of designating the contractor a "state instrumentality"-hardly a rational resolution of the question before us.

3 This is true even of successfully defended lawsuits, and even of lawsuits that have been insured against. The Court thinks it relevant to the factor I am currently discussing that the private prison-management firm "must buy insurance sufficient to compensate victims of civil rights torts," *ante,* at 2106. Belief in the relevance of this factor must be traceable, ultimately, to belief in the existence of a free lunch. Obviously, as civil-rights claims increase, the cost of civil-rights insurance increases.

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32 Cal.4th 409
Supreme Court of California

Jerry RICHMOND et al., Plaintiffs and Appellants,
v.
SHASTA COMMUNITY SERVICES DISTRICT, Defendant and Respondent.

No. S105078.
|
Feb. 9, 2004.

Synopsis
Background: Property owners brought action challenging constitutionality of resolution adopted by water district that increased connection fee charged to new users and continued unchanged, as part of connection fee, a fee for fire suppression. The Superior Court, Shasta County, No. 0134636, Richard A. McEachen, J., upheld enactment. Property owners appealed. The Court of Appeal affirmed in part and reversed in part. The Supreme Court granted review, superseding the opinion of the Court of Appeal.

Holdings: The Supreme Court, Kennard, J., held that:

[1] district's capacity charge, imposed on applicants for new service connections, was not an "assessment" subject to state constitutional restrictions;

[2] district's fee for fire suppression as part of new connection fee was not subject to constitutional restrictions on fees; and

[3] district could amend ordinance establishing new connection fees by resolution.

Judgment of the Court of Appeal reversed and matter remanded to that court with directions.

Opinion, 116 Cal.Rptr.2d 343, superseded.

West Headnotes (9)

[1] Water Law
Charges as Taxes or Assessments

Water district's capacity charge, imposed on applicants for new service connections, was not an "assessment" subject to state constitutional restrictions on assessments, since district could only estimate number of connections and could not identify specific parcels for which new applications would be made, as required by constitutional provision. West's Ann.Cal. Const. Art. 13D, §§ 2, 4.

See 9 Witkin, Summary of Cal. Law (9th ed. 1989) Taxation, §§ 110A, 110B; Cal. Jur. 3d, Property Tax, § 4.

16 Cases that cite this headnote

[2] Constitutional Law
General Rules of Construction

The principles of constitutional interpretation are similar to those governing statutory construction.

4 Cases that cite this headnote

[3] Constitutional Law
Intent in general

The aim of constitutional interpretation is to determine and effectuate the intent of those who enacted the constitutional provision at issue.

8 Cases that cite this headnote

[4] Constitutional Law
Meaning of Language in General
Constitutional Law
Plain, ordinary, or common meaning

To determine intent of enactors of a constitutional provision, the Supreme Court begins by examining the constitutional text, giving the words their ordinary meanings.

4 Cases that cite this headnote

[5] **Constitutional Law**
Reasonableness of result

Constitutional Law
Meaning of Language in General

Courts construe constitutional phrases liberally and practically; where possible they avoid a literalism that effects absurd, arbitrary, or unintended results.

Cases that cite this headnote

[6] **Constitutional Law**
Meaning of Language in General

Constitutional Law
Relation to former constitution

Statutes
Defined terms;definitional provisions

Statutes
Legislative Construction

Rule, holding that when a term has been given a particular meaning by a judicial decision it should be presumed to have the same meaning in later-enacted statutes or constitutional provisions, does not apply when the statute or constitutional provision contains its own definition of the term at issue; if the Legislature has provided an express definition of a term, that definition ordinarily is binding on the courts.

2 Cases that cite this headnote

[7] **Water Law**
Connection and capitalization fees

Water district's capacity charge, imposed on applicants for new service connections, was not a "development fee"; district had no authority to approve or disapprove property development, and a property owner could request a new service connection without proposing any new development.

19 Cases that cite this headnote

[8] **Water Law**
Charge for fire protection service

Water district's fee for fire suppression as part of new connection fee was not subject to constitutional restrictions on fees, since it was not imposed as an incident to ownership; although supplying water was a property-related service within constitutional definition of a fee or charge, a water service fee was a "fee or charge" only if it was imposed upon a person as an incident of property ownership, and making a new connection to the system was not such imposition, since it resulted from an owner's voluntary decision to apply for the connection. West's Ann.Cal. Const. Art. 13D, §§ 2(e), 3(b), 6(a, b); West's Ann.Cal.Gov.Code §§ 61621, 61621.3.

25 Cases that cite this headnote

[9] **Water Law**
Connection and capitalization fees

Water district could amend ordinance establishing new connection fee by resolution under authority of Mitigation Fee Act, which allowed such action by ordinance or resolution; district was not subject to statute requiring sewage system actions to be enacted by ordinance. West's Ann.Cal.Gov.Code § 66016(b); West's Ann.Cal.Health & Safety Code § 5471.

3 Cases that cite this headnote

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Opinion

KENNARD, J.

In November 1996, California voters adopted Proposition 218, the Right to Vote on Taxes Act, which added articles XIII C and XIII D to the California Constitution. (See *Apartment Assn. of Los Angeles County,* **415 *Inc. v. City of Los Angeles* (2001) 24 Cal.4th 830, 835, 102 Cal.Rptr.2d 719, 14 P.3d 930.) Article XIII D of the state Constitution (hereafter article XIII D) specifies various restrictions and requirements for assessments, fees, and charges that local governments impose on real property or on persons as an incident of property ownership. Here, the main issue is whether a charge that a local water district imposed as a condition of making a new connection to the water system, and that the district used to finance capital improvements to the water system, is subject to the restrictions of article XIII D. Other questions presented are whether article XIII D prohibits a local water district from continuing to include in the new connection fees a fire suppression charge, the proceeds of which are used to purchase firefighting and emergency medical equipment for the district's volunteer fire department, and whether an ordinance imposing a water connection fee may be amended by a resolution.

On these questions, we conclude: (1) a capacity charge imposed as a condition for making a new connection to a water system, the proceeds of which are used to finance capital improvements, is not an assessment within the meaning of article XIII D, and thus it is not subject to article XIII D's restrictions on assessments; (2) a fire suppression fee imposed as a condition for making a new connection to a water system, the proceeds of which are used to purchase firefighting and emergency medical ***124 equipment, is not a property-related fee or charge under article XIII D, and thus it is not subject to article XIII D's prohibition against property-related fees and charges for general governmental services; and (3) an ordinance enacted by a community services district to impose a water connection fee may be amended by a resolution. Because these conclusions are consistent with the trial court's judgment but inconsistent with part of the Court of Appeal's opinion, we will reverse that court's judgment with directions to affirm the trial court's judgment.

I. FACTS AND PROCEDURAL HISTORY

Because neither party petitioned the Court of Appeal for a rehearing, we take the facts largely from that court's opinion. (See Cal. Rules of Court, rule 28(c)(2).)

Defendant Shasta Community Services District (the District) is a local public entity organized under the community services district law (Gov.Code, § 61000 et seq.). It operates a water system for residential and commercial users and a volunteer fire department that provides both fire suppression and emergency medical services. In February 1994, the District adopted an ordinance (No. 1–94) establishing a "standard connection fee" of $2,000, plus the cost of a water meter, for new water service connections. *416 According to the ordinance, this fee included a capacity charge [1] of $600 for future improvements to the water system and a fire suppression charge of $400. The ordinance did not expressly allocate the remaining $1,000, but one may infer that it covered the cost of installing the water service connection because the ordinance also provided that if the water main was not on the same side of the street or highway as the property to be served, "the District will charge the actual **521 cost of the connection to the extent such cost exceed[s] the sum of $1,000."

In November 1997, the District adopted a resolution (No. 10–97) to amend this ordinance. According to the resolution, applicants for new water service connections would be required to pay: (1) a "standard connection fee"; (2) the actual cost of a water meter; and (3) if the property owner chose to have the District install the service connection, the "actual cost of the materials,

labor, and overhead" for installing the "entire service connection including the meter, line setter, meter box, appurtenant equipment, and mainline extension, if any." The "standard connection fee" consisted of a $3,176 capacity charge for capital improvements to the water system and a $400 fire suppression charge. The resolution stated that the $3,176 capacity charge was "based upon estimated project costs of $762,300 for future improvements assigned to the new development of 240 future connections which equals $3,176 per connection."

In March 1998, plaintiffs Jerry Richmond, Linda Panich, Hank Edelstein, and Victoria Edelstein, both individually and doing business as a joint venture, brought this action to test the validity of the resolution increasing the fees for new connections. (Code Civ. Proc., § 860; Gov.Code, §§ 66013, 66022.) They alleged that they owned real property within the District and also within an area proposed for annexation into the District. They challenged the resolution on many grounds, only three of which are relevant here: (1) The resolution imposed an assessment within the meaning of article XIII D, but *****125** the District had not satisfied the constitutional requirements for imposing an assessment; (2) the $400 fire suppression charge was a "fee" or "charge" within the meaning of article XIII D, and it violated article XIII D's prohibition against fees or charges for general governmental services; and (3) the 1994 ordinance could be amended only by another ordinance, not by a mere resolution. Plaintiffs requested a declaratory judgment that the resolution was void and a permanent injunction restraining the District from enforcing it.

***417** The action was tried to the court without a jury. At the trial, the District presented evidence showing, among other things, that the capital improvements to be funded by the $3,176 capacity charge, including a new 500,000–gallon storage tank, would both remedy existing deficiencies in the water system and expand the system's ability to provide service to new customers through new connections. The $3,176 charge was calculated by allocating 50 percent of the cost of the improvements to new connections and 50 percent to existing connections. Water customers throughout the district would benefit from the improvements, but customers in certain higher-elevation areas would receive somewhat less benefit than other customers. After considering the evidence, the superior court granted judgment for the District. The court concluded: (1) The connection fee imposed by resolution No. 10–97 is not a special assessment but a development fee exempt from article XIII D; (2) the fire suppression charge is merely the continuation of a fee imposed before article XIII D was enacted; and (3) the connection fee could legally be adopted by a resolution (enactment of an ordinance was not required).

On plaintiffs' appeal, the Court of Appeal affirmed the judgment, except as to the fire suppression charge. The court reasoned that the District's connection fee was not an assessment within the meaning of article XIII D because that constitutional provision by implication defines an assessment as a charge imposed on specific identified parcels, whereas the connection fee was not imposed on identified parcels. Because the connection fee was imposed only when a property owner requested a new service connection, the specific properties for which connections would be sought could not be identified (although the number of such requests could be estimated), and thus the connection charge could not be characterized as an assessment. The Court of Appeal also concluded that the connection fee, because it was incurred only when the owner voluntarily requested a new service connection, was properly characterized as a development fee, and as such it was exempt from the requirements of article XIII D.

****522** With respect to the fire suppression charge, however, the Court of Appeal accepted plaintiff's argument that it was a fee for general governmental services prohibited by section 6, subdivision (b)(5), of article XIII D. The Court of Appeal rejected the District's argument that this provision did not apply to fees authorized by laws enacted before article XIII D became effective, but only to fees that were newly enacted or increased thereafter.

Finally, the Court of Appeal concluded that the District could validly use a resolution to amend an ordinance.

***418 II. THE CAPACITY CHARGE**

[1] [2] [3] [4] To determine whether the District's $3,176 capacity charge, imposed only on applicants for new service connections, violates article XIII D's restrictions on assessments, we must interpret our state Constitution. "The principles of constitutional interpretation are similar to those governing statutory

construction." ***126 (*Thompson v. Department of Corrections* (2001) 25 Cal.4th 117, 122, 105 Cal.Rptr.2d 46, 18 P.3d 1198.) The aim of constitutional interpretation is to determine and effectuate the intent of those who enacted the constitutional provision at issue. (*Ibid.*) To determine that intent, we begin by examining the constitutional text, giving the words their ordinary meanings. (*Ibid.;* accord, *Leone v. Medical Board* (2000) 22 Cal.4th 660, 665, 94 Cal.Rptr.2d 61, 995 P.2d 191.)

Section 2 of article XIII D defines an "assessment" as "any levy or charge upon real property ... for a special benefit conferred upon the real property...." (Art. XIII D, § 2, subd. (b).) It defines "special benefit" as "a particular and distinct benefit over and above general benefits conferred on real property located in the district or to the public at large...." (*Id.,* § 2, subd. (i).)

Section 4 of article XIII D establishes procedures and requirements for assessments. A local public agency may not impose an assessment, as defined in article XIII D, unless: (1) the agency identifies "all parcels which will have a special benefit conferred upon them and upon which an assessment will be imposed" (art. XIII D, § 4, subd. (a)); (2) the agency obtains an engineer's report that supports the assessment (*id.,* § 4, subd. (b)); (3) the assessment does not exceed the reasonable cost of the proportional special benefit conferred on the affected parcel (*id.,* § 4, subds. (a) & (f)); and (4) after giving notice to affected property owners and holding a public hearing, the agency does not receive a majority protest based on ballots "weighted according to the proportional financial obligation of the affected property" (*id.,* § 4, subds. (c)-(e)).

To determine what constitutes an assessment under article XIII D, it is necessary to consider not only article XIII D's definition of an assessment, but also the requirements and procedures that article XIII D imposes on assessments. Article XIII D requires that an agency imposing an assessment identify "all parcels which *will* have a special benefit conferred upon them and upon which an assessment *will* be imposed." (Art. XIII D, § 4, subd. (a), italics added.) The agency then must give written notice of the proposed assessment to the owners of these identified parcels (*id.,* § 4, subd. (c)) and provide an opportunity for a protest using ballots "weighted according to the proportional financial obligation of the affected property" (*id.,* § 4, subd. (e)).

*419 Because the capacity charge is imposed only on property owners who apply for a new service connection, the District cannot identify the parcels upon which the capacity charge will be imposed. Here, the District *estimated* that there would be 240 new connection applications, but the District did not and could not *identify* the specific parcels for which new connection applications would be made. At most, the District can identify the parcels within its boundaries on which the capacity charge *would* be imposed *if* the owners applied for a service connection. But the matter is more complex, because many existing undeveloped parcels would likely be subdivided into an indeterminable number of smaller parcels, for each of which a connection might be requested, thus making it impossible to now determine "the proportional financial obligation of the affected property." And even this understates the problem, because owners of property outside the District's **523 boundaries may seek service connections by applying for annexation of their property into the District. Therefore, it is impossible for the District to comply with article XIII D's requirement that the agency identify the parcels on which the assessment will be imposed ***127 and provide an opportunity for a majority protest weighted according to the proportional financial obligation of the affected property.

We agree with the Court of Appeal that the proper conclusion to be drawn from this impossibility of compliance is that an assessment within the meaning of article XIII D must not only confer a special benefit on real property, but also be imposed on identifiable parcels of real property. Because the District does not impose the capacity charge on identifiable parcels, but only on individuals who request a new service connection, the capacity charge is not an assessment within the meaning of article XIII D.

[5] This construction is consistent with settled rules of constitutional interpretation. "Courts construe constitutional phrases liberally and practically; where possible they avoid a literalism that effects absurd, arbitrary, or unintended results." (*Carman v. Alvord* (1982) 31 Cal.3d 318, 327, 182 Cal.Rptr. 506, 644 P.2d 192; see also *California Correctional Peace Officers Assn. v. State Personnel Bd.* (1995) 10 Cal.4th 1133, 1147, 43 Cal.Rptr.2d 693, 899 P.2d 79 ["a practical construction is preferred"].) Construing article XIII D's definition of assessment as applying only to charges imposed

on identifiable parcels avoids the probably unintended result of prohibiting local water districts from imposing capacity charges, no matter how modest or reasonable, for new connections because of the inherent impossibility of identifying in advance the parcels for which new connections would later be requested.

This construction is also consistent with article XIII D's definition of an assessment as a "levy or charge *upon real property* ...." (Art. XIII D, § 2, ***420** subd. (b), italics added.) [2] The District does not impose the capacity charge on real property as such, but on individuals who apply for new service connections. It is the applicant who must pay, and the District may not impose a lien or otherwise have recourse to the property to compel payment. Rather, the District simply does not initiate water service until the charge is paid. A charge that operates in this way cannot be described as a charge upon real property, within the meaning of article XIII D.

Finally, this construction is consistent with the aim of Proposition 218 to enhance taxpayer consent. Here, the District proposed to divide the costs of new capital improvements between users receiving service through existing connections and users applying for new connections. This case concerns only imposition of costs on new connections. Presumably, any costs imposed on customers receiving service through existing connections would be subject to article XIII D's voter approval requirements, and thus their consent. Customers who apply for new connections give consent by the act of applying. Moreover, water connection fees are already subject to significant constraints under Government Code section 66013. [3]

*****128** ***421** ****524** Plaintiffs rely on this court's decision in *****129** *San Marcos Water Dist. v. San Marcos Unified School Dist.* (1986) 42 Cal.3d 154, 228 Cal.Rptr. 47, 720 P.2d 935 (*San Marcos*). The issue there was whether a provision of the state Constitution exempting public entities from payment of property taxes (Cal. Const., art. XIII, § 3, subd. (b)) applied to a local water district's capacity fee, used to fund capital improvements to the water system. The constitutional property tax exemption for public entities had been construed to include ***422** special assessments, but not user fees, and thus the issue presented to this court was whether the capacity charge was more properly characterized as a special assessment or as a user fee for purposes of this constitutional provision. We concluded that a capacity charge was a hybrid, in the sense that it had some characteristics of a user fee and some characteristics of an assessment. (*San Marcos, supra,* at p. 163, 228 Cal.Rptr. 47, 720 P.2d 935.) We concluded also, however, that the fee should be considered an assessment for purposes of the public entity property tax exemption. We established a bright-line rule that "a fee aimed at assisting a utility district to defray costs of capital ****525** improvements will be deemed a special assessment from which other public entities are exempt." (*Id.* at pp. 164–165, 228 Cal.Rptr. 47, 720 P.2d 935.) [4]

San Marcos, supra, 42 Cal.3d 154, 228 Cal.Rptr. 47, 720 P.2d 935, is not on point here. We were not there construing the term "assessment" as used in article XIII D; instead, we were construing the constitutional provision exempting public entities from property taxes (Cal. Const., art. XIII, § 3, subd. (b)), a provision in which the term "assessment" does not appear. In deciding what constituted an assessment in *San Marcos,* we sought to determine and effectuate the constitutional purpose for exempting public entities from property taxes, a purpose that plays no role in interpreting the provisions of article XIII D that are at issue here. The characteristic that we found determinative for identifying assessments in *San Marcos*—that the proceeds of the fee were used for capital improvements—forms no part of article XIII D's definition of assessments. For each of these reasons, we agree with the Court of Appeal that *San Marcos* is not helpful, much less controlling, in this strikingly different context. (See *Ginns v. Savage* (1964) 61 Cal.2d 520, 524, fn. 2, 39 Cal.Rptr. 377, 393 P.2d 689 ["Language used in any opinion is of course to be understood in the light of the facts and the issue then before the court, and an opinion is not authority for a proposition not therein considered."]; *People v. Woodhead* (1987) 43 Cal.3d 1002, 1008, 239 Cal.Rptr. 656, 741 P.2d 154 [a word may have different legal meanings in different contexts]; *In re Marriage of Buol* (1985) 39 Cal.3d 751, 757, fn. 6, 218 Cal.Rptr. 31, 705 P.2d 354 [same].)

[6] Plaintiffs invoke the rule that when a term has been given a particular meaning by a judicial decision, it should be presumed to have the same meaning in later-enacted statutes or constitutional provisions. (See *People v. Hurtado* (2002) 28 Cal.4th 1179, 1188–1189, 124 Cal.Rptr.2d 186, 52 P.3d 116; *Arnett v. Dal* *****130** *Cielo* (1996) 14 Cal.4th 4, 19, 56 Cal.Rptr.2d 706, 923

***423** P.2d 1.) Plaintiffs argue that *San Marcos, supra,* 42 Cal.3d 154, 228 Cal.Rptr. 47, 720 P.2d 935, gave the term "assessment" a precise legal meaning as applying to capacity charges used to fund capital improvements, and therefore the term "assessment" in article XIII D, enacted after *San Marcos,* must be construed to have the same meaning. But the rule that plaintiffs invoke does not apply when, as here, the statute or constitutional provision contains its own definition of the term at issue: "If the Legislature has provided an express definition of a term, that definition ordinarily is binding on the courts." (*Curle v. Superior Court* (2001) 24 Cal.4th 1057, 1063, 103 Cal.Rptr.2d 751, 16 P.3d 166.) Here, article XIII D provides both an express definition of assessment and an implied qualification of that definition through the requirement that the agency identify the specific parcels on which the assessment will be imposed.

Plaintiffs next rely on the definition of assessment in Government Code section 53750, part of the Proposition 218 Omnibus Implementation Act (Gov.Code, §§ 53750–53753) that the Legislature enacted in 1997. (Stats.1997, ch. 38, § 5.) Government Code section 53750 states that "[f]or purposes of Article XIII C and Article XIII D of the California Constitution" an "assessment" means "any levy or charge by an agency upon real property that is based upon the special benefit conferred upon the real property by a public improvement or service, that is imposed to pay the capital cost of the public improvement, the maintenance and operation expenses of the public improvement, or the cost of the service being provided." (Gov.Code, § 53750, subd. (b).) As plaintiffs point out, this definition does not distinguish between charges imposed only in response to a request for service and charges imposed on previously identified parcels. In this respect, ****526** the statutory definition is no different from the constitutional definition in section 2, subdivision (b), of article XIII D. But the statutory provisions implementing article XIII D, like article XIII D itself, assume that assessments are imposed only on identified parcels. Under Government Code section 53753, subdivision (b), before levying a new or increased assessment, an agency must give notice " to the record owner of each identified parcel." Government Code section 53750, subdivision (g), defines an "identified parcel" as "a parcel of real property that an agency has identified as having a special benefit conferred upon it and upon which a proposed assessment is to be imposed...." Because the statutory provisions merely reflect the constitutional provisions, they do not alter our conclusion that under article XIII D an assessment is a charge imposed on previously identified parcels, and not a charge imposed only as a condition of extending service through a new service connection.

Arguing that a charge imposed only on property owners who voluntarily seek a governmental service or approval may properly be characterized as an assessment, plaintiffs call our attention to the Integrated Financing District ***424** Act (Gov.Code, § 53175 et seq.), under which local agencies may establish "contingent assessments" payable only when a landowner applies for development approval. (See *id.,* § 53187.) As plaintiffs point out, the Integrated Financing District Act includes notice and majority protest provisions for owners of property subject to the contingent assessment (*id.,* § 53183). (See *Southern Pacific Pipe Lines, Inc. v. Board of Supervisors* (1992) 9 Cal.App.4th 451, 461–462, 11 Cal.Rptr.2d 745.) We agree that the District's capacity charge is similar to a contingent assessment under the Integrated Financing District Act, but this *****131** observation does not assist plaintiffs. Unlike article XIII D, the Integrated Financing District Act does not require a local agency to identify in advance the particular parcels that *will be* subject to the assessment. Instead, the notice of intention to impose a contingent assessment goes to all owners of property within the proposed assessment zone, and the assessment cannot be imposed if protested by "the owners of more than one-half of the area of the property within the proposed ... district which is proposed to be subject to the contingent assessment immediately or in the future...." (Gov.Code, § 53183, subd. (d).) Thus, under the Integrated Financing District Act, in contrast to article XIII D, all owners of property *potentially* subject to a charge are entitled to notice and a weighted vote.

Article XIII D could have been written, like the Integrated Financing District Act, to cover contingent assessments as well as assessments imposed only on previously identified parcels. But it was not written in that manner, and we remain persuaded that a capacity charge contingent on some voluntary action by the property owner is not an assessment within the meaning of article XIII D.

[7] Plaintiffs argue that the Court of Appeal erred in characterizing the District's capacity charge as a development fee. Observing that development fees "are imposed only if a property owner elects to

develop" (*Loyola Marymount University v. Los Angeles Unified School Dist.* (1996) 45 Cal.App.4th 1256, 1267, 53 Cal.Rptr.2d 424), the Court of Appeal reasoned that the District's capacity charge, because it was imposed only in response to a property owner's voluntary decision to request a service connection, should be considered a development fee and thus exempt from the requirements of article XIII D under its section 1, subdivision (b), stating that "[n]othing in this article ... shall be construed to ... [a]ffect existing laws relating to the imposition of fees or charges as a condition of property development."

Plaintiffs insist that the District's capacity charge cannot be a development fee because the District has no authority to approve or disapprove property development, and because a property owner may request a new service connection without proposing any new development, such as when the owner ***425** of a previously developed residential parcel decides to use the District's water instead of water from an existing well on the property.

We agree with plaintiffs that the District's capacity charge is not a development fee. It is similar to a development fee in being imposed ****527** only in response to a property owner's voluntary application to a public entity, but it is different in that the application may be only for a water service connection without necessarily involving any development of the property. (See *Utility Cost Management v. Indian Wells Valley Water Dist., supra,* 26 Cal.4th at p. 1191, 114 Cal.Rptr.2d 459, 36 P.3d 2 [noting that a capacity charge "might apply regardless of whether a development project is at issue"]; *Capistrano Beach Water Dist. v. Taj Development Corp.* (1999) 72 Cal.App.4th 524, 530, 85 Cal.Rptr.2d 382 [concluding that a capacity charge is not a development fee under the Mitigation Fee Act (Gov.Code, § 66000 et seq.)].) Our agreement that the capacity charge is not a development fee does not assist plaintiffs, however, because it does not mean that the capacity charge is an assessment within the meaning of article XIII D. The capacity charge is neither an assessment nor a development fee under article XIII D.

We conclude, as did the trial court and the Court of Appeal, that the District's *****132** capacity charge is not an assessment under article XIII D.

III. THE FIRE SUPPRESSION CHARGE

Article XIII D provides: "No fee or charge may be imposed for general governmental services including, but not limited to, police, *fire,* ambulance or library services, where the service is available to the public at large in substantially the same manner as it is to property owners." (Art. XIII D, § 6, subd. (b)(5), italics added.) At the trial below, the evidence showed that the District uses the proceeds of the fire suppression component of the connection fee to purchase equipment for its volunteer fire department, including both firefighting equipment and emergency medical equipment. [5] The fire department provides firefighting and emergency medical services to the public at large. Accordingly, the District's fire suppression charge is "imposed for general governmental services" within the meaning of section 6, subdivision (b)(5), of article XIII D, and it is prohibited by that provision if it satisfies article XIII D's definition of a "fee or charge."

***426** Article XIII D defines a "fee" or "charge" as "any levy other than an ad valorem tax, a special tax, or an assessment, imposed by an agency upon a parcel or upon a person as an incident of property ownership, including a user fee or charge for a property-related service." (*Id.,* § 2, subd. (e).) It defines "property-related service" as "a public service having a direct relationship to property ownership." (*Id.,* § 2, subd. (h).)

[8] The District argues that the connection fee, including its fire suppression component, does not fall within article XIII D's definition of a fee or charge because it is not imposed "upon a parcel or upon a person as an incident of property ownership." (Art. XIII D, § 2, subd. (e).) The District does not impose the fee on parcels of real property but on persons who apply for a water service connection. The District does not impose the fee on such persons "as an incident of property ownership" but instead as an incident of their voluntary decisions to request water service. If a person fails to pay the connection fee, the District does not collect it by levying upon the person's property. Rather, because the person applying for service has not satisfied a condition for extending service, the District does not make the water connection and does not provide water service.

We agree that a connection charge, because it is not imposed "as an incident of property ownership" (art. XIII D, § 2, subd. (e)), is not a fee or charge under article XIII D. A connection fee is not imposed simply by virtue of property ownership, but instead it is imposed as an

incident of the voluntary act of ****528** the property owner in applying for a service connection.

Urging a different construction, plaintiffs rely on article XIII D's definition of a fee or charge as "including a user fee or charge for a property-related service." (*Id.,* § 2, subd. (e).) They argue that supplying water is a "property-related service," and, therefore, all charges for water service must be deemed to be imposed *****133** "upon a person as an incident of property ownership."

We agree that supplying water is a "property-related service" within the meaning of article XIII D's definition of a fee or charge. In the ballot pamphlet for the election at which article XIII D was adopted, the Legislative Analyst stated that "[f]ees for water, sewer, and refuse collection service probably meet the measure's definition of property-related fee." (Ballot Pamp., Gen. Elec. (Nov. 5, 1996), analysis of Prop. 218 by Legis. Analyst, p. 73.) The Legislative Analyst apparently concluded that water service has a direct relationship to property ownership, and thus is a property-related service within the meaning of article XIII D because water is indispensable to most uses of real property; because water is provided through pipes that are physically connected to the property; and because a water provider may, by recording a certificate, obtain a lien on the property for the amount of any ***427** delinquent service charges (see Gov.Code, §§ 61621, 61621.3). But the Legislative Analyst was apparently referring to fees imposed on existing water service customers, not fees imposed as a condition of initiating water service in the first instance.

Several provisions of article XIII D tend to confirm the Legislative Analyst's conclusion that charges for utility services such as electricity and water should be understood as charges imposed "as an incident of property ownership." For example, subdivision (b) of section 3 provides that "fees for the provision of electrical or gas service shall not be deemed charges or fees imposed as an incident of property ownership" under article XIII D. Under the rule of construction that the expression of some things in a statute implies the exclusion of other things not expressed (*In re Bryce C.* (1995) 12 Cal.4th 226, 231, 48 Cal.Rptr.2d 120, 906 P.2d 1275), the expression that electrical and gas service charges are not within the category of property-related fees implies that similar charges for other utility services, such as water and sewer, are property-related fees subject to the restrictions of article XIII D.

This implication is reinforced by subdivision (c) of article XIII D, section 6, which expressly excludes "fees or charges for sewer, water, and refuse collection services" from the voter approval requirements that article XIII D imposes on property-related fees and charges. Because article XIII D does not include similar express exemptions from the other requirements that it imposes on property-related fee and charges, the implication is strong that fees for water, sewer, and refuse collection services are subject to those other requirements. (See *Howard Jarvis Taxpayers Assn. v. City of Roseville* (2002) 97 Cal.App.4th 637, 645, 119 Cal.Rptr.2d 91 [reaching the same conclusion].)

Thus, we agree that water service fees, being fees for property-related services, may be fees or charges within the meaning of article XIII D. But we do not agree that *all* water service charges are necessarily subject to the restrictions that article XIII D imposes on fees and charges. Rather, we conclude that a water service fee is a fee or charge under article XIII D if, but only if, it is imposed "upon a person as an incident of property ownership." (Art. XIII D, § 2, subd. (e).) A fee for ongoing water service through an existing connection is imposed "as an incident of property ownership" because it requires nothing other than normal ownership and use of property. But a fee for making a new connection to the system is not imposed "as an incident of property ownership" because it results from the owner's voluntary decision to apply for the connection.

*****134** Any doubt on this point is removed by considering the requirements that article XIII D imposes on property-related fees and charges. As with assessments, article XIII D requires local government agencies to identify the ***428** parcels affected by a property-related fee or charge. Specifically, it requires the agency to identify "[t]he parcels ****529** upon which a fee or charge is proposed for imposition." (Art. XIII D, § 6, subd. (a)(1).) As we have explained, it is impossible for the District to comply with such a requirement for connection charges, because the District cannot determine in advance which property owners will apply for water service connection. As with assessments, this impossibility of compliance strongly suggests that connection fees for new users are

not subject to article XIII D's restrictions on property-related fees.

Because the connection fee, including the fire suppression charge, is not a property-related fee or charge within the meaning of article XIII D, it is not subject to article XIII D's prohibition on property-related fees or charges for general governmental services.

IV. AMENDMENT OF AN ORDINANCE BY A RESOLUTION

[9] Government Code section 66016, part of the Mitigation Fee Act (Gov.Code, § 66000 et seq.), provides in subdivision (b): "Any action by a local agency to levy a new fee or service charge or to approve an increase in an existing fee or service charge shall be taken only by ordinance *or resolution.*" (Italics added.) We agree with the Court of Appeal that this provision authorizes the District to use a resolution to increase existing connection fees, and that this authorization applies even when the fees were initially imposed by an ordinance.

Arguing to the contrary, plaintiffs assert that the Mitigation Fee Act is procedural rather than substantive. In other words, it does not give local water districts substantive authority to impose fees, but instead it merely regulates the manner in which fees may be imposed. But whether a fee imposed by ordinance may be amended by resolution is essentially a question of procedure, not substance. Therefore, we may and do construe Government Code section 66016 as giving the District authority to use a resolution to amend a fee ordinance.

In support of their position that the District may not use a resolution to amend an ordinance imposing a connection fee, plaintiffs rely on *Cavalier Acres, Inc. v. San Simeon Acres Community Services District* (1984) 151 Cal.App.3d 798, 199 Cal.Rptr. 4 (*Cavalier Acres*), in which the Court of Appeal concluded that a community services district could impose or increase water charges only by ordinance. In reaching this conclusion, the *Cavalier Acres* Court of Appeal relied on Government Code section 61621.5 and Health and Safety Code section 5471. Relying on the rule of construction that when two statutory provisions conflict, the one that is more specific controls, ***429** the *Cavalier Acres* Court of Appeal stated that, as applied to water charges imposed by a community services district, Government Code section 61621.5 and Health and Safety Code section 5471 were both more specific than Government Code section 66016.

Government Code section 61621.5 is part of the Community Services District Law (Gov.Code, § 61000 et seq.). As here relevant, it provides: "Except as otherwise provided in this section, a district may *by ordinance* adopt regulations binding upon all persons to govern the construction and use of its facilities and property, including regulations imposing reasonable charges for the use thereof." (Gov.Code, § 61621.5, subd. (a), italics added.) By its *****135** terms, this provision applies only to charges for the use of a community services district's *facilities,* not charges for its *services.* The Community Services District Law gives districts authority to impose charges for services, including charges for water, in a different section, Government Code section 61621. (See *Waterman Convalescent Hospital, Inc. v. Jurupa Community Services Dist.* (1996) 53 Cal.App.4th 1550, 1552–1553, 62 Cal.Rptr.2d 264.) As relevant here, it provides: "A district may prescribe, revise and collect rates or other charges for the services and facilities furnished by it...." (Gov.Code, § 61621.) Nothing in this provision requires a community services district to act by ordinance rather than by resolution when, as here, it revises and prescribes the charges for water service.

Health and Safety Code section 5471 is part of article 4 ("Sanitation and Sewerage Systems") of chapter 6 ("General Provisions with Respect to Sewers") of part 3 ("Community Facilities") of division 5 ("Sanitation") of ****530** the Health and Safety Code. As relevant here, it reads: "In addition to the powers granted in the principal act, *any entity* shall have power, *by an ordinance* approved by a two-thirds vote of the members of the legislative body thereof, to prescribe, revise and collect, fees, tolls, rates, rentals, or other charges, including *water,* sewer standby or immediate availability charges, for services and facilities furnished by it, either within or without its territorial limits, in connection with its *water,* sanitation, storm drainage, or sewerage system...." (Italics added.)

Health and Safety Code section 5471 does not apply to the District because it is not an "entity" within the meaning of this provision. Health and Safety Code section 5470 states that " '[e]ntity' means and includes counties, cities and counties, cities, sanitary districts, county sanitation districts, sewer maintenance districts,

and other public corporations and districts authorized to acquire, construct, maintain and operate sanitary sewers and sewerage systems." The District is a public agency organized as a community services district under the Community Services District Law (Gov.Code, § 61000 et seq.) to provide water service. Nothing in the record indicates it is authorized ***430** to construct, maintain, or operate sewers or sewerage systems. In this respect, *Cavalier Acres, supra,* 151 Cal.App.3d 798, 199 Cal.Rptr. 4, is distinguishable because the community services district at issue there provided both water and sewer services. (See *id.* at p. 800, 199 Cal.Rptr. 4.)

Moreover, even if we assume that Health and Safety Code section 5471 applies to the District, that provision, by its terms, confers authority "[i]n addition to" the authority otherwise granted to a public entity. In other words, its main purpose is to supplement rather than to limit a public agency's authority to impose charges for water or sewer services in connection with a water or sewerage system. For a public agency organized as a community services district, the "principal act" (*ibid.*) providing its authority is the Community Services District Law (Gov.Code, § 61000 et seq.). As we have seen, Government Code section 61621 authorizes community services districts to establish charges for water services without requiring that they act by ordinance rather than by resolution, and Government Code section 66016, part of the Mitigation Fee Act (Gov.Code, § 66000 et seq.), expressly authorizes districts to use either a resolution or an ordinance to impose or increase a service charge. We do not read Health and Safety Code section 5471 as limiting or abrogating that authority.

Again, we find *Cavalier Acres, supra,* 151 Cal.App.3d 798, 199 Cal.Rptr. 4, to be *****136** distinguishable. In 1984, when the Court of Appeal decided *Cavalier Acres,* the wording of Health and Safety Code section 5471 was materially different. The introductory phrase ("In addition to the powers granted in the principal act") was not present, having been added later by amendment. (Stats.1988, ch. 706, § 1, p. 2348.) The 1988 amendment demonstrates the Legislature's intent that Health and Safety Code section 5471 not be read as limiting the powers conferred on public entities by the laws under which they were organized.

V. CONCLUSION

Before beginning to provide water service to real property through a new connection, the District requires its new customers to pay a capacity fee and a fire suppression fee. Both of these fees are used to fund capital improvements, the former to the water system and the latter to the volunteer fire department. Because these fees are imposed only on the self-selected group of water service applicants, and not on real property that the District has identified or is able to identify, and because neither fee can ever become a charge on the property itself, we conclude that neither fee is subject to the restrictions that article XIII D imposes on property assessments and property-related fees. We also conclude that the District could properly use a resolution to amend an ordinance establishing these fees.

***431** The judgment of the Court of Appeal is reversed and the matter is remanded to that court with directions to affirm the trial court's judgment.

****531** WE CONCUR: GEORGE, C.J., BAXTER, WERDEGAR, CHIN, BROWN and MORENO, JJ.

All Citations

32 Cal.4th 409, 83 P.3d 518, 9 Cal.Rptr.3d 121, 2004 Daily Journal D.A.R. 1146, 2004 Daily Journal D.A.R. 1429

Footnotes

1 The Government Code defines a "capacity charge" as "a charge for facilities in existence at the time a charge is imposed or charges for new facilities to be constructed in the future that are of benefit to the person or property being charged." (Gov.Code, § 66013, subd. (b)(3).)

2 In this regard, it may be instructive to compare article XIII D's definition of an assessment as a "levy or charge upon real property" (*id.,* § 2, subd. (b)) with its definition of a fee or charge as a "levy ... upon a parcel or upon a person as an incident of property ownership ..." (*id.,* § 2, subd. (e)). Although a property-related fee or charge may be imposed either on the property itself or upon the owner as an incident of ownership, a levy must be imposed on the property itself to qualify as an assessment under article XIII D.

3 Government Code section 66013 provides:

"(a) Notwithstanding any other provision of law, when a local agency imposes fees for water connections or sewer connections, or imposes capacity charges, those fees or charges shall not exceed the estimated reasonable cost of providing the service for which the fee or charge is imposed, unless a question regarding the amount of the fee or charge imposed in excess of the estimated reasonable cost of providing the services or materials is submitted to, and approved by, a popular vote of two-thirds of those electors voting on the issue.

"(b) As used in this section:

"(1) 'Sewer connection' means the connection of a structure or project to a public sewer system.

"(2) 'Water connection' means the connection of a structure or project to a public water system, as defined in subdivision (f) of Section 116275 of the Health and Safety Code.

"(3) 'Capacity charge' means a charge for facilities in existence at the time a charge is imposed or charges for new facilities to be constructed in the future that are of benefit to the person or property being charged.

"(4) 'Local agency' means a local agency as defined in Section 66000.

"(5) 'Fee' means a fee for the physical facilities necessary to make a water connection or sewer connection, including, but not limited to, meters, meter boxes, and pipelines from the structure or project to a water distribution line or sewer main, and that does not exceed the estimated reasonable cost of labor and materials for installation of those facilities.

"(c) A local agency receiving payment of a charge as specified in paragraph (3) of subdivision (b) shall deposit it in a separate capital facilities fund with other charges received, and account for the charges in a manner to avoid any commingling with other moneys of the local agency, except for investments, and shall expend those charges solely for the purposes for which the charges were collected. Any interest income earned from the investment of moneys in the capital facilities fund shall be deposited in that fund.

"(d) For a fund established pursuant to subdivision (c), a local agency shall make available to the public, within 180 days after the last day of each fiscal year, the following information for that fiscal year:

"(1) A description of the charges deposited in the fund.

"(2) The beginning and ending balance of the fund and the interest earned from investment of moneys in the fund.

"(3) The amount of charges collected in that fiscal year.

"(4) An identification of all of the following:

"(A) Each public improvement on which charges were expended and the amount of the expenditure for each improvement, including the percentage of the total cost of the public improvement that was funded with those charges if more than one source of funding was used.

"(B) Each public improvement on which charges were expended that was completed during that fiscal year.

"(C) Each public improvement that is anticipated to be undertaken in the following fiscal year.

"(5) A description of each interfund transfer or loan made from the capital facilities fund. The information provided, in the case of an interfund transfer, shall identify the public improvements on which the transferred moneys are, or will be, expended. The information, in the case of an interfund loan, shall include the date on which the loan will be repaid, and the rate of interest that the fund will receive on the loan.

"(e) The information required pursuant to subdivision (d) may be included in the local agency's annual financial report.

"(f) The provisions of subdivisions (c) and (d) shall not apply to any of the following:

"(1) Moneys received to construct public facilities pursuant to a contract between a local agency and a person or entity, including, but not limited to, a reimbursement agreement pursuant to Section 66003.

"(2) Charges that are used to pay existing debt service or which are subject to a contract with a trustee for bondholders that requires a different accounting of the charges, or charges that are used to reimburse the local agency or to reimburse a person or entity who advanced funds under a reimbursement agreement or contract for facilities in existence at the time the charges are collected.

"(3) Charges collected on or before December 31, 1998.

"(g) Any judicial action or proceeding to attack, review, set aside, void, or annul the ordinance, resolution, or motion imposing a fee or capacity charge subject to this section shall be brought pursuant to Section 66022.

"(h) Fees and charges subject to this section are not subject to the provisions of Chapter 5 (commencing with Section 66000), but are subject to the provisions of Sections 66016, 66022, and 66023.

"(i) The provisions of subdivisions (c) and (d) shall only apply to capacity charges levied pursuant to this section."

4 In response to our *San Marcos* decision, the Legislature granted local water districts authority to impose capacity charges on other public entities, thereby removing the public entity exemption. (See Gov.Code, §§ 54999–54999.6; *Utility Cost Management v. Indian Wells Valley Water Dist.* (2001) 26 Cal.4th 1185, 1189, 114 Cal.Rptr.2d 459, 36 P.3d 2; *City of*

Marina v. Board of Trustees (2003) 109 Cal.App.4th 1179, 1182–1183, 135 Cal.Rptr.2d 815; *Utility Cost Management v. East Bay Mun. Utility Dist.* (2000) 79 Cal.App.4th 1242, 1246–1247, 94 Cal.Rptr.2d 777.)

5 Government Code section 50078 authorizes "[a]ny local agency which provides fire suppression services" to "determine and levy an assessment for fire suppression services." Plaintiffs have argued that the District may not rely on this provision as authority for its fire suppression fee because Government Code section 50001 defines "local agency" to include only cities and counties. Plaintiffs have overlooked Government Code section 50078.1, subdivision (b), which defines "local agency," as used in Government Code section 50078, to include any city, county, "or special district."

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DECLARATION OF SERVICE BY EMAIL

I, the undersigned, declare as follows:

I am a resident of the County of Sacramento and I am over the age of 18 years, and not a party to the within action. My place of employment is 980 Ninth Street, Suite 300, Sacramento, California 95814.

On January 14, 2019, I served the:

- **Claimant's Comments on the Draft Proposed Decision filed January 11, 2019**
- **SWRCB's Comments on the Draft Proposed Decision filed January 11, 2019**

  Lead Sampling in Schools: Public Water System No. 3710020, 17-TC-03
  Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017
  City of San Diego, Claimant

By making it available on the Commission's website and providing notice of how to locate it to the email addresses provided on the attached mailing list.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that this declaration was executed on January 14, 2019 at Sacramento, California.

Lorenzo Duran
Commission on State Mandates
980 Ninth Street, Suite 300
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COMMISSION ON STATE MANDATES

Mailing List

Last Updated: 1/9/19

Claim Number: 17-TC-03

Matter: Lead Sampling in Schools: Public Water System No. 3710020

Claimant: City of San Diego

TO ALL PARTIES, INTERESTED PARTIES, AND INTERESTED PERSONS:

Each commission mailing list is continuously updated as requests are received to include or remove any party or person on the mailing list. A current mailing list is provided with commission correspondence, and a copy of the current mailing list is available upon request at any time. Except as provided otherwise by commission rule, when a party or interested party files any written material with the commission concerning a claim, it shall simultaneously serve a copy of the written material on the parties and interested parties to the claim identified on the mailing list provided by the commission. (Cal. Code Regs., tit. 2, § 1181.3.)

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Exhibit H

March 23, 2023

Mr. Kris Cook
Department of Finance
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Mr. Raymond Palmucci
Office of the San Diego City Attorney
1200 Third Avenue, Suite 1100
San Diego, CA 92101

And Parties, Interested Parties, and Interested Persons (See Mailing List)

Re: Draft Proposed Decision, Schedule for Comments, and Notice of Hearing
Lead Sampling in Schools: Public Water System No. 3710020, 17-TC-03-R
On Remand from *City of San Diego v. Commission on State Mandates*, Court of Appeal, Third Appellate District, Case No. C092800; Judgment and Writ of Mandate issued by the Sacramento County Superior Court, Case No. 34-2019-80003169-CU-WM-GDS; Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017
City of San Diego, Claimant

Dear Mr. Cook and Mr. Palmucci:

The Draft Proposed Decision for the above-captioned matter is enclosed for your review and comment.

Written Comments

Written comments may be filed on the Draft Proposed Decision no later than **5:00 pm on April 13, 2023**. Please note that all representations of fact submitted to the Commission must be signed under penalty of perjury by persons who are authorized and competent to do so and must be based upon the declarant's personal knowledge, information, or belief. (Cal. Code Regs., tit. 2, § 1187.5.) Hearsay evidence may be used for the purpose of supplementing or explaining other evidence but shall not be sufficient in itself to support a finding unless it would be admissible over an objection in civil actions. (Cal. Code Regs., tit. 2, § 1187.5.) The Commission's ultimate findings of fact must be supported by substantial evidence in the record.[1]

You are advised that comments filed with the Commission are required to be electronically filed (e-filed) in an unlocked legible and searchable PDF file, using the Commission's Dropbox. (Cal. Code Regs., tit. 2, § 1181.3(c)(1).) Refer to http://www.csm.ca.gov/dropbox_procedures.php on the Commission's website for electronic filing instructions. If e-filing would cause the filer undue hardship or significant prejudice, filing may occur by first class mail, overnight delivery or personal service only upon approval of a written request to the executive director. (Cal. Code Regs., tit. 2, § 1181.3(c)(2).)

If you would like to request an extension of time to file comments, please refer to section 1187.9(a) of the Commission's regulations.

[1] Government Code section 17559(b), which provides that a claimant or the state may commence a proceeding in accordance with the provisions of section 1094.5 of the Code of Civil Procedure to set aside a decision of the Commission on the ground that the Commission's decision is not supported by substantial evidence in the record.

J:\MANDATES\2017\TC\17-TC-03 Lead Sampling in Schools PWS No. 3710020\17-TC-03-R\Correspondence\draftPDtrans.docx

Hearing

This matter is set for hearing on **Friday, May 26, 2023**, at 10:00 a.m. via Zoom. The Proposed Decision will be issued on or about May 12, 2023.

Please notify Commission staff not later than the Wednesday prior to the hearing that you or a witness you are bringing plan to testify and please specify the names and email addresses of the people who will be speaking for inclusion on the witness list and so that detailed instructions regarding how to participate as a witness in this meeting on Zoom can be provided to them. When calling or emailing, please identify the item you want to testify on and the entity you represent. The Commission Chairperson reserves the right to impose time limits on presentations as may be necessary to complete the agenda.

If you would like to request postponement of the hearing, please refer to section 1187.9(b) of the Commission's regulations.

Sincerely,

Heather Halsey
Executive Director

ITEM _
TEST CLAIM
DRAFT PROPOSED DECISION

On Remand from *City of San Diego v. Commission on State Mandates*, Court of Appeal, Third Appellate District, Case No. C092800; Judgment and Writ of Mandate issued by the Sacramento County Superior Court, Case No. 34-2019-80003169-CU-WM-GDS

Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017

Lead Sampling in Schools: Public Water System No. 3710020

17-TC-03-R

City of San Diego, Claimant

EXECUTIVE SUMMARY

Overview

This Test Claim alleges reimbursable state-mandated activities arising from Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017 *which is applicable to the City of San Diego only*.[1] This amendment applies to a domestic water supply permit issued to the City of San Diego (claimant) and requires the claimant's public water system,[2] beginning January 18, 2017, to submit to the State Water Resources Control Board's (State Board's) Division of Drinking Water a list of all K-12 schools it serves and to sample and test drinking water in K-12 schools for the presence of lead, upon the request of an authorized representative of the school made prior to November 1, 2019. According to the claimant, as of January 1, 2018, 255 schools had requested lead sampling from the claimant's public water system.[3]

On April 29, 2022, the Third District Court of Appeal issued an unpublished opinion in *City of San Diego v. Commission on State Mandates*, Court of Appeal, Third Appellate District, Case

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[1] This is unusual in that, generally, a test claim functions similarly to a class action and there are approximately 1,200 public water systems subject to the same exact requirements in separate amendments to their own permits, but no test claims were filed on those other permits. This Decision applies only to the San Diego permit.

[2] Public water systems are also known as "community water systems" which are public water systems that supply water to the same population year-round. (See Health and Safety Code section 116275(i).) These two terms are used interchangeably throughout the record.

[3] Exhibit A, Test Claim, filed January 11, 2018, page 71 (Declaration of Doug Campbell).

No. C092800, finding that the test claim order imposes a new program or higher level of service in that "the provision of drinking water to schools is a peculiarly governmental function and the mandated testing of this water for lead is plainly a service to the public."[4] The Court directed the Commission on State Mandates (Commission) to set aside its original decision and to issue a new decision consistent with its ruling, and remanded the claim back to the Commission to determine the remaining mandate issues.

As described herein, staff finds that the test claim statute imposes a reimbursable state-mandated program within the meaning of article XIII B, section 6 and therefore recommends that the Commission approve this Test Claim.

Procedural History

The State Board issued 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017. The claimant filed the Test Claim on January 11, 2018.[5] The State Board and the Department of Finance (Finance) filed comments on the Test Claim on August 13, 2018.[6] The claimant filed rebuttal comments on November 9, 2018.[7] The Commission heard the Test Claim on March 22, 2019 and voted 6-1 to deny the claim on the ground that the test claim permit did not impose a new program or higher level of service.[8]

On June 20, 2019, the claimant filed a petition for writ of mandate in Sacramento County Superior Court, and on July 30, 2020, the court denied the petition. The claimant appealed, and on April 29, 2022, the Third District Court of Appeal reversed the judgment issued by the superior court, finding that the test claim order imposes a new program or higher level of service. The Court of Appeal directed the superior court to remand the matter to the Commission for further proceedings consistent with the appellate court's April 29, 2022 unpublished opinion. On November 16, 2022, the superior court issued a judgment and writ, commanding the Commission to set aside its March 22, 2019 decision denying the test claim and to consider in the first instance whether reimbursement is required.

On January 27, 2023, the Commission adopted the Order setting aside its March 22, 2019 Decision. On March 23, 2023, Commission staff issued the Draft Proposed Decision.[9]

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[4] Exhibit X (2), *City of San Diego v. Commission on State Mandates* (Apr. 29, 2022, Third District Court of Appeal, Case No. C092800) (nonpub. opn.), page 13.

[5] Exhibit A, Test Claim, filed January 11, 2018, page 1.

[6] Exhibit B, State Water Resources Control Board's Comments on the Test Claim, filed August 13, 2018; Exhibit C, Finance's Comments on the Test Claim, filed August 13, 2018.

[7] Exhibit D, Claimant's Rebuttal Comments, filed November 9, 2018.

[8] Exhibit X (9), Commission on State Mandates, Decision on *Lead Sampling in Schools: Public Water System No. 3710020*, 17-TC-03, adopted March 22, 2019, page 1.

[9] Exhibit H, Draft Proposed Decision, issued March 23, 2023.

Commission Responsibilities

Under article XIII B, section 6 of the California Constitution, local agencies and school districts are entitled to reimbursement for the costs of state-mandated new programs or higher levels of service. In order for local government to be eligible for reimbursement, one or more similarly situated local agencies or school districts must file a test claim with the Commission. "Test claim" means the first claim filed with the Commission alleging that a particular statute or executive order imposes costs mandated by the state. Test claims function similarly to class actions and all members of the class have the opportunity to participate in the test claim process and are bound by the final decision of the Commission for purposes of that test claim.

The Commission is the quasi-judicial body vested with exclusive authority to adjudicate disputes over the existence of state-mandated programs within the meaning of article XIII B, section 6 of the California Constitution and not apply it as an "equitable remedy to cure the perceived unfairness resulting from political decisions on funding priorities."[10]

Claims

The following chart provides a brief summary of the claims and issues raised and staff's recommendation.

Issue	Description	Staff Recommendation
Is the Test Claim timely filed pursuant to Government Code section 17551?	Government Code section 17551 states that test claims must be filed "not later than 12 months following the effective date of a statute or executive order, or within 12 months of incurring increased costs as a result of a statute or executive order, whichever is later."[11] Government Code section 17557(e) requires a test claim to be "submitted on or before June 30 following a fiscal year in order to establish eligibility for reimbursement for that fiscal year."	*Timely filed with a potential period of reimbursement beginning January 18, 2017* – The effective date of the test claim order is January 18, 2017.[12] The claimant filed the Test Claim on January 11, 2018, less than 12 months after the effective date of the Order.[13] Therefore, the Test Claim is timely filed. Because the Test Claim was filed on January 11, 2018, the potential period of reimbursement under Government Code section 17557 begins on July 1, 2016. However, since the test claim

[10] *County of Sonoma v. Commission on State Mandates* (2000) 84 Cal.App.4th 1264, 1281, citing *City of San Jose v. State of California* (1996) 45 Cal.App.4th 1802, 1817.

[11] Government Code section 17551(c).

[12] Exhibit A, Test Claim, filed January 11, 2018, page 104 (test claim order).

[13] Exhibit A, Test Claim, filed January 11, 2018, page 1.

Issue	Description	Staff Recommendation
		permit has a later effective date, the potential period of reimbursement for this claim begins on the permit's effective date, or January 18, 2017.
Does the test claim order impose a state-mandated program on the claimant?	Activities required by a statute or executive order must be mandated by the state for reimbursement to be required under article XIII B, section 6. Activities undertaken at the option or discretion of local government, without legal or practical compulsion, do not trigger a state-mandated program within the meaning or article XIII B, section 6.[14] Even where a local government is not legally compelled to perform required activities, it may be practically compelled to do so. Practical compulsion may be found if there is a clear showing in the law or substantial evidence in the record that a failure to perform the activities at issue will result in certain and severe penalties or other draconian consequences, such that the local government has no choice but to comply.[15]	*Yes* – The test claim order newly requires the City of San Diego's public water system, beginning January 18, 2017, to submit to the State Board's Division of Drinking Water a list of all public and private K-12 schools it serves and to sample and test drinking water in any K-12 school it serves for the presence of lead, upon the request of a school representative made prior to November 1, 2019. However, beginning January 1, 2018, Health and Safety Code section 116277 required community water systems,[16] including the claimant's public water system, serving any public school constructed or modernized *before* January 1, 2010 that did not previously request lead testing, to test for lead in the school's potable water system

[14] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 73-76; *Department of Finance v. Commission on State Mandates* (*Kern*) (2003) 30 Cal.4th 727; *Department of Finance v. Commission on State Mandates* (POBRA) (2009) 170 Cal.App.4th 1355, 1365-1366.

[15] *Coast Community College Dist. v. Commission on State Mandates* (2022) 13 Cal.5th 800, 816; *Department of Finance v. Commission on State Mandates* (*Kern High School Dist*.) (2003) 30 Cal.4th 727, 754; *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 58, 76.

[16] "Community water system" is a public water system that supplies water to the same population year-round, and would include the claimant. (See Health and Safety Code section 116275(i).)

Issue	Description	Staff Recommendation
		by July 1, 2019.[17] Section 116277 does not require a school to first submit a written request to trigger the duty to test a school's drinking water for lead. Therefore, beginning January 1, 2018, any lead testing conducted by the claimant on those public schools constructed or modernized before January 1, 2010, that did not request testing before January 1, 2018, is required by Health and Safety Code section 116227, and not by the test claim order. The activities required by the test claim order are mandated by the state on the claimant as an operator of a public water system. Although state law authorizes, but does not legally require, the claimant to provide water services or to operate as a public water system the claimant has submitted substantial evidence showing that it would suffer certain and severe penalties or other draconian measures if it decided to no longer provide water service to its residents or operate as a public water system in order to avoid

[17] Exhibit X (4), Health and Safety Code section 116277(f)(2) (as added by Stats. 2017, ch. 746) (AB 746) defines "potable water system" as "water fountains and faucets used for drinking or preparing food," which is substantially similar to the test claim order's requirement that samples be collected at "regularly used drinking fountains, cafeteria or food preparation areas, or reusable bottle filling stations." Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

Issue	Description	Staff Recommendation
		compliance with the test claim order:[18] namely, more than 1.3 million residents will lose access to safe and clean drinking water and the claimant will be in default and face immediate repayment on more than $890 million in debt secured to maintain its water system.[19] Thus, staff finds that the claimant is practically compelled to continue to operate as a public water system, and as such, is mandated to comply with the requirements imposed by the test claim order.
Does the test claim order impose a new program or higher level of service?	On April 29, 2022, the Third District Court of Appeal issued an unpublished opinion in *City of San Diego v. Commission on State Mandates*, Court of Appeal, Third Appellate District, Case No. C092800, finding that the test claim order imposes a new program or higher level of service.[20]	*Yes* – by order of the Third District Court of Appeal, the test claim order imposes a new program or higher level of service in that "the provision of drinking water to schools is a peculiarly governmental function and the mandated testing of this water for lead is

[18] *Coast Community College Dist. v. Commission on State Mandates* (2022) 13 Cal.5th 800, 816; *Department of Finance v. Commission on State Mandates* (*Kern High School Dist*.) (2003) 30 Cal.4th 727, 754; *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 58, 76; Government Code section 17559.

[19] Exhibit G, Claimant's Comments on the Draft Proposed Decision, filed January 11, 2019, pages 8-11; 56-59 (Declaration of Raymond C. Palmucci, Deputy City Attorney designated to review and approve information pertaining to the City's Water Fund); 112 (Financial Statement regarding Subordinated Water Revenue Bonds, Series 2018A); 648-716 (2009 Amended and Restated Master Installment Purchase Agreement).

[20] Exhibit X (2), *City of San Diego v. Commission on State Mandates* (Apr. 29, 2022, Third District Court of Appeal, Case No. C092800) (nonpub. opn.), page 13.

Issue	Description	Staff Recommendation
		plainly a service to the public."[21]
Does the test claim order result in increased costs mandated by the state?	Article XIII B, section 6 of the California Constitution and Government Code section 17561(a) require reimbursement for all costs mandated by the state. Government Code section 17564(a) requires that no payment be made unless the claim exceeds $1,000. In addition, a finding of costs mandated by the state means that none of the exceptions identified in Government Code section 17556 apply.[22] The State Board and the Department of Finance contend that lead testing in K-12 schools provides a direct benefit to the water system as a whole and each ratepayer, and thus, the claimant may set water rates on property owners sufficient to pay for the costs of compliance with the permit amendment within the meaning of Government Code section 17556(d).[23]	*Yes* – The evidence in the record shows that the claimant's costs to comply with the mandated test claim activities exceed $1,000.[24] However, staff finds that the requirement to not release lead sampling data for 60 days unless to comply with the California Public Records Act falls within the scope of the exemption in article XIII B, section 6(a)(4) and is therefore not subject to the reimbursement requirement of article XIII B, section 6. Staff also finds that there are costs mandated by the state for the remaining activities and that the claimant does not have fee authority sufficient as a matter of law to pay for these activities within the meaning of Government Code section 17556(d). The service being provided is not a property-related service so a property-related fee may not be imposed pursuant to Proposition 218

[21] Exhibit X (2), *City of San Diego v. Commission on State Mandates* (Apr. 29, 2022, Third District Court of Appeal, Case No. C092800) (nonpub. opn.), page 13.

[22] Government Code section 17556.

[23] Exhibit B, State Water Resources Control Board's Comments on the Test Claim, filed August 13, 2018, pages 15-16; Exhibit C, Finance's Comments on the Test Claim, filed August 13, 2018, page 2.

[24] Exhibit A, Test Claim, filed January 11, 2018, pages 79 (Declaration of Rex Ragucos), 2767-2768.

Issue	Description	Staff Recommendation
	Government Code section 17556(d) provides that the Commission shall not find costs mandated by the state if it finds that, as a matter of law, the "local agency or school district has the authority to levy service charges, fees, or assessments sufficient to pay for the mandated program or increased level of service."	and the test claim permit prohibits the claimant from imposing fees on the schools requesting service.[25] Additionally, Proposition 26 prohibits the claimant from charging new or increased fees for the mandated activities on all ratepayers.

Staff Analysis

A. This Test Claim Is Timely Filed Pursuant to Government Code Section 17551 and Has a Potential Period of Reimbursement Beginning January 18, 2017.

Government Code section 17551 states that local agency and school district test claims must be filed "not later than 12 months following the effective date of a statute or executive order, or within 12 months of incurring increased costs as a result of a statute or executive order, whichever is later."[26] Section 1183.1(c) of the Commission's regulations defines 12 months as 365 days.[27]

The effective date of the order is January 18, 2017.[28] The claimant filed the Test Claim on January 11, 2018, less than 12 months after the effective date of the order.[29] Therefore, the Test Claim is timely filed.

Government Code section 17557(e) requires a test claim to be "submitted on or before June 30 following a fiscal year in order to establish eligibility for reimbursement for that fiscal year." Because the Test Claim was filed on January 11, 2018, the potential period of reimbursement under Government Code section 17557 begins on July 1, 2016. However, since the test claim

[25] Exhibit A, Test Claim, filed January 11, 2018, page 107 (test claim order) states that the water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

[26] Government Code section 17551(c).

[27] California Code of Regulations, title 2, section 1183.1(c).

[28] Exhibit A, Test Claim, filed January 11, 2018, page 104 (test claim order).

[29] Exhibit A, Test Claim, filed January 11, 2018, page 1.

permit has a later effective date, the potential period of reimbursement for this claim begins on the permit's effective date, or January 18, 2017.

B. The Test Claim Order Imposes a Reimbursable State-Mandated Program Within the Meaning of Article XIII B, Section 6 of the California Constitution.

As described below, the Commission finds that the test claim order imposes a reimbursable state-mandated program within the meaning of article XIII B, section 6 of the California Constitution.

1. The Test Claim Order Imposes a State-Mandated Program on the City of San Diego.

The test claim order newly requires the claimant's public water system, beginning January 18, 2017, to submit to the State Board's Division of Drinking Water a list of all public and private K-12 schools it serves and to sample and test drinking water in any K-12 school it serves for the presence of lead, upon the request of a school representative made prior to November 1, 2019.

However, beginning January 1, 2018, Health and Safety Code section 116277 required a community water system,[30] which includes the claimant's public water system, serving any public school constructed or modernized *before* January 1, 2010, that did not previously request lead testing, to test for lead in the school's potable water system by July 1, 2019.[31] Section 116277 does not require a school to first submit a written request to trigger the duty to test a school's drinking water for lead. Therefore, beginning January 1, 2018, any lead testing conducted by the claimant on those public schools constructed or modernized before January 1, 2010, that did not request testing before January 1, 2018, is required by Health and Safety Code section 116227, and not by the test claim order.

The activities required by the test claim order are mandated by the state on the claimant as an operator of a public water system. Because state law authorizes, but does not legally require, the claimant to provide water services or to operate as a public water system, the requirements imposed by the test claim order result from the claimant's "voluntary or discretionary decision to undertake an activity" and therefore cannot be said to be legally compelled.[32] Nonetheless, the claimant has submitted substantial evidence showing that it would suffer certain and severe penalties or other draconian measures if it decided to no longer provide water service to its

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[30] "Community water system" is a public water system that supplies water to the same population year-round, and would include the claimant. (See Health and Safety Code section 116275(i).)

[31] Exhibit X (4), Health and Safety Code section 116277(f)(2) (as added by Stats. 2017, ch. 746) (AB 746), which defines "potable water system" as "water fountains and faucets used for drinking or preparing food."), which is substantially similar to the test claim order's requirement that samples be collected at "regularly used drinking fountains, cafeteria or food preparation areas, or reusable bottle filling stations." Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[32] California Constitution, article XI, section 9(a); *Coast Community College Dist. v. Commission on State Mandates* (2022) 13 Cal.5th 800, 815.

residents or operate as a public water system in order to avoid compliance with the test claim order:[33] namely, more than 1.3 million residents will lose access to safe and clean drinking water and the claimant will be in default and face immediate repayment on more than $890 million in debt secured to maintain its water system.[34] Thus, the Commission finds that the claimant is practically compelled to continue to operate as a public water system, and as such, is mandated to comply with the requirements imposed by the test claim order.

2. The New Requirements of the Test Claim Order Constitute a New Program or Higher Level of Service, Within the Meaning of Article XIII B, Section 6 of the California Constitution.

On April 29, 2022, the Third District Court of Appeal issued an unpublished opinion in *City of San Diego v. Commission on State Mandates*, finding that the test claim order imposes a new program or higher level of service in that "the provision of drinking water to schools is a peculiarly governmental function and the mandated testing of this water for lead is plainly a service to the public."[35]

Accordingly, staff finds that the test claim order imposes a new program or higher level of service.

3. The Test Claim Order Results in Increased Costs Mandated by the State Within the Meaning of Article XIII B, Section 6 of the California Constitution and Government Code Section 17514.

To be reimbursable, the mandated activities must also result in increased costs mandated by the state. Article XIII B, section 6 of the California Constitution and Government Code section 17561(a) require reimbursement for all costs mandated by the state, unless there is an express exemption in article XIII B, section 6. Government Code section 17514 defines "costs mandated by the state" as any increased costs that a local agency or school district incurs as a result of any statute or executive order that mandates a new program or higher level of service. Government Code section 17564(a) further requires that no claim nor payment shall be made unless the claim

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[33] *Coast Community College Dist. v. Commission on State Mandates* (2022) 13 Cal.5th 800, 816; *Department of Finance v. Commission on State Mandates* (*Kern High School Dist*.) (2003) 30 Cal.4th 727, 754; *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 58, 76; Government Code section 17559.

[34] Exhibit G, Claimant's Comments on the Draft Proposed Decision, filed January 11, 2019, pages 8-11; 56-59 (Declaration of Raymond C. Palmucci, Deputy City Attorney designated to review and approve information pertaining to the City's Water Fund); 112 (Financial Statement regarding Subordinated Water Revenue Bonds, Series 2018A); 648-716 (2009 Amended and Restated Master Installment Purchase Agreement).

[35] Exhibit X (2), *City of San Diego v. Commission on State Mandates* (Apr. 29, 2022, Third District Court of Appeal, Case No. C092800) (nonpub. opn.), page 13.

exceeds $1,000. In addition, a finding of costs mandated by the state means that none of the exceptions identified in Government Code section 17556 apply.[36]

There is substantial evidence in the record that the claimant's costs to comply with the mandated activities exceed $1,000.[37]

However, staff finds that the requirement to not release lead sampling data for 60 days, unless to comply with the California Public Records Act, falls within the scope of the exemption in article XIII B, section 6(a)(4) and is therefore not subject to the reimbursement requirement of article XIII B, section 6.

Staff further finds that there are costs mandated by the state within the meaning of Government Code sections 17514 and 17556 for the remaining activities.

The State Board contends that the *Lead Sampling* program directly benefits all ratepayers because it functionally extends the Lead and Copper rule and maintains or improves property values.[38] The State Board and Finance therefore conclude that lead testing in K-12 schools provides a direct benefit to the water system as a whole and each ratepayer, and thus, the claimant may set water rates on property owners sufficient to pay for the costs of compliance with the permit amendment within the meaning of Government Code section 17556(d).[39]

Staff finds, however, that the claimant does not have fee authority sufficient as a matter of law to pay for the mandated program within the meaning of Government Code section 17556(d). The service being provided is not a property-related service so a property-related fee may not be imposed pursuant to Proposition 218 and the test claim permit prohibits the claimant from imposing fees on the schools requesting service.[40] Additionally, Proposition 26 prohibits the claimant from charging new or increased fees for the mandated activities on ratepayers who do not receive the service.

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[36] Government Code section 17556.

[37] Exhibit A, Test Claim, filed January 11, 2018, pages 79 (Declaration of Rex Ragucos), 2767-2768.

[38] Exhibit B, State Water Resources Control Board's Comments on the Test Claim, filed August 13, 2018, page 16.

[39] Exhibit B, State Water Resources Control Board's Comments on the Test Claim, filed August 13, 2018, pages 15-16; Exhibit C, Finance's Comments on the Test Claim, filed August 13, 2018, page 2.

[40] Exhibit A, Test Claim, filed January 11, 2018, page 107 (test claim order) states that the water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

Article XIII D of the California Constitution defines "fees" or "charges" associated with property ownership as "any levy other than an ad valorem tax, a special tax, or an assessment, imposed by an agency upon a parcel or upon a person as an incident of property ownership, including a user fee or charge for a property related service."[41] Article XIII D further defines a "property-related service" as "a public service having a *direct relationship* to property ownership."[42]

However, the courts have determined that a water service fee imposed because of a voluntary decision of a property owner is not imposed 'as an incident of property ownership' and therefore is not a property-related fee subject to the restrictions of article XIII D.[43] Here, because the claimant's performance of the mandated activities is only triggered by the voluntary decision of a school to request testing and is not a service provided simply as an incident to property ownership, any fee to cover the costs of the *Lead Sampling* program would not be a property-related fee subject to the limitations of article XIII D and therefore Proposition 218 does not apply here.

Proposition 26, which sought to broaden the definition of "tax," added article XIII C, section 1(e) to the California Constitution, to provide that "any levy, charge, or exaction of any kind imposed by a local government," is a "tax," and therefore requires voter approval under article XIII C,[44] unless one of seven exceptions applies:[45] Exceptions (1) and (2) (charges for benefits conferred and privileges granted, services and products provided *that are not provided to those not charged*) do not apply because the claimant is required to provide lead sampling services exclusively to "those not charged" (i.e., schools requesting lead sampling). Exception (3) (reasonable regulatory costs) does not apply because the claimant is not acting in a regulatory capacity in performing the mandated activities. Exceptions (4) (a charge imposed for entrance to or use of local government property, or the purchase, rental, or lease of local government property), (5) (a fine, penalty, or other monetary charge imposed by the judicial branch of

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[41] California Constitution, article XIII D, section 2(e).

[42] California Constitution, article XIII D, section 2(h), emphasis added.

[43] *Richmond v. Shasta Community Services Dist.* (2004) 32 Cal. 4th 409, 427; See also *Bighorn-Desert View Water Agency v. Verjil* (2006) 39 Cal. 4th 205, 215.

[44] California Constitution, article XIII C, section 2, which was added by Proposition 218 in 1996 states in pertinent part:

> (a) All taxes imposed by any local government shall be deemed to be either general taxes or special taxes…
>
> (b) No local government may impose, extend, or increase any general tax unless and until that tax is submitted to the electorate and approved by a majority vote….
>
> [¶]
>
> (d) No local government may impose, extend, or increase any special tax unless and until that tax is submitted to the electorate and approved by a two-thirds vote…

[45] California Constitution, article XIII C, section 1(e).

government or a local government, as a result of a violation of law), and (6) (a charge imposed as a condition of property development) do not apply based on their plain language. Exception (7), "assessments and property-related fees imposed in accordance with the provisions of Article XIII D" which was adopted by Proposition 218,[46] is inapplicable here because the service is not a property-related service, as discussed above. Testing water at school sites upon the request of a school, without any requirement for the claimant to remediate a lead exceedance, does not constitute "a public service having a direct relationship to property ownership."

Thus, because the test claim statute prohibits the claimant from imposing a fee for the service upon the schools and the claimant cannot impose a fee under Proposition 218 in accordance with the provisions of article XIII D (because the service is not "property related") or under Proposition 26 in accordance with the provisions of article XIII C (because it does not meet any of the exceptions to the definition of a tax), the claimant does not have fee authority sufficient to cover the costs of the mandated program.

Moreover, none of the other exceptions to costs mandated by the state in Government Code section 17556 apply. Therefore, the test claim permit results in increased costs mandated by the state.

Conclusion

Based on the forgoing analysis, staff finds that the test claim order imposes a reimbursable state-mandated program within the meaning of article XIII B, section 6 of the California Constitution and Government Code section 17514 and requires the claimant, as a public water system, to perform the following mandated activities, beginning January 18, 2017:

1. Submit to the State Board's Division of Drinking Water a comprehensive list of the names and addresses of all K-12 schools served water through a utility meter [by the claimant] by July 1, 2017;[47]
2. If an authorized school representative of a private or public K-12 school in the claimant's service area requests lead sampling assistance in writing by November 1, 2019:
    a. Respond in writing within 60 days and schedule a meeting with school officials to develop a sampling plan;[48]
    b. Finalize a sampling plan and complete initial sampling within 90 days [or an alternative time schedule approved by DDW];[49]

[46] California Constitution, article XIII C, section 1(e)(7).

[47] Exhibit A, Test Claim, filed January 11, 2018, page 105 (test claim order).

[48] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[49] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

c. Collect one to five samples at each school, from regularly used drinking fountains, cafeteria or food preparation areas, or reusable bottle filling stations, selected according to the sampling plan, and using the sampling guidance provided in Appendix A;[50]

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday, or Friday on a day that school is in session and has been in session for at least one day prior to the day of sampling;[51]

e. Ensure samples are collected by an adequately trained water system representative;[52]

f. Submit the samples to an ELAP certified laboratory for analysis;[53]

g. Require the laboratory to submit the data electronically to DDW;[54]

h. Provide a copy of the results to the school representative;[55]

i. Within two business days of a result that shows an exceedance of 15 ppb, notify the school of the sample result;[56]

j. If an initial sample shows an exceedance of 15 ppb:

- Collect an additional sample within 10 days if the sample site remains in service;[57]
- Collect a third sample within 10 business days after notification that a resample result is less than or equal to 15 ppb;[58]
- Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb;[59]

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[50] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[51] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[52] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[53] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[54] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[55] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[56] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[57] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[58] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[59] Exhibit A, Test Claim, filed January 11, 2018, page 107 (test claim order).

k. Ensure that the water system receives the results of repeat lead samples from the laboratory in no more than 10 business days;[60]

l. Discuss the lead sample results with the school prior to releasing the sample results to the public, and within 10 days of receiving the results from the laboratory;[61]

m. Communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if the results confirm lead levels above 15 ppb.[62] ***The water system is not responsible for the costs of any corrective action or maintenance***;[63]

n. Keep records of all requests for lead related assistance and provide the records to DDW, upon request;[64]

o. Include in the annual Consumer Confidence Report a statement summarizing the number of schools requesting lead sampling.[65]

Beginning January 1, 2018, any lead testing conducted by the claimant on those public schools constructed or modernized before January 1, 2010, that did not request testing by January 1, 2018, is not required by the test claim order and is not reimbursable.

Staff Recommendation

Staff recommends that the Commission adopt the Proposed Decision to approve the Test Claim and authorize staff to make any technical, non-substantive changes to the Proposed Decision following the hearing.

[60] Exhibit A, Test Claim, filed January 11, 2018, page 107 (test claim order).

[61] Exhibit A, Test Claim, filed January 11, 2018, page 107 (test claim order).

[62] Exhibit A, Test Claim, filed January 11, 2018, page 108 (test claim order).

[63] Exhibit A, Test Claim, filed January 11, 2018, page 108 (test claim order).

[64] Exhibit A, Test Claim, filed January 11, 2018, page 108 (test claim order).

[65] Exhibit A, Test Claim, filed January 11, 2018, page 108 (test claim order).

BEFORE THE

COMMISSION ON STATE MANDATES

STATE OF CALIFORNIA

IN RE TEST CLAIM ON REMAND Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017 Filed on January 11, 2018 City of San Diego, Claimant Notice of Entry of Judgement and Writ of Mandate Remanding the Matter for Reconsideration, served December 1, 2022	Case No.: 17-TC-03-R *Lead Sampling in Schools: Public Water System No. 3710020* DECISION PURSUANT TO GOVERNMENT CODE SECTION 17500 ET SEQ.; CALIFORNIA CODE OF REGULATIONS, TITLE 2, DIVISION 2, CHAPTER 2.5, ARTICLE 7 On Remand from *City of San Diego v. Commission on State Mandates*, Court of Appeal, Third Appellate District, Case No. C092800; Judgment and Writ of Mandate issued by the Sacramento County Superior Court, Case No. 34-2019-80003169-CU-WM-GDS (*Adopted May 26, 2023*)

DECISION

The Commission in State Mandates (Commission) heard and decided this Test Claim during a regularly scheduled hearing on May 26, 2023. [Witness list will be included in the adopted Decision.]

The law applicable to the Commission's determination of a reimbursable state-mandated program is article XIII B, section 6 of the California Constitution, Government Code sections 17500 et seq., and related case law.

The Commission [adopted/modified] the Proposed Decision to [approve/partially approve/deny] the Test Claim by a vote of [vote will be included in the adopted Decision], as follows:

Member	**Vote**
Lee Adams, County Supervisor	
Gayle Miller, Representative of the Director of the Department of Finance, Chairperson	
Scott Morgan, Representative of the Director of the Office of Planning and Research	
Renee Nash, School District Board Member	
Sarah Olsen, Public Member	
Lynn Paquin, Representative of the State Controller, Vice Chairperson	

Member	Vote
Spencer Walker, Representative of the State Treasurer	

Summary of the Findings

This Test Claim alleges new state-mandated activities and costs arising from a permit amendment issued by the State Water Resources Control Board (State Board) to the City of San Diego's public water system, Order No. 2017PA-SCHOOLS. The test claim order is one of over 1,100 permit amendments simultaneously issued to privately- and publicly-owned public water systems, *which is applicable to the City of San Diego only*.[66, 67]

On April 29, 2022, the Third District Court of Appeal issued an unpublished opinion in *City of San Diego v. Commission on State Mandates*, Court of Appeal, Third Appellate District, Case No. C092800, finding that the test claim order imposes a new program or higher level of service in that "the provision of drinking water to schools is a peculiarly governmental function and the mandated testing of this water for lead is plainly a service to the public."[68] The Court directed the Commission to set aside its original decision and to issue a new decision consistent with its ruling, and remanded the claim back to the Commission to determine the remaining mandate issues.

The Commission finds that the test claim order imposes a reimbursable state-mandated program within the meaning of article XIII B, section 6 of the California Constitution and Government Code section 17514.

The test claim order newly requires the claimant's public water system, beginning January 18, 2017, to submit to the State Board's Division of Drinking Water a list of all public and private K-12 schools it serves and to sample and test drinking water in any K-12 school it serves for the presence of lead, upon the request of a school representative made prior to November 1, 2019.

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[66] This is unusual in that, generally, a test claim functions similarly to a class action and there are approximately 1,200 public water systems subject to the same exact requirements in separate amendments to their own permits, but no test claims were filed on those other permits. This decision applies only to the San Diego permit.

[67] These systems are also known as "community water systems" which are public water systems that supply water to the same population year-round. (See Health and Safety Code section 116275(i).) The reader may find these two terms used interchangeably in some of the supporting documentation in the record.

[68] Exhibit X (2), *City of San Diego v. Commission on State Mandates* (Apr. 29, 2022, Third District Court of Appeal, Case No. C092800) (nonpub. opn.), page 13.

However, beginning January 1, 2018, Health and Safety Code section 116277 required a community water system,[69] which includes the claimant's public water system, serving any public school constructed or modernized *before* January 1, 2010, that did not previously request lead testing, to test for lead in the school's potable water system by July 1, 2019.[70] Section 116277 does not require a school to first submit a written request to trigger the duty to test a school's drinking water for lead. Therefore, beginning January 1, 2018, any lead testing conducted by the claimant on those public schools constructed or modernized before January 1, 2010, that did not request testing before January 1, 2018, is required by Health and Safety Code section 116227, and not by the test claim order.

The activities required by the test claim order are mandated by the state on the claimant as an operator of a public water system. Because state law authorizes, but does not legally require, the claimant to provide water services or to operate as a public water system, the requirements imposed by the test claim order result from the claimant's "voluntary or discretionary decision to undertake an activity" and therefore cannot be said to be legally compelled.[71] Nonetheless, the claimant has submitted substantial evidence showing that it would suffer certain and severe penalties or other draconian measures if it decided to no longer provide water service to its residents or operate as a public water system in order to avoid compliance with the test claim order:[72] namely, more than 1.3 million residents will lose access to safe and clean drinking water and the claimant will be in default and face immediate repayment on more than $890 million in debt secured to maintain its water system.[73] Thus, the Commission finds that the

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[69] "Community water system" is a public water system that supplies water to the same population year-round, and would include the claimant. (See Health and Safety Code section 116275(i).)

[70] Exhibit X (4), Health and Safety Code section 116277(f)(2) (as added by Stats. 2017, ch. 746) (AB 746), which defines "potable water system" as "water fountains and faucets used for drinking or preparing food."), which is substantially similar to the test claim order's requirement that samples be collected at "regularly used drinking fountains, cafeteria or food preparation areas, or reusable bottle filling stations." Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[71] California Constitution, article XI, section 9(a); *Coast Community College Dist. v. Commission on State Mandates* (2022) 13 Cal.5th 800, 815.

[72] *Coast Community College Dist. v. Commission on State Mandates* (2022) 13 Cal.5th 800, 816; *Department of Finance v. Commission on State Mandates* (*Kern High School Dist.*) (2003) 30 Cal.4th 727, 754; *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 58, 76; Government Code section 17559.

[73] Exhibit G, Claimant's Comments on the Draft Proposed Decision, filed January 11, 2019, pages 8-11; 56-59 (Declaration of Raymond C. Palmucci, Deputy City Attorney designated to review and approve information pertaining to the City's Water Fund); 112 (Financial Statement regarding Subordinated Water Revenue Bonds, Series 2018A); 648-716 (2009 Amended and Restated Master Installment Purchase Agreement).

claimant is practically compelled to continue to operate as a public water system, and as such, is mandated to comply with the requirements imposed by the test claim order.

To be reimbursable, the mandated activities must also result in increased costs mandated by the state. Article XIII B, section 6 of the California Constitution and Government Code section 17561(a) require reimbursement for all costs mandated by the state, unless there is an express exemption in article XIII B, section 6. The claimant's costs to comply with the mandated activities exceed $1,000.[74] However, the Commission finds that the requirement to not release lead sampling data for 60 days unless to comply with a request under the California Public Records Act for specific results falls within the scope of the exemption in article XIII B, section 6(a)(4) and is therefore not subject to the reimbursement requirement of article XIII B, section 6.

The Commission further finds there are costs mandated by the state for the remaining mandated activities.

The State Board contends that the *Lead Sampling* program directly benefits all ratepayers because it functionally extends the Lead and Copper rule and maintains or improves property values.[75] The State Board and the Department of Finance (Finance) therefore conclude that lead testing in K-12 schools provides a direct benefit to the water system as a whole and each ratepayer, and thus, the claimant may set water rates on property owners sufficient to pay for the costs of compliance with the permit amendment within the meaning of Government Code section 17556(d).[76]

The Commission finds, however, that the claimant does not have fee authority sufficient as a matter of law to pay for the mandated program within the meaning of Government Code section 17556(d). The service being provided is not a property related service so a property related fee may not be imposed pursuant to Proposition 218 and the test claim permit prohibits the claimant from imposing fees on the schools requesting service.[77] Moreover, Proposition 26 prohibits the claimant from charging new or increased fees for the mandated activities on ratepayers who do not receive the service.

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[74] Exhibit A, Test Claim, filed January 11, 2018, pages 79 (Declaration of Rex Ragucos), 2767-2768.

[75] Exhibit B, State Water Resources Control Board's Comments on the Test Claim, filed August 13, 2018, page 16.

[76] Exhibit B, State Water Resources Control Board's Comments on the Test Claim, filed August 13, 2018, pages 15-16; Exhibit C, Finance's Comments on the Test Claim, filed August 13, 2018, page 2.

[77] Exhibit A, Test Claim, filed January 11, 2018, page 107 (test claim order) states that the water system is responsible for the following costs:

a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

The courts have determined that a water service fee imposed because of a voluntary decision of a property owner is not imposed 'as an incident of property ownership' and therefore is not a property-related fee within the meaning of article XIII D.[78] Here, because the claimant's performance of the mandated activities is only triggered by the voluntary decision of a school to request testing, it is not a property-related service and the claimant cannot impose a property-related fee pursuant to Article XIII D to cover the costs of the *Lead Sampling* program.

Article XIII D, section 2 defines "property-related service" as "a public service having a *direct relationship* to property ownership."[79] The State Water Board's bare assertions that the *Lead Sampling* program directly benefits all ratepayers because it functionally extends the Lead and Copper rule and maintains or improves property values are unavailing and unsupported by any evidence in the record. Testing water at school sites upon the request of a school, without any requirement for the claimant to remediate a lead exceedance, does not constitute "a public service having a direct relationship to property ownership."

Proposition 26, which sought to broaden the definition of "tax," added article XIII C, section 1(e) to the California Constitution, to provide that "any levy, charge, or exaction of any kind imposed by a local government," is a "tax," and therefore requires voter approval under article XIII C,[80] unless one of seven exceptions applies:[81] Exceptions (1) and (2) (charges for benefits conferred and privileges granted, services and products provided *that are not provided to those not charged*) do not apply because the claimant is required to provide lead sampling services exclusively to "those not charged" (i.e., schools requesting lead sampling). Exception (3) (reasonable regulatory costs) does not apply because the claimant is not acting in a regulatory capacity in performing the mandated activities. Exceptions (4) (a charge imposed for entrance to or use of local government property, or the purchase, rental, or lease of local government property), (5) (a fine, penalty, or other monetary charge imposed by the judicial branch of government or a local government, as a result of a violation of law), and (6) (a charge imposed as a condition of property development) do not apply based on their plain language. Exception (7),

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[78] *Richmond v. Shasta Community Services Dist.* (2004) 32 Cal. 4th 409, 427.

[79] California Constitution, article XIII D, section 2(h).

[80] California Constitution, article XIII C, section 2, which was added by Proposition 218 in 1996 states in pertinent part:

> (a) All taxes imposed by any local government shall be deemed to be either general taxes or special taxes…
>
> (b) No local government may impose, extend, or increase any general tax unless and until that tax is submitted to the electorate and approved by a majority vote….
>
> [¶]
>
> (d) No local government may impose, extend, or increase any special tax unless and until that tax is submitted to the electorate and approved by a two-thirds vote…

[81] California Constitution, article XIII C, section 1(e).

"assessments and property-related fees imposed in accordance with the provisions of Article XIII D" which was adopted by Proposition 218 does not apply here, as discussed above, since the service is not a property-related service.[82] Article XIII D of the California Constitution defines "fees" or "charges" associated with property ownership as "any levy other than an ad valorem tax, a special tax, or an assessment, imposed by an agency upon a parcel or upon a person as an incident of property ownership, including a user fee or charge for a property related service."[83] Article XIII D further defines a "property-related service" as "a public service having a *direct relationship* to property ownership."[84]

Thus, because the claimant is prohibited from imposing a fee on the schools requesting the service, may not impose a property-related fee in accordance with the provisions of article XIII D because it is not a "property-related service," and may not impose a fee under any of the exceptions under Proposition 26, the claimant does not have fee authority sufficient to cover the costs of the mandated program. Therefore, none of the exceptions to costs mandated by the state in Government Code section 17556 apply and the Commission finds that the test claim permit results in increased costs mandated by the state.

Accordingly, the Commission finds that the test claim order imposes a reimbursable state-mandated program within the meaning of article XIII B, section 6 of the California Constitution and Government Code section 17514 and requires the claimant's public water system to perform the following mandated activities, beginning January 18, 2017:

1. Submit to the State Board's Division of Drinking Water a comprehensive list of the names and addresses of all K-12 schools served water through a utility meter [by the claimant] by July 1, 2017;[85]

2. If an authorized school representative of a private or public K-12 school in the claimant's service area requests lead sampling assistance in writing by November 1, 2019:

    a. Respond in writing within 60 days and schedule a meeting with school officials to develop a sampling plan;[86]

    b. Finalize a sampling plan and complete initial sampling within 90 days [or an alternative time schedule approved by DDW];[87]

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[82] California Constitution, article XIII C, section 1(e)(7).

[83] California Constitution, article XIII D, section 2(e).

[84] California Constitution, article XIII D, section 2(h), emphasis added.

[85] Exhibit A, Test Claim, filed January 11, 2018, page 105 (test claim order).

[86] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[87] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

c. Collect one to five samples at each school, from regularly used drinking fountains, cafeteria or food preparation areas, or reusable bottle filling stations, selected according to the sampling plan, and using the sampling guidance provided in Appendix A;[88]

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday, or Friday on a day that school is in session and has been in session for at least one day prior to the day of sampling;[89]

e. Ensure samples are collected by an adequately trained water system representative;[90]

f. Submit the samples to an ELAP certified laboratory for analysis;[91]

g. Require the laboratory to submit the data electronically to DDW;[92]

h. Provide a copy of the results to the school representative;[93]

i. Within two business days of a result that shows an exceedance of 15 ppb, notify the school of the sample result;[94]

j. If an initial sample shows an exceedance of 15 ppb:

- Collect an additional sample within 10 days if the sample site remains in service;[95]
- Collect a third sample within 10 business days after notification that a resample result is less than or equal to 15 ppb;[96]
- Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb;[97]

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[88] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[89] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[90] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[91] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[92] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[93] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[94] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[95] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[96] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[97] Exhibit A, Test Claim, filed January 11, 2018, page 107 (test claim order).

k. Ensure that the water system receives the results of repeat lead samples from the laboratory in no more than 10 business days;[98]

l. Discuss the lead sample results with the school prior to releasing the sample results to the public, and within 10 days of receiving the results from the laboratory;[99]

m. Communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if the results confirm lead levels above 15 ppb.[100] ***The water system is not responsible for the costs of any corrective action or maintenance***;[101]

n. Keep records of all requests for lead related assistance and provide the records to DDW, upon request;[102]

o. Include in the annual Consumer Confidence Report a statement summarizing the number of schools requesting lead sampling.[103]

Beginning January 1, 2018, any lead testing conducted by the claimant on those public schools constructed or modernized before January 1, 2010, that did not request testing by January 1, 2018, is not required by the test claim order and is not reimbursable.

COMMISSION FINDINGS

I. Chronology

01/18/2017	Permit Amendment No. 2017PA-SCHOOLS for City of San Diego PWS 3710020 was adopted by the State Board's Division of Drinking Water.[104]
01/11/2018	The claimant filed the Test Claim.[105]
08/13/2018	The State Board filed comments on the Test Claim.[106]
08/13/2018	Finance filed comments on the Test Claim.[107]

[98] Exhibit A, Test Claim, filed January 11, 2018, page 107 (test claim order).

[99] Exhibit A, Test Claim, filed January 11, 2018, page 107 (test claim order).

[100] Exhibit A, Test Claim, filed January 11, 2018, page 108 (test claim order).

[101] Exhibit A, Test Claim, filed January 11, 2018, page 108 (test claim order).

[102] Exhibit A, Test Claim, filed January 11, 2018, page 108 (test claim order).

[103] Exhibit A, Test Claim, filed January 11, 2018, page 108 (test claim order).

[104] Exhibit A, Test Claim, filed January 11, 2018, page 14.

[105] Exhibit A, Test Claim, filed January 11, 2018.

[106] Exhibit B, State Water Resources Control Board's Comments on the Test Claim, filed August 13, 2018.

[107] Exhibit C, Finance's Comments on the Test Claim, filed August 13, 2018.

11/09/2018	The claimant filed its rebuttal comments.[108]
12/21/2018	Commission staff issued the Draft Proposed Decision.[109]
01/11/2019	The State Board filed comments on the Draft Proposed Decision.[110]
01/11/2019	The claimant filed comments on the Draft Proposed Decision.[111]
03/22/2019	The Commission heard the Test Claim and voted 6-1 to deny the claim.
06/20/2019	The claimant filed a petition for writ of mandate in Sacramento County Superior Court.
07/30/2020	Sacramento County Superior Court denied the claimant's petition for writ of mandate.
09/25/2020	The claimant appealed the denial of its petition for writ of mandate to the Third District Court of Appeal.
04/29/2022	The Third District Court of Appeal reversed the judgment issued by Sacramento County Superior Court.
11/16/2022	Sacramento County Superior Court issued a judgment and writ commanding the Commission to set aside its March 22, 2019 Decision and to consider in the first instance whether reimbursement is required.
01/27/2023	The Commission issued the Order setting aside its March 22, 2019 Decision.
03/23/2023	Commission staff issued the Draft Proposed Decision.[112]

II. Background

The test claim order is one of over 1,100 permit amendments simultaneously issued to privately- and publicly-owned "public water systems," and requires the claimant, beginning January 11, 2017, to test for lead in the drinking water connections of every K-12 school that it serves, upon the request of an authorized representative of the school made prior to November 1, 2019, at no charge to the school.

[108] Exhibit D, Claimant's Rebuttal Comments, filed November 9, 2018.

[109] Exhibit E, Draft Proposed Decision, issued December 21, 2018.

[110] Exhibit F, State Water Resources Control Board's Comments on the Draft Proposed Decision, filed January 11, 2019.

[111] Exhibit G, Claimant's Comments on the Draft Proposed Decision, filed January 11, 2019.

[112] Exhibit H, Draft Proposed Decision, issued March 23, 2023.

A. Lead as an Environmental Health Risk

Lead is toxic and has "no known value to the human body."[113] Young children "are at particular risk for lead exposure because they have frequent hand-to-mouth activity and absorb lead more easily than do adults."[114] No safe blood lead level has been determined; lead damages almost every organ and system in the body, including and especially the brain and nervous system.[115] Low levels of lead exposure can lead to reduced IQ and attention span, learning disabilities, poor classroom performance, hyperactivity, behavioral problems, impaired growth and hearing loss.[116] Higher lead levels can cause severe neurological problems and ultimately death.[117]

Though a naturally occurring metal found all over the Earth, "[e]nvironmental levels of lead have increased more than 1,000-fold over the past three centuries as a result of human activity."[118] Because lead is "widespread, easy to extract and easy to work with, lead has been used in a wide variety of products," including paints, ceramics, plumbing, solder, gasoline, batteries, and cosmetics.[119] In 1984, burning leaded gasoline was the largest source of lead emissions in the air, and so the Environmental Protection Agency (EPA) phased out and eventually banned leaded gasoline.[120] U.S. EPA and other agencies have "taken steps over the past several decades to dramatically reduce new sources of lead in the environment; according to the U.S. EPA, "[t]oday, the greatest contributions of lead to the environment stem from past human activities."[121] Sources include: lead-based paint; lead in the air from industrial

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[113] Exhibit X (1), Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, page 163 (USEPA: 3Ts for Reducing Lead in Drinking Water in Schools, p. 6).

[114] Exhibit X (1), Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, page 163 (USEPA: 3Ts for Reducing Lead in Drinking Water in Schools, p. 6).

[115] Exhibit X (1), Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, page 163 (USEPA: 3Ts for Reducing Lead in Drinking Water in Schools, p. 6).

[116] Exhibit X (1), Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, page 163 (USEPA: 3Ts for Reducing Lead in Drinking Water in Schools).

[117] Exhibit X (1), Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, page 163 (USEPA: 3Ts for Reducing Lead in Drinking Water in Schools, p. 6).

[118] Exhibit X (8), U.S. Department of Health and Human Services, Public Health Service Agency for Toxic Substances and Disease Registry, *Public Health Statement: Lead, CAS #: 7439-92-1*, August 2007, page 2.

[119] Exhibit X (6), National Institute of Environmental Health Sciences, Lead Information Home Page, https://www.niehs.nih.gov/health/topics/agents/lead/index.cfm (accessed on September 26, 2018), page 1.

[120] Exhibit X (8), U.S. Department of Health and Human Services, Public Health Service Agency for Toxic Substances and Disease Registry, *Public Health Statement: Lead, CAS #: 7439-92-1*, August 2007, page 4.

[121] Exhibit X (1), Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, page 163 (USEPA: 3Ts for Reducing Lead in Drinking Water in Schools).

emissions; lead in the soil around roadways and streets from past emissions by automobiles using leaded gasoline, and from deposits of lead dust from paints; industrial lead byproducts; consumer products, including imported dishes, toys, jewelry and plastics; and lead in drinking water leaching from corrosion of plumbing products containing lead.[122]

Lead exposure in drinking water results from either lead being present in the source water, such as from contaminated runoff; or through the interaction of water with plumbing materials containing lead.[123] Although "very little lead is found in lakes, rivers, or groundwater used to supply the public with drinking water," the drinking water in older houses and communities with lead service lines or lead plumbing can contain lead, "especially if the water is acidic or 'soft.'"[124] The concern with lead plumbing and fixtures is lead leaching into the water that runs through them, but "as buildings age, mineral deposits form a coating on the inside of the water pipes that insulates the water from lead in the pipe or solder, thus reducing the amount of lead that can leach into the water."[125] Those stabilizing mineral deposits, however, can be upset by acidity in the water supply: "Acidic water makes it easier for the lead found in pipes, leaded solder, and brass faucets to be dissolved and to enter the water we drink."[126] Accordingly, the primary regulatory approach, as discussed below, is to require water systems to prioritize monitoring, and to implement and maintain corrosion control treatment to minimize toxic metals leaching into water supplies.

To potentially close some of the gaps in lead exposure prevention, the California Legislature in 1992 enacted the Lead-Safe Schools Protection Act,[127] which acknowledged the potential dangers of lead exposure, especially in children, and required the State Department of Health Services to assess the risk factors of schools and "determine the likely extent and distribution of lead exposure to children from paint on the school, soil in play areas at the school, drinking water at the tap, and other potential sources identified by the department for this purpose.[128] The

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[122] Exhibit X (1), Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, pages 163-164 (USEPA: 3Ts for Reducing Lead in Drinking Water in Schools).

[123] Exhibit X (1), Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, page 164 (USEPA: 3Ts for Reducing Lead in Drinking Water in Schools).

[124] Exhibit X (8), U.S. Department of Health and Human Services, Public Health Service Agency for Toxic Substances and Disease Registry, *Public Health Statement: Lead, CAS #: 7439-92-1*, August 2007, pages 3-4.

[125] Exhibit X (8), U.S. Department of Health and Human Services, Public Health Service Agency for Toxic Substances and Disease Registry, *Public Health Statement: Lead, CAS #: 7439-92-1*, August 2007, page 4.

[126] Exhibit X (8), U.S. Department of Health and Human Services, Public Health Service Agency for Toxic Substances and Disease Registry, *Public Health Statement: Lead, CAS #: 7439-92-1*, August 2007, page 4.

[127] Education Code section 32240 et seq.

[128] Education Code section 32242.

Act did not specifically require testing of drinking water, but only required the Department to assess risk factors, of which drinking water was one.

B. Prior Law on Drinking Water

1. Federal Law

In 1974 Congress passed the federal Safe Drinking Water Act, authorizing U.S. EPA to set health-based standards for drinking water supplies, which U.S. EPA, the states, and drinking water systems work together to meet.[129] The Safe Drinking Water Act applies to all "public water systems," which may be privately owned or governmental and, which are defined as "a system for the provision to the public of water for human consumption" that has at least 15 service connections and serves at least 25 people per day for at least 60 days out of the year.[130] U.S. EPA states that there are over 170,000 public water systems providing drinking water to Americans, to which the Act applies.[131]

Under authority provided in the federal Act, U.S. EPA promulgated health-based standards for lead and copper in drinking water, known as the federal Lead and Copper Rule (LCR).[132] The federal action level "is exceeded if the concentration of lead in more than 10 percent of tap water samples collected during any monitoring period…is greater than 0.015 mg/L [15 ppb]."[133] The number of samples required depends on the size of the drinking water system, and any history of prior exceedances.[134] The primary mechanisms described in the LCR to control and minimize lead in drinking water are "optimal corrosion control treatment," which includes monitoring and adjusting the chemistry of drinking water supplies to prevent or minimize corrosion of lead or copper plumbing materials; source water treatment; replacement of lead service lines; and public education.[135] The LCR also includes monitoring and reporting requirements for public water systems.[136]

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[129] Exhibit X (10), U.S. EPA, Office of Water, *Understanding the Safe Drinking Water Act*, June 2004, https://www.epa.gov/sites/production/files/2015-04/documents/epa816f04030.pdf (accessed on February 21, 2023), page 1.

[130] 42 U.S.C. § 300f(4).

[131] Exhibit X (10), U.S. EPA, Office of Water, *Understanding the Safe Drinking Water Act*, June 2004, https://www.epa.gov/sites/production/files/2015-04/documents/epa816f04030.pdf (accessed on February 21, 2023), page 2.

[132] Title 40, Code of Federal Regulations, section 141.80 et seq.

[133] Title 40, Code of Federal Regulations, section 141.80(c).

[134] See Exhibit X (5), U.S. EPA, *Lead and Copper Rule: A Quick Reference Guide*, June 2008, page 1 (Chart showing the number of sample sites required under standard sampling or reduced sampling, according to the size of the drinking water system).

[135] Exhibit B, State Water Resources Control Board's Comments on the Test Claim, filed August 13, 2018, page 6; Title 40, Code of Federal Regulations, section 141.80(d-g).

[136] Title 40, Code of Federal Regulations, sections 141.86 – 141.91.

2. California Law

The California Safe Drinking Water Act addresses drinking water quality specifically and states the policy that "[e]very resident of California has the right to pure and safe drinking water," and that "[i]t is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases."[137] These provisions do not provide a right to the delivery of water, but merely provide that drinking water delivered by a public water system must be of a certain quality, and reasonably free of pollutants, to the extent feasible. The Act goes on to state:

> (e) This chapter is intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable. This chapter provides the means to accomplish this objective.
>
> (f) It is the intent of the Legislature to improve laws governing drinking water quality, to improve upon the minimum requirements of the federal Safe Drinking Water Act Amendments of 1996, to establish primary drinking water standards that are at least as stringent as those established under the federal Safe Drinking Water Act, and to establish a program under this chapter that is more protective of public health than the minimum federal requirements.
>
> (g) It is further the intent of the Legislature to establish a drinking water regulatory program within the state board to provide for the orderly and efficient delivery of safe drinking water within the state and to give the establishment of drinking water standards and public health goals greater emphasis and visibility within the state.[138]

Article XI, section 9 of the California Constitution makes clear that drinking water may be provided either by a municipal corporation, or by another person or corporate entity.[139] The State Board issues drinking water supply permits to all California "public water systems," which may be privately or government owned and which are defined the same as under the federal Act as "a system for the provision of water for human consumption through pipes or other

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[137] Health and Safety Code section 116270.

[138] Health and Safety Code section 116270.

[139] California Constitution, article XI, section 9. Article XI, section 9(a) provides that "[a] municipal corporation *may* establish, purchase, and operate public works to furnish its inhabitants with light, water, power, heat, transportation, or means of communication." Article XI, section 9(b) also provides that "[p]ersons or corporations may establish and operate works for supplying those services upon conditions and under regulations that the city may prescribe under its organic law." Article XII asserts government regulatory authority, via the Public Utilities Commission, over "private corporations or persons that own, operate, control, of manage a line, plant, or system for …the production, generation, transmission, or furnishing of heat, light, water, power, storage, or wharfage directly or indirectly to or for the public…" However, nothing in article XI or XII creates or implies a right to the delivery of any such services, or any mandatory duty on local government to provide such services.

constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year."[140]

The courts have called the California Safe Drinking Water Act "a remedial act intended to protect the public from contamination of its drinking water."[141] Accordingly, the Act does not create affirmative rights, including rights to the delivery of water: the only mandatory duty on local government is to review on a monthly basis water quality monitoring data submitted to the local government by water suppliers within its jurisdiction in order to detect exceedances of water quality standards.[142] Nothing in the Act requires state or local government to assume responsibility to ensure that every resident of California receives water from a public water system, or to test or monitor the public water systems within its jurisdiction, or take corrective or enforcement actions when pollutants are detected. The focus of the Act is "to ensure that the water *delivered* by public water systems of this state shall at all times be pure, wholesome, and potable,"[143] and the monitoring and corrosion control requirements are aimed at the water systems themselves, whether publicly or privately owned.

The State has also adopted a Lead and Copper Rule, substantially similar to the federal rule, which requires all operators of drinking water systems to monitor and sample at a number of sample sites determined by the size of the system, primarily residential sample sites.[144] If lead levels above 0.015 mg/L (15 ppb) are detected, the water system is expected to take corrective action, beginning with corrosion control treatment measures, then source water treatment, lead service line replacement, and public education.[145] Approximately 500 schools within California are themselves permitted as a "public water system," because they have their own water supply, such as a well.[146] Those entities also are required to test their taps for lead and copper under the

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[140] Health and Safety Code sections 116525, 116271(k) (Before July 1, 2014, the Department of Public Health issued such permits; however, Statutes 2014, chapter 35 transferred those duties to the SWRCB, effective July 1, 2014); "Public Water Systems" are defined in Health and Safety Code section 116275(h) and 42 U.S.C. § 300f(4).

[141] *Coshow v. City of Escondido* (2005) 132 Cal.App.4th 687, 704.

[142] *Guzman v. County of Monterey* (2009) 178 Cal.App.4th 983, 989.

[143] Health and Safety Code section 116270(e), emphasis added.

[144] See California Code of Regulations, title 22, section 64670 et seq.; Exhibit B, State Water Resources Control Board's Comments on the Test Claim, filed August 13, 2018, pages 5-6; California Code of Regulations, title 22, section 64676 (Sample Site Selection).

[145] See, e.g., California Code of Regulations, title 22, section 64673 (Describing monitoring and corrosion control measures to be taken if an elevated lead level is detected).

[146] Exhibit A, Test Claim, filed January 11, 2018, page 118 (State Water Board's *Frequently Asked Questions by Public Water Systems about Lead Testing of Drinking Water in California Schools*).

LCR; however, most schools are served by community water systems that are not required to test for lead specifically at the school's taps.[147]

C. The Test Claim Permit Amendment

Both the federal and state law have long required drinking water systems to monitor their customers' water supplies for exceedances and to take corrective action as necessary. However, that monitoring has been mostly limited to residential service connections, as a proxy for the presence of lead within the greater drinking water system.[148]

In September 2015, the Legislature passed SB 334 as a potential solution to the gap in regulation, which would have, had it been enacted, required school districts with water sources or drinking water supplies that do not meet U.S. EPA standards to close access to those drinking water sources; provide alternative drinking water sources if the school did not have the minimum number of drinking fountains required by law; and provide access to free, fresh, and clean drinking water during meal times in the food service areas of the schools under its jurisdiction.[149] SB 334 was vetoed by then-Governor Brown, whose veto message expressed concern that the bill could create a very expensive reimbursable state mandate.[150] The veto message instead directed the State Board to examine the scope of the potential problem by incorporating water quality testing in schools as part of the state's LCR.[151]

Accordingly, the State Board adopted the Permit Amendment (the test claim order) at issue here, as well as over 1,100 other nearly identical (but for the individual public water system information) permit amendments for other drinking water systems serving K-12 schools. Specifically, beginning January 18, 2017, the test claim order requires the claimant to submit to the Division of Drinking Water (DDW) a list of all K-12 schools served water through a utility meter; and then, if requested by any school within its service area by November 1, 2019, the drinking water system shall:

- Respond in writing within 60 days and schedule a meeting;

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[147] Exhibit A, Test Claim, filed January 11, 2018, page 118 (State Water Board's *Frequently Asked Questions by Public Water Systems about Lead Testing of Drinking Water in California Schools*).

[148] Exhibit B, State Water Resources Control Board's Comments on the Test Claim, filed August 13, 2018, page 6 ("Together, the sampling sites provide an overall picture of lead levels in the water customers are consuming – the assumption being that the houses and other facilities near sampling sites will have similar plumbing characteristics and, therefore, similar amounts of lead in tap water").

[149] Exhibit X (1), Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, page 148 (SB 334, Legislative Counsel's Digest).

[150] Exhibit X (1), Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, page 145 (Governor's Veto Message).

[151] Exhibit X (1), Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, page 145 (Governor's Veto Message).

- Finalize a sampling plan and complete initial sampling within 90 days, or develop an alternative time schedule if necessary;
- Collect one to five samples from drinking fountains, cafeteria/food preparation areas, or reusable bottle filling stations;
- Collect samples on a Tuesday, Wednesday, Thursday, or Friday on a day when school is in session;
- Submit samples to an ELAP certified laboratory;
- Within two business days of a result that shows an exceedance of 15 parts per billion (ppb), notify the school of the sample result;
- If an initial sample shows an exceedance of 15 ppb:
    - Collect an additional sample within 10 business days, unless the sample site is removed from service by the school;
    - Collect a third sample within 10 business days if the resample is less than or equal to 15 ppb;
    - Collect at least one more sample at a site where the school has completed some corrective action;
- Ensure the water system receives the results of repeat samples no more than 10 business days after the date of collection;
- Do not release lead sampling data to the public for 60 days, unless in compliance with a Public Records Act request;
- Discuss the results with the school prior to releasing the results to the public.[152]

The order further states that the water system may not use any lead samples collected under the order to satisfy federal or state LCR requirements; the water system must keep records of all schools requesting testing or lead-related assistance and provide those records to DDW upon request; and the water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.[153]

The order requires the claimant to provide testing to both private and public K-12 schools, upon request of the school. Under the order, the claimant's public water system must assist those schools to which it serves drinking water with "at least one or more of grades Kindergarten through 12th grade," when a request for one-time assistance is made in writing by an authorized school representative.[154] "Authorized school representative" is defined as "the superintendent or

[152] Exhibit A, Test Claim, filed January 11, 2018, pages 105-107 (test claim order).

[153] Exhibit A, Test Claim, filed January 11, 2018, page 108 (test claim order).

[154] Exhibit A, Test Claim, filed January 11, 2018, pages 105-106 (test claim order).

designee of a school, governing board or designee of a charter school, or administrator or designee of a private school."[155]

The State Board explained, in its frequently asked questions documents regarding the lead sampling program, that the "schools" which can request lead sampling include all K-12 schools in the water system's service area that are listed in the California School Directory, including both private and public K-12 schools.

> **Which schools can request lead testing of their drinking water?**
>
> The DDW permit action requires community water systems to assist any school in their service area that is listed in the California School Directory. This directory includes schools for grades K-12, including private, charter, magnet and non-public schools. The directory does *not* include preschools, daycare centers, or postsecondary schools.[156]

D. Health and Safety Code Section 116277 (AB 746)

Effective January 1, 2018 (almost one year after the effective date of the test claim order), Health and Safety Code section 116277 (AB 746) required community water systems[157] serving a public school constructed before January 1, 2010, and that did not previously request lead testing, to affirmatively test for lead in those schools' potable water system by July 1, 2019.[158] The section became inoperative July 1, 2019, and was repealed effective January 1, 2020.[159] Section 116277 states in its entirety as follows:

> (a)(1) A community water system that serves a schoolsite of a local educational agency with a building constructed before January 1, 2010, on that schoolsite shall test for lead in the potable water system of the schoolsite on or before July 1, 2019.
>
> > (2) The community water system shall report its findings to the schoolsite within 10 business days after the community water system receives the results from the testing laboratory or within two business days if it is found that the schoolsite's lead level exceeds 15 parts per billion.
> >
> > (3) If the lead level exceeds 15 parts per billion, the community water system shall also test a water sample from the point in which the

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[155] Exhibit A, Test Claim, filed January 11, 2018, pages 105-106 (test claim order).

[156] Exhibit A, Test Claim, filed January 11, 2018, page 119 (*Frequently Asked Questions by Public Water Systems about Lead Testing of Drinking Water in California Schools*), emphasis in original.

[157] "Community water systems" are public water systems that supply water to the same population year-round. (See Health and Safety Code section 116275(i).)

[158] Exhibit X (4), Health and Safety Code section 116277 (as added by Stats. 2017, ch. 746) (AB 746).

[159] Exhibit X (4), Health and Safety Code section 116277(g) (as added by Stats. 2017, ch. 746) (AB 746).

schoolsite connects to the community water system's supply network to determine the lead level of the water entering the schoolsite from the community water system's water supply network.

(b)(1) A local educational agency shall allow the community water system access to each of the local educational agency's schoolsites that are subject to subdivision (a) to conduct testing.

(2) If the lead level exceeds 15 parts per billion, the local educational agency shall notify the parents and guardians of the pupils who attend the schoolsite or preschool where the elevated lead levels are found.

(c)(1) If lead levels exceed 15 parts per billion, the local educational agency shall take immediate steps to make inoperable and shut down from use all fountains and faucets where the excess lead levels may exist. Additional testing may be required to determine if all or just some of the school's fountains and faucets are required to be shut down.

(2) Each local educational agency shall work with the schoolsites within its service area to ensure that a potable source of drinking water is provided for students at each schoolsite where fountains or faucets have been shut down due to elevated lead levels. Providing a potable source of drinking water may include, but is not limited to, replacing any pipes or fixtures that are contributing to the elevated lead levels, providing onsite water filtration, or providing bottled water as a short-term remedy.

(d) Each community water system, in cooperation with the appropriate corresponding local educational agency, shall prepare a sampling plan for each schoolsite where lead sampling is required under subdivision (a). The community water system and the local educational agency may request assistance from the state board or any local health agency responsible for regulating community water systems in developing the plan.

(e) This section shall not apply to a schoolsite that is subject to any of the following:

(1) The schoolsite was constructed or modernized after January 1, 2010.

(2) The local educational agency of the schoolsite is currently permitted as a public water system and is currently required to test for lead in the potable water system.

(3) The local educational agency completed lead testing of the potable water system after January 1, 2009, and posts information about the lead testing on the local educational agency's public Internet Web site, including, at a minimum, identifying any schoolsite where the level of lead in drinking water exceeds 15 parts per billion.

(4) The local educational agency has requested testing from its community water system consistent with the requirements of this section.

(f) For purposes of this section, the following definitions apply:

(1) "Local educational agency" means a school district, county office of education, or charter school located in a public facility.

(2) "Potable water system" means water fountains and faucets used for drinking or preparing food.

(g) This section shall become inoperative on July 1, 2019, and, as of January 1, 2020, is repealed.[160]

Thus, AB 746 requires preparation of a sampling plan, repeat testing when lead levels exceed 15 ppb, notification procedures based on sampling results, and requires the local educational agency to take action if lead levels exceed 15 ppb.[161] AB 746 does not require testing in the following situations: (1) The schoolsite was constructed or modernized after January 1, 2010; (2) The local educational agency of the schoolsite is currently permitted as a public water system and is currently required to test for lead; (3) The local educational agency completed lead testing after January 1, 2009, and posts this information on its website; (4) The local educational agency has requested testing from its community water system consistent with the requirements of AB 746.[162]

The State Board describes the requirements of AB 746 as follows:

> As of July 1, 2019, the Division of Drinking Water (DDW), in collaboration with the California Department of Education, has completed the initiative to test for lead in drinking water at all public K-12 schools. California Assembly Bill 746 (AB 746) published on October 12, 2017, effective January 1, 2018, *required community water systems to test lead levels, by July 1, 2019, in drinking water at all California public, K-12 school sites that were constructed before January 1, 2010*.
>
> Prior to the passage of AB 746, in early 2017, the DDW and Local Primacy Agencies issued amendments to the domestic water supply permits of approximately 1,200 community water systems so that schools that are served by a public water system could request assistance from their public water system to conduct water sampling for lead and receive technical assistance if an elevated

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[160] Exhibit X (4), Health and Safety Code section 116277 (as added by Stats. 2017, ch. 746) (AB 746).

[161] Exhibit X (4), Health and Safety Code section 116277(a) – (d) (as added by Stats. 2017, ch. 746) (AB 746); see also Exhibit B, State Water Resources Control Board's Comments on the Test Claim, filed August 13, 2018, page 7.

[162] Exhibit X (4), Health and Safety Code section 116277(e) (as added by Stats. 2017, ch. 746) (AB 746); see also Exhibit B, State Water Resources Control Board's Comments on the Test Claim, filed August 13, 2018, page 7.

> lead sample was found. These amendments allowed the private schools to continue to request sampling and assistance after the passage of AB 746.[163]

According to a legislative analysis of AB 746, events in early 2017 raised concerns about the issue of lead in public school drinking water.

> In February 2017, the safety of drinking water was questioned after elevated levels of lead, copper, and bacteria were discovered at three campuses in the San Ysidro School District. In addition, Folsom Cordova Unified started testing water last year at schools built before 1960 that have galvanized steel pipes. The testing was prompted by elevated levels of copper, iron, and lead in water coming from a classroom tap in 2015 at Cordova Lane Center, which serves preschoolers and special education students.
>
> Because testing drinking water at schools is not mandatory, it is unknown whether these are isolated incidents or roughly representative of school districts around the state. Conducting sample tests at each schoolsite is one way to determine the scope of the problem.[164]

The same legislative analysis describes lead testing provided under the test claim order and the other substantially similar permit amendments as "more limited in scope compared to the bill's requirements."[165]

III. Positions of the Parties

A. City of San Diego

The claimant alleges that the test claim order required the claimant's public water system to perform lead testing, at no charge, on the property of all schools that receive water from their system, upon request.[166] The claimant provides a detailed description of each of the new activities it was required to perform under the test claim order, which are not in dispute.[167] The claimant asserts that no prior federal or state law requires the activities described, and that the claimant does not receive any dedicated state or federal funds, or any other non-local agency funds dedicated to this program.[168]

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[163] Exhibit X (7), State Water Board, *Lead Sampling in Schools*, https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.html (accessed on January 30, 2023), page 1.

[164] Exhibit X (3), Concurrence in Senate Amendments, Analysis of AB 746, as amended September 8, 2017, page 3.

[165] Exhibit X (3), Concurrence in Senate Amendments, Analysis of AB 746, as amended September 8, 2017, page 2.

[166] Exhibit A, Test Claim, filed January 11, 2018, page 14.

[167] Exhibit A, Test Claim, filed January 11, 2018, pages 18-50.

[168] Exhibit A, Test Claim, filed January 11, 2018, pages 16-17; 52-53.

The claimant provides argument and evidence that the City's operation of a public water system is not discretionary, in large part due to its long history of doing so, and because of the substantial investment that would be lost and substantial bond liability that would immediately come due if the City elected to discontinue such service.[169] The claimant asserts that these facts constitute practical compulsion within the meaning of *Department of Finance v. Commission* (*Kern*).[170]

The claimant asserts that the test claim order imposes a new program or higher level of service.[171]

The claimant also asserts that it has incurred increased costs mandated by the state, and that the exceptions in Government Code section 17556 do not apply. The claimant alleges its total costs for fiscal year 2016-2017 to be $351,577.26, and for fiscal year 2017-2018, $47,815.67.[172] The order expressly provides that the claimant must conduct the lead sampling at no charge to the schools in its service area. The claimant concludes on this basis, and pursuant to article XIII C of the California Constitution, which prohibits a fee or charge that exceeds the proportional cost of service attributable to a parcel, that the claimant is unable to recoup the costs of the alleged mandate through fees for water service, because it cannot impose or increase fees on the schools in which it conducts lead testing, and it is legally proscribed from imposing or increasing fees on other water users.[173]

The claimant states in its rebuttal comments that the test claim order results in increased costs mandated by the state: "By mandating that the City perform lead testing for free, the Permit Amendment has ensnared the City in [a] constitutional web of fees and charges, where the only ways out are to spend local tax revenue or to seek reimbursement through this Commission."[174] The claimant argues that because the express language of the test claim order prohibits charging schools for the costs of sampling, "the cost of the new service is being absorbed by all City ratepayers."[175] The "constitutional web" the claimant is referring to is the substantive limitations on new fees or charges imposed by Proposition 218; article XIII D imposes a proportionality requirement, a prohibition on excessive fees, and a prohibition on new fees or charges for any service "unless that service is actually used by, or immediately available to, the owner of the property in question."[176] And although the "SWRCB believes that the Permit Amendment

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[169] Exhibit G, Claimant's Comments on the Draft Proposed Decision, filed January 11, 2019, pages 8-11.

[170] (2003) 30 Cal.4th 727.

[171] Exhibit D, Claimant's Rebuttal Comments, filed November 9, 2018, pages 2-9.

[172] Exhibit A, Test Claim, filed January 11, 2018, page 58.

[173] Exhibit A, Test Claim, filed January 11, 2018, page 54.

[174] Exhibit D, Claimant's Rebuttal Comments, filed November 9, 2018, page 9.

[175] Exhibit D, Claimant's Rebuttal Comments, filed November 9, 2018, page 9.

[176] Exhibit D, Claimant's Rebuttal Comments, filed November 9, 2018, page 10, citing California Constitution, article XIII D, section 6.

confers a direct benefit on all water ratepayers, not just the schools, in the form of increased property values and ensuring the City's water does not contain lead,"[177] the claimant argues that the benefits are not sufficiently direct:

> First, raising water rates to cover the cost of the Permit Amendment would ultimately violate the Permit Amendment itself. The City is legally obligated by Proposition 218 to apportion the cost of service based on the relative benefits received by its customers. Proposition 218 further prohibits the City from charging customers for services that are not immediately available to them. The schools, as the exclusive and direct recipients of lead testing under the Permit Amendment, benefit the most in that the testing assesses school pipes and fixtures for sources of lead. Lead testing is not available to the rest of the City's water ratepayers under the Permit Amendment, so they do not receive the benefit of having their own properties evaluated. The benefits of higher property values and testing of City water that SWRCB says are direct benefits to all ratepayers, are really collateral or incidental benefits. Any water rate increase apportioning the cost of lead testing among City ratepayers would fall primarily on schools, the direct and primary beneficiary of the lead testing. The Permit Amendment, however, prohibits charging a school for lead testing. A school is being charged for lead testing whether the City sends the school an invoice when the testing is done, or passes on the cost of lead testing to a school through a water rate increase.
>
> Second, even assuming there is a plausible connection between lead testing at schools and higher property values in the surrounding neighborhoods, higher property values do not benefit all water ratepayers. Water ratepayers are both homeowners and renters. While a homeowner may benefit from a higher resale value of a home, a tenant will not. Higher property values cannot justify charging all water ratepayers for a service they are not receiving.[178]

Moreover, the claimant argues that any fees that might be imposed for lead testing are not imposed as an incident of property ownership, on an ongoing basis.[179] Accordingly, the claimant argues that Proposition 26 controls:

> Proposition 26 further tightened the restrictions on local government revenue imposed by Propositions 13 and 218 by defining a tax as "any levy, charge, or exaction of any kind imposed by a local government, except the following:"
>
> > (1) A charge imposed for a specific benefit conferred or privilege granted directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of conferring the benefit or granting the privilege.

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[177] Exhibit D, Claimant's Rebuttal Comments, filed November 9, 2018, page 10.

[178] Exhibit D, Claimant's Rebuttal Comments, filed November 9, 2018, page 11.

[179] Exhibit D, Claimant's Rebuttal Comments, filed November 9, 2018, page 12.

(2) A charge imposed for a specific government service or product provided directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of providing the service or product.

(3) A charge imposed for the reasonable regulatory costs to a local government for issuing licenses and permits, performing investigations, inspections, and audits, enforcing agricultural marketing orders, and the administrative enforcement and adjudication thereof.

(4) A charge imposed for entrance to or use of local government property, or the purchase, rental, or lease of local government property.

(5) A fine, penalty, or other monetary charge imposed by the judicial branch of government or a local government, as a result of a violation of law.

(6) A charge imposed as a condition of property development.

(7) Assessments and property-related fees imposed in accordance with the provisions of Article XIII D.

A fee or charge is a tax that must be approved by the voters unless the fee or charge meets one of these seven exceptions. [Citing to Cal. Const., art. XIII C, § 2.] The last of the seven exceptions is for property-related fees and charges under Proposition 218, but because lead testing performed under the Permit Amendment is not provided as an incident of property ownership (discussed above), the City cannot avail itself of that exception to raise water rates without voter approval. The third through sixth exceptions are inapplicable to a fee for lead testing because the City is not acting as a regulator in performing the service, the City is not charging the schools to enter City property, the City is not fining the schools for violating the law, and the City is not imposing a development fee, respectively. The first exception for "a specific benefit conferred or privilege granted directly to the payor" does not apply either, because the City is not issuing a school a permit or a license to engage in any activity.

This leaves only the second exception, which would ordinarily give the City sufficient fee authority in situations like this: "[a] charge imposed for a specific government service or product provided directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of providing the service or product." [Citing to Cal. Const., art. XIII C, § 1(e)(2).] The City is providing lead testing services on school property at the request of each school, for which the City could ordinarily charge each school an amount equivalent to the cost of providing the service. The problem is the Permit Amendment prohibits the City from charging the schools, even though the schools are receiving the government service. The school is not the "payor," so the second exception does not apply. Therefore, by default, the City's water ratepayers become the "payor" even though they are not requesting or receiving the service. Without any applicable exceptions, charging water ratepayers for

lead testing provided to schools for free is a tax subject to voter approval under Proposition 26.[180]

Accordingly, the claimant asserts that the test claim order imposes a reimbursable state-mandated program within the meaning of article XIII B, section 6 of the California Constitution.

B. Department of Finance

Finance contends that the test claim order does not impose a new program or higher level of service.[181]

Finance argues that "claimants do have fee authority undiminished by Propositions 218 or 26."[182] Finance states that "Proposition 26 specifically excludes assessments and property-related fees imposed in accordance with Proposition 218 from the definition of taxes."[183] Finance maintains that the alleged mandate "involves the provision of water services and the fee authority is subject at most to the majority protest provision under article XIII D, section 6(a)."[184] Finance further asserts that "as the State Board makes clear in its comments on this test claim, lead testing in K-12 schools provides a direct benefit to the water system as a whole and each ratepayer, and the City may therefore set water rates sufficient to pay for the costs of compliance with the permit amendment."[185]

C. State Water Resources Control Board

The State Board asserts that the test claim order is not subject to state mandate reimbursement because it does not impose a new program or higher level of service, and because the claimant has fee authority sufficient to cover the costs of any required activities despite Proposition 218.[186]

The State Board argues that Proposition 218 does not prevent the claimant from imposing or increasing water rates to recoup the costs of the alleged mandate. The State Board argues that the lead testing required under the Order confers a direct benefit on all water system users as a whole because it functionally extends the Lead and Copper rule by providing additional water quality data of systemwide importance, which in turn "will help to maintain and possibly improve property values."[187]

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[180] Exhibit D, Claimant's Rebuttal Comments, filed November 9, 2018, pages 12-13.

[181] Exhibit C, Finance's Comments on the Test Claim, filed August 13, 2018, page 2.

[182] Exhibit C, Finance's Comments on the Test Claim, filed August 13, 2018, page 2.

[183] Exhibit C, Finance's Comments on the Test Claim, filed August 13, 2018, page 2.

[184] Exhibit C, Finance's Comments on the Test Claim, filed August 13, 2018, page 2.

[185] Exhibit C, Finance's Comments on the Test Claim, filed August 13, 2018, page 2.

[186] Exhibit B, State Water Resources Control Board's Comments on the Test Claim, filed August 13, 2018, pages 8-17.

[187] Exhibit B, State Water Resources Control Board's Comments on the Test Claim, filed August 13, 2018, pages 15-16.

IV. Discussion

Article XIII B, section 6 of the California Constitution provides in relevant part the following:

> Whenever the Legislature or any state agency mandates a new program or higher level of service on any local government, the state shall provide a subvention of funds to reimburse such local government for the costs of such programs or increased level of service…

The purpose of article XIII B, section 6 is to "preclude the state from shifting financial responsibility for carrying out governmental functions to local agencies, which are 'ill equipped' to assume increased financial responsibilities because of the taxing and spending limitations that articles XIII A and XIII B impose."[188] Thus, the subvention requirement of section 6 is "directed to state-mandated increases in the services provided by [local government] …"[189]

Reimbursement under article XIII B, section 6 is required when the following elements are met:

1. A state statute or executive order requires or "mandates" local agencies or school districts to perform an activity.[190]
2. The mandated activity either:
   a. Carries out the governmental function of providing a service to the public; or
   b. Imposes unique requirements on local agencies or school districts and does not apply generally to all residents and entities in the state.[191]
3. The mandated activity is new when compared with the legal requirements in effect immediately before the enactment of the test claim statute or executive order.[192]
4. The mandated activity results in the local agency or school district incurring increased costs mandated by the state within the meaning of section 17514. Increased costs, however, are not reimbursable if an exception identified in Government Code section 17556 applies to the activity.[193]

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[188] *County of San Diego v. State of California* (1997) 15 Cal.4th 68, 81.

[189] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56.

[190] *San Diego Unified School Dist. v. Commission on State Mandates* (2004) 33 Cal.4th 859, 874.

[191] *San Diego Unified School Dist. v. Commission on State Mandates* (2004) 33 Cal.4th 859, 874-875 (reaffirming the test set out in *County of Los Angeles* (1987) 43 Cal.3d 46, 56).

[192] *San Diego Unified School Dist.* (2004) 33 Cal.4th 859, 874-875, 878; *Lucia Mar Unified School District v. Honig* (1988) 44 Cal3d 830, 835.

[193] *County of Fresno v. State of California* (1991) 53 Cal.3d 482, 487; *County of Sonoma v. Commission on State Mandates* (2000) 84 Cal.App.4th 1265, 1284; Government Code sections 17514 and 17556.

The Commission is vested with the exclusive authority to adjudicate disputes over the existence of state-mandated programs within the meaning of article XIII B, section 6 of the California Constitution.[194] The determination whether a statute or executive order imposes a reimbursable state-mandated program is a question of law.[195] In making its decisions, the Commission must strictly construe article XIII B, section 6 of the California Constitution, and not apply it as an "equitable remedy to cure the perceived unfairness resulting from political decisions on funding priorities."[196]

A. This Test Claim Is Timely Filed Pursuant to Government Code Section 17551 and has a Potential Period of Reimbursement Beginning January 18, 2017.

Government Code section 17551(c) states that test claims "shall be filed not later than 12 months following the effective date of a statute or executive order, or within 12 months of incurring increased costs as a result of a statute or executive order, whichever is later."[197]

The effective date of the order is January 18, 2017.[198] The claimant filed the Test Claim on January 11, 2018, less than 12 months after the effective date of the order.[199] Therefore, the Test Claim is timely filed.

Government Code section 17557(e) requires a test claim to be "submitted on or before June 30 following a fiscal year in order to establish eligibility for reimbursement for that fiscal year." Because the Test Claim was filed on January 11, 2018, the potential period of reimbursement under Government Code section 17557 begins on July 1, 2016. However, since the test claim permit has a later effective date, the potential period of reimbursement for this claim begins on the permit's effective date, or January 18, 2017.

B. The Test Claim Order Imposes a Reimbursable State-Mandated Program Within the Meaning of Article XIII B, Section 6 of the California Constitution.

This Test Claim alleges new state-mandated activities and costs arising from an amendment to the claimant's public water system permit adopted by the State Water Board, Order No. 2017PA-SCHOOLS for the City of San Diego PWS No. 3710020. The test claim order requires the claimant, as the operator of a "public water system" that serves a number of K-12 schools, to perform lead sampling upon request of a school at no cost to the school.[200] Under the order,

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[194] *Kinlaw v. State of California* (1991) 53 Cal.3d 326, 335.

[195] *County of San Diego v. State of California* (1997) 15 Cal.4th 68, 109.

[196] *County of Sonoma v. Commission on State Mandates* (2000) 84 Cal.App.4th 1265, 1280 (citing *City of San Jose v. State of California* (1996) 45 Cal.App.4th 1802, 1817).

[197] Government Code section 17551(c).

[198] Exhibit A, Test Claim, filed January 11, 2018, page 104 (test claim order).

[199] Exhibit A, Test Claim, filed January 11, 2018, page 1.

[200] Exhibit A, Test Claim, filed January 11, 2018, page 107 (test claim order) states that the water system is responsible for the following costs:

upon request, the claimant must take samples to perform lead sampling, at one to five fixtures (e.g., drinking fountains or food preparation areas) on the school's property, process those results at a certified laboratory, maintain records of the requests and the results, and provide the results, and if necessary, information to the school regarding possible remediation or other solutions if lead is detected in the fixtures above 15 parts per billion (ppb).

The Commission finds that the test claim order imposes a reimbursable state-mandated program within the meaning of article XIII B, section 6 of the California Constitution, as specified below.

1. The Test Claim Order Imposes a State-Mandated Program on the City of San Diego.

a. The test claim order imposes new requirements on the claimant, the City of San Diego.

The plain language of the test claim order requires the claimant, as a public water system, to:

1. Submit to the State Water Board's Division of Drinking Water a comprehensive list of the names and addresses of all K-12 schools served water through a utility meter [by the claimant] by July 1, 2017;[201]
2. If a school representative requests lead sampling assistance in writing by November 1, 2019:[202]
   a. Respond in writing within 60 days and schedule a meeting with school officials to develop a sampling plan;[203]
   b. Finalize a sampling plan and complete initial sampling within 90 days [or an alternative time schedule approved by DDW];[204]
   c. Collect one to five samples at each school, from regularly used drinking fountains, cafeteria or food preparation areas, or reusable bottle filling stations, selected according to the sampling plan, and using the sampling guidance provided in Appendix A;[205]

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a. Laboratory fees for all lead samples and reporting of the results to DDW and the school, and all laboratory coordination and instruction.

b. All water system staff time dedicated to the tasks required by the provisions in this permit amendment.

[201] Exhibit A, Test Claim, filed January 11, 2018, page 105 (test claim order).

[202] Exhibit A, Test Claim, filed January 11, 2018, page 105 (test claim order).

[203] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[204] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[205] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday, or Friday on a day that school is in session and has been in session for at least one day prior to the day of sampling;[206]

e. Ensure samples are collected by an adequately trained water system representative;[207]

f. Submit the samples to an ELAP certified laboratory for analysis;[208]

g. Require the laboratory to submit the data electronically to DDW;[209]

h. Provide a copy of the results to the school representative;[210]

i. Within two business days of a result that shows an exceedance of 15 ppb, notify the school of the sample result;[211]

j. If an initial sample shows an exceedance of 15 ppb:

- Collect an additional sample within 10 days if the sample site remains in service;[212]
- Collect a third sample within 10 business days after notification that a resample result is less than or equal to 15 ppb;[213]
- Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb;[214]

k. Ensure that the water system receives the results of repeat lead samples from the laboratory in no more than 10 business days;[215]

l. Do not release the lead sampling data to the public for 60 days following receipt of the initial lead sampling results unless in compliance with a Public Records Act request for specific results;[216]

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[206] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[207] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[208] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[209] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[210] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[211] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[212] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[213] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[214] Exhibit A, Test Claim, filed January 11, 2018, page 107 (test claim order).

[215] Exhibit A, Test Claim, filed January 11, 2018, page 107 (test claim order).

[216] Exhibit A, Test Claim, filed January 11, 2018, page 107 (test claim order).

m. Discuss the lead sample results with the school prior to releasing the sample results to the public, and within 10 days of receiving the results from the laboratory;[217]

n. Communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if the results confirm lead levels above 15 ppb.[218] ***The water system is not responsible for the costs of any corrective action or maintenance***;[219]

o. Keep records of all requests for lead related assistance and provide the records to DDW, upon request;[220]

p. Include in the annual Consumer Confidence Report a statement summarizing the number of schools requesting lead sampling.[221]

Both the claimant and the State Water Board agree that these requirements are new, as compared against prior law.[222]

The Commission finds that the requirements imposed by the test claim order are new. Prior law, under the federal and state Safe Drinking Water Act and the federal and state Lead and Copper Rule, all address, in some manner, the existence of lead in drinking water. But none of those provisions specifically requires local government to assist schools with lead sampling at drinking water fountains and other fixtures. As noted, schools that operate their own water systems or that receive water from groundwater wells were already subject to some mixture of lead sampling requirements and control measures under existing law. However, the requirements of the test claim order for the claimant, City of San Diego, as a public water system that supplies water to K-12 schools, to sample one to five drinking water fixtures on school property upon request of the school, are new.

Furthermore, while the test claim order is one of over 1,100 permit amendments simultaneously issued to privately- and publicly-owned public water systems, the test claim order is issued only to the claimant, the City of San Diego. Therefore, the new requirements imposed by the test claim order are imposed solely on the City of San Diego.

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[217] Exhibit A, Test Claim, filed January 11, 2018, page 107 (test claim order).

[218] Exhibit A, Test Claim, filed January 11, 2018, page 108 (test claim order).

[219] Exhibit A, Test Claim, filed January 11, 2018, page 108 (test claim order).

[220] Exhibit A, Test Claim, filed January 11, 2018, page 108 (test claim order).

[221] Exhibit A, Test Claim, filed January 11, 2018, page 108 (test claim order).

[222] See Exhibit A, Test Claim, filed January 11, 2018, pages 16-17 ("The City's existing Permit and its prior amendments do not require [the claimant] to perform lead testing at K-12 schools."); Exhibit B, State Water Resources Control Board's Comments on the Test Claim, filed August 13, 2018, pages 5-7 (Explaining that under prior federal and state regulations community water systems, such as operated by the claimant, were required to monitor and sample for lead throughout their systems, but mostly by sampling private residences).

b. <u>However, beginning January 1, 2018, any lead testing conducted by the claimant on those public schools constructed or modernized before January 1, 2010, that did not request testing before January 1, 2018, is required by Health and Safety Code section 116227, and not by the test claim order.</u>

Under the test claim order, the claimant's public water system must assist those schools to which it serves drinking water with "at least one or more of grades Kindergarten through 12th grade," when a request for one-time assistance is made in writing by an authorized school representative by November 1, 2019.[223] "Authorized school representative" is defined as "the superintendent or designee of a school, governing board or designee of a charter school, or administrator or designee of a private school."[224]

The State Board explained in its frequently asked questions documents regarding the lead sampling program that the "schools" which can request lead sampling include all K-12 schools in the water system's service area that are listed in the California School Directory, including both private and public K-12 schools.

> **Which schools can request lead testing of their drinking water?**
>
> The DDW permit action requires community water systems to assist any school in their service area that is listed in the California School Directory. This directory includes schools for grades K-12, including private, charter, magnet and non-public schools. The directory does *not* include preschools, daycare centers, or postsecondary schools.[225]

From January 1, 2018 through July 1, 2019, however, Health and Safety Code section 116277 required a community water system[226] serving any public school constructed or modernized prior to January 1, 2010, to test for lead in the school's potable water system[227] by July 1, 2019, except for schools exempted from the requirement. There is no requirement in section 116277 that a school first make a request for testing.

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[223] Exhibit A, Test Claim, filed January 11, 2018, pages 105-106 (test claim order).

[224] Exhibit A, Test Claim, filed January 11, 2018, pages 105-106 (test claim order).

[225] Exhibit A, Test Claim, filed January 11, 2018, page 119 (*Frequently Asked Questions by Public Water Systems about Lead Testing of Drinking Water in California Schools*), emphasis in original.

[226] "Community water system" is a public water system that supplies water to the same population year-round, and would include the claimant. (See Health and Safety Code section 116275(i).)

[227] Exhibit X (4), Health and Safety Code section 116277(f)(2) (as added by Stats. 2017, ch. 746) (AB 746), which defines "potable water system" as "water fountains and faucets used for drinking or preparing food," which is substantially similar to the test claim order's requirement that samples be collected at "regularly used drinking fountains, cafeteria or food preparation areas, or reusable bottle filling stations." Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

The requirements imposed on a public water system under Health and Safety Code section 116277 are substantially similar to those required by the test claim order. Both require a public water system to work collaboratively with the school to prepare a sampling plan; to test for lead in the school's drinking water system; to conduct additional testing if lead levels exceed 15 ppb; and to share test results with the school.

In addition, by its plain language, Health and Safety Code section 116277 applies only to "schoolsite[s] of a local educational agency with a building constructed or modernized before January 1, 2010"[228] and does *not* apply if the "schoolsite was constructed or modernized after January 1, 2010."[229] Section 116277 defines "local educational agency" as "a school district, county office of education, or charter school located in a public facility."[230] Thus, section 116277 applies to all public schools constructed or modernized before January 1, 2010, but does *not* apply to those public schools constructed or modernized after January 1, 2010, or to private schools. As indicated in the Background, the State Board's summary of Health and Safety Code section 116227 agrees that the requirements of section 116227 apply only to public schools.[231] Moreover, of those public schools constructed or modernized before January 1, 2010, only those that already completed lead testing before January 1, 2009, or requested lead testing before the enactment of section 116227 (i.e. those that requested testing under the test claim order before January 1, 2018) are exempt from the requirements of section 116227.[232]

Therefore, even in the absence of the test claim order, beginning January 1, 2018, the claimant is required by Health and Safety Code section 116227 to conduct lead testing on all public schools

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[228] Exhibit X (4), Health and Safety Code section 116277(a)(1) (as added by Stats. 2017, ch. 746) (AB 746).

[229] Exhibit X (4), Health and Safety Code section 116277(e)(1) (as added by Stats. 2017, ch. 746) (AB 746).

[230] Exhibit X (4), Health and Safety Code section 116277(f)(1) (as added by Stats. 2017, ch. 746) (AB 746).

[231] Exhibit X (7), State Water Resources Control Board, *Lead Sampling in Schools*, https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadsamplinginschools.html (accessed on January 30, 2023), page 1 ("As of July 1, 2019, the Division of Drinking Water (DDW), in collaboration with the California Department of Education, has completed the initiative to test for lead in drinking water at all public K-12 schools. California Assembly Bill 746 (AB 746) published on October 12, 2017, effective January 1, 2018, required community water systems to test lead levels, by July 1, 2019, in drinking water at all California public, K-12 school sites that were constructed before January 1, 2010.").

[232] Exhibit X (4), Health and Safety Code section 116277(e) (as added by Stats. 2017, ch. 746) (AB 746). Section 116277(e) also exempts those schools whose local educational agency is currently permitted as a public water system and is currently required to test for lead in the potable water system. The claimant would not have to provide lead testing services to these schools under the test claim order either, since the water is supplied by the local educational agency and not the claimant.

constructed or modernized before January 1, 2010 (except those that previously requested lead testing), and complete that testing by July 1, 2019. No written request by a school is required to trigger this duty.

Finally, the test claim order requires the claimant to submit to the State Board's Division of Drinking Water a comprehensive list of the names and addresses of all K-12 schools to which it serves water by July 1, 2017, which is *prior* to the effective date of Health and Safety Code section 116277.[233] Section 116277 was not effective until January 1, 2018 and contains no similar requirement. Thus, this requirement is imposed solely by the test claim order.

Accordingly, beginning January 1, 2018, any lead testing conducted by the claimant on those public schools constructed or modernized before January 1, 2010, that did not request testing before January 1, 2018, is required by Health and Safety Code section 116227, and not by the test claim order.

c. <u>The test claim order imposes a state-mandated program on the claimant as an operator of a public water system.</u>

When determining whether a test claim statute or order compels compliance and, thus, creates a state-mandated program for purposes of reimbursement under article XIII B, section 6, the courts have identified two distinct theories: legal compulsion and practical compulsion.[234] Activities undertaken at the option or discretion of local government, without legal or practical compulsion, do not trigger a state-mandated program within the meaning or article XIII B, section 6.[235] The California Supreme Court has described legal compulsion as follows:

> Legal compulsion occurs when a statute or executive action uses mandatory language that require[s] or command[s] a local entity to participate in a program or service… Stated differently, legal compulsion is present when the local entity has a mandatory, legally enforceable duty to obey. This standard is similar to the showing necessary to obtain a traditional writ of mandate, which requires the petitioning party to establish the respondent has a clear, present, and usually ministerial duty to act. ... Mandate will not issue if the duty is ... mixed with discretionary power.

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[233] Exhibit A, Test Claim, filed January 11, 2018, page 105 (test claim order). The effective date of Health and Safety Code section 116277 is January 1, 2018.

[234] *Coast Community College Dist. v. Commission on State Mandates* (2022) 13 Cal.5th 800, 815.

[235] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 73-76; *Department of Finance v. Commission on State Mandates* (*Kern*) (2003) 30 Cal.4th 727; *Department of Finance v. Commission on State Mandates* (POBRA) (2009) 170 Cal.App.4th 1355, 1365-1366.

> Thus, as a general matter, a local entity's voluntary or discretionary decision to undertake an activity cannot be said to be legally compelled, even if that decision results in certain mandatory actions.[236]

Article XI, section 9(a) of the California Constitution provides that a "municipal corporation" *may* be established to operate public works to furnish light, water, power, heat, transportation, or means of communication.[237] The courts have interpreted article XI, section 9 (previously section 19) as granting authority, rather than imposing a duty.[238]

Under the Government Code, when interpreting statutes and constitutional provisions, "shall" is mandatory, and "may" is permissive.[239] Article XI, section 9 provides that a municipal corporation *may* establish water service. Government Code section 38742 also provides that the legislative body of any city "*may*" contract for supplying the city with water for municipal purposes; *or* "*may*" "[a]cquire, construct, repair, and manage pumps, aqueducts, reservoirs, or other works necessary or proper for supplying water for the use of the city or its inhabitants or for irrigating purposes of the city."

As discussed above, the test claim order is one of over 1,100 nearly identical permit amendments issued to both privately- and publicly-owned public water systems serving K-12 schools. Therefore, because state law permits, but does not legally require, the claimant to provide water services or to operate as a public water system, the requirements imposed by the test claim order result from the claimant's "voluntary or discretionary decision to undertake an activity" and therefore cannot be said to be legally compelled.

Nonetheless, even where a local government entity is not legally compelled to perform required activities, it may be practically compelled to do so. As the California Supreme Court recently stated in *Coast Community College Dist. v. Commission on State Mandates*, practical compulsion "arises when a statutory scheme does not command a local entity to engage in conduct, but rather induces compliance through the imposition of severe consequences that leave the local entity no reasonable alternative but to comply."[240]

In *City of Sacramento v. State Of California* , the California Supreme Court addressed a federal law requiring states to provide unemployment insurance to public employees, characterized as

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[236] *Coast Community College Dist. v. Commission on State Mandates* (2022) 13 Cal.5th 800, 815 (internal quotation marks and citations omitted).

[237] California Constitution, article XI, section 9(a).

[238] *Glenbrook Development Co. v. City of Brea* (1967) 253 Cal.App.2d 267, 274.

[239] Government Code section 14.

[240] *Coast Community College Dist. v. Commission on State Mandates* (2022) 13 Cal.5th 800, 816; see also *Department of Finance v. Commission on State Mandates* (*Kern High School Dist.*) (2003) 30 Cal.4th 727, 754 (where no "legal" compulsion exists, "practical" compulsion may be found if the local agency faces "certain and severe…penalties" such as "double…taxation" or other "draconian" consequences if they fail to comply with the statute).

employing "a 'carrot and stick' to induce state compliance."[241] The state could comply with federal law and obtain a federal tax credit and administrative subsidy — a carrot — or not comply and allow its businesses to face double unemployment taxation by both state and federal governments — a stick.[242] California passed a law conforming to the requirements of the federal law. The City of Sacramento and the County of Los Angeles challenged the state law asserting that it was a reimbursable state mandate.[243] The state opposed the request for reimbursement on the ground that the legislation imposed a federal mandate and, thus, reimbursement was not required.[244] The state argued that strict legal compulsion was not required to find a federal mandate and that California's failure to comply with the federal "carrot and stick" scheme was so substantial that the state had no realistic discretion to refuse.[245] The court found that the immediate penalty of double taxation for not complying with the federal law was "draconian," that "the state simply did what was necessary to avoid certain and severe federal penalties upon its resident businesses," and that "[t]he alternatives were "so far beyond the realm of practical reality[,] that they left the state 'without discretion' to depart from federal standards."[246] Thus, the court concluded that the state acted in response to a federal mandate for purposes of article XIII B, section 6, and reimbursement was not required. The court further explained that the practical compulsion determination "must depend on such factors as the nature and purpose of the…program; whether its design suggests an intent to coerce; when state and/or local participation began; the penalties, if any, assessed for withdrawal or refusal to participate or comply; and any other legal and practical consequences of nonparticipation, noncompliance, or withdrawal."[247]

Thus, where the plain language of the law at issue falls short of legal compulsion, practical compulsion may be found if there is a clear showing in the law or substantial evidence in the record that a failure to perform the activities at issue will result in certain and severe penalties or other draconian consequences, such that the local government agency has no choice but to comply.[248]

The claimant concedes that it is not legally obligated to provide water service under state law, instead asserting that it "has no practical alternative but to comply with the Permit

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[241] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 58, 72.

[242] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 74.

[243] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 58.

[244] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 65-66, 71.

[245] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 58, 71.

[246] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 58, 74.

[247] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 58, 76.

[248] *Coast Community College Dist. v. Commission on State Mandates* (2022) 13 Cal.5th 800, 816; *Department of Finance v. Commission on State Mandates* (*Kern High School Dist*.) (2003) 30 Cal.4th 727, 754; *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 58, 76; Government Code section 17559.

Amendment."[249] The claimant argues that because of its long history of providing water service and because of the substantial bond liability that would immediately come due if it ceased operating as a public water system, it has no choice but to continue operating as a public water system and comply with the test claim order.

Substantial evidence in the record submitted by the claimant shows that the claimant is practically compelled to continue providing water service as a public water system: namely, that the claimant incorporated its municipal water "agency" on July 21, 1901, when the voters approved the issuance of bonds to purchase the distribution system from a private water company,[250] and that subsequent "bonds and other financing secured over the years to maintain the water system in good working order," totaling approximately $890 million as of November 2018, would immediately come due if the claimant sought to discontinue service.[251]

The claimant also argues that failure to comply with the test claim order could result in suspension or revocation of the permit, without which the claimant cannot operate its water system.[252] In support, the claimant cites to Health and Safety Code section 116625, which provides that the State Water Board may, pursuant to due process, suspend or revoke any permit issued under the Safe Drinking Water Act if it determines that the permittee is in noncompliance with the permit or other applicable law.[253] Section 116625 also gives the State Water Board the authority to temporarily suspend any permit prior to hearing if necessary to prevent "an imminent or substantial danger to health."[254] Furthermore, the State Board agrees that the claimant "must comply with the Permit Amendment in order to provide drinking water within its service area" and that the "permit is subject to revocation for failure to comply."[255]

There is substantial evidence in the record showing that the claimant would suffer "certain and severe penalties" or other draconian measures if the claimant decided to no longer provide water

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[249] Exhibit G, Claimant's Comments on the Draft Proposed Decision, filed January 11, 2019, page 10.

[250] Exhibit G, Claimant's Comments on the Draft Proposed Decision, filed January 11, 2019, page 9 (The claimant also points out that its six largest customers are federal, state, and local agencies, including the claimant itself, and that these agencies could not function if the claimant elected to discontinue water service).

[251] Exhibit G, Claimant's Comments on the Draft Proposed Decision, filed January 11, 2019, pages 8-11; 56-59 (Declaration of Raymond C. Palmucci, Deputy City Attorney designated to review and approve information pertaining to the City's Water Fund); 112 (Financial Statement regarding Subordinated Water Revenue Bonds, Series 2018A); 648-716 (2009 Amended and Restated Master Installment Purchase Agreement).

[252] Exhibit G, Claimant's Comments on the Draft Proposed Decision, filed January 11, 2019, page 10.

[253] Health and Safety Code section 116625(a).

[254] Health and Safety Code section 116625(b).

[255] Exhibit B, State Water Resources Control Board's Comments on the Test Claim, pages 16-17.

service to its residents or operate as a public water system in order to avoid compliance with the test claim order. The evidence shows that if the claimant stops providing water after continuously doing so for over 120 years, more than 1.3 million residents will lose access to safe and clean drinking water, including the public agencies that make up its six largest consumers. As the claimant notes, "simply put, people cannot survive without water" and therefore, the claimant "must continue to provide water service to protect the health safety and welfare of its residents."[256] Furthermore, the claimant will be in default on debt secured to maintain its water system, and will face immediate repayment of more than $890 million.

Thus, the Commission finds that claimant has submitted substantial evidence showing that it is practically compelled to continue to operate as a public water system, and as such, is required to comply with the requirements imposed by the test claim order.

Accordingly, the Commission finds that the test claim order imposes a state-mandated program on the claimant.

2. The New Requirements of the Test Claim Order Constitute a New Program or Higher Level of Service, Within the Meaning of Article XIII B, Section 6 of the California Constitution.

For the test claim order to be subject to subvention pursuant to article XIII B, section 6 of the California Constitution, the order must impose a new program or higher level of service. A new program or higher level of service is defined as a program that carries out the governmental function of providing services to the public, or, in implementing a state policy, imposes unique requirements on local government that do not apply generally to all residents and entities in the state.[257]

On April 29, 2022, the Third District Court of Appeal issued an unpublished opinion in *City of San Diego v. Commission on State Mandates*, finding that the test claim order imposes a new program or higher level of service in that "the provision of drinking water to schools is a peculiarly governmental function and the mandated testing of this water for lead is plainly a service to the public."[258] The Court stated its conclusion that the permit establishes a new program and remanded the claim back to the Commission to determine the remaining issues as follows:

> On the City's appeal, we reverse. For reasons we will cover below, we conclude that the State Board's new condition requires local governments to support "a new program" within the meaning of article XIII B, section 6. But because the City's showing that the State Board's permit condition establishes a "new program" is a necessary, though not sufficient, showing for reimbursement, we stop short of

[256] Exhibit G, Claimant's Comments on the Draft Proposed Decision, filed January 11, 2019, page 9.

[257] California Constitution, article XIII B, section 6; *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56.

[258] Exhibit X (2), *City of San Diego v. Commission on State Mandates* (Apr. 29, 2022, Third District Court of Appeal, Case No. C092800) (nonpub. opn.), page 13.

> holding that the state must reimburse the City for the costs of compliance. We leave it to the Commission to consider in the first instance whether reimbursement is appropriate on these facts following remand.[259]

Accordingly, the Commission finds that the test claim order imposes a new program or higher level of service.

3. The Test Claim Order Results in Increased Costs Mandated by the State Within the Meaning of Article XIII B, Section 6 of the California Constitution and Government Code Section 17514.

To be reimbursable, the mandated activities must also result in increased costs mandated by the state. Article XIII B, section 6 of the California Constitution and Government Code section 17561(a) require reimbursement for all costs mandated by the state, unless there is an express exemption in article XIII B, section 6. Government Code section 17514 defines "costs mandated by the state" as any increased costs that a local agency or school district incurs as a result of any statute or executive order that mandates a new program or higher level of service. Government Code section 17564(a) further requires that no claim shall be made nor shall any payment be made unless the claim exceeds $1,000. In addition, a finding of costs mandated by the state means that none of the exceptions identified in Government Code section 17556 apply.[260]

a. <u>The claimant's costs to comply with the mandated activities under the test claim order exceed $1,000.</u>

The claimant alleges that it has incurred costs to comply with the test claim order, as follows:[261]

Test Claim Order	Actual Costs FY 2016-2017 (1/17/17-6/30/17)	Actual Costs FY 2017-2018 (7/1/17-3/29/18)	Estimated Costs FY 2017-2018 (3/30/18-6/30/18)
Section 1	$115,724.90	$0	$0
Section 2	$6,706.65	$0	$0
Section 3(a)	$25,566.73	$9,299.63	$11,693.89
Section 3(b)	$9,294.99	$4,739.59	$4,069.22
Section 3(c)	$64,103.96	$5,000.29	$12,476.13
Section 3(e)	$6,090.78	$0	$1,208.59
Section 3(f)	$61,087.21	$6,399.85	$12,364.08
Section 3(g)	$4,261.12	$1,549.94	$1,948.98
Section 3(h)	$3,059.99	$677.17	$607.19
Section 3(i)	$4,261.12	$1,549.94	$1,948.98
Section 3(j)	$4,547.46	$1,549.94	$2,005.80
Section 3(l)	$4,261.12	$1,549.94	$1,948.98
Section 3(m)	$17,044.49	$6,199.75	$7,795.93

[259] Exhibit X (2), *City of San Diego v. Commission on State Mandates* (Apr. 29, 2022, Third District Court of Appeal, Case No. C092800) (nonpub. opn.), page 2.

[260] Government Code section 17556.

[261] Exhibit A, Test Claim, filed January 11, 2018, pages 18-51, 58.

Test Claim Order	Actual Costs FY 2016-2017 (1/17/17-6/30/17)	Actual Costs FY 2017-2018 (7/1/17-3/29/18)	Estimated Costs FY 2017-2018 (3/30/18-6/30/18)
Section 7	$12,783.37	$4,649.82	$5,846.95
Section 8	$12,783.37	$4,649.82	$5,846.95
TOTALS	**FY 2016-2017 $351,577.26**	**FY 2017-2018 (actual) $47,815.67**	**FY 2017-2018 (estimated) $69,761.67**

As shown above, the claimant alleges incurred costs of $351,577.26 for fiscal year 2016-2017.[262] In support, the claimant cites to the declaration of Rex Ragucos, Supervising Management Analyst for the City of San Diego Public Utilities Department and to a cost analysis spreadsheet prepared by Mr. Ragucos.[263] Mr. Ragucos directly oversees the review of and budgetary requirements for implementation of the mandated activities in the test claim order.[264] His declaration contains a narrative of the cost analysis he performed of expenses incurred under the test claim order as of March 2018, as well as projected expenses through the end of fiscal year 2017-2018.[265] The cost analysis is attached to the Test Claim as Exhibit 36.[266]

The record contains substantial evidence pursuant to Government Code section 17559 that the claimant's costs to comply with the mandated activities under the test claim order exceed $1,000.

The claimant states that it anticipates total costs will potentially be higher than the estimated $69,761.67 during the last quarter of fiscal year 2017-2018 "because the legislature is planning to require all schools to receive this lead testing, whether voluntarily requested or not."[267] The claimant appears to be referencing AB 746, discussed above, which added Health and Safety Code section 116277 to require community water systems serving public school constructed before January 1, 2010 to test for lead in the schools' potable water system during the time period January 1, 2018 through July 1, 2019.[268] AB 746 is the not the subject of this test claim, nor has a test claim been filed on AB 746. Therefore, whether AB 746 imposes a reimbursable state-mandated program on the claimant or any other local government agency is not presently before the Commission, and the Commission makes no findings regarding whether Health and Safety Code section 116277 (as added by Stats. 2017, ch. 746) imposes a reimbursable state-mandated program within the meaning of article XIII B, section 6. As discussed above, beginning January 1, 2018, any lead testing conducted by the claimant on those public schools constructed or modernized before January 1, 2010, that did not request testing before

[262] Exhibit A, Test Claim, filed January 11, 2018, page 58.

[263] Exhibit A, Test Claim, filed January 11, 2018, page 79 (Declaration of Rex Ragucos).

[264] Exhibit A, Test Claim, filed January 11, 2018, page 79 (Declaration of Rex Ragucos).

[265] Exhibit A, Test Claim, filed January 11, 2018, page 79 (Declaration of Rex Ragucos).

[266] Exhibit A, Test Claim, filed January 11, 2018, pages 2767-2768.

[267] Exhibit A, Test Claim, filed January 11, 2018, pages 58, 86 (Declaration of Rex Ragucos).

[268] Health and Safety Code section 116277 (as added by Stats. 2017, ch. 746).

January 1, 2018, is required by Health and Safety Code section 116227 (as added by Stats. 2017, ch. 746), and not by the test claim order.

b. The requirement to not release lead sampling data for 60 days unless to comply with the California Public Records Act is not subject to the reimbursement requirement of article XIII B, section 6.

As stated above, the test claim order imposes the following new requirement on the claimant: "Do not release the lead sampling data to the public for 60 days following receipt of the initial lead sampling results unless in compliance with a Public Records Act request for specific results."[269] This activity is limited to releasing the lead sampling data in compliance with preexisting obligations under the Public Records Act.

Compliance with the Public Records Act, however, is not subject to the subvention requirement of article XIII B, section 6. Specifically, Proposition 42 adopted by the voters on June 3, 2014, added paragraph 4 to article XIII B, section 6(a) of the California Constitution which, together with article I, section 3(b), paragraph 7, expressly declare that "Legislative mandates contained in statutes within the scope of paragraph (7) of subdivision (b) of Section 3 of Article I" (which governs the compliance with the Public Records Act) are *not* reimbursable state mandates eligible for subvention.

Therefore, the Commission finds that requirement to not release lead sampling data for 60 days unless to comply with the Public Records Act is not subject to the reimbursement requirement of article XIII B, section 6.

c. The claimant does not have fee authority sufficient as a matter of law to pay for the mandated program within the meaning of Government Code section 17556(d).

Government Code section 17556(d) provides that the Commission shall not find costs mandated by the state if it finds that the "local agency or school district has the authority to levy service charges, fees, or assessments sufficient to pay for the mandated program or increased level of service." Thus, even if a statute or executive order requires a local government agency to provide a new program, subvention is not required under article XIII B, section 6 if the local government has fee authority sufficient as a matter of law to pay for the mandated program.[270]

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[269] Exhibit A, Test Claim, filed January 11, 2018, page 107 (test claim order). The claimant alleges it incurred reimbursable costs under Section 3(l) of the test claim order to prepare presentations for the Environmental Committee of the City Council on the progress of lead testing and to respond to media requests on a daily basis. Exhibit A, Test Claim, filed January 11, 2018, pages 44-45. Section 3(l) of the test claim order simply requires the claimant to release the data in compliance with the Public Records Act (Government Code section 7920 et seq.) and does not require the claimant to prepare presentations or any new documents, or to respond to requests for lead sampling data.

[270] *County of Fresno v. State of California* (1990) 53 Cal.3d. 482, 487; *Clovis Unified School Dist. v. Chiang* (2010) 188 Cal.App.4th 794, 811; *Paradise Irrigation District v. Commission on State Mandates* (2019) 33 Cal.App.5th 174, 195.

As explained below, the service provided to test for lead upon request of a school is not a property-related service and so a property-related fee may not be imposed pursuant to Proposition 218. Moreover, Proposition 26 prohibits the claimant from charging fees for the mandated activities on ratepayers who do not receive the service.

Article XIII D of the California Constitution, which was added in 1996 by Proposition 218, defines "fees" associated with property ownership as follows:

> (e) "Fee" or "charge" means any levy other than an ad valorem tax, a special tax, or an assessment, imposed by an agency upon a parcel or upon a person as an incident of property ownership, including a user fee or charge for a property related service.[271]

Article XIII D further defines a "property-related service" as "a public service having a *direct relationship* to property ownership."[272]

Under article XIII D, section 6(c), property-related fees are subject to voter approval, with limited exceptions for fees or charges for sewer, water, and refuse collection services, as specified:

> *Except for fees or charges for sewer, water, and refuse collection services*, no property related fee or charge shall be imposed or increased unless and until that fee or charge is submitted and approved by a majority vote of the property owners of the property subject to the fee or charge or, at the option of the agency, by a two-thirds vote of the electorate residing in the affected area.[273]

"Thus, article XIII D expressly exempts water service charges from the voter-approval requirement that it imposes on all other fees and charges."[274] Nonetheless, water service fees are still subject to the procedural requirements imposed by article XIII D, section 6(a), including the voter protest provisions.[275] And a water service fee must satisfy the five substantive requirements of article XIII D, section 6(b), which provides as follows:

> A fee or charge shall not be extended, imposed, or increased by any agency unless it meets *all* of the following requirements:
>
> (1) Revenues derived from the fee or charge shall not exceed the funds required to provide the property related service.

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[271] California Constitution, article XIII D, section 2(e).

[272] California Constitution, article XIII D, section 2(h), emphasis added.

[273] California Constitution, article XIII D, section 6(c).

[274] *Bighorn-Desert View Water Agency v. Verjil* (2006) 39 Cal.4th 205, 219.

[275] *Bighorn-Desert View Water Agency v. Verjil* (2006) 39 Cal. 4th 205, 215 ("Because article XIII D does not include similar express exemptions from the other requirements that it imposes on property-related fee[s] and charges, the implication is strong that fees for water, sewer, and refuse collection services are subject to those other requirements").

> (2) Revenues derived from the fee or charge shall not be used for any purpose other than that for which the fee or charge was imposed.
>
> (3) The amount of a fee or charge imposed upon any parcel or person as an incident of property ownership *shall not exceed the proportional cost of the service attributable to the parcel*.
>
> (4) No fee or charge may be imposed for a service *unless that service is actually used by, or immediately available to, the owner of the property in question*. Fees or charges based on potential or future use of a service are not permitted. Standby charges, whether characterized as charges or assessments, shall be classified as assessments and shall not be imposed without compliance with Section 4.
>
> (5) No fee or charge may be imposed for general governmental services including, but not limited to, police, fire, ambulance or library services, where the service is available to the public at large in substantially the same manner as it is to property owners.[276]

The claimant argues that it cannot increase water rates to cover the costs of the mandated program. Because the test claim order "divests the City of its authority to levy fees by ordering the City to provide a new service at no charge" and "[w]ithout the ability to charge the schools for a new service provided exclusively to them" the cost of the *Lead Sampling* program would have to be absorbed by the remaining ratepayers, which would violate the substantive requirements that article XIII D imposes on all property-related fees.[277]

> [R]aising water rates to cover the cost of the Permit Amendment would ultimately violate the Permit Amendment itself. The City is legally obligated by Proposition 218 to apportion the cost of service based on the relative benefits received by its customers. Proposition 218 further prohibits the City from charging customers for services that are not immediately available to them. The schools, as the exclusive and direct recipients of lead testing under the Permit Amendment, benefit the most in that the testing assesses school pipes and fixtures for sources of lead. Lead testing is not available to the rest of the City's water ratepayers under the Permit Amendment, so they do not receive the benefit of having their own properties evaluated. The benefits of higher property values and testing of City water that SWRCB says are direct benefits to all ratepayers, are really collateral or incidental benefits. Any water rate increase apportioning the cost of lead testing among City ratepayers would fall primarily on schools, the direct and primary beneficiary of the lead testing. The Permit Amendment, however, prohibits charging a school for lead testing. A school is being charged for lead testing whether the City sends the school an invoice when the testing is done, or passes on the cost of lead testing to a school through a water rate increase.[278]

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[276] California Constitution, article XIII D, section 6(b), emphasis added.

[277] Exhibit D, Claimant's Rebuttal Comments, filed November 9, 2018.

[278] Exhibit D, Claimant's Rebuttal Comments, filed November 9, 2018, pages 10-11.

The State Board contends – and Finance agrees – that Proposition 218 does not prevent the claimant from increasing water rates because lead testing confers a "direct benefit" to the water system as a whole and, by extension, each ratepayer.[279] Specifically, the State Board alleges that the mandated program "functionally extends" the Lead and Copper Rule and helps to maintain and possibly improve property values.[280]

> By requiring additional lead testing in schools, the Permit Amendment functionally extends the Lead and Copper rule by providing additional testing points which can inform the City about how the water chemistry in its distribution network may be impacting not only particular schools, but residences who obtain water from a common source or through a common delivery system. And to the extent the City takes corrective action, for example by additional treatment to reduce corrosivity, all users, not just the schools, will benefit [] from the reduced threat of lead exposure. Therefore, just as the testing of private residences under the Lead and Copper rule benefits the water system as a whole, and by extension, each of the ratepayers, not just the owners of the residences being tested, the lead testing in K-12 schools provides similar direct benefit to each ratepayer by providing additional testing inputs the City can use to optimize its water chemistry and quality to reduce the amount of lead in [] all residences and businesses.
>
> Additionally, the lead testing in schools provides a direct benefit for each ratepayer by maintaining, and possibly, improving property values.[281]

The California Supreme Court has held that domestic water delivery through a pipeline is a "property-related service" within the meaning of article XIII D,[282] and therefore the fee imposed for that service is a property-related fee subject to the restrictions of article XIII D.[283] But this determination does not apply to any domestic water delivery system-related service without limitation. As the Court explained in *Richmond v. Shasta Community Services Dist.* (2004) 32 Cal.4th 409, "[a] water service fee is a fee or charge under article XIII D if, but only if, it is imposed 'upon a person as an incident of property ownership.'"[284]

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[279] Exhibit B, State Water Resources Control Board's Comments on the Test Claim, filed August 13, 2018, page 16; Exhibit C, Finance's Comments on the Test Claim, filed August 13, 2018, page 2.

[280] Exhibit B, State Water Resources Control Board's Comments on the Test Claim, filed August 13, 2018, page 16.

[281] Exhibit B, State Water Resources Control Board's Comments on the Test Claim, filed August 13, 2018, page 16.

[282] *Richmond v. Shasta Community Services Dist.* (2004) 32 Cal.4th 409, 426–427.

[283] *Bighorn-Desert View Water Agency v. Verjil* (2006) 39 Cal.4th 205, 217.

[284] *Richmond v. Shasta Community Services Dist.* (2004) 32 Cal. 4th 409, 426–427.

Richmond addressed whether a water district's fee for fire suppression as part of a new service connection fee was subject to the restrictions of article XIII D. In upholding the validity of the fee, the Supreme Court held that a fee for making a new connection to the water system is not imposed "as an incident of property ownership" and therefore not subject to the restrictions that article XIII D imposes on property assessments and property related fees because the fee results "from the owner's *voluntary decision* to apply for the connection."[285]

> Thus, we agree that water service fees, being fees for property-related services, may be fees or charges within the meaning of article XIII D. But we do not agree that all water service charges are necessarily subject to the restrictions that article XIII D imposes on fees and charges. Rather, we conclude that a water service fee is a fee or charge under article XIII D if, but only if, it is imposed "upon a person as an incident of property ownership." (Art. XIII D, § 2, subd. (e).) A fee for ongoing water service through an existing connection is imposed "as an incident of property ownership" because it requires nothing other than normal ownership and use of property. But a fee for making a new connection to the system is not imposed "as an incident of property ownership" because it results from the owner's voluntary decision to apply for the connection.
>
> Any doubt on this point is removed by considering the requirements that article XIII D imposes on property-related fees and charges. As with assessments, article XIII D requires local government agencies to identify the parcels affected by a property-related fee or charge. Specifically, it requires the agency to identify "[t]he parcels upon which a fee or charge is proposed for imposition." (Art. XIII D, § 6, subd. (a)(1).) As we have explained, *it is impossible for the District to comply with such a requirement for connection charges, because the District cannot determine in advance which property owners will apply for water service connection*. As with assessments, this impossibility of compliance strongly suggests that connection fees for new users are not subject to article XIII D's restrictions on property-related fees.[286]

Thus, under *Richmond*, a water service fee imposed because of a voluntary decision of a property owner is not imposed 'as an incident of property ownership' and therefore is not a property-related fee within the meaning of article XIII D. Here, because the claimant's performance of the mandated activities is triggered by the voluntary decision of a school to request testing, the claimant cannot impose a property-related fee to cover the costs of the *Lead Sampling* program pursuant to Proposition 218 (article XIII D), since the service is not a property-related service.

In 2010, the voters adopted Proposition 26, which sought to broaden the definition of "tax." Thus, under article XIII C, section 1(e) of the California Constitution, "any levy, charge, or

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[285] *Richmond v. Shasta Community Services Dist.* (2004) 32 Cal. 4th 409, 427.

[286] *Richmond v. Shasta Community Services Dist.* (2004) 32 Cal.4th 409, 427–428, emphasis added.

exaction of any kind imposed by a local government," is a "tax," and therefore requires voter approval under article XIII C,[287] unless one of the following seven exceptions applies:[288]

> (1) A charge imposed for a specific benefit conferred or privilege granted directly to the payor *that is not provided to those not charged*, and which does not exceed the reasonable costs to the local government of conferring the benefit or granting the privilege.
>
> (2) A charge imposed for a specific government service or product provided directly to the payor *that is not provided to those not charged*, and which does not exceed the reasonable costs to the local government of providing the service or product.
>
> (3) A charge imposed for the reasonable regulatory costs to a local government for issuing licenses and permits, performing investigations, inspections, and audits, enforcing agricultural marketing orders, and the administrative enforcement and adjudication thereof.
>
> (4) A charge imposed for entrance to or use of local government property, or the purchase, rental, or lease of local government property.
>
> (5) A fine, penalty, or other monetary charge imposed by the judicial branch of government or a local government, as a result of a violation of law.
>
> (6) A charge imposed as a condition of property development.
>
> (7) Assessments and property-related fees imposed in accordance with the provisions of Article XIII D [Proposition 218].[289]

The claimant asserts that the test claim order prohibits it from exercising its fee authority on schools, and none of the seven exceptions under Proposition 26 apply.[290]

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[287] California Constitution, article XIII C, section 2, which was added by Proposition 218 in 1996 states in pertinent part:

> (a) All taxes imposed by any local government shall be deemed to be either general taxes or special taxes…
>
> (b) No local government may impose, extend, or increase any general tax unless and until that tax is submitted to the electorate and approved by a majority vote….
>
> [¶]
>
> (d) No local government may impose, extend, or increase any special tax unless and until that tax is submitted to the electorate and approved by a two-thirds vote…

[288] California Constitution, article XIII C, section 1(e).

[289] California Constitution, article XIII C, section 1(e), emphasis added.

[290] Exhibit D, Claimant's Rebuttal Comments, filed November 9, 2018, pages 12-13.

> The last of the seven exceptions is for property-related fees and charges under Proposition 218, but because lead testing performed under the Permit Amendment is not provided as an incident of property ownership (discussed above), the City cannot avail itself of that exception to raise water rates without voter approval. The third through sixth exceptions are inapplicable to a fee for lead testing because the City is not acting as a regulator in performing the service, the City is not charging the schools to enter City property, the City is not fining the schools for violating the law, and the City is not imposing a development fee, respectively. The first exception for "a specific benefit conferred or privilege granted directly to the payor" does not apply either, because the City is not issuing a school a permit or a license to engage in any activity.[291]

The claimant further states that the second exception (a "charge imposed for a specific government service or product provided directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of providing the service or product") might ordinarily apply but for the fact that here, the permit order prohibits the claimant from charging the schools receiving the lead testing services. "The school is not the 'payor,' so the second exception does not apply. Therefore, by default, the City's water ratepayers become the 'payor' even though they are not requesting or receiving the service."[292]

Finance, however, argues that the claimant has fee authority under Proposition 26 to impose a property-related fee.[293] Similarly, while not specifically addressing Proposition 26, the State Water Board takes the position that the claimant has the authority to pay for the program costs by raising water rates, which it characterizes as a property-related service.[294]

The Commission finds that exceptions (1) through (6) do not apply here. Exceptions (1) and (2) (charges for benefits conferred and privileges granted, services and products provided) do not apply. The test claim order expressly provides that the claimant must conduct lead sampling at *no charge* to the schools in its service area. Because the claimant is required to provide lead sampling to "those not charged," exceptions (1) and (2) do not apply.

Nor does exception (3) (reasonable regulatory costs) apply. Conducting lead sampling of drinking water at schools is not a "reasonable regulatory cost[] to a local government for issuing licenses and permits, performing investigations, inspections, and audits, enforcing agricultural marketing orders, and the administrative enforcement and adjudication thereof."[295] The claimant is not acting in a regulatory capacity in performing the mandated activities. Even characterizing the mandated activities as investigations or inspections, the activities are not carried out for a

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[291] Exhibit D, Claimant's Rebuttal Comments, filed November 9, 2018, page 13.

[292] Exhibit D, Claimant's Rebuttal Comments, filed November 9, 2018, page 13.

[293] Exhibit C, Finance's Comments on the Test Claim, filed August 13, 2018, page 2.

[294] Exhibit B, State Water Resources Control Board's Comments on the Test Claim, filed August 14, 2018, pages 15-16.

[295] California Constitution, article XIII C, section 1(e)(3).

regulatory purpose. The claimant is not ensuring the school is complying with applicable laws regarding lead limits in school drinking water and expressly does not have any enforcement authority or responsibility under the test claim order if a lead level exceedance is detected. The testing is only done at the request of the school and if there is a violation, the test claim order requires the school, not the claimant, to remediate.[296] Thus, the claimant is performing a service (respond to a request, collect and test samples, provide the school with the results, and discuss the results with the school), not regulating school water quality.

Exceptions (4) (a charge imposed for entrance to or use of local government property, or the purchase, rental, or lease of local government property), (5) (a fine, penalty, or other monetary charge imposed by the judicial branch of government or a local government, as a result of a violation of law), and (6) (a charge imposed as a condition of property development) do not apply based on their plain language.

Exception (7), "assessments and property-related fees imposed in accordance with the provisions of Article XIII D," is also inapplicable because, as discussed above, the service is not provided and thus a fee may not be imposed "as an incident of property ownership."

Thus, because the test claim statute prohibits the claimant from imposing a fee for the service upon the schools, and because the claimant cannot impose a fee under Proposition 218 in accordance with the provisions of article XIII D (because the service is not "property related"), or under Proposition 26 in accordance with the provisions of article XIII C (because it does not meet any of the exceptions to the definition of a tax), the claimant does not have fee authority sufficient to cover the costs of the mandated program pursuant to Government Code section 17556(d). In addition, no law or facts in the record support a finding that any of the other exceptions specified in Government Code section 17556 apply to this claim. Accordingly, the Commission finds that the test claim order results in increased costs mandated by the state within the meaning of Government Code sections 17514 and 17556.

V. Conclusion

Based on the forgoing analysis, the Commission finds that the test claim order imposes a reimbursable state-mandated program within the meaning of article XIII B, section 6 of the California Constitution and Government Code section 17514 and requires the claimant, as a public water system, to perform the following mandated activities, beginning January 18, 2017:

1. Submit to the State Water Board's Division of Drinking Water a comprehensive list of the names and addresses of all K-12 schools served water through a utility meter [by the claimant] by July 1, 2017;[297]

2. If an authorized school representative of a private K-12 school or a public K-12 school in the claimant's service area requests lead sampling assistance in writing by November 1, 2019:[298]

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[296] Exhibit A, Test Claim, filed January 11, 2018, page 108.

[297] Exhibit A, Test Claim, filed January 11, 2018, page 105 (test claim order).

[298] Exhibit A, Test Claim, filed January 11, 2018, page 105 (test claim order).

a. Respond in writing within 60 days and schedule a meeting with school officials to develop a sampling plan;[299]

b. Finalize a sampling plan and complete initial sampling within 90 days [or an alternative time schedule approved by DDW];[300]

c. Collect one to five samples at each school, from regularly used drinking fountains, cafeteria or food preparation areas, or reusable bottle filling stations, selected according to the sampling plan, and using the sampling guidance provided in Appendix A;[301]

d. Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday, or Friday on a day that school is in session and has been in session for at least one day prior to the day of sampling;[302]

e. Ensure samples are collected by an adequately trained water system representative;[303]

f. Submit the samples to an ELAP certified laboratory for analysis;[304]

g. Require the laboratory to submit the data electronically to DDW;[305]

h. Provide a copy of the results to the school representative;[306]

i. Within two business days of a result that shows an exceedance of 15 ppb, notify the school of the sample result;[307]

j. If an initial sample shows an exceedance of 15 ppb:

- Collect an additional sample within 10 days if the sample site remains in service;[308]
- Collect a third sample within 10 business days after notification that a resample result is less than or equal to 15 ppb;[309]

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[299] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[300] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[301] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[302] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[303] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[304] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[305] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[306] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[307] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[308] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

[309] Exhibit A, Test Claim, filed January 11, 2018, page 106 (test claim order).

- Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb;[310]

k. Ensure that the water system receives the results of repeat lead samples from the laboratory in no more than 10 business days;[311]

l. Discuss the lead sample results with the school prior to releasing the sample results to the public, and within 10 days of receiving the results from the laboratory;[312]

m. Communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if the results confirm lead levels above 15 ppb.[313] ***The water system is not responsible for the costs of any corrective action or maintenance***;[314]

n. Keep records of all requests for lead related assistance and provide the records to DDW, upon request;[315]

o. Include in the annual Consumer Confidence Report a statement summarizing the number of schools requesting lead sampling.[316]

Beginning January 1, 2018, any lead testing conducted by the claimant on those public schools constructed or modernized before January 1, 2010, that did not request testing before January 1, 2018, is not required by the test claim order and is not reimbursable.

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[310] Exhibit A, Test Claim, filed January 11, 2018, page 107 (test claim order).

[311] Exhibit A, Test Claim, filed January 11, 2018, page 107 (test claim order).

[312] Exhibit A, Test Claim, filed January 11, 2018, page 107 (test claim order).

[313] Exhibit A, Test Claim, filed January 11, 2018, page 108 (test claim order).

[314] Exhibit A, Test Claim, filed January 11, 2018, page 108 (test claim order).

[315] Exhibit A, Test Claim, filed January 11, 2018, page 108 (test claim order).

[316] Exhibit A, Test Claim, filed January 11, 2018, page 108 (test claim order).

DECLARATION OF SERVICE BY EMAIL

I, the undersigned, declare as follows:

I am a resident of the County of Sacramento and I am over the age of 18 years, and not a party to the within action. My place of employment is 980 Ninth Street, Suite 300, Sacramento, California 95814.

On March 23, 2023, I served the:

- **Draft Proposed Decision, Schedule for Comments, and Notice of Hearing issued March 23, 2023**

  Lead Sampling in Schools: Public Water System No. 3710020, 17-TC-03-R
  On Remand from *City of San Diego v. Commission on State Mandates*, Court of Appeal, Third Appellate District, Case No. C092800; Judgment and Writ of Mandate issued by the Sacramento County Superior Court, Case No. 34-2019-80003169-CU-WM-GDS; Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017
  City of San Diego, Claimant

By making it available on the Commission's website and providing notice of how to locate it to the email addresses provided on the attached mailing list.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that this declaration was executed on March 23, 2023 at Sacramento, California.

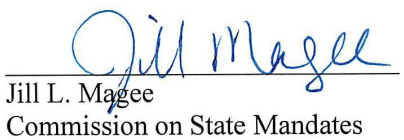

Jill L. Magee
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COMMISSION ON STATE MANDATES

Mailing List

Last Updated: 3/23/23

Claim Number: 17-TC-03-R

Matter: Lead Sampling in Schools: Public Water System No. 3710020

Claimant: City of San Diego

TO ALL PARTIES, INTERESTED PARTIES, AND INTERESTED PERSONS:

Each commission mailing list is continuously updated as requests are received to include or remove any party or person on the mailing list. A current mailing list is provided with commission correspondence, and a copy of the current mailing list is available upon request at any time. Except as provided otherwise by commission rule, when a party or interested party files any written material with the commission concerning a claim, it shall simultaneously serve a copy of the written material on the parties and interested parties to the claim identified on the mailing list provided by the commission. (Cal. Code Regs., tit. 2, § 1181.3.)

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RECEIVED
May 04, 2023
Commission on State Mandates

May 4, 2023

Exhibit I

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Lead Sampling in Schools: Public Water System No. 3710020, 17-TC-03-R
On Remand from *City of San Diego v. Commission on State Mandates*, Court of Appeal, Third Appellate District, Case No. C092800; Judgment and Writ of Mandate issued by the Sacramento County Superior Court, Case No. 34-2019-80003169-CU-WM-GDS; Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017
City of San Diego, Claimant
Comments on Draft Proposed Decision

Dear Ms. Halsey:

Please accept these comments on behalf of Claimant City of San Diego (City) in response to the Draft Proposed Decision issued on March 23, 2023. The City agrees with the Commission's Draft Proposed Decision as discussed below.

I. The Commission is Correct that The City is Practically Compelled to Comply with the Permit Amendment.

As the Commission correctly explains, even absent legal compulsion, a local entity may be practically compelled to comply with State directives where they would suffer severe practical or financial consequences for failing to comply. The California Supreme Court recently affirmed this standard. *Coast Community College District v. Commission on State Mandates*, 13 Cal. 5th 800, 807 (2022).

Here, the Commission correctly found that the City is practically compelled to comply with the Permit Amendment. If the City fails to comply with the Permit Amendment, then the State Water Board could suspend or revoke its operating permit, which would have dire consequences. Without the City's operating permit, its 1.3 million residents would be left without water service – a vital feature of modern society. *Provident Inst. for Sav. v. City of Jersey City*, 113 U.S. 506; 515 (1885); *Brush v. Commissioner of Internal Revenue*, 300 U.S. 352, 370-371 (1937) (overruled on other grounds in *Graves v. People of State of New York ex rel. O'Keefe*, 306 U.S. 466 (1939)).

The Third District Court of Appeal recently made the same finding regarding the City of San Diego's stormwater drainage system. *Department of Finance v. Commission on State Mandates*, 85 Cal. App. 5th 535, 558 (2022), review denied (Mar. 1, 2023). Because the City must have a National Pollutant Discharge Elimination System permit to operate its stormwater system, the City was practically compelled to comply with the associated State-imposed conditions. The alternative of discontinuing the vital urban service of storm water drainage was "no alternative at all." *Id*. Accordingly, the Commission's finding here that the City is practically compelled to comply with the Permit Amendment, due to the practical consequences of not complying, is sound in reason and precedent.

The Commission is also correct that the City is practically compelled to comply with the Permit due to the severe financial consequences that would result if the City did not comply. Discontinuing the City's water service would result in a default on the City's approximately $890 million debt from bonds and other financing.[1] A billion dollar bill is certainly the type of "severe financial consequence[]" our Supreme Court contemplated in *Coast Community College District*, 13 Cal. 5th at 807. No city budget can absorb that cost.

II. The Commission is Correct that the City Does Not Have Fee Authority to Recover Costs from Compliance with the Permit Amendment.

The Commission correctly found Proposition 218 is inapplicable here because lead testing is not a "property-related service," but rather a service resulting from the voluntary decision of K-12 schools. *Richmond v. Shasta Community Services District*, 32 Cal. 4th 409 (2004). The analysis properly ends there. Nonetheless, the City maintains there are several other grounds why it cannot recover its costs under Proposition 218, including because the Permit Amendment prohibits the City from charging the only beneficiaries – the K-12 schools –for the service, and the City cannot charge other property owners because they do not benefit from the testing.[2]

The City also agrees the Commission properly found the City does not have fee authority because the fee would amount to a tax subject to voter approval under Proposition 26. The first two Proposition 26 exceptions do not apply because the Permit Amendment prohibits the City from charging K-12 schools, and the remaining exceptions are simply off base.

In conclusion, the City submits the Commission's Draft Proposed Decision is properly decided – sound in its analysis and supported by the applicable precedent.

Sincerely yours,

MARA W. ELLIOTT, City Attorney

By

Kevin B. King
Deputy City Attorney

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[1] Claimant's Comments on the Draft Proposed Decision in *Lead Sampling in Schools: Public Water System No. 3710020, 17-TC-03*, filed January 11, 2019, pages 8-11; 56-59.
[2] Claimant's Rebuttal Comments in *Lead Sampling in Schools: Public Water System No. 3710020, 17-TC-03*, filed November 9, 2018.

DECLARATION OF SERVICE BY EMAIL

I, the undersigned, declare as follows:

I am a resident of the County of Sacramento and I am over the age of 18 years, and not a party to the within action. My place of employment is 980 Ninth Street, Suite 300, Sacramento, California 95814.

On May 5, 2023, I served the:

- **Claimant's Comments on the Draft Proposed Decision filed May 4, 2023**
- **State Water Board's Comments on the Draft Proposed Decision filed May 4, 2023**

  Lead Sampling in Schools: Public Water System No. 3710020, 17-TC-03-R
  On Remand from *City of San Diego v. Commission on State Mandates*, Court of Appeal, Third Appellate District, Case No. C092800; Judgment and Writ of Mandate issued by the Sacramento County Superior Court, Case No. 34-2019-80003169-CU-WM-GDS; Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017
  City of San Diego, Claimant

By making it available on the Commission's website and providing notice of how to locate it to the email addresses provided on the attached mailing list.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that this declaration was executed on May 5, 2023 at Sacramento, California.

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COMMISSION ON STATE MANDATES

Mailing List

Last Updated: 4/26/23

Claim Number: 17-TC-03-R

Matter: Lead Sampling in Schools: Public Water System No. 3710020

Claimant: City of San Diego

TO ALL PARTIES, INTERESTED PARTIES, AND INTERESTED PERSONS:

Each commission mailing list is continuously updated as requests are received to include or remove any party or person on the mailing list. A current mailing list is provided with commission correspondence, and a copy of the current mailing list is available upon request at any time. Except as provided otherwise by commission rule, when a party or interested party files any written material with the commission concerning a claim, it shall simultaneously serve a copy of the written material on the parties and interested parties to the claim identified on the mailing list provided by the commission. (Cal. Code Regs., tit. 2, § 1181.3.)

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COMMENTS OF THE STATE WATER RESOURCES CONTROL BOARD

Draft Proposed Decision *Lead Sampling in Schools: Public Water System No. 3710020*, 17-TC-03-R
On Remand from *City of San Diego v. Commission on State Mandates*, Court of Appeal, Third Appellate District, Case No. C092800; Judgement and Writ of Mandate issued by the Sacramento County Superior Court, Case No. 34-2019-90003169-CU-WM-GDS; Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017
City of San Diego, Claimant

Dear Ms. Halsey:

The State Water Resources Control Board (State Water Board) has reviewed the Draft Proposed Decision dated March 23, 2023. The State Water Board appreciates the careful and thoughtful work of the Commission on State Mandates (Commission) staff. The State Water Board submits the following comments on the Draft Proposed Decision.

I. The City of San Diego Has Not Been Practically Compelled to Comply with the Test Claim Order

The Draft Proposed Decision correctly concludes, and the City of San Diego (City) concedes, that the City is not legally compelled to comply with the lead testing requirements in Permit Amendment No. 2017PA-SCHOOLS (test claim order).[1] This is because state law permits, but does not require, the City to operate a public water system. Nonetheless, the Draft Proposed Decision finds that the City is practically compelled to continue operating its public water system. To support this finding, the Commission relies on two California Supreme Court cases, *City of Sacramento v. State of California*[2] and *Coast Community College Dist. v. Commission on State Mandates.*[3] Neither of these two decisions, nor the California Supreme Court's decision in

[1] Draft Proposed Decision at pp. 48-49.
[2] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51.
[3] *Coast Community College Dist. v. Commission on State Mandates* (2022) 13 Cal.5th 900.

Department of Finance v. Commission on State Mandates (Kern High School Dist.),[4] supports a finding of practical compulsion in this test claim.

Although the Supreme Court has held that federal law may practically compel a state mandate under article XIII B, section 9, subdivision (b), the Supreme Court has refused to extend the practical compulsion theory to a state mandate under article XIII B, section 6. In *City of Sacramento*, the Supreme Court addressed whether the relationship between the Federal Unemployment Tax Act and California's unemployment insurance program practically compelled the state to mandate new federal insurance requirements on local agencies.[5] In holding that it did, the court noted that the exercise of federal power under the cooperative federalism approach can be "coercive on the states and localities in every practical sense."[6] In particular, the court identified double taxation as a particularly severe penalty that would occur absent the state mandate, thus placing California businesses at a serious competitive disadvantage with counterparts in other states.[7] The Supreme Court declined to set forth any particular test for practical compulsion, cautioning that:

> A determination in each case must depend on factors such as the nature and purpose of the federal program; whether its design suggests an intent to coerce; when state and/or local participation began; the penalties, if any, assessed for withdrawal or refusal to participate or comply; and any other legal and practical consequences of nonparticipation, noncompliance, or withdrawal. Always, the courts and Commission must respect the governing principle of article XIII B, section 9, subd. (b): nether state nor local agencies may escape their spending limits when their participation in federal programs is truly voluntary.[8]

In *Kern High School Dist.,* the Supreme Court addressed whether increased notice and agenda requirements for school districts constituted state mandates under article XIII B, section 6.[9] The increased notice and agenda requirements applied to voluntary education programs in which claimants could, but were not required to, participate.[10] Citing the Supreme Court's decision in *City of Sacramento*, claimants argued that even if they were not legally compelled to participate in the underlying education programs, they were compelled as a practical matter to incur the increased costs associated with continued participation in the programs.[11] After observing the parties' positions on the issue, the court ultimately found it "unnecessary to resolve whether our reasoning in *City of Sacramento* [citation] applied with regard to the proper interpretation of the term 'mandate' to include only programs in which local entities are legally compelled to participate."[12] The court concluded that, even assuming the reasoning in *City of Sacramento* applies with regard to state mandate under article XIII B, section 6, claimants had "not faced 'certain and severe...penalties' such as double taxation and other 'draconian' consequences."[13]

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[4] *Department of Finance v. Commission on State Mandates* (2003) 30 Cal.4th 727.
[5] *City of Sacramento v. State of California*, 50 Cal.3d at p. 58.
[6] *Id.* at p. 74.
[7] *Ibid.*
[8] *Id.* at p. 76.
[9] *Department of Finance v. Commission on State Mandates*, 30 Cal.4th 727.
[10] *Id.* at pp. 745-746.
[11] *Id.* at p. 748.
[12] *Id.* at p. 751
[13] *Ibid.*

The Supreme Court, in *Coast Community College Dist. v. Commission on State Mandates,*[14] again considered extending the practical compulsion theory to a state mandate under article XIII B, section 6. At issue was new community college funding entitlement regulations which, if not followed, could result in the withholding of state funding and potential other penalties. Claimant community college districts alleged that new funding entitlement regulations for community colleges constituted state mandates, either under a legal or practical compulsion theory approach. The court rejected claimants' legal compulsion argument, finding that even in the face of potentially severe budget cuts, claimants were not legally required to comply with the funding requirements.[15] Turning to claimants' practical compulsion argument, the Supreme Court remanded the case back to the Court of Appeal because it had chosen not to address that issue in its decision.[16] In doing so, the Supreme Court reiterated that it had previously declined to resolve the issue of whether practical compulsion was a viable theory under article XIII B, section 6.[17]

By finding that the City is practically compelled to comply with the test claim order, the Commission creates new law in an area where the Supreme Court has expressed caution.[18] As has been contended in the Supreme Court proceedings:

> [A] finding of federal mandate under section nine of article XIII B has a wholly different purpose and effect as compared with a finding that a state mandate under section 6 of that article [and]....although a state mandate may result in reimbursement from the state to a local entity for costs incurred by the local entity, expenditures may result in reimbursement from the state to a local entity for costs incurred by the local entity, expenditures made in order to comply with a federal mandate are excluded from the constitutional spending cap imposed by article XIII B upon any affected state or local entity, because such expenditures are not considered to be an exercise of the state of local authority's discretionary spending authority.[19]

Moreover, and this underscores the challenge in applying the practical compulsion theory to state mandates under article XIII B, section 6, the severe consequences and penalties the City claims will occur following noncompliance with the test claim order requirements may be avoided by transferring its public water system to another entity. As has been established, the City has no obligation to operate a public water system, regardless of how large or complex the public water system has become. Indeed, just as no federal or state law requires the City to operate a public water system, no federal or state law prohibits the City from transferring its public water system to another public or private entity. By transferring ownership of the water system, the customers would continue to receive drinking water and the City would avoid any penalties imposed by the State Water Board. In terms of the bond debt that may come due, the City has provided no evidence that an appropriate financing package could not be created to address any outstanding debt as part of a large commercial transaction.

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[14] *Coast Community College Dist. v. Commission on State Mandates* (2022) 13 Cal.5th 800.
[15] *Id.* at p. 821.
[16] *Id.* at p. 822. The State Water Board is not aware of a Court of Appeal decision following remand.
[17] *Ibid.*
[18] The Supreme Court's remand in *Coast Community College Dist.* should not be viewed as a tacit endorsement of extending the practical compulsion theory to a mandate under article XIII B, section 6. The remand reflects that claimants' arguments were more appropriately viewed through the lens of practical, as opposed to legal compulsion, and that the Court of Appeal was the appropriate venue to resolve the issue in the first instance. (*Coast Community College Dist. v. Commission on State Mandates* 13 Cal.5th at pp. 821-822.
[19] *Department of Finance v. Commission on State Mandates*, 30 Cal.4th at p. 750.

The voluntary nature of operating a public water system distinguishes this test claim from the facts in the *City of Sacramento*. In the *City of Sacramento*, the local agencies were powerless to avoid the federal unemployment insurance requirements—either the state would mandate those requirements as part of its own certified program, or absent that, the federal requirements would apply directly. And, without the state mandate, local agencies would have been subject to severe and draconian penalties that they could not avoid. In contrast, the City has a true choice whether to operate a public water system, and as such, is not practically compelled to comply with the test claim permit.[20]

II. The City May Impose Fees Under Article XIII D to Comply With the Test Claim Order Requirements

The Draft Proposed Decision concludes that, under *Richmond v. Shasta Community Services Dist.*,[21] a water service fee imposed to address the lead testing requirements would not be a property-related fee within the meaning of article XIII D.[22] Consequently, the Draft Proposed Decision finds the City lacks authority under article XIII D to impose a fee to comply with the test claim order. The State Water Board disagrees with the Commission's application of *Richmond*. Additionally, because the lead testing requirements confer real and direct benefits on all ratepayers, fees may be imposed under article XIII D to cover the costs of permit compliance.

Richmond addressed whether a water district's fee for fire suppression as part of a new service connection fee was subject to the restrictions of article XIII D. In holding that fire suppression fees were not, the Supreme Court distinguished between a water connection fee, imposed by virtue of a voluntary decision by a property owner to obtain service, and a fee for ongoing water service, imposed upon a person as an incident of property ownership.[23] The court explained that:

> A fee for ongoing water service through an existing connection is imposed 'as an incident of property ownership' because it requires nothing other than normal ownership and use of property. But a fee for making a new connection to the system is not imposed 'as an incident of property ownership' because it results from the owner's voluntary decision to apply for the connection.[24]

Furthermore, in support of its decision, the Supreme Court noted that would be impossible to comply with article XIII D with respect to assessments for connection fees because the water district would be unable to determine which parcels would be subject to the proposed fee.[25]

The facts that drove the decision in *Richmond* are not present in this test claim. Any increased fee under article XIII D would be imposed on property owners who already receive water service, so this fee would be imposed as an incident of property ownership because it would

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[20] The State Water Board understands and appreciates that the City has provided no evidence that it wishes to transfer the public water system. As discussed further below, remaining in compliance with the City's drinking water permit by complying with the lead testing requirements provides a direct benefit to all ratepayers.
[21] *Richmond v. Shasta Community Services Dist.* (2004) 32 Cal.4th 409.
[22] Draft Proposed Decision at p. 58.
[23] *Richmond v. Shasta Community Services Dist.*, 32 Cal.4th at p. 427.
[24] *Id.* at p. 427.
[25] *Id.* at p. 428.

require nothing besides normal ownership and use of property.[26] The Draft Proposed Decision erroneously concludes that because lead testing in a school is imposed at the request of the school a fee to recover the cost of that testing would not be a property related fee subject to Proposition 218. But Proposition 218 is not inapplicable simply because *someone* makes a voluntary decision that imposes the costs to be recovered by the fee. The issue is whether the *fee payer* requested the service, as was the case in *Richmond.* And, with respect to compliance with procedural provisions of article XIII D, the City could determine those parcels which would be subject to the proposed fee.[27] Accordingly, the Draft Proposed Decision's reliance on *Richmond* is misplaced.

Additionally, a fee imposed to comply with the lead testing requirements would meet all substantive elements of article XIII D, section 6, subdivision (b). Regarding subdivisions (b)(1) and (b)(2), the City has not claimed that it cannot impose a fee in the correct amount or use the fee for the appropriate purpose. Regarding subdivision (b)(5) of section 6, the City has not alleged, nor can it, that the fee imposed would be for general government services, such as police, fire, ambulance, or library services.

Regarding subdivisions (b)(3) and (b)(4) of section 6, the City claims that that lead testing in schools confers no direct benefit on the ratepayers. The City's argument reflects an unnecessarily constricted, and ultimately unworkable, definition of the service for which fees are being charged. The service at issue here is water service, and the issue is whether the cost for lead testing in schools may be included in those fees. It should not be necessary to demonstrate that every feature of the overall program provides a direct benefit to every customer. If cost is reasonably included as part of a program to provide safe drinking water fees to recover those costs should not be vulnerable to claims that not every household needs every part of the program.

Moreover, and as discussed more thoroughly in the State Water Board's August 13, 2018, comments on the test claim, the additional lead testing requirements functionally extend the Lead and Copper Rule (LCR) by adding additional sampling points that the City can use to optimize its corrosion control. Although the requesting schools may receive a direct benefit in terms of assessing school pipes and fixtures for lead, this does not diminish the additional benefit the water system as a whole receives from the additional lead sampling points. This division of benefits is similar to those under the existing LCR, where the City tests individual residential homes and uses those test results to optimize corrosion control for the larger system. All users with connections to the system benefit from using a select sample of connections, helping to assure provision of safe drinking water through the system. Although individual residents may derive additional benefits from lead testing in their homes, the City appears comfortable assessing property-related fees under article XIII D for compliance with the LCR.[28]

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[26] *Richmond v. Shasta Community Services Dist.,* 32 Cal.4th at p. 427.

[27] The State Water Board recognizes that because the performance of lead testing depends on a school's testing request, there may be some uncertainty regarding the amount of fees to charge. The State Water Board is not aware of any specific challenges this would create that are different than those inherent in forecasting all costs associated with operating and maintaining a large public water system.

[28] The State Water Board's August 13, 2018 comments also identify other benefits that the lead testing confers on ratepayers, such as maintaining and possibly improving home values, and ensuring that school sites remains safe places for community functions (meetings, sports activities, etc.) that benefit the larger community. (State Water Board Comments on Test Claim (Aug. 13, 2018) at p. 16).)

Additionally, a private entity or local government cannot operate a public water system without a permit from the State Water Board.[29] The permit is subject to revocation or penalties for failure to comply.[30] Thus, to continue to operate its public water system, the City must comply with the lead testing requirement to provide drinking water service within its service area. Compliance with permit conditions benefits all customers of the City because compliance is necessary for the public water system to continue operating as a utility providing drinking water service to any of the customers. Therefore, drinking water fees may spread the cost of compliance among all customers. There is no requirement that when drinking water requirements are set to protect sensitive groups such as children that the costs of compliance be imposed solely on households, businesses and public facilities that include or serve those sensitive groups. Because permit compliance is a condition necessary to enter or continue in the business of providing drinking water service, all customers benefit from the utility's compliance with permit requirements. Both public entities like the City and the privately-owned utilities that would step in if a public entity decided to cease providing drinking water service may appropriately include costs of compliance in the charges to its customers.

Finally, a fee imposed to comply with the test claim order would not be considered a tax under article XIII C of the Constitution. Article XIII C contains seven exceptions to its voter approval requirements, including "[a]ssessments and property related-related fees imposed in accordance with the provisions of Article XIII D."[31] As discussed above, a fee imposed to comply with the test claim order would be a property-related fee under article XIII D, and therefore, fall within the aforementioned exemption.

III. Conclusion

The State Water Board appreciates the Commission's consideration of the comments herein.

I certify and declare under penalty of perjury under laws of the State of California that the foregoing facts are true and correct to the best of my personal knowledge or information or belief.

Very Truly Yours,

David Rice
Senior Staff Counsel

cc: Service List via CSM Dropbox

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[29] Health & Saf. Code, § 116525, subd. (a).
[30] *Id.*, §§ 116625, 116650.
[31] Cal. Const., art. XIII C, § 1(3)(7).

DECLARATION OF SERVICE BY EMAIL

I, the undersigned, declare as follows:

I am a resident of the County of Sacramento and I am over the age of 18 years, and not a party to the within action. My place of employment is 980 Ninth Street, Suite 300, Sacramento, California 95814.

On May 5, 2023, I served the:

- **Claimant's Comments on the Draft Proposed Decision filed May 4, 2023**
- **State Water Board's Comments on the Draft Proposed Decision filed May 4, 2023**

  Lead Sampling in Schools: Public Water System No. 3710020, 17-TC-03-R
  On Remand from *City of San Diego v. Commission on State Mandates*, Court of Appeal, Third Appellate District, Case No. C092800; Judgment and Writ of Mandate issued by the Sacramento County Superior Court, Case No. 34-2019-80003169-CU-WM-GDS; Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017
  City of San Diego, Claimant

By making it available on the Commission's website and providing notice of how to locate it to the email addresses provided on the attached mailing list.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that this declaration was executed on May 5, 2023 at Sacramento, California.

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COMMISSION ON STATE MANDATES

Mailing List

Last Updated: 4/26/23

Claim Number: 17-TC-03-R

Matter: Lead Sampling in Schools: Public Water System No. 3710020

Claimant: City of San Diego

TO ALL PARTIES, INTERESTED PARTIES, AND INTERESTED PERSONS:

Each commission mailing list is continuously updated as requests are received to include or remove any party or person on the mailing list. A current mailing list is provided with commission correspondence, and a copy of the current mailing list is available upon request at any time. Except as provided otherwise by commission rule, when a party or interested party files any written material with the commission concerning a claim, it shall simultaneously serve a copy of the written material on the parties and interested parties to the claim identified on the mailing list provided by the commission. (Cal. Code Regs., tit. 2, § 1181.3.)

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RECEIVED
August 13, 2018
Commission on
State Mandates

August 13, 2018

VIA CSM DROPBOX

Heather Halsey
Executive Director
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Re: *Lead Sampling in Schools, Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, 17-TC-03*, Submission of Administrative Record

Dear Ms. Halsey:

As requested in your letter dated April 13, 2018, attached hereto is the administrative record for Permit Amendment No. 2017-Schools to the Domestic Water Supply Permit Issued to the City of San Diego (Public Water System No. 3710020) (Permit Amendment). The administrative record is comprised of federal and state regulations, guidance, reports, and other authorities which informed the provisions contained in the Permit Amendment.

I declare that all documents attached are true and correct copies of such documents as they exist in the State Water Board's files, or were obtained from publicly available sources.

Very Truly Yours,

David Rice

David Rice
Senior Staff Counsel

cc: Service List via CSM Dropbox

Administrative Record Index
State Water Resources Control Board
Test Claim No. 17-TC-03

1. Federal Lead and Copper Rule (40 C.F.R., § 141.80 *et. seq*.)
2. California Lead and Copper Rule (Cal. Code Regs., tit. 22, § 64670 *et. seq.*)
3. Veto Message for Senate Bill 334 (Oct. 9, 2015)
4. Senate Bill 334
5. U.S. EPA, *3Ts for Reducing Lead in Drinking Water in Schools* (Oct. 2006)
6. U.S. EPA, *Lead and Copper Rule Revisions: White Paper* (Oct. 2016)
7. U.S. EPA, *Implementing the Lead Public Education Provisions of the Lead and Copper Rule: A Guide for Community Water Systems* (June 2002)
8. U.S. EPA, *Getting the Lead Out: A Guide to Reducing Lead in Drinking Water in Schools* (Oct. 2005)
9. U.S. EPA*, Clarification of Recommended Tap Sampling Procedures for Purposes of the Lead and Copper Rule* (Feb. 29, 2016)
10. U.S. EPA, *Drinking Water Best Management Practices: For Schools and Child Care Facilities With Their Own Drinking Water Source* (Apr. 2013)
11. California Department of Education, *Letter Re Clean Water* (June 17, 2016)
12. State Water Board, *Recommendations for Enhanced Public Access to Lead and Copper Rule Related Information* (Mar. 7, 2016)
13. State of California, *Public Health Goals for Chemicals in Drinking Water* (Apr. 2009)
14. California Department of Public Health, *Blood Lead Levels for Children* (2015)
15. Minnesota Department of Health, *Reducing Lead in Drinking Water: A Technical Guidance for Minnesota's School and Child Care Facilities* (Apr. 2014)

ATTACHMENT

1

Code of Federal Regulations
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter D. Water Programs
Part 141. National Primary Drinking Water Regulations (Refs & Annos)
Subpart I. Control of Lead and Copper (Refs & Annos)

40 C.F.R. § 141.80

§ 141.80 General requirements.

Effective: December 10, 2007
Currentness

(a) Applicability and effective dates.

(1) The requirements of this subpart I constitute the national primary drinking water regulations for lead and copper. Unless otherwise indicated, each of the provisions of this subpart applies to community water systems and non-transient, non-community water systems (hereinafter referred to as "water systems" or "systems").

(2) [Reserved by 72 FR 57814]

(b) Scope. These regulations establish a treatment technique that includes requirements for corrosion control treatment, source water treatment, lead service line replacement, and public education. These requirements are triggered, in some cases, by lead and copper action levels measured in samples collected at consumers' taps.

(c) Lead and copper action levels.

(1) The lead action level is exceeded if the concentration of lead in more than 10 percent of tap water samples collected during any monitoring period conducted in accordance with § 141.86 is greater than 0.015 mg/L (i.e., if the "90th percentile" lead level is greater than 0.015 mg/L).

(2) The copper action level is exceeded if the concentration of copper in more than 10 percent of tap water samples collected during any monitoring period conducted in accordance with § 141.86 is greater than 1.3 mg/L (i.e., if the "90th percentile" copper level is greater than 1.3 mg/L).

(3) The 90th percentile lead and copper levels shall be computed as follows:

(i) The results of all lead or copper samples taken during a monitoring period shall be placed in ascending order from the sample with the lowest concentration to the sample with the highest concentration. Each sampling result shall be assigned a number, ascending by single integers beginning with the number 1 for the sample with the lowest

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contaminant level. The number assigned to the sample with the highest contaminant level shall be equal to the total number of samples taken.

(ii) The number of samples taken during the monitoring period shall be multiplied by 0.9.

(iii) The contaminant concentration in the numbered sample yielded by the calculation in paragraph (c)(3)(ii) is the 90th percentile contaminant level.

(iv) For water systems serving fewer than 100 people that collect 5 samples per monitoring period, the 90th percentile is computed by taking the average of the highest and second highest concentrations.

(v) For a public water system that has been allowed by the State to collect fewer than five samples in accordance with § 141.86(c), the sample result with the highest concentration is considered the 90th percentile value.

(d) Corrosion control treatment requirements.

(1) All water systems shall install and operate optimal corrosion control treatment as defined in § 141.2.

(2) Any water system that complies with the applicable corrosion control treatment requirements specified by the State under §§ 141.81 and 141.82 shall be deemed in compliance with the treatment requirement contained in paragraph (d)(1) of this section.

(e) Source water treatment requirements. Any system exceeding the lead or copper action level shall implement all applicable source water treatment requirements specified by the State under § 141.83.

(f) Lead service line replacement requirements. Any system exceeding the lead action level after implementation of applicable corrosion control and source water treatment requirements shall complete the lead service line replacement requirements contained in § 141.84.

(g) Public education requirements. Pursuant to § 141.85, all water systems must provide a consumer notice of lead tap water monitoring results to persons served at the sites (taps) that are tested. Any system exceeding the lead action level shall implement the public education requirements.

(h) Monitoring and analytical requirements. Tap water monitoring for lead and copper, monitoring for water quality parameters, source water monitoring for lead and copper, and analyses of the monitoring results under this subpart shall be completed in compliance with §§ 141.86, 141.87, 141.88, and 141.89.

(i) Reporting requirements. Systems shall report to the State any information required by the treatment provisions of this subpart and § 141.90.

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(j) Recordkeeping requirements. Systems shall maintain records in accordance with § 141.91.

(k) Violation of national primary drinking water regulations. Failure to comply with the applicable requirements of §§ 141.80–141.91, including requirements established by the State pursuant to these provisions, shall constitute a violation of the national primary drinking water regulations for lead and/or copper.

Credits
[56 FR 32113, July 15, 1991; 57 FR 28788, June 29, 1992; 72 FR 57814, Oct. 10, 2007]

AUTHORITY: 42 U.S.C. 300f, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–4, 300j–9, and 300j–11.

Notes of Decisions (10)

Current through Aug. 3, 2018; 83 FR 38243.

End of Document

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40 C.F.R. § 141.81

§ 141.81 Applicability of corrosion control treatment steps to small, medium-size and large water systems.

Effective: December 10, 2007
Currentness

(a) Systems shall complete the applicable corrosion control treatment requirements described in § 141.82 by the deadlines established in this section.

(1) A large system (serving >50,000 persons) shall complete the corrosion control treatment steps specified in paragraph (d) of this section, unless it is deemed to have optimized corrosion control under paragraph (b)(2) or (b)(3) of this section.

(2) A small system (serving ≤3300 persons) and a medium-size system (serving >3,300 and ≤50,000 persons) shall complete the corrosion control treatment steps specified in paragraph (e) of this section, unless it is deemed to have optimized corrosion control under paragraph (b)(1), (b)(2), or (b)(3) of this section.

(b) A system is deemed to have optimized corrosion control and is not required to complete the applicable corrosion control treatment steps identified in this section if the system satisfies one of the criteria specified in paragraphs (b)(1) through (b)(3) of this section. Any such system deemed to have optimized corrosion control under this paragraph, and which has treatment in place, shall continue to operate and maintain optimal corrosion control treatment and meet any requirements that the State determines appropriate to ensure optimal corrosion control treatment is maintained.

(1) A small or medium-size water system is deemed to have optimized corrosion control if the system meets the lead and copper action levels during each of two consecutive six-month monitoring periods conducted in accordance with § 141.86.

(2) Any water system may be deemed by the State to have optimized corrosion control treatment if the system demonstrates to the satisfaction of the State that it has conducted activities equivalent to the corrosion control steps applicable to such system under this section. If the State makes this determination, it shall provide the system with written notice explaining the basis for its decision and shall specify the water quality control parameters representing optimal corrosion control in accordance with § 141.82(f). Water systems deemed to have optimized corrosion control under this paragraph shall operate in compliance with the State–designated optimal water quality control parameters in accordance with § 141.82(g) and continue to conduct lead and copper tap and water quality parameter sampling in accordance with § 141.86(d)(3) and § 141.87(d), respectively. A system shall provide the State with the following information in order to support a determination under this paragraph:

(i) The results of all test samples collected for each of the water quality parameters in § 141.82(c)(3).

(ii) A report explaining the test methods used by the water system to evaluate the corrosion control treatments listed in § 141.82(c)(1), the results of all tests conducted, and the basis for the system's selection of optimal corrosion control treatment;

(iii) A report explaining how corrosion control has been installed and how it is being maintained to insure minimal lead and copper concentrations at consumers' taps; and

(iv) The results of tap water samples collected in accordance with § 141.86 at least once every six months for one year after corrosion control has been installed.

(3) Any water system is deemed to have optimized corrosion control if it submits results of tap water monitoring conducted in accordance with § 141.86 and source water monitoring conducted in accordance with § 141.88 that demonstrates for two consecutive 6–month monitoring periods that the difference between the 90th percentile tap water lead level computed under § 141.80(c)(3), and the highest source water lead concentration is less than the Practical Quantitation Level for lead specified in § 141.89(a)(1)(ii).

(i) Those systems whose highest source water lead level is below the Method Detection Limit may also be deemed to have optimized corrosion control under this paragraph if the 90th percentile tap water lead level is less than or equal to the Practical Quantitation Level for lead for two consecutive 6–month monitoring periods.

(ii) Any water system deemed to have optimized corrosion control in accordance with this paragraph shall continue monitoring for lead and copper at the tap no less frequently than once every three calendar years using the reduced number of sites specified in § 141.86(c) and collecting the samples at times and locations specified in § 141.86(d)(4)(iv). Any such system that has not conducted a round of monitoring pursuant to § 141.86(d) since September 30, 1997, shall complete a round of monitoring pursuant to this paragraph no later than September 30, 2000.

(iii) Any water system deemed to have optimized corrosion control pursuant to this paragraph shall notify the State in writing pursuant to § 141.90(a)(3) of any upcoming long-term change in treatment or addition of a new source as described in that section. The State must review and approve the addition of a new source or long-term change in water treatment before it is implemented by the water system. The State may require any such system to conduct additional monitoring or to take other action the State deems appropriate to ensure that such systems maintain minimal levels of corrosion in the distribution system.

(iv) As of July 12, 2001, a system is not deemed to have optimized corrosion control under this paragraph, and shall implement corrosion control treatment pursuant to paragraph (b)(3)(v) of this section unless it meets the copper action level.

(v) Any system triggered into corrosion control because it is no longer deemed to have optimized corrosion control under this paragraph shall implement corrosion control treatment in accordance with the deadlines in paragraph

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(e) of this section. Any such large system shall adhere to the schedule specified in that paragraph for medium-size systems, with the time periods for completing each step being triggered by the date the system is no longer deemed to have optimized corrosion control under this paragraph.

(c) Any small or medium-size water system that is required to complete the corrosion control steps due to its exceedance of the lead or copper action level may cease completing the treatment steps whenever the system meets both action levels during each of two consecutive monitoring periods conducted pursuant to § 141.86 and submits the results to the State. If any such water system thereafter exceeds the lead or copper action level during any monitoring period, the system (or the State, as the case may be) shall recommence completion of the applicable treatment steps, beginning with the first treatment step which was not previously completed in its entirety. The State may require a system to repeat treatment steps previously completed by the system where the State determines that this is necessary to implement properly the treatment requirements of this section. The State shall notify the system in writing of such a determination and explain the basis for its decision. The requirement for any small- or medium-size system to implement corrosion control treatment steps in accordance with paragraph (e) of this section (including systems deemed to have optimized corrosion control under paragraph (b)(1) of this section) is triggered whenever any small- or medium-size system exceeds the lead or copper action level.

(d) Treatment steps and deadlines for large systems. Except as provided in paragraph (b)(2) and (3) of this section, large systems shall complete the following corrosion control treatment steps (described in the referenced portions of §§ 141.82, 141.86, and 141.87) by the indicated dates.

(1) Step 1: The system shall conduct initial monitoring (§ 141.86(d)(1) and § 141.87(b)) during two consecutive six-month monitoring periods by January 1, 1993.

(2) Step 2: The system shall complete corrosion control studies (§ 141.82(c)) by July 1, 1994.

(3) Step 3: The State shall designate optimal corrosion control treatment (§ 141.82(d)) by January 1, 1995.

(4) Step 4: The system shall install optimal corrosion control treatment (§ 141.82(e)) by January 1, 1997.

(5) Step 5: The system shall complete follow-up sampling (§ 141.86(d)(2) and § 141.87(c)) by January 1, 1998.

(6) Step 6: The State shall review installation of treatment and designate optimal water quality control parameters (§ 141.82(f)) by July 1, 1998.

(7) Step 7: The system shall operate in compliance with the State-specified optimal water quality control parameters (§ 141.82(g)) and continue to conduct tap sampling (§ 141.86(d)(3) and § 141.87(d)).

(e) Treatment Steps and deadlines for small and medium-size systems. Except as provided in paragraph (b) of this section, small and medium-size systems shall complete the following corrosion control treatment steps (described in the referenced portions of §§ 141.82, 141.86 and 141.87) by the indicated time periods.

(1) Step 1: The system shall conduct initial tap sampling (§ 141.86(d)(1) and § 141.87(b)) until the system either exceeds the lead or copper action level or becomes eligible for reduced monitoring under § 141.86(d)(4). A system exceeding the lead or copper action level shall recommend optimal corrosion control treatment (§ 141.82(a)) within six months after the end of the monitoring period during which it exceeds one of the action levels.

(2) Step 2: Within 12 months after the end of the monitoring period during which a system exceeds the lead or copper action level, the State may require the system to perform corrosion control studies (§ 141.82(b)). If the State does not require the system to perform such studies, the State shall specify optimal corrosion control treatment (§ 141.82(d)) within the following timeframes:

(i) For medium-size systems, within 18 months after the end of the monitoring period during which such system exceeds the lead or copper action level.

(ii) For small systems, within 24 months after the end of the monitoring period during which such system exceeds the lead or copper action level.

(3) Step 3: If the State requires a system to perform corrosion control studies under step 2, the system shall complete the studies (§ 141.82(c)) within 18 months after the State requires that such studies be conducted.

(4) Step 4: If the system has performed corrosion control studies under step 2, the State shall designate optimal corrosion control treatment (§ 141.82(d)) within 6 months after completion of step 3.

(5) Step 5: The system shall install optimal corrosion control treatment (§ 141.82(e)) within 24 months after the State designates such treatment.

(6) Step 6: The system shall complete follow-up sampling (§ 141.86(d)(2) and § 141.87(c)) within 36 months after the State designates optimal corrosion control treatment.

(7) Step 7: The State shall review the system's installation of treatment and designate optimal water quality control parameters (§ 141.82(f)) within 6 months after completion of step 6.

(8) Step 8: The system shall operate in compliance with the State-designated optimal water quality control parameters (§ 141.82(g)) and continue to conduct tap sampling (§ 141.86(d)(3) and § 141.87(d)).

Credits

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Code of Federal Regulations
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter D. Water Programs
Part 141. National Primary Drinking Water Regulations (Refs & Annos)
Subpart I. Control of Lead and Copper (Refs & Annos)

40 C.F.R. § 141.82

§ 141.82 Description of corrosion control treatment requirements.

Currentness

Each system shall complete the corrosion control treatment requirements described below which are applicable to such system under § 141.81.

(a) System recommendation regarding corrosion control treatment. Based upon the results of lead and copper tap monitoring and water quality parameter monitoring, small and medium-size water systems exceeding the lead or copper action level shall recommend installation of one or more of the corrosion control treatments listed in paragraph (c)(1) of this section which the system believes constitutes optimal corrosion control for that system. The State may require the system to conduct additional water quality parameter monitoring in accordance with § 141.87(b) to assist the State in reviewing the system's recommendation.

(b) State decision to require studies of corrosion control treatment (applicable to small and medium-size systems). The State may require any small or medium-size system that exceeds the lead or copper action level to perform corrosion control studies under paragraph (c) of this section to identify optimal corrosion control treatment for the system.

(c) Performance of corrosion control studies.

(1) Any public water system performing corrosion control studies shall evaluate the effectiveness of each of the following treatments, and, if appropriate, combinations of the following treatments to identify the optimal corrosion control treatment for that system:

(i) Alkalinity and pH adjustment;

(ii) Calcium hardness adjustment; and

(iii) The addition of a phosphate or silicate based corrosion inhibitor at a concentration sufficient to maintain an effective residual concentration in all test tap samples.

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(2) The water system shall evaluate each of the corrosion control treatments using either pipe rig/loop tests, metal coupon tests, partial-system tests, or analyses based on documented analogous treatments with other systems of similar size, water chemistry and distribution system configuration.

(3) The water system shall measure the following water quality parameters in any tests conducted under this paragraph before and after evaluating the corrosion control treatments listed above:

(i) Lead;

(ii) Copper;

(iii) pH;

(iv) Alkalinity;

(v) Calcium;

(vi) Conductivity;

(vii) Orthophosphate (when an inhibitor containing a phosphate compound is used);

(viii) Silicate (when an inhibitor containing a silicate compound is used);

(ix) Water temperature.

(4) The water system shall identify all chemical or physical constraints that limit or prohibit the use of a particular corrosion control treatment and document such constraints with at least one of the following:

(i) Data and documentation showing that a particular corrosion control treatment has adversely affected other water treatment processes when used by another water system with comparable water quality characteristics; and/or

(ii) Data and documentation demonstrating that the water system has previously attempted to evaluate a particular corrosion control treatment and has found that the treatment is ineffective or adversely affects other water quality treatment processes.

(5) The water system shall evaluate the effect of the chemicals used for corrosion control treatment on other water quality treatment processes.

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(6) On the basis of an analysis of the data generated during each evaluation, the water system shall recommend to the State in writing the treatment option that the corrosion control studies indicate constitutes optimal corrosion control treatment for that system. The water system shall provide a rationale for its recommendation along with all supporting documentation specified in paragraphs (c)(1) through (5) of this section.

(d) State designation of optimal corrosion control treatment.

(1) Based upon consideration of available information including, where applicable, studies performed under paragraph (c) of this section and a system's recommended treatment alternative, the State shall either approve the corrosion control treatment option recommended by the system, or designate alternative corrosion control treatment(s) from among those listed in paragraph (c)(1) of this section. When designating optimal treatment the State shall consider the effects that additional corrosion control treatment will have on water quality parameters and on other water quality treatment processes.

(2) The State shall notify the system of its decision on optimal corrosion control treatment in writing and explain the basis for this determination. If the State requests additional information to aid its review, the water system shall provide the information.

(e) Installation of optimal corrosion control. Each system shall properly install and operate throughout its distribution system the optimal corrosion control treatment designated by the State under paragraph (d) of this section.

(f) State review of treatment and specification of optimal water quality control parameters. The State shall evaluate the results of all lead and copper tap samples and water quality parameter samples submitted by the water system and determine whether the system has properly installed and operated the optimal corrosion control treatment designated by the State in paragraph (d) of this section. Upon reviewing the results of tap water and water quality parameter monitoring by the system, both before and after the system installs optimal corrosion control treatment, the State shall designate:

(1) A minimum value or a range of values for pH measured at each entry point to the distribution system;

(2) A minimum pH value, measured in all tap samples. Such value shall be equal to or greater than 7.0, unless the State determines that meeting a pH level of 7.0 is not technologically feasible or is not necessary for the system to optimize corrosion control;

(3) If a corrosion inhibitor is used, a minimum concentration or a range of concentrations for the inhibitor, measured at each entry point to the distribution system and in all tap samples, that the State determines is necessary to form a passivating film on the interior walls of the pipes of the distribution system;

(4) If alkalinity is adjusted as part of optimal corrosion control treatment, a minimum concentration or a range of concentrations for alkalinity, measured at each entry point to the distribution system and in all tap samples;

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(5) If calcium carbonate stabilization is used as part of corrosion control, a minimum concentration or a range of concentrations for calcium, measured in all tap samples.

The values for the applicable water quality control parameters listed above shall be those that the State determines to reflect optimal corrosion control treatment for the system. The State may designate values for additional water quality control parameters determined by the State to reflect optimal corrosion control for the system. The State shall notify the system in writing of these determinations and explain the basis for its decisions.

(g) Continued operation and monitoring. All systems optimizing corrosion control shall continue to operate and maintain optimal corrosion control treatment, including maintaining water quality parameters at or above minimum values or within ranges designated by the State under paragraph (f) of this section, in accordance with this paragraph for all samples collected under § 141.87(d) through (f). Compliance with the requirements of this paragraph shall be determined every six months, as specified under § 141.87(d). A water system is out of compliance with the requirements of this paragraph for a six-month period if it has excursions for any State–specified parameter on more than nine days during the period. An excursion occurs whenever the daily value for one or more of the water quality parameters measured at a sampling location is below the minimum value or outside the range designated by the State. Daily values are calculated as follows. States have discretion to delete results of obvious sampling errors from this calculation.

(1) On days when more than one measurement for the water quality parameter is collected at the sampling location, the daily value shall be the average of all results collected during the day regardless of whether they are collected through continuous monitoring, grab sampling, or a combination of both. If EPA has approved an alternative formula under § 142.16 of this chapter in the State's application for a program revision submitted pursuant to § 142.12 of this chapter, the State's formula shall be used to aggregate multiple measurements taken at a sampling point for the water quality parameter in lieu of the formula in this paragraph.

(2) On days when only one measurement for the water quality parameter is collected at the sampling location, the daily value shall be the result of that measurement.

(3) On days when no measurement is collected for the water quality parameter at the sampling location, the daily value shall be the daily value calculated on the most recent day on which the water quality parameter was measured at the sample site.

(h) Modification of State treatment decisions. Upon its own initiative or in response to a request by a water system or other interested party, a State may modify its determination of the optimal corrosion control treatment under paragraph (d) of this section or optimal water quality control parameters under paragraph (f) of this section. A request for modification by a system or other interested party shall be in writing, explain why the modification is appropriate, and provide supporting documentation. The State may modify its determination where it concludes that such change is necessary to ensure that the system continues to optimize corrosion control treatment. A revised determination shall be made in writing, set forth the new treatment requirements, explain the basis for the State's decision, and provide an implementation schedule for completing the treatment modifications.

(i) Treatment decisions by EPA in lieu of the State. Pursuant to the procedures in § 142.19, the EPA Regional Administrator may review treatment determinations made by a State under paragraphs (d), (f), or (h) of this section

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and issue federal treatment determinations consistent with the requirements of those paragraphs where the Regional Administrator finds that:

(1) A State has failed to issue a treatment determination by the applicable deadlines contained in § 141.81,

(2) A State has abused its discretion in a substantial number of cases or in cases affecting a substantial population, or

(3) The technical aspects of a State's determination would be indefensible in an expected Federal enforcement action taken against a system.

Credits
[56 FR 32113, July 15, 1991; 65 FR 2004, Jan. 12, 2000]

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40 C.F.R. § 141.83

§ 141.83 Source water treatment requirements.

Effective: December 10, 2007
Currentness

Systems shall complete the applicable source water monitoring and treatment requirements (described in the referenced portions of paragraph (b) of this section, and in §§ 141.86, and 141.88) by the following deadlines.

(a) Deadlines for completing source water treatment steps—

(1) Step 1: A system exceeding the lead or copper action level shall complete lead and copper source water monitoring (§ 141.88(b)) and make a treatment recommendation to the State (§ 141.83(b)(1)) no later than 180 days after the end of the monitoring period during which the lead or copper action level was exceeded.

(2) Step 2: The State shall make a determination regarding source water treatment (§ 141.83(b)(2)) within 6 months after submission of monitoring results under step 1.

(3) Step 3: If the State requires installation of source water treatment, the system shall install the treatment (§ 141.83(b)(3)) within 24 months after completion of step 2.

(4) Step 4: The system shall complete follow-up tap water monitoring (§ 141.86(d)(2) and source water monitoring (§ 141.88(c)) within 36 months after completion of step 2.

(5) Step 5: The State shall review the system's installation and operation of source water treatment and specify maximum permissible source water levels (§ 141.83(b)(4)) within 6 months after completion of step 4.

(6) Step 6: The system shall operate in compliance with the State-specified maximum permissible lead and copper source water levels (§ 141.83(b)(4)) and continue source water monitoring (§ 141.88(d)).

(b) Description of source water treatment requirements—

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(1) System treatment recommendation. Any system which exceeds the lead or copper action level shall recommend in writing to the State the installation and operation of one of the source water treatments listed in paragraph (b)(2) of this section. A system may recommend that no treatment be installed based upon a demonstration that source water treatment is not necessary to minimize lead and copper levels at users' taps.

(2) State determination regarding source water treatment. The State shall complete an evaluation of the results of all source water samples submitted by the water system to determine whether source water treatment is necessary to minimize lead or copper levels in water delivered to users' taps. If the State determines that treatment is needed, the State shall either require installation and operation of the source water treatment recommended by the system (if any) or require the installation and operation of another source water treatment from among the following: Ion exchange, reverse osmosis, lime softening or coagulation/filtration. If the State requests additional information to aid in its review, the water system shall provide the information by the date specified by the State in its request. The State shall notify the system in writing of its determination and set forth the basis for its decision.

(3) Installation of source water treatment. Each system shall properly install and operate the source water treatment designated by the State under paragraph (b)(2) of this section.

(4) State review of source water treatment and specification of maximum permissible source water levels. The State shall review the source water samples taken by the water system both before and after the system installs source water treatment, and determine whether the system has properly installed and operated the source water treatment designated by the State. Based upon its review, the State shall designate the maximum permissible lead and copper concentrations for finished water entering the distribution system. Such levels shall reflect the contaminant removal capability of the treatment properly operated and maintained. The State shall notify the system in writing and explain the basis for its decision.

(5) Continued operation and maintenance. Each water system shall maintain lead and copper levels below the maximum permissible concentrations designated by the State at each sampling point monitored in accordance with § 141.88. The system is out of compliance with this paragraph if the level of lead or copper at any sampling point is greater than the maximum permissible concentration designated by the State.

(6) Modification of State treatment decisions. Upon its own initiative or in response to a request by a water system or other interested party, a State may modify its determination of the source water treatment under paragraph (b)(2) of this section, or maximum permissible lead and copper concentrations for finished water entering the distribution system under paragraph (b)(4) of this section. A request for modification by a system or other interested party shall be in writing, explain why the modification is appropriate, and provide supporting documentation. The State may modify its determination where it concludes that such change is necessary to ensure that the system continues to minimize lead and copper concentrations in source water. A revised determination shall be made in writing, set forth the new treatment requirements, explain the basis for the State's decision, and provide an implementation schedule for completing the treatment modifications.

(7) Treatment decisions by EPA in lieu of the State. Pursuant to the procedures in § 142.19, the EPA Regional Administrator may review treatment determinations made by a State under paragraphs (b)(2), (4), or (6) of this section and issue Federal treatment determinations consistent with the requirements of those paragraphs where the Administrator finds that:

(i) A State has failed to issue a treatment determination by the applicable deadlines contained in § 141.83(a),

(ii) A state has abused its discretion in a substantial number of cases or in cases affecting a substantial population, or

(iii) The technical aspects of a State's determination would be indefensible in an expected Federal enforcement action taken against a system.

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40 C.F.R. § 141.84

§ 141.84 Lead service line replacement requirements.

Effective: December 10, 2007
Currentness

(a) Systems that fail to meet the lead action level in tap samples taken pursuant to § 141.86(d)(2), after installing corrosion control and/or source water treatment (whichever sampling occurs later), shall replace lead service lines in accordance with the requirements of this section. If a system is in violation of § 141.81 or § 141.83 for failure to install source water or corrosion control treatment, the State may require the system to commence lead service line replacement under this section after the date by which the system was required to conduct monitoring under § 141.86(d)(2) has passed.

(b)(1) A water system shall replace annually at least 7 percent of the initial number of lead service lines in its distribution system. The initial number of lead service lines is the number of lead lines in place at the time the replacement program begins. The system shall identify the initial number of lead service lines in its distribution system, including an identification of the portion(s) owned by the system, based on a materials evaluation, including the evaluation required under § 141.86(a) and relevant legal authorities (e.g., contracts, local ordinances) regarding the portion owned by the system. The first year of lead service line replacement shall begin on the first day following the end of the monitoring period in which the action level was exceeded under paragraph (a) of this section. If monitoring is required annually or less frequently, the end of the monitoring period is September 30 of the calendar year in which the sampling occurs. If the State has established an alternate monitoring period, then the end of the monitoring period will be the last day of that period.

(2) Any water system resuming a lead service line replacement program after the cessation of its lead service line replacement program as allowed by paragraph (f) of this section shall update its inventory of lead service lines to include those sites that were previously determined not to require replacement through the sampling provision under paragraph (c) of this section. The system will then divide the updated number of remaining lead service lines by the number of remaining years in the program to determine the number of lines that must be replaced per year (7 percent lead service line replacement is based on a 15–year replacement program, so, for example, systems resuming lead service line replacement after previously conducting two years of replacement would divide the updated inventory by 13). For those systems that have completed a 15–year lead service line replacement program, the State will determine a schedule for replacing or retesting lines that were previously tested out under the replacement program when the system re-exceeds the action level.

(c) A system is not required to replace an individual lead service line if the lead concentration in all service line samples from that line, taken pursuant to § 141.86(b)(3), is less than or equal to 0.015 mg/L.

(d) A water system shall replace that portion of the lead service line that it owns. In cases where the system does not own the entire lead service line, the system shall notify the owner of the line, or the owner's authorized agent, that the system will replace the portion of the service line that it owns and shall offer to replace the owner's portion of the line. A system is not required to bear the cost of replacing the privately-owned portion of the line, nor is it required to replace the privately-owned portion where the owner chooses not to pay the cost of replacing the privately-owned portion of the line, or where replacing the privately-owned portion would be precluded by State, local or common law. A water system that does not replace the entire length of the service line also shall complete the following tasks.

(1) At least 45 days prior to commencing with the partial replacement of a lead service line, the water system shall provide notice to the resident(s) of all buildings served by the line explaining that they may experience a temporary increase of lead levels in their drinking water, along with guidance on measures consumers can take to minimize their exposure to lead. The State may allow the water system to provide notice under the previous sentence less than 45 days prior to commencing partial lead service line replacement where such replacement is in conjunction with emergency repairs. In addition, the water system shall inform the resident(s) served by the line that the system will, at the system's expense, collect a sample from each partially-replaced lead service line that is representative of the water in the service line for analysis of lead content, as prescribed under § 141.86(b)(3), within 72 hours after the completion of the partial replacement of the service line. The system shall collect the sample and report the results of the analysis to the owner and the resident(s) served by the line within three business days of receiving the results. Mailed notices post-marked within three business days of receiving the results shall be considered "on time."

(2) The water system shall provide the information required by paragraph (d)(1) of this section to the residents of individual dwellings by mail or by other methods approved by the State. In instances where multi-family dwellings are served by the line, the water system shall have the option to post the information at a conspicuous location.

(e) The State shall require a system to replace lead service lines on a shorter schedule than that required by this section, taking into account the number of lead service lines in the system, where such a shorter replacement schedule is feasible. The State shall make this determination in writing and notify the system of its finding within 6 months after the system is triggered into lead service line replacement based on monitoring referenced in paragraph (a) of this section.

(f) Any system may cease replacing lead service lines whenever first draw samples collected pursuant to § 141.86(b)(2) meet the lead action level during each of two consecutive monitoring periods and the system submits the results to the State. If first draw tap samples collected in any such system thereafter exceeds the lead action level, the system shall recommence replacing lead service lines pursuant to paragraph (b)(2) of this section.

(g) To demonstrate compliance with paragraphs (a) through (d) of this section, a system shall report to the State the information specified in § 141.90(e).

Credits

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40 C.F.R. § 141.85

§ 141.85 Public education and supplemental monitoring requirements.

Effective: December 10, 2007
Currentness

All water systems must deliver a consumer notice of lead tap water monitoring results to persons served by the water system at sites that are tested, as specified in paragraph (d) of this section. A water system that exceeds the lead action level based on tap water samples collected in accordance with § 141.86 shall deliver the public education materials contained in paragraph (a) of this section in accordance with the requirements in paragraph (b) of this section. Water systems that exceed the lead action level must sample the tap water of any customer who requests it in accordance with paragraph (c) of this section.

(a) Content of written public education materials—

(1) Community water systems and non-transient non-community water systems. Water systems must include the following elements in printed materials (e.g., brochures and pamphlets) in the same order as listed below. In addition, language in paragraphs (a)(1)(i) through (ii) and (a)(1)(vi) of this section must be included in the materials, exactly as written, except for the text in brackets in these paragraphs for which the water system must include system-specific information. Any additional information presented by a water system must be consistent with the information below and be in plain language that can be understood by the general public. Water systems must submit all written public education materials to the State prior to delivery. The State may require the system to obtain approval of the content of written public materials prior to delivery.

(i) IMPORTANT INFORMATION ABOUT LEAD IN YOUR DRINKING WATER. [INSERT NAME OF WATER SYSTEM] found elevated levels of lead in drinking water in some homes/buildings. Lead can cause serious health problems, especially for pregnant women and young children. Please read this information closely to see what you can do to reduce lead in your drinking water.

(ii) Health effects of lead. Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development.

(iii) Sources of Lead.

(A) Explain what lead is.

(B) Explain possible sources of lead in drinking water and how lead enters drinking water. Include information on home/building plumbing materials and service lines that may contain lead.

(C) Discuss other important sources of lead exposure in addition to drinking water (e.g., paint).

(iv) Discuss the steps the consumer can take to reduce their exposure to lead in drinking water.

(A) Encourage running the water to flush out the lead.

(B) Explain concerns with using hot water from the tap and specifically caution against the use of hot water for preparing baby formula.

(C) Explain that boiling water does not reduce lead levels.

(D) Discuss other options consumers can take to reduce exposure to lead in drinking water, such as alternative sources or treatment of water.

(E) Suggest that parents have their child's blood tested for lead.

(v) Explain why there are elevated levels of lead in the system's drinking water (if known) and what the water system is doing to reduce the lead levels in homes/buildings in this area.

(vi) For more information, call us at [INSERT YOUR NUMBER] [(IF APPLICABLE), or visit our Web site at [INSERT YOUR WEB SITE HERE]]. For more information on reducing lead exposure around your home/building and the health effects of lead, visit EPA's Web site at http://www.epa.gov/lead or contact your health care provider.

(2) Community water systems. In addition to including the elements specified in paragraph (a)(1) of this section, community water systems must:

(i) Tell consumers how to get their water tested.

(ii) Discuss lead in plumbing components and the difference between low lead and lead free.

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(b) Delivery of public education materials.

(1) For public water systems serving a large proportion of non–English speaking consumers, as determined by the State, the public education materials must contain information in the appropriate language(s) regarding the importance of the notice or contain a telephone number or address where persons served may contact the water system to obtain a translated copy of the public education materials or to request assistance in the appropriate language.

(2) A community water system that exceeds the lead action level on the basis of tap water samples collected in accordance with § 141.86, and that is not already conducting public education tasks under this section, must conduct the public education tasks under this section within 60 days after the end of the monitoring period in which the exceedance occurred:

(i) Deliver printed materials meeting the content requirements of paragraph (a) of this section to all bill paying customers.

(ii)(A) Contact customers who are most at risk by delivering education materials that meet the content requirements of paragraph (a) of this section to local public health agencies even if they are not located within the water system's service area, along with an informational notice that encourages distribution to all the organization's potentially affected customers or community water system's users. The water system must contact the local public health agencies directly by phone or in person. The local public health agencies may provide a specific list of additional community based organizations serving target populations, which may include organizations outside the service area of the water system. If such lists are provided, systems must deliver education materials that meet the content requirements of paragraph (a) of this section to all organizations on the provided lists.

(B) Contact customers who are most at risk by delivering materials that meet the content requirements of paragraph (a) of this section to the following organizations listed in 1 through 6 that are located within the water system's service area, along with an informational notice that encourages distribution to all the organization's potentially affected customers or community water system's users:

(1) Public and private schools or school boards.

(2) Women, Infants and Children (WIC) and Head Start programs.

(3) Public and private hospitals and medical clinics.

(4) Pediatricians.

(5) Family planning clinics.

(6) Local welfare agencies.

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(C) Make a good faith effort to locate the following organizations within the service area and deliver materials that meet the content requirements of paragraph (a) of this section to them, along with an informational notice that encourages distribution to all potentially affected customers or users. The good faith effort to contact at-risk customers may include requesting a specific contact list of these organizations from the local public health agencies, even if the agencies are not located within the water system's service area:

(1) Licensed childcare centers

(2) Public and private preschools.

(3) Obstetricians–Gynecologists and Midwives.

(iii) No less often than quarterly, provide information on or in each water bill as long as the system exceeds the action level for lead. The message on the water bill must include the following statement exactly as written except for the text in brackets for which the water system must include system-specific information: [INSERT NAME OF WATER SYSTEM] found high levels of lead in drinking water in some homes. Lead can cause serious health problems. For more information please call [INSERT NAME OF WATER SYSTEM] [or visit (INSERT YOUR WEB SITE HERE)]. The message or delivery mechanism can be modified in consultation with the State; specifically, the State may allow a separate mailing of public education materials to customers if the water system cannot place the information on water bills.

(iv) Post material meeting the content requirements of paragraph (a) of this section on the water system's Web site if the system serves a population greater than 100,000.

(v) Submit a press release to newspaper, television and radio stations.

(vi) In addition to paragraphs (b)(2)(i) through (v) of this section, systems must implement at least three activities from one or more categories listed below. The educational content and selection of these activities must be determined in consultation with the State.

(A) Public Service Announcements.

(B) Paid advertisements.

(C) Public Area Information Displays.

(D) E–mails to customers.

(E) Public Meetings.

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(F) Household Deliveries.

(G) Targeted Individual Customer Contact.

(H) Direct material distribution to all multi-family homes and institutions.

(I) Other methods approved by the State.

(vii) For systems that are required to conduct monitoring annually or less frequently, the end of the monitoring period is September 30 of the calendar year in which the sampling occurs, or, if the State has established an alternate monitoring period, the last day of that period.

(3) As long as a community water system exceeds the action level, it must repeat the activities pursuant to paragraph (b)(2) of this section as described in paragraphs (b)(3)(i) through (iv) of this section.

(i) A community water system shall repeat the tasks contained in paragraphs (b)(2)(i), (ii) and (vi) of this section every 12 months.

(ii) A community water system shall repeat tasks contained in paragraph (b)(2)(iii) of this section with each billing cycle.

(iii) A community water system serving a population greater than 100,000 shall post and retain material on a publicly accessible Web site pursuant to paragraph (b)(2)(iv) of this section.

(iv) The community water system shall repeat the task in paragraph (b)(2)(v) of this section twice every 12 months on a schedule agreed upon with the State. The State can allow activities in paragraph (b)(2) of this section to extend beyond the 60–day requirement if needed for implementation purposes on a case-by-case basis; however, this extension must be approved in writing by the State in advance of the 60–day deadline.

(4) Within 60 days after the end of the monitoring period in which the exceedance occurred (unless it already is repeating public education tasks pursuant to paragraph (b)(5) of this section), a non-transient non-community water system shall deliver the public education materials specified by paragraph (a) of this section as follows:

(i) Post informational posters on lead in drinking water in a public place or common area in each of the buildings served by the system; and

(ii) Distribute informational pamphlets and/or brochures on lead in drinking water to each person served by the non-transient non-community water system. The State may allow the system to utilize electronic transmission in lieu of or combined with printed materials as long as it achieves at least the same coverage.

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(iii) For systems that are required to conduct monitoring annually or less frequently, the end of the monitoring period is September 30 of the calendar year in which the sampling occurs, or, if the State has established an alternate monitoring period, the last day of that period.

(5) A non-transient non-community water system shall repeat the tasks contained in paragraph (b)(4) of this section at least once during each calendar year in which the system exceeds the lead action level. The State can allow activities in (b)(4) of this section to extend beyond the 60–day requirement if needed for implementation purposes on a case-by-case basis; however, this extension must be approved in writing by the State in advance of the 60–day deadline.

(6) A water system may discontinue delivery of public education materials if the system has met the lead action level during the most recent six-month monitoring period conducted pursuant to § 141.86. Such a system shall recommence public education in accordance with this section if it subsequently exceeds the lead action level during any monitoring period.

(7) A community water system may apply to the State, in writing (unless the State has waived the requirement for prior State approval), to use only the text specified in paragraph (a)(1) of this section in lieu of the text in paragraphs (a)(1) and (a)(2) of this section and to perform the tasks listed in paragraphs (b)(4) and (b)(5) of this section in lieu of the tasks in paragraphs (b)(2) and (b)(3) of this section if:

(i) The system is a facility, such as a prison or a hospital, where the population served is not capable of or is prevented from making improvements to plumbing or installing point of use treatment devices; and

(ii) The system provides water as part of the cost of services provided and does not separately charge for water consumption.

(8) A community water system serving 3,300 or fewer people may limit certain aspects of their public education programs as follows:

(i) With respect to the requirements of paragraph (b)(2)(vi) of this section, a system serving 3,300 or fewer must implement at least one of the activities listed in that paragraph.

(ii) With respect to the requirements of paragraph (b)(2)(ii) of this section, a system serving 3,300 or fewer people may limit the distribution of the public education materials required under that paragraph to facilities and organizations served by the system that are most likely to be visited regularly by pregnant women and children.

(iii) With respect to the requirements of paragraph (b)(2)(v) of this section, the State may waive this requirement for systems serving 3,300 or fewer persons as long as system distributes notices to every household served by the system.

(c) Supplemental monitoring and notification of results. A water system that fails to meet the lead action level on the basis of tap samples collected in accordance with § 141.86 shall offer to sample the tap water of any customer who requests

it. The system is not required to pay for collecting or analyzing the sample, nor is the system required to collect and analyze the sample itself.

(d) Notification of results—

(1) Reporting requirement. All water systems must provide a notice of the individual tap results from lead tap water monitoring carried out under the requirements of § 141.86 to the persons served by the water system at the specific sampling site from which the sample was taken (e.g., the occupants of the residence where the tap was tested).

(2) Timing of notification. A water system must provide the consumer notice as soon as practical, but no later than 30 days after the system learns of the tap monitoring results.

(3) Content. The consumer notice must include the results of lead tap water monitoring for the tap that was tested, an explanation of the health effects of lead, list steps consumers can take to reduce exposure to lead in drinking water and contact information for the water utility. The notice must also provide the maximum contaminant level goal and the action level for lead and the definitions for these two terms from § 141.153(c).

(4) Delivery. The consumer notice must be provided to persons served at the tap that was tested, either by mail or by another method approved by the State. For example, upon approval by the State, a non-transient non-community water system could post the results on a bulletin board in the facility to allow users to review the information. The system must provide the notice to customers at sample taps tested, including consumers who do not receive water bills.

Credits

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End of Document

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40 C.F.R. § 141.86

§ 141.86 Monitoring requirements for lead and copper in tap water.

Effective: December 10, 2007
Currentness

(a) Sample site location.

(1) By the applicable date for commencement of monitoring under paragraph (d)(1) of this section, each water system shall complete a materials evaluation of its distribution system in order to identify a pool of targeted sampling sites that meets the requirements of this section, and which is sufficiently large to ensure that the water system can collect the number of lead and copper tap samples required in paragraph (c) of this section. All sites from which first draw samples are collected shall be selected from this pool of targeted sampling sites. Sampling sites may not include faucets that have point-of-use or point-of-entry treatment devices designed to remove inorganic contaminants.

(2) A water system shall use the information on lead, copper, and galvanized steel that it is required to collect under § 141.42(d) of this part [special monitoring for corrosivity characteristics] when conducting a materials evaluation. When an evaluation of the information collected pursuant to § 141.42(d) is insufficient to locate the requisite number of lead and copper sampling sites that meet the targeting criteria in paragraph (a) of this section, the water system shall review the sources of information listed below in order to identify a sufficient number of sampling sites. In addition, the system shall seek to collect such information where possible in the course of its normal operations (e.g., checking service line materials when reading water meters or performing maintenance activities):

(i) All plumbing codes, permits, and records in the files of the building department(s) which indicate the plumbing materials that are installed within publicly and privately owned structures connected to the distribution system;

(ii) All inspections and records of the distribution system that indicate the material composition of the service connections that connect a structure to the distribution system; and

(iii) All existing water quality information, which includes the results of all prior analyses of the system or individual structures connected to the system, indicating locations that may be particularly susceptible to high lead or copper concentrations.

(3) The sampling sites selected for a community water system's sampling pool ("tier l sampling sites") shall consist of single family structures that:

(i) Contain copper pipes with lead solder installed after 1982 or contain lead pipes; and/or

(ii) Are served by a lead service line. When multiple-family residences comprise at least 20 percent of the structures served by a water system, the system may include these types of structures in its sampling pool.

(4) Any community water system with insufficient tier 1 sampling sites shall complete its sampling pool with "tier 2 sampling sites", consisting of buildings, including multiple-family residences that:

(i) Contain copper pipes with lead solder installed after 1982 or contain lead pipes; and/or

(ii) Are served by a lead service line.

(5) Any community water system with insufficient tier 1 and tier 2 sampling sites shall complete its sampling pool with "tier 3 sampling sites", consisting of single family structures that contain copper pipes with lead solder installed before 1983. A community water system with insufficient tier 1, tier 2, and tier 3 sampling sites shall complete its sampling pool with representative sites throughout the distribution system. For the purpose of this paragraph, a representative site is a site in which the plumbing materials used at that site would be commonly found at other sites served by the water system.

(6) The sampling sites selected for a non-transient noncommunity water system ("tier l sampling sites") shall consist of buildings that:

(i) Contain copper pipes with lead solder installed after 1982 or contain lead pipes; and/or

(ii) Are served by a lead service line.

(7) A non-transient non-community water system with insufficient tier 1 sites that meet the targeting criteria in paragraph (a)(6) of this section shall complete its sampling pool with sampling sites that contain copper pipes with lead solder installed before 1983. If additional sites are needed to complete the sampling pool, the non-transient non-community water system shall use representative sites throughout the distribution system. For the purpose of this paragraph, a representative site is a site in which the plumbing materials used at that site would be commonly found at other sites served by the water system.

(8) Any water system whose distribution system contains lead service lines shall draw 50 percent of the samples it collects during each monitoring period from sites that contain lead pipes, or copper pipes with lead solder, and 50 percent of the samples from sites served by a lead service line. A water system that cannot identify a sufficient number of sampling sites served by a lead service line shall collect first-draw samples from all of the sites identified as being served by such lines.

(b) Sample collection methods.

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(1) All tap samples for lead and copper collected in accordance with this subpart, with the exception of lead service line samples collected under § 141.84(c) and samples collected under paragraph (b)(5) of this section, shall be first-draw samples.

(2) Each first-draw tap sample for lead and copper shall be one liter in volume and have stood motionless in the plumbing system of each sampling site for at least six hours. First-draw samples from residential housing shall be collected from the cold water kitchen tap or bathroom sink tap. First-draw samples from a nonresidential building shall be one liter in volume and shall be collected at an interior tap from which water is typically drawn for consumption. Non-first-draw samples collected in lieu of first-draw samples pursuant to paragraph (b)(5) of this section shall be one liter in volume and shall be collected at an interior tap from which water is typically drawn for consumption. First-draw samples may be collected by the system or the system may allow residents to collect first-draw samples after instructing the residents of the sampling procedures specified in this paragraph. To avoid problems of residents handling nitric acid, acidification of first-draw samples may be done up to 14 days after the sample is collected. After acidification to resolubilize the metals, the sample must stand in the original container for the time specified in the approved EPA method before the sample can be analyzed. If a system allows residents to perform sampling, the system may not challenge, based on alleged errors in sample collection, the accuracy of sampling results.

(3) Each service line sample shall be one liter in volume and have stood motionless in the lead service line for at least six hours. Lead service line samples shall be collected in one of the following three ways:

(i) At the tap after flushing the volume of water between the tap and the lead service line. The volume of water shall be calculated based on the interior diameter and length of the pipe between the tap and the lead service line;

(ii) Tapping directly into the lead service line; or

(iii) If the sampling site is a building constructed as a single-family residence, allowing the water to run until there is a significant change in temperature which would be indicative of water that has been standing in the lead service line.

(4) A water system shall collect each first draw tap sample from the same sampling site from which it collected a previous sample. If, for any reason, the water system cannot gain entry to a sampling site in order to collect a follow-up tap sample, the system may collect the follow-up tap sample from another sampling site in its sampling pool as long as the new site meets the same targeting criteria, and is within reasonable proximity of the original site.

(5) A non-transient non-community water system, or a community water system that meets the criteria of § 141.85(b)(7), that does not have enough taps that can supply first-draw samples, as defined in § 141.2, may apply to the State in writing to substitute non-first-draw samples. Such systems must collect as many first-draw samples from appropriate taps as possible and identify sampling times and locations that would likely result in the longest standing time for the remaining sites. The State has the discretion to waive the requirement for prior State approval of non-first-draw sample sites selected by the system, either through State regulation or written notification to the system.

(c) Number of samples. Water systems shall collect at least one sample during each monitoring period specified in paragraph (d) of this section from the number of sites listed in the first column ("standard monitoring") of the table in

this paragraph. A system conducting reduced monitoring under paragraph (d)(4) of this section shall collect at least one sample from the number of sites specified in the second column ("reduced monitoring") of the table in this paragraph during each monitoring period specified in paragraph (d)(4) of this section. Such reduced monitoring sites shall be representative of the sites required for standard monitoring. A public water system that has fewer than five drinking water taps, that can be used for human consumption meeting the sample site criteria of paragraph (a) of this section to reach the required number of sample sites listed in paragraph (c) of this section, must collect at least one sample from each tap and then must collect additional samples from those taps on different days during the monitoring period to meet the required number of sites. Alternatively the State may allow these public water systems to collect a number of samples less than the number of sites specified in paragraph (c) of this section, provided that 100 percent of all taps that can be used for human consumption are sampled. The State must approve this reduction of the minimum number of samples in writing based on a request from the system or onsite verification by the State. States may specify sampling locations when a system is conducting reduced monitoring. The table is as follows:

System size (number of people served)	Number of sites (standard monitoring)	Number of sites (reduced monitoring)
>100,000	100	50
10,001 to 100,000	60	30
3,301 to 10,000	40	20
501 to 3,300	20	10
101 to 500	10	5
≤100	5	5

(d) Timing of monitoring—

(1) Initial tap sampling.

The first six-month monitoring period for small, medium-size and large systems shall begin on the following dates:

System size (No. people served)	First six-month monitoring period begins on
>50,000	January 1, 1992.
3,301 to 50,000	July 1, 1992.
≤3,300	July 1, 1993.

(i) All large systems shall monitor during two consecutive six-month periods.

(ii) All small and medium-size systems shall monitor during each six-month monitoring period until:

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(A) The system exceeds the lead or copper action level and is therefore required to implement the corrosion control treatment requirements under § 141.81, in which case the system shall continue monitoring in accordance with paragraph (d)(2) of this section, or

(B) The system meets the lead and copper action levels during two consecutive six-month monitoring periods, in which case the system may reduce monitoring in accordance with paragraph (d)(4) of this section.

(2) Monitoring after installation of corrosion control and source water treatment.

(i) Any large system which installs optimal corrosion control treatment pursuant to § 141.81(d)(4) shall monitor during two consecutive six-month monitoring periods by the date specified in § 141.81(d)(5).

(ii) Any small or medium-size system which installs optimal corrosion control treatment pursuant to § 141.81(e)(5) shall monitor during two consecutive six-month monitoring periods by the date specified in § 141.81(e)(6).

(iii) Any system which installs source water treatment pursuant to § 141.83(a)(3) shall monitor during two consecutive six-month monitoring periods by the date specified in § 141.83(a)(4).

(3) Monitoring after State specifies water quality parameter values for optimal corrosion control. After the State specifies the values for water quality control parameters under § 141.82(f), the system shall monitor during each subsequent six-month monitoring period, with the first monitoring period to begin on the date the State specifies the optimal values under § 141.82(f).

(4) Reduced monitoring.

(i) A small or medium-size water system that meets the lead and copper action levels during each of two consecutive six-month monitoring periods may reduce the number of samples in accordance with paragraph (c) of this section, and reduce the frequency of sampling to once per year. A small or medium water system collecting fewer than five samples as specified in paragraph (c) of this section, that meets the lead and copper action levels during each of two consecutive six-month monitoring periods may reduce the frequency of sampling to once per year. In no case can the system reduce the number of samples required below the minimum of one sample per available tap. This sampling shall begin during the calendar year immediately following the end of the second consecutive six-month monitoring period.

(ii) Any water system that meets the lead action level and maintains the range of values for the water quality control parameters reflecting optimal corrosion control treatment specified by the State under § 141.82(f) during each of two consecutive six-month monitoring periods may reduce the frequency of monitoring to once per year and reduce the number of lead and copper samples in accordance with paragraph (c) of this section if it receives written approval from the State. This sampling shall begin during the calendar year immediately following the end of the second consecutive six-month monitoring period. The State shall review monitoring, treatment, and other relevant information submitted by the water system in accordance with § 141.90, and shall notify the system in writing when it determines the system is eligible to commence reduced monitoring pursuant to this paragraph. The State shall

review, and where appropriate, revise its determination when the system submits new monitoring or treatment data, or when other data relevant to the number and frequency of tap sampling becomes available.

(iii) A small or medium-size water system that meets the lead and copper action levels during three consecutive years of monitoring may reduce the frequency of monitoring for lead and copper from annually to once every three years. Any water system that meets the lead action level and maintains the range of values for the water quality control parameters reflecting optimal corrosion control treatment specified by the State under § 141.82(f) during three consecutive years of monitoring may reduce the frequency of monitoring from annually to once every three years if it receives written approval from the State. Samples collected once every three years shall be collected no later than every third calendar year. The State shall review monitoring, treatment, and other relevant information submitted by the water system in accordance with § 141.90, and shall notify the system in writing when it determines the system is eligible to reduce the frequency of monitoring to once every three years. The State shall review, and where appropriate, revise its determination when the system submits new monitoring or treatment data, or when other data relevant to the number and frequency of tap sampling becomes available.

(iv) A water system that reduces the number and frequency of sampling shall collect these samples from representative sites included in the pool of targeted sampling sites identified in paragraph (a) of this section. Systems sampling annually or less frequently shall conduct the lead and copper tap sampling during the months of June, July, August, or September unless the State has approved a different sampling period in accordance with paragraph (d)(4)(iv)(A) of this section.

(A) The State, at its discretion, may approve a different period for conducting the lead and copper tap sampling for systems collecting a reduced number of samples. Such a period shall be no longer than four consecutive months and must represent a time of normal operation where the highest levels of lead are most likely to occur. For a non-transient non-community water system that does not operate during the months of June through September, and for which the period of normal operation where the highest levels of lead are most likely to occur is not known, the State shall designate a period that represents a time of normal operation for the system. This sampling shall begin during the period approved or designated by the State in the calendar year immediately following the end of the second consecutive six-month monitoring period for systems initiating annual monitoring and during the three-year period following the end of the third consecutive calendar year of annual monitoring for systems initiating triennial monitoring.

(B) Systems monitoring annually, that have been collecting samples during the months of June through September and that receive State approval to alter their sample collection period under paragraph (d)(4)(iv)(A) of this section, must collect their next round of samples during a time period that ends no later than 21 months after the previous round of sampling. Systems monitoring triennially that have been collecting samples during the months of June through September, and receive State approval to alter the sampling collection period as per paragraph (d)(4)(iv)(A) of this section, must collect their next round of samples during a time period that ends no later than 45 months after the previous round of sampling. Subsequent rounds of sampling must be collected annually or triennially, as required by this section. Small systems with waivers, granted pursuant to paragraph (g) of this section, that have been collecting samples during the months of June through September and receive State approval to alter their sample collection period under paragraph (d)(4)(iv)(A) of this section must collect their next round of samples before the end of the 9–year period.

(v) Any water system that demonstrates for two consecutive 6–month monitoring periods that the tap water lead level computed under § 141.80(c)(3) is less than or equal to 0.005 mg/L and the tap water copper level computed under

§ 141.80(c)(3) is less than or equal to 0.65 mg/L may reduce the number of samples in accordance with paragraph (c) of this section and reduce the frequency of sampling to once every three calendar years.

(vi)(A) A small or medium-size water system subject to reduced monitoring that exceeds the lead or copper action level shall resume sampling in accordance with paragraph (d)(3) of this section and collect the number of samples specified for standard monitoring under paragraph (c) of this section. Such a system shall also conduct water quality parameter monitoring in accordance with § 141.87(b), (c) or (d) (as appropriate) during the monitoring period in which it exceeded the action level. Any such system may resume annual monitoring for lead and copper at the tap at the reduced number of sites specified in paragraph (c) of this section after it has completed two subsequent consecutive six-month rounds of monitoring that meet the criteria of paragraph (d)(4)(i) of this section and/or may resume triennial monitoring for lead and copper at the reduced number of sites after it demonstrates through subsequent rounds of monitoring that it meets the criteria of either paragraph (d)(4)(iii) or (d)(4)(v) of this section.

(B) Any water system subject to the reduced monitoring frequency that fails to meet the lead action level during any four-month monitoring period or that fails to operate at or above the minimum value or within the range of values for the water quality parameters specified by the State under § 141.82(f) for more than nine days in any six-month period specified in § 141.87(d) shall conduct tap water sampling for lead and copper at the frequency specified in paragraph (d)(3) of this section, collect the number of samples specified for standard monitoring under paragraph (c) of this section, and shall resume monitoring for water quality parameters within the distribution system in accordance with § 141.87(d). This standard tap water sampling shall begin no later than the six-month period beginning January 1 of the calendar year following the lead action level exceedance or water quality parameter excursion. Such a system may resume reduced monitoring for lead and copper at the tap and for water quality parameters within the distribution system under the following conditions:

(1) The system may resume annual monitoring for lead and copper at the tap at the reduced number of sites specified in paragraph (c) of this section after it has completed two subsequent six-month rounds of monitoring that meet the criteria of paragraph (d)(4)(ii) of this section and the system has received written approval from the State that it is appropriate to resume reduced monitoring on an annual frequency. This sampling shall begin during the calendar year immediately following the end of the second consecutive six-month monitoring period.

(2) The system may resume triennial monitoring for lead and copper at the tap at the reduced number of sites after it demonstrates through subsequent rounds of monitoring that it meets the criteria of either paragraph (d)(4)(iii) or (d)(4)(v) of this section and the system has received written approval from the State that it is appropriate to resume triennial monitoring.

(3) The system may reduce the number of water quality parameter tap water samples required in accordance with § 141.87(e)(1) and the frequency with which it collects such samples in accordance with § 141.87(e)(2). Such a system may not resume triennial monitoring for water quality parameters at the tap until it demonstrates, in accordance with the requirements of § 141.87(e)(2), that it has re-qualified for triennial monitoring.

(vii) Any water system subject to a reduced monitoring frequency under paragraph (d)(4) of this section shall notify the State in writing in accordance with § 141.90(a)(3) of any upcoming long-term change in treatment or addition of

a new source as described in that section. The State must review and approve the addition of a new source or long-term change in water treatment before it is implemented by the water system. The State may require the system to resume sampling in accordance with paragraph (d)(3) of this section and collect the number of samples specified for standard monitoring under paragraph (c) of this section or take other appropriate steps such as increased water quality parameter monitoring or re-evaluation of its corrosion control treatment given the potentially different water quality considerations.

(e) Additional monitoring by systems. The results of any monitoring conducted in addition to the minimum requirements of this section shall be considered by the system and the State in making any determinations (i.e., calculating the 90th percentile lead or copper level) under this subpart.

(f) Invalidation of lead or copper tap water samples. A sample invalidated under this paragraph does not count toward determining lead or copper 90th percentile levels under § 141.80(c)(3) or toward meeting the minimum monitoring requirements of paragraph (c) of this section.

(1) The State may invalidate a lead or copper tap water sample at least if one of the following conditions is met.

(i) The laboratory establishes that improper sample analysis caused erroneous results.

(ii) The State determines that the sample was taken from a site that did not meet the site selection criteria of this section.

(iii) The sample container was damaged in transit.

(iv) There is substantial reason to believe that the sample was subject to tampering.

(2) The system must report the results of all samples to the State and all supporting documentation for samples the system believes should be invalidated.

(3) To invalidate a sample under paragraph (f)(1) of this section, the decision and the rationale for the decision must be documented in writing. States may not invalidate a sample solely on the grounds that a follow-up sample result is higher or lower than that of the original sample.

(4) The water system must collect replacement samples for any samples invalidated under this section if, after the invalidation of one or more samples, the system has too few samples to meet the minimum requirements of paragraph (c) of this section. Any such replacement samples must be taken as soon as possible, but no later than 20 days after the date the State invalidates the sample or by the end of the applicable monitoring period, whichever occurs later. Replacement samples taken after the end of the applicable monitoring period shall not also be used to meet the monitoring requirements of a subsequent monitoring period. The replacement samples shall be taken at the same locations as the invalidated samples or, if that is not possible, at locations other than those already used for sampling during the monitoring period.

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(g) Monitoring waivers for small systems. Any small system that meets the criteria of this paragraph may apply to the State to reduce the frequency of monitoring for lead and copper under this section to once every nine years (i.e., a "full waiver") if it meets all of the materials criteria specified in paragraph (g)(1) of this section and all of the monitoring criteria specified in paragraph (g)(2) of this section. If State regulations permit, any small system that meets the criteria in paragraphs (g)(1) and (2) of this section only for lead, or only for copper, may apply to the State for a waiver to reduce the frequency of tap water monitoring to once every nine years for that contaminant only (i.e., a "partial waiver").

(1) Materials criteria. The system must demonstrate that its distribution system and service lines and all drinking water supply plumbing, including plumbing conveying drinking water within all residences and buildings connected to the system, are free of lead-containing materials and/or copper-containing materials, as those terms are defined in this paragraph, as follows:

(i) Lead. To qualify for a full waiver, or a waiver of the tap water monitoring requirements for lead (i.e., a "lead waiver"), the water system must provide certification and supporting documentation to the State that the system is free of all lead-containing materials, as follows:

(A) It contains no plastic pipes which contain lead plasticizers, or plastic service lines which contain lead plasticizers; and

(B) It is free of lead service lines, lead pipes, lead soldered pipe joints, and leaded brass or bronze alloy fittings and fixtures, unless such fittings and fixtures meet the specifications of any standard established pursuant to 42 U.S.C. 300g–6(e) (SDWA section 1417(e)).

(ii) Copper. To qualify for a full waiver, or a waiver of the tap water monitoring requirements for copper (i.e., a "copper waiver"), the water system must provide certification and supporting documentation to the State that the system contains no copper pipes or copper service lines.

(2) Monitoring criteria for waiver issuance. The system must have completed at least one 6–month round of standard tap water monitoring for lead and copper at sites approved by the State and from the number of sites required by paragraph (c) of this section and demonstrate that the 90th percentile levels for any and all rounds of monitoring conducted since the system became free of all lead-containing and/or copper-containing materials, as appropriate, meet the following criteria.

(i) Lead levels. To qualify for a full waiver, or a lead waiver, the system must demonstrate that the 90th percentile lead level does not exceed 0.005 mg/L.

(ii) Copper levels. To qualify for a full waiver, or a copper waiver, the system must demonstrate that the 90th percentile copper level does not exceed 0.65 mg/L.

(3) State approval of waiver application. The State shall notify the system of its waiver determination, in writing, setting forth the basis of its decision and any condition of the waiver. As a condition of the waiver, the State may require the system to perform specific activities (e.g., limited monitoring, periodic outreach to customers to remind

them to avoid installation of materials that might void the waiver) to avoid the risk of lead or copper concentration of concern in tap water. The small system must continue monitoring for lead and copper at the tap as required by paragraphs (d)(1) through (d)(4) of this section, as appropriate, until it receives written notification from the State that the waiver has been approved.

(4) Monitoring frequency for systems with waivers.

(i) A system with a full waiver must conduct tap water monitoring for lead and copper in accordance with paragraph (d)(4)(iv) of this section at the reduced number of sampling sites identified in paragraph (c) of this section at least once every nine years and provide the materials certification specified in paragraph (g)(1) of this section for both lead and copper to the State along with the monitoring results. Samples collected every nine years shall be collected no later than every ninth calendar year.

(ii) A system with a partial waiver must conduct tap water monitoring for the waived contaminant in accordance with paragraph (d)(4)(iv) of this section at the reduced number of sampling sites specified in paragraph (c) of this section at least once every nine years and provide the materials certification specified in paragraph (g)(1) of this section pertaining to the waived contaminant along with the monitoring results. Such a system also must continue to monitor for the non-waived contaminant in accordance with requirements of paragraph (d)(1) through (d)(4) of this section, as appropriate.

(iii) Any water system with a full or partial waiver shall notify the State in writing in accordance with § 141.90(a)(3) of any upcoming long-term change in treatment or addition of a new source, as described in that section. The State must review and approve the addition of a new source or long-term change in water treatment before it is implemented by the water system. The State has the authority to require the system to add or modify waiver conditions (e.g., require recertification that the system is free of lead-containing and/or copper-containing materials, require additional round(s) of monitoring), if it deems such modifications are necessary to address treatment or source water changes at the system.

(iv) If a system with a full or partial waiver becomes aware that it is no longer free of lead-containing or copper-containing materials, as appropriate, (e.g., as a result of new construction or repairs), the system shall notify the State in writing no later than 60 days after becoming aware of such a change.

(5) Continued eligibility. If the system continues to satisfy the requirements of paragraph (g)(4) of this section, the waiver will be renewed automatically, unless any of the conditions listed in paragraph (g)(5)(i) through (g)(5)(iii) of this section occurs. A system whose waiver has been revoked may re-apply for a waiver at such time as it again meets the appropriate materials and monitoring criteria of paragraphs (g)(1) and (g)(2) of this section.

(i) A system with a full waiver or a lead waiver no longer satisfies the materials criteria of paragraph (g)(1)(i) of this section or has a 90th percentile lead level greater than 0.005 mg/L.

(ii) A system with a full waiver or a copper waiver no longer satisfies the materials criteria of paragraph (g)(1)(ii) of this section or has a 90th percentile copper level greater than 0.65 mg/L.

(iii) The State notifies the system, in writing, that the waiver has been revoked, setting forth the basis of its decision.

(6) Requirements following waiver revocation. A system whose full or partial waiver has been revoked by the State is subject to the corrosion control treatment and lead and copper tap water monitoring requirements, as follows:

(i) If the system exceeds the lead and/or copper action level, the system must implement corrosion control treatment in accordance with the deadlines specified in § 141.81(e), and any other applicable requirements of this subpart.

(ii) If the system meets both the lead and the copper action level, the system must monitor for lead and copper at the tap no less frequently than once every three years using the reduced number of sample sites specified in paragraph (c) of this section.

(7) Pre–existing waivers. Small system waivers approved by the State in writing prior to April 11, 2000 shall remain in effect under the following conditions:

(i) If the system has demonstrated that it is both free of lead-containing and copper-containing materials, as required by paragraph (g)(1) of this section and that its 90th percentile lead levels and 90th percentile copper levels meet the criteria of paragraph (g)(2) of this section, the waiver remains in effect so long as the system continues to meet the waiver eligibility criteria of paragraph (g)(5) of this section. The first round of tap water monitoring conducted pursuant to paragraph (g)(4) of this section shall be completed no later than nine years after the last time the system has monitored for lead and copper at the tap.

(ii) If the system has met the materials criteria of paragraph (g)(1) of this section but has not met the monitoring criteria of paragraph (g)(2) of this section, the system shall conduct a round of monitoring for lead and copper at the tap demonstrating that it meets the criteria of paragraph (g)(2) of this section no later than September 30, 2000. Thereafter, the waiver shall remain in effect as long as the system meets the continued eligibility criteria of paragraph (g)(5) of this section. The first round of tap water monitoring conducted pursuant to paragraph (g)(4) of this section shall be completed no later than nine years after the round of monitoring conducted pursuant to paragraph (g)(2) of this section.

Credits

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40 C.F.R. § 141.87

§ 141.87 Monitoring requirements for water quality parameters.

Effective: December 10, 2007
Currentness

All large water systems, and all small- and medium-size systems that exceed the lead or copper action level shall monitor water quality parameters in addition to lead and copper in accordance with this section. The requirements of this section are summarized in the table at the end of this section.

(a) General requirements—

(1) Sample collection methods.

(i) Tap samples shall be representative of water quality throughout the distribution system taking into account the number of persons served, the different sources of water, the different treatment methods employed by the system, and seasonal variability. Tap sampling under this section is not required to be conducted at taps targeted for lead and copper sampling under § 141.86(a). [Note: Systems may find it convenient to conduct tap sampling for water quality parameters at sites used for coliform sampling under 40 CFR 141.21.]

(ii) Samples collected at the entry point(s) to the distribution system shall be from locations representative of each source after treatment. If a system draws water from more than one source and the sources are combined before distribution, the system must sample at an entry point to the distribution system during periods of normal operating conditions (i.e., when water is representative of all sources being used).

(2) Number of samples.

(i) Systems shall collect two tap samples for applicable water quality parameters during each monitoring period specified under paragraphs (b) through (e) of this section from the following number of sites.

System size (No. people served)	No. of sites for water quality parameters
>100,000	25
10,001-100,000	10

3,301 to 10,000	3
501 to 3,300	2
101 to 500	1
≤100	1

(ii) Except as provided in paragraph (c)(3) of this section, systems shall collect two samples for each applicable water quality parameter at each entry point to the distribution system during each monitoring period specified in paragraph (b) of this section. During each monitoring period specified in paragraphs (c)–(e) of this section, systems shall collect one sample for each applicable water quality parameter at each entry point to the distribution system.

(b) Initial sampling. All large water systems shall measure the applicable water quality parameters as specified below at taps and at each entry point to the distribution system during each six-month monitoring period specified in § 141.86(d)(1). All small and medium-size systems shall measure the applicable water quality parameters at the locations specified below during each six-month monitoring period specified in § 141.86(d)(1) during which the system exceeds the lead or copper action level.

(1) At taps:

(i) pH;

(ii) Alkalinity;

(iii) Orthophosphate, when an inhibitor containing a phosphate compound is used;

(iv) Silica, when an inhibitor containing a silicate compound is used;

(v) Calcium;

(vi) Conductivity; and

(vii) Water temperature.

(2) At each entry point to the distribution system: all of the applicable parameters listed in paragraph (b)(1) of this section.

(c) Monitoring after installation of corrosion control. Any large system which installs optimal corrosion control treatment pursuant to § 141.81(d)(4) shall measure the water quality parameters at the locations and frequencies specified below during each six-month monitoring period specified in § 141.86(d)(2)(i). Any small or medium-size system which

installs optimal corrosion control treatment shall conduct such monitoring during each six-month monitoring period specified in § 141.86(d)(2)(ii) in which the system exceeds the lead or copper action level.

(1) At taps, two samples for:

(i) pH;

(ii) Alkalinity;

(iii) Orthophosphate, when an inhibitor containing a phosphate compound is used;

(iv) Silica, when an inhibitor containing a silicate compound is used;

(v) Calcium, when calcium carbonate stabilization is used as part of corrosion control.

(2) Except as provided in paragraph (c)(3) of this section, at each entry point to the distribution system, at least one sample no less frequently than every two weeks (biweekly) for:

(i) pH;

(ii) When alkalinity is adjusted as part of optimal corrosion control, a reading of the dosage rate of the chemical used to adjust alkalinity, and the alkalinity concentration; and

(iii) When a corrosion inhibitor is used as part of optimal corrosion control, a reading of the dosage rate of the inhibitor used, and the concentration of orthophosphate or silica (whichever is applicable).

(3) Any ground water system can limit entry point sampling described in paragraph (c)(2) of this section to those entry points that are representative of water quality and treatment conditions throughout the system. If water from untreated ground water sources mixes with water from treated ground water sources, the system must monitor for water quality parameters both at representative entry points receiving treatment and representative entry points receiving no treatment. Prior to the start of any monitoring under this paragraph, the system shall provide to the State written information identifying the selected entry points and documentation, including information on seasonal variability, sufficient to demonstrate that the sites are representative of water quality and treatment conditions throughout the system.

(d) Monitoring after State specifies water quality parameter values for optimal corrosion control. After the State specifies the values for applicable water quality control parameters reflecting optimal corrosion control treatment under § 141.82(f), all large systems shall measure the applicable water quality parameters in accordance with paragraph (c) of this section and determine compliance with the requirements of § 141.82(g) every six months with the first six-month period to begin on either January 1 or July 1, whichever comes first, after the State specifies the optimal values under § 141.82(f). Any small or medium-size system shall conduct such monitoring during each six-month period specified in this

paragraph in which the system exceeds the lead or copper action level. For any such small and medium-size system that is subject to a reduced monitoring frequency pursuant to § 141.86(d)(4) at the time of the action level exceedance, the start of the applicable six-month monitoring period under this paragraph shall coincide with the start of the applicable monitoring period under § 141.86(d)(4). Compliance with State-designated optimal water quality parameter values shall be determined as specified under § 141.82(g).

(e) Reduced monitoring.

(1) Any water system that maintains the range of values for the water quality parameters reflecting optimal corrosion control treatment during each of two consecutive six-month monitoring periods under paragraph (d) of this section shall continue monitoring at the entry point(s) to the distribution system as specified in paragraph (c)(2) of this section. Such system may collect two tap samples for applicable water quality parameters from the following reduced number of sites during each six-month monitoring period.

System size (No. of people served)	Reduced No. of sites for water quality parameters
>100,000	10
10,001 to 100,000	7
3,301 to 10,000	3
501 to 3,300	2
101 to 500	1
≤100	1

(2)(i) Any water system that maintains the range of values for the water quality parameters reflecting optimal corrosion control treatment specified by the State under § 141.82(f) during three consecutive years of monitoring may reduce the frequency with which it collects the number of tap samples for applicable water quality parameters specified in this paragraph (e)(1) of this section from every six months to annually. This sampling begins during the calendar year immediately following the end of the monitoring period in which the third consecutive year of six-month monitoring occurs. Any water system that maintains the range of values for the water quality parameters reflecting optimal corrosion control treatment specified by the State under § 141.82(f), during three consecutive years of annual monitoring under this paragraph may reduce the frequency with which it collects the number of tap samples for applicable water quality parameters specified in paragraph (e)(1) of this section from annually to every three years. This sampling begins no later than the third calendar year following the end of the monitoring period in which the third consecutive year of monitoring occurs.

(ii) A water system may reduce the frequency with which it collects tap samples for applicable water quality parameters specified in paragraph (e)(1) of this section to every three years if it demonstrates during two consecutive monitoring periods that its tap water lead level at the 90th percentile is less than or equal to the PQL for lead specified in § 141.89 (a)(1)(ii), that its tap water copper level at the 90th percentile is less than or equal to 0.65 mg/L for copper in § 141.80(c)(2), and that it also has maintained the range of values for the water quality parameters reflecting optimal corrosion control treatment specified by the State under § 141.82(f). Monitoring conducted every three years shall be done no later than every third calendar year.

(3) A water system that conducts sampling annually shall collect these samples evenly throughout the year so as to reflect seasonal variability.

(4) Any water system subject to the reduced monitoring frequency that fails to operate at or above the minimum value or within the range of values for the water quality parameters specified by the State in § 141.82(f) for more than nine days in any six-month period specified in § 141.82(g) shall resume distribution system tap water sampling in accordance with the number and frequency requirements in paragraph (d) of this section. Such a system may resume annual monitoring for water quality parameters at the tap at the reduced number of sites specified in paragraph (e)(1) of this section after it has completed two subsequent consecutive six-month rounds of monitoring that meet the criteria of that paragraph and/or may resume triennial monitoring for water quality parameters at the tap at the reduced number of sites after it demonstrates through subsequent rounds of monitoring that it meets the criteria of either paragraph (e)(2)(i) or (e)(2)(ii) of this section.

(f) Additional monitoring by systems. The results of any monitoring conducted in addition to the minimum requirements of this section shall be considered by the system and the State in making any determinations (i.e., determining concentrations of water quality parameters) under this section or § 141.82.

Summary of Monitoring Requirements for Water Quality Parameters [1]

Monitoring period	Parameters [2]	Location	Frequency
Initial monitoring.....	pH, alkalinity, orthophosphate or silica [3], calcium, conductivity, temperature	Taps and at entry point(s) to distribution system.....	Every 6 months.
After installation of corrosion control.....	pH, alkalinity, orthophosphate or silica [3], calcium [4]	Taps.....	Every 6 months.
	pH, alkalinity, dosage rate and concentration (if alkalinity adjusted as part of corrosion control), inhibitor dosage rate and inhibitor residual [5]	Entry point(s) to distribution system [6]	No less frequently than every two weeks.

After State specifies parameter values for optimal corrosion control.....	pH, alkalinity, orthophosphate or silica [3], calcium [4]	Taps.....	Every 6 months.
	pH, alkalinity dosage rate and concentration (if alkalinity adjusted as part of corrosion control), inhibitor dosage rate and inhibitor residual [5]	Entry point(s) to distribution system [6]	No less frequently than every two weeks.
Reduced monitoring.....	pH, alkalinity, orthophosphate or silica [3], calcium [4]	Taps.....	Every 6 months, annually [7] or every 3 years [8]; reduced number of sites.
	pH, alkalinity dosage rate and concentration (if alkalinity adjusted as part of corrosion control), inhibitor dosage rate and inhibitor residual [5]	Entry point(s) to distribution system [6]	No less frequently than every two weeks.

Credits

[56 FR 32113, July 15, 1991; 57 FR 28788, June 29, 1992; 59 FR 33862, June 30, 1994; 65 FR 2010, Jan. 12, 2000; 72 FR 57818, Oct. 10, 2007]

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Footnotes

1 Table is for illustrative purposes; consult the text of this section for precise regulatory requirements.

2 Small and medium-size systems have to monitor for water quality parameters only during monitoring periods in which the system exceeds the lead or copper action level.

3 Orthophosphate must be measured only when an inhibitor containing a phosphate compound is used. Silica must be measured only when an inhibitor containing silicate compound is used.

4 Calcium must be measured only when calcium carbonate stabilization is used as part of corrosion control.

5 Inhibitor dosage rates and inhibitor residual concentrations (orthophosphate or silica) must be measured only when an inhibitor is used.

6 Ground water systems may limit monitoring to representative locations throughout the system.

7 Water systems may reduce frequency of monitoring for water quality parameters at the tap from every six months to annually if they have maintained the range of values for water quality parameters reflecting optimal corrosion control during 3 consecutive years of monitoring.

8 Water systems may further reduce the frequency of monitoring for water quality parameters at the tap from annually to once every 3 years if they have maintained the range of values for water quality parameters reflecting optimal corrosion control during 3 consecutive years of annual monitoring. Water systems may accelerate to triennial monitoring for water quality parameters at the tap if they have maintained 90th percentile lead levels less than or equal to 0.005 mg/L, 90th percentile copper levels less than or equal to 0.65 mg/L, and the range of water quality parameters designated by the State under § 141.82(f) as representing optimal corrosion control during two consecutive six-month monitoring periods.

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40 C.F.R. § 141.88

§ 141.88 Monitoring requirements for lead and copper in source water.

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(a) Sample location, collection methods, and number of samples.

(1) A water system that fails to meet the lead or copper action level on the basis of tap samples collected in accordance with § 141.86 shall collect lead and copper source water samples in accordance with the following requirements regarding sample location, number of samples, and collection methods:

(i) Groundwater systems shall take a minimum of one sample at every entry point to the distribution system which is representative of each well after treatment (hereafter called a sampling point). The system shall take one sample at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.

(ii) Surface water systems shall take a minimum of one sample at every entry point to the distribution system after any application of treatment or in the distribution system at a point which is representative of each source after treatment (hereafter called a sampling point). The system shall take each sample at the same sampling point unless conditions make another sampling point more representative of each source or treatment plant.

Note to paragraph (a)(1)(ii): For the purposes of this paragraph, surface water systems include systems with a combination of surface and ground sources.

(iii) If a system draws water from more than one source and the sources are combined before distribution, the system must sample at an entry point to the distribution system during periods of normal operating conditions (i.e., when water is representative of all sources being used).

(iv) The State may reduce the total number of samples which must be analyzed by allowing the use of compositing. Compositing of samples must be done by certified laboratory personnel. Composite samples from a maximum of five samples are allowed, provided that if the lead concentration in the composite sample is greater than or equal to 0.001 mg/L or the copper concentration is greater than or equal to 0.160 mg/L, then either:

(A) A follow-up sample shall be taken and analyzed within 14 days at each sampling point included in the composite; or

(B) If duplicates of or sufficient quantities from the original samples from each sampling point used in the composite are available, the system may use these instead of resampling.

(2) Where the results of sampling indicate an exceedance of maximum permissible source water levels established under § 141.83(b)(4), the State may require that one additional sample be collected as soon as possible after the initial sample was taken (but not to exceed two weeks) at the same sampling point. If a State-required confirmation sample is taken for lead or copper, then the results of the initial and confirmation sample shall be averaged in determining compliance with the State-specified maximum permissible levels. Any sample value below the detection limit shall be considered to be zero. Any value above the detection limit but below the PQL shall either be considered as the measured value or be considered one-half the PQL.

(b) Monitoring frequency after system exceeds tap water action level. Any system which exceeds the lead or copper action level at the tap shall collect one source water sample from each entry point to the distribution system no later than six months after the end of the monitoring period during which the lead or copper action level was exceeded. For monitoring periods that are annual or less frequent, the end of the monitoring period is September 30 of the calendar year in which the sampling occurs, or if the State has established an alternate monitoring period, the last day of that period.

(c) Monitoring frequency after installation of source water treatment. Any system which installs source water treatment pursuant to § 141.83(a)(3) shall collect an additional source water sample from each entry point to the distribution system during two consecutive six-month monitoring periods by the deadline specified in § 141.83(a)(4).

(d) Monitoring frequency after State specifies maximum permissible source water levels or determines that source water treatment is not needed.

(1) A system shall monitor at the frequency specified below in cases where the State specifies maximum permissible source water levels under § 141.83(b)(4) or determines that the system is not required to install source water treatment under § 141.83(b)(2).

(i) A water system using only groundwater shall collect samples once during the three-year compliance period (as that term is defined in § 141.2) in effect when the applicable State determination under paragraph (d)(1) of this section is made. Such systems shall collect samples once during each subsequent compliance period. Triennial samples shall be collected every third calendar year.

(ii) A water system using surface water (or a combination of surface and ground water) shall collect samples once during each calendar year, the first annual monitoring period to begin during the year in which the applicable State determination is made under paragraph (d)(1) of this section.

(2) A system is not required to conduct source water sampling for lead and/or copper if the system meets the action level for the specific contaminant in tap water samples during the entire source water sampling period applicable to the system under paragraph (d)(1) (i) or (ii) of this section.

(e) Reduced monitoring frequency.

(1) A water system using only ground water may reduce the monitoring frequency for lead and copper in source water to once during each nine-year compliance cycle (as that term is defined in § 141.2) provided that the samples are collected no later than every ninth calendar year and if the system meets one of the following criteria:

(i) The system demonstrates that finished drinking water entering the distribution system has been maintained below the maximum permissible lead and copper concentrations specified by the State in § 141.83(b)(4) during at least three consecutive compliance periods under paragraph (d)(1) of this section; or

(ii) The State has determined that source water treatment is not needed and the system demonstrates that, during at least three consecutive compliance periods in which sampling was conducted under paragraph (d)(1) of this section, the concentration of lead in source water was less than or equal to 0.005 mg/L and the concentration of copper in source water was less than or equal to 0.65 mg/L.

(2) A water system using surface water (or a combination of surface water and ground water) may reduce the monitoring frequency in paragraph (d)(1) of this section to once during each nine-year compliance cycle (as that term is defined in § 141.2) provided that the samples are collected no later than every ninth calendar year and if the system meets one of the following criteria:

(i) The system demonstrates that finished drinking water entering the distribution system has been maintained below the maximum permissible lead and copper concentrations specified by the State in § 141.83(b)(4) for at least three consecutive years; or

(ii) The State has determined that source water treatment is not needed and the system demonstrates that, during at least three consecutive years, the concentration of lead in source water was less than or equal to 0.005 mg/L and the concentration of copper in source water was less than or equal to 0.65 mg/L.

(3) A water system that uses a new source of water is not eligible for reduced monitoring for lead and/or copper until concentrations in samples collected from the new source during three consecutive monitoring periods are below the maximum permissible lead and copper concentrations specified by the State in § 141.83(a)(5).

Credits

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40 C.F.R. § 141.89

§ 141.89 Analytical methods.

Effective: December 10, 2007
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(a) Analyses for lead, copper, pH, conductivity, calcium, alkalinity, orthophosphate, silica, and temperature shall be conducted with the methods in § 141.23(k)(1).

(1) Analyses for alkalinity, calcium, conductivity, orthophosphate, pH, silica, and temperature may be performed by any person acceptable to the State. Analyses under this section for lead and copper shall only be conducted by laboratories that have been certified by EPA or the State. To obtain certification to conduct analyses for lead and copper, laboratories must:

(i) Analyze Performance Evaluation samples, which include lead and copper, provided by or acceptable to EPA or the State at least once a year by each method for which the laboratory desires certification; and

(ii) Achieve quantitative acceptance limits as follows:

(A) For lead: ±30 percent of the actual amount in the Performance Evaluation sample when the actual amount is greater than or equal to 0.005 mg/L. The Practical Quantitation Level, or PQL for lead is 0.005 mg/L.

(B) For Copper: ±10 percent of the actual amount in the Performance Evaluation sample when the actual amount is greater than or equal to 0.050 mg/L. The Practical Quantitation Level, or PQL for copper is 0.050 mg/L.

(iii) Achieve the method detection limit for lead of 0.001 mg/L according to the procedures in appendix B of part 136 of this title. This need only be accomplished if the laboratory will be processing source water composite samples under § 141.88(a)(1)(iv).

(iv) Be currently certified by EPA or the State to perform analyses to the specifications described in paragraph (a)(1) of this section.

(2) States have the authority to allow the use of previously collected monitoring data for purposes of monitoring, if the data were collected and analyzed in accordance with the requirements of this subpart.

(3) All lead and copper levels measured between the PQL and MDL must be either reported as measured or they can be reported as one-half the PQL specified for lead and copper in paragraph (a)(1)(ii) of this section. All levels below the lead and copper MDLs must be reported as zero.

(4) All copper levels measured between the PQL and the MDL must be either reported as measured or they can be reported as one-half the PQL (0.025 mg/L). All levels below the copper MDL must be reported as zero.

(b) [Reserved]

Credits

[56 FR 32113, July 15, 1991; 57 FR 28789, June 29, 1992; 57 FR 31847, July 17, 1992; 59 FR 33863, June 30, 1994; 59 FR 62470, Dec. 5, 1994; 63 FR 47113, Sept. 3, 1998; 63 FR 72200, Dec. 31, 1998; 64 FR 67466, Dec. 1, 1999; 65 FR 2012, Jan. 12, 2000; 72 FR 57819, Oct. 10, 2007]

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40 C.F.R. § 141.90

§ 141.90 Reporting requirements.

Effective: December 10, 2007
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All water systems shall report all of the following information to the State in accordance with this section.

(a) Reporting requirements for tap water monitoring for lead and copper and for water quality parameter monitoring.

(1) Except as provided in paragraph (a)(1)(viii) of this section, a water system shall report the information specified below for all tap water samples specified in § 141.86 and for all water quality parameter samples specified in § 141.87 within the first 10 days following the end of each applicable monitoring period specified in § 141.86 and § 141.87 (i.e., every six months, annually, every 3 years, or every 9 years). For monitoring periods with a duration less than six months, the end of the monitoring period is the last date samples can be collected during that period as specified in §§ 141.86 and 141.87.

(i) The results of all tap samples for lead and copper including the location of each site and the criteria under § 141.86(a)(3), (4), (5), (6), and/or (7) under which the site was selected for the system's sampling pool;

(ii) Documentation for each tap water lead or copper sample for which the water system requests invalidation pursuant to § 141.86(f)(2);

(iii) [Reserved]

(iv) The 90th percentile lead and copper concentrations measured from among all lead and copper tap water samples collected during each monitoring period (calculated in accordance with § 141.80(c)(3)), unless the State calculates the system's 90th percentile lead and copper levels under paragraph (h) of this section;

(v) With the exception of initial tap sampling conducted pursuant to § 141.86(d)(1), the system shall designate any site which was not sampled during previous monitoring periods, and include an explanation of why sampling sites have changed;

(vi) The results of all tap samples for pH, and where applicable, alkalinity, calcium, conductivity, temperature, and orthophosphate or silica collected under § 141.87(b)–(e);

(vii) The results of all samples collected at the entry point(s) to the distribution system for applicable water quality parameters under § 141.87(b)–(e);

(viii) A water system shall report the results of all water quality parameter samples collected under § 141.87(c) through (f) during each six-month monitoring period specified in § 141.87(d) within the first 10 days following the end of the monitoring period unless the State has specified a more frequent reporting requirement.

(2) For a non-transient non-community water system, or a community water system meeting the criteria of § 141.85(b)(7), that does not have enough taps that can provide first-draw samples, the system must either:

(i) Provide written documentation to the State identifying standing times and locations for enough non-first-draw samples to make up its sampling pool under § 141.86(b)(5) by the start of the first applicable monitoring period under § 141.86(d) that commences after April 11, 2000, unless the State has waived prior State approval of non-first-draw sample sites selected by the system pursuant to § 141.86(b)(5); or

(ii) If the State has waived prior approval of non-first-draw sample sites selected by the system, identify, in writing, each site that did not meet the six-hour minimum standing time and the length of standing time for that particular substitute sample collected pursuant to § 141.86(b)(5) and include this information with the lead and copper tap sample results required to be submitted pursuant to paragraph (a)(1)(i) of this section.

(3) At a time specified by the State, or if no specific time is designated by the State, then as early as possible prior to the addition of a new source or any long-term change in water treatment, a water system deemed to have optimized corrosion control under § 141.81(b)(3), a water system subject to reduced monitoring pursuant to § 141.86(d)(4), or a water system subject to a monitoring waiver pursuant to § 141.86(g), shall submit written documentation to the State describing the change or addition. The State must review and approve the addition of a new source or long-term change in treatment before it is implemented by the water system. Examples of long-term treatment changes include the addition of a new treatment process or modification of an existing treatment process. Examples of modifications include switching secondary disinfectants, switching coagulants (e.g., alum to ferric chloride), and switching corrosion inhibitor products (e.g., orthophosphate to blended phosphate). Long-term changes can include dose changes to existing chemicals if the system is planning long-term changes to its finished water pH or residual inhibitor concentration. Long-term treatment changes would not include chemical dose fluctuations associated with daily raw water quality changes.

(4) Any small system applying for a monitoring waiver under § 141.86(g), or subject to a waiver granted pursuant to § 141.86(g)(3), shall provide the following information to the State in writing by the specified deadline:

(i) By the start of the first applicable monitoring period in § 141.86(d), any small water system applying for a monitoring waiver shall provide the documentation required to demonstrate that it meets the waiver criteria of §§ 141.86(g)(1) and (2).

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(ii) No later than nine years after the monitoring previously conducted pursuant to § 141.86(g)(2) or § 141.86(g)(4)(i), each small system desiring to maintain its monitoring waiver shall provide the information required by §§ 141.86(g)(4)(i) and (ii).

(iii) No later than 60 days after it becomes aware that it is no longer free of lead-containing and/or copper-containing material, as appropriate, each small system with a monitoring waiver shall provide written notification to the State, setting forth the circumstances resulting in the lead-containing and/or copper-containing materials being introduced into the system and what corrective action, if any, the system plans to remove these materials.

(iv) By October 10, 2000, any small system with a waiver granted prior to April 11, 2000 and that has not previously met the requirements of § 141.86(g)(2) shall provide the information required by that paragraph.

(5) Each ground water system that limits water quality parameter monitoring to a subset of entry points under § 141.87(c)(3) shall provide, by the commencement of such monitoring, written correspondence to the State that identifies the selected entry points and includes information sufficient to demonstrate that the sites are representative of water quality and treatment conditions throughout the system.

(b) Source water monitoring reporting requirements.

(1) A water system shall report the sampling results for all source water samples collected in accordance with § 141.88 within the first 10 days following the end of each source water monitoring period (i.e., annually, per compliance period, per compliance cycle) specified in § 141.88.

(2) With the exception of the first round of source water sampling conducted pursuant to § 141.88(b), the system shall specify any site which was not sampled during previous monitoring periods, and include an explanation of why the sampling point has changed.

(c) Corrosion control treatment reporting requirements. By the applicable dates under § 141.81, systems shall report the following information:

(1) For systems demonstrating that they have already optimized corrosion control, information required in § 141.81(b) (2) or (3).

(2) For systems required to optimize corrosion control, their recommendation regarding optimal corrosion control treatment under § 141.82(a).

(3) For systems required to evaluate the effectiveness of corrosion control treatments under § 141.82(c), the information required by that paragraph.

(4) For systems required to install optimal corrosion control designated by the State under § 141.82(d), a letter certifying that the system has completed installing that treatment.

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(d) Source water treatment reporting requirements. By the applicable dates in § 141.83, systems shall provide the following information to the State:

(1) If required under § 141.83(b)(1), their recommendation regarding source water treatment;

(2) For systems required to install source water treatment under § 141.83(b)(2), a letter certifying that the system has completed installing the treatment designated by the State within 24 months after the State designated the treatment.

(e) Lead service line replacement reporting requirements. Systems shall report the following information to the State to demonstrate compliance with the requirements of § 141.84:

(1) No later than 12 months after the end of a monitoring period in which a system exceeds the lead action level in sampling referred to in § 141.84(a), the system must submit written documentation to the State of the material evaluation conducted as required in § 141.86(a), identify the initial number of lead service lines in its distribution system at the time the system exceeds the lead action level, and provide the system's schedule for annually replacing at least 7 percent of the initial number of lead service lines in its distribution system.

(2) No later than 12 months after the end of a monitoring period in which a system exceeds the lead action level in sampling referred to in § 141.84(a), and every 12 months thereafter, the system shall demonstrate to the State in writing that the system has either:

(i) Replaced in the previous 12 months at least 7 percent of the initial lead service lines (or a greater number of lines specified by the State under § 141.84(e)) in its distribution system, or

(ii) Conducted sampling which demonstrates that the lead concentration in all service line samples from an individual line(s), taken pursuant to § 141.86(b)(3), is less than or equal to 0.015 mg/L. In such cases, the total number of lines replaced and/or which meet the criteria in § 141.84(c) shall equal at least 7 percent of the initial number of lead lines identified under paragraph (e)(1) of this section (or the percentage specified by the State under § 141.84(e)).

(3) The annual letter submitted to the State under paragraph (e)(2) of this section shall contain the following information:

(i) The number of lead service lines scheduled to be replaced during the previous year of the system's replacement schedule;

(ii) The number and location of each lead service line replaced during the previous year of the system's replacement schedule;

(iii) If measured, the water lead concentration and location of each lead service line sampled, the sampling method, and the date of sampling.

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(4) Any system which collects lead service line samples following partial lead service line replacement required by § 141.84 shall report the results to the State within the first ten days of the month following the month in which the system receives the laboratory results, or as specified by the State. States, at their discretion may eliminate this requirement to report these monitoring results. Systems shall also report any additional information as specified by the State, and in a time and manner prescribed by the State, to verify that all partial lead service line replacement activities have taken place.

(f) Public education program reporting requirements.

(1) Any water system that is subject to the public education requirements in § 141.85 shall, within ten days after the end of each period in which the system is required to perform public education in accordance with § 141.85(b), send written documentation to the State that contains:

(i) A demonstration that the system has delivered the public education materials that meet the content requirements in § 141.85(a) and the delivery requirements in § 141.85(b); and

(ii) A list of all the newspapers, radio stations, television stations, and facilities and organizations to which the system delivered public education materials during the period in which the system was required to perform public education tasks.

(2) Unless required by the State, a system that previously has submitted the information required by paragraph (f)(1)(ii) of this section need not resubmit the information required by paragraph (f)(1)(ii) of this section, as long as there have been no changes in the distribution list and the system certifies that the public education materials were distributed to the same list submitted previously.

(3) No later than 3 months following the end of the monitoring period, each system must mail a sample copy of the consumer notification of tap results to the State along with a certification that the notification has been distributed in a manner consistent with the requirements of § 141.85(d).

(g) Reporting of additional monitoring data. Any system which collects sampling data in addition to that required by this subpart shall report the results to the State within the first ten days following the end of the applicable monitoring period under §§ 141.86, 141.87 and 141.88 during which the samples are collected.

(h) Reporting of 90th percentile lead and copper concentrations where the State calculates a system's 90th percentile concentrations. A water system is not required to report the 90th percentile lead and copper concentrations measured from among all lead and copper tap water samples collected during each monitoring period, as required by paragraph (a)(1)(iv) of this section if:

(1) The State has previously notified the water system that it will calculate the water system's 90th percentile lead and copper concentrations, based on the lead and copper tap results submitted pursuant to paragraph (h)(2)(i) of

this section, and has specified a date before the end of the applicable monitoring period by which the system must provide the results of lead and copper tap water samples;

(2) The system has provided the following information to the State by the date specified in paragraph (h)(1) of this section:

(i) The results of all tap samples for lead and copper including the location of each site and the criteria under § 141.86(a)(3), (4), (5), (6), and/or (7) under which the site was selected for the system's sampling pool, pursuant to paragraph (a)(1)(i) of this section; and

(ii) An identification of sampling sites utilized during the current monitoring period that were not sampled during previous monitoring periods, and an explanation why sampling sites have changed; and

(3) The State has provided the results of the 90th percentile lead and copper calculations, in writing, to the water system before the end of the monitoring period.

Credits

[56 FR 32113, July 15, 1991; 57 FR 28789, June 29, 1992; 59 FR 33864, June 30, 1994; 65 FR 2012, Jan. 12, 2000; 72 FR 57819, Oct. 10, 2007]

AUTHORITY: 42 U.S.C. 300f, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–4, 300j–9, and 300j–11.

Current through Aug. 3, 2018; 83 FR 38243.

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40 C.F.R. § 141.91

§ 141.91 Recordkeeping requirements.

Currentness

Any system subject to the requirements of this subpart shall retain on its premises original records of all sampling data and analyses, reports, surveys, letters, evaluations, schedules, State determinations, and any other information required by §§ 141.81 through 141.88. Each water system shall retain the records required by this section for no fewer than 12 years.

Credits
[56 FR 32113, July 15, 1991]

AUTHORITY: 42 U.S.C. 300f, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–4, 300j–9, and 300j–11.

Current through Aug. 3, 2018; 83 FR 38243.

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ATTACHMENT

2

Barclays Official California Code of Regulations Currentness
Title 22. Social Security
Division 4. Environmental Health
Chapter 17.5. Lead and Copper
Article 1. General Requirements and Definitions

22 CCR § 64670

§ 64670. General Requirements.

(a) Unless otherwise indicated, the requirements in this chapter apply to community water systems and nontransient-noncommunity water systems (hereinafter referred to as "water systems" or "systems").

(b) An action level exceedance shall not constitute a violation of this chapter.

(c) Analyses for lead, copper, pH, conductivity, calcium, alkalinity, orthophosphate, silica, and temperature shall be conducted using the methods prescribed at 40 Code of Federal Regulations, Section 141.89 [Federal Register (FR) 56 (110), 26460-26564, June 7, 1991; amended July 15, 1991 (56 FR 32113), June 29, 1992 (57 FR 28786), June 30, 1994 (59 FR 33860), and January 12, 2000 (65 FR 1250)]. Field tests shall be performed by water treatment or distribution operators certified by the Department pursuant to Section 106875 of the Health and Safety Code or by personnel trained to perform these tests by the Department, a certified laboratory, or certified operator.

(d) A new water system shall initiate compliance with this chapter within six months of distributing water to consumers. An existing system that changes size pursuant to the definitions in sections 64671.30, 64671.40 and 64671.70, shall initiate compliance with the requirements of this chapter applicable to the new size within six months.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New chapter 17.5, article 1 and section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer of chapter 17.5 (articles 1-9, sections 64670-64692), article 1 (sections 64670-64672.6) and section and new chapter 17.5 (articles 1-9, sections 64670-64690.80), article 1 (sections 64670-64671.85) and section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64670, 22 CA ADC § 64670

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22 CCR § 64671.05

§ 64671.05. Action Level.

"Action level", for the purpose of this chapter only, means the concentration of lead or copper in water that is used to determine the requirements of this chapter that a system shall meet.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.05, 22 CA ADC § 64671.05

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22 CCR § 64671.08

§ 64671.08. Action Level Exceedance.

"Action level exceedance", for the purpose of this chapter only, means that the level of lead or copper is greater than the respective action level, as determined pursuant to section 64678(d) through (g).

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.08, 22 CA ADC § 64671.08

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22 CCR § 64671.09

§ 64671.09. Corrosion Control Treatment or CCT.

"Corrosion control treatment" or "CCT" means the corrosion control treatment that minimizes the lead and copper concentrations at users' taps without causing the water system to violate any primary drinking water standards.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.09, 22 CA ADC § 64671.09

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22 CCR § 64671.10

§ 64671.10. Corrosion Inhibitor.

"Corrosion inhibitor" means a substance capable of reducing the corrosivity of water toward metal plumbing materials, especially lead and copper, by forming a protective film on the interior surface of those materials.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.10, 22 CA ADC § 64671.10

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22 CCR § 64671.15

§ 64671.15. Detection Limit for Purposes of Reporting or DLR.

"Detection limit for purposes of reporting" or "DLR" means the designated minimum level at or above which any analytical finding of a contaminant in drinking water resulting from monitoring required under this chapter shall be reported to the Department.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.15, 22 CA ADC § 64671.15

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22 CCR § 64671.20

§ 64671.20. Effective Corrosion Inhibitor Residual.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116300-116750, Health and Safety Code; and 40 Code of Federal Regulations 141.2.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order, including amendment of Note, transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.20, 22 CA ADC § 64671.20

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Barclays Official California Code of Regulations Currentness
Title 22. Social Security
Division 4. Environmental Health
Chapter 17.5. Lead and Copper
Article 1. General Requirements and Definitions

22 CCR § 64671.25

§ 64671.25. First Draw Sample.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116300-116750, Health and Safety Code; and 40 Code of Federal Regulations 141.2.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of Note(Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.25, 22 CA ADC § 64671.25

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22 CCR § 64671.30

§ 64671.30. Large Water System.

"Large water system", for the purpose of this chapter only, means a water system that serves more than 50,000 persons.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of Note(Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.30, 22 CA ADC § 64671.30

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Division 4. Environmental Health
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Article 1. General Requirements and Definitions

22 CCR § 64671.35

§ 64671.35. Lead Service Line.

"Lead service line" means a service line made of lead that connects the water main to the building inlet and any lead pigtail, gooseneck or other fitting which is connected to such lead line.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of Note(Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.35, 22 CA ADC § 64671.35

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22 CCR § 64671.40

§ 64671.40. Medium-Size Water System.

"Medium-size water system", for the purpose of this chapter only, means a water system that serves greater than 3,300 and less than or equal to 50,000 persons.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of Note(Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.40, 22 CA ADC § 64671.40

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22 CCR § 64671.50

§ 64671.50. Optimal Corrosion Control Treatment.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116300 through 116750, Health and Safety Code; and 40 Code of Federal Regulations 141.2.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of Note(Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.50, 22 CA ADC § 64671.50

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22 CCR § 64671.55

§ 64671.55. Period.

"Period", for the purpose of this chapter only, means a six-month monitoring timeframe.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.55, 22 CA ADC § 64671.55

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22 CCR § 64671.60

§ 64671.60. Service Line Sample.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116300 through 116750, Health and Safety Code; and 40 Code of Federal Regulations 141.2.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of Note(Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.60, 22 CA ADC § 64671.60

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22 CCR § 64671.65

§ 64671.65. Single-Family Structure.

"Single-family structure" means a building constructed as a single-family residence that is currently used as either a residence or a place of business.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of Note(Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.65, 22 CA ADC § 64671.65

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22 CCR § 64671.70

§ 64671.70. Small Water System.

"Small water system", for the purpose of this chapter only, means a water system that serves 3,300 persons or fewer.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of Note(Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.70, 22 CA ADC § 64671.70

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22 CCR § 64671.75

§ 64671.75. Tap Sampling.

"Tap sampling" means sampling conducted pursuant to sections 64675 (General Requirements for Tap Sampling for Lead and Copper), 64675.5 (Tap Sampling Frequency), and 64677 (Sampling Collection Methods for Taps) at sites selected pursuant to section 64676 (Sampling Site Selection).

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.75, 22 CA ADC § 64671.75

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22 CCR § 64671.80

§ 64671.80. Water Quality Parameter or WQP.

"Water quality parameter" or "WQP", for the purposes of this chapter, means a characteristic or constituent of water, or a water treatment chemical added to water to control corrosion.

Note: Authority cited: Sections 116350, 116375, 131052 and 131200, Health and Safety Code. Reference: Sections 116275 and 116350, Health and Safety Code.

HISTORY

1. New section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

2. Amendment of section and Note filed 5-28-2014; operative 7-1-2014 (Register 2014, No. 22).

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22 CCR § 64671.80, 22 CA ADC § 64671.80

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22 CCR § 64671.85

§ 64671.85. WQP Monitoring.

"WQP monitoring" means sampling conducted pursuant to sections 64680 (General WQP Monitoring Requirements), 64681 (Initial WQP Monitoring), and 64682 (WQP Monitoring Requirements after CCT Installation).

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64671.85, 22 CA ADC § 64671.85

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22 CCR § 64672

§ 64672. Analytical Methods and Detection Limits.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116300 through 116750, Health and Safety Code; and 40 Code of Federal Regulations 141.89.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order, including new subsections (c)-(d), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64672.3

§ 64672.3. Determination of Compliance with Lead and Copper Action Levels.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116300 through 116750, Health and Safety Code; and 40 Code of Federal Regulations 141.80(c).

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64672.3, 22 CA ADC § 64672.3

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22 CCR § 64672.6

§ 64672.6. Use of Information Developed Prior to December 1, 1995.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116300 through 116750, Health and Safety Code; and 40 Code of Federal Regulations 141.81(d) and (e).

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order, including amendment of subsections (c)(2)-(3), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64672.6, 22 CA ADC § 64672.6

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22 CCR § 64673

§ 64673. Small and Medium-Size Water System Requirements.

(a) The requirements in this section are applicable to all small and medium-size water systems.

(b) Each small and medium-size system shall conduct standard tap sampling for lead and copper pursuant to section 64675 (General Requirements for Tap Sampling for Lead and Copper). Tap sampling frequency may be reduced pursuant to section 64675.5 (Tap Sampling Frequency).

(c) A small or medium-size system with an action level exceedance shall take the following steps:

(1) Monitor WQPs beginning with the first period after the exceedance, pursuant to section 64681 (Initial WQP Monitoring).

(2) Proceed with subparagraphs (A) through (E) if a corrosion control study is required by the Department based on a review of the system's water quality, distribution system, water treatment, and system features. If such a study is required, the Department will notify the system in writing within 12 months of the action level exceedance.

(A) Complete the study, pursuant to section 64683 (Corrosion Control Study Procedure), within eighteen months of being notified of the requirement; the system will be notified of the Department's designation within six months of the study's completion;

(B) Begin installation of the CCT designated by the Department, pursuant to section 64684 (CCT Installation and Operation), within twelve months of being notified of the Department's designation;

(C) Complete CCT installation and begin operation within 24 months of the designation;

(D) Complete two periods of standard tap sampling pursuant to section 64675 (General Requirements for Tap Sampling for Lead and Copper) and two periods of WQP monitoring pursuant to section 64682 (WQP Monitoring After CCT Installation) within 36 months of the designation; and

(E) Monitor WQPs and operate in compliance with the WQP levels specified by the Department pursuant to section 64684 (CCT Installation and Operation), beginning no later than within 42 months of the designation.

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(3) If the Department does not require a corrosion control study, the system shall submit to the Department, within six months of the action level exceedance, a written recommendation for CCT. The Department may require the system to conduct additional WQP monitoring to assist in the review of the CCT recommendation. The Department will designate CCT and notify the system in writing within the following timeframes; the system shall then comply with paragraphs (2)(B) through (E):

(A) For medium-size systems, within 12 months of the exceedance, and

(B) For small-size systems, within 18 months of the exceedance;

(4) Monitor source waters, pursuant to article 6 (Source Water Requirements for Action Level Exceedances) of this chapter;

(d) A small or medium-size system with an action level exceedance for lead shall:

(1) Complete a lead public education program, pursuant to article 7 (Public Education Program for Lead Action Level Exceedances) of this chapter; and

(2) Replace lead service lines, pursuant to article 8 (Lead Service Line Requirements for Action Level Exceedances) of this chapter.

(e) A small or medium-size system that is required to comply with subsections (c) or (d) may cease completing the steps whenever the system does not have an action level exceedance during each of two consecutive periods. If any such system thereafter has an exceedance during any period, the system shall:

(1) Resume completion of the applicable steps, beginning with the first step that was not previously completed. The Department may require a system to repeat steps previously completed if the Department determines that this is necessary to implement the requirements of this section, based on a review of the system's data and treatment status.

(2) Resume standard tap sampling pursuant to 64675 (General Requirements for Tap Sampling for Lead and Copper).

(3) Conduct WQP monitoring during the period in which the system exceeded the action level, pursuant to section 64682, (WQP Monitoring After CCT Installation) or 64684 (CCT Installation and Operation).

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

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HISTORY

1. New article 2 and section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of subsection (b)(2)(B) (Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer of article 2 (sections 64673-64676), new article 2 (sections 64673-64674) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64674

§ 64674. Large Water System Requirements.

(a) The requirements in this section are applicable to all large water systems.

(b) Each large system shall conduct standard tap sampling pursuant to section 64675 (General Requirements for Tap Sampling for Lead and Copper), and monitor for WQPs pursuant to section 64681 (Initial WQP Monitoring). Tap sampling frequency may be reduced pursuant to section 64675.5 (Tap Sampling Frequency).

(c) Each large system shall complete a corrosion control study, pursuant to section 64683 (Corrosion Control Study Procedure), unless it can meet one of the following criteria:

(1) The system submits the following documentation to the Department and the Department determines in writing that the system has optimized corrosion control based on its review of the submittal:

(A) The results of all test samples collected for each of the WQPs in section 64683(a)(3) (Corrosion Control Study Procedure);

(B) A report explaining the test methods used by the water system to evaluate corrosion control treatment alternatives pursuant to section 64683 (Corrosion Control Study Procedure), the results of all tests conducted, and the basis for the system's selection of CCT;

(C) A report explaining how CCT has been installed and is being operated pursuant to section 64684 (CCT Installation and Operation); and

(D) The results of tap sampling for lead and copper for two consecutive periods after corrosion control has been installed; or

(2) The system demonstrates for two consecutive periods that the difference between the 90th percentile tap sampling lead level and the highest source water monitoring result for each period is less than the reporting level for purposes of reporting (DLR), pursuant to subsections 64678 (a), (b) and (c) (Determination of Exceedances of Lead and Copper Action Levels), or that the source water lead levels are below the method detection level of 0.001 mg/L and the 90th percentile lead level is equal to or less than the DLR for each period. In either case, the system shall also not have a copper action level exceedance. If such a system ceases to meet this criteria, it shall conduct a corrosion control

study, pursuant to section 64683 (Corrosion Control Study Procedure) within eighteen months of not meeting the criteria, and proceed thereafter pursuant to subsection (e).

(d) Each large system that conducts a corrosion control study will be notified of the Department's designation for CCT within 6 months of the study's completion and shall comply with the following timeframes:

(1) Begin CCT installation within 12 months of being notified of the Department's designation for CCT.

(2) Complete CCT installation within 24 months of the Department's designation.

(3) Complete two periods of WQP monitoring and tap sampling for lead and copper within 36 months of the Department's designation.

(4) Operate in compliance with the WQP levels specified by the Department pursuant to section 64684 (CCT Installation and Operation), beginning no later than within 42 months of the Department's designation. WQP tap monitoring may be reduced as follows:

(A) Pursuant to section 64682(c) (WQP Monitoring After CCT Installation), if the system has no action level exceedance; or

(B) To once every three years at the reduced number of sites pursuant to table 64680-A, if the system has 90th percentile levels that do not exceed 0.005 mg/L for lead and 0.65 mg/L for copper for two consecutive periods.

(5) If source water treatment has been installed, conduct source sampling for lead and copper pursuant to section 64685 (Source Water Monitoring and Treatment Designation).

(e) A large system with an action level exceedance for lead shall:

(1) Monitor source waters, pursuant to article 6 (Source Water Requirements) of this chapter;

(2) Complete a lead public education program, pursuant to article 7 (Public Education Program for Action Level Exceedances) of this chapter; and

(3) Replace lead service lines, pursuant to article 8 (Lead Service Line Requirements) of this chapter.

(f) A large system with an action level exceedance for copper shall monitor source waters pursuant to article 6 (Source Water Requirements) of this chapter.

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Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order, including amendment of subsections (a)(2) and (a)(4)-(6), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64675

§ 64675. General Requirements for Tap Sampling for Lead and Copper.

(a) During each period, each system shall conduct standard tap sampling by collecting one sample from the number of sites based on the number of people served specified in table 64675-A under Standard Tap Sampling.

(b) During each period, each system conducting reduced tap sampling shall collect at least one sample from the number of sites based on the number of people served specified in table 64675-A under Reduced Tap Sampling, as follows:

(1) The sites shall be representative of the sites required for standard tap sampling.

(2) The samples shall be collected during the months of June, July, August, or September, unless the Department approves an alternate set of four months based on a review of the system's operations and lead and copper data, in which case the system shall initiate sampling during the alternate set of four months when directed in writing to do so by the Department, as follows:

(A) No later than 21 months after the previous period, if sampling annually, or

(B) No later than 45 months after the previous period, if sampling triennially.

Table 64675-A Lead and Copper Tap Sampling Sites

System Size	Standard Tap Sampling	Reduced Tap Sampling
	(Minimimum Number of Sites)	
>100,000	100	50
10,001 to 100,000	60	30
3,301 to 10,000	40	20
501 to 3,300	20	10
101 to 500	10	5
<101	5	5

Lead and Copper Tap Sampling Sites

System Size	*Standard Tap Sampling*	*Reduced Tap Sampling*
	(Minimimum Number of Sites)	
>100,000	100	50
10,001 to 100,000	60	30
3,301 to 10,000	40	20
501 to 3,300	20	10
101 to 500	10	5
<101	5	5

(c) Sample sites shall be selected pursuant to section 64676 (Sample Site Selection).

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order, including amendment of subsection (a)(1), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer of article 3 (sections 64677-64678), new article 3 (sections 64675-64679) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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Title 22. Social Security
Division 4. Environmental Health
Chapter 17.5. Lead and Copper
Article 3. Monitoring for Lead and Copper

22 CCR § 64675.5

§ 64675.5. Tap Sampling Frequency.

(a) A system shall conduct standard tap sampling for two consecutive periods; thereafter, tap sampling frequency may be reduced pursuant to section 64675 (General Requirements for Tap Sampling for Lead and Copper) as follows:

(1) If a system has 90th percentile levels that do not exceed 0.005 mg/L for lead and 0.65 mg/L for copper for two consecutive periods, it may reduce the sampling to once every three years at the reduced number of sites;

(2) For systems that do not meet the criteria in paragraph (1), after two consecutive periods with no action level exceedance, the frequency may be reduced to annually at the reduced number of sites, if the system receives written approval from the Department based on its review of the system's data. After sampling for three years (including the initial sampling year) with no action level exceedance, the frequency may be reduced to once every three years at the reduced number of sites, if the system receives written approval from the Department.

(b) If a system demonstrates for two consecutive periods that the difference between the 90th percentile tap sampling lead level and the highest source water monitoring result for each period is less than the reporting level for purposes of reporting (DLR), pursuant to subsections 64678(a), (b), and (c) or that the source water lead levels are below the method detection level of 0.001 mg/L and the 90th percentile lead level is equal to or less than the DLR for each period, the system shall conduct tap sampling once every three years.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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Title 22. Social Security
Division 4. Environmental Health
Chapter 17.5. Lead and Copper
Article 3. Monitoring for Lead and Copper

22 CCR § 64676

§ 64676. Sample Site Selection.

(a) Each system shall identify a pool of sampling sites that:

(1) Is large enough to ensure that the water system can collect the number of lead and copper tap samples required in section 64675 (General Requirements for Tap Sampling for Lead and Copper);

(2) Meets the criteria in subsections (c) or (d), as applicable; and

(3) Does not include faucets that have point-of-use or point-of-entry treatment devices designed to remove inorganic contaminants.

(b) Prior to identifying sampling sites, each system shall conduct an evaluation of its distribution system to determine the construction materials (lead, copper, and galvanized steel) exposed to the water. If necessary to ensure the sample site criteria is met, the system shall collect additional information during the course of its normal operations (e.g., checking service line materials when reading water meters, or performance maintenance activities) and from the following:

(1) All plumbing codes, permits, and records in the files of the building department(s) that indicate the plumbing materials installed within publicly and privately owned structures connected to the distribution system;

(2) All inspections and records of the distribution system that indicate the material composition of the service connections connecting a structure to the distribution system; and

(3) All existing water quality information, which includes the results of prior analyses of the system or individual structures connected to the system, indicating locations that may be particularly susceptible to high lead or copper concentrations.

(c) Each community water system shall:

(1) Identify a sampling pool of "tier 1" sampling sites consisting of single-family structures except that, when multiple-family residences comprise at least 20 percent of the structures served by a water system, the system may include these types of structures as "tier 1" sites in its sampling pool. The "tier 1" sampling sites shall

(A) Contain copper pipes with lead solder installed after 1982; or

(B) Contain lead pipes; or

(C) Be served by a lead service line.

(2) If there is an insufficient number of "tier 1" sites, complete its sampling pool with "tier 2" sampling sites, consisting of buildings, including multiple-family residences that:

(A) Contain copper pipes with lead solder installed after 1982; or

(B) Contain lead pipes; or

(C) Are served by a lead service line.

(3) If there is an insufficient number of "tier 1" and "tier 2" sampling sites, complete its sampling pool with "tier 3" sampling sites, consisting of single-family structures that contain copper pipes with lead solder installed before 1983. A system with an insufficient number of tier 1, 2 and 3 sites shall complete its sampling pool with representative sites (i.e., plumbing materials commonly found at other sites) throughout the distribution system.

(d) Each nontransient-noncommunity water system shall:

(1) Identify a pool of "tier 1" sampling sites consisting of buildings that:

(A) Contain copper pipes with lead solder installed after 1982; or

(B) Contain lead pipes; or

(C) Are served by a lead service line.

(2) If there is an insufficient number of "tier 1" sites that meet the criteria in paragraph (1), complete its sampling pool with sites that contain copper pipes with lead solder installed before 1983. If additional sites are needed to complete the sampling pool, the system shall use representative sites (i.e., plumbing materials commonly found at other sites) throughout the distribution system.

(e) Each system whose distribution system contains lead service lines shall draw 50 percent of the samples it collects during each period from sites that contain lead pipes, or copper pipes with lead solder, and 50 percent of the samples

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from sites served by a lead service line. A system that cannot identify a sufficient number of sites served by a lead service line shall collect first draw samples from all of the sites identified as being served by such lines.

(f) A system that does not have enough taps that can provide first-draw samples shall submit written documentation to the Department identifying standing times and locations for enough non-first-draw samples to make up its sampling pool by the start of its next monitoring period.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64677

§ 64677. Sample Collection Methods for Taps.

(a) All tap samples for lead and copper collected pursuant to this chapter, with the exception of lead service line samples collected under section 64689 (Lead Service Line Sampling) and samples collected under subsection (d), shall be first-draw samples, pursuant to subsection (b).

(b) A first-draw sample shall be one liter in volume and have stood motionless in the plumbing system of each site for at least six hours, but not more than twelve. Samples from residential housing shall be collected from the cold-water kitchen tap or bathroom sink tap. Samples from a non-residential building shall be collected at an interior tap from which water is typically drawn for consumption. Samples may be collected by the system or the system may allow residents to collect tap samples after instructing the residents of the sampling procedures specified in this section. To avoid problems of residents handling nitric acid, acidification of samples may be done up to 14 days after collection. After acidification to resolubilize the metals, the sample shall stand in the original container for the time specified by the method used pursuant to section 64670(c) before it can be analyzed. If a system allows residents to perform sampling, the system may not challenge, based on alleged errors in sample collection, the accuracy of sampling results.

(c) A system shall collect each tap sample from the same site from which it collected a sample during the previous period. If the system cannot gain entry to a site in order to collect a tap sample, it may collect the tap sample from another site in its sampling pool as long as the new site meets the same criteria, and is as close as possible to the original site.

(d) A system that does not have enough taps to supply first-draw samples may apply to the Department in writing to substitute non-first-draw samples. Such systems shall collect as many first-draw samples as possible and identify sampling times and locations that would likely result in the longest standing time for the remaining sites.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New article 3 and section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order, including amendment of subsection (a), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer of article 3 (sections 64677-64678) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64677, 22 CA ADC § 64677

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22 CCR § 64677.5

§ 64677.5. Sample Invalidation.

(a) A lead or copper sample may be invalidated by the Department if at least one of the following conditions is met and documented in writing:

(1) The laboratory establishes that improper sample analysis caused erroneous results;

(2) The Department determines that the sample was taken from a site that did not meet the site selection criteria in section 64676 (Sample Site Selection);

(3) The sample container was damaged in transit;

(4) The Department determines the sample does not meet the requirements in section 64677 (Sample Collection Methods for Taps); or

(5) There is substantial reason to believe that the sample was subject to tampering.

(b) To apply for invalidation of one or more samples, a system shall report the results of all samples for the period to the Department, including written documentation to support the system's belief that one or more samples should be invalidated.

(c) A sample invalidated pursuant to subsection (a) shall not count toward determining lead or copper 90th percentile levels or toward meeting any monitoring requirements in this chapter.

(d) The system shall collect replacement samples for any invalidated samples if, after the invalidation of one or more samples, the system has too few samples to meet the monitoring requirements of this chapter. Replacement samples taken after the end of the applicable period shall not be used to meet the monitoring requirements of a subsequent period. Replacement samples shall be collected as follows:

(1) As soon as possible, but no later than 20 days after the system receives notification from the Department that it has invalidated the sample, or by the end of the applicable period, whichever occurs later; and

(2) At the same locations as the invalidated samples or, if that is not possible, at locations other than those already used for sampling during the monitoring period.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64678

§ 64678. Determination of Exceedances of Lead and Copper Action Levels.

(a) The detection limits for purposes of reporting (DLRs) for lead and copper are as follows:

Table 64678-A. DLRs for Lead and Copper

Contaminant	DLR (mg/L)
Lead	0.005
Copper	0.050

Contaminant	*DLR (mg/L)*
Lead	0.005
Copper	0.050

(b) For purposes of determining the difference in concentration between the source water and the 90th percentile tap results, the following shall apply:

(1) Analytical results for lead greater than or equal to 0.001 mg/L and less than 0.005 mg/L shall be as measured or 0.0025 mg/L, whichever is greater.

(2) Analytical results for copper greater than or equal to 0.001 mg/L and less than 0.050 mg/L shall be as measured or 0.025 mg/L, whichever is greater.

(3) Analytical results below 0.001 mg/L for lead and copper shall be considered zero.

(c) Analytical results below the DLRs for lead and copper specified shall be reported as zero.

(d) The lead action level is exceeded if the concentration of lead in more than 10 percent of the tap water samples collected during any period is greater than 0.015 mg/L (i.e., if the “90th percentile” lead level is greater than 0.015 mg/L).

(e) The copper action level is exceeded if the concentration of copper in more than 10 percent of the tap water samples collected during any period is greater than 1.3 mg/L (i.e., if the “90th percentile” copper level is greater than 1.3 mg/L).

(f) The 90th percentile lead and copper levels shall be computed as follows:

(1) The results of all lead or copper samples collected during a period shall be placed in ascending order from the sample with the lowest concentration to the sample with the highest concentration. Each sampling result shall be assigned a number, ascending by single integers beginning with the number 1 for the sample with the lowest contaminant level. The number assigned to the sample with the highest contaminant level shall be equal to the total number of samples taken.

(2) The number of samples taken during the period shall be multiplied by 0.9.

(3) The contaminant concentration in the numbered sample identified by the calculation in paragraph (f)(2) is the 90th percentile contaminant level.

(4) For water systems serving less than or equal to 100 people that collect 5 samples per period, the 90th percentile is computed by taking the average of the highest and second highest concentrations.

(g) The results of any monitoring conducted in addition to the minimum requirements of this section shall be considered by the system and submitted to the department for making any determinations.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64678.5

§ 64678.5. Monitoring Waivers for Small Systems.

(a) A small water system may apply to the Department for a waiver to reduce the tap sampling frequency for lead and copper to once every nine years, and shall continue tap sampling as required by this chapter until it receives written notification from the Department that the waiver has been approved.

(b) A system that meets the following materials and monitoring criteria for both lead and copper will be granted a full waiver, while a system that meets both sets of criteria for only one of the chemicals will be granted a partial waiver that covers only that chemical.

(1) To meet the materials criteria, a system shall provide certification and documentation that its distribution system and service lines and all drinking water supply plumbing, including plumbing conveying drinking water within all residences and buildings connected to the system, satisfy the following:

(A) For lead, the system shall be free of the following lead-containing materials:

1. Plastic pipes that contain lead plasticizers, or plastic service lines that contain lead plasticizers; and

2. Lead service lines, lead pipes, lead soldered pipe joints, and leaded brass or bronze alloy fittings and fixtures, unless the utility can demonstrate to the Department that such fittings and fixtures will not leach lead into the drinking water.

(B) For copper, the system shall be free of copper pipes and copper service lines.

(2) To meet the monitoring criteria, the system shall have completed at least one period of standard tap sampling and demonstrate that the 90th percentile levels for all periods of tap sampling conducted since the system became free of all lead-containing and/or copper-containing materials, as appropriate, do not exceed the following:

(A) For lead, 0.005 mg/L.

(B) For copper, 0.65 mg/L.

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(c) If granted a waiver, the system shall

(1) Comply with any requirements that the Department includes as conditions of the waiver, such as limited monitoring, periodic outreach to customers to remind them to avoid installation of materials that might void the waiver;

(2) Conduct tap sampling at the reduced number of sites for one period every nine years for the chemical(s) for which the waiver has been granted;

(3) Provide the materials certification specified in paragraph (b)(1) for the chemical(s) for which the waiver has been granted, along with the monitoring results; and

(4) If the waiver was granted for only one chemical, continue to monitor pursuant to this chapter for the other chemical.

(d) If the system continues to satisfy the requirements of subsections (b) and (c), the waiver will be renewed automatically, unless the Department notifies the system in writing that the waiver has been revoked and why. A system whose waiver has been revoked may re-apply for a waiver at such time as it again meets the appropriate materials and monitoring criteria in subsection (b) and (c).

(e) If a system with a waiver adds a new source of water or changes any water treatment, the Department may require the system to add or modify waiver conditions (e.g., require recertification that the system is free of lead-containing and/or copper-containing materials, require additional tap sampling periods), if it deems such modifications are necessary to address treatment or source water changes at the system.

(f) If a system with a waiver becomes aware that it is no longer free of lead-containing or copper-containing materials, it shall notify the Department in writing no later than 60 days after becoming aware of such a change.

(g) If a system with a waiver that has been collecting samples during the months of June, July, August and September receives Department approval for an alternate set of months pursuant to section 64675(b)(2) (General Requirements for Tap Sampling for Lead and Copper), it shall conduct its next tap sampling before the waiver expires.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64679

§ 64679. Supplemental Monitoring.

A water system with a lead action level exceedance shall offer to sample the tap water of any customer who requests it. The system is not required to pay for collecting or analyzing the sample.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New article 4 and section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order, including amendment of subsections (d) and (f), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer of article 4 (section 64679) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64680

§ 64680. General WQP Monitoring Requirements.

(a) WQP tap monitoring shall be:

(1) Representative of water quality throughout the distribution system, by considering the number of persons served, the different sources of water and treatment methods employed, and seasonal variability;

(2) Not restricted to sites targeted for lead and copper sampling; and

(3) Include two samples for each applicable WQP during each period, from the standard number of sites, based on the number of persons served, specified in table 64680-A.

Table 64680-A WQP Tap Monitoring Sites

System Size	Standard Tap Sampling	Reduced Tap Sampling
	(Minimimum Number of Sites)	
>100,000	25	10
10,001 to 100,000	10	7
3,301 to 10,000	3	3
501 to 3,300	2	2
101 to 500	1	1
<101	1	1

System Size *Standard Tap Sampling* *Reduced Tap Sampling*
(Minimimum Number of Sites)
>100,000 25 10
10,001 to 100,000 10 7
3,301 to 10,000 3 3
501 to 3,300 2 2
101 to 500 1 1
<101 1 1

(b) Initial WQP monitoring at the entry point(s) to the distribution system shall be two samples for each applicable WQP at each entry point from locations representative of each source after treatment. After the installation of CCT, only one sample is required at each entry point. If a system draws water from more than one source and the sources are combined before distribution, the system shall sample at each entry point during normal operating conditions.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New article 5 and section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of subsection (a)(1)(D)2.A. (Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order, including amendment of subsections (a)(1)(D)2.D., (a) (1)(D)3.A. and (b)(5), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer of former article 4 (section 64679), repealer of former article 5 (sections 64680-64681), new article 4 (sections 64680-64684) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64681

§ 64681. Initial WQP Monitoring.

For initial WQP monitoring, each system shall monitor for the following WQPs, pursuant to section 64680 (General WQP Monitoring Requirements):

(a) pH;

(b) Alkalinity;

(c) Orthophosphate, when an inhibitor containing a phosphate compound is used;

(d) Silica, when an inhibitor containing a silicate compound is used;

(e) Calcium;

(f) Conductivity; and

(g) Water temperature.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

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4. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64681, 22 CA ADC § 64681

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22 CCR § 64682

§ 64682. WQP Monitoring After CCT Installation.

(a) Each system that installs CCT shall monitor the following WQPs, pursuant to section 64680 (General WQP Monitoring Requirements), as applicable:

(1) At taps:

(A) pH;

(B) Alkalinity;

(C) Orthophosphate, when an inhibitor containing a phosphate compound is used;

(D) Silica, when an inhibitor containing a silicate compound is used;

(E) Calcium, when calcium carbonate stabilization is used as part of corrosion control.

(2) At each entry point to the distribution system every two weeks as a minimum:

(A) pH;

(B) When alkalinity is adjusted as part of CCT, a reading of the dosage rate of the chemical used to adjust alkalinity, and the alkalinity concentration; and

(C) When a corrosion inhibitor is used as part of CCT, a reading of the dosage rate of the inhibitor used, and the concentration of the active ingredient(s).

(b) A ground water system may use entry points that are representative of water quality and treatment conditions throughout the system for the monitoring required in paragraph (a)(2) as follows:

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(1) If waters from untreated and treated groundwater sources mix, the system shall monitor entry points representative of each;

(2) Prior to monitoring, the system shall submit written documentation to the Department identifying the sites and demonstrating that they are representative.

(c) Subject to the Department's written approval, a system that has no action level exceedance and meets the Department-specified WQP values or ranges may reduce tap monitoring as follows:

(1) After two consecutive periods during which it has met the WQP values or ranges, the system shall monitor each period at the reduced number of sites, pursuant to table 64680-A;

(2) After three consecutive years (including the initial sampling year) during which it has met the WQP values or ranges, the system shall monitor annually at the reduced number of sites at evenly-spaced intervals throughout the year; and

(3) After three consecutive years of annual monitoring during which the system meets the WQP values or ranges, the system shall monitor once every three years at the reduced number of sites at evenly-spaced intervals throughout the monitoring year.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New article 6 and section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of subsection (b) (Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order, including amendment of subsection (i), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer of article 6 (sections 64682-64685) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64683

§ 64683. Corrosion Control Study Procedure.

(a) Each system conducting a corrosion control study shall:

(1) Evaluate the effectiveness of each of the following treatments, and, if appropriate, combinations of the following treatments to identify the CCT for that system:

(A) Alkalinity and pH adjustment;

(B) Calcium hardness adjustment; and

(C) The addition of a corrosion inhibitor at a concentration sufficient to maintain an effective residual concentration throughout the distribution system.

(2) Evaluate each of the corrosion control treatments using either pipe rig/loop tests, metal coupon tests, partial-system tests, or analyses based on documentation of such treatments from systems of similar size, water chemistry and distribution system configuration.

(3) Measure the following WQPs in any tests conducted under this subsection before and after evaluating the corrosion control treatments listed above:

(A) Lead;

(B) Copper;

(C) pH;

(D) Alkalinity;

(E) Calcium;

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(F) Conductivity;

(G) Corrosion control inhibitor active ingredient (when an inhibitor is used);

(H) Water temperature.

(4) Identify all chemical or physical constraints that limit or prohibit the use of a particular corrosion control treatment and document such constraints with at least one of the following:

(A) Data and documentation showing that a particular corrosion control treatment has adversely affected other water treatment processes when used by another water system with comparable water quality characteristics; and/or

(B) Data and documentation demonstrating that the water system has previously attempted to evaluate a particular corrosion control treatment and has found that the treatment is ineffective or adversely affects other water quality treatment processes.

(5) Evaluate the effect of the chemicals used for corrosion control treatment on other water treatment processes.

(6) Recommend to the Department in writing the treatment option that the corrosion control studies indicate constitutes CCT for that system on the basis of an analysis of the data generated during each evaluation. The water system shall provide a rationale for its recommendation along with all supporting documentation specified in paragraphs (a)(1) through (5) of this section.

(b) Based on the study conducted pursuant to subsection (a), and a system's recommended treatment alternative, the Department will either approve the corrosion control treatment option recommended by the system, or designate alternative corrosion control treatment(s) from among those listed in paragraph (a)(1) of this section, notify the system of its decision on CCT in writing and explain the basis for its determination. If the Department requests additional information to aid its review, the water system shall provide the information.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of subsections (c)(2) and (d) (Register 96, No. 38).

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4. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer of former article 5 (sections 64680-64681), new article 5 (sections 64683-64685) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64684

§ 64684. CCT Installation and Operation.

(a) Each system shall install and operate throughout its distribution system the CCT designated by the Department in subsection 64683(b) (Corrosion Control Studies) or paragraph 64673(c)(3) (Small and Medium-size Water System Requirements) and monitor WQPs pursuant to section 64682 (WQP Monitoring After CCT Installation). When the system completes its installation of CCT, it shall submit a letter to the Department certifying that it has done so.

(b) After the system installs CCT, the Department will review the treatment and pre- and post-treatment tap sampling and WQP monitoring data and specify WQPs in writing within 42 months of its CCT designation as follows:

(1) A minimum value or a range of values for pH measured at each entry point to the distribution system;

(2) A minimum pH value of 7.0 or greater, measured in all tap samples, unless the Department determines that meeting a pH level of 7.0 is not technologically feasible or is not necessary for the system to optimize corrosion control;

(3) If a corrosion inhibitor is used, a minimum concentration or a range of concentrations for the inhibitor, measured at each entry point to the distribution system and in all tap samples, that the Department determines is necessary to maintain a passivating film on the interior walls of the pipes of the distribution system;

(4) If alkalinity is adjusted as part of CCT, a minimum concentration or a range of concentrations for alkalinity, measured at each entry point to the distribution system and in all tap samples;

(5) If calcium carbonate stabilization is used as part of corrosion control, a minimum concentration or a range of concentrations for calcium, measured in all tap samples; and

(6) Values for additional WQPs determined by the Department to reflect CCT for the system.

(c) After the Department specifies WQP values and ranges, each system shall monitor pursuant to section 64680 (General WQP Monitoring Requirements) and maintain WQPs as specified by the Department.

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(d) A system shall be out of compliance with the WQP values and ranges specified by the Department pursuant to subsection (b) for any period during which it has excursions for more than nine days.

(1) An excursion occurs when a "daily value" at one or more sample sites for one or more WQPs in a day is below the minimum value or outside the range of Department-specified WQPs.

(2) A "daily value" for a WQP at a site is determined as follows:

(A) If sampling is more than once a day by continuous monitoring, grab sampling or both, the daily value shall be the average of all the day's results at the sampling site.

(B) If sampling is once a day, the daily value shall be the day's result.

(C) If sampling is less than once a day, the daily value shall apply to the day that the water supplier receives the result from the laboratory or the 30th day after the sample is collected, whichever comes first.

(3) When an excursion occurs, within 48 hours of being notified of the results of the initial sample(s), the system shall investigate the cause and collect a followup sample at each affected site for each WQP that did not meet the Department-specified values. The criteria in paragraphs (d)(1) and (2) shall be applied to the followup sample results to determine if another excursion has occurred.

(e) A system conducting reduced WQP tap monitoring that fails to meet the Department-specified WQPs shall resume standard WQP tap monitoring pursuant to section 64680 (General WQP Monitoring Requirements).

(f) The results of any monitoring conducted in addition to the minimum requirements of this section shall be considered by the system and submitted to the Department for making any determinations (i.e., determining concentrations of WQPs).

(g) Upon its own initiative or in response to a request by a system, the Department may modify in writing its designation of CCT or its specified WQP values and ranges if it determines that modification is necessary to ensure that the system continues to maintain CCT. Any request shall be in writing, explain the reason for the requested modification, and include supporting documentation.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

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2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of subsection (b)(2)(A) (Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order, including amendment of subsection (a), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64685

§ 64685. Source Water Monitoring and Treatment Designation.

(a) Within six months of an action level exceedance, a system shall:

(1) Collect one lead and copper source water sample from each entry point to the distribution system that is representative of the source or combined sources and is collected after any treatment, if treatment is applied before distribution;

(2) In writing, either recommend to the Department the installation and operation of a source water treatment (ion exchange, reverse osmosis, lime softening, or coagulation/filtration) or demonstrate that source water treatment is not needed to minimize lead and copper levels at users' taps; and

(3) Submit any additional information requested by the Department to aid in its determination of whether source water treatment is necessary to minimize lead and copper levels in water delivered to users' taps.

(b) The Department will make a determination regarding source water treatment within six months after submission of monitoring results under subsection (a).

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order, including amendment of subsection (a)(1), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer of former article 6 (sections 64682-64685), new article 6 (sections 64685-64686) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64686

§ 64686. Requirements Subsequent to the Department's Designation.

(a) If the Department determines that source water treatment is required pursuant to subsection 64685(b), the system shall comply with the following within the specified timeframes that begin with the Department's determination regarding source water treatment:

(1) Install the treatment within 24 months and submit a letter to the Department certifying that installation has been completed;

(2) Collect an additional source water sample from each entry point to the distribution system during two consecutive periods within 36 months;

(3) Complete two consecutive periods of standard monitoring for lead and copper pursuant to section 64675 (General Requirements for Tap Sampling for Lead and Copper) within 36 months.

(b) Within 6 months after the system installs source water treatment, based on its review of the data collected pursuant to subsection (a) and the contaminant removal capability of the installed treatment when properly operated, the Department will specify maximum permissible lead and copper levels for water entering the distribution system. The water system shall comply with these maximum permissible levels.

(c) After the Department specifies maximum permissible levels or determines that source water treatment is not needed, the system shall conduct standard monitoring related to source water pursuant to table 64686-A, according to source water type. If approved by the Department based on a review of source water data, the system may reduce monitoring pursuant to table 64686-A.

Table 64686-A. Standard and Reduced Monitoring Related to Source Water

Type of monitoring	Ground water	Surface water with or without groundwater
Standard monitoring	1 sample at each entry point every year, as a minimum	1 sample at each entry point every 3 years, as a minimum

Reduced monitoring, after 3 consecutive rounds of standard monitoring in compliance with maximum permissible levels.	1 sample at each entry point every 9 years	1 sample at each entry point every 9 years

Type of monitoring	*Ground water*	*Surface water with or without groundwater*
Standard monitoring	1 sample at each entry point every 3 years, as a minimum	1 sample at each entry point every year, as a minimum
Reduced monitoring, after 3 consecutive rounds of standard monitoring in compliance with maximum permissible levels.	1 sample at each entry point every 9 years	1 sample at each entry point every 9 years

(d) If a system does not have an action level exceedance for lead and/or copper during three consecutive years for groundwater or one year for surface water with or without groundwater, the system is not required to conduct sampling related to source water for the specific chemical.

(e) If the results of sampling indicate an exceedance of the maximum permissible levels specified pursuant to subsection (b), one additional sample may be collected at the same sampling point as soon as possible within 14 days of the initial sample to confirm the result. If a confirmation sample is collected, then the average of the initial and confirmation sample results shall be used to determine compliance with the maximum permissible levels.

(f) A water system that begins using a new water source shall reinitiate standard monitoring pursuant to subsection (c) and conduct three rounds of monitoring with the new source online before reducing the monitoring frequency.

(g) Upon its own initiative or in response to a request by a system, the Department may modify its determination of the source water treatment, or maximum permissible lead and copper concentrations for treated source water. Any request shall be in writing, explain the reason for the requested modification, and include supporting documentation.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 1-16-90; operative 2-15-90 (Register 90, No. 4).

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2. Renumbering and amendment of Noteof former section 64686 to section 64469 filed 5-27-92; operative 6-26-92 (Register 92, No. 22).

3. New article 7 and section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

4. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

5. Certificate of Compliance as to 12-11-95 order, including amendment of subsections (b)(1) and (c), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

6. Repealer of article 7 (sections 64686-64688) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64686, 22 CA ADC § 64686

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Title 22. Social Security
Division 4. Environmental Health
Chapter 17.5. Lead and Copper
Article 7. Public Education Program for Lead Action Level Exceedances

22 CCR § 64687

§ 64687. Lead Public Education Program Content and Delivery.

(a) Each system with a lead action level exceedance shall conduct a lead public education program that includes delivery of the following public education materials pursuant to subsection (d). Within 10 days after the period during which the program was required, the system shall submit a letter to the Department demonstrating that it has delivered the public education materials as required and include a list of all the newspapers, radio stations, television stations, facilities and organizations to which the system delivered the materials during the previous year.

(1) Except as provided in subsection (b), a community water system shall include the following text in all of the printed materials it distributes through its lead public education program:

(A) Introduction. The California Department of Health Services (DHS), the U.S. Environmental Protection Agency, and [insert name of water supplier] are concerned about lead in your drinking water. Although most homes have very low levels of lead in their drinking water, some homes in the community have lead levels above the state and federal action level of 15 parts per billion (ppb), or 0.015 milligrams of lead per liter of water (mg/L). Under state and federal law we are required to have a program in place to minimize lead in your drinking water by [insert date when corrosion control will be completed for your system]. This program includes corrosion control treatment, source water treatment, and public education. We are also required to replace the portion of each lead service line that we own if the line contributes lead concentrations of 15 ppb or more after we have completed the comprehensive treatment program. If you have any questions about how we are carrying out the requirements of the lead regulation please give us a call at [insert water system's phone number]. This brochure explains the simple steps you can take to protect you and your family by reducing your exposure to lead in drinking water.

(B) Health Effects of Lead. Lead is a common metal found throughout the environment in lead-based paint, air, soil, household dust, food, certain types of pottery porcelain and pewter, and water. Lead can pose a significant risk to your health if too much of it enters your body. Lead builds up in the body over many years and can cause damage to the brain, red blood cells and kidneys. The greatest risk is to young children and pregnant women. Amounts of lead that won't hurt adults can slow down normal mental and physical development of growing bodies. In addition, a child at play often comes into contact with sources of lead contamination -- like dirt and dust -- that rarely affect an adult. It is important to wash children's hands and toys often, and to try to make sure they only put food in their mouths.

(C) Lead In Drinking Water

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1. Lead in drinking water, although rarely the sole cause of lead poisoning, can significantly increase a person's total lead exposure, particularly the exposure of infants who drink baby formulas and concentrated juices that are mixed with water. The U.S. Environmental Protection Agency estimates that drinking water can make up 20 percent or more of a person's total exposure to lead.

2. Lead is unusual among drinking water contaminants in that it seldom occurs naturally in water supplies like rivers and lakes. Lead enters drinking water primarily as a result of the corrosion, or wearing away, of materials containing lead in the water distribution system and household plumbing. These materials include lead-based solder used to join copper pipe, brass and chrome plated brass faucets, and in some cases, pipes made of lead that connect your house to the water main (service lines). In 1986, Congress banned the use of lead solder containing greater than 0.2% lead, and restricted the lead content of faucets, pipes and other plumbing materials to 8.0%. In California, a similar law prohibiting the use of both lead solder and lead pipe was enacted in 1985.

3. When water stands in lead pipes or plumbing systems containing lead for several hours or more, the lead may dissolve into your drinking water. This means the first water drawn from the tap in the morning, or later in the afternoon after returning from work or school, can contain fairly high levels of lead.

(D) Steps You Can Take in the Home to Reduce Exposure to Lead in Drinking Water

1. Despite our best efforts mentioned earlier to control water corrosivity and remove lead from the water supply, lead levels in some homes or buildings can be high. To find out whether you need to take action in your own home, have your drinking water tested to determine if it contains excessive concentrations of lead. Testing the water is essential because you cannot see, taste, or smell lead in drinking water. Some local laboratories that can provide this service are listed at the end of this booklet. For more information on having your water tested, please call [insert phone number of water system].

2. If a water test indicates that the drinking water drawn from a tap in your home contains lead above 15 ppb, then you should take the following precautions:

A. Let the water run from the tap before using it for drinking or cooking any time the water in a faucet has gone unused for more than six hours. The longer water resides in your home's plumbing the more lead it may contain. Flushing the tap means running the cold water faucet until the water gets noticeably colder, usually about 15 to 30 seconds. If your house has a lead service line to the water main, you may have to flush the water for a longer time, perhaps one minute, before drinking. Although toilet flushing or showering flushes water through a portion of your home's plumbing system, you still need to flush the water in each faucet before using it for drinking or cooking. Flushing tap water is a simple and inexpensive measure you can take to protect your family's health. It usually uses less than one or two gallons of water and costs less than [insert a cost estimate based on flushing two times a day for 30 days] per month. To conserve water, fill a couple of bottles for drinking water after flushing the tap, and whenever possible use the first flush water to wash the dishes or water the plants. If you live in a high-rise building, letting the water flow before using it may not work to lessen your risk from lead. The plumbing systems have more, and sometimes larger pipes than smaller buildings. Ask your landlord for help in locating the source of the lead and for advice on reducing the lead level.

B. Try not to cook with, or drink water from the hot water tap. Hot water can dissolve more lead more quickly than cold water. If you need hot water, draw water from the cold tap and heat it on the stove.

C. Remove loose lead solder and debris from the plumbing materials installed in newly constructed homes, or homes in which the plumbing has recently been replaced, by removing the faucet strainers from all taps and running the water from 3 to 5 minutes. Thereafter, periodically remove the strainers and flush out any debris that has accumulated over time.

D. If your copper pipes are joined with lead solder that has been installed illegally since it was banned in 1986, notify the plumber who did the work and request that he or she replace the lead solder with lead-free solder. Lead solder looks dull gray, and when scratched with a key looks shiny. In addition, notify the California Department of Health Services and your local environmental health department about the violation.

E. Determine whether or not the service line that connects your home or apartment to the water main is made of lead. The best way to determine if your service line is made of lead is by either hiring a licensed plumber to inspect the line or by contacting the plumbing contractor who installed the line. You can identify the plumbing contractor by checking the record of building permits which should be maintained in the files of the [insert name of department that issues building permits]. A licensed plumber can at the same time check to see if your home's plumbing contains lead solder, lead pipes, or pipe fittings that contain lead. The public water system that delivers water to your home should also maintain records of the materials located in the distribution system. If the service line that connects your dwelling to the water main contributes more than 15 ppb to drinking water, after our comprehensive treatment program is in place, we are required to replace the portion of the line we own. If the line is only partially owned by the [insert name of the city, county, or water system that owns the line], we are required to provide the owner of the privately-owned portion of the service line with information on how to replace the privately-owned portion of the service line, and offer to replace that portion of the line at the owner's expense. If we replace only the portion of the line that we own, we also are required to notify you in advance and provide you with information on the steps you can take to minimize exposure to any temporary increase in lead levels that may result from the partial replacement, to take a follow-up sample at our expense from the line within 72 hours after the partial replacement, and to mail or otherwise provide you with the results of that sample within three business days of receiving the results. Acceptable replacement alternatives include copper, stainless steel, and plastic pipes. Partial replacement should avoid the creation of mixed piping systems and include the installation of approved dielectric couplings at all dissimilar metal interfaces.

F. Have an electrician check your wiring. If grounding wires from the electrical system are attached to your pipes, corrosion may be greater. Check with a licensed electrician or your local electrical code to determine if your wiring can be grounded elsewhere. DO NOT attempt to change the wiring yourself because improper grounding can cause electrical shock and fire hazards.

3. The steps described above will reduce the lead concentrations in your drinking water. However, if a water test indicates that the drinking water coming from your tap contains lead concentrations in excess of 15 ppb after flushing, or after we have completed our actions to minimize lead levels, then you may want to take the following additional measures:

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A. Purchase or lease a home treatment device. Home treatment devices are limited in that each unit treats only the water that flows from the faucet to which it is connected, and all of the devices require periodic maintenance and replacement. Devices such as reverse osmosis systems or distillers can effectively remove lead from your drinking water. Since these treatments remove dissolved minerals, water treated by these devices will have a greater tendency to leach lead from brass faucets or fittings which the water contacts after treatment. Some activated carbon filters may reduce lead levels at the tap, however all lead reduction claims should be investigated. Be sure to check the actual performance of a specific home treatment device before and after installing the unit. The California Department of Health Services certifies the effectiveness of home treatment devices. Only devices certified by the California Department of Health Services to remove lead should be used for this purpose.

B. Purchase bottled water for drinking and cooking.

4. You can consult a variety of sources for additional information. Your family doctor or pediatrician can perform a blood test for lead and provide you with information about the health effects of lead. State and local government agencies that can be contacted include:

A. [insert the name of city or county department of public utilities] at [insert phone number] can provide you with information about your community's water supply, and a list of local laboratories that have been certified by the California Department of Health Services for testing water quality;

B. [insert the name of city or county department that issues building permits] at [insert phone number] can provide you with information about building permit records that should contain the names of plumbing contractors that plumbed your home; and

C. California Department of Health Services, Childhood Lead Poisoning Prevention Branch at [insert the phone number] or the [insert the name of the city or county health department] at [insert phone number] can provide you with information about the health effects of lead and how you can have your child's blood tested.

5. The following is a list of some state approved laboratories in your area that you can call to have your water tested for lead. [Insert names and phone numbers of at least two laboratories].

(2) Except as provided in subsection (b), a nontransient-noncommunity water system shall include either the text in paragraph (a)(1) or the following text, in all of the printed materials it distributes through its lead public education program.

(A) Introduction. The California Department of Health Services, the United States Environmental Protection Agency (EPA) and [insert name of water supplier] are concerned about lead in your drinking water. Some drinking water samples taken from this facility have lead levels above the EPA action level of 15 parts per billion (ppb), or 0.015 milligrams of lead per liter of water (mg/L). Under Federal law we are required to have a program in place to minimize lead in your drinking water by [insert date when corrosion control will be completed for your system]. This program includes corrosion control treatment, source water treatment, and public education. We are also required to replace the portion of each lead service line that we own if the line contributes lead concentrations

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of more than 15 ppb after we have completed the comprehensive treatment program. If you have any questions about how we are carrying out the requirements of the lead regulation please give us a call at [insert water system's phone number]. This brochure explains the simple steps you can take to protect yourself by reducing your exposure to lead in drinking water.

(B) Health Effects of Lead. Lead is found throughout the environment in lead-based paint, air, soil, household dust, food, certain types of pottery porcelain and pewter, and water. Lead can pose a significant risk to your health if too much of it enters your body. Lead builds up in the body over many years and can cause damage to the brain, red blood cells and kidneys. The greatest risk is to young children and pregnant women. Amounts of lead that won't hurt adults can slow down normal mental and physical development of growing bodies. In addition, a child at play often comes into contact with sources of lead contamination - like dirt and dust - that rarely affect an adult. It is important to wash children's hands and toys often, and to try to make sure they only put food in their mouths.

1. Lead in drinking water, although rarely the sole cause of lead poisoning, can significantly increase a person's total lead exposure, particularly the exposure of infants who drink baby formulas and concentrated juices that are mixed with water. The EPA estimates that drinking water can make up 20 percent or more of a person's total exposure to lead.

2. Lead is unusual among drinking water contaminants in that it seldom occurs naturally in water supplies like rivers and lakes. Lead enters drinking water primarily as a result of the corrosion, or wearing away, of materials containing lead in the water distribution system and household plumbing. These materials include lead-based solder used to join copper pipe, brass and chrome-plated brass faucets, and in some cases, pipes made of lead that connect houses and buildings to water mains (service lines). In 1986, Congress banned the use of lead solder containing greater than 0.2% lead, and restricted the lead content of faucets, pipes and other plumbing materials to 8.0%.

3. When water stands in lead pipes or plumbing systems containing lead for several hours or more, the lead may dissolve into your drinking water. This means the first water drawn from the tap in the morning, or later in the afternoon if the water has not been used all day, can contain fairly high levels of lead.

(D) Steps You Can Take. Steps you can take to reduce exposure to lead in drinking water include:

1. Let the water run from the tap before using it for drinking or cooking any time the water in a faucet has gone unused for more than six hours. The longer water resides in plumbing the more lead it may contain. Flushing the tap means running the cold water faucet for about 15-30 seconds. Although toilet flushing or showering flushes water through a portion of the plumbing system, you still need to flush the water in each faucet before using it for drinking or cooking. Flushing tap water is a simple and inexpensive measure you can take to protect your health. It usually uses less than one gallon of water.

2. Do not cook with, or drink water from the hot water tap. Hot water can dissolve more lead more quickly than cold water. If you need hot water, draw water from the cold tap and then heat it.

3. The steps described above will reduce the lead concentrations in your drinking water. However, if you are still concerned, you may wish to use bottled water for drinking and cooking.

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4. You can consult a variety of sources for additional information. Your family doctor or pediatrician can perform a blood test for lead and provide you with information about the health effects of lead. State and local government agencies that can be contacted include:

A. [insert the name or title of facility official if appropriate] at [insert phone number] can provide you with information about your facility's water supply; and

B. [insert the name or title of the State Department of Health Services] at [insert phone number] or the [insert the name of the city or county health department] at [insert phone number] can provide you with information about the health effects of lead.

(b) Any additional information presented shall be consistent with the information in subsection (a) and be in plain language that can be understood by laypersons. A system may delete information pertaining to lead service lines, on approval by the Department, if the water system does not have any such lines. Building permit record availability and consumer access to these records may be modified, if approved by the Department.

(c) The system shall include the following information in all public service announcements submitted under its lead public education program to television and radio stations for broadcasting:

(1) Why should everyone want to know the facts about lead and drinking water? Because unhealthy amounts of lead can enter drinking water through the plumbing in your home. That's why I urge you to do what I did. I had my water tested for [insert free or cost per sample]. You can contact the [insert the name of the city or water system] for information on testing and on simple ways to reduce your exposure to lead in drinking water.

(2) To have your water tested for lead, or to get more information about this public health concern, please call [insert the phone number of the city or water system].

(d) The system shall conduct the lead public education program as follows:

(1) In communities where a significant proportion of the population speaks a language other than English, public education materials shall be communicated in the appropriate language(s).

(2) Within 60 days after it has a lead action level exceedance, unless it is already conducting a lead public education program, a community water system shall:

(A) Insert notices in each customer's water utility bill containing the information in paragraph (a)(1), along with the following alert on the water bill itself in large print: SOME HOMES IN THIS COMMUNITY HAVE ELEVATED LEAD LEVELS IN THEIR DRINKING WATER. LEAD CAN POSE A SIGNIFICANT RISK TO YOUR HEALTH. PLEASE READ THE ENCLOSED NOTICE FOR FURTHER INFORMATION. A community water system with a billing cycle that does not include a billing within 60 days of the exceedance, or that cannot

insert information in the bill without making major changes to its billing system, may use a separate mailing as long as it is conducted within 60 days of the exceedance.

(B) Submit the information in paragraph (a)(1) to the editorial departments of the major daily and weekly newspapers circulated throughout the community.

(C) Deliver pamphlets and/or brochures that contain the public education materials in subparagraphs (a)(1)(B) and (D) to facilities and organizations, including the following:

1. Public schools and/or local school boards;

2. City or county health department;

3. Women, Infants, and Children and/or Head Start Program(s) whenever available;

4. Public and private hospitals and/or clinics;

5. Pediatricians;

6. Family planning clinics; and

7. Local welfare agencies.

(D) Submit the public service announcement in subsection (c) to at least five of the radio and television stations with the largest audiences that broadcast to the community served by the system.

(3) A community system shall repeat the tasks in subparagraphs (d)(2)(A),(B) and (C) every 12 months, and the tasks in subparagraph (d)(2)(D) every 6 months for as long as the system has a lead action level exceedance.

(4) Within 60 days after it has a lead action level exceedance, unless it is already conducting a lead public education program, a nontransient-noncommunity system shall deliver the public education materials in paragraphs (a)(1) or (a)(2) as follows:

(A) Post informational posters on lead in drinking water in a public place or common area in each of the buildings served by the system; and

(B) Distribute informational pamphlets and/or brochures on lead in drinking water to each person served by the system. The Department may allow the system to utilize electronic transmission in lieu of or combined with printed materials as long as it achieves at least the same coverage.

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(5) A nontransient-noncommunity system shall repeat the tasks in paragraph (4) at least once during each calendar year in which the system has a lead action level exceedance.

(6) A system may discontinue the lead public education program if it does not have a lead action level exceedance during the most recent period. The system shall recommence the program pursuant to this section if it subsequently has a lead action level exceedance.

(7) A community water system may apply to the Department, in writing, to use the text in paragraph (a)(2) in lieu of the text in paragraph (a)(1) and to perform the tasks listed in paragraphs (d)(4) and (c)(5) of this section in lieu of the tasks in paragraphs (d)(2) and (d)(3) of this section if:

(A) The system is a facility, such as a prison or a hospital, where the population served is not capable of or is prevented from making improvements to plumbing or installing point of use treatment devices; and

(B) The system provides water as part of the cost of services provided and does not separately charge for water consumption.

(8) A community water system serving 3,300 or fewer people may omit the task contained in subparagraph (d)(2)(D). As long as it distributes notices containing the information contained in paragraph (a)(1) of this section to every household served by the system, such systems may further limit their public education programs as follows:

(A) Systems serving 500 or fewer people may forego the task contained in subparagraph (d)(2)(B). Such a system may limit the distribution of the public education materials required under subparagraph (d)(2)(C) to facilities and organizations served by the system that are most likely to be visited regularly by pregnant women and children, unless notified by the Department in writing that it shall make a broader distribution.

(B) If approved by the Department in writing, a system serving 501 to 3,300 people may omit the task in subparagraph (d)(2)(B) and/or limit the distribution of the public education materials required under subparagraph (d)(2)(C) to facilities and organizations served by the system that are most likely to be visited regularly by pregnant women and children.

(9) A community water system serving 3,300 or fewer people that delivers the lead public education in accordance with paragraph (d)(8)(A) of this section shall repeat these requirements at least once during each calendar year in which the system exceeds the lead action level.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

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1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order, including amendment of subsection (a), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer of former article 7 (sections 64686-64688), new article 7 (section 64687) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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Title 22. Social Security
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Article 8. Lead Service Line Requirements for Action Level Exceedances

22 CCR § 64688

§ 64688. Lead Service Line Replacement.

(a) A system shall replace lead service lines if:

(1) It has a lead action level exceedance in tap samples after installing corrosion control and/or source water treatment (whichever sampling occurs later) and/or

(2) It is in violation for failure to install source water treatment or CCT.

(b) Within 6 months after it has a lead action level exceedance, the system shall demonstrate in writing that it has conducted a materials evaluation including that in section 64676 (Sample Site Selection) to identify the initial number of lead service lines in its distribution system, and shall submit both the demonstration and a schedule for complying with subsection (c) to the Department.

(c) Except as provided in subsection (e), a system that is required to conduct lead service line replacement shall annually replace at least 7 percent of the initial number of lead service lines in its distribution system, pursuant to the following.

(1) At the time the lead service line replacement begins, the system shall identify the initial number of lead service lines in its distribution system based on the evaluation in section 64676 (Sample Site Selection).

(2) The first year of lead service line replacement shall begin on the date the system first had a lead action level exceedance subsequent to its installation of CCT and, if required pursuant to section 64686, source water treatment.

(3) The system is not required to replace an individual lead service line if the lead concentration in each and every service line sample from that line, taken pursuant to the section 64687 (Lead Service Line Sampling), is less than or equal to 0.015 mg/L.

(4) The system shall replace that portion of the lead service line that it owns and keep ownership documentation in its files and offer to replace the building owner's portion of the line with the cost being borne by the building owner. If the building owner does not accept the offer, the system shall:

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(A) At least 45 days prior to commencing the partial replacement, notify the resident(s) of all buildings served by the line that they may experience a temporary increase of lead levels in their drinking water, along with guidance on measures they may take to minimize their exposure. If the replacement is in conjunction with emergency repairs, the Department will allow a shorter notice, depending on the nature of the emergency and the timing involved. The notice shall be mailed unless an alternate method is approved by the Department, based on the feasibility of insuring that all consumers receive the notice; and

(B) Inform the resident(s) that the system will collect a first flush tap water sample within 72 hours after the partial replacement of the service line has been completed if the resident(s) so desire. If the resident(s) accept the offer, the system shall collect the sample and report the results to the resident(s) and the owner within three business days of receiving the results and to the Department.

(d) Within 12 months after the lead action level exceedance, and every 12 months thereafter, the system shall submit in writing to the Department the number of lead service lines scheduled to be replaced during the previous year of the system's replacement schedule, along with the following information to the Department:

(1) The number and location of each lead service line replaced during the previous year of the system's replacement schedule to demonstrate that it has replaced at least 7 percent of the initial lead service lines within the previous 12 months, or a greater number of lines if required by the Department; or

(2) Lead service line sampling results that demonstrate that the lead level from an individual line(s) is less than or equal to 0.015 mg/L, pursuant to section 64689 (Lead Service Line Sampling). The system shall submit the results of the lead service line sampling including the lead levels, location of each lead service line sampled, the sampling method, and the date of sampling. It shall also include the number and location of each lead service line replaced during the previous year. In such cases, the total number of lines replaced and/or that meet the criteria shall equal at least 7 percent of the initial number of lead lines identified or the percentage required by the Department.

(e) A system shall replace lead service lines at a faster rate than that required by subsection (b), taking into account the number of lead service lines in the system, if the Department determines either that this is necessary based on elevated blood lead levels in the population served, or that it is feasible to complete the lead service line replacement program in a shorter time without increasing the water rates to the customers.

(f) A system may cease replacing lead service lines when it has two consecutive periods without a lead action level exceedance. If the system has a lead action level exceedance during any subsequent period, it shall recommence replacing lead service lines.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

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2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order, including amendment of subsections (c)(1)-(2) and (c)(4), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer of former article 8 (sections 64689-64690), new article 8 (sections 64688-64689) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64688, 22 CA ADC § 64688

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Barclays Official California Code of Regulations Currentness
Title 22. Social Security
Division 4. Environmental Health
Chapter 17.5. Lead and Copper
Article 8. Lead Service Line Requirements for Action Level Exceedances

22 CCR § 64689

§ 64689. Lead Service Line Sampling.

(a) Each lead service line sample shall be one liter in volume and have stood motionless in the lead service line for at least six hours, but not more than twelve.

(b) Lead service line samples shall be collected in one of the following three ways:

(1) At the tap after flushing the volume of water between the tap and the lead service line. The volume of water to be flushed shall be calculated based on the interior diameter and length of the pipe between the tap and the lead service line;

(2) Tapping directly into the lead service line; or

(3) If the sampling site is a building constructed as a single-family residence, allowing the water to run until there is a change in temperature that would be indicative of water that has been standing in the lead service line.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New article 8 and section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order, including amendment of subsection (b), transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer of article 8 (sections 64689-64690) and repealer and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64689, 22 CA ADC § 64689

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22 CCR § 64690

§ 64690. Source Water Monitoring Frequency Requirements.

Note: Authority cited: Sections 100275, 116350, 116365, 116375 and 116385, Health and Safety Code. Reference: Sections 116300 through 116750, Health and Safety Code; and 40 Code of Federal Regulations 141.88(b through e).

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Editorial correction of subsection (c)(1)(B) (Register 96, No. 38).

4. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

5. Repealer filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64690, 22 CA ADC § 64690

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Barclays Official California Code of Regulations Currentness
Title 22. Social Security
Division 4. Environmental Health
Chapter 17.5. Lead and Copper
Article 9. Reporting and Recordkeeping

22 CCR § 64690.10

§ 64690.10. Data Reporting.

Each system shall report the following within the first 10 days after the end of each period during which such sampling or monitoring was conducted:

(a) For lead and copper tap sampling:

(1) The results of all tap samples including the location of each site and the associated tier criteria from section 64676 (Sample Site Selection);

(2) The 90th percentile lead and copper concentrations calculated pursuant to section 64678 (Determination of Exceedances of Lead and Copper Action Levels); and

(3) With the exception of the first period of tap sampling, an identification of any site that was not sampled during previous periods, along with an explanation of why the sampling site was changed;

(b) For WQP monitoring, the results of all samples collected and analyzed pursuant to article 4 (WQP Monitoring) of this chapter;

(c) For source water monitoring:

(1) The results for all samples related to source water collected and analyzed under article 6 (Source Water Requirements for Action Level Exceedances) of this chapter; and

(2) With the exception of the first round of sampling related to source water, an identification of any site that was not sampled during previous periods along with an explanation of why the sampling point was changed; and

(d) The results for any samples collected and analyzed for lead and copper or WQPs in addition to those required by this chapter.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

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HISTORY

1. Repealer of former article 9 (sections 64691-64692), new article 9 (sections 64690.10-64690.80) and new section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

This database is current through 7/27/18 Register 2018, No. 30

22 CCR § 64690.10, 22 CA ADC § 64690.10

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Barclays Official California Code of Regulations Currentness
Title 22. Social Security
Division 4. Environmental Health
Chapter 17.5. Lead and Copper
Article 9. Reporting and Recordkeeping

22 CCR § 64690.80

§ 64690.80. Recordkeeping.

Any system subject to the requirements of this chapter shall retain on its premises original records of all sampling data and analyses, reports, surveys, letters, evaluations, schedules, Department determinations, and any other information required by this chapter. Each water system shall retain the records required by this section for no fewer than 12 years or two compliance cycles (as defined in Section 64400.20), whichever is longer.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116325-116750, Health and Safety Code.

HISTORY

1. New section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64690.80, 22 CA ADC § 64690.80

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Barclays Official California Code of Regulations Currentness
Title 22. Social Security
Division 4. Environmental Health
Chapter 17.5. Lead and Copper
Article 9. Reporting and Recordkeeping

22 CCR § 64691

§ 64691. Reporting Requirements.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116300 through 116750, Health and Safety Code; and 40 Code of Federal Regulations 141.90.

HISTORY

1. New article 9 and section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer of article 9 (sections 64691-64692) and repealer of section filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64691, 22 CA ADC § 64691

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22 CCR § 64692

§ 64692. Recordkeeping Requirements.

Note: Authority cited: Sections 100275, 116350, 116365 and 116375, Health and Safety Code. Reference: Sections 116300 through 116750, Health and Safety Code; and 40 Code of Federal Regulations 141.91.

HISTORY

1. New section filed 12-11-95 as an emergency; operative 12-11-95 (Register 95, No. 50). A Certificate of Compliance must be transmitted to OAL by 4-9-96 or emergency language will be repealed by operation of law on the following day.

2. Refiling of 12-11-95 order, including amendment of Note, filed 4-9-96 as an emergency; operative 4-10-96 (Register 96, No. 15). A Certificate of Compliance must be transmitted to OAL by 8-8-96 or emergency language will be repealed by operation of law on the following day.

3. Certificate of Compliance as to 12-11-95 order transmitted to OAL 8-7-96 and filed 9-16-96 (Register 96, No. 38).

4. Repealer filed 9-11-2003; operative 10-11-2003 (Register 2003, No. 37).

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22 CCR § 64692, 22 CA ADC § 64692

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ATTACHMENT

3

OFFICE OF THE GOVERNOR

OCT 9 2015

To the Members of the California State Senate:

I am returning Senate Bill 334 without my signature.

This bill requires a school district that has a drinking water source that does not meet the Environmental Protection Agency's drinking water standards to provide alternative drinking water to their students.

I agree that all California students should have access to safe drinking water but this bill creates a state mandate of uncertain but possibly very large magnitude.

As our first order of business, local schools should understand the nature of their water quality problem, if there is one. Accordingly, I am directing the State Water Resources Control Board to work with school districts and local public water systems to incorporate water quality testing in schools as part of their lead and copper rule. School districts should utilize this information to ensure all students are provided safe water.

Sincerely,

Edmund G. Brown Jr.

GOVERNOR EDMUND G. BROWN JR. • SACRAMENTO, CALIFORNIA 95814 • (916) 445-2841

ATTACHMENT

4

Senate Bill No. 334

Passed the Senate September 10, 2015

_____

Secretary of the Senate

Passed the Assembly September 8, 2015

_____

Chief Clerk of the Assembly

This bill was received by the Governor this _____ day of _____, 2015, at _____ o'clock ___M.

_____

Private Secretary of the Governor

CHAPTER _____

An act to amend Sections 32242 and 38086 of, to add Sections 32241.5, 32246, and 32249 to, and to add Article 13 (commencing with Section 49580) to Chapter 9 of Part 27 of Division 4 of Title 2 of, the Education Code, relating to pupil health.

LEGISLATIVE COUNSEL'S DIGEST

SB 334, Leyva. Pupil health: drinking water.

(1) Existing law requires a school district to provide access to free, fresh drinking water during meal times in school food service areas, unless the governing board of a school district adopts a resolution stating that it is unable to comply with this requirement and demonstrating the reasons why it is unable to comply due to fiscal constraints or health and safety concerns. Existing law requires the resolution to be publicly noticed on at least 2 consecutive meeting agendas and approved by at least a majority of the governing board of the school district.

This bill would delete the provision authorizing a school district to adopt a resolution stating that it is unable to provide access to free, fresh drinking water during meal times. The bill would instead specify that a school district shall provide access to free, fresh, and clean drinking water during meal times through the use of drinking water access points, as defined. By imposing additional duties on school districts, this bill would impose a state-mandated local program.

This bill would require a school district that has drinking water sources with drinking water that does not meet the United States Environmental Protection Agency drinking water standards for lead or any other contaminant to close access to those drinking water sources, to provide alternative drinking water sources, as specified, and to notify specified persons if the school district is required to provide those alternative drinking water sources. By imposing additional duties on pupil schools and school districts, this bill would impose a state-mandated local program.

(2) Under existing law, known as the Lead-Safe Schools Protection Act, the State Department of Public Health is required to perform various activities related to reducing the risk of exposure

to lead hazards in public schools, including, among other activities, working with the State Department of Education to develop voluntary guidelines to ensure that lead hazards are minimized in the course of school repair and maintenance programs and abatement procedures.

This bill would repeal the requirement that the State Department of Public Health develop voluntary guidelines. The bill would instead require the State Department of Education to make information available to school districts about the United States Environmental Protection Agency's technical guidance for reducing lead in drinking water in schools. The bill would prohibit drinking water that does not meet the United States Environmental Protection Agency drinking water standards for lead from being provided at a school facility. The bill would require a public school that has lead-containing plumbing components to flush all drinking water sources at the beginning of each schoolday, except as provided. By imposing additional duties on public schools and school districts, this bill would impose a state-mandated local program.

(3) The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that, if the Commission on State Mandates determines that the bill contains costs mandated by the state, reimbursement for those costs shall be made pursuant to these statutory provisions.

The people of the State of California do enact as follows:

SECTION 1. Section 32241.5 is added to the Education Code, to read:

32241.5. The department shall make information available to school districts, by posting on its Internet Web site or through any other means for distributing information it deems effective, about the United States Environmental Protection Agency's technical guidance for reducing lead in drinking water in schools.

SEC. 2. Section 32242 of the Education Code is amended to read:

32242. The State Department of Public Health shall do all of the following:

(a) Design and implement a strategy for identifying the characteristics of high-risk schools and provide a basis for statewide estimates of the presence of lead in schools attended by young children.

(b) Conduct a sample survey, as described in Section 32241, to determine the likely extent and distribution of lead exposure to children from paint on the school, soil in play areas at the school, drinking water at the tap, and other potential sources identified by the State Department of Public Health for this purpose. To the maximum extent possible, limited sample testing shall be used to validate survey results. The State Department of Public Health shall compile and summarize the results of that survey and report those results to the Legislature and the department.

(c) Within 60 days of the completion of testing a schoolsite, the State Department of Public Health shall notify the principal of the school or director of the schoolsite of the survey results. Within 45 days of receiving the survey results, the principal or director, as the case may be, shall notify the teachers and other school personnel and parents of the survey results.

(d) Make recommendations to the Legislature and the department, based on the survey results and consideration of appropriate federal and state standards, on the feasibility and necessity of conducting statewide lead testing and any additional action needed relating to lead contamination in the schools.

(e) As deemed necessary and appropriate in view of the survey results, develop environmental lead testing methods and standards to ensure the scientific integrity of results, for use by schools and contractors designated by schools for that purpose.

(f) Evaluate the most current cost-effective lead abatement technologies.

SEC. 3. Section 32246 is added to the Education Code, to read:

32246. Drinking water that does not meet the United States Environmental Protection Agency drinking water standards for lead shall not be provided at a school facility.

SEC. 4. Section 32249 is added to the Education Code, to read:

32249. A school that has lead-containing plumbing components shall flush all drinking water sources at the beginning of each schoolday, consistent with protocols recommended by the United

States Environmental Protection Agency. A school is not required to flush drinking water sources that have been shut off or have been certified as meeting the United States Environmental Protection Agency's drinking water standards for lead.

SEC. 5. Section 38086 of the Education Code is amended to read:

38086. (a) A school district shall provide access to free, fresh, and clean drinking water during meal times in the food service areas of the schools under its jurisdiction, including, but not necessarily limited to, areas where reimbursable meals under the federal National School Lunch Program or the federal School Breakfast Program are served or consumed. A school district may comply with this section by, among other means, providing cups and containers of water or soliciting or receiving donated bottled water.

(b) A school district shall comply with this section through the use of drinking water access points.

(c) For purposes of this section, "drinking water access point" is defined as a station, plumbed or unplumbed, where pupils can access free, fresh, and clean drinking water. An unplumbed access point may include water bottles and portable water dispensers.

SEC. 6. Article 13 (commencing with Section 49580) is added to Chapter 9 of Part 27 of Division 4 of Title 2 of the Education Code, to read:

Article 13. Drinking Water

49580. (a) A school district that has drinking water sources with drinking water that does not meet the United States Environmental Protection Agency drinking water standards for lead or any other contaminant shall close access to those drinking water sources immediately upon receipt of test results or notification from the public water system.

(b) (1) If, as a result of closing access to a drinking water source pursuant to subdivision (a), a schoolsite within a school district no longer has the minimum number of drinking fountains required pursuant to Chapter 4 (commencing with Section 401.0) of the California Plumbing Code (Part 5 of Title 24 of the California Code of Regulations), the school district shall provide alternative drinking water sources at that schoolsite.

(2) An alternative drinking water source provided pursuant to this subdivision while the source of contamination is being mitigated may be from plumbed or unplumbed sources. Unplumbed sources may include, but are not limited to, portable water sources and bottled water.

(c) A school district shall notify parents or legal guardians, pupils, teachers, and other school personnel of drinking water test results, immediately upon receipt of those test results, if the school district is required to provide alternative drinking water sources.

SEC. 7. If the Commission on State Mandates determines that this act contains costs mandated by the state, reimbursement to local agencies and school districts for those costs shall be made pursuant to Part 7 (commencing with Section 17500) of Division 4 of Title 2 of the Government Code.

Approved _____, 2015

_____

Governor

ATTACHMENT

5

United States Environmental Protection Agency

3Ts for Reducing Lead in Drinking Water in Schools

Revised Technical Guidance

This October 2006 version of the 3Ts for Reducing Lead in Drinking Water in Schools: Revised Technical Guidance is a modification of the December 2005 version. The modifications in this version clarify the instructions for collecting samples from drinking water outlets, please see sections 4.2, 4.4.1, and 4.4.2. Additionally, EPA made some minor modifications to the nomenclature in Chapter 4. Please visit www.epa.gov/safewater/schools for the complete Errata sheet.

Disclaimer

This manual contains recommendations on how to address lead in school drinking water systems; these are suggestions only and are not requirements. This manual does, however, also contain an overview of requirements concerning lead in drinking water. The statutory provisions and regulations described in this document contain binding requirements. The general description here does not substitute for those laws or regulations; nor is this document a regulation itself. As a result, you will need to be familiar with the details of the rules that are relevant to your school drinking water; you cannot rely solely on this guidance for compliance information. Also, many states (or tribes) and localities have different, more stringent requirements than EPA's, so you will need to find out what other laws and regulations apply to school drinking water in addition to the ones described here.

3Ts for Reducing Lead in Drinking Water in Schools: *Revised* Technical Guidance

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Introduction

The Environmental Protection Agency (EPA) developed this guidance manual because the Agency is concerned about the potential for elevated lead levels in drinking water in schools. Children are most susceptible to the effects of lead, because their bodies are still undergoing development. The adverse health effects from lead include reduced IQ and attention span, learning disabilities, poor classroom performance, hyperactivity, behavioral problems, impaired growth, and hearing loss.

There is no federal law requiring testing of drinking water in schools, except for schools that have their own water supply and are thus regulated under the Safe Drinking Water Act (SDWA). The vast majority of public water suppliers do not include schools in their sampling plans because regulations (specifically the Lead and Copper Rule) require sampling of single family dwellings. States and local jurisdictions may, however, establish their own programs for testing drinking water lead levels in schools. EPA suggests that schools implement programs for reducing lead in drinking water as part of the school's overall plan for reducing environmental threats. Safe and healthy school environments foster healthy children, and may improve students' general performance.

Lead most frequently gets into drinking water by leaching from plumbing materials and fixtures as water moves through your school's distribution system. Even though the drinking water you receive from your water supplier meets federal and state standards for lead, your facility may have elevated lead levels due to plumbing materials and water use patterns. Because lead concentrations can change as water moves through the distribution system, the best way to know if a school might have elevated levels of lead in its drinking water is by testing the water in that school. Testing facilitates an evaluation of the plumbing and helps target remediation. It is a key step in understanding the problem, if there is one, and designing an appropriate response.

This guidance manual is intended for use by school officials responsible for the maintenance and/or safety of school facilities including the drinking water. The guidance introduces the 3Ts for reducing lead in drinking water. The 3Ts are:

- ***Training*** school officials to raise awareness of the potential occurrences, causes, and health effects of lead in drinking water; assist school officials in identifying potential areas where elevated lead may occur; and establishing a testing plan to identify and prioritize testing sites.

- ***Testing*** drinking water in schools to identify potential problems and take corrective actions as necessary.

- ***Telling*** students, parents, staff, and the larger community about monitoring programs, potential risks, the results of testing, and remediation actions.

The purpose of this manual is to help schools minimize their students' and staff's exposure to lead in drinking water. This manual is specifically targeted at schools that receive water from water utilities or water suppliers such as cities, towns and water districts. This guidance manual replaces the 1994 EPA guidance document *Lead in Drinking Water in Schools and Non-Residential Buildings*. By following the steps below, you will be assured your facility does not have elevated levels of lead in the drinking water.

Training

(1) Conduct a thorough review of this guidance document. Other reference documents are available. See Appendix B.

(2) Review available resources to find out what may already have been done and what assistance may be available to you. See Chapter 2.

(3) Develop a plumbing profile to assess the factors that contribute to lead contamination. See Chapter 3.

(4) Develop a drinking water sampling plan. See Chapter 3.

Testing

(5) Test the water. See Chapter 4.

(6) Correct any problems that are identified. See Chapter 5.

Telling

(7) Communicate to students, parents, staff, and the larger community about what you are doing to protect them from possible exposure to lead in drinking water. See Chapter 6.

I. Training

1. What You Should Know about Lead in Drinking Water

1.1 Health Effects of Lead

Lead is a toxic metal that is harmful to human health. Lead has no known value to the human body. The human body cannot tell the difference between lead and calcium, which is a mineral that strengthens the bones. Like calcium, lead remains in the bloodstream and body organs like muscle or brain for a few months. What is not excreted is absorbed into the bones, where it can collect for a lifetime.

Young children, those 6 years and younger, are at particular risk for lead exposure because they have frequent hand-to-mouth activity and absorb lead more easily than do adults. Children's nervous systems are still undergoing development and thus are more susceptible to the effects of toxic agents. Lead is also harmful to the developing fetuses of pregnant women.

No safe blood lead level in children has been determined. Lead can affect almost every organ and system in your body. The most sensitive is the central nervous system (brain), particularly in children. Lead also damages kidneys and the reproductive system. The effects are the same whether it is breathed or swallowed. Low blood levels of lead (those below 10 µg/dL) have been associated with reduced IQ and attention span, learning disabilities, poor classroom performance, hyperactivity, behavioral problems, impaired growth, and hearing loss. Very high lead level (blood lead levels above 70 µg/dL) can cause severe neurological problems such as coma, convulsions, and even death. The only method to determine a child's lead level is for them to have a blood lead test done by a health provider.

The degree of harm from lead exposure depends on a number of factors including the frequency, duration, and dose of the exposure(s) and individual susceptibility factors (e.g., age, previous exposure history, nutrition, and health). In addition, the degree of harm depends on one's total exposure to lead from all sources in the environment - air, soil, dust, food, and water. Lead in drinking water can be a significant contributor to overall exposure to lead, particularly for infants whose diet consists of liquids made with water, such as baby food, juice, or formula.

1.2 Sources of Lead

Lead is distributed in the environment through both natural and man-made means. Today, the greatest contributions of lead to the environment stem from past human activities. Sources of lead exposure include the following:

(1) **Lead based paint.** The most common sources of lead exposure for children are chips and particles of deteriorated lead paint. Although children may be exposed to lead from paint directly by swallowing paint chips, they are more often exposed by house dust or soil contaminated by leaded paint. Lead paint chips become ground into tiny bits that become part of the dust and soil in and around homes. This usually occurs when leaded paint deteriorates or is subject to friction or abrasion (as on doors and windowsills and window wells). In addition, lead can be dispersed when paint is disturbed during demolition, remodeling, paint removal, or preparation of painted surfaces for repainting.

(2) **Lead in the air.** Lead in the air comes from industrial emissions.

(3) **Lead in soil.** Lead deposits in soils around roadways and streets from past emissions by automobiles using leaded gas, together with paint chips and lead paint dust.

(4) **Lead industry.** Byproducts brought home by industrial workers on their clothes and shoes.

(5) **Lead in consumer products and food.** Lead may be found in some imported candies, medicines, dishes, toys, jewelry, and plastics.

(6) **Lead in water.** Lead in water occurs through corrosion of plumbing products containing lead.

The U.S. government has taken steps over the past several decades to dramatically reduce new sources of lead in the environment: by banning the manufacture and sale of leaded paint; by phasing out lead additives in gasoline, and by encouraging the phase-out of lead seams in food cans; by banning the sale of pipes and plumbing for drinking water that are not "lead-free"; and by banning lead-lined water coolers, among other activities. More recently, the government has begun to address persistent sources of lead in the environment. For example, programs have been instituted to minimize the hazards posed by lead paint covering millions of homes across the United States, more stringent air control standards are being applied to industries emitting lead, and more stringent regulations are in place to control lead in drinking water. Regulations affecting lead in drinking water are described at the end of this chapter.

1.3 How Lead Gets into Drinking Water

Lead can get into drinking water in two ways:

(1) by being present in the source water, such as coming from contaminated runoff or water pollution.

(2) through an interaction between the water and plumbing materials containing lead, such as through corrosion.

(1) At the Source

Most sources of drinking water have no lead or very low levels of lead (i.e., under 5 parts per billion). However, lead is a naturally occurring metal and in some instances can get into well water. Lead can enter surface waters (waters from rivers, lakes, or streams) through direct or indirect discharges from industrial or municipal wastewater treatment plants or when lead in air settles into water or onto city streets and eventually, via rain water, flows into storm sewers, or waterways, which may enter the water supply. Lead from these sources can be easily removed by existing treatment plant technologies.

(2) Through Corrosion

Most lead gets into drinking water after the water leaves the local well or treatment plant and comes into contact with plumbing materials containing lead. These include lead pipe and lead solder (commonly used until 1986) as well as faucets, valves, and other components made of brass. The physical/chemical interaction that occurs between the water and plumbing is referred to as corrosion. The extent to which corrosion occurs contributes to the amount of lead that can be released into the drinking water.

The ***critical issue*** is that even though your public water supplier may deliver water that meets all federal and state public health standards for lead, you may end up with too much lead in your drinking water because of the plumbing in your facility. The potential for lead to leach into water can increase the longer the water

remains in contact with lead in plumbing. **As a result, facilities with intermittent water use patterns, such as schools, may have elevated lead concentrations. Testing drinking water in schools is important because children spend a significant portion of their day in these facilities and are likely to consume water while they are there.** That is why testing water from your drinking water outlets for lead is so important. Drinking water outlets are locations where water may be used for consumption, such as a drinking fountain, water faucet, or tap.

The corrosion of lead tends to occur more frequently in "soft" water (i.e., water that lathers soap easily) and acidic (low pH) water. Other factors, however, also contribute to the corrosion potential of the water and include water velocity and temperature, alkalinity, chlorine levels, the age and condition of plumbing, and the amount of time water is in contact with plumbing. The occurrence and rate of corrosion depend on the complex interaction between a number of these and other chemical, physical, and biological factors.

As illustrated in Exhibit 1.1, once the water leaves the public water supply system or treatment plant, drinking water comes into contact with plumbing materials that may contain lead. Some lead may get into the water from the distribution system – the network of pipes that carry the water to homes, businesses, and schools in the community. Some communities have lead components in their distribution systems, such as lead joints in cast iron mains, service connections, pigtails, and goosenecks. These components may or may not be owned by your water supplier.

Sediments containing lead may also collect in the low-lying sections of pipe or behind sediment screens. Lead-containing sediments may result from minute particles of pipe, mineral deposits (scales), valves, fixtures, solder, or flux that accumulate in the plumbing. This may happen during the initial construction of the plumbing system, during repairs, when connecting new fixtures, when plumbing is otherwise disturbed, or during normal use (e.g., turning of faucet handles, movement of valves, etc.). Sediment can also originate from the public water system's water mains and service taps.

If the public water supplier finds unacceptable levels of lead at customers' homes, the system may have to provide centralized treatment to minimize the corrosion of lead into the water (see "How Lead in Drinking Water is Regulated" in section 1.4). However, centralized treatment by a public water system does not guarantee that corrosion of lead from plumbing will not occur within buildings served by the public water system, i.e., your school.

Interior plumbing, soldered joints, leaded brass fittings, and various drinking water outlets that contain lead materials are the primary contributors of lead in drinking water. It is also important to note that brass plumbing components contain lead. Examples of some of the common drinking water outlets are shown in Exhibit 1.2. (The glossary in Appendix A provides definitions of the various drinking water outlets discussed in this document.) Although there is an increased probability that a given plumbing component installed prior to the 1990s could contain more lead than the newer components, the *occurrence of lead in drinking water can not be predicted based upon the age of the component or the school facility*.

Exhibit 1.1: Potential Sources of Lead in Schools

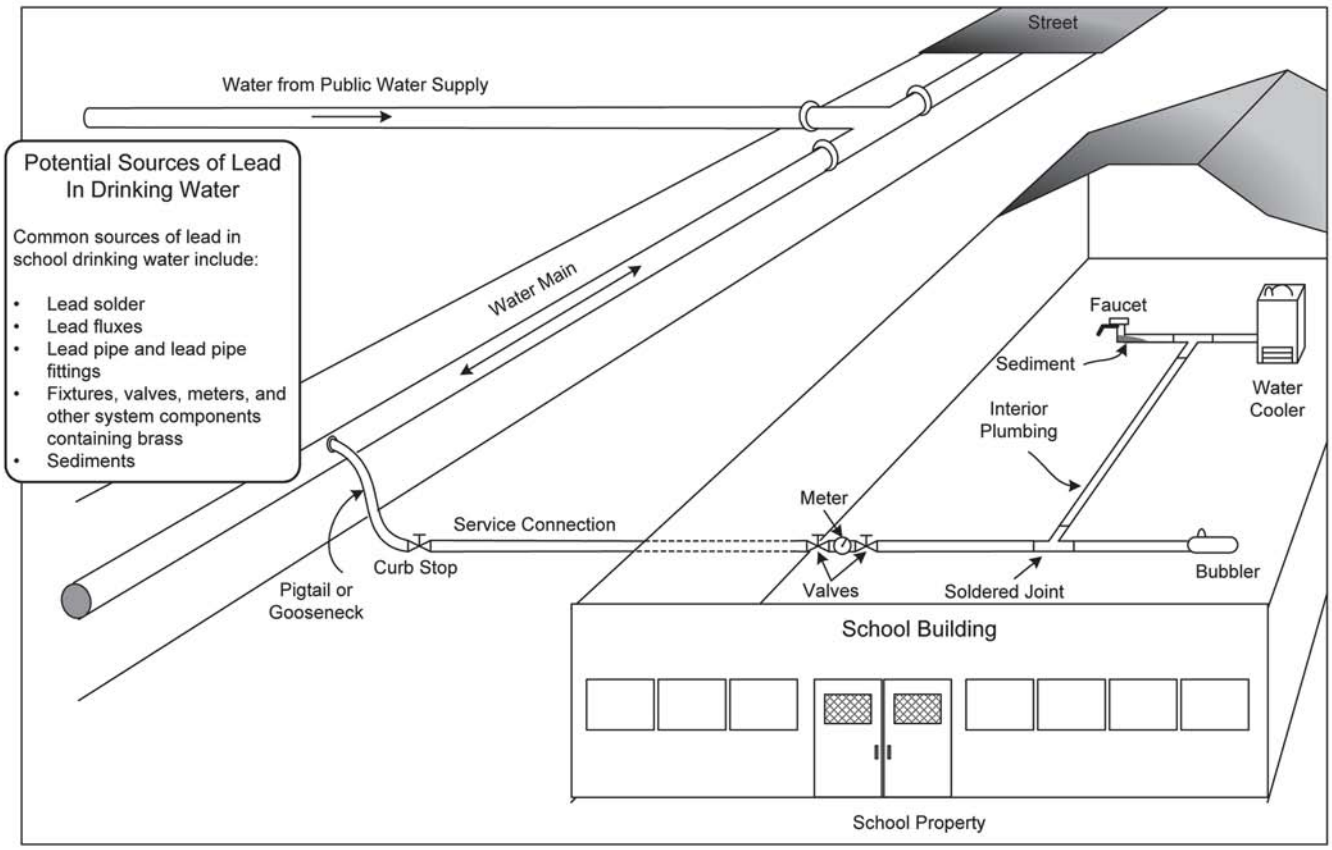

Exhibit 1.2: Common Drinking Water Outlets

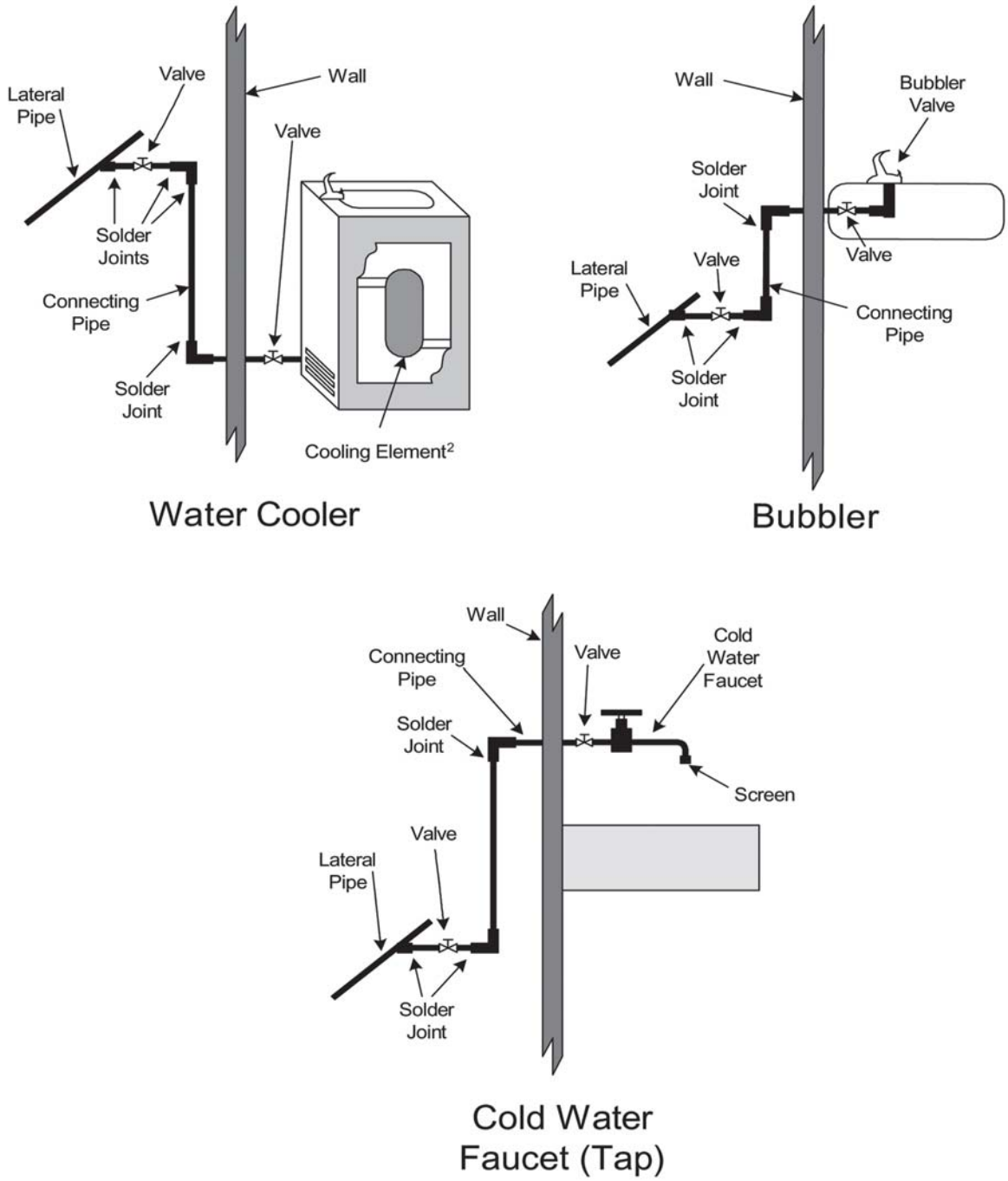

[1]Valve locations are approximate and will vary, depending upon installation.
[2]Old cooling elements may be lead-lined. For more information on replacement of lead-lined cooling elements, see Appendix E of this document.

1.4 How Lead in Drinking Water is Regulated

Lead is regulated in public drinking water supplies under a federal law known as the Safe Drinking Water Act (SDWA). This Act was initially passed in 1974 and, in part, requires EPA to establish regulations for known or potential contaminants in drinking water for the purpose of protecting public health.

The requirements developed by EPA apply to **public water systems.** *Schools that are served by a public water system* (i.e., a drinking water system that they do not own or operate) are not subject to the SDWA monitoring and treatment requirements, because those schools do not meet the definition of a public water system. However, some states may have monitoring and treatment requirements for these schools. Nearly all states have a drinking water office that implements the SDWA on behalf of EPA. Questions regarding the regulation of your drinking water may be directed to the appropriate state drinking water program office (see Appendix D for a directory of state programs).

Additional requirements under the Safe Drinking Water Act include specific provisions for controlling lead in drinking water:

- **THE LEAD BAN (1986):** A requirement that only lead-free materials be used in new plumbing and in plumbing repairs.
- **THE LEAD CONTAMINATION CONTROL ACT (LCCA) (1988)**: The LCCA further amended the SDWA. The LCCA is aimed at the identification and reduction of lead in drinking water at schools and child care facilities. However, implementation and enforcement of the LCCA has been at each state's discretion. School monitoring and compliance has varied widely.
- **THE LEAD AND COPPER RULE (1991):** A regulation by EPA to minimize the corrosivity and amount of lead and copper in water supplied by public water systems.

The table below summarizes the significant elements of the SDWA with respect to lead in drinking water. Note that the 1991 Lead and Copper Rule *does not apply to schools that receive water from a public water system.*

Requirements Under the Safe Drinking Water Act

- **The 1986 SDWA Lead Ban.** This provision of the SDWA requires the use of "lead-free" pipe, solder, and flux in the installation or repair of any public water system *or* any plumbing in a residential or non-residential facility providing water for human consumption. Solders and flux are considered to be lead-free when they contain less than 0.2 percent lead. Before this ban took effect on June 19, 1986, solders used to join water pipes typically contained about 50 percent lead. Pipes and pipe fittings are considered "lead-free" under the Lead Ban when they contain less than 8 percent lead. Plumbing fixtures that are not "lead-free" were banned from sale after August 6, 1998. Plumbing fixtures are subject to the NSF International standard.

  NOTE: "Lead-free" pipe is allowed to contain up to 8 percent lead and "lead-free" solder and flux may contain up to 0.2 percent lead. Lead-free plumbing components are not necessarily "free" of lead.

- **The 1988 Lead Contamination Control Act (LCCA).** The purpose of the LCCA is to reduce lead exposure and the health risks associated with it by reducing lead levels in drinking water at schools and child care centers. The LCCA created lead monitoring and reporting requirements for all schools, and required the replacement of drinking water fixtures that contained excessive levels of lead (see Appendix E for a listing of these fixtures). The provisions are not enforceable. As a result, states have the option to voluntarily enforce the provisions of the Act (or alternate provisions) through their own authority.

- **The 1991 Lead and Copper Rule (LCR).** The LCR requires public water suppliers to monitor for lead in drinking water and to provide treatment for corrosive water if lead or copper are found at unacceptable levels. EPA strongly recommends that schools test their facilities for lead. However, unless a school owns its water system, testing for lead and copper within the school is not specifically required. Therefore, many schools served by water systems owned by cities, towns, or other entities may have never been tested for lead under the LCR.

Public Water Supply Testing vs. Testing at Schools

(15 ppb vs 20 ppb)

- It is important to note that the lead testing protocol used by public water systems is aimed at identifying system-wide problems rather than problems at outlets in individual buildings. Moreover, the protocols for sample size and sampling procedures are different. Under the LCR for public water systems, a lead action level of 15 parts per billion (ppb) is established for 1 liter samples taken by public water systems at high-risk residences. If more than 10 percent of the samples at residences exceed 15 ppb, system-wide corrosion control treatment may be necessary. The 15 ppb action level for public water systems is therefore a trigger for treatment rather than an exposure level.

- EPA recommends that schools collect 250 mL first-draw samples (i.e., samples of stagnant water before any flushing or use occurs) from water fountains and other outlets used for consumption, and that the water fountains and/or outlets be taken out of service if the lead level exceeded 20 ppb. The sample was designed to pinpoint specific fountains and outlets that require remediation (e.g. water cooler replacement). The school sampling protocol maximizes the likelihood that the highest concentrations of lead are found because the first 250 mL are analyzed for lead after overnight stagnation.

2. Planning Your Program and Establishing Partnerships

Monitoring for lead in your school's drinking water is extremely important. If you have never or have not recently monitored for lead in your school's drinking water, you are encouraged to begin the process by identifying any lead problems that you may have in your drinking water. You should start by identifying your existing resources, which include school records, available finances, and personnel. You should also research opportunities for assistance from your local public water supplier, state and local health agencies, and certified water testing laboratories.

2.1 Assigning Roles

Your school should assign responsibility to a key individual(s) to ensure that testing and follow-up actions are completed. A person should also be appointed to serve as the contact person for communication with interested parties (civic groups, the media, etc.). One person or more may be involved in these activities, but it is important to clearly define responsibilities and to support those people in their roles. An effective program will require a team effort.

If your school decides to use consultants or lab personnel, their roles should be defined with respect to the responsible person(s) at the school. Contact your state drinking water program or local health department if you need advice on how to identify a qualified consultant.

2.2 School Records

To determine if previous monitoring efforts have been made at your school, you should review your school records. Some schools conducted voluntary monitoring in cooperation with state or local officials in response to the 1988 Lead Contamination Control Act (LCCA). Other schools may have sampled for lead in response to state requirements. This information will be useful in filling out your Plumbing Profile Questionnaire (see Chapter 3), a tool that may be used to help determine whether lead is likely to be a problem in your facility. Records should also be reviewed to determine whether remediation actions have been taken. For example, have water coolers that contain lead been replaced (see Appendix E for a listing of banned water coolers)? While these records may not make additional testing or remediation unnecessary, they will help to prioritize your efforts and make them more efficient.

If testing or remediation was conducted in response to the 1988 Lead Contamination Control Act, it may have taken place 10 years ago or more. If you are not familiar with what activities may have taken place at your school and your records are incomplete or absent, you are encouraged to contact individuals that may have been involved in the past. Personnel that were involved may remember activities that were not well-documented. They may also remember whether other agencies or the local public water supplier were involved, which may mean that additional records are available.

2.3 Establishing Partnerships

2.3.1 Assistance from Your Public Water Supplier

Some public water suppliers have devoted resources to helping schools conduct testing for lead even though they may not be legally required to do so. As discussed in the previous chapter, public water suppliers are

required by the Lead and Copper Rule to monitor for lead at customers' taps. However, testing at schools was not specifically required unless the public water system was owned and operated by the school. Therefore, unless a school served by a public water system tested for lead on its own, or had testing voluntarily conducted by the public water system, neither the school nor the public water system is likely to have any record of testing. Although the public water system may treat the water to minimize corrosion, it is very important that you test to determine to what extent lead is leaching from plumbing within the school.

You are encouraged to contact your public water supplier to determine whether assistance or information on previous efforts is available. Although utilities are under no obligation to do so, assistance may be available through technical guidance, sampling, or sharing in sampling costs. Some utilities may be willing to help develop sampling plans (see Chapter 3) and plumbing profiles (see Chapter 3). The American Water Works Association (AWWA), a non-profit organization of water system professionals, recently prepared a summary of information for water suppliers on options for providing assistance to schools.

You should obtain the results of your water supplier's required monitoring under the Lead and Copper Rule to determine whether they are in compliance with the requirements of the Lead and Copper Rule. Your water utility should be able to tell you whether lead monitoring is current, whether the monitoring results are below the lead action level, and whether corrosion control treatment is provided. Your water supplier should also be able to tell you whether they have conducted lead monitoring at your school, and they may be able to give you some indication of whether lead could be a problem within your building(s).

You may wish to begin by contacting your local director of public works, water superintendent, or water department, depending upon how your utility is organized. Some utilities have Web sites with contact information. All public water suppliers are required to produce and distribute an annual Consumer Confidence Report (CCR). You may want to get in the habit of thoroughly reviewing your utility's CCR for important information about the water chemistry and overall water quality. Changes in water chemistry or quality may affect your school's long-term sampling plan. The CCR also provides the name(s) and contact information for those at your utility who may be able to answer any questions you have.

Questions to Ask Your Drinking Water Supplier

It is important to know who supplies your facility's drinking water, and whether and how the water entering your facility is treated. Some kinds of treatment can make the water more corrosive, while others will reduce the problem. If the water is corrosive, treatment can reduce lead levels throughout the system and can save you and the supplier money by reducing damage to plumbing. The following are some questions you may want to ask your public water supplier:

- Ask for a copy of the most recent annual water quality report (CCR).
- Is the water system in compliance with federal and state standards for lead monitoring and treatment?
- What steps have been taken to maintain compliance with the Lead and Copper Rule?
- Does the utility have sample results from the school?
- Is the water corrosive? If so, what is the system doing to minimize corrosion?
- If a corrosion control chemical is used, does the chemical form a protective coating inside the piping?
- Does the water distribution system have any lead piping (for example, lead gooseneck at service connections), and does the system plan to remove these sources of lead?

2.3.2 Assistance from Your Local Health Office

Many local governments have established programs that are responsible for a wide variety of public health protection activities, such as a Lead Poisoning Prevention Program. These programs are often the first line of defense when public health risks arise. Lead programs for children are often a high priority for local health offices.

You may wish to contact the local health office to discuss your needs. Although resources may be limited, the office may be willing to provide assistance in a variety of ways. For example, a representative may be able to attend Parent and Teacher Association meetings to discuss potential health effects, as well as to act as a contact with state programs to obtain information and assistance. A representative may even be able to assist in developing the plumbing profile, conducting sampling, or in taking follow-up action.

The phone number for your local health office should be in the listings under your county or city government. Many offices also have a Web site. The following Web site contains information about many local health departments listed by state http://www.healthguideusa.org/local_health_departments.htm.

2.3.3 Assistance from Your State Drinking Water Program

As discussed in Chapter 1, the only federal requirement that applies uniformly to schools that receive water from a public water system is the ban on the installation of water system components that are not lead-free (the Lead Ban).

You are encouraged to contact your state program to determine whether any other requirements apply, or whether technical assistance is available. The drinking water program may be housed in the department of health or the department of the environment. A listing of state program contacts is contained in Appendix D. Most state programs also have Web sites with contact information. The following Web site contains information about many state health departments http://www.healthguideusa.org/state_health_departments.htm. When discussing the issue with your state program, you may wish to request assistance with voluntary compliance with the Lead Contamination Control Act. Since most state programs are familiar with the Act, this should help to clarify your request.

If you have not been able to make contact with your local public water supplier, you may also wish to ask whether the state program can provide information on monitoring compliance, results, and treatment. Your state program regulates all such water suppliers for compliance with the Lead and Copper Rule, and therefore should have this information readily available.

You may also wish to ask the state drinking water program staff about other state programs that are involved in reducing lead risks for children. There may be an interest in developing a cooperative effort between state programs or between state and local agencies.

2.3.4 Assistance from Certified Laboratories

Your state drinking water office should be able to provide a list of certified laboratories in your area. You should only use a laboratory that is certified by the state or EPA for testing lead in drinking water for public water systems.

Some laboratories will provide assistance in addressing the activities described in this manual. For example, some laboratories will collect samples for clients to ensure proper sampling technique and sample preservation. However, costs for services will vary and you may wish to contact several certified labs.

If outside laboratory personnel are used, you should ensure that they understand the testing procedures described in this manual because these procedures differ from those used by public water suppliers for compliance with the Lead and Copper Rule.

2.3.5 Assistance from Local Community Organizations

Your community has a variety of local organizations that can help; for example community volunteer groups, senior citizens groups, the Parent and Teacher Associations, and local environmental groups. Tap into the expertise of people in your community who may be able to help with all aspects of your lead in drinking water reduction program. Another useful resource is your region's Pediatric Environmental Health Speciality Unit (PEHSU). Your region's PEHSU may be able to provide risk communication support to school districts; for more information please visit http://www.aoec.org/PEHSU.org.

Contacting these groups is another way for your school to foster support. These groups might be willing to volunteer time to collect samples and train others to collect samples.

II. Testing

3. Assessment and Strategy: Plumbing Profile and Sampling Plan

3.1 Development of a Plumbing Profile for Your Facility's Plumbing

Before testing and correcting lead problems, it is important to target potential problems and to assess the factors that can contribute to lead contamination and the extent to which contamination might occur in your facility. You can best accomplish these objectives by developing a plumbing profile of your facility. If your facility has additions, wings, or multiple buildings built during different years, a separate plumbing profile may be recommended for each. A plumbing profile can be created by answering a series of questions about your facility's plumbing. Every school is unique and a plumbing profile will help you understand the potential sources of lead in your facility. Conducting this survey of your facility's plumbing will enable you to:

- Understand how water enters and flows through your building(s).
- Identify and prioritize sample sites. EPA recommends the following sites as priority sample sites: drinking fountains (both bubbler and water cooler style), kitchen sinks, classroom combination sinks and drinking fountains, home economics room sinks, teachers' lounge sinks, nurse's office sinks, sinks in special education classrooms, and any other sink known to be or visibly used for consumption (e.g., coffeemaker or cups are nearby).
- Understand whether you may have a widespread contamination problem or only localized concerns.
- Plan, establish, and prioritize remedial actions, as necessary.

Exhibit 3.1 provides a plumbing profile questionnaire discussion and interpretations of possible answers designed to help you plan your testing strategy and develop your sampling plan. Planning your strategy will enable you to conduct testing in a cost-efficient manner. For a blank copy of the plumbing profile questionnaire, see Appendix I.

Exhibit 3.1: Plumbing Profile Questionnaire

Plumbing Profile Questions	What Your Answers to the Plumbing Profile Questions Mean
The questions in this column will help you determine whether lead is likely to be a problem in your facility, and will enable you to prioritize your sampling effort.	This column discusses the significance of possible answers to the plumbing profile questions.
1. When was the original building constructed? Were any buildings or additions added to the original facility? If so, complete a separate plumbing profile for each building, addition, or wing.	**Older Buildings** – Through the early 1900s, lead pipes were commonly used for interior plumbing in certain parts of the country in public buildings and private homes. Plumbing installed before 1930 is more likely to contain lead than newer pipes. Between 1920 and 1950, galvanized pipes were also used for plumbing. After 1930, copper generally replaced lead as the most commonly used material for water pipes. Up until the mid- to late-1980s (until the lead-free requirements of the 1986 Safe Drinking Water Act Amendments took effect), lead solder was typically used to join these copper pipes. The efforts of your public water supplier over the years to minimize the corrosiveness of the water may have resulted in mineral deposits forming a coating on the inside of the water pipes (passivation). This coating insulates the water from the plumbing and results in decreased lead levels in water. If the coating does not exist or is disturbed, the water is in direct contact with any lead in the plumbing system. **Newer Buildings** – New buildings are not likely to have lead pipes in their plumbing systems, but they are very likely to have copper pipes with solder joints. Buildings constructed prior to the late 1980s, before the lead-free requirements of the 1986 Safe Drinking Water Act Amendments, may have joints made of lead solder. Buildings constructed after this period should have joints made of lead-free solders. Even if "lead-free" materials were used in new construction and/or plumbing repairs, lead leaching may occur.

2. If built or repaired since 1986, were lead-free plumbing and solder used in accordance with the lead-free requirements of the 1986 Safe Drinking Water Act Amendments? What type of solder has been used? In some areas of the country, it is possible that high-lead materials were used until 1988 or perhaps even later. Your local plumbing code authority or building inspector may be able to provide guidance regarding when high-lead materials were last used on a regular basis in your area.	The 1986 Amendments to the Safe Drinking Water Act banned plumbing components that contained elevated levels of lead. Lead-free solder and flux (not more than 0.2% lead) and pipe, pipe fittings, and fixtures (not more than 8% lead) must now be used. The leaching potential of lead-free (i.e., tin-antimony) solder is much less than lead solder. The leaching potential of lead-free pipe, pipe fittings, and fixtures is also less, but leaching is still possible. If lead-free materials were not used in new construction and/or plumbing repairs, elevated lead levels can be produced. If the film resulting from passivation does not exist or has not yet adequately formed, any lead that is present is in direct contact with the water.
3. When were the most recent plumbing repairs made (note locations)?	Corrosion occurs (1) as a reaction between the water and the pipes and (2) as a reaction between the copper and solder (metal-to-metal). This latter reaction is known as galvanic corrosion, which can be vigorous in new piping. If lead solders were used in the piping or if brass faucets, valves, and fittings containing alloys of lead were installed *(see response to Question 8 below for further discussion of brass)*, lead levels in the water may be high. After about 5 years, however, this type of reaction (galvanic corrosion) slows down and lead gets into water mainly as a result of water being corrosive. If the water is non-corrosive, passivation is likely to have occurred and to have reduced opportunities for lead to get into the water system. For these reasons, if the building (or an addition, new plumbing, or repair) is less than 5 years old and lead solder or other materials (e.g., brass faucets containing lead alloys) were used, you may have elevated lead levels. If water supplied to the building is corrosive, lead can remain a problem regardless of the plumbing's age.

4. With what materials is the service connection (the pipe that carries water to the school from the public water system's main in the street) made? Note the location where the service connection enters the building and connects to the interior plumbing.	Lead piping was often used for the service connections that join buildings to public water systems. The service connection is the pipe that carries drinking water from a public water main to a building. Some localities actually required the use of lead service connections up until the lead-free requirements of the 1986 Safe Drinking Water Act Amendments took effect. Although a protective layering of minerals may have formed on these pipes, vibrations can cause flaking of any protective build-up and, thus, allow lead contamination to occur.
5. Specifically, what are the potable water pipes made of in your facility (note the locations)? • Lead • Plastic • Galvanized Metal • Cast Iron • Copper • Other Note the location of the different types of pipe, if applicable, and the direction of water flow through the building. Note the areas of the building that receive water first, and which areas receive water last.	Survey your building for exposed pipes, preferably accompanied by an experienced plumber who should be able to readily identify the composition of pipes on site. Most buildings have a combination of different plumbing materials: • Lead pipes are dull gray in color and may be easily scratched by an object such as a knife or key. Lead pipes are a major source of lead contamination in drinking water. • Galvanized metal pipes are gray or silver-gray in color and are usually fitted together with threaded joints. In some instances, compounds containing lead have been used to seal the threads joining the pipes. Debris from this material, which has fallen inside the pipes, may be a source of contamination. • Copper pipes are red-brown in color. Corroded portions may show green deposits. Copper pipe joints were typically joined together with lead solders until the lead-free requirements of the 1986 Safe Drinking Water Act Amendments took effect. • Plastic pipes, especially those manufactured abroad, may contain lead. If plastic pipes are used, be sure they meet NSF International standards. *(Note: NSF International is an independent, third-party testing organization. Product listings can be obtained by visiting their Web site at http://www.nsf.org/business/search_listings/index/asp.)*
6. Do you have tanks in your plumbing system (pressure tanks, gravity storage tanks)? Note the location of any tanks, and any available information about the tank; e.g., manufacturer, date of installation.	Some older tanks may contain coatings that are high in lead content. Tanks may accumulate sediment that could be flushed back into the plumbing system under certain circumstances. You may wish to contact the supplier or manufacturer to obtain information about coatings. You may also wish to hire a plumber or tank service contractor to inspect your tanks, especially gravity storage tanks that are located outside of the building.

7. Was lead solder used in your plumbing system? Note the locations of lead solder.	The 1986 Amendments to the Safe Drinking Water Act banned plumbing components that contained high levels of lead. Lead-free solder and flux (not more than 0.2% lead) must now be used. The leaching potential of lead-free (i.e. tin-antimony) solder is much less than lead solder. It is likely that high-lead solder and fluxes continued to be used until 1988 and even later in some areas of the country. Your local plumbing code authority or building inspector may be able to provide guidance regarding when high-lead solder was last used on a regular basis in your area.
8. Are brass fittings, faucets, or valves used in your drinking water system? (Note: Most faucets are brass on the inside.) You may want to note the locations on a map or diagram of your facility and make extensive notes that would facilitate future analysis of lead sample results.	Brass fittings, faucets, and valves are golden yellow in color, similar to copper in appearance, or are plated with chrome. Brass is composed primarily of two metals, copper and zinc. Most brasses contain lead ranging from 2 percent to 8 percent. That lead can contaminate the water contact surface when it is smeared on the machined surfaces during production. After 1996, brass fittings installed in drinking water outlets such as faucets and water coolers must meet NSF standards for lead content. While this percentage is considered lead-free under the 1986 Safe Drinking Water Act Amendments, some contamination problems still may occur. Older brass faucets may contain higher percentages of lead and lead solder in their interior construction and pose contamination problems. Note that your state or local government may have imposed this standard prior to 1988. The degree to which lead will leach from brass products containing alloys with less than 8 percent lead is dependent upon the corrosiveness of the water and the manufacturing process used to develop the product. A study revealed that fabricated faucets tend to contribute less lead to the water than faucets manufactured by the permanent mold process, regardless of the amount of lead in the alloy. In response to a requirement of the 1996 SDWA, EPA worked with the plumbing industry and NSF International to develop a voluntary industry standard that is designed to minimize the amounts of lead being leached from these products. This standard is NSF/ANSI Standard 61, Section 9. Since 1998, all plumbing fixtures for use as drinking water supply must meet this standard. You should require NSF/ANSI 61 certification on all drinking water system products purchased. Include a copy of the NSF/ANSI 61 certificate as a requirement on your purchase orders. The distributor or manufacturer can provide you with a list of certified products. You should require NSF/ANSI 61 certification on all drinking water system products used in new construction and inform your architects and revise your building specifications.

9. How many of the following outlets provide water for consumption? Note the locations. • Water Coolers • Bubblers • Ice Makers • Kitchen Taps • Drinking Fountains or Taps	In addition to lead components in the plumbing system, lead solders or lead in the brass fittings and valves used in some taps, bubblers, and refrigerated water coolers may be sources of lead. It is important to identify the locations of all such drinking water outlets. Faucets in restrooms should not be used to obtain water for drinking. Although they may be adequate for washing hands, they may not be appropriate for drinking purposes. You may consider posting "do not drink" signs.
10. Has your school checked the brands and models of water coolers and compared them to the listing of banned water coolers in Appendix E? Note the locations of any banned coolers.	Water coolers may be a major source of lead contamination. The Federal Consumer Product Safety Commission negotiated an agreement with Halsey Taylor through a consent order agreement published in June 1990 to provide a replacement or refund program that addresses all the water coolers listed by EPA as having lead-lined tanks. Halsey Taylor was the only company identified by EPA as manufacturing some water coolers with lead-lined tanks. Additionally, some coolers manufactured by EBCO had a bubbler valve and one soldered joint that contained lead. See Appendix E of this manual for a summary of EPA's list of water coolers found to contain lead. Use the list to help prioritize your sampling. If your water cooler is listed as having a lead-lined tank, you should not use the water for drinking, and you should remove the cooler immediately as these coolers pose the highest risk of contamination.
11. Do outlets that provide drinking water have accessible screens or aerators? (Standard faucets usually have screens. Many coolers and bubblers also have screens.) Note the locations.	Lead-containing sediments that are trapped on screens can be a significant source of lead contamination. Sediments should be tested for the presence of lead, and your facility should create a routine maintenance program to clean the screens frequently. If sediment has been a reoccurring problem regular cleaning of the screens and additional investigating into why the debris is accumulating is appropriate. However, the manufacturer or water service provider should be contacted to obtain instructions.
12. Have these screens been cleaned? Note the locations.	
13. Can you detect signs of corrosion, such as frequent leaks, rust-colored water, or stained dishes or laundry? Note the locations.	Frequent leaks, rust-colored water, and stains on fixtures, dishes, and laundry are signs of corrosive water. Blue-green deposits on pipes and sinks indicate copper corrosion; brown stains result from the corrosion of iron. Where such symptoms occur, high levels of lead, copper, and iron may be present in the water. Lead can accumulate with iron, which can form sediments that are hard to remove.

14. Is any electrical equipment grounded to water pipes? Note the locations.	If electrical equipment, such as telephones, has been installed using water pipes as a ground, the electric current traveling through the ground wire will accelerate the corrosion of any interior plumbing containing lead. The practice should be avoided, if possible. However, if existing wires are already grounded to water pipes, the wires *should not be removed* from the pipes unless a qualified electrician installs an alternative grounding system. Check with your local building inspector on this matter. Your state or local building code may require grounding of the wires to the water pipes. **Improper grounding of electrical equipment may cause severe shock.**
15. Have there been any complaints about water taste (metallic, etc.) or rusty appearance? Note the locations.	Although you cannot see, taste, or smell lead dissolved in water, the presence of a metallic taste or rusty appearance may indicate corrosion and possible lead contamination.
16. Check building files to determine whether any water samples have been taken from your building for any contaminants (also check with your public water supplier). • Name of contaminant(s)? • What concentrations of these contaminants were found? • What was the pH level of the water? • Is testing done regularly at your facility?	As discussed previously, lead testing may have previously been done voluntarily under the Lead Contamination Control Act. Results of analyses of general water quality, such as measures of pH, calcium hardness, and carbonate alkalinity, can provide important clues about the corrosiveness of the water. Generally, the higher the values of these parameters, the less likely it is that your water is corrosive. If you have no data from your school, your public water system should at least be able to provide information about the general water quality.
17. Other plumbing questions: • Are blueprints of the building available? • Are there known plumbing "dead-ends," low use areas, existing leaks or other "problem areas"? • Are renovations being planned for part or all of the plumbing system?	You should incorporate this information into decisions regarding sample locations and sampling protocol. You may wish to note the direction of water flow and the location of fixtures, valves, tanks, areas of sediment accumulation, areas of corrosion, etc., on a sketch or blueprint of the plumbing.

Now that you understand the potential dangers of lead contamination in drinking water and the laws and programs in place to address this problem, it is time to begin development of a plumbing profile and a sampling plan.

3.2 Who Should Create the Sampling Plan? - Leadership in Sampling

As discussed in Chapter 2, it is important to designate a school employee(s) to take responsibility of the sampling program and follow-up activities, even if someone else is hired to conduct testing. If laboratory representatives or consultants are used to conduct testing, you should ensure that they have experience in conducting lead testing at schools. You may wish to ask the laboratory or consultant for references. Contact your state or local health department or drinking water program if you need advice on how to identify a qualified consultant.

3.3 Where Should I Sample? - Determining Sample Locations

You must decide where to take samples and how to prioritize the sample sites based on your responses to the plumbing profile and your knowledge of the facility. If possible, every outlet used for drinking or cooking should be sampled. *At a minimum*, every outlet that is regularly used for cooking and drinking should be sampled. Sample sites that are most likely to have lead contamination include:

- Areas containing lead pipes or lead solder.
- Areas of recent construction and repair in which materials containing lead were used.
- Areas where the plumbing is used to ground electrical circuits.
- Areas of low flow and/or infrequent use.
- Areas containing brass fittings and fixtures.
- Water coolers identified by EPA (See Appendix E) as having lead-lined storage tanks or lead parts. These should be removed.

It may be helpful to diagram the plumbing in your facility and the outlets that will require testing. Examples of plumbing configurations for a single-level building and a multi-level building are illustrated in Exhibits 3.2 and 3.3, respectively. Locate service connections, headers, laterals, loops, drinking water fountains (bubblers and coolers), riser pipes and different drinking water loops *(see Appendix A for a glossary of these plumbing terms)*, and decide in what order you wish to take samples.

As shown in the above-mentioned Exhibits, water is carried to the different floors in a multi-level building by one or more riser pipes. Water from the riser pipes is usually distributed through several different drinking water loops. In addition, in some buildings, water may be stored in a tank prior to distribution. In single-story buildings, the water comes from the service connection via main plumbing branches, often called headers. These, in turn, supply water to laterals. Smaller plumbing connections from the laterals and loops supply water to the faucets, drinking water fountains, and other outlets. For sampling purposes, water within a plumbing system moves "downstream" from the source (i.e., from the distribution main in the street through the service connection and through the building).

3.4 Who Should Collect the Samples and Where Do Samples Go for Analysis? - Collection and Analysis of Samples

Deciding who will collect samples will be based, in part, on who will analyze the samples. Choosing an individual who is adequately trained to collect samples may help avoid sampling errors. Some state drinking water programs or public water suppliers may provide both services, although there is no federal requirement that they do so. Regardless of who collects the samples, you should employ a certified laboratory to conduct sample analyses. Contact your state drinking water program (Appendix D) or EPA's Safe Drinking Water Hotline (Appendix B and C) for a list of certified laboratories in your area. Consider the following issues prior to making a selection:

- Will the laboratory take samples for you or will they provide training and sample containers for collectors designated by you? (Testing activities can be useless if sample collectors do not follow proper sampling procedures.)
- If it is determined that a laboratory or other consultant will take your samples, make sure they understand the sample protocol. This protocol is described in the next section. *Make sure that laboratories or consultants thoroughly understand this protocol and do not confuse it with the lead testing protocol used by public water suppliers*. The two protocol are different.
- What is the cost of the laboratory's services? Costs will vary, depending upon the extent of the services to be provided (e.g., if only analyses are conducted or if other services such as sample collection are provided). You may want to contact several laboratories to compare prices and services, and you may wish to combine your sampling with another school to obtain a cheaper analysis rate.
- What is the laboratory's time frame for providing sample results?
- Recordkeeping is a crucial activity. *Appendix F contains a sample recordkeeping form and identifies the type of information you should consider recording.*
- Establish a written agreement or contract with the laboratory for all of the services to be provided.

Exhibit 3.2: Plumbing Configuration for a Single-Level Building

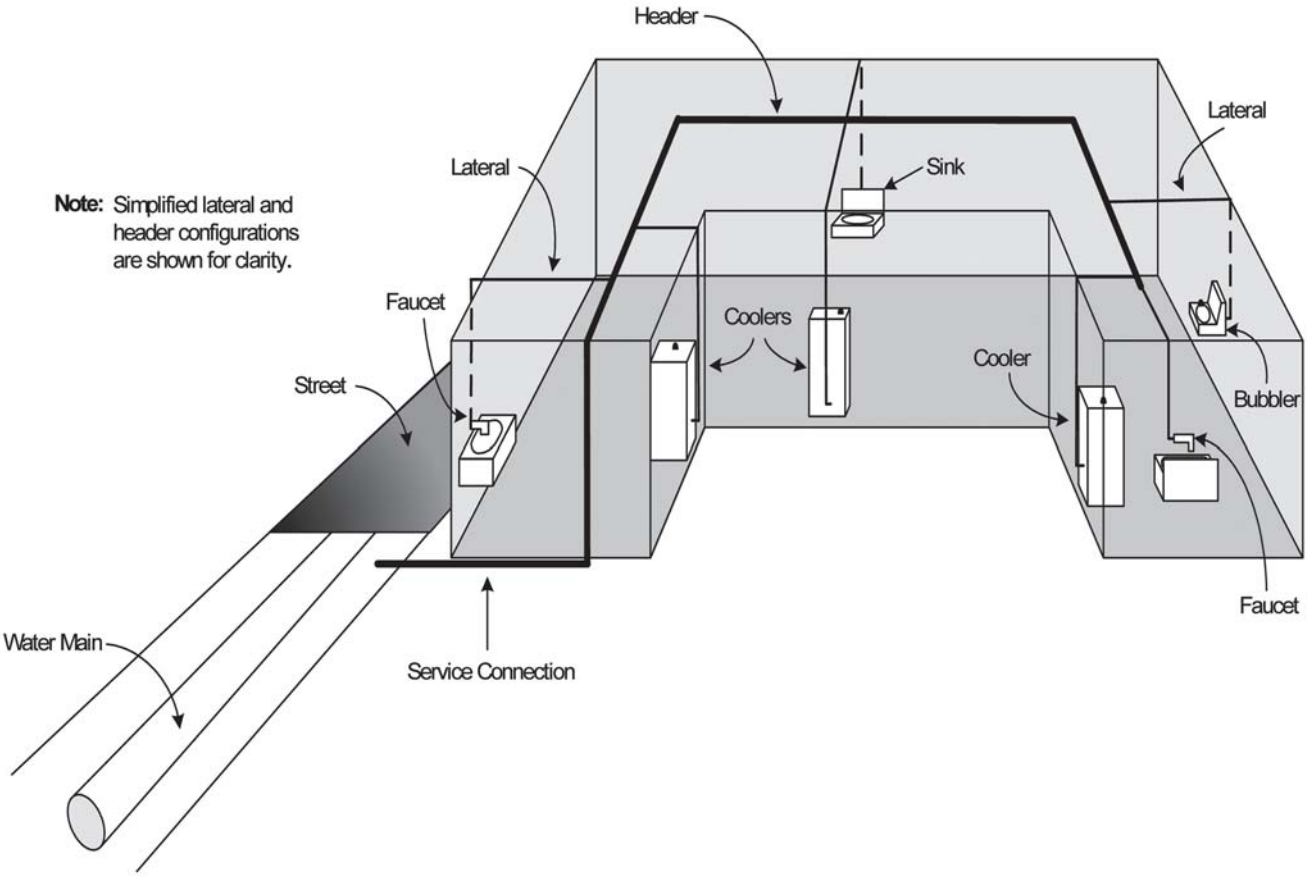

Exhibit 3.3: Plumbing Configuration for a Multi-Level Building

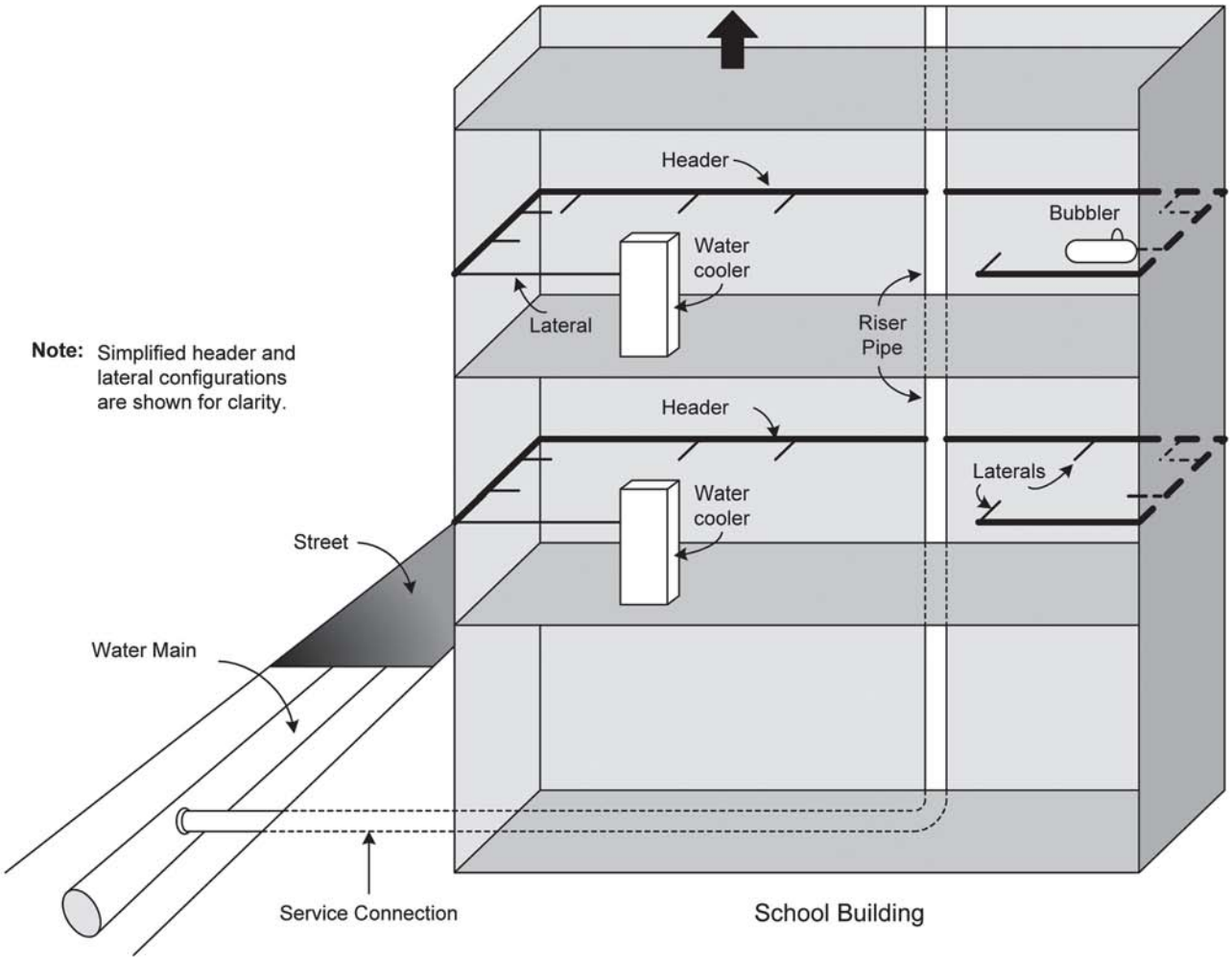

4. Conducting Sampling

4.1 General Sampling Procedures

This section outlines the general procedures involved in collecting drinking water samples for lead testing, and the two-step sampling process for sampling at your school. Please note that the general two-step sampling process in this chapter contains recommendations for sampling that were created for typical plumbing configurations. If you believe that the recommendations do not fit your specific site conditions, you may wish to modify them as appropriate. See additional discussion in 4.4.3. **EPA strongly recommends that all water outlets in all schools that provide water for drinking or cooking meet a standard of 20 parts per billion (ppb) lead or less.**

4.2 Collection Procedures

(1) All water samples collected should be 250 milliliters (mL) in volume. School samples are smaller than the one liter sample collected by public water suppliers for compliance with the Lead and Copper Rule. A smaller sample is more effective at identifying the sources of lead at an outlet because a smaller sample represents a smaller section of plumbing. A smaller sample is also more representative of water per serving consumed by a child. A 250 mL sample from a faucet would not include portions of the plumbing behind the wall that the faucet is mounted on, for example, compared to a 1000 mL (1 liter) sample, which would include a longer line of plumbing with its valves and tees and elbows and soldered joints.

(2) Collect all water samples <u>before</u> the facility opens and <u>before</u> any water is used. Ideally, the water should sit in the pipes unused for at least 8 hours but not more than 18 hours before a sample is taken. However, water may be more than 18 hours old at some outlets that are infrequently used. If this is typical of normal use patterns, then these outlets should still be sampled.

(3) Make sure that no water is withdrawn from the taps or fountains from which the samples are to be collected prior to their sampling.

(4) Unless specifically directed to do so, do not collect samples in the morning after vacations, weekends, or holidays because the water will have remained stagnant for too long and would not represent the water used for drinking during most of the days of the week.

(5) Assign a unique sample identification number to each sample collected - use your sampling plan schematic or numbering system. Record the identification number on the sample bottle and on your recordkeeping form *(see Appendix F)*. On your recordkeeping form include information on:

- Type of sample taken, e.g., initial first draw, follow-up flush, etc.
- Date and time of collection.
- Name of the sample collector.
- Location of the sample site.
- Name of the manufacturer that produced the outlet, and the outlet's model number, if known.

Consult the sample form in Appendix F for additional recordkeeping items.

4.3 Laboratory Analysis and Handling of Sample Containers

As discussed in the previous chapter, the certified drinking water lab that you select will either collect the samples for you or they will provide you with materials and instructions if you plan to collect your own samples.

If you collect your own samples, follow the instructions provided by the laboratory for handling sample containers to ensure accurate results (*also see Appendix G – Preservation of Samples and Sample Containers*). Make sure the containers are kept sealed between the time of their preparation by the lab and the collection of the sample. Be sure to carefully follow the laboratory's instructions for preservation of the samples. Icing or refrigeration of the samples will likely be necessary. Most laboratories will provide shipping containers and ice packs if shipping is necessary.

When the laboratory returns your test results, the concentrations of lead in your drinking water samples will be reported in metric form such as milligrams per liter (mg/L) or micrograms per liter (µg/L), or they will be reported as a concentration such as parts per million (ppm) or parts per billion (ppb), respectively.

Milligrams per liter (mg/L) is essentially the same as parts per million (ppm). Micrograms per liter (µg/L) is essentially the same as parts per billion (ppb).

Examples: 1 mg/L = 1000 µg/L = 1ppm =1000ppb; 0.020 mg/L = 20 µg/L = 0.02ppm = 20ppb

4.4 Overview of the Two-Step Sampling Process

EPA recommends that a two-step sampling process be followed for identifying lead contamination. Lead in a water sample taken from an outlet can originate from the outlet fixture (the faucet, bubbler etc.), plumbing upstream of the outlet fixture (pipe, joints, valves, fittings etc.), or it can already be in the water that is entering the facility. The two-step sampling process helps to identify the actual source(s) of lead.

In Step 1, initial samples are collected to identify the location of outlets providing water with elevated lead levels and to learn the level of the lead in the water entering the facility (i.e., at the service connection). In Step 2, follow-up flush samples are taken only from outlets identified as problem locations to determine the lead level of water that has been stagnant in upstream plumbing, but not in the outlet fixture. Sample results are then compared to determine the sources of lead contamination and to determine appropriate corrective measures.

The protocol, which consists of an established sample size volume and water retention time, is designed to identify lead problems at outlets and upstream plumbing within school facilities, and in the water entering the facility.

This section provides a brief definition and overview of the purpose of each of the two steps in EPA's lead testing process.

4.4.1 Step 1: Initial Sampling

In Step 1, initial samples are taken from prioritized outlets (e.g., bubblers, fountains) in the facility. These samples determine the lead content of water sitting in water outlets that are used for drinking or cooking within your building(s). A sample is also collected from a tap located as near as possible to the service

connection (i.e., the pipe connecting your facility to a larger water main). Initial service connection samples are flush samples, but the initial samples taken from bubblers, fountains, and other outlets used for consumption are all first-draw samples (i.e., the stagnant water is sampled before **any** flushing or use occurs). The goal of Step 1 is to compare the lead level of water from your facility's service connection to water that has remained stagnant between 8 and 18 hours in an outlet or fixture.

To determine the lead content in water from your facility's service connection, first contact your public water supplier to identify what lead levels you might expect. *(If you completed the plumbing profile questionnaire in Appendix I that is also discussed in Exhibit 3.1, you will already have this information.)* Second, test water that is representative of your service connection and the mains in your public water system. Compare the results to determine what contribution your service connection is making to lead concentrations in your building (see Exhibit 4.3). Then, compare this finding to the results from outlets in the facility. For sampling instructions for initial samples from service connections, mains, and different types of water outlets, see Exhibits 4.3 through 4.9.

TIP: Some schools may opt to clean the aerators prior to collecting initial first draw samples. However, EPA recommends that the collection of first draw samples without aerators should only be permissible if the outlet does not normally have an aerator, or if your school has a documented routine maintenance program for removing, cleaning, and replacing aerators on drinking water outlets. If your school does not have an aerator maintenance program in place, removing, cleaning, and replacing the aerators prior to sampling for diagnostic purposes will provide sampling results that cannot be assured to represent the water that the children and staff are routinely drinking from the outlet.

Before beginning sampling, you should repair any leaking outlets to ensure that you collect representative samples.

4.4.2 Step 2: Follow-Up Flush Sampling

If initial test results reveal lead concentrations greater than 20 ppb in a 250 mL sample for a given outlet, follow-up flush testing described in Step 2 is recommended to determine if the lead contamination results are from the fixture or from interior plumbing. EPA has established this trigger for follow-up flush testing to ensure that the sources of lead contamination in drinking water outlets are identified. The table below provides details of an additional sub-step that might be taken to eliminate particulate debris that can collect on aerators and screens as a source of lead.

In Step 2, follow-up flush samples are collected and analyzed from outlets whose initial first draw results revealed lead concentrations greater than 20 ppb. The purpose of Step 2 is to pinpoint where (i.e., fixtures or interior plumbing) lead is getting into drinking water so that appropriate corrective measures can be taken.

As with initial first draw samples, follow-up flush samples are to be taken before a facility opens and before any water is used. Follow-up flush samples generally involve the collection of water from an outlet where the water has run for 30 seconds. This sampling approach is designed to analyze the lead content in the water in the plumbing behind the wall. The sampler should induce a small (e.g., pencil-sized) steady flow of water from the outlet or other sample location. The sampler should be careful not to begin with a high rate of flow, and then reduce the flow just prior to sampling. Sudden changes in flow could stir up sediments or cause sloughing of pipe films that would not be characteristic of typical water use patterns.

Eliminating Particulate Lead as a Source of Lead in Drinking Water

Alternative Step 2:

If initial first draw sampling results reveal concentrations higher than 20 ppb in the 250 mL sample for a given outlet, a contributing source of the elevated lead levels could be the debris in the aerator or screen of the outlet. By cleaning the aerator or screen and retesting the water following the initial first draw sampling procedures you can identify whether or not the debris is a contributing source to elevated lead levels in your facility.

Determining aerator/screen debris contribution:

Scenario 1: Your initial first draw sampling result was higher than 20 ppb, you decide to see if the aerator is a contributing source of lead in the water. After cleaning out your aerator you take another first draw sample.* The results come back less than or close to 5 ppb or the detection level. This result tells you that the debris in the aerator was contributing to elevated levels in your school. Continue to clean out the aerator on a regular basis and this outlet is O.K. to use. However, please note that without regular maintenance this tap may serve water with elevated lead levels.

Scenario 2: Your initial first draw sampling result is 25 ppb, you decide to see if the aerator is a contributing source of lead in the water. After cleaning out your aerator you take another first draw sample.* The second sample result is very close or equivalent to the 25 ppb sample. Since your initial first draw sample and alternative second first draw sample results are similar, the problem is upstream from the aerator. Continue to follow the sampling protocol and do your follow-up flush sampling.

Scenario 3: Your initial first draw sampling result is 60 ppb, you decide to see if the aerator is a contributing source of lead in the water. After cleaning out your aerator you take another first draw sample.* The second sample result is 25 ppb. While your results are lower, but still above 20 ppb, this tells you that the aerator or screen is a contributing source and that the plumbing upstream of the aerator is contributing as well. If this situation occurs, you should continue with follow-up flush sampling to target the additional contributing sources.

** When taking your second first draw sample, please remember to follow the same sampling procedure as your initial first draw sample.*

A comparison of initial and follow-up samples will help to assess where the lead may be getting into the drinking water. See Exhibits 4.3 through 4.8 for follow-up flush sampling instructions for various types of outlets.

After follow-up flush sampling, additional samples from the interior plumbing within the building are also often necessary to further pinpoint the sources of lead contamination. See Exhibit 4.9 for instructions for additional sampling.

After reviewing the plumbing profile questionnaire and background regarding what your answers to the profile could mean (Exhibit 3.1), you have learned that lead contamination may not occur uniformly throughout a building. You should have an idea of the type of water you are receiving. From this assessment, you will then have a better sense of how to organize your testing activities. When planning your strategy, <u>it is important to note that large variations in lead concentrations may be found among individual outlets in a facility because of differences in flow rates and/or building materials.</u>

In general, you may find widespread presence of lead in your drinking water when:

- Lead pipes are used throughout the facility.
- The building's plumbing is less than 5 years old and lead solder was illegally used (i.e., after the "lead-free" requirements of the 1986 Safe Drinking Water Act Amendments took effect). This situation is rare.
- The water is corrosive.
- Sediment or scale in the plumbing and faucet screens contain lead.
- Brass fittings, faucets, and valves were installed throughout the building less than five years ago (even though they may contain less than the "lead-free" requirements of the Safe Drinking Water Act).
- The service connection (i.e., the pipe that carries water from the public water system main to the building) is made of lead.

In general, you may find localized presence of lead if:

- Some brass fittings, faucets, and valves have been installed in the last five years (even though they may meet the SDWA "lead-free" requirement).
- Drinking water outlets are in line with brass flush valves, such as drinking water fountains near restroom supply piping.
- Lead pipes are used in some locations.
- The water is non-corrosive.
- Lead solder joints were installed in short sections of pipe before 1986 or were illegally installed after 1988 (i.e., after the lead-free requirements of the Safe Drinking Water Act took effect).
- There are areas in the building's plumbing with low flow or infrequent use.
- Sediment in the plumbing and screens frequently contains lead.
- Some water coolers or other outlets have components that are not lead-free, especially if the water is corrosive.

After identifying potential problem areas in your facility through completion of a plumbing profile, the next step is to have the water tested. A sampling plan should be developed before testing begins. Key issues to consider in devising a sampling plan include the following:

- Who will be in charge of the sampling effort?
- Who will collect and analyze samples and maintain records?
- Where will the samples be taken?

4.4.3 Initial and Follow-Up Sampling Protocol

The protocol for collecting initial first draw and follow-up flush samples varies by type of drinking water outlet. The initial first draw and follow-up flush testing protocols and the interpretation of test results are described in Exhibits 4.3 thorough 4.9 for the following locations and type of outlets:

- **Service connections and water mains**
- **Drinking water fountains** *(four types)*
  - Bubblers or drinking water fountains (without central chillers): water is supplied to the bubbler or fountain directly from the building's plumbing.
  - Bubblers or drinking water fountains (with central chillers): a central chiller unit cools water for a number of drinking water fountains or bubblers in the building.
  - Water coolers: devices are equipped with their own cooling and storage systems; water is supplied to the device from the building's plumbing.
  - Bottled water dispensers: type of water fountain whose water is supplied from bottled water.

    Note: The Food and Drug Administration (FDA) regulates bottled water. EPA recommends testing the dispenser to ensure that the dispenser is not contributing lead to the water.
- **Ice making machines**
- **Water faucets**
- **Interior plumbing**

Please note that sampling ID codes have been indicated in the descriptions of the sampling protocol for each outlet type. These sampling ID codes have been included for illustrative purposes only. When you conduct testing in your facility, you should assign your unique numbers for every sample you collect.

Following the instructions for the above water outlet locations are instructions for conducting sampling of the interior plumbing of buildings (Exhibit 4.9). Instructions are included for sampling laterals, loops and headers, and riser pipes. These types of samples are necessary if outlet follow-up flush samples show lead levels above 20 ppb.

TIP: Schools may wish to collect both initial and follow-up samples at the same time. This is more convenient and may save time and money if a contractor has been hired to collect the samples. However, using this approach creates a trade-off between convenience and confidence. The confidence in the sample results will decrease since flushing water through an outlet after taking the initial sample could compromise the flushed samples taken at subsequent outlets, depending upon the plumbing configuration. As succeeding outlets are flushed, the chances of compromising the remaining flushed samples would increase.

Exhibit 4.2 provides an overview of the sampling process in a flow chart format.

As discussed in section 4.1, you may wish to modify sampling recommendations to suit your site conditions. For example, if you believe that flushing an outlet for 30 seconds prior to taking a follow-up flush sample is excessive, you may wish to calculate a more accurate time estimate. This could be done by:

- Calculating the pipe volume in gallons between the outlet and the location in the plumbing that you want to sample.
- Measuring the outlet flow in gallons per minute.
- The length of time for flushing can be determined by dividing the pipe volume in gallons by the outlet flow in gallons per minute.

Pipe volumes per foot of pipe length for various pipe sizes are shown in Exhibit 4.1 below.

Exhibit 4.1: Pipe Volumes for Copper Pipe

Nominal Pipe Diameter (inches)	Approximate Capacity (gallons per foot of length)	
	Type K Copper (soft)	Type L Copper (rigid)
3/8	0.0066	0.0075
1/2	0.0113	0.0121
3/4	0.0226	0.0251
1	0.0404	0.0429
1 1/4	0.0632	0.0653
1 1/2	0.0895	0.0924
2	0.1566	0.1607
2 1/2	0.2412	0.2479
3	0.3448	0.3538

Exhibit 4.2: Sample Strategy Flowchart

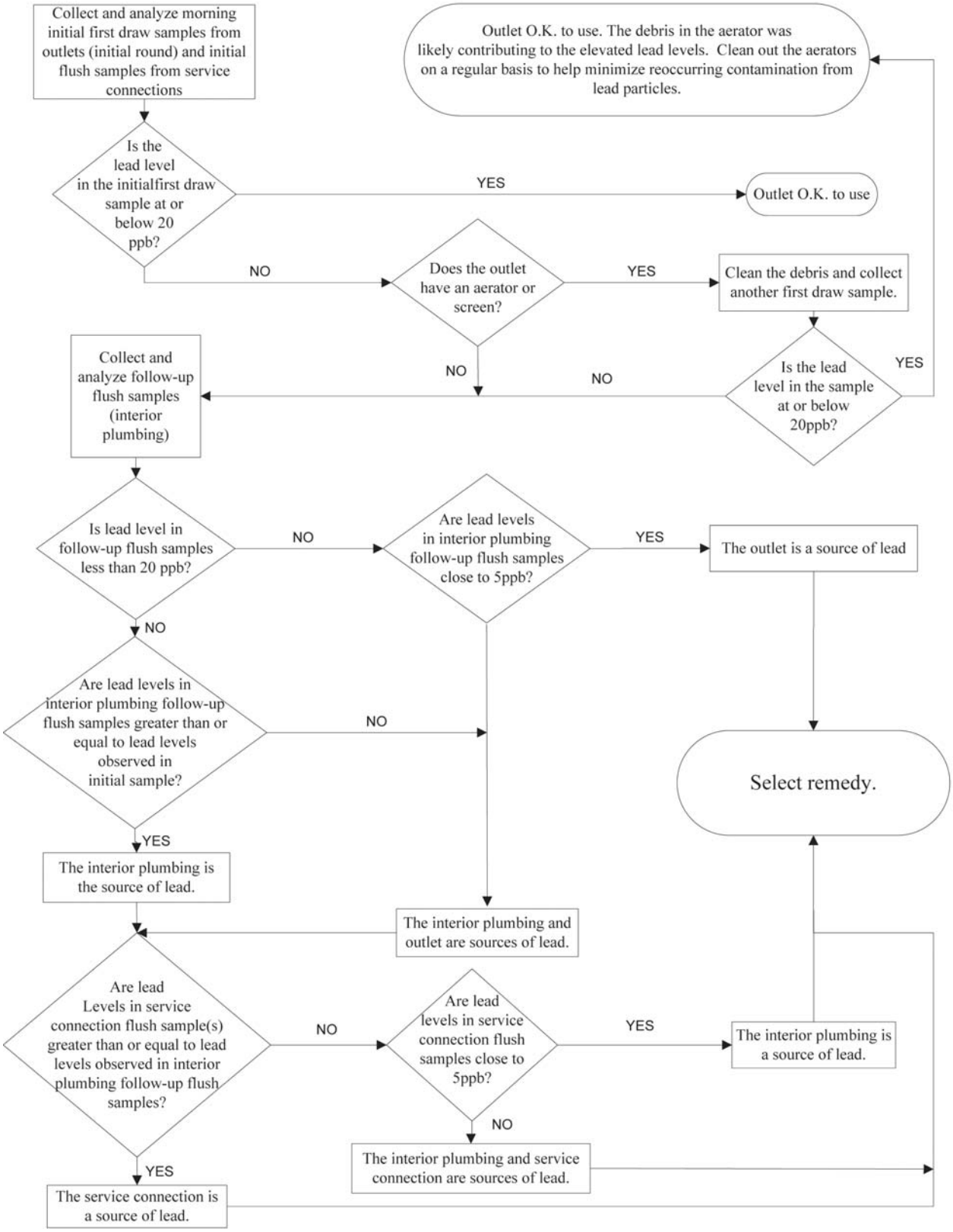

4.4.4 Sampling for Other Parameters

In addition to monitoring for lead, you may wish to monitor for other parameters that may provide an indication of problems in your plumbing. However, note that analysis costs will increase as the number of parameters increases. Some other parameters are listed in the following table:

Contaminant	Limit	Concern
Cadmium	5 ppb	A regulated toxic metal found in low levels in galvanized pipe. The maximum allowable level is 5 ppb. However, the presence of cadmium at any level indicates that corrosive conditions may exist in the plumbing.
Color	15 color units	An aesthetic parameter that may indicate the presence of iron oxides. Iron oxides are often present in iron or steel pipe as a result of corrosive conditions.
Copper	1300 ppb	A regulated toxic metal used to make copper piping. The presence of copper in water samples taken from copper piping is not unusual, but higher levels indicate that corrosive conditions may be a concern.
Iron	300 ppb	An aesthetic parameter that is indicative of corrosive conditions at higher levels. See also color and turbidity. (Galvanized pipe is typically made of iron.)
Turbidity	1 turbidity unit	A measurement of the clarity of water. Higher turbidity values may indicate the presence of iron oxides. Iron oxides are often present in iron or steel pipe as a result of corrosive conditions.
Zinc	5000 ppb	An aesthetic parameter that is indicative of corrosive conditions at higher levels. Zinc is used in making galvanized piping products. The presence of zinc in water samples taken from galvanized piping is not unusual, but higher levels indicate that corrosive conditions may be a concern.

Exhibit 4.3: Service Connection Sampling

Lead pipes are still used for service connections in some locations. Other materials used for service connections include copper, galvanized steel, plastic, and iron. Lead service connections can produce significant lead levels in your drinking water.

To test water in your service connection, locate the tap closest to the service connection. This is especially important for larger facilities where more than one service connection is present.

Sample Collection Procedures:

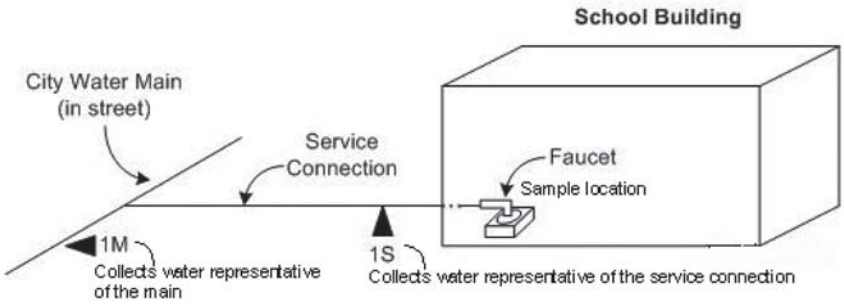

Targeted Locations of Water in Plumbing
for Samples 1S & 1M

Sample 1S (Service Connection)
Take this sample before the facility opens. Note that this initial sample is not a first-draw sample. Open the cold water tap closest to the service connection. Let the water run, and feel the temperature of the water. Depending upon the temperature of your public water system's water and the temperature of the room, you may feel the water temperature change as the water from the service connection enters the building. However, it is possible that the water in the service connection and the building are close to the same temperature. Therefore, you should collect the sample immediately after a temperature change is detected, or after 30 seconds. Flushing removes the water that was in the facility's interior plumbing and allows sampling of the water that was in the service connection. You may wish to calculate a more accurate flush time for your building by using the method described in section 4.4.3.

Sample 1M (Water Main)
This sample is representative of the water that is provided by the distribution main. Take the sample from the same location as sample 1S. Let the water run, and feel the temperature of the water. If you can feel a change in water temperature, allow the water to run an additional 3 minutes after the temperature changes and then collect the sample. If you cannot feel a change in temperature, allow the water to run for 3 minutes and 30 seconds.

If possible, you should take this sample from a faucet rather than a drinking fountain because of the limited flow that is normally provided by a drinking fountain. Also, a change in temperature may be difficult to detect if the sample is taken from a water cooler (see the discussions for Samples 1S and 1M below).

Interpreting Test Results:

- If the lead level of Sample 1S (service connection) significantly exceeds 5 ppb (for example, 10 ppb) and is higher than in sample 1M, lead is contributed from the service connection. Check for the presence of a lead service connection by scratching it with a knife or key. (Lead test kits are available from water testing and laboratory supply companies and are relatively inexpensive.) Lead is soft and dull gray in appearance. When scratched, it will be shiny. In the absence of a lead service connection, lead goosenecks or other materials containing lead may be the source of the contamination.
- If the lead level of Sample 1M (water main) significantly exceeds 5 ppb (for example, 10 ppb), lead in the water may be attributed to the source water, sediments in the main, or to lead in the distribution system such as from lead joints used in the installation or repair of cast iron pipes.
- If the lead levels of Samples 1S and 1M are very low (close to 5 ppb), very little lead is being picked up from the service line or the distribution main. Usually, no significant amount of lead (above 5 ppb) comes from the public water system.

For example scenarios of different water sample results, please see Appendix H.

Exhibit 4.4: Drinking Water Fountains: Bubblers

Do not close the shut-off valves to the water fountains to prevent their use prior to sample collection. Minute amounts of scrapings from the valves will produce inaccurate results showing higher than actual lead levels in the water. Take all samples with the taps fully open.

Sample Collection Procedures:

- **Initial First Draw Screening Sample 1A**
  This sample is representative of the water that may be consumed at the beginning of the day or after infrequent use. It consists of water that has been in contact with the bubbler valve and fittings and the section of plumbing closest to the outlet of the unit.

  Take this sample before the facility opens and before any water is used. Collect the water immediately after opening the valve without allowing any water to run into the drain. Take follow-up samples from those bubblers where test results indicate lead levels over 20 ppb.

One Style of Drinking Water Fountain

- **Follow-Up Flush Sample 2A**
  This sample is representative of the water that is in the plumbing upstream from the bubbler (from the bubbler back toward the service connection and the water main). Take this sample before the facility opens and before any water is used. Let the water from the fountain run for 30 seconds before collecting the sample. If several bubblers are served by a central chiller, samples should be taken from different bubblers on different days.

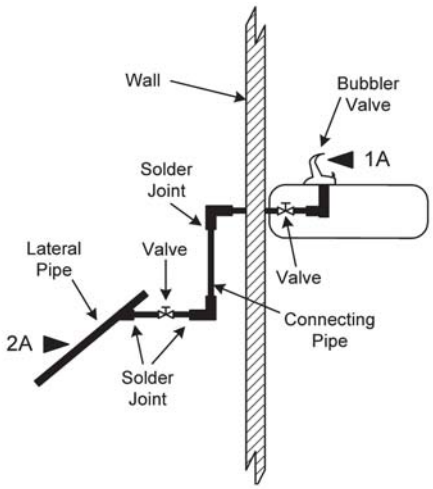

Targeted Locations of Water in Plumbing for Samples 1A & 2A

Note: All the samples are collected at the outlet. The sample numbers indicate what water is being targeted for testing.

Interpreting Test Results:

To determine the source of lead in the water, compare the test results of Samples 1A and 2A.

Fountains Connected to a Central Chiller

- If the lead level in Sample 1A is higher than that in Sample 2A, a portion of lead in the drinking water is contributed from the bubbler.
- If the lead level in Sample 2A is very low (close to 5 ppb), very little lead is picked up from the plumbing upstream from the outlet. The majority or all of the lead in the water is contributed from the bubbler.
- If the lead level in Sample 2A significantly exceeds 5 ppb (for example, 10 ppb), lead in the drinking water is also contributed from the plumbing upstream from the bubbler.
- If the lead level in Sample 2A exceeds 20 ppb, EPA recommends collecting follow-up flush samples from the header or loop supplying water to the lateral to locate the source of the contamination. *(Sampling instructions for interior plumbing can be found in Exhibit 4.9.)*

For example scenarios of water sample results and possible solutions, see Appendix H.

Exhibit 4.5: Drinking Water Fountains: Water Coolers

Do not close the valves to the water fountains to prevent their use prior to sample collection. Minute amounts of scrapings from the valves will produce inaccurate results showing higher than actual lead levels in the water. Take all samples with the taps fully open.

Sample Collection Procedures:
Two types of water coolers are used: the wall-mounted and the free-standing types. Water in these coolers is stored in a pipe coil or in a reservoir. Refrigerant coils in contact with either of these storage units cools the water. Sources of lead in the water may be the internal components of the cooler, including a lead-lined storage unit; the section of the pipe connecting the cooler to the lateral pipe; and/or the interior plumbing of the building.

Wall-Mounted Cooler

Prior to testing, check the make and model numbers of your water coolers and compare them to EPA's listing of coolers that have lead parts or lead-lined tanks *(see Appendix E for a summary of the water cooler issues and EPA's list of affected coolers).* If you have a Halsey Taylor cooler that is on EPA's list of coolers with lead-lined tanks, consult Halsey Taylor for information on their replacement/refund program and associated testing directions. Contact information is provided in Appendix E.

Regardless of whether your water cooler appears on EPA's listing, initial testing should be conducted.

- **Initial First Draw Screening Sample 1C**
  This sample is representative of the water that may be consumed at the beginning of the day or after infrequent use. (In areas of infrequent use, the water may not have been used in more than 18 hours. This is acceptable if this is representative of the normal water consumption pattern.) The sample consists of water that has been in contact with the interior plumbing, the valve and fittings, the storage unit, and the section of plumbing closest to the outlet of the unit.

  Take this sample before the facility opens and before any water is used. Collect the water immediately after opening the faucet without allowing water to waste. Take follow-up flush samples from water coolers whose test results indicate lead levels greater than 20 ppb.

  When conducting follow-up flush testing with water coolers you should be aware that some

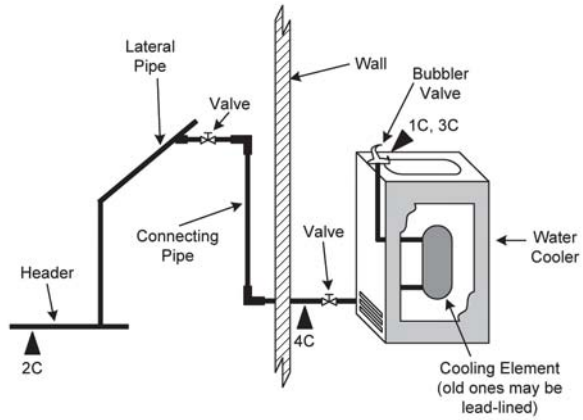

Targeted Locations of Water in Plumbing for Samples 1C - 4C

Note: The valve shown upstream of the water cooler may be located inside the cooler.

water coolers manufactured before 1988 may have storage tanks lined with materials containing lead. You should contact the manufacturer of any water cooler units you have purchased or are planning to purchase for written guarantees that the unit is lead-free. *A list of makes and model numbers of coolers that contain lead has been prepared by EPA and is summarized in Appendix E.*

- **Follow-Up Flush Sample 2C**
  This water sample is representative of the water that is in contact with the header or rising piping upstream of the cooler. Take this sample after the facility closes. Let the water from the fountain run for 15 minutes before collecting the sample. You must flush the cooler for 15 minutes to ensure that no stagnant water is left in the storage unit.

- **Follow-Up First Draw Sample 3C**
  Take this sample before the facility opens and before any water is used. This sample must be taken the morning after you collect Follow-Up Flush Sample 2C. Collect the water immediately after opening the faucet without allowing any water to waste.

  Because the water in the cooler was flushed the previous afternoon, this sample is representative of the water that was in contact with the cooler overnight, not in extended contact with the plumbing upstream. As such, it may differ from Initial First Draw Screening Sample 1C.

Interpreting Test Results:

- IF [Follow-up Sample 3C] IS GREATER THAN [Follow-up Sample 2C] THEN
  → *The water cooler may be contributing lead.*

- IF [Follow-up Sample 3C] IS GREATER THAN [Follow-up Sample 2C] AND
  [Initial Sample 1C] IS GREATER THAN [Follow-up Sample 3C] THEN
  → *The upstream plumbing may also be contributing lead.*

- IF [Follow-up Sample 2C] IS CLOSE OR EQUAL TO [Follow-up Sample 3C] THEN
  → *The water cooler is probably not contributing lead.*

- IF [Follow-up Sample 1C] IS GREATER THAN [Follow-up Sample 3C] AND
  [Follow-up Sample 2C] IS CLOSE OR EQUAL TO [Follow-up Sample 3C] THEN
  → *The water cooler and/or upstream plumbing are probably contributing lead.*

- IF [Follow-up Sample 2C > 20 ppb, AND] IS GREATER THAN OR EQUAL TO [Initial Sample 1C & Follow-up Sample 3C] THEN
  → *The source of the lead may be sediments contained in the cooler storage tank, screens, or the plumbing upstream from the cooler.*

- **Follow-Up First Draw Sample 4C**
  To confirm whether the cooler is the source of lead, take Follow-Up First Draw Sample 4C.

  Turn off the valve leading to the cooler. Disconnect the cooler from the plumbing and look for a screen at the inlet. Remove the screen. If there is debris present, check for the presence of lead solder by sending a sample of the debris to the laboratory for analysis.

  Some coolers also have a screen installed at their outlet. Carefully remove the bubbler outlet by unscrewing it. Check for a screen and debris and have a sample of any debris analyzed.

  Some coolers are equipped with a drain valve at the bottom of the water reservoir. Water from the bottom of the water reservoir should be sampled and any debris analyzed.

  Collect Sample 4C from the disconnected plumbing outlet in the same manner as you collected Sample 1C. Compare the results from Sample 4C to the other sample results.

Interpreting Additional Water Cooler Test Results:

- IF [Follow-up Sample 4C] IS LESS THAN 5 ppb, THEN → *The lead is coming from debris in the cooler or in the screen.*
- IF [Follow-up Sample 4C] IS MUCH GREATER THAN 5 ppb, THEN → *The lead is coming from debris in the cooler or in the screen.*
- IF [Follow-up Sample 4C] IS MUCH GREATER THAN 5 ppb, AND LESS THAN [Initial Sample 1C] THEN → *The source of lead may be sediments contained in the cooler, screens, and/or the upstream plumbing.*

For example scenarios of water sample results and possible solutions, see Appendix H.

Exhibit 4.6: Drinking Water Fountains: Bottled Water Dispensers

Sample Collection Procedures:
This testing will identify if lead is being contributed to the water from the dispenser.

Notes: The Food and Drug Administration (FDA), regulates the interstate sale of bottled water and has established a 5 ppb standard for lead in bottled water. EPA recommends that you contact your distributor for written assurance that the bottled water does not exceed federal or state bottled water standards, and a copy of recent test results.

- **Initial First Draw Screening Sample 1D**
  This sample is representative of the water that may be consumed at the beginning of the day or after infrequent use. It consists of water that has been in contact with the dispenser valve and fittings incorporated in the outlet of the unit.

  Take this sample before the facility opens and before any water is used. Collect the water immediately after opening the faucet without allowing any water to waste. Take follow-up flush samples from those bottled water dispensers where test results indicate lead levels over 20 ppb.

- **Follow-Up Flush Sample 2D**
  Collect this sample directly from the bottle that supplies the water to the unit. This will enable you to determine the source of lead in the water. See the Note below for an alternative to follow-up sampling.

Bottled Water Dispenser

Interpreting Test Results:

- If the sample contains lead, contact the water supplier and/or the manufacturer of the dispenser to ask for their recommendations.
- If the lead level in Sample 1D is higher than that in Sample 2D, lead may be coming from the dispenser unit.
- If the lead level in Sample 2D is identical or close to that in Sample 1D, the source of lead is the bottled water.

Note: Many dispensers have a hot and cold tap. Water from both taps is meant to be directly consumed, therefore, both taps should be sampled. However, you may wish to sample the hot water tap on a separate day.

For example scenarios of water sample results and possible solutions, see Appendix H.

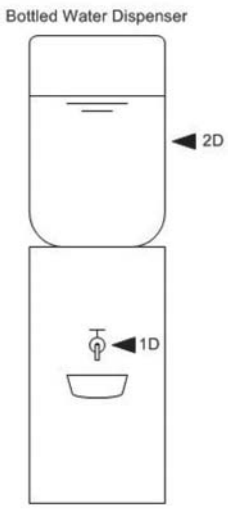

Targeted Locations of Water in Plumbing for Samples 1D & 2D

Exhibit 4.7: Ice Making Machines

Sample Collection Procedures:

- **Initial Screening Sample 1E**
  Fill a suitable container (250 mL or larger, wide-mouthed bottle or other container) provided by the laboratory at least three-quarters full of ice. Do not touch the ice with your hands. Use the non-metal scoop or disposable plastic gloves provided by the laboratory to place the ice in the container.

  If the lead level in Sample 1E exceeds 20 ppb, collect a follow-up sample to determine if the source of the lead is the plumbing or the ice making machine itself.

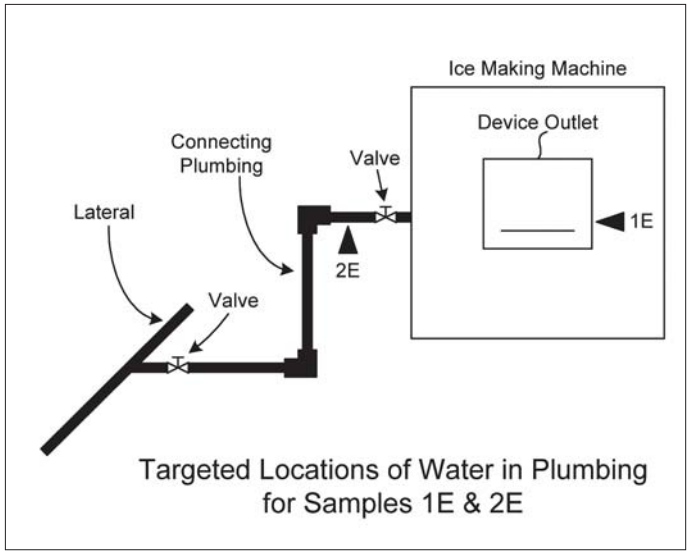

- **Follow-Up Sample 2E**
  Disconnect the ice maker from the plumbing and look for a screen at the inlet. Remove the screen. If debris is present, forward a sample of the debris to the laboratory for analysis and clean out the remaining debris. The laboratory will determine whether lead solder is present. Clean the screen routinely to avoid accumulations of debris.

  Collect the sample from the disconnected plumbing as close to the ice maker as possible. Fill the sample container with 250 mL of water. If no tap is available, contact the ice machine manufacturer for recommendations that will minimize disruption of existing plumbing. Adding taps or valves could add new sources of lead to the plumbing, even if the new devices are lead-free and meet NSF Standard 61, section 8. If a sample tap or valve is available, collect the sample immediately after opening the tap or valve.

Interpreting Test Results:

- If the lead level in Sample 2E is close to 5 ppb, the source of the lead in the ice is the ice maker.
- If the lead level in Sample 2E significantly exceeds 5 ppb (for example, 10 ppb), lead is also contributed from the plumbing upstream from the ice maker.
- If the lead level in Sample 2E exceeds 20 ppb, EPA recommends collecting follow-up flush samples from the distribution system supplying water to the ice maker. *Refer to Exhibit 4.9 on Sampling Interior Plumbing for instructions.*

For example scenarios of water sample results, please see Appendix H.

Exhibit 4.8: Water Faucets (Taps)

Sample Collection Procedures:

- **Initial First Draw Screening Sample 1F**
  This sample is representative of the water that may be consumed at the beginning of the day or after infrequent use. It consists of water that has been in contact with the fixture and the plumbing connecting the faucet to the lateral pipes.

  Take this sample before the facility opens and before any water is used. If your facility has a routine maintenance program for removing, cleaning, and replacing aerators you can perform this task prior to collecting the sample.

  Using the cold water tap, collect the water immediately after opening the faucet without allowing any water to go to waste. Follow-up flush samples should be taken from those water faucets where initial screening test results indicate lead levels over 20 ppb.

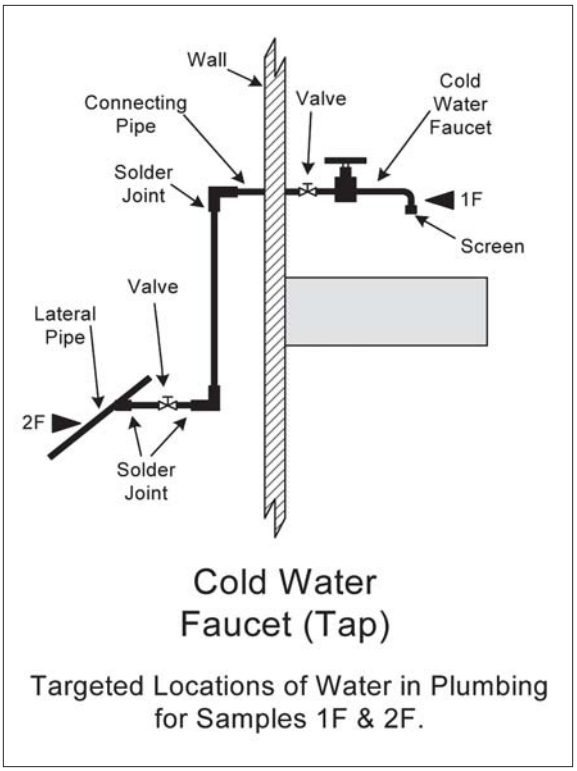

- **Follow-Up Flush Sample 2F**
  This sample is representative of the water that is in the plumbing upstream from the faucet. Take this sample before school opens and before any water is used. Let the water from the faucet run for 30 seconds before collecting the sample.

Interpreting Test Results:

- If the lead level in Sample 1F is higher than that in Sample 2F, the source of lead is the water faucet and/or the plumbing upstream from the faucet.
- If the lead level in Sample 2F is very low, close to 5 ppb, very little lead is coming from the plumbing upstream from the faucet. The majority or all of the lead in the water is from the faucet and/or the plumbing connecting the faucet to the lateral.
- If the lead level in Sample 2F significantly exceeds 5 ppb (for example, 10 ppb), lead may be contributed from the plumbing upstream from the faucet.

For example scenarios of water sample results and possible solutions, see Appendix H.

Exhibit 4.9: Sampling Interior Plumbing

In general, if lead levels exceed 20 ppb in follow-up samples taken from drinking water outlets, additional samples from upstream sample sites in the interior plumbing should be collected. EPA recommends that water samples from each lateral, header and riser (where applicable) be collected because use patterns may vary among locations within a building. The configuration of interior plumbing will vary depending on the layout of a given building. Construction materials may also vary, especially in larger buildings where additions and repairs have been made to the original structure. *See Exhibits 4.10 and 4.11 for simplified diagrams of the interior plumbing in single-level and multi-level buildings.*

Sampling should proceed systematically upstream from follow-up sample sites that exceed 20 ppb. (*However, you do not have to sample at upstream sites where follow-up samples have already been taken.)* The goal of this sampling effort is to isolate those sections of the interior plumbing that contribute lead to the water. This is achieved by comparing the results of interior plumbing samples with each other, and with the results of previously collected follow-up samples.

Developing procedures from upstream sampling from laterals, headers and risers can be difficult because of the wide variation in plumbing configurations among facilities. As discussed in 4.4.3, the sampling procedures in this manual were developed for typical configurations that may not be similar to your facility. You may wish to either develop your own sampling procedures using the guidance provided in 4.4.3, or retain a consultant for guidance in this process.

Laterals
A lateral is a plumbing branch between a fixture or group of fixtures (e.g., taps, water fountains, etc.) and a header.

Sample Collection Procedures:

- **Sample 1G** (lateral)
  Open the outlet that has been designated as the sample site for the lateral pipe. Let the water run for 30 seconds before collecting the sample. Collect a 250 mL sample. The purpose of flushing the water is to clear the plumbing between the sample site and the lateral pipe. This action will ensure collection of a representative sample.

Note: Sample 1G corresponds to follow-up samples taken from other outlets such as 2A, 2E and 2F. Compare the results of these samples from outlets upstream and downstream of Sample 1G for additional information on the source of the lead within the interior plumbing. (As noted above, you do not have to take sample 1G at sites where follow-up samples have already been taken. The previous results are adequate.)

Interpreting Test Results:

- IF [Follow-up Sample 1G] IS GREATER THAN 20 ppb THEN
  → *Collect additional samples from the plumbing upstream where samples have note been previously taken; i.e., from the header that feeds the lateral, the riser pipe (if applicable), or the service connection.*

  Note: *High lead levels may be caused by recent repairs or by sediment in the plumbing. Sediment should be sent to a laboratory for analysis.*

- IF [Follow-up Sample 1G] IS CLOSE OR EQUAL TO [Initial results from a downstream outlet] THEN
  → *The lead is contributed from the lateral and/or from interior plumbing upstream from the lateral. Possible sources include the lateral, header, riser pipe, or service connection.*

- IF [Follow-up Sample 1G] IS CLOSE OR EQUAL TO 5 ppb THEN
  → *The portion of the lateral upstream from Sample Site 1G and the interior plumbing supplying water to the lateral are probably not contributing lead. The source is downstream from Sample Site 1G.*

- IF [Follow-up Sample 1G] IS APPROXIMATELY 10 ppb OR GREATER AND IS LESS THAN [Initial results from a downstream outlet] THEN
  → *A portion of the lead is contributed from the plumbing downstream from Sample Site 1G.*

Headers

A header is the main water supply pipe on a given floor of a building. A header supplies water to laterals. In smaller buildings, a header may be very short and/or have a relatively small diameter.

Sample Collection Procedures:

- **Sample 1H** (header)
  Locate the sampling point furthest from the service connection or riser pipe (see discussion of riser pipes on the next page) on the floor. You should try to take this sample from a faucet to provide adequate flushing through the tap. Open the faucet and let it run for 30 seconds before collecting this sample. Fill the sample container with 250 mL of water. The purpose of flushing the water is to clear the faucet and plumbing between the sample site and the header pipe.

Interpreting Test Results:

- IF **Follow-up Sample 1H** IS GREATER THAN 20 ppb THEN

  → *Collect additional samples from the plumbing upstream that supplies water to the header (if not already done); i.e., the riser pipe (if applicable), or the service connection.*

  Note: *High lead levels may be caused by recent repairs or by sediment in the plumbing. Sediment should be sent to a laboratory for analysis.*

- IF **Follow-up Sample 1H** IS CLOSE OR EQUAL TO **Initial results from a downstream outlet** THEN

  → *The lead is contributed from the header and/or from interior plumbing upstream from the header. Possible sources include the header, riser pipe, or service connection.*

- IF **Follow-up Sample 1H** IS CLOSE OR EQUAL TO 5 ppb THEN

  → *The portion of the header upstream from Sample Site 1H and the interior plumbing supplying water to the header are probably not contributing lead. The source is downstream from Sample Site 1H.*

- IF **Follow-up Sample 1H** IS APPROXIMATELY 10 ppb OR GREATER AND IS LESS THAN **Initial results from a downstream outlet** THEN

  → *A portion of the lead is contributed from the plumbing downstream from Sample Site 1H.*

Riser Pipes
A riser is the vertical pipe that carries water from one floor to another.

Sample Collection Procedures:

- **Sample 1J**
  Open the tap closest to the riser pipe. Let the water run for 30 seconds before collecting the sample. Fill the sample container with 250 mL of water. The purpose of flushing is to clear the faucet and plumbing between the sample site and the riser pipe.

Interpreting Test Results:

- IF [Follow-up Sample 1J] IS GREATER THAN 20 ppb, THEN
  → *Collect additional samples from the plumbing upstream that supplies water to the riser (if not already done); i.e., a riser from another floor, or the service connection.*

  Note: *High lead levels may be caused by recent repairs.*

- IF [Follow-up Sample 1J] IS CLOSE OR EQUAL TO [Initial results from a downstream outlet] THEN
  → *The lead is contributed from the riser and/or from interior plumbing upstream from the sample site. Possible sources include the riser pipes on other floors or the service connection.*

- IF [Follow-up Sample 1J] IS CLOSE OR EQUAL TO 5 ppb THEN
  → *The portion of the riser upstream from Sample Site 1J and the service connection are probably not contributing lead. The source is downstream from Sample Site 1J.*

- IF [Follow-up Sample 1J] IS APPROXIMATELY 10 ppb OR GREATER AND IS LESS THAN [Initial results from a downstream outlet] THEN
  → *A portion of the lead is contributed from the plumbing downstream from Sample Site 1J.*

For example scenarios of water sample results and possible solutions, see Appendix H.

Sample Collection Procedures – Central Chiller Unit:

- **Follow-Up First Draw Sample 1K**
  This sample is representative of water that has been in contact with the plumbing supplying water to the chiller. Take this sample before the facility opens and before any water is used. Take the sample from a tap or valve as close to the inlet of the chiller as possible. If no tap is available, contact the chiller manufacturer for recommendations that will minimize disruption of existing plumbing. Adding taps or valves could add new sources of lead to the plumbing, even if the new devices are lead-free and meet NSF Standard 61. If a sample tap or valve is available, collect the sample immediately after opening the tap or valve, without allowing any water to waste.

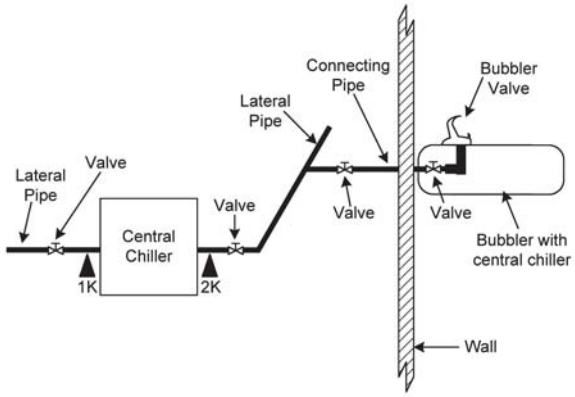

Targeted Locations of Water in Plumbing for Samples 1K & 2K

- **Follow-Up First Draw Sample 2K**
  This water sample consists of water that has been in contact with the chiller unit and the plumbing upstream which supplies water to the chiller. Often, water supplied to the bubblers is recirculated to the chiller unit. In this instance, Sample 2K consists of a mixture of water from the water supply and any water that may be recirculated from the plumbing supplying water to the bubblers.

  Take the sample from a tap or valve as close to the outlet of the chiller as possible. If no tap is available, contact the chiller manufacturer for recommendations that will minimize disruption of existing plumbing. Adding taps or valves could add new sources of lead to the plumbing, even if the new devices are lead-free and meet NSF Standard 61. If a sample tap or valve is available, collect the sample immediately after opening the tap or valve.

Interpreting Test Results – Central Chiller Unit:

Note: You will need the results from samples collected at the bubblers per instructions in exhibit 4.4.

- If the lead level in Sample 2A is higher than that in Sample 2K, lead is contributed from the plumbing supplying the water from the chiller to the bubbler.
- If the lead level in Sample 2K is higher than in Sample 1K, a portion of the lead may be coming from the chiller. Note: Sludge and sediments containing high levels of lead may accumulate in chiller tanks. If the test results indicate that lead is contributed from the chiller unit, check for the presence of debris and sludge. Remove any of these materials from the chiller, flush the chiller unit, and resample the water.
- If the lead level in Sample 1K exceeds 20 ppb, EPA recommends additional sampling from the distribution system supplying water to the chiller to locate the source of contamination.
- If the lead level in Sample 1K is very low (close to 5 ppb), very little lead is picked up from the plumbing upstream from the chiller. The majority or all of the lead in the water may be attributed to the chiller and the plumbing downstream from the chiller.

For example scenarios of water sample results and possible solutions, see Appendix H.

Exhibit 4.10: Sample Sites for a Single-Level Building

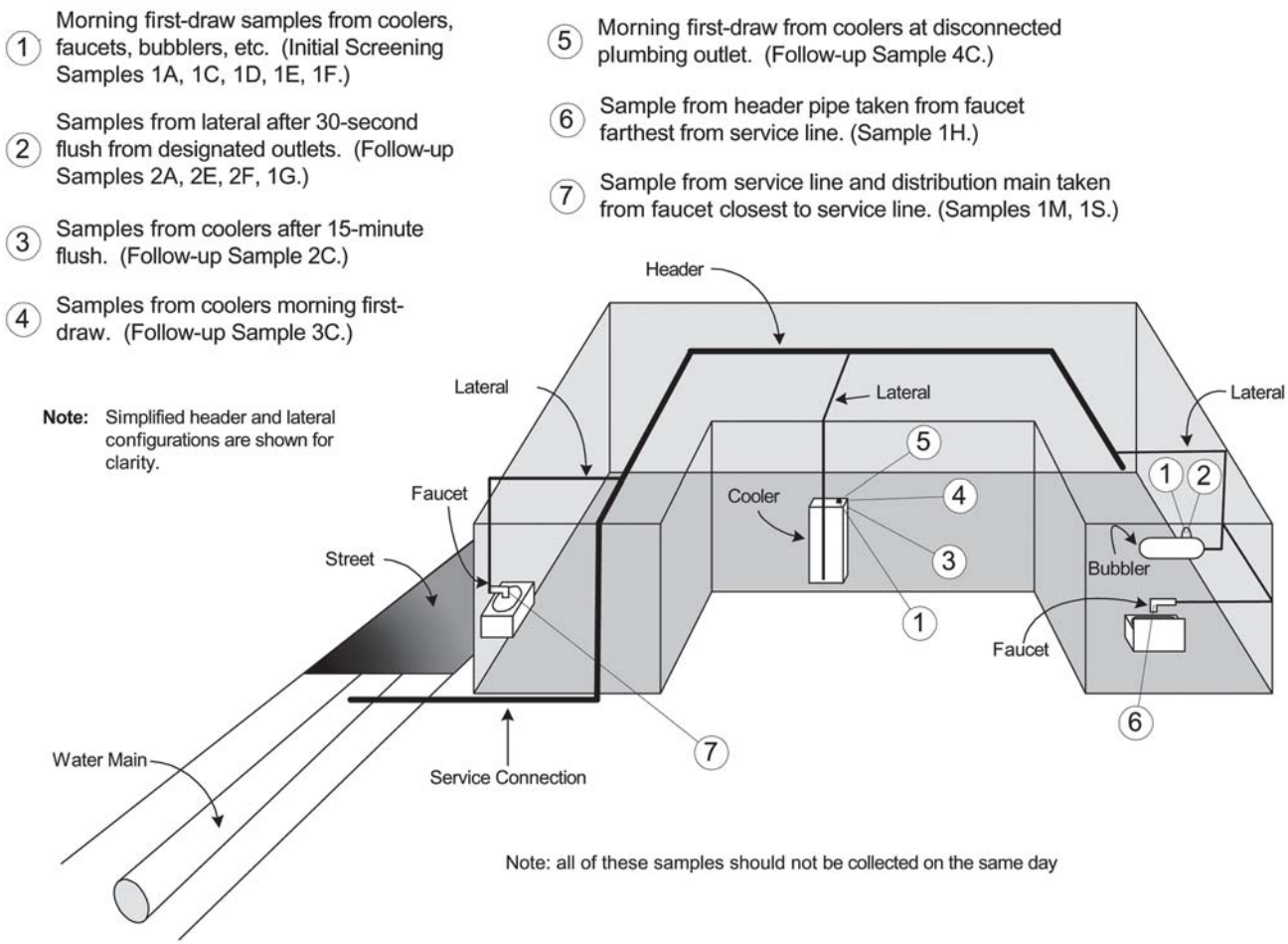

Exhibit 4.11: Sample Sites for a Multi-Level Building

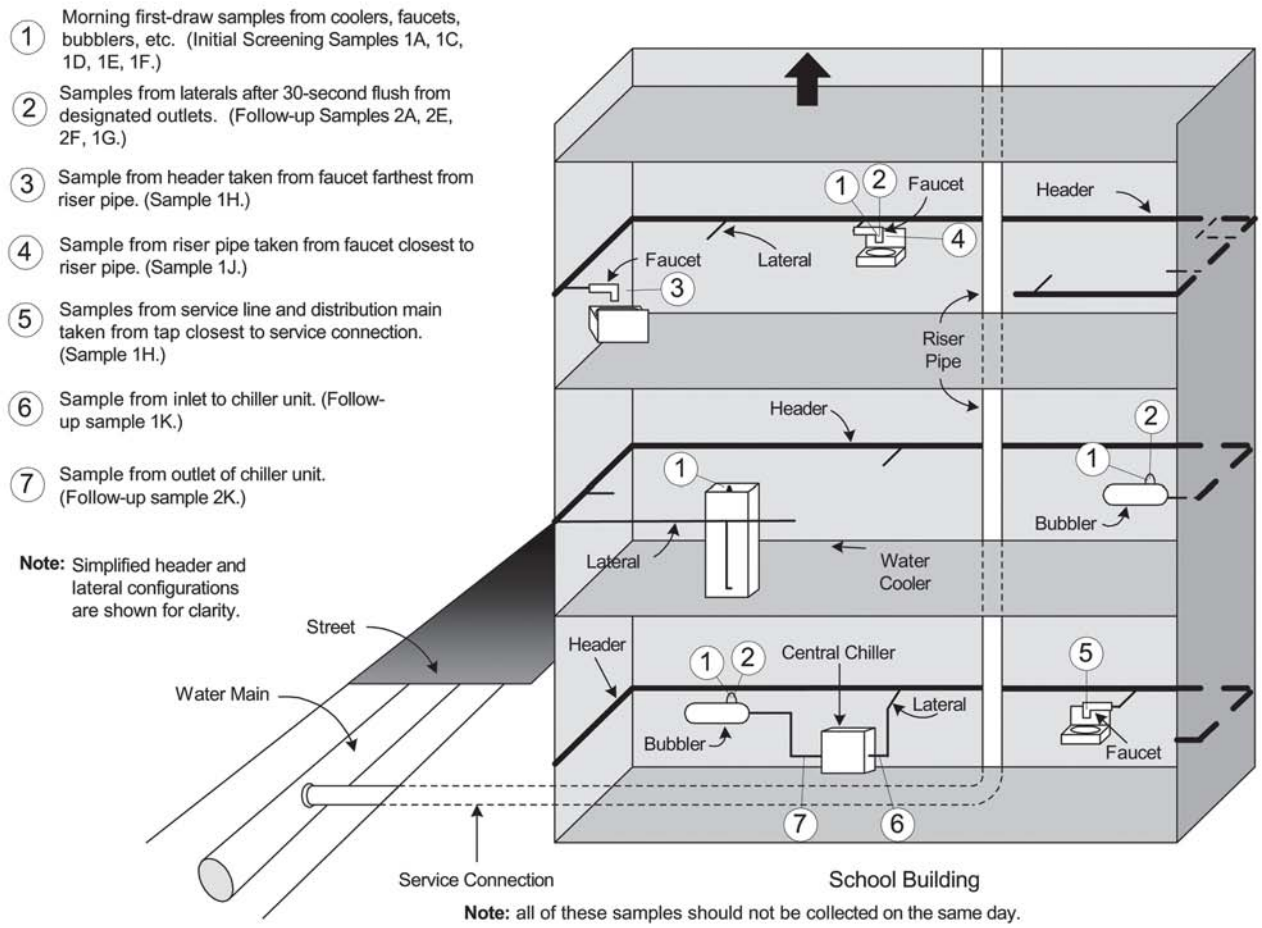

5. Remedies

Solutions to lead problems typically need to be made on an interim (short-term) and on a permanent basis. Interim measures can be taken while you wait for your test results or until a permanent solution has been put in place. In addition, there are routine measures that should be taken. You should work closely with maintenance staff and any plumbers who may make repairs. Make sure that users are familiar with the use of new fixtures you install.

Outlined below are various routine, interim and permanent remedies. To aid you in the process of selecting remedies, a case study has been included as Exhibit 5.3.

5.1 Routine Control Measures

Below are examples of routine activities that should be conducted to prevent exposure to elevated levels of lead:

- Create aerator (screen) cleaning maintenance schedule and clean debris from all accessible aerators frequently.
- Use only cold water for food and beverage preparation. Hot water will dissolve lead more quickly than cold water and is likely to contain increased lead levels. If hot water is needed, it should be taken from the cold water tap and heated on a stove or in a microwave oven.
- Instruct the users (students and staff) to run the water before drinking or staff could run the water before students arrive, so they are drinking water that has not been in contact with the faucet interior since faucets are often a major source of lead in drinking water.
- Placard bathroom sinks with notices that water should not be consumed. You should use pictures if there are small children using bathrooms.

5.2 Interim (Short-Term) Control Measures

Some examples of interim control measures include:

(1) **"Flush" the piping system in your building.** "Flushing" involves opening suspect taps every morning before the facility opens and letting the water run to remove water that has been standing in the interior pipes and/or the outlets. The flushing time varies by the type of outlet being cleared. The degree to which flushing helps reduce lead levels can also vary depending upon the age and condition of the plumbing and the corrosiveness of the water. Flushing instructions are presented in Exhibit 5.1.

Exhibit 5.1: Flushing Directions by Outlet Type

Remember that each drinking water outlet should be flushed individually; flushing a toilet will not flush your water fountains. All flushing should be recorded in a log submitted daily to the office, or person, in charge of this program.

- Locate the faucet furthest away from the service line on each wing and floor of the building, open the faucets wide, and let the water run for 10 minutes. For best results, calculate the volume of the plumbing and the flow rate at the tap and adjust the flushing time accordingly. This 10-minute time frame is considered adequate for most buildings.
- Open valves at all drinking water fountains without refrigeration units and let the water run for roughly 30 seconds to one minute, or until cold.
- Let the water run on all refrigerated water fountains for 15 minutes. Because of the long time period required, routinely flushing refrigerated fountains may not be feasible. It may therefore be necessary, and more economical, to replace these outlets with lead-free, NSF-approved devices.
- Open all kitchen faucets (and other faucets where water will be used for drinking and/or cooking) and let the water run for 30 seconds to one minute, or until cold.

Advantages:

- Quickest and easiest solution to high lead levels, especially when contamination is localized in a small area or in a small building.
- Does not require installation or maintenance of water treatment equipment.
- Does not require complex instructions.

Disadvantages:

- The most obvious disadvantage to flushing is the potential waste of water involved in the flushing procedures. To minimize this disadvantage, consider the following:
    - Flush pipes only after weekends or vacations when lead levels may be highest (use only if lead levels do not exceed 20 ppb on a daily basis).
    - Thoroughly flush several designated drinking water outlets daily while taking all others temporarily out of service.
    - Use bottled water.
    - Collect water being flushed and use for non-consumptive purposes.
- Another obvious disadvantage to flushing is the amount of time and staff needed to perform the task.
- Flushing is not recommended as a practical remedy for water coolers.

HINT: Be careful not to flush too many taps at once. This could dislodge sediments that might create further lead problems, or it could reduce pressure in the system below safe levels. If the flow from outlets is reduced noticeably during flushing, you have probably turned on too many taps at once.

(2) **Provide bottled water.** This can be an expensive alternative but might be warranted if you expect or are aware of widespread contamination and flushing is not an option. If you use bottled water, be aware that it is not regulated by EPA but rather by the Food and Drug Administration (FDA). Your state may also regulate bottled water, and, in some instances, these standards may be more stringent than the federal requirements. EPA recommends that you require a written statement from the bottled water distributor guaranteeing that the bottled water meets FDA and state standards.

(3) **Shut off problem outlets.** If initial sample results from an outlet exceed 20 ppb, the outlet can be shut off or disconnected until the problem is resolved. If the outlet had been frequently used, bottled water could be provided as a temporary replacement as suggested in item 2 above.

5.3 Permanent Remedies

You can take a number of actions to permanently reduce or eliminate the sources of lead that originate in your building's plumbing. Some of these actions may allow the elimination or reduction of routine flushing or other interim measures. After obtaining an understanding of your water supply and the lead conditions in your facility (as a result of testing), you should examine the permanent treatment options and select those most appropriate to your situation. Obviously, your decision will be based on such factors as cost, likelihood of success, availability of water, and staffing requirements.

(1) **Replacement**. If the sources of lead contamination are localized and limited to a few outlets, replacing these outlets or upstream components may be the most practical solution. EPA worked with the plumbing industry and NSF International to develop an industry standard that is designed to minimize the amounts of lead being leached from these products. This standard is NSF Standard 61 (Sections 4, 8 and 9). Before you purchase any brass plumbing products, request information regarding compliance with this standard.

> Tip: If multiple components (for example, bubbler valves) are in need of replacement, you may wish to purchase only one or two initially. You could then take follow-up water samples after installing the new component(s) to see if that particular product leaches unacceptable levels of lead. If follow-up testing is satisfactory, you could be reasonably certain that the product will perform well at other locations in your facility.

NSF Standard 61, Section 4 covers pipes, fittings and small drinking water storage devices having domestic or residential applications, including the products or water contact materials of pipes, fittings, tubing, hoses, well casing, drop pipes and screens, etc.

NSF Standard 61, Section 8 covers inline mechanical devices that are used to measure or control the flow of water. Inline devices used to measure or control the flow of water in a building include water meters, building valves, check valves, meter stops, valves and fittings, backflow preventers, etc. An inline device is any device installed on a service line or building distribution system downstream of the water main and before endpoint devices.

NSF Standard 61, Section 9 covers endpoint devices. The devices include kitchen and bar faucets, lavatory faucets, water dispensers, drinking fountains, water coolers, glass fillers, residential refrigerator ice makers, supply stops, and endpoint control valves. *Under the Lead Ban, these devices must meet the requirements of this standard.* Be sure to check for compliance with NSF Standard 61, Section 9 before purchasing or installing an endpoint device.

(2) **Lead levels can be reduced at the tap.** Reverse osmosis units are commercially available and can be effective in removing lead. Since these devices also tend to make the water corrosive, they should only be used when placed at water outlets. Such devices are termed point-of-use (POU) devices. POU devices can be used to treat faucets or taps, but would not be used on drinking water fountains. There are a number of POU cartridge filter units on the market that effectively remove lead.

POU devices can be either purchased or leased. They can be relatively inexpensive ($65 to $250) or expensive (ranging from $250 to $500), their effectiveness varies, and they may be vulnerable to vandalism. They also require a maintenance program for regular upkeep to ensure effectiveness. Cartridge filter units need to be replaced periodically to remain effective. NSF International, an independent, third-party certification organization, has a testing program to evaluate the performance of POU devices for lead removal (NSF Standard 53). Before purchasing any device, ask the manufacturer for proof of NSF approval and the Performance Data Sheet, or check by visiting the NSF Web site at http://www.nsf.org/business/search_listings/index/asp.

(3) **Check grounding wires**. Electrical current may accelerate the corrosion of lead in piping materials. Existing wires already grounded to the water pipes can possibly be removed by a qualified electrician, and replaced by an alternative grounding system. If your local or state building codes allow, consider finding an alternative grounding system and have a qualified electrician make the change. Be aware that the removal of grounding from water pipes may create a shock hazard unless an acceptable, alternative ground is provided.

(4) **Lead pipe replacement**. Lead pipes within the school and those portions of the lead service lines under the water supplier's jurisdiction can be replaced. Contact your public water supplier regarding their jurisdiction. However, your facility may be responsible for replacing a portion of a lead sevice line that is under its own administrative jurisdiction, rather than under the jurisdiction of the water supplier.

(5) **Reconfigure plumbing**. In some facilities, the plumbing system might be modified so that water supplied for drinking or cooking is redirected to bypass sources of lead contamination. Before undertaking such an alternative, be certain of the sources of lead contamination. Follow-up testing would also be necessary, as with the other remedies, to ensure that the efforts result in reduced lead levels at the tap.

(6) **Manual flushing**. Flushing individual problem outlets or all outlets may also represent a permanent, albeit ongoing, solution. There are advantages and disadvantages to flushing. Flushing is often the quickest and easiest solution to high lead levels, especially when contamination is localized in a small area or in a small building. *See the Interim Remedies section above for a discussion of the advantages/disadvantages of this remedy in addition to outlet flushing instructions. You should review this information before deciding whether flushing is appropriate as a permanent remedy in your facility.*

(7) **Automatic flushing**. Time-operated solenoid valves can be installed and set to automatically flush the main pipes (headers) of the system. It is important to note that solenoid valves are not practical for flushing water coolers. They would have to be flushed manually by staff. *See the Interim Remedies section above for flushing instructions for water fountains.*

(8) **Bottled water**. If other treatment fails or is impractical, bottled water can be purchased for consumption by the building community. As noted under the interim remedies section above, make sure that the bottled water you select meets federal and/or state standards for lead and other drinking

water contaminants. EPA recommends that you require a written statement from the bottled water distributor guaranteeing that the lead levels in the water do not exceed 5 ppb.

(9) **Use lead-free materials**. Make sure that any plumber who does repair or replacement work on the facility's plumbing system uses only "lead-free" solders and other materials. The 1986 Safe Drinking Water Act Amendments require that only "lead-free" materials be used in new plumbing and plumbing repairs. Make sure all plumbers and other workers adhere to these requirements. These actions will ensure that new lead is not introduced into the facility's plumbing system. Report any violations of the "lead-free" requirements to your local plumbing inspector, the state drinking water program or EPA *(see Appendix D for a directory of state programs).*

(10) **Shut off problem outlets.** If initial sample results from an outlet exceed 20 ppb, the outlet can be shut off or disconnected permanently. If the outlet had not been used regularly, this may be a viable option. However, if the outlet had been frequently used, this is probably not a practical solution.

Three flow charts (Exhibits 5.2a through 5.2c) illustrating a basic remediation process are presented below. Please note that these flow charts provide a basic process for developing permanent solutions to lead problems. Interim measures are therefore not specifically addressed on the charts. Also, for simplicity, not all of the possible permanent remedies listed in the above discussion are shown on the charts. However, these options provide additional flexibility and should be considered when using the flow charts. For example, a school might decide to provide a point-of-use reverse osmosis treatment unit at a kitchen sink tap in lieu of replacing high lead plumbing because a treatment unit would provide better overall water quality for cooking *and* it would remove lead from the water.

Exhibit 5.2a: Remediation Flow Chart (part 1)

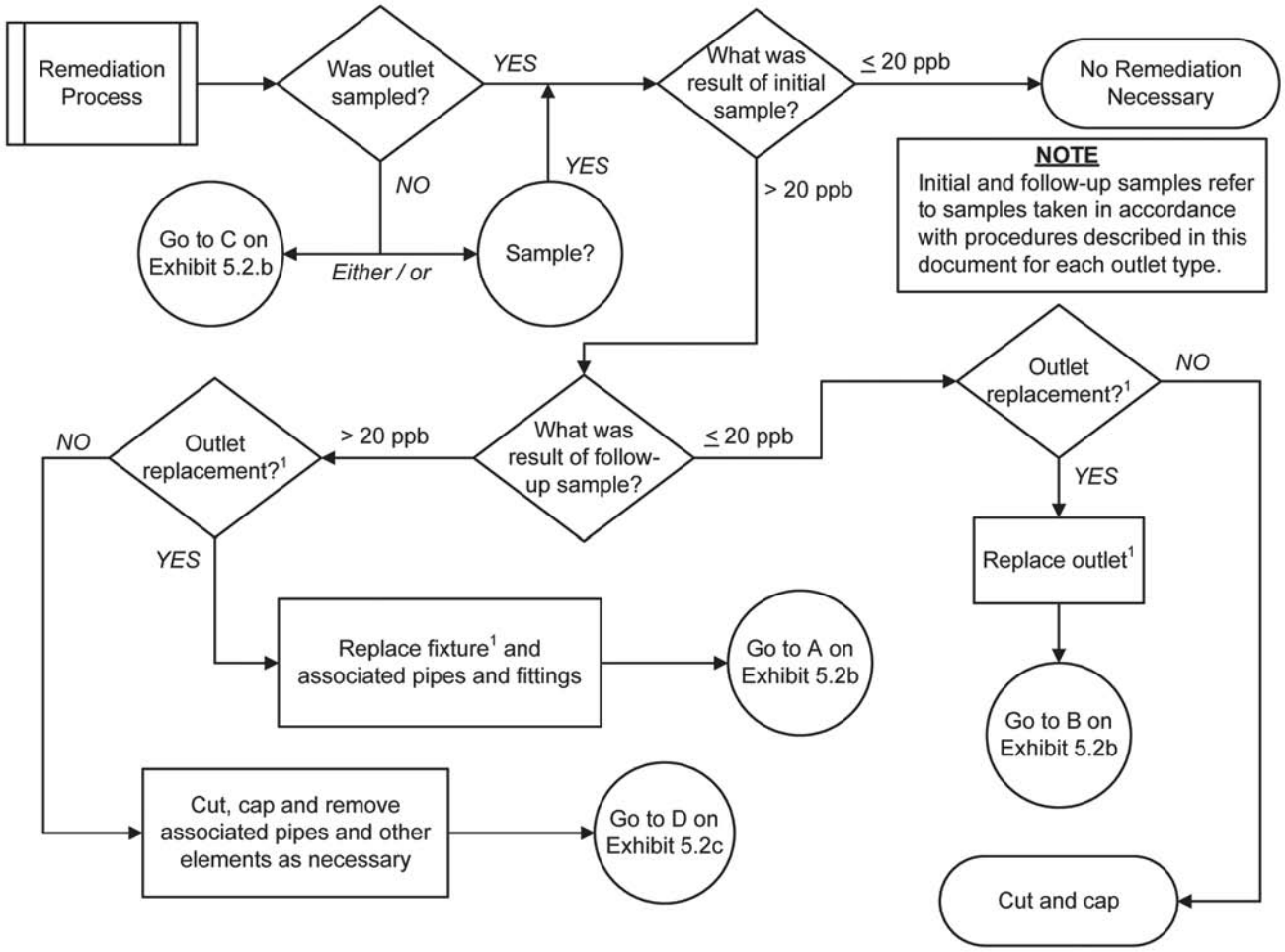

1 Point-of-use treatment devices or routine flushing measures may serve as alternatives to outlet replacement (see Section 5.3). Continue on with the flow chart.

Exhibit 5.2b: Remediation Flow Chart (part 2)

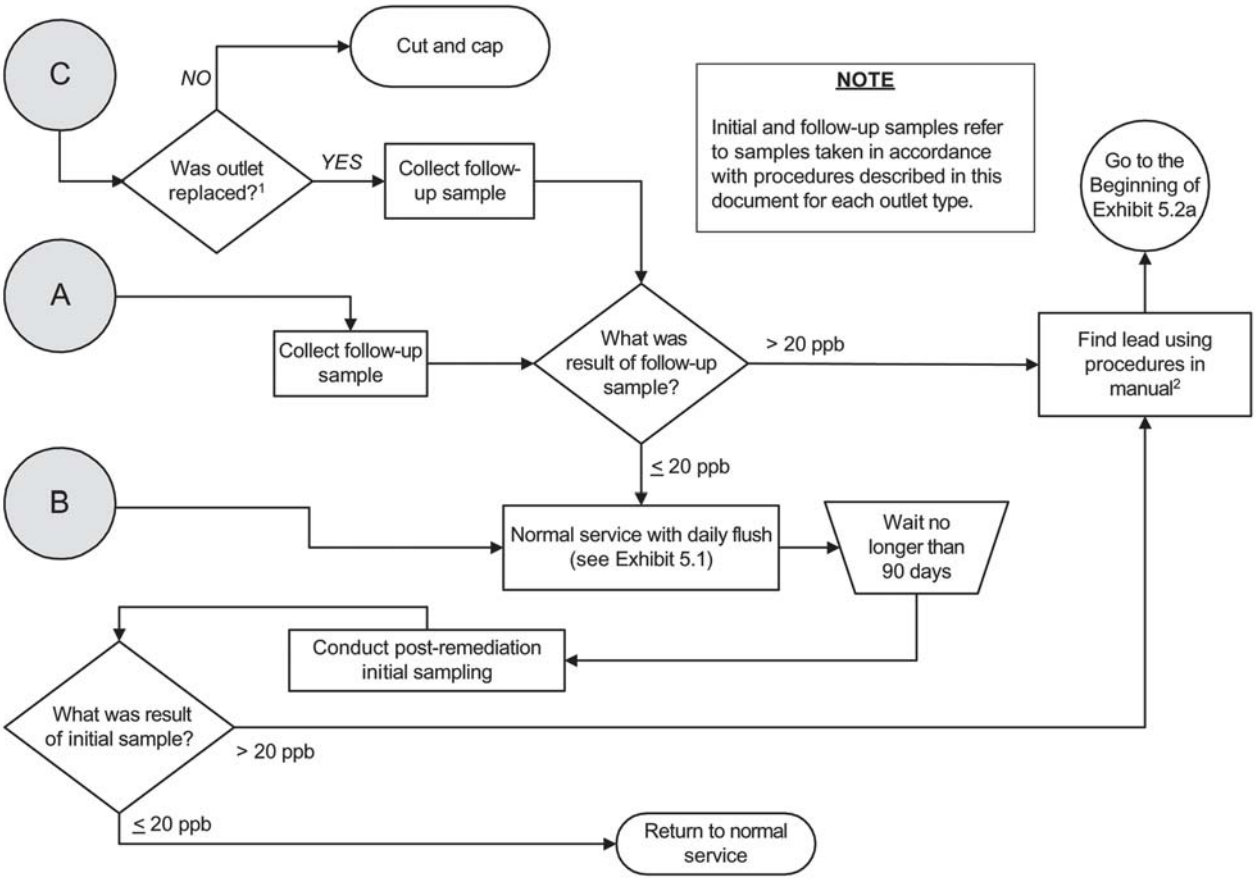

1 Point-of-use treatment devices or routine flushing measures may serve as alternatives to outlet replacement (see Section 5.3). Continue on with the flow chart.

2 Procedures include follow-up sampling and development of a plumbing profile (see Sections 3.1 and 4.4).

Exhibit 5.2c: Remediation Flow Chart (part 3)

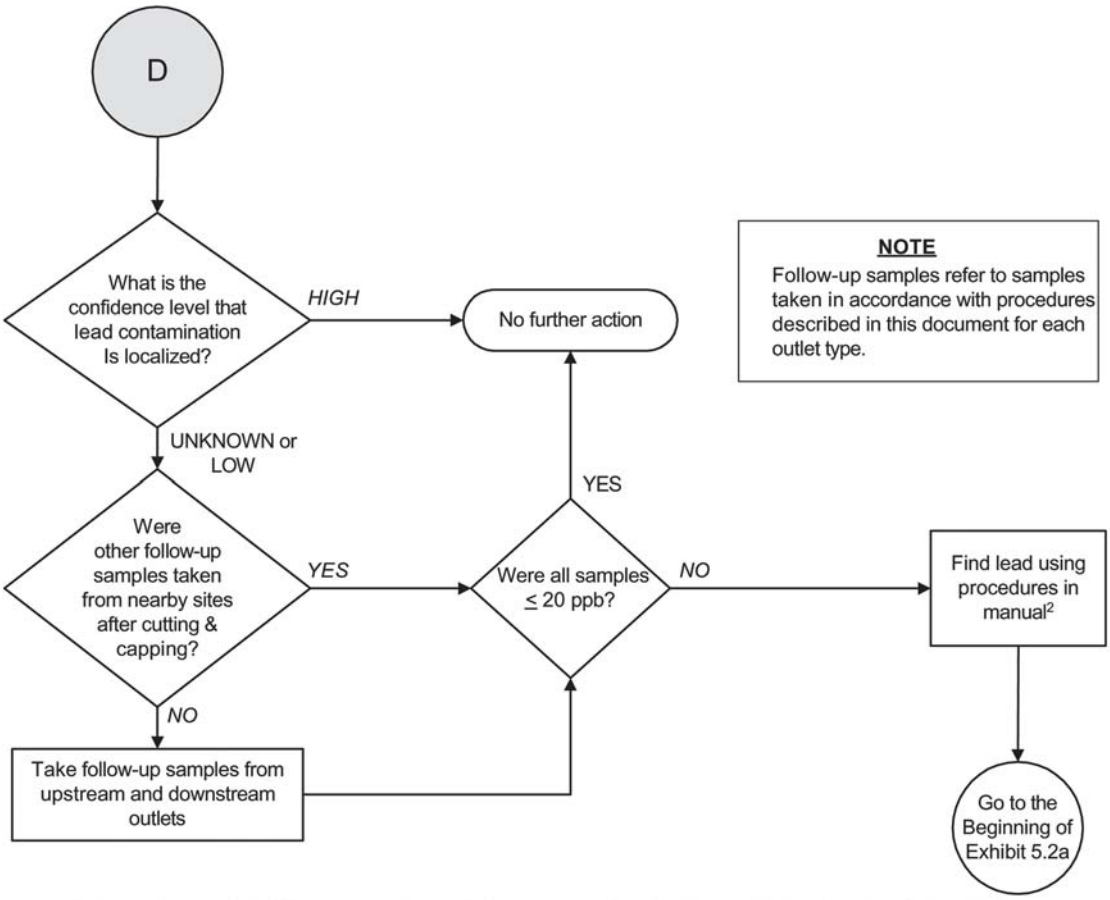

2 Procedures include follow-up sampling and development of a plumbing profile (see Sections 3.1 and 4.4).

Exhibit 5.3: Case Study 1

This case study illustrates how one large school district addressed a long-standing lead problem. A variety of solutions were used to address lead problems at 50 schools in the district.

Background

Schools were sampled in 1991 and 1992 in response to the Lead Contamination Control Act. Drinking fountains with lead levels over 20 ppb were replaced. However, subsequent testing showed that levels at some outlets continued to be above 20 ppb. Internal recommendations to replace plumbing at four schools were not implemented due to many complex factors. A flushing program was implemented, but was not consistently applied.

In 2003, a concerned parent conducted testing at one school because of iron staining problems. The testing showed that there were also lead problems at the school. Recognizing that the problem was likely widespread, the district put all schools over 7 years old on bottled water and sent a letter of notification to every parent.

A consultant was hired to create a comprehensive testing program for almost 100 schools. A working group consisting of the school's local public water supplier, the county and state health departments, and toxicologists was formed to develop a comprehensive approach.

A comprehensive water quality policy was adopted that includes standards for lead and 5 other contaminants. The standard for lead (10 ppb) is more stringent than EPA's recommended Action Level for schools and public buildings. The policy includes procedures for short-term and long-term testing, and for remediation.

Testing

In cooperation with the working group, the district's consultant developed plumbing profiles and a testing program, and the district began comprehensive lead testing in 2004 at 2400 sample locations. All drinking water fountains and cold water taps in classrooms, nurse's offices, and kitchens were sampled. Other locations were sampled if they were deemed to be a potential health risk because of possible human consumption. Lead levels over 20 ppb were found at 25% of the locations. One location was 1600 ppb. Fifty schools were found to have at least one outlet with a problem. The water supplied by the local public water system was found to have typically less than 1 ppb lead and was ruled out as a source of lead.

Testing also showed that flushing of the outlets for 30 seconds reduced the lead levels to below 20 ppb at all but 3% of the locations. Additionally, cadmium was found at 3% of the sample locations, and coliform-positive samples were found at 6 schools.

Remediation

The district adopted a policy for mitigation that included a target level of 10 ppb for lead. Additionally, the EPA public water supply standards for cadmium, copper, iron and coliform bacteria were adopted. (The EPA standard for iron is a secondary standard, which means that the standard is primarily an aesthetic standard rather than health-based. Under federal law, public water supplies are not required to comply with secondary standards.) Compliance with the district's adopted standards will be maintained through fixture replacement, filtration, replacement/rehabilitation of lines, or disabling of outlets.

Fountains and other outlets that produce lead analysis results higher than 10 ppb will be fixed or disabled. Fixtures with confirmed levels of iron over 0.5 ppm will be fixed or removed from service. If more than one-

half of the drinking water sources in a school or in a wing of a school exceed 0.3 ppm iron, further remediation for iron will be addressed by the district.

The plumbing in the four schools originally targeted for replacement was fixed in the Summer of 2004. Eventually, the plumbing in all schools will be replaced or rehabilitated so the adopted water quality standards can be maintained. The approach used will range from complete piping replacement in just a few schools (no more than 7 total, including the 4 already done), to partial piping replacement in a number of schools (perhaps 15 total), to fixture replacement in many schools.

Bottled water is provided at all schools or locations within a school which have lead problems until problems are addressed. Drinking water is easily available to all students and all staff throughout the school day. After compliance with the adopted water quality standards is achieved, periodic testing will continue every three years until it is demonstrated that less frequent testing is necessary.

Public Education

The district understands the importance of informing parents, students, and staff of water quality policy and testing results.

Additionally, the district adopted the following steps:

- Qualified experts were retained to obtain the best advice.
- A public oversight committee was created to ensure awareness and involvement of the public.
- Community meetings are held as necessary to keep the public updated.
- School board briefing sessions related to lead are open to the public.
- A comprehensive Web site has been developed that includes health effects information, FAQs, contact information, and testing results for each school in the district.

Lessons Learned

The district had attempted to address the Lead Contamination Control Act in 1991 and 1992 through testing, replacement of drinking water fountains and flushing. Fountains that tested over 20 ppb were replaced until subsequent testing revealed that problems with lead persisted. Flushing efforts that were initially instituted were not uniformly implemented at all district schools. The district considered replacing plumbing in four schools, but no action was taken until 2004. The reasons for the work not being done are complex and no one reason can be cited. Additionally, there were no clear legal mandates for lead testing and compliance at schools served by public water utilities. Lead problems therefore continued at the schools without school officials' awareness.

Because remedial measures were not instituted as originally planned, the public was not aware that lead problems existed until 2003. The public response to the problems was very strong and clear. The public wanted to be aware of the problems and wanted them fixed. The school district had also lost credibility because of the amount of time, the inactivity, and the lack of communication since problems were initially discovered in the early 1990s.

The district has learned that clear, open, and timely communication is mandatory in order to restore public confidence. An aggressive policy of testing, remediation and disclosure has helped to bridge the gap between the district and the public and to restore confidence.

III. Telling

6. Informing the Public about Lead

In addition to testing for lead and solving any contamination problems, a lead control program should also include a public information component. This section discusses public information techniques and the importance of developing an overall communication strategy. Helpful communication hints are provided along with sample public notice materials.

6.1 Techniques for Disseminating Public Information

EPA recommends that schools conducting a lead-in-drinking-water sampling program comply with the public information components of the Lead Contamination Control Act. There are two components:

(1) Notify relevant parent, teacher, student, and employee organizations of the availability of your sampling program results.

(2) Make copies of the sampling results available in your administrative offices "for inspection by the public, including teachers, other school personnel, and parents."

Given the health effects of lead, EPA advocates that any school conducting sampling for lead make public any test results. In addition, such schools should identify activities they are pursuing to correct any lead problems found.

There are six basic public notification methods that can be applied alone or in combination to communicate lead-in-drinking-water issues and the meaning of your sampling program results.

You should choose the method(s) that best suits your particular situation and/or protocol. Remember, you should not provide sampling program results to the public without also providing a basis for interpreting and understanding the significance of those results. All materials should be culturally and linguistically appropriate.

- **Press Release:** A press release in the local newspaper can potentially inform a broad range of the public of lead in drinking water issues and the results of your sampling program. It is important that the release inform readers of how to obtain the sampling results and other lead in drinking water information and perhaps even include the phone number of an informed and available facility official.
- **Letters/Fliers:** Letters or fliers represent the most direct and effective method of communicating lead in drinking water activities to parents/guardians and other members of your school or building community. The letters and fliers should be mailed directly.
- **Mailbox or Paycheck Stuffers:** Mailbox and paycheck stuffers represent the most direct and effective method of communicating lead in drinking water activities to school employees. Stuffers would contain much the same information as that contained in a press release or letter/flier.
- **Staff Newsletter:** A notice contained in a staff newsletter is another option for directly and effectively communicating information about the lead program to employees.

- **Presentations:** Providing presentations at facility-related meetings is another effective means of communication. Relevant events for schools include meetings of parent-teacher organizations, faculty, and the school board.
- **Email and Web sites:** Electronic communications are convenient for many parents, especially those who work during the school day. Web sites can be updated frequently to quickly convey new information. Email provides a quick, easy method for parents to ask questions, but responses must be timely to be effective.

6.2 The Components of an Effective General Communication Strategy

Lead in drinking water can be an emotional and sensitive issue, especially for parents who are concerned about their children's health. As a result, you should not view communication and outreach activities as stand-alone or final efforts, but rather as a part of an *overall or general* communication strategy.

The purpose of a general communication strategy is to provide the means for addressing questions from members of your facility's community and also to provide ongoing, up-to-date information regarding your sampling efforts. *Ideally, you should designate a single spokesperson or special task force to interact with the public since it is important that your message remain consistent.*

The issues to be addressed as part of a communication strategy include:

- Participants
- Timing for delivery
- Content of the message
- Methods and manner of communication.

6.3 Participants

Overall, there are six primary players or interests involved in the control of lead in drinking water:

(1) **Your School Community:** School employees, students, and parents should be informed and involved from the beginning of the process. Interested employees, students, and parent volunteers can help address the issue and ensure safe drinking water at your school.

(2) **Building Community:** The building community consists of those users of the facility who would be most affected by lead in drinking water problems (i.e., students, teachers and other employees, school boards and community groups who use the facility). Members of the school and building community should be the primary targets of any general communication activities.

(3) **Local Health Community**: Local health officials, such as health officers, sanitarians, and nurses, can help you understand potential health risks associated with elevated lead levels in drinking water.

(4) **Larger Community:** The local and regional media can serve as a conduit for information reaching a larger local community. It is important that you be prepared to generate accurate news releases. Also, your spokesperson or task force should be prepared to respond to interview requests with accurate and consistent information.

(5) **States and EPA Regions:** State drinking water programs and EPA Regional offices are responsible for ensuring that public water suppliers comply with the state and federal regulations regarding lead in drinking water. States or EPA may be able to provide guidance or technical assistance in communication strategies, health risks, and other sources of lead.

(6) **Drinking Water Community:** Public water suppliers comprise the regulated drinking water community, and they are responsible for complying with all national and state drinking water standards for lead. This means that they must ensure that the water they deliver is non-corrosive, contains minimal amounts of lead, and will not result in significant lead-leaching from plumbing in individual homes and buildings.

6.4 Timing

The timing of your communication activities is very important. Whenever public health risks are involved, public communication efforts are less complicated and generate less conflict if those potentially affected are notified in advance of important issues and events. At a minimum, EPA recommends that you provide information to members of the local school community and the larger community (if deemed necessary) at the following three times.

(1) Before your lead in drinking water sampling program begins.

(2) In response to periodic interest.

(3) After you obtain the results of testing, when/if you decide upon corrective measures, or if no corrective measure are required because the lead levels are low.

6.5 Content

Your communication messages should consist of the following information:

(1) Details about the nature of your drinking water lead control program.

(2) The results of your sampling program and your plans for correcting any identified problems.

(3) Information on the public health effects and risks posed by lead in drinking water and the significance of lead in drinking water versus other sources such as food, air, dust, and soil.

(4) The availability of general lead in drinking water information resources and the availability of the detailed sampling results for your facility.

(5) How and where individuals may seek blood-lead level testing if they are concerned.

(6) Recommend consultation with a physician if further assistance is needed.

(7) How families can increase their awareness of exposure in their home and elsewhere.

6.6 Methods and Manner of Communication

The communication methods that can be used for your general communication strategy are largely the same as those described earlier and, thus, need not differ from communication activities common to school operations (i.e., meeting presentations, press releases, mailbox/paycheck stuffers, and letters to staff and parents). If your school has a large community of non-English speakers you should provide information in other languages, as appropriate, or provide a contact name for non-English speakers to get more information.

Additional methods unique to your lead control program may include:

(1) Creating an information center located at a convenient place in the facility such as a library or break room.

(2) Creating a task force with representatives from the community.

(3) Making available a list of laboratories that are state-certified to test home water for lead and other contaminants.

(4) (For schools) encouraging classroom science activities that focus on drinking water quality. *(Contact EPA's Safe Drinking Water Hotline 1-800-426-4791– see Appendix B and C – for information on organizations that have such science activities).*

The following list contains some hints for effective communication:

(1) Take the initiative in providing information to your community (it is important to do so before the media does it for you). When public health risks are involved, especially with respect to children, vague or incorrect information can be worse than no information at all.

(2) Be a good and reliable source of information. That is, provide honest, accurate, and comprehensive information in every necessary area.

(3) Always speak with one voice (i.e., designate points of contact – preferably one person – to respond to parents and the media).

(4) Anticipate likely questions from members of the local community, including civic organizations and the media, and prepare answers. Each member of the community may have a different concern or viewpoint on the subject of lead testing.

(5) Be positive, proactive, and forthcoming when working with the media. If you work together in a cordial manner, your communication efforts are likely to be less complex.

(6) Keep members of the building community up-to-date as important events and information on your lead testing program unfold.

6.7 Sample Public Notice Materials

Exhibit 6.1 contains a sample public notification letter that could be used and adapted to communicate lead testing information. Exhibit 6.2 is a sample press release for local media that could also be used or adapted. Exhibit 6.3 is a sample article that could be published in a school newsletter.

Exhibit 6.1: Sample Public Notice Letter

(Date)

Anytown School Department
Anytown, USA 00000-0000

Dear Anytown School Community:

Our school system is committed to protecting student, teacher, and staff health. To protect our community, (Anytown School District) tests our schools' drinking water for lead.

Why Test School Drinking Water for Lead?
High levels of lead in drinking water can cause health problems. Lead is most dangerous for pregnant women, infants, and children under 6 years old. Exposure to high levels of lead during pregnancy contributes to low birth weight and developmental delays in infants. In young children, lead exposure can lower IQ levels, affect hearing, reduce attention span, and hurt school performance. At *very* high levels, lead can even cause brain damage.

To protect public health, the U.S. Environmental Protection Agency (EPA) suggests that schools and day care facilities test their drinking water for lead. If lead is found at any water outlet at levels above 20 parts per billion (ppb), EPA recommends taking action to reduce the lead.

Is Our School's Drinking Water Safe?
Yes, our schools' water is safe. Anytown School District tested our drinking water for lead. Of the (number) water samples we tested, only (number) showed lead levels above the 20 ppb mark. In other words, (percentage) of the water outlets tested did not have any lead problems.

The first outlet with high lead levels was a drinking water fountain/bubbler at (Anytown High School). We identified the source of the lead so we could fix the problem. The faucet for this drinking water fountain/bubbler was made of lead parts. (Lead was often used in plumbing materials until it was banned in 1986). We replaced the part with a lead-free faucet. Then we tested the water again and found the problem was fixed.

The second outlet with high lead levels was a faucet in the kitchen of (Anytown Elementary School). We found the source of the lead was a pipe that brings water to the faucet. We replaced the pipe with lead-free pipe. Then we tested the water again and found the problem was fixed.

While we sampled the schools' water, we provided bottled water for all students and staff. When we found high lead levels at (two) water outlets, we made sure no one used those outlets until we had fixed the lead problems.

How Can I Learn More?
You can see a copy of all of our water testing results at the school district's central office, which is open Monday to Friday from (9:00 am to 5:00 pm) and on our Web site at (www.anytownschools.k12.us). For more information about water quality in our schools, please contact (John Doe) at (Anytown School District, 555-2233). For information about water quality and sampling for lead at home, contact your local water supplier or state drinking water agency.

Sincerely,

(Fred Frank)
Superintendent of Schools

Note: If your school district cannot immediately fix elevated lead levels, we encourage you to send this notice without delay. In that case, describe the interim measures you will take to provide safe drinking water until the problem can be addressed and the reason for the delay in a implementing a permanent solution.

Exhibit 6.2: Sample Press Release for Local Media

Anytown School Department
One School Street
Anytown, USA 00000-0000
Contact: Fred Frank, Superintendent

FOR IMMEDIATE RELEASE

News Release

Lead Levels in School Drinking Water Meet Federal Guidelines

Anytown, USA, April xx, 2005... The Anytown School Department announced today that recent tests of drinking water in the town's schools indicate that lead levels meet federal guidelines. Although lead was initially detected above the recommended level at one drinking water outlet in an elementary school and at one outlet in a senior high school, lead levels were reduced to acceptable levels following replacement of these outlets.

In making the announcement, School Superintendent Fred Frank stated, "We are pleased that the testing program identified only two drinking water outlets with elevated lead levels. Both outlets have since been replaced."

The School Department conducted the testing program to make sure that drinking water in the school system is safe for children and school staff. Water with high lead levels can contribute to negative health effects, especially in young children.

The testing was conducted in January by school personnel following federal and state guidelines. Samples from various locations in each of the schools were sent to a state-certified laboratory for analysis. The laboratory results were received by the School Department last week.

Information about the lead testing program, including the laboratory results, can be found at the School Department office at the above address, weekdays between 8:30 a.m. and 4:30 p.m.

STOP

Exhibit 6.3: Sample Newsletter Article

Anytown School District Conducts Sampling for Lead in Drinking Water

Why was Testing Conducted?

Schools that receive water from a public water system, such as our district, are not required by state or federal regulations to conduct testing for lead in their drinking water. The Environmental Protection Agency (EPA) requires our public water system to provide water to our school that is minimally corrosive. However, some school districts in other locations have found that water samples from their drinking water fixtures have contained relatively high levels of lead. The lead was found to come from the plumbing inside the schools, including fittings, solder, water coolers or water faucets. Because of this information, the Anytown School District decided that testing would be in the best interests of the children, parents, faculty and other citizens served by our district.

Health Effects of Lead

The EPA has determined that lead in drinking water is a health concern at certain levels of exposure. Lead is found throughout the environment in lead-based paint, air, soil, household dust, food, certain types of pottery porcelain and pewter, and water. Lead can pose a significant risk to your health if too much of it enters your body. Lead builds up in the body over many years and can cause damage to the brain, red blood cells and kidneys. The greatest risk is to young children and pregnant women. Amounts of lead that will not hurt adults can slow down normal mental and physical development of growing bodies. In addition, a child at play often comes into contact with sources of lead contamination - like dirt and dust - that rarely affect an adult. It is important to wash children's hands and toys often, and to try to make sure they only put food in their mouths.

How Lead Enters our Water

Lead is unusual among drinking water contaminants in that it seldom occurs naturally in water supplies like groundwater, rivers and lakes. Lead enters drinking water primarily as a result of the corrosion, or wearing away, of materials containing lead in the water distribution system and in building plumbing. These materials include lead-based solder used to join copper pipe, brass, and chrome-plated brass faucets. In 1986, Congress banned the use of lead solder containing greater than 0.2% lead, and restricted the lead content of faucets, pipes and other plumbing materials. However, even the lead in plumbing materials meeting these new requirements is subject to corrosion. When water stands in lead pipes or plumbing systems containing lead for several hours or more, the lead may dissolve into the drinking water. This means the first water drawn from the tap in the morning *may* contain fairly high levels of lead.

Lead in Drinking Water

Lead in drinking water, although rarely the sole cause of lead poisoning, can significantly increase a person's total lead exposure, particularly the exposure of children under the age of 6. EPA estimates that drinking water can make up 20% or more of a person's total exposure to lead.

Results of our Testing

Following instructions given in an EPA guidance document especially designed for schools, we completed a plumbing profile for each of the buildings within the Anytown School District. Through this effort, we identified and tested those drinking water outlets most likely to have high levels of lead. Of the _____ samples taken, all but _____ tested well below EPA's recommended level of 20 ppb for lead.

The first outlet that tested high for lead was a drinking water fountain (bubbler) at Kennedy High School. After follow-up testing was conducted, it was determined that the faucet (bubbler head) was the source of the lead contamination. The faucet was replaced with a lead-free faucet and retested. Follow-up test results revealed lead levels well below EPA's recommended level.
(Continued on next page)

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The second outlet, in the Lincoln Elementary School, was a faucet in the kitchen that showed unacceptable lead levels in both initial and follow-up testing. We found the source of the lead contamination to be the pipe providing water to the faucet. This pipe was replaced with lead-free materials.

During the testing period, bottled water was provided to all students at all schools to minimize the potential for lead exposure. Upon receiving the test results, the two outlets that tested high for lead were disconnected until they were replaced.

A copy of the test results is available in our central office for inspection by the public, including students, teachers, other school personnel, and parents, and can be viewed between the hours of 8:30 a.m. and 4:00 p.m. For more information about water quality in our schools, contact John Doe at the Anytown School Department, 555-2223. For information about water quality in your home or for questions about testing, contact your water supplier or drinking water agency.

Appendix A – Glossary of Terms

Bubbler: An outlet fixture that consists of the bubbler valve, the bubbler receptacle and all associated piping, valves and mounting appurtenances for attaching the fixture to a wall or mounting surface. A bubbler does not contain a refrigeration unit. Some bubblers are attached to central chiller units, while others are not.

Bubbler Valve: The valve and discharge device that mounts on top of the bubbler fixture and discharges water for consumption.

Chiller: A central refrigeration unit providing cold water to some types of bubblers.

Corrosion: A dissolving and wearing away of metal caused by a chemical reaction (e.g., between water and the piping that the water contacts).

Drinking Water Fountain: A fixture connected to the water supply that provides water as needed. There are four types of drinking water fountains: (1) bubblers without central chillers, (2) bubblers with central chillers, (3) water coolers, and (4) bottled water dispensers.

Faucet ("tap"): A valved outlet device attached to a pipe that normally serves a sink or tub fixture. A faucet discharges hot and/or cold water for a variety of consumptive uses, including drinking, cooking, and washing. The term "faucet" is used interchangeably with the term "tap."

Fittings: Fittings are generally static parts that are used to join sections of pipe, or to join pipe to outlet fixtures.

Flux: A substance applied during soldering to facilitate the flow of solder. Flux often contains lead and can itself be a source of lead contamination in water. The lead-free requirements of the 1986 Safe Drinking Water Act Amendments require that solders and flux not contain more than 0.2 percent lead.

Header: The main pipe in the internal plumbing system of a building. The header supplies water to lateral pipes.

Lateral: A plumbing branch between a header or riser pipe and a fixture or group of fixtures. A lateral may or may not be looped. Where more than one fixture is served by a lateral, connecting pipes are provided between the fixtures and the lateral.

Lead-free: Taken from Section 1417(d) of the Safe Drinking Water Act, this term means that solders and flux may not contain more than 0.2 percent lead; pipes, pipe fittings, and well pumps may not contain more than 8.0 percent lead; and outlet plumbing fittings and fixtures must meet standards established under the lead leaching requirements of section 1417(e) of the Safe Drinking Water Act.

Outlet: A location where water may be accessed for consumption such as a drinking fountain, water faucet, or tap.

Passivation: A corrosion control technique that causes the pipe materials to create metal-hydroxide-carbonate compounds that form a film on the pipe wall to protect the pipe.

Potable Water Pipes: The pipes in a distribution system and in a building which carry water intended for human consumption.

Public Water System: Any water system that has 15 or more service connections and is in operation at least 60 days per year or any water system serving 25 or more persons daily at least 60 days per year.

Riser: The vertical pipe that carries water from one floor to another.

Sediment: Matter from piping or other water conveyance device that settles to the bottom of the water in the apparatus. If lead components are used in plumbing materials, lead sediments may form and result in elevated water lead levels.

Service Connection: The pipe that carries tap water from the public water main to a building. In the past, these were often comprised of lead materials.

Source Water: Untreated water from streams, rivers, lakes, or underground aquifers that is used to supply private wells and public drinking water.

Solder: A metallic compound used to seal the joints between pipes. Until 1988, solder containing up to 50% lead was legally used in potable water plumbing. Lead-free solders, which can contain up to 0.2% lead, often contain one or more of the following metals: antimony, tin, copper or silver. Several alloys are available that melt and flow in a manner similar to lead solder.

Valves: Valves are any of numerous mechanical devices by which the flow of water may be started, stopped, or regulated by a movable part that opens, shuts, or partially obstructs one or more ports of passageway.

Water Cooler: Any mechanical device affixed to drinking water supply plumbing that actively cools water for human consumption. The reservoir can consist of a small tank or a pipe coil.

Appendix B – Publication List

Web Site Publications*

(1) ****Actions You Can Take To Reduce Lead in Drinking Water.*** Web site publication. US EPA 810-F-93-001. June 1993. http://www.epa.gov/safewater/lead/leadfactsheet.html

(2) ***Commonly Asked Questions: Section 1417 of the Safe Drinking Water Act and the NSF Standard.*** US EPA. http://www.epa.gov/safewater/standard/plumbing.html

(3) ***Consumer Fact Sheet on: Lead.*** Web site article. US EPA. http://www.epa.gov/safewater/dwh/c-ioc/lead.html

(4) ***Decision Tree for Pre-Sampling*** (at Schools). Web site article. US EPA. http://www.epa.gov/safewater/schools

(5) ****Fact Sheet - Lead Reduction Plan - EPA Activities to Improve Implementation of the Lead and Copper Rule.*** Web site publication. US EPA 810-F-05-001. March 2005. http://www.epa.gov/safewater/lcrmr/reductionplan_fs.html

(6) ***Frequently Asked Questions.*** Web site article. National Sanitation Foundation (NSF). http://www.nsf.org/business/water_distribution/dwa_usepa.asp

(7) ****Is There Lead in the Drinking Water?*** Web site publication. US EPA 903-F-01-002. April 2002. http://www.epa.gov/safewater/lead/pdfs/v2final.pdf

(8) ****Lead Contamination Control Act*** (pamphlet). Web site article. Web site publication. US EPA 570/9-89-AAA. July 1989. http://www.epa.gov/safewater/lead/pdfs/epalccapamphlet1989.pdf

(9) ***Lead Contamination Control Act*** (statute). Web site article. Government Printing Office. January 2004. http://www.access.gpo.gov/uscode/title42/chapter6a_subchapterxii_partf_.html

(10) ****Lead in Drinking Water in Schools and Non-Residential Buildings.*** Web site publication. US EPA 812-B-94-002. (April 1994 version of this document.)

(11) ***Lead in Schools and Day Care Centers.*** Web site article. US EPA.) http://www.epa.gov/safewater/lead/schoolanddccs.htm

(12) ***Mechanical Plumbing System Components.*** Web site article. Listing of approved components. NSF. http://www.nsf.org/business/mechanical_plumbing/index.asp?program=MechanicalPluSysCom

(13) ***National Lead Information Center - Document Request Site.*** US EPA. http://www.epa.gov/lead/nlicdocs.htm

(14) ***Post-Remediation Sampling.*** Web site article.(after replacement of fixtures, pipe, fittings, etc.). US EPA. http://www.epa.gov/safewater/lead/passivation.htm

(15) ***Testing Schools and Day Care Centers for Lead in Drinking Water.*** Web site article. US EPA. http://www.epa.gov/safewater/lead/testing.htm

(16) ****Lead Contamination Control Act*** (P.L. 100-572 - federal statute) and supporting documents. House Document Room, House of Representatives. Washington, DC 20515. (202) 225-3456.

(17) ****Sampling for Lead in Drinking Water in Nursery Schools and Day Care Facilities*** (booklet). US EPA 812-B-94-003. April 1994.

(18) ****The Lead Ban: Preventing the Use of Lead in Public Water Systems and Plumbing Used for Drinking Water*** (pamphlet on the federal lead ban). US EPA 570/9-89-BBB. August 1989.

* Also available in hard copy through the National Drinking Water Hotline. See below.

Hard Copy Publications

EPA National Safe Drinking Water Hotline
(800) 426-4791

Hotline operates Monday through Friday,
except federal holidays.

Appendix C – Resources

Safe Drinking Water Hotline 1-800-426-4791

Healthy School Environments

Healthy School Environments

This web site is designed to provide one-stop access to the many programs and resources available to help prevent and resolve environmental issues in schools. http://www.epa.gov/schools/

Department of Education Safe and Drug Free Schools

This Department of Education web site offers a collection of links and resources on various school health and safety topics. http://www.ed.gov/admins/lead/safety/edpicks.jhtml?src=qc

Lead Poisoning Prevention

Lead Poison Prevention

EPA's Lead Awareness Program designs outreach activities and educational materials, awards grants, and manages a toll-free hotline to help parents, home owners, and lead professionals learn what they can do to protect their families, and themselves, from the dangers of lead. http://www.epa.gov/lead/

The Centers for Disease Control Childhood Lead Poisoning Prevention Program

The Lead Contamination Control Act of 1988 authorized the Centers for Disease Control and Prevention (CDC) to initiate program efforts to eliminate childhood lead poisoning in the United States. Visit this web site for information on partnerships, publications, and various other materials addressing lead poison prevention. http://www.cdc.gov/nceh/lead/lead.htm

National Lead Information Center (NLIC)

The National Lead Information Center (NLIC) provides the general public and professionals with information about lead hazards and their prevention. NLIC operates under a contract with the U.S. Environmental Protection Agency (EPA), with funding from EPA, the Centers for Disease Control and Prevention, and the Department of Housing and Urban Development. (1-800-424-LEAD [5323]). http://www.epa.gov/lead/nlic.htm

Accredited Certification Programs:

American National Standards Institute: list of accredited plumbing and other product certification programs. www.ansi.org/public/ca/ansi_cp.html

The current companies/organizations with NSF 61 plumbing component certification programs accredited by ANSI:

National Sanitation Foundation: Also provides information on the standards that it has issued. www.nsf.org

Underwriters Laboratories. www.ul.com

International Association of Plumbing & Mechanical Officials, Research & Testing, Inc. www.iapmo.org/rnt/index.html

Canadian Standards Association International. www.csa.ca

Truesdail Laboratories. www.truesdail.com

Appendix D – List of State Drinking Water Programs

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Appendix E – Water Cooler Summary

The Lead Contamination Control Act (LCCA), which amended the Safe Drinking Water Act, was signed into law on October 31, 1988 (P.L. 100-572). The potential of water coolers to supply lead to drinking water in schools and child care centers was a principal focus of this legislation. Specifically, the LCCA mandated that the Consumer Product Safety Commission (CPSC) order the repair, replacement, or recall and refund of drinking water coolers with lead-lined water tanks. In addition, the LCCA called for a ban on the manufacture or sale in interstate commerce of drinking water coolers that are not lead-free. Civil and criminal penalties were established under the law for violations of this ban. With respect to a water cooler that may come in contact with drinking water, the LCCA defined the term "lead-free" to mean:

"not more than 8 percent lead, except that no drinking water cooler which contains any solder, flux, or storage tank interior surface which may come in contact with drinking water shall be considered lead-free if the solder, flux, or storage tank interior surface contains more than 0.2 percent lead."

Another component of the LCCA was the requirement that EPA publish and make available to the states a list of drinking water coolers, by brand and model, that are not lead-free. In addition, EPA was to publish and make available to the states a separate list of the brand and model of water coolers with a lead-lined tank. EPA is required to revise and republish these lists as new information or analyses become available.

Based on responses to a Congressional survey in the winter of 1988, three major manufacturers, the Halsey Taylor Company, EBCO Manufacturing Corporation, and Sunroc Corporation, indicated that lead solder had been used in at least some models of their drinking water coolers. On April 10, 1988, EPA proposed in the *Federal Register* (at 54 *FR* 14320) lists of drinking water coolers with lead-lined tanks and coolers that are not lead-free. Public comments were received on the notice, and the list was revised and published on January 18, 1990 (Part III, 55 *FR* 1772). *See Table E-2 for a list of water coolers and lead components.*

Prior to publication of the January 1990 list, EPA determined that Halsey Taylor was the only manufacturer of water coolers with lead-lined tanks.[1] Table E-1 presents a listing of model numbers of the Halsey Taylor drinking water coolers with lead-lined tanks that had been identified by EPA as of January 18, 1990.

[1]Based upon an analysis of 22 water coolers at a US Navy facility and subsequent data obtained by EPA, EPA believes the most serious cooler contamination problems are associated with water coolers that have lead-lined tanks.

Since the LCCA required the CPSC to order manufacturers of coolers with lead-lined tanks to repair, replace or recall and provide a refund of such coolers, the CPSC negotiated such an agreement with Halsey Taylor through a consent order published on June 1, 1990 (at 55 *FR* 22387). The consent agreement calls on Halsey Taylor to provide a replacement or refund program that addresses all the water coolers listed in Table E-2 as well as "all tank-type models of drinking water coolers manufactured by Halsey Taylor, whether or not those models are included on the present or on a future EPA list." Under the consent order, Halsey Taylor agreed to notify the public of the replacement and refund program for all tank type models.

SPECIAL NOTE:
Experience indicates that newly installed brass plumbing components containing 8 percent or less lead, as allowed by the SDWA, can contribute high lead levels to drinking water for a considerable period after installation. U.S. water cooler manufacturers have notified EPA that since September 1993, the components of water coolers that come in contact with drinking water have been made with non-lead alloy materials. These materials include stainless steel for fittings and water control devices, brass made of 60 percent copper and 40 percent zinc, terillium copper, and food grade plastic.

Currently, a company formerly associated with Halsey Taylor, Scotsman Ice Systems, has assumed responsibility for replacement of lead-line coolers previously marketed by Halsey Taylor. See below for the address of Scotsman Ice Systems.

Scotsman Ice Systems
775 Corporate Woods Parkway
Vernon Hills, IL 60061
PH: (800) SCOTSMAN or 800-726-8762
PH: (847) 215-4500

Table E-1
Halsey Taylor Water Coolers With Lead-Lined Tanks[2]

The following six model numbers have one or more units in the model series with lead-lined tanks:

WM8A WT8A GC10ACR GC10A GC5A RWM13A

The following models and serial numbers contain lead-lined tanks:

WM14A Serial No. 843034	WM14A Serial No. 843006	WT11A Serial No. 222650
WT21A Serial No. 64309550	WT21A Serial No. 64309542	LL14A Serial No. 64346908

[2]Based upon an analysis of 22 water coolers at a US Navy facility and subsequent data obtained by EPA, EPA believes the most serious cooler contamination problems are associated with water coolers that have lead-lined tanks.

Table E-2
Water Coolers With Other Lead Components

EBCO Manufacturing

All pressure bubbler water coolers with shipping dates from 1962 through 1977 have a bubbler valve containing lead. The units contain a single, 50-50 tin-lead solder joint on the bubbler valve. Model numbers for coolers in this category are not available.

The following models of pressure bubbler coolers produced from 1978 through 1981 contain one 50-50 tin-lead solder joint each.

CP3	DP15W	DPM8	7P	13P	DPM8H	DP15M	DP3R	DP8A
DP16M	DP5S	C10E	PX-10	DP7S	DP13SM	DP7M	DP7MH	DP7WMD
WTC10	DP13M-60	DP14M	CP10-50	CP5	CP5M	DP15MW	DP3R	DP14S
DP20-50	DP7SM	DP10X	DP13A	DP13A-50	EP10F	DP5M	DP10F	CP3H
CP3-50	DP13M	DP3RH	DP5F	CP3M	EP5F	13PL	DP8AH	DP13S
CP10	DP20	DP12N	DP7WM	DP14A-50/60				

Halsey Taylor

1. Lead solder was used in these models of water coolers manufactured between 1978 and the last week of 1987:

WMA-1	SCWT/SCWT-A	SWA-1	DC/DHC-1
S3/5/10D	BFC-4F/7F/4FS/7FS	S300/500/100D	

2. The following coolers manufactured for Haws Drinking Faucet Company (Haws) by Halsey Taylor from November 1984 through December 18, 1987, are not lead-free because they contain 2 tin-lead solder joints. The model designations for these units are as follows:

HC8WT	HC14F	HC6W	HWC7D	HC8WTH	HC14F H	HC8W	HC2F	HC14WT
HC14FL	HC14W	HC2FH	HC14WTH	HC8FL	HC4F	HC5F	HC14WL	HCBF7D
HC4FH	HC10F	HC16WT	HCBF7HO	HC8F	HC8FH	HC4W	HWC7	

If you have one of the Halsey Taylor water coolers noted in Table E-2, contact Scotsman Ice Systems *(address and phone noted above)* to learn more about the requirements surrounding their replacement and rebate program.

Appendix F – Sample Recordkeeping Form

Appendix F – Sample Recordkeeping Form

Record of Sampling

Name of Building	
Name of Sample Collector	
Contact Person for this Record	

				Sample ID Number

Circle sample type: Initial / 1st Follow-up / 2nd Follow-up

Length of Flush (for flushed samples)	
Type of Outlet (faucet, cooler etc.)	
Mfg/Model	
Serial #	
Date of Installation	
Location	
Date of Collection	
Time of Collection	
Name of Laboratory Used	
Lead Concentration (ppb)	

NOTES:

Appendix G - Preservation of Samples and Sample Containers

This appendix contains information pertaining to the preservation of samples and sample containers. A certified drinking water laboratory should be aware of these requirements. In addition, they will provide you with actual samplers or sample containers and instructions. The sample containers may have been prepared prior to your receipt. The laboratory will also specify how to handle the sample containers and when to submit them after taking your samples.

In order to avoid analytical errors, pay particular attention to proper collection and handling of the sample before analysis. Sample containers (250 mL) should be obtained from a certified laboratory. You should not use other containers such as used jars or water bottles.

Make sure the containers are kept sealed between the time of their preparation by the lab and the collection of the sample. This will assure that no contaminants from the outside are introduced. Preserve the sample by icing and promptly ship or deliver it to the laboratory. Most laboratories will provide the necessary shipping containers and cold packs. Upon receipt, the laboratory will acidify the sample. The sample can be held up to 14 days prior to acidification without loss of lead through absorption, but EPA recommends that the laboratories receive the samples as soon as possible.

For more detailed information, refer to the following documents:

Methods for the Determination of Metals in Environmental Samples. EPA/600/4-94/111. May 1994 (available from the National Technical Information Service, Pub. No. PB95-125472 (703) 487-4650).

Manual for the Certification of Laboratories Analyzing Drinking Water. US EPA 815-B-97-001. March 1997 (available from the National Technical Information Service (703) 487-4650).

Standard Methods for the Examination of Water and Wastewater, 20th Edition. Co-published by the American Public Health Association, the Water Environment Federation, and the American Water Works Association. 1998 (available from the American Water Works Association, ISBN # 0-87553-235-7, Catalog #10079).

Appendix H – Example Scenarios for Water Sample Results

Service Connection Sampling (See Exhibit 4.3)

Examples:

- Sample 1S (20 ppb) exceeds Sample 1M (5 ppb) = 15 ppb of lead is contributed from the service connection; the lead amount in the main (Sample 1M) does not exceed 5 ppb; therefore, you may want to check for a lead sevice line or gooseneck depending upon results of lead testing at other outlets in the building; if you reduce lead at the connection, lead levels may be reduced throughout the remainder of the building.
- Sample 1M is 10 ppb and Sample 1S is 10 ppb = very little lead is contributed from the service line; source of lead is most likely the water main.
- Sample 1S (7 ppb) and Sample 1M (6 ppb) are close to 5 ppb = very little lead (1 ppb) is being picked up in the water from the service line or the distribution main; very little lead is contributed from the source water; if other outlets show significantly higher lead levels, the source of the contamination is the interior plumbing and/or the outlets themselves.

Drinking Water Fountain without Central Chiller (See Exhibit 4.4)

Example:

- Sample 1A (31 ppb) exceeds Sample 2A (7 ppb) = 24 ppb of lead is contributed from the bubbler.
- Sample 2A (7 ppb) does not significantly exceed 5 ppb = very little lead (2 ppb) is being picked up from the plumbing upstream from the bubbler; the majority of the lead in the water is contributed from the bubbler.
- Sample 2A (7 ppb) does not exceed 20 ppb = sampling from header or loop supplying water to the lateral is not necessary.

Possible Solution: Replace fixture, valves, or fittings on bubbler with lead-free device (ensure compliance with the NSF standards for any fixtures you intend to purchase); retest water for lead after new materials installed.

Drinking Water Fountain with Central Chiller (See Exhibits 4.4 and 4.9)

Example 1:

- Sample 1A (25 ppb) exceeds Sample 2A (3 ppb) = 22 ppb of lead is contributed from the bubbler.
- Sample 2A (3 ppb) is close to 5 ppb = very little lead is being picked up from the plumbing upstream from the bubbler; the majority or all of the lead is contributed from the bubbler.

Possible Solution: Replace bubbler valve, fittings and/or fixture with lead-free materials (request results of lead leaching studies from manufacturers of brass products before purchasing to ensure that harmful amounts of lead will not be leached); retest water once new materials installed.

Example 2:

- Sample 1A (38 ppb) exceeds Sample 2A (21 ppb) = 17 ppb of lead is contributed from the bubbler.
- Sample 2A (21 ppb) significantly exceeds 5 ppb = about 21 ppb of lead is being contributed from the plumbing upstream from the bubbler.
- Sample 2A (21 ppb) exceeds 20 ppb = sampling from the chiller unit supplying the water to the lateral is necessary to locate the source of the contamination *(see instructions and examples below for sampling chiller units).*

Example 3:

- Sample 2A (21 ppb) exceeds Sample 2K (10 ppb) = 11 ppb of lead is contributed from the plumbing supplying the water from the chiller to the bubbler.
- Sample 2K (10 ppb) exceeds Sample 1K (4 ppb) = a portion of the lead (6 ppb) may be coming from the chiller; check for and remove any debris and sludge in the chiller unit; flush the unit, and resample the water.
- Sample 1K (4 ppb) does not exceed 20 ppb = additional sampling from the distribution system supplying water to the chiller is not necessary.
- Sample 1K (4 ppb) is very close to 5 ppb = very little lead is picked up from the plumbing upstream from the chiller; the majority or all of the lead in the water can be attributed to the chiller and the plumbing downstream from the chiller.

Possible Solutions: Flush the chiller unit and plumbing; if lead levels are still high, replace plumbing supplying water from the chiller to the bubbler; replace the bubbler fixture, fittings, and valves with lead-free materials; and clean sediment and debris from chiller unit. Retest water for lead once changes have been made. If the lead levels after initial flushing are low, clean any sediment and debris from the chiller, and resample the chiller monthly for 3 months. If the lead levels increase, the additional remediation measures listed immediately above are probably necessary to reduce lead risks. If the levels remain low, routine annual cleaning of sediment and debris and routine monitoring at the same frequency as other sites is recommended .

Example 4:

- Sample 2A (45 ppb) exceeds Sample 2K (28 ppb) = 17 ppb of lead is being contributed from the plumbing supplying water from the chiller to the bubbler.
- Sample 2K (28 ppb) exceeds Sample 1K (21 ppb) = 7 ppb of lead is contributed by the chiller.
- Sample 1K (21 ppb) exceeds 20 ppb = additional sampling from the distribution system supplying water to the chiller is necessary to locate the source of the contamination *(see Exhibit 4.9 on Sampling Interior Plumbing for instructions).*

Possible Solution: Lead levels are clearly elevated at all sample sites. It appears that multiple sources of lead are contributing to the problem. Retesting may help locate sources of lead, but it appears that the solution includes replacement of upstream plumbing; the bubbler fixture, valves, and fittings with lead-free materials; and cleaning the sediment and debris from the chiller. Retest water for lead after changes have been made. If levels are still elevated, replacement of the chiller may be necessary.

Drinking Water Fountain (Water Coolers) (See Exhibit 4.5)

Example 1:

- Sample 1C (54 ppb) = the plumbing upstream from the cooler and/or the water cooler is contributing lead.
- Sample 3C (40 ppb) exceeds Sample 2C (5 ppb) = the water cooler is contributing 35 ppb of lead.
- Sample 3C (40 ppb) exceeds Sample 2C (5 ppb) and Sample 1C (54 ppb) exceeds Sample 3C (40 ppb) = the plumbing directly upstream from the cooler is contributing 14 ppb of lead.
- Sample 2C (5 ppb) is less than 10 ppb and Sample 2C is less than Sample 1C (54 ppb) and Sample 3C (40 ppb) = the source of lead is not sediments contained in the cooler storage tank, screens, or plumbing upstream from the cooler.

Possible Solutions: Replace the cooler with one that contains lead-free components, and retest the water or find an alternative lead-free drinking water source; locate source of lead from plumbing and eliminate it *(routine flushing is not applicable as a potential remedy for water coolers – see discussion of this issue in Sections 5.2 and 5.3 of this guidance document for further information).*

Example 2:

- Samples 1C (44 ppb), 3C (42 ppb) and 2C (41 ppb) are approximately equal = the cooler is not the likely source of lead.
- Sample 1C (44 ppb) exceeds Sample 3C (42 ppb) and Sample 3C and Sample 2C (41 ppb) are close = the plumbing upstream from the cooler is contributing lead to the water.
- Samples 1C (44 ppb), 3C (42 ppb) and 2C (41 ppb) are approximately equal = the source of lead is not likely sediments contained in the cooler storage tank or screens.
- Sample 4C (43 ppb) significantly exceeds 5 ppb = the source of lead is the plumbing upstream from the cooler.

Possible Solutions: Replace the plumbing upstream between the header and cooler with lead-free materials and retest the water. If the water continues to test high, the header, service connection and/or public water supply may be the problem. An evaluation should be made as soon as possible to determine the source of the lead, and other outlets should be tested immediately if not already done. Remember that flushing is not recommended as a practical remedy for water coolers.

Bottled Water Dispensers (See Exhibit 4.6)

Example 1:

- Sample 1D (23 ppb) exceeds Sample 2D (5 ppb) = 18 ppb of lead is contributed from the dispenser unit.

Possible Solution: Replace dispenser unit with one that is made of lead-free materials and retest.

Example 2:

- Sample 1D (24 ppb) and Sample 2D (23 ppb) are close = the source of lead is the bottled water.

Possible Solutions: Purchase another type of bottled water for which the distributor provides written assurance that lead levels do not exceed federal and state lead standards, or find other alternative lead-free water source. Retest after any remedy has been employed.

Ice Making Machines (See Exhibit 4.7)

Example 1:

- Sample 1E is 22 ppb and Sample 2E (6 ppb) is close to 5 ppb = source of the lead (16 ppb) is the ice maker.

Possible Solutions: Replace plumbing components in ice maker with lead-free materials; clean debris from plumbing and screen at inlet to ice maker; replace with lead-free ice maker; retest after any remedy has been employed.

Example 2:

- Sample 1E = 22 ppb and Sample 2E (21 ppb) significantly exceeds 5 ppb = lead is contributed from the plumbing upstream from the ice maker.
- Sample 2E (21 ppb) exceeds 20 ppb = sampling from the distribution system supplying water to the ice maker is recommended *(see Exhibit 4.9 for instructions).*

Faucets (Taps) (See Exhibit 4.8)

Example 1:

- Sample 1F (39 ppb) exceeds Sample 2F (6 ppb) = 33 ppb of lead is contributed from the water faucet.
- Sample 2F (6 ppb) is close to 5 ppb = very little lead is coming from the plumbing upstream from the faucet; the majority of the lead is coming from the faucet and/or the plumbing connecting the faucet to the lateral.

Possible Solutions: Replace faucet with lead-free device (ensure compliance with the NSF standards for any fixtures you intend to purchase); replace plumbing connecting the faucet to the lateral with lead-free materials; flush outlet and connecting plumbing each day; apply point-of-use device designed to remove lead; find alternative water source such as bottled water or other lead-free location in the building; retest after any remedies are employed.

Example 2:

- Sample 1F (49 ppb) exceeds Sample 2F (25 ppb) = source of lead (24 ppb) is the water faucet and the plumbing upstream from the outlet (25 ppb).
- Sample 2F (25 ppb) significantly exceeds 5 ppb = lead may be contributed from upstream from the faucet; evaluate lead test results conducted upstream from the faucet to ascertain potential contributions of lead from the upstream piping. To pinpoint location test interior plumbing *(see instructions for sampling interior plumbing in Exhibit 4.9).*

Possible Solutions: Replace faucet with lead-free device (ensure compliance with the NSF standards for any fixtures you intend to purchase); replace plumbing connecting faucet to the lateral with lead-free materials; replace suspected portion of interior plumbing with lead-free materials; flush the outlet and interior plumbing each day; apply point-of-use device designed to remove lead; find alternative water source such as bottled water or water from other lead-free location in the building; retest after any remedies are employed.

Interior Plumbing (See Exhibit 4.9)

Example 1:

- Sample 1G (22 ppb) exceeds 20 ppb = collect additional samples from the plumbing upstream to further pinpoint the source of lead (i.e., from the service line, the riser pipe, the loop, or the header supplying water to the lateral).
- Sample 1G (22 ppb) significantly exceeds 5 ppb and is less than downstream site (35 ppb) = a portion of the lead (13 ppb) is contributed downstream from the sample site.
- Sample 1G (22 ppb) is not similar to downstream site (35 ppb) but both exceed 20 ppb = lead is contributed from the lateral or from interior plumbing upstream from the lateral; possible sources of lead may be the loop, header, riser pipe, or service connection; further sampling is necessary.

Possible Solution: Following the collection of additional samples from plumbing upstream to pinpoint sources of lead, replace plumbing with lead-free materials; retest water for lead.

Example 2:

- Sample 1H or 1J (23 ppb) exceeds 20 ppb = collect additional samples from the plumbing upstream supplying water to the loop or header; compare the results with those taken from the service line or the riser pipe that supplies water to the loop and/or header.
- Sample 1H or 1J (23 ppb) significantly exceeds 5 ppb and Sample 1H or 1J is less than downstream site (25 ppb) = a small portion of the lead (2 ppb) is contributed downstream of the sample site.

Possible Solution: Following the collection of additional samples upstream from the header or loop to pinpoint source of lead, replace affected plumbing with lead-free materials; retest water for lead.

Example 3:

- Downstream Site is 25 ppb, Service Connection Sample is 4 ppb, and Sample 1J (6 ppb) is less than 20 ppb = additional samples from upstream need not be collected; 21 ppb of lead is contributed from the downstream site.
- Sample 1J (6 ppb) is not equal to downstream site (25 ppb) = source of lead is not the riser pipe or the plumbing and service connection upstream from the riser pipe.
- 1J (6 ppb) is close to 5 ppb = the portion of the riser pipe and plumbing upstream from Sample Site 1J and the service connection are not contributing lead to the water; the source of lead is downstream of the sample site.

Possible Solution: Following the collection of samples from interior plumbing downstream from the riser pipe and the affected outlet to pinpoint the source of lead, replace affected plumbing with lead-free materials; retest water for lead.

Appendix I – Plumbing Profile Questionnaire

This questionnaire is designed to assist with the determination of whether or not lead is likely to be a problem in your facility, and will enable you to prioritize your sampling effort. A separate plumbing profile may be needed for each building, addition, or wing of your facility, especially if the construction took place at different times. Some of the questions in this questionnaire may not apply to your facility for various reasons. Skip those questions that do not apply. For a discussion of this questionnaire and interpretation of possible answers, please see Chapter 3 of the document.

Plumbing Profile Questions	Answers
1. When was the original building constructed? Were any buildings or additions added to the original facility? If so, complete a separate plumbing profile for each building, addition, or wing.	
2. If built or repaired since 1986, were lead-free plumbing and solder used in accordance with the lead-free requirements of the 1986 Safe Drinking Water Act Amendments? What type of solder has been used?	
3. When were the most recent plumbing repairs made (note locations)?	
4. With what materials is the service connection (the pipe that carries water to the school from the public water system's main in the street) made? Note the location where the service connection enters the building and connects to the interior plumbing.	

5. Specifically, what are the potable water pipes made of in your facility (note the locations)? • Lead • Plastic • Galvanized Metal • Cast Iron • Copper • Other Note the location of the different types of pipe, if applicable, and the direction of water flow through the building. Note the areas of the building that receive water first, and which areas receive water last.	
6. Do you have tanks in your plumbing system (pressure tanks, gravity storage tanks)? Note the location of any tanks, and any available information about the tank; e.g., manufacturer, date of installation.	
7. Was lead solder used in your plumbing system? Note the locations with lead solder.	
8. Are brass fittings, faucets, or valves used in your drinking water system? (Note: Most faucets are brass on the inside.) You may want to note the locations on a map or diagram of your facility and make extensive notes that would facilitate future analysis of lead sample results.	

9. How many of the following outlets provide water for consumption? Note the locations. • Water Coolers • Bubblers • Ice Makers • Kitchen Taps • Drinking Fountains or Taps	
10. Has your school checked the brands and models of water coolers and compared them to the listing of banned water coolers in Appendix E of this document? Note the locations of any banned coolers.	
11. Do outlets that provide drinking water have accessible screens or aerators? (Standard faucets usually have screens. Many coolers and bubblers also have screens.) Note the locations.	
12. Have these screens been cleaned? Note the locations.	

13. Can you detect signs of corrosion, such as frequent leaks, rust-colored water, or stained dishes or laundry? Note the locations.	
14. Is any electrical equipment grounded to water pipes? Note the locations.	
15. Have there been any complaints about bad (metallic) taste? Note the locations.	

16. Check building files to determine whether any water samples have been taken from your building for any contaminants (also check with your public water supplier). • Name of contaminant(s)? • What concentrations of these contaminants were found? • What was the pH level of the water? • Is testing done regularly at your facility?	
17. Other plumbing questions: • Are blueprints of the building available? • Are there known plumbing "dead-ends," low use areas, existing leaks or other "problem areas"? • Are renovations being planned for part or all of the plumbing system?	

EPA 816-B-05-008
October 2006 (Revised)
Office of Water (4606)

ATTACHMENT

6

LEAD AND COPPER RULE REVISIONS WHITE PAPER

October 2016

U. S. Environmental Protection Agency

Office of Water

Washington, DC 20460

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I. Executive Summary

Exposure to lead is known to present serious health risks to the brain and nervous system of children. The recent crisis in Flint, Michigan, has brought increased attention to the challenge of lead in drinking water systems across the country. It is important to recognize that major reductions in been achieved in childhood exposure to lead in the United States. Data show that from 1976 – 1980 the median blood lead level of a child (1-5 years old) was 15 micrograms per deciliter. That median level has been reduced dramatically since then, to 1 microgram per deciliter, based on the most recent data. Further, over the last twenty-five years, the percentage of children aged 1–5 years with blood lead levels less than or equal to 5 micrograms per deciliter declined more than ten-fold, and blood lead levels fell dramatically for all racial and ethnic groups. These improvements were made by removing lead from toys and lead solder in cans, taking lead out of gasoline, reducing exposure to lead in paint and dust in homes and during renovations, greatly reducing the allowable content of lead in plumbing materials in homes and other buildings, and further reducing lead in drinking water through the federal Lead and Copper Rule (LCR). Although we have taken significant steps to protect our children from the detrimental effects of lead poisoning, there is more to do.

Lead and copper enter drinking water mainly from corrosion of lead and copper containing plumbing materials. Lead was widely used in plumbing materials until Congress banned its use in 1986, and there are an estimated 6.5 to 10 million homes served by lead service lines (LSLs) in thousands of communities nationwide, in addition to millions of older buildings with lead solder across the U.S. Lead exposure, whether through drinking water, soil, dust or air, can result in serious adverse health effects, particularly for young children. Infants and children exposed to lead may experience delays in physical and mental development and may show deficits in attention span and learning disabilities. In adults, lead exposure can cause kidney problems and high blood pressure. Copper exposure can cause stomach and intestinal distress, liver and kidney damage, and complications of Wilson's disease in genetically predisposed people.

In 1991, EPA promulgated the LCR – a treatment technique regulation under the Safe Drinking Water Act (SDWA) – to protect public health by minimizing lead and copper levels in drinking water, primarily by reducing water corrosivity through corrosion control treatment. This rule applies to 68,000 public water systems nationwide. EPA has continued to work to make the LCR more effective through interim revisions promulgated in 2000 and 2007.

Implementation of the LCR over the past twenty-five years has resulted in major improvements in public health; the number of the nation's large drinking water systems with a 90th percentile sample value exceeding the LCR action level of 15 parts per billion has decreased by over 90 percent since the initial implementation of the LCR. However, the regulation and its implementation are in urgent need of an overhaul. Lead crises in Washington, DC, and in Flint, Michigan, and the subsequent national attention focused on lead in drinking water in other communities, have underscored significant challenges in the implementation of the current rule, including a rule structure that for many systems only compels protective actions after public health threats have been identified. Key challenges include the rule's complexity, the degree of discretion it affords with regard to optimization of corrosion control treatment and compliance sampling practices that in some cases, may not adequately protect from lead exposure, and limited specific focus on key areas of concern such as schools. There is a compelling need to modernize and strengthen implementation of the rule – to strengthen its public health protections and to clarify its implementation requirements to make it more effective and more readily enforceable.

EPA has conducted extensive engagement with stakeholder groups and the public to inform revisions to the LCR. In December of 2015, EPA received comprehensive recommendations from the National Drinking Water Advisory Council (NDWAC) and other concerned stakeholders on potential steps to strengthen the LCR. EPA is carefully evaluating the recommendations from these groups. In addition, EPA is giving extensive consideration to the national experience in implementing the rule as well as the experience in Flint, MI, as we develop proposed revisions to the rule.

Key Principles for LCR Revisions

EPA's goal for the LCR revisions is to improve public health protection while ensuring effective implementation by the 68,000 drinking water systems that are covered by the rule. This includes strengthening corrosion control treatment in drinking water systems to further reduce exposure to lead and copper and identifying additional actions that will equitably reduce the public's exposure to lead and copper when corrosion control treatment alone is not effective. In developing proposed revisions to the LCR, EPA will be guided by several key principles, including:

- Focus on Minimizing Exposure to Lead in Drinking Water: Improve public health protection by reducing exposure to lead in drinking water to the maximum amount possible through proactive measures to remove sources of lead and educating consumers about the health effects of lead and actions to reduce exposure.
- Clear and Enforceable Requirements: Improve implementation by designing a more prescriptive regulation with fewer discretionary decision points that rely on the judgment of individuals in states and drinking water utilities that may lack expertise in the complexities of corrosion control treatment and distribution system management.
- Transparency: Stronger programs to educate consumers about health risks and actions to reduce exposure to lead in drinking water, better access for consumers to information related to the location of LSLs, and more rapid test results of all tap samples and water quality parameter monitoring.
- Environmental Justice and Children's Health: Because of disparities in the quality of housing, community economic status, and access to medical care, lead in drinking water (and other media) disproportionately affects lower-income people. In addition, lead has disproportionate health effects on infants and children. In revising the LCR, EPA seeks to address environmental justice concerns and to prioritize protection of infants and children who are most vulnerable to the harmful effects of lead exposure.
- Integrating Drinking Water with Cross-Media Lead Reduction Efforts: Leveraging efforts of state and local public health authorities to provide integrated approaches to comprehensively reduce exposure to lead from drinking water, paint, dust, soil and other potential sources of exposure.

EPA is carefully considering NDWAC advice and other stakeholder input and is undertaking key analytical work to develop proposed revisions to the LCR. We are considering an approach that will incorporate both technology- based and health-based elements – to ensure effective reductions of lead in drinking water at the water system level, while at the same time providing consumers with the information, tools and protections needed to address remaining risks. We anticipate that these elements will be supported by clear and robust revised sampling requirements, strengthened reporting, transparency provisions that ensure consumers have rapid access to relevant information and public education materials. Key potential elements under consideration are discussed in Section 3; these elements are highly interdependent, and potential revisions to the rule must be considered in an integrated perspective.

II. Background

Health Effects of Lead

Over the past decade, epidemiologic studies have consistently demonstrated that there is no safe level of lead. In particular, studies conducted in diverse populations of children consistently demonstrate the harmful effects of lead exposure on cognitive function, as measured by IQ decrements, decreased academic performance and poorer performance on tests of executive function. Lead exposure is also associated with decreased attention, and increased impulsivity and hyperactivity in children. In adults, long-term lead exposure results in increased blood pressure and hypertension. In addition to its effect on blood pressure, lead exposure can also lead to coronary heart disease and death from cardiovascular causes and is associated with cognitive function decrements, symptoms of depression and anxiety, and immune effects in adults.

Health Effects of Copper

Copper has been demonstrated to cause gastrointestinal distress following short term exposure and can cause liver and kidney damage during longer term exposures. Copper exposures are of particular concern for people with Wilson's disease.

Lead in Plumbing Materials

The extent to which leaded materials occur in drinking water distribution systems and plumbing materials in homes and buildings (premise plumbing) varies across the U.S. Much of the variation is due to the quality and age of the housing stock; older homes are more likely to have pipes and plumbing materials containing lead. Where they are present, the most significant source of lead in drinking water are leaded pipes that extend from the water main underneath the street to the residence (lead service lines, or LSLs) however, faucets and fixtures with leaded brass and pipes with lead solder can also contribute to the presence of lead in drinking water. Water chemistry also plays a role in lead levels, because some water sources are more corrosive to leaded plumbing materials if not treated for corrosion control.

In 1986, Congress amended the Safe Drinking Water Act, prohibiting the use of pipes, solder or flux that are not "lead free" in public water systems or plumbing in facilities providing water for human consumption. At the time, "lead free" was defined as solder and flux with no more than 0.2% lead and pipes with no more than 8%. Prior to this, leaded materials were commonly used in plumbing materials and for service lines connecting residences and buildings to water mains. In 1996, Congress further amended SDWA to expand the prohibition to encompass plumbing fittings and fixtures and to prohibit the introduction into commerce of pipes, fitting, and fixtures, solder or flux that is not lead free. The Reduction of Lead in Drinking Water Act of 2011 created exemptions to the prohibitions and revised the maximum allowable lead content from not more than 8% to not more than a weighted average of 0.25% lead on the wetted surface; further reducing the amount of lead in contact with drinking water when that law became effective in January 2014. While these prohibitions have reduced the amount of lead allowed in covered plumbing materials after they went into effect, there are many buildings that still have LSLs and/or plumbing materials made with a higher percentage of lead than currently allowed for new installations or repairs of existing plumbing.

Summary of the Current Lead and Copper Rule

Under SDWA, EPA establishes national primary drinking water regulations (NPDWRs) which either establish a maximum contaminant level (MCL) or a treatment technique "to prevent known or anticipated adverse effects on the health of persons to the extent feasible." The Lead and Copper Rule (LCR) is a treatment technique rule, first promulgated in 1991 and revised in 2000 and 2007, which requires water systems to conduct tap sampling for lead and copper to determine the actions water systems must take to reduce exposure to lead and copper. Recognizing that there is no safe level of lead in drinking water, the LCR set a health-based maximum contaminant level goal of zero. Under the LCR, water systems must work with their customers to collect samples from locations with LSLs and/or leaded plumbing materials. The LCR established action levels of 0.015 mg/L (15 ppb) for lead and 1.3 mg/L (ppm) for copper, based on the 90th percentile sample level.

The action level for copper is set at the health-based maximum contaminant level goal for copper. The action level for lead is based upon EPA's evaluation of available data on corrosion control's ability to reduce lead levels at the tap. Corrosion control treatment (CCT) typically involves the addition of chemicals such as orthophosphate, or chemical adjustment of drinking water pH, to reduce the corrosivity of drinking water and thus the level of leaching of lead and copper from plumbing materials. Whereas an MCL is an enforceable level that drinking water cannot exceed without violation, an action level is a screening tool for determining when certain treatment technique actions are needed. If the lead or copper action level is exceeded in more than ten percent of tap water samples collected during any monitoring period (i.e., if the 90th percentile level is greater than the action level), a water system must take certain actions.

The type of action that is triggered depends upon the size of the system and the actions it has taken previously. All water systems serving more than 50,000 people were required to install corrosion control treatment soon after the LCR went into effect. Systems serving less than 50,000 people are not required to install corrosion treatment if the system meets the lead and copper action levels during each of two consecutive six-month monitoring periods. Systems serving less than 50,000 people that exceed the action level and have not yet installed CCT must begin working with their state to monitor water quality parameters and install and maintain CCT. Any system that exceeds the lead action level must conduct public education. Any system with LSLs that exceeds the lead action level after installing CCT must begin LSL replacement (LSLR). Although LSLR programs are conducted by public water systems, in many cases, the portion of the LSL that extends from the water main to the residential property line is owned by the water system, while the portion of the line that extends from the property line to the home is solely owned by the homeowner. Under the current rule, water systems conducting LSLR must offer building owners the opportunity to replace their portion of the line at the time the system is replacing the portion of the service line owned by the system, but the system is not obligated to pay for replacing the portion of the line it does not own.

Key Challenges with the Current Lead and Copper Rule

The LCR is one of the most complicated drinking water regulations for states and drinking water utilities to implement due to the need to control corrosivity of treated drinking water as it travels through often antiquated distribution and plumbing systems on the way to the consumer's tap. The LCR is the only NPDWR that requires sampling in homes, often by the consumers themselves. The rule includes complex sampling and treatment technique requirements intended to protect against exposure to lead and copper in drinking water. States and public water systems must have expertise and resources to identify the sampling locations and to collect and analyze samples correctly. Even greater expertise is needed for

systems and states to identify on a system-specific basis the optimal CCT and water quality parameter monitoring to assure effective operation. The current structure of the rule compels additional protective actions on the part of a water system only after a potential problem has been identified, which may create a disincentive for utilities to identify potential problems with lead and copper in the drinking water system. It is also worth noting that road construction activities or maintenance of gas or buried power lines can cause disturbance of LSLs, in some cases introducing high levels of lead into drinking water through the release of lead particulates into the drinking water distribution system.

When corrosion control alone is not sufficient, LSLR, public education, and further actions on the part of consumers to reduce their exposure to lead are necessary. Consumers' ability to understand and afford these actions can pose challenges. In most communities, LSLs are partially owned by the utility and partially owned by the homeowner; the cost of full LSLRs has been estimated to be $2,500-$5,500 per line, but some industry estimates for an average replacement are as high as $8,700 per line.

Summary of National Drinking Water Advisory Council Recommendations

The National Drinking Water Advisory Council (NDWAC) is a Federal Advisory Committee that supports EPA in performing its duties and responsibilities related to the national drinking water program. The council was created through a provision in the SDWA of 1974. The NDWAC LCR Working Group was formed to provide advice to EPA in considering potential revisions to the LCR. In December 2015, the NDWAC provided specific recommendations to the Administrator for LCR revisions including:

- Require proactive LSLR programs, which set replacement goals, effectively engage customers in implementing those goals, and provide improved access to information about LSLs, in place of current requirements in which LSLs must be replaced only after a lead action level exceedance (ALE);
- Establish more robust public education requirements for lead and LSLs, by updating the Consumer Confidence Report (CCR), adding targeted outreach to consumers with LSLs and other vulnerable populations (pregnant women and families with infants and young children), and increasing the information available to the public;
- Strengthen CCT, retaining the current rule requirements to re-assess CCT if changes to source water or treatment are planned, adding a requirement to review updates to EPA guidance to determine if new scientific information warrants changes;
- Modify monitoring requirements to provide for consumer requested tap samples for lead and to utilize results of tap samples for lead to inform consumer action to reduce the risks in their homes, to inform the appropriate public health agency when results are above a designated household action level, and to assess the effectiveness of CCT and/or other reasons for elevated lead results;
- Tailor water quality parameters (WQPs) to the specific CCT plan for each system, and increase the frequency of WQP monitoring for process control;
- Establish a health-based, household action level that triggers a report to the consumer and to the applicable health agency for follow up;
- Separate the requirements for copper from those for lead and focus new requirements where water is corrosive to copper; and
- Establish appropriate compliance and enforcement mechanisms.

Summary of Other Stakeholder Input

EPA has also received recommendations for revisions to the LCR from other stakeholders including a NDWAC Working Group member who dissented on a number of the NDWAC recommendations, the

Flint Water Interagency Coordinating Committee, and local citizens impacted by the experience in Flint. These recommendations emphasize the importance of enforceable goals for LSLR, recognize the significant lead exposure risks that can accompany partial service line replacements (PLSLRs) and provide clearer and more prescriptive requirements for sampling and corrosion control protocols that reduce the opportunities for systems to generate biased sampling results or improperly implement corrosion control procedures. EPA has received input from other stakeholders similarly concerned with eliminating PLSLRs and strengthening the sampling and corrosion control provisions of the LCR. In addition, the Board of the American Water Works Association (AWWA), which represents drinking water utilities, voted unanimously in March of 2016 to support the NDWAC recommendations, including those that would ultimately lead to complete replacement of LSLs.

III. Key Issues and Potential Elements under Consideration

EPA expects that proposed revisions to the LCR will include both technology-driven and health-based elements that focus on proactive, preventative actions to avoid high lead levels and health risks. In addition, we expect to propose robust and ongoing communication and information sharing with consumers that will foster actions by consumers to reduce risks. The potential elements under consideration are interconnected components that together will address the challenges with the current rule and improve public health protection in the revised rule.

In developing revisions to the LCR, EPA must adhere to the SDWA's statutory requirements and achieve the greatest public health protection feasible. The SDWA requires that any treatment technique rule must prevent known or anticipated adverse effects on the health of persons to the extent feasible and revisions to any NPDWR must maintain or strengthen public health protection. In addition, EPA must prepare a Health Risk Reduction Cost Analysis to evaluate if the benefits justify the costs of the rule. EPA is committed to using the best available science. As knowledge about lead contamination in drinking water evolves, we will continue to engage with stakeholders and consider their viewpoints and relevant science in developing revisions to the LCR.

Lead Service Line Replacement

As noted above, LSLs, which connect a residence or building to the water main, can be a significant source of lead in drinking water. The total number of LSLs currently in use in the US is unknown; estimates range from 6.5 million to greater than 10 million homes that have service lines that are at least partially made of lead. The current LCR requires LSLR only after a lead ALE, and allows partial LSLR when an owner of a home or building is unable or unwilling to pay for replacement of the portion of the service line not owned by the water system.

In 2010, EPA asked its Science Advisory Board to evaluate the data regarding the effectiveness of the partial LSLR, in comparison to full line replacement. The EPA Science Advisory Board concluded in its 2011 report to EPA that:

> PLSLRs have not been shown to reliably reduce drinking water lead levels in the short term, ranging from days to months, and potentially even longer. Additionally, PLSLR is frequently associated with short-term elevated drinking water lead levels for some period of time after replacement, suggesting the potential for harm, rather than benefit during that time period. Available data suggest that the elevated tap water lead levels

tend to then gradually stabilize over time following PLSLR, sometimes at levels below and sometimes at levels similar to those observed prior to PLSLR. [1]

Much of the discussion regarding potential LCR revisions has focused on mandatory, proactive LSLR, as a potential opportunity to eliminate one of the primary sources of lead in drinking water, thus reducing reliance on corrosion control to reduce lead in drinking water at the tap.

The NDWAC has recommended that the Agency require proactive full LSLR programs with the following elements:

- Requiring all PWSs to establish a LSLR program that effectively informs and engages customers to encourage them to share appropriately in fully removing LSLs, unless the system can demonstrate that LSLs are not present in their system;
- Targeted outreach to customers with LSLs, with information about the risks of lead exposure, an offer to test a tap sample, and information about and encouragement to participate in the LSLR program;
- Dates by which systems should have met interim goals and completed replacement of all LSLs and partial LSLs, without penalty to the water system for those homeowners who refuse to participate in the replacement program as long as the water system has made a meaningful effort to work with such a homeowner;
- Creating incentives for understanding where LSLs and PLSLs exist, while making action on full replacement, rather than on investigation of the location of LSLs and PLSLs the priority;
- Maintaining ongoing-outreach to homeowners where LSLs or PLSLs still exist;
- Implementation of standard operating procedures (SOPs), either from EPA guidance or tailored to the system, that helps define operations that disturb LSLs and practices to minimize disturbance and consumer exposure to lead; and
- Stronger programs to educate consumers, and to provide test results of tap samples at the request of consumers.

It is important to recognize that LSLR presents substantial economic, legal, technical and environmental justice challenges. First, it is costly. Estimated costs for LSLRs range from $2500 to more than $8000 per line, suggesting an estimated cost of eliminating all 6.5 to 10 million LSLs nationwide ranging from 16 to 80 billion dollars. Potential costs may be disproportionately borne by specific low-income localities, such as Detroit, which has an estimated 100,000 LSLs and where 40 percent of the population is below the poverty line. Second, LSLs are often partially or totally owned by private homeowners. Under the current LCR, public water systems are responsible for replacement of LSL or the portion of the LSL it owns. This is typically the portion of the line from the water main to the property line. There are important legal questions about EPA's authority to mandate replacement of privately owned portions of lines and about water systems' authority under state or local law to require and/or pay for such replacement. To the extent water systems rely on homeowners to pay for replacement of privately owned portions of lines, there are concerns about consumer's ability to pay and the possibility that lower-income homeowners will be unable to replace lines, resulting in disparate levels of protection. However, a number of cities and towns across the nation have successfully implemented full LSLR and have developed innovative approaches to addressing these challenges, including Lansing, Michigan; Madison, Wisconsin; and more recently Boston, Massachusetts – and EPA is looking at this experience in the context of developing proposed revisions to the LCR.

[1] Science Advisory Board, U.S. Environmental Protection Agency, "Evaluation of the Effectiveness of Partial Lead Service Line Replacements," transmitted to Lisa Jackson, EPA Administrator, September 28, 2011.

EPA is considering proposing full LSLR programs. In assessing options for an LCR revision proposal, EPA is evaluating a number of important issues, including:

- The appropriate pace of LSLR and the mechanism for implementing and enforcing any LSLR program requirements. Consideration of number of LSLs that can feasibly be replaced on an annual basis will need to be considered as well as water system size.
- Costs and benefits of LSLR for reducing lead exposures. National costs could range from 16 to 80 billion dollars. Benefits will be estimated based upon avoided effects of lead exposure such as IQ loss in developing children. EPA will evaluate how much additional lead exposure reduction can be achieved in removing LSLs from water systems with optimized corrosion control. EPA will also evaluate other measures that can reduce lead exposure to assure that resources are focused on reducing the most significant sources of lead.
- How to provide for full LSLR where the utility does not own the full line, including an evaluation of whether a potential change to the definition of "control" under the SDWA would facilitate full LSLR.[2]
- Requiring drinking water utilities to update their distribution system materials inventory to identify the number and location of LSLs in their system.
- How to address potential equity concerns with LSLR requirements and consumers ability to pay for replacement of their portion of the LSL. Identifying and evaluating incentive and creative funding mechanisms are critical as is encouraging use of Drinking Water State Revolving Fund to the extent possible.
- How to address LSLR in rental properties, particularly where low income residents do not control the property or have the ability to contribute to the cost of LSLR.
- Whether to prohibit or otherwise limit partial LSLR, and how to address concerns related to potential disturbance of LSLs during emergency repairs to water mains that are connected to LSLs.
- How to address the short term increases in lead levels that can follow LSLRs (i.e., requiring water systems to provide filters when lines, or enhanced household flushing recommendations).

Improved Optimal Corrosion Control Treatment Requirements

Optimal Corrosion Control Treatment (OCCT) is the primary treatment technique on which the LCR focuses, and as noted above, it has been successful on a national basis in reducing lead and copper levels at the tap. Even if the revised LCR includes requirements for full LSLR, full replacement of LSLs would likely take decades to complete, and LSLR will not address potential risks from lead and copper materials present in premise plumbing in tens of millions of homes across the U.S. As a result, CCT requirements will continue to be a key element of a revised LCR.

Since the initial implementation of the LCR, systems have faced ongoing challenges of continuing to maintain optimal corrosion control while making necessary adjustments to treatment processes or system operations unrelated to corrosion control to comply with other NPDWRs. Determining whether treatment is optimized can be challenging for individual systems, given the wide variability in

[2] The Safe Drinking Water Act defines the term public water system as "…a system for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at least fifteen service connections or regularly serves at least twenty-five individuals. Such term includes (i) any collection, treatment, storage, and distribution facilities ***under the control of*** the operator of such system and used primarily in connection with such system, and any collection or pretreatment storage facilities not under such control which are used primarily in connection with such system."

distribution system composition, source water characteristics and approaches to complying with other NPDWRs, such as the surface water treatment rules. While the impact of changes in some water quality parameters on lead and copper levels are well understood, such as fluctuations in pH or alkalinity, others are more complex, such as the quantity and type of disinfectant used or the chemical composition of the protective scales within the LSLs. Small and medium systems (those serving <50,000 persons) are not required to commence development of a CCT plan under the existing LCR unless they have a lead ALE.

The NDWAC recommends that:

- EPA release a revised CCT guidance manual as soon as possible and update this manual every six years, so that PWSs and primacy agencies can take advantage of improvements in the science;
- EPA provide increased expert assistance on CCT to PWSs and primacy agencies;
- The LCR continue to require re-evaluation of CCT when a PWS makes a change in treatment or source water;
- The LCR continue to require water quality parameter monitoring to ensure that the OCCT is achieving the treatment objectives and that EPA consider requiring such monitoring on a more frequent basis with additional guidance on process control methods; and
- Large systems review their existing CCT plan in light of current science in a newly revised guidance manual with their primacy agency to determine whether the WQPs reflect the best available current science.

Recognizing the continuing central importance of CCT in reducing lead exposures, EPA is considering a range of options for strengthening CCT requirements in the proposed rule that could help to provide clearer requirements, reduce uncertainty, and ensure broader and more consistent proactive application of CCT to avoid high lead levels. Options under consideration include:

- Requiring large water systems (serving > 50,000 persons) to evaluate and re-optimize CCT when EPA publishes updated CCT guidance. This option would provide a mechanism to ensure water systems are considering the best available science to inform treatment decisions.
- Given that CCT is also effective at reducing lead leaching in premise plumbing (not just LSLs), requiring all systems in the U.S. to implement CCT, regardless of system size, tap sampling results, or the presence of LSLs; or alternatively, broadening the categories of systems for which CCT is required; requiring all systems to assume that their distribution system includes the presence of LSLs unless or until they provide the primacy agency with a robust distribution system materials evaluation that demonstrates that this is not the case.
- Requiring water systems that are already applying CCT that exceed the lead action level to evaluate and re-optimize CCT.

Incorporating a Health-Based Benchmark to Strengthen Protection

Although the current LCR is focused on protecting public health by reducing lead and copper exposures, it does so through “technology-based” requirements. The 1991 LCR established an action level for lead of 15 ppb (for the 90th percentile sample) based on an assessment that it was generally representative of effective CCT. Although public discussion often mistakes the action level as having significance in terms of health impacts, EPA has consistently emphasized that the health-based maximum contaminant level goal (MCLG) for lead in the current LCR is zero and that there is no safe level of lead exposure. While the future LCR will maintain treatment technique requirements (e.g., CCT, public education and LSLR) to reduce lead exposures, a health-based benchmark for lead in drinking water could help to guide appropriate actions to communicate and mitigate risk, particularly at the household level.

As part of its 2015 recommendations, the NDWAC suggested that EPA establish a "household action level" based on the amount of lead in drinking water that would raise an average, healthy infant's blood lead level to greater than five micrograms per deciliter based on consumption of infant formula made with water. According to the NDWAC recommendations, water systems would be required to notify the consumer and the local public health agency if this level were exceeded – with the expectation that individuals and local officials will use this information to take prompt actions at the household level to mitigate lead risks.

While EPA has not yet determined the specific role of a health based benchmark for lead in drinking water in the new rule, the Agency sees value in providing states, drinking water systems and the public with a greater understanding of the potential health implications for vulnerable populations of specific levels of lead in drinking water. EPA is currently developing up-to-date scientific modeling of the relationship between lead levels in drinking water and blood lead levels – particularly for sensitive lifestages such as formula-fed infants and children under age 6. EPA expects to conduct an expert peer review panel to identify approaches to derive a health based value for lead in drinking water. Following this public peer review process, EPA expects to evaluate and determine what specific role or roles a health-based value may play in the revised LCR. EPA anticipates that the proposal will consider the "household action level" approach recommended by the NDWAC, but a health-based value could also help to inform other potential elements of a revised LCR – including public education requirements, prioritization of households for LSLR or other risk mitigation actions at the household level, and potential requirements related to schools or other priority locations.

Considering the Potential Role of Point of Use Filters

One of the insights that has emerged from work in response to the crisis in Flint, Michigan, is the efficacy of point-of-use household filters in reducing lead levels at the tap. There are a broad array of point-of-use filters that are certified by independent third party labs for lead reduction. Recently, EPA collected samples from these filters installed on taps in Flint, Michigan, and verified that these filters are effective in reducing lead levels. Filters require periodic replacement of cartridges to remain effective. The SDWA requires point of use devices specified as a feasible technology to achieve compliance with an MCL or treatment technique requirements to be owned, controlled, and maintained by the water utility. While filters are not an appropriate substitute for CCT, LSLR, or other actions to properly manage and reduce lead levels at the system level, EPA is considering role for filters in addressing risks from lead and copper at the household level. Potential roles include requiring point of use filters where there has been a disturbance of a LSL or where tap sampling indicates an exceedance of a health-based benchmark or action level.

Clarify and Strengthen Sampling Requirements

The goal of the LCR sampling requirements – including site selection criteria and tap sampling procedures — is to cost effectively assess the effectiveness of a water system's CCT and to trigger additional actions to reduce exposure when necessary. The target locations in the LCR are focused on the homes that are likely to have the highest risk for lead exposure. The lead sampling protocol requires a one liter first draw sample collected after water has remained stagnant for at least 6 hours. Implementation of the sample site selection criteria and the sampling protocol are challenging and provide opportunity for error, particularly given that samples are collected by the residents themselves. In addition, numerous stakeholders have criticized the current rule as providing too much discretion in sampling approaches and providing opportunities for systems to implement their sampling procedures

to avoid exceeding the action level, even in circumstances where corrosion control has not been optimized.

On February 29, 2016, EPA issued a memorandum encouraging states and drinking water utilities to implement protective LCR sampling procedures, based on lessons learned in Flint, Michigan, and other communities. These sampling procedures include eliminating the practice of flushing the tap prior to the mandatory 6-8 hour stagnation period (pre-stagnation flushing), ensuring that faucet aerators are not removed prior to conducting tap sampling under the LCR, and encouraging the use of wide mouth bottles for collection of tap samples to avoid the loss of any of the first draw sample. EPA expects to incorporate each of these recommended sampling procedures as proposed requirements in the proposal for the revised LCR.

In addition, EPA has increased oversight of state programs to ensure effective implementation of the LCR. As part of these efforts, EPA sent letters on February 29, 2016, to state commissioners to ensure consistency with EPA regulations and guidance. The letter requested that primacy agencies work collaboratively with EPA to ensure national consistency and improve transparency and public information regarding the implementation of the rule.

The majority of the states confirmed that they have been consistent with EPA guidance and the LCR. Some primacy agencies specifically stated in their response that they would be undertaking steps to ensure that their protocols and procedures follow the LCR and applicable guidance. Regarding the use of EPA guidance on LCR sampling protocols and optimization corrosion control procedures, the majority of the primacy agencies confirmed that they use relevant guidance and protocols for sampling and corrosion control. Some primacy agencies had previously encouraged pre-flushing but stated they would update their protocols to ensure consistency with the recently published EPA sampling memo.

The NDWAC recommends that a voluntary customer-initiated sampling program based on a more robust and targeted public education be substituted for the current LCR tap sampling requirements.
The results of the voluntary tap sampling program would be used for three separate purposes:

- Informing and empowering individual households to take action to reduce risk;
- Reporting to health officials when monitoring results exceed a “household action level”; and
- Providing an ongoing source of information to the utility to assess effectiveness of CCT.

In the proposed LCR revisions, EPA intends to propose clear and robust sampling requirements to serve the goals of: (1) providing appropriately robust information on how the overall system is performing in reducing lead levels; and (2) providing information on household levels that can be compared to health-based levels, to help guide mitigation actions at individual homes.

EPA is continuing to evaluate specific procedures for tap sampling, including:

- The continued use of “first draw” tap samples, sequential sampling to characterize lead levels in drinking water that has been in contact with premise plumbing and the LSL, random daytime samples, whether the rule should include a variety of tap sampling protocols to meet different needs for customers and the system, and whether the rule should provide for systems to sample customer’s taps on request.
- Mandatory sampling for schools that are not public water systems in the revised LCR, given the presence of vulnerable populations in the school environment and the ongoing challenges that schools continue to encounter with elevated lead levels in drinking water.

- ORD partnering with technology developers in industry and academia to identify available technologies that can be used to support real-time monitoring of water quality parameters for measuring the effectiveness of corrosion control in the distribution system.

Increased Transparency and Information Sharing

Transparency and public sharing of data and information is a cornerstone of EPA's efforts to strengthen the effectiveness of its rules. The drinking water crisis in Flint, Michigan, and subsequent focus on lead issues in other communities has underscored the need for transparency with the public in implementing actions to reduce lead in drinking water. EPA took important steps to advance these efforts on February 29, 2016, when the Agency sent letters to every governor and drinking water primacy agency responsible for implementing the LCR, urging a series of actions to address risks from lead in drinking water. The Agency called on primacy agencies to work with public water systems to increase transparency in implementation of the LCR by posting on their public websites:

- the materials inventory that systems were required to complete under the LCR, including the locations of LSLs, together with any more updated inventory or map of LSLs and lead plumbing in the system; and
- LCR compliance sampling results collected by the system, as well as justifications for invalidation of LCR samples.

The Agency also asked that states enhance efforts to ensure that residents promptly receive lead sampling results from their homes, together with clear information on lead risks and how to abate them, and that the general public receives prompt information on high lead levels in drinking water systems.

Many of the responses from state commissioners identified practices and policies that enhance the implementation of the LCR and increase public transparency. States identified opportunities to promote transparency at the state level by posting individual lead compliance samples, and not just the 90th percentile values on their public websites utilizing the Drinking Water Watch or similar tools. To complement this effort, some public water systems are providing online searchable databases that provide information on known locations of LSLs, or providing videos that show homeowners how to determine whether their home is served by a LSL.

To shorten reporting and notice timeframes, some states have adopted more stringent timelines for water systems to provide consumer notices to all who receive water from sites that were sampled and resulted in a lead ALE. While the LCR allows up to 30 days, some states are requiring notice to consumers as quickly as 48 hours after sampling. In addition, some states require laboratories that analyze lead compliance samples to contact the state within 24 hours of confirming that a sample analysis has exceeded the 15 parts per billion action level for lead. Consistent with the EPA's 2013 E-Reporting Policy[3] the agency intends to use, to the maximum extent practicable, common agency tools, information systems, and data sets for E-Reporting for the revised LCR. E-Reporting can facilitate faster access to data and other information critical to consumers to understand lead and copper levels in their drinking water and within the water system and to make informed decisions regarding actions they may take to reduce exposure from lead in drinking water.

The NDWAC recommends that EPA strengthen requirements for public access to information about LSLs, tap monitoring results and other relevant information. Enhanced requirements for sharing compliance

[3] https://www.epa.gov/compliance/policy-statement-e-reporting-epa-regulations

data and other information with the public can play a critical role in strengthening the protections provided by the LCR. By providing individuals and communities with prompt and accurate information, the LCR can help to leverage broader public involvement and engagement in ensuring accountability, consistency in meeting regulatory requirements, and prompt action to mitigate high lead levels or other risks, both at the system and household level.

Accordingly, the agency expects to propose stronger public transparency elements for the revised LCR. Measures under consideration include:

- Requiring drinking water utilities to post all LCR sampling results and sample invalidation justifications on their publicly accessible website in a form that protects the privacy of customers;
- Mandating shorter time frames for providing lead sampling results to consumers;
- Mandating shorter time frames for providing the public with public health education when high lead levels are detected in their drinking water system;
- Enhanced requirements for sharing the results of the materials evaluation conducted by drinking water system, including publicly identifying the location of LSLs within the community in a way that protects privacy of homeowners;
- Enhanced requirements for states to publicly identify each system within their state that is currently or has recently experienced an ALE, along with the specific steps the system is required to fulfill and their progress in implementing these requirements
- Requiring systems to provide information on the number of lead tap samples collected, number of samples that exceed the lead action level, information about voluntary sample results and any recent changes to CCT or water quality parameters that might affect lead levels in their water; and
- Requiring more timely electronic reporting of sampling results to primacy agencies and EPA.

Public Education Requirements

A critical element of the LCR is public health education to ensure that the public has easy access to clear information on lead and copper risks in drinking water and how to mitigate them. The current LCR requires public health education in response to a lead ALEs. One concern with this approach is that systems can have up to 10 percent of homes with highly elevated levels of lead in drinking water without causing an ALE and triggering the public health education requirements of the rule.

The NDWAC recommends that:

- EPA establish an easily accessible, national clearinghouse of information about lead in drinking water to serve the needs of the public and of public water systems;
- Require information be sent to all new customers on the potential risks of lead in drinking water;
- Revise the current CCR language to address LSLs and update the health statements;
- Add requirements for targeted outreach to customers with LSLs; and
- Expand the current requirements for outreach to caregivers/health care providers of vulnerable populations.

EPA is considering modifications to the rule to strengthen the public education requirements by requiring ongoing, proactive and targeted public education to effectively communicate drinking water lead risks, promote tap sampling, and provide actions consumers can take to reduce lead exposures regardless of ALEs by the system.

The Agency is also considering requiring water utilities to provide information on lead risks to all new customers at the time of service connection, expanding the current LCR requirements for public outreach to caregivers and healthcare providers for vulnerable populations, and revising the current requirement for CCRs so that these reports address the status of LSLs in each city.

Customers with LSLs are at heightened risk for lead exposures in drinking water. EPA is considering a number of potential public education requirements in the proposed LCR revisions to help mitigate these risks, including:

- Requiring water systems to provide targeted outreach to customers with LSLs and to provide these customers with invitations to have their water tested and to participate in a LSLR program, regardless of ALEs in the system;
- Requiring water system to provide public access for LSL inventories, which would include the locations of those service lines;
- Requiring that customers be notified of emergency or planned maintenance that may disrupt LSLs, therefore increasing lead levels, and be provided with information on actions that can be used to mitigate exposure; and
- Requiring a standard operating procedure be prepared and provided to other utilities who may disturb LSLs for maintenance or capital improvements.

Potential Revised Copper Requirements

Published corrosion literature since 1991 on copper has shown that copper and lead leaching patterns differ. The current LCR sample site selection criteria targets highest-risk lead sites, and tap samples for both lead and copper are collected at these locations. Some stakeholders have expressed concerns that elevated levels of copper may be missed using this approach.
The NDWAC Recommends:

- Instead of basing action on the results of routine, in-home copper sampling, actions should be based on the aggressiveness of the water to copper. Systems can determine if their water is aggressive to copper by doing WQP monitoring in the distribution system. All PWSs should be assumed to have water that is aggressive to copper unless they demonstrate that it is not.
- EPA should develop criteria to define water that is not aggressive to copper for the purpose of establishing whether a system falls into that category (or “bin”) for the purposes of the LCR. EPA should consider the accuracy and potential variability of pH and alkalinity monitoring as well as corrosivity to copper in establishing pH and alkalinity ranges. The criteria also should include consideration of passivation time.
- PWSs can choose one of several approaches to demonstrate that their water is not aggressive to copper.
- PWSs with water classified as non-aggressive to copper must continue to demonstrate that the water is non-aggressive. PWS’s can choose to:
    - Maintain those WQPs that demonstrate it maintains non-aggressive water, or
    - Conduct copper sampling at vulnerable homes (houses < 2 years old with new copper plumbing) to demonstrate that water chemistry is non-aggressive cooper levels fall under the AL/MCL).

EPA is considering modifications to the LCR requirements to provide greater attention to the potential risks associated with elevated levels of copper in drinking water. Options that are being considered include modifications to the sample site selection criteria to include sites that are at greatest risk of producing elevated levels of copper, and developing water quality parameters designed to identify

systems that have water aggressive to copper. Systems with aggressive water could be required to install CCT and/or conduct public education for copper, while systems with nonaggressive water could be required to periodically demonstrate that leaching of copper is not a concern for the water system.

Relationship with Broader Lead Issues

While the LCR revisions are focused on lead in drinking water, EPA recognizes that the ultimate goal is comprehensive reduction in exposures to lead from all contaminated media, some of which may present greater risks than drinking water in individual communities or homes.

Lead can be ingested from various sources, including lead paint and house dust contaminated by lead paint, as well as soil, drinking water, and food. The effects of lead exposure are generally measured by blood lead levels. As a result of the multitude of possible exposure pathways, the contribution from specific pathways (e.g., consumer products, diet, soil, ambient air) to blood lead concentrations can vary widely for each individual.

Young children, infants, and fetuses are particularly vulnerable to lead because their behavior patterns typically lead to higher exposures, they absorb a greater proportion of the lead they ingest than adults, physical and behavioral effects of lead occur at lower exposure levels in children than in adults, and the central nervous system of children undergoes rapid development and impacts during this period can have lifelong effects.

EPA estimates that drinking water can make up 20 percent or more of a total exposure to lead. In some circumstances, infants who consume mostly mixed formula can receive 40 percent to 60 percent of their exposure to lead from drinking water. Current water sampling protocols were designed to assess the adequacy of CCT, not the level of human exposure to lead. Important fluctuations in water lead levels can be missed because of limitations inherent in sampling protocols that EPA uses, making it difficult to assess household exposure through drinking water.[4]

Pathways of exposure to lead related to ambient air include both inhalation of lead and ingestion of lead in dust or soil that originated in the ambient air. For example, dietary lead exposure may be air-related if ambient air lead deposits on plant materials or in water that becomes available for human consumption. (They may also be water-related if cooking is undertaken in tap water with high lead levels.)

Dust and soil particles containing lead are typically in the size range that is ingested rather than inhaled. However, soil can act as a reservoir for deposited lead emissions, and exposure to soil contaminated with deposited lead can occur through re-suspended particulate matter as well as hand-to-mouth contact, which is the main pathway of childhood exposure to lead.

To address these concerns, EPA is committed to continuing to work with federal, state and local partners to reduce lead risks in all contaminated media**.**

[4] Brown, Mary Jean and Margolis, Stephen, Division of Emergency and Environmental Health Services, National Center for Environmental Health, Centers for Disease Control, "Lead in Drinking Water and Human Blood Lead Levels in the United States," *Morbidity and Mortality Weekly Report*, August 10, 2012.

IV. Conclusion

It is critical that EPA thoughtfully revise the LCR to strengthen the rule to reduce exposure to lead in drinking water, especially for infants and children and communities bearing a disproportionate risk. It is also important that LCR revisions improve implementation and enforceability of the rule requirements. This paper provides examples of regulatory provisions EPA is considering and evaluating in order to improve public health protection. While EPA has received extensive recommendations from NDWAC and other stakeholders, the Agency is committed to continue to engage with stakeholders and consider all viewpoints in revising the LCR. EPA is committed to using the best available science and to conducting robust analyses of regulatory options that have been informed by stakeholder input. The Agency welcomes input and feedback on the ideas presented in this paper to support development of a Notice of Proposed Rulemaking of LCR Revisions for publication in the Federal Register and public review and comment in 2017.

ATTACHMENT

7

United States
Environmental
Protection Agency

Implementing the Lead Public Education Provision of the Lead and Copper Rule:

A Guide For Community Water Systems

(Original Document: Lead in Drinking Water Regulation:
Public Education Guidance for Community Water Systems, EPA 816-R-02-010, June 2002)

(Revised Document: Implementing the Lead Public Education Provision of the LCR,
A Guide for Community Water Systems: EPA 816-R-08-007, June 2008)

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Objective and Organization

This guidance document explains the revised requirements for a lead Public Education (PE) program, describes a practical approach for successfully carrying out a PE program on lead in drinking water, and continues to serve as a tool to assist water suppliers with conducting a community-based, PE program on lead in drinking water. The approach described here is based on our National Primary Drinking Water Regulations (NPDWRs) for lead and copper, practical experience gained from implementing the PE requirements of the Lead and Copper Rule (LCR), and principles of good risk communication. This guidance is not a rule, but is intended to explain EPA's PE rules and provide recommendations on "best practice" approaches that systems might want to consider in complying with these rules. While compliance with the PE rules is required, following the recommendations and tips is optional.

The Environmental Protection Agency (EPA), first issued this guidance document in July 1992. Since that time, EPA published minor revisions to the NPDWRs for lead and copper on January 12, 2000 (65 FR 1950). On October 10, 2007, EPA published an additional set of short-term revisions and clarifications (72 FR 57782). These most recent changes to the LCR incorporate comments received from members of the National Drinking Water Advisory Committee (NDWAC) Work Group on Public Education (WGPE), water systems, utility organizations, and States. These groups have extensive experience implementing or overseeing public education (PE) programs. The new rule requirements make changes to the content of the messages provided to consumers, how the materials are delivered to consumers, and the timeframe in which materials must be delivered. The rule changes still require water systems to deliver PE materials after a lead action level exceedance. A summary of the revised PE requirements for community water systems (CWS) is provided in Tables 1, 1A, 2, and 3 in Section 1.

Under the authority of the Safe Drinking Water Act, EPA set the action level for lead in drinking water at 15 ppb. This means utilities must determine whether water from the customer's tap exceeds this level in at least 10 percent of the homes sampled (i.e. 90th percentile level). If the 90th percentile level does exceed this limit, then the utility must take certain steps to correct the problem. One action a utility must take following a lead action level exceedance is to conduct public education (no public education is required if only the copper AL is exceeded).

For utilities seeking to quickly identify the basic public education requirements after a lead action level exceedance, we have developed a five page fact sheet summarizing requirements (Appendix E).

Many systems have already developed PE programs, but we believe that systems, both large and small, will find this document useful in understanding the modifications to the PE requirements resulting from the most recent LCR changes and helping them to develop more effective PE programs.

The guidance manual is divided into the following sections:

- **Introduction** provides a discussion of the health effects of lead, a brief history of the LCR regulations, and discusses the importance of conducting a thorough PE program that is grounded in strong risk communication principles.
- **Section I: PE Program Requirements** summarizes requirements that water suppliers must meet to comply with the Federal regulations and how the latest LCR rule changes have impacted these requirements.

- **Section II: Designing an Effective PE Program** suggests practical steps a water system can take to plan a PE program prior to an exceedance.
- **Section III: Implementing Your PE Program** discusses how a water system can implement their PE requirements in the event of an exceedance; details tips for preparing materials needed to effectively communicate with the public; and provides practical tips on working with the media and communicating directly with the public.

This document contains five appendices:

- **Appendix A: Frequently Asked Questions about Lead in Drinking Water**
- **Appendix B: PE Materials Templates**
- **Appendix C: Contacts/Additional Sources of Information**
- **Appendix D: Lead and Copper Rule Public Education Requirements—Federal Regulatory Language**
- **Appendix E: Lead and Copper CWS Public Education Fact Sheet**

Introduction

Reducing lead in the environment is an important public health issue. Lead, a metal found in natural deposits, is harmful to human health. The most common exposure to lead is swallowing or breathing in lead paint chips and dust. However, lead in drinking water can also be a source of lead exposure. Lead is used in some water service lines and household plumbing materials. Lead in water usually occurs through corrosion of plumbing products containing lead. Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development. EPA has taken a number of actions to limit our total exposure to lead, such as phasing out the use of lead in gasoline and banning lead based paint. As a result of EPA's actions and those of other government agencies, total exposure to lead is much lower today than in the late 1970s.

On June 7, 1991, EPA promulgated provisions to the maximum contaminant level goals (MCLGs) and NPDWRs for controlling lead and copper in drinking water (56 FR 26460). We modified this rule with four technical amendments that were published in the Federal Register on July 15, 1991 (56 FR 32113), June 29, 1992 (57 FR 28785), June 30, 1994 (59 FR 33860), and minor revisions to reduce the reporting burden were published on January 12, 2000 (65 FR 1950). Beginning in 2004, EPA conducted a national review of implementation of the Lead and Copper Rule (LCR) to determine if there was a national problem related to elevated lead levels in drinking water. Our review placed a focus on determining if the existing rule was being effectively implemented by states and local communities and on identifying where additional guidance or changes to the regulation were needed to improve implementation. During 2004, Congress held a number of oversight hearings to further investigate implementation of the LCR in the District of Columbia and the nation.

On October 10, 2007, EPA published the latest changes to the LCR. These revisions are intended to better ensure that at-risk populations receive information quickly and are able to act to reduce their exposure. It is EPA's belief that these changes will also help water systems to better comply with the PE requirements.

The LCR requires water suppliers to deliver water that is minimally corrosive, thereby reducing the likelihood that lead and copper will be introduced into the drinking water from the corrosion of lead and copper plumbing materials. In addition, it requires water suppliers to educate their customers about specific measures that can be used to reduce lead levels in home drinking water caused by lead in household plumbing materials — the primary source of lead in drinking water.

The LCR specifies that a water system must conduct a PE program on lead in drinking water if, during a monitoring period, more than 10 percent of the tap water samples collected in accordance with 40 CFR §141.86 of the regulations (i.e., the 90th percentile lead level) exceed the EPA "action level" of 15 parts per billion (ppb), or 0.015 milligrams of lead per liter of water (mg/L). Specific requirements regarding the content and delivery of PE materials are contained in §141.85 of the regulation. Section 1 of this guidance document details these requirements.

This guidance document presents practical steps and helpful tips for large and small systems to understand

their PE requirements under the LCR and to design and implement a community-based education program on lead and drinking water that reaches all segments of the population. This guidance document provides comprehensive information and includes required and suggested activities for conducting a successful PE effort. Water systems should pay particular attention to Section 1 for the specific PE requirements in the event of an exceedance. Keep in mind, water systems may already have in place a communications team or infrastructure that your PE program efforts can build upon. The key to reducing the health risks associated with lead in drinking water is communicating these risks with those who most need to hear this information and in the manner in which they are used to receiving information. A good PE program equals good risk communication.

Section 1

PE Requirements/Developing Your PE Program Plan

Conducting an effective Public Education (PE) program is essential if your system experiences a lead action level exceedance. The Lead and Copper Rule (LCR) requires specific actions in the event of an exceedance to inform the affected community about the risks associated with elevated lead levels (particularly to children and expectant or nursing mothers), to provide information on what the water system is doing to address lead in drinking water, and to advise the community on actions individuals can take to reduce their chance of exposure to elevated levels of lead in drinking water.

This section details the specific PE requirements under the LCR and presents basic steps in developing a PE Program Plan. Sections 2 and 3 go into a greater level of detail on each step in the Program Plan and strategies for implementing each step. Water systems, both large and small, should pay particular attention to the requirements outlined in Section 1 in order to meet your obligations under the LCR. (*Appendix D* of this document provides a copy of the Federal regulatory language described in this document.)

Summary of Program Requirements

This document provides guidance to you, the public water supplier, regarding the PE requirements of the LCR, as amended in 2007. Section 141.85 of the lead and copper rule regulations contain specific requirements regarding the content and delivery of your public education program. The tables below highlight the changes to the PE requirements contained in §141.85 and other public information requirements. Refer to pages 5-7 of this Section for complete program requirements.

Note: Water systems must submit all written public education materials to the state prior to delivery. The state may require the system to obtain approval of the content of written PE materials prior to delivery.

Table 1. Changes in the Public Education Requirements Resulting from the Lead and Copper Rule Short-term Revisions and Clarifications

Revisions:	Applies to:
Content of Materials	
Must alter language of previous public education according to the new text.	All water systems
May use own language to discuss sources of lead and steps to reduce lead in drinking water (previously pre-written text was required. Systems are now able to develop own text within the guidelines that is applicable to local situation).	All water systems
Must include language explaining what happened and what is being done.	All water systems
Must include language providing contacts for more information.	All water systems
Must include language explaining how to get water tested and lead in plumbing components (low lead vs. lead free).	CWSs
Delivery of Public Education Materials	
Must deliver printed materials meeting the content requirements to all bill paying customers within 60 days after the end of the monitoring period in which the exceedance occurred.	CWSs

Table 1. Changes in the Public Education Requirements Resulting from the Lead and Copper Rule Short-term Revisions and Clarifications - (continued)

Revisions:	Applies to:
Must, no less than quarterly, provide information on or in each water bill as long as the system exceeds the action level for lead after the end of the monitoring period in which the exceedance occurred.[1] The message on the water bill must include the following statement: "[Insert name of water system] found high levels of lead in drinking water in some homes. Lead can cause serious health problems. For more information please call [insert name of water system] or visit [insert your Web site here.]	CWSs
Must continue to include information in water utility bill every billing cycle, but no less frequently than quarterly, while still in exceedance of lead action level.	CWSs
Must make a good-faith effort within 60 days after the end of the monitoring period in which the exceedance occurred to contact customers most at risk by delivering materials to the contact list of organizations with an informational notice encouraging them to pass the information along.	CWSs
Must deliver materials that meet content requirements to local public health agency and directly contact the agencies within 60 days after the end of the monitoring period in which the exceedance occurred.	CWSs
Must deliver materials that meet content requirements to: - Public and private schools or school boards - Women Infants and Children (WIC) and Head Start programs - Public and private hospitals and medical clinics - Pediatricians - Family planning clinics - Local welfare agencies	CWSs
Must post material to a publicly accessible Web site within 60 days after the end of the monitoring period in which the exceedance occurred.	CWSs serving a population greater than 100,000
Must submit press release to newspaper, television, and radio stations within 60 days after the end of the monitoring period in which the exceedance occurred.	CWSs
Must repeat submission of press releases twice every 12 months while still in exceedance of lead action level.	CWSs
Must implement additional activities from one or more of the categories listed within 60 days after the end of the period in which the exceedance occurred (See Tables 2 and 3).	CWSs
May distribute notices to every household served by system in place of submitting a press release.	CWSs serving 3,300 or fewer people (previously for CWSs serving between 501 and 3,300 people)
May limit the distribution of PE materials to facilities and organizations served by the system most likely visited by pregnant women and children provided the system distributes the PE materials to every household served by the system.	CWSs serving 3,300 or fewer people
Must repeat delivering printed materials, good-faith efforts, and outreach activities every 12 months while still in exceedance of lead action level.	CWSs
May receive extension from State on 60 day requirement if needed for implementation purposes.[2]	CWSs
End of the monitoring period is September 30 of the calendar year in which sampling occurs, or, if the Primacy Agency has established an alternate monitoring period, the last day of that period.	All water systems that are required to conduct monitoring annually or less frequently

[1]The message or delivery mechanism can be modified in consultation with the Primacy Agency. Specifically, the Primacy Agency may allow a separate mailing of PE materials to customers if the water system cannot place information on the water bills.

[2]Note: This extension is only appropriate if the system has initiated public education activities prior to the end of the 60-day deadline.

Table 1A. Other Lead and Copper Rule Public Information Requirements	
Revisions:	**Applies to:**
Notification of Results – Reporting Requirements[1]	
Must provide a consumer notice of lead tap water monitoring results to all persons served by sampling sites.[2]	All water systems
Must provide consumer notice as soon as practical, but no later than 30 days after system learns of tap monitoring results.	All water systems
Must include the following information: results of lead tap water monitoring, an explanation of the health effects of lead, list steps consumers can take to reduce exposure to lead in drinking water, and contact information for the water utility. The notice must also provide the maximum contaminant level goal (MCLG) and the action level (AL) for lead and definitions for these two terms.[3]	All water systems
Must be provided to all persons served at the site by mail or other methods. This includes those who do not receive a water bill.	All water systems
Consumer Confidence Report (CCR) Requirements[4]	
Every report must include the following lead-specific information: If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. [NAME OF UTILITY] is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking[5]. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.[6,7]	All CWSs
A system may write its own statement in consultation with the Primacy Agency.	All CWSs

[1]See *Appendix C* for templates with language that meets the notification of results requirements.
[2]This must be done whether or not you have a lead action level exceedence.
[3]The MCLG is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety. The action level (AL) is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
[4]This information must be included in the CCR whether or not the CWS has had a lead action level exceedence.
[5]You may wish to, in consultation with the Primacy Agency, write your own flushing time based on the actual flushing time in your PE plan or a flushing time that is more appropriate to your system.
[6]For CWSs that have a lead action level exceedence, the new required language is in addition to what the system is required to report in the CCR. Note: All CWSs must report the number of samples above the action level and the 90th percentile value.
[7]CWSs in States where EPA is the Primacy Agency or that have adopted the Revisions by December 2008 must begin including this lead informational statement in CCRs that are due to consumers by July 1, 2009 (i.e., the 2008 CCR.) Otherwise, CWSs must begin to include this information in the 2009 CCR.

I. Required Content of Public Education Materials

Your PE notices are **required** to begin with the following statement:

> **Important Information about Lead in Your Drinking Water**
> *[Insert name of water system] found elevated levels of lead in drinking water in some homes/buildings. Lead can cause serious health problems, especially for pregnant women and young children. Please read this information closely to see what you can do to reduce lead in your drinking water.*

In addition to this statement, your PE notices are required to include, and in the order presented, the **topics which are listed below in bold** and the mandatory language which is noted below in *italics*. Additional information under the topics must be addressed in your PE materials, however, the specific content and wording is flexible. (*Appendix B* contains a template for a PE notice with the required content as well as suggested EPA language. Additional information for developing statements may be found at EPA's Lead Web site at www.epa.gov/lead).

- **Health Effects of Lead**

Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development.

- **Sources of Lead**
  - What is lead?
  - Where does the lead in drinking water come from? Include information on home/building plumbing materials and service lines that may contain lead.
  - What are other important sources of lead in addition to drinking water? (e.g., paint)

- **Steps you can take to reduce your exposure to lead in your water**
  - You must encourage running water to flush out the lead.[1]
  - You must explain concerns with using hot water and specifically caution against the use of hot water for baby formula (because lead dissolves more easily in hot water).
  - You must tell customers that boiling water does not reduce lead levels.
  - You must discuss other options customers can take to reduce exposure to lead in drinking water, such as alternative sources or treatment of water.
  - You must suggest that parents have their child's blood tested for lead.
  - You must tell customers how to get their water tested.
  - You must discuss lead in plumbing components and the difference between low lead and lead free.

[1] Consider conducting a study to determine the appropriate system specific flushing time. Consult with the Primacy Agency before designing or beginning a study. For example, a study may consist of collecting tap samples at different flushing time durations from a statistically significant number of taps. In addition, use a sample size that is different than the sample size used for the 90th percent calculation to avoid study samples from being included in the 90th percent calculation.

- **What happened? What is being done?**
  - Why are there high levels of lead in my drinking water (if known)?
  - What are you (the water system) doing to reduce the lead levels in homes in this area?
  - Does your system have lead service lines? How can a consumer find out if their home has one? Is there a program to replace it? Are there any special incentives offered?
  - Your system may also want to provide information on the history of lead levels in tap samples: have they declined substantially over time? Have they been low and risen recently? Is there a known reason for any change?

- **For more information**

Call us at [Insert Number] or (if applicable) *visit our Web site at* [Insert Web site Here]. *For more information on reducing lead exposure around your home/building and the health effects of lead, visit EPA's Web site at* ***www.epa.gov/lead****, or contact your health care provider.*

- We recommend you include the name of your system and the date that the information is being distributed, along with the state water system ID, somewhere on the notice.

II. Required Delivery Methods for Your Public Education Materials

Tables 2 and 3 provide a summary of the required PE activities and the timing of their implementation, depending on system size. (*Appendix B* contains templates for all of the types of required notices and the required content).

Table 2. Required Methods of Delivery for Small (<3,300 customers) Community Water Systems

Requirement	Timing[1]
Deliver printed materials (pamphlets, brochures, posters) along with an informational statement encouraging distribution to all potentially affected customers or users	Within 60 days after the end of the monitoring period in which the exceedance occurred and repeating once every 12 months
Deliver public education materials to the following facilities and organizations that are served by the system along with an informational notice that encourages distribution to potentially affected customers:[2] 1. Local public health agencies[3] 2. Public and private schools or school boards 3. Women Infants and Children (WIC) and Head Start programs 4. Public and private hospitals and medical clinics 5. Pediatricians 6. Family planning clinics 7. Local welfare agencies	Within 60 days after the end of the monitoring period in which the exceedance occurred and repeating once every 12 months

Table 2. Required Methods of Delivery for Small (<3,300 customers) Community Water Systems *(Continued)*

Requirement	Timing[1]
Make a good faith effort to locate the following organizations within the service area and deliver materials that meet the content requirements, along with an informational notice that encourages distribution to all potentially affected customers or users. The good faith effort to contact at-risk customers may include requesting a specific contact list of the organizations from the local public health agencies, even if the agencies are not located within the water system service area:[4] 1. Licensed childcare centers 2. Public and private preschools 3. Obstetricians-Gynecologists and Midwives	Within 60 days after the end of the monitoring period in which the exceedance occurred and CWSs must submit a press release twice every 12 months on a schedule agreed upon with the Primacy Agency
Provide information on or in each water bill (no less than quarterly or state can approve a separate mailing)[5,6]	Each billing cycle for as long as the system exceeds the lead action level
Submit press release to newspaper, television, and radio stations[7]	Within 60 days after the end of the monitoring period in which the exceedance occurred and CWSs must submit a press release twice every 12 months on a schedule agreed upon with the Primacy Agency
Implement additional Public Education activities[8]	Within 60 days after the end of the monitoring period in which the exceedance occurred and repeating once every 12 months

[1] Primacy Agency can allow activities to extend beyond the 60-day requirement if needed for implementation purposes; however, this extension must be approved in writing in advance of the 60-day deadline.
[2] To obtain a list of organizations in your area, contact your local public health agency. Additional informational resources of associations and licensing agencies of these organizations are listed in *Appendix C*.
[3] Systems are required to contact their Local Public Health Agencies directly (either in person or by phone) even if they are not located in the water system service area. If you do not have a Local Public Health Agency, you should contact your State Health Department.
[4] For further clarification of a good faith effort, systems should consult with their Primacy Agency.
[5] State may allow a separate mailing if the water system cannot place information on the water bill. Water bill language is included in *Appendix B*.
[6] Systems may add additional pages (e.g., public education brochure) to the Consumer Confidence Report if timing is appropriate. However, it may be rare that timing will coincide, given that the CCR must contain compliance data collected in the previous calendar year and the report must be provided to consumers no later than July 1 (i.e., the report issued by July 1, 2007 contains compliance data collected in calendar year 2006).
[7] Primacy Agency may waive this requirement as long as the system distributes notices to every household served by the system.
[8] See Table 4 for a listing of the additional required activities for small systems.

Table 3. Required Methods of Delivery for Large (>3,300 customers) Community Water Systems

Requirement	Timing[1]
Deliver printed materials (pamphlets, brochures, posters) to all bill paying customers	Within 60 days after the end of the monitoring period in which the exceedance occurred and repeating once every 12 months
Deliver public education materials to the following organizations that are served by the system, along with an informational notice encouraging distribution to all potentially affected customers:[2] 1. Local public health agencies[3] 2. Public and private schools or school boards 3. Women Infants and Children (WIC) and Head Start programs 4. Public and private hospitals and medical clinics 5. Pediatricians 6. Family planning clinics 7. Local welfare agencies	Within 60 days after the end of the monitoring period in which the exceedance occurred and repeating once every 12 months
Make a good faith effort to locate the following organizations within the service area and deliver materials that meet the content requirements, along with an informational notice that encourages distribution to all potentially affected customers or users. The good faith effort to contact at-risk customers may include requesting a specific contact list of the organizations from the local public health agencies, even if the agencies are not located within the water system service area:[4] 1. Licensed childcare centers 2. Public and private pre-schools 3. Obstetricians-Gynecologists and Midwives	Within 60 days after the end of the monitoring period in which the exceedance occurred and repeating once every 12 months
Provide information on or in each water bill (no less than quarterly or state can approve a separate mailing)[5,6]	Each billing cycle for as long as the system exceeds the lead action level
Post material on the water system's Web site (for systems serving >100,000 individuals) or on a publicly accessible Web site (e.g. State Web site)	Within 60 days after the end of the monitoring period in which the exceedance occurred and continuously throughout the exceedance
Submit press release to newspaper, television, and radio stations	Within 60 days after the end of the monitoring period in which the exceedance occurred and CWSs must submit a press release twice every 12 months on a schedule agreed upon with the Primacy Agency
Implement additional Public Education activities[7]	Within 60 days after the end of the monitoring period in which the exceedance occurred and repeating once every 12 months

[1] Primacy Agency can allow activities to extend beyond the 60-day requirement if needed for implementation purposes; however, this extension must be approved in writing in advance of the 60-day deadline.
[2] To obtain a list of organizations in your area, contact your local public health agency. Additional informational resources of associations and licensing agencies of these organizations are listed in *Appendix C*.
[3] Systems are required to contact their Local Public Health Agencies directly (either in person or by phone).
[4] For further clarification of a good faith effort, systems should consult with their Primacy Agency.
[5] Primacy Agency may allow a separate mailing if the water system cannot place information on the water bill. See *Appendix B* for the required water bill language.
[6] Systems may add additional pages (e.g., public education brochure) to the Consumer Confidence Report if timing is appropriate. However, it may be rare that timing will coincide, given that the CCR must contain compliance data collected in the previous calendar year and the report must be provided to consumers no later than July 1 (i.e., the report issued by July 1, 2007 contains compliance data collected in calendar year 2006).
[7] See Table 4 for a listing of the additional required activities for large systems.

In addition to the activities described previously that are required for all community water systems, there are requirements that affect water systems depending on their size. Small systems (serving <3,300 individuals) are required to conduct one (1) additional activity listed in Table 4. Large systems (serving >3,300 individuals) are required to conduct three (3) activities from one, two, or three of the general categories listed in Table 4. Systems should verify with their Primacy Agency* to ensure fulfillment of all requirements.

Table 4. Required Methods of Delivery for Community Water Systems to Choose From[1,2]

Categories	Example Activities
Public Service Announcements	Radio and Television PSAs
Paid Advertisements	Newspaper, transit, or movie theater ads
Display Information in Public Areas	Community and health centers Local sporting events Grocery stores Laundromat bulletin boards Libraries Faith-based organizations Community listservs Utility or other publicly accessible Web site (for small systems serving < 3,300)[3] Post on local government Web sites
Email to Customers	
Public Meetings	Town hall meetings PTA meetings
Delivery to Every Household	Doorknob hangers, mailing to all consumers
Individual Contact with Customers (targeted contact)	Phone trees Calls to individual consumers/households Targeted mailings to at-risk populations
Provide Materials Directly to Multi-family Housing	Posters, flyers
Other Methods Approved by the State	

[1] *Appendix B* contains customizable templates for PE materials that may be used to meet these requirements.
[2] Consult with the Primacy Agency about what constitutes a good faith effort and what activities would work for your community.
[3] Large Systems must conduct this activity (see Table 3).

*In general, the term "State" is used to mean the Primacy Agency. Section 141.2 definition of "State" is the agency of the State or Tribal government which has jurisdiction over public water systems. During any period when a State or Tribal government does not have primary enforcement responsibility pursuant to section 141.3 of the Act, the term "State" means the Regional Administrator, U.S. Environmental Protection Agency.

III. Consumer Confidence Report Required Information[1]

In addition to the required PE activities above, all CWSs must include a statement about lead, health effects language, and ways to reduce exposure in every CCR released to the public. For CWSs that have a lead action level exceedance, the new required language (see below) is in addition to what a system is required to report in the CCR. Note: All CWSs must report the number of samples above the action level and the 90th percentile value.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. [Name of utility] is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your drinking water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available form the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

Flexibility is given to CWSs to write its own informational statement, but only in consultation with the Primacy Agency. For example, the system may wish to revise the flushing time of "30 seconds to 2 minutes" if it conflicts with the flushing information in its public education materials or to add the phone number for the Safe Drinking Water Hotline (1-800-426-4791). CWSs in States where EPA is the Primacy Agency or that have adopted the Revisions by December 2008 must begin including this lead informational statement in CCRs that are due to consumers by July 1, 2009 (i.e., the 2008 CCR). Otherwise, CWSs must begin to include this information in the 2009 CCR. **Please note**, this new requirement applies to **all** CWSs irrespective of whether they have had a lead action level exceedence.

[1] Refer to *Appendix B* for sample Consumer Notification templates.

IV. Developing Your Public Education Program Plan

Meeting the requirements outlined above will require a good deal of effort on the part of a water system to implement the required activities, and within the required timeframe. The most effective way to implement these requirements it to develop a PE Program Plan in advance of an exceedance. This plan will help you determine what activities you will want to undertake during your routine monitoring and what you will need to do to implement your required PE activities in the event of an exceedance.

The flowchart below lists seven recommended steps for designing and implementing your PE Program Plan. Each step corresponds to a more detailed description included in Sections 2 and 3 of this guidance document. Page 26 includes a simple checklist of actions you may wish to conduct as you design and execute your PE Program Plan.

Public Education Flow Chart

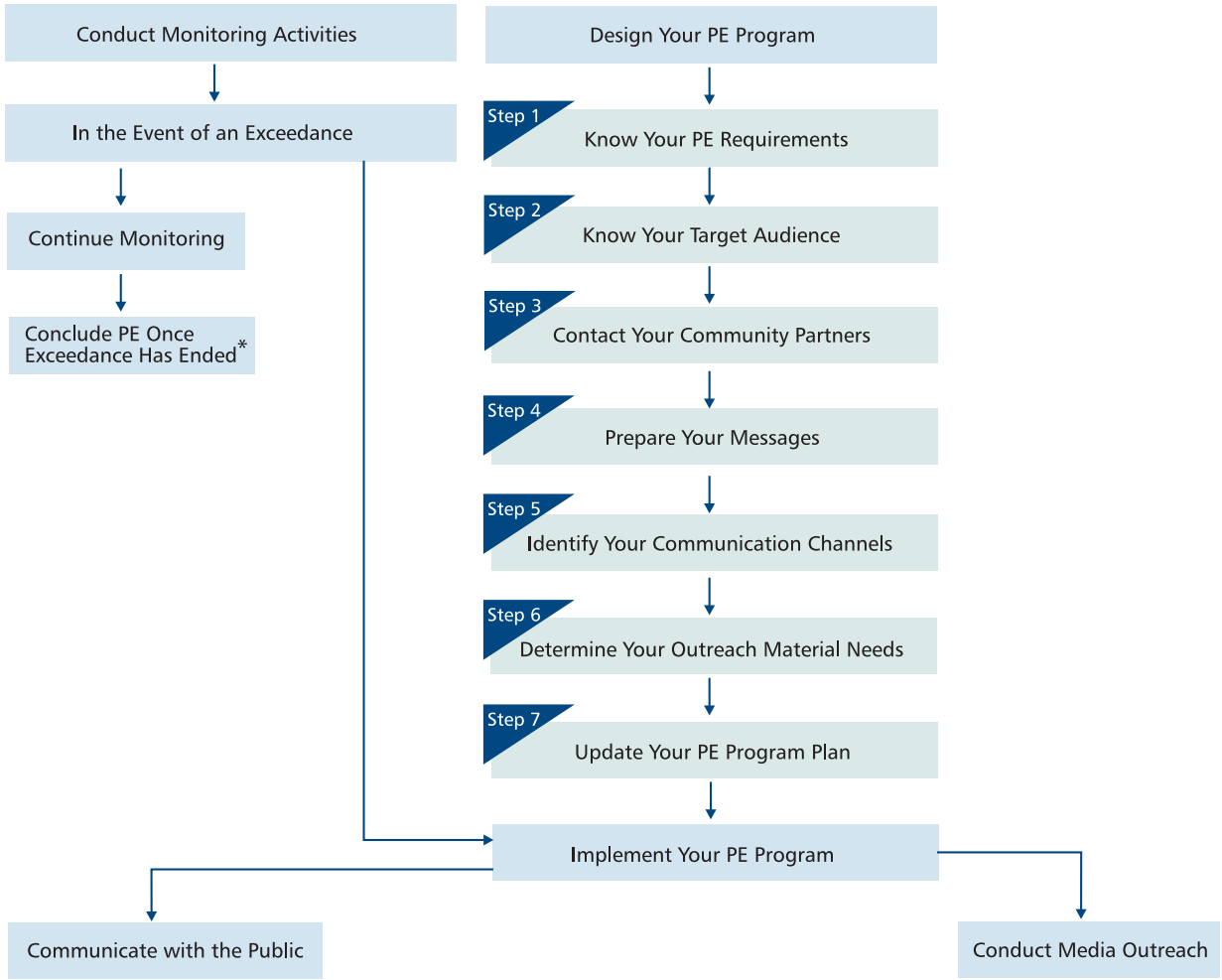

*Note: A water system may discontinue delivery of public education materials when the system has met the lead action level during the most recent six month monitoring period.

- **Step 1: Know Your PE Requirements**
  Refer to pages 8-12 of this Section to review the required content and delivery mechanisms for your PE program.

- **Step 2: Know Your Target Audience**
  Knowing who is in your target audience is an important first step. This will help guide your efforts to craft messages and materials, develop effective partnerships, and determine how (and through whom) to deliver these message and materials for maximum impact. (See Pages 17-18 to learn more about identifying your target audiences).

- **Step 3: Contact Your Community Partners**
  Once you know your requirements and who you will be contacting, develop partnerships with key members of your community who will help you distribute your messages and materials and who serve as an information source in your community (e.g. local health department). You should educate these partners about your PE requirements and PE program, ask them for advice on how to reach your target audiences, and let them know what assistance they can provide, such as quickly reaching the community and providing input in planning your PE program. **Please note that systems are required under the LCR to make direct contact with their local health departments.** (See Pages 18-21 to learn more about identifying and working with your community partners). *Appendix C* contains additional information for contacting local community partners.

- **Step 4: Prepare Your Messages**
  After identifying your audience and resources and talking with your community partners, you should identify the messages and most effective activities and delivery methods to reach your audiences. Pages 8-10 provide specific information on the delivery methods you are required to conduct. Consider the education level of your audience and use the templates in *Appendix B* to customize your PE materials (and keep in mind the required content detailed on Pages 8-9). Preparing templates ahead of time will help make compliance within the standard timelines more feasible. (See Page 21 to learn more about preparing your messages).

- **Step 5: Identify Your Communication Channels**
  Knowing what messages and delivery methods you will likely be targeting, you can contact the appropriate channels to prepare for implementation. This should include developing a list of media outlets and contacts for distributing press releases, documenting posting requirements for Web sites, and determining contact information for placing advertisements or submitting public service announcements. Work with the community partners you established in Step 3 to enlist their assistance in reaching high-risk groups, specific ethic or cultural groups, or other target audiences. (See Pages 22-23 to learn more about communication channels). *Appendix C* contains additional information for identifying communication channels.

- **Step 6: Determine Your Outreach Material Needs**
  Identify what materials you will need and what processes you will need to put in place to produce them quickly. You should determine how many copies of materials you will need, the costs for producing materials, the amount of time printers will need to produce materials, and contact information for printers, web designers, and others who will assist you in materials preparation. (See Pages 23-24 to learn more about planning your outreach material needs).

- **Step 7: Update Your PE Program Plan**
  Periodically, you should review and update your PE Program Plan. This should include updating all contacts, talking with your community partners to confirm their willingness and ability to assist you in the event of an exceedance, and determining if any new methods or ideas for reaching your target audiences are available to you. All resources and prices associated with creating and producing your PE outreach materials should also be checked and updated.

Section 2
Designing an Effective Public Education Program

This section describes the recommended steps you should consider in planning your public education (PE) program. These steps can help you design your PE program to ensure that, should your system experience an action level exceedance, you will be ready to implement PE activities quickly and effectively. Your PE Program Plan should be part of your system's larger communications plan (i.e. incorporate with your public notifications, boiling water advisories, communication planning, etc.) While the PE requirements vary somewhat by system size, the steps and tips presented below are applicable to all water systems, large and small.

This section is organized around the following key steps:

- **Step 1: Know Your PE Requirements**
- **Step 2: Know Your Audience**
- **Step 3: Contact Your Community Partners**
- **Step 4: Prepare Your Messages**
- **Step 5: Identify Your Communication Channels**
- **Step 6: Determine Your Outreach Material Needs**
- **Step 7: Update Your PE Program Plan**

Creating an effective PE program requires careful planning and timely execution. Increasingly, the public expects service providers to share health risk information in a timely and effective way. Prompt and thorough communication allows the public to understand a health risk issue and take action to minimize their personal risk until the issue is resolved. Risk information should be clear, thoughtful, and should be delivered in a manner that meets the needs of all members of your community. Waiting until a lead action level exceedance has occurred to plan your program and materials creates an unnecessary burden on your system and may result in rushed and less effective communications with your community.

TIP: An effective PE Program equals effective risk communication

There are several guidelines for effective risk communication that should be considered when designing a PE campaign.

- Take the initiative in providing information to your community.
- Plan your efforts in advance and evaluate them upon completion.
- Listen to your community members and acknowledge their concerns.
- Be a reliable source of information. Provide honest, accurate, and comprehensive information.
- Partner with trusted sources in your community.
- Provide timely and accurate information to the media.
- Always speak with a consistent voice. Designate one point of contact that can respond to the public and the media.
- Make PE materials easy to read and understand for people with differing educational levels.

Step 1: Know Your PE Requirements

Section 1 of this guidance document outlined the required activities, content, and delivery mechanisms water systems must implement in the event of a lead action level exceedance. Water systems are required to communicate with their Primacy Agency when an exceedance is identified. As part of your planning, you should identify the contact at the Primacy Agency for consultations on PE requirements. Review pages 5-13 to understand your PE requirements and see *Appendix D* for the Federal regulatory language.

Step 2: Know Your Audience

Once you have reviewed your PE program requirements, the next step is to determine the audience(s) for your PE program activities.

Identifying your key audiences and their information needs is, perhaps, the most important step that you can take when planning your program. The size, location, and cultural composition of your audiences will have a direct effect on the design of your program — from the educational materials you use to how you distribute information. Effective risk communication requires that important messages reach those who need to hear them when they are ready to hear them and in a way they can understand. In some cases, effectiveness is determined by the person communicating the message (i.e., using health care providers to educate expectant mothers) while in other cases, effectiveness is determined by the way the information is presented (i.e. through direct mailings, mass media, etc.). Whatever the case, understanding your audience and their needs is essential for determining how and where to deliver information that educates, promotes desired behaviors and actions, and creates confidence in your system's ability to deal with an exceedance.

TIP: Research your audience in advance to understand any unique requirements they may have.

- What languages are spoken in your service area?
- Within each language community, what percentage of people is also proficient in English?
- Are there large numbers of people in your service area with low literacy levels?
- Are low-literacy groups "clustered" in certain zip codes or neighborhoods?
- What sources of information do these groups trust?

Below are some of the audience segments that you must reach out to when conducting your PE Program.

- **General public.** This includes everyone in your service area that may be affected by an action level exceedance.
- **High-risk Groups.** Those particularly vulnerable to lead in drinking water exposure include children 6 years of age and younger, infants, and pregnant women. Your PE program should target agencies and organizations that serve high-risk groups, deliver materials and messages that make the risks clear, and provide actionable recommendations for how to protect oneself and ones children from the risks of lead in drinking water.
- **Different Language Communities.** If significant proportions of the population in your community speak languages other than English, the PE materials must contain information in the appropriate language(s) regarding the importance of the notice or a contact where persons can obtain a translation or assistance.
- **Low-literacy Audiences.** Some individuals in your community may possess limited reading skills. To reach these individuals, print materials must be written as simply and concisely as possible and should contain graphical representations of key messages and actions. Low-literacy groups are more likely to rely on non-print forms of communication, such as TV or radio Public Service Announcements (PSAs), to receive information about critical health topics.
- **Non-bill Paying Customers.** Some people who drink your system's water may not receive a water bill (e.g., commuters working within the water system area, but living outside of it; residents in multi-unit dwellings who may not pay for water; restaurant owners who use the water for cooking, etc.) and your system needs to establish delivery mechanisms to reach these individuals.

Sources of information about your audiences:

U.S. Census Bureau

To find information on the languages spoken in your area, see the U.S. Census Bureau's Web site, http://factfinder.census.gov. The census database includes information about literacy levels, what languages besides English are spoken at home, and the level of English proficiency. (English proficiency is important, because if a group tends to speak a language at home, but is also able to read and understand English, a notification in a second language may not be necessary.) You should also be able to find out the number of people who speak each language.

Local Media

Your local media is a good source of information about your community. It is the media's job to know the community inside and out. Media outlets have an economic need to understand how to reach various segments of the audience and typically have a mission to serve the community. These two goals mean that they are likely to know the various audience segments in your community and have contacts with key leaders within the community who have strong relationships or access to a specific subgroup. Since you should establish relationships with your media anyway (Step 3), one way to create media allies is to recognize their knowledge and ask them for valuable information about your service population.

Community and Ethnic Group Leaders

Community and ethnic group leaders can help you understand the audience segments you serve and learn about the communication channels each segment uses and trusts. These grassroots groups have a high level of contact with target demographic groups and tend to be trusted by them. Establish and maintain working alliances with these grassroots organizations so that if you need to quickly disseminate a message about the drinking water in the future, you already have channels in place to reach your diverse audience. This can demonstrate your concern for the community they serve and establish a level of trust that will increase the likelihood that they will assist you when needed.

Cultural and ethnic interest groups, churches/ mosques/ synagogues, and multicultural centers are in touch with the needs and concerns of specific racial, religious, or ethnic groups, including people who may not speak or read English. Leaders of such groups may enjoy greater trust among their constituents than water system spokespeople.

Health Care Providers

Health care providers, hospital and nursing home directors, and social service providers are a first source of information for many people, especially vulnerable populations. Health professionals are likely to be asked questions when there is an issue related to the drinking water. Establishing relationships with these professionals in advance of an action level exceedance and providing them with information on your water system's plans when an exceedance occurs will help them educate their customers and allay their concerns. *Appendix C* contains more information on identifying these resources within your community.

TIP: As you explore the resources in your community and establish relationships with potential allies, remember to ask about the key local media that each audience segment looks to for information. For example, many communities have multiple non-English radio stations, cable access television shows, and local public radio stations that may appeal to your various audience segments.

Step 3: Contact Your Community Partners

Now that you understand your PE program requirements and know your audiences, you should assemble your communication or outreach team and establish community partnerships. You may already have a communications team or person(s) that can be utilized to implement the PE program. Water systems that seek assistance from a variety of community partners to inform PE efforts and to design PE programs are more successful at implementing effective PE campaigns than those that do not. A diverse team comprised of community members representing the public, private, and civic sectors can provide your water system with: access to a wide range of community resources; understanding of the community's audience segments and the best ways to reach them; and ready-made communication channels that you can access in the event of an exceedance.

These groups can make unique and important contributions to your PE program. Government officials lend credibility and authority and can draw attention to the program. Government agencies offer a variety of specialized services and technical expertise from mobilizing community resources and media involvement to providing expertise on the health effects of lead. Schools are one of the best conduits in any community for reaching parents of young children. Community service organizations can distribute information to high-risk targeted groups; civic groups can offer valuable volunteer assistance; and the private sector can underwrite program costs as well as distribute and explain information about lead in drinking water to high-risk targeted groups.

Suggested PE Community Partners (see *Appendix C* for more information)

- City, county, and State government officials including representatives of the city, county, or municipal council; the mayor's, city administrator's, or county commissioner's office
- City or county government agencies including the public affairs, health, and environmental protection departments, and local agencies responsible for lead screening programs
- Representatives of the local public school system
- Representatives of public hospitals and/or clinics
- Representatives of community organizations that the LCR requires water systems to reach out to in the event of an exceedance (see Page 9 for a list of these organizations)
- Members of civic groups such as the Chamber of Commerce, neighborhood associations, and local chapters of community service organizations
- Private sector leaders such as child care centers, health care providers, health care facilities or clinics, and hospitals

Form your planning team and meet with them regularly to help you take action on the remaining steps presented below.

In addition to the members of your communication or outreach team, consider creating partnerships with two important groups within your community: the public health community and the media. These groups are essential avenues for quickly reaching the public. Enlist their assistance in planning your PE program so that they will be ready to assist your efforts should you have an exceedance.

TIP: Because of their interactions with your target audiences, local health professionals need to understand how a lead action level exceedance affects their constituents and patients. Public health officials may know the most effective channels for reaching your community's health providers. Discuss this in advance so that you are not trying to find every child and maternal health clinic, doctor, and nurse in your community at the same time that you are trying to solve an exceedance problem.

Partnering with the public health community

Collaborating with public health officials is crucial to developing an effective PE effort. Different parts of the health department,

including maternal and child health, community health, environmental health, and other sections, can assist in developing your materials and conducting effective outreach. Local public health agencies often know how to reach specific segments of your target audience because they may have had to conduct a similarly targeted outreach campaign before. Connecting your PE campaign effort to the health department's lead poisoning prevention, water quality, and broader environmental programs, can seed the kind of holistic lead education program that communities require. Lead in drinking water is one possible source of exposure, but there are many other sources and the public needs to think about lead health risks from every source, not just what could be in the water.

Remember that the public health community is a much larger group than just the local government agencies. Local universities, community based organizations, health care providers and insurers, nurse practitioners, and many others create the network of care that surrounds your community. You should try to access as many of these organizations as you can to determine the most effective communication channels and outreach tactics for your PE campaign. The more allies you have, the better. *Appendix C* contains additional information for identifying community partners.

Chances are that public health officials who regularly work on lead issues already have lists of contacts of health care providers, schools, child care organizations, and social service providers with close ties to women, infants, and children in your community. Learn from what they already know. Explain your role in monitoring for and communicating about lead and educate health officials and others about how lead enters drinking water, how the water system monitors for it, and steps one can take to minimize lead exposure.

TIP: Be on the lookout for opportunities to help your local media learn about the services your system provides and to recruit them as allies in your PE efforts. One successful approach is to host an annual media day where you can offer tours, explain how your system operates, and explain your lead monitoring program. The more informed your local media is about your water system, the more accurate and positive they will be when covering an exceedance and conveying information to your public.

Develop a relationship and response plan with your local health department so that you have an agreed upon process for sharing information about lead in drinking water risks and communicating with the public. Consumers may call the health department for information about the health risks described in your PE materials; if you coordinate in advance, you can ensure that, regardless of who they call, your public hears consistent messages that will help them understand the risks and how to manage them. The latest LCR revisions require that water systems must have direct contact with public health officials in the event of an exceedance. Establishing and maintaining relationships with these individuals as you plan your program will make it easier to work with these individuals in the event of an exceedance.

Partnering with the media

Your local media (print, radio, and television) can be a powerful ally in planning and executing your PE program. More than any other communication channel, the media can rapidly reach a large number of people with educational messages. Although working with the media may be challenging at times, planning ahead will help you to quickly and effectively engage them should you have an exceedance. (See Section 3 for information on working with the media during an exceedance).

Designate one person on your staff to serve as a liaison to the media. Media outlets will need to know who they can speak to about an exceedance and any ramifications for the public. In the event of an exceedance, all media inquiries should be directed to the media spokesperson. This will ensure that messages coming

from your water system are consistent and contain accurate information. As part of your system's community relations efforts, your spokesperson should meet regularly with local editors or station managers for both small and large media outlets. You should identify and meet with reporters or segment producers that deal with environment, health, and water issues to educate them about the water system, why and how you monitor the water quality, and what your program will do if a lead action level exceedance or other kind of violation occurs. The more information you can provide up front, the less likely the media will be to make errors in their coverage.

Ask your media contacts what kind of information about water quality issues they would find valuable in case of an exceedance and prepare draft materials for the media in advance. If you make it easy for the media to cover your story correctly, they are more likely to do so. If you base your draft media materials on input from the media themselves, when it is time to finalize your materials and distribute them as part of your PE campaign, the media is more likely to help you get your message out and to reinforce your messages.

Finally, as part of your planning for media engagement, identify individuals in your community (e.g. public health officials, scientists, experts from local universities, etc.) who can serve as experts for the media to contact. These individuals should be very familiar with issues related to lead in drinking water—preferably they are members of your team who you have educated thoroughly about your lead monitoring program and who know your commitment to safeguarding the public health, steps individual customers can take to protect against lead health risks, your PE Program Plan, and your plan for solving the problem.

Step 4: Prepare Your Messages

Now that you have identified your target audiences and determined what specific communication needs they might have, the next step is to prepare your PE messages. For drinking water-related issues, the public is most likely to be interested in:

- Health and safety implications. (Is my family's health in danger?)
- Simple advice and guidance. (What should I do to stay safe?)
- Practical implications, such as potential service interruptions. (How will this affect my daily life?)

Effective messages should:

- Be clear and concise.
- Be compelling, encourage action, and explain how to take action.
- Communicate the risks from all sources of lead with a particular emphasis on drinking water.
- Meet the communication needs of your entire community (See Step 2).

You do not have to wait for an exceedance to begin preparing your messages. The required PE language (as detailed in Section 1) considers the public's risk communication needs, but your system will want to customize your communications to convey actions you are taking as a system to address the exceedance. Developing your key messages and identifying materials to distribute to the public (Step 5) will ensure that, should an exceedance occur, you will be ready to deliver materials that educate your public, empower people to take action to protect their health, and build trust between you and your community.

TIP: Effective risk communication requires that any member of the affected public should know who to contact for more information and how they can learn more about lead in drinking water and lead health risks.

When you think about preparing messages, consider that doing so also allows you to train spokespersons, build Web pages, draft press releases, and create fact sheets, brochures, and other required materials before you ever have to deal with an exceedance. **Keep in mind that Section 1 contains information about the messages your PE materials are required to contain.**

Step 5: Identify Communication Channels to Get Your Message Out

The next step after determining what messages you will use in your PE Program is to identify what mechanisms you will use to get your messages out to your target audiences.

As part of your PE program, water systems that have lead action level exceedances are **required** to reach out to organizations that regularly interact with young children, infants, and pregnant women (See Section 1). This requirement is designed to help water systems find communication channels, or conduit organizations, through which they can distribute materials and educational messages to ensure that critical information reaches the most vulnerable populations as quickly as possible. You should assemble a list of organizations, contacts, and distribution plans to ensure that, when you need to implement your PE campaign, the pathways for sharing your information and reinforcing your messages are already in place.

Many of the organizations that may serve as communication channels should already be on your PE team. Those organizations that may play a role in the event of an exceedance and who are not on your team will need some specific information from you as you are establishing the relationship. Make sure all of the partners you expect to work with know:

- What to expect if an action level exceedance occurs.
- What to do with the materials that you provide them.
- How to reach the key person(s) responsible for your drinking water PE program.

Remember: To reach vulnerable populations with information about lead, water systems are **required** to conduct targeted outreach to:

- Local public health agencies
- Public/private schools or school boards
- WIC/Head Start centers
- Public/private hospitals and clinics
- Pediatricians and pediatric nurse practitioners
- Family planning clinics
- Local welfare agencies

Water systems are required to make a good faith effort to conduct targeted outreach to:

- Licensed childcare centers
- Public and private pre-schools
- Obstetricians-Gynecologists and Midwives

Appendix C contains additional information on how to locate these organizations

Tips for Planning Your Messages and Outreach

Identify Key Organizations. Identify those organizations in your community that meet the required and recommended list of organizations.

Assemble Your List and Be Ready for Action. Routinely review and update as necessary your list of target organizations. Include the name of a contact person at each school, hospital, clinic, child care provider, social service, or other organization through which you plan to distribute your PE materials. Make sure you have the address, phone number, email, and any contact information you need to quickly reach these organizations.

Assemble a spreadsheet or database to manage organizational contact information. In addition to managing the contact information for your conduit organizations and community partners, you may also want to include the name of the target population you expect that organization to help you reach. Having such a system can prove useful if you have an exceedance: you can use it to print mailing labels; organize a phone tree; and track your efforts to reach vulnerable populations, various language communities, and non-bill paying customers.

Learn from the Professionals and Recruit Advocates. Meet with your local health department officials and ask them about the most effective means of communicating to target populations in your community (see Step 3).

Educate and Learn from Your Advocates. Explain why lead is something you monitor, how you monitor, what you are required to do in the event an exceedance, how they can help you and why they should care to help you, what they can expect to receive from you in the event of an exceedance, and what you would like them to do. Ask them what they have found to be effective methods for sharing health risk information with your target audiences.

In addition to the organizations you are **required** to conduct outreach to, EPA strongly recommends that water systems also contact:

- Maternity programs/birthing classes
- Teen parent programs
- Parent teacher organizations
- Parent support organizations
- Women's shelters
- Family/general practices and nurse practitioners
- Institutes of higher education
- Local non profit health groups

In addition to these organizations that have access to high-risk populations, EPA recommends reaching out to conduit organizations that can help you to reach non-bill paying and other target audiences including:

- Citizen's assistance offices to request that they place your materials in their lobbies or waiting rooms;
- Health insurers who can include your messages in their regular communications to their provider network and members;
- Outlets that accept government payment for goods and services, such as supermarkets that take food stamps or WIC coupons;
- Low income/HUD housing where you can place posters; and
- Non-profit organizations, such as soup kitchens, religious organizations, and others, that provide services to people who may not receive a water bill.

TIP: While systems serving over 100,000 customers are **required** to provide information on their system or other publicly accessible Web site, systems of all sizes are encouraged to also utilize electronic dissemination where available.

You should also share key information and messages with all of your employees. Your system's employees are all ambassadors for the system as they go about doing their work. Keeping them well informed is critical, as they will get questions and should be prepared to address issues from your customers.

It is ideal to establish relationships and mechanisms for sharing information with such conduit organizations before an action level exceedance occurs. By coordinating with these groups, you can establish a ready-to-go plan for communication, build understanding of why information about lead in drinking water is important and why young children, infants, and pregnant women need to know about lead in drinking water, and prepare staff at these organizations to discuss lead health risks.

Step 6: Determine Your Outreach Material Needs

The next step you should take in designing your PE program is determining what materials you will provide and how you will make them available. As you are identifying how best to reach your target audiences, keep in mind any production processes that will need to occur between the time you finalize your materials and the time they are ready for distribution.

TIP: Systems should identify groups (e.g. schools or community organizations) that can translate PE materials for non-English consumers.

- Identify approximately how many copies of brochure, pamphlets, and posters you will need to print for quick distribution. Be sure to make extra copies of all materials should you need to distribute several mailings during the exceedance.
- Determine if your system has the capability, to quickly generate these materials and in the needed quantities.
- Consider financial needs and resources of outreach activities, (i.e. printing costs).

- Identify vendors in your community that can quickly reproduce the materials that you need and regularly check in with them to ensure that they can meet your needs.
- Negotiate an agreement with printers ahead of time so that you are not forced to negotiate your terms when you are under pressure to meet a deadline.
- Ask your community partners if they have the capability to assist you with preparation and production of materials.

TIP: When preparing your materials, keep in mind the variety of customers that you serve and their unique needs (Step 2). For example, your audience research will tell you if you have a large Hispanic population in your service area. You may learn from your partner organizations that many Hispanics in your community listen to specific radio stations, watch certain television programs, read particular periodicals, and convene at specific locations.

Assemble additional materials you may want to distribute with your PE materials, such as fact sheets and other supporting materials on the health effects of lead. These materials are available at no-cost from EPA's Safe Drinking Water Hotline at 1(800) 426-4791 or EPA's Web site at http://www.epa.gov/safewater/lead/index.html. In the event of an action level exceedance, you will already have the explanatory materials your consumers may ask for after receiving your notices. EPA's materials are updated periodically, so check the Web site regularly to make sure that you have the most recent versions. The Hotline also can provide phone numbers for state laboratory certification offices where consumers can get a list of labs certified to conduct lead testing.

Step 7: Update Your PE Program Plan

During the course of your monitoring activities (and if there is no exceedance), you should update your PE Program Plan periodically. Contact all of your community partners (if you have not done so on a regular basis) and determine if you have correct contact information. Update any material templates you have created (with any new information on corrosion control or other activities undertaken by your water system to control lead in drinking water). Contact all of the printers and vendors that you will use to produce your materials in the event of an exceedance. Update your local public health agencies and providers about your lead program and any activities you are taking to reduce lead and monitor drinking water supplies. Finally, contact your local media to update them on your efforts and to address any questions they may have about your systems' monitoring or corrosion control activities.

By keeping your plan updated and maintaining regular contact with your community partners and the media, you will ensure that, should you have an exceedance, you will have all of the mechanisms in place to quickly and effectively respond with your PE program.

Section 3
Implementing Your Public Education Program

A lead action level exceedance triggers the Lead and Copper Rule (LCR) requirements for Public Education (PE) and establishes a timeline for performing required activities. In most cases, your PE activities must be implemented within 60 days of the end of the monitoring period in which the exceedence occured. See Section 1 to review the specific requirements for PE if you have an exceedance.

Section 2 of this guidance document outlined the suggested steps you should take to design your PE program, prior to an exceedance. In this section, key activities for implementing your PE program are presented. These activities include:

- **Produce Your PE Materials**
- **Distribute Your PE Materials**
- **Conduct Media Outreach**
- **Communicate Directly with the Public**
- **Conclude Your PE Activities (at the End of the Exceedance)**

TIP: It is important to remember that education programs can only be effective when they are administered over time. Competing demands for people's attention—information overload—can be a significant impediment to understanding. Therefore, you should meet the initial PE requirements as soon as possible and pace your additional PE activities over several months to ensure that your public has multiple opportunities to receive your messages.

The checklist below provides the key activities your program will need to take in order to effectively implement the PE requirements and reach your key audiences. Refer to *Appendix B* for a checklist you can tear out and use as you complete your activities.

Checklist for Implementing Your PE Program

- ✓ Notify your Primacy Agency of an action level exceedance triggering your PE program.
- ✓ Notify your system's decision maker (owner or president) of the exceedance.
- ✓ Review your PE requirements (Section 1) and the timeline for delivering PE materials (see Tables 2 or 3 on Pages 8 or 9).
- ✓ Notify your communication or outreach team of the exceedance and enlist their assistance in implementing your plan.
- ✓ Inform all of your employees about your activities so that they can respond to customer questions or issues.
- ✓ Implement your phone tree and contact your conduit organizations to let them know that an exceedance has occurred and that you will be sending them materials for distribution.
- ✓ Update your PE material templates with information on the exceedance, actions you are taking to address it, and any other relevant information.
- ✓ Identify groups (e.g. schools and community organizations) that can translate PE materials for non-English consumers.
- ✓ Prepare mailing labels for conduit organizations and other dissemination mechanisms.
- ✓ Duplicate your pamphlets, flyers, posters, or other printed materials and prepare to deliver them to your customers and conduit organizations.
- ✓ Meet with representatives from your local health agency (in person or by phone) to alert them to the exceedance and provide them with materials they can distribute to the public.
- ✓ Send a press release to your local media outlets (print, TV, and radio).
- ✓ Reach out to your established media contacts and work with them to distribute your key messages.
- ✓ Coordinate with your spokesperson/spokespeople to conduct media interviews.
- ✓ Document your PE activities and report back to your Primacy Agency on completion of activities as required.
- ✓ Update your system's Web site (if applicable) to include PE materials and key messages for the public.
- ✓ Schedule and conduct public meetings as needed.
- ✓ Continue to conduct your monitoring activities as required.
- ✓ Notify the public when the action level exceedance has ended.

Produce Your PE Materials

A critical first step in implementing your PE program in the event of an exceedance is to produce the materials you have determined in your planning that you will need to distribute to your target audiences. The following information will help you finalize your materials in accordance with the LCR requirements and prepare them for quick delivery to your conduit organizations and your community.

Printed Materials

See Section 1 for a reminder of the LCR requirements for content for PE materials.

Appendix B provides template pamphlets with the mandatory language systems must provide to their customers. Note that electronic fill in the blank versions of these materials are available on the internet at www.epa.gov/safewater/lcrmr/compliancehelp.html for systems to update and customize the documents with their system-specific information.

Press Releases or Media Notices

Water systems are required to provide two press releases per year for the duration of the exceedance. (See Section 1).

Your press releases should be brief informational notices that are ready to be distributed to local press representatives. Always include the name and phone number of an informed contact so that media representatives can obtain more information and cover the issue more fully than presented in a news release. (A sample press release template is provided in *Appendix B*). When conducting your planning, ask your media contacts what would make a press release stand out to them and what they are most likely to publish so that you can plan ahead to secure media coverage in the event of an exceedance.

Tips for Creating PE Materials That Work

- **Place the most important information first.** Most readers only read the top half of printed materials and focus on large text such as headings and bolded text. The most important information, especially instructions to protect consumers' health, should be placed on the top half of the notice in large print. Smaller type is appropriate for less critical elements.
- **Limit wordiness.** A question and answer or heading and subheading format is easy to read and guides readers to the information that is likely to concern them. Risk communication studies have shown that when dealing with potential health risks, people become emotional and have difficulty processing information. The best way to help the public understand your messages is to communicate a limited number of messages and to strive for consistency of messaging across all communications media. If people hear your few, simple messages over and over again, they are more likely to accurately estimate their risks and to take the right steps to manage them.
- **Use graphics,** such as photographs or drawings, to illustrate your messages. Wherever possible, provide an image that describes the actions the public should take to protect themselves from potential health risks.
- **Highlight the name of your system,** especially where people in your area are served by more than one water system. You may also want to prepare a map showing the area you serve, especially if it extends beyond city limits. You may want to print materials on your system's letterhead which, coupled with the material's title, will help people recognize that it is important.

Material Templates

Appendix B contains templates for a variety of public education materials that your system can use to support your efforts. These templates include:

- Water Bill Insert Statement
- Brochure
- Poster
- Press Release
- Print Advertisement
- Listserv or Web site Announcement
- Public Service Announcement (text for a radio or television PSA
- Consumer Notice of Tap Water Results

Additional Materials

Table 5 contains a list of suggested materials that may be useful in conducting additional PE outreach activities.

Fact sheets - Provide basic, objective, detailed information on an issue or topic. Fact sheets can provide information about the problem, recommended consumer actions, health risks, actions being taken, and treatment goals. Fact sheets should be easily understood by the broadest spectrum of audiences.

Tip sheets and brochures – Outline specific actions residents should take. They should be clear, concise, and present the action steps in a simplified manner.

Talking points – Give water system representatives and expert spokespeople tips on communicating about the exceedance and the treatment process. The talking points highlight key messages that should be delivered to the target audience in a clear and effective manner.

Charts and illustrations – Visuals can help to convey complex messages that may be difficult to understand or to communicate textually. Examples include: the incidence of elevated lead levels in homes with and without lead service lines, and the relative numbers of homes in each category; and a "source to tap" representation of how water gets from the source to customers' taps.

Fliers – If you plan to host public meetings, fliers can be used to publicize upcoming meetings and other events. They should be translated into the most common languages spoken among the target audience.

Technical/medical materials – Doctors, nurses, clinic workers, and other health care professionals may prefer technical information about the potential health effects of lead in drinking water.

Deliver Your PE Materials

Once you have produced your PE materials, the next step is to deliver them through the various conduit organizations and communications channels that you identified in your program design (See Section 2, Step 6).

Table 5. Suggestions for Materials in Various Communications Venues

Materials	Communication Routes
Fact sheets	▸ Insert in media press kits ▸ Include in conduit organization mailings ▸ Hand out at public meetings
Tip sheets	▸ Include in conduit organization mailings ▸ Hand out at public meetings
Talking points	▸ Use for press events ▸ Use at public meeting presentations ▸ Provide to utility telephone receptionists or others taking calls from the public
Press releases	▸ Issue in advance of press events and public meetings
Charts and illustrations	▸ Provide as graphics to television stations and print media ▸ Display and distribute as handouts at public meetings ▸ Use in briefing slides or display as posters for press events and public meetings
Fliers	▸ Distribute in advance of public meetings
Public service materials	▸ Distribute PSAs to radio and television stations and print media ▸ Include in conduit organizations mailings ▸ Distribute at public meetings
Technical/ medical materials	▸ Distribute to community leaders and health care professionals

Bill Inserts

Many CWSs periodically enclose special information notices or inserts in their customers' water bills. If you already provide this service, you may choose to dedicate a particular notice to the topic of lead in drinking water. Bill inserts are relatively inexpensive to produce — especially if you already have a regular notice service. If you do not currently provide such a service, you can use the notice provided in *Appendix B*. Remember: in an exceedance you are required to provide lead information no less than quarterly on each water bill using the required language.

TIP: Remember that people who live in apartment complexes or other housing units where the water bill is paid by a landlord or a supervisor will not be on your mailing list. The landlord or supervisor for such buildings should be mailed extra bill inserts for distribution to residents.

Local Newspapers

CWSs must deliver information within 60 days after the end of the monitoring period in which the exceedance occurred and twice every 12 months on a schedule agreed upon with the Primacy Agency to editorial departments of the major daily and weekly newspapers circulated throughout the community. Newspapers are always in search of newsworthy items and will often publish feature articles based on a news release or coverage of a press conference. You should use all major daily and weekly newspapers to get your message delivered.

TIP: Under the LCR, small systems (serving 3,300 or fewer people) are no longer required to deliver PSAs. Check with your State Primacy Agency to be sure that you are exempt from this requirement.

Radio and Television Stations

Radio and television stations are a prime source of information for most people. Radio and television news programs often feature brief

spots based on a press release or coverage of a press conference. The stations also broadcast brief PSAs as a community service. In addition, they feature news briefs, special interest features, and talk shows on local issues of interest. Large CWSs should promote radio and television coverage of lead in drinking water issues as an effective way to get the message delivered to a mass audience at no cost.

Public Service Announcements

Section 141.85(b) of the regulation does not specify the minimum content of the public education language to be broadcast to customers. A PSA can be broadcast on either radio or television. A PSA is very brief (e.g., 20 seconds) and can provide far-reaching, low-cost publicity for your program. A pre-taped or written announcement can be provided to radio stations; the text for a video spot or an actual videotaped message can be provided to television stations.

TIP: The Short Term revisions to the LCR do not require water systems to produce PSAs. However, PSAs are one of the additional activities that large and small water systems can provide to meet the additional PE requirements.

EPA encourages CWSs to submit PSAs to five radio or television stations with the largest audiences in the community. If you select this method, PSAs must be submitted once every twelve months for as long as the system continues to exceed the lead action level.

Conduct Media Outreach

To help disseminate your PE messages, call on your established media contacts who already understand your mission to inform and protect the public. When you pitch messages to newspapers, TV, or radio outlets, clearly explain what information you are trying to communicate and why. Explain to the media in clear and open terms what you are required to do to communicate about an action level exceedance and make it easy for them to identify the most important information, including information that led to detection of the action level exceedance, the populations most at risk from elevated lead levels in drinking water and potential health effects, actions consumers can take to reduce their risks, and actions your water system is taking to address the problem. The easier you make it for the media to accurately cover your story, the more likely you are to get the results you want.

TIP: Whenever possible, visit your media contacts in person to request coverage.

TIP: In addition to sending the required press releases or notifications, consider:

- Offering a spokesperson to be interviewed on the air. Ideally, you have identified and prepped spokespeople to understand your program and how to deal with the pressures associated with an interview, so that they will seem calm (and not evasive or defensive).
- Writing a draft story or an op-ed for the newspaper and providing a completed draft to an editor.
- Providing radio and television programs with talking points, sources for impartial information (such as links to the EPA or CDC Web-based information on lead), contacts at the health department, and suggestions of people they can interview for a story.
- Providing statistics, charts, graphics (photographs, video footage, drawings, maps) along with your text to make it easy for different types of media to broadcast your story.

When you send press releases or notices to radio and TV stations and newspapers, write "PRESS RELEASE FOR DRINKING WATER NOTICE" at the top of the notice to emphasize its importance and ensure that it will be printed or aired in a timely manner.

Don't be upset if a media story isn't exactly as you would want it, but politely tell a reporter if a significant piece of information is wrong or missing so that they can get the correct information out to the public.

If a newspaper will not publish a story or press release, you may want to consider buying space to print the notice in its entirety, though it is not required. You should buy an advertisement as close

to the front of the paper as possible and make it large enough that people will easily see it. Your initial planning should have determined if this may be a concern and if you should budget for purchasing advertisement space.

Communicate Directly with the Public

Effective PE campaigns can minimize the chances of overreaction to an action level exceedance and can help focus your community's attention on the source of a problem. A robust PE campaign that explains what an exceedance means and the specific steps you are taking to address the issue can be an excellent public relations tool. Such a campaign will help to create a partnership between you and your customers that demonstrates your commitment to providing safe water and reduces the prevalence of the "us versus them" mentality.

Quickly distributing the required and recommended materials to all your target populations will help reduce the chance that people will become alarmed and overreact to information about an exceedance. If you have planned your distribution of materials through communication channels and partners effectively and established close relationships with conduits, your materials should reach your community promptly and educate them about the issue.

Tips for Working with the Media

- Be truthful and up-front about local water quality issues and the exceedance.
- Don't be defensive when answering questions.
- Answer questions as well as you can, but don't be afraid to say that you need to check on something if there is a question you can't answer (and once you find the information, quickly report back on what you've found).
- Keep in mind that reporters are not familiar with State or Federal requirements for safe drinking water - avoid technical jargon!
- Provide additional sources of information (for instance, referrals to State contacts, local experts, or EPA fact sheets).
- Be sensitive to the fact that reporters may be working on tight deadlines.
- Provide a list of the elements that the media must address to adequately inform the public about potential risks and how to manage them.

Public Meetings

In addition to distributing messages and materials to your community, public meetings are an effective avenue for directly communicating with your audiences about the exceedance and your activities to address it. Well advertised public meetings provide a forum where the public can ask questions and meet individuals responsible for addressing the lead issue. Many public meeting formats and styles are available. A few options are described below.

Speakers' forums feature formal presentations by a speaker or group of speakers, with questions taken during or after their presentations. This format ensures that the message is specific and that everyone receives the same message, and offers the greatest control over the content, flow, and outcome of the event. However, it allows limited interaction with the audience, with the exception of a brief question and answer period, and therefore restricts the amount of public feedback received.

In **round table discussions,** the public is given an opportunity to present their opinion or ask questions in a facilitated discussion. This format can be a facilitated open dialogue among all participants, or small group discussions between members of the public with facilitators or experts moderating the conversations. Like testimony, round table discussions can offer a great deal of interaction and opinion sharing, and are a good way to gauge public opinion. Likewise, planners have little control over the content. All participants may not receive the same message, especially where multiple conversations take place simultaneously.

Open houses are a one-on-one information exchange format, where experts sit at tables or booths and the public is invited to talk to them, share their concerns, and ask questions. Written materials can be available

for the public to take with them. In this informal format, the public can "digest" what they want, either a brief, direct answer to a question or detailed information. All participants do not receive the same message (i.e., what they learn depends on what they ask). While there is no way to anticipate the content of topics raised, this approach offers more control than other open forums because the exchange is one-on-one, not across a large group.

Availability sessions combine structured speakers forums and open houses. Prior to formal presentations, speakers are available to talk to people and answer questions. The structured presentations offer an opportunity to disseminate the message as planned. The one-on-one interaction supplements the formal information exchange by giving citizens an opportunity to ask questions or speak to an involved party about their concerns. This dialog also can help the speakers anticipate questions or concerns that may be raised in front of reporters and a large audience.

Conclude Your PE Activities at the End of the Exceedance

Your public education program is required to provide ongoing messages until the action level exceedance has ended. This continued education effort will keep your public informed about any continuing issues related to lead in drinking water and keep them abreast of progress your system is making toward resolving the problem. Once the issue has been resolved, continue to provide the public information about lead in drinking water. Your Consumer Confidence Report is an opportunity to provide ongoing education to your customers about the importance of addressing lead in drinking water and your program's monitoring and education activities. (See Section 1 for required language for use in CCRs.)

After the exceedance has ended, conducting follow-up focus group testing with your customers can help to ensure that the messages in your materials were received as intended and that all target audiences understood your materials. The results of such an analysis can help mold future efforts and guide you on areas where you may want to refine your planning.

Considerations for Public Meetings

Meeting planning is an involved process that requires many detailed steps.

- Public meetings should be held as soon as possible following an exceedance. The availability of newsworthy information generates public interest and increases the likelihood of a high turnout at meetings. Proper spacing of the meetings over time is important to keep the media and public interested in the issue.
- Scheduling of public meetings should take into consideration other events that could pose conflicts, such as the school calendar (e.g., start of school, vacations), other community meetings, holidays, or other events of importance to the target audience.
- Meeting site selection should be based on attracting the greatest variety of interested audience segments. Meetings should be geographically distributed throughout the community. Selecting locations that are convenient to large numbers of people in certain groups can increase interest and boost media coverage geared to those groups.
- Proper publicity is a crucial planning step for each public event, because a high turnout is needed to ensure the widest distribution of the message. A few outreach considerations for public meetings are:
  - Where target populations are clustered in a few apartment communities, meeting notices should be posted on bulletin boards, in hallways, laundry rooms, and other public areas; placed as advertisements or articles in community newsletters; or be advertised through mailings to each apartment.
  - Local elected officials should be invited, and receive "courtesy calls" in advance of any public advertising.
  - Translators should be provided at meetings held in areas with significant non-English speaking populations. Provide sign-language interpreters for the hearing impaired.

Media surveys can assess how well the information was reported by television and radio stations and the press. Media coverage can be monitored by reviewing the Web sites of local media outlets, or purchasing the services of media surveillance firms. Relevant information includes the frequency of stories, the media through which they were reported, and the content of the stories (e.g., whether the most important facts were covered or if any erroneous information was reported).

Polling citizens can directly gauge their opinion of the outreach by determining citizens' awareness of the exceedance, how they perceived the information, where they received the information, and if they were satisfied with and could understand it. The telephone is the most common polling avenue, however, phone polls should be undertaken and interpreted with caution, as the subjects of a phone survey may not include low income residents with no telephone (door-to-door surveys are an option in these areas). Pollsters should be able to speak all of the languages represented in the service area. Your conduit organizations should be surveyed as well.

Conclusion

The steps outlined in this guidance document and the tips provided are designed to provide you with all of the background you need to design and implement an effective PE program. Following the guidance provided will allow you to reach out to all members of your community, including those that are the most vulnerable to adverse health effects from lead exposure, with messages and delivery methods that meet your community's diverse communication needs. The partnerships you create with your local media, public health community, and other key partners can serve as important ties for all of your work, regardless of whether your system experiences an exceedance. Most importantly, the guidance provided in this document establishes an effective framework for communicating with your public about the many issues your water system addresses.

Appendix A

Frequently Asked Questions

Lead in Drinking Water – Frequently Asked Questions Template*

What are the Sources of Lead?

Lead is a common metal found in the environment. Drinking water is one possible source of lead exposure. The main sources of lead exposure are lead-based paint and lead-contaminated dust or soil, and some plumbing materials. In addition, lead can be found in certain types of pottery, pewter, brass fixtures, and cosmetics. Other sources of lead include exposures in the work place and exposure from certain hobbies (lead dust can be carried on clothing and shoes.) Lead is found in some toys, some playground equipment, and some children's metal jewelry. Everyone, especially children, should be encouraged to regularly wash their hands to reduce lead dust exposure.

Why is there lead in my drinking water?

Lead is not usually found in water that comes from wells or water treatment plants. More commonly lead can enter drinking water when the water comes in contact with plumbing materials such as lead pipes or lead solder, or when it comes in contact with faucets, valves, and other components made of brass (brass may have lead in it). This interaction is referred to as corrosion.

Even though your public water supplier may deliver water that meets all federal and state standards for lead, you may end up with elevated lead levels in your drinking water because of the plumbing in your home.

What is the water system doing about it?

Our water system is working to educate the public about steps for reducing exposure to lead in drinking water and the health risks associated with exposure to lead. In addition, our water system is conducting a number of activities aimed at reducing high lead levels and possible exposures. For example [insert information on your system's corrosion control program; lead service line replacement efforts; and/or other activities you are undertaking to reduce lead in drinking water in your community.]

What can I do to make my water safer?

Flush your pipes before drinking, and only use cold water for cooking and drinking. The more time water has been sitting in your home's pipes, the more lead it may contain. Anytime the water in a particular faucet has not been used for six hours or longer, "flush" your cold-water pipes by running the water until it becomes as cold as it will get. This could take as little as five to thirty seconds if there has been recent heavy water use such as showering or toilet flushing. Otherwise, it could take two minutes or longer. Your water utility will inform you if longer flushing times are needed to respond to local conditions. Please note that flushing may not be effective in high-rise buildings.

> **TIP:** If you are considering replacing lead containing plumbing fixtures, keep in mind that plumbing fixtures labeled lead-free may have up to 8% lead.

Use only water from the cold-water tap for drinking, cooking, and especially for making baby formula. Hot water is likely to contain higher levels of lead.

You may also consider using a lead reducing filter tested and certified by an independent third party for such ability per the standards set by NSF International.

* **Note**: These questions and answers are provided to water systems to help address the types of questions that may arise from customers during implementation of a PE Program. This information or the language above should not be used as a substitute for the mandatory content required under the LCR, as outlined in Section 1.

What will lead do to me or my family?

Lead is a toxic metal that is harmful to human health when it is ingested or inhaled. The greatest risk it to infants, young children, and pregnant women. Small amounts slow down normal mental development in growing children and alter the development of other organs and systems. The effects of lead on the brain are associated with lowered IQ in children. Adults with kidney problems and high blood pressure are more likely to be affected by low levels of lead than the general population. Lead is stored in the bones allowing it to be released even after exposure stops. The presence in bone increases the concern for exposure at all points of the life cycle.

EPA estimates that 10 to 20 percent of human exposure to lead may come from lead in drinking water. Infants who consume mostly formula prepared with tap water can receive 40 to 60 percent of their exposure to lead from drinking water.

Does boiling water remove lead?

No, boiling water does not remove lead. Boiling water can concentrate lead levels and increase the amount of lead in water.

If I boil water for making formula, will it increase or remove lead?

Boiling water will concentrate lead levels, which can increase the amount of lead in the water. Always flush your faucet and use water from the cold water tap when making formula.

Why can't I use hot water from the tap for drinking, cooking, or making baby formula?

Hot water dissolves lead more quickly than cold water and is therefore more likely to contain greater amounts of lead. Never use water from the hot water tap for drinking, cooking, or making baby formula.

Will my filter remove lead?

Some filters can remove lead from drinking water. If you use a filter, be sure to get one that is tested and certified by an independent third party per the standards developed by NSF International. Be sure to maintain and replace a filter device in accordance with the manufacturer's instructions to protect water quality.

My neighbors got their water tested and found lead. Is my water safe/are my test results accurate?

Each home should be tested separately for lead. Lead usually gets into drinking water through contact with plumbing materials such as lead pipes or lead solder, or faucets, valves, and fixtures made of brass (brass contains some lead). Since each home has different plumbing pipes and materials, test results are likely to be different for each home.

Can I get my water tested for lead?

Yes. EPA recommends testing your water for lead by a certified laboratory; lists are available from your state or local drinking water authority. Testing costs between $20 and $100. Since you cannot see, taste, or smell lead dissolved in water, testing is the only sure way of telling whether there are elevated levels of lead in your drinking water. You should be particularly suspicious if your home has lead pipes (lead is a dull gray metal that is soft enough to be easily scratched with a house key), if you see signs of corrosion (frequent leaks, rust-colored water, stained dishes or laundry), or if your non-plastic plumbing is less than five years old. Your water supplier may have useful information, including whether the service connector used in your home or area is made of lead. Testing is especially important in high-rise buildings where flushing may not be effective.

What do you mean when you say the Action Level has been exceeded?

The action level for lead is a level at which the regulatory agency is concerned about corrosion and requires water systems to take additional steps to protect users of the water. Our water system is required to notify the public when our test results show levels of lead above the 15 ppb action level in >10% of samples collected.

Is there anything else I can do beyond flushing my tap or buying bottled water?

Test your water first to determine whether your water has elevated levels of lead. If there is lead in your water, you may want to consider buying a water filter to lower lead levels. Replacing pipes and fixtures with products certified against NSF/ANSI Standard 61 can lower lead levels. In addition, be sure to clean all water outlet screens regularly to remove small sediments that may contain lead.

Where can I get more information on lead?

For more information, visit ***www.epa.gov/lead*** or call EPA's Safe Drinking Water Hotline at 1-800-426-4791. Your state or local public health department will also be able to provide information about lead.

Appendix B

Public Education Material Templates*

- Checklist for Implementing Your PE Program
- General Public Education Notice and ListServ/Email Announcement
- Web site Announcement
- Public Service Announcement
- Water Bill Statement/Insert
- Press Release
- Brochure
- Poster
- Consumer Notice of Tap Water Results

*Customizable versions of these templates are available for download at: http://www.epa.gov/safewater/lcrmr/compliancehelp.html

Checklist for Implementing Your PE Program

- ☐ Notify your Primacy Agency of an action level exceedance triggering your PE program.
- ☐ Notify your system's decision maker(s) of the exceedance.
- ☐ Review your PE requirements (Section 1) and the timeline for delivering PE materials (see Tables 2 or 3 on Pages 8 or 9).
- ☐ Notify your communication or outreach team of the exceedance and enlist their assistance in implementing your plan.
- ☐ Inform all of your employees about your activities so that they can respond to customer questions or issues.
- ☐ Implement your phone tree and contact your conduit organizations to let them know that an exceedance has occurred and that you will be sending them materials for distribution.
- ☐ Update your PE material templates with information on the exceedance, actions you are taking to address it, and any other relevant information.
- ☐ Identify groups (e.g. schools and community organizations) that can translate PE materials for non-English consumers.
- ☐ Prepare mailing labels for conduit organizations and other dissemination mechanisms.
- ☐ Duplicate your pamphlets, flyers, posters, or other printed materials and prepare to deliver them to your customers and conduit organizations.
- ☐ Meet with representatives from your local health agency (in person or by phone) to alert them to the exceedance and provide them with materials they can distribute to the public.
- ☐ Send a press release to your local media outlets (print, TV, and radio).
- ☐ Reach out to your established media contacts and work with them to distribute your key messages.
- ☐ Coordinate with your spokesperson/spokespeople to conduct media interviews.
- ☐ Document your PE activities and report back to your Primacy Agency on completion of activities as required.
- ☐ Update your system's Web site (if required) to include PE materials and key messages for the public.
- ☐ Schedule and conduct public meetings as needed.
- ☐ Continue to conduct your monitoring activities as required.
- ☐ Notify the public when the action level exceedance has ended.

*Customizable versions of these templates are available for download at: http://www.epa.gov/safewater/lcrmr/compliancehelp.html

General Public Education Notice and ListServ/Email Announcement Template

The following language meets the revised PE requirements under the 2007 short-term revisions and clarifications to the Lead and Copper Rule (LCR). **Your notice must include the topic areas in bold below**. Anything in italics under each topic area is required language and cannot be changed while anything in regular text must be covered, but you have the flexibility to use either the suggested language or your own words to cover these topics.

Your notice must begin with the following opening statement (though you have the option to include a title of the pamphlet or brochure of your choosing):

IMPORTANT INFORMATION ABOUT LEAD IN YOUR DRINKING WATER

[Insert name of water system] found elevated levels of lead in drinking water in some homes/buildings. Lead can cause serious health problems, especially for pregnant women and children 6 years and younger. Please read this notice closely to see what you can do to reduce lead in your drinking water.

Health Effects of Lead

Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development.

Sources of Lead

Lead is a common metal found in the environment. Drinking water is one possible source of lead exposure. The main sources of lead exposure are lead-based paint and lead-contaminated dust or soil, and some plumbing materials. In addition, lead can be found in certain types of pottery, pewter, brass fixtures, food, and cosmetics. Other sources include exposure in the work place and exposure from certain hobbies (lead can be carried on clothing or shoes). Lead is found in some toys, some playground equipment, and some children's metal jewelry.

Brass faucets, fittings, and valves, including those advertised as "lead-free," may contribute lead to drinking water. The law currently allows end-use brass fixtures, such as faucets, with up to 8 percent lead to be labeled as "lead free."

[Insert utility specific information describing your community's source water – e.g. "The source of water from XX Reservoir does not contain lead" or "Community X does not have any lead in its source water or water mains in the street."] When water is in contact with pipes [or service lines] or plumbing that contains lead for several hours, the lead may enter drinking water. Homes built before 1988 are more likely to have lead pipes or lead solder.

EPA estimates that 10 to 20 percent of a person's potential exposure to lead may come from drinking water. Infants who consume mostly formula mixed with lead-containing water can receive 40 to 60 percent of their exposure to lead from drinking water.

Don't forget about other sources of lead such as lead paint, lead dust, and lead in soil. Wash your children's hands and toys often as they can come into contact with dirt and dust containing lead.

*Customizable versions of these templates are available for download at: http://www.epa.gov/safewater/lcrmr/compliancehelp.html

Steps You Can Take To Reduce Your Exposure To Lead In Your Water

1. **Run your water to flush out lead.** Run water for 15-30 seconds to flush lead from interior plumbing [or insert a different flushing time if your system has representative data indicating a different flushing time would better reduce lead exposure in your community and if the State Primacy Agency approves the wording] or until it becomes cold or reaches a steady temperature before using it for drinking or cooking, if it hasn't been used for several hours. [It is likely that systems with lead service lines will need to collect data to determine the appropriate flushing time for lead service lines.][1]
2. **Use cold water for cooking and preparing baby formula.** Do not cook with or drink water from the hot water tap; lead dissolves more easily into hot water. Do not use water from the hot water tap to make baby formula.
3. **Do not boil water to remove lead.** Boiling water will not reduce lead.
4. **Look for alternative sources or treatment of water.** You may want to consider purchasing bottled water or a water filter. Read the package to be sure the filter is approved to reduce lead or contact NSF International at 800-NSF-8010 or **www.nsf.org** for information on performance standards for water filters. Be sure to maintain and replace a filter device in accordance with the manufacturer's instructions to protect water quality.
5. **Test your water for lead.** Call us at [insert phone number for your water system] to find out how to get your water tested for lead. [Include information on your water system's testing program. For example, do you provide free testing? Are there labs in your area that are certified to do lead in water testing?]
6. **Get your child's blood tested.** Contact your local health department or healthcare provider to find out how you can get your child tested for lead if you are concerned about exposure.
7. **Identify and replace plumbing fixtures containing lead.** Brass faucets, fittings, and valves, including those advertised as "lead-free," may contribute lead to drinking water. The law currently allows end-use brass fixtures, such as faucets, with up to 8% lead to be labeled as "lead free." Visit the Web site at **www.nsf.org** to learn more about lead-containing plumbing fixtures.

What Happened? What is Being Done?

[Insert information about how and when the exceedance was discovered in your community and provide information on the source(s) of lead in the drinking water, if known.]

[Insert information about what your system is doing to reduce lead levels in homes in your community.]

[Insert information about lead service lines in your community, how a consumer can find out of they have a lead service line, what your water system is doing to replace lead service lines, etc.]

[Insert information about the history of lead levels in tap water samples in your community. For example, have they declined substantially over time? Have they been low and risen recently? Is there a known reason for any lead level changes?]

For More Information

Call us at [Insert Number] (if applicable) *or visit our Web site at* [insert Web site Here]. *For more information on reducing lead exposure around your home/building and the health effects of lead, visit EPA's Web site at* ***www.epa.gov/lead*** *or contact your health care provider.*

[We recommend you include the name of your system and the date that the information is being distributed, along with the state water system ID, somewhere on the notice.]

[1]The bracketed language does not need to be included, as worded, in your materials. It is designed to alert systems that, where applicable, lead service lines might affect the flushing time.

*Customizable versions of these templates are available for download at: http://www.epa.gov/safewater/lcrmr/compliancehelp.html

General Public Education Notice and ListServ/Email Announcement Template (Spanish)

The following language meets the revised PE requirements under the 2007 short-term revisions and clarifications to the Lead and Copper Rule (LCR). **Your notice must include the topic areas in bold below.** Anything in *italics* under each topic area is required language and cannot be changed while anything in regular text must be covered, but you have the flexibility to use either the suggested language or your own words to cover these topics.

Your notice must begin with the following opening statement (though you have the option to include a title of the pamphlet or brochure of your choosing):

INFORMACIÓN IMPORTANTE ACERCA DEL PLOMO EN SU AGUA POTABLE

[Insert name of water system] ha encontrado altos niveles de plomo en el agua potable de algunos domicilios y edificios. El plomo puede causar serios problemas a la salud, especialmente a las mujeres encintas y a los niños de 6 años o menores. Por favor lea esta información atentamente para ver qué puede hacer para reducir el plomo en su agua potable.

Efectos del plomo en la salud

El plomo puede causar serios problemas de salud si cantidades excesivas provenientes del agua potable, u otras fuentes, se introducen en su cuerpo. Puede dañar al cerebro y a los riñones y también puede interferir en la producción de glóbulos rojos que transportan oxígeno a todas las partes de su cuerpo. El riesgo más serio de exposición al plomo es para los infantes, los niños de baja edad y las mujeres encintas. Los científicos han conectado los efectos del plomo en el cerebro con coeficientes de inteligencia más reducidos en los niños. Niveles bajos de plomo tienen un mayor efecto en los adultos con problemas de riñón y de alta presión sanguínea que en los adultos sanos. El plomo se almacena en los huesos y puede ser dispersado más tarde en la vida. Durante el embarazo, el bebé recibe plomo proveniente de los huesos maternos lo cual puede afectar el desarrollo de su cerebro.

Fuentes del plomo

El plomo es un metal común que se encuentra en el medio ambiente. El agua potable es una posible fuente de exposición al plomo. Las fuentes principales de exposición al plomo radican en la pintura con plomo, la tierra o el polvo contaminado con plomo y ciertos materiales de fontanería. Además, el plomo puede encontrarse en ciertos tipos de cerámica, peltre, accesorios de latón, alimentos y de productos cosméticos. Otras fuentes de exposición incluyen el lugar de trabajo y la exposición asociada con ciertos pasatiempos (es posible transportar plomo en la ropa o los zapatos). El plomo se halla en algunos juguetes, equipos de parques infantiles y en ciertas joyas metálicas para niños.

Los grifos, los accesorios y las válvulas de latón, inclusive las que se anuncian estar "sin plomo," pueden contribuir al plomo en el agua potable. En la actualidad la ley permite que los accesorios de uso final de latón, tales como los grifos, cuyo tenor puede tener hasta 8 por ciento de plomo, puedan etiquetarse "sin plomo."

[Insert utility specific information describing your community's source water – e.g. "The source of water from XX Reservoir does not contain lead" or "Community X does not have any lead in its source water or water mains in the street."] Cuando el agua entra en contacto con tuberías [o líneas de servicio] o con fontanería que contiene plomo y durante varias horas, el plomo puede introducirse en el agua potable. Las casas construidas antes de 1988 suelen tener tuberías de plomo o soldaduras de plomo.

La EPA calcula que de 10 a 20 por ciento de la exposición posible de una persona al plomo puede provenir del agua potable. Los infantes que consumen mayormente fórmula para bebés mezclada con agua que contiene plomo pueden ingerir con el agua potable hasta entre 40 y 60 por ciento de su exposición al plomo.

No se olvide que existen otras fuentes de plomo tales como la pintura con contenido de plomo, el polvo de plomo y el plomo en la tierra. Lave las manos de sus hijos y los juguetes a menudo ya que pueden entrar en contacto con el polvo y la suciedad que contienen plomo.

Medidas que usted puede emprender para reducir su exposición al plomo en el agua

1. **Deje correr el agua para eliminar el plomo.** Deje correr el agua unos 15 a 30 segundos, si no se ha utilizado en varias horas, para eliminar el plomo de la fontanería interior [or insert a different flushing time if your system has representative data indicating a different flushing time would better reduce lead exposure in your community and if the State Primacy Agency approves the wording] o hasta que se enfríe o alcance una temperatura constante antes de utilizar el agua para beber o cocinar. [It is likely that systems with lead service lines will need to collect data to determine the appropriate flushing time for lead service lines.][1]
2. **Utilice agua fría para cocinar y para preparar la fórmula para bebés.** No cocine ni beba agua del grifo de agua caliente ya que el plomo se disuelve más fácilmente en agua caliente. No utilice el grifo de agua caliente para preparar la fórmula para bebés.
3. **No hierva el agua para eliminar plomo.** El agua hervida no reduce el plomo.
4. **Busque otras fuentes o formas de tratar el agua.** Usted puede comprar agua en botellas o un filtro de agua. Lea el embalaje para cerciorarse de que el filtro está aprobado para reducir el plomo, o póngase en contacto con NSF International, marcando el 800-NSF-8010 ó visite www.nsf.org para más información sobre las normas de rendimiento de los filtros de agua. Asegúrese de mantener y de reemplazar el dispositivo filtrante conforme a las instrucciones del fabricante para proteger la calidad del agua.
5. **Pida que se analice su agua para saber si tiene plomo.** Llámenos al [insert phone number for your water system] para saber cómo obtener un análisis del plomo en su agua. [Include information on your water system's testing program. For example, do you provide free testing? Are there labs in your area that are certified to do lead in water testing?]
6. **Pida un análisis de la sangre de sus hijos.** Póngase en contacto con el departamento de salud de su zona o con su proveedor de atención médica para saber cómo puede obtener un análisis de sangre de su hijo si es que le preocupa una posible exposición.
7. **Identifique y reemplace el equipo de fontanería que contenga plomo.** Los grifos, los accesorios y las válvulas de latón, inclusive las que se anuncian estar "sin plomo", pueden contribuir al plomo en el agua potable. En la actualidad la ley permite que los accesorios de uso final de latón, tales como los grifos, cuyo tenor puede tener hasta 8 por ciento de plomo, puedan etiquetarse "sin plomo". Visite el sitio Internet en ***www.nsf.org*** para aprender más acerca de los equipos de fontanería que contienen plomo.

¿Que pasó? ¿Qué se está haciendo?

[Insert information about how and when the exceedance was discovered in your community and provide information on the source(s) of lead in the drinking water, if known.]

[Insert information about what your system is doing to reduce lead levels in homes in your community.]

[insert information about lead service lines in your community, how a consumer can find out if they have a lead service line, what your water system is doing to replace lead service lines, etc.]

[Insert information about the history of lead levels in tap water samples in your community. For example, have they declined substantially over time? Have the been low and risen recently? Is there a known reason for any lead level changes?]

Para más información

Llámenos al [Insert Number] (if applicable) *ó visite nuestro sitio Internet* [insert Web site Here]. *Para más información sobre la reducción de la exposición al plomo en su hogar/edificio y los efectos del plomo, visite el sitio Internet de EPA en* ***www.epa.gov/lead*** *o póngase en contacto con su proveedor de atención médica.*

[We recommend you include the name of your system and the date that the information is being distributed, along with the water system ID, somewhere on the notice.]

Web Site Announcement Template

Large community water systems (serving greater than 100,000 people) are **required** to provide a Public Education notice on a publicly accessible Web site. The following language can serve as an announcement on the Web site, but to meet the revised PE requirements under the 2007 short-term revisions and clarifications to the Lead and Copper Rule (LCR), large CWSs should include a link to their General Public Education Notice, which includes all of the required language. Refer to page 45 of this Appendix for the General Public Education Notice template. Small systems are also encouraged to utilize electronic information dissemination where available.

IMPORTANT INFORMATION ABOUT LEAD IN YOUR DRINKING WATER

[Insert name of your water system] found elevated levels of lead in drinking water in some homes/buildings in our community. Lead can cause serious health problems, especially for pregnant women and children 6 years and younger. Please read the following notice [insert link to Public Education Notice] closely to see what you can do to reduce lead in your drinking water and to learn what [Insert name of your water system] is doing to address this problem.

Call us at [insert your water system phone number] for more information Date [Insert the date posted]

[Provide your system's General Public Education Notice here or link to it within your Web site.]

Web Site Announcement Template (Spanish)

Large community water systems (serving greater than 100,000 people) are required to provide a Public Education notice on a publicly accessible Web site. The following language can serve as an announcement on the Web site, but to meet the revised PE requirements under the 2007 short-term revisions and clarifications to the Lead and Copper Rule (LCR), large CWSs should include a link to their General Public Education Notice, which includes all of the required language. Refer to page 47 of this Appendix for the General Public Education Notice template. Small systems are also encouraged to utilize electronic information dissemination where available.

INFORMACIÓN IMPORTANTE ACERCA DEL PLOMO EN SU AGUA POTABLE

[Insert name of your water system] ha encontrado altos niveles de plomo en el agua potable de algunos domicilios y edificios en su comunidad. El plomo puede causar serios problemas a la salud, especialmente a las mujeres encintas y a los niños de 6 años o menores. Por favor lea el siguiente aviso [insert link to Public Education Notice] detenidamente y aprenda qué puede hacer para reducir el plomo en su agua potable y qué hace [Insert name of your water system] para resolver este problema.

Llámenos a [insert your water system phone number] para más información - Fecha [Insert the date posted]

[Provide your system's General Public Education Notice here or link to it within your Web site.]

*Customizable versions of these templates are available for download at: http://www.epa.gov/safewater/lcrmr/compliancehelp.html

Public Service Announcement Template

The latest revisions to the LCR do not require water systems to produce Public Service Announcements. However, Public Service Announcements are one of the additional activities that large and small water systems can produce to meet the additional PE requirements (see Table 3). Although you should include the following information, which is consistent with the PE requirements under the 2007 short-term revisions and clarifications to the Lead and Copper Rule (LCR), the media outlets may opt to not include all of the information.

IMPORTANT INFORMATION ABOUT LEAD IN YOUR DRINKING WATER

[Insert name of water system] found elevated levels of lead in drinking water in some homes/buildings in our community. Lead can cause serious health problems, especially for pregnant women and children 6 years and younger.

Lead is a common metal found in the environment. Drinking water is one possible source of lead exposure. The main sources of lead exposure are lead-based paint and lead-contaminated dust or soil.

The following are some of the steps you can take to reduce your exposure to lead in your water including:

- **Run your water for 15 – 30 seconds to flush out lead.** [Or insert a different flushing time if your system has representative data indicating a different flushing time would better reduce lead exposure in your community and if the Primacy Agency approves the wording]
- **Use cold water for cooking and preparing baby formula.**
- **Do not boil water to remove lead.**

Call [insert name of your water system] at [insert number] (if applicable) or visit our Web site at [insert Web site Here] to find out how to get your water tested for lead or for more information. For more information on reducing lead exposure around your home/building and the health effects of lead, visit EPA's Web site at ***www.epa.gov/lead*** *or contact your health care provider.*

This notice is brought to you by [insert the name of your water system]. State Water System ID# [insert your water system's ID number] Date [Insert the date distributed]

*Customizable versions of these templates are available for download at: http://www.epa.gov/safewater/lcrmr/compliancehelp.html

Public Service Announcement Template (Spanish)

The latest revisions to the LCR do not require water systems to produce Public Service Announcements. However, Public Service Announcements are one of the additional activities that large and small water systems can produce to meet the additional PE requirements (see Table 3). Although you should include the following information, which is consistent with the PE requirements under the 2007 short-term revisions and clarifications to the Lead and Copper Rule (LCR), the media outlets may opt to not include all of the information.

INFORMACIÓN IMPORTANTE ACERCA DEL PLOMO EN SU AGUA POTABLE

[Insert name of your water system] ha encontrado altos niveles de plomo en el agua potable de algunos domicilios y edificios en su comunidad. El plomo puede causar serios problemas a la salud, especialmente a las mujeres encintas y a los niños de 6 años o menores.

El plomo es un metal común que se encuentra en el medio ambiente. El agua potable es una posible fuente de exposición al plomo. Las fuentes principales de la exposición al plomo radican en la pintura que contiene plomo, la tierra o el polvo contaminado con plomo y ciertos materiales de fontanería.

A continuación siguen unos cuantos pasos para ayudarle a reducir su exposición al plomo en el agua, inclusive:

- **Deje correr el agua para 15 - 30 segundos para eliminar el plomo.** [Or insert a different flushing time if your system has representative data indicating a different flushing time would better reduce lead exposure in your community and if the Primacy Agency approves the wording.]
- **Utilice agua fría para cocinar y para preparar la fórmula para bebés.**
- **No hierva el agua para eliminar plomo.**

Llame a [insert name of your water system] marcando el [insert number] (si aplica) o visite nuestro sitio Internet en [insert Web site Here] para aprender cómo pedir un análisis de plomo en su agua o para más información. Para más información sobre la reducción de la exposición al plomo en su hogar/edificio y los efectos del plomo, visite el sitio Internet de EPA en ***www.epa.gov/lead*** *o póngase en contacto con su proveedor de atención médica.*

Esta notificación le ha sido entregada por [insertar el nombre de su sistema de aguas]. Número de identificación del sistema de aguas del estado [insert your water system's ID number] Fecha [Insert the date distributed]

Press Release Template

The revisions to the LCR PE **require** systems to provide two press releases per year during a lead action level exceedance. For small systems, the Primacy Agency can waive this requirement if the system provides a notice to each household. The following template contains information that is consistent with the LCR requirements. Providing local information, quotes from a local water system and/or public health official, and information about actions your system is taking to address the exceedance can help the media to accurately convey information about the exceedance and your system's action steps. Please note, media outlets may choose not to include all of the information that you provide in your Press Release.

PRESS RELEASE DRINKING WATER NOTICE

IMPORTANT INFORMATION ABOUT LEAD IN [INSERT NAME OF YOUR COMMUNITY] DRINKING WATER

Recent drinking water quality monitoring conducted by *[insert name of water system/community] has found elevated levels of lead in drinking water in some homes/buildings in* [insert name of community or area served by your water system]. Although the primary sources of lead exposure are lead-based paint and lead-contaminated dust or soil, the U.S. Environmental Protection Agency estimates that 10 to 20 percent of a person's potential exposure to lead may come from drinking water.

[Insert name of community] is concerned about the health of their residents because *lead can cause serious health problems if too much enters your body from drinking water or other sources, especially for pregnant women and children 6 years and younger. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development.*

[Insert information about what happened and what is being done? You may wish to include information about the exceedance and the history of lead levels in tap water samples in your community. For example, have they declined substantially over time? Have they been low and risen recently? Is there a known reason for any lead level changes? Explain the steps being taken to reduce lead levels, such as corrosion control treatment and/or lead service line replacement.]

There are steps you can take to reduce your exposure to lead in your water:

- **Run your water to flush out lead.** Run water for 15-30 seconds to flush lead from interior plumbing or until it becomes cold or reaches a steady temperature before using it for drinking or cooking, if it hasn't been used for several hours. [It is likely that systems with lead service lines will need to collect data to determine the appropriate flushing time for lead service lines.][1]
- **Use cold water for cooking and preparing baby formula.**
- **Do not boil water to remove lead.** Boiling water will not reduce lead.
- **Look for alternative drinking water sources or treatment of water.** You may want to consider purchasing bottled water or a water filter.
- **Test your water for lead.** Call us at [insert phone number for your water system] to find out how to get your water tested for lead.

[1]The bracketed language does not need to be included, as worded, in your materials. It is designed to alert systems that, where applicable, lead service lines might affect the flushing time.
*Customizable versions of these templates are available for download at: http://www.epa.gov/safewater/lcrmr/compliancehelp.html

- **Get your child's blood tested.** Contact your local health department or healthcare provider to find out how you can get your child tested for lead if you are concerned about exposure.
- **Identify and replace plumbing fixtures containing lead.**

There are several actions that [insert name of water system of community] are taking to address this lead in drinking water concern. [Insert a quote from a water system official letting the public know what actions the system is taking to address the lead action level exceedance or insert a list of action steps.]

Call [insert name of your water system] at [insert number] (if applicable) or visit [insert name of your water system] Web site at [insert Web site Here] to find out how to get your water tested for lead or for more information on steps [insert name of your water system] is taking to address the lead action level exceedance. For more information on reducing lead exposure around your home/building and the health effects of lead, visit EPA's Web site at ***www.epa.gov/lead*** *or contact your health care provider.*

[We recommend you include the name of your system and the date that the information is being distributed, along with the state water system ID, somewhere on the notice.]

Press Release Template (Spanish)

The revisions to the LCR PE **require** systems to provide two press releases per year during a lead action level exceedance. For small systems, the Primacy Agency can waive this requirement if the system provides a notice to each household. The following template contains information that is consistent with the LCR requirements. Providing local information, quotes, from a local water system and/or public health official, and information about actions your system is taking to address the exceedance can help the media to accurately convey information about the exceedance and your system's action steps. Please note, media outlets may choose not to include all of the information that you provide in your Press Release.

COMUNICADO DE PRENSA PARA EL AVISO SOBRE EL AGUA POTABLE

INFORMACIÓN IMPORTANTE SOBRE EL PLOMO EN EL AGUA POTABLE DE [INSERT NAME OF YOUR COMMUNITY]

El monitoreo reciente de la calidad del agua potable realizado por [*insert name of water system/community*] ha encontrado altos niveles de plomo en el agua potable de algunos hogares/edificios de [*insert name of community or area served by your water system*]. Aunque las fuentes principales de exposición al plomo radican en la pintura con plomo o en la tierra o el polvo contaminados con plomo, la Agencia de Protección del Medio Ambiente (Environmental Protection Agency, o EPA por sus siglas en inglés) de los Estados Unidos calcula que de 10 a 20 por ciento de la posible exposición al plomo de una persona puede provenir del agua potable.

La salud de sus residentes es de gran importancia para [Insert name of community] debido a que el *plomo puede causar serios problemas de salud si su cuerpo recibe demasiado plomo proveniente del agua potable u otras fuentes, especialmente en el caso de las mujeres encintas y de los niños de 6 años o menores. Puede dañar al cerebro y a los riñones e interferir en la producción de glóbulos rojos que transportan oxígeno a todas las partes de su cuerpo. Los científicos han conectado los efectos del plomo en el cerebro con coeficientes de inteligencia más reducidos en los niños. Niveles bajos de plomo tienen un mayor efecto en los adultos con problemas de riñón y de alta presión sanguínea que en los adultos sanos. El plomo se almacena en los huesos y puede ser dispersado más tarde en la vida. Durante el embarazo, el bebé recibe plomo proveniente de los huesos maternos lo cual puede afectar el desarrollo de su cerebro.*

[Insert information about what happened and what is being done? You may wish to include information about the exceedance and the history of lead levels in tap water samples in your community. For example, have they declined substantially over time? Have they been low and risen recently? Is there a known reason for any lead level changes?] Explain the steps being taken to reduce lead levels, such as corrosion control treatment and/or lead service line replacement.]

Existen pasos que usted puede seguir para reducir su exposición al plomo en el agua:

- **Deje correr el agua para eliminar el plomo.** Deje correr el agua unos 15 a 30 segundos, si no se ha utilizado en varias horas, para eliminar el plomo de la fontanería interior o hasta que se enfríe o alcance una temperatura constante antes de utilizar el agua para beber o cocinar. [It is likely that systems with lead service lines will need to collect data to determine the appropriate flushing time for lead service lines.][1]
- **Utilice agua fría para cocinar y para preparar la fórmula para bebés.**
- **No hierva el agua para eliminar plomo.** El agua hervida no reduce el plomo.

[1]The bracketed language does not need to be included, as worded, in your materials. It is designed to alert systems that, where applicable, lead service lines might affect the flushing time.

[*]Customizable versions of these templates are available for download at: http://www.epa.gov/safewater/lcrmr/compliancehelp.html

- **Busque otras fuentes o formas de tratar el agua.** Usted puede comprar agua en botellas o un filtro de agua.
- **Pida que se analice su agua para saber si tiene plomo.** Llámenos al [insert phone number for your water system] para saber cómo obtener un análisis del plomo en su agua.
- **Pida un análisis de la sangre de sus hijos.** Póngase en contacto con el departamento de salud de su zona o con su proveedor de atención médica para saber cómo puede obtener un análisis de sangre de su hijo si es que le preocupa una posible exposición.
- **Identifique y reemplace el equipo de fontanería que contenga plomo.**

Existen varias medidas que [insert name of water system of community] ha emprendido para resolver este tema del plomo en el agua potable. [Insert a quote from a water system official letting the public know what actions the system is taking to address the lead action level exceedance or insert a list of action steps.]

Llame a [insert name of your water system] marcando el [insert number] (si aplica) o visite el sitio Internet de [insert name of your water system] en [insert Web site Here] para aprender cómo puede pedir un análisis del plomo en su agua o para más información sobre los pasos que emprende [insert name of your water system] para resolver la excedencia del nivel de acción para el plomo. Para más información sobre la reducción de la exposición al plomo en su hogar/edificio y los efectos del plomo, visite el sitio Internet de EPA en ***www.epa.gov/lead*** o póngase en contacto con su proveedor de atención médica.

[We recommend you include the name of your system and the date that the information is being distributed along with the state water system ID, somewhere on the notice.]

Water Bill Language/Insert Template

The following paragraph includes language that meets the LCR PE requirements and must be included in water bill notification in the event of a lead action level exceedance; however, you should consult with the Primacy Agency because the rule allows the Primacy Agency to allow alternate message content and delivery mechanisms. Please note, the following statement may be placed directly on the water bill itself or included as an insert.

IMPORTANT INFORMATION ABOUT LEAD IN YOUR DRINKING WATER

[Insert name of your water system] found high levels of lead in drinking water in some homes. Lead can cause serious health problems. For more information, please call [insert name and phone number of water system] or visit [insert your Web site].

Water Bill Language/Insert Template (Spanish)

The following paragraph includes language that meets the LCR PE requirements and must be included in water bill notification in the event of a lead action level exceedance; however, you should consult with the Primacy Agency because the rule allows the Primacy Agency to allow alternate message content and delivery mechanisms. Please note, the following statement may be placed directly on the water bill itself or included as an insert.

INFORMACIÓN IMPORTANTE ACERCA DEL PLOMO EN SU AGUA POTABLE

[Insert name of your water system] ha encontrado altos niveles de plomo en el agua potable de algunos hogares. El plomo puede tener graves consecuencias para la salud. Para más información, por favor llame a [insert name and phone number of water system] ó visite [insert your Web site].

Public Education Brochure

4. Look for alternative sources or treatment of water. You may want to consider purchasing bottled water or a water filter. Read the package to be sure the filter is approved to reduce lead or contact NSF International at 800-NSF-8010 or www.nsf.org for information on performance standards for water filters. Be sure to maintain and replace a filter device in accordance with the manufacturer's instructions to protect water quality.

5. Test your water for lead. Call us at [insert phone number for your water system] to find out how to get your water tested for lead. [Include information on your water system's testing program. For example, do you provide free testing? Are there labs in your area that are certified to do lead in water testing?]

6. Get your child's blood tested. Contact your local health department or healthcare provider to find out how you can get your child tested for lead, if you are concerned about exposure.

7. Identify and replace plumbing fixtures containing lead. New brass faucets, fittings, and valves, including those advertised as "lead-free," may contribute lead to drinking water. The law currently allows end-use brass fixtures, such as faucets, with up to 8% lead to be labeled as "lead-free."

WHAT HAPPENED? WHAT IS BEING DONE?

[Insert information about how and when the exceedance was discovered in your community and provide information on the source(s) of lead in the drinking water, if known.]

[Insert information about what your system is doing to reduce lead levels in homes in your community.]

[Insert information about lead service lines in your community, how a consumer can find out of they have a lead service line, what your water system is doing to replace lead service lines, etc.]

[Insert information about the history of lead levels in tap water samples in your community. For example, have they declined substantially over time? Have they been low and risen recently? Is there a known reason for any lead level changes?]

FOR MORE INFORMATION

Call us at [Insert Number] (if applicable) or visit our Web site at [insert Web site Here]. For more information on reducing lead exposure around your home/building and the health effects of lead, visit EPA's Web site at www.epa.gov/lead, or contact your health care provider.

[We recommend you include the name of your system and the date that the information is being distributed, along with the state water system ID, somewhere on the notice.]

Lead in Drinking Water

The United States Environmental Protection Agency (EPA) and **[insert name of water supplier here]** are concerned about lead in your drinking water. Although most homes have very low levels of lead in their drinking water, some homes in the community have lead levels above the EPA action level of 15 parts per billion (ppb), or 0.015 milligrams of lead per liter of water (mg/L). Under Federal law we are required to have a program in place to minimize lead in your drinking water by **[insert date when corrosion control will be completed for your system]**.

This program includes:

1. Corrosion control treatment (treating the water to make it less likely that lead will dissolve into the water);
2. Source water treatment (removing any lead that is in the water at the time it leaves our treatment facility); and
3. A public education program.

We are also required to replace the portion of each lead service line that we own if the line contributes lead concentrations of more than 15 ppb after we have completed the comprehensive treatment program. If you have any questions about how we are carrying out the requirements of the lead regulation please give us a call at **[insert water system's phone number here]**.

This brochure also explains the simple steps you can take to protect yourself by reducing your exposure to lead in drinking water.

Important Information about Lead in Your Drinking Water

[Insert name of water system] found elevated levels of lead in drinking water in some homes/buildings. Lead can cause serious health problems, especially for pregnant women and young children. Please read this information closely to see what you can do to reduce lead in your drinking water.

HEALTH EFFECTS OF LEAD

Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development.

SOURCES OF LEAD

Lead is a common metal found in the environment. Drinking water is one possible source of lead exposure. The main sources of lead exposure are lead-based paint and lead-contaminated dust or soil, and some plumbing materials. In addition, lead can be found in certain types of pottery, pewter, brass fixtures, food, and cosmetics. Other sources include exposure in the work place and exposure from certain hobbies (lead can be carried on clothing or shoes). Lead is found in some toys, some playground equipment, and some children's metal jewelry.

Brass faucets, fittings, and valves, including those advertised as "lead-free," may contribute lead to drinking water. The law currently allows end-use brass fixtures, such as faucets, with up to 8 percent lead to be labeled as "lead-free."

[CWS – Insert utility specific information describing your community's source water – e.g. "The source of water from XX Reservoir does not contain lead" or "Community X does not have any lead in its source water or water mains in the street."] When water is in contact with pipes [or service lines], and plumbing containing lead for several hours, the lead may enter drinking water. Homes built before 1988 are more likely to have lead pipes or lead solder.

EPA estimates that 10 to 20 percent of a person's potential exposure to lead may come from drinking water. Infants who consume mostly formula mixed with lead-containing water can receive 40 to 60 percent of their exposure to lead from drinking water.

Don't forget about other sources of lead such as lead paint, lead dust, and lead in soil. Wash your children's hands and toys often as they can come into contact with dirt and dust containing lead.

STEPS YOU CAN TAKE TO REDUCE YOUR EXPOSURE TO LEAD IN YOUR WATER

1. Run your water to flush out lead. Run water for 15-30 seconds to flush lead from interior plumbing [or insert a different flushing time if your system has representative data indicating a different flushing time would better reduce lead exposure in your community and if the State Primacy Agency approves the wording] or until it becomes cold or reaches a steady temperature before using it for drinking or cooking, if it hasn't been used for several hours. [It is likely that systems with lead service lines will need to collect data to determine the appropriate flushing time for lead service lines.][1]

2. Use cold water for cooking and preparing baby formula. Do not cook with or drink water from the hot water tap; lead dissolves more easily into hot water. Do not use water from the hot water tap to make baby formula.

3. Do not boil water to remove lead. Boiling water will not reduce lead.

[1]The bracketed language does not need to be included, as worded, in your materials. It is designed to alert systems that, where applicable, lead service lines might affect the flushing time.

*Customizable versions of these templates are available for download at: http://www.epa.gov/safewater/lcrmr/compliancehelp.html

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los filtros de agua. Asegúrese de mantener y de reemplazar el dispositivo filtrante conforme a las instrucciones del fabricante para proteger la calidad del agua.

5. Pida que se analice su agua para saber si tiene plomo. Llámenos al [insert phone number for your water system] para saber cómo obtener un análisis del plomo en su agua. [Include information on your water system's testing program. For example, do you provide free testing? Are there labs in your area that are certified to do lead in water testing?]

6. Pida un análisis de la sangre de sus hijos. Póngase en contacto con el departamento de salud de su zona o con su proveedor de atención médica para saber cómo puede obtener un análisis de sangre de su hijo si es que le preocupa una posible exposición.

7. Identifique y reemplace el equipo de fontanería que contenga plomo. Los grifos, los accesorios y las válvulas de latón, inclusive las que se anuncian estar "sin plomo", pueden contribuir al plomo en el agua potable. En la actualidad la ley permite que los accesorios de uso final de latón, tales como los grifos, cuyo tenor puede tener hasta 8 por ciento de plomo, puedan etiquetarse "sin plomo". Visite el sitio Internet en www.nsf.org para aprender más acerca de los equipos de fontanería que contienen plomo.

¿QUE PASÓ? ¿QUÉ SE ESTÁ HACIENDO?

[Insert information about how and when the exceedance was discovered in your community and provide information on the source(s) of lead in the drinking water, in known.]

[Insert information about what your system is doing to reduce lead levels in homes in community.]

[Insert information about lead service lines in your community, how a consumer can find out if they have a lead service line, what your water system is doing to replace lead service lines, etc.]

[Insert information about the history of lead levels in tap water samples in your community. For example, have they declined substantially over time? Have they been low and risen recently? Is there a known reason for any lead level changes?]

PARA MÁS INFORMACIÓN

Llámenos al [Insert Number] (if applicable) ó visite nuestro sitio Internet [insert Web site Here]. Para más información sobre la reducción de la exposición al plomo en su hogar/edificio y los efectos del plomo, visite el sitio Internet de EPA en www.epa.gov/lead o póngase en contacto con su proveedor de atención médica

[We recommend you include the name of your system and the date that the information is being distributed, along with the water system ID, somewhere on the notice.]

Plomo en el Agua Potable

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

[You may add your logo here.]

El plomo en su agua potable es un tema importante para la Agencia de Protección del Medio Ambiente (Environmental Protection Agency, o EPA por sus siglas en inglés) y [**insert name of water supplier here**]. Aunque el nivel de plomo es muy bajo en el agua potable de la mayoría de hogares, algunos domicilios en la comunidad tienen niveles de plomo que exceden el nivel de acción de EPA de 15 partes por mil millones (ppb), es decir 0,015 miligramos de plomo por litro de agua (mg/L). En virtud de la ley federal, debemos implementar un programa que minimice el plomo en su agua potable antes de [**insert date when corrosion control will be completed for your system**].

Este programa incluye:

1. un tratamiento de control de la corrosión (el agua tratada evita mejor que el plomo se disuelva en el agua);
2. el tratamiento del agua de origen (eliminación del plomo en el agua cuando sale de nuestra instalación de tratamiento); y
3. un programa de educación pública.

También debemos reemplazar la parte de cada línea de servicio de plomo de la que somos propietarios cuando dicha línea contribuye concentraciones de plomo que exceden 15 pbb tras realizar el programa de tratamiento integral. Si tiene cualquier pregunta sobre nuestra forma de cumplir con los requisitos del reglamento sobre el plomo no dude en llamarnos al [**insert water system's phone number here**].

Este folleto también explica pasos sencillos que usted puede emprender para protegerse al reducir la exposición al plomo en el agua potable.

INFORMACIÓN IMPORTANTE ACERCA DEL PLOMO EN SU AGUA POTABLE
[Insert name of water system] ha encontrado altos niveles de plomo en el agua potable de algunos domicilios y edificios. El plomo puede causar serios problemas a la salud, especialmente a las mujeres encintas y a los niños pequeños. Se ruega lea esta información atentamente para ver qué puede hacer para reducir el plomo en su agua potable.

EFECTOS DEL PLOMO EN LA SALUD

El plomo puede causar serios problemas de salud si cantidades excesivas provenientes del agua potable, u otras fuentes, se introducen en su cuerpo. Puede dañar al cerebro y a los riñones e interferir en la producción de glóbulos rojos que transportan oxígeno a todas las partes de su cuerpo. El riesgo más serio de exposición al plomo es para los infantes, los niños de baja edad y las mujeres encintas. Los científicos han conectado los efectos del plomo en el cerebro con coeficientes de inteligencia más reducidos en los niños. Niveles bajos de plomo tienen un mayor efecto en los adultos con problemas de riñón y de alta presión sanguínea que en los adultos sanos. El plomo se almacena en los huesos y puede ser dispersado más tarde en la vida. Durante el embarazo, el bebé recibe plomo proveniente de los huesos maternos lo cual puede afectar el desarrollo de su cerebro.

FUENTES DEL PLOMO

El plomo es un metal común que se encuentra en el medio ambiente. El agua potable es una posible fuente de exposición al plomo. Las fuentes principales de exposición al plomo radican en la pintura con plomo, la tierra o el polvo contaminado con plomo y ciertos materiales de fontanería. Además, el plomo puede encontrarse en ciertos tipos de cerámica, peltre, accesorios de latón, alimentos y de productos cosméticos. Otras fuentes de exposición incluyen el lugar de trabajo y la exposición asociada con ciertos pasatiempos (es posible transportar plomo en la ropa o los zapatos). El plomo se halla en algunos juguetes, equipos de parques infantiles y en ciertas joyas metálicas para niños.

Los grifos, los accesorios y las válvulas de latón, inclusive las que se anuncian estar "sin plomo", pueden contribuir al plomo en el agua potable. En la actualidad la ley permite que los accesorios de uso final de latón, tales como los grifos, cuyo tenor puede tener hasta 8 por ciento de plomo, puedan etiquetarse "sin plomo".

[Insert utility specific information describing your community's source water – e.g. "The source of water from XX Reservoir does not contain lead" or "Community X does not have any lead in its source water or water mains in the street."] Cuando el agua entra en contacto con tuberías [o líneas de servicio] o con fontanería que contiene plomo y durante varias horas, el plomo puede introducirse en el agua potable. Las casas construidas antes de 1988 suelen tener tuberías de plomo o soldaduras de plomo.

La EPA calcula que de 10 a 20 por ciento de la exposición posible de una persona al plomo puede provenir del agua potable. Los infantes que consumen mayormente fórmula para bebés mezclada con agua que contiene plomo pueden ingerir con el agua potable hasta entre 40 y 60 por ciento de su exposición al plomo.

No se olvide que existen otras fuentes de plomo tales como la pintura con contenido de plomo, el polvo de plomo y el plomo en la tierra. Lave las manos de sus hijos y los juguetes a menudo ya que pueden entrar en contacto con el polvo y la suciedad que contienen plomo.

MEDIDAS QUE USTED PUEDE EMPRENDER PARA REDUCIR SU EXPOSICIÓN AL PLOMO EN EL AGUA

1. Deje correr el agua para eliminar el plomo. Deje correr el agua unos 15 a 30 segundos, si no se ha utilizado en varias horas, para eliminar el plomo de la fontanería interior [or insert a different flushing time if your system has representative data indicating a different flushing time would better reduce lead exposure in your community and if the State Primacy Agency approves the wording] o hasta que se enfríe o alcance una temperatura constante antes de utilizar el agua para beber o cocinar. [It is likely that systems with lead service lines will need to collect data to determine the appropriate flushing time for lead service lines.][1]

2. Utilice agua fría para cocinar y para preparar la fórmula para bebés. No cocine ni beba agua del grifo de agua caliente ya que el plomo se disuelve más fácilmente en agua caliente. No utilice el grifo de agua caliente para preparar la fórmula para bebés.

3. No hierva el agua para eliminar plomo. El agua hervida no reduce el plomo.

4. Busque otras fuentes o formas de tratar el agua. Usted puede comprar agua en botellas o un filtro de agua. Lea el embalaje para cerciorarse de que el filtro está aprobado para reducir el plomo, o póngase en contacto con NSF International, marcando el 800-NSF-8010 ó visite www.nsf.org para más información sobre las normas de rendimiento de

[1]The bracketed language does not need to be included, as worded, in your materials. It is designed to alert systems that, where applicable, lead service lines might affect the flushing time.

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Public Education Poster

Important Information about Lead in Your Drinking Water

[Insert name of water system] found elevated levels of lead in drinking water in some homes/buildings. Lead can cause serious health problems, especially for pregnant women and young children. Please read this information closely to see what you can do to reduce lead in your drinking water.

Health Effects of Lead

Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development.

Sources of Lead

Lead is a common metal found in the environment. Drinking water is one possible source of lead exposure. The main sources of lead exposure are lead-based paint and lead-contaminated dust or soil, and some plumbing materials. In addition, lead can be found in certain types of pottery, pewter, brass fixtures, food, and cosmetics. Other sources include exposure in the work place and exposure from certain hobbies (lead can be carried on clothing or shoes). Lead is found in some toys, some playground equipment, and some children's metal jewelry.

Brass faucets, fittings, and valves, including those advertised as "lead-free," may contribute lead to drinking water. The law currently allows end-use brass fixtures, such as faucets, with up to 8 percent lead to be labeled as "lead-free."

[CWS–Insert utility specific information describing your community's source water – e.g. "The source of water from XX Reservoir does not contain lead" or "Community X does not have any lead in its source water or water mains in the street."] When water is in contact with pipes [or service lines], and plumbing containing lead for several hours, the lead may enter drinking water. Homes built before 1988 are more likely to have lead pipes or lead solder.

EPA estimates that 10 to 20 percent of a person's potential exposure to lead may come from drinking water. Infants who consume mostly formula mixed with lead-containing water can receive 40 to 60 percent of their exposure to lead from drinking water. Don't forget about other sources of lead such as lead paint, lead dust, and lead in soil. Wash your children's hands and toys often as they can come into contact with dirt and dust containing lead.

Steps You Can Take to Reduce Exposure to Lead in Water

1. Run your water to flush out lead. Run water for 15-30 seconds to flush lead from interior plumbing [or insert a different flushing time if your system has representative data indicating a different flushing time would better reduce lead exposure in your community and if the State Primacy Agency approves the wording] or until it becomes cold or reaches a steady temperature before using it for drinking or cooking, if it hasn't been used for several hours. [It is likely that systems with lead service lines will need to collect data to determine the appropriate flushing time for lead service lines.][1]

2. Use cold water for cooking and preparing baby formula. Do not cook with or drink water from the hot water tap; lead dissolves more easily into hot water. Do not use water from the hot water tap to make baby formula.

3. Do not boil water to remove lead. Boiling water will not reduce lead.

4. Look for alternative sources or treatment of water. You may want to consider purchasing bottled water or a water filter. Read the package to be sure the filter is approved to reduce lead or contact NSF International at 800-NSF-8010 or **www.nsf.org** for information on performance standards for water filters. Be sure to maintain and replace a filter device in accordance with the manufacturer's instructions to protect water quality.

5. Test your water for lead. Call us at [insert phone number for your water system] to find out how to get your water tested for lead. [Include information on your water system's testing program. For example, do you provide free testing? Are there labs in your area that are certified to do lead in water testing?]

6. Get your child's blood tested. Contact your local health department or healthcare provider to find out how you can get your child tested for lead, if you are concerned about exposure.

7. Identify and replace plumbing fixtures containing lead. Brass faucets, fittings, and valves, including those advertised as "lead-free," may contribute lead to drinking water. The law currently allows end-use brass fixtures, such as faucets, with up to 8% lead to be labeled as "lead-free."

What happened? What is being done?

[Insert information about how and when the exceedance was discovered in your community and provide information on the source(s) of lead in the drinking water, if known.]

[Insert information about what your system is doing to reduce lead levels in homes in your community.]

[Insert information about lead service lines in your community, how a consumer can find out of they have a lead service line, what your water system is doing to replace lead service lines, etc.]

[Insert information about the history of lead levels in tap water samples in your community. For example, have they declined substantially over time? Have they been low and risen recently? Is there a known reason for any lead level changes?]

For More Information

Call us at [Insert Number] (if applicable) or visit our Web site at [insert Web site Here]. For more information on reducing lead exposure around your home/building and the health effects of lead, visit EPA's Web site at www.epa.gov/lead, or contact your health care provider.

[We recommend you include the name of your system and the date that the information is being distributed, along with the state water system ID, somewhere on the notice.]

[1]The bracketed language does not need to be included, as worded, in your materials. It is designed to alert systems that, where applicable, lead service lines might affect the flushing time.

*Customizable versions of these templates are available for download at: http://www.epa.gov/safewater/lcrmr/compliancehelp.html

Public Education Poster (Spanish)

INFORMACIÓN IMPORTANTE ACERCA DEL PLOMO EN SU AGUA POTABLE

[Insert name of water system] ha encontrado altos niveles de plomo en el agua potable de algunos domicilios y edificios. El plomo puede causar serios problemas a la salud, especialmente a las mujeres encintas y a los niños pequeños. Por favor lea esta información atentamente para ver qué puede hacer para reducir el plomo en su agua potable

Efectos del plomo en la salud

El plomo puede causar serios problemas de salud si cantidades excesivas provenientes del agua potable, u otras fuentes, se introducen en su cuerpo. Puede dañar al cerebro y a los riñones y también puede interferir en la producción de glóbulos rojos que transportan oxígeno a todas las partes de su cuerpo. El riesgo más serio de exposición al plomo es para los infantes, los niños de baja edad y las mujeres encintas. Los científicos han conectado los efectos del plomo en el cerebro con coeficientes de inteligencia más reducidos en los niños. Niveles bajos de plomo tienen un mayor efecto en los adultos con problemas de riñón y de alta presión sanguínea que en los adultos sanos. El plomo se almacena en los huesos y puede ser dispersado más tarde en la vida. Durante el embarazo, el bebé recibe plomo proveniente de los huesos maternos lo cual puede afectar el desarrollo de su cerebro.

Fuentes del plomo

El plomo es un metal común que se encuentra en el medio ambiente. El agua potable es una posible fuente de exposición al plomo. Las fuentes principales de exposición al plomo radican en la pintura con plomo, la tierra o el polvo contaminado con plomo y ciertos materiales de fontanería. Además, el plomo puede encontrarse en ciertos tipos de cerámica, peltre, accesorios de latón, alimentos y de productos cosméticos. Otras fuentes de exposición incluyen el lugar de trabajo y la exposición asociada con ciertos pasatiempos (es posible transportar plomo en la ropa o los zapatos). El plomo se halla en algunos juguetes, equipos de parques infantiles y en ciertas joyas metálicas para niños.

Los grifos, los accesorios y las válvulas de latón, inclusive las que se anuncian estar "sin plomo," pueden contribuir al plomo en el agua potable. En la actualidad la ley permite que los accesorios de uso final de latón, tales como los grifos, cuyo tenor puede tener hasta 8 por ciento de plomo, puedan etiquetarse "sin plomo."

[Insert utility specific information describing your community's source water – e.g. "The source of water from XX Reservoir does not contain lead" or "Community X does not have any lead in its source water or water mains in the street."] Cuando el agua entra en contacto con tuberías [o líneas de servicio] o con fontanería que contiene plomo y durante varias horas, el plomo puede introducirse en el agua potable. Las casas construidas antes de 1988 suelen tener tuberías de plomo o soldaduras de plomo.

La EPA calcula que de 10 a 20 por ciento de la exposición posible de una persona al plomo puede provenir del agua potable. Los infantes que consumen mayormente fórmula para bebés mezclada con agua que contiene plomo pueden ingerir con el agua potable hasta entre 40 y 60 por ciento de su exposición al plomo.

No se olvide que existen otras fuentes de plomo tales como la pintura con contenido de plomo, el polvo de plomo y el plomo en la tierra. Lave las manos de sus hijos y los juguetes a menudo ya que pueden entrar en contacto con el polvo y la suciedad que contienen plomo.

Medidas que usted puede emprender para reducir su exposición al plomo en el agua

1. Deje correr el agua para eliminar el plomo. Deje correr el agua unos 15 a 30 segundos, si no se ha utilizado en varias horas, para eliminar el plomo de la fontanería interior [or insert a different flushing time if your system has representative data indicating a different flushing time would better reduce lead exposure in your community and if the State Primacy Agency approves the wording] o hasta que se enfríe o alcance una temperatura constante antes de utilizar el agua para beber o cocinar. [It is likely that systems with lead service lines will need to collect data to determine the appropriate flushing time for lead service lines.][1]

2. Utilice agua fría para cocinar y para preparar la fórmula para bebés. No cocine ni beba agua del grifo de agua caliente ya que el plomo se disuelve más fácilmente en agua caliente. No utilice el grifo de agua caliente para preparar la fórmula para bebés.

3. No hierva el agua para eliminar plomo. El agua hervida no reduce el plomo.

4. Busque otras fuentes o formas de tratar el agua. Usted puede comprar agua en botellas o un filtro de agua. Lea el embalaje para cerciorarse de que el filtro está aprobado para reducir el plomo, o póngase en contacto con NSF International, marcando el 800-NSF-8010 ó visite www.nsf.org para más información sobre las normas de rendimiento de los filtros de agua. Asegúrese de mantener y de reemplazar el dispositivo filtrante conforme a las instrucciones del fabricante para proteger la calidad del agua.

5. Pida que se analice su agua para saber si tiene plomo. Llámenos al [insert phone number for your water system] para saber cómo obtener un análisis del plomo en su agua. [Include information on your water system's testing program. For example, do you provide free testing? Are there labs in your area that are certified to do lead in water testing?]

6. Pida un análisis de la sangre de sus hijos. Póngase en contacto con el departamento de salud de su zona o con su proveedor de atención médica para saber cómo puede obtener un análisis de sangre de su hijo si es que le preocupa una posible exposición.

7. Identifique y reemplace el equipo de fontanería que contenga plomo. Los grifos, los accesorios y las válvulas de latón, inclusive las que se anuncian estar "sin plomo", pueden contribuir al plomo en el agua potable. En la actualidad la ley permite que los accesorios de uso final de latón, tales como los grifos, cuyo tenor puede tener hasta 8 por ciento de plomo, puedan etiquetarse "sin plomo". Visite el sitio Internet en www.nsf.org para aprender más acerca de los equipos de fontanería que contienen plomo.

¿Que pasó? ¿Qué se está haciendo?

[Insert information about how and when the exceedance was discovered in your community and provide information on the source(s) of lead in the drinking water, in known.]

[Insert information about what your system is doing to reduce lead levels in homes in your community.]

[Insert information about lead service lines in your community, how a consumer can find out if they have a lead service line, what your water system is doing to replace lead service lines, etc.]

[Insert information about the history of lead levels in tap water samples in your community. For example, have they declined substantially over time? Have they been low and risen recently? Is there a known reason for any lead level changes?]

Para más información

Llámenos al [Insert Number] (if applicable) ó *visite nuestro sitio Internet* [insert Web site Here]. *Para más información sobre la reducción de la exposición al plomo en su hogar/edificio y los efectos del plomo, visite el sitio Internet de EPA en www.epa.gov/lead o póngase en contacto con su proveedor de atención médica.*

[1]The bracketed language does not need to be included, as worded, in your materials. It is designed to alert systems that, where applicable, lead service lines might affect the flushing time.

*Customizable versions of these templates are available for download at: http://www.epa.gov/safewater/lcrmr/compliancehelp.html

Consumer Notice of Tap Water Results Template for Community Water Systems

[Information in italics is required/mandatory language and cannot be changed]

[Select the appropriate number from the 6 possible options]

Dear (Consumer's Name),
[Insert name of your water system] appreciates your participation in the lead tap monitoring program. A lead level of [insert data from the laboratory analysis of the sample collected-make sure the value is in pbb] was reported for the sample collected on [date] at your location, [insert address of customer].

1. Your result, as well as the 90th percentile value for our water system, is below the lead action level of 15 parts per billion.

What Does This Mean?
Under the authority of the Safe Drinking Water Act, the U.S. Environmental Protection Agency (EPA) set the action level for lead in drinking water at 15 ppb. This means utilities must ensure that water from the customer's tap does not exceed this level in at least 90 percent of the homes sampled (90th percentile value). The action level is *the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.* If water from the tap does exceed this limit, then the utility must take certain steps to correct the problem. Because lead may pose serious health risks, the EPA set a Maximum Contaminant Level Goal (MCLG) of zero for lead. The MCLG is *the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.*

What Are The Health Effects of Lead?
Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development.

What Are The Sources of Lead?
The primary sources of lead exposure for most children are deteriorating lead-based paint, lead-contaminated dust, and lead-contaminated residential soil. Lead is found is some toys, some playground equipment, some children's metal jewelry, and some traditional pottery. Exposure to lead is a significant health concern, especially for young children and infants whose growing bodies tend to absorb more lead than the average adult. Although your home's drinking water lead levels were below the action level, if you are concerned about lead exposure, parents should ask their health care providers about testing children for high levels of lead in the blood.

*Customizable versions of these templates are available for download at: http://www.epa.gov/safewater/lcrmr/compliancehelp.html

What Can I Do To Reduce Exposure to Lead in Drinking Water?

Although your test results were below EPA's action level, you may still want to take steps to further reduce your exposure.

- **Run your water to flush out lead.** If water hasn't been used for several hours, run water for 15-30 seconds to flush lead from interior plumbing [or insert a different flushing time if your system has representative data indicating a different flushing time would better reduce lead exposure in your community and if the State approves the wording] or until it becomes cold or reaches a steady temperature before using it for drinking or cooking.
- **Use cold water for cooking and preparing baby formula.**
- **Do not boil water to remove lead.**
- **Look for alternative sources or treatment of water (such as bottled water or water filters).**
- **Re-test your water for lead periodically.**
- **Identify and replace plumbing fixtures containing lead.**

For More Information

Call us at [insert your water system's phone number]. For more information on reducing lead exposure around your home and the health effects of lead, visit EPA's Web site at ***www.epa.gov/lead***, call the National Lead Information Center at 800-424-LEAD, or contact your health care provider.

Consumer Notice of Tap Water Results Template for Community Water Systems

[Information in italics is required/mandatory language and cannot be changed]

[Select the appropriate number from the 6 possible options]

Dear (Consumer's Name),
[Insert name of your water system] appreciates your participation in the lead tap monitoring program. A lead level of [insert data from the laboratory analysis of the sample collected-make sure the value is in pbb] was reported for the sample collected on [date] at your location, [insert address of customer].

2. Your result was below the lead action level of 15 parts per billion. However, the 90th percentile value for our system was above the lead action level.

What Does This Mean?
Under the authority of the Safe Drinking Water Act, the U.S. Environmental Protection Agency (EPA) set the action level for lead in drinking water at 15 ppb. This means utilities must ensure that water from the customer's tap does not exceed this level in at least 90 percent of the homes sampled (90th percentile value). The action level is *the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.* If water from the tap does exceed this limit, then the utility must take certain steps to correct the problem. Because lead may pose serious health risks, the EPA set a Maximum Contaminant Level Goal (MCLG) of zero for lead. The MCLG is *the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.*

We are taking a number of steps to correct the problem. We will begin sampling for lead every 6 months so we can closely monitor the lead levels in our water system. Your continued participation and support in our lead tap monitoring program is very important. In addition, we will initiate a Public Education campaign to ensure our customers know about the action level exceedance, understand the health effects of lead, the sources of lead and actions they can take to reduce exposure to lead in drinking water. We will also monitor our source water, initiate controls to reduce the corrosivity of our water (corrosive water can cause lead to leach from plumbing materials that contain lead) and initiate lead service line replacement [for those systems with lead service lines].

What Are The Health Effects of Lead?
Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development.

What Are The Sources of Lead?
The primary sources of lead exposure for most children are deteriorating lead-based paint, lead-contaminated dust, and lead-contaminated residential soil. Exposure to lead is a significant health concern, especially for

young children and infants whose growing bodies tend to absorb more lead than the average adult. Lead is found in some toys, some playground equipment, some children's metal jewelry, and some traditional pottery. Although your home's drinking water lead levels were below the action level, if you are concerned about lead exposure, parents should ask their health care providers about testing children for high levels of lead in the blood. Lead is rarely found in source water, but enters tap water through corrosion of plumbing materials. Homes built before 1988 are more likely to have lead pipes or lead solder.

What Can I Do To Reduce Exposure to Lead in Drinking Water?

Although your test results were below EPA's action level, you may still want to take steps to further reduce your exposure.

- **Run your water to flush out lead.** Run water for 15-30 seconds to flush lead from interior plumbing [or insert a different flushing time if your system has representative data indicating a different flushing time would better reduce lead exposure in your community and if the State approves the wording] or until it becomes cold or reaches a steady temperature before using it for drinking or cooking, if it hasn't been used for several hours.
- **Use cold water for cooking and preparing baby formula.**
- **Do not boil water to remove lead.**
- **Look for alternative sources or treatment of water (such as bottled water or water filters).**
- **Re-test your water for lead periodically.**
- **Identify and replace plumbing fixtures containing lead.**

For More Information

Call us at [insert your water system's phone number]. For more information on reducing lead exposure around your home and the health effects of lead, visit EPA's Web site at ***www.epa.gov/lead***, call the National Lead Information Center at 800-424-LEAD, or contact your health care provider.

Consumer Notice of Tap Water Results Template for Community Water Systems

[Information in italics is required/mandatory language and cannot be changed]

[Select the appropriate number from the 6 possible options]

Dear (Consumer's Name),
[Insert name of your water system] appreciates your participation in the lead tap monitoring program. A lead level of [insert data from the laboratory analysis of the sample collected-make sure the value is in pbb] was reported for the sample collected on [date] at your location, [insert address of customer].

3. Your result is greater than the lead action level of 15 parts per billion. However, the 90th percentile value for our water system was below the lead action level.

What Does This Mean?
Under the authority of the Safe Drinking Water Act, the U.S. Environmental Protection Agency (EPA) set the action level for lead in drinking water at 15 ppb. This means utilities must ensure that water from the customer's tap does not exceed this level in at least 90 percent of the homes sampled (90th percentile value). The action level is *the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.* If water from the tap does exceed this limit, then the utility must take certain steps to correct the problem. Because lead may pose serious health risks, the EPA set a Maximum Contaminant Level Goal (MCLG) of zero for lead. The MCLG is *the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.*

Your lead level may be due to conditions unique to your home, such as the presence of lead soldier or brass faucets, fittings and valves that may contain lead. Our system works to keep the corrosivity of our water as low as possible (corrosive water can cause lead to leach from plumbing materials that contain lead) and there are actions you can take to reduce exposure. We strongly urge you to take the steps below to reduce your exposure to lead in drinking water.

What Are The Health Effects of Lead?
Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development. If you are concerned about lead exposure, you may want to ask your health care provider about testing children to determine levels of lead in their blood.

What Are The Sources of Lead?
Although most lead exposure occurs when people eat paint chips and inhale dust, or from contaminated soil, EPA estimates that 10 to 20 percent of human exposure to lead may come from lead in drinking water. Lead is rarely found in source water, but enters tap water through corrosion of plumbing materials. Homes built before 1988 are more likely to have lead pipes or lead solder. However, new homes are also at risk:

even legally "lead-free" plumbing may contain up to 8 percent lead. The most common problem is with brass or chrome-plated brass faucets and fixtures which can leach significant amounts of lead into the water, especially hot water.

What Can I Do To Reduce Exposure to Lead in Drinking Water?

- **Run your water to flush out lead.** If water hasn't been used for several hours, run water for 15-30 seconds to flush lead from interior plumbing [or insert a different flushing time if your system has representative data indicating a different flushing time would better reduce lead exposure in your community and if the State approves the wording] or until it becomes cold or reaches a steady temperature before using it for drinking or cooking.
- **Use cold water for cooking and preparing baby formula.** Do not cook with or drink water from the hot water tap; lead dissolves more easily into hot water. Do not use water from the hot water tap to make baby formula.
- **Do not boil water to remove lead.** Boiling water will not reduce lead.
- **Look for alternative sources or treatment of water.** You may want to consider purchasing bottled water or a water filter. Read the package to be sure the filter is approved to reduce lead.
- **Re-test your water for lead periodically.** Call us at [insert phone number for your water system] to find out how to get your water tested for lead. [Include information on your water system's testing program. For example, do you provide free testing? Are there labs in your area that are certified to do lead in water testing?]
- **Identify and replace plumbing fixtures containing lead.** Brass faucets, fittings, and valves, including those advertised as "lead-free," may contribute lead to drinking water. The law currently allows end-use brass fixtures, such as faucets, with up to 8% lead to be labeled as "lead free." The law also requires faucets and other end-use fixtures to be independently certified against NSF/ANSI Standard 61. Products that comply will be marked directly on the product or its packaging.

For More Information

Call us at [insert your water system's phone number]. For more information on reducing lead exposure around your home and the health effects of lead, visit EPA's Web site at ***www.epa.gov/lead***, call the National Lead Information Center at 800-424-LEAD, or contact your health care provider.

Consumer Notice of Tap Water Results Template for Community Water Systems

[Information in italics is required/mandatory language and cannot be changed]

[Select the appropriate number from the 6 possible options]

Dear (Consumer's Name),
[Insert name of your water system] appreciates your participation in the lead tap monitoring program. A lead level of [insert data from the laboratory analysis of the sample collected-make sure the value is in pbb] was reported for the sample collected on [date] at your location, [insert address of customer].

4. Your result is greater than the lead action level and the 90th percentile value for our water system is also greater than the lead action level of 15 parts per billion.

What Does This Mean?
Under the authority of the Safe Drinking Water Act, the U.S. Environmental Protection Agency (EPA set the action level for lead in drinking water at 15 ppb. This means utilities must ensure that water from the customer's tap does not exceed this level in at least 90 percent of the homes sampled (90th percentile result). The action level is *the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.* If water from the tap does exceed this limit, then the utility must take certain steps to correct the problem. Because lead may pose serious health risks, the EPA set a Maximum Contaminant Level Goal (MCLG) of zero for lead. The MCLG is *the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.*

We are taking a number of steps to correct the problem. We will begin sampling for lead every 6 months so we can closely monitor the lead levels in our water system. Your continued participation and support in our lead tap monitoring program is very important. In addition, we will initiate a Public Education campaign to ensure our customers know about the action level exceedance, understand the health effects of lead, the sources of lead and actions they can take to reduce exposure to leads in drinking water. We will also monitor our source water, initiate controls to reduce the corrosivity of our water (corrosive water can cause lead to leach from plumbing materials that contain lead) and initiate lead service line replacement [for those systems with lead service lines].

Although we are taking action to reduce lead levels, your elevated lead level may also be due to conditions unique to your home, such as the presence of lead soldier or brass faucets, fittings and valves that may contain lead. Our system works to keep the corrosivity of our water as low as possible (corrosive water can cause lead to leach from plumbing materials that contain lead) and there are actions you can take to reduce exposure. We strongly urge you to take the steps below to reduce your exposure to lead in drinking water.

What Are The Health Effects of Lead?
Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead

from the mother's bones, which may affect brain development. If you are concerned about lead exposure, you may want to ask your health care provider about testing children to determine levels of lead in their blood.

What Are The Sources of Lead?

Although most lead exposure occurs when people eat paint chips and inhale dust, or from contaminated soil, EPA estimates that 10 to 20 percent of human exposure to lead may come from lead in drinking water. Lead is rarely found in source water, but enters tap water through corrosion of plumbing materials. Homes built before 1988 are more likely to have lead pipes or lead solder. However, new homes are also at risk: even legally "lead-free" plumbing may contain up to 8 percent lead. The most common problem is with brass or chrome-plated brass faucets and fixtures which can leach significant amounts of lead into the water, especially hot water.

What Can I Do To Reduce Exposure to Lead in Drinking Water?

- **Run your water to flush out lead.** If water hasn't been used for several hours, run water for 15-30 seconds to flush lead from interior plumbing [or insert a different flushing time if your system has representative data indicating a different flushing time would better reduce lead exposure in your community and if the State approves the wording] or until it becomes cold or reaches a steady temperature before using it for drinking or cooking.
- **Use cold water for cooking and preparing baby formula.** Do not cook with or drink water from the hot water tap; lead dissolves more easily into hot water. Do not use water from the hot water tap to make baby formula.
- **Do not boil water to remove lead.** Boiling water will not reduce lead.
- **Look for alternative sources or treatment of water.** You may want to consider purchasing bottled water or a water filter. Read the package to be sure the filter is approved to reduce lead.
- **Re-test you water for lead periodically.** Call us at [insert phone number for your water system] to find out how to get your water tested for lead. [Include information on your water system's testing program. For example, do you provide free testing? Are there labs in your area that are certified to do lead in water testing?]
- **Identify and replace plumbing fixtures containing lead.** Brass faucets, fittings, and valves, including those advertised as "lead-free," may contribute lead to drinking water. The law currently allows end-use brass fixtures, such as faucets, with up to 8% lead to be labeled as "lead free." The law also requires faucets and other end-use fixtures to be independently certified against NSF/ANSI Standard 61. Products that comply will be marked directly on the product or its packaging.

For More Information

Call us at [insert your water system's phone number]. For more information on reducing lead exposure around your home and the health effects of lead, visit EPA's Web site at ***www.epa.gov/lead***, call the National Lead Information Center at 800-424-LEAD, or contact your health care provider.

Consumer Notice of Tap Water Results Template for Community Water Systems

[Information in italics is required/mandatory language and cannot be changed]

[Select the appropriate number from the 6 possible options]

Dear (Consumer's Name),
[Insert name or your water system] appreciates your participation in the lead tap monitoring program. A lead level of [insert data from the laboratory analysis of the sample collected – make sure the value is in ppb] was reported for the sample collected on [date] at your location, [insert address of customer].

5. Your result was below the lead action level of 15 parts per billion. Our water system, however, has not yet calculated the 90th percentile value for our system, so we do not yet know if our system is above the lead action level.

What Does This Mean?
Under the authority of the Safe Drinking Water Act, the U.S. Environmental Protection Agency (EPA) set the action level for lead in drinking water at 15 parts per billion (ppb). This means utilities must ensure that water from the customer's tap does not exceed this level in at least 90 percent of homes sampled (90th percentile value). *The action level is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.* If water from the tap does exceed this limit, then the utility must take certain steps to correct the problem. Because lead may pose serious health risks, the EPA set a Maximum Contaminant Level Goal (MCLG) of zero for lead. The MCLG *is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.*

We are in the process of determining the 90th percentile value for our water system. You can call us at [insert water system phone number] after [insert date that your 90th percentile calculation information will be available] to find out our system's 90th percentile value. If our 90th percentile value is found to be below the lead action level for lead no additional actions will be taken and we will continue our regular lead in drinking water monitoring program.

If our 90th percentile value is found to be in exceedance of the action level for lead, there are a number of steps that we will take to correct the problem. We will begin sampling for lead every 6 months so that we can closely monitor the lead levels in our water system. Your continued participation and support in our lead tap monitoring program is very important. In addition, we will initiate a Public Education campaign to ensure all of our customers know about the action level exceedance, understand the health effects of lead, the sources of lead, and actions they can take to reduce exposure to lead in drinking water. We will also monitor our source water, initiate controls to reduce the corrosivity of our water (corrosive water can cause lead to leach from plumbing materials that contain lead), and initiate lead service line replacement [for those systems with lead service lines].

What Are The Health Effects of Lead?
Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have link the effects of lead on the brain with lowered IQ in children. Adults

with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development.

What Are The Sources of Lead?

The primary sources of lead exposure for most children are deteriorating lead-based paint, lead-contaminated dust, and lead-contaminated residential soil. Exposure to lead is a significant health concern, especially for young children and infants whose growing bodies tend to absorb more lead than the average adult. Although your home's drinking water levels were below the action level, if you are concerned about lead exposure, parents should ask their health care providers about testing children for high levels of lead in the blood. Lead is rarely found in source water, but enters tap water through corrosion of plumbing materials. Homes built before 1988 are more likely to have lead pipes or lead solder.

What Can I Do To Reduce Exposure to Lead in Drinking Water?

Although your test results were below EPA's action level, you may still want to take steps to further reduce your exposure.

- **Run your water to flush out lead.** Run water for 15 to 30 seconds to flush lead from interior plumbing [or insert a different flushing time if your system has representative data indicating a different flushing time would better reduce lead exposure in your community and if the State Primacy Agency approves the wording] or until it becomes cold or reaches a steady temperature before using it for drinking or cooking, if it hasn't been used for several hours.
- **Use cold water for cooking and preparing baby formula.**
- **Do not boil water to remove lead.**
- **Look for alternative sources or treatment of water (such as bottled water or water filters).**
- **Re-test you water for lead periodically.**
- **Identify and replace plumbing fixtures containing lead.**

For More Information

Call us at [insert your water system's phone number]. For more information on reducing lead exposure around your home and the health effects of lead, visit EPA's Web site at ***www.epa.gov/lead***, call the National Lead Information Center at 800-424-LEAD, or contact your health care provider.

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Consumer Notice of Tap Water Results Template for Community Water Systems

[Information in italics is required/mandatory language and cannot be changed]

[Select the appropriate number from the 6 possible options]

Dear (Consumer's Name),
[Insert name or your water system] appreciates your participation in the lead tap monitoring program. A lead level of [insert data from the laboratory analysis of the sample collected – make sure the value is in ppb] was reported for the sample collected on [date] at your location, [insert address of customer].

6. Your result is greater than the lead action level of 15 parts per billion (ppb). Our water system, however, has not yet calculated the 90th percentile value for our system, so we do not yet know if our system is above the lead action level.

What Does This Mean?
Under the authority of the Safe Drinking Water Act, the U.S. Environmental Protection Agency (EPA) set the action level for lead in drinking water at 15 parts per billion (ppb). This means utilities must ensure that water from the customer's tap does not exceed this level in at least 90 percent of homes sampled (90th percentile value). *The action level is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.* If water from the tap does exceed this limit, then the utility must take certain steps to correct the problem. Because lead may pose serious health risks, the EPA set a Maximum Contaminant Level Goal (MCLG) of zero for lead. The MCLG *is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.*

We are in the process of determining the 90th percentile value for our water system. You can call us at [insert water system phone number] after [insert date that your 90th percentile calculation information will be available] to find out our system's 90th percentile value. If our 90th percentile value is found to be below the lead action level for lead no additional actions will be taken and we will continue our regular lead in drinking water monitoring program.

If our 90th percentile value is found to be in exceedance of the action level for lead, there are a number of steps that we will take to correct the problem. We will begin sampling for lead every 6 months so that we can closely monitor the lead levels in our water system. Your continued participation and support in our lead tap monitoring program is very important. In addition, we will initiate a Public Education campaign to ensure all of our customers know about the action level exceedance, understand the health effects of lead, the sources of lead, and actions they can take to reduce exposure to lead in drinking water. We will also monitor our source water, initiate controls to reduce the corrosivity of our water (corrosive water can cause lead to leach from plumbing materials that contain lead), and initiate lead service line replacement [for those systems with lead service lines].

Your lead level may be due to conditions unique to your home, such as the presence of lead solder or brass faucets, fittings, and valves that may contain lead. Our system works to keep the corrosivity of our water as low as possible (corrosive water can cause lead to leach from plumbing materials that contain lead) and there are actions you can take to reduce exposure. We strongly urge you to take the steps below to reduce your exposure to lead in drinking water.

What Are The Health Effects of Lead?

Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have link the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development. If you are concerned about lead exposure, you may want to ask your health care provider about testing children to determine level of lead in their blood.

What Are The Sources of Lead?

The primary sources of lead exposure for most children are deteriorating lead-based paint, lead-contaminated dust, and lead-contaminated residential soil. Exposure to lead is a significant health concern, especially for young children and infants whose growing bodies tend to absorb more lead than the average adult. Although your home's drinking water levels were below the action level, if you are concerned about lead exposure, parents should ask their health care providers about testing children for high levels of lead in the blood. Lead is rarely found in source water, but enters tap water through corrosion of plumbing materials. Homes built before 1988 are more likely to have lead pipes or lead solder.

What Can I Do To Reduce Exposure to Lead in Drinking Water?

- **Run your water to flush out lead.** Run water for 15 to 30 seconds to flush lead from interior plumbing [or insert a different flushing time if your system has representative data indicating a different flushing time would better reduce lead exposure in your community and if the State Primacy Agency approves the wording] or until it becomes cold or reaches a steady temperature before using it for drinking or cooking, if it hasn't been used for several hours.
- **Use cold water for cooking and preparing baby formula.** Do not cool with or drink water from the hot water tap; lead dissolves easily into hot water. Do not use water from the hot water tap to make baby formula.
- **Do not boil water to remove lead.** Boiling water will not reduce lead.
- **Look for alternative sources or treatment of water.** You may want to consider purchasing bottled water or a water filter. Read the package to be sure the filter is approved to reduce lead.
- **Re-test you water for lead periodically.** Call us at [insert phone number for your water system] to find out how and when to re-test your water for lead. [Include information on your water system's testing program. For example, do you provide free testing? Are there labs in your area that are certified to do lead in water testing?]
- **Identify and replace plumbing fixtures containing lead.** Brass faucets, fittings, and valves, including those advertised as "lead-free," may contribute to lead in drinking water. The law currently allows end-use brass fixtures, such as faucets, with up to 8 percent lead to be labeled as "lead-free." The law also requires faucets and other end-use fixtures to be independently certified against NSF/ANSI Standard 61. Products that comply will be marked directly on the product or its packaging.

For More Information

Call us at [insert your water system's phone number]. For more information on reducing lead exposure around your home and the health effects of lead, visit EPA's Web site at ***www.epa.gov/lead***, call the National Lead Information Center at 800-424-LEAD, or contact your health care provider.

Consumer Notice of Tap Water Results Template for Community Water Systems (Spanish)

[Information in italics is required/mandatory language and cannot be changed]

[Select the appropriate number from the 6 possible options]

Estimado/a (Consumer's Name),
[Insert name of your water system] agradece su participación en el programa de monitoreo de plomo en el agua de grifo. Un nivel de [insert data from the laboratory analysis of the sample collected-make sure the value is in pbb] ha resultado de la muestra obtenida el [date], en la ubicación de [insert address of customer].

1. Su resultado, así como el valor de percentil 90 de nuestro sistema de aguas, se halla bajo el nivel de acción de plomo de 15 partes por mil millones, es decir 15 ppb.

¿Qué significa este resultado?
Bajo la autoridad de la Ley de Agua Potable Segura, la Agencia de Protección del Medio Ambiente (Environmental Protection Agency, o EPA por sus siglas en inglés) de los Estados Unidos estableció a 15 ppb el nivel de acción para el plomo en el agua potable. Esto significa que los servicios públicos deben asegurarse que el agua de grifo de sus clientes no exceda dicho nivel en el 90 por ciento de hogares analizados (valor de percentil 90). El nivel de acción significa *una concentración de contaminante que una vez excedida provoca el tratamiento u otros requisitos que debe acatar un sistema de aguas*. Si el agua de grifo excede dicho límite, el servicio público debe entonces emprender ciertas medidas para corregir el problema. Debido a que el plomo puede conllevar serios riesgos para la salud, la EPA ha establecido un Objetivo de Nivel Máximo de Contaminante (MCLG por sus siglas en inglés) de cero para el plomo. El MCLG es *el nivel de un contaminante en el agua potable cuyo valor menor no presenta ningún riesgo conocido o previsto para la salud. Los niveles MCLG ofrecen un margen de seguridad*.

¿Cómo afecta el plomo a la salud?
El plomo puede causar serios problemas de salud si cantidades excesivas provenientes del agua potable, u otras fuentes, se introducen en su cuerpo. Puede dañar al cerebro y a los riñones e interferir en la producción de glóbulos rojos que transportan oxígeno a todas las partes de su cuerpo. El riesgo más serio de exposición al plomo es para los infantes, los niños de baja edad y las mujeres encintas. Los científicos han conectado los efectos del plomo en el cerebro con coeficientes de inteligencia más reducidos en los niños. Niveles bajos de plomo tienen un mayor efecto en los adultos con problemas de riñón y de alta presión sanguínea que en los adultos sanos. El plomo se almacena en los huesos y puede ser dispersado más tarde en la vida. Durante el embarazo, el bebé recibe plomo proveniente de los huesos maternos lo cual puede afectar el desarrollo de su cerebro.

¿Cuáles son las fuentes del plomo?
Las fuentes principales de la exposición al plomo para la mayoría de niños radican en la pintura con plomo que se deteriora, la tierra residencial y el polvo contaminados con plomo. El plomo se halla en algunos juguetes, equipos de parques infantiles, joyas metálicas de niños y en algunas cerámicas tradicionales. La exposición al plomo es de especial importancia para la salud, especialmente para los niños de baja edad y para los infantes cuyos cuerpos crecientes tienen tendencia a absorber mayores cantidades de plomo que un adulto corriente. Aunque los niveles de plomo en el agua potable de su hogar se hallaron debajo del nivel de acción, si siente inquietud por la exposición al plomo, se recomienda que los padres consulten a

sus proveedores de atención médica acerca de un análisis de sangre para determinar cuáles son los niveles de plomo en los niños.

¿Qué puedo hacer para reducir la exposición al plomo en el agua de grifo?

- **Deje correr el agua para eliminar el plomo.** Deje correr el agua unos 15 a 30 segundos, si no se ha utilizado en varias horas, para eliminar el plomo de la fontanería interior [or insert a different flushing time if your system has representative data indicating a different flushing time would better reduce lead exposure in your community and if the State approves the wording] o hasta que se enfríe o alcance una temperatura constante antes de utilizar el agua para beber o cocinar.
- **Utilice agua fría para cocinar y para preparar la fórmula para bebés.**
- **No hierva el agua para eliminar plomo.**
- **Busque otras fuentes o formas de tratar el agua (agua en botellas o filtros de agua, entre otros).**
- **Analice periódicamente el plomo en su agua.**
- **Identifique y reemplace el equipo de fontanería que contenga plomo.**

Para más información

Llámenos al [insert your water system's phone number]. Para más información acerca de la reducción de exposición al plomo en su hogar y los efectos del plomo en la salud puede visitar el sitio Internet en ***www.epa.gov/lead***, llamar al centro nacional de información sobre el plomo (National Lead Information Center) marcando el 1-800-424-LEAD (424-5323) ó bien consultar a su proveedor de atención médica.

Consumer Notice of Tap Water Results Template for Community Water Systems (Spanish)

[Information in italics is required/mandatory language and cannot be changed]

[Select the appropriate number from the 6 possible options]

Estimado/a (Consumer's Name),
[Insert name of your water system] agradece su participación en el programa de monitoreo de plomo en el agua de grifo. Un nivel de [insert data from the laboratory analysis of the sample collected-make sure the value is in pbb] ha resultado de la muestra obtenida el [date], en la ubicación de [insert address of customer].

2. Su resultado se halla debajo del nivel de acción para el plomo de 15 partes por mil millones (15 ppb). No obstante, el valor de percentil 90 de nuestro sistema se halla por encima del nivel de acción para el plomo.

¿Qué significa este resultado?
Bajo la autoridad de la Ley de Agua Potable Segura, la Agencia de Protección del Medio Ambiente (Environmental Protection Agency, o EPA por sus siglas en inglés) de los Estados Unidos estableció a 15 ppb el nivel de acción para el plomo en el agua potable. Esto significa que los servicios públicos deben asegurarse que el agua de grifo de sus clientes no exceda dicho nivel en el 90 por ciento de hogares analizados (valor de percentil 90). El nivel de acción significa *una concentración de contaminante que una vez excedida provoca el tratamiento u otros requisitos que debe acatar un sistema de aguas*. Si el agua de grifo excede dicho límite, el servicio público debe entonces emprender ciertas medidas para corregir el problema. Debido a que el plomo puede conllevar serios riesgos para la salud, la EPA ha establecido un Objetivo de Nivel Máximo de Contaminante (MCLG por sus siglas en inglés) de cero para el plomo. El MCLG es *el nivel de un contaminante en el agua potable cuyo valor menor no presenta ningún riesgo conocido o previsto para la salud. Los niveles MCLG ofrecen un margen de seguridad*.

Hemos emprendido ciertas medidas para corregir este problema. Comenzaremos a tomar muestras cada 6 meses con el fin de monitorear de cerca los niveles de plomo en nuestro sistema de aguas. Su participación y apoyo continuos en nuestro programa de supervisión de agua de grifo es de gran importancia. Iniciaremos una campaña de Educación Pública que permita cerciorarse de que nuestros clientes se hallan conscientes de la excedencia en el nivel de acción de plomo, comprenden cómo el plomo afecta la salud, conocen las fuentes de plomo y saben qué acciones pueden emprender con el fin de reducir la exposición al plomo en el agua potable. También monitorearemos nuestra agua potable, estableceremos controles cuyo fin es reducir la corrosividad de nuestra agua (el agua corrosiva puede disolver el plomo de los materiales que lo contengan) e iniciaremos el reemplazo de líneas de servicio (para los sistemas cuyas líneas de servicio son de plomo).

¿Cómo afecta el plomo a la salud?
El plomo puede causar serios problemas de salud si cantidades excesivas provenientes del agua potable, u otras fuentes, se introducen en su cuerpo. Puede dañar al cerebro y a los riñones e interferir en la producción de glóbulos rojos que transportan oxígeno a todas las partes de su cuerpo. El riesgo más serio de exposición al plomo es para los infantes, los niños de baja edad y las mujeres encintas. Los científicos han conectado los efectos del plomo en el cerebro con coeficientes de inteligencia más reducidos en los niños. Niveles bajos de plomo tienen un mayor efecto en los adultos con problemas de riñón y de alta presión sanguínea que en los adultos sanos. El plomo se almacena en los huesos y puede ser dispersado más tarde en la vida. Durante el

embarazo, el bebé recibe plomo proveniente de los huesos maternos lo cual puede afectar el desarrollo de su cerebro.

¿Cuáles son las fuentes del plomo?
Las fuentes principales de la exposición al plomo para la mayoría de niños radican en la pintura con plomo que se deteriora, la tierra residencial y el polvo contaminados con plomo. La exposición al plomo es de especial importancia para la salud, especialmente para los niños de baja edad y para los infantes cuyos cuerpos crecientes tienen tendencia a absorber mayores cantidades de plomo que un adulto corriente. El plomo se halla en algunos juguetes, equipos de parques infantiles, joyas metálicas de niños y en algunas cerámicas tradicionales. Aunque los niveles de plomo en el agua potable de su hogar se hallaron debajo del nivel de acción, si siente inquietud por la exposición al plomo, se recomienda que los padres consulten a sus proveedores de atención médica acerca de un análisis de sangre para determinar cuáles son los niveles de plomo en los niños. Raramente existe plomo en el agua de fuente, sino que se introduce en el agua de grifo debido a la corrosión de los materiales de fontanería. Las casas construidas antes de 1988 suelen tener tuberías de plomo o soldaduras de plomo.

¿Qué puedo hacer para reducir la exposición al plomo en el agua de grifo?
Aunque los resultados de su análisis se hallan debajo del nivel de acción establecido por la EPA, es posible que usted desee emprender medidas que reduzcan su nivel de exposición aún más.

- **Deje correr el agua para eliminar el plomo.** Deje correr el agua unos 15 a 30 segundos, si no se ha utilizado en varias horas, para eliminar el plomo de la fontanería interior [or insert a different flushing time if your system has representative data indicating a different flushing time would better reduce lead exposure in your community and if the State approves the wording] o hasta que se enfríe o alcance una temperatura constante antes de utilizar el agua para beber o cocinar.
- **Utilice agua fría para cocinar y para preparar la fórmula para bebés.**
- **No hierva el agua para eliminar plomo.**
- **Busque otras fuentes o formas de tratar el agua (agua en botellas o filtros de agua, entre otros).**
- **Analice periódicamente el plomo en su agua.**
- **Identifique y reemplace el equipo de fontanería que contenga plomo.**

Para más información
Llámenos al [insert your water system's phone number]. Para más información acerca de la reducción de exposición al plomo en su hogar y los efectos del plomo en la salud puede visitar el sitio Internet en ***www.epa.gov/lead***, llamar al centro nacional de información sobre el plomo (National Lead Information Center) marcando el 1-800-424-LEAD (424-5323) ó bien consultar a su proveedor de atención médica.

Consumer Notice of Tap Water Results Template for Community Water Systems (Spanish)

[Information in italics is required/mandatory language and cannot be changed]

[Select the appropriate number from the 6 possible options]

Estimado/a (Consumer's Name),
[Insert name of your water system] agradece su participación en el programa de monitoreo de plomo en el agua de grifo. Un nivel de [insert data from the laboratory analysis of the sample collected-make sure the value is in pbb] ha resultado de la muestra obtenida el [date], en la ubicación de [insert address of customer].

3. Su resultado se halla por encima del nivel de acción para el plomo de 15 partes por mil millones (15 ppb). No obstante, el valor de percentil 90 de nuestro sistema se halla debajo del nivel de acción para el plomo.

¿Qué significa este resultado?
Bajo la autoridad de la Ley de Agua Potable Segura, la Agencia de Protección del Medio Ambiente (Environmental Protection Agency, o EPA por sus siglas en inglés) de los Estados Unidos estableció a 15 ppb el nivel de acción para el plomo en el agua potable. Esto significa que los servicios públicos deben asegurarse que el agua de grifo de sus clientes no exceda dicho nivel en el 90 por ciento de hogares analizados (valor de percentil 90). El nivel de acción significa *una concentración de contaminante que una vez excedida provoca el tratamiento u otros requisitos que debe acatar un sistema de aguas*. Si el agua de grifo excede dicho límite, el servicio público debe entonces emprender ciertas medidas para corregir el problema. Debido a que el plomo puede conllevar serios riesgos para la salud, la EPA ha establecido un Objetivo de Nivel Máximo de Contaminante (MCLG por sus siglas en inglés) de cero para el plomo. El MCLG es *el nivel de un contaminante en el agua potable cuyo valor menor no presenta ningún riesgo conocido o previsto para la salud. Los niveles MCLG ofrecen un margen de seguridad*.

Es posible que su nivel de plomo se deba a condiciones intrínsecas a su hogar, tales como la existencia de soldaduras de plomo o de grifos, accesorios y válvulas de latón que pueden contener plomo. Nuestro sistema se esfuerza en reducir al máximo la corrosividad de nuestra agua (el agua corrosiva puede disolver el plomo de los materiales que lo contengan) y usted puede emprender ciertas medidas para reducir la exposición.

Le aconsejamos seriamente de emprender las medidas a continuación para reducir su nivel de exposición al plomo en el agua potable.

¿Cómo afecta el plomo a la salud?
El plomo puede causar serios problemas de salud si cantidades excesivas provenientes del agua potable, u otras fuentes, se introducen en su cuerpo. Puede dañar al cerebro y a los riñones e interferir en la producción de glóbulos rojos que transportan oxígeno a todas las partes de su cuerpo. El riesgo más serio de exposición al plomo es para los infantes, los niños de baja edad y las mujeres encintas. Los científicos han conectado los efectos del plomo en el cerebro con coeficientes de inteligencia más reducidos en los niños. Niveles bajos de plomo tienen un mayor efecto en los adultos con problemas de riñón y de alta presión sanguínea que en los adultos sanos. El plomo se almacena en los huesos y puede ser dispersado más tarde en la vida. Durante el embarazo, el bebé recibe plomo proveniente de los huesos maternos lo cual puede afectar el desarrollo de su cerebro. Si la exposición al plomo le preocupa puede consultar con su proveedor de atención médica acerca de un análisis de sangre de los niños para determinar cuáles son los niveles de plomo.

¿Cuáles son las fuentes del plomo?

Aunque la mayor parte de exposición al plomo ocurre cuando la gente ingiere escamas de pintura o aspira polvo contaminado, la EPA considera que de 10 a 20 por ciento de la exposición humana al plomo puede deberse al plomo en el agua potable. Raramente existe plomo en el agua de fuente, sino que se introduce en el agua de grifo debido a la corrosión de los materiales de fontanería. Las casas construidas antes de 1988 suelen tener tuberías de plomo o soldaduras de plomo. Sin embargo, las casas nuevas también presentan riesgos: inclusive la fontanería que legalmente se halla "sin plomo" pueden contener hasta 8 por ciento de plomo. El problema más corriente radica en los grifos y accesorios de latón o de latón cromado que pueden disolver grandes cantidades de plomo en el agua, especialmente en agua caliente.

¿Qué puedo hacer para reducir la exposición al plomo en el agua de grifo?

- **Deje correr el agua para eliminar el plomo.** Deje correr el agua unos 15 a 30 segundos, si no se ha utilizado en varias horas, para eliminar el plomo de la fontanería interior [or insert a different flushing time if your system has representative data indicating a different flushing time would better reduce lead exposure in your community and if the State approves the wording] o hasta que se enfríe o alcance una temperatura constante antes de utilizar el agua para beber o cocinar.
- **Utilice agua fría para cocinar y para preparar la fórmula para bebés.** No cocine ni beba agua del grifo de agua caliente ya que el plomo se disuelve más fácilmente en agua caliente. No utilice el grifo de agua caliente para preparar la fórmula para bebés.
- **No hierva el agua para eliminar plomo.** El agua hervida no reduce el plomo.
- **Busque otras fuentes o formas de tratar el agua.** Usted puede comprar agua en botellas o un filtro de agua. Lea el embalaje y cerciórese de que el filtro se halla aprobado para reducir plomo.
- **Analice periódicamente el plomo en su agua.** Llámenos al [insert phone number for your water system] para saber cómo obtener un análisis del plomo en su agua. [Include information on your water system's testing program. For example, do you provide free testing? Are there labs in your area that are certified to do lead in water testing?]
- **Identifique y reemplace el equipo de fontanería que contenga plomo.** Los grifos, los accesorios y las válvulas de latón, inclusive las que se anuncian estar "sin plomo", pueden contribuir al plomo en el agua potable. En la actualidad la ley permite que los accesorios de uso final de latón, tales como los grifos, cuyo tenor puede tener hasta 8 por ciento de plomo, puedan etiquetarse "sin plomo". Esta ley también exige que los grifos y otros accesorios de uso final tengan una certificación independiente que cumpla con la Norma 61 NSF/ANSI. Los productos conformes se hallan marcados directamente en el producto mismo o en el embalaje.

Para más información

Llámenos al [insert your water system's phone number]. Para más información acerca de la reducción de exposición al plomo en su hogar y los efectos del plomo en la salud puede visitar el sitio Internet en ***www.epa.gov/lead***, llamar al centro nacional de información sobre el plomo (National Lead Information Center) marcando el 1-800-424-LEAD (424-5323) ó bien consultar a su proveedor de atención médica.

Consumer Notice of Tap Water Results Template for Community Water Systems (Spanish)

[Information in italics is required/mandatory language and cannot be changed]

[Select the appropriate number from the 6 possible options]

Estimado/a (Consumer's Name),
[Insert name of your water system] agradece su participación en el programa de monitoreo de plomo en el agua de grifo. Un nivel de [insert data from the laboratory analysis of the sample collected-make sure the value is in pbb] ha resultado de la muestra obtenida el [date], en la ubicación de [insert address of customer].

4. Su resultado excede el nivel de acción para el plomo y el valor de percentil 90 de nuestro sistema de aguas es también mayor del nivel de acción para el plomo de 15 parte por mil millones (15 ppb).

¿Qué significa este resultado?
Bajo la autoridad de la Ley de Agua Potable Segura, la Agencia de Protección del Medio Ambiente (Environmental Protection Agency, o EPA por sus siglas en inglés) de los Estados Unidos estableció a 15 ppb el nivel de acción para el plomo en el agua potable. Esto significa que los servicios públicos deben asegurarse que el agua de grifo de sus clientes no exceda dicho nivel en el 90 por ciento de hogares analizados (resultado de percentil 90). El nivel de acción significa *una concentración de contaminante que una vez excedida provoca el tratamiento u otros requisitos que debe acatar un sistema de aguas*. Si el agua de grifo excede dicho límite, el servicio público debe entonces emprender ciertas medidas para corregir el problema. Debido a que el plomo puede conllevar serios riesgos para la salud, la EPA ha establecido un Objetivo de Nivel Máximo de Contaminante (MCLG por sus siglas en inglés) de cero para el plomo. El MCLG es *el nivel de un contaminante en el agua potable cuyo valor menor no presenta ningún riesgo conocido o previsto para la salud. Los niveles MCLG ofrecen un margen de seguridad*.

Hemos emprendido ciertas medidas para corregir este problema. Comenzaremos a tomar muestras cada 6 meses con el fin de monitorear de cerca los niveles de plomo en nuestro sistema de aguas. Su participación y apoyo continuos en nuestro programa de supervisión de agua de grifo es de gran importancia. Iniciaremos una campaña de Educación Pública que permita cerciorarse de que nuestros clientes se hallan conscientes de la excedencia en el nivel de acción, comprenden cómo el plomo afecta la salud, conocen las fuentes de plomo y saben qué acciones pueden emprender con el fin de reducir la exposición al plomo en el agua potable. También monitorearemos nuestra agua potable, estableceremos controles cuyo fin es reducir la corrosividad de nuestra agua (el agua corrosiva puede disolver el plomo de los materiales que lo contengan) e iniciaremos el reemplazo de líneas de servicio (para los sistemas cuyas líneas de servicio son de plomo).

Aunque hemos emprendido medidas para reducir los niveles de plomo, es posible que su nivel elevado de plomo se deba a condiciones intrínsecas a su hogar, tales como la existencia de soldaduras de plomo o de grifos, accesorios y válvulas de latón que pueden contener plomo. Nuestro sistema se esfuerza en reducir al máximo la corrosividad de nuestra agua (el agua corrosiva puede disolver el plomo de los materiales que lo contengan) y usted puede emprender ciertas medidas para reducir la exposición. Le aconsejamos seriamente de emprender las medidas a continuación para reducir su nivel de exposición al plomo en el agua potable.

¿Cómo afecta el plomo a la salud?
El plomo puede causar serios problemas de salud si cantidades excesivas provenientes del agua potable, u otras fuentes, se introducen en su cuerpo. Puede dañar al cerebro y a los riñones e interferir en la producción de glóbulos rojos que transportan oxígeno a todas las partes de su cuerpo. El riesgo más serio de exposición

al plomo es para los infantes, los niños de baja edad y las mujeres encintas. Los científicos han conectado los efectos del plomo en el cerebro con coeficientes de inteligencia más reducidos en los niños. Niveles bajos de plomo tienen un mayor efecto en los adultos con problemas de riñón y de alta presión sanguínea que en los adultos sanos. El plomo se almacena en los huesos y puede ser dispersado más tarde en la vida. Durante el embarazo, el bebé recibe plomo proveniente de los huesos maternos lo cual puede afectar el desarrollo de su cerebro. Si la exposición al plomo le preocupa puede consultar con su proveedor de atención médica acerca de un análisis de sangre de los niños para determinar cuáles son los niveles de plomo.

¿Cuáles son las fuentes del plomo?

Aunque la mayor parte de exposición al plomo ocurre cuando la gente ingiere escamas de pintura o aspira polvo contaminado, la EPA considera que de 10 a 20 por ciento de la exposición humana al plomo puede deberse al plomo en el agua potable. Raramente existe plomo en el agua de fuente, sino que se introduce en el agua de grifo debido a la corrosión de los materiales de fontanería. Las casas construidas antes de 1988 suelen tener tuberías de plomo o soldaduras de plomo. Sin embargo, las casas nuevas también presentan riesgos: inclusive la fontanería que legalmente se halla "sin plomo" pueden contener hasta 8 por ciento de plomo. El problema más corriente radica en los grifos y accesorios de latón o de latón cromado que pueden disolver grandes cantidades de plomo en el agua, especialmente en agua caliente.

¿Qué puedo hacer para reducir la exposición al plomo en el agua de grifo?

- **Deje correr el agua para eliminar el plomo.** Deje correr el agua unos 15 a 30 segundos, si no se ha utilizado en varias horas, para eliminar el plomo de la fontanería interior [or insert a different flushing time if your system has representative data indicating a different flushing time would better reduce lead exposure in your community and if the State approves the wording] o hasta que se enfríe o alcance una temperatura constante antes de utilizar el agua para beber o cocinar.
- **Utilice agua fría para cocinar y para preparar la fórmula para bebés.** No cocine ni beba agua del grifo de agua caliente ya que el plomo se disuelve más fácilmente en agua caliente. No utilice el grifo de agua caliente para preparar la fórmula para bebés.
- **No hierva el agua para eliminar plomo.** El agua hervida no reduce el plomo.
- **Busque otras fuentes o formas de tratar el agua.** Usted puede comprar agua en botellas o un filtro de agua. Lea el embalaje y cerciórese de que el filtro se halla aprobado para reducir plomo.
- **Analice periódicamente el plomo en su agua.** Llámenos al [insert phone number for your water system] para saber cómo obtener un análisis del plomo en su agua. [Include information on your water system's testing program. For example, do you provide free testing? Are there labs in your area that are certified to do lead in water testing?]
- **Identifique y reemplace el equipo de fontanería que contenga plomo.** Los grifos, los accesorios y las válvulas de latón, inclusive las que se anuncian estar "sin plomo", pueden contribuir al plomo en el agua potable. En la actualidad la ley permite que los accesorios de uso final de latón, tales como los grifos, cuyo tenor puede tener hasta 8 por ciento de plomo, puedan etiquetarse "sin plomo". Esta ley también exige que los grifos y otros accesorios de uso final tengan una certificación independiente que cumpla con la Norma 61 NSF/ANSI. Los productos conformes se hallan marcados directamente en el producto mismo o en el embalaje.

Para más información

Llámenos al [insert your water system's phone number]. Para más información acerca de la reducción de exposición al plomo en su hogar y los efectos del plomo en la salud puede visitar el sitio Internet en ***www.epa.gov/lead***, llamar al centro nacional de información sobre el plomo (National Lead Information Center) marcando el 1-800-424-LEAD (424-5323) ó bien consultar a su proveedor de atención médica.

Consumer Notice of Tap Water Results Template for Community Water Systems (Spanish)

[Information in italics is required/mandatory language and cannot be changed]

[Select the appropriate number from the 6 possible options]

Estimado/a (Consumer's Name),
[Insert name or your water system] agradece su participación en el programa de monitoreo de plomo en el agua de grifo. Un nivel de [insert data from the laboratory analysis of the sample collected – make sure the value is in ppb] ha resultado de la muestra obtenida el [date], en la ubicación de [insert address of customer].

5. Su resultado se halla debajo del nivel de acción para el plomo de 15 partes por mil millones (15 ppb). No obstante, nuestro sistema de aguas todavía no ha calculado el valor de percentil 90 de nuestro sistema y todavía no sabemos si nuestro sistema se halla por encima del nivel de acción para el plomo.

¿Qué significa este resultado?
Bajo a la autoridad de la Ley de Agua Potable Segura, la Agencia de Protección del Medio Ambiente (Environmental Protection Agency, o EPA por sus siglas en inglés) de los Estados Unidos estableció a 15 partes por mil millones (ppb) el nivel de acción para el plomo en el agua potable. Esto significa que los servicios públicos deben asegurarse que el agua de grifo de sus clientes no exceda dicho nivel en el 90 por ciento de hogares analizados (valor de percentil 90). *El nivel de acción significa una concentración de contaminante que una vez excedida provoca el tratamiento u otros requisitos que debe acatar un sistema de aguas.* Si el agua de grifo excede dicho límite, el servicio público debe entonces emprender ciertas medidas para corregir el problema. Debido a que el plomo puede conllevar serios riesgos para la salud, la EPA ha establecido un Objetivo de Nivel Máximo de Contaminante (MCLG por sus siglas en inglés) de cero para el plomo. El MCLG es *el nivel de un contaminante en el agua potable cuyo valor menor no presenta ningún riesgo conocido o previsto para la salud. Los niveles MCLG ofrecen un margen de seguridad.*

Estamos en proceso de determinar el valor de percentil 90 de nuestro sistema de aguas. Usted puede llamarnos al [insert water system phone number] después de [insert date that your 90th percentile calculation information will be available] para conocer el valor percentil 90 de nuestro sistema. Si nuestro valor percentil 90 se halla debajo del nivel de acción para el plomo, no será necesario emprender medidas suplementarias y seguiremos con nuestro programa regular de monitoreo del plomo en el agua potable.

Si nuestro valor de percentil 90 se halla en excedencia del nivel de acción para el plomo existen ciertas medidas que emprenderemos para corregir este problema. Comenzaremos a tomar muestras cada 6 meses con el fin de monitorear de cerca los niveles de plomo en nuestro sistema de aguas. Su participación y apoyo continuos en nuestro programa de supervisión de agua de grifo es de gran importancia. Iniciaremos una campaña de Educación Pública que permita cerciorarse de que todos nuestros clientes se hallan conscientes de la excedencia en el nivel de acción, comprenden cómo el plomo afecta la salud, conocen las fuentes de plomo y saben qué acciones pueden emprender con el fin de reducir la exposición al plomo en el agua potable. También monitorearemos nuestra agua potable, estableceremos controles cuyo fin es reducir la corrosividad de nuestra agua (el agua corrosiva puede disolver el plomo de los materiales que lo contengan) e iniciaremos el reemplazo de líneas de servicio [for those systems with lead service lines].

¿Cómo afecta el plomo a la salud?
El plomo puede causar serios problemas de salud si cantidades excesivas provenientes del agua potable, u otras fuentes, se introducen en su cuerpo. Puede dañar al cerebro y a los riñones e interferir en la producción de glóbulos rojos que transportan oxígeno a todas las partes de su cuerpo. El riesgo más serio de exposición al plomo es para los infantes, los niños de baja edad y las mujeres encintas. Los científicos han conectado los efectos del plomo en el cerebro con coeficientes de inteligencia más reducidos en los niños. Niveles bajos de plomo tienen un mayor efecto en los adultos con problemas de riñón y de alta presión sanguínea que en los adultos sanos. El plomo se almacena en los huesos y puede ser dispersado más tarde en la vida. Durante el embarazo, el bebé recibe plomo proveniente de los huesos maternos lo cual puede afectar el desarrollo de su cerebro.

¿Cuáles son las fuentes del plomo?
Las fuentes principales de la exposición al plomo para la mayoría de niños radican en la pintura con plomo que se deteriora, la tierra residencial y el polvo contaminados con plomo. La exposición al plomo es de especial importancia para la salud, especialmente para los niños de baja edad y para los infantes cuyos cuerpos crecientes tienen tendencia a absorber mayores cantidades de plomo que un adulto corriente. Aunque los niveles de plomo en el agua potable de su hogar se hallaron debajo del nivel de acción, si siente inquietud por la exposición al plomo, se recomienda que los padres consulten a sus proveedores de atención médica acerca de un análisis de sangre para determinar cuáles son los niveles de plomo en los niños. Raramente existe plomo en el agua de fuente, sino que se introduce en el agua de grifo debido a la corrosión de los materiales de fontanería. Las casas construidas antes de 1988 suelen tener tuberías de plomo o soldaduras de plomo.

¿Qué puedo hacer para reducir la exposición al plomo en el agua de grifo?
Aunque los resultados de su análisis se hallan debajo del nivel de acción establecido por la EPA, es posible que usted desee emprender medidas que reduzcan su nivel de exposición aún más.

- **Deje correr el agua para eliminar el plomo.** Deje correr el agua unos 15 a 30 segundos, si no se ha utilizado agua en varias horas, para eliminar el plomo de la fontanería interior [or insert a different flushing time if your system has representative data indicating a different flushing time would better reduce lead exposure in your community and if the State Primacy Agency approves the wording] o hasta que se enfríe o alcance una temperatura constante antes de utilizar el agua para beber o cocinar.
- **Utilice agua fría para cocinar y para preparar la fórmula para bebés.**
- **No hierva el agua para eliminar plomo.**
- **Busque otras fuentes o formas de tratar el agua (agua en botellas o filtros de agua, entre otros).**
- **Analice periódicamente el plomo en su agua.**
- **Identifique y reemplace el equipo de fontanería que contenga plomo.**

Para más información
Llámenos al [insert your water system's phone number]. Para más información acerca de la reducción de exposición al plomo en su hogar y los efectos del plomo en la salud puede visitar el sitio Internet en ***www.epa.gov/lead***, llamar al centro nacional de información sobre el plomo (National Lead Information Center) marcando el 1-800-424-LEAD (424-5323) ó bien consultar a su proveedor de atención médica.

Consumer Notice of Tap Water Results Template for Community Water Systems (Spanish)

[Information in italics is required/mandatory language and cannot be changed]

[Select the appropriate number from the 6 possible options]

Estimado/a (Consumer's Name),
[Insert name or your water system] agradece su participación en el programa de monitoreo de plomo en el agua de grifo. Un nivel de [insert data from the laboratory analysis of the sample collected – make sure the value is in ppb] ha resultado de la muestra obtenida el [date], en la ubicación de [insert address of customer].

6. Su resultado se halla por encima del nivel de acción para el plomo de 15 partes por mil millones (ppb). No obstante, nuestro sistema de aguas todavía no ha calculado el valor de percentil 90 de nuestro sistema y todavía no sabemos si nuestro sistema se halla por encima del nivel de acción para el plomo.

¿Qué significa este resultado?
Bajo a la autoridad de la Ley de Agua Potable Segura, la Agencia de Protección del Medio Ambiente (Environmental Protection Agency, o EPA por sus siglas en inglés) de los Estados Unidos estableció a 15 partes por mil millones (ppb) el nivel de acción para el plomo en el agua potable. Esto significa que los servicios públicos deben asegurarse que el agua de grifo de sus clientes no exceda dicho nivel en el 90 por ciento de hogares analizados (valor de percentil 90). *El nivel de acción significa una concentración de contaminante que una vez excedida provoca el tratamiento u otros requisitos que debe acatar un sistema de aguas.* Si el agua de grifo excede dicho límite, el servicio público debe entonces emprender ciertas medidas para corregir el problema. Debido a que el plomo puede conllevar serios riesgos para la salud, la EPA ha establecido un Objetivo de Nivel Máximo de Contaminante (MCLG por sus siglas en inglés) de cero para el plomo. El MCLG es *el nivel de un contaminante en el agua potable cuyo valor menor no presenta ningún riesgo conocido o previsto para la salud. Los niveles MCLG ofrecen un margen de seguridad.*

Estamos en proceso de determinar el valor de percentil 90 de nuestro sistema de aguas. Usted puede llamarnos al [insert water system phone number] después de [insert date that your 90th percentile calculation information will be available] para conocer el valor percentil 90 de nuestro sistema. Si nuestro valor percentil 90 se halla debajo del nivel de acción para el plomo, no será necesario emprender medidas suplementarias y seguiremos con nuestro programa regular de monitoreo del plomo en el agua potable.

Si nuestro valor de percentil 90 se halla en excedencia del nivel de acción para el plomo existen ciertas medidas que emprenderemos para corregir este problema. Comenzaremos a tomar muestras cada 6 meses con el fin de monitorear de cerca los niveles de plomo en nuestro sistema de aguas. Su participación y apoyo continuos en nuestro programa de supervisión de agua de grifo es de gran importancia. Iniciaremos una campaña de Educación Pública que permita cerciorarse de que todos nuestros clientes se hallan conscientes de la excedencia en el nivel de acción, comprenden cómo el plomo afecta la salud, conocen las fuentes de plomo y saben qué acciones pueden emprender con el fin de reducir la exposición al plomo en el agua potable. También monitorearemos nuestra agua potable, estableceremos controles cuyo fin es reducir la corrosividad de nuestra agua (el agua corrosiva puede disolver el plomo de los materiales que lo contengan) e iniciaremos el reemplazo de líneas de servicio [for those systems with lead service lines].

Es posible que su nivel de plomo se deba a condiciones intrínsecas a su hogar, tales como la existencia de

soldaduras de plomo o de grifos, accesorios y válvulas de latón que pueden contener plomo. Nuestro sistema se esfuerza en reducir al máximo la corrosividad de nuestra agua (el agua corrosiva puede disolver el plomo de los materiales que lo contengan) y usted puede emprender ciertas medidas para reducir la exposición. We strongly urge you to take the steps below to reduce your exposure to lead in drinking water Le aconsejamos seriamente de emprender las medidas a continuación para reducir su nivel de exposición al plomo en el agua potable.

¿Cómo afecta el plomo a la salud?
El plomo puede causar serios problemas de salud si cantidades excesivas provenientes del agua potable, u otras fuentes, se introducen en su cuerpo. Puede dañar al cerebro y a los riñones e interferir en la producción de glóbulos rojos que transportan oxígeno a todas las partes de su cuerpo. El riesgo más serio de exposición al plomo es para los infantes, los niños de baja edad y las mujeres encintas. Los científicos han conectado los efectos del plomo en el cerebro con coeficientes de inteligencia más reducidos en los niños. Niveles bajos de plomo tienen un mayor efecto en los adultos con problemas de riñón y de alta presión sanguínea que en los adultos sanos. El plomo se almacena en los huesos y puede ser dispersado más tarde en la vida. Durante el embarazo, el bebé recibe plomo proveniente de los huesos maternos lo cual puede afectar el desarrollo de su cerebro. Si la exposición al plomo lo preocupa puede consultar con su proveedor de atención médica acerca de un análisis de sangre de los niños para determinar cuáles son los niveles plomo.

¿Cuáles son las fuentes del plomo?
Las fuentes principales de la exposición al plomo para la mayoría de niños radican en la pintura con plomo que se deteriora, la tierra residencial y el polvo contaminados con plomo. La exposición al plomo es de especial importancia para la salud, especialmente para los niños de baja edad y para los infantes cuyos cuerpos crecientes tienen tendencia a absorber mayores cantidades de plomo que un adulto corriente. Aunque los niveles de plomo en el agua potable de su hogar se hallaron debajo del nivel de acción, si siente inquietud por la exposición al plomo, se recomienda que los padres consulten a sus proveedores de atención médica acerca de un análisis de sangre para determinar cuáles son los niveles de plomo en los niños. Raramente existe plomo en el agua de fuente, sino que se introduce en el agua de grifo debido a la corrosión de los materiales de fontanería. Las casas construidas antes de 1988 suelen tener tuberías de plomo o soldaduras de plomo.

¿Qué puedo hacer para reducir la exposición al plomo en el agua de grifo?

- **Deje correr el agua para eliminar el plomo.** Deje correr el agua unos 15 a 30 segundos, si no se ha utilizado agua en varias horas, para eliminar el plomo de la fontanería interior [or insert a different flushing time if your system has representative data indicating a different flushing time would better reduce lead exposure in your community and if the State Primacy Agency approves the wording] o hasta que se enfríe o alcance una temperatura constante antes de utilizar el agua para beber o cocinar.
- **Utilice agua fría para cocinar y para preparar la fórmula para bebés.** No cocine ni beba agua del grifo de agua caliente ya que el plomo se disuelve fácilmente en agua caliente. No utilice el grifo de agua caliente para preparar la fórmula para bebés.
- **No hierva el agua para eliminar plomo.** El agua hervida no reduce el plomo.
- **Busque otras fuentes o formas de tratar el agua.** Usted puede comprar agua en botellas o un filtro de agua. Lea el embalaje y cerciórese de que el filtro se halla aprobado para reducir plomo.
- **Analice periódicamente el plomo en su agua.** Llámenos al [insert phone number for your water system] para saber cómo y cuándo repetir el análisis de plomo en su agua. [Include information on your water system's testing program. For example, do you provide free testing? Are there labs in your area that are

certified to do lead in water testing?]

- **Identifique y reemplace el equipo de fontanería que contenga plomo.** Los grifos, los accesorios y las válvulas de latón, inclusive las que se anuncian estar "sin plomo", pueden contribuir al plomo en el agua potable. En la actualidad la ley permite que los accesorios de uso final de latón, tales como los grifos, cuyo tenor puede tener hasta 8 por ciento de plomo, puedan etiquetarse "sin plomo". Esta ley también exige que los grifos y otros accesorios de uso final tengan una certificación independiente que cumpla con la Norma 61 NSF/ANSI. Los productos conformes se hallan marcados directamente en el producto mismo o en el embalaje.

Para más información

Llámenos al [insert your water system's phone number]. Para más información acerca de la reducción de exposición al plomo en su hogar y los efectos del plomo en la salud puede visitar el sitio Internet en ***www.epa.gov/lead***, llamar al centro nacional de información sobre el plomo (National Lead Information Center) marcando el 1-800-424-LEAD (424-5323) ó bien consultar a su proveedor de atención.

Appendix C

Contacts and Additional Resources

Federal Informational Sources

- EPA's Web site on Lead: **www.epa.gov/lead**
- EPA's Web site on Lead in Drinking Water: **www.epa.gov/safewater/lead**
- EPA's Web site on Reducing Lead in Drinking Water in Schools and Day Care Centers: **www.epa.gov/safewater/schools**.
- Centers for Disease Control and Prevention's Web site on Lead: **www.cdc.gov/lead**
- National Lead Information Center Hotline: (800) 424-LEAD
- EPA's Safe Drinking Water Hotline: (800) 426-4791

State Drinking Water and Lead Poisoning Prevention Informational Sources

State	Lead in Drinking Water Program	Lead Poisoning Prevention Program
Alabama	Alabama Department of Environmental Management, Water Supply Branch Phone: (334) 271-7700 Web site: www.adem.state.al.us/WaterDivision/Drinking/DWMainInfo.htm	Alabama Department of Public Health, Bureau of Family Health Services, Childhood Lead Poisoning Prevention Program Phone: (334) 206-2966 Web site: www.adph.org/aclppp
Alaska	Alaska Department of Environmental Conservation, Division of Environmental Health, Drinking Water and Wastewater Program Phone: (907) 269-7647 Web site: www.dec.state.ak.us/eh/dw/	Alaska Department of Health and Social Services, Division of Public Health, Section of Epidemiology Phone: (907) 269-8086 Web site: www.epi.hss.state.ak.us/eh/default.stm
Arizona	Arizona Department of Environmental Quality, Drinking Water Section Phone: (602) 771-2300 Toll-free Phone: (800) 234-5677 Web site: www.azdeq.gov/environ/water/dw/	Arizona Department of Health Services, Office of Environmental Health, Lead Poisoning Prevention Program Phone: (602) 364-3118 Web site: www.azdhs.gov/phs/oeh/invsurv/lead/index.htm
Arkansas	Arkansas Department of Health and Human Services, Division of Engineering Phone: (501) 661-2623 Web site: http://www.healthyarkansas.com/eng/index.html	Arkansas Department of Health, Lead Based Paint Program Phone: 501-661-2000 Web site: www.healthyarkansas.com/faq/faq_lead.html
California	California Department of Public Health, Division of Drinking Water and Environmental Management Phone: (916) 449-5600 Web site: www.cdph.ca.gov/programs/Pages/ddwem.aspx	California Department of Health Services, Childhood Lead Poisoning Prevention Branch Phone: (510) 620-5600 Web site: www.dhs.ca.gov/childlead/
Colorado	Colorado Department of Public Health and Environment, Water Quality Control Division Phone: (303) 692-3500 Web site: www.cdphe.state.co.us/wq/index.html	Colorado Department of Public Health and Environment, Lead Poisoning Prevention Phone: (303) 739-1123 Web site: www.cdphe.state.co.us/dc/lead/index.html
Connecticut	Connecticut Department of Public Health, Water Supplies Section Phone: (860) 509-7333 Web site: www.dph.state.ct.us/BRS/Water/DWD.htm	Connecticut Department of Public Health, Lead Poisoning Prevention and Control Program Phone: (860) 509-7299 Web site: www.ct.gov/dph/cwp/view.asp?a=3140&q=387550

Delaware	Delaware Health and Social Services, Division of Public Health, Environmental Evaluation Branch, Office of Drinking Water Phone: (302) 741-8630 Web site: www.dhss.delaware.gov/dhss/dph/hsp/odw.html	Delaware Health and Social Services, Division of Public Health, Office of Lead Poisoning Prevention Phone: (302) 744-4546 Web site: www.dhss.delaware.gov/dph/hsp/lead.html
Florida	Florida Department of Environmental Protection, Drinking Water Program Phone: (850) 245-8336 Web site: www.dep.state.fl.us/water/drinkingwater/index.htm	Florida Department of Health, Division of Environmental Health, Bureau of Community Environmental Health, Childhood Lead Poisoning Prevention Program Phone: (850) 245-4250 Web site: www.doh.state.fl.us/environment/community/lead/
Georgia	Georgia Department of Natural Resources, Environmental Protection Division, Water Resource Branch Phone: (404) 675-6232 Web site: www.georgiaepd.org/Documents/wpb.html	Georgia Department of Human Resources, Division of Public Health, Childhood Lead Poisoning Prevention Program Phone: (404) 463-3754 Web site: http://health.state.ga.us/programs/lead/
Hawaii	Hawaii Department of Health, Environmental Management Division Phone: (808) 586-4258 Web site: www.hawaii.gov/health/environmental/water/sdwb/index.html	Hawaii Department of Health, Maternal and Child Health Branch Phone: (808) 733-9022 Web site: http://hawaii.gov/health/family-child-health/mchb/index.html
Idaho	Idaho Department of Environmental Quality, Division of Environmental Quality, Drinking Water Program Phone: (208) 373-0291 Web site: www.deq.idaho.gov/water/prog_issues/drinking_water/overview.cfm	Idaho Division of Health and Welfare, Bureau of Community and Environmental Health, Indoor Environment Program Phone: (800) 926-2588 Web site: www.healthandwelfare.idaho.gov/portal/alias__Rainbow/lang__en-US/tabID__3392/DesktopDefault.aspx
Illinois	Illinois EPA, Division of Public Water Supplies Phone: (217) 785-8653 Web site: www.epa.state.il.us/water/	Illinois Department of Public Health, Childhood Lead Poisoning Phone: (217) 782-3517 Web site: www.idph.state.il.us/public/hb/hblead.htm
Indiana	Indiana Department of Environmental Management, Office of Water Quality Phone: (317) 232-8670 Web site: www.in.gov/idem/programs/water/index.html	Indiana Department of Health, Children's Lead Poisoning Prevention Phone: (317) 233-1325 Web site: www.in.gov/isdh/programs/lead/index.htm
Iowa	Iowa Department of Natural Resources, Water Supply Program Phone: (515) 725-0282 Web site: www.iowadnr.com/water/drinking/index.html	Iowa Department of Public Health, Bureau of Lead Poisoning Prevention Phone: (800) 972-2026 Web site: www.idph.state.ia.us/eh/lead_poisoning_prevention.asp
Kansas	Kansas Department of Health and Environment, Bureau of Water, Public Water Supply Section Phone: (785) 296-5500 Web site: www.kdheks.gov/pws/	Kansas Department of Health and Environment, Healthy Homes and Lead Hazard Prevention Program Phone: (866)-865-3233 Web site: www.kdheks.gov/lead/
Kentucky	Kentucky Department of Environmental Protection, Division of Water, Water Supply Branch Phone: (502) 564-3410 ext. 552 Web site: www.water.ky.gov/dw/	Kentucky Department of Public Health, Center for Health and Family Services, Adult and Child Health, Maternal and Child Health, Child Lead Poisoning Prevention Program Phone: (502) 564-2154 Web site: http://chfs.ky.gov/dph/ach/mch/clppp.htm

Louisiana	Louisiana Department of Health and Hospitals, Office of Public Health, Center for Environmental and Health Services, Safe Drinking Water Program Phone: (225) 342-9500 Web site: www.dhh.louisiana.gov/offices/?ID=238	Louisiana Department of Health and Hospitals, Office of Public Health, Center for Preventive Health, Genetic Diseases, Childhood Lead Poisoning Prevention Programs Phone: (504) 219-4413 Web site: www.dhh.louisiana.gov/offices/page.asp?ID=263&Detail=6296
Maine	Maine Department of Health and Human Services, Drinking Water Program Phone: (207) 287-2070 Web site: www.maine.gov/dhhs/eng/water/	Maine Department of Health and Human Services, Division of Environmental Health, Environmental and Occupational Health Programs, Childhood Lead Program Phone: (207) 287-8671 Web site: http://maine.gov/dhhs/eohp/lead/
Maryland	Maryland Department of the Environment, Water Supply Program Phone: (410) 537-3702 Web site: www.mde.state.md.us/Programs/WaterPrograms/Water_Supply/index.asp	Maryland Department of the Environment, Lead Poisoning Prevention Program Phone: (800)776-2706 Web site: www.mde.state.md.us/programs/landprograms/leadcoordination/index.asp
Massachusetts	Massachusetts Department of Environment, Drinking Water Program Phone: 617-292-5770 Web site: www.mass.gov/dep/water/drinking.htm	Massachusetts Office of Health and Human Services, Department of Public Health, Childhood Lead Poisoning Prevention Program Phone: (800) 532-9571 Web site: www.mass.gov/?pageID=eohhs2terminal&L=5&L0=Home&L1=Government&L2=Departments+and+Divisions&L3=Department+of+Public+Health&L4=Programs+and+Services+A+-+J&sid=Eeohhs2&b=terminalcontent&f=dph_environmental_lead_g_clppp_about&csid=Eeohhs2
Michigan	Michigan Department of Environmental Quality, Water Bureau Phone: (517) 241-1300 Web site: www.michigan.gov/deqwater	Michigan Department of Community Health, Childhood Lead Poisoning Prevention Program Phone: (517) 335-8885 Web site: www.michigan.gov/mdch/0,1607,7-132-2942_4911_4913---,00.html
Minnesota	Minnesota Department of Health, Drinking Water Protection Section Phone: (651) 201-4700 Web site: www.health.state.mn.us/divs/eh/water/index.html	Minnesota Department of Health, Lead Poisoning Prevention Phone: (651) 201-4620 Web site: www.health.state.mn.us/divs/eh/lead/index.html
Mississippi	Mississippi State Department of Health, Water Supply Division Phone: (601) 576-7518 Web site: www.msdh.state.ms.us/msdhsite/_static/44,0,76.html	Mississippi State Department of Health, Childhood Lead Poisoning Prevention Program Phone: (601) 576-7447 Web site: www.msdh.state.ms.us/msdhsite/_static/41,0,176.html
Missouri	Missouri Department of Natural Resources, Division of Environmental Quality, Public Drinking Water Branch Phone: (800) 361-4827 Website: www.dnr.mo.gov/env/wpp/dw-index.htm	Missouri Department of Health and Senior Services, Childhood Lead Poisoning Prevention Program Phone: (573) 526-4911 Web site: www.dhss.mo.gov/ChildhoodLead/
Montana	Montana Department of Environmental Quality, Public Water Supply Program Phone: (406) 444-4400 Web site: www.deq.state.mt.us/wqinfo/pws/index.asp	Montana Department of Public Health and Human Services, Lead Program Phone: (406) 444-5622 Web site: www.dphhs.mt.gov/epht/lead.shtml

Nebraska	Nebraska Department of Health and Human Services, Environmental Health Services Section, Public Water Supply Program Phone: (402) 471-2306 Web site: www.hhs.state.ne.us/enh/pwsindex.htm	Nebraska Department of Health and Human Services, Lead-Based Paint Program Phone: (402) 471-0386 Web site: www.dhhs.ne.gov/puh/enh/leadpaint/leadindex.htm
Nevada	Nevada Bureau of Health Protection Services, Division of Environmental Protection, Bureau of Safe Drinking Water Phone: (775) 687-9520 Web site: http://ndep.nv.gov/bsdw/index.htm	Southern Nevada Health District, Childhood Lead Poisoning Prevention Program Phone: (702) 759-1000 Web site: www.southernnevadahealthdistrict.org/clppp/index.htm
New Hampshire	New Hampshire Department of Environmental Services, Drinking Water and Ground Water Bureau, Drinking Water Source Protection Program Phone: (603) 271-3503 Web site: www.des.state.nh.us/dwspp	New Hampshire Department of Health and Human Services, Childhood Lead Poisoning Prevention Program Phone: (603) 271-4507 Web site: www.dhhs.state.nh.us/DHHS/CLPPP/default.htm
New Jersey	New Jersey Department of Environmental Protection, Division of Water Supply, Bureau of Safe Drinking Water Phone: (609)292-5550 Web site: www.state.nj.us/dep/watersupply/safedrnk.htm	New Jersey Department of Health and Senior Services, Family Health Services, Childhood Lead Prevention Program Phone: (609) 292-7837 Web site: www.state.nj.us/health/fhs/newborn/lead.shtml
New Mexico	New Mexico Environmental Department, Drinking Water Bureau Phone: (877) 654-8720 (Toll-free) Web site: www.nmenv.state.nm.us/dwb/dwbtop.html	New Mexico Department of Health, Environmental Health Epidemiology Bureau, Lead Poisoning Prevention Program Phone: (888) 878-8992 Web site: www.health.state.nm.us/eheb/lead.html
New York	New York Department of Health, Drinking Water Protection Program Phone: (800) 458-1158 Web site: http://health.state.ny.us/environmental/lead/leadwtr.htm	New York Department of Health, Bureau of Child and Adolescent Health, Lead Program Phone: (518) 474-2084 Web site: www.nyhealth.gov/environmental/lead/
North Carolina	North Carolina Department of the Environment and Natural Resources, Public Water Supply Section Phone: (919) 733-2321 Web site: www.deh.enr.state.nc.us/pws/index.htm	North Carolina Department of Environment and Natural Resources, Children's Environmental Health Branch, Childhood Lead Poisoning Prevention Phone: (919) 715-5237 Web site: www.deh.enr.state.nc.us/ehs/Children_Health/Lead/lead.html
North Dakota	North Dakota Department of Health, Drinking Water Program Phone: (701) 328-5211 Web site: www.health.state.nd.us/MF/dw.html	North Dakota Department of Health, Lead Based Paint Phone: (701) 328.5188 Web site: www.health.state.nd.us/aq/iaq/lbp/index.htm
Ohio	Ohio EPA, Division of Drinking and Ground Waters Phone: (614) 644-2752 Web site: www.epa.state.oh.us/ddagw/	Ohio Department of Health, Lead Poisoning Prevention Phone: (877) 668-5323 Web site: www.odh.ohio.gov/odhPrograms/dspc/lp_prev/lp_prev1.aspx
Oklahoma	Oklahoma Department of Environmental Quality, Water Quality Division Phone: (405) 702-8100 Web site: www.deq.state.ok.us/WQDNew/	Oklahoma Department of Health, Childhood Lead Poisoning Prevention Program Phone: (405) 271-6617 Web site: www.ok.gov/health/Child_and_Family_Health/Screening,_Special_Services_and_Sooner_Start/Oklahoma_Childhood_Lead_Poisoning_Prevention_Program/index.html

Oregon	Oregon Department of Human Services, Public Health Division, Drinking Water Program Phone: (971) 673-0405 Web site: www.oregon.gov/DHS/ph/dwp/	Oregon Department of Human Services, Public Health Division, Lead Poisoning Prevention Program Phone: (971) 673-0440 Web site: www.oregon.gov/DHS/ph/lead/index.shtml
Pennsylvania	Pennsylvania Department of Environmental Protection, Bureau of Water Supply and Wastewater Management Phone: (717) 787-9637 Web site: www.depweb.state.pa.us/watersupply/cwp/view.asp?a=1251&Q=448745&watersupplyNav=|30131|	Pennsylvania Department of Health, Lead Poisoning Prevention and Control Program Phone: (800) 440-5323 Web site: www.dsf.health.state.pa.us/health/cwp/view.asp?a=179&q=201197
Puerto Rico	Puerto Rico Department of Health, Water Supply Supervision Program Phone: (787) 767 – 8181 Web site: www.salud.gov.pr/Pages/default.aspx	Puerto Rico Department of Health Phone: (787) 274-7676 Web site: www.salud.gov.pr/Pages/default.aspx
Rhode Island	Rhode Island Department of Health, Office of Drinking Water Quality Phone: (401) 222-6867 Web site: www.health.state.ri.us/environment/dwq/index.php	Rhode Island Department of Health, Childhood Lead Poisoning Prevention Program Phone: (800) 942-7434 Web site: www.health.state.ri.us/lead/index.php
South Carolina	South Carolina Department of Health and Environmental Control, Bureau of Water Phone: (803) 898-4300 Web site: www.scdhec.net/water/html/dwater.html	South Carolina Department of Health and Environmental Control, Women's and Children's Services, Childhood Lead Poisoning Prevention Program Phone: (866) 466-5323 Web site: www.scdhec.gov/health/mch/wcs/ch/lead.htm
South Dakota	South Dakota Department of Environment and Natural Resources, Drinking Water Program Phone: (605) 773-3754 Web site: www.state.sd.us/DENR/des/drinking/dwprg.htm	EPA Region 8 Lead Program Phone: (303) 312-6966 Web site: www.epa.gov/region8/toxics_pesticides/leadpnt/index.html
Tennessee	Tennessee Department of Environment and Conservation, Division of Water Supply Phone: (615) 532-0191 Web site: www.state.tn.us/environment/dws/	Tennessee Department of Health, Childhood Lead Poisoning Prevention Program Phone: (615) 741-7305 Web site: http://health.state.tn.us/lead/index.htm
Texas	Texas Commission on Environmental Quality, Drinking Water and Water Availability Phone: (512) 239-4691 Web site: www.tceq.state.tx.us/nav/util_water/	Texas Department of State Health Services, Childhood Lead Poisoning Prevention Program Phone: (800) 588-1248 Web site: www.dshs.state.tx.us/lead/default.shtm
Utah	Utah Department of Environmental Quality, Division of Drinking Water Phone: (801) 536-4200 Web site: www.drinkingwater.utah.gov/	Utah Department of Environmental Quality, Office of Epidemiology, Child Blood Lead Epidemiology and Surveillance Phone: (801) 538-6191 Web site: http://health.utah.gov/epi/enviroepi/ables98/child.htm
Vermont	Vermont Department of Environmental Conservation, Water Supply Division Phone: 802-241-3400 Toll-free: 800-823-6500 Website: www.vermontdrinkingwater.org/	Vermont Department of Health, Health Protection Division, Lead Surveillance Program Phone: (802) 865-7786 Web site: http://healthvermont.gov/enviro/lead/lead.aspx
Virginia	Virginia Department of Health, Office of Drinking Water Phone: (804) 864-7500 Web site: www.vdh.virginia.gov/DrinkingWater/Consumer/	Virginia Department of Health, Office of Family Health Services, Childhood Lead Poisoning Prevention Program Phone: (804) 864-7694 Web site: www.vahealth.org/leadsafe/

Washington, DC	DC Department of Health, Environmental Health Administration, Water Quality Division Phone: (202) 535-2190 Web site: **http://doh.dc.gov/doh/cwp/view,a,1374,Q,586624,dohNav_GID,1811,.asp** EPA Web site on Lead in DC Drinking Water: **http://www.epa.gov/dclead/**	DC Department of Health, Lead Poisoning Prevention Program Phone: (202) 442-9216 Web site: **http://doh.dc.gov/doh/site/default.asp**
Washington	Washington Department of Health, Division of Environmental Health, Office of Drinking Water Phone: (360) 236-3100 Web site: **www.doh.wa.gov/ehp/dw/**	Washington Department of Health, Division of Environmental Health, Office of Environmental Health Assessments Phone: (800) 909-9898 Web site: **www.doh.wa.gov/ehp/lead/default.htm**
West Virginia	West Virginia Department of Health and Human Services, Environmental Engineering Division Phone: (304)558-6715 Web site: **www.wvdhhr.org/oehs/eed/**	West Virginia Department of Health and Human Services, Bureau of Public Health, Radiation, Toxics, and Air Division Phone: (304) 558-6716 Web site: **www.wvdhhr.org/rtia/lead.asp**
Wisconsin	Wisconsin Department of Natural Resources, Bureau of Drinking Water and Groundwater Phone: (608) 266-2621 Web site: **www.dnr.state.wi.us/org/water/dwg/**	Wisconsin Department of Health and Family Services, Lead-Safe Wisconsin Phone: (608) 261-6876 Web site: **www.dhfs.state.wi.us/lead/**
Wyoming	U.S. EPA Region 8 Drinking Water Program Phone: (303) 312-6337 Web site: **http://epa.gov/region8/water/dwhome/wycon.html**	Wyoming Department of Health, Preventive Health and Safety Division, Lead Poisoning Prevention Program Phone: (307) 777-6015 Web site: **http://wdh.state.wy.us/PHSD/lead/index.htm*l***

Resources to Locate Organizations in Your Service Area

For a list of organizations in your service area, waters systems should consult with their local public health agency first, as they may have lists of the following organizations in your area. However, the Web sites below have directories where you can input your location to find surrounding organizations.

- Local Public Health Agencies
  Contact your state or local county government
  National Association of County and City Health Officials, Local Public Health Agency Index
  http://lhadirectory.naccho.org/phdir/
- Public and Private Schools or School Boards
  US Department of Education, Institute for Education Sciences, National Center for Education Statistics
  http://nces.ed.gov/globallocator/
- Women, Infants, and Children (WIC) and Head Start programs
  US Department of Agriculture, Food and Nutrition Service, WIC State Agency Contacts
  www.fns.usda.gov/wic/Contacts/ContactsMenu.HTM
  US Department of Health and Human Services, Head Start Locator
  http://eclkc.ohs.acf.hhs.gov/hslc/HeadStartOffices
- Public and Private Hospitals and Medical clinics
  Contact your local health agency
- Pediatricians
  American Academy of Pediatrics Referral Service **www.aap.org/referral/**
  American Board of Pediatrics **www.abp.org/ABPWebSite/**
- Family Planning Clinics
  Contact your local health agency
- Local Welfare Agencies
  Contact your local health agency
- Licensed childcare centers
  National Child Care Association **www.nccanet.org**
- Public and private preschools
  US Department of Education, Institute for Education Sciences, National Center for Education Statistics
  http://nces.ed.gov/globallocator/
- Obstetricians-Gynecologists and Midwives
  American College of Obstetricians and Gynecologists, Physician Lookup
  www.acog.org/member-lookup/
  American College of Nurse-Midwives **www.midwife.org/find.cfm**

Publications

Regulatory Publications

Environmental Protection Agency, 40 CFR 141 and 142 – Drinking Water Regulations; Maximum Contaminant Level Goals and National Primary Drinking Water Regulations for Lead and Copper; Final Rule (72 FR 57782, October 10,2007). This Federal Register Notice and further information is available at http://www.epa.gov/safewater/lcrmr/index.html.

Guidance Documents

"Lead and Copper Rule: Revised Quick Reference Guide for Schools and Child Care Facilities that are Regulated Under the Safe Drinking Water Act." US Environmental Protection Agency, Office of Water, Washington, DC. October 2005, EPA 816-F-05-030. This document is available at http://www.epa.gov/safewater/schools/.

"Lead and Copper Rule: Revised Quick Reference Guide." US Environmental Protection Agency, Office of Water, Washington, DC. June 2008, EPA 816-F-08-018. This document is available at http://www.epa.gov/safewater/lcrmr/.

"How to Determine Compliance with Optimal Water Quality Parameters as Revised by the Lead and Copper Rule Minor Revisions." US Environmental Protection Agency, Office of Water, Washington, DC. February 2001, EPA 815-R-99-019. This document is available at http://www.epa.gov/safewater/lcrmr/.

Risk Communications

"AWWA Public Communications Toolkit." American Water Works Association." This document is available at http://www.awwa.org/Government/Content.cfm?ItemNumber=3851&navItemNumber=3852.

Public Information and Fact Sheets

"Water Health Series: Filtration Facts." US Environmental Protection Agency, Office of Water, Washington, DC. September 2005, 816-K-05-002. This document is available at http://www.epa.gov/safewater/.

"Is There Lead in my Drinking Water?: You can Reduce the Risk of Lead Exposure from Drinking Water" US Environmental Protection Agency, Office of Water, Washington, DC. February 2005, EPA 816-F-05-001. This document is available in English and Spanish at ***http://www.epa.gov/safewater/lead/leadfactsheet.html***.

"Controlling Lead in Drinking Water for Schools and Day Care Facilities: A Summary of State Programs." US Environmental Protection Agency, Office of Water, Washington, DC. July 2004, EPA-810-R-04-001. This document is available at ***http://www.epa.gov/safewater/lcrmr/***.

"Tap Into Prevention: Drinking Water Information for Health Care Providers." US Environmental Protection Agency, Office of Water, Washington, DC. August 2004, EPA 816-C-04-001. This video is available in DVD and VHS format at http://www.epa.gov/safewater/healthcare/index.html.

"Water on Tap: What you Need to Know." US Environmental Protection Agency, Office of Water, Washington, DC. October 2003, EPA 816-K-03-007. This document is available in English, Spanish and Chinese at http://www.epa.gov/safewater/wot/index.html.

"Is There Lead in the Drinking Water?: You Can Reduce the Risk of Lead Exposure from Drinking Water in Educational Facilities" US Environmental Protection Agency, Office of Water, Washington DC. April 2002, 903-F01-002. This document is available at http://www.epa.gov/safewater/lead/.

"Is There Lead in My Drinking Water?: You Can Reduce the Risk of Lead Exposure from Drinking Water in Your Home." US Environmental Protection Agency, Office of Water, Washington, DC. February 2005, EPA 816-F-05-001. This document is available at http://www.epa.gov/ogwdw/lead/leadfactsheet.html.

"Drinking Water from Household Wells." US Environmental Protection Agency, Office of Water, Washington, DC. January 2002, EPA 816-K-02-003. This document is available at http://www.epa.gov/safewater/privatewells/booklet/index.html.

"Lead and Copper Rule: Short-Term Revisions and Clarifications Training." US Environmental Protection Agency, Drinking Water Academy, Washington, DC. April 2008. This presentation is available at http://www.epa.gov/safewater/lcrmr/.

"Children and Drinking Water Standards." US Environmental Protection Agency, Office of Water, Washington, DC. December 1999, 815-K-99-001. This document is available at http://www.epa.gov/safewater/kids/kidshealth/.

"Drinking Water and Health: What You Need to Know!" US Environmental Protection Agency, Office of Water, Washington, DC. October 1999, EPA 816-K-99-001. This document is available in English and Spanish at http://www.epa.gov/safewater/dwh/index.html.

CDC Publications

"Preventing Lead Poisoning in Young Children." Center for Disease Control and Prevention, Atlanta, GA. August 2005. This document is available at http://www.cdc.gov/nceh/lead/publications/pub_Reas.htm.

"Managing Elevated Blood Lead Levels Among Young Children: Recommendations from the Advisory Committee on Childhood Lead Poisoning Prevention." Center for Disease Control and Prevention, Atlanta, GA. March 2002. This document is available at http://www.cdc.gov/nceh/lead/CaseManagement/caseManage_main.htm.

Appendix D

Lead and Copper Rule Public Education Requirements—Federal Regulatory Language

Lead and Copper Rule Short-Term Revisions and Clarifications that Relate to Public Education Requirements

§141.85 Public education and supplemental monitoring requirements.

All water systems must deliver a consumer notice of lead tap water monitoring results to persons served by the water system at sites that are tested, as specified in paragraph (d) of this section. A water system that exceeds the lead action level based on tap water samples collected in accordance with §141.86 shall deliver the public education materials contained in paragraph (a) of this section in accordance with the requirements in paragraph (b) of this section. Water systems that exceed the lead action level must sample the tap water of any customer who requests it in accordance with paragraph (c) of this section.

(a) Content of written public education materials.

(1) Community water systems and Non-transient non-community water systems. Water systems must include the following elements in printed materials (e.g., brochures and pamphlets) in the same order as listed below. In addition, paragraphs (a)(1)(i) through (ii) and (a)(1)(vi) must be included in the materials, exactly as written, except for the text in brackets in these paragraphs for which the water system must include system-specific information. Any additional information presented by a water system must be consistent with the information below and be in plain language that can be understood by the general public. Water systems must submit all written public education materials to the State prior to delivery. The State may require the system to obtain approval of the content of written public materials prior to delivery.

(i) IMPORTANT INFORMATION ABOUT LEAD IN YOUR DRINKING WATER. [INSERT NAME OF WATER SYSTEM] found elevated levels of lead in drinking water in some homes/buildings. Lead can cause serious health problems, especially for pregnant women and young children. Please read this information closely to see what you can do to reduce lead in your drinking water.

(ii) Health effects of lead. Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones, and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development.

(iii) Sources of Lead.
- (A) Explain what lead is.
- (B) Explain possible sources of lead in drinking water and how lead enters drinking water. Include information on home/building plumbing materials and service lines that may contain lead.
- (C) Discuss other important sources of lead exposure in addition to drinking water (e.g., paint).

(iv) Discuss the steps the consumer can take to reduce their exposure to lead in drinking water.
(A) Encourage running the water to flush out the lead.
(B) Explain concerns with using hot water from the tap and specifically caution against the use of hot water for preparing baby formula.
(C) Explain that boiling water does not reduce lead levels.
(D) Discuss other options consumers can take to reduce exposure to lead in drinking water, such as alternative sources or treatment of water.
(E) Suggest that parents have their child's blood tested for lead.

(v) Explain why there are elevated levels of lead in the system's drinking water (if known) and what the water system is doing to reduce the lead levels in homes/buildings in this area.

(vi) For more information, call us at [INSERT YOUR NUMBER] [(IF APPLICABLE), or visit our Web site at [INSERT YOUR WEB SITE HERE]]. For more information on reducing lead exposure around your home/building and the health effects of lead, visit EPA's Web site at http://***www.epa.gov/lead*** or contact your health care provider.

(2) Community water systems. In addition to including the elements specified in paragraph (a)(1) of this section, community water systems must:

(i) Tell consumers how to get their water tested.

(ii) Discuss lead in plumbing components and the difference between low lead and lead free.

(b) Delivery of public education materials.

(1) For public water systems serving a large proportion of non-English speaking consumers, as determined by the State, the public education materials must contain information in the appropriate language(s) regarding the importance of the notice or contain a telephone number or address where persons served may contact the water system to obtain a translated copy of the public education materials or to request assistance in the appropriate language.

(2) A community water system that exceeds the lead action level on the basis of tap water samples collected in accordance with §141.86, and that is not already conducting public education tasks under this section, must conduct the public education tasks under this section within 60 days after the end of the monitoring period in which the exceedance occurred:

(i) Deliver printed materials meeting the content requirements of paragraph (a) of this section to all bill paying customers.

(ii) (A) Contact customers who are most at risk by delivering education materials that meet the content requirements of paragraph (a) of this section to local public health agencies even if they are not located within the water system's service area, along with an informational notice that encourages distribution to all the organization's potentially affected customers or community water system's users. The water system must contact the local public health agencies directly by phone or in person. The local public health agencies may provide a specific list of additional

community based organizations serving target populations, which may include organizations outside the service area of the water system. If such lists are provided, systems must deliver education materials that meet the content requirements of paragraph (a) of this section to all organizations on the provided lists.

(B) Contact customers who are most at risk by delivering materials that meet the content requirements of paragraph (a) of this section to the following organizations listed in 1 through 6 that are located within the water system's service area, along with an informational notice that encourages distribution to all the organization's potentially affected customers or community water system's users:

(1) Public and private schools or school boards.
(2) Women Infants and Children (WIC) and Head Start programs.
(3) Public and private hospitals and medical clinics.
(4) Pediatricians.
(5) Family planning clinics.
(6) Local welfare agencies.

(C) Make a good faith effort to locate the following organizations within the service area and deliver materials that meet the content requirements of paragraph (a) of this section to them, along with an informational notice that encourages distribution to all potentially affected customers or users. The good faith effort to contact at-risk customers may include requesting a specific contact list of these organizations from the local public health agencies, even if the agencies are not located within the water system's service area:

(1) Licensed childcare centers
(2) Public and private preschools.
(3) Obstetricians-Gynecologists and Midwives.

(iii) No less often than quarterly, provide information on or in each water bill as long as the system exceeds the action level for lead. The message on the water bill must include the following statement exactly as written except for the text in brackets for which the water system must include system-specific information: [INSERT NAME OF WATER SYSTEM] found high levels of lead in drinking water in some homes. Lead can cause serious health problems. For more information please call [INSERT NAME OF WATER SYSTEM] [or visit (INSERT YOUR WEB SITE HERE)]. The message or delivery mechanism can be modified in consultation with the State; specifically, the State may allow a separate mailing of public education materials to customers if the water system cannot place the information on water bills.

(iv) Post material meeting the content requirements of paragraph (a) of this section on the water system's Web site if the system serves a population greater than 100,000.

(v) Submit a press release to newspaper, television and radio stations.

(vi) In addition to paragraphs (b)(2)(i) through (v) of this section, systems must implement at least three activities from one or more categories listed below. The educational content and selection of these activities must be determined in consultation with the State.

(A) Public Service Announcements.
(B) Paid advertisements.
(C) Public Area Information Displays.
(D) Emails to customers.
(E) Public Meetings.
(F) Household Deliveries.
(G) Targeted Individual Customer Contact.
(H) Direct material distribution to all multi-family homes and institutions.
(I) Other methods approved by the State.

(vii) For systems that are required to conduct monitoring annually or less frequently, the end of the monitoring period is September 30 of the calendar year in which the sampling occurs, or, if the State has established an alternate monitoring period, the last day of that period.

(3) As long as a community water system exceeds the action level, it must repeat the activities pursuant to paragraph (b)(2) of this section as described in paragraphs (b)(3)(i) through (iv) of this section.

(i) A community water system shall repeat the tasks contained in paragraphs (b)(2)(i), (ii) and (vi) of this section every 12 months.

(ii) A community water system shall repeat tasks contained in paragraph (b)(2)(iii) of this section with each billing cycle.

(iii) A community water system serving a population greater than 100,000 shall post and retain material on a publicly accessible Web site pursuant to paragraph (b)(2)(iv) of this section.

(iv) The community water system shall repeat the task in paragraph (b)(2)(v) of this section twice every 12 months on a schedule agreed upon with the State. The State can allow activities in paragraph (b)(2) of this section to extend beyond the 60-day requirement if needed for implementation purposes on a case-by-case basis; however, this extension must be approved in writing by the State in advance of the 60-day deadline.

(4) Within 60 days after the end of the monitoring period in which the exceedance occurred (unless it already is repeating public education tasks pursuant to paragraph (b)(5) of this section), a non-transient non-community water system shall deliver the public education materials specified by paragraph (a) of this section as follows:

(i) Post informational posters on lead in drinking water in a public place or common area in each of the buildings served by the system; and

(ii) Distribute informational pamphlets and/or brochures on lead in drinking water to each person served by the non-transient non-community water system. The State may allow the system to utilize electronic transmission in lieu of or combined with printed materials as long as it achieves at least the same coverage.

(iii) For systems that are required to conduct monitoring annually or less frequently, the end of the monitoring period is September 30 of the calendar year in which the sampling occurs, or, if the State has established an alternate monitoring period, the last day of that period.

(5) A non-transient non-community water system shall repeat the tasks contained in paragraph (b)(4) of this section at least once during each calendar year in which the system exceeds the lead action level. The State can allow activities in (b)(4) of this section to extend beyond the 60-day requirement if needed for implementation purposes on a case-by-case basis; however, this extension must be approved in writing by the State in advance of the 60-day deadline.

(6) A water system may discontinue delivery of public education materials if the system has met the lead action level during the most recent six-month monitoring period conducted pursuant to §141.86. Such a system shall recommence public education in accordance with this section if it subsequently exceeds the lead action level during any monitoring period.

(7) A community water system may apply to the State, in writing, (unless the State has waived the requirement for prior State approval) to use only the text specified in paragraph (a)(1) of this section in lieu of the text in paragraphs (a)(1) and (a)(2) of this section and to perform the tasks listed in paragraphs (b)(4) and (b)(5) of this section in lieu of the tasks in paragraphs (b)(2) and (b)(3) of this section if:

(i) The system is a facility, such as a prison or a hospital, where the population served is not capable of or is prevented from making improvements to plumbing or installing point of use treatment devices; and

(ii) The system provides water as part of the cost of services provided and does not separately charge for water consumption.

(8) A community water system serving 3,300 or fewer people may limit certain aspects of their public education programs as follows:

(i) With respect to the requirements of paragraph (b)(2)(vi) of this section, a system serving 3,300 or fewer must implement at least one of the activities listed in that paragraph.

(ii) With respect to the requirements of paragraph (b)(2)(ii) of this section, a system serving 3,300 or fewer people may limit the distribution of the public education materials required under that paragraph to facilities and organizations served by the system that are most likely to be visited regularly by pregnant women and children.

(iii) With respect to the requirements of paragraph (b)(2)(v) of this section, the State may waive this requirement for systems serving 3,300 or fewer persons as long as system distributes notices to every household served by the system.

(c) Supplemental monitoring and notification of results.

A water system that fails to meet the lead action level on the basis of tap samples collected in accordance with §141.86 shall offer to sample the tap water of any customer who requests it. The system is not required to pay for collecting or analyzing the sample, nor is the system required to collect and analyze the sample itself.

(d) Notification of results.

(1) Reporting requirement. All water systems must provide a notice of the individual tap results from lead tap water monitoring carried out under the requirements of §141.86 to the persons served by the water

system at the specific sampling site from which the sample was taken (e.g., the occupants of the residence where the tap was tested).

(2) Timing of notification. A water system must provide the consumer notice as soon as practical, but no later than 30 days after the system learns of the tap monitoring results.

(3) Content. The consumer notice must include the results of lead tap water monitoring for the tap that was tested, an explanation of the health effects of lead, list steps consumers can take to reduce exposure to lead in drinking water and contact information for the water utility. The notice must also provide the maximum contaminant level goal and the action level for lead and the definitions for these two terms from §141.153(c).

(4) Delivery. The consumer notice must be provided to persons served at the tap that was tested, either by mail or by another method approved by the State. For example, upon approval by the State, a non-transient non-community water system could post the results on a bulletin board in the facility to allow users to review the information. The system must provide the notice to customers at sample taps tested, including consumers who do not receive water bills.

Section 141.90 Reporting Requirements

(f)(1) Any water system that is subject to the public education requirements in Sec. 141.85 shall, within 10 days after the end of each period in which the system is required to perform public education in accordance with Sec. 141.85 (b), send written documentation to the State that contains:

(i) A demonstration that the system has delivered the public education materials that meet the content requirements in Sec. 141.85 (a) and the delivery requirements in Sec. 141.85 (b); and

(3) No later than 3 months following the end of the monitoring period, each system must mail a sample copy of the consumer notification results to the State along with a certification that the notification has been distributed in a manner consistent with the requirements of Sec. 141.85 (d).

Lead and Copper Rule Short-Term Revisions and Clarifications that Relate to Consumer Confidence Reports (CCR)

§141.154 Required additional health information.

(d) Every report must include the following lead-specific information:

(1) A short informational statement about lead in drinking water and its effects on children. The statement must include the following information:

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. [NAME OF UTILITY] is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your

tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

(2) A system may write its own educational statement, but only in consultation with the State.

Appendix E

Lead and Copper CWS Public Education Fact Sheet

Lead and Copper Rule: Public Education & Other Public Information Requirements for Community Water Systems

Public Education Requirements

Utilities must ensure that water from the customer's tap does not exceed the action level for lead in drinking water (15 ppb) in at least 90 percent of the homes sampled. If you have a **lead action level exceedance** you must complete the following steps to comply with the Lead and Copper Rule (LCR) public education (PE) requirements.

Section 141.85 of the LCR regulations contains specific requirements regarding the content and delivery of your public education program. To learn more about the revisions to the public education requirements, refer to *Implementing the Lead Public Education Provision of the Lead and Copper Rule: A Guide for Community Water Systems*, Section 1, page 5.

Step 1: Develop the content of your written public education materials.

The following information must be included in your PE materials. The text in *italics* is mandatory and must be included as written. Headings in **bold** must be addressed, but can be customized. Fill-in-the-blank templates (in English and Spanish) are available at: **www.epa.gov/safewater/lcrmr/compliancehelp.html**. More information can be found in *Implementing the Lead Public Education Provision of the Lead and Copper Rule: A Guide for Community Water Systems*; Section 1, page 8: Required Content of Public Education Materials and Appendix B: Public Education templates.

Table 1. Required Content and Language for Public Education Materials

Section	Language
Informational Statement * Mandatory language	*Important Information about Lead in Your Drinking Water* *[Insert name of water system] found elevated levels of lead in drinking water in some home buildings. Lead can cause serious health problems, especially for pregnant women and young children. Please read this information closely to see what you can do to reduce lead in your drinking water.*
Health Effects of Lead * Mandatory language	*Lead can cause serious health problems if too much enters your body from drinking water or other sources. It can cause damage to the brain and kidneys, and can interfere with the production of red blood cells that carry oxygen to all parts of your body. The greatest risk of lead exposure is to infants, young children, and pregnant women. Scientists have linked the effects of lead on the brain with lowered IQ in children. Adults with kidney problems and high blood pressure can be affected by low levels of lead more than healthy adults. Lead is stored in the bones and it can be released later in life. During pregnancy, the child receives lead from the mother's bones, which may affect brain development.*
Sources of Lead * Can be customized; Example language	Lead is a common metal found in the environment. The main sources of lead exposure are lead-based paint and lead-contaminated dust or soil, and some plumbing materials. In addition, lead can be found in certain types of pottery, pewter, brass fixtures, food, and cosmetics. Other sources include exposure in the work place and exposure from certain hobbies (lead can be carried on clothing or shoes). Brass faucets, fittings, and valves, including those advertised as "lead-free," may contribute lead to drinking water. EPA estimates that 10 to 20 percent of a person's potential exposure to lead may come from drinking water. Infants who consume mostly formula mixed with lead-containing water can receive 40 to 60 percent of their exposure to lead from drinking water.

Table 1. Required Content and Language for Public Education Materials (continued)

Section	Language
Steps you can take to reduce your exposure to lead in your water * Can be customized; Example language	**1. Run your water to flush out lead.** Run water for 15 - 30 seconds to flush lead from interior plumbing [or insert a different flushing time if your system has representative data indicating a different flushing time would better reduce lead exposure in your community and if the Primacy Agency approves the wording] or until it becomes cold or reaches a steady temperature before using it for drinking or cooking, if it hasn't been used for several hours. [It is likely that systems with lead service lines will need to collect data to determine the appropriate flushing time for lead service lines.][1] **2. Use cold water for cooking and preparing baby formula.** Lead dissolves more easily into hot water. **3. Do not boil water to remove lead.** Boiling water will not reduce lead. **4. Look for alternative sources or treatment of water.** You may want to consider purchasing bottled water or a water filter. Read the package to be sure the filter is approved to reduce lead or contact NSF International at 800-NSF-8010 or www.nsf.org for information on performance standards for water filters. **5. Test your water for lead.** Call us at [insert phone number for your water system] to find out how to get your water tested for lead. [Include information on your water system's testing program. For example, do you provide free testing? Are there labs in your area that are certified to do lead in water testing?] **6. Get your child's blood tested.** Contact your local health department or healthcare provider to find out how you can get your child tested for lead, if you are concerned about exposure. **7. Identify and replace plumbing fixtures containing lead.** Brass faucets, fittings, and valves, including those advertised as "lead-free," may contribute lead to drinking water. The law currently allows end-use brass fixtures, such as faucets, with up to 8% lead to be labeled as "lead free." Visit the NSF Web site at www.nsf.org to learn more about lead-containing plumbing fixtures.
What happened? What is being done? * Can be customized; Example language	[Insert information about how and when the exceedance was discovered in your community and provide information on the source(s) of lead in the drinking water, if known.] [Insert information about what your system is doing to reduce lead levels in homes in your community.]
For More Information * Mandatory language	*Call us at [Insert Number] or (if applicable) visit our Web site at [insert Web site Here]. For more information on reducing lead exposure around your home/building and the health effects of lead, visit EPA's Web site at www.epa.gov/lead, or contact your health care provider.* [We recommend you include the name of your system and the date that the information is being distributed, along with the state water system ID, somewhere on the notice.]

[1]The bracketed language does not need to be included, as worded, in your materials. It is designed to alert systems that, where applicable, lead service lines might affect the flushing time.

FYI

Different Language Communities. If significant proportions of the population in your community speak languages other than English, the PE materials must contain information in the appropriate language(s) regarding the importance of the notice or a contact where persons can obtain a translation or assistance.

Step 2: Get State approval.

You must submit all written PE materials to the Primacy Agency prior to delivery. The Primacy Agency may require you to obtain approval of PE materials prior to delivery.

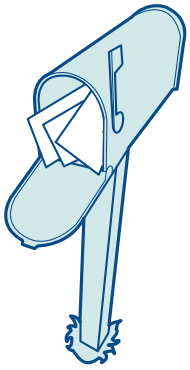

Step 3: Deliver your public education materials.

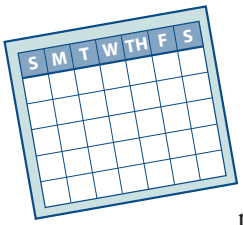

Timing: All public education materials must be delivered within 60 days after the end of the monitoring period in which the exceedance occurred and repeated once every 12 months, EXCEPT providing information on or in each water bill, which must be included in each billing cycle (no less than quarterly or the Primacy Agency can approve a separate mailing) and two press releases per 12 month period for as long as you exceed the lead action level. Also, the Primacy Agency can allow activities to extend beyond the 60-day requirement if needed for implementation purposes; however, this extension must be approved in writing in advance of the 60-day deadline. Note: This extension is only appropriate if the system has initiated public education activities prior to the end of the 60-day deadline.

For more information go to *Implementing the Lead Public Education Provision of the Lead and Copper Rule: A Guide for Community Water Systems*; Section 1, page 9: Required Methods of Delivery for Community Water Systems.

Table 2. Required Methods of Delivery for Small and Large Community Water Systems

Small (<3,300 customers)	Large (>3,300 customers)
Deliver printed materials (pamphlets, brochures, posters) to all bill paying customers	Deliver printed materials (pamphlets, brochures, posters) to all bill paying customers
Deliver public education materials to the following facilities and organizations that are served by the system that are most likely to be visited regularly by pregnant women and children: 1. Local public health agencies[1] 2. Public and private schools or school boards 3. Women Infants and Children (WIC) and Head Start programs 4. Public and private hospitals and medical clinics 5. Pediatricians 6. Family planning clinics 7. Local welfare agencies	Deliver public education materials to the following organizations that are located within your service area, along with a cover letter encouraging distribution to all potentially affected customers or users: 1. Local public health agencies 2. Public and private schools or school boards 3. Women Infants and Children (WIC) and Head Start programs 4. Public and private hospitals and medical clinics 5. Pediatricians 6. Family planning clinics 7. Local welfare agencies

[1]If you do not have a local public health agency, you should contact your State Health Department.

Tip: To obtain a list of organizations in your area, contact your local Public Health Agency. Additional informational resources of associations and licensing agencies of these organizations may be found in *Implementing the Public Education Provision of the Lead and Copper Rule: A Guide for Community Water Systems*; Appendix C.

Systems are required to contact their local Public Health Agencies directly (either in person or by phone).

Table 2. Required Methods of Delivery for Small and Large Community Water Systems (continued)

Small (<3,300 customers)	Large (>3,300 customers)
Make a good faith effort to locate the following organizations within the service area and deliver materials that meet the content requirements, along with an informational notice that encourages distribution to all potentially affected customers or users. The good faith effort to contact at-risk customers may include requesting a specific contact list of the organizations from the local Public Health Agencies, even if the agencies are not located within the water system service area:[2] 1. Licensed childcare centers 2. Public and private preschools 3. Obstetricians-Gynecologists and Midwives	Make a good faith effort to locate the following organizations within the service area and deliver materials that meet the content requirements, along with an informational notice that encourages distribution to all potentially affected customers or users. The good faith effort to contact at-risk customers may include requesting a specific contact list of the organizations from the local Public Health Agencies, even if the agencies are not located within the water system service area:[2] 1. Licensed childcare centers 2. Public and private pre-schools 3. Obstetricians-Gynecologists and Midwives
Provide information on or in each water bill (no less than quarterly or Primacy Agency can approve a separate mailing)[3,4]	Provide information on or in each water bill (no less than quarterly or Primacy Agency can approve a separate mailing)[3,4]
Submit press release to newspaper, television, and radio stations[5]	Submit press release to newspaper, television, and radio stations
Conduct one (1) activity from one of the following general categories:[6,7] • Public Service Announcements • Paid Advertisements • Display Information in Public Areas • Email to Customers • Public Meetings • Delivery to Every Household • Provide Materials Directly to Multi-family Homes • Other Methods Approved by the Primacy Agency	Conduct three (3) activities from one, two, or three of the following general categories:[6,7,8] • Public Service Announcements • Paid Advertisements • Display Information in Public Areas • Email to Customers • Public Meetings • Delivery to Every Household • Provide Materials Directly to Multi-family Homes • Other Methods Approved by the Primacy Agency
	Post material on a publicly accessible Web site (for systems serving >100,000 individuals)

[2]For further clarification of a good faith effort, you should consult with your Primacy Agency.
[3]Primacy Agency may allow a separate mailing if you cannot place information on the water bill.
[4]You may add additional pages (e.g., public education brochure) to the Consumer Confidence Report if timing is appropriate. However, it may be rare that timing will coincide, given that the CCR must contain compliance data collected in the previous calendar year and the report must be provided to consumers no later than July 1 (i.e., the report issued by July 1, 2007 contains compliance data collected in calendar year 2006).
[5]Primacy Agency may waive this requirement as long as you distribute notices to every household served by your system.
[6]You should discuss/verify with your Primacy Agency to ensure fulfillment of all requirements.
[7]Appendix B of *Implementing the Lead Public Education Provision of the Lead and Copper Rule: A Guide for Community Water Systems* contains customizable templates for PE materials that may be used to meet these requirements.
[8]For example, you may do 3 PSAs or 3 public meetings if the Primacy Agency allows.

Table 3. Other Public Information Requirements – Regardless of An Action Level Exceedance
Consumer Confidence Report (CCR) Requirements[1]
Every report must include the following lead-specific information: *If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. [NAME OF UTILITY] is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at* ***http://www.epa.gov/safewater/lead****.*
A system may write its own statement in consultation with the Primacy Agency.
Notification of Results – Reporting Requirements[2]
Must provide a consumer notice of lead tap water monitoring results to all persons served at the tap from which the sample was taken.
Must provide consumer notice as soon as practical, but no later than 30 days after system learns of tap monitoring results.
Must include the following information: results of lead tap water monitoring, an explanation of the health effects of lead (you may use the health effects language found in Table 1), list steps consumers can take to reduce exposure to lead in drinking water, and utility contact information. This notice must also include the maximum contaminant level goal (MCLG) for lead and the action level (AL) for lead and the following definitions for these two terms: *The MCLG for lead is zero and the action level is 15ppb. The MCLG is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety. The action level is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.*
Must be provided to all persons served at the site by mail or other methods (subject to approval by the Primacy Agency). This includes those who do not receive a water bill.

[1]CWSs in States where EPA is the Primacy Agency or have adopted the Revisions by December 2008 must begin including the lead informational statement in CCRs that are due to consumers by July 1, 2009 (i.e. the 2008 CCR). Otherwise, CWSs must begin to include this information in the 2009 CCR.

[2]Consumer Notification of Results templates are available in *Appendix B* of *Implementing the Lead Public Education Provision of the Lead and Copper Rule: A Guide for Community Water Systems*.

For Additional Information:

- *Implementing the Lead Public Education Provision of the Lead and Copper Rule: A Guide for Community Water Systems (EPA 816-R-08-007, June 2008).*
- EPA's Website on Lead in Drinking Water – Lead and Copper Rule: **www.epa.gov/safewater/lcrmr**
- EPA's Safe Drinking Water Hotline: (800) 426-4791
- Your Primacy Agency

Disclaimer: This document is designed for Community Water Systems; the guidance contained in this document does not substitute for provisions or regulations, nor is it a regulation itself. Thus, it does not impose legally-binding requirements on EPA, States, or the regulated community, and may not apply to a particular situation based upon the circumstances.

ATTACHMENT

8

United States
Environmental Protection
Agency

Office of Water
(4606)

EPA 816-D-05-001
October 2005

DRAFT 10-06-05

Getting the Lead Out - A Guide to Reducing Lead in Drinking Water in Schools

Revised Guidance for Schools

Working draft for public review

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1. Introduction

The Environmental Protection Agency (EPA) is responsible for implementing the Safe Drinking Water Act (SDWA), which is the federal law intended to safeguard the nation's drinking water. EPA is concerned about the potential for elevated lead levels in tap water provided for drinking in schools and child care facilities. Children are vulnerable to health risks associated with elevated lead levels in drinking water. The adverse health effects from lead include impaired mental development, IQ deficits, shorter attention spans, and lower birth weight. Exposure to lead is particularly a significant health concern in young children and infants because their bodies tend to absorb more lead than the average adult.

In general, lead gets into drinking water by leaching from plumbing materials and fixtures as water moves through your school's distribution system. Because lead concentrations can change as water moves through the distribution system, the best way to know if a school or child care facility might have high levels of lead in its drinking water is by testing the water in that school or child care facility. Testing facilitates an evaluation of the plumbing and helps target remediation. It is a key first step in understanding the problem, if there is one, and designing an appropriate response.

There is no federal law requiring sampling of drinking water in schools, except for schools that have their own water supply. The vast majority of public water systems do not include schools in their sampling plans, because the EPA rule governing lead in drinking water focused on the sampling of single family dwellings. States and local jurisdictions may, however, establish programs for testing drinking water lead levels in schools.

In December of 2004, the EPA held a national meeting to discuss the potential of lead exposure in school and child care facilities. At the meeting, Assistant Administrator, Benjamin H. Grumbles introduced the **"3T's"** of minimizing lead exposure in school drinking water. The 3T's are:

- *Training* school officials to raise awareness of the potential occurrences, causes, and health effects of lead in drinking water, and to promote better monitoring of drinking water for lead.
- *Testing* of drinking water in schools to identify potential problems.
- *Telling* students, parents, staff, and the larger community about monitoring programs, potential risks, the results of testing, and remediation actions.

The 3T's, along with remediation, will help guide your school to provide safe drinking water to its students and staff.

1.1 Who Should Use This Manual

This manual is intended for use by officials responsible for the maintenance and/or safety of school facilities, including the drinking water. The manual is specifically targeted at schools that receive water from water utilities or water companies such as cities, towns, and water districts.

1.2 Purpose of the Manual

The purpose of this manual is to help schools minimize their students' and staff's exposure to lead in drinking water. It contains recommendations on how to address lead in school drinking water systems; these are suggestions only and are not requirements. This manual does, however, also contain an overview of requirements concerning lead in drinking water. The statutory provisions and regulations described in this document contain binding requirements. The general description here does not substitute for those laws or regulations; nor is this document a regulation itself. As a result, you will need to be familiar with the details of the rules that are relevant to school drinking water systems; you cannot rely solely on this guidance for compliance information. Also, many States (or Tribes) and localities have different, more stringent requirements than EPA's, so you will need to find out what other laws and regulations apply to school drinking water in addition to the ones described here.

1.3 Approach

EPA recommends that key staff, as well as school board members and administrators take the following specific steps to reduce lead in the drinking water in schools:

(1) Conduct a thorough review of this guidance document. Other reference documents are available. See Appendix B.

(2) Review available resources to find out what may already have been done and what assistance may be available to you. See Chapter 2.

(3) Develop a plumbing profile to assess the factors that contribute to lead contamination. See Chapter 3.

(4) Develop a drinking water sampling plan. See Chapter 3.

(5) Test the water. See Chapter 4.

(6) Correct any problems that are identified. See Chapter 5.

(7) Communicate to students, parents, staff, and the larger community about what you are doing to protect them from possible exposure to lead in drinking water. See Chapter 6.

1.4 Health Effects of Lead

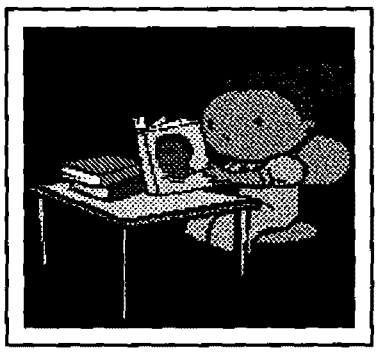

Lead is a toxic metal that can be harmful to human health when ingested or inhaled. Even small doses of lead can be harmful. Unlike most other contaminants, lead is stored in our bones, and can be released later into the bloodstream. Thus, even small doses can accumulate and become significant. The groups most vulnerable to lead include fetuses and young children.

Exposure to lead is a significant health concern for young children and infants whose growing bodies tend to absorb more lead than the average adult. Childhood lead exposure can impair the development of the brain and central nervous system. Children under the age of six are at the highest risk because of their rate of growth. Even at low levels of lead exposure, children may experience lower IQ levels, impaired hearing, reduced attention span, and poor classroom performance. At higher levels, lead can cause even more serious brain damage. **Testing drinking water in schools and child care facilities is important because children spend a significant portion of their day in these facilities and are likely to consume water while they are there.**

Other groups that are vulnerable to lead are people who are immuno-compromised, as well as pregnant women and fetuses. Accumulated lead stored in mothers' blood may damage a child before it is born, causing a lower birth weight and slowing down normal physical and mental development.

The degree of harm from lead exposure depends on a number of factors including the frequency, duration, and dose of the exposures(s) and individual susceptibility factors (e.g., age, previous exposure history, nutrition, and health). In addition, the degree of harm depends on one's total exposure to lead from all sources in the environment–air, soil, dust, food, and water. Lead in drinking water can be a significant contributor to overall exposure to lead, particularly for infants whose diet consists of liquids made with water, such as baby food or formula.

1.5 Sources of Lead

Lead is distributed in the environment through both natural and human-made means. Today, the greatest contributions of lead to the environment stem from past human activities. Sources that produce excess lead exposure include the following:

- **Lead based paint** (which can flake off onto soil, window sills, or floors and be ingested by children).
- **Lead in the air** (from industrial emissions).
- **Dust and soil** (lead deposits in soils around roadways and streets from past emissions by automobiles using leaded gas, together with paint chips and lead paint dust, find their way into the mouths of young children living in these environments).
- **Lead dust** (brought home by industrial workers on their clothes and shoes).
- **Lead in water** (through corrosion of plumbing products containing lead).

The U.S. government has taken steps over the past several decades to dramatically reduce new sources of lead in the environment - by banning the manufacture and sale of leaded paint, by phasing out lead additives in gasoline, by encouraging the phase-out of lead seams in food cans, by banning the sale of pipes and plumbing for drinking water that are not "lead-free", and by banning lead-lined water coolers, among other activities. More recently, the government has begun to address persistent sources of lead in the environment. For example, programs have been instituted to minimize the hazards posed by old lead paint covering millions of homes across the United States, more stringent air control standards are being applied to industries emitting lead, and more stringent regulations are in place to control lead in drinking water. Regulations affecting lead in drinking water are described at the end of this chapter.

1.6 How Lead Gets into Drinking Water

Lead can get into drinking water in two ways:

(1) by being present in the source water, such as coming from contaminated runoff or water pollution.

(2) through an interaction between the water and plumbing materials containing lead, such as through corrosion.

(1) At the Source

Most sources of drinking water have no lead or very low levels of lead (i.e., under 5 parts per billion). However, lead is a naturally occurring mineral and in some instances can get into well water. Lead can enter surface waters (waters from rivers, lakes, or streams) through direct or indirect discharges from industrial or municipal wastewater treatment plants or when lead in air settles into water or onto city streets and eventually, via rain water, flows into storm sewers, or

waterways, which may enter the water supply. Lead from these sources can be easily removed by existing treatment plant technologies.

(2) Through Corrosion

Most lead gets into drinking water after the water leaves the local well or treatment plant and comes into contact with plumbing materials containing lead. These include lead pipe, lead solder (commonly used until 1986), as well as faucets, valves, and other components made of brass. The physical/chemical interaction that occurs between the water and plumbing is referred to as corrosion. The extent to which corrosion occurs contributes to the amount of lead that can be released into the drinking water.

The ***critical issue*** is that even though your public water supplier may deliver water that meets all Federal and State public health standards for lead, you may end up with too much lead in your drinking water because of the plumbing in your facility. The potential for lead to leach into water can increase the longer the water remains in contact with lead in plumbing. This increase occurs up to a certain time limit, which can vary from facility to facility. ***As a result, facilities with intermittent water use patterns, such as schools, may have elevated lead concentrations***. That is why testing water from your drinking water outlets for lead is so important. Drinking water outlets are locations where water may be accessed for consumption such as a drinking fountain, water faucet, or tap.

The corrosion of lead tends to occur more frequently in "soft" water (i.e., water that lathers soap easily) and acidic (low pH) water. Other factors, however, also contribute to the corrosion potential of the water and include water velocity and temperature, alkalinity, chlorine levels, the age and condition of plumbing, and the amount of time water is in contact with plumbing. The occurrence and rate of corrosion depend on the complex interaction between a number of these and other chemical, physical, and biological factors.

As illustrated in Exhibit 1.1, once the water leaves the public water supply system or treatment plant, drinking water comes into contact with plumbing materials that may contain lead. Some lead may get into the water from the distribution system – the network of pipes that carry the water to homes, businesses, and schools in the community. Some communities have lead components in their distribution systems, such as lead joints in cast iron mains, service connections, pigtails, and goosenecks. These components may or may not be owned by your water systems.

The public water supplier is responsible for producing water that is not corrosive if unacceptable levels of lead are found (see "How Lead in Drinking Water is Regulated" in section 1.7). However, centralized treatment by a utility does not guarantee that corrosion of lead from plumbing will not occur within buildings served by the utility, i.e., your school.

Interior plumbing, soldered joints, leaded brass fittings, and various drinking water outlets that contain lead materials are the primary contributors of lead in drinking water. It is also important to note that brass plumbing components contain lead. Pictures of some of the common drinking water outlets are reflected in Exhibit 1.2. (The glossary in Appendix A provides definitions of the various drinking water outlets discussed in this document.) Although there is an increased probability that a given plumbing component installed prior to the 1990s could contain more lead than the newer components, the *occurrence of lead in drinking water can not be predicted based upon the age of the component or the school facility.*

Exhibit 1.1: Potential Sources of Lead in Schools

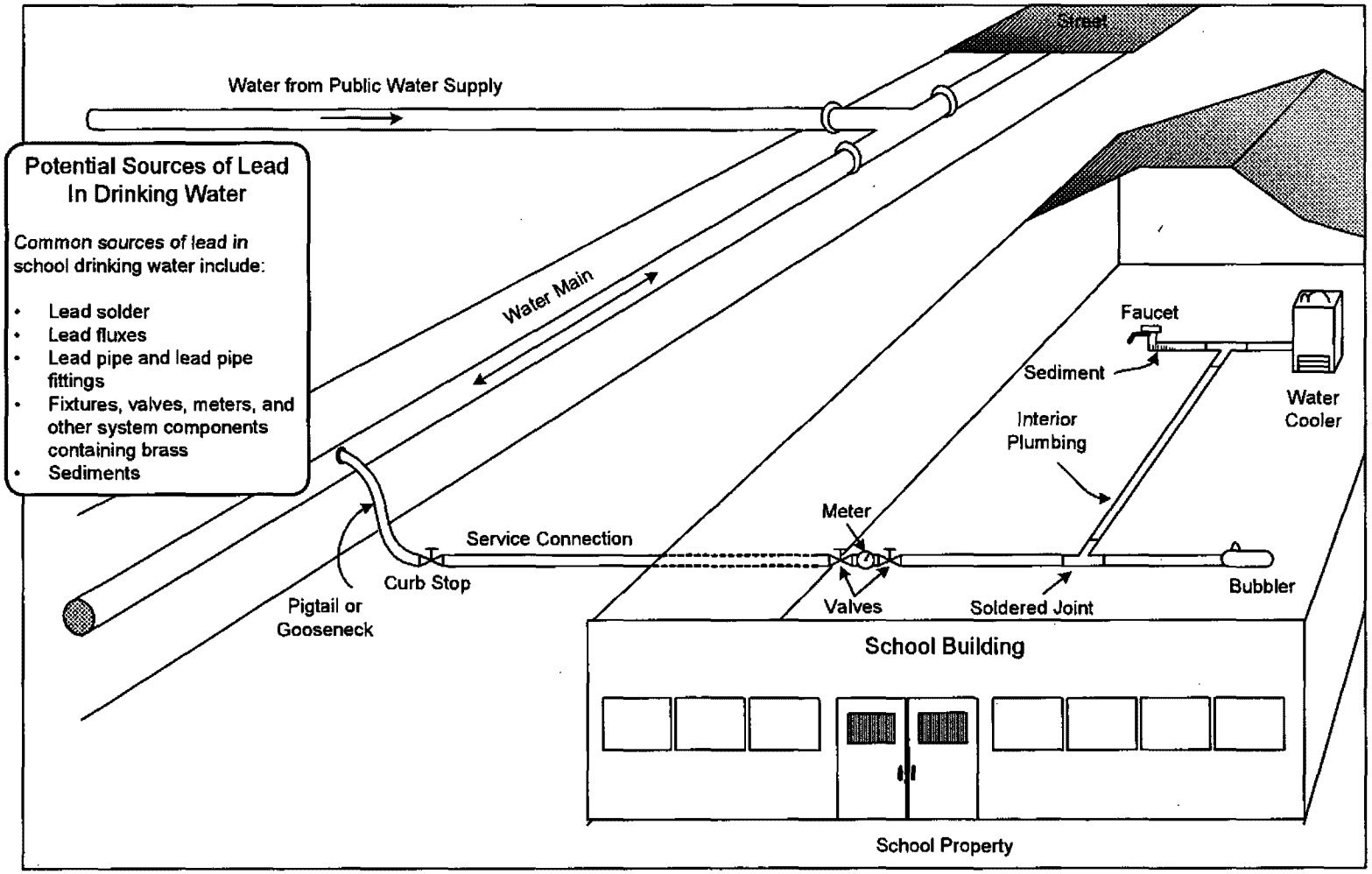

Exhibit 1.2: Common Drinking Water Outlets

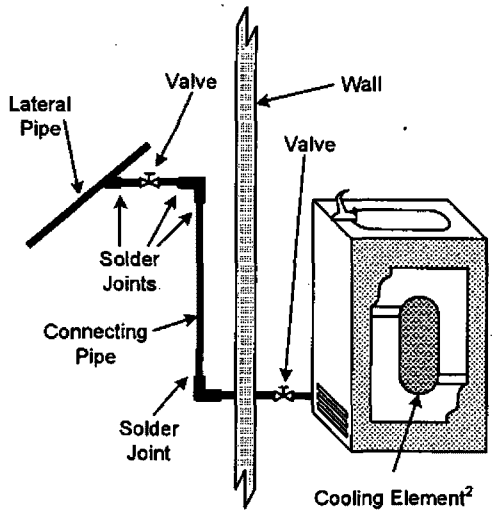

Water Cooler

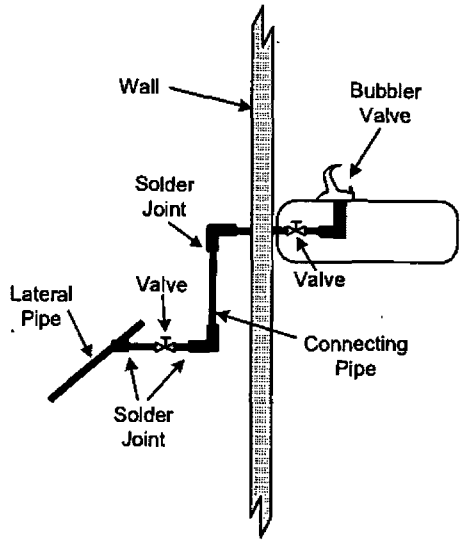

Bubbler

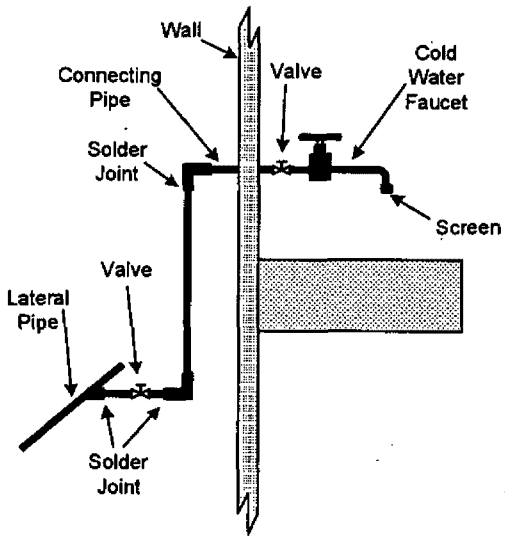

Cold Water Faucet (Tap)

[1]Valve locations are approximate and will vary, depending upon installation.
[2]Old cooling elements may be lead-lined. For more information on replacement of lead-lined cooling elements, see Appendix D of this document.

1.7 How Lead in Drinking Water is Regulated

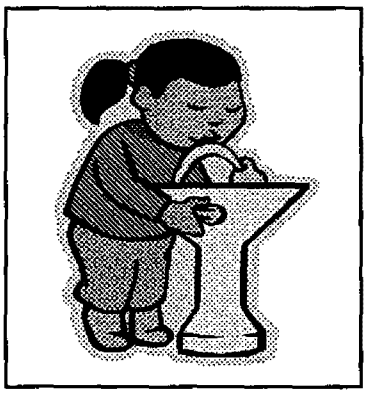

Lead is regulated in non-bottled drinking water under a Federal law known as the Safe Drinking Water Act (SDWA). This Act was initially passed in 1974 and, in part, requires EPA to establish regulations for known or potential contaminants in drinking water for the purpose of protecting public health.

The requirements developed by EPA apply to **public water systems**. *Schools that are served by a water utility* are generally not subject to the SDWA monitoring and treatment requirements, because they are subject to an exclusion in the law. However, some states may have monitoring and treatment requirements for these schools. Questions in this regard may be directed to the appropriate state drinking water program office or the State Department of Education or Public Instruction (see Appendix C for a directory of State programs).

Additional requirements under the Safe Drinking Water Act include specific provisions for controlling lead in drinking water:

- THE LEAD BAN (1986): A requirement that only lead-free materials be used in new plumbing and in plumbing repairs.

- THE LEAD CONTAMINATION CONTROL ACT (LCCA) (1988): The LCCA further amended the SDWA. The LCCA is aimed at the identification and reduction of lead in drinking water at schools and child care facilities. *However,* implementation and enforcement of the LCCA has been at each state's discretion. School monitoring and compliance has varied widely.

- THE LEAD AND COPPER RULE (1991): A regulation by EPA to minimize the corrosivity and amount of lead and copper in water supplied by public water systems.

The table below summarizes the significant elements of the SDWA with respect to lead in drinking water. *Note that the 1991 Lead and Copper Rule does not apply to schools that receive water from a water utility.*

REQUIREMENTS UNDER THE SAFE DRINKING WATER ACT

- The 1986 SDWA Lead Ban. This provision of the SDWA requires the use of "lead-free" pipe, solder, and flux in the installation or repair of any public water system *or* any plumbing in a residential or non-residential facility connected to a public water system. Solders and flux are considered to be lead-free when they contain less than 0.2 percent lead. Before this ban took effect on June 19, 1986, solders used to join water pipes typically contained about 50 percent lead. Pipes and pipe fittings are considered lead-free under the Lead Ban when they contain less than 8 percent lead. Plumbing fixtures that are not :lead free: are banned from sale after August 6, 1998.

- The 1988 Lead Contamination Control Act (LCCA). The purpose of the LCCA is to reduce lead exposure and the health risks associated with it by reducing lead levels in drinking water at schools and child care centers. The LCCA created lead monitoring and reporting requirements for all schools, and required the replacement of drinking water fixtures that contained excessive levels of lead (see Appendix D for a listing of these fixtures). These provision are not enforceable, as a result States have the option to voluntarily enforce the provisions of the Act (or alternate provisions) through their own authority.

- The 1991 Lead and Copper Rule (LCR). The LCR requires public water systems to monitor for lead in drinking water and to provide treatment for corrosive water if lead or copper are found at unacceptable levels. EPA strongly recommends that schools test their facilities for lead. However, unless a school owns its public water system, testing for lead and copper within the school is not specifically required. Therefore, many schools served by water systems owned by cities, towns, or other entities may have never been tested for lead under the LCR.

"EPA strongly recommends that all water outlets in all schools that provide water for drinking or cooking meet a lead standard of 20 parts per billion (ppb) lead or less."

PUBLIC WATER SUPPLY TESTING VS. TESTING AT SCHOOLS

It is important to note that the lead testing protocol used by public water systems is aimed at identifying system-wide problems rather than problems at outlets in individual buildings. Moreover, the protocols for sample size and sampling procedures are different. Under the LCR for public water systems, a lead action level of 15 parts per billion (ppb) is established for 1 liter samples taken by public water systems at high-risk residences. ~~The 15 ppb level is not a mandatory limit. However,~~ If more than 10 percent of the samples at residences exceeds 15 ppb, system-wide corrosion control treatment may be necessary. The 15 ppb action level for public water systems is therefore a trigger for treatment rather than simply a health-based level.
~~EPA strongly recommends that all water outlets in all schools that provide water for drinking or cooking meet a lead standard of 20 ppb or less. The 20 ppb level established for schools is a health-based level for children. Without conducting sampling of each outlet that provides water for drinking or cooking at each school facility, conformance with the 20 ppb level cannot be confirmed.~~
EPA recommends that schools collect 250 ml first-draw samples from water fountains and outlets and that the water fountains and/or outlets be taken out of service if the lead level exceeded 20 ppb. The sample was designed to pinpoint specific fountains and outlets that required remediation (e.g. water cooler replacement). The school sampling protocol maximizes the likelihood that the highest concentrations of lead are found because the first 250ml. are analyzed for lead after overnight stagnation.

2. Planning Your Program and Establishing Partnerships

Monitoring for lead in your school's drinking water is extremely important. If you have never or have not recently monitored for lead in your school's drinking water, you are encouraged to begin the process by identifying any lead problems that you may have in your drinking water. You should start by identifying your existing resources, which include school records, available finances, and personnel. You should also research opportunities for assistance from your local water utility, State and local health agencies, and certified water testing laboratories.

2.1 Assigning Roles

Your school should assign responsibility to a key individual(s) to ensure that testing and follow-up actions are completed. A person should also be appointed to serve as the contact person for communication with interested parties (civic groups, the media, etc.). One person or more may be involved in these activities, but it is important to clearly define responsibilities and to support those people in their roles.

If your school decides to use consultants or lab personnel, their roles should be defined with respect to the responsible person(s) at the school. Contact your state drinking water program or local health department if you need advice on how to identify a qualified consultant.

2.2 School Records

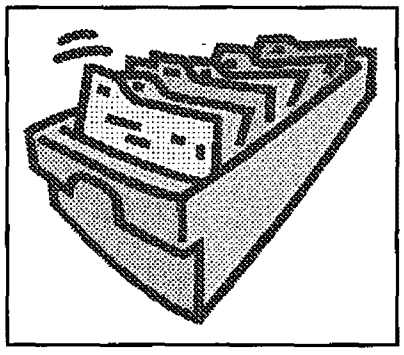

To determine if previous monitoring efforts have been made at your school, you should review your school records. Some schools conducted voluntary monitoring in cooperation with State or local officials in response to the 1988 Lead Contamination Control Act (LCCA). Other schools may have sampled for lead in response to State requirements. This information will be useful in filling out your Plumbing Profile Questionnaire (see Chapter 3), a tool that may be used to help determine whether lead is likely to be a problem in your facility. Records should also be reviewed to determine whether remediation actions have been taken. For example, have water coolers that contain lead been replaced (see Appendix D for a listing of banned water coolers)? While these records may not make additional testing or remediation unnecessary, they will help to prioritize your efforts and make them more efficient.

If testing or remediation was conducted in response to the 1988 Lead Contamination Control Act, it may have taken place 10 years ago or more. If you are not familiar with what activities may have taken place at your school and your records are incomplete or absent, you are

encouraged to contact individuals that may have been involved in the past. Personnel that were involved may remember activities that were not well-documented. They may also remember whether other agencies or the local water utility were involved, which may mean that additional records are available.

2.3 Establishing Partnerships

2.3.1 Assistance from Your Water Utility

Some water utilities have devoted resources to helping schools conduct testing for lead even though they may not be legally required to do so. As discussed in the previous chapter, public water systems are required by the Lead and Copper Rule to monitor for lead at customers' taps. However, testing at schools was not specifically required unless the public water system was owned and operated by the school. Therefore, unless a school served by a water utility tested for lead on its own, or had testing voluntarily conducted by the utility, neither the school nor the utility is likely to have any record of testing. Although the utility may treat the water to minimize corrosion, it is very important that you test to determine to what extent lead is leaching from plumbing within the school.

You are encouraged to contact your utility to determine whether information on previous efforts or assistance is available. Although utilities are under no obligation to do so, assistance may be available through technical guidance, sampling, or sharing of sampling costs. Some utilities may be willing to help develop plumbing profiles and sampling plans (see Chapter 3). The American Water Works Association (AWWA), a non-profit organization of water system professionals, recently prepared a summary of information for utilities to assist them in their efforts to help schools.

You should obtain from your utility the results of its required monitoring under the Lead and Copper Rule to determine whether your utility is in compliance with the requirements of the Lead and Copper Rule. Your utility should be able to tell you whether lead monitoring is current, whether the monitoring results are below the lead action level, and whether corrosion control treatment is provided. Your utility should also be able to tell you whether they have conducted lead monitoring at your school, and they may be able to give you some indication of whether lead could be a problem within your building(s).

You may wish to begin by contacting your local director of public works, water superintendent, or water department, depending upon how your utility is organized. Some utilities have Web sites with contact information.

Questions to Ask Your Drinking Water Supplier

It is important to know who supplies your facility's drinking water, and whether and how the water entering your facility is treated. Some kinds of treatment can make the water more corrosive, while others will reduce the problem. If the water is corrosive, treatment can reduce lead levels throughout the system and can save you and the supplier money by reducing damage to plumbing. The following are some questions you may want to ask your public utility about your water:

- Is the water system in compliance with Federal and State standards for lead monitoring and treatment?
- Does the utility have sample results from the school or from nearby locations?
- Is the water corrosive? If so, what is the system doing to minimize corrosion?
- If a corrosion control chemical is used, does the chemical form a protective coating inside the piping?
- Does the water distribution system have any lead piping (for example, lead goosenecks at service connections) and does the system plan to remove these sources of lead?
- Would the utility provide assistance in your effort?

2.3.2 Assistance from Your State Drinking Water Program

As discussed in Chapter 1, the only federal requirement that applies uniformly to schools that receive water from a water utility is the ban on the installation of water system components that are not lead-free (the Lead Ban).

You are encouraged to contact your state program to determine whether any other requirements apply, or whether technical assistance is available. A listing of state program contacts is contained in Appendix C. Most state programs also have Web sites with contact information. When discussing the issue with your state program, you may wish to request assistance with voluntary compliance with the Lead Contamination Control Act. Since most state programs are familiar with the Act, this should help to clarify your request.

If you have not been able to make contact with your local water utility, you may also wish to ask whether the state program can provide information on monitoring compliance, results, and treatment. Your state program regulates all such utilities for compliance with the Lead and Copper Rule, and therefore should have this information readily available.

You may also wish to ask the state drinking water program staff as to whether they have knowledge of other state programs that are involved in reducing lead risks for children. There may be an interest in a developing a cooperative effort between state programs or between state and local agencies.

2.3.3 Assistance from Your Local Health Office

Many local governments have established programs that are responsible for a wide variety of public health protection activities, such as a Lead Poisoning Prevention Program. These programs are often the first line of defense when public health risks arise. Lead programs for children are often a high priority for local health offices.

You may wish to contact the local health office to discuss your needs. Although resources may be limited, the office may be willing to provide assistance in a variety of ways. For example, a representative may be able to attend Parent and Teacher Association meetings to discuss potential health effects, as well as to act as a contact with state programs to obtain information and assistance. A representative may even be able to assist in developing the plumbing profile, conducting sampling, or in taking follow-up action.

You should be able to find a phone number for your local health office in the listings under your county or city government. Many offices also have a Web site. The following Web site contains information about many local health departments listed by state http://www.healthguideusa.org/local_health_departments.htm.

2.3.4 Assistance from Certified Laboratories

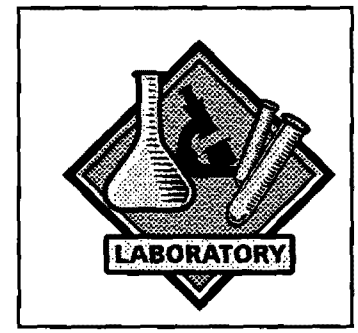

Your state drinking water office should be able to provide a list of certified laboratories in your area. You should only use a laboratory that is certified by the State or EPA for testing lead in drinking water for public water systems.

Some laboratories will provide assistance in addressing the activities described in this manual. For example, some laboratories will collect samples for clients to ensure proper sampling technique and sample preservation. However, costs for services will vary and you may wish to contact several certified labs.

If outside laboratory personnel are used, you should ensure that they understand the testing procedures described in this manual because these procedures differ from those used by public water systems for compliance with the Lead and Copper Rule.

2.3.5 Assistance from Local Community Organizations

In your community there may be a variety of local organizations that can help; for example, community volunteer groups, senior citizens groups, the Parent and Teacher Associations, and local environmental groups. Another useful resource is your region's Pediatric Environmental Health Speciality Unit (PEHSU). Your region's PESHU may be able to provide

risk communication and support to school districts; for more information please visit http://www.aoec.org/PEHSU.org.

Contacting these groups is another way for your school to foster support. These groups might be willing to volunteer time to collect samples and train others to collect samples.

3. Assessment and Strategy: Plumbing Profile and Sampling Plan

Now that you understand the potential dangers of lead contamination in drinking water and the laws and programs in place to address this problem, it is time to begin development of a plumbing profile and a sampling plan.

3.1 Development of a Plumbing Profile for Your Water Distribution System

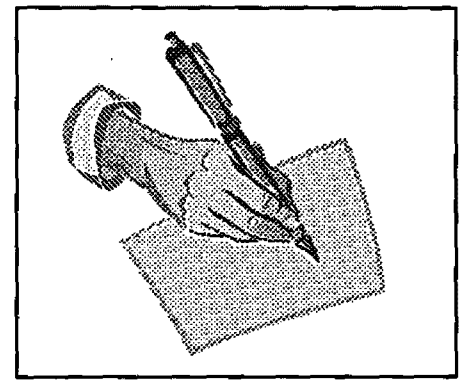

Before testing and correcting lead problems, it is important to target potential problems and to assess the factors that can contribute to lead contamination and the extent to which contamination might occur in your facility. You can best accomplish these objectives by developing a plumbing profile of your facility. If your facility has additions, wings, or multiple buildings built during different years, a separate plumbing profile may be recommended for each. A plumbing profile can be created by answering a series of questions about your facility's plumbing. Conducting this survey of your facility's plumbing will enable you to:

- Understand whether you may have a widespread contamination problem or only localized concerns.
- Identify and prioritize sample sites. EPA recommends the following sites as priority sample sites: drinking fountains (both bubbler and water cooler style), kitchen sinks, classroom combination sinks and drinking fountains, home economics room sinks, teachers' lounge sinks, nurse's office sink, classroom sinks in special education classrooms, and any sink known to be or visibly used for consumption (e.g. coffee maker or cups are nearby).
- Plan, establish, and prioritize remedial actions, as necessary.

Exhibit 3.1 provides a plumbing profile questionnaire and provides a discussion and interpretations of possible answers designed to help you plan your testing strategy and develop your sampling plan. Planning your strategy will enable you to conduct testing in a cost-efficient manner. For a blank copy of the plumbing profile questionnaire, see Appendix H.

Exhibit 3.1: Sample Plumbing Profile Questionnaire and Answer

Plumbing Profile Questionnaire	What Your Answers to the Plumbing Profile Questionnaire Mean
The questions in this column will help you determine whether lead is likely to be a problem in your facility, and will enable you to prioritize your sampling effort.	This column discusses the significance of possible answers to the plumbing profile questions.
1. When was the original building constructed? Were any buildings or additions added to the original facility? If so, complete a separate plumbing profile for each building, addition, or wing.	**Older Buildings** – Through the early 1900s, lead pipes were commonly used for interior plumbing in certain parts of the country in public buildings and private homes. Plumbing installed before 1930 is more likely to contain lead than newer pipes. Between 1920 and 1950, galvanized pipes were also used for plumbing. After 1930, copper generally replaced lead as the most commonly used material for water pipes. Up until the mid- to late-1980s (until the lead-free requirements of the 1986 Safe Drinking Water Act took effect), lead solder was typically used to join these copper pipes. The efforts of your public water supplier over the years to minimize the corrosiveness of the water may have resulted in mineral deposits forming a coating on the inside of the water pipes (scaling). This coating insulates the water, from the plumbing and results in decreased lead levels in water. If the coating does not exist or is disturbed, the water is in direct contact with any lead in the plumbing system. **Newer Buildings** – New buildings are not likely to have lead pipes in their plumbing systems, but they are very likely to have copper pipes with solder joints. Buildings constructed prior to the late 1980s, before the lead-free requirements of the 1986 Safe Drinking Water Act, may have joints made of lead solder. Buildings constructed after this period should have joints made of lead-free solders. Even if "lead free" materials were used in new construction and/or plumbing repairs, lead leaching may occur.

2. If built or repaired since 1986, were lead-free plumbing and solder used in accordance with the lead-free requirements of the 1986 Safe Drinking Water Act? What type of solder has been used?	The 1986 amendments to the Safe Drinking Water Act banned plumbing components that contained high levels of lead. Lead-free solder and flux (not more than 0.2% lead) and pipe, and pipe fittings (not more than 8% lead) must now be used. The leaching potential of lead-free (i.e., tin-antimony) solder is much less than lead solder. The leaching potential of lead-free pipes, fittings, and fixtures is also less, but leaching is still possible. If lead-free materials were not used in new construction and/or plumbing repairs, very high lead levels can be produced. If the scaling does not exist or has not yet adequately formed, any lead that is present is in direct contact with the water.
3. When were the most recent plumbing repairs made (note locations)?	Corrosion occurs (1) as a reaction between the water and the pipes and (2) as a reaction between the copper and solder (metal-to-metal). This latter reaction is known as galvanic corrosion, which can be vigorous in new piping. If lead solders were used in the piping or if brass faucets, valves, and fittings containing alloys of lead were installed *(see response to Question 7 below for a further discussion of brass)*, lead levels in the water may be high. After about 5 years, however, this type of reaction (galvanic corrosion) slows down and lead gets into water mainly as a result of water being corrosive. If the water is non-corrosive, scaling is likely to have occurred and to have reduced opportunities for lead to get into the water system. For these reasons, if the building (or an addition, new plumbing, or repair) is less than 5 years old and lead solder or other materials (e.g., brass faucets containing lead alloys) were used, you may have elevated lead levels. If water supplied to the building is corrosive, lead can remain a problem regardless of the plumbing's age.
4. With what materials is the service connection (the pipe that carries water to the school from the utility's main in the street) made?	Lead piping was often used for the service connections that join buildings to public water systems. The service connection is the pipe that carries drinking water from a public water main to a building. Some localities actually required the use of lead service connections up until the lead-free requirements of the 1986 Safe Drinking Water Act took effect. Although a protective layering of minerals may have formed on these pipes, vibrations can cause flaking of any protective build-up and, thus, allow lead contamination to occur.

5. Specifically, what are the potable water pipes made of in your facility (note the locations)? • Lead • Plastic • Galvanized Metal • Cast Iron • Copper • Other	Survey your building for exposed pipes, preferably accompanied by an experienced plumber who should be able to readily identify the composition of pipes on site. Most buildings have a combination of different plumbing materials: Lead pipes are dull gray in color and may be easily scratched by an object such as a knife or key. Lead pipes are a major source of lead contamination in drinking water. Galvanized metal pipes are gray or silver-gray in color and are usually fitted together with threaded joints. In some instances, compounds containing lead have been used to seal the threads joining the pipes. Debris from this material, which has fallen inside the pipes, may be a source of contamination. Copper pipes are red-brown in color. Corroded portions may show green deposits. Copper pipe joints were typically joined together with lead solders until the lead-free requirements of the 1986 Safe Drinking Water Act took effect. Plastic pipes, especially those manufactured abroad, may contain lead. If plastic pipes are used, be sure they meet NSF International standards and are free of plasticizers that contain lead. *(Note: NSF International is an independent, third-party testing organization. Product listings can be obtained by visiting their Web site at http://www.nsf.org/business/search_listings/index/asp.)*
6. Was lead solder used in your plumbing system? Note the locations with lead solder.	The 1986 amendments to the Safe Drinking Water Act banned plumbing components that contained high levels of lead. Lead-free solder and flux (not more than 0.2% lead) must now be used. The leaching potential of lead-free (i.e., tin-antimony) solder is much less than lead solder.

7. Are brass fittings, faucets, or valves used in your drinking water system? (Note: Most faucets are brass on the inside.) You may want to note the locations on a map or diagram of your facility and make extensive notes that would facilitate future analysis of lead sample results.	Brass fittings, faucets, and valves are golden yellow in color, similar to copper in appearance, or are plated with chrome. Brass is composed primarily of two metals - copper and zinc - and is frequently machined with lead. After 1996, brass fittings installed in drinking water outlets such as faucets and water coolers must meet NSF standards for lead content. While this percentage is considered lead-free under the 1986 Safe Drinking Water Act, some contamination problems still may occur. Older brass faucets may contain higher percentages of lead and lead solder in their interior construction and pose contamination problems. Note that your state or local government may have imposed this standard prior to 1996. The degree to which lead will leach from brass products containing alloys with less than 8 percent lead is dependent upon the corrosiveness of the water and the manufacturing process used to develop the product. A study revealed that fabricated faucets tend to contribute less lead to the water than faucets manufactured by the permanent mold process, regardless of the amount of lead in the alloy. In response, to a requirement of the 1996 SDWA, EPA worked with the plumbing industry and NSF International to develop a voluntary industry standard that is designed to minimize the amounts of lead being leached from these products. This standard is NSF Standard 61, Section 9. Since 1998, all plumbing fixtures sold for use as drinking water supply must meet this standard. Before you purchase any brass plumbing products, you should request information regarding compliance with this standard.
8. How many of the following outlets provide water for consumption? Note the locations. • Water Coolers • Bubblers • Ice Makers • Kitchen Taps • Drinking Fountains or Taps	In addition to lead components in the plumbing system, lead solders or lead in the brass fittings and valves used in some taps, bubblers, and refrigerated water coolers may be sources of lead. It is important to identify the locations of all such drinking water outlets. Faucets in restrooms should not be used to obtain water for drinking. These sinks are not sanitary and you may consider posting signs to warn users.

9. Has your school checked the brands and models of water coolers and compared them to the listing of banned water coolers in Appendix D? Note the locations of any banned coolers.	Water coolers may be a major source of lead contamination. The Federal Consumer Product Safety Commission negotiated an agreement with Halsey Taylor through a consent order agreement published in June 1990 to provide a replacement or refund program that addresses all the water coolers listed by EPA as having lead-lined tanks. Halsey Taylor was the only company identified by EPA as manufacturing some water coolers with lead-lined tanks. Additionally, some coolers manufactured by EBCO had a bubbler valve and one soldered joint that contained lead. See Appendix D of this manual for a summary of EPA's list of water coolers found to contain lead. Use the list to help prioritize your sampling. If your water cooler is listed as having a lead-lined tank, you should not use the water for drinking and you should remove the cooler immediately as these coolers pose the highest risk of contamination.
10. Do outlets that provide drinking water have accessible screens or aerators? (Standard faucets usually have screens. Many coolers and bubblers also have screens.) Note the locations.	Lead-containing sediments that are trapped on screens can be a significant source of lead contamination. Sediments should be tested for the presence of lead and the screens should be cleaned frequently. If sediment has been a problem, then regular cleaning of the screens is appropriate. However, the manufacturer should be contacted to obtain instructions for cleaning screens.
11. Have these screens been cleaned? Note the locations.	
12. Can you detect signs of corrosion, such as frequent leaks, rust-colored water, or stained dishes or laundry? Note the locations.	Frequent leaks, rust-colored water, and stains on fixtures, dishes, and laundry are signs of corrosive water. Blue-green deposits on pipes and sinks indicate copper corrosion; brown stains result from the corrosion of iron. Where such symptoms occur, high levels of lead, copper, and iron may be present in the water. Lead can accumulate with iron which can form sediments that are hard to remove.
13. Is any electrical equipment grounded to water pipes? Note the locations.	If electrical equipment, such as telephones, has been installed using water pipes as a ground, the electric current traveling through the ground wire will accelerate the corrosion of any interior plumbing containing lead. The practice should be avoided, if possible. However, if existing wires are already grounded to water pipes, the wires *should not be removed* from the pipes unless a qualified electrician installs an alternative grounding system. Check with your local building inspector on this matter. Your State or local building code may require grounding of the wires to the water pipes. Improper grounding of electrical equipment may cause severe shock.
14. Have there been any complaints about bad (metallic) taste? Note the locations.	Although you cannot see, taste, or smell lead dissolved in water, the presence of a bad or metallic taste may indicate corrosion and possible lead contamination.

15. Check building files to determine whether any water samples have been taken from your building for any contaminants (also check with your public water supplier). • Name of contaminant(s)? • What concentrations of these contaminants were found? • What was the pH level of the water? • Is testing done regularly at your facility?	As discussed previously, lead testing may have previously been done voluntarily under the Lead Contamination Control Act. Results of analyses of general water quality, such as measures of pH, calcium hardness, and carbonate alkalinity, can provide important clues about the corrosiveness of the water. Generally, the higher the values of these parameters, the less likely it is that your water is corrosive. If you have no data from your school, your utility should at least be able to provide information about the general water quality.
16. Other plumbing questions: • Are blueprints of the building available? • Are there known plumbing "dead-ends," low use areas, existing leaks or other "problem areas"? • Are renovations being planned for part or all of the plumbing system?	You should incorporate this information into decisions regarding sample locations and sampling protocol.

After reviewing the plumbing profile questionnaire and background regarding what your answers to the profile could mean (Exhibit 3.1), you have learned that lead contamination may not occur uniformly throughout a building. You should have an idea of the type of water you are receiving. From this assessment, you will then have a better sense of how to organize your testing activities. When planning your strategy, it is important to note that large variations in lead concentrations may be found among individual outlets in a facility because of differences in flow rates and/or building materials.

In general, you may find widespread presence of lead in your drinking water when:

- Lead pipes are used throughout the facility.
- The building's plumbing is less than 5 years old and lead solder was illegally used (i.e., after the "lead-free" requirements of the 1986 Safe Drinking Water Act amendments took effect). This situation is rare.
- The water is corrosive.
- Sediment or scale in the plumbing and faucet screens contain lead.
- Brass fittings, faucets, and valves were installed throughout the building less than 1 year ago (even though they may contain less than the "lead-free" requirements of the Safe Drinking Water Act).
- The service connection (i.e., the pipe that carries water from the public water system main to the building) is made of lead.
- Water coolers or other outlets have components that are not lead-free, especially if the water is corrosive.

In general, you can expect localized presence of lead if:

- Some brass fittings, faucets, and valves have been installed in the last year (even though they may meet the SDWA lead content requirements).
- Drinking water outlets are in line with brass flush valves, such as drinking water fountains near rest room supply piping.
- Lead pipes are used in some locations.
- The water is non-corrosive.
- Lead solder joints were installed in short sections of pipe before 1986 or were illegally installed after 1988 (i.e., after the lead-free requirements of the Safe Drinking Water Act took effect).

- There are areas in the building's plumbing with low flow or infrequent use.
- Sediment in the plumbing and screens frequently contains lead.
- Some water coolers or other outlets have components that are not lead-free.

After identifying potential problem areas in your facility through completion of a plumbing profile, the next step is to have the water tested. A sampling plan should be developed before testing begins. Key issues to consider in devising a sampling plan include the following:

- Who will be in charge of the sampling effort?
- Who will collect and analyze samples and maintain records?
- Where will the samples be taken?

3.2 Who Should Create the Sampling Plan? - Leadership in Sampling

As discussed in Chapter 2, it is important to designate a school employee(s) to take responsibility of the sampling program and follow-up activities, even if someone else is hired to conduct testing. If laboratory representatives or consultants are used to conduct testing, you should ensure that they have experience in conducting lead testing at schools. You may wish to ask the laboratory or consultant for references. Contact your State or local health department or drinking water program if you need advice on how to identify a qualified consultant.

3.3 Where Should I Sample? - Determining Sample Locations

You should decide where to take samples and how to prioritize the sample sites based on your responses to the plumbing profile and your knowledge of the facility. Generally, testing should be conducted at those outlets that are most likely to have contamination since they would represent the greatest hazards to human health. However, every outlet used for drinking or cooking should be sampled if possible. Priority sample sites that are most likely to have lead contamination include:

- Areas containing lead pipes or lead solder.
- Areas of recent construction and repair in which materials containing lead were used.
- Areas where the plumbing is used to ground electrical circuits.
- Areas of low flow and/or infrequent use.

- Areas containing brass fittings and fixtures.

- Water coolers identified by EPA (See Appendix D) as having lead-lined storage tanks or lead parts should be removed.

It may be helpful to diagram the plumbing in your facility and the outlets that will require testing. Examples of plumbing configurations for a single-level building and a multi-level building are illustrated in Exhibits 3.2 and 3.3, respectively. Locate service connections, headers, laterals, loops, drinking water fountains (bubblers and coolers), riser pipes and different drinking water loops *(see Appendix A for a glossary of these plumbing terms)*, and decide in what order you wish to take samples.

As shown in the above-mentioned Exhibits, water is carried to the different floors in a multi-level building by one or more riser pipes. Water from the riser pipes is usually distributed through several different drinking water loops. In addition, in some buildings, water may be stored in a tank prior to distribution. In single-story buildings, the water comes from the service connection via main plumbing branches, often called headers. These, in turn, supply water to laterals. Smaller plumbing connections from the laterals and loops supply water to the faucets, drinking water fountains, and other outlets. For sampling purposes, water within a plumbing system moves "downstream" from the source (i.e., from the distribution main in the street through the service connection and through the building).

3.4 Who Should Collect the Samples and Where Do Samples Go for Analysis? - Collection and Analysis of Samples

Deciding who will collect samples will be based, in part, on who will analyze the samples. Some State drinking water programs or public water suppliers may provide both services, although there is no Federal requirement that they do so. Regardless of who collects the samples, you should employ a certified laboratory to conduct sample analyses. Contact your State drinking water program (Appendix C) or EPA's Safe Drinking Water Hotline (Appendix B) for a list of certified laboratories in your area. Consider the following issues prior to making a selection:

- Will the laboratory take samples for you or will they provide training and sample containers for collectors designated by you? (Testing activities can be useless if sample collectors do not follow proper sampling procedures.)

- If it is determined that a laboratory or other consultant will take your samples, make sure they understand the sample protocol. This protocol is described in the next section. *Make sure that laboratories or consultants thoroughly understand this protocol and do not confuse it with the lead testing protocol used by public water suppliers.* The two protocols are different.

- What is the cost of the laboratory's services? Costs will vary, depending upon the extent of the services to be provided (e.g., if only analyses are conducted or if other services such as sample collection are provided). You may want to contact several laboratories to compare prices and services, and you may wish to combine your sampling with another school to obtain a cheaper analysis rate.

- What is the laboratory's time frame for providing sample results?

- Recordkeeping is a crucial activity. *Appendix E contains a sample recordkeeping form and identifies the type of information you should consider recording.*

- You should have a written agreement or contract with the laboratory for all of the services to be provided.

Exhibit 3.2: Plumbing Configuration for a Single-Level Building

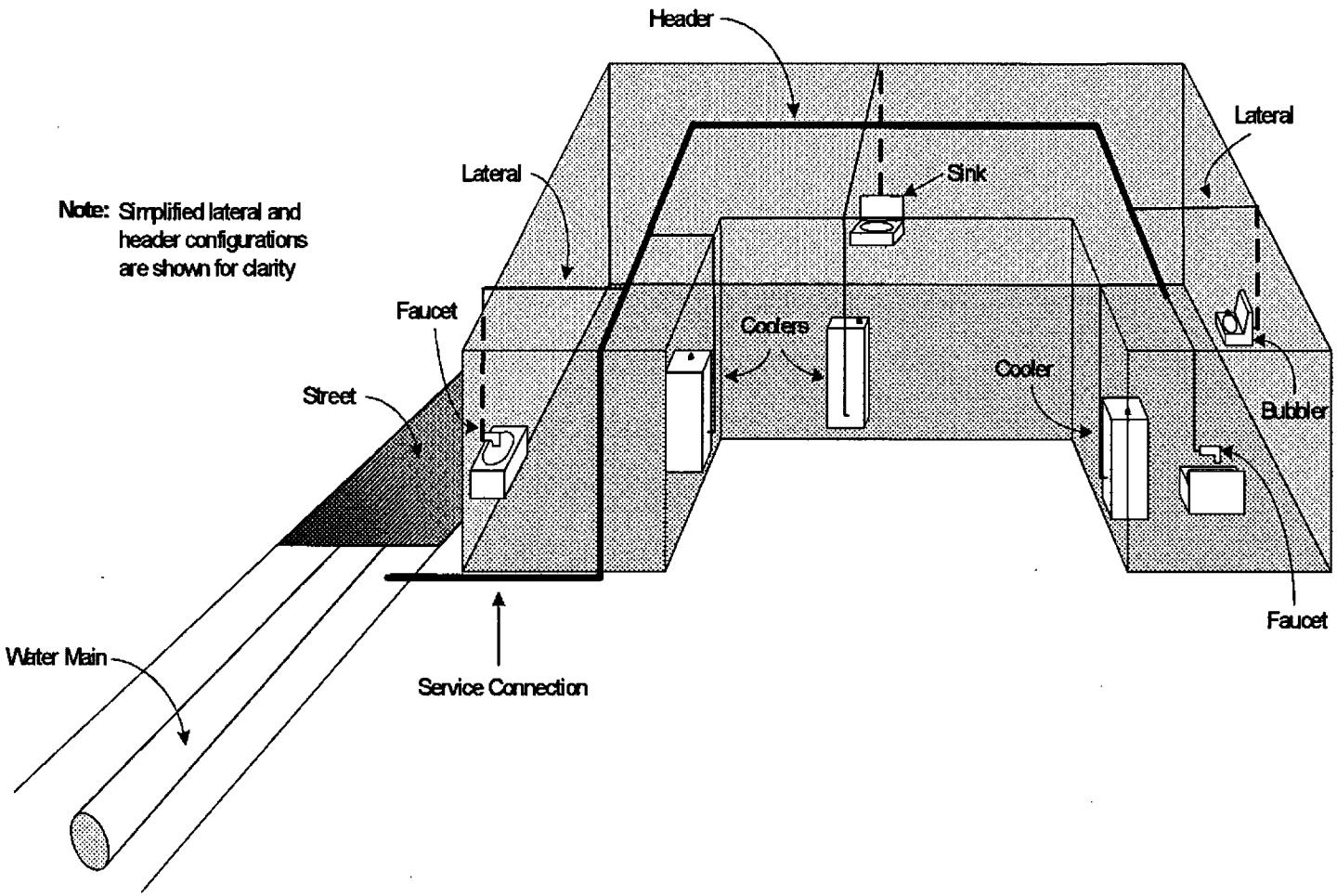

Exhibit 3.3: Plumbing Configuration for a Multi-Level Building

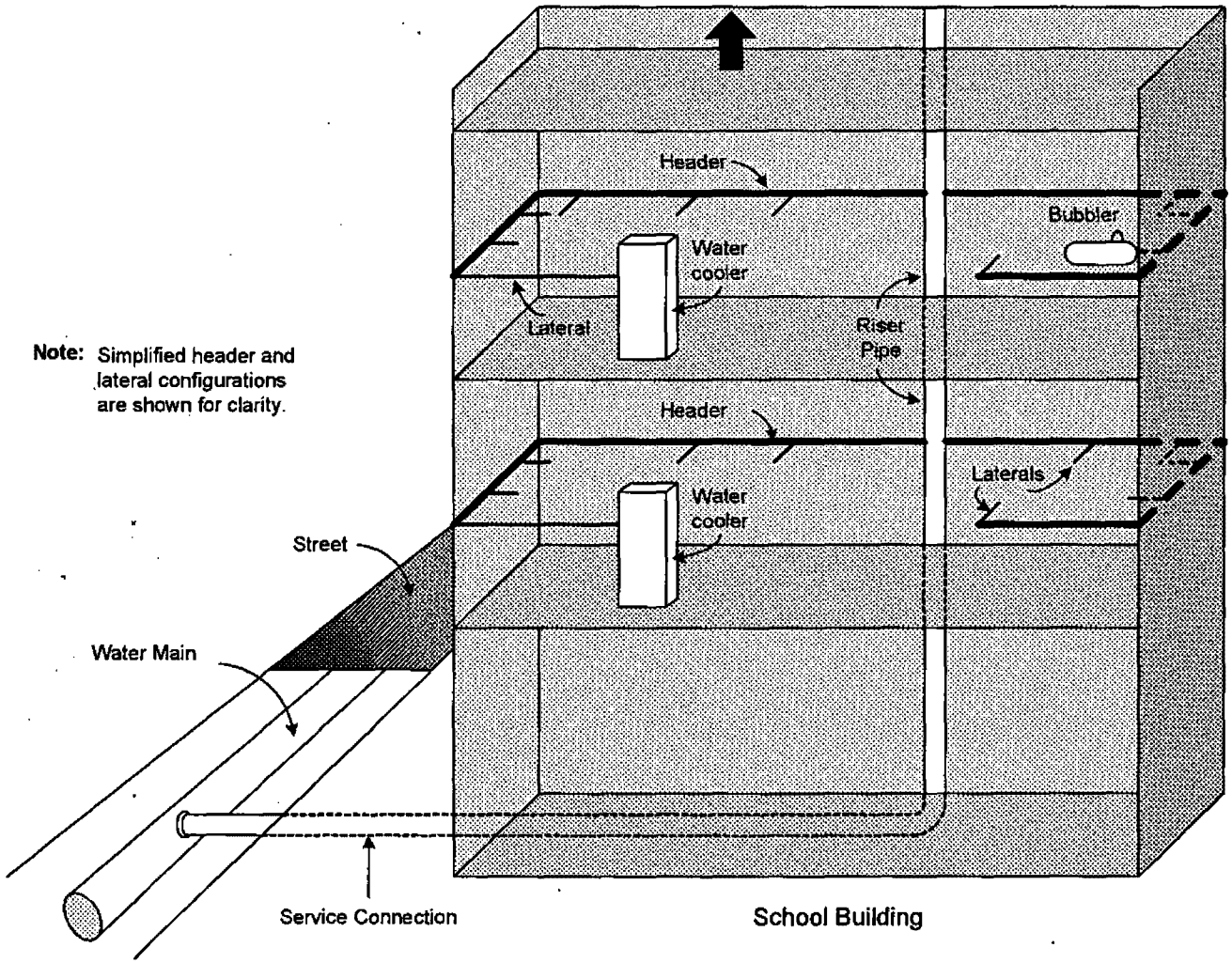

4. Conducting Sampling

4.1 Recommended General Sampling Procedures

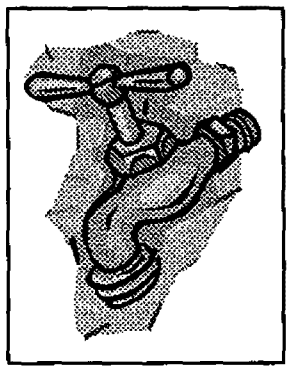

This section outlines the general procedures EPA recommends for collecting drinking water samples for lead testing, and the two-step sampling process for sampling at your school. Please note that the general two step sampling process in this chapter contains recommendations for sampling that were created for typical plumbing configurations. If you believe that the recommendations do not fit your specific site conditions, you should modify them as appropriate. See additional discussion in 4.4.3.

4.2 Collection Procedures

- All water samples collected should be 250 milliliters (mL) in volume. School samples are smaller than the one-4liter sample collected by public water suppliers for compliance with the Lead and Copper Rule. A smaller sample is more effective at identifying the sources of lead in a building.

- Collect all water samples before the facility opens and before any water is used. Ideally, the water should sit in the pipes unused for at least 8 hours but not more than 18 hours before a sample is taken. However, water may be more than 18 hours old at some outlets that are infrequently used. If this is typical of normal use patterns, then these outlets should still be sampled.

- Make sure that no water is withdrawn from the taps or fountains from which the samples are to be collected prior to their sampling.

- Unless specifically directed to do so, do not collect samples in the morning after vacations, weekends, or holidays because the water will have remained stagnant for too long and would not represent the water used for drinking during most of the days of the week.

- Assign a unique sample identification number to each sample collected - use your sampling plan schematic with a numbering system. Record the identification number on the sample bottle and on your recordkeeping form *(see Appendix E)*. On your recordkeeping form include information on:
  - type of sample taken, e.g., initial, first follow-up, etc.
  - date and time of collection
  - name of the sample collector

- location of the sample site
- name of the manufacturer that produced the outlet, and the outlet's model number, if known.

Consult the sample form in Appendix E for additional recordkeeping items.

4.3 Laboratory Analysis and Handling of Sample Containers

As discussed in the previous chapter, the certified drinking water lab that you select will either collect the samples for you or they will provide you with materials and instructions if you plan to collect your own samples.

If you collect your own samples, you should follow the instructions provided by the laboratory for handling sample containers to ensure accurate results (*also see Appendix F – Preservation of Samples and Sample Containers*). Make sure the containers are kept sealed between the time of their preparation by the lab and the collection of the sample. Be sure to carefully follow the laboratory's instructions for preservation of the samples. Icing or refrigeration of the samples will likely be necessary. Most laboratories will provide shipping containers and ice packs if shipping is necessary.

> When the laboratory returns your test results, the concentrations of lead in your drinking water samples will be reported in metric form such as milligrams per liter (mg/L) or micrograms per liter (μg/L), or they will be reported as a concentration, such as parts per million (ppm) or parts per billion (ppb), respectively.
>
> Milligrams per liter (mg/L) is essentially the same as parts per million (ppm). Micrograms per liter (μg/L) is essentially the same as parts per billion (ppb).
>
> **Examples: 1 mg/L = 1000 μg/L = 1 ppm =1000 ppb; 0.020 mg/L = 20 μg/L = 20 ppb**

4.

4 Overview of the Two-Step Sampling Process

EPA recommends that a two-step sampling process be followed for identifying lead contamination. In Step 1, initial samples are collected to identify the location of outlets providing water with high lead levels. In Step 2, follow-up water samples are taken only from problem locations to determine the lead level of water that has been stagnant in upstream plumbing, but not in the outlet fixture. The results of initial and follow-up samples are then compared to determine the sources of lead contamination and to determine appropriate corrective measures.

The protocol, which consists of an established sample size volume and water retention time, is designed to identify lead problems at outlets and upstream plumbing within school facilities.[1]

This section provides a brief definition and overview of the purpose of each of the two steps in EPA's lead testing process.

4.4.1 Step 1: Initial Sampling

In Step 1, initial screening samples are taken from the service connection and the drinking water outlets in the facility. These initial samples determine: a) the lead content of water from your facility's service connection and b) the lead content of water sitting in water outlets that are used for drinking or cooking within your building(s). The goal of Step 1 is to compare the lead level of water from your facility's service connection to water that has remained stagnant in the outlet or fixture.

To determine the lead content in water from your facility's service connection, first contact your public water supplier to identify what lead levels you might expect. *(If you completed the plumbing profile questionnaire in Appendix H that is also discussed previously in Exhibit 3.1, you will already have this information.)* Second, test water that is representative of your service connection and the mains in your public water system. Compare the results to determine what contribution your service connection is making to lead concentrations in your building (see Exhibit 4.2). Then, compare this finding to the results from outlets in the facility. For sampling instructions for initial samples from service connections, mains, and different types of water outlets, see Exhibits 4.3 through 4.9.

4.4.2 Step 2: Follow-Up Sampling

If initial test results reveal lead concentrations greater than 20 ppb for a given outlet, follow-up testing described in Step 2 is recommended to determine if the lead contamination results are from the fixture or from interior plumbing. EPA has established this trigger for follow-up testing to ensure that the sources of lead contamination in drinking water outlets are identified.

In Step 2, follow-up samples are collected and analyzed from outlets that revealed lead concentrations greater than 20 ppb in the initial test results. The purpose of Step 2 is to pinpoint where (e.g., fixtures or interior plumbing) lead is getting into drinking water so that appropriate

[1]Under the National Primary Drinking Water Regulations for public water supplies, a lead action level of 15 ppb is established for 1-liter samples taken by public water suppliers in high-risk residences. If more than 10 percent of the samples at residences exceed 15 ppb, system-wide corrosion control treatment may be necessary. It is important to note that the testing protocol used by public water suppliers is aimed at identifying system-wide problems rather than problems at outlets in individual buildings. Moreover, the protocols for sample size and water retention time are different.

corrective measures can be taken. EPA has established the 20 ppb trigger for follow-up testing to ensure that the sources of lead contamination in drinking water outlets are identified.

As with initial samples, follow-up samples are to be taken before a facility opens and before any water is used. Follow-up samples generally involve the collection of water from an outlet where the water has run for 30 seconds. This sampling approach is designed to analyze the lead content in the water in the plumbing behind the wall. A comparison of initial and follow-up samples will help to assess where the lead may be getting into the drinking water. See Exhibits 4.2 through 4.8 for follow-up sampling instructions for various types of outlets.

After follow-up sampling, additional samples from the interior plumbing within the building are also often necessary to further pinpoint the sources of lead contamination. See Exhibit 4.9 for instructions for additional sampling.

4.4.3 Initial and Follow-Up Sampling Protocol

The protocol for collecting initial and follow-up samples varies by type of drinking water outlet. The initial and follow-up testing protocol and the interpretation of test results is described in Exhibits 4.3 thorough 4.9 for the following locations and types of outlets:

- **Service connections and water mains**
- **Drinking water fountains** *(four types)*
  - Bubblers or drinking water fountains (without central chillers): water is supplied to the bubbler or fountain directly from the building's plumbing.
  - Bubblers or drinking water fountains (with central chillers): a central chiller unit cools water for a number of drinking water fountains or bubblers in the building.
  - Water coolers: devices are equipped with their own cooling and storage systems; water is supplied to the device from the building's plumbing.
  - Bottled water dispensers: type of water fountain whose water is supplied from bottled water.[2]
- **Ice making machines**

[2] The Food and Drug Administration (FDA) regulates the interstate sale of bottled water and has established a 5 ppb standard for lead in bottled water. EPA recommends that you contact your distributor for written assurance that the bottled water does not exceed Federal or State bottled water standards.

- **Water faucets**

- **Interior plumbing**

Please note that sampling ID codes have been indicated in the descriptions of the sampling protocol for each outlet type. These sampling ID codes have been included for illustrative purposes only. When you conduct testing in your facility, you should assign your own unique numbers to every sample you collect.

Following the instructions for the above water outlet locations are instructions for conducting sampling of the interior plumbing of buildings (Exhibit 4.9). Instructions are included for sampling laterals, loops and headers, and riser pipes. These types of samples are necessary if follow-up outlet samples show lead levels above 20 ppb.

Exhibit 4.2 provides an overview of the sampling process in a flow chart format.

As discussed in section 4.1, you may wish to modify sampling recommendations to suit your site conditions. For example, if you believe that flushing an outlet for 30 seconds prior to taking a follow-up sample is excessive, you may wish to calculate a more accurate time estimate. This could be done by:

- Calculating the pipe volume in gallons between the outlet and the location in the plumbing that you want to sample.

- Measuring the outlet flow in gallons per minute.

- The length of time for flushing can be determined by dividing the pipe volume in gallons by the outlet flow in gallons per minute.

Pipe volumes per foot of pipe length for various pipe sizes are shown in the Exhibit 4.1 below.

Exhibit 4.1: Pipe Volumes for Copper Pipe

Nominal Pipe Diameter (inches)	Approximate Capacity (gallons per foot of length)	
	Type K Copper (soft)	Type L Copper (rigid)
3/8	0.0066	0.0075
1/2	0.0113	0.0121
3/4	0.0226	0.0251
1	0.0404	0.0429
1 1/4	0.0632	0.0653
1 1/2	0.0895	0.0924
2	0.1566	0.1607
2 1/2	0.2412	0.2479
3	0.3448	0.3538

Exhibit 4.2: Sample Strategy Flowchart

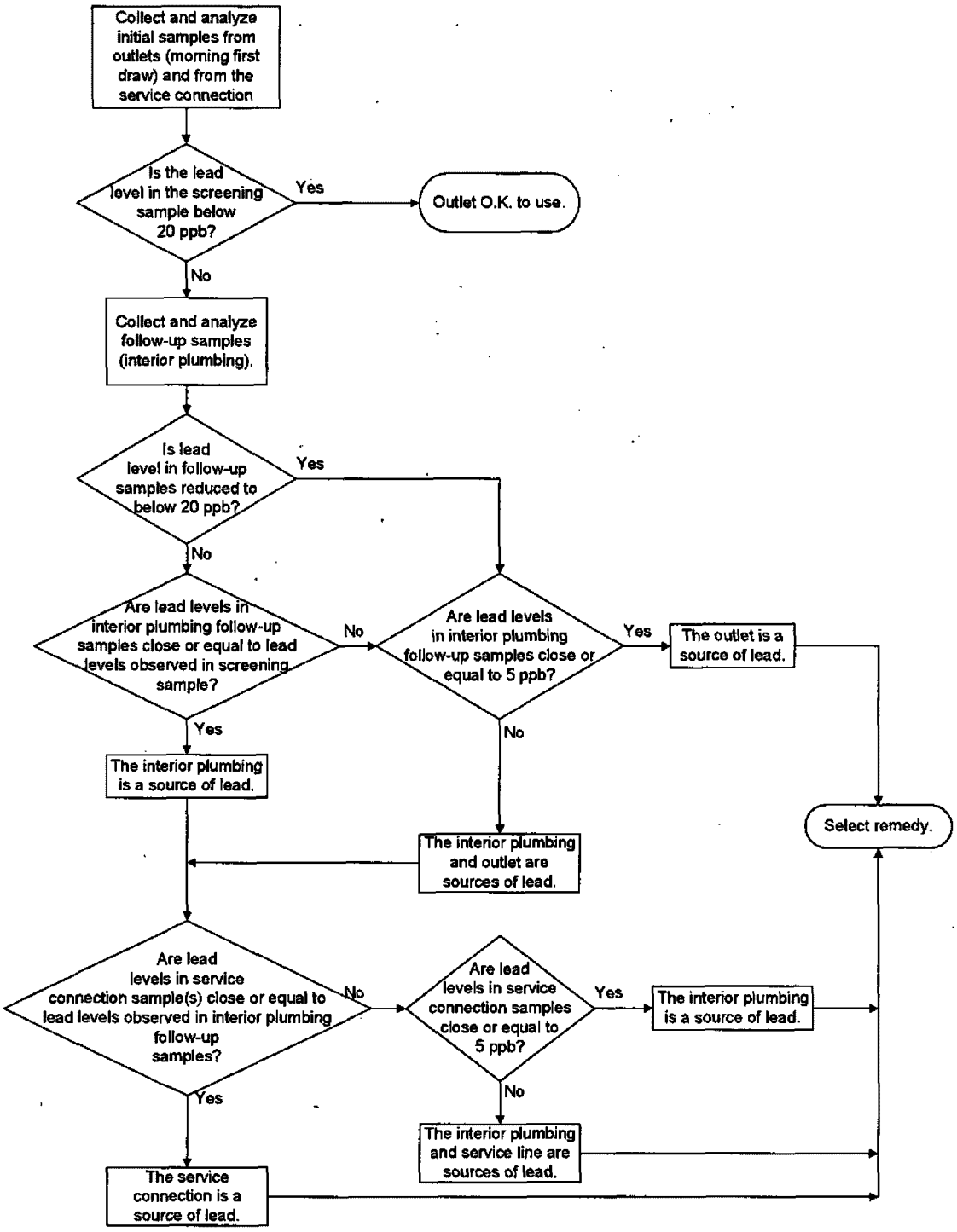

4.4.4 Sampling for Other Parameters

In addition to monitoring for lead, you may wish to monitor for other parameters that may provide an indication of problems in your plumbing. Some of these are listed in the following table:

Contaminant	Limit	Concern
Cadmium	5 ppb	A regulated toxic metal found in low levels in galvanized pipe. The maximum allowable level is 5 ppb. However, the presence of cadmium at any level indicates that corrosive conditions may exist in the plumbing.
Color	15 color units	An aesthetic parameter that may indicate the presence of iron oxides. Iron oxides are often present in iron or steel pipe as a result of corrosive conditions.
Copper	1300 ppb	A regulated toxic metal used to make copper piping. The presence of copper in water samples taken from copper piping is not unusual, but higher levels indicate that corrosive conditions may be a concern.
Iron	300 ppb	An aesthetic parameter that is indicative of corrosive conditions at higher levels. See also color and turbidity. (Galvanized pipe is typically made of iron.)
Turbidity	1 turbidity unit	A measurement of the clarity of water. Higher turbidity values may indicate the presence of iron oxides. Iron oxides are often present in iron or steel pipe as a result of corrosive conditions.
Zinc	5000 ppb	An aesthetic parameter that is indicative of corrosive conditions at higher levels. Zinc is used in making galvanized piping products. The presence of zinc in water samples taken from galvanized piping is not unusual, but higher levels indicate that corrosive conditions may be a concern.

Exhibit 4.3: Service Connection Sampling

Lead pipes are still used for service connections in some locations. Other materials used for service connections include copper, galvanized steel, plastic, and iron. Lead service connections can produce significant lead levels in your drinking water.

To test water in your service connection, locate the tap closest to the service connection. This is especially important for larger facilities where more than one service connection is present.

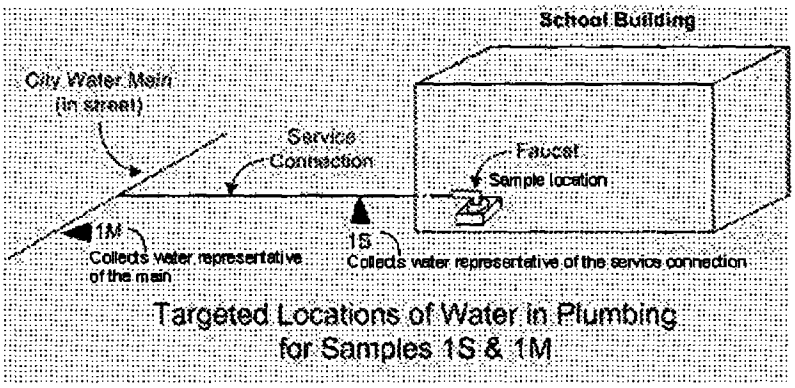

Sample Collection Procedures:

- **Sample 1S (Service Connection)**

  Take this sample before the facility opens. Note that this is not an initial first-draw sample. Open the cold water tap closest to the service connection. Let the water run, and feel the temperature of the water. Depending upon the temperature of your utility's water and the temperature of the room, you may feel the water temperature change as the water from the service connection enters the building. However, it is possible that the water in the service connection and the building are close to the same temperature. Therefore, you should collect the sample immediately after a temperature change is detected, or after 30 seconds. Flushing removes the water that was in the facility's interior plumbing and allows sampling of the water that was in the service connection.

- **Sample 1M (Water Main)**

This sample is representative of the water that is provided by the distribution main. Take the sample from the same location as sample 1S. Let the water run, and feel the temperature of the water. If you can feel a change in water temperature, allow the water to run an additional 3 minutes after the temperature changes and then collect the sample. If you cannot feel a change in temperature, allow the water to run for 3 minutes and 30 seconds.

If possible, you should take this sample from a faucet rather than a drinking fountain because of the limited flow that is normally provided by a drinking fountain. Also, a change in temperature may be difficult to detect if the sample is taken from a water cooler (see the discussions for Samples 1S and 1M below).

Interpreting Test Results:

- If the lead level of Sample 1S (service connection) significantly exceeds 5 ppb (for example, 10 ppb) and is higher than in sample 1M, lead is contributed from the service connection. Check for the presence of a lead service connection by scratching it with a knife or key. (Lead test kits are available from water testing and laboratory supply companies and are relatively inexpensive.) Lead is soft and dull gray in appearance. When scratched, it will be shiny. In the absence of a lead service connection, lead goosenecks or other materials containing lead may be the source of the contamination. Usually, no significant amount of lead (above 5 ppb) comes from the public water system.

- If the lead level of Sample 1M (water main) significantly exceeds 5 ppb (for example, 10 ppb), lead in the water may be attributed to the source water, sediments in the main, or to lead in the distribution system such as from lead joints used in the installation or repair of cast iron pipes.

- If the lead level of Samples 1S and 1M are very low (close to 5 ppb), very little lead is being picked up from the service line or the distribution main.

For example scenarios of different water sample results, please see Appendix G.

Exhibit 4.4: Drinking Water Fountains: Bubblers

Do not close the shut-off valves to the water fountains to prevent their use prior to sample collection. Minute amounts of scrapings from the valves will produce inaccurate results showing higher than actual lead levels in the water. Take all samples with the taps fully open.

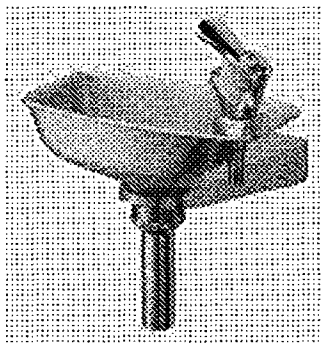

One Style of Drinking Water Fountain

Sample Collection Procedures:

- **Initial Screening Sample 1A**

This sample is representative of the water that may be consumed at the beginning of the day or after infrequent use. It consists of water that has been in contact with the bubbler valve and fittings and the section of plumbing closest to the outlet of the unit.

Take this sample before the facility opens and before any water is used. Collect the water immediately after opening the valve without allowing any water to run into the drain. Take follow-up samples from those bubblers where test results indicate lead levels over 20 ppb.

- **Follow-Up Sample 2A**

This sample is representative of the water that is in the plumbing upstream from the bubbler (from the bubbler back toward the service connection and the water main). Take this sample before the facility opens and before any water is used. Let the water from the fountain run for 30 seconds before collecting the sample. If several bubblers are served by a central chiller, samples should be taken from different bubblers on different days.

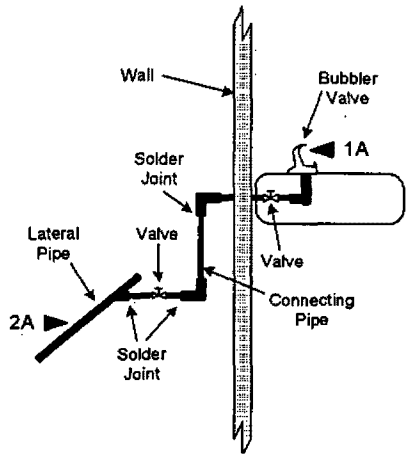

Targeted Locations of Water in Plumbing for Samples 1A & 2A

Note: All the samples are collected at the outlet. The sample numbers indicate what water is being targeted for testing.

Interpreting Test Results:

To determine the source of lead in the water, compare the test results of Samples 1A and 2A.

- If the lead level in Sample 1A is higher than that in Sample 2A, a portion of lead in the drinking water is contributed from the bubbler.

- If the lead level in Sample 2A is very low (close to 5 ppb), very little lead is picked up from the plumbing upstream from the outlet. The majority or all of the lead in the water is contributed from the bubbler.

- If the lead level in Sample 2A significantly exceeds 5 ppb (for example, 10 ppb), lead in the drinking water is also contributed from the plumbing upstream from the bubbler.

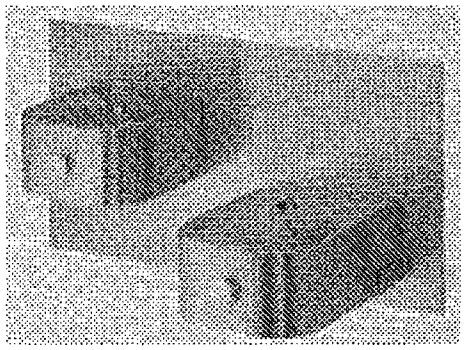

Fountains Connected to a Central Chiller

- If the lead level in Sample 2A exceeds 20 ppb, EPA recommends sampling from the header or loop supplying water to the lateral to locate the source of the contamination. *(Sampling instructions for interior plumbing can be found in Exhibit 4.9.)*

For example scenarios of water sample results and possible solutions, see Appendix G.

Exhibit 4.5: Drinking Water Fountains: Water Coolers

Do not close the valves to the water fountains to prevent their use prior to sample collection. Minute amounts of scrapings from the valves will produce inaccurate results showing higher than actual lead levels in the water. Take all samples with the taps fully open.

Sample Collection Procedures:

Two types of water coolers are used: the wall-mounted and the free-standing types. Water in these coolers is stored in a pipe coil or in a reservoir. Refrigerant coils in contact with either of these storage units cools the water. Sources of lead in the water may be the internal components of the cooler, including a lead-lined storage unit; the section of the pipe connecting the cooler to the lateral pipe; and/or the interior plumbing of the building.

Wall-Mounted Cooler

Prior to testing, check the make and model numbers of your water coolers and compare them to EPA's listing of coolers that have lead parts or lead-lined tanks *(see Appendix D for a summary of the water cooler issues and EPA's list of affected coolers).* If you have a Halsey Taylor cooler that is on EPA's list of coolers with lead-lined tanks, consult Halsey Taylor for information on their replacement/refund program and associated testing directions. Contact information is provided in Appendix D.

Regardless of whether your water cooler appears on EPA's listing, initial testing should be conducted.

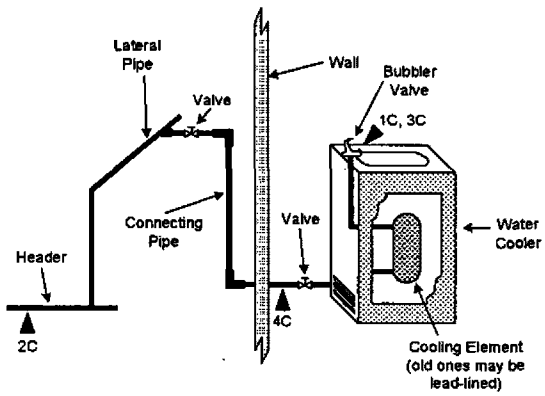

Targeted Locations of Water in Plumbing for Samples 1C - 4C

Note: The valve shown upstream of the water cooler may be located inside the cooler.

- **Initial Screening Sample 1C**

  This sample is representative of the water that may be consumed at the beginning of the day or after infrequent use. (In areas of infrequent use, the water may not have been used in more than 18 hours. This is acceptable if this is representative of the normal water

consumption pattern.) The sample consists of water that has been in contact with the interior plumbing, the valve and fittings, the storage unit, and the section of plumbing closest to the outlet of the unit.

Take this sample before the facility opens and before any water is used. Collect the water immediately after opening the faucet without allowing water to waste. Take follow-up samples from water coolers whose test results indicate lead levels greater than 20 ppb.

When conducting follow-up testing with water coolers you should be aware that some water coolers manufactured before 1988 may have storage tanks lined with materials containing lead. You should contact the manufacturer of any water cooler units you have purchased or are planning to purchase for written guarantees that the unit is lead-free. *A list of makes and model numbers of coolers that contain lead has been prepared by EPA and is summarized in Appendix D.*

- **Follow-Up Sample 2C**

This water sample is representative of the water that is in contact with the header or riser piping upstream of the cooler. Take this sample after the facility closes. Let the water from the fountain run for 15 minutes before collecting the sample. You must flush the cooler for 15 minutes to ensure that no stagnant water is left in the storage unit.

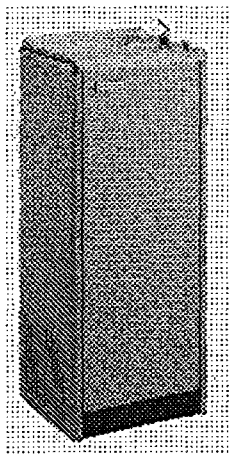

Floor-Mounted Cooler

- **Follow-Up Sample 3C**

Take this sample before the facility opens and before any water is used. This sample must be taken the morning after you collect Follow-Up Sample 2C. Collect the water immediately after opening the faucet without allowing any water to waste.

Because the water in the cooler was flushed the previous afternoon, this sample is representative of the water that was in contact with the cooler overnight, not in extended contact with the plumbing upstream. As such, it may differ from Initial Screening Sample 1C.

Interpreting Test Results:

- If the lead level in Sample 3C is higher than that in Sample 2C, the water cooler may be contributing lead to the water.

- If the lead level in Sample 3C is higher than that in Sample 2C AND the lead level in Sample 1C is higher than that in Sample 3C, the plumbing upstream from the water cooler may also be contributing lead to the water.

- If the lead level in Sample 3C is identical or close to that of Sample 2C, the water cooler probably is not contributing lead to the water.

- If the lead level in Sample 1C is higher than that in Sample 3C AND if the lead levels in Sample 2C and 3C are similar, the plumbing upstream from the cooler or the plumbing connection leading to the cooler, or both, is contributing lead to the water.

- If the lead level in Sample 2C is in excess of 20 ppb and is equal to or greater than the lead levels in Samples 1C and 3C, the source of the lead may be sediments contained in the cooler storage tank, screens, or the plumbing upstream from the cooler.

To verify the source of lead, take the following steps:

(1) Take a 30-second flushed sample from a tap upstream from the cooler or compare Sample 2C results with the results obtained from follow-up samples taken from outlets upstream from the cooler. If low lead levels are found in these samples (close to 5 ppb), the source of lead may be sediments in the cooler or the plumbing connecting the cooler to the lateral or lead solder in the plumbing between the taps.

(2) If the flushed samples from the upstream outlets have lead levels in excess of 5 ppb, then the cooler and the upstream plumbing may both contribute lead to water.

- **Follow-Up Sample 4C**

To confirm whether the cooler is the source of lead, take Follow-Up Sample 4C.

Turn off the valve leading to the cooler. Disconnect the cooler from the plumbing and look for a screen at the inlet. Remove the screen. If there is debris present, check for the presence of lead solder by sending a sample of the debris to the laboratory for analysis.

Some coolers also have a screen installed at their outlet. Carefully remove the bubbler outlet by unscrewing it. Check for a screen and debris and have a sample of any debris analyzed.

Some coolers are equipped with a drain valve at the bottom of the water reservoir. Water from the bottom of the water reservoir should be sampled and any debris analyzed.

Collect Sample 4C from the disconnected plumbing outlet in the same manner as you collected Sample 1C. Compare the results from Sample 4C to the other sample results.

Interpreting Additional Water Cooler Test Results:

- If the lead level in Sample 4C is less than 5 ppb, then lead is coming from the debris in the cooler or the screen.
- If the lead level in Sample 4C is significantly higher than 5 ppb, the source of lead is the plumbing upstream from the cooler or from debris in the cooler or screen.
- If the lead level in Sample 4C is significantly higher than 5 ppb, but less than Sample 1C, the source of lead is the plumbing upstream from the cooler and/or from debris in the cooler or screen.

For example scenarios of water sample results and possible solutions, see Appendix G.

Exhibit 4.6: Drinking Water Fountains: Bottled Water Dispensers

Note: The Food and Drug Administration (FDA), regulates the interstate sale of bottled water and has established a 5 ppb standard for lead in bottled water. EPA recommends that you contact your distributor for written assurance that the bottled water does not exceed Federal or State bottled water standards.

Sample Collection Procedures:

- **Initial Screening Sample 1D**

  This sample is representative of the water that may be consumed at the beginning of the day or after infrequent use. It consists of water that has been in contact with the dispenser valve and fittings incorporated in the outlet of the unit.

  Take this sample before the facility opens and before any water is used. Collect the water immediately after opening the faucet without allowing any water to waste. Take follow-up samples from those bottled water dispensers where test results indicate lead levels over 20 ppb.

Bottled Water Dispenser

- **Follow-Up Sample 2D**

  Collect this sample directly from the bottle that supplies the water to the unit. This will enable you to determine the source of lead in the water.

Interpreting Test Results:

- If the sample contains lead, contact the water supplier and/or the manufacturer of the dispenser to ask their recommendations.

- If the lead level in Sample 1D is higher than that in Sample 2D, lead may be coming from the dispenser unit.

- If the lead level in Sample 2D is identical or close to that in Sample 1D, the source of lead is the bottled water.

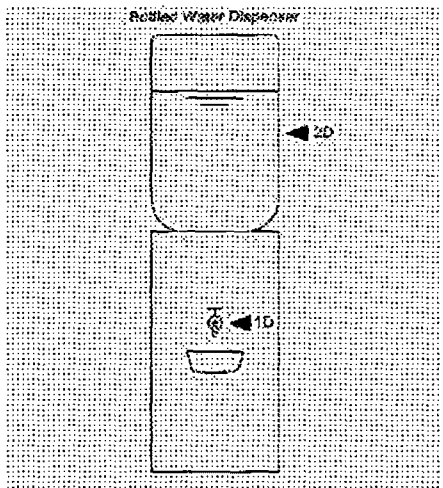

Targeted Locations of Water in Plumbing for Samples 1D & 2D

Note: Many dispensers have a hot and cold tap. Water from both taps is meant to be directly consumed, therefore, both taps should be sampled. However, you may wish to sample the hot water tap on a separate day.

For example scenarios of water sample results and possible solutions, see Appendix G.

Exhibit 4.7: Ice Making Machines

Sample Collection Procedures:

- **Initial Screening Sample 1E**

  Fill a suitable container (250 mL or larger, wide-mouthed bottle or other container) provided by the laboratory at least three-quarters full of ice. Do not touch the ice with your hands. Use the non-metal scoop or disposable plastic gloves provided by the laboratory to place the ice in the container.

  If the lead level in Sample 1E. exceeds 20 ppb, collect a follow-up sample to determine if the source of the lead is the plumbing or the ice making machine itself.

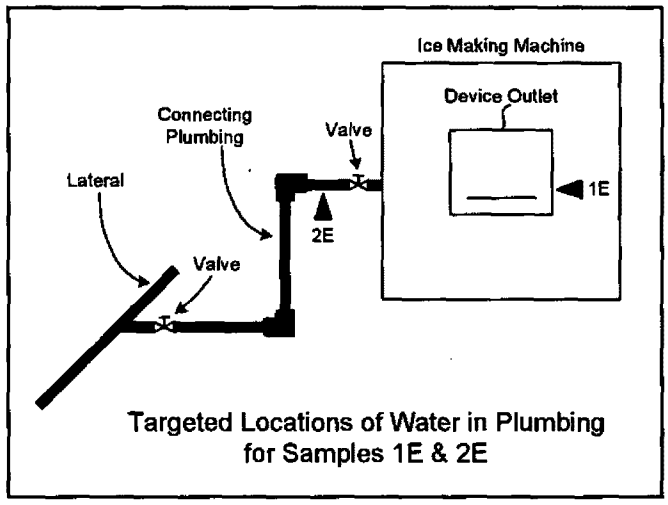

Targeted Locations of Water in Plumbing for Samples 1E & 2E

- **Follow-Up Sample 2E**

  Disconnect the ice maker from the plumbing and look for a screen at the inlet. Remove the screen. If debris is present, forward a sample of the debris to the laboratory for analysis and clean out the remaining debris. The laboratory will determine whether lead solder is present. Clean the screen routinely to avoid accumulations of lead in the sediment.

  Collect the sample from the disconnected plumbing as close to the ice maker as possible. Fill the sample container with 250 mL of water. If no tap is available, contact the ice machine manufacturer for recommendations that will minimize disruption of existing plumbing. Adding taps or valves could add new sources of lead to the plumbing, even if the new devices are lead-free and meet NSF Standard 61, Section 9. If a sample tap or valve is available, collect the sample immediately after opening the tap or valve.

Interpreting Test Results:

- If the lead level in Sample 2E is close to 5 ppb, the source of the lead in the ice is the ice maker.

- If the lead level in Sample 2E significantly exceeds 5 ppb (for example, 10 ppb), lead is also contributed from the plumbing upstream from the ice maker.

- If the lead level in Sample 2E exceeds 20 ppb, EPA recommends sampling from the distribution system supplying water to the ice maker. *Refer to Exhibit 4.9 on Sampling Interior Plumbing for instructions.*

  For example scenarios of water sample results, please see Appendix G.

Exhibit 4.8: Water Faucets (Taps)

Sample Collection Procedures:

- **Initial Screening Sample 1F**

  This sample is representative of the water that may be consumed at the beginning of the day or after infrequent use. It consists of water that has been in contact with the fixture and the plumbing connecting the faucet to the lateral pipes.

  Take this sample before the facility opens and before any water is used. If the tap has an aerator, remove, clean, and replace it prior to collecting the sample. Using the cold water tap, collect the water immediately after opening the faucet without allowing any water to go to waste. Follow-up samples should be taken from those water faucets where initial screening test results indicate lead levels over 20 ppb.

- **Follow-Up Sample 2F**

  This sample is representative of the water that is in the plumbing upstream from the faucet. Take this sample before school opens and before any water is used. Let the water from the faucet run for 30 seconds before collecting the sample.

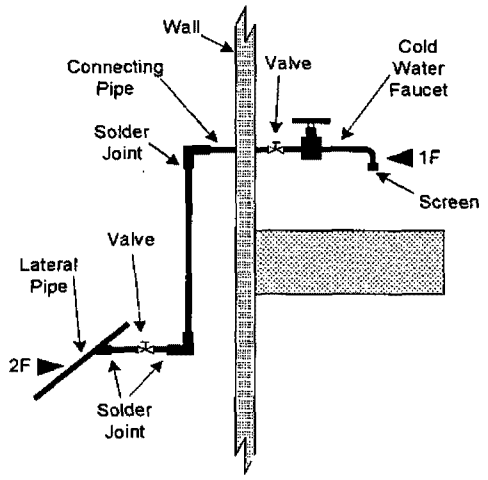

Cold Water Faucet (Tap)

Targeted Locations of Water in Plumbing for Samples 1F & 2F.

Interpreting Test Results:

- If the lead level in Sample 1F is higher than that in Sample 2F, the source of lead is the water faucet and/or the plumbing upstream from the faucet.

- If the lead level in Sample 2F is very low, close to 5 ppb, very little lead is coming from the plumbing upstream from the faucet. The majority or all of the lead in the water is from the faucet and/or the plumbing connecting the faucet to the lateral.

- If the lead level in Sample 2F significantly exceeds 5 ppb (for example, 10 ppb), lead may be contributed from the plumbing upstream from the faucet.

For example scenarios of water sample results and possible solutions, see Appendix G.

Exhibit 4.9: Sampling Interior Plumbing

In general, if lead levels exceed 20 ppb in follow-up samples taken from drinking water outlets, additional samples from upstream sample sites in the interior plumbing should be collected. EPA recommends that water samples from each lateral, header and riser (where applicable) be collected because use patterns may vary among locations within a building. The configuration of interior plumbing will vary depending on the layout of a given building. Construction materials may also vary, especially in larger buildings where additions and repairs have been made to the original structure. *See Exhibits 4.10 and 4.11 for simplified diagrams of the interior plumbing in single-level and multi-level buildings.*

Sampling should proceed systematically upstream from follow-up sample sites that exceed 20 ppb. *(However, you do not have to sample at upstream sites where follow-up samples have already been taken.)* The goal of this sampling effort is to isolate those sections of the interior plumbing that contribute lead to the water. This is achieved by comparing the results of interior plumbing samples with each other, and with the results of previously collected follow-up samples.

Developing procedures from upstream sampling from laterals, headers and risers can be difficult because of the wide variation in plumbing configurations among facilities. As discussed in 4.4.3, the sampling procedures in this manual were developed for typical configurations that may not be similar to your facility. You may wish to either develop your own sampling procedures using the guidance provided in 4.4.3, or retain a consultant for guidance in this process.

Laterals

A lateral is a plumbing branch between a fixture or group of fixtures (e.g., taps, water fountains etc.) and a header.

Sample Collection Procedures:

- **Sample 1G** (lateral)

  Open the outlet that has been designated as the sample site for the lateral pipe. Let the water run for 30 seconds before collecting the sample. Collect a 250 mL sample. The purpose of flushing the water is to clear the plumbing between the sample site and the lateral pipe. This action will ensure collection of a representative sample.

  Note: Sample 1G corresponds to follow-up samples taken from other outlets such as 2A, 2E and 2F. Compare the results of these samples from outlets upstream and downstream of Sample 1G for additional information on the source of the lead within the interior plumbing. (As noted above, you do not have to take sample 1G at sites where follow-up samples have already been taken. The previous results are adequate.)

Interpreting Test Results:

- If the lead level in Sample 1G exceeds 20 ppb, collect additional samples from the plumbing upstream where samples have not been previously taken (i.e., from header supplying water to the lateral, the riser pipe, or the service connection).

  Note: High lead levels may also be caused by recent repairs and additions using lead solders or by sediments and debris in the pipe. Debris in the plumbing is most often found in areas of infrequent use, and a sample should be sent to the laboratory for analysis.

- If the lead level of Sample 1G is the same as the lead level in a sample taken downstream from Sample Site 1G, lead is contributed from the lateral and/or from interior plumbing upstream from the lateral. Possible sources of lead may be the loop, header, riser pipe, or service connection.

- If the lead level in Sample 1G is very low, close to 5 ppb, the portion of the lateral upstream from Sample Site 1G and the interior plumbing supplying water to the lateral are not contributing lead to the water.

- If the lead level in Sample 1G significantly exceeds 5 ppb (for example, 10 ppb) and is less than the lead level in a sample taken downstream from Sample Site 1G, a portion of the lead is contributed downstream from the sample site.

Headers

A header is the main water supply pipe on a given floor of a building. A header supplies water to laterals. In smaller buildings, a header may be very short and/or have a relatively small diameter.

Sample Collection Procedures:

- Sample 1H (header)

  Locate the sampling point furthest from the service connection or riser pipe (see discussion of riser pipes on the next page) on the floor. You should try to take this sample from a faucet to provide adequate flushing through the tap. Open the faucet and let it run for 30 seconds before collecting this sample. Fill the sample container with 250 mL of water. The purpose of flushing the water is to clear the faucet and plumbing between the sample site and the header pipe.

Interpreting Test Results:

- If the lead level is over 20 ppb, collect additional samples from the plumbing upstream supplying water to header. Compare the sample results with those taken from the service line or the riser pipe that supplies water to the header.

  High lead levels may also be caused by recent repairs and additions using lead solders or by sediment and debris in the pipe. Debris in the plumbing is most often found in areas of infrequent use, and a sample should be sent to the lab for analysis. The laboratory will provide instructions on how to package and handle the sediment.

- If the lead level of Sample 1H is equal to the lead level in a sample taken downstream from Sample Site 1H, the lead is contributed from the header and/or the loop and/or from interior plumbing upstream from the header or loop. Possible sources of lead may be the header, riser pipe, or service connection.

- If the lead level in Sample 1H is close or equal to 5 ppb, the portion of the header upstream from Sample Site 1H and the interior plumbing supplying water to the header are not contributing lead to the drinking water. The source of lead is downstream from the sample site.

- If the lead level in Sample 1H significantly exceeds 5 ppb (for example, 10 ppb) and is less than the lead level in a sample taken downstream from Sample Site 1H, a portion of the lead is contributed downstream of the sample site.

Riser Pipes

A riser is the vertical pipe that carries water from one floor to another.

Sample Collection Procedures:

- **Sample 1J**

  Open the tap closest to the riser pipe. Let the water run for 30 seconds before collecting the sample. Fill the sample container with 250 mL of water. The purpose of flushing is to clear the faucet and plumbing between the sample site and the riser pipe.

Interpreting Test Results:

- If the lead level in Sample 1J exceeds 20 ppb, collect additional samples from the plumbing upstream from the riser. High lead levels in the riser pipes may also be caused by recent repairs and additions using lead solder.

- If the lead level of Sample 1J equals the lead level in a sample taken downstream from Sample Site 1J, the source of the lead is the riser pipe and/or the plumbing and service connection upstream from the riser pipe.

- If the lead level in Sample 1J is close or equal to 5 ppb, the portion of the riser pipe and plumbing upstream from Sample Site 1J and the service connection are not contributing lead to the water. The source of the lead is downstream of the sample site.

- If the lead level in Sample 1J significantly exceeds 5 ppb (for example, 10 ppb) and is less than the lead level in a sample taken downstream from Sample Site 1J, a portion of the lead is contributed downstream from the sample site.
  For example scenarios of water sample results and possible solutions, see Appendix G.

Sample Collection Procedures – Central Chiller Unit:

- **Follow-Up Sample 1K**

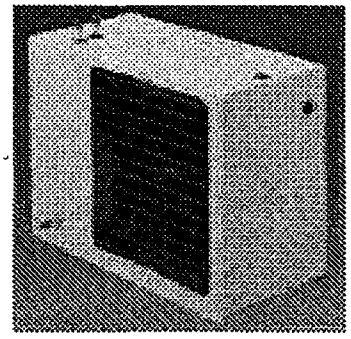

Central Chiller Unit

This sample is representative of water that has been in contact with the plumbing supplying water to the chiller. Take this sample before the facility opens and before any water is used. Take the sample from a tap or valve as close to the inlet of the chiller as possible. If no tap is available, contact the chiller manufacturer for recommendations that will minimize disruption of existing plumbing. Adding taps or valves could add new sources of lead to the plumbing, even if the new devices are lead-free and meet NSF Standard 61, Section 9. If a sample tap or valve is available, collect the sample immediately after opening the tap or valve, without allowing any water to waste.

- **Follow-Up Sample 2K**

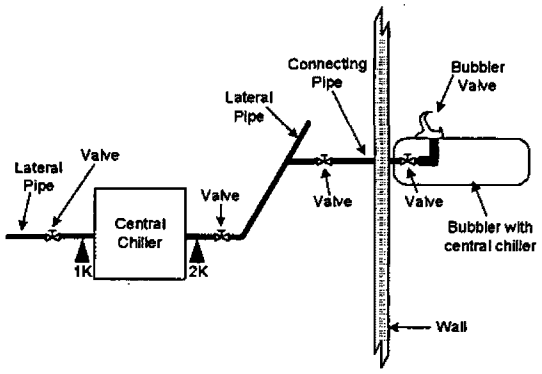

Targeted Locations of Water in Plumbing for Samples 1K & 2K

This water sample consists of water that has been in contact with the chiller unit and the plumbing upstream which supplies water to the chiller. Often, water supplied to the bubblers is recirculated to the chiller unit. In this instance, Sample 2K consists of a mixture of water from the water supply and any water that may be recirculated from the plumbing supplying water to the bubblers.

Take the sample from a tap or valve as close to the outlet of the chiller as possible. If no tap is available, contact the chiller

manufacturer for recommendations that will minimize disruption of existing plumbing. Adding taps or valves could add new sources of lead to the plumbing, even if the new devices are lead-free and meet NSF Standard 61, Section 9. If a sample tap or valve is available, collect the sample immediately after opening the tap or valve.

Interpreting Test Results – Central Chiller Unit:

- If the lead level in Sample 2B is higher than that in Sample 4B, lead is contributed from the plumbing supplying the water from the chiller to the bubbler.

- If the lead level in Sample 4B is higher than in Sample 3B, a portion of the lead may be coming from the chiller. Note: Sludge and sediments containing high levels of lead may accumulate in chiller tanks. If the test results indicate that lead is contributed from the chiller unit, check for the presence of debris and sludge. Remove any of these materials from the chiller, flush the chiller unit, and resample the water.

- If the lead level in Sample 3B exceeds 20 ppb, EPA recommends additional sampling from the distribution system supplying water to the chiller to locate the source of contamination.

- If the lead level in Sample 3B is very low (close to 5 ppb), very little lead is picked up from the plumbing upstream from the chiller. The majority or all of the lead in the water may be attributed to the chiller and the plumbing downstream from the chiller.

For example scenarios of water sample results and possible solutions, see Appendix G.

Exhibit 4.10: Sample Sites for a Single-Level Building

1. Morning first-draw samples from coolers, faucets, bubblers, etc. (Screening Samples 1A, 1B, 1C, 1D, 1E, 1F.)
2. Samples from lateral after 30-second flush from designated outlets. (Follow-up Samples 2A, 2B, 2E, 2F, 1G.)
3. Samples from coolers after 15-minute flush. (Follow-up Sample 2C.)
4. Samples from coolers morning first-draw. (Follow-up Sample 3C.)
5. Morning first-draw from coolers at disconnected plumbing outlet. (Follow-up Sample 4C.)
6. Sample from header pipe taken from faucet farthest from service line. (Sample 1H.)
7. Sample from service line and distribution main taken from faucet closest to service line. (Samples 1M, 1S.)

Note: Simplified header and lateral configurations are shown for clarity.

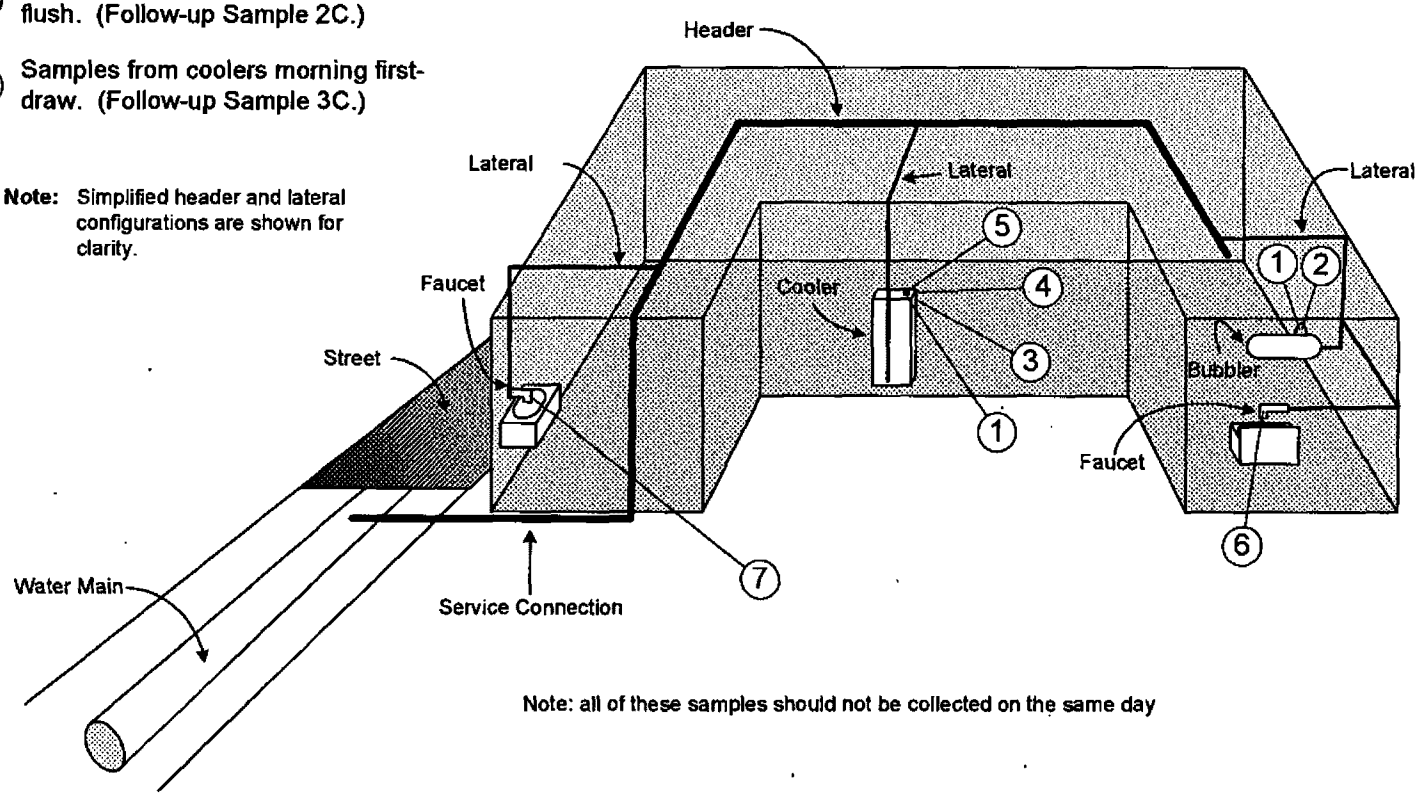

Note: all of these samples should not be collected on the same day

Exhibit 4.11: Sample Sites for a Multi-Level Building

1. Morning first-draw samples from coolers, faucets, bubblers, etc. (Screening Samples 1A, 1B, 1C, 1D, 1E, 1F.)
2. Samples from laterals after 30-second flush from designated outlets. (Follow-up Samples 2A, 2E, 2F, 1G.)
3. Sample from header taken from faucet farthest from riser pipe. (Sample 1H.)
4. Sample from riser pipe taken from faucet closest to riser pipe. (Sample 1J.)
5. Samples from service line and distribution main taken from tap closest to service connection. (Sample 1H.)
6. Sample from inlet to chiller unit. (Follow-up sample 1K.)
7. Sample from outlet of chiller unit. (Follow-up sample 2K.)

Note: Simplified header and lateral configurations are shown for clarity.

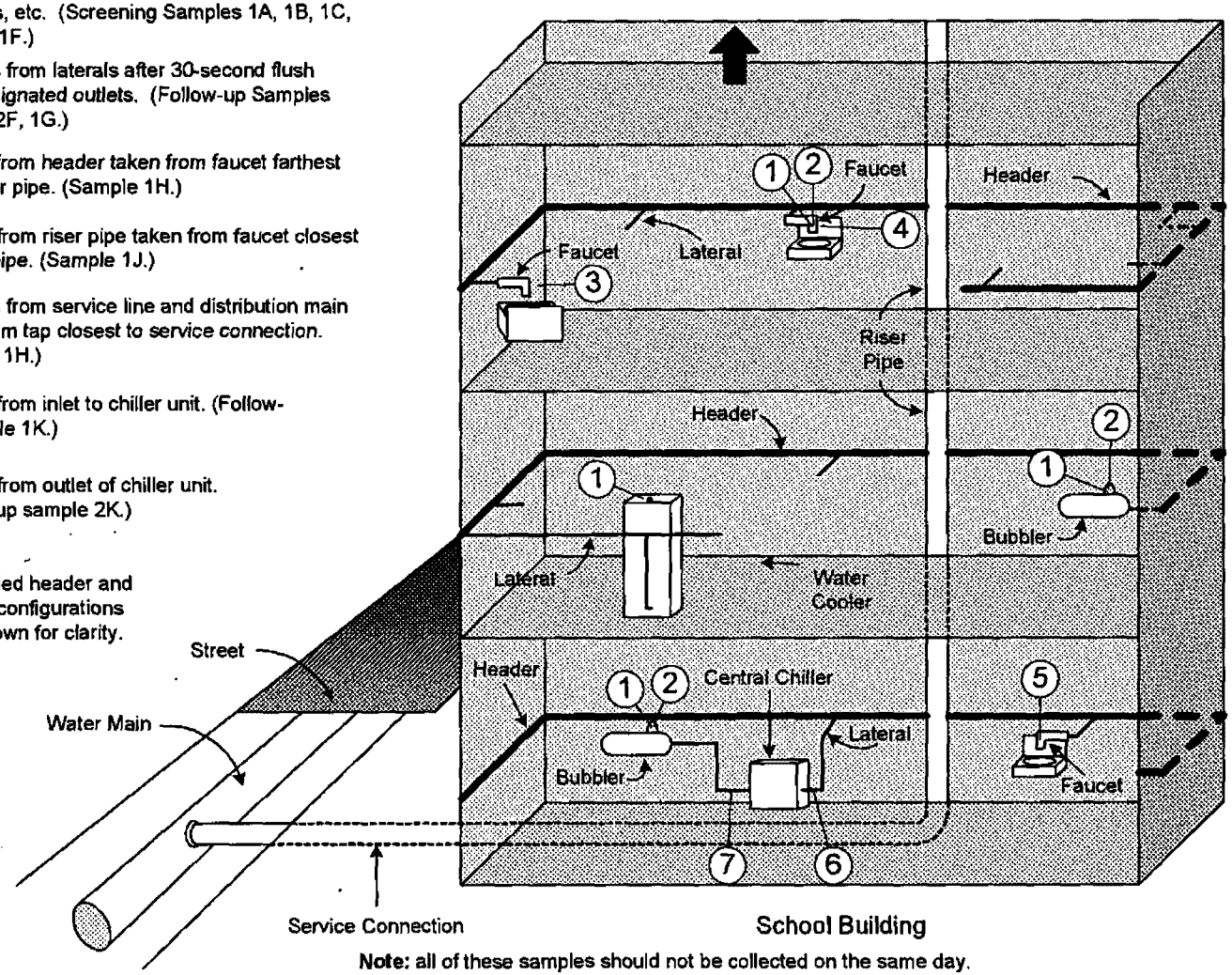

Note: all of these samples should not be collected on the same day.

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5. Remedies

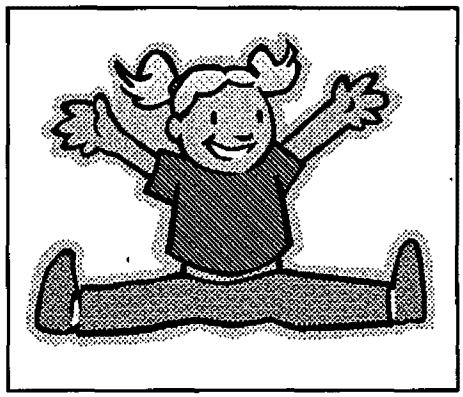

Solutions to lead problems typically need to be made on an interim (short-term) and on a permanent basis. Interim measures can be taken while you wait for your test results or until a permanent solution has been put in place. In addition, there are routine measures that should be taken.

Outlined below are various routine, interim and permanent remedies. To aid you in the process of selecting remedies, a case study has been included as Exhibit 5.3.

5.1 Routine Control Measures

Below are examples of routine activities that should be conducted to avoid possible exposures to lead:

- Clean debris from all accessible screens frequently. If you discover sediments in faucet screens, have the sediments tested for lead and continue to clean your screens frequently, even if the analysis finds no lead.

- Use only cold water for food and beverage preparation. Hot water will dissolve lead more quickly than cold water and is likely to contain increased lead levels. If hot water is needed, it should be taken from the cold water tap and heated on a stove or in a microwave oven.

- Run the water before drinking, so you are drinking water that has not been in contact with the faucet interior since faucets are often a major source of lead in drinking water.

5.2 Interim (Short-Term) Control Measures

Some examples of interim control measures include:

(1) **"Flush" the piping system in your building.** "Flushing" involves opening all suspect taps every morning before the facility opens and letting the water run to remove water that has been standing in the interior pipes and/or the outlets. The flushing time varies by the type of outlet being cleared. The degree to which flushing helps reduce lead levels can also vary depending upon the age and condition of the plumbing and the corrosiveness of the water. Flushing instructions are presented in Exhibit 5.1.

Exhibit 5.1: Flushing Directions by Outlet Type

Remember that each drinking water outlet should be flushed individually; flushing a toilet will not flush your water fountains. All flushing should be recorded in a log submitted daily to the office, or person, in charge of this program.

- Locate the faucet furthest away from the service line on each wing and floor of the building, open the faucets wide, and let the water run for 10 minutes. For best results, calculate the volume of the plumbing and the flow rate at the tap and adjust the flushing time accordingly. This 10-minute time frame is considered adequate for most buildings.
- Open valves at all drinking water fountains without refrigeration units and let the water run for roughly 30 seconds to one minute, or until cold.
- Let the water run on all refrigerated water fountains for 15 minutes. Because of the long time period required, routinely flushing refrigerated fountains may not be feasible. It may therefore be necessary, and more economical, to replace these outlets with lead-free, NSF-approved devices.
- Open all kitchen faucets (and other faucets where water will be used for drinking and/or cooking) and let the water run for 30 seconds to one minute, or until cold.

Advantages:

- Quickest and easiest solution to high lead levels, especially when contamination is localized in a small area or in a small building.
- Does not require installation or maintenance of water treatment equipment.
- Does not require complex instructions.

Disadvantages:

- The most obvious disadvantage to flushing is the potential waste of water involved in the flushing procedures. To minimize this disadvantage, consider the following:
  - Flush pipes only after weekends or vacations when lead levels may be highest (use only if lead levels do not exceed 20 ppb on a daily basis).
  - Thoroughly flush several designated drinking water outlets daily while taking all others temporarily out of service.
  - Use bottled water.
  - Collect water being flushed and use for non-consumptive purposes.
- Another disadvantage to flushing is the amount of time and staff needed to perform the task.

(2) **Provide bottled water.** This can be an expensive alternative but might be warranted if you expect or are aware of widespread contamination and flushing is not an option. If you use bottled water, be aware that it is not regulated by EPA but rather by the Food and Drug Administration (FDA). Your state may also regulate bottled water, and, in some instances, these standards may be more stringent than the Federal requirements. EPA recommends that you require a written statement from the bottled water distributor guaranteeing that the bottled water meets FDA and State standards.

Permanent Remedies

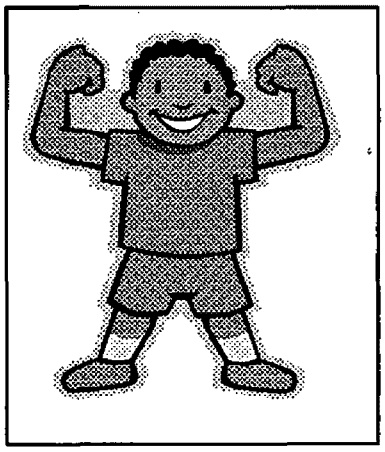

You can take a number of actions to permanently reduce or eliminate the sources of lead that originate in your building's plumbing. Some of these actions may allow the elimination or reduction of routine flushing or other interim measures. After obtaining an understanding of your water supply and the lead conditions in your facility (as a result of testing), you should examine the permanent treatment options and select those most appropriate to your situation. Obviously, your decision will be based on such factors as cost, likelihood of success, availability of water, and staffing requirements.

(3) **Lead levels can be reduced at the tap.** Reverse osmosis units are commercially available and can be effective in removing lead. Since these devices also tend to make the water corrosive, they should only be used when placed at water outlets. Such devices are termed point-of-use (POU) devices. There are a number of POU cartridge filter units on the market that effectively remove lead.

POU devices can be either purchased or leased. They can be relatively inexpensive ($65 to $280) or expensive (ranging from $250 to $500, and up to $2,100 for a computerized reverse osmosis treatment unit), their effectiveness varies, and they may be vulnerable to vandalism. They also require a maintenance program for regular upkeep to ensure effectiveness. Cartridge filter units need to be replaced periodically to remain effective. NSF International, an independent, third-party certification organization, has a testing program to evaluate the performance of POU devices for lead removal. Before purchasing any device, ask the manufacturer for proof of NSF approval or check by visiting the NSF Web site at http://www.nsf.org/business/search_listings/index/asp.

(4) Electrical current may accelerate the corrosion of lead in piping materials. Existing wires already grounded to the water pipes can possibly be removed by a qualified electrician, and replaced by an alternative grounding system. If your local or State building codes allow, consider finding an alternative grounding system and

have a qualified electrician make the change. Be aware that the removal of grounding from water pipes may create a shock hazard unless an acceptable, alternative ground is provided.

(5) If the sources of lead contamination are localized and limited to a few outlets, replacing these outlets may be the most practical solution. EPA worked with the plumbing industry and NSF International to develop an industry standard that is designed to minimize the amounts of lead being leached from these products. This standard is NSF Standard 61 (Sections 4, 8 and 9). Before you purchase any brass plumbing products, request information regarding compliance with this standard.

NSF Standard 61, Section 4 covers pipes, fittings and small drinking water storage devices having domestic or residential applications including the products or water contact materials of pipes, fittings, tubing, hoses, well casing, drop pipes and screens, etc.

NSF Standard 61, Section 8, covers inline mechanical devices that are used to measure or control the flow of water. Inline devices in a building used to measure or control the flow of water include water meters, building valves, check valves, meter stops, valves and fittings backflow preventers, etc. An inline device is any device installed on a service line or building distribution system downstream of the water main and before endpoint devices.

NSF Standard 61, Section 9, covers endpoint devices. These devices include kitchen and bar faucets, lavatory faucets, water dispensers, drinking fountains, water coolers, glass fillers, residential refrigerator ice makers, supply stops, and endpoint control valves. *Under the lead ban these devices must meet the requirements of this standard.* Be sure to check for compliance with NSF Standard 61, Section 9 before purchasing or installing an endpoint device.

(6) Lead pipes within the system and those portions of the lead service connections under the water supplier's jurisdiction can be replaced. Contact your public water supplier about this replacement. However, your facility may be responsible for replacing a portion of a lead service connection that is under its own administrative jurisdiction, rather than under the jurisdiction of the water supplier.

(7) In some facilities, the plumbing system might be modified so that water supplied for drinking or cooking is redirected to bypass sources of lead contamination. Before undertaking such an alternative, be certain of the sources of lead contamination. Follow-up testing would also be necessary, as with the other remedies, to ensure that the efforts result in reduced lead levels at the tap.

(8) Flushing individual problem outlets or all outlets may also represent a permanent, albeit ongoing, solution. There are advantages and disadvantages to flushing.

Flushing is often the quickest and easiest solution to high lead levels, especially when contamination is localized in a small area or in a small building. *See the Interim Remedies section above for a discussion of the advantages/disadvantages of this remedy in addition to outlet flushing instructions. You should review this information before deciding whether flushing is appropriate as a permanent remedy in your facility.*

(9) Time-operated solenoid valves can be installed and set to automatically flush the main pipes (headers) of the system. It is important to note that solenoid valves are not practical for flushing water coolers. These would need to be flushed manually by staff. *See the Interim Remedies section above for flushing instructions for water fountains.*

(10) If other treatment fails or is impractical, bottled water can be purchased for consumption by the building community. As noted under the interim remedies section above, make sure that the bottled water you select meets Federal and/or State standards for lead and other drinking water contaminants. EPA recommends that you require a written statement from the bottled water distributor guaranteeing that the lead levels in the water do not exceed 5 ppb.

(11) Make sure that any plumber who does repair or replacement work on the facility's plumbing system uses only "lead-free" solders and other materials. The 1986 Safe Drinking Water Act amendments require that only "lead-free" materials be used in new plumbing and plumbing repairs. Make sure all plumbers and other workers adhere to these requirements. These actions will ensure that new lead is not introduced into the facility's plumbing system. Report any violations of the "lead-free" requirements to your local plumbing inspector, the State drinking water program or EPA *(see Appendix C for a directory of State programs).*

Three flow charts (Exhibits 5.2a through 5.2c) illustrating the remediation process are presented below.

Exhibit 5.2a: Remediation Flow Chart (part 1)

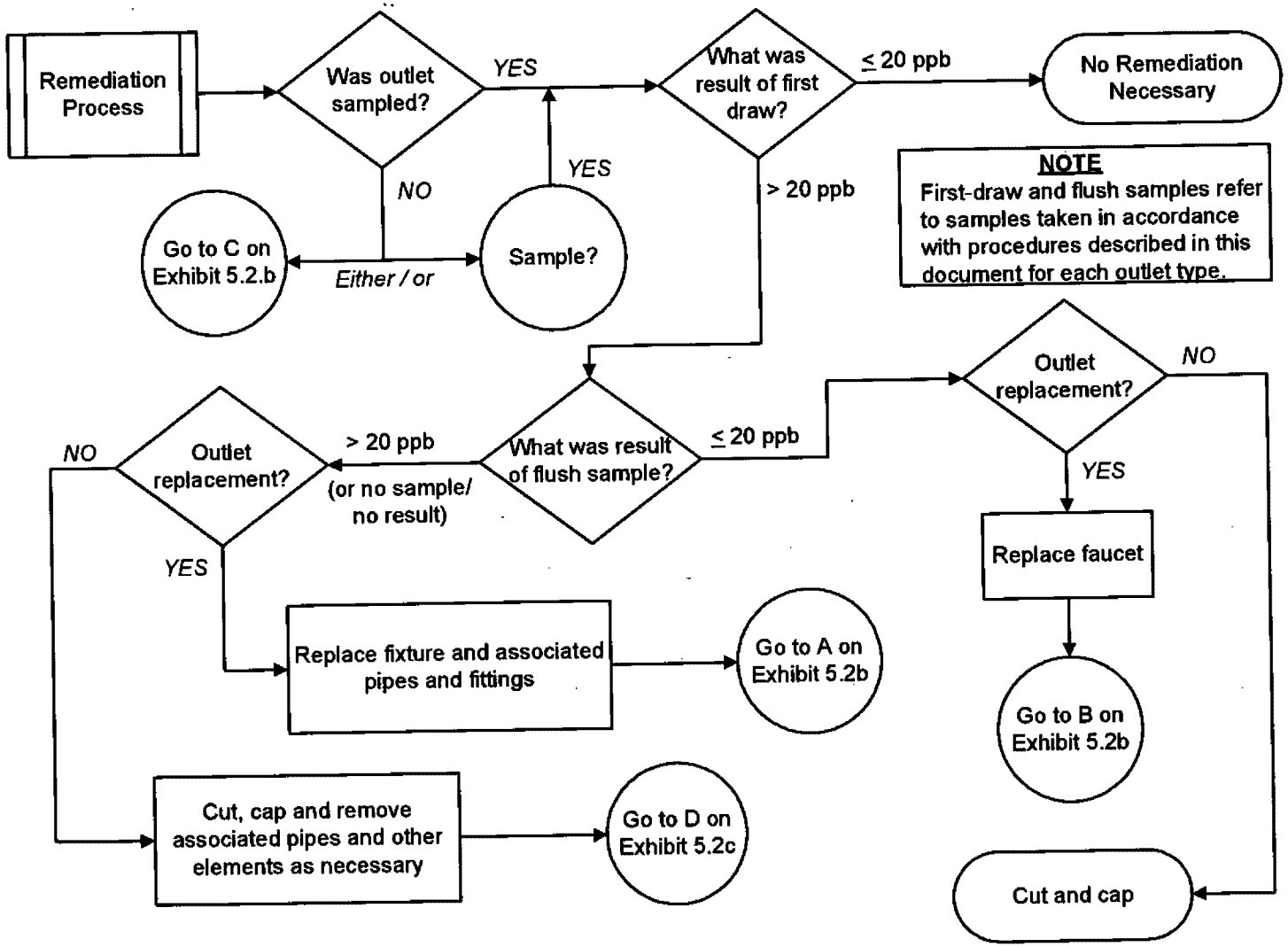

Exhibit 5.2b: Remediation Flow Chart (part 2)

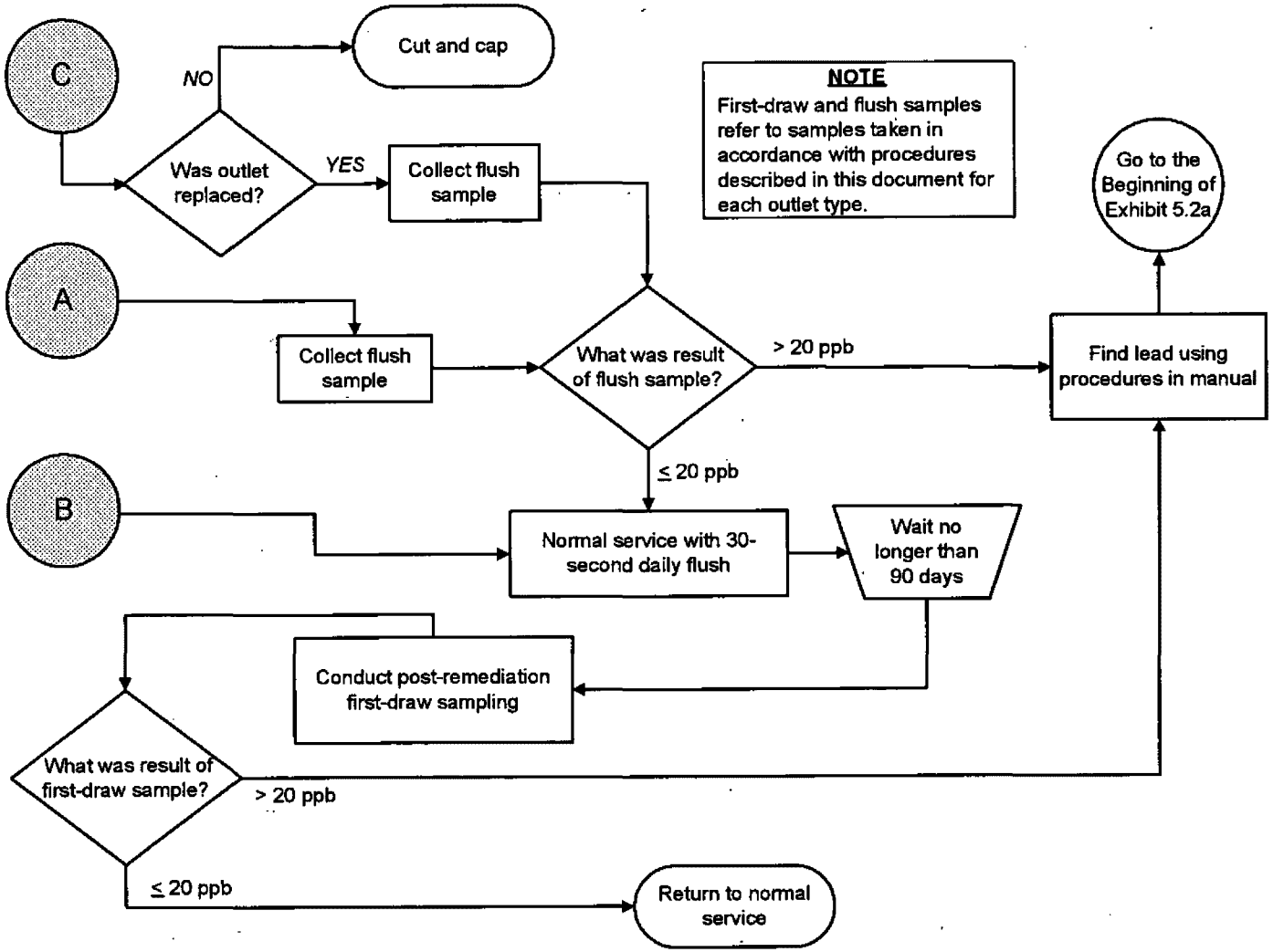

Exhibit 5.2c: Remediation Flow Chart (part 3)

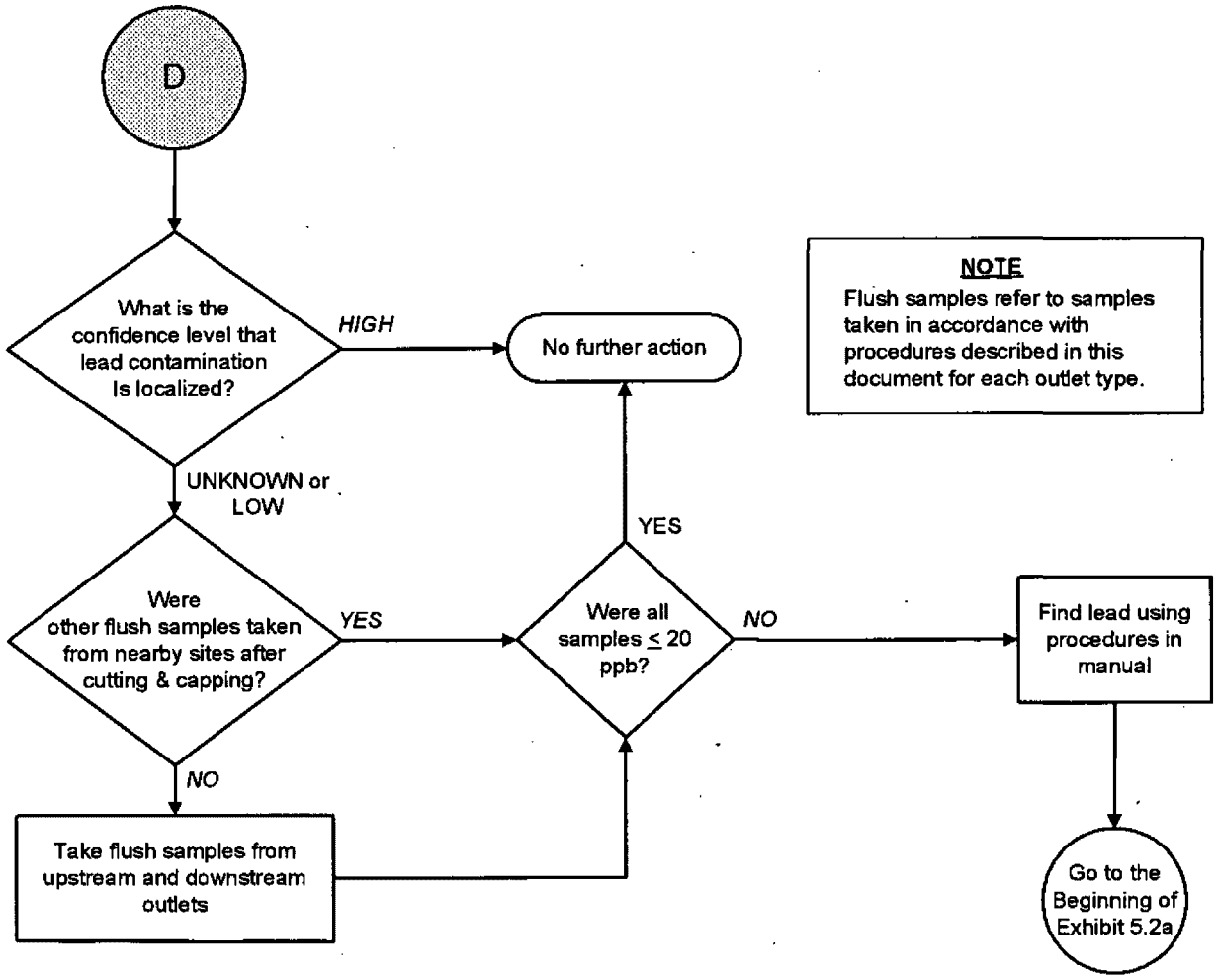

Exhibit 5.3: Case Study 1

This case study illustrates how one large school district addressed a long-standing lead problem. A variety of solutions were used to address lead problems at 50 schools in the district.

Background

Schools were sampled in 1991 and 1992 in response to the Lead Contamination Control Act. Drinking fountains with lead levels over 20 ppb were replaced. However, subsequent testing showed that levels at some outlets continued to be above 20 ppb. Internal recommendations to replace plumbing at four schools were not implemented because of levy failures. A flushing program was implemented, but was not consistently applied.

In 2003, a concerned parent conducted testing at one school because of iron staining problems. The testing showed that there were also lead problems at the school. Recognizing that the problem was likely widespread, the district put all schools over 7 years old on bottled water and sent a letter of notification to every parent.

A consultant was hired to create a comprehensive testing program for almost 100 schools. A working group consisting of the school's local water utility, the county and state health departments, and toxicologists was formed to develop a comprehensive approach.

A comprehensive water quality policy was adopted that includes standards for lead and 5 other contaminants. The standard for lead (10 ppb) is more stringent than EPA's recommended Action Level for schools and public buildings. The policy includes procedures for short-term and long-term testing, and for remediation.

Testing

In cooperation with the working group, the district's consultant developed plumbing profiles and a testing program, and the district began comprehensive lead testing in 2004 at 2400 sample locations. All drinking water fountains and cold taps in classrooms, nurse's offices, and kitchens were sampled. Other locations were sampled if they were deemed to be a potential health risk because of possible human consumption. Lead levels over 20 ppb were found at 25% of the locations. One location was 1600 ppb. Fifty schools were found to have at least one outlet with a problem. The water supplied by the local utility was found to have typically less than 1 ppb lead and was ruled out as a source of lead.

Testing also showed that flushing of the outlets for 30 seconds reduced the lead levels to below 20 ppb at all but 3% of the locations. Additionally, cadmium was found at 3% of the sample locations, and coliform-positive samples were found at 6 schools.

Remediation

The district adopted a policy for mitigation that included a target level of 10 ppb for lead. Additionally, the EPA public water supply standards for cadmium, copper, iron and coliform bacteria were adopted. (The EPA standard for iron is a secondary standard, which means that the standard is primarily an aesthetic standard rather than health-based. Under federal law, public water supplies are not required to comply with secondary standards.) Compliance with the district's adopted standards will be maintained through fixture replacement, filtration, replacement/rehabilitation of lines, or disabling of outlets.

Fountains and other outlets that produce lead analysis results higher than 10 ppb will be fixed or disabled. Fixtures with confirmed levels of iron over 0.5 ppm will be fixed or removed from service. If more than one-half of the drinking water sources in a school or in a wing of a school exceed 0.3 ppm iron, further remediation for iron will be addressed by the district.

The plumbing in the four schools originally targeted for replacement was fixed in the Summer of 2004. Eventually, the plumbing in 11 more schools will be replaced or rehabilitated so the adopted water quality standards can be maintained.

Bottled water is provided at all schools or locations within a school which have lead problems until problems are addressed. Drinking water is easily available to all students and all staff throughout the school day. After compliance with the adopted water quality standards is achieved, periodic testing will continue every three years until it is demonstrated that less frequent testing is necessary.

Public Education

The district understands the importance of informing parents, students, and staff of water quality policy and testing results.

Additionally, the district adopted the following steps:

- Qualified experts were retained to obtain the best advice.
- A public oversight committee was created to ensure awareness and involvement of the public.
- Community meetings are held as necessary to keep the public updated.
- School board briefing sessions related to lead are open to the public.
- A comprehensive Web site has been developed that includes health effects information, FAQs, contact information, and testing results for each school in the district.

Lessons Learned

The district had attempted to address the Lead Contamination Control Act in 1991 and 1992 through testing, replacement of drinking water fountains and flushing. Fountains that tested over 20 ppb were replaced until subsequent testing revealed that problems with lead persisted. Flushing efforts that were initially instituted were not uniformly implemented at all district schools. The district had also planned to replace plumbing in four schools, but the effort was derailed by failed levy measures. Additionally, there were no clear legal mandates for lead testing and compliance at schools served by public water utilities. Lead problems therefore continued at the schools without school officials' awareness.

Because remedial measures were not instituted as originally planned, the public was not aware that lead problems existed until 2003. The public response to the problems was very strong and clear. The public wanted to be aware of the problems and wanted them fixed. The school district had also lost credibility because of the amount of time, the inactivity, and the lack of communication since problems were initially discovered in the early 1990s.

The district has learned that clear, open, and timely communication is mandatory in order to restore public confidence. An aggressive policy of testing, remediation and disclosure has helped to bridge the gap between the district and the public and to restore confidence.

Exhibit 5.4: Case Study 2 *(Place Holder)*

Place holder for Case Study 2: Philadelphia Schools

6. Informing the Public about Lead

In addition to testing for lead and solving any contamination problems, a lead control program should also include a public information component. This section discusses public information techniques and the importance of developing an overall communication strategy. Helpful communication hints are provided along with sample public notice materials.

6.1 Techniques for Disseminating Public Information

EPA recommends that schools conducting a lead-in-drinking-water sampling program comply with the public information components of the Lead Contamination Control Act. There are two components:

(1) Make copies of the sampling results available in your administrative offices "for inspection by the public, including teachers, other school personnel, and parents."

(2) Notify relevant parent, teacher, student, and employee organizations of the availability of your sampling program results.

Given the health effects of lead, EPA advocates that any school conducting sampling for lead make public any test results. In addition, such schools should identify activities they are pursuing to correct any lead problems found.

There are six basic public notification methods that can be applied alone or in combination to communicate lead-in-drinking-water issues and the meaning of your sampling program results.

You should choose the method(s) that best suits your particular situation and/or protocol. Remember, you should not provide sampling program results to the public without also providing a basis for interpreting and understanding the significance of those results.

- **Press Release:** A press release in the local newspaper can potentially inform a broad range of the public of lead-in-drinking-water issues and the results of your sampling program. It is important that the release inform readers of how to obtain the sampling results and other lead-in-drinking-water information and perhaps even include the phone number of an informed and available facility official.

- **Letters/Fliers:** Letters or fliers represent the most direct and effective method of communicating lead-in-drinking-water activities to parents/guardians and other members of your school or building community. The letters and fliers should be mailed directly.

- **Mailbox or Paycheck Stuffers:** Mailbox and paycheck stuffers represent the most direct and effective method of communicating lead-in-drinking-water activities to

school employees. Stuffers would contain much the same information as that contained in a press release or letter/flier.

- **Staff Newsletter:** A notice contained in a staff newsletter is a further option for directly and effectively communicating information about the lead program to employees.

- **Presentations:** Providing presentations at facility-related meetings is another effective means of communication. Relevant events for schools include meetings of parent-teacher organizations, faculty, and the school board.

- **Email and Web sites:** Electronic communications are convenient for many parents, especially those who work during the school day. Websites can be updated frequently to quickly convey new information. Email provides a quick, easy method for parents to ask questions, but responses must be timely to be effective.

6.2 The Components of an Effective General Communication Strategy

Lead in drinking water can be an emotional and sensitive issue, especially for parents who are concerned about their children's safety. As a result, you should not view communication and outreach activities as stand-alone or final efforts, but rather as a part of an *overall or general* communication strategy.

The purpose of a general communication strategy is to provide the means for addressing questions from members of your facility's community and also to provide ongoing, up-to-date information regarding your sampling efforts. *Ideally, you should designate a single spokesperson or special task force to interact with the public since it is important that your message remain consistent.*

The issues to be addressed as part of a communication strategy include:

- Participants
- Timing for delivery
- Content of the message
- Methods and manner of communication.

6.3 Participants

Overall, there are six primary players or interests involved in the control of lead in drinking water:

(1) Building Community: The building community consists of those users of the facility who would be most affected by lead-in-drinking-water problems (i.e., students, parents, school boards, teachers, and other employees). Members of the local school community should be the primary targets of any general communication activities.

(2) Larger Community: The local and regional media can serve as a conduit for information reaching a larger local community. It is important that you be prepared to generate accurate news releases. Also, your spokesperson or task force should be prepared to respond to interview requests with accurate and consistent information.

(3) States and EPA Regions: State drinking water programs and EPA Regional offices are responsible for ensuring that public water systems comply with the State and Federal regulations regarding lead in drinking water. States or EPA may be able to provide guidance or technical assistance in communication strategies, health risks, and other sources of lead.

(4) Drinking Water Community: Public water systems comprise the regulated drinking water community, and they are responsible for complying with all national and State drinking water standards for lead. This means that they must ensure that the water they deliver is non-corrosive, contains minimal amounts of lead, and will not result in significant lead-leaching from plumbing in individual homes and buildings.

(5) Local Health Community: Local health officials, such as health officers, sanitarians and nurses, can help you understand potential health risks associated with elevated lead levels in drinking water.

(6) Your School Community: School employees, students, and parents should be informed and involved from the beginning of the process. Interested employees, students and parent volunteers can help address the issue and ensure safe drinking water at your school.

6.4 Timing

The timing of your communication activities is very important. Whenever public health risks are involved, public communication efforts are less complicated and generate less conflict if those potentially affected are notified in advance of important issues and events. At a minimum, EPA recommends that you provide information to members of the local school community and the larger community (if deemed necessary) at the following three times.

(1) Before your lead-in-drinking-water sampling program begins.

(2) In response to periodic interest.

(3) After you obtain the results of testing when/if you decide upon corrective measures, or if no corrective measure are required because the lead levels are low.

6.5 Content

Your communication messages should consist of the following information:

(1) Details about the nature of your drinking water lead control program.

(2) The results of your sampling program and your plans for correcting any identified problems.

(3) Information on the public health effects and risks posed by lead in drinking water and the significance of lead in drinking water versus other sources such as food, air, dust, and soil.

(4) The availability of general lead-in-drinking-water information resources and the availability of the detailed sampling results for your facility.

(5) How and where individuals may seek blood-lead level testing if they are concerned.

(6) Recommend consultation with a physician if further assistance is needed.

(7) How families can increase their awareness of exposure in their home and elsewhere.

6.6 Methods and Manner of Communication

The communication methods that can be used for your general communication strategy are largely the same as those described earlier and, thus, need not differ from communication activities common to school operations (i.e., meeting presentations, press releases, mailbox/paycheck stuffers, and letters to staff and parents).

Additional methods unique to your lead control program may include:

(1) Creating an information center located at a convenient place in the facility such as a library or break room.

(2) Creating a task force with representatives from the community.

(3) Making available a list of laboratories that are State-certified to test home water for lead and other contaminants.

(4) (For schools) encouraging classroom science activities that focus on drinking water quality. *(Contact EPA's Safe Drinking Water Hotline – see Appendix B – for information on organizations that have such science activities).*

The following list contains some *hints for effective communication*:

(1) Take the initiative in providing information to your community (it is important to do so before the media does it for you). When public health risks are involved, especially with respect to children, vague or incorrect information can be worse than no information at all.

(2) Be a good and reliable source of information. That is, provide honest, accurate, and comprehensive information in every necessary area.

(3) Always speak with one voice (i.e., designate points of contact – preferably one person – to respond to parents and the media).

(4) Anticipate likely questions from members of the local community, including civic organizations and the media and prepare answers. Each member of the community may have a different concern or viewpoint on the subject of lead testing.

(5) Be positive, proactive, and forthcoming when working with the media. If you work together in a cordial manner, your communication efforts are likely to be less complex.

(6) Keep members of the building community up-to-date as important events and information on your lead testing program unfold.

(7) Be sure to have communication materials available in languages other than English or provide a contact name and number for non-English speakers to get information if your local community has a large portion of non-English speaking residents.

6.7 Sample Public Notice Materials

Exhibit 6.1 contains a sample public notification letter that could be used and adapted to communicate lead testing information. Exhibit 6.2 is a sample press release for local media that could also be used or adapted. Exhibit 6.3 is a sample article that could be published in a school newsletter.

Exhibit 6.1: Sample Public Notice Letter

(Date)

Anytown School Department
Anytown, USA 00000-0000

Dear Members of the Anytown School Community:

The United States Environmental Protection Agency (EPA) has determined that lead at certain levels in drinking water may be a a health concern. Infants and young children are the most vulnerable to the effects of lead. Pregnant women are also vulnerable to lead because it can lower birth weight and slow down normal physical and mental development of the baby. Lead in young children, especially those under the age of six, can result in lower IQ levels, impaired hearing, reduced attention span, and poor classroom performance. At high levels, lead can seriously damage the brain.

However, since lead usually enters water from certain plumbing in individual homes and businesses, EPA advises testing of water in private buildings. EPA recommends that action be taken if lead levels exceed 20 parts per billion (ppb) at any tap tested.

Following instructions given in an EPA guidance document designed for schools, we completed an evaluation of the plumbing in each of the buildings within the Anytown School District. Through this effort, we identified and tested those drinking water taps most likely to have high levels of lead. Of the _____ samples taken, all but _____ tested well below EPA's recommended level of 20 ppb for lead.

The first tap that tested high for lead was a drinking water fountain at Kennedy High School. After follow-up testing was conducted, it was determined that the faucet was the source of the lead contamination. The faucet was replaced with a lead-free faucet and retested. Follow-up test results revealed lead levels well below EPA's recommended level.

The second tap, located in the Lincoln Elementary School, was a faucet in the kitchen that showed unacceptable lead levels in both initial and follow-up testing. We found the source of the lead contamination to be the pipe providing water to the faucet. This pipe was replaced with lead-free materials.

During the sampling period, bottled water was provided to all students at all schools to minimize the potential for lead exposure. Upon receiving the test results, the two outlets that tested high for lead were disconnected until they were replaced.

A copy of the test results is available in our central office for viewing by the public, including students, teachers, other school personnel, and parents and can be viewed between the hours of [__:__a.m. and _:__p.m] [and on our school website]. For more information about drinking water quality in our schools, contact John Doe at the Anytown School Department, 555-2223. For information about drinking water quality in your home or for questions about testing, contact your water supplier or state drinking water agency.

Sincerely,

Fred Frank
Superintendent of Schools

NOTE: If permanent remediation measures cannot be implemented immediately, you are encouraged to send this notice without delay. In that case, you can describe the interim measures that are in place, and explain the reason for the delay in permanent remediation.

Exhibit 6.2: Sample Press Release for Local Media

Anytown School Department
One School Street
Anytown, USA 00000-0000
Contact: Fred Frank, Superintendent

FOR IMMEDIATE RELEASE

News Release

Lead Levels in School Drinking Water Meet Federal Guidelines

Anytown, USA, April xx, 2005... The Anytown School Department announced today that recent tests of drinking water in the town's schools indicate that lead levels meet Federal guidelines. Although lead was initially detected above the recommended level at one drinking water outlet in an elementary school and at one outlet in a senior high school, lead levels were reduced to acceptable levels following replacement of these outlets.

In making the announcement, School Superintendent Fred Frank stated, "We are pleased that the testing program identified only two drinking water outlets with elevated lead levels. Both outlets have since been replaced."

The School Department conducted the testing program to make sure that drinking water in the school system is safe for children and school staff. Water with high lead levels can contribute to negative health effects, especially in young children.

The testing was conducted in January by school personnel following Federal and State guidelines. Samples from various locations in each of the schools were sent to a State-certified laboratory for analysis. The laboratory results were received by the School Department last week.

Information about the lead testing program, including the laboratory results, can be found at the School Department office at the above address, weekdays between 8:30 a.m. and 4:30 p.m.

STOP

Exhibit 6.3: Sample Newsletter Article

Anytown School District Conducts Sampling for Lead in Drinking Water

Why was Sampling Conducted?

Schools that receive water from a public water system, such as our district, are not required by state or federal regulations to conduct sampling for lead in their drinking water. The Environmental Protection Agency (EPA) requires our public water system to provide water to our school that is minimally corrosive. However, some school districts in other locations have found that water samples from their drinking water fixtures have contained relatively high levels of lead. The lead was found to come from the plumbing inside the schools, including fittings, solder, water coolers or water faucets. Because of this information, the Anytown School District decided that sampling would be in the best interests of the children, parents, faculty and other citizens served by our district.

Health Effects of Lead

The EPA has determined that lead in drinking water is a health concern at certain levels of exposure. Lead is found throughout the environment in lead-based paint, air, soil, household dust, food, certain types of pottery porcelain and pewter, and water. Lead can pose a significant risk to your health if too much of it enters your body. Lead builds up in the body over many years and can cause damage to the brain, red blood cells and kidneys. The greatest risk is to young children and pregnant women. Amounts of lead that won't hurt adults can slow down normal mental and physical development of growing bodies. In addition, a child at play often comes into contact with sources of lead contamination - like dirt and dust - that rarely affect an adult. It is important to wash children's hands and toys often, and to try to make sure they only put food in their mouths.

How Lead Enters our Water

Lead is unusual among drinking water contaminants in that it seldom occurs naturally in water supplies like groundwater, rivers and lakes. Lead enters drinking water primarily as a result of the corrosion, or wearing away, of materials containing lead in the water distribution system and in building plumbing. These materials include lead-based solder used to join copper pipe, brass and chrome-plated brass faucets. In 1986, Congress banned the use of lead solder containing greater than 0.2% lead, and restricted the lead content of faucets, pipes and other plumbing materials. However, even the lead in plumbing materials meeting these new requirements is subject to corrosion. When water stands in lead pipes or plumbing systems containing lead for

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several hours or more, the lead may dissolve into the drinking water. This means the first water drawn from the tap in the morning *may* contain fairly high levels of lead.

Lead in Drinking Water

Lead in drinking water, although rarely the sole cause of lead poisoning, can significantly increase a person's total lead exposure, particularly the exposure of children under the age of 6. EPA estimates that drinking water can make up 20% or more of a person's total exposure to lead.

Results of our Sampling

Following instructions given in an EPA guidance document especially designed for schools, we completed a plumbing profile for each of the buildings within the Anytown School District. Through this effort, we identified and tested those drinking water outlets most likely to have high levels of lead. Of the _____ samples taken, all but _____ tested well below EPA's recommended level of 20 ppb for lead.

The first outlet that tested high for lead was a drinking water fountain (bubbler) at Kennedy High School. After follow-up testing was conducted, it was determined that the faucet (bubbler head) was the source of the lead contamination. The faucet was replaced with a lead-free faucet and retested. Follow-up test results revealed lead levels well below EPA's recommended level.

The second outlet, in the Lincoln Elementary School, was a faucet in the kitchen that showed unacceptable lead levels in both initial and follow-up testing. We found the source of the lead contamination to be the pipe providing water to the faucet. This pipe was replaced with lead-free materials.

During the sampling period, bottled water was provided to all students at all schools to minimize the potential for lead exposure. Upon receiving the test results, the two outlets that tested high for lead were disconnected until they were replaced.

A copy of the test results is available in our central office for inspection by the public, including students, teachers, other school personnel, and parents and can be viewed between the hours of 8:30 a.m. and 4:00 p.m. For more information about water quality in our schools, contact John Doe at the Anytown School Department, 555-2223. For information about water quality in your home or for questions about testing, contact your water supplier or drinking water agency.

Appendix A – Glossary of Terms

Bubbler: An outlet fixture that consists of the bubbler valve, the bubbler receptacle and all associated piping, valves and mounting appurtenances for attaching the fixture to a wall or mounting surface. A bubbler does not contain a refrigeration unit. Some bubblers are attached to central chiller units, while others are not.

Bubbler Valve: The valve and discharge device that mounts on top of the bubbler fixture and discharges water for consumption.

Chiller: A central refrigeration unit providing cold water to some types of bubblers.

Corrosion: A dissolving and wearing away of metal caused by a chemical reaction (e.g., between water and the piping that the water contacts).

Drinking Water Fountain: A fixture connected to the water supply that provides water as needed. There are four types of drinking water fountains: (1) bubblers without central chillers, (2) bubblers with central chillers, (3) water coolers, and (4) bottled water dispensers.

Faucet ("tap"): A valved outlet device attached to a pipe that normally serves a sink or tub fixture. A faucet discharges hot and/or cold water for a variety of consumptive uses, including drinking, cooking, and washing. The term "faucet" is used interchangeably with the term "tap."

Fittings and Valves: Any of numerous mechanical devices by which the flow of water may be started, stopped, or regulated by a movable part that opens, shuts, or partially obstructs one or more ports of passageway.

Flux: A substance applied during soldering to facilitate the flow of solder. Flux often contains lead and can itself be a source of lead contamination in water. The lead-free requirements of the 1986 Safe Drinking Water Act amendments require that solders and flux not contain more than 0.2 percent lead.

Header: The main pipe in the internal plumbing system of a building. The header supplies water to lateral pipes.

Lateral: A plumbing branch between a header or riser pipe and a fixture or group of fixtures. A lateral may or may not be looped. Where more than one fixture is served by a lateral, connecting pipes are provided between the fixtures and the lateral.

Lead-free: Taken from Section 1417(d) of the Safe Drinking Water Act, this term means that solders and flux may not contain more than 0.2 percent lead; pipes, pipe fittings, and well pumps may not contain more than 8.0 percent lead; and outlet plumbing fitting and fixtures must meet

standards established under the lead leaching requirements of section 1417(e) of the Safe Drinking Water Act.

Outlet: A location where water may be accessed for consumption such as a drinking fountain, water faucet, or tap.

Potable Water Pipes: The pipes in a distribution system and in a building which carry water intended for human consumption.

Public Water System: Any water system that has 15 or more service connections and is in operation at least 60 days per year or any water system serving 25 or more persons daily at least 60 days per year.

Riser: The vertical pipe that carries water from one floor to another.

Sediment: Matter from piping or other water conveyance device that settles to the bottom of the water in the apparatus. If lead components are used in plumbing materials, lead sediments may form and result in elevated water lead levels.

Service Connection: The pipe that carries tap water from the public water main to a building. In the past, these were often comprised of lead materials.

Source Water: Untreated water from streams, rivers, lakes, or underground aquifers which is used to supply private wells and public drinking water.

Solder: A metallic compound used to seal the joints between pipes. Until 1988, solder containing up to 50% lead was legally used in potable water plumbing. "Lead-free" solders, which can contain up to .2% lead, often contain one or more of the following metals: antimony, tin, copper or silver. Several alloys are available that melt and flow in a manner similar to lead solder.

Water Cooler: Any mechanical device affixed to drinking water supply plumbing that actively cools water for human consumption. The reservoir can consist of a small tank or a pipe coil.

Appendix B – Publication List

Web Site Publications*

(1) ***Actions You Can Take To Reduce Lead in Drinking Water.*** Web site publication. US EPA 810-F-93-001. June 1993. http://www.epa.gov/safewater/lead/leadfactsheet.html

(2) ***Commonly Asked Questions: Section 1417 of the Safe Drinking Water Act and the NSF Standard.*** US EPA. http://www.epa.gov/safewater/standard/plumbing.html

(3) ***Consumer Fact Sheet on: Lead.*** Web site article. US EPA. http://www.epa.gov/safewater/dwh/c-ioc/lead.html

(4) ***Decision Tree for Pre-Sampling*** (at Schools). Web site article. US EPA. http://www.epa.gov/safewater/lead/safedecisiontree.htm

(5) ***Fact Sheet - Lead Reduction Plan - EPA Activities to Improve Implementation of the Lead and Copper Rule.*** Web site publication. US EPA 810-F-05-001. March 2005. http://www.epa.gov/safewater/lcrmr/reductionplan_fs.html

(6) ***Frequently Asked Questions.*** Web site article. National Sanitation Foundation (NSF). http://www.nsf.org/business/water_distribution/dwa_usepa.asp

(7) ***Is There Lead in the Drinking Water?*** Web site publication. US EPA 903-F-01-002. April 2002. http://www.epa.gov/safewater/lead/pdfs/v2final.pdf

(8) ***Lead Contamination Control Act*** (pamphlet). Web site article. Web site publication. US EPA 570/9-89-AAA. July 1989. http://www.epa.gov/safewater/lead/pdfs/epalccapamphlet1989.pdf

(9) ***Lead Contamination Control Act*** (statute). Web site article. Government Printing Office. January 2004. http://www.access.gpo.gov/uscode/title42/chapter6a_subchapterxii_partf_.html

(10) ***Lead in Drinking Water in Schools and Non-Residential Buildings.*** Web site publication. US EPA 812-B-94-002. (April 1994 version of this document.) http://www.epa.gov/safewater/consumer/leadinschools.html

(11) ***Lead in Schools and Day Care Centers.*** Web site article. US EPA.) http://www.epa.gov/safewater/lead/schoolanddccs.htm

(12) ***Mechanical Plumbing System Components.*** Web site article. Listing of approved components. NSF.

http://www.nsf.org/business/mechanical_plumbing/index.asp?program=MechanicalPluSysCom

(13) ***National Lead Information Center - Document Request Site.*** US EPA. http://www.epa.gov/lead/nlicdocs.htm

(14) ***Post-Remediation Sampling.*** Web site article.(after replacement of fixtures, pipe, fittings, etc.). US EPA. http://www.epa.gov/safewater/lead/passivation.htm

(15) ***Testing Schools and Day Care Centers for Lead in Drinking Water.*** Web site article. US EPA. http://www.epa.gov/safewater/lead/testing.htm

(16) ****Lead Contamination Control Act*** (P.L. 100-572 - Federal statute) and supporting documents. House Document Room, House of Representatives. Washington, DC 20515. (202) 225-3456.

(17) ****Sampling for Lead in Drinking Water in Nursery Schools and Day Care Facilities*** (booklet). US EPA 812-B-94-003. April 1994.

(18) ****The Lead Ban: Preventing the Use of Lead in Public Water Systems and Plumbing Used for Drinking Water*** (pamphlet on the Federal lead ban). US EPA 570/9-89-BBB. August 1989.

* Also available in hard copy through the National Drinking Water Hotline. See below.

Hard Copy Publications

EPA National Safe Drinking Water Hotline
(800) 426-4791

Hotline operates Monday through Friday, 9:00 am to 5:30 pm (EST), except Federal holidays.

Appendix C – List of State Drinking Water Programs

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Appendix D – Water Cooler Summary

The Lead Contamination Control Act (LCCA), which amended the Safe Drinking Water Act, was signed into law on October 31, 1988 (P.L. 100-572). The potential of water coolers to supply lead to drinking water in schools and child care centers was a principal focus of this legislation. Specifically, the LCCA mandated that the Consumer Product Safety Commission (CPSC) order the repair, replacement, or recall and refund of drinking water coolers with lead-lined water tanks. In addition, the LCCA called for a ban on the manufacture or sale in interstate commerce of drinking water coolers that are not lead-free. Civil and criminal penalties were established under the law for violations of this ban. With respect to a water cooler that may come in contact with drinking water, the LCCA defined the term "lead-free" to mean:

> "not more than 8 percent lead, except that no drinking water cooler which contains any solder, flux, or storage tank interior surface which may come in contact with drinking water shall be considered lead free if the solder, flux, or storage tank interior surface contains more than 0.2 percent lead."

Another component of the LCCA was the requirement that EPA publish and make available to the States a list of drinking water coolers, by brand and model, that are not lead-free. In addition, EPA was to publish and make available to the States a separate list of the brand and model of water coolers with a lead-lined tank. EPA is required to revise and republish these lists as new information or analyses become available.

Based on responses to a Congressional survey in the winter of 1988, three major manufacturers, the Halsey Taylor Company, EBCO Manufacturing Corporation, and Sunroc Corporation, indicated that lead solder had been used in at least some models of their drinking water coolers. On April 10, 1988, EPA proposed in the *Federal Register* (at 54 *FR* 14320) lists of drinking water coolers with lead-lined tanks and coolers that are not lead-free. Public comments were received on the notice, and the list was revised and published on January 18, 1990 (Part III, 55 *FR* 1772). *See Table D-2 for a list of water coolers and lead components.*

Prior to publication of the January 1990 list, EPA determined that Halsey Taylor was the only manufacturer of water coolers with lead-lined tanks.[1] Table D-1 presents a listing of model numbers of the Halsey Taylor drinking water coolers with lead-lined tanks that had been identified by EPA as of January 18, 1990..

[1]Based upon an analysis of 22 water coolers at a US Navy facility and subsequent data obtained by EPA, EPA believes the most serious cooler contamination problems are associated with water coolers that have lead-lined tanks.

Since the LCCA required the CPSC to order manufacturers of coolers with lead-lined tanks to repair, replace or recall and provide a refund of such coolers, the CPSC negotiated such an agreement with Halsey Taylor through a consent order published on June 1, 1990 (at 55 *FR* 22387). The consent agreement calls on Halsey Taylor to provide a replacement or refund program that addresses all the water coolers listed in Table D-2 as well as "all tank-type models of drinking water coolers manufactured by Halsey Taylor, whether or not those models are included on the present or on a future EPA list." Under the consent order, Halsey Taylor agreed to notify the public of the replacement and refund program for all tank type models.

SPECIAL NOTE:

Experience indicates that newly installed brass plumbing components containing 8 percent or less lead, as allowed by the SDWA, can contribute high lead levels to drinking water for a considerable period after installation. U.S. water cooler manufacturers have notified EPA that since September 1993, the components of water coolers that come in contact with drinking water have been made with non-lead alloy materials. These materials include stainless steel for fittings and water control devices, brass made of 60 percent copper and 40 percent zinc, terillium copper, and food grade plastic.

Currently, a company formerly associated with Halsey Taylor, Scotsman Ice Systems, has assumed responsibility for replacement of lead-line coolers previously marketed by Halsey Taylor. See below for the address of Scotsman Ice Systems.

Scotsman Ice Systems
775 Corporate Woods Parkway
Vernon Hills, IL 60061
PH: (800) SCOTSMAN or 800-726-8762
PH: (847) 215-4500

Table D-1
Halsey Taylor Water Coolers With Lead-Lined Tanks[2]

The following six model numbers have one or more units in the model series with lead-lined tanks:

WM8A	WT8A	GC10ACR	GC10A	GC5A	RWM13A

The following models and serial numbers contain lead-lined tanks:

WM14A Serial No. 843034	WM14A Serial No. 843006	WT11A Serial No. 222650
WT21A Serial No. 64309550	WT21A Serial No. 64309542	LL14A Serial No. 64346908

[2]Based upon an analysis of 22 water coolers at a US Navy facility and subsequent data obtained by EPA, EPA believes the most serious cooler contamination problems are associated with water coolers that have lead-lined tanks.

Table D-2
Water Coolers With Other Lead Components

EBCO Manufacturing

- All pressure bubbler water coolers with shipping dates from 1962 through 1977 have a bubbler valve containing lead. The units contain a single, 50-50 tin-lead solder joint on the bubbler valve. Model numbers for coolers in this category are not available.

- The following models of pressure bubbler coolers produced from 1978 through 1981 contain one 50-50 tin-lead solder joint each.

CP3	DP15W	DPM8	7P	13P	DPM8H	DP15M	DP3R	DP8A
DP16M	DP5S	C10E	PX-10	DP7S	DP13SM	DP7M	DP7MH	DP7WD
WTC10	DP13M-60	DP14M	CP10-50	CP5	CP5M	DP15MW	DP3R	DP14S
DP20-50	DP7SM	DP10X	DP13A	DP13A-50	EP10F	DP5M	DP10F	CP3H
CP3-50	DP13M	DP3RH	DP5F	CP3M	EP5F	13PL	DP8AH	DP13S
CP10	DP20	DP12N	DP7WM	DP14A-50/60				

Halsey Taylor

- Lead solder was used in these models of water coolers manufactured between 1978 and the last week of 1987:

WMA-1	SCWT/SCWT-A	SWA-1	DC/DHC-1
S3/5/10D	BFC-4F/7F/4FS/7FS	S300/500/100D	

- The following coolers manufactured for Haws Drinking Faucet Company (Haws) by Halsey Taylor from November 1984 through December 18, 1987, are not lead-free because they contain 2 tin-lead solder joints. The model designations for these units are as follows:

HC8WT	HC14F	HC6W	HWC7D	HC8WTH	HC14FH	HC8W	HC2F	HC14WT
HC14FL	HC14W	HC2FH	HC14WTH	HC8FL	HC4F	HC5F	HC14WL	HCBF7D
HC4FH	HC10F	HC16WT	HCBF7HO	HC8F	HC8FH	HC4W	HWC7	

If you have one of the Halsey Taylor water coolers noted in Table D-2, contact Scotsman Ice Systems *(address and phone noted above)* to learn more about the requirements surrounding their replacement and rebate program.

Appendix E – Sample Recordkeeping Form

Record of Sampling

Name of Building	
Name of Sample Collector	
Contact Person for this Record	

				Sample ID Number

Circle sample type: Initial / 1st Follow-up / 2nd Follow-up

Length of Flush (for flushed samples)	
Type of Outlet (faucet, cooler etc.)	
Mfg/Model	
Serial #	
Date of Installation	
Location	
Date of Collection	
Time of Collection	
Name of Laboratory Used	
Lead Concentration (ppb)	

NOTES:

Appendix F – Preservation of Samples and Sample Containers

This appendix contains information pertaining to the preservation of samples and sample containers. A certified drinking water laboratory should be aware of these requirements. In addition, they will provide you with actual samplers or sample containers and instructions. The sample containers may have been prepared prior to your receipt. The laboratory will also specify how to handle the sample containers and when to submit them after taking your samples.

In order to avoid analytical errors, pay particular attention to proper collection and handling of the sample before analysis. Sample containers (250 mL) should be obtained from a certified laboratory. You should not use other containers such as used jars or water bottles.

Make sure the containers are kept sealed between the time of their preparation by the lab and the collection of the sample. This will assure that no contaminants from the outside are introduced. Preserve the sample by icing and promptly ship or deliver it to the laboratory. Most laboratories will provide the necessary shipping containers and cold packs. Upon receipt, the laboratory will acidify the sample. The sample can be held up to 14 days prior to acidification without loss of lead through absorption, but EPA recommends that the laboratories receive the samples as soon as possible.

For more detailed information, refer to the following documents:

Methods for the Determination of Metals in Environmental Samples. EPA/600/4-94/111. May 1994 (available from the National Technical Information Service, Pub. No. PB95-125472 (703) 487-4650).

Manual for the Certification of Laboratories Analyzing Drinking Water. US EPA 815-B-97-001. March 1997 (available from the National Technical Information Service (703) 487-4650).

Standard Methods for the Examination of Water and Wastewater, 20th Edition. Co-published by the American Public Health Association, the Water Environment Federation, and the American Water Works Association. 1998 (available from the American Water Works Association, ISBN # 0-87553-235-7, Catalog #10079

Appendix G – Example Scenarios for Water Sample Results

Service Connection Sampling (See Exhibit 4.3)

Examples:

- Sample 1S (20 ppb) exceeds Sample 1M (5 ppb) = 15 ppb of lead is contributed from the service connection; the lead amount in the main (Sample 1M) does not exceed 5 ppb; therefore, you may want to check for a lead service connection or gooseneck depending upon results of lead testing at other outlets in the building; if you reduce lead at the connection, lead levels may be reduced throughout the remainder of the building.

- Sample 1M is 10 ppb and Sample 1S is 10 ppb = very little lead is contributed from the service line; source of lead is most likely the water main.

- Sample 1S (7 ppb) and Sample 1M (6 ppb) are close to 5 ppb = very little lead (1 ppb) is being picked up in the water from the service line or the distribution main; very little lead is contributed from the source water; if other outlets show significantly higher lead levels, the source of the contamination is the interior plumbing and/or the outlets themselves.

Drinking Water Fountain without Central Chiller (See Exhibit 4.4)

Example:

- Sample 1A (31 ppb) exceeds Sample 2A (7 ppb) = 24 ppb of lead is contributed from the bubbler.

- Sample 2A (7 ppb) does not significantly exceed 5 ppb = very little lead (2 ppb) is being picked up from the plumbing upstream from the bubbler; the majority of the lead in the water is contributed from the bubbler.

- Sample 2A (7 ppb) does not exceed 20 ppb = sampling from header or loop supplying water to the lateral is not necessary.

Possible Solution: Replace fixture, valves, or fittings on bubbler with lead-free device (request results of lead leaching tests from distributors or manufacturers of any fixtures you intend to purchase); retest water for lead after new materials installed.

Drinking Water Fountain with Central Chiller (See Exhibits 4.4 and 4.9)

Example 1:

- Sample 1B (25 ppb) exceeds Sample 2B (3 ppb) = 22 ppb of lead is contributed from the bubbler.
- Sample 2B (3 ppb) is close to 5 ppb = very little lead (2 ppb) is being picked up from the plumbing upstream from the bubbler; the majority or all of the lead is contributed from the bubbler.

Possible Solution: Replace bubbler valve, fittings and/or fixture with lead-free materials (request results of lead leaching studies from manufacturers of brass products before purchasing to ensure that harmful amounts of lead will not be leached); retest water once new materials installed.

Example 2:

- Sample 1B (38 ppb) exceeds Sample 2B (21 ppb) = 17 ppb of lead is contributed from the bubbler.
- Sample 2B (21 ppb) significantly exceeds 5 ppb = about 21 ppb of lead is being contributed from the plumbing upstream from the bubbler.
- Sample 2B (21 ppb) exceeds 20 ppb = sampling from the chiller unit supplying the water to the lateral is necessary to locate the source of the contamination *(see instructions and examples below for sampling chiller units).*

Example 3:

- Sample 2B (21 ppb) exceeds Sample 2K (10 ppb) = 11 ppb of lead is contributed from the plumbing supplying the water from the chiller to the bubbler.
- Sample 2K (10 ppb) exceeds Sample 1K (4 ppb) = a portion of the lead (6 ppb) may be coming from the chiller; check for and remove any debris and sludge in the chiller unit; flush the unit, and resample the water.
- Sample 1K (4 ppb) does not exceed 20 ppb = additional sampling from the distribution system supplying water to the chiller is not necessary.
- Sample 1K (4 ppb) is very close to 5 ppb = very little lead is picked up from the plumbing upstream from the chiller; the majority or all of the lead in the water can be attributed to the chiller and the plumbing downstream from the chiller.

Possible Solutions: Flush the chiller unit and plumbing; if lead levels are still high, replace plumbing supplying water from the chiller to the bubbler; replace the bubbler fixture, fittings, and valves with lead-free materials; and clean sediment and debris from chiller unit. Retest water for lead once changes have been made. If the lead levels after initial flushing are low, clean any sediment and debris from the chiller, and resample the chiller monthly for 3 months. If the lead levels increase, the additional remediation measures listed immediately above are probably necessary to reduce lead risks. If the levels remain low, routine annual cleaning of sediment and debris and routine monitoring at the same frequency as other sites is recommended .

Drinking Water Fountain with Central Chiller (cont.)

Example 4:

- Sample 2B (45 ppb) exceeds Sample 2K (28 ppb) = 17 ppb of lead is being contributed from the plumbing supplying water from the chiller to the bubbler.
- Sample 2K (28 ppb) exceeds Sample 1K (21 ppb) = 7 ppb of lead is contributed by the chiller.
- Sample 1K (21 ppb) exceeds 20 ppb = additional sampling from the distribution system supplying water to the chiller is necessary to locate the source of the contamination *(see Exhibit 4.9 on Sampling Interior Plumbing for instructions).*

Possible Solution: Lead levels are clearly elevated at all sample sites. It appears that multiple sources of lead are contributing to the problem. Retesting may help locate sources of lead, but it appears that the solution includes replacement of upstream plumbing; the bubbler fixture, valves, and fittings with lead-free materials; and, cleaning the sediment and debris from the chiller. Retest water for lead after changes have been made. If levels are still elevated, replacement of the chiller may be necessary.

Drinking Water Fountain with Self-Contained Chiller (Water Coolers) (See Exhibit 4.5)

Example 1:

- Sample 1C (54 ppb) = the plumbing upstream from the cooler and/or the water cooler is contributing lead.
- Sample 3C (40 ppb) exceeds Sample 2C (5 ppb) = the water cooler is contributing 35 ppb of lead.
- Sample 3C (40 ppb) exceeds Sample 2C (5 ppb) and Sample 1C (54 ppb) exceeds Sample 3C (40 ppb) = the plumbing directly upstream from the cooler is contributing 14 ppb of lead.
- Sample 2C (5 ppb) is less than 10 ppb and Sample 2C is less than Sample 1C (54 ppb) and Sample 3C (40 ppb) = the source of lead is not sediments contained in the cooler storage tank, screens, or plumbing upstream from the cooler.

Possible Solutions: Replace the cooler with one that contains lead-free components, and retest the water or find an alternative lead-free drinking water source; locate source of lead from plumbing and eliminate it *(routine flushing is not applicable as a potential remedy for water coolers – see discussion of this issue in Sections 5.2 and 5.3 of this guidance document for further*

Drinking Water Fountain with Self-Contained Chiller (Water Coolers - cont.)

Example 2:

- Samples 1C (44 ppb), 3C (42 ppb) and 2C (41 ppb) are approximately equal = the cooler is not the likely source of lead.
- Sample 1C (44 ppb) exceeds Sample 3C (42 ppb) and Sample 3C and Sample 2C (41 ppb) are close = the plumbing upstream from the cooler is contributing lead to the water.
- Samples 1C (44 ppb), 3C (42 ppb) and 2C (41 ppb) are approximately equal = the source of lead is not likely sediments contained in the cooler storage tank or screens.
- Sample 4C (43 ppb) significantly exceeds 5 ppb = the source of lead is the plumbing upstream from the cooler.

Possible Solutions: Replace the plumbing upstream between the header and cooler with lead-free materials and retest the water. If the water continues to test high, the header, service connection and/or public water supply may be the problem. An evaluation should be made as soon as possible to determine the source of the lead, and other outlets should be tested immediately if not already done. Remember that flushing is not recommended as a practical remedy for water coolers.

Bottled Water Dispensers (See Exhibit 4.6)

Example 1:

- Sample 1D (23 ppb) exceeds Sample 2D (5 ppb) = 18 ppb of lead is contributed from the dispenser unit.

Possible Solution: Replace dispenser unit with one that is made of lead-free materials and retest.

Example 2:

- Sample 1D (24 ppb) and Sample 2D (23 ppb) are close = the source of lead is the bottled water.

Possible Solutions: Purchase another type of bottled water for which the distributor provides written assurance that lead levels do not exceed Federal and State lead standards, or find other alternative lead-free water source. Retest after any remedy has been employed.

Ice Making Machines (See Exhibit 4.7)

Example 1:

- Sample 1E is 22 ppb and Sample 2E (6 ppb) is close to 5 ppb = source of the lead (16 ppb) is the ice maker.

Possible Solutions: Replace plumbing components in ice maker with lead-free materials; clean debris from plumbing and screen at inlet to ice maker; replace with lead-free ice maker; retest after any remedy has been employed.

Example 2:

- Sample 1E = 22 ppb and Sample 2E (21 ppb) significantly exceeds 5 ppb = lead is contributed from the plumbing upstream from the ice maker.

- Sample 2E (21 ppb) exceeds 20 ppb = sampling from the distribution system supplying water to the ice maker is recommended *(see Exhibit 4.9 for instructions).*

Faucets (Taps) (See Exhibit 4.8)

Example 1:

- Sample 1F (39 ppb) exceeds Sample 2F (6 ppb) = 33 ppb of lead is contributed from the water faucet.
- Sample 2F (6 ppb) is close to 5 ppb = very little lead is coming from the plumbing upstream from the faucet; the majority of the lead is coming from the faucet and/or the plumbing connecting the faucet to the lateral.

Possible Solutions: Replace faucet with lead-free device (request copies of lead leaching studies from manufacturers of brass faucets and fixtures before purchasing); replace plumbing connecting the faucet to the lateral with lead-free materials; flush outlet and connecting plumbing each day; apply point-of-use device designed to remove lead; find alternative water source such as bottled water or other lead-free location in the building; retest after any remedies are employed.

Example 2:

- Sample 1F (49 ppb) exceeds Sample 2F (25 ppb) = source of lead (24 ppb) is the water faucet and the plumbing upstream from the outlet (25 ppb).
- Sample 2F (25 ppb) significantly exceeds 5 ppb = lead may be contributed from upstream from the faucet; evaluate lead test results conducted upstream from the faucet to ascertain potential contributions of lead from the upstream piping. To pinpoint location test interior plumbing *(see instructions for sampling interior plumbing in Exhibit 4.9).*

Possible Solutions: Replace faucet with lead-free device (request copies of lead leaching studies from manufacturers of brass faucets and fixtures before purchasing); replace plumbing connecting faucet to the lateral with lead-free materials; replace suspected portion of interior plumbing with lead-free materials; flush the outlet and interior plumbing each day; apply point-of-use device designed to remove lead; find alternative water source such as bottled water or water from other lead-free location in the building; retest after any remedies are employed.

Interior Plumbing (See Exhibit 4.9)

Example :

- Sample 1G (22 ppb) exceeds 20 ppb = collect additional samples from the plumbing upstream to further pinpoint the source of lead (i.e., from the service line, the riser pipe, the loop, or the header supplying water to the lateral).
- Sample 1G (22 ppb) significantly exceeds 5 ppb and is less than downstream site (35 ppb) = a portion of the lead (13 ppb) is contributed downstream from the sample site.
- Sample 1G (22 ppb) is not similar to downstream site (35 ppb) but both exceed 20 ppb = lead is contributed from the lateral or from interior plumbing upstream from the lateral; possible sources of lead may be the loop, header, riser pipe, or service connection; further sampling is necessary.

Possible Solution: Following the collection of additional samples from plumbing upstream to pinpoint sources of lead, replace plumbing with lead-free materials; retest water for lead.

Example:

- Sample 1H or 1I (23 ppb) exceeds 20 ppb = collect additional samples from the plumbing upstream supplying water to the loop or header; compare the results with those taken from the service line or the riser pipe that supplies water to the loop and/or header.
- Sample 1H or 1I (23 ppb) significantly exceeds 5 ppb and Sample 1H or 1I is less than downstream site (25 ppb) = a small portion of the lead (2 ppb) is contributed downstream of the sample site.

Possible Solution: Following the collection of additional samples upstream from the header or loop to pinpoint source of lead, replace affected plumbing with lead-free materials; retest water for lead.

Example:

- Downstream Site is 25 ppb, Service Connection Sample is 4 ppb, and Sample 1J (6 ppb) is less than 20 ppb = additional samples from upstream need not be collected; 21 ppb of lead is contributed from the downstream site.
- Sample 1J (6 ppb) is not equal to downstream site (25 ppb) = source of lead is not the riser pipe or the plumbing and service connection upstream from the riser pipe.
- 1J (6 ppb) is close to 5 ppb = the portion of the riser pipe and plumbing upstream from Sample Site 1J and the service connection are not contributing lead to the water; the source of lead is downstream of the sample site.

Possible Solution: Following the collection of samples from interior plumbing downstream from the riser pipe and the affected outlet to pinpoint the source of lead, replace affected plumbing with lead-free materials; retest water for lead.

Appendix H – Plumbing Profile Questionnaire

This questionnaire is designed to assist with the determination of whether or not lead is likely to be a problem in your facility, and will enable you to prioritize your sampling effort. A separate plumbing profile may be needed for each building, addition, or wing of your facility, especially if the construction took place at different times. Some of the questions in this questionnaire may not apply to your facility for various reasons. Skip those questions that do not apply. For a discussion of this questionnaire and interpretation of possible answers, please see Chapter 3 of "Getting the Lead Out - A Guide to Reducing Lead in Drinking Water in Schools" EPA 816-D-05-001.

Plumbing Profile Questions	Answers
1. When was the original building constructed? Were any buildings or additions added to the original facility? If so, complete a separate plumbing profile for each building, addition, or wing.	
2. If built or repaired since 1986, were lead-free plumbing and solder used in accordance with the lead-free requirements of the 1986 Safe Drinking Water Act? What type of solder has been used?	
3. When were the most recent plumbing repairs made (note locations)?	
4. With what materials is the service connection (the pipe that carries water to the school from the utility's main in the street) made?	

5. Specifically, what are the potable water pipes made of in your facility (note the locations)? • Lead • Plastic • Galvanized Metal • Cast Iron • Copper • Other	
6. Was lead solder used in your plumbing system? Note the locations with lead solder.	
7. Are brass fittings, faucets, or valves used in your drinking water system? (Note: Most faucets are brass on the inside.) You may want to note the locations on a map or diagram of your facility and make extensive notes that would facilitate future analysis of lead sample results.	
8. How many of the following outlets provide water for consumption? Note the locations. • Water Coolers • Bubblers • Ice Makers • Kitchen Taps • Drinking Fountains or Taps	

9. Has your school checked the brands and models of water coolers and compared them to the listing of banned water coolers in Appendix D? Note the locations of any banned coolers.	
10. Do outlets that provide drinking water have accessible screens or aerators? (Standard faucets usually have screens. Many coolers and bubblers also have screens.) Note the locations.	
11. Have these screens been cleaned? Note the locations.	

12. Can you detect signs of corrosion, such as frequent leaks, rust-colored water, or stained dishes or laundry? Note the locations.	
13. Is any electrical equipment grounded to water pipes? Note the locations.	

14. Have there been any complaints about bad (metallic) taste? Note the locations.	
15. Check building files to determine whether any water samples have been taken from your building for any contaminants (also check with your public water supplier). • Name of contaminant(s)? • What concentrations of these contaminants were found? • What was the pH level of the water? • Is testing done regularly at your facility?	
16. Other plumbing questions: • Are blueprints of the building available? • Are there known plumbing "dead-ends," low use areas, existing leaks or other "problem areas"? • Are renovations being planned for part or all of the plumbing system?	

ATTACHMENT

9

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB 29 2016

OFFICE OF
WATER

MEMORANDUM

SUBJECT: Clarification of Recommended Tap Sampling Procedures for Purposes of the Lead and Copper Rule

FROM: Peter C. Grevatt, Director
Office of Ground Water & Drinking Water

TO: Water Division Directors
Regions I - X

The Lead and Copper Rule, 40 C.F.R. Sections 141.80 to 141.91, requires monitoring at consumer taps to identify levels of lead in drinking water that may result from corrosion of lead-bearing components in a public water system's distribution system or in household plumbing. These samples help assess the need for, or the effectiveness of, corrosion control treatment. The purpose of this memorandum is to provide recommendations on how public water systems should address the removal and cleaning of aerators, pre-stagnation flushing, and bottle configuration for the purpose of Lead and Copper Rule sampling.

Removal and Cleaning of Aerators

EPA issued a memorandum on *Management of Aerators during Collection of Tap Samples to Comply with the Lead and Copper Rule* on October 20, 2006. This memorandum stated that EPA recommends that homeowners regularly clean their aerators to remove particulate matter as a general practice, but states that public water systems should not recommend the removal or cleaning of aerators prior to or during the collection of tap samples gathered for purposes of the Lead and Copper Rule. EPA continues to recommend this approach. The removal or cleaning of aerators during collection of tap samples could mask the added contribution of lead at the tap, which may potentially lead to the public water system not taking additional actions needed to reduce exposure to lead in drinking water. EPA's recommendation about the removal and cleaning of aerators during sample collection applies only to monitoring for lead and copper conducted pursuant to 40 C.F.R. 141.86.

Pre-Stagnation Flushing

EPA is aware that some sampling instructions provided to residents include recommendations to flush the tap for a specified period of time prior to starting the minimum 6-hour stagnation time required for samples collected under the Lead and Copper Rule. This practice is called pre-stagnation flushing. Pre-stagnation flushing may potentially lower the lead levels as compared to when it is not practiced.

Flushing removes water that may have been in contact with the lead service line for extended periods, which is when lead typically leaches into drinking water. Therefore, EPA recommends that sampling instructions not contain a pre-stagnation flushing step.

Bottle Configuration

EPA recommends that wide-mouth bottles be used to collect Lead and Copper compliance samples. It has become apparent that wide-mouth bottles offer advantages over narrow-necked bottles because wide-mouth bottles allow for a higher flow rate during sample collection which is more representative of the flow that a consumer may use to fill up a glass of water. In addition, a higher flow rate can result in greater release of particulate and colloidal lead and therefore is more conservative in terms of identifying lead concentrations.

Conclusion

EPA is providing these recommendations for collection of Lead and Copper Rule tap samples to better reflect the state of knowledge about the fate and transport of lead in distribution systems. The three areas discussed above may potentially lead to samples that erroneously reflect lower levels of lead concentrations. The recommendations in this memorandum are also consistent with the recommendations provided by the EPA's Flint Task Force. For more information about the Task Force please view EPA's website at: http://www.epa.gov/flint.

To provide further information on this topic, EPA included an amended "Suggested Directions for Homeowner Tap Sample Collection Procedures" in Appendix D of the 2010 revision of *Lead and Copper Rule Monitoring and Reporting Guidance for Public Water Systems* (EPA 816-R-10-004). This document can be found at:
http://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100DP2P.txt

Please share these recommendations with your state drinking water program directors. If you have any questions, please contact Anita Thompkins at thompkins.anita@epa.gov.

Attachment

cc: James Taft, Association of State Drinking Water Administrators

Suggested Directions for Homeowner Tap Sample Collection Procedures
Revised Version: February 2016

These samples are being collected to determine the lead and copper levels in your tap water. This sampling effort is required by the U.S. Environmental Protection Agency and your State under the Lead and Copper Rule, and is being accomplished through a collaboration between the public water system and their consumers (e.g. residents).

Collect samples from a tap that has not been used for at least 6 hours. To ensure the water has not been used for at least 6 hours, the best time to collect samples is either early in the morning or in the evening upon returning from work. Be sure to use a kitchen or bathroom cold water tap that has been used for drinking water consumption in the past few weeks. The collection procedure is described below.

1. Prior arrangements will be made with you, the customer, to coordinate the sample collection. Dates will be set for sample kit delivery and pick-up by water system staff.
2. There must be a minimum of 6 hours during which there is no water used from the tap where the sample will be collected and any taps adjacent or close to that tap. Either early mornings or evenings upon returning home are the best sampling times to ensure that the necessary stagnant water conditions exist. Do not intentionally flush the water line before the start of the 6 hour period.
3. Use a kitchen or bathroom cold-water faucet for sampling. If you have water softeners on your kitchen taps, collect your sample from the bathroom tap that is not attached to a water softener, or a point of use filter, if possible. Do not remove the aerator prior to sampling. Place the opened sample bottle below the faucet and open the cold water tap as you would do to fill a glass of water. Fill the sample bottle to the line marked "1000-mL" and turn off the water.
4. Tightly cap the sample bottle and place in the sample kit provided. Please review the sample kit label at this time to ensure that all information contained on the label is correct.
5. If any plumbing repairs or replacement has been done in the home since the previous sampling event, note this information on the label as provided. Also if your sample was collected from a tap with a water softener, note this as well.
6. Place the sample kit in the same location the kit was delivered to so that water system staff may pick up the sample kit.
7. Results from this monitoring effort and information about lead will be provided to you as soon as practical but no later than 30 days after the system learns of the tap monitoring results. However, if excessive lead and/or copper levels are found, immediate notification will be provided (usually 1-2 working days after the system learns of the tap monitoring results).

Call_____at_____if you have any questions regarding these instructions.

TO BE COMPLETED BY RESIDENT

Water was last used: Time_____ Date_____
Sample was collected: Time_____ Date_____

Sample Location & faucet (e.g. Bathroom sink): _____

I have read the above directions and have taken a tap sample in accordance with these directions.

Signature_____Date_____

ATTACHMENT

10

Drinking Water
Best Management Practices

For Schools and Child Care Facilities With Their Own Drinking Water Source

EPA 816-B-13-001
April 2013

Drinking Water Best Management Practices

For Schools and Child Care Facilities With Their Own Drinking Water Source

This guide is intended for use by school officials and child care providers responsible for the maintenance and/or safety of school and child care facilities including the drinking water. The purpose of this guide is to describe the importance of implementing best management practices for drinking water in schools and child care facilities and how a school or child care facility would go about implementing these practices. This guide is specifically designed for schools and child care facilities that have their own well and, therefore, are classified as a public water system. This guide is not a regulation itself, nor does it change or substitute for those provisions and regulations. Thus, it does not impose legally binding requirements on EPA, states, public water systems, schools or child care facilities. This guide does not confer legal rights or impose legal obligations upon any member of the public. While EPA has made every effort to ensure the accuracy of the information in this guide the obligations of the regulated community are determined by statutes, regulations or other legally binding requirements. In the event of a conflict between the information in this guide and any statute or regulation, this document would not be controlling.

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This document was prepared by the United States Environmental Protection Agency, Office of Ground Water and Drinking Water, and is based on EPA New England's guide titled, "*Are You Providing Safe Drinking Water at Your School? EPA-901-F-03001, May 2003.*"

What Decision Makers Should Know

On any given day in America nearly 50 million public school students spend a significant portion of their day in school buildings. Exposure to environmental hazards in schools can negatively impact the health of children and school staff. Moreover, studies have shown that poor indoor environments in schools have negative impacts on teacher productivity and student performance.[1,2,3]

Schools and child care facilities receive their drinking water from either nearby municipal water systems or their own on-site drinking water source (i.e., wells). Facilities that receive their drinking water from their own water source are operating a public water system (PWS) and are required to comply with a series of regulations. There are also best management practices that schools and child care facilities should follow if they operate their own public water system. This guide provides an overview of public water systems and regulations that apply to them. Additionally, this guide provides best management practices for the following:

- Complying with regulations that apply to public water systems;
- Protecting sources of drinking water;
- Maintaining and sanitizing water fountains and faucet screens/aerators;
- Voluntarily testing for lead in addition to complying with the Lead and Copper Rule;
- Conducting routine measures for reducing lead exposure in drinking water; and
- Implementing additional measures such as water security, water conservation and educating students about drinking water.

Public Water Systems

A public water supply system is one that provides tap water for human consumption to 15 or more service connections or serves an average of 25 people at least 60 days each year. Water for human consumption includes water for drinking and cooking, food preparation,

Top Five Actions to Protect Drinking Water at Schools and Child Care Facilities

1. Clean drinking water fountains daily using procedures found in this guide.
2. Clean debris out of all outlet screens or aerators on a regular basis using the procedures found in this guide.
3. Test the facility's drinking water for lead. If lead is present, follow the actions for addressing lead contamination outlined in this guide.
4. Ensure the source of your drinking water supply is free from contamination by using the recommendations found in this guide.
5. If elevated lead levels are found, regularly flush all water outlets used for drinking or food preparation and install point-of-use devices, to provide additional treatment of drinking water at the outlet.

[1] Vinciullo F. The relationship between multi-component school health programs and school achievement. Paper presented at: Annual Conference of the National Association of School Nurses, 2008; Albuquerque, NM.

[2] Stolz A, Knickelbein, A., Coburn, S. Linking coordinated school health to student success. Paper presented at: Annual Conference of the National Association of School Nurses, 2008; Albuquerque, NM.

[3] NRC (National Research Council). Green Schools: Attributes for Health and Learning. Washington D.C.: The National Academies; 2006.

Table 1. Types of Public Water Systems

	Definition	Examples
Community water system	Deliver water to 15 or more service connections OR at least 25 residents are served by the system year-round	Subdivisions, mobile home parks, water districts, cities and towns
Non- transient non-community water systems	Serve the same non-resident persons each day for more than 6 months per year	Schools, child care facilities and businesses
Transient non-community water systems	A public water system that provides water in a place where people do not remain for long periods of time	Restaurants, rest stops, summer camps and campgrounds

hand washing and bathing. Most schools and child care facilities that are PWSs are typically non-transient, non-community water systems (NTNCWS), as they serve the same non-resident population each day for more than six months per year. Other types of water systems include community water systems (CWS) and transient, non-community water systems (TNCWS). See Table 1 for a list of public water systems, definitions and examples.

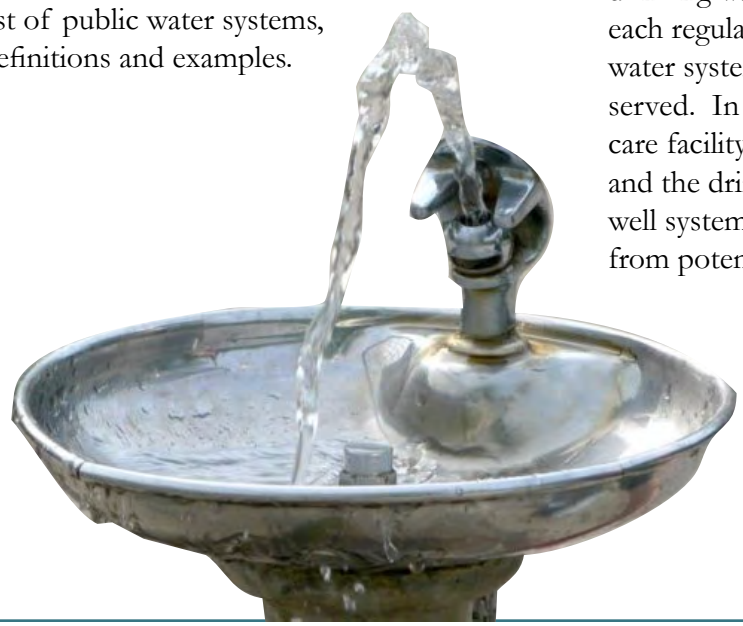

Regulations That Apply to Your Public Water System

As the number of drinking water regulations grows, EPA, states and other organizations continue to provide assistance to public water systems to ensure compliance and help public water systems provide safe, high-quality drinking water (Table 2). Compliance with each regulation depends on what type of public water system you are and the number of people served. In addition, most schools and child care facility PWSs are served by ground water, and the drinking water regulations for these well systems address chronic and acute impacts from potential contaminants.

Table 2. Regulations that Apply to Non-Transient, Non-Community Water Systems*

Regulation	Goal & Importance	Applicability
Total Coliform Rule (http://water.epa.gov/lawsregs/rulesregs/sdwa/tcr/index.cfm)	Seeks to limit bacteria, parasites and viruses which can cause health problems when humans ingest them in drinking water by using coliform bacteria as an indicator.	All public water systems
Ground Water Rule (http://water.epa.gov/lawsregs/rulesregs/sdwa/gwr/index.cfm)	Provides for increased protection (via monitoring) against microbial pathogens in public water systems that use ground water sources. It establishes an approach to focus on ground water systems that are susceptible to contamination and requires ground water systems that are at risk to take corrective action.	All public water systems that use ground water.
Stage 1 Disinfectants and Disinfection Byproducts Rule (http://water.epa.gov/lawsregs/rulesregs/sdwa/stage1/factsheet.cfm)	Reduces exposure to disinfection byproducts for customers, strengthening public health by decreasing potential cancer, reproductive and developmental health risks from DBPs.	Community water systems and non-transient non-community systems, including those serving fewer than 10,000 people, that add a disinfectant to the drinking water during any part of the treatment process.
Stage 2 Disinfectants and Disinfection Byproduct Rule (http://water.epa.gov/lawsregs/rulesregs/sdwa/stage2/index.cfm)	Strengthen public health protection by tightening compliance monitoring requirements for two groups of disinfection byproducts (DBPs): trihalomethanes (THMs) and haloacetic acids (HAAs). This rule is intended to reduce potential cancer, reproductive and development health risks from DBPs.	Applies to community and non-transient, non-community water systems that add and/or deliver water that is treated with a primary or residual disinfectant other than ultraviolet light.

Regulation	Goal & Importance	Applicability
Lead and Copper (http://water.epa.gov/lawsregs/rulesregs/sdwa/lcr/index.cfm)	Requires water systems to control corrosivity and collect tap samples from sites served by the system that are more likely to have plumbing materials containing lead. This rule provides monitoring techniques and response actions for lead and copper, which may cause a variety of health problems.	All community and non-transient, non-community water systems.
Phase II/V Rules (http://water.epa.gov/lawsregs/rulesregs/sdwa/chemicalcontaminantrules/basicinformation.cfm)	Establishes monitoring and reporting requirements and allowable limits for inorganic, volatile organic and synthetic organic contaminants. This provides important public health protection through the reduction of chronic risks from cancer, organ damage and circulatory, nervous and reproductive system disorders.	All community and non-community water supplies.
Arsenic Rule (http://water.epa.gov/lawsregs/rulesregs/sdwa/arsenic/regulations.cfm)	Limits arsenic in water to 10 parts per billion (ppb). This rule is intended to reduce risks of cancer and cardiovascular, pulmonary, immunological, neurological and endocrine effects that result from exposure to arsenic.	All community and non-transient, non-community water systems.
Public Notification Rule (http://water.epa.gov/lawsregs/rulesregs/sdwa/publicnotification/index.cfm)	Requires systems to notify the public any time a water system violates national primary drinking water regulations or has other situations posing a risk to public health. This rule ensures that consumers will always know if there is a problem with their drinking water.	All public water systems violating national primary drinking water regulations, operating under a variance or exemption or having other situations posing a risk to public health.

*Almost all school and child care facility water supplies rely on ground water so additional surface water regulations are not highlighted here.

Source Water Protection

One of the best ways to be sure you are providing clean water is to ensure the source of your supply is free from contamination. State drinking water agencies have identified wellhead protection areas, land areas that provide water to public supply wells and surface water supplies. If your facility receives water from an on-site well water system its protection area is likely to include the school or child care facility property and neighboring properties.

State drinking water programs are required to complete a source water assessment for all public drinking water systems, which include information about the location of each drinking water system's protection area and about activities that could potentially contaminate the drinking water source, including ground water wells (see Table 3). You can contact your state or local drinking water program and ask if they have a map showing your protection area.

You should also evaluate potential contamination sources on your facility's property that may impact water quality and make plans to eliminate any risk they pose. If the facility uses an on-site septic system, evaluate the setback between it and your well, and confirm it meets state and local requirements. Some areas to check within the facility are sinks and floor drains in facility maintenance areas, cleaning supply areas, science laboratories, vocational shops and art classrooms. It is a good idea to post signs over sinks indicating chemicals cannot be disposed of down the drain. Protecting the quality of your water before it is contaminated is much more cost-effective than trying to treat or replace a supply that has been contaminated.

Additional information is available from EPA at: http://water.epa.gov/infrastructure/drinkingwater/sourcewater/protection/index.cfm

Table 3. Potential Contamination Sources

Potential Contaminant	Source
Bacteria/Pathogens	Septic systems, animal feedlots, manure storage
Nitrogen	Septic systems, lawn fertilizers, agricultural fertilizers, manure storage, animal feedlots
Sodium, Chloride	Road salt storage facilities, major roads when road salt is applied
Oils & Hydrocarbons	Gas stations, fuel oil distributors, underground home heating oil tanks
Chlorinated Solvents	Automotive services and repair facilities, dry cleaners, industrial facilities

Addressing Cross Contamination

It is important to be aware of cross connections within your facility as contamination can occur when there is a connection between your building's drinking water system (pipes) and another liquid or substance. Cross contamination from backflow of harmful substances may occur as a result of reduced pressure in the drinking water system or because of increased pressure in the contaminating source. Be aware, cross contamination may not be immediately apparent because a contaminant may not have a strong taste, odor or color.

Cross contamination can happen at facilities under a number of circumstances, including:

- When a tube or hose from a faucet is submerged in a solution, in a beaker or in a custodian's sink;
- A pipe is connected from a drinking water source to chemical lab equipment, a storage tank or cafeteria equipment; or
- A hose is dropped into a waste/floor drain in an automotive shop, boiler room or cafeteria.

Other sources of potential cross contamination include cross connections between the drinking water system and heating system boilers, water coolers, lawn sprinkler systems, fire sprinkler systems or soft drink machines.

Cross contamination can be prevented by using backflow prevention devices that only allow water to flow in one direction, from the source to the tap, so liquid cannot flow back

A garden hose creates a dangerous cross connection between potable and non-potable water.

down the tap and contaminate the water in the distribution system. Devices should be tested annually by a certified professional. If you have questions about cross connections and contamination, contact the local building/plumbing inspector or for more information on cross contamination please visit: http://water.epa.gov/infrastructure/drinkingwater/pws/crossconnectioncontrol/index.cfm

Bacteria

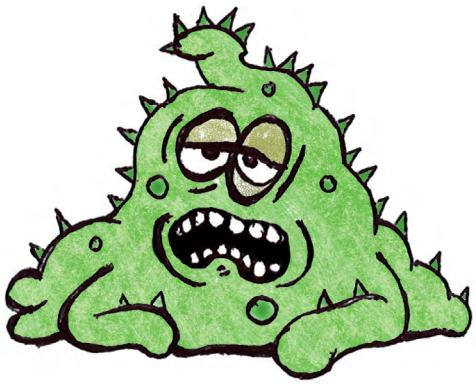

Bacteria are present throughout our environment. They have adapted to live and reproduce in a variety of environments, including inside animals and humans, and in water, soil and food. If bacteria are present in drinking water sources, most are removed during the disinfection process. However, some may survive and enter the distribution system (the building's pipes and plumbing). Bacteria can also grow within the plumbing system, water fountains and faucets. Therefore, it is important to regularly clean your facility's water fountains, faucets and hot water tanks.

Lead

Understanding Lead Exposure

Lime build-up on mouthpiece and protective guard of drinking fountain.

As a public water system, your school or child care facility is required to comply with the Lead and Copper Rule (see page 2, Table 2. Regulations that Apply to NTNCWSs). The Lead and Copper Rule was developed to protect public health by minimizing lead and copper levels in drinking water. Public water systems are required to collect a number of tap samples based on the daily population served (see Table 4). However, EPA encourages schools and child care facilities to conduct additional voluntary lead testing at ALL water outlets in their facility used for drinking or food preparation. Because you cannot see, taste or smell lead in your drinking water, testing the facility's water is the only sure way to know if there are elevated levels in the water. School officials and child care providers need to know whether the drinking water that students, teachers and staff consume contains elevated levels of lead because exposure to lead can cause serious health problems, particularly for young children.

The "Lead and Copper Rule: Quick Reference Guide for Schools and Child Care Facilities that are Regulated Under the Safe Drinking Water Act" provides an overview of the Lead and Copper Rule and sampling requirements. The guide is available at: http://water.epa.gov/infrastructure/drinkingwater/schools/upload/2006_1_11_schools_lead_qrg_lcr_schools.pdf

In addition to complying with the Lead and Copper Rule, it is recommended that schools and child care facilities that are public water systems conduct additional testing for lead as children are particularly susceptible to health effects from lead.

Health Effects of Lead

Lead can cause serious health problems if too much enters your body from drinking water or other sources. Some facts about lead exposure include:

- Infants, young children and pregnant women are at greatest risk to lead exposure;
- Increased lead levels have been shown to cause damage to the brain and kidneys;
- Increased lead levels interfere with the production of red blood cells that carry oxygen to all parts of your body;
- Scientists have linked the effects of lead on the brain with lowered intelligence quotient (IQ) in children;
- Adults with kidney problems and high blood pressure can be affected by lower levels of lead more than healthy adults;
- Lead is stored in the bones and it can be released later in life; and
- During pregnancy, the fetus receives lead from the mother's bones which may affect brain development.

In addition to protecting human health, facilities that voluntarily test drinking water and make information about their program available to the public may increase the public's confidence in the school or child care facility's water quality.

Table 4. Lead and Copper Tap Monitoring Requirements Under the Lead and Copper Rule

School or Child Care Facility Daily Population Served	Number of Lead and Copper Tap Sample Locations
10,001 – 50,000	60
3,301 – 10,000	40
501 – 3,300	20
101 – 500	10
100 or less	5

Source: *Lead and Copper Rule: Quick Reference Guide for Schools and Child Care Facilities that are Regulated Under the Safe Drinking Water Act*

How Lead Gets into Drinking Water

Soft water has a low pH, which is corrosive. Other factors however also contribute to the corrosion potential of the water and include water velocity, temperature, alkalinity, type of disinfectant, the age and condition of plumbing and the amount of time water is in contact with plumbing. Of note, recent construction work on your facility's plumbing system (e.g., pipe replacement and utility lead service line replacement with copper components) may result in corrosion of remaining lead pipes or disturbance of settled debris within larger pipes in the system which may create new sources of contamination. The occurrence and rate of corrosion depend on the complex interaction between a number of these and other chemical, physical and biological factors.

Example of lead pipes in a plumbing system.

According to the Lead and Copper Rule there are steps that public water systems must take to reduce the corrosiveness of the water if the system has high levels of lead. However, if the plumbing in the facility is made of lead or contains lead parts, corrosion may occur simply by water moving through the plumbing.

Reduction of Lead in Drinking Water Act

A new requirement, signed into law by President Obama in January 2011, will further reduce lead in pipes, pipe fittings, plumbing fittings and fixtures to a weighted average of 0.25 percent. The Reduction of Lead in Drinking Water Act redefines "lead free" under the Safe Drinking Water Act to mean: not containing more than 0.2 percent lead when used with respect to solder and flux, the material used to join pipes and fixtures together (current law) and not more than a weighted average of 0.25 percent lead when used with respect to the wetted surfaces of pipes, pipe fittings, plumbing fittings and fixtures. The new requirements will become effective in January 2014.

Potential Sources of Lead in Drinking Water

- Lead pipes in plumbing:
  - Dull gray in color and will appear shiny when scratched
  - Banned since 1986 and not widely used since the 1930s
- Copper pipes joined by lead solder:
  - Solder will be dull gray in color and will appear shiny when scratched
  - Banned since 1986 and many communities banned prior to 1986
- Brass pipes, faucets, fittings and valves:
  - May contain alloys of lead
- Sediments in screens on faucets may contain lead:
  - Debris from plumbing can collect on screens
- Water service line from the well to the facility is made of lead:
  - Pipes that carry water to the facility may contain lead
- Water fountains in the facility may contain lead parts:
  - Specific brands of water fountains contain lead parts or have lead lined water tanks
  - Since 1988 it has been mandated that water fountains be lead free, but older facilities may have outdated models.

Copper pipes joined by lead solder.

Copper

Copper is widely used in household plumbing, sometimes without proper consideration of water quality. Excess copper exposure can cause stomach and intestinal distress, liver or kidney damage and complications of Wilson's disease. Children's bodies absorb more lead and copper than the average adult because of their rapid development. Copper leaches into water through corrosion of the plumbing system – primarily from pipes, but fixtures, faucets and fittings made of brass can also be a source. The amount of copper in your water strongly depends on the acidity and types and amounts of minerals in the water, whether or not it is oxygenated or disinfected, how long the water stays in the pipes, the length of time the pipes have been in use and the water's temperature. When the water pH is below neutral (7) and when the alkalinity of the water (bicarbonate content) is high, very high concentrations of copper can persist for many years in copper pipes and fittings found in new construction and remodeled or renovated buildings. Blue staining of water, sinks and fixtures can be an indicator of extreme copper plumbing corrosion.

Drinking Water Best Management Practices

Bacteria

Drinking Water Fountains

Drinking water fountains should be cleaned on a daily basis to reduce possible bacterial contamination. Fountains should also be included in the regular flushing of your facility's plumbing system (as described in the section, Routine Measures for Reducing Lead Exposure).

Drinking Water Fountain Daily Cleaning Procedures[1]

The following procedures should be considered for daily cleaning:

- Gather necessary materials and suggested protective equipment;
- Obtain Material Safety Data Sheets (MSDS) for all chemicals being used and review manufacturer's instructions for use;
- Check the flow of the water to make sure there is a constant stream;
- Spray disinfectant cleaner solution on the inside surfaces of the mouthpiece and protective guard;
- Using a scrub brush, scrub the inside and outside of the mouthpiece and protective guard;
- Rinse the mouthpiece and protective guard with water; and
- Wipe drinking fountain surfaces with a clean cloth dampened with water.

It is also important to clean drinking water fountains to remove lime and calcium build-up. Lime and calcium build-up can begin to block the water from coming through the mouthpiece and going down the drain.

[1] Iowa State University Facilities Planning & Management – Custodial Task Procedures

Removing Lime Build-up on Drinking Fountains or Ice Machines

- Spray descaler onto the bowl and back of the drinking fountain;
- Use a clean, lint-free cloth saturated with the descaler. Apply to the surfaces with the lime build-up. Let stand for the length of time recommended on the label;
- Wring out all excess solution from the cloth;
- Wipe the surface clean with the cloth. If necessary, use a brush or scrub pad to remove hard build-up. Be careful not to damage surfaces while scrubbing; and
- Thoroughly rinse the surfaces with clean water.

For a list of EPA-approved disinfectants to use in your facility, please visit: http://www.epa.gov/oppad001/chemregindex.htm

Hot Water Tanks

Hot water tanks are susceptible to the development of biofilm, which is a surface deposit of bacteria that accumulates creating a slime layer. Similar to the plaque that forms on teeth biofilms accumulate over time. It is recommended that you consult with an experienced professional to have your hot water tank periodically cleaned to remove existing biofilms and sediments.[2]

[2] National Environmental Services Center, Tech Brief. Biofilm Control in Distribution Systems, Summer 2008, Vol. 8, Issue 2.

Lead

Voluntary Lead Testing

In addition to complying with the Lead and Copper Rule, EPA recommends that schools and child care facilities conduct additional voluntary lead testing at ALL water outlets used for drinking and food preparation. EPA developed the 3Ts (Training, Testing and Telling) for Reducing Lead in Drinking Water in Schools, Revised Technical Guidance to help schools and child care facilities implement simple strategies for managing the health risks of lead in drinking water. Following the 3Ts guidance does not replace requirements for complying with the Lead and Copper Rule (see page 2, Table 2. Regulations that Apply to Non-transient, Non-community Water Systems).

The 3Ts include:

- **Training** school and child care facility officials to raise awareness of the potential occurrences, causes and health effects of lead in drinking water, assist facilities in identifying potential areas where elevated lead may occur, and establish a testing plan to identify and prioritize testing sites;
- **Testing** drinking water in the facility to identify potential problems and take corrective actions as necessary; and
- **Telling** students, parents, staff and the larger community about monitoring programs, potential risks, the results of testing and remediation actions.

The 3Ts for Reducing Lead in Drinking Water in Schools, Revised Technical Guidance is available at: http://water.epa.gov/infrastructure/drinkingwater/schools/guidance.cfm#3ts

The 3Ts for Reducing Lead in Drinking Water in Child Care Facilities is available at: http://water.epa.gov/infrastructure/drinkingwater/schools/guidance.cfm#3ts

EPA also developed the, "What Your School or Child Care Facility Should Know About Lead in Drinking Water" DVD available for order from the National Service Center for Environmental Publications (NSCEP) at: http://water.epa.gov/infrastructure/drinkingwater/schools/guidance.cfm[3]

Test the Facility's Drinking Water for Lead

It is important to test all of the drinking water outlets in your facility, especially those that provide water for drinking, cooking and preparing juice and infant formula. Lead in drinking water can be a localized problem and can vary from tap to tap. Just because there

[3] Also available by calling NSCEP at 1-800-490-9198. For International Orders: Call NSCEP at (301) 519-6640 or e-mail NSCEP at nscep@bps-lmit.com

is lead getting into your water from one outlet does not mean that all your taps are vulnerable. At the same time, just because one tap sample is free from lead does not mean that all your taps are clear. It is a good idea to test ALL outlets including drinking fountains and faucets where water is used for drinking or cooking. Unusual sources of drinking water, such as locker room shower heads and other non-drinking water taps used to fill water jugs and carboys, should also be included when testing for lead.

There are different sampling techniques used to comply with the Lead and Copper Rule and a voluntary lead testing program. The 3Ts for Reducing Lead in Drinking Water in Schools, Revised Technical Guidance, provides step-by-step instructions on how to properly collect voluntary samples and test your facility's drinking water outlets for lead.[4] A list of certified laboratories for lead testing is available from your state or local water authority. Testing costs between $20.00 and $100.00 and the laboratory will provide instructions on proper sampling procedures.

The concentrations of lead in your drinking water samples will be reported in metric form, such as milligrams per liter (mg/L) or micrograms per liter (µg/L), or as parts per million (ppm) or parts per billion (ppb). One ppm is roughly equivalent to one cup of a substance in a swimming pool. One ppb is about one drop of a substance in a swimming pool.

Under the Lead and Copper Rule, EPA established an action level of 15 ppb for lead in a one-liter sample, based on the 90th percentile level of tap water samples (no more than 10 percent of your samples can be above the action level). If the 15 ppb threshold is exceeded, the Lead and Copper Rule requires corrosion control actions to be taken by the water system operator to reduce lead concentrations.

Under the 3Ts guidance, EPA recommends that schools and child care facilities also take action to correct issues with lead fixtures and piping within the school if samples from any ONE drinking water outlet shows lead levels greater than 20 ppb.

If your sink has separate hot and cold water knobs, samples should be collected from cold water, as hot tap water is not recommended for food preparation or direct consumption. If you have one lever, be sure to turn it on to the cold water side before collecting your sample.

Routine Measures for Reducing Lead Exposure

Whether you have tested your water or not, or even if your water has shown low levels of lead, there are basic practices that will further reduce the potential for lead exposure at your facility as well as reduce sediment in your water.

Develop a flushing plan

- Determine how water enters and flows through your facility by developing a plumbing profile[5]. Consult with your maintenance personnel, a licensed plumber or a local water service to develop a plumbing profile;
- Locate all water outlets that are used for consumption;
- Identify the drinking water outlet(s) furthest from the main water service line (Note: If your facility has multiple wings there will be more than one outlet farthest from the main service line);

[4] See Section II: Testing of the 3Ts for Reducing Lead in Drinking Water in Schools, Revised Technical Guidance, available at: http://water.epa.gov/infrastructure/drinkingwater/schools/guidance.cfm

[5] See Section II: Testing of the 3Ts for Reducing Lead in Drinking Water in Schools, Revised Technical Guidance, available at: http://water.epa.gov/infrastructure/drinkingwater/schools/guidance.cfm

- Determine the best order to open and flush drinking water outlets, starting with those farthest from the main service line;
- Identify options for collection and non-potable re-use of flushed water (e.g., plant watering); and
- Develop a system for accountability, including identifying one person who is in charge and developing a record keeping system.

Flush all water outlets used for drinking or food preparation

- At the start of each day, before using any water for drinking or cooking, flush the cold water faucet by allowing the water to run for a period of time. Contact your state or local drinking water program to find out what the recommended flushing time is for your facility based on system size and pipe diameter. Flushing should be done for all water outlets used for drinking or food preparation.
- Flushing, or opening up a tap and letting the water run, replaces the stagnant water that may have been in contact with lead-containing plumbing fixtures overnight or over the weekend. The longer water is exposed to lead pipes or solder the greater the likelihood of lead contamination.
- Flushing times vary depending on your buildings pipes and outlets, refrigerated water fountains can take as long as 15 minutes to properly flush out the reservoir.
- If many taps need flushing, the tap furthest from the main pipe should be opened for approximately 10 minutes to flush out the main pipe. Then, individual drinking water taps should be flushed to rid stagnant water from the pipes.[6] Keep in mind that if your facility has more than one wing there may be more than one tap that is furthest from the main water line.

Use only cold water to prepare food and drinks

- Hot water dissolves lead more quickly than cold water and is therefore more likely to have greater amounts of lead.
- If hot water is needed, water should be drawn from the cold tap and heated.
- Use only thoroughly flushed water from the cold water tap for drinking and when making mixed baby formula, juices or foods.

Clean debris out of all water outlet screens or aerators on a regular basis

- Small screens on the end of a faucet can trap sediments containing lead. Note: Aerators are often used to regulate flow, reduce splash and conserve water. Check to see if your faucets have aerators, since not all faucets have them.

[6] Lead in School Drinking Water Program (http://www.mass.gov/dep/water/drinking/sclcatlg.pdf).

Faucet Aerators

Many taps that are used to provide water for human consumption have an aerator as part of the faucet assembly. Aerators serve to introduce air into the water flow which makes it feel as if a larger water flow is coming out of the tap. The use of aerators is a common water conservation practice. Screens are not intended to remove contaminants in the water, but may trap sediment or debris as water passes through the faucet. Lead bearing sediment may end up in drinking water from physical corrosion of leaded solder and can build up in the aerator over time.

Faucet Aerators Cleaning Procedures

- Remove the aerator by twisting off with hands or pliers;

- One or more parts are contained within the aerator. Note the order and orientation of the parts as you remove them;

- Rinse the pieces with water and brush off the debris. For deposits that are difficult to remove, soak the parts in water for a few minutes and scrub with a toothbrush. Backwashing aerator components is also an effective cleaning method for many aerator types. Hold the removed aerator upside down under flowing water to backwash screens and mesh filters;

- If any parts are cracked or broken, replace them. If the washer has hardened it should be replaced; and
- Reassemble the aerator, screw it back onto the faucet and hand-tighten.

It is not recommended that aerators be removed from faucets immediately before sampling for lead as the sample will fail to identify the typical available contribution of particulate lead from that tap and thus additional actions needed to reduce exposure to lead in drinking water will fail to be taken.

However, if the results from the initial sample are above the action level, you can consider taking a second sample to determine whether

particulate matter is the source of lead. For this sample, the aerator would be cleaned or removed prior to sampling so that the two samples could be compared.[7] It is advised that a regular cleaning schedule be established for aerators.

Respond to Elevated Lead Levels

If your system exceeds the lead action level under the Lead and Copper Rule, specific actions need to be taken. These required actions include public education, water quality parameter monitoring, source water monitoring and treatment and corrosion control treatment.[8]

Under the 3Ts guidance, EPA recommends that schools and child care facilities take action if samples from any ONE drinking water outlet show lead levels greater than 20 ppb. Any outlet with test results above this level should not be used until the source of the contamination is found and the lead levels are reduced to 20 ppb or less. If you are going to stop using an outlet due to high lead levels you should place a physical barrier such as tape or an illustrative sign over the faucet so that everyone knows it should not be used until it is fixed. In addition, you should encourage parents to have their children's blood tested for lead if high lead levels are detected in the water. It is recommended that facilities develop Standard Operating Procedures (SOPs) for responding to elevated lead levels and administrators or directors should be encouraged to communicate this information to parents (or teachers) so they can protect their children. The following remedies can be used to respond to elevated lead levels.

Provide an alternative lead-free drinking water

- Bottled water can be used as a temporary measure; and
- Make sure the bottled water distributor meets federal and state bottled water quality standards (which are different than tap water) and that their filtration technology is National Sanitation Foundation International (NSF) certified for lead reduction (http://www.nsf.org).

> Prior to replacing fixtures when elevated lead levels are determined, be sure to test the new fixtures to ensure the fixtures are "lead free." If you are purchasing a large volume of faucets ask the manufacturer or vender to test the faucets with your local tap water to make sure no lead is leached out of the faucets. If you are only purchasing a few faucets make sure the fixtures are certified according to NSF/ANSI Standards 61 and 372 for lead reduction. You can search for NSF drinking water components at: http://www.nsf.org/certified/pwscomponents/

Remove sources of lead in the plumbing system

These remedies are most appropriate for localized contamination problems and are best handled by a licensed plumber:

- Replace solder joints with lead-free joints;
- Replace the outlet or fixture/faucet with "lead-free" materials (according to NSF/American National (ANSI)

[7] EPA, Oct 2006. Memorandum: Management of Aerators during Collection of Tap Samples to Comply with the Lead and Copper Rule. Available at: http://water.epa.gov/lawsregs/rulesregs/sdwa/lcr/upload/2006_10_27_lcrmr_memo_tapsamples-aerators_10202006.pdf

[8] The Lead and Copper Rule: Quick Reference Guide for Schools and Child Care Facilities that are Regulated Under the Safe Drinking Water Act, available at: http://water.epa.gov/infrastructure/drinkingwater/schools/upload/2006_1_11_schools_lead_sqrg_lcr_schools.pdf

Standards 61 and 372);
- Replace piping with "lead-free" materials; and
- Be sure to check product packaging to confirm item is NSF certified as lead free.

Install point-of-use/point-of-entry treatment devices

- A point-of-use (POU) device is a filtration system, such as a carbon filter, that can be installed directly on a drinking water outlet. A point-of-entry (POE) device is a filtration system that is installed where the water main enters the facility and treats all the water in your building.
- Use a device that is certified by NSF International[9] to remove lead.

- Maintaining POU and POE treatment devices is very important. Refer to the manufacturer's instructions for maintenance procedures. If not maintained properly, some treatment devices may increase lead and other contaminant levels.
- If using a POU or POE device you should conduct follow up testing to make sure the water is still below the action level.
- With the use of a POU or POE device, flushing is not necessary.
- If using POU or POE devices on some faucets, but not all, make sure that faucets without a POU or POE device are clearly labeled that they are not for drinking or cooking water.

[9] NSF/ANSI Standard 61 explanation http://www.nsf.org/business/water_distribution/faq.asp#lead

Communicate with your Community about the Lead Testing Program

It is important to communicate early and often about your testing plans, results and next steps. Telling parents and staff about your voluntary lead testing program will demonstrate your proactive commitment to protecting the health of your students and staff and build confidence in your facility's ability to provide a safe and healthy environment, whether or not elevated lead levels are found in your facility.

Additional Considerations

Copper

Testing for copper may be appropriate if your water is somewhat acidic (with a pH below 7) and when it is disinfected. Copper corrosion decreases steadily over time under normal water usage conditions, but elevated copper levels can persist for many years in new copper pipes. If you are experiencing blue staining of your water, sinks, bathtubs or showers, or if there is growing blue encrustation on the fixtures, this may be an indicator of high copper levels, and you should have your water tested for both copper and lead. If you are experiencing elevated copper levels in the drinking water system, the easiest method for reducing exposure to copper is to flush the system to avoid drinking or cooking with water that has

been in contact with the plumbing system for more than four hours. Particularly when first drawing water in the morning, flush the system by running the cold water faucet long enough to get fresh water from the main, which could vary from about two minutes to five or ten minutes, depending on the size and length of the pipes and the flow rate. Each faucet where water is drawn for drinking or cooking purposes should be flushed separately, starting with the faucet or outlet farthest from where the fresh water enters the building.

Water Security[10]

Work with your local emergency planning committee to assess the vulnerability of your facility's drinking water system and be sure everyone working at your facility is involved in this effort and understands their responsibilities.

- Prepare or update an emergency response plan. Make sure all employees help develop the plan and receive training on it.
- Post updated emergency 24-hour numbers at your facilities in highly visible areas (e.g., pumphouse door, vehicles, office) and distribute them to key personnel and local response officials.
- Get to know your local police and fire departments and ask them to add your buildings to their routine rounds. Practice emergency response procedures with local police, emergency responders and public health officials.
- Fence and lock your drinking water facilities and vulnerable areas (e.g., wellhead, hydrants, manholes, pumphouse and storage tanks).
- Lock all entry gates and doors, set alarms and post signs to indicate illegal entry. Do not leave keys in equipment or vehicles at any time.
- Install good lighting around your pumphouse, treatment facility and parking lot.
- Identify existing and alternate water supplies and maximize use of backflow prevention devices and interconnections.
- Use your Source Water Assessment information (as described on page 5) to work with businesses and homeowners that are listed as potential sources of contamination in order to lessen their impact on your water source.
- Lock monitoring wells to prevent vandalism or direct contamination by moving vent pipes inside the pump house or fencing/screening them in.
- In case of an emergency, first call 911 then follow your emergency response plan.

Additional water security resources include:

Top 10 List for Drinking Water Security and Emergency Preparedness (EPA)
Provides tips to enhance security of small ground water systems.
Website: http://water.epa.gov/infrastructure/watersecurity/upload/2004_04_01_watersecurity_fs_security_smallsuppliers_top10.pdf

Security Vulnerability Self Assessment Guide for Small Drinking Water Systems (Association of State Drinking Water Administrators in coordination with National Rural Water Association)
Guidance is available for small systems, such as schools and child care facilities, to complete a security vulnerability assessment of their drinking water system.
Contact: Association of State Drinking Water Administrators at: http://www.asdwa.org

[10] Adapted from EPA New England, Drinking Water Security and Emergency Preparedness (http://water.epa.gov/infrastructure/watersecurity/upload/2004_04_01_watersecurity_fs_security_smallsuppliers_top10.pdf).

Water Conservation

Schools and child care facilities use large amounts of water every day for heating and cooling systems, restrooms, drinking water, cooking, locker rooms, cafeterias, laboratories and outdoor playing fields and lawns. Options to reduce water use for these facilities include:

- Consider replacing old equipment such as dishwashers with energy and water saving devices;
- Repair water leaks and leaky toilets;
- Install aerators and automatic shut-off devices on faucets;
- Use low-flow shower heads and timer shut-off devices to reduce water use during showers;
- Install timers on outdoor sprinklers;
- Install toilet dams on older models;
- Replace plants and grasses that require a lot of water with native sustainable vegetation; and
- Use rain barrels and teach the students about green roofs.

WaterSense

The WaterSense program promotes water efficiency and enhancing the market for water-efficient products, programs and practices. Since the program's inception in 2006, WaterSense has helped consumers save a cumulative 46 billion gallons of water and $343 million in water and sewer bills. For additional information, visit: http://www.epa.gov/watersense/

Teaching Students about Drinking Water

There are a variety of ways to teach students about drinking water:

- Early science classes demonstrating the water cycle;
- Mathematics classes demonstrating supply and demand principles;

- History lessons discussing early settlement patterns near water sources and our nation's system of government, laws and regulations provide important knowledge for water resource decision-making;
- Involve students in the voluntary lead testing program to make it a teaching moment, ensuring that the students wear proper safety equipment and are not exposed to lead; and
- Engage high school science classes or local universities to conduct quick screening tests for devices identified as meeting the application needs and NSF International requirements to verify performance.

EPA has developed numerous resources and activities for students and teachers, including:

Drinking Water in Schools and Child Care Facilities (EPA)
Provides multiple resources regarding lead in drinking water, including health information, an overview of laws and regulations and guidance. Website: http://water.epa.gov/infrastructure/drinkingwater/schools/index.cfm

Kid's Stuff: Drinking Water and Ground Water (EPA)
Provides activities and materials for students and teachers for grades K-3, 4-8 and 9-12. Website: http://water.epa.gov/learn/kids/drinkingwater/index.cfm

Water Science and Technology for Students and Educators (EPA)
Water-related activities and resources for students and teachers.
Website: http://water.epa.gov/learn/resources/index.cfm

That Magnificent Ground Water Connection (New England Interstate Water Pollution Control Commission in coordination with EPA)
Classroom activities for students demonstrating the many characteristics, uses and threats to ground water resources in New England. Available for grades K-6 and 7-12.
Selected activities are available at: http://www.epa.gov/region1/students/teacher/groundw.html

Resources

3Ts for Reducing Lead in Drinking Water in Schools
Provides detailed guidance for schools that receive their drinking water from municipal water supplies regarding training and testing for and communicating about lead in drinking water.
Website: http://water.epa.gov/infrastructure/drinkingwater/schools/guidance.cfm#3ts

3Ts for Reducing Lead in Drinking Water in Child Care Facilities
Provides detailed guidance for child care facilities that receive their drinking water from municipal water supplies regarding training and testing for and communicating about lead in drinking water.
Website: http://water.epa.gov/infrastructure/drinkingwater/schools/guidance.cfm#3ts

Lead and Copper Rule: A Quick Reference Guide for Schools and Child Care Facilities that are Regulated Under the Safe Drinking Water Act
Provides an overview of the Lead and Copper Rule requirements, including sampling, compliance and public education requirements.
Website: http://water.epa.gov/infrastructure/drinkingwater/schools/upload/2006_1_11_schools_lead_sqrg_lcr_schools.pdf

EPA's Website on Lead
http://www.epa.gov/lead/

EPA's Website on Lead in Drinking Water
http://water.epa.gov/drink/info/lead/index.cfm

EPA's Website on Reducing Lead in Drinking Water in Schools and Day Care Centers
http://water.epa.gov/drink/info/lead/schools_index.cfm

Centers for Disease Control and Prevention's Website on Lead
http://cdc.gov/lead/

National Lead Information Center Hotline: (800) 424-LEAD

EPA's Safe Drinking Water Hotline: (800) 426-4791

Drinking Water Best Management Practices for Schools and Childcare Facilities Served by Municipal Water Systems (EPA)
Provides basic information for decision-makers as well as best management practices.

State Drinking Water and Lead Prevention Information Sources

State drinking water programs can describe state-specific requirements and provide additional guidance materials for schools. For a complete list of State Drinking Water program contacts and lead prevention information sources, see:

Implementing the Lead Public Education Provision of the Lead and Copper Rule for Non Transient, Non Community Water Systems, Appendix C:

http://water.epa.gov/lawsregs/rulesregs/sdwa/lcr/upload/Implementing-the-Lead-Public-Education-Provisions-of-the-Lead-and-Copper-Rule-A-Guide-for-Non-Transient-Non-Community-Water-Systems.pdf

Implementing the Lead Public Education Provision of the Lead and Copper Rule for Community Water Systems, Appendix C:
http://water.epa.gov/lawsregs/rulesregs/sdwa/lcr/upload/Implementing-the-Lead-Public-Education-Provisions-of-the-Lead-and-Copper-Rule-A-Guide-for-Community-Water-Systems.pdf

Glossary

Acidic:
The condition of water or soil which contains a sufficient amount of acidic substances to lower the pH below 7.0.

Action Level:
The level of lead or copper which, if exceeded, triggers treatment or other requirements that a water system must follow.

Alkalinity:
The capacity of water to neutralize acids. This capacity is caused by the water's content of carbonate, bicarbonate, hydroxide and occasionally borate, silicate and phosphate. Alkalinity is expressed in milligrams per liter of equivalent calcium carbonate. Alkalinity is not the same as pH because water does not have to be strongly basic (high pH) to have a high alkalinity. Alkalinity is a measure of how much acid can be added to a liquid without causing a significant change in pH.

Alloy:
A solution made of two or more elements, at least one of which is a metal.

Backflow:
A reverse flow condition created by a difference in water pressures which causes water to flow back into the distribution pipes of a potable water supply from any source or sources other than an intended source.

Backwashing:
The process of reversing the flow of water back through the filter media to remove the entrapped solids.

Bacteria:
Microscopic living organisms usually consisting of a single cell. Bacteria can aid in pollution control by consuming or breaking down organic matter in sewage or by similarly acting on oil spills or other water pollutants. Some bacteria in soil, water or air may also cause human, animal and plant health problems.

Compliance:
The act of meeting all state and federal drinking water regulations.

Contaminant:
Anything found in water (e.g., microorganisms, minerals, chemicals, radionuclides, etc.) which may be harmful to human health.

Corrosion:
The gradual decomposition or destruction of a material by chemical action often due to an electrochemical reaction. Corrosion may be caused by: 1) stray current electrolysis, 2) galvanic corrosion caused by dissimilar metals or 3) differential concentration cells. Corrosion starts at the surface of a material and moves inward.

Corrosivity:
A condition of water quality which will dissolve metals at an excessive rate. The factors that make water corrosive include an acidic pH, low alkalinity, high dissolved solids and higher temperature.

Cross Connection:
Any actual or potential connection between a drinking (potable) water system and an unapproved water supply or other source of contamination. For example, if you have a pump moving non-potable water and hook into the ground water system to supply water for the pump seal a cross-connection or mixing between the two water systems can occur. This mixing may lead to contamination of the drinking water.

Descaler:
A solution used to remove and/or prevent limescale and fouling on water taps, kettles, coffeemakers, toilets and water pipes.

Disinfectant:
A chemical (commonly chlorine, chloramine or ozone) or physical process (e.g., ultraviolet light) that kills microorganisms such as bacteria, viruses and protozoa.

Distribution System:
A network of pipes leading from a treatment plant to customers' plumbing systems or the pipes and plumbing within a building that distribute water to all of the water outlets.

Ground Water:
The water that systems pump and treat from aquifers (natural reservoirs below the earth's surface).

Lead Service Line:
A service line made of lead which connects the water main to the building inlet and any lead pigtail, gooseneck or other fitting which is connected to such a lead line.

Monitoring Program:
Testing that water systems must perform to detect and measure contaminants. Specifically, measuring concentrations of certain substances within environmental media (e.g., drinking water) at regularly scheduled intervals.

Municipal Water System:
A network of pipes, pumps and storage and treatment facilities designed to deliver potable water to homes, schools, businesses and other users in a city or town.

Non-Potable Water:
Water that may contain objectionable pollution, contamination, minerals or infective agents and is considered unsafe and/or unpalatable for drinking.

Pathogen:
A disease-causing organism.

pH:
A measurement of how acidic or basic a substance is. It ranges from 0 to 14. A pH of 7 is neutral. A pH less than 7 is acidic, and a pH greater than 7 is basic.

Point-of-Entry Device:
A treatment device applied to the drinking water entering a house or building for the purpose of reducing contaminants in the drinking water distributed throughout the house or building.

Point-of-Use Device:
A treatment device applied to a single tap used for the purpose of reducing contaminants in drinking water at that one tap.

Potable Water:
Water that is safe and satisfactory for drinking and cooking.

Public Water System:
A system for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at least 15 service connections or regularly serves at least 25 individuals.

Remediation:
Removal of pollution or contaminants from environmental media such as soil, ground water, sediment or surface water for the general protection of human health and the environment.

Samples:
The water that is analyzed for the presence of EPA-regulated drinking water contaminants. Depending on the regulation, EPA requires water systems and states to take samples from source water, from water leaving the treatment facility or from the taps of selected consumers.

Soft Water:
Water having a low concentration of polyvalent cations, such as calcium and magnesium ions. According to U.S. Geological Survey guidelines, soft water is water having a hardness (concentration of polyvalent cations) of 60 milligrams per liter or less.

Solder:
A metallic compound used to seal the joints between pipes. Until recently, most solder contained 50% lead. The use of lead solder containing more than 0.2% lead is now prohibited for pipes carrying potable water.

Source Water:
Water in its natural state prior to any treatment for drinking.

Toilet Dam:
A water-conservation device that is placed inside the tank portion of a toilet to reduce the amount of water the tank will hold by partitioning off part of the tank.

ATTACHMENT

11

California DEPARTMENT OF EDUCATION

Home / Newsroom / Editorials & Letters / Letters

California Department of Education
Official Letter

June 17, 2016

Dear County and District Superintendents and Charter School Administrators:

CLEAN WATER

I encourage all California schools to consider testing water quality and replace drinking fountains and faucets when necessary.

All students should have access to clean drinking water at all times. Students need fresh water, nutritious meals, and appropriate physical activity to be ready to learn in class.

A May 5, 2016, report by the Community Water Center and the Environmental Justice Coalition for Water noted that some school districts received water from water districts and other sources that, at times, did not meet primary drinking water standards.

The California Department of Education and individual school districts do not maintain records of water suppliers to schools because state and federal law assign that responsibility to water providers. Nonetheless, school districts should know about existing resources that are available to assure water quality. The Association of California Water Agencies provides extensive information about water quality at http://www.acwa.com/content/water-quality/water-quality.

When your school district is upgrading or replacing drinking fountains or other water equipment, contact your local water provider to see if they offer free or reduced-price testing. Water quality reports are also available from your water provider.

The lead content in the drinking water crisis in Flint, Michigan might raise concerns here in California. California's water agencies regularly test for lead in their systems and at the tap to comply with both state and federal laws. Water agencies also actively utilize corrosion control measures to prevent any lead that might be present from leaching into tap water.

California reduced the lead content standard for drinking water plumbing from 4 to 0.25 percent in 2010 with "No Lead Law" legislation (AB 1953), effective in 2010.

All schools can work with their local water service to make sure students have access to clean water. Thank you for your attention to this important issue.

Sincerely,

Tom Torlakson

TT:ro
2016-04724

Last Reviewed: Tuesday, June 21, 2016

ATTACHMENT

12

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

TO: All Community and Nontransient Noncommunity Water Systems

FROM: Cindy Forbes, P.E.
Deputy Director
DIVISION OF DRINKING WATER

DATE: March 7, 2016

SUBJECT: RECOMMENDATIONS FOR ENHANCED PUBLIC ACCESS TO LEAD AND COPPER RULE RELATED INFORMATION

As you are aware, there has been considerable attention in recent months regarding the lead levels found in the drinking water supply serving consumers living and working in the Flint, Michigan area. Although the 90th percentile tap samples lead action level is rarely exceeded by California public water systems, some of the individual tap samples have exceeded the action level.

To maintain high confidence in the drinking water that you are providing to your customers, the State Water Resources Control Board, Division of Drinking Water (DDW) is recommending to all public water systems that are subject to the Lead and Copper Rule (LCR) to enhance their public outreach efforts on and the availability of LCR compliance-related information. This outreach may include the posting of the following information on the water systems' websites or physically posting the information alongside other water quality notices, such as the Annual Consumer Confidence Report. Our recommendation is for public water systems to make available to the public the following:

- The latest 90th percentile values for the most recent round of LCR tap sampling; and
- The number of sites sampled, the number of sites that exceeded an action level, and the number of samples that were invalidated (if applicable); and
- Justifications for invalidation of LCR samples (if applicable); and
- Information on the locations of lead service lines in the distribution system, together with a map of the identified areas and an inventory of lead plumbing in the system; and
- Additional health information on how to minimize lead in drinking water if lead was detected above the action level in more than 5%, and up to and including 10% , of sites sampled. The health information language specified in Section 64482(c), Chapter 15, Title 22 of the Consumer Confidence Report regulations may be used for this purpose.

As a reminder, please ensure residents that participated in the lead and copper tap sampling promptly receive the sampling results for their homes and provide additional assistance if lead is detected in the water sample. It is recommended that you provide the monitoring results to the residents no later than 30 days after you receive the monitoring results from your laboratory and within 1-2 working days if lead and/or copper levels over the respective action levels are found.

DDW is working closely with the U.S. Environmental Protection Agency (USEPA) to ensure California's water systems are in compliance with the requirements of the Lead and Copper Rule and taking necessary actions to protect public health. The USEPA will be working on revising and strengthening the Lead and Copper Rule. DDW will keep you abreast of any upcoming changes. The latest information will be available on the DDW's website:
http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/leadandcopperrule.shtml

If you have further questions regarding this matter, please contact your local District Engineer or county health department.

ATTACHMENT

13

PUBLIC HEALTH GOALS FOR CHEMICALS IN DRINKING WATER

LEAD

April 2009

Governor of the State of California
Arnold Schwarzenegger

Secretary for Environmental Protection
California Environmental Protection Agency
Linda Adams

Director
Office of Environmental Health Hazard Assessment
Joan E. Denton, Ph.D.

Public Health Goal for Lead in Drinking Water

NOT A REGULATORY STANDARD

Prepared by

Pesticide and Environmental Toxicology Branch
Office of Environmental Health Hazard Assessment
California Environmental Protection Agency

April 2009

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PREFACE

Drinking Water Public Health Goals
Pesticide and Environmental Toxicology Branch
Office of Environmental Health Hazard Assessment
California Environmental Protection Agency

This Public Health Goal (PHG) technical support document provides information on health effects from contaminants in drinking water. PHGs are developed for chemical contaminants based on the best available toxicological data in the scientific literature. These documents and the analyses contained in them provide estimates of the levels of contaminants in drinking water that would pose no significant health risk to individuals consuming the water on a daily basis over a lifetime.

The California Safe Drinking Water Act of 1996 (Health and Safety Code, Section 116365) requires the Office of Environmental Health Hazard Assessment (OEHHA) to perform risk assessments and adopt PHGs for contaminants in drinking water based exclusively on public health considerations. The Act requires that PHGs be set in accordance with the following criteria:

1. PHGs for acutely toxic substances shall be set at levels at which no known or anticipated adverse effects on health will occur, with an adequate margin of safety.
2. PHGs for carcinogens or other substances that may cause chronic disease shall be based solely on health effects and shall be set at levels that OEHHA has determined do not pose any significant risk to health.
3. To the extent the information is available, OEHHA shall consider possible synergistic effects resulting from exposure to two or more contaminants.
4. OEHHA shall consider potential adverse effects on members of subgroups that comprise a meaningful proportion of the population, including but not limited to infants, children, pregnant women, the elderly, and individuals with a history of serious illness.
5. OEHHA shall consider the contaminant exposure and body burden levels that alter physiological function or structure in a manner that may significantly increase the risk of illness.
6. OEHHA shall consider additive effects of exposure to contaminants in media other than drinking water, including food and air, and the resulting body burden.
7. In risk assessments that involve infants and children, OEHHA shall specifically assess exposure patterns, special susceptibility, multiple contaminants with toxic mechanisms in common, and the interactions of such contaminants.
8. In cases of insufficient data for OEHHA to determine a level that creates no significant risk, OEHHA shall set the PHG at a level that is protective of public health with an adequate margin of safety.

9. In cases where scientific evidence demonstrates that a safe dose response threshold for a contaminant exists, then the PHG should be set at that threshold.
10. The PHG may be set at zero if necessary to satisfy the requirements listed above in items seven and eight.
11. PHGs adopted by OEHHA shall be reviewed at least once every five years and revised as necessary based on the availability of new scientific data.

PHGs adopted by OEHHA are for use by the California Department of Public Health (DPH) in establishing primary drinking water standards (State Maximum Contaminant Levels, or MCLs). Whereas PHGs are to be based solely on scientific and public health considerations without regard to economic cost considerations or technical feasibility, drinking water standards adopted by DPH are to consider economic factors and technical feasibility. Each primary drinking water standard adopted by DPH shall be set at a level that is as close as feasible to the corresponding PHG, placing emphasis on the protection of public health. PHGs established by OEHHA are not regulatory in nature and represent only non-mandatory goals. By state and federal law, MCLs established by DPH must be at least as stringent as the federal MCL, if one exists.

PHG documents are used to provide technical assistance to DPH and they are also informative reference materials for federal, state and local public health officials and the public. While the PHGs are calculated for single chemicals only, they may, if the information is available, address hazards associated with the interactions of contaminants in mixtures. Further, PHGs are derived for drinking water only and are not intended to be utilized as target levels for the contamination of other environmental media.

Additional information on PHGs can be obtained at the OEHHA Web site at www.oehha.ca.gov.

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PUBLIC HEALTH GOAL FOR LEAD IN DRINKING WATER

SUMMARY

A revised Public Health Goal (PHG) of 0.2 ppb (or 0.2 μg/L) for lead in drinking water is established, on the basis of new studies relating neurobehavioral deficits to lower lead concentrations in the blood than previously reported. The existing PHG of 2 ppb for lead in drinking water was developed by the Office of Environmental Health Hazard Assessment (OEHHA) and published in December 1997. This value was also based on neurobehavioral effects of lead in children.

Lead is a metallic element which has been used primarily in piping, paints, cable coverings, bullets, radiation shielding material, and as a gasoline additive (tetraethyl lead). It is a widespread contaminant in the human environment and occurs in drinking water as a consequence of leaching from plumbing containing lead. Lead was reported as found in 1,481/11,471 drinking water sources in California in the Department of Health Services (now Department of Public Health) survey results for 1984-2001. Lead has multiple toxic effects on the human body. In particular, decreased intelligence in children and increased blood pressure in adults are among the more serious non-carcinogenic effects. Lead is also a carcinogen in animals and is a probable carcinogen in humans. Based on studies correlating blood lead levels with decreased IQ in children, a daily oral intake of 28.6 μg/day was used to derive the PHG in 1997. A no observed adverse effect level (NOAEL) was not found for this effect. The health-protective level for cancer (6 ppb) was not used to determine the PHG as the non-cancer value provided a greater level of health protection.

In the current document, OEHHA has completed an extensive review of the literature since publication of the first PHG (OEHHA, 1997a). The focus of this review was on new data regarding the potential carcinogenicity, neurotoxicity, and mechanism of action of lead. Based on the new studies relating neurobehavioral deficits to lower blood lead concentrations than previously reported, we established a PHG that is lower than the previous one by 10-fold. The calculation uses a lower level of concern of 2.86 μg/day, which is primarily based on the review and slope factor work done by Carlisle and Dowling (2006) and their analysis of Lanphear *et al*. (2005) (OEHHA, 2007), using a relative source contribution of 0.2, an uncertainty factor of 3 and a drinking water consumption rate of 1 L/day.

Both the U.S. Environmental Protection Agency (U.S. EPA) and California Department of Public Health (DPH) have an Action Level of 15 ppb lead in drinking water. This Action Level was established in 1991 by the U.S. EPA and in 1995 in California.

INTRODUCTION

The purpose of this document is to review and evaluate the new data since 1997 regarding the toxicity of lead that are relevant to the estimation of a public health-protective level in drinking water, and establish any necessary changes in the previous risk assessment based on the new findings. This document is centered on updating the earlier OEHHA assessments for drinking water (OEHHA, 1997a, 2007). Lead is a widespread contaminant in the human environment and occurs in drinking water. Pipes and solder made with lead may corrode and leach lead into tap water used for drinking, food preparation, and other household uses. Lead has toxic effects on many systems of the body, particularly on the developing nervous system, the hematological and cardiovascular systems, and the kidney.

CHEMICAL PROFILE

Chemical Identity, Properties, and Uses

Lead is a bluish gray or gray-white metal with a bright silvery luster. It is soft, malleable and a poor conductor of electricity, but is resistant to corrosion (ATSDR, 2007). Lead is a metallic element, the 82nd element on the periodic table, with four stable isotopes (i.e., 204, 206, 207, and 208) and exists in three oxidation states [Pb(0), Pb(II), and Pb(IV)]. Small amounts of lead are produced by the decay of heavier radioactive elements, both natural and synthetic (ATSDR, 2007).

The melting point of metallic lead is 327.4°C; its boiling point is 1,740°C. The density of metallic lead is 11.34 g/cm^3 at 20°C. Metallic lead is soluble in nitric or sulfuric acid, but insoluble in water or organic solvents. Lead salts such as lead nitrate and lead acetate are soluble in water. The usual valence states of lead are 0, +2 and +4. Lead can easily be alloyed with antimony, tin or other metals. Common lead salts include: acetate, chloride, chromate, nitrate, oxide, phosphate and sulfate. Lead can also be part of organic compounds, and can be chelated by various ligands (ATSDR, 2007).

Lead is easily obtained from its most common ore, galena (PbS). The many commercial uses of lead follow from the physical and chemical properties described above. Lead has been used in piping, roofing and other structural uses because of the malleability (ATSDR, 2007). Lead is also used in making containers for corrosive liquids (ATSDR, 2007). Metallic lead and lead dioxide are used in storage batteries for automobiles and other applications (ATSDR, 2007). In the past, organolead compounds were used to boost octane (reduce knock) in gasoline, but this use has now been eliminated for car, truck, and boat fuel in the U.S. Lead and lead salts have been widely used in paints and pigments, and in glazes for ceramics. Cable coverings have been made from lead because of its electrical resistance and ductility. Lead is used to make bullets and shot. Because of its low melting point, lead is used (with other metals) to make solder. Lead is used for radiation shielding around diagnostic x-ray machines and other sources of radiation (ATSDR, 2007). In the past lead was included in a number of medicines such as antiseptics and astringents, but these are no longer recommended because of the

cumulative toxic effects of lead in the body. More recently, lead has been found in Mexican candy (U.S. FDA, 2004) sold throughout the United States. Overall, approximately 1.6 million metric tons of lead were used in the United States in 1997 (Smith, 1998).

ENVIRONMENTAL OCCURRENCE

Lead is widely distributed in the environment. It is found in all media including air, water, food and soil.

Air

Lead levels in the ambient air have been monitored and atmospheric lead concentrations vary widely. Smelters and refineries emit lead into the air; automobiles in the past emitted large quantities from use of leading gasoline. Over the past three decades, the amount of lead in the air has been greatly reduced by the introduction of unleaded gasoline (ATSDR, 2007). For example, lead at all sites monitored by the National Park Service and U.S. EPA in 1986 had a sharp decrease (18 percent) from the mean levels of 1982 (Eldred and Cahill, 1994). Across the United States, a decline of 97 percent in the ambient concentration of lead was reported between 1976 and 1995 (ATSDR, 2007). Although lead ambient concentrations have declined, U.S. EPA (1996a) indicates that the rate of decline has slowed. The national average of lead concentrations remained unchanged at 0.004 $\mu g/m^3$ between 1994 and 1995. The average level of lead in ambient air in California has been reported as 0.04 to 0.06 $\mu g/m^3$, mostly in particulate form (OEHHA, 1997b).

In general, lead concentrations are 0.3-0.8 times lower indoors than outdoors, with an average ratio of 0.5 (U.S. EPA, 1986). The median lead concentration outdoors was 8.84 ng/m^3 in 2002 (Bonanno *et al*., 2002). Bonanno *et al*. (2001) earlier reported a mean and median lead concentration for indoor air from 213 residences as 15.2 ng/m^3 and 6.17 ng/m^3, respectively. Lead concentrations are higher in homes where one or more residents smoke indoors or where the home is more dilapidated.

Lead in contaminated soil can also become airborne when soil particles are picked up by the wind, or when soil is disturbed by digging, grading, plowing or gardening.

Soil

Contamination of soil by lead is widespread in California and elsewhere. Lead has been deposited in soil in a number of ways: atmospheric particulates from the emission of smelters or at one time, the combustion of leaded gasoline; lead paint deposited in soil, particularly around older homes; disposal of lead storage batteries. Some lead storage battery disposal sites have very high levels of lead contamination, up to a few percent of the soil.

A national survey of soil lead in the United States (U.S.) found levels ranging from 10 to 700 ppm, with an average of about 15 ppm (Shacklette *et al.*, 1971). Fifteen parts per million has also been given as the average naturally occurring soil lead level (Lovering, 1976). Lead concentrations in California soils analyzed by Bradford *et al*. (1996) ranged from 12 to 97 mg/kg (or ppm).

Water

Levels of lead in surface water and groundwater throughout the United States typically range between 5 and 30 μg/L or ppb (U.S. EPA, 1986). The concentration of lead is dependent upon sources of pollution, lead content of sediments, and characteristics of the system (pH, temperature). In drinking water, the major source of lead is leaching from the plumbing and solder. Lead enters drinking water from lead in pipes and fixtures and from lead solder used to join pipes (Mahaffey, 1985). This is particularly troublesome in older homes. Older public buildings such as schools and theaters may also have problems with lead contamination of drinking water (Mahaffey, 1985). U.S. EPA (1988) estimated that 99 percent of the U.S. population using public water supplies were exposed to drinking water with levels of lead below 5 ppb and that about 2 million people are served by drinking water with levels of lead above 5 ppb. In California, analysis of over 15,000 drinking water and 1000 surface water sources found no sources with reportable levels of lead (greater than 5 ppb) between 1994 and 2004.

METABOLISM, PHARMACOKINETICS, AND MECHANISM OF ACTION

Inorganic lead can be absorbed following oral and inhalation exposure, with minimal absorption following dermal exposure. When lead is ingested from drinking water or foods, a fraction of it is absorbed into the bloodstream via the gastrointestinal tract. Lead in the bloodstream becomes deposited in tissues, mainly in bone. Blood lead is excreted via the feces and urine, but also is lost during childbirth and breastfeeding. Once absorbed, lead can cause hematological, cardiovascular, renal, and neurobehavioral effects via several mechanisms: mimicking calcium, interference with specific neurotransmitter systems, direct effect on vascular smooth muscle and enzymes, and other pathways.

Absorption

Absorption of lead deposited in the lungs is dependent on particle size, age-related factors that determine breathing patterns, airway geometry, and air-stream velocity within the respiratory tract (ATSDR, 2007). Particles below 1 μm are deposited in the alveolar region and absorbed after extracellular dissolution or ingestion by phagocytic cells. For larger particles (>2.5 μm), deposition is usually in ciliated airways, where particles can be transported to esophagus and swallowed. Approximately 95 percent of deposited inorganic lead (<1 μm size particles) that is inhaled will be absorbed, while absorption

rates for the larger particles are determined by rates of transport to and absorption from the gastrointestinal tract (ATSDR, 2007).

Oral ingestion also results in good absorption of lead and lead compounds. The rate is highly influenced by the physiological state of the exposed individual (e.g., fasting, pregnancy, age, nutrition) and physicochemical properties of the ingested material (e.g., particle size, mineralogy, and solubility) (ATSDR, 2007). For dermal absorption, inorganic lead was the least absorbed while organic compounds such as tetraethyl lead and lead naphthenate had a greater absorption across human skin or *in vivo* in rats (Bress and Bidanset, 1991; ATSDR, 2007). Absorption ranged from 0.002 percent of the applied concentration for inorganic lead to 0.17 percent for lead naphthenate (ATSDR, 2007).

Absorption of water-soluble lead following oral exposure appears to be greater in children than in adults. Children (2 weeks to 2 years of age) absorb about 40 to 50 percent of ingested lead, whereas adults absorb only 5 to 15 percent (Heard and Chamberlain, 1982; Ragan, 1983). Absorption of lead into the blood from the gastrointestinal tract appears to be low in humans compared to animals, although it is higher in children than in adults (Ragan, 1983). A similar pattern is observed in animal studies. Rat pups were reported to absorb 40-50 times more lead via the diet than adult animals (ATSDR, 2007). The difference in absorption may be one reason why children are more sensitive than adults to lead exposure by the oral route.

Blood lead concentrations have dropped in the last three decades from an average U.S. national level of 12.8 μg/dL (ages 1 to 74) to 2.8 μg/dL (ATSDR, 2007). Prevalence of children aged 1-5 years with a blood lead concentration of $\geq$ 10 μg/dL also dropped with time. In 1991 to1994, the prevalence was 4.4 percent with a geometric mean of 2.7 μg/dL while in 1999-2002 the prevalence was 1.6 percent with a geometric mean of 1.9 μg/dL (ATSDR, 2007).

Distribution

Once lead is absorbed, the distribution of lead is essentially the same regardless of route of exposure or age of individual (ATSDR, 2007). The lead which is not eliminated in the urine or feces is distributed into the tissues of the body including the bone, brain and kidneys (Rabinowitz, 1991). However, a larger fraction of the lead body burden of adults resides in bone (93 percent) compared to children (73 percent) (ATSDR, 2007). The relatively large pool of lead in the bone can serve to maintain blood lead levels long after exposure has ended (Inskip *et al*., 1996; Smith *et al*., 1996; Fleming *et al*., 1997). The storage of lead in bone depends on the diet; higher levels of calcium and iron in the diet tend to protect against deposition of lead into the bone (Rabinowitz, 1991; Silbergeld, 1991). Lead accumulates in the bone with time, and lead levels in the bone generally increase with age (Rabinowitz, 1991).

Lead also distributes to soft tissues (i.e., liver, skeletal muscle, skin, fat, kidney, lung, aorta, and brain). The highest soft tissue concentration of lead in adults occurs in liver and kidney cortex. The residence time of lead in the soft tissues (brain and kidneys) is much shorter than in the bone. High blood lead levels may indicate recent exposure, or in

some cases they may reflect remobilization of lead from bone storage (Silbergeld, 1991). During pregnancy, lead is often remobilized from bone and may be transferred from mother to fetus (Silbergeld, 1991). Approximately 80 percent of lead in fetal cord blood appears to derive from maternal bone stores (Gulson *et al*., 2003). Maternal lead can also be transferred to infants during breastfeeding. Thus the developing fetus and young child will be exposed early. Graziano *et al*. (1990) reported a cord/maternal ratio to be relatively constant at 0.93 in 888 mother-infant pairs evaluated over a maternal blood lead range of 3-40 μg/dL.

Metabolism

The formation of complexes with a variety of protein (e.g., albumin or ALAD) and non-protein ligands (e.g., non-protein sulfhydryls) are observed in the metabolism of inorganic lead (ATSDR, 2007). For the organic lead compounds, metabolism is primarily by oxidative dealkylation catalyzed by cytochrome P-450 in the liver. For example, tetraethyl lead is excreted in the urine as diethyl lead, ethyl lead, and inorganic lead (Turlakiewicz and Chmielnicka, 1985; Zhang *et al*., 1994; Vural and Duydu, 1995).

Excretion

Independent of route of exposure, absorbed lead is excreted mainly through the urine and feces, but also in the bile, sweat, hair, fingernails and breast milk (Rabinowitz, 1991; ATSDR, 2007). Chamberlain *et al*. (1978) reported that approximately one-third of total excretion of absorbed lead occurs through the feces.

Pharmacokinetics

Physiologically based pharmacokinetic (PBPK) models are biologically and mechanistically based and can be used to extrapolate the pharmacokinetic behavior of chemical substances from high to low dose, from route to route, between species, and between subpopulations within a species (ATSDR, 2007). These models are increasingly used in risk assessments in order to predict the target tissue dose of chemicals in humans who are exposed to environmental levels. Several pharmacokinetic models have been proposed for a broad application in lead risk assessment.

The latest models being considered incorporated some of the earlier work done by Rabinowitz *et al*. (1976) and Marcus (1985a,b,c). The Rabinowitz *et al*. (1976) model included a central compartment representing blood and other tissues in rapid equilibrium with blood, a shallow tissue compartment representing soft tissues and rapidly exchanging pools within the skeleton, and a deep tissue compartment representing slow exchanging pools of lead within bone. This model predicted pseudo-first order half-times for lead of approximately 25, 28, and 10,000 days in the central, shallow, and deep compartments, respectively. Marcus (1985a,b,c) expanded the model by adding more compartments after reanalyzing the data used by Rabinowitz *et al*. (1976). The Marcus model 1) included separate compartments for cortical bone (slow kinetics) and trabecular bone (fast kinetics); 2) had a more complex representation of lead deposition in bone; and

3) used nonlinear kinetics in the exchange of lead among plasma, protein-bound lead in plasma, a “fast kinetic” erythrocyte pool, and a “slow kinetic” erythrocyte pool. A curvilinear relationship between plasma and blood lead concentrations observed in humans was predicted with this model (ATSDR, 2007).

The more recent models being used or considered in the lead risk assessment are those developed by O’Flaherty (1993, 1995), U.S. EPA (1994a,b), and Leggett (1993). The O’Flaherty model, which simulates lead kinetics from birth through adulthood, relies more extensively on physiologically based parameters to describe volumes, flows, and composition, and metabolic activity of blood and bone. The other two models are more classical multi-compartmental models that use values of the age-specific transfer rate constants for lead based on kinetic data obtained from animal/human studies, and may not have precise physiological correlates. The Leggett model is also a lifetime model (infant to adult lead kinetics) like the O’Flaherty model. However, the U.S. EPA Integrated Exposure Uptake BioKinetic (IEUBK) model is not intended for use in predicting lead pharmacokinetics in adults. This model provides blood lead concentration distributions in populations of children ages 0-7 years (U.S. EPA, 1994a,b).

All three models provide an assessment of lead exposure and blood lead concentration, and represent the rate of uptake of lead as relatively simple functions of lead intake; the values/variables assigned in the calculation are age-specific or even environmental medium-specific (ATSDR, 2007). In addition, the three models were calibrated using physiological data from humans and animals, and blood lead concentrations reported for individuals and/or populations. The focus on the use of blood lead concentrations derives from the observations that high blood lead concentrations have been associated with various dysfunctions or health effects. Also, the most available data for calibrating and validating a model are the data relating exposure and/or lead intake to blood concentration.

Although the three models can predict a blood lead concentration, differences do exist in the representation of lead exposure, exchanges of lead between tissues, and how tissues are represented. Some of the differences are due to assumptions used for lead biokinetics and bioavailability (ATSDR, 2007). Predicted blood lead concentration can be up to 2 to 4 fold different depending on the model used and the age being considered. Smaller changes are predicted in blood lead concentration in adults with the O’Flaherty and Leggett Models due to the lower lead bioavailability used for adults compared to children.

Simpler alternatives to pharmacokinetic models to obtain medium-specific exposures and blood lead concentrations are the slope factor models. These models predict blood lead concentration or the change in blood lead concentration that is associated with a given exposure using a simple linear relationship between blood lead concentration and either lead uptake (biokinetic slope factor) or lead intake (intake slope factor) (Carlisle and Wade, 1992; Bowers *et al*., 1994; Stern, 1994, 1996; U.S. EPA, 1996b; Abadin *et al*., 1997). The models that use the biokinetic slope factor will include an absorption parameter to account for absorption. The models that use intake slope factors integrate both absorption and biokinetics into a single slope factor because they are based on ingested lead rather than absorbed lead (ATSDR, 2007). Also, the intake slope factor

models are derived from epidemiologic observations. Carlisle and Dowling (2006) recently used a slope factor model with the review of several datasets for the development of a reference blood concentration for school and preschool children of 1.2 μg/dL lead. The calculated slope, based on Lanphear *et al*. (2000, 2005), Canfield *et al*. (2003), and Emory *et al*. (2003), was a drop of 1 Intelligence Quotient (IQ) point for each 1.2 μg/dL increase in lead concentration. This work has been incorporated into the OEHHA report, "Development of health criteria for school site risk assessment pursuant to Health and Safety Code Section 901(g): Child-specific benchmark change in blood lead concentration for school site risk assessment" (OEHHA, 2007). The slope provided in the children's reference concentration document is 1 IQ point drop for each 1 μg/dL increase in blood lead.

Mechanism of Action

Multiple potential mechanisms of action exist for lead that affect many enzyme systems and cellular processes throughout the body (ATSDR, 2007). The main areas of focus in this document are on the major concerns for lead toxicity: neurotoxicity, cardiovascular/renal toxicity, and hematological toxicity. The most abundant amount of research is in the area of mechanism for neurological effects. However, research into the remaining areas of concern has also been abundant.

Cardiovascular Effects

For cardiovascular changes, lead affects important hormonal and neural systems that contribute to the regulation of peripheral vascular resistance, heart rate, and cardiac output (Carmignani *et al*., 2000; Vaziri and Sica, 2004). Lead can have a direct effect on vascular smooth muscle by inhibiting Na-K-ATPase activity, with an associated elevation of intracellular calcium levels (Watts *et al*., 1995; Hwang *et al*., 2001). Lead-induced hypertension in rats was associated with depletion of nitric oxide, which is involved in 1) regulating blood pressure; 2) down-regulation of the soluble guanylate cyclase enzyme which forms cyclic guanosine monophosphate (a mediator of nitric oxide-induced vasodilation); and 3) changes in the adrenergic system (i.e., increased central sympathetic nervous system activity, elevated plasma norepinephrine, and decreased vascular β-adrenergic receptor density) (Gonick *et al*., 1997; Vaziri *et al*., 1997, 1999a,b; Carmignani *et al*., 2000; Tsao *et al*., 2000; Vaziri and Sica, 2004; ATSDR, 2007). Chronic lead exposure stimulates the sympathetic nervous system, which results in the activation of the renin-angiotensin-aldosterone system (Carmignani *et al*., 1988). Alterations in the regulation of the kallikrein-kinin system and the production of associated vasodilatory hormones are also associated with lead-induced hypertension (Carmignani *et al*., 1999).

Renal Effects

Oxidative stress appears to be involved in the development of renal toxicity. As reported by Carmignani *et al*. (2000), Gonick *et al*. (1997), and Vaziri *et al*. (1997, 1999a,b),

depletion of nitric oxide can contribute to hypertension in the rat and this can result in impairment of glomerular filtration and in lesions of the glomerulus. Intranuclear inclusion bodies are observed in the renal proximal tubules of lead-exposed animals, as a result of formation of a lead-protein complex (ATSDR, 2007). The mechanism for the formation of the protein-lead complex still remains unknown.

Hematological Effects

Hematological effects have been demonstrated in humans and animals following exposure to lead. The effects include increased levels of urinary porphyrins, coproporphyrins, δ-aminolevulinic acid, zinc proporphyrin, and erythrocyte protoporphyrin. These changes are the result of the alteration of three enzymes involved in heme biosynthesis: δ-aminolevulinic acid synthetase, δ-aminolevulinic dehydrase, and ferrochelatase (ATSDR, 2007). Associated with these changes is a reduction of the hemoglobin concentration in blood.

Neurobehavioral Effects

A brief summary of the key areas regarding the potential neurotoxicity mechanism of action is provided for lead. The reader is referred to the more recent literature reviews (Carpenter *et al*., 1994; Banks *et al*., 1997; Bressler *et al*., 1999; Gilbert, 1999a,b; Cory-Slechta 1995, 2003; Bouton and Pevsner, 2000; Zawia *et al*., 2000; Lasley and Gilbert, 2000, 2002; Nihei and Guilarte, 2002; Suszkiw, 2004; ATSDR, 2007) and references cited within for more detailed information. The key mechanisms for neurological effects are postulated to be: 1) mimicking of calcium action and/or disruption of calcium homeostasis (e.g., interactions with protein kinase C or calmodulin); 2) substitution for zinc in some enzymes and zinc-finger domains found in enzymes, channels, and receptors; and 3) interference with specific neurotransmitter systems in the brain (i.e., glutamatergic, dopaminergic, and cholinergic systems).

Because lead mimics calcium action and/or disrupts calcium homeostasis, many cellular neurological processes regulated by protein kinase C (several forms of which are calcium-dependent) or calmodulin can be affected by lead. For example, protein kinase C (PKC) is involved in the synthesis of neurotransmitters, ligand-receptor interactions, conductance of ionic channels, and dendritic branching. One of the several calcium-dependent forms of PKC, the γ-isoform, is neuron-specific and involved in long-term potentiation (LTP), spatial learning, and memory processes (ATSDR, 2007). By disrupting or mimicking the calcium action, lead can have an affect on all of these processes. Activation of PKC also tends to change the blood brain barrier. Immature brain microvessels will contain most of the PKC in the cytosol while in mature brain the PKC is membrane-bound. Upon activation of PKC, the distribution of PKC changes from cytosol to membrane. A similar response is observed in the immature brain microvessels following exposure to lead. The effect on the microvascular formation and function may account for the gross defects observed in the blood brain barrier (e.g., penetration of albumin, ions, and water) and result in edema and intracranial pressure.

Substitution of lead for zinc can result in alteration of the binding and transcription of the regulated protein to its specific DNA sequence. For example, lead alters the binding of the zinc-finger transcriptional regulator Sp1 to the DNA binding site. Sp1 regulates the myelin basic protein, proteolipid protein, and β-amyloid precursor protein genes. Many of the zinc-finger domains can be found in enzymes, channels, and receptors, which accounts for the multiple responses following lead exposure.

The third major path for neurotoxicity is interference with specific neurotransmitter systems in the brain (i.e., glutamatergic, dopaminergic, cholinergic, and other systems) (ATSDR, 2007). In the most studied system, the glutamatergic system, lead is purported to diminish LTP, which is important in memory consolidation, by increasing the threshold for inductions, reducing the magnitude of potentiation, and shortening the duration of LTP by accelerating its rate of decay. The end result is loss of the neurophysiological substrate for learning and storing information. LTP is more sensitive to injury during early development and such exposure can result in an impaired LTP in adult animals. Lead is also purported to impair regulation of dopamine synthesis and release, which results in cognitive dysfunction. Learning and memory processes can also be affected by lead when lead blocks evoked release of acetylcholine and diminishes cholinergic function.

TOXICOLOGY

The document focuses on the non-carcinogenic effects of lead and the health effects observed in the most sensitive population, i.e., children and neonates. The primary effect observed in children or neonates is the neurobehavioral deficits that occur at low blood lead concentrations. For the general population, exposure to lead occurs primarily via the oral route whereas occupational exposure is primarily by inhalation. The toxicological data will not be separated out by route of exposure because the toxicity of lead is the same regardless of route of entry into the body. Articles that are relevant to the understanding of lead toxicity will be summarized below. A discussion is also provided on the carcinogenicity of lead, which is determined to be a less sensitive endpoint than the neurobehavioral deficits in children or neonates, based on our evaluation for the development of the lead PHG.

Toxicological Effects in Animals

An extensive database on the effects of lead in animals is available and is too large to cite fully in this review. For a recent review, the publication by ATSDR (2007) is recommended to the reader. In general, the findings reported in the animal studies provide support for effects observed in human studies, although no animal model for the effects of lead equivalent to the subtle effects observed in humans is currently available. In addition, a large database concerning the dose-effect relationships in humans exists and is more suitable for health effects assessments than are the animal data.

Acute Effects

Mean lethal dose (LD_{50}) values for lead compounds were not found in the literature, however there are lowest lethal dose (LD_{Lo}) values ranging from 20,500 mg/kg for lead sulfate in guinea pigs to 191 mg/kg for lead acetate in the dog (Sax, 1984). These are the lowest doses expected to cause death. For reproductive toxicity effects, Kennedy *et al*. (1975) reported an increase in fetal resorptions, retarded skeletal development, and maternal toxicity in rats treated with acute oral lead acetate doses of 390 mg/kg-day.

In vitro assessment of changes to mammalian neurogenesis using a well-characterized cortical precursor model was reported by Davidovics and DiCicco-Bloom (2005) using a moderate level of lead acetate. Gestational day 14.5 rat cerebral cortical precursor cells were cultured in defined media. Cell number, precursor proliferation, apoptosis, and neuritic process outgrowth were assessed following exposure to a range of 1 to 30 μg/mL lead acetate. A concentration of 30 μg/mL lead acetate was acutely toxic to neurons while concentrations between 1 and 10 μg/mL increased cell number 10 fold by day 4, compared to control. The increase in cell number was not a result of increased proliferation, but rather due to reduced apoptosis (i.e., less programmed cell death). Additionally, neuritic process initiation and outgrowth increased in a concentration-dependent manner. Processes were four times as abundant on day 1 and twice as long on day 2. The results suggest that brief exposure to lead during neurogenesis directly affects cell survival and process development, potentially altering cortical arrangement.

Vargas *et al*. (2003) evaluated the effects of lead on renal function, lipid peroxidation, and expression of heme oxidation in rat kidney. A single injection of lead acetate (50 mg/kg) was given to rats. Thiobarbituric acid reactive substances (TBARS) levels increased in kidney cortex 24 hours after lead administration. These changes reported in the kidney were suggested to be due to oxidative stress, indicated by the increased TBARS, caused by the administration of lead. In kidney cortex, lead exposure affected the expression of HO-1, a renal protein associated with oxidative stress. HO enzymatic activity and HO-1 protein increased six and three hours after lead administration, respectively, and remained increased at 24 hours. HO inhibition by tin-protoporphyrin potentiated lead-induced increase in TBARS and prevented the lead-induced reduction in Na+ excretion.

The effects reported by Vargas *et al*. (2003) agreed with those reported earlier by Karmakar *et al*. (1986). A dose of 44 mg/kg for durations of 9, 15 or 30 days was evaluated in groups of five Sprague-Dawley rats. After nine days, mild shortening of the intestinal villi was seen in two of five rats and histological changes in the liver were observed in all rats. No renal abnormalities were observed at day 9. After 15 days, intestinal and liver abnormalities had progressed and affected more animals than at nine days; three of five rats showed histological kidney abnormalities.

Qian *et al*. (2000) reported that the synthesis of glucose regulated protein 78 (GRP78) was increased in a protective response to lead. The authors exposed cultured C6 rat glioma cells, an astroglia-like cell line, to 1 microM lead acetate for 1 week and found raised intracellular levels of two proteins, one of which was GRP78. For GRP78, accumulation started within 1 day and progressed with time of exposure.

More recently, Lasky *et al*. (2007) reported that exposure to lead caused a decrease in cerebral white matter in Rhesus monkeys exposed pre or postnatally. Different regions of the brain of 13 17-year old monkeys were measured with volumetric magnetic resonance imaging (MRI) techniques. Three animals had been exposed prenatally (conception to birth) through mothers treated with 8.6 mg/kg-day lead acetate in drinking water; four animals had been exposed postnatally (birth to weaning or ~5 months) while breastfeeding on females exposed to 9.1 mg/kg-day to lead acetate in water; and 8 animals had not been treated and served as controls. The median maternal blood lead level for the prenatal group during pregnancy was 62.0 μg/dL while the medium maternal blood lead level for the postnatal group was 97.8 μg/dL. The median prenatal treatment offspring blood lead level during nursing was 26.5 μg/dL while the median postnatal treatment offspring blood lead level during nursing was 55.1 μg/dL. The animals in the prenatal group were only exposed in utero and not during nursing. The median control offspring blood lead level during nursing was 4.5 μg/dL. Blood lead levels for all lead-exposed infant monkeys declined after weaning and were <10 μg/dL by 2.5 years postpartum and <5 μg/dL by 4.5 years of age. No differences were noted between treated animals and controls in total brain size, perhaps due to small sample size. Statistically significant differences ($p<0.05$) were noted among groups in size of lateral ventricles and cerebral white matter; animals treated prenatally had the largest lateral ventricles and the least cerebral white matter.

Lead is also known to affect blood pressure. Bagchi and Preuss (2005) recently reported that young Sprague-Dawley rats had systemic blood pressure changes and decreased bone mineral density following exposure to 1 percent lead acetate in drinking water for 40 days. Systemic blood pressure levels increased acutely but returned to normal with the continued treatment, only to rise again above control levels several months after the lead exposure had ceased.

Chronic Effects

Numerous experiments in laboratory animals have demonstrated that lead has a wide variety of toxic effects across many different organ systems. Lead can affect the cardiovascular, gastrointestinal, hemolymphatic, urinary, immune, nervous, and reproductive systems as well as cause developmental effects in the offspring of treated dams and tumors in laboratory animals (ATSDR, 2007).

The effects of lead acetate in drinking water on the reproductive systems of male and female rats have been studied by a number of investigators. The best studies relate the oral dose to the blood lead level produced. Chowdury *et al.* (1984) observed reduced sperm counts in male rats that had blood lead levels of 72 μg/dL. No effects were observed in male rats with blood lead levels of 54 μg/dL. Both male and female rats were studied by Hilderbrand *et al.* (1973). They observed irregular estrus cycles in female rats with blood lead levels of 30 μg/dL. Ovarian follicular cysts were produced in female rats with 53 μg/dL blood lead levels. They found increased prostate weight in male rats with 19 μg/dL of blood lead, and testicular damage in male rats with 30 μg/dL blood lead.

Cardiovascular effects in animals were recently reviewed by Vaziri and Sica (2004), who discussed the role of oxidative stress in lead-induced hypertension.

Lead acetate, given orally, has been demonstrated to cause cancer in animals (Azar *et al*., 1973). This study yielded a dose-dependent increase in the incidence of kidney tumors in rats (Table 1) and has been used to estimate the oral cancer potency of lead (OEHHA, 1997; ATSDR, 2007). In this experiment, rats were fed lead acetate in their diet for two years. Kidney tumors were produced in a dose-related manner.

Table 1. Kidney Tumor Incidence in Rats Administered Lead Acetate in the Diet (Azar *et al.*, 1973).

Dose (mg/kg-day)	Number of Rats in Dose Group	Number of Rats with Kidney Tumors
0.23	20	0
0.39	100	0
1.40	50	0
4.78	50	0
10.9	50	0
42.3*	20	5
79.7*	20	10
167*	20	16

*Treatment was begun for the groups with only 20 rats per dose several months after the other dose groups, although all were treated for two years.

Summary of Animal Toxicity

Lead can affect the cardiovascular, gastrointestinal, hemolymphatic, urinary, immune, nervous, and reproductive systems as well as cause developmental effects in the offspring of treated dams and tumors in laboratory animals. Since the neurobehavioral changes are the more sensitive effects, the review focused on these reports. In general, the findings reported in the animal studies provide support for effects observed in human studies. In addition, a large database concerning the dose-effect relationships in humans exists and is more suitable for health effects assessments than are the animal data.

Toxicological Effects in Humans

Exposure to lead has been associated with a large variety of human toxicological effects. Lead is known to cause changes in the cardiovascular, hematological, musculoskeletal, renal, reproductive, neurological, and immunological systems. In addition, lead may cause an increased risk of lung and stomach cancer. A brief summary is provided below on the acute and chronic effects associated with exposure to lead. The main focus of the

literature review will be on the most sensitive population – children – and most sensitive endpoint – neurobehavioral effects (Lanphear *et al*., 2000; Canfield *et al*., 2003; Chiodo *et al*., 2004). Some recent articles describing the effects of lead to various systems are Borja-Aburto *et al*. (1999), Lopez *et al*. (2000), Luchini *et al*. (2000), Sallmen *et al*. (2000), Steenland and Boffetta (2000), Cheng *et al*. (2001), Bockelmann *et al*. (2002), Gemmel *et al*. (2002), Gerr *et al*. (2002), Hernandez-Avila *et al*. (2002), Nawrot *et al*. (2002), Rothenberg *et al*. (2002), Muntner *et al*. (2003), Selevan *et al*. (2003), Sun *et al*. (2003), Wright *et al*. (2003), Wu *et al*. (2003), and Tsaih *et al*. (2004).

Acute Effects

Following ingestion or inhalation, the principal acute effect in humans is colic. This is a painful condition involving cramps and gastrointestinal distress. The effect is observed at blood lead levels in the range of about 40 to 120 μg/dL in adults (Awad el Karim *et al*., 1986; Pollock and Ibels, 1986; Pagliuca *et al*., 1990). Colic occurs most frequently to workers exposed to lead in the workplace as lead-bearing dust or lead fumes from soldering or welding (Meiklehohn, 1963). Colic is also a symptom of lead poisoning in children. U.S. EPA (1986) reported a Lowest Observed Adverse Effect Level (LOAEL) of approximately 60 to 100 μg/dL of blood in children.

Chronic Effects

Chronic exposure to lead has been demonstrated to affect many systems of the body including the nervous, renal, cardiovascular and reproductive systems. The effects occur at different levels of exposure. In children, the lowest level at which each of the chronic effects is observed is illustrated by Figure 1. Reference will be made to the figure within each section described below. The focus of the summary will be on effects on children; primarily the neurobehavioral effects due to lead exposure.

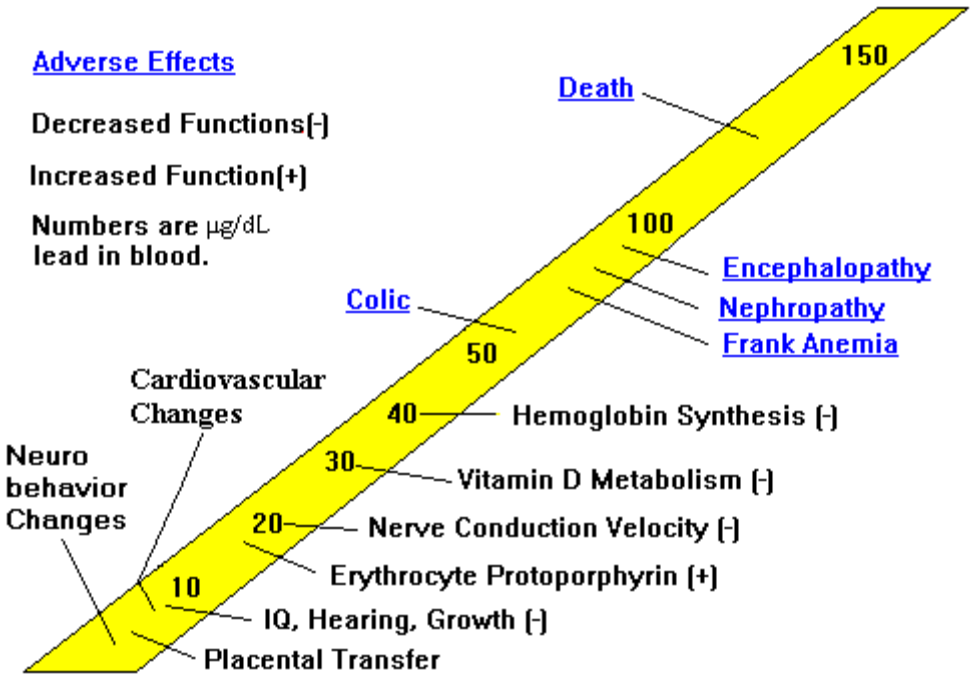

Figure 1: Demonstrated Effect Levels of Inorganic Lead in Children. The numbers in the diagram are blood lead levels at which studies have adequately demonstrated an effect, not necessarily the lowest level at which lead exerts the indicated effect.

Cardiovascular Effects

For humans, the greatest cardiological concern at low exposures and low blood lead levels is elevation in systemic blood pressure and decrements in glomerular filtration rate, which are mechanistically related. Schwartz (1991, 1995) earlier found that increased blood lead levels resulted in hypertension. Effects were observed in both children and adults, especially in middle aged males. Hypertension may also be caused in females or other age groups, but it has been most extensively studied in middle-aged males. Several authors have conducted meta-analyses of studies published between 1980-2001 (31 studies; Nawrot *et al*., 2002), 1984-1993 (23 studies; Staessen *et al*., 1994), and 1985-1993 (15 studies; Schwartz, 1994). An increase in systolic blood pressure of approximately 1–1.25 mm Hg can occur with each doubling of blood lead concentration (Schwartz, 1995; Staessen *et al*. 2000; Nawrot *et al*., 2002). Corresponding 95 percent confidence intervals (CI) reported were 0.5-1.5 mm Hg, 0.4-1.6 mm Hg, and 0.87-1.63 mm Hg, respectively. Mean blood lead concentrations reported were 1.9-7 µg/dL. Other cardiovascular changes include cardiac conduction and rhythm (Cheng *et al*., 2001; Bockelmann *et al*., 2002).

Nash *et al*. (2003) has reported an association between blood lead level and systolic and diastolic blood pressure in women aged 40 to 59 years, where the relationship is most pronounced in postmenopausal women. A small statistically significant adjusted change

in systolic and diastolic blood pressures was associated with changes in blood lead level quartile from the lowest (0.5-1.6 μg/dL) to the highest (4.0-31.1 μg/dL). Women with the highest exposures had increased risks of diastolic (>90 mm Hg) hypertension (Odds Ratio [OR] = 3.4; 95 percent CI = 1.3-8.7) and systolic (>140 mm Hg) hypertension (OR = 1.5; 95 percent CI = 0.72-3.2). The association in postmenopausal women was strongest with adjusted ORs for diastolic hypertension increasing with higher blood lead levels. The adjusted OR compared to the lowest blood level group was 4.6 (95 percent CI = 1.1-19.2) for quartile 2, 5.9 (95 percent CI = 1.5-23.1) for quartile 3, and 8.1 (95 percent CI = 2.6-24.7) for quartile 4 (the highest exposure group).

Epidemiological studies have also reported differences in cardiological effects between white and black Americans. Vupputuri *et al*. (2003) examined the relation between blood lead levels and blood pressure in a representative sample of 14,952 whites and blacks aged 18 years or older. For their multivariate analysis, co-variables were adjusted. The authors found that mean blood lead levels were significantly higher for black men and women (5.4 and 3.4 μg/dL, respectively) compared with white men and women (4.4 and 3.0 μg/dL, respectively). In addition, the authors reported that the higher blood lead was associated with a 0.82 mm Hg and a 1.55 mm Hg higher systolic blood pressure among black men (95 percent CI 0.19 to 1.44 mm Hg) and women (95 percent CI, 0.47 to 2.64 mm Hg), respectively. In contrast, Vupputuri *et al*. (2003) did not find an association between blood lead level and blood pressure among white men or women. The multivariate-adjusted odds ratio (95 percent CI) of hypertension associated with a one standard deviation higher level of blood lead was 1.08 (95 percent CI, 0.99 to 1.19) for black men and 1.39 (95 percent CI, 1.21 to 1.61) for black women. The earlier review of the dataset by Den Hond *et al*. (2002) did not find a consistent relationship between blood pressure and blood lead.

In a more recent review, Navas-Acien *et al.* (2007) also infer a causal association between lead exposure and increased blood pressure in adults. The authors identified about 3,100 studies from which only 62 met the author's criteria for inclusion in their review. Some studies indicated an effect below 5 μg/dL blood lead level while others did not, indicating overall no clear evidence of a threshold in the studies in their review.

The blood lead level at which the cardiovascular effects appear to begin is approximately 10 μg/dL in children (Schwartz, 1991). Similar or lower levels of blood lead are also associated with blood pressure changes in adults as observed in the epidemiological studies of Nawrot *et al*. (2002) and Navas-Acien (2007). Overall, the meta-analysis data suggest that there is an association between blood pressure and blood lead level in children and adults, where the effect in children is weaker than the one observed with male adults. However, the effects are being reported at blood lead levels below 10 μg/dL (Table 2) in both children and adults, which makes this a critical effect.

Hematological Effects

When lead levels are in the 50 to 100 μg/dL range, anemia may result. Anemia may be a consequence of several factors, including suppression of the heme synthesis pathway by altering σ-aminolevulinic acid dehydratase (ALAD) and ferrochelatase activity, leading

to shortage of hemoglobin and increased fragility of red blood cell membranes, which result in a shorter life span of red blood cells. The effect on the heme synthesis pathway leads to an increase in σ-aminolevulinic synthetase (ALAS) enzyme activity that leads to urinary porphyrins, coproporphyrin, and σ-aminolevulinic acid (ALA); increased blood and plasma ALA; and increased erythrocyte protoporphyrin (EP) levels. Threshold blood lead levels for decreased hemoglobin levels in adults and children are estimated to be 50 and 40 μg/dL, respectively (ATSDR, 2007). However, threshold lead blood levels for the ALAD and EP are much lower. The most sensitive endpoint, ALAD activity, was reported to be inversely correlated with lead blood levels of 3 to 34 μg/dL in the general population (Hernberg and Nikkanen, 1970; Chisolm *et al.*, 1985; ATSDR, 2007). Threshold blood lead for increased urinary ALA were 40 μg/dL and 30 μg/dL in adults and children, respectively, while the threshold for blood EP increases were 30 μg/dL and 15 μg/dL for adults and children, respectively (ATSDR, 2007).

Renal Effects

Lead exposure at doses intermediate between those that cause intelligence deficits and those that lead to encephalopathy may result in nephrotoxicity. Nephrotoxicity is characterized by proximal tubular nephropathy, glomerular sclerosis, and interstitial fibrosis (Diamond, 2005). This effect has been demonstrated in humans and animals. The mechanism involves structural changes in the kidney tissue that lead to blockage of the kidney tubules (Fowler and DuVal, 1991). Blood lead levels at which changes in renal parameters have been observed range from 6 to 100 μg/dL (ATSDR, 2007). For adults (>20 years of age; N ~ 5,000), the lowest blood lead levels reported to cause a change in serum creatinine or creatinine clearance was 5-10 μg/dL. In children (ages 4.6-13; N ~ 755), the lowest levels of blood lead reported to cause changes in renal function parameters were 12-34 μg/dL. Muntner *et al*. (2003) found a significant relationship between serum creatinine and blood lead levels when blood lead levels were below 10 μg/dL following adjustments for age and covariables contributing to glomerular disease. More recently, Ekong *et al.* (2006) found a decrease in creatinine clearance with blood lead levels below 5 μg/dL from the longitudinal studies reviewed.

Reproductive Effects

A potential association between occupational/environmental lead exposure and reproductive parameters in humans has been reported in men and women. The effects are associated with moderately high blood lead levels (ATSDR, 2007). In women, abortion and pre-term delivery are the effects reported (Borja-Aburto *et al*., 1999). In more recent studies, a decreased fertility was associated with longer exposures to lead and higher blood lead levels (Sallmen *et al*., 2000; Shiau *et al*., 2004). In these studies, abortion and pre-term delivery in women and decreased fertility in men were associated with blood lead levels above 12 and 30 μg/dL, respectively. However, other studies found no association with similar blood lead levels (Murphy *et al*., 1990; Apostoli *et al*., 2000; Joffe *et al*., 2003).

Neurological and Neurobehavioral Effects

Neurological and neurobehavioral effects have been reported to occur in children and adults. Children suffer encephalopathy at lower doses than adults. Encephalopathy during the 12 to 15 months after birth, during which the child's brain is developing, may lead to irreversible brain damage (Hutton, 1987; ATSDR, 2007). Lead encephalopathy is characterized by dullness, irritability, poor attention span, headache, muscular tremor, loss of memory and hallucinations. More severe cases exhibit delirium, convulsions, paralysis, coma and death (Kumar *et al.*, 1987). When children or fetuses receive high doses of lead (resulting in blood lead levels near 100 μg/dL) encephalopathy may result. For adults, encephalopathy has been reported to occur at blood lead levels of 40-120 μg/dL (ATSDR, 2007).

More recently, Dogu *et al*. (2006), in a case-control study, reported a relationship between higher lead blood levels in adults with an increased diagnosis of essential tremors (ET). The average blood lead level found in ET cases was 2.5 μg/dL compared to 1.5 μg/dL for controls ($p < 0.001$). The association in an unadjusted and adjusted logistic regression model was determined to be a four-fold increase of ET (OR = 4.01, 95 percent CI 2.53–6.37, $p < 0{,}001$). In addition, the authors reported that each 1 μg/dL increase in blood lead was associated with a four-fold increased odds of ET.

Shih *et al*. (2007) reviewed several environmental and occupational studies from 1996 to 2006 and found an association between acute or chronic exposure to lead in adults and neurobehavioral (i.e., cognitive function) outcomes. The authors reported that there was an association of lower cognitive function in populations with blood lead level as low as 4.5 μg/dL and mean tibia lead levels as low as 18.7 μg/dL. Blood lead level is a measure of current biologically active lead burden and measures acute effects, whereas the lead levels in bone are a measure of cumulative dose over decades.

Numerous studies have been conducted on the effects of low lead exposure on the intelligence of children in the U.S. and other countries. For some recent reviews, the reader is referred to Lidsky and Schneider (2003), Bellinger (2004), Koller *et al*. (2004), and Needleman (2004). Earlier, Needleman indicated that blood lead levels as low as 10 μg/dL may cause deficits in learning ability in very young children. Children who had umbilical cord blood lead levels at birth of 10 μg/dL or higher had poorer performance on intelligence tests and in school (Needleman, 1982). A four-year follow-up of these children showed that they had poorer classroom attention than the children with less lead exposure (Needleman, 1987).

Banks *et al*. (1997) also observed maladaptive behavior, slower reaction times, decreased nerve conduction velocity, and reduced Intelligence Quotient (IQ) scores, and reading, spelling, and mathematics performance, in pre-school and school-age children with increasing blood or tooth lead levels after reviewing epidemiological studies conducted in the 1970s and 1980s. The children examined generally had a minimum blood lead level in the range of 5-9 μg/dL and a maximum blood lead level in the range of 32-60 μg/dL. In reviewing some longitudinal studies done in the late 1980s and early 1990s, the authors found a significant inverse relationship between blood lead level for children exposed at birth to 5 years of age and one or more measures of linguistic ability, visual-

spatial relations, sensory-motor co-ordination, memory, motor skills, verbal, perceptual, or quantitative skills, or various measures of achievement (Banks *et al*, 1997). The blood lead levels in these children generally ranged from 1-8 μg/dL at the low end to 15 to 35 μg/dL at the high end.

Several recent studies have implied that there is no apparent threshold in the relationship between blood lead level and neurobehavioral functions. Lanphear *et al*. (2000) found an inverse association with four cognitive measures (arithmetic skills, reading skill, nonverbal reasoning, and short-term memory) and geometric mean blood lead levels after analyzing data obtained from 4,853 U.S. children, ages 6-16 years, as part of the NHANES III, 1988-1994. The geometric mean blood lead level of the population was 1.9 μg/dL and 2.1 percent exceeded 10 μg/dL. All end points were significantly affected when blood lead levels were below 10 μg/dL. When blood lead level was restricted to below 5 μg/dL, the inverse relationship was significant for two endpoints (arithmetic skills and reading skills) (Lanphear *et al*., 2000). Other studies have also found an association between low (<10 μg/dL) blood lead levels and decreased IQ (Schwartz, 1994; Shen *et al*., 1998; Schnaas *et al*., 2000, 2006; Al-Saleh *et al*., 2001; Gomaa *et al*., 2002; Bellinger and Needleman, 2004; Canfield *et al*., 2003, 2004; Carta *et al*., 2003; Emory *et al*., 2003; Chiodo *et al*., 2004; Chen *et al*., 2005). These results corroborate those of Lanphear *et al*. (2000) and further support the opinion that lead can have effects on cognition in some segments of the population at blood lead levels below 10 μg/dL. In fact, association with decreased attention, visual motor integration, social behavior and motor skills was observed in children with a blood lead level as low as 3 μg/dL (Chiodo *et al*., 2004). The mean blood lead level reported in Chiodo *et al.* (2004) was 5.4 μg/dL for a total of 237 children at 7.5 years of age.

A more recent study evaluating cognitive instead of aptitude outcomes found a robust relationship between cognitive outcome and blood lead level at low levels of lead exposure in children. Miranda *et al*. (2007) analyzed performance in end-of-grade (EOG) testing (i.e., reading and mathematics) from 2000-2004 in children from 7 counties in North Carolina using exploratory and multivariate statistical methods. The authors report a decline of 15 percent and 14 percent of the interquartile range in EOG reading and mathematic scores, respectively, at a blood lead level of 5 μg/dL. Lower blood lead levels of 2 μg/dL also showed a trend in decrease of EOG scores.

Recently, Lanphear *et al*. (2005) analyzed blood lead levels and full-scale IQ data from 1,333 children, ages 58 months to 10 years, in seven international population-based longitudinal cohort studies. The reanalysis of the pooled data included the seven following prospective lead studies: Ernhart *et a*l. (1989); Baghurst *et al.* (1992); Bellinger *et al.* (1992); Dietrich *et al*. (1993); Wasserman *et al*. (1997); Schnaas *et al*. (2000; 2006); and Canfield *et al*. (2003). The children were administered a version of the Wechsler Intelligence Scales for Children-Revised, Wechsler Intelligence Scales for Children-III, Wechsler Preschool and Primary Scales of Intelligence, or Wechsler Intelligence Scales for Children-Spanish version under uniform conditions within each study. The authors used concurrent blood lead levels as the exposure metric in all of their analyses because it was the most strongly related to IQ. After adjustment for the 5 covariates that significantly affected IQ, Lanphear *et al*. (2005) described a log-linear

model in which changes in blood lead level would correspond to decreases in IQ. With this model, a decline in IQ of 6.9 points (95 percent CI = 4.2-9.4) was associated with an increase in blood lead level from 2.4 to 30 µg/dL (the 5th and 95th percentiles, respectively). The model predicted decreases in IQ of 3.9 points (95 percent CI = 2.4-5.3), 1.9 (95 percent CI, 1.2-2.6), and 1.1 (95 percent CI, 0.7-1.5) with an increase in blood lead level from 2.4 to 10 µg/dL, 10-20 µg/dL, and 20-30 µg/dL, respectively. The authors concluded that maximal blood lead levels less than 7 µg/dL are associated with intellectual deficits.

Hornung (2005), a co-author in the Lanphear *et al*. (2005) study, fit a linear model to the blood lead level and IQ data for 703 children with concurrent blood lead levels below 10 µg/dL. The model estimates a slope of –0.47 with an upper end of the 97.5 percent CI ($UCL_{97.5}$) of –0.9 points per µg/dL. Jusko *et al.* (2008) have reported another study in 194 children showing similar correlations of IQ with blood lead levels from 6 months to 6 years of age.

Carlisle and Dowling (2006) reviewed the current literature and determined that a blood lead level increase of 1 µg/dL would be the lower-bound estimate to decrease IQ by 1 point. In their assessment, the studies of Lanphear *et al*. (2005) as well as Wang *et al*. (2002), Canfield *et al*. (2003), Emory *et al*. (2003), and Hornung (2005) were reviewed and found to provide evidence of neurobehavioral deficits at the lower blood lead level. In the end, the data from Lanphear *et al*. (2005) and re-analysis by Hornung (2005) were used by OEHHA to develop a draft child-specific health guidance value (HGV) for use in assessing risk at proposed or existing California school sites, which may include pre-school and day-care children (OEHHA, 2007). The study of Lanphear *et al*. (2005) was the basis for their assessment because the study reports on a sensitive endpoint (full-scale Wechsler IQ) in a large number of children (1,333; ages 58 months to 5 years), used appropriate measures of exposure, and evaluated appropriate covariates. The dataset provided sufficient statistical power to define the relationship between blood lead and cognitive function at lower blood lead levels within reasonably tight confidence limits.

Since the log linear model described by Lanphear *et al*. (2005) and the linear model described by Hornung gave a greater decrease in IQ at the lower blood lead level, OEHHA (2007) selected the 97.5 percent upper confidence limit ($UCL_{97.5}$) on the slope (-0.9 points per µg/dL) of the linear model as the basis for the child-specific benchmark change in blood lead concentration (ΔPb_B). The $UCL_{97.5}$ was used to account for variability and uncertainty in the data in order to be reasonably certain that the result is not an underestimate of the true slope. The linear model is expected to over-predict the drop in IQ at higher blood lead levels. OEHHA chose a model based on children in the lower half of the distribution because as population-wide blood lead levels continue to decline, more and more children will fall into this range. Also, OEHHA's mandate is to protect sensitive children, and these data suggest that children at the lower end of the exposure spectrum sensitive may exhibit a greater change in IQ for a given change in blood lead.

The child-specific benchmark change in blood lead concentration was calculated as follows:

$$BC_B = \frac{-1 \text{ IQ point}}{-0.90 \text{ IQ point per } \mu g/dL * (UF = 1)} = 1.1\ \mu g/dL\ Pb_B \text{, rounded to 1 µg/dL}$$

An uncertainty factor (UF) of one was used because there is no interspecies or intraspecies extrapolation, since the data are based on sensitive humans, and the database was not considered deficient. This value was established as the new child-specific health guidance value for lead (OEHHA, 2007).

Based on these studies of IQ in children and blood lead levels from the U.S. and other countries, it appears that there is good evidence that very low blood lead levels (10 µg/dL or lower) can have a deleterious effect (a decrease of several IQ points) on the learning ability and intellectual development of young children. A decrease of only a few IQ points may be very significant on a population level in terms of increased need for remedial education (CDC, 1991). The work by Lanphear *et al*. (2005) and the analysis of the current data by Carlisle and Dowling (2006) demonstrate that the neurobehavioral effects (decrease in IQ) can occur much lower than 10 µg/dL. The new child-specific health guidance value for lead of 1 µg/dL is also used in the calculation of the new PHG.

Genotoxic Effects

The potential genotoxic effects of lead have been evaluated in lead workers. Wu *et al*. (2002) and Duydu *et al*. (2001) found an increase in sister chromatid exchanges in workers with blood lead levels around 32-36 µg/dL. Vaglenov *et al*. (2001) also reported an association with blood lead levels above 25 µg/dL and increases in micronuclei frequency in lead workers. Other occupational, environmental, and in vitro studies have evaluated the genotoxic potential (ATSDR, 2007). However, not all the studies have had consistent findings. There are several studies with negative results. In all, lead is considered a clastogenic agent due to the potential to induce chromosomal aberrations, micronuclei, and sister chromatid exchanges in peripheral blood cells (ATSDR, 2007).

Cancer

Most studies assessing the potential carcinogenicity of lead has involved exposure of inorganic lead in lead workers. Landrigan *et al*. (2000), Silbergeld (2003), Silbergeld *et al*. (2000), and Steenland and Boffetta (2000) have recently published reviews on the potential carcinogenicity of lead. Risk level reported by Steenland and Boffeta (2000) for lung cancer was an RR of 1.14 (CI of 1.04-1.73; 675 observed deaths) and for combined stomach cancers, RR of 1.34 (CI of 1.14-1.57; 181 observed). In general, the epidemiology studies provide some evidence of increased risk of lung and stomach cancer with little evidence of increased risk of kidney or brain cancer.

However, orally administered lead acetate has been demonstrated to cause cancer in animals (i.e., it increased the incidence of kidney tumors in rats) (Azar *et al*., 1973). This study has been used as the basis for estimating the cancer potency of lead (OEHHA, 1997; ATSDR, 2007). Lead is regarded by the International Agency for Research on Cancer (IARC) and the U.S. EPA as an animal carcinogen and probable human

carcinogen (IARC, 2004; NTP, 2005; U.S. EPA, 2005). Given that lead acetate is carcinogenic in rats (Azar *et al.*, 1973), other ionic salts would probably be carcinogenic as well.

Summary of Chronic Health Effects in Humans

The most significant health effects from the public health and regulatory point of view are the ones which occur at the lowest blood lead levels, because these affect the greatest part of the population. For children these are the effects on intelligence and behavior. For adults the most sensitive health effect is the increase in blood pressure and other cardiovascular effects. Both of these health effects are of concern below 10 μg/dL blood lead. Since measurable neurobehavioral effects in children for lead may occur with an increase of in blood lead of 1 μg/dL, this increase in lead level may be considered a shift of concern for both children and adults. Other health effects such as kidney and gastrointestinal effects occur at higher blood lead levels. See Figure 1 and Table 2 for a summary of these effects and the blood lead levels at which they occur.

DOSE-RESPONSE ASSESSMENT

Noncarcinogenic Effects

The most sensitive health endpoints for lead are intelligence deficits in children and hypertension (cardiovascular changes) in adults. The PHG was developed based on intelligence deficits in children, as this is the best-documented health endpoint that occurs at very low levels of exposure**.** The established public health-protective concentration will be applied to both children and adults.

Based on studies correlating blood lead levels with decreased IQ in children, the Centers for Disease Control (CDC) earlier identified 10 μg/dL as the lowest blood lead level of concern (CDC, 1991). Using an IEUBK model (Version 0.99d, 1994), OEHHA determined that for children between 12 and 24 months of age, a blood lead level increase of 0.35 μg/dL results from each increment in drinking water intake of 1.0 μg/day (OEHHA, 1997b). This was based on a calculation using the default values for exposure from dust, air, paint and other sources. Newer studies have demonstrated that neurobehavioral changes can occur at lower lead blood concentrations. Carlisle and Dowling (2006) found that an increase in blood lead levels of 1 μg/dL was correlated with a decrease of 1 IQ point based on the findings of Lanphear *et al*. (2005).

Therefore, the lead intake level that would correspond to the level of concern for children can be calculated as follows:

$$\text{Lead intake} = \frac{1\ \mu g/dL\ (\text{blood})}{0.35\ \mu g/dL\ \text{per}\ \mu g/day} = 2.86\ \mu g/day$$

A daily lead intake from water ingestion of 2.86 μg/day corresponds to a 1 μg/dL increase in blood lead level. In other words, 2.86 μg/day can be used as a benchmark for daily oral intake from water that corresponds to a level of concern for neurobehavioral effects in children, designated as a decrease of 1 IQ point.

Carcinogenic Effects

The best study for assessment of the carcinogenic effects of lead by the oral route is the study by Azar *et al.* (1973). This study was used to determine a public health-protective concentration for carcinogenic endpoints in the 1997 lead PHG document. Lead acetate was administered in the diet of rats for two years. From the dose-related kidney tumor data, a cancer potency q_1* (animal) and oral cancer slope factor (CSF) were calculated using the Global 86 software. A q_1* (animal) of 1.53×10^{-3} $(mg/kg\text{-}day)^{-1}$ was obtained and converted to an equivalent human q_1* (5.98×10^{-3} $(mg/kg\text{-}d)^{-1}$). The LED_{10} (the 95 percent lower-bound dose resulting in a 10 percent tumor incidence) of 68.8 mg/kg-day was obtained to calculate the rat CSF of 1.45×10^{-3} $(mg/kg\text{-}day)^{-1}$. The CSF for the rat data was converted to a CSF for humans using the same body weight scaling ($3/4^{th}$ power) as described for the q_1*. This calculation yielded a CSF (human) of 5.68×10^{-3} $(mg/kg\text{-}day)^{-1}$. Therefore, the CSF (human), which was approximately equal to the q_1* (human), was used to calculate a health-protective value based on carcinogenicity.

CALCULATION OF PHG

Noncarcinogenic Endpoints

A public health-protective concentration (C) for lead in drinking water can be calculated using the following equation for the most sensitive non-carcinogenic endpoint, which is a decrease in IQ in children:

$$C = \frac{\text{Level of Concern} \times \text{RSC}}{\text{UF} \times \text{L/day}} = \text{mg/L}$$

where,

Level of Concern	=	daily lead intake which results in a 1 μg/dL increase in blood lead level for children (2.86 μg/day);
RSC	=	relative source contribution of 20 percent (0.2);
UF	=	uncertainty factor of 3-fold;
L/day	=	daily drinking water consumption volume for a child (1 L/day).

There is some uncertainty as to whether the level of concern of 2.86 μg/day for children, used in the equation above, is protective for all children, because there are children in the

population whose blood lead levels are already above the concern level set by the CDC of 10 μg/dL (CDC, 2006). For these individuals any increase in blood lead level would simply add to an already adverse blood lead level. A threshold has not been observed for the non-carcinogenic effects (decrease in IQ points) of lead (Lanphear *et al.*, 2005; Schnaas *et al.*, 2006). In calculating the health-protective level for non-carcinogenic effects, an uncertainty factor of three is being applied to account for the uncertainty with regard to the degree of protection offered at this level, considering the lack of a threshold. The uncertainty factor of three also accounts for the extrapolation from the small sample size used in the main study of Lanphear *et al*. (2005) to the large, diverse population of children in California.

CDC's level of concern for lead in blood remains at 10 μg/dL, although CDC considers the actual level somewhat arbitrary because "there is no evidence of a threshold below which adverse effects are not experienced." However, the CDC level of concern has been consistently lowered over the last two decades, and may be lowered again in the future.

To calculate a health-protective level for non-cancer effects, children are assumed to consume 1 L of water/day. The drinking water contribution to children's lead exposure is estimated to range from 5 percent to over 50 percent (U.S. EPA, 1991) depending on the immediate environment in which the child lives. For children exposed to lead in paint, or lead in air and soil (e.g., living near roadways where lead deposits from engine exhaust still persist), U.S. EPA determined that drinking water exposure to lead would be on the lower end of this range. Therefore, in calculating a public health-protective concentration, we assume that drinking water exposures would contribute 20 percent of the total exposure to lead to account for exposures in children living in areas where high environmental concentrations of lead still persist.

Therefore,

$$C = \frac{2.86\ \mu g/day \times 0.2}{3 \times 1\ L/day} = 0.19\ \mu g/L = 0.2\ \mu g/L \text{ or } 0.2 \text{ ppb (rounded)}$$

Carcinogenic Endpoint

A public health-protective concentration (C) for lead (in mg/L) in drinking water can also be calculated using the general equation for carcinogenic endpoints:

$$C = \frac{R \times BW}{CSF \times L/day} = mg/L$$

where,

R = *de minimis* theoretical excess lifetime cancer risk of 1×10^{-6};

BW = default adult body weight of 70 kg;

CSF = cancer slope factor calculated above [5.68×10^{-3} (mg/kg-day)$^{-1}$];

L/day = volume of daily water consumption for an adult (2 L/day).

Therefore,

$$C = \frac{1\times10^{-6} \times 70 \text{ kg}}{5.68 \times 10^{-3} \text{ (mg/kg-day)}^{-1} \times 2 \text{ L/day}}$$

$$= 6.16 \times 10^{-3} \text{ mg/L} = 0.006 \text{ mg/L (rounded)} = 6 \text{ ppb}$$

The public health-protective concentration for lead based on the carcinogenic endpoint is 6 ppb. This is higher than the public health-protective concentration of 0.2 ppb calculated for non-carcinogenic effects. Therefore, the PHG for lead in drinking water is 0.2 ppb (0.2 µg/L or 0.0002 mg/L) based on non-carcinogenic effects.

RISK CHARACTERIZATION

The health risks of exposure to lead are well established by a large body of research. For the non-carcinogenic effects upon which the PHG is based (i.e., neurobehavioral effects in children), the research has been conducted on human populations. Therefore, there is no uncertainty in the calculation for extrapolation from animals to humans for these effects. The carcinogenic effect data are based on animal experimentation, which does introduce an uncertainty in extrapolating from animals to humans. The Azar *et al*. (1973) rat study, demonstrating kidney tumors after oral exposure to lead acetate, has the best available data for calculating a CSF.

Humans, especially children, may vary in their sensitivity to lead in drinking water because of differences in nutrition, exposure to lead from other sources and metabolic and genetic differences. Adults also may vary in their sensitivity to the hypertensive effects of lead.

The calculated PHG utilizes an RSC of 20 percent (0.2). This value is justified for certain subpopulations of children living in areas where lead in the environment still persists in moderate to high levels. Higher RSCs (up to 50 percent) might be justified for the general population because of the recent declines in relative contribution from air, water and food. The use of a higher RSC would increase the calculated PHG for non-carcinogenic endpoints for lead in drinking water.

OTHER STANDARDS AND REGULATORY LEVELS

Lead is regarded by IARC and the U.S. EPA as an animal carcinogen and probable human carcinogen (IARC, 2004; NTP, 2005; U.S. EPA, 2005).

U.S. EPA has adopted a Maximum Contaminant Level Goal (MCLG) of zero for lead in drinking water, based on "occurrence of low level effects" and because U.S. EPA classifies lead as Class B2, a "probable human carcinogen" (Fed. Reg. 56:32112, July 15, 1991; U.S. EPA, 2008). U.S. EPA has not adopted a Maximum Contaminant Level (MCL) for lead in drinking water because they regard the development of such a level as "not feasible" and rely on the "treatment approach" described in the final rule (Fed. Reg. 56:32112, July 15, 1991) to achieve the objective of reducing exposures to lead. However, U.S. EPA has set an "action level" for lead in drinking water of 15 ppb (40 CFR 141, 142; Fed. Reg. 56:26461-26564). This is a level the U.S. EPA believes is feasible for public water systems to attain by such measures as adjusting the physical characteristics of the water (pH, hardness) which affect the corrosivity of the water.

The lead and copper rule is a Federal and State drinking water standard (Title 22 CCR, section 64672.3) that specifies requirements for lead in drinking water systems (measured at the customers' taps). The action level (15 ppb) is used to determine the treatment requirements that a water system must complete. The action level for lead is exceeded if the concentration of lead in more than 10 percent of the tap water samples collected during any monitoring period (conducted in accordance with 22 CCR sections 64682 to 64685) is greater than 15 ppb. Failure to comply with the applicable requirements for lead and copper is a violation of primary drinking water standards for these substances (22 CCR Chapter 17.5). Therefore, for all practical purposes the standard described in the lead and copper rule is equivalent to an MCL. U.S. EPA has set a National Ambient Air Quality Standard of 1.5 $\mu g/m^3$ (Fed. Reg. 43:41258, October 5, 1978).

Lead is listed as a carcinogen and as a reproductive and developmental toxic chemical under the Safe Drinking Water and Toxic Enforcement Act of 1986, "Proposition 65" (California Health and Safety Code, Chapter 6.6, section 25249.5 *et seq*.). Lead is listed as a reproductive and developmental toxic chemical because of its effects on IQ during development. Under this program the exposure level set for warning against possible reproductive and developmental effects is 0.5 μg/day for any one source of exposure.

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ATTACHMENT

14

Number of Individual Children Screened for Lead, by Highest Level. California 2015

Local Health Jurisdiction	Age Group (years)	BLL < 4.5*		BLL ≥ 4.5 to < 9.5*		BLL ≥ 9.5*		Totals
		n	% (row)	n	% (row)	n	% (row)	
Alameda	**Age < 6**	16,915	97.71%	337	1.95%	59	0.34%	17,311
	Age 6 to < 21	1,577	95.98%	59	3.59%	7	0.43%	1,643
	Local Total age < 21	18,492	97.56%	396	2.09%	66	0.35%	18,954
Alpine	**Age < 6**	2	100.00%	0	0.00%	0	0.00%	2
	Age 6 to < 21	0	--	0	--	0	--	0
	Local Total age < 21	2	100.00%	0	0.00%	0	0.00%	2
Amador	**Age < 6**	404	98.30%	6	1.46%	1	0.24%	411
	Age 6 to < 21	17	100.00%	0	0.00%	0	0.00%	17
	Local Total age < 21	421	98.36%	6	1.40%	1	0.23%	428
Berkeley	**Age < 6**	756	97.05%	21	2.70%	2	0.26%	779
	Age 6 to < 21	41	100.00%	0	0.00%	0	0.00%	41
	Local Total age < 21	797	97.20%	21	2.56%	2	0.24%	820
Butte	**Age < 6**	2,115	98.56%	28	1.30%	3	0.14%	2,146
	Age 6 to < 21	44	95.65%	2	4.35%	0	0.00%	46
	Local Total age < 21	2,159	98.49%	30	1.37%	3	0.14%	2,192
Calaveras	**Age < 6**	186	98.94%	2	1.06%	0	0.00%	188
	Age 6 to < 21	57	100.00%	0	0.00%	0	0.00%	57
	Local Total age < 21	243	99.18%	2	0.82%	0	0.00%	245
Colusa	**Age < 6**	380	99.22%	2	0.52%	1	0.26%	383
	Age 6 to < 21	8	100.00%	0	0.00%	0	0.00%	8
	Local Total age < 21	388	99.23%	2	0.51%	1	0.26%	391
Contra Costa	**Age < 6**	8,093	99.25%	48	0.59%	13	0.16%	8,154
	Age 6 to < 21	494	98.60%	5	1.00%	2	0.40%	501
	Local Total age < 21	8,587	99.21%	53	0.61%	15	0.17%	8,655
Del Norte	**Age < 6**	267	97.80%	4	1.47%	2	0.73%	273
	Age 6 to < 21	19	100.00%	0	0.00%	0	0.00%	19
	Local Total age < 21	286	97.95%	4	1.37%	2	0.68%	292
El Dorado	**Age < 6**	552	93.09%	40	6.75%	1	0.17%	593
	Age 6 to < 21	56	100.00%	0	0.00%	0	0.00%	56
	Local Total age < 21	608	93.68%	40	6.16%	1	0.15%	649
Fresno	**Age < 6**	18,725	96.27%	587	3.02%	138	0.71%	19,450
	Age 6 to < 21	754	94.37%	42	5.26%	3	0.38%	799
	Local Total age < 21	19,479	96.20%	629	3.11%	141	0.70%	20,249
Glenn	**Age < 6**	388	98.48%	5	1.27%	1	0.25%	394
	Age 6 to < 21	21	95.45%	1	4.55%	0	0.00%	22
	Local Total age < 21	409	98.32%	6	1.44%	1	0.24%	416

Number of Individual Children Screened for Lead, by Highest Level. California 2015

Local Health Jurisdiction	Age Group (years)	BLL < 4.5*		BLL ≥ 4.5 to < 9.5*		BLL ≥ 9.5*		Totals
		n	% (row)	n	% (row)	n	% (row)	
Humboldt	**Age < 6**	2,093	89.67%	218	9.34%	23	0.99%	2,334
	Age 6 to < 21	102	91.07%	9	8.04%	1	0.89%	112
	Local Total age < 21	2,195	89.74%	227	9.28%	24	0.98%	2,446
Imperial	**Age < 6**	4,756	97.54%	107	2.19%	13	0.27%	4,876
	Age 6 to < 21	453	97.63%	11	2.37%	0	0.00%	464
	Local Total age < 21	5,209	97.55%	118	2.21%	13	0.24%	5,340
Inyo	**Age < 6**	19	90.48%	2	9.52%	0	0.00%	21
	Age 6 to < 21	0	--	0	--	0	--	0
	Local Total age < 21	19	90.48%	2	9.52%	0	0.00%	21
Kern	**Age < 6**	21,167	98.54%	254	1.18%	59	0.27%	21,480
	Age 6 to < 21	1,013	97.97%	18	1.74%	3	0.29%	1,034
	Local Total age < 21	22,180	98.52%	272	1.21%	62	0.28%	22,514
Kings	**Age < 6**	1,535	97.09%	39	2.47%	7	0.44%	1,581
	Age 6 to < 21	55	96.49%	2	3.51%	0	0.00%	57
	Local Total age < 21	1,590	97.07%	41	2.50%	7	0.43%	1,638
Lake	**Age < 6**	356	98.07%	7	1.93%	0	0.00%	363
	Age 6 to < 21	37	97.37%	1	2.63%	0	0.00%	38
	Local Total age < 21	393	98.00%	8	2.00%	0	0.00%	401
Lassen	**Age < 6**	179	87.32%	22	10.73%	4	1.95%	205
	Age 6 to < 21	3	60.00%	1	20.00%	1	20.00%	5
	Local Total age < 21	182	86.67%	23	10.95%	5	2.38%	210
Long Beach	**Age < 6**	7,208	99.02%	63	0.87%	8	0.11%	7,279
	Age 6 to < 21	532	99.07%	5	0.93%	0	0.00%	537
	Local Total age < 21	7,740	99.03%	68	0.87%	8	0.10%	7,816
Los Angeles	**Age < 6**	147,727	98.82%	1499	1.00%	270	0.18%	149,496
	Age 6 to < 21	15,556	98.87%	142	0.90%	35	0.22%	15,733
	Local Total age < 21	163,283	98.82%	1641	0.99%	305	0.18%	165,229
Madera	**Age < 6**	3,735	98.60%	42	1.11%	11	0.29%	3,788
	Age 6 to < 21	160	98.77%	2	1.23%	0	0.00%	162
	Local Total age < 21	3,895	98.61%	44	1.11%	11	0.28%	3,950
Marin	**Age < 6**	1,742	98.75%	18	1.02%	4	0.23%	1,764
	Age 6 to < 21	96	100.00%	0	0.00%	0	0.00%	96
	Local Total age < 21	1,838	98.82%	18	0.97%	4	0.22%	1,860

Number of Individual Children Screened for Lead, by Highest Level. California 2015

Local Health Jurisdiction	Age Group (years)	BLL < 4.5*		BLL ≥ 4.5 to < 9.5*		BLL ≥ 9.5*		Totals
		n	% (row)	n	% (row)	n	% (row)	
Mariposa	**Age < 6**	33	100.00%	0	0.00%	0	0.00%	33
	Age 6 to < 21	6	100.00%	0	0.00%	0	0.00%	6
	Local Total age < 21	39	100.00%	0	0.00%	0	0.00%	39
Mendocino	**Age < 6**	758	97.93%	15	1.94%	1	0.13%	774
	Age 6 to < 21	53	98.15%	1	1.85%	0	0.00%	54
	Local Total age < 21	811	97.95%	16	1.93%	1	0.12%	828
Merced	**Age < 6**	3,918	98.52%	51	1.28%	8	0.20%	3,977
	Age 6 to < 21	202	98.54%	3	1.46%	0	0.00%	205
	Local Total age < 21	4,120	98.52%	54	1.29%	8	0.19%	4,182
Modoc	**Age < 6**	98	96.08%	4	3.92%	0	0.00%	102
	Age 6 to < 21	3	100.00%	0	0.00%	0	0.00%	3
	Local Total age < 21	101	96.19%	4	3.81%	0	0.00%	105
Mono	**Age < 6**	74	90.24%	8	9.76%	0	0.00%	82
	Age 6 to < 21	1	100.00%	0	0.00%	0	0.00%	1
	Local Total age < 21	75	90.36%	8	9.64%	0	0.00%	83
Monterey	**Age < 6**	8,232	97.85%	144	1.71%	37	0.44%	8,413
	Age 6 to < 21	850	95.51%	29	3.26%	11	1.24%	890
	Local Total age < 21	9,082	97.62%	173	1.86%	48	0.52%	9,303
Napa	**Age < 6**	1,406	98.87%	16	1.13%	0	0.00%	1,422
	Age 6 to < 21	42	97.67%	0	0.00%	1	2.33%	43
	Local Total age < 21	1,448	98.84%	16	1.09%	1	0.07%	1,465
Nevada	**Age < 6**	613	95.78%	26	4.06%	1	0.16%	640
	Age 6 to < 21	27	96.43%	0	0.00%	1	3.57%	28
	Local Total age < 21	640	95.81%	26	3.89%	2	0.30%	668
Orange	**Age < 6**	39,258	98.83%	399	1.00%	66	0.17%	39,723
	Age 6 to < 21	4,318	98.36%	63	1.44%	9	0.21%	4,390
	Local Total age < 21	43,576	98.78%	462	1.05%	75	0.17%	44,113
Pasadena	**Age < 6**	2,114	98.37%	29	1.35%	6	0.28%	2,149
	Age 6 to < 21	234	100.00%	0	0.00%	0	0.00%	234
	Local Total age < 21	2,348	98.53%	29	1.22%	6	0.25%	2,383
Placer	**Age < 6**	927	97.37%	20	2.10%	5	0.53%	952
	Age 6 to < 21	72	94.74%	3	3.95%	1	1.32%	76
	Local Total age < 21	999	97.18%	23	2.24%	6	0.58%	1,028

Number of Individual Children Screened for Lead, by Highest Level. California 2015

Local Health Jurisdiction	Age Group (years)	BLL < 4.5*		BLL ≥ 4.5 to < 9.5*		BLL ≥ 9.5*		Totals
		n	% (row)	n	% (row)	n	% (row)	
Plumas	**Age < 6**	72	100.00%	0	0.00%	0	0.00%	72
	Age 6 to < 21	2	100.00%	0	0.00%	0	0.00%	2
	Local Total age < 21	74	100.00%	0	0.00%	0	0.00%	74
Riverside	**Age < 6**	35,066	99.40%	175	0.50%	35	0.10%	35,276
	Age 6 to < 21	1,962	98.94%	16	0.81%	5	0.25%	1,983
	Local Total age < 21	37,028	99.38%	191	0.51%	40	0.11%	37,259
Sacramento	**Age < 6**	16,468	98.15%	237	1.41%	73	0.44%	16,778
	Age 6 to < 21	1,154	96.09%	39	3.25%	8	0.67%	1,201
	Local Total age < 21	17,622	98.01%	276	1.54%	81	0.45%	17,979
San Benito	**Age < 6**	690	99.00%	5	0.72%	2	0.29%	697
	Age 6 to < 21	42	97.67%	0	0.00%	1	2.33%	43
	Local Total age < 21	732	98.92%	5	0.68%	3	0.41%	740
San Bernardino	**Age < 6**	38,598	99.29%	238	0.61%	39	0.10%	38,875
	Age 6 to < 21	3,159	99.46%	10	0.31%	7	0.22%	3,176
	Local Total age < 21	41,757	99.30%	248	0.59%	46	0.11%	42,051
San Diego	**Age < 6**	40,838	98.65%	478	1.15%	82	0.20%	41,398
	Age 6 to < 21	1,746	94.38%	94	5.08%	10	0.54%	1,850
	Local Total age < 21	42,584	98.46%	572	1.32%	92	0.21%	43,248
San Francisco	**Age < 6**	8,475	98.52%	104	1.21%	23	0.27%	8,602
	Age 6 to < 21	583	98.65%	7	1.18%	1	0.17%	591
	Local Total age < 21	9,058	98.53%	111	1.21%	24	0.26%	9,193
San Joaquin	**Age < 6**	11,590	98.41%	153	1.30%	34	0.29%	11,777
	Age 6 to < 21	732	98.52%	10	1.35%	1	0.13%	743
	Local Total age < 21	12,322	98.42%	163	1.30%	35	0.28%	12,520
San Luis Obispo	**Age < 6**	1,476	99.13%	9	0.60%	4	0.27%	1,489
	Age 6 to < 21	57	95.00%	3	5.00%	0	0.00%	60
	Local Total age < 21	1,533	98.97%	12	0.77%	4	0.26%	1,549
San Mateo	**Age < 6**	6,301	98.59%	80	1.25%	10	0.16%	6,391
	Age 6 to < 21	518	97.92%	9	1.70%	2	0.38%	529
	Local Total age < 21	6,819	98.54%	89	1.29%	12	0.17%	6,920
Santa Barbara	**Age < 6**	5,949	98.54%	70	1.16%	18	0.30%	6,037
	Age 6 to < 21	168	94.38%	9	5.06%	1	0.56%	178
	Local Total age < 21	6,117	98.42%	79	1.27%	19	0.31%	6,215

Number of Individual Children Screened for Lead, by Highest Level. California 2015

Local Health Jurisdiction	Age Group (years)	BLL < 4.5*		BLL ≥ 4.5 to < 9.5*		BLL ≥ 9.5*		Totals
		n	% (row)	n	% (row)	n	% (row)	
Santa Clara	**Age < 6**	19,611	98.55%	236	1.19%	53	0.27%	19,900
	Age 6 to < 21	2,039	97.98%	33	1.59%	9	0.43%	2,081
	Local Total age < 21	21,650	98.49%	269	1.22%	62	0.28%	21,981
Santa Cruz	**Age < 6**	2,649	97.82%	43	1.59%	16	0.59%	2,708
	Age 6 to < 21	358	98.62%	4	1.10%	1	0.28%	363
	Local Total age < 21	3,007	97.92%	47	1.53%	17	0.55%	3,071
Shasta	**Age < 6**	1,120	98.25%	15	1.32%	5	0.44%	1,140
	Age 6 to < 21	30	100.00%	0	0.00%	0	0.00%	30
	Local Total age < 21	1,150	98.29%	15	1.28%	5	0.43%	1,170
Sierra	**Age < 6**	13	92.86%	0	0.00%	1	7.14%	14
	Age 6 to < 21	0	--	0	--	0	--	0
	Local Total age < 21	13	92.86%	0	0.00%	1	7.14%	14
Siskiyou	**Age < 6**	88	91.67%	8	8.33%	0	0.00%	96
	Age 6 to < 21	9	100.00%	0	0.00%	0	0.00%	9
	Local Total age < 21	97	92.38%	8	7.62%	0	0.00%	105
Solano	**Age < 6**	5,248	98.09%	76	1.42%	26	0.49%	5,350
	Age 6 to < 21	154	98.09%	3	1.91%	0	0.00%	157
	Local Total age < 21	5,402	98.09%	79	1.43%	26	0.47%	5,507
Sonoma	**Age < 6**	3,616	99.29%	21	0.58%	5	0.14%	3,642
	Age 6 to < 21	304	95.60%	7	2.20%	7	2.20%	318
	Local Total age < 21	3,920	98.99%	28	0.71%	12	0.30%	3,960
Stanislaus	**Age < 6**	7,195	98.44%	95	1.30%	19	0.26%	7,309
	Age 6 to < 21	451	96.16%	17	3.62%	1	0.21%	469
	Local Total age < 21	7,646	98.30%	112	1.44%	20	0.26%	7,778
Sutter	**Age < 6**	1,531	97.89%	19	1.21%	14	0.90%	1,564
	Age 6 to < 21	48	100.00%	0	0.00%	0	0.00%	48
	Local Total age < 21	1,579	97.95%	19	1.18%	14	0.87%	1,612
Tehama	**Age < 6**	1,455	97.59%	35	2.35%	1	0.07%	1,491
	Age 6 to < 21	101	100.00%	0	0.00%	0	0.00%	101
	Local Total age < 21	1,556	97.74%	35	2.20%	1	0.06%	1,592
Trinity	**Age < 6**	47	92.16%	4	7.84%	0	0.00%	51
	Age 6 to < 21	19	100.00%	0	0.00%	0	0.00%	19
	Local Total age < 21	66	94.29%	4	5.71%	0	0.00%	70

Number of Individual Children Screened for Lead, by Highest Level. California 2015

Local Health Jurisdiction	Age Group (years)	BLL < 4.5*		BLL ≥ 4.5 to < 9.5*		BLL ≥ 9.5*		Totals
		n	% (row)	n	% (row)	n	% (row)	
Tulare	**Age < 6**	8,315	98.51%	104	1.23%	22	0.26%	8,441
	Age 6 to < 21	482	99.18%	1	0.21%	3	0.62%	486
	Local Total age < 21	8,797	98.54%	105	1.18%	25	0.28%	8,927
Tuolumne	**Age < 6**	135	98.54%	2	1.46%	0	0.00%	137
	Age 6 to < 21	15	100.00%	0	0.00%	0	0.00%	15
	Local Total age < 21	150	98.68%	2	1.32%	0	0.00%	152
Ventura	**Age < 6**	11,421	99.23%	81	0.70%	8	0.07%	11,510
	Age 6 to < 21	578	98.30%	9	1.53%	1	0.17%	588
	Local Total age < 21	11,999	99.18%	90	0.74%	9	0.07%	12,098
Yolo	**Age < 6**	2,275	97.60%	44	1.89%	12	0.51%	2,331
	Age 6 to < 21	75	96.15%	2	2.56%	1	1.28%	78
	Local Total age < 21	2,350	97.55%	46	1.91%	13	0.54%	2,409
Yuba	**Age < 6**	957	98.36%	12	1.23%	4	0.41%	973
	Age 6 to < 21	51	98.08%	0	0.00%	1	1.92%	52
	Local Total age < 21	1,008	98.34%	12	1.17%	5	0.49%	1,025
CLPPB	**Age < 6**	488	100.00%	0	0.00%	0	0.00%	488
(includes those with	**Age 6 to < 21**	43	100.00%	0	0.00%	0	0.00%	43
unknown jurisdiction)	**Local Total age < 21**	531	100.00%	0	0.00%	0	0.00%	531
California Totals	**Age < 6**	**528,418**	**98.57%**	**6,407**	**1.20%**	**1,250**	**0.23%**	**536,075**
	Age 6 to < 21	**41,783**	**98.11%**	**672**	**1.58%**	**135**	**0.32%**	**42,590**
	Total age < 21	**570,201**	**98.54%**	**7,079**	**1.22%**	**1,385**	**0.24%**	**578,665**

Notes for 2015 blood lead data. Data should be considered as preliminary and subject to revision.

*Data from RASSCLE surveillance database archive of 1/2/2017

Each individual is counted only once, using their highest blood lead level during 2015.

Measures are in µg/dL (micrograms per deciliter) of whole blood and include both venous and capillary samples. Not all elevated capillary samples are confirmed by a follow-up venous sample.

Results later determined to be false positives or errors have been excluded.

All results of blood lead analyses are reportable under California law, and the State works to ensure complete reporting. Results that are not submitted to the State, however, would not be included here.

Those blood lead levels reported from the analyzing laboratory as "< 5 µg/dL" are included in the category "BLL < 4.5"

If an individual moved between two jurisdictions, then the child's residence at the time of their highest blood lead level is the one counted.

ATTACHMENT

15

Reducing Lead in Drinking Water

A Technical Guidance for Minnesota's

School and Child Care Facilities

Environmental Health Division
Drinking Water Protection Section

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Introduction

What is the Purpose of this Guidance?

This guidance is designed to assist Minnesota's schools and non-residential childcare centers (hereinafter "schools") in minimizing the consumption of lead in drinking water by students and staff. It is the hope of the Minnesota Department of Health (MDH) that school administrators will review the guidance and implement the suggested activities to reduce levels of lead in their drinking water.

MDH is charged with the implementation of the United States Environmental Protection Agency (EPA) federal drinking water requirements for public water supplies (PWS) throughout Minnesota. PWSs are required by rule to provide water that meets federal requirements. Due to the potential adverse health effects of lead, MDH has developed this guidance to aid in the prevention and treatment of lead in drinking water at schools that may not fall under the monitoring framework set up in the federal rule.

Who Should Use This Guidance?

This guidance is intended for use by all public and private schools, preschools, nursery schools, and non-residential childcare centers in Minnesota. School administrators and others in positions of governance should review this guidance and implement activities to reduce lead levels at all taps used for drinking water and in food preparation. The specific instructions provided regarding testing and corrective actions are designed for school health, safety, maintenance personnel, and any consultants working with educational agencies to reduce lead levels in school's drinking water.

Why Worry About Lead in Schools?

Lead is a toxic material known to be harmful to human health if ingested or inhaled. Blood lead levels as low as 5 micrograms per deciliter (µg/dL) are associated with adverse mental, physical and behavioral effects on children. **No** measureable blood lead level is without negative effects.

Health Risks of Lead:

Children:

Children are especially susceptible to lead exposure because their bodies absorb metals at higher rates than the average adult. Children younger than six years old are most at risk due to their rapid rate of growth. Exposure to high levels of lead can cause damage to the brain, nervous system, red blood cells, and kidneys. Exposure to low levels of lead have the potential to cause lower IQ's, hearing impairments, reduced attention span, hyperactivity, developmental delays, and poor classroom performance.

Adults:

High blood lead levels in adults have been linked to increased blood pressure, poor muscle coordination, nerve damage, and hearing and vision impairment. Pregnant women and their fetuses are especially vulnerable to lead exposure since lead can significantly harm the fetus, causing lower birth weight and slowing normal mental and physical developments.

Common Lead Exposures:

Lead in the environment:

- Lead based paint and some glazes
- Lead contaminated dust and soil
- Improper disposal of commercial products such as automotive batteries, computers, and other electronic and visual communication devices
- Industrial sources such as mining, smelting, and refining

Lead in drinking water:

- Lead enters tap water through corrosion of plumbing materials

Why is Lead a Special Concern for Schools?

Children are more vulnerable to lead:

Children typically have higher intake rates for environmental materials (such as soil, dust, food, water, air, paint) than adults. They are more likely to play in the dirt and put their hands and other objects in their mouths. In addition, children tend to absorb a higher fraction of ingested lead than adults, which can slow normal physical and mental development of growing bodies.

Plumbing materials and water use patterns at schools:

Lead levels in the water within the plumbing system of schools can vary due to the different parts of the plumbing system (i.e. lead solder, brass fixtures, water usage, and age of materials). The amount of time the water is in contact with the various components of the plumbing system may have a large effect on the concentrations found as well. The "on-again, off-again" water use patterns of most schools can result in elevated lead levels in drinking water. Water that remains stagnant in plumbing overnight, over a weekend, or during a vacation is in longer contact with plumbing materials and therefore may contain higher levels of lead.

How Does Lead Get Into Drinking Water?

Lead in drinking water is primarily from materials and components associated with the water distribution system and plumbing. Lead is typically an "endpoint" problem, with the highest concentrations of lead near the tap. Lead may be present in various parts of the plumbing system such as lead solder, brass fixtures, and lead pipes. Lead is then leeched into the water passing through the plumbing system. The most common source of lead leeching is corrosion, a reaction between the water and lead pipes or solder. Dissolved oxygen, low pH, low mineral content and other water quality characteristics can affect the extent of corrosion.

In addition to the characteristics mentioned above, the amount of contact time between water and lead sources can affect the concentration of lead found in drinking water. The longer water remains standing in the plumbing system, the greater the potential for it to absorb lead. For this reason, the lead concentration has the potential to be at its highest when water has remained unused overnight or longer. Additional factors such as water chemistry, temperature, and age of the plumbing materials can affect the amount of lead in the water.

What Can Be Done to Reduce Lead Levels in Drinking Water?

Use only cold water for drinking and food preparation:

Hot water is more likely to contain higher levels of lead than cold water. Only water from the cold water tap should be used for drinking, preparing juice, mixing baby formula or food preparation. Boiling the water will not remove lead and may actually increase the concentration of lead.

Flush taps before use:

The longer water has been standing in the plumbing system, the more lead it may contain. Running water at a tap, usually for two to three minutes, prior to using it for drinking or food preparation will often reduce lead levels in the water. Flushing works by removing the water with the most lead from the drinking water system. Taps should be flushed twice a day – in the morning and at midday.

Routine maintenance:

Clean aerators on a quarterly basis – more if debris buildup is observed.

Test the water for lead:

The only way to determine how much lead is present in the drinking water is to have the water tested. Each tap or fixture providing water for drinking or food preparation should be tested at least every five years. Corrective action should then be taken at taps with elevated lead levels. More detailed instructions on testing water for lead and information about corrective actions can be found on pages 10 - 14.

Legal Background and Guidance

For the purpose of this guidance, schools are classified in three categories:

A. Schools that receive their water from a Community Public Water Supply (CPWS).

B. Schools with their own source (well) and serve 25 or more people (children and employees combined).

C. Schools with their own source (well) and serve fewer than 25 people (children and employees combined).

Please note if you believe your school falls in Category B but have not been classified as a Nontransient Noncommunity (NTNC) PWS, please call 651/201-4700 and ask to speak with a NTNC Compliance Officer.

The table below displays the rules, regulations and guidance applicable to each school category. Each rule, regulation or guidance will be explained in detail in the following sections.

Regulations and Guidance Governing Lead in Schools Drinking Water					
Category	**Description**	**LCR[1]**	**LCCA[2]**	**3T's[3]**	**Reduction of Lead in Drinking Water Act**
A	Water Supplied by a Community PWS	YES	YES	YES	YES
B	Water Supplied by private source & have >25 employees & children	YES	YES	YES	YES
C	Water Supplied by private source & have <25 employees & children	NO	YES	YES	YES

[1]**LCR** - Lead and Copper Rule
[2]**LCCA** - Lead Contamination Control Act
[3]**3T's** - Training, Testing and Telling

The Safe Drinking Water Act (SDWA), Lead and Copper Rule (LCR)

Category A:

If a school is served by a CPWS, the CPWS is required to monitor select sites throughout the area of coverage on a pre-set schedule. No more than ten percent (10%) of the samples monitored from a PWSs drinking water taps may exceed the lead action level of 15 parts per billion (ppb). If the action level is exceeded, the CPWS is legally required to take corrective action. Due to the nature of site selection per the LCR and the number of samples required, schools are unlikely to be selected as a site to monitor and therefore consideration should be given to implementing their own monitoring schedule based on this guidance.

Category B:

If a school is served by their own water source and serve 25 or more of the same people for a minimum of 6 months, they qualify as a NTNC PWS. As a NTNC PWS, a set number of sites are selected to be monitored on a pre-set schedule. No more than ten percent (10%) of the samples monitored from a school's drinking water taps may exceed the lead action level of 15 ppb. If the action level is exceeded, the school is legally required to take corrective action.

Category C:

If a school is served by their own water source and serve less than 25 people, the requirements of the LCR of the SDWA do not apply.

More information on the LCR can be found at:
http://water.epa.gov/lawsregs/rulesregs/sdwa/lcr/index.cfm.

The Lead Contamination Control Act (LCCA)

This law applies to all categories of schools. The intent of the LCCA is to identify and reduce lead in drinking water at schools and relies on voluntary compliance by individual schools and school districts.

More information on the LCCA can be found at:
http://water.epa.gov/infrastructure/drinkingwater/schools/regulations.cfm

3T's

EPA developed the 3T's (Training, Testing, and Telling) to assist all categories of schools in reducing the lead concentrations in their drinking water. MDH recommends that all schools adopt and implement a lead reduction program focusing on the following six areas:

- Determine current understanding of water quality and obtaining financial assistance
- Identification of potential problem areas
- Develop a monitoring plan
- Collection and submittal of water samples
- Implementation of corrective action plans if lead concentrations exceed 20 µg/L
- Communication and public outreach

A copy of the guidance can be found at:
http://www.epa.gov/ogwdw/schools/pdfs/lead/toolkit_leadschools_guide_3ts_leadschools.pdf

The Safe Drinking Water Act (SDWA), Reduction of Lead in Drinking Water Act

This law applies to all categories of schools. Lead found in drinking water is typically not from natural water and soil sources. The most common cause of lead concentration in water is due to the corrosion of pipes and plumbing fixtures. In an effort to reduce this contamination, EPA in 1986, amended the SDWA to mandate that all pipes, solders, fittings, and fixtures be lead free. Lead free was defined as solder and flux containing not more than 0.20% and lead, pipes, and pipefittings containing not more than 8.0% lead. All plumbing fittings and fixtures must meet the NSF/ANSI Standard 61.

In 2011, the enactment of the Reduction of Lead in Drinking Water Act was signed into law. The act reduces the allowable lead content in plumbing materials by modifying the SDWA definition of lead free. As of January 4, 2014, lead free is now defined as weighted average of not more than 0.25% in wetted surface material for pipe, pipe and plumbing fittings and fixtures. It retains the 0.20% lead limit for solders and flux as implemented in the 1986 amendments.

More information on the Reduction of Lead in Drinking Water Act can be found at:
http://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100GRDZ.txt.

How to Develop a Lead Monitoring and Reduction Plan

This schematic describes the six steps from Plan Development to Communicate Results. Details follow.

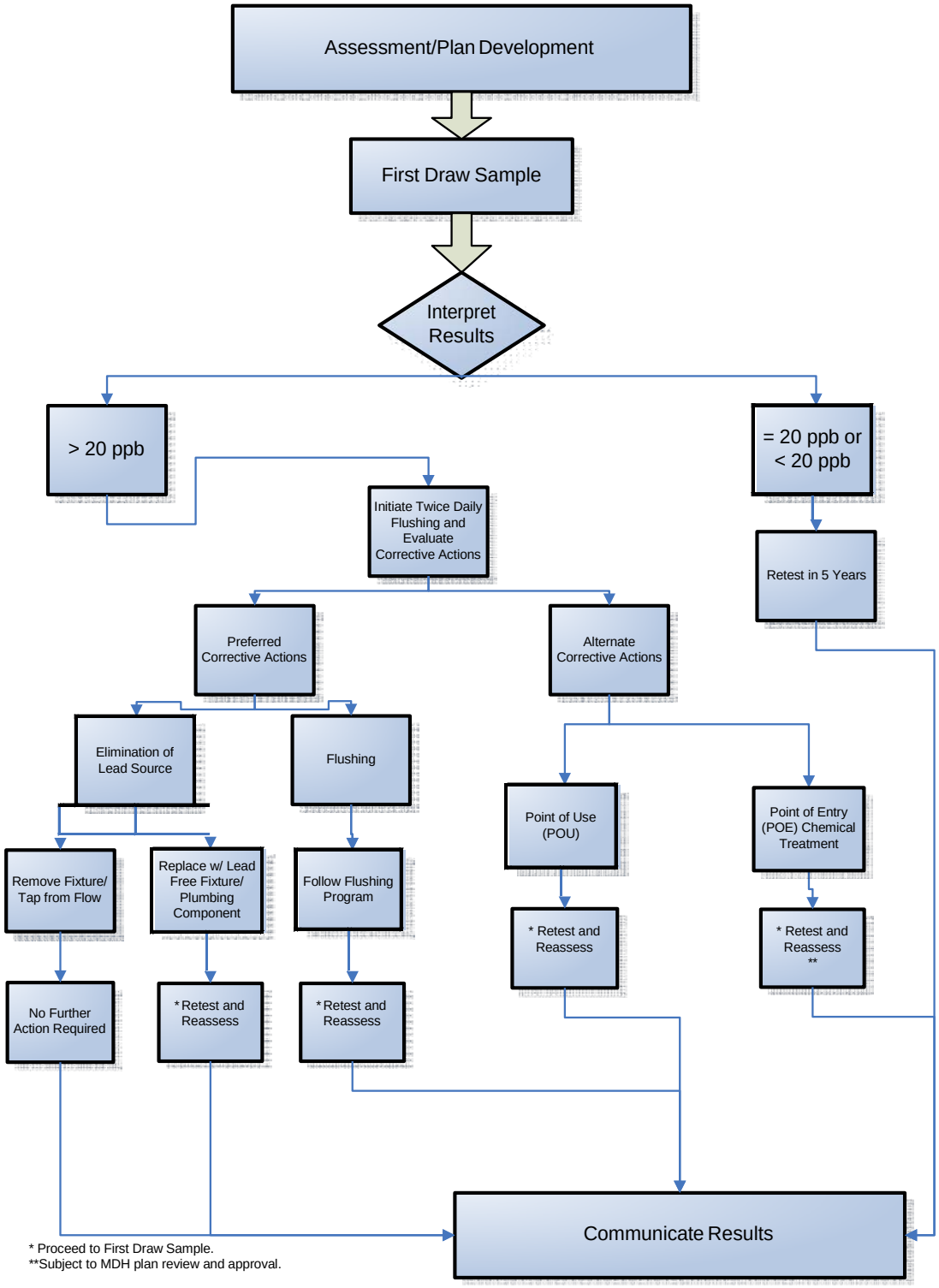

Step 1- Assessment and Sampling Plan Development:

When developing a program to test for lead in drinking water it is important to consider the following steps:

- Take inventory of all drinking water taps used for consumption (i.e. drinking water and food preparation)

  Taps used for human consumption should only be cold water taps; hot water taps should never be used to obtain water for drinking water or food preparation. Check all drinking fountains to ensure EPA has not identified them as having a lead lined tank under the LCCA. This list can be found at: http://tinyurl.com/kr8kppf

  If a drinking fountain within the school is found on this list, it should be removed from use immediately.

- Prioritize drinking water taps

  High priority: taps used by children under the age of six years of age or pregnant women (i.e. drinking fountains, nurse's office sinks, classrooms used for early childhood education and kitchen sinks).

  Medium priority: other taps regularly used to obtain water for drinking or cooking (i.e. home economic sinks, classroom sinks, and teacher's lounges).

  Low priority: all other taps that could be used to obtain water for drinking but are not typically used for that purpose (i.e. bathroom faucets and utility sinks).

- Determine a schedule for sampling

  All taps should be tested at a minimum of once every five years.

  If the budget does not allow all taps to be tested in the first year it is suggested that all high priority taps be tested the first year, the medium priority the second and the low priority the third. The fourth year should be used as a "make up" year if needed.

- Testing

  Determine which certified laboratory will analyze the drinking water samples and set up a contract with them. Certified laboratories can be found at:
  https://apps.health.state.mn.us/eldo/public/accreditedlabs/labsearch.seam.
  Field analyzers can be used in doing investigative work.

Step 2- Conduct First Draw Tap Monitoring:

Water from all taps used for drinking or food preparation should be tested for lead using first draw samples. First draw means that the samples are to be collected before the fixture is used or flushed during the day. Use only cold water for collecting lead samples.

Sample Site Preparation and Sample Collection

- The night before sampling, run each sample tap for two to three minutes.

- Do not use sampling taps for a minimum of six to eight hours. MDH recommends not exceeding 18 hours.

- Collect first draw sample. (250 mL)

  Option 1: Mail/deliver sample to laboratory certified to analyze lead in drinking water. Certified laboratories can be found at https://apps.health.state.mn.us/eldo/public/accreditedlabs/labsearch.seam. The laboratory will provide you with sample bottles and instructions for submitting samples.

  Option 2: Conduct an analysis using a field analyzer with a lower limit of detection (LOD) for lead equal to or below 5 ppb using instruments such as the Hach Pocket Calorimeter II, Lead Test or Hach SA 1100 Scanning Analyzer for Lead. Refer to manufacturer guidelines for correct sampling protocol and safety precautions in collection and disposal of samples.

Step 3- Interpret Sample Results:

- Verify that the results are expressed in ppb.

- If lead is at or below 20 ppb, the tap may be used for drinking water or food preparation and should be retested in five years. Proceed to Step 6.

- If lead exceeds 20 ppb, initiate twice daily flushing. Flush the tap in the morning before school begins and at midday. Evaluate and implement a corrective action plan. Proceed to Step 4.

Step 4- Corrective Actions:

In addition to twice daily flushing in Step 3, a corrective action needs to be implemented when results exceed 20 ppb. Although flushing often works to reduce lead in drinking water, it requires staff time, diligence, and commitment to ensure effectiveness and may not be the most cost effective long term corrective action.

Preferred:

Elimination of Lead Sources

Engineering plans and specifications for the plumbing system are useful for identifying sources of lead and helpful in determining if sources of lead can be removed from service or replaced with lead free fixtures.

- Remove tap/fixture from service. If the tap is seldom used, it may be disconnected or removed from the water supply line, but first verify the tap is not required for code compliance.

- Replace with lead free fixture/plumbing component.

- If the existing tap is suspected to be the source of contamination, replace with a lead free tap.

- Replace other sources of lead, including lead pipe, lead solder joints, and brass plumbing components with lead free materials.

To minimize the introduction of lead into drinking water systems, go to EPA website: http://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100GRDZ.txt to identify lead free certification marks for drinking water systems and plumbing materials.

Implement a Flushing Program

Flushing the drinking water taps (letting them run for a set amount of time) often works to reduce lead concentrations in drinking water. A flushing program works to reduce lead concentrations by clearing the taps of water that have been in contact with plumbing components that may be high in lead. There are two primary types of flushing programs: Individual Tap Flushing and Main Pipe Flushing.

An **Individual Tap Flushing Program** may be implemented if lead concentrations are found to be high at certain taps.

- Flush individual taps that have been tested and found to have high lead levels. This procedure is to be followed each day the school is in session.

During periods of normal use:

- Run each tap in the morning before children arrive for 2 to 3 minutes.

- Run each tap midday for two to three minutes.

After long weekends or breaks:

- Run each tap for ten to fifteen minutes before children return to school.

Return to normal use protocol.

A **Main Pipe Flushing Program** may be implemented if lead concentrations are found to be high throughout the entire system or confined to a certain area of the school. This procedure is to be followed each day the school is in session.

- Begin by flushing the tap furthest away from the water source for at least ten minutes.

- Next flush the tap the second furthest away and continue in this manner until all taps have been flushed.

- First draw and flushed samples should be collected and analyzed for lead every six months.

Review the results upon receipt.

- If the flushed sample results are not below the lead action level, other corrective action options should be explored.

- If the flushed sample results are below the lead action level, the flushing program can continue.

- If first draw samples drop below the lead action level for two consecutive six month rounds of testing, the flushing program can be discontinued. Monitoring should continue to one more six month round to ensure the lead levels do not increase again.

Alternate:

Point-of-Use (POU) Treatment Device - A POU water treatment device may be installed at taps which exceed 20 ppb of lead. It is strongly encouraged that the POU device is approved to meet NSF Standard 53, NSF Standard 58, or an equivalent standard. It is to be installed, operated, and maintained in accordance with the manufacturer's recommendations.

Point of Entry (POE) Chemical Treatment - Adjusting the water chemistry may reduce the amount of lead absorbed by the water. This may be done by adding a chemical to the water as it enters the building. Typical methods of chemical treatment include addition of a phosphate based or silica based corrosion inhibitor or an adjustment to the water's pH or hardness. All chemical treatment systems may be subject to MDH plan review and approval prior to installation. It must be noted the installation of POE treatment may subject the school to other requirements of the SDWA including additional water quality monitoring.

Step 5- Reassessment:

All taps affected by a corrective action (Step 4) are retested after the corrective action has been implemented. A first draw sample is to be taken, using the procedure outlined in Step 2.

Interpreting Post Corrective Action Results

- If the analysis shows lead at or below 20 ppb, no further action is required, as long as the corrective action remains in place. The next sample should be collected within five years.

- If the analysis shows lead remains above 20 ppb, continue twice daily flushing. A midday sample as specified in Step 3 is to be collected to determine if flushing is effective or a new corrective action can be implemented followed by retesting as specified in Step 2.

Step 6- Communicate Results:

In addition to testing for lead, a lead control program should include a communication plan. The purpose of a communication plan is to provide a process for school employees, students and parents to address questions, report results and provide ongoing, up-to-date information regarding sampling efforts.

EPA recommends that school management:

- Assign a designated person to be the contact.

- Notify affected individuals about the purpose of the testing as well as the results. School employees, students and parents should be informed and involved in the overall process. Examples are: meetings, open houses, public notices.

- Identify and share specific activities they are pursuing to correct any lead problems. Local health officials can assist in understanding potential health risks, technical assistance and communication strategies.

More information and sample public notice materials can be found at:
http://www.epa.gov/ogwdw/schools/pdfs/lead/toolkit_leadschools_guide_3ts_leadschools.pdf

Glossary

1. Action Level - Lead exposure level at which corrective action is required

2. Aerator - An aerator is found at the tip of the faucet. Aerators are screwed onto the faucet head, creating a non-splashing stream and delivering a mixture of water and air

3. Corrosion - A dissolving and wearing away of metal caused by a chemical reaction between water and plumbing materials in contact with the water

4. Faucet/Tap - Point of access for people to obtain water for drinking or food preparation. A faucet/tap can be a fixture, faucet, drinking fountain or water cooler. Drinking water taps typically do not include bathroom taps, hose bibbs, or custodial closet sinks

5. Field Analyzer - Instrument suitable for water quality field work or analysis

6. First Draw Sample - The first water drawn from a faucet/tap after the water has sat undisturbed in the plumbing system for at least 6 hours

7. Fittings - Plumbing components used to join sections of pipe or to join pipe to fixtures

8. Fixture - Exchangeable device connected for the distribution and use of water in a building. Examples: fountain, sinks, shower, tub, toilet, hydrant

9. Flush(ing) - Running the water at a faucet/tap or combination of faucets/taps to clear standing water from the plumbing system

10. Flush Sample - A water sample that has been collected following the flushing of a drinking water tap

11. Flux - A substance applied during soldering to facilitate the flow of solder. Flux used prior to 1986 contains lead and can itself be a source of lead contamination in water

12. Lead Free - Weighted average of not more than 0.25% in wetted surface material for pipe, pipe and plumbing fittings and fixtures

13. Limit of Detection (LOD) – The lowest quantity of a substance that can be distinguished from the absence of the substance due to the instruments analytical process

14. pH - A measure of acidity and alkalinity

15. Parts per Billion (ppb) - A standard unit of measurement commonly used to describe the concentration of lead in drinking water. Also expressed as microgram/liter (µg/L)

16. Point of Entry (POE) - A water treatment device installed to treat all water entering a single school, building, facility or home. Example: water softener

17. Point of Use (POU) - A water treatment device intended to treat water for direct consumption, typically at a single tap or a limited number of taps. Example: faucet mount cartridge filter

18. Public Water System (PWS) - A system that serves water to the public. System has at least 15 service connections or regularly serves an average of 25 individuals daily at least 60 days out of the year.

    a. Community Public Water System (CPWS) - A PWS which serves at least 15 service connections used by year round residents or regularly serves at least 25 year round residents. Examples: municipalities, manufactured mobile home parks

    b. Nontransient Noncommunity (NTNC) - A PWS that is not a CPWS and that regularly serves at least 25 of the same persons over 6 months per year. Examples: schools, childcare centers, factory

19. Schools - Minnesota's schools and non-residential childcare centers

20. Service Connection - The pipe that carries tap water from the public water main to a building

21. Solder - A metallic compound used to seal the joints between pipes. Until 1988, solder containing up to 50% lead was legally used in potable water plumbing. Lead free solders, which can contain up to 0.2% lead, often contain one or more of the following metals: antimony, tin, copper or silver

22. United States Environmental Protection Agency (EPA) - Federal agency with a mission to protect human health and the environment

Minnesota Department of Health

Environmental Health Division
Drinking Water Protection Section

651-201-4700

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DECLARATION OF SERVICE BY EMAIL

I, the undersigned, declare as follows:

I am a resident of the County of Sacramento and I am over the age of 18 years, and not a party to the within action. My place of employment is 980 Ninth Street, Suite 300, Sacramento, California 95814.

On August 15, 2018, I served the:

- **SWRCB's Comments on the Test Claim filed August 13, 2018**
- **Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017 filed August 13, 2018**
- **Finance's Comments on the Test Claim filed August 13, 2018**

  Lead Sampling in Schools, Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017, 17-TC-03
  City of San Diego, Claimant

By making it available on the Commission's website and providing notice of how to locate it to the email addresses provided on the attached mailing list.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that this declaration was executed on August 15, 2018 at Sacramento, California.

Lorenzo Duran
Commission on State Mandates
980 Ninth Street, Suite 300
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(916) 323-3562

COMMISSION ON STATE MANDATES

Mailing List

Last Updated: 8/10/18

Claim Number: 17-TC-03

Matter: Lead Sampling in Schools, Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017

Claimant: City of San Diego

TO ALL PARTIES, INTERESTED PARTIES, AND INTERESTED PERSONS:

Each commission mailing list is continuously updated as requests are received to include or remove any party or person on the mailing list. A current mailing list is provided with commission correspondence, and a copy of the current mailing list is available upon request at any time. Except as provided otherwise by commission rule, when a party or interested party files any written material with the commission concerning a claim, it shall simultaneously serve a copy of the written material on the parties and interested parties to the claim identified on the mailing list provided by the commission. (Cal. Code Regs., tit. 2, § 1181.3.)

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California Rules of Court, rule 8.1115(a), prohibits courts and parties from citing or relying on opinions not certified for publication or ordered published, except as specified by rule 8.1115(b). This opinion has not been certified for publication or ordered published for purposes of rule 8.1115.

IN THE COURT OF APPEAL OF THE STATE OF CALIFORNIA

THIRD APPELLATE DISTRICT

(Sacramento)

CITY OF SAN DIEGO, Plaintiff and Appellant, v. COMMISSION ON STATE MANDATES, Defendant and Respondent. DEPARTMENT OF FINANACE et al., Real Parties in Interest and Respondents.	C092800 (Super. Ct. No. 34201980003169CUWMGDS)

Section 6 of article XIII B of the California Constitution requires the State of California, subject to certain exceptions, to "provide a subvention of funds to reimburse" local governments "[w]henever the Legislature or any state agency mandates a new program or higher level of service." In this case, the City of San Diego (the City) seeks

reimbursement under this provision for the costs of complying with a new permit condition that the State Water Resources Control Board (the Water Board) imposed on operators of water systems that serve K-12 schools. Under the new permit condition, these operators must provide free lead testing at each K-12 school they serve on the school's request.

In this appeal, we must determine whether the Water Board's new condition requires "a new program or higher level of service" within the meaning of article XIII B, section 6. The Commission on State Mandates (the Commission), which is charged with hearing claims under section 6, concluded it did not. It found, based on Supreme Court precedent, that a new state law can be said to require "a new program or higher level of service" in two circumstances: first, if the law carries out a governmental function of providing services to the public; and second, if the law imposes unique requirements on local governments that do not apply generally to all persons in the state. But the Commission found neither description fits the requirement here. It reasoned that the Water Board's requirement neither carries out a governmental function of providing services to the public, because the provision of water is not a governmental function, nor imposes unique requirements on local governments, because the Water Board imposed its condition on both governmental and private actors. The trial court later found similarly after the City sought review of the Commission's decision.

On the City's appeal, we reverse. For reasons we will cover below, we conclude that the Water Board's new condition requires local governments to support "a new program" within the meaning of article XIII B, section 6. But because the City's showing that the Water Board's permit condition establishes a "new program" is a necessary, though not sufficient, showing for reimbursement, we stop short of holding that the state must reimburse the City for the costs of compliance. We leave it to the Commission to consider in the first instance whether reimbursement is appropriate on these facts following remand.

BACKGROUND

In 2015, the Legislature passed a bill, Senate Bill No. 334 (2015-2016 Reg. Sess.), intended in part to remediate lead in school water supplies. The bill required the State Department of Public Health to conduct a sample survey "to determine the likely extent and distribution of lead exposure to children from . . . drinking water at the tap," and, to the extent possible, to perform testing "to validate survey results." The bill further, among other things, required school districts to "close access" to "drinking water sources with drinking water that d[id] not meet [federal] drinking water standards for lead or any other contaminant" and, under certain circumstances, to also supply "alternative drinking water sources." But the Governor vetoed the bill, stating that it would "create[] a state mandate of uncertain but possibly very large magnitude." The Governor, however, expressed support for the bill's goals and "direct[ed] the State Water Resources Control Board to work with school districts and local public water systems to incorporate water quality testing in schools as part of their lead and copper rule." (Governor's veto message to Sen. Bill No. 334 (Oct. 9, 2015), available at <https://www.ca.gov/archive/gov39/wp-content/uploads/2017/09/SB_334_Veto_Message.pdf> [as of Apr. 26, 2022].)

A little over a year later, in early 2017, the Water Board did as the Governor directed—it required water quality testing in schools. Relying on its permitting authority over operators of "public water systems," the Water Board amended the permits of over 1,100 of these operators that serve K-12 schools. (See Health & Saf. Code, § 116525 [discussing Water Board's permitting authority]; see also *id.*, § 116275, subd. (h) [" 'Public water system' means a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year."].) As amended, these permits require each of these operators, on the request of any K-12 school it serves, to sample and test drinking water at that school for the

presence of lead. In particular, after a school requests assistance with lead sampling, each operator must meet with school officials "to develop a sampling plan"; maintain records of the sampling plan and certain other information; collect one to five samples at the school "from regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations"; submit the samples "to an ELAP certified laboratory for analysis of lead"; provide a copy of the results to the school; discuss the test results with the school; collect additional samples if initial results show high levels of lead; and "provide information regarding potential corrective actions if a school has confirmed lead levels" above a certain amount. Per the amended permits, operators are responsible for the costs associated with these requirements.

The City is one of the operators subject to the Water Board's new requirements. A year after the Water Board's changes, the City petitioned the Commission to find that the Water Board's requirements constitute a state-mandated program under article XIII B, section 6 of the California Constitution—a provision that serves " 'to preclude the state from shifting financial responsibility for carrying out governmental functions to local agencies.' [Citation.]" (*California School Boards Assn. v. State of California* (2019) 8 Cal.5th 713, 724; see also Gov. Code, § 17551, subd. (a) ["The commission, pursuant to the provisions of this chapter, shall hear and decide upon a claim by a local agency or school district that the local agency or school district is entitled to be reimbursed by the state for costs mandated by the state as required by Section 6 of Article XIII B of the California Constitution."].)

The City reasoned that the Water Board's requirements fell under article XIII B, section 6 for several reasons. It began by noting that, under California Supreme Court precedent, two types of state-mandated programs require reimbursement: " '[1] programs that carry out the governmental function of providing services to the public, [and] [2] laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state.' " It then

asserted that the Water Board's new condition should be regarded as one of these two types of programs for three distinct reasons. First, focusing on "programs that carry out the governmental function of providing services to the public," it contended the Water Board's condition qualifies as such a program for two reasons: one, because water service is a "governmental function that provides services to the public"; and two, because "[t]he lead testing program in the Permit Amendment carries out a second governmental function of ensuring safe schools." Next, focusing on laws that "impose unique requirements on local governments," it contended the Water Board's condition is such a law because it "imposes a unique requirement on the City that does not apply to all residents and entities in the state."

The Commission denied the City's petition. Starting with the City's last argument, it found the Water Board's permit changes do not impose unique requirements on local governments. It reasoned that "a law that applies to a class of persons or entities whose members are both governmental and private cannot be said to apply *uniquely* to government," and, in this case, the Water Board imposed its changes on 1,128 operators of public water systems, "more than a third of which were issued to privately owned [public water systems]." Turning next to the City's remaining arguments, the Commission found the Water Board's changes "do[] not impose a program that carries out a governmental function of providing services to the public." It first found that "water service is not a *governmental* function of providing services to the public because providing water service is not required by state or federal law and is not a core function of government." It then found that, although ensuring safe schools is a governmental function, a public water system "has no duty to ensure safe schools, as alleged by the [City]; the schools maintain and exercise that duty with their request for lead testing."

The City afterward challenged the Commission's decision in a petition for writ of administrative mandamus, which named the Commission as the respondent and the Water Board and the Department of Finance as the real parties in interest. Although the City's

petition is not part of the record, the City appears to have raised the same three arguments it raised before the Commission. But the trial court, for reasons similar to the Commission's own, rejected the City's arguments. It later entered judgment against the City.

The City timely appealed.

DISCUSSION

Enacted by initiative in 1979, article XIII B, section 6 of the California Constitution requires the state to "provide a subvention of funds to reimburse" local agencies when it mandates their assistance in implementing a state program. It states: "Whenever the Legislature or any state agency mandates a new program or higher level of service on any local government, the State shall provide a subvention of funds to reimburse that local government for the costs of the program or increased level of service," with certain exceptions not relevant here. (Art. XIII B, § 6, subd. (a).) "Section 6 was intended to preclude the state from shifting to local agencies the financial responsibility for providing public services in view of the[] restrictions on the taxing and spending power of the local entities." (*Lucia Mar Unified School Dist. v. Honig* (1988) 44 Cal.3d 830, 835-836 (*Lucia Mar*).)

Our focus, in this case is on the meaning of the phrase "new program or higher level of service" as used in article XIII B, section 6. Our Supreme Court first interpreted this language several decades ago in *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46 (*County of Los Angeles*). It explained that the phrase covers two types of state laws—those that establish a "new program" and those that require a "higher level of service" for an existing program. (*Id.* at p. 56.) The court then, turning to the meaning of the term "program," "conclude[d] that the drafters and the electorate had in mind the commonly understood meanings of the term—programs that carry out the governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all

residents and entities in the state." (*Ibid.*; see also *San Diego Unified School Dist. v. Commission on State Mandates* (2004) 33 Cal.4th 859, 874 (*San Diego Unified*).)

In this appeal, as in the trial court, the City contends the Water Board's new permit condition requires establishment of a new or enhanced "program" under both tests described in *County of Los Angeles*. Starting with the first test concerning "programs that carry out the governmental function of providing services to the public," it contends the trial court should have found this test satisfied for two distinct reasons: first, "water service is a government function"; and second, testing for lead at schools is a "government function of ensuring safe schools." Turning next to the second test concerning laws that "impose unique requirements on local governments," the City contends the trial court also should have found this test satisfied because "water service is overwhelmingly engaged in by public agencies," with "81% of Californians get[ting] their water service from public entities."

I. The County of Los Angeles court's first test for the term "program"

We start with the City's contention that "water service is a government function" and thus satisfies the *County of Los Angeles* court's first test for the term "program."

Since the *County of Los Angeles* court first defined the term "program" over three decades ago, several courts have considered whether a new state law "carr[ies] out the governmental function of providing services to the public." (*County of Los Angeles, supra*, 43 Cal.3d at p. 56.) Considering these cases, we understand this test to require two inquiries. First, does the regulated conduct (here, the provision of water to schools) constitute a "governmental function"? And second, does the newly imposed requirement (here, lead testing of water at schools) provide a service to the public? (See *San Diego Unified, supra*, 33 Cal.4th at p. 870 [law requiring public schools to suspend students in certain circumstances carries out the governmental function of providing services to the public because "[p]roviding public schooling clearly constitutes a governmental function,

and enhancing the safety of those who attend such schools constitutes a service to the public"].)[1]

All parties, in this case, focus on the first question—that is, whether the provision of water constitutes a "governmental function." The City asserts it is. It principally supports its argument with several cases that have described water service as an important governmental function, though not in the context of article XIII B, section 6. It first cites the Supreme Court's decision in *Provident Inst. for Sav. v. City of Jersey City* (1885) 113 U.S. 506. The court there considered whether a city's property lien for unpaid water bills could have priority over a mortgage holder's later liens. (*Id.* at pp. 511-516.) In considering the question, the court in dicta stated: "The providing [of] a sufficient water supply for the inhabitants of a great and growing city is one of the highest functions of municipal government." (*Id.* at p. 516.) The City, as another example, also cites the California Supreme Court's decision in *Wilde v. City of Dunsmuir* (2020) 9 Cal.5th 1105. The court there considered whether "measures setting municipal water rates" are exempt from the voters' referendum power. (*Id.* at p. 1111.) It ultimately found they are, reasoning "that charges used to fund a city's provision of water, like other utility fees used to fund essential government services, are exempt from referendum." (*Id.* at p. 1124.) Based on these and similar cases, the City asserts that the provision of water is a "governmental function."

The Commission, the Water Board, and the Department of Finance, on the other hand, argue otherwise. They first characterize the City's offered cases as irrelevant because none concerned article XIII B, section 6. They then argue that the relevant consideration is not whether the provision of water is an important governmental function

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[1] Although we find this approach tracks the California Supreme Court's approach in *San Diego Unified*, we do not address whether this approach would be appropriate in all cases.

when the government provides it, but instead whether the provision of water is a "peculiarly governmental function." And focusing on this latter question, they contend the provision of water cannot be regarded as a peculiarly governmental function for three principal reasons. First, "the California Constitution permits, but does not require, local governments to become water providers." Second, "a significant proportion of water providers in the state are private." And third, unlike traditional governmental functions, "water service generally is provided only to paying customers, not the public at large."

We agree with all the parties in some respects. To start, we agree with the Commission, the Water Board, and the Department of Finance that the relevant inquiry focuses on functions peculiar to government. The general test for our purposes again, is whether the Water Board's new permit condition "carr[ies] out the governmental function of providing services to the public." (*County of Los Angeles*, *supra*, 43 Cal.3d at p. 56.) But when the *County of Los Angeles* court referred to a "governmental function," it did not mean any function that a governmental body happens to perform. It instead meant a function that is "peculiar to government." As the court explained, "the intent underlying section 6 was to require reimbursement to local agencies for the costs involved in carrying out functions peculiar to government, not for expenses incurred by local agencies as an incidental impact of laws that apply generally to all state residents and entities." (*Id.* at pp. 56-57.)

But although we agree with the Commission, the Water Board, and the Department of Finance in this respect, we ultimately find that the provision of water is peculiar to government. The phrase "peculiar to" means "exclusively or (formerly) particularly associated with, characteristic of, or belonging to." (Oxford English Dict. Online (3d ed. 2015) <https://www.oed.com/view/Entry/139494?redirectedFrom=peculiar+to#eid31421762> [as of Apr. 26, 2022]; see also Webster's 3d New Internat. Dict. (1993) p. 1663, col. 2 ["peculiar" means, among other things, "belonging exclusively or esp. to a person or

group"].) The Commission, the Water Board, and the Department of Finance appear to favor the first offering in this definition, "exclusively," arguing that "the provision of drinking water" is not peculiar to government because it "can be fulfilled by a private person or corporation." But that reading cannot be right. Our Supreme Court, for example, has found that "the education of handicapped children is clearly a governmental function providing a service to the public," even though the government is not the exclusive educator of these children. (*Lucia Mar, supra*, 44 Cal.3d at p. 835.) The court in *Carmel Valley Fire Protection Dist. v. State of California* (1987) 190 Cal.App.3d 521 (*Carmel Valley*), in similar fashion, concluded that "fire protection is a peculiarly governmental function," even though "there are private sector fire fighters." (*Id.* at p. 537.) And the court in *Department of Finance v. Commission on State Mandates* (2021) 59 Cal.App.5th 546 (*Department of Finance*), as a last example, found that "the installation and maintenance of trash receptacles at transit stops" is a "governmental function that provides services to the public," even though it acknowledged that "collecting trash at transit stops" is "typically," but not exclusively, "within the purview of government agencies." (*Id.* at pp. 558, 560.)

All these cases, and others too, demonstrate that a function can be "peculiar to" government even if it is not exclusive to government. (See, e.g., *Long Beach Unified Sch. Dist. v. State of California* (1990) 225 Cal.App.3d 155, 172 ["although numerous private schools exist, education in our society is considered to be a peculiarly governmental function"].) We are left, then, to consider the balance of the definition of "peculiar to," which again, is defined to mean "particularly associated with, characteristic of, or belonging to." (Oxford English Dict. Online (3d ed. 2015) <https://www.oed.com/view/Entry/139494?redirectedFrom=peculiar+to#eid31421762> [as of Apr. 26, 2022].) And considering the remainder of this definition, we find that water service is "peculiar to" local governments in that it is "particularly associated with" local governments. The Water Board's own data shows this to be true today, and over a

century's worth of case law and government publications indicate that the same has been true for many decades.

Before turning to the Water Board's current data, we start with historic practice. The history of municipal authorities in California supplying their residents with water is old—far older than the state itself. Municipal authorities in Los Angeles, for example, began doing so "as early as the year 1781" when "the Pueblo of Los Angeles was established by the Mexican Government." (*Feliz v. City of Los Angeles* (1881) 58 Cal. 73, 78-79.) Municipal authorities in San Diego, similarly, began supplying residents with water as early as 1834 when the Mexican government established the Pueblo of San Diego. (*City of San Diego v. Cuyamaca Water Co.* (1930) 209 Cal. 105, 111, 115 [" 'during the entire term of its existence,' " the " 'Pueblo of San Diego and the inhabitants thereof . . . enjoyed, asserted and exercised a preference or prior right to the use of the waters of [the] San Diego River for the benefit of said pueblo and the inhabitants thereof' "].) And many more local governments throughout California similarly began providing water to their residents many decades ago. (See, e.g., *City of Lodi v. East Bay Municipal Utility Dist.* (1936) 7 Cal.2d 316, 322 [East Bay Municipal Utility District has supplied water to residents in various cities in Alameda and Contra Costa Counties since 1923]; *id.* at p. 322 [the City of Lodi has operated a municipal water system since at least 1931]; *City and County of San Francisco v. Alameda County* (1936) 5 Cal.2d 243, 244 [the City and County of San Francisco has supplied its residents with water since 1930, when it purchased the rights and property of the private water company that had previously supplied water].)

Local governments, moreover, have continued to play a dominant role in supplying water since these early days in California history. In the years shortly before the enactment of article XIII B, section 6, for instance, residents in nearly all of California's largest cities received their water from municipal authorities. According to a 1962 water survey from the United States Department of the Interior, municipal

authorities supplied water to all but one of California's largest cities in that year. That included Los Angeles, San Diego, Fresno, Long Beach, Sacramento, Oakland, and San Francisco. (U.S. Dept. of Interior, Public Water Supplies of the 100 Largest Cities in the United States (1964), pp. 99-115, available at <https://pubs.usgs.gov/wsp/1812/report.pdf> [as of Apr. 26, 2022].) San Jose was the lone exception among the state's largest cities. (*Id.* at p. 117.)

Still today, Californians typically receive their water from municipal authorities. Although, according to the Water Board's data, most water systems in California are privately owned—5,313 of 6,970, or over 76 percent—these water systems serve only a small portion of California's total population—under 19 percent.[2] An overwhelming majority of Californians, on the other hand, around 80 percent, receive their water from publicly owned water systems. And although the Water Board evidently lacks data showing the percentage of K-12 schools that receive water from publicly and privately owned water systems, we have no reasons to suspect a lower percentage are receiving water from municipal authorities in this context. In fact, if anything, we have only reason to suspect a higher percentage in the school setting. After all, if municipal authorities

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[2] According to the Water Board's data, in 2018, 33,807,606 Californians received water from publicly owned water systems, 7,752,106 distinct Californians received water from privately owned water systems, and an unknown number of other Californians received water from private wells. For purposes here, we accept this data. We note, however, one peculiar detail with these figures: Per this data, and ignoring those served by private wells, California had a total population of 41,559,712 in 2018. But if that is true, then the Water Board's count of the state's population is around 2,000,000 higher than the Department of Finance's and the United States Census Bureau's own estimates. (Dept. of Finance, California Population Estimates, available at <https://dof.ca.gov/Forecasting/Demographics/Estimates/e-7/-1900-2021/> [as of Apr. 26, 2022] [39,476,000 in 2018 and 39,542,000 in 2020]; U.S. Census Bureau, California: 2020 Census, available at <https://www.census.gov/library/stories/state-by-state/california-population-change-between-census-decade.html> [as of Apr. 26, 2022] [39,538,223 in 2020].) Because none of the parties discuss this discrepancy, we decline to address it here.

supply water to around 80 percent of Californians when they operate less than 24 percent of all water systems, we would expect them to supply water to an even higher percentage in the school setting where they operate over 60 percent of the relevant water systems.

Considering these facts, we conclude that the Water Board's new condition establishes a "new program" within the meaning of article XIII B, section 6. The condition is "new," as all parties acknowledge, in that prior law did not require operators of public water systems to perform lead testing at schools. And it is a "program" in that it "carr[ies] out the governmental function of providing services to the public." (*County of Los Angeles, supra*, 43 Cal.3d at p. 56.) Again, the provision of drinking water to schools is a peculiarly governmental function and the mandated testing of this water for lead is plainly a service to the public. (See *Carmel Valley, supra*, 190 Cal.App.3d at p. 537 [finding fire protection peculiar to government because "the overwhelming number of fire fighters discharge a classical governmental function," even though some "private sector fire fighters" also exist]; cf. *San Diego Unified, supra*, 33 Cal.4th at p. 879 ["Providing public schooling clearly constitutes a governmental function, and enhancing the safety of those who attend such schools constitutes a service to the public."].)

Although the Commission, the Water Board, and the Department of Finance challenge this conclusion for several reasons, we find none of their arguments persuasive. First, as noted above, they argue that the provision of water is not peculiar to government, because "the California Constitution permits, but does not require, local governments to become water providers." Their premise is true—our Constitution does not require local governments to become water providers. (Cal. Const., art. XI, § 9.) But our Constitution also does not require local governments to provide firefighting services or trash services. And even so, courts have found both these services to be governmental functions. (*Department of Finance, supra*, 59 Cal.App.5th at p. 558 [trash service is a "governmental function"]; *Carmel Valley, supra*, 190 Cal.App.3d at p. 537 ["fire

protection is a peculiarly governmental function"].) We see no reason to find differently here.

Second, the Commission, the Water Board, and the Department of Finance also assert that the provision of water is not peculiar to government, because "a significant proportion of water providers in the state are private." Again, the premise is true—a significant proportion of water systems in California are privately owned. But as discussed, these water systems serve only a small portion of California's total population, under 19 percent, while publicly owned water systems serve an overwhelming majority of Californians, around 80 percent. We find the latter detail most relevant in considering whether water service is peculiar to (or particularly associated with) government. (See *Carmel Valley, supra*, 190 Cal.App.3d at p. 537 [finding fire protection peculiar to government because "the overwhelming number of fire fighters discharge a classical governmental function," even though some "private sector fire fighters" also exist].)

Third, the Commission, the Water Board, and the Department of Finance assert that the provision of water is not peculiar to government, because "water service generally is provided only to paying customers, not the public at large." But even if we accept their premise, their argument still falls short. Trash service, for instance, is generally provided only to paying customers. (See, e.g., Pub. Resources Code, § 40059, subd. (a)(1) ["each county, city, district, or other local governmental agency may determine" "[a]spects of solid waste handling which are of local concern, including, but not limited to, . . . charges and fees"].) But even so, trash service is still regarded as a "governmental function" (*Department of Finance, supra*, 59 Cal.App.5th at p. 558), and, once again, we see no reason to classify water service any differently.

Fourth, the Water Board and the Department of Finance contend the provision of water is not peculiar to government, because local governments must compensate private water providers when they encroach on these providers' territories. In their telling, "[i]f water service were a peculiarly government function, surely the Legislature would not

have created this disincentive to local governments to expand their water services." We find differently. It is true that, under California law, a political subdivision that extends its water service "to any service area of a private utility with the same type of service" has committed a taking of the property "to the extent that the private utility is injured. . . ." (Pub. Util. Code, § 1504.) But none of this shows that water service is not a function "peculiar" to government. It only shows that water service is not a function exclusive to government, with some private entities providing water service, and that the Legislature thought to protect the property rights of these private entities.

Lastly, the Commission asserts that even if the provision of water is peculiar to government, it is nonetheless not a "governmental function" because it is not "essential to local governments." But nothing in case law imposes this additional requirement. And were we nonetheless to accept the Commission's claim, we would be forced to question much of the existing case law on article XIII B, section 6. Trash service, for example, has been regarded as a governmental function. (*Department of Finance, supra*, 59 Cal.App.5th at p. 558.) But it is certainly not "essential to local governments." Firefighting service also has been regarded as a governmental function. (*Carmel Valley, supra*, 190 Cal.App.3d at p. 537.) But that too is not truly "essential to local governments." Many cities, indeed, rely on private fire departments, and yet these cities endure. (See *Ehart v. Odessa Fire Co.* (D. Del., Feb. 2, 2005, No. Civ.02-1618-SLR) 2005 WL 348311 at p. *4 ["outside the City of Wilmington, fire protection services in Delaware are provided by private volunteer fire companies"].) Rather than upend case precedent, we decline to endorse the Commission's new "essential to local governments" standard.

II. The County of Los Angeles court's second test for the term "program"

We turn next to the City's contention that the Water Board's new permit condition imposes "unique requirements" on local governments that do not apply generally to all

persons in the state—which ties to the *County of Los Angeles* court's second test for the term "program."

Two Courts of Appeal to date have found that a state law imposes "unique requirements" on local governments when it imposes its requirements in a field "overwhelmingly" or "typically" served by local governments. The court in *Carmel Valley, supra,* 190 Cal.App.3d 521 was the first. It considered an executive order requiring firefighters to be provided with protective clothing and safety equipment. (*Id.* at p. 530.) Applying the *County of Los Angeles* court's second test for the term "program," the court held that "[t]he requirements imposed on local governments are . . . unique because fire fighting is overwhelmingly engaged in by local agencies," even though "there are private sector fire fighters." (*Carmel Valley* at pp. 537-538.) It added that "the orders do not apply generally to all residents and entities in the State but only to those involved in fire fighting." (*Id.* at p. 538.)

The court in *Department of Finance, supra,* 59 Cal.App.5th 546 found similarly in a more recent decision. The court there considered a regional water quality control board permit that required certain parties to install and maintain trash receptacles at transit stops, among other things. (*Id.* at p. 552.) Applying the *County of Los Angeles* court's second test, the court found the "challenged requirements are unique to local governments in two ways." (*Department of Finance,* at p. 559.) Relevant here, it found the challenged requirements, including the requirement to "collect[] trash at transit stops," are unique to local governments because they "are, like the firefighting services in *Carmel Valley*, typically within the purview of government agencies." (*Id.* at p. 560.)

Both these cases favor a finding that the Water Board's new permit condition requires local governments to support a "program" under the second test described in *County of Los Angeles*. The Water Board's permit condition, again, only applies to operators of public water systems that supply water to K-12 schools. And the provision of water—both to the public generally and to K-12 schools specifically—is not only

"typically within the purview of government agencies" (*Department of Finance, supra*, 59 Cal.App.5th at p. 560); it is "overwhelmingly engaged in by local agencies" (*Carmel Valley, supra*, 190 Cal.App.3d at p. 538). Again, as discussed in more detail above, an overwhelming majority of Californians, around 80 percent, receive their water from publicly owned water systems.

Considering these facts, were we to follow the reasoning in *Carmel Valley* and *Department of Finance*, we would conclude that the Water Board's new condition establishes a "new program" under the second test described in *County of Los Angeles*. The condition is "new," again, in that prior law did not require operators of public water systems to perform lead testing at schools. And it is a "program" in the sense that the courts in *Carmel Valley* and *Department of Finance* construed the term—namely, borrowing language from the *Carmel Valley* court, it (1) imposes "unique" requirements on local governments "because [water service] is overwhelmingly engaged in by local agencies" and (2) "do[es] not apply generally to all persons in the State but only to those involved in [water service]." (*Carmel Valley, supra*, 190 Cal.App.3d at p. 538 [state mandate for fire fighters required a "new program" in that it (1) imposed "unique" requirements on local governments "because fire fighting is overwhelmingly engaged in by local agencies" and (2) "d[id] not apply generally to all residents and entities in the State but only to those involved in fire fighting"]; see also *Department of Finance, supra*, 59 Cal.App.5th at p. 560 [state mandate for trash collection imposed "unique" requirements on local governments because trash collection is "typically within the purview of government agencies"].)

We further find this true despite the Water Board's, the Department of Finance's, and the Commission's efforts to distinguish *Carmel Valley*. The Water Board and the Department of Finance first try to distinguish the case on the ground that *Carmel Valley* involved a rule that "was generally imposed only on public fire departments and not on 'private fire brigades.' " They cite a footnote in *Carmel Valley* to support their claim.

But all that footnote said was this: The "County suggests" that private fire brigades "customarily" consist of only part-time individuals, which, if true, would exclude these part-time individuals from the rule considered in the case. (*Carmel Valley, supra,* 190 Cal.App.3d at p. 537, fn. 11.) But none of this shows, as the Water Board and the Department of Finance assert, that the rule in *Carmel Valley* "was generally imposed only on public fire departments and not on 'private fire brigades.' " It only shows that the county in that case "suggest[ed]" an argument along those lines, which the court, for whatever reason, declined to fully address.

The Water Board and the Department of Finance, this time joined by the Commission, also argue that *Carmel Valley* is distinguishable because most water systems in California are privately owned, including many of those subject to the Water Board's new condition. But the relevant consideration under *Carmel Valley* is not simply that many private entities provide water service, including a substantial minority of those that are subject to the Water Board's new requirements. It is instead, as discussed, that local governments "overwhelmingly" provide water service in California. (See *Carmel Valley, supra,* 190 Cal.App.3d at p. 538; see also *Department of Finance, supra,* 59 Cal.App.5th at p. 560.) Again, according to the Water Board's own data, local governments supply an overwhelming majority of Californians, around 80 percent, with their water. And these local governments, as all parties appear to accept, will overwhelmingly shoulder the costs of complying with the Water Board's new requirements. Considering these facts, we find the Commission's, the Water Board's, and the Department of Finance's efforts to distinguish *Carmel Valley* fall short.

But that said, we stop short of applying the reasoning of *Carmel Valley* and *Department of Finance* to our facts. Both courts, again, found that a state law imposes "unique requirements" on local governments when it imposes its requirements in a field "overwhelmingly" or "typically" served by local governments. But that conclusion does not square with a literal reading of the term "unique," which, at least traditionally, has

meant "being the only one" or "being without a like or equal." (Webster's 3d New Internat. Dict. (1993) p. 2550, col. 2; see also *Solis v. Jasmine Hall Care Homes, Inc.* (9th Cir. 2010) 610 F.3d 541, 545 (*Solis*) [stating that " 'unique' " means " 'being the only one of its kind' "].) Applying this narrow definition, no requirement could be characterized as "unique" to local governments so long as a single private counterpart existed. And so, if that definition applied here, we could not say that the Water Board's requirement is truly "unique" to local government.

We acknowledge, however, that courts have often used the term "unique" to mean something other than "unique" in the traditional sense. In *Gordon v. Landau* (1958) 49 Cal.2d 690, for example, our Supreme Court discussed a business that had "unique" customers because "they are mostly persons in the low-income brackets." (*Id.* at p. 691.) But these customers were of course not "unique" in the sense that no other business had customers consisting of "mostly persons in the low-income brackets"; they were instead unusual customers for the typical business. In *People v. Archerd* (1970) 3 Cal.3d 615, 620, disapproved of on another ground in *People v. Nelson* (2008) 43 Cal.4th 1242, similarly, the court discussed several murders that were committed with a "unique [weapon], insulin." But the murders were surely not "unique" in the sense that no other murders had ever been committed in a similar fashion; they were instead highly unusual.

All these cases, and many more still, have used the term "unique" in a manner that exceeded its traditional definition. (See, e.g., *Solis, supra*, 610 F.3d at p. 545 [finding the Supreme Court used the term "unique" to "mean[] something like 'exceedingly rare' rather than literally 'unique' "].) And although some may believe these cases used the term in an inappropriate manner—a manner that equates "unique" with uncommon or unusual rather than one of a kind—it is nonetheless a usage that is "in extended use." (Oxford English Dict. Online (3d ed. 2015) <https://www.oed.com/view/Entry/214712?redirectedFrom=unique#eid> [as of Apr. 26, 2022] [noting that use of the term "unique" to mean "uncommon, unusual, remarkable" is

"in extended use"]; see also Merriam-Webster's Collegiate Dict. (11th ed. 2006) pp. 1368-1369 [noting that "unique" traditionally meant "being the only one" or "being without a like or equal," but "[w]ith popular use came a broadening of application" that now includes unusual].) Considering this common use of the term, perhaps the courts in *Carmel Valley* and *Department of Finance* appropriately construed the term "unique," as used in *County of Los Angeles*, in a similarly broad fashion. But because we find the Water Board's permit condition establishes a new "program" under the first test described in *County of Los Angeles*, we need not resolve whether it also establishes a new "program" under the court's second ("unique requirements") test. Nor, for similar reasons, need we address the City's alternative claim that testing for lead at schools is a "government function of ensuring safe schools."

III. Remedy

Although we conclude that the Water Board's new testing requirements establish "a new program" within the meaning article XIII B, section 6, none of this is to say that the City is necessarily entitled to reimbursement for the cost of compliance. The City, for instance, would not be entitled to reimbursement if it has authority to levy charges, fees, or assessments sufficient to cover the costs of complying with the Water Board's new condition—a topic the Commission never considered in the administrative proceedings below. (See, e.g., *County of Fresno v. State of California* (1991) 53 Cal.3d 482, 487 [no reimbursement required if "the local government 'has the authority to levy service charges, fees, or assessments sufficient to pay for the mandated program or increased level of service' "].) We leave it to the Commission to consider in the first instance whether reimbursement is appropriate under these circumstances. (See *Lucia Mar, supra*, 44 Cal.3d at p. 837 [finding remand to the Commission appropriate under similar circumstances; the Commission is "charged . . . with the duty to decide in the first instance whether a local agency is entitled to reimbursement under section 6 of article XIIIB"].)

DISPOSITION

The trial court's judgment is reversed, and the court is directed to remand the matter to the Commission for further proceedings consistent with this opinion. The City is entitled to recover its costs on appeal. (Cal. Rules of Court, rule 8.278(a).)

\s\,
BLEASE, Acting P. J.

We concur:

\s\,
DUARTE, J.

\s\,
KRAUSE, J.

CONCURRENCE IN SENATE AMENDMENTS
AB 746 (Gonzalez Fletcher, et al.)
As Amended September 8, 2017
Majority vote

ASSEMBLY: 76-0 (May 31, 2017) SENATE: 40-0 (September 12, 2017)

Original Committee Reference: **E.S. & T.M.**

SUMMARY: Requires drinking water to be tested for lead at schoolsites. Specifically, **this bill**:

1) Requires a community water system (CWS) that serves a schoolsite built before January 1, 2010, to test for lead in the potable water system of the schoolsite on or before July 1, 2019.

2) Requires the CWS to report its findings to the schoolsite within 10 business days after the CWS receives the test results, or within two business days if the test results indicate the schoolsite's lead levels in exceedance of 15 parts per billion (ppb).

3) Requires the CWS, when the lead level exceeds 15ppb, to test a water sample from the point in which the schoolsite connects to the CWS's supply network to determine the lead level of the water entering the schoolsite from the CWS's water supply.

4) Requires a local education agency (LEA) to notify parents and guardians of the pupils who attend the schoolsite where the elevated lead levels are found. Requires the LEA, when the lead level exceeds 15ppb, to take immediate steps to make inoperable and shut down from use all foundations and faucets where the excess lead levels may exist. States that additional testing may be required to determine if all or just some of the school's fountains and faucets are required to be shut down.

5) Requires each LEA to work with the schoolsites within its service area to ensure that a potable source of drinking water is provided for students where faucets or fountains have been shut down. Requires each CWS, in cooperation with the LEA, to prepare a sampling plan for each schoolsite where lead sampling is required.

6) Exempts schoolsites built or modernized after January 1, 2010; LEAs that are permitted as a public water system and are currently testing water for lead; LEAs that completed lead testing after January 1, 2009, and posted information about the lead testing on-line; and, LEAs that have requested testing from its CWS consistent with the testing prescribed by this bill.

7) Sunsets the provisions of the bill on July 1, 2019.

The Senate amendments:

1) Change, from January 1, 1993, to January 1, 2010, the construction date by which schoolsites must be tested for lead.

2) Strike the requirement that the LEA be responsible for lead testing at schoolsites and replace with requirement that the CWS to be responsible for the lead testing.

3) Delete the requirement that an LEA, when notifying parents and guardians of pupils about detection of elevated lead levels, also provide information on lead developed by an agency with expertise on lead.

4) Delete the requirement that every potable water system at a schoolsite be tested if a test reveals that a schoolsite's lead level is greater than five parts per billion and replace with a statement that additional testing may be required to determine if all or just some of the school's fountains and faucets are required to be shut down.

5) Establish exemptions for specific schoolsites and LEAs from the lead testing requirements.

6) Establish a sunset date of July 1, 2019.

EXISTING LAW:

1) Requires, pursuant to the federal Lead and Copper Rule (LCR), that all public drinking water systems regularly test a sample of high-risk homes for lead at the tap.

2) Requires, pursuant to the Lead-Safe Schools Protection Act, that the California Department of Public Health work with the California Department of Education to develop voluntary guidelines for distribution to request schools to ensure that lead hazards are minimized in the course of school repair and maintenance programs and abatement procedures.

3) Requires a school district to provide access to free, fresh drinking water during meal times in the food service areas of the schools under its jurisdiction, including, but not necessarily limited to, areas where reimbursable meals under the National School Lunch Program or the federal School Breakfast Program are served or consumed. Authorizes a school district to comply with this requirement by, among other means, providing cups and containers of water or soliciting or receiving donated bottled water.

4) Requires the provision of at least one drinking fountain for every 150 people on a school campus.

5) Requires a school district to notify parents, pupils, teachers, and other school personnel of drinking water results immediately if the school district is required to provide alternative drinking water sources.

FISCAL EFFECT: According to the Senate Appropriations Committee, enactment of this bill could result in unknown state reimbursable mandated costs, potentially ranging from the high hundreds of thousands to more than a million dollars in Proposition 98 General Funds, for school districts to test for lead at every schoolsite and to provide notifications to parents and guardians of the test results. Free water lead testing currently provided by the State Water Resources Control Board (State Water Board), while more limited in scope compared to the bill's requirements, may offset the mandate.

COMMENTS: *The problem with lead*: Lead has been listed under California's Proposition 65 since 1987 as a substance that can cause reproductive damage and birth defects and has been on the list of chemicals known to cause cancer since 1992. Even at low levels, lead may cause a range of health effects including behavioral problems and learning disabilities. Children six years old and younger are most at risk because this is when the brain is developing. The U.S.

Environmental Protection Agency estimates that 10% to 20% of the total lead exposure for young children comes from drinking water.

Lead in water: The most prevalent sources of lead in drinking water are from pipes, fixtures, and associated hardware from which the lead can leach. The amount of lead in tap water can depend on several factors, including the age and material of the pipes, concentration of lead in water delivered by the public utility, and corrosivity of the water. More corrosive water can cause greater leaching from pipes. As pipes age, mineral deposits will form a coating on the inside of the pipes that protect against further corrosion. However, older buildings with lead pipes can still have significant concentrations of lead in their tap water.

Recent events have highlighted lead in school water: In February 2017, the safety of drinking water was questioned after elevated levels of lead, copper, and bacteria were discovered at three campuses in the San Ysidro School District. In addition, Folsom Cordova Unified started testing water last year at schools built before 1960 that have galvanized steel pipes. The testing was prompted by elevated levels of copper, iron, and lead in water coming from a classroom tap in 2015 at Cordova Lane Center, which serves preschoolers and special education students.

Because testing drinking water at schools is not mandatory, it is unknown whether these are isolated incidents or roughly representative of school districts around the state. Conducting sample tests at each schoolsite is one way to determine the scope of the problem.

Funding for lead testing: On January 17, 2017, the State Water Board announced that all K-12 schools in the state can receive free testing for lead under a new initiative. The State Water Board is requiring all CWSs to test school drinking water upon request by the school's officials. Under this initiative, CWSs are now required to collect and analyze up to five water samples from drinking water fountains and regularly-used drinking water faucets at a school. This voluntary lead sampling program is a resource available to school districts that wish to test for the presence of lead in the drinking water at schoolsites.

Analysis Prepared by: Paige Brokaw / E.S. & T.M. / (916) 319-3965 FN: 0002233

STATE WATER RESOURCES CONTROL BOARD

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

Policy for Implementing the Drinking Water State Revolving Fund

Amended
December 3, 2019

Prepared by:

THE DIVISION OF FINANCIAL ASSISTANCE

STATE WATER RESOURCES CONTROL BOARD

STATE OF CALIFORNIA

Amended December 3, 2019

I. INTRODUCTION

This Policy is adopted for the State Water Resource Control Board's (State Water Board) implementation of the 1996 Amendments to the federal Safe Drinking Water Act (SDWA), which created the Drinking Water State Revolving Fund (DWSRF) program. The program is intended to provide financial assistance in perpetuity using federal and state funds. The DWSRF provides various types of assistance for Public Water Systems (PWS), including projects that: (1) address or prevent future public health risk problems, (2) are needed to comply with the SDWA, and (3) assist those most in need on a per household affordability basis. The federal DWSRF provides Capitalization Grants to states that may be used to provide loans and other assistance to PWSs. The DWSRF program was initially implemented by the California Department of Health Services, and subsequently transferred to the State Department of Public Health. As of July 1, 2014, the program is implemented by the State Water Board.

The California statutory basis for the DWSRF is established in Sections 116760 – 116762.60 of the Health and Safety Code.

Notwithstanding any provision of this Policy, the State Water Board will implement the DWSRF program consistent with federal law and policy, and state law and policy.

The provisions of this Policy are effective February 5, 2019, unless otherwise required by federal or state statute, guidance, regulation, or agreement.

II. PURPOSE AND OBJECTIVE

Under federal and state law the primary purpose of the DWSRF is to assist PWSs in financing the cost of drinking water infrastructure projects needed to achieve or maintain compliance with SDWA requirements and to further the public health objectives of the SDWA.

III. HUMAN RIGHT TO WATER

Section 106.3 of the Water Code provides that it is the policy of the state that every human being has the right to safe, clean, affordable and accessible water adequate for human consumption, cooking, and sanitary purposes. This section requires the State Water Board to consider this state policy when adopting policies and grant criteria. The State Water Board has considered the provisions of Section 106.3 of the Water Code in establishing this Policy.

IV. CLIMATE CHANGE

The State Water Board also seeks to reduce the effects of climate change and to promote sustainable water resources for future generations. In 2017 the State Water Board adopted Resolution No. 2017-0012 specifying a range of actions the State Water Board's divisions and offices will take to implement its climate change program. This Policy is designed to support those efforts.

2017 Cal. Legis. Serv. Ch. 746 (A.B. 746) (WEST)

CALIFORNIA 2017 LEGISLATIVE SERVICE

2017 Portion of 2017-2018 Regular Session

Additions are indicated by **Text**; deletions by
~~* * *~~ .
Vetoes are indicated by ~~Text~~ ;
stricken material by ~~**Text**~~ .

CHAPTER 746
A.B. No. 746
HEALTH AND SANITATION—WATER POLLUTION

AN ACT to add and repeal Section 116277 of the Health and Safety Code, relating to public health.

[Filed with Secretary of State October 13, 2017.]

LEGISLATIVE COUNSEL'S DIGEST

AB 746, Gonzalez Fletcher. Public health: potable water systems: lead testing: schoolsites.

Existing law, the California Safe Drinking Water Act, requires the State Water Resources Control Board to administer provisions relating to the regulation of drinking water to protect public health, including, but not limited to, conducting research, studies, and demonstration programs relating to the provision of a dependable, safe supply of drinking water, enforcing the federal Safe Drinking Water Act, adopting implementing regulations, and conducting studies and investigations to assess the quality of water in private domestic water supplies. The act requires the state board to establish a grant program, in consultation with the State Department of Education, to award grants to local educational agencies for the purposes of improving access to, and the quality of, drinking water in public schools serving kindergarten or any of grades 1 to 12, inclusive, and preschools and child day care facilities located on public school property.

This bill would require a community water system that serves a schoolsite of a local educational agency with a building constructed before January 1, 2010, to test for lead in the potable water system of the schoolsite before January 1, 2019. The bill would require the community water system to report its findings to the schoolsite, as specified, and, if the schoolsite's lead level exceeds a certain level, to test a water sample from the point at which the schoolsite connects to the community water system's supply network. The bill would require the local educational agency, if the lead level exceeds the specified level at a schoolsite, to notify the parents and guardians of the pupils who attend the schoolsite or preschool. The bill would require the local educational agency to take immediate steps to make inoperable and shut down from use all fountains and faucets where the excess lead levels may exist and would require the local educational agency to work with the school site to ensure that a potable source of drinking water is provided for students. The bill would require a community water system to prepare a sampling plan for each schoolsite where lead sampling is required under these provisions. By imposing additional duties on local educational agencies, this bill would impose a state-mandated local program.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

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This bill would provide that, if the Commission on State Mandates determines that the bill contains costs mandated by the state, reimbursement for those costs shall be made pursuant to the statutory provisions noted above.

The people of the State of California do enact as follows:

SECTION 1. Section 116277 is added to the Health and Safety Code, to read:

<< CA HLTH & S § 116277 >>

116277. (a)(1) A community water system that serves a schoolsite of a local educational agency with a building constructed before January 1, 2010, on that schoolsite shall test for lead in the potable water system of the schoolsite on or before July 1, 2019.

(2) The community water system shall report its findings to the schoolsite within 10 business days after the community water system receives the results from the testing laboratory or within two business days if it is found that the schoolsite's lead level exceeds 15 parts per billion.

(3) If the lead level exceeds 15 parts per billion, the community water system shall also test a water sample from the point in which the schoolsite connects to the community water system's supply network to determine the lead level of the water entering the schoolsite from the community water system's water supply network.

(b)(1) A local educational agency shall allow the community water system access to each of the local educational agency's schoolsites that are subject to subdivision (a) to conduct testing.

(2) If the lead level exceeds 15 parts per billion, the local educational agency shall notify the parents and guardians of the pupils who attend the schoolsite or preschool where the elevated lead levels are found.

(c)(1) If lead levels exceed 15 parts per billion, the local educational agency shall take immediate steps to make inoperable and shut down from use all fountains and faucets where the excess lead levels may exist. Additional testing may be required to determine if all or just some of the school's fountains and faucets are required to be shut down.

(2) Each local educational agency shall work with the schoolsites within its service area to ensure that a potable source of drinking water is provided for students at each schoolsite where fountains or faucets have been shut down due to elevated lead levels. Providing a potable source of drinking water may include, but is not limited to, replacing any pipes or fixtures that are contributing to the elevated lead levels, providing onsite water filtration, or providing bottled water as a short-term remedy.

(d) Each community water system, in cooperation with the appropriate corresponding local educational agency, shall prepare a sampling plan for each schoolsite where lead sampling is required under subdivision (a). The community water system and the local educational agency may request assistance from the state board or any local health agency responsible for regulating community water systems in developing the plan.

(e) This section shall not apply to a schoolsite that is subject to any of the following:

(1) The schoolsite was constructed or modernized after January 1, 2010.

(2) The local educational agency of the schoolsite is currently permitted as a public water system and is currently required to test for lead in the potable water system.

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(3) The local educational agency completed lead testing of the potable water system after January 1, 2009, and posts information about the lead testing on the local educational agency's public Internet Web site, including, at a minimum, identifying any schoolsite where the level of lead in drinking water exceeds 15 parts per billion.

(4) The local educational agency has requested testing from its community water system consistent with the requirements of this section.

(f) For purposes of this section, the following definitions apply:

(1) “Local educational agency” means a school district, county office of education, or charter school located in a public facility.

(2) “Potable water system” means water fountains and faucets used for drinking or preparing food.

(g) This section shall become inoperative on July 1, 2019, and, as of January 1, 2020, is repealed.

SEC. 2. If the Commission on State Mandates determines that this act contains costs mandated by the state, reimbursement to local agencies and school districts for those costs shall be made pursuant to Part 7 (commencing with Section 17500) of Division 4 of Title 2 of the Government Code.

End of Document

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United States Environmental Protection Agency

Lead and Copper Rule: A Quick Reference Guide

Overview of the Rule

Title[1]	Lead and Copper Rule (LCR)[2], 56 FR 26460 - 26564, June 7, 1991
Purpose	Protect public health by minimizing lead (Pb) and copper (Cu) levels in drinking water, primarily by reducing water corrosivity. Pb and Cu enter drinking water mainly from corrosion of Pb and Cu containing plumbing materials.
General Description	Establishes action level (AL) of 0.015 mg/L for Pb and 1.3 mg/L for Cu based on 90th percentile level of tap water samples. An AL exceedance is not a violation but can trigger other requirements that include water quality parameter (WQP) monitoring, corrosion control treatment (CCT), source water monitoring/treatment, public education, and lead service line replacement (LSLR).
Utilities Covered	All community water systems (CWSs) and non-transient non-community water systems (NTNCWSs) are subject to the LCR requirements.

Public Health Benefits

Implementation of the LCR has resulted in	► Reduction in risk of exposure to Pb that can cause damage to brain, red blood cells, and kidneys, especially for young children and pregnant women. ► Reduction in risk of exposure to Cu that can cause stomach and intestinal distress, liver or kidney damage, and complications of Wilson's disease in genetically predisposed people.

Major Monitoring Provisions

Lead and Copper Tap

Applicability	► All CWSs and NTNCWSs.
Standard	► CWSs and NTNCWSs must collect first-draw samples at taps in homes/buildings that are at high risk of Pb/Cu contamination as identified in 40 CFR 141.86(a). ► Number of samples is based on system size (see Table 1). ► Systems must conduct monitoring every 6 months unless they qualify for reduced monitoring.
Reduced	► See Table 1 for sample number and Table 2 for criteria.

Water Quality Parameter (WQP)

Applicability	► Systems serving > 50,000 people. ► Systems serving ≤ 50,000 during monitoring periods in which either AL is exceeded.
Standard	► WQP samples at taps are collected every 6 months. ► WQPs at entry points to distribution system (EPTDS) are collected every 6 months prior to CCT installation, then every 2 weeks.
Reduced	► See Table 1 for sample number and page 2 for criteria. Does not apply to EPTDS WQP monitoring.

Table 1: Lead and Copper Tap and WQP Tap Monitoring

Size Category	System Size	Number of Pb/Cu Tap Sample Sites[3]		Number of WQP Tap Sample Sites[4]	
		Standard	Reduced	Standard	Reduced
Large	> 100K	100	50	25	10
	50,001 - 100K	60	30	10	7
Medium	10,001 - 50K	60	30	10	7
	3,301 - 10K	40	20	3	3
Small	501 - 3,300	20	10	2	2
	101 - 500	10	5	1	1
	≤ 100	5	5	1	1

[3] With written State approval, PWSs can collect < 5 samples if all taps used for human consumption are sampled.
[4] Two WQP tap samples are collected at each sampling site.

Table 2: Criteria for Reduced Pb/Cu Tap Monitoring

Annual	1. PWS serves ≤ 50,000 people and is ≤ both ALs for 2 consecutive 6-month monitoring periods; or 2. Any PWS that meets optimal WQPs (OWQPs) and is ≤ Pb AL for 2 consecutive 6-month monitoring periods.
Triennial	1. PWS serves ≤ 50,000 people and is ≤ both ALs for 3 consecutive years of monitoring; or 2. Any PWS that meets OWQP specifications and is ≤ Pb AL for 3 consecutive years of monitoring; or 3. Any PWS with 90th percentile Pb and Cu levels ≤ 0.005 mg/L and ≤ 0.65 mg/L, respectively, for 2 consecutive 6-month monitoring periods (i.e., accelerated reduced Pb/Cu tap monitoring).
Every 9 years	PWS serves ≤ 3,300 people and meets monitoring waiver criteria found at 40 CFR 141.86(g).

Lead Consumer Notice

Within 30 days of learning the results, all systems must provide individual Pb tap results to people who receive water from sites that were sampled, *regardless of whether the results exceed the Pb AL*, as required by 40 CFR 141.85(d).

Consumer Confidence Report (CCR)

All CWSs, irrespective of their lead levels, must provide an educational statement about lead in drinking water in their CCRs as required by 40 CFR 141.154. Must be in 2008 CCR (due July 1, 2009) if EPA is Primacy Agency, State adopts the rule by reference automatically, or adopts during 2008. Otherwise, this statement is required in the 2009 CCR (due July 1, 2010).

[1] This document provides a summary of federal drinking water requirements; to ensure full compliance, please consult the federal regulations at 40 CFR 141 and any approved state requirements.

[2] The June 1991 LCR was revised with the following Technical Amendments: 56 FR 32112, July 15, 1991; 57 FR 28785, June 29, 1992; 59 FR 33860, June 30, 1994.

It was subsequently revised by: the LCR Minor Revisions, 65 FR 1950, January 12, 2000; and the LCR Short-Term Revisions, 72 FR 57782, October 10, 2007.

Treatment Technique and Sampling Requirements if the AL is Exceeded[5]

[5] Based on 90th percentile level. Multiply number of valid samples by 0.9 (e.g., 10 samples x 0.9 = 9; thus, use 9th highest Pb and Cu test result to compare to AL). For 5 samples, average 4th and 5th highest results. For < 5 samples, use highest result.

Water Quality Parameter (WQP)	
Applicability	Refer to page 1.
Parameters	► pH, alkalinity, calcium *(initial only, unless calcium carbonate stabilization is used)*, conductivity *(initial monitoring only)*, orthophosphate *(if inhibitor is phosphate-based)*; silica *(if inhibitor is silicate-based)*, and temperature *(initial monitoring only)*.
Frequency	► Systems installing CCT, must conduct follow-up monitoring for 2 consecutive 6-month periods. ► WQP tap monitoring is conducted every 6 months, EPTDS monitoring increases to every 2 weeks. ► After follow-up monitoring, State sets OWQP specifications that define optimal CCT.
Reduced Tap Monitoring	► Collect reduced number of sampling sites (see Table 1) if meet OWQPs for 2 consecutive 6-month periods. ► Collect reduced number of sampling sites at reduced frequency if meet OWQPs for: – 6 consecutive 6-month monitoring periods can monitor annually; – 3 consecutive years of annual monitoring can monitor triennially.
Public Education (PE)	
Applicability	► Systems that exceed the Pb AL (*not required if only the Cu AL is exceeded*).
Purpose	► Educates consumers about lead health effects, sources, and steps to minimize exposure.
Delivery Method	► CWSs: deliver materials to bill-paying customers and post lead information on water bills, work in concert with local health agencies to reach at-risk populations (children, pregnant woman), deliver to other organizations serving "at-risk" populations, provide press releases, include new outreach activities from list in 40 CFR 141.85(a)(2)(vi), and post to Web site (CWSs serving > 100,000 only). ► NTNCWSs: posting and distribution to all consumers (can be electronic with State permission). Can apply to CWSs such as hospitals and prisons where population cannot make improvements.
Timing	► Within 60 days *after end of monitoring period* in which Pb AL was exceeded if not already delivering PE.[6] ► Repeat annually except: water bill inserts - quarterly; press releases - 2x/year, and Web posting - continuous. ► Can discontinue whenever ≤ Pb AL but must recommence if subsequently exceed Pb AL.
[6] State may allow extension in some situations. Also, State may require approval of message content prior to delivery.	
Source Water Monitoring and Source Water Treatment (SOWT)	
Applicability	► Systems that exceed Pb or Cu AL.
Purpose	► Determine contribution from source water to total tap water Pb and Cu levels and need for SOWT.
Timing	► One set of samples at each EPTDS is due within 6 months of first AL exceedance. ► System has 24 months to install any required SOWT. ► State sets maximum permissible levels (MPLs) for Pb and Cu in source water based on initial and follow-up source water monitoring.
Standard	► Ground water PWSs monitor once during 3-year compliance periods; surface water PWSs monitor annually.
Reduced	► Monitor every 9 years if MPLs are not exceeded during 3 consecutive compliance periods for ground water PWSs or 3 consecutive years for surface water PWSs.
Corrosion Control Treatment (CCT)	
Applicability	► All large systems except those meeting requirements of 40 CFR 141.81(b)(2) or (b)(3). ► Medium and small systems that exceed either AL; may stop CCT steps if ≤ both ALs for 2 consecutive 6-month periods but must recommence CCT if subsequently exceed either AL.
Study	► All large systems except as noted above. ► If State requires study for small or medium systems, it must be completed within 18 months.
Treatment	► Once State determines type of CCT to be installed, PWS has 24 months to install. ► Systems installing CCT must conduct 2 consecutive 6 months of follow-up tap and WQP monitoring.
OWQPs	► After follow-up Pb/Cu tap and WQP monitoring, State sets OWQPs. *Refer to WQP section above.*
Lead Service Line Replacement (LSLR)	
Applicability	► Systems that continue to exceed the Pb AL after installing CCT and/or SOWT. ► Can discontinue LSLR whenever ≤ Pb AL in tap samples for 2 consecutive 6-month monitoring periods; must recommence if subsequently exceed.
Monitoring	► Optional: Sample from LSL to determine if line must be replaced. If all samples are ≤ 0.015 mg/L, line is considered "replaced through testing"; must reconsider these lines if Pb AL is subsequently exceeded. ► Required: Sample from any LSLs not completely replaced to determine impact on Pb levels.
Replacement	► Must replace at least 7% of LSLs annually; State can require accelerated schedule. ► If only portion of LSL is replaced, PWS must: – Notify customers at least 45 days prior to replacement about potential for increased Pb levels. – Collect samples within 72 hours of replacement and provide results within 3 days of receipt.

For additional information on the LCR

Call the Safe Drinking Water Hotline at 1-800-426-4791; visit the EPA Web site at http://water.epa.gov/drink; or contact your State drinking water representative.

National Institute of Environmental Health Sciences
Your Environment. Your Health.

(https://www.niehs.nih.gov)

Lead

For Grantees and Researchers

NIEHS funding announcements *(/funding/grants/announcements/announcements/index.cfm)*, including time-sensitive research opportunities.

Disaster Research Response *(https://dr2.nlm.nih.gov/)*. A disaster research system consisting of coordinated environmental health disaster research data collection tools and a network of trained research responders.

Introduction

What is lead?

Lead is a naturally occurring metal found deep within the ground. It occurs in small amounts in ore, along with other elements such as silver, zinc or copper. Even though it's found in small amounts, there is an abundant supply of lead throughout the earth. Because it is widespread, easy to extract and easy to work with, lead has been used in a wide variety of products including:

- Paint
- Ceramics
- Pipes
- Solders
- Gasoline
- Batteries
- Cosmetics

Since 1980, federal and state regulatory standards have helped to minimize or eliminate the amount of lead in consumer products and occupational settings.

Today, however, the most common sources of lead exposure in the United States are:

- Lead-based paint in older homes
- Contaminated soil

Flint, Michigan - 2016

The U.S. Department of Health and Human Services (HHS) has been designated the lead federal agency responsible for coordinating federal government response and recovery efforts in Flint, Michigan. Flint is in the midst of a serious public health crisis, with high levels of lead in its water supply. HHS' role is to mobilize and coordinate the federal government's efforts to support the Flint community and the State of Michigan in addressing this public health crisis.

- HHS: Contaminated Water in Flint *(https://www.phe.gov/emergency/events/flint/pages/default.aspx)*
- Flint, Michigan, Water Contamination Crisis *(https://www.phe.gov/emergency/events/Flint/Pages/USGresponse-3Feb16.aspx)*
- American Journal of Public Health: Elevated Blood Lead Levels in Children Associated With the Flint Drinking Water Crisis *(http://ajph.aphapublications.org/doi/full/10.2105/AJPH.2015.303003)*

NIEHS's Kimberly Gray, Ph.D. joins other experts at February 2016 Harvard School of Public Health Webinar:

Chemical Exposures and the Brain: The

- Household dust
- Drinking water
- Lead crystal
- Lead-glazed pottery

Chemical Exposures and the Brain: The Flint Water Crisis and More *(https://theforum.sph.harvard.edu/events/chemical-exposures-and-the-brain/)*

What are some of the health effects associated with lead exposure?

The 2012 National Toxicology Program (NTP) *(https://ntp.niehs.nih.gov/)* literature-based monograph on health effects of low-level lead provides this information on health effects: Health Effects of Low-Level Lead *(https://ntp.niehs.nih.gov/pubhealth/hat/noms/lead/index.html)*.

Where is lead found now?

Lead can still be found in lead-based paint used in older homes, contaminated soil, household dust, drinking water pumped through leaded pipes, lead crystal, lead-glazed pottery, airplane fuel, some toys, and some inexpensive metal jewelry. Until 1978, lead paint was commonly used on the interior and exterior of homes. Deteriorated lead paint in older housing remains the most common source of lead exposure for children in the United States.

How does lead get into the body?

Lead can get into your body in two ways — through breathing it in or by eating it. For example, lead can enter the body through eating or inhaling paint dust or chips. The soil around your home can pick up lead from sources such as exterior paint. Lead can also enter your drinking water through your plumbing.

How much lead is harmful?

No amount of lead is safe. Eliminating all lead exposure in our environment is our best course of action.

New findings from NIEHS-supported grantees, as well asNTP have found many adverse health effects in both children and adults at blood lead levels below 10 micrograms per deciliter (µg/dL) and for some below 5 µg/dL.

These findings add to the body of evidence that have led the Lead (CDC) *(https://www.cdc.gov/lead/)* in 2012 to now advise that any child with more than 5 micrograms per deciliter of lead in their blood to be considered at risk and that public health actions should be initiated.

What are the effects of lead in children?

Exposure to lead can have a wide range of effects on a child's development and behavior. Blood lead levels less than 10 micrograms per deciliter (µg/dL) are associated with increased behavioral effects, delayed puberty, and decreases in hearing, cognitive performance, and postnatal growth or height. Some of these health effects are found even at low blood lead levels less than 5 µg/dL, including lower IQ scores, decreased academic achievement, and increases in both behavioral problems and attention-related behaviors. There is a wide range of lead-associated behavioral effects in the area of attention. Attention deficit hyperactivity disorder (ADHD) is one example on the more severe end of the spectrum.

What are the health effects of lead in adults?

Lead exposure has been linked to a number of health effects in adults. As a general rule, the more lead you have in your body, the more likely it is you'll have health problems. High blood lead levels greater than 15 µg/dL are associated with cardiovascular effects, nerve disorders, decreased kidney function, and fertility

μg/dL are associated with cardiovascular effects, nerve disorders, decreased kidney function, and fertility problems, including delayed conception and adverse effects on sperm and semen, such as lower sperm counts and motility.

Blood lead levels below10 μg/dL are associated with decreased kidney function and increases in blood pressure, hypertension, and incidence of essential tremor, a degenerative disorder of the central nervous system whose most recognizable feature is a tremor of the arms or hands during voluntary movements, such as eating and writing. There is also evidence showing that adults who have low levels of exposure to lead less than 5 μg/dL may have decreased kidney function. Pregnant women need to be particularly careful around lead. Maternal blood lead levels less than 5 μg/dL are associated with reduced fetal growth. Because the effects of lead are different for everyone, more research needs to be done to fully understand the health effects.

A 2004 study, supported by NIEHS, also showed that lifetime lead exposure may increase the risk of developing cataracts,3 a clouding of the eye lens resulting in partial loss of vision, which can be common in older people.

Most adults with elevated blood lead levels are exposed to lead at work. Those in occupations related to mining, ironwork or welding, construction, renovation and remodeling activities, smelters, firing ranges, the manufacture and disposal of car batteries, automobile radiator repair, metal shop work, and the manufacture of pottery or stained glass are particularly at risk for lead exposure.

Are there treatments to remove lead from the body?

Yes, medications exist that can remove some lead from the body. However, no medical treatment is recommended for children with blood lead levels lower than 45 μg/dL. Medications, such as succimer, have been shown to significantly reduce lead in children with very high blood lead levels. Although succimer lowered blood lead about 25% in the short term, it did not improve IQ or other test scores. This reinforces the need for prevention. Treatment after the fact does not undo the damage caused by lead. Children must be protected from being exposed at all.

What are some of the health effects associated with lead exposure?

The 2012 NTP literature-based monograph on health effects of low-level lead provides this information on health effects:

Blood Lead Level	Health Effects
Blood lead levels below 5μg/dL	**Children:** Decreased academic achievement, decreased IQ, and decreases in specific cognitive measures, increased incidence of attention-related behaviors and problem behaviors **Adults:** Decreased kidney function, maternal blood lead associated with reduced fetal growth
Blood lead levels below 10μg/dL	**Children:** Delayed puberty, reduced postnatal growth, decreased IQ and decreased hearing **Adults:** Increased blood pressure, increased risk of hypertension, and increased incidence of essential tremor

Chronic lead exposure in adults can result in:

- Increased blood pressure
- Decreased fertility
- Cataracts

- Cataracts
- Nerve disorders
- Muscle and joint pain
- Memory or concentration problems

Who is at the greatest risk for exposure?

Children under the age of 6 years old are at an increased risk for lead exposure, due to their rapid rate of growth and their tendency to place toys and other objects in their mouths that could contain lead or leaded dust. This is particularly true of children living below the poverty line in older housing.

What can I do to prevent lead exposure?

- If you live in an older home, check with your local health department about any lead that may be in the paint, dust, or drinking water. Professional cleaning, painting over old paint to stabilize it, and removal of hazardous building components, such as old pipes, can prevent lead exposure. All of these should be done by trained professionals and contractors certified by the EPA.
- Avoid storing food in imported pottery and dishware, as it may contain lead.
- Monitor recalled toys and jewelry by visiting theConsumer Product Safety Commission *(https://www.cpsc.gov/)* website, and remove recalled items from your home.
- If a household member works in a lead-related occupation, they should change work clothes and shoes before entering the home, and their work clothes should be washed separately.

For more information on chelation, please see these FDA pages:

- FDA warns consumers about potential health risks from using Thorne Research's Captomer products *(https://www.fda.gov/drugs/drugsafety/ucm400977.htm)*
- Questions and Answers on Unapproved Chelation Products *(https://www.fda.gov/Drugs/ResourcesForYou/Consumers/BuyingUsingMedicineSafely/MedicationHealthFraud/ucm229313.htm)*

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Further Reading

Stories from the *Environmental Factor* (NIEHS Newsletter)

- Lead in Kids' Blood Linked with Behavioral and Emotional Problems *(https://factor.niehs.nih.gov/2014/8/science-bloodlead/index.htm)* (August 2014)
- Reducing Lead Contamination in Urban Soils *(https://factor.niehs.nih.gov/2013/10/science-lead/index.htm)* (October/November 2013)

Printable Fact Sheets

- Lead and Your Health *(/health/materials/lead_and_your_health_508.pdf)* (1MB)

Additional Resources

- Contaminated Water in Flint *(https://www.phe.gov/emergency/events/flint/pages/default.aspx)* - Public Health Emergency information from the Assistant Secretary for Preparedness and Response, U.S. Department of Health and Human Services.

- Disease Prevention Toolkit *(https://www.nih.gov/health-information/disease-prevention-toolkit)* - Taking steps to protect your health is the best way to prevent disease and other conditions. Health screenings, vaccines, and guarding yourself from germs and bugs can help keep you feeling your best.
- Eliminating Lead Risks in Schools and Child Care Facilities: A United and Urgent Call to Action for Children *(https://app.box.com/s/r0oj0fyfrxb8vffo8hvp2df2upjtd8f7)* - The report, Eliminating Lead Risks in Schools and Child Care Facilities, is the first to set strategic priorities for reducing lead exposure in learning environments. Cleaning up these large-group settings offers great potential to prevent lead risks for significant numbers of children. The report is the result of a workshop convened by the Children's Environmental Health Network, Healthy Schools Network and the Learning Disabilities Association of America, and is being released during National Public Health Week and the day after National Healthy Schools Day.
- Health Effects of Low-Level Lead *(https://ntp.niehs.nih.gov/pubhealth/hat/noms/lead/index.html)* - Although reductions in lead exposure for the U.S. population have resulted in lower blood lead levels over time, epidemiological studies continue to provide evidence of health effects at lower and lower blood lead levels. The NTP Monograph on Health Effects of Low-level Lead was developed to summarize the evidence for lead-associated health effects in children and adults at these low exposure levels.
- Lead (ATSDR) *(https://www.atsdr.cdc.gov/toxfaqs/tf.asp?id=93&tid=22)* - Toxic Substances Portal Agency for Toxic Substances and Disease Registry.
- Lead (CDC) *(https://www.cdc.gov/lead/)* - A Centers for Disease Control and Prevention (CDC) fact sheet.
- Lead (EPA) *(https://www.epa.gov/lead/)* - U.S. Environmental Protection Agency information and links.
- Lead (OSHA) *(https://www.osha.gov/SLTC/lead/)* - Occupational Safety and Health Administration – Safety and Health Topics.
- Lead (Profile) *(https://householdproducts.nlm.nih.gov/cgi-bin/household/brands?tbl=chem&id=1728)* - HHS Household Products Database: What's under your kitchen sink, in your garage, in your bathroom, and on the shelves in your laundry room? Learn more about what's in these products, about potential health effects, and about safety and handling.
- Lead Compounds (Profile) *(https://householdproducts.nlm.nih.gov/cgi-bin/household/brands?tbl=chem&id=1909)* - HHS Household Products Database: What's under your kitchen sink, in your garage, in your bathroom, and on the shelves in your laundry room? Learn more about what's in these products, about potential health effects, and about safety and handling.
- Lead and Construction *(https://www.dir.ca.gov/dosh/dosh_publications/lead-fct-sheet-rev.pdf)* - California Department of Industrial Resources: Safety & Health Fact Sheet.
- Lead and Environmental Health *(https://sis.nlm.nih.gov/enviro/lead.html)* - A compilation of links to websites on lead that provide an overview of the problem, glossaries and dictionaries, data and research, and literatures sources. Spanish language materials are also available.
- Lead and Healthy Homes Research *(https://portal.hud.gov/hudportal/HUD?src=/program_offices/healthy_homes/researchers)* - from the U.S. Department of Housing and Urban Development.
- Lead in Kids' Blood Linked With Behavioral and Emotional Problems *(/news/newsroom/releases/2014/june30/index.cfm)* - June 30, 2014 Press Release from the World Health Organization.
- Lead Profile: Report on Carcinogens *(https://ntp.niehs.nih.gov/ntp/roc/content/profiles/lead.pdf)* - In worldwide metal use, lead ranks behind only iron, copper, aluminum, and zinc. All of the major soluble lead compounds have industrial uses.
- NIH News in Health: Making a Healthier Home: Cast Toxins from Your Living Space *(/health/assets/docs_f_o/nih_news_in_health_making_a_healthier_home_cast_toxins_from_your_living_space_508.pdf)* (69KB) - Becoming aware of potentially harmful substances and clearing them out can help keep you and your family healthy.
- What Do Parents Need to Know to Protect Their Children? *(https://www.cdc.gov/nceh/lead/ACCLPP/blood_lead_levels.htm)* - Information on the CDC's 2012 recommendations on children's blood lead levels.

Related Health Topics

- Air Pollution *(/health/topics/agents/air-pollution/index.cfm)*
- Children's Health *(/health/topics/population/children/index.cfm)*
- Hazardous Material/Waste *(/health/topics/agents/haz-waste/index.cfm)*

For Educators

- CDC: National Lead Poisoning Prevention Week Toolkit *(https://www.cdc.gov/nceh/lead/nlppw.htm)* - A compilation of resources including downloadable posters and flyers, web banners, widgets, and an assortment of other news and event information.
- Childhood Lead Poisoning Prevention *(http://www.state.nj.us/humanservices/opmrdd/health/)* - This webpage (part of the "Family Health A-Z" series) is a service of the New Jersey Department of Health.

File Assistance: Downloads for viewing files

- Adobe Reader *(https://get.adobe.com/reader/)*

This page URL: https://www.niehs.nih.gov/health/topics/agents/lead/index.cfm
NIEHS website: https://www.niehs.nih.gov/
Email the Web Manager at webmanager@niehs.nih.gov

Notice! As the state transitions from the COVID-19 emergency, please contact your local Water Board to arrange necessary file reviews. ×

This Program ended on 7/1/2019 and the last data download and update requests were completed on 12/31/2020. The Program's database has been closed and will not accept data submissions. Data shown on the map may not accurately reflect the status of the corrective action(s), you will need to contact the school directly for up-to-date status.

The Division of Drinking Water (DDW), in collaboration with the California Department of Education, has taken the initiative to begin testing for lead in drinking water at all public K-12 schools. In early 2017, DDW and Local Primacy Agencies issued amendments to the domestic water supply permits of approximately 1,200 community water systems so that schools that are served by a public water system could request assistance from their public water system to conduct water sampling for lead and receive technical assistance if an elevated lead sample is found. To further safeguard water quality in California's K-12 public schools, California Assembly Bill 746 published on October 12, 2017, effective January 1, 2018, requires community water system to test lead levels, by July 1, 2019, in drinking water at all California public, K-12 school sites that were constructed before January 1, 2010. This webpage contains information on both the permit amendments and AB 746.

Overview

As of July 1, 2019, the Division of Drinking Water (DDW), in collaboration with the California Department of Education, has completed the initiative to test for lead in drinking water at all public K-12 schools. California Assembly Bill 746 (AB 746) published on October 12, 2017, effective January 1, 2018, required community water systems to test lead levels, by July 1, 2019, in drinking water at all California public, K-12 school sites that were constructed before January 1, 2010.

Prior to the passage of AB 746, in early 2017, the DDW and Local Primacy Agencies issued amendments to the domestic water supply permits of approximately 1,200 community water systems so that schools that are served by a public water system could request assistance from their public water system to conduct water sampling for lead and receive technical assistance if an elevated lead sample was found. These amendments allowed the private schools to continue to request sampling and assistance after the passage of AB 746.

PUBLIC HEALTH STATEMENT
Lead
CAS#: 7439-92-1

Division of Toxicology and Environmental Medicine **August 2007**

This Public Health Statement is the summary chapter from the Toxicological Profile for Lead. It is one in a series of Public Health Statements about hazardous substances and their health effects. A shorter version, the ToxFAQs™, is also available. This information is important because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present. For more information, call the ATSDR Information Center at 1-800-232-4636.

This public health statement tells you about lead and the effects of exposure to it.

The Environmental Protection Agency (EPA) identifies the most serious hazardous waste sites in the nation. These sites are then placed on the National Priorities List (NPL) and are targeted for long-term federal clean-up activities. Lead has been found in at least 1,272 of the 1,684 current or former NPL sites. Although the total number of NPL sites evaluated for this substance is not known, the possibility exists that the number of sites at which lead is found may increase in the future as more sites are evaluated. This information is important because these sites may be sources of exposure and exposure to this substance may harm you.

When a substance is released either from a large area, such as an industrial plant, or from a container, such as a drum or bottle, it enters the environment. Such a release does not always lead to exposure. You can be exposed to a substance only when you come in contact with it. You may be exposed by breathing, eating, or drinking the substance, or by skin contact.

If you are exposed to lead, many factors will determine whether you will be harmed. These factors include the dose (how much), the duration (how long), and how you come in contact with it. You must also consider any other chemicals you are exposed to and your age, sex, diet, family traits, lifestyle, and state of health.

1.1 WHAT IS LEAD?

Lead is a heavy, low melting, bluish-gray metal that occurs naturally in the Earth's crust. However, it is rarely found naturally as a metal. It is usually found combined with two or more other elements to form lead compounds.

Metallic lead is resistant to corrosion (i.e., not easily attacked by air or water). When exposed to air or water, thin films of lead compounds are formed that protect the metal from further attack. Lead is easily molded and shaped. Lead can be combined with other metals to form alloys. Lead and lead alloys are commonly found in pipes, storage batteries, weights, shot and ammunition, cable covers, and sheets used to shield us from radiation. The largest use for lead is in storage batteries in cars and other vehicles.

Lead compounds are used as a pigment in paints, dyes, and ceramic glazes and in caulk. The amount of lead used in these products has been reduced in recent years to minimize lead's harmful effect on people and animals. Tetraethyl lead and tetramethyl lead were once used in the United States as gasoline

additives to increase octane rating. However, their use was phased out in the United States in the 1980s, and lead was banned for use in gasoline for motor vehicles beginning January 1, 1996. Tetraethyl lead may still be used in gasoline for off-road vehicles and airplanes. It is also still used in a number of developing countries. Lead used in ammunition, which is the largest non-battery end-use, has remained fairly constant in recent years. However, even the use of lead in bullets and shot as well as in fishing sinkers is being reduced because of its harm to the environment.

Most lead used by industry comes from mined ores ("primary") or from recycled scrap metal or batteries ("secondary"). Lead is mined in the United States, primarily in Alaska and Missouri. However, most lead today is "secondary" lead obtained from lead-acid batteries. It is reported that 97% of these batteries are recycled.

1.2 WHAT HAPPENS TO LEAD WHEN IT ENTERS THE ENVIRONMENT?

Lead occurs naturally in the environment. However, most of the high levels found throughout the environment come from human activities. Environmental levels of lead have increased more than 1,000-fold over the past three centuries as a result of human activity. The greatest increase occurred between the years 1950 and 2000, and reflected increasing worldwide use of leaded gasoline. Lead can enter the environment through releases from mining lead and other metals, and from factories that make or use lead, lead alloys, or lead compounds. Lead is released into the air during burning coal, oil, or waste. Before the use of leaded gasoline was banned, most of the lead released into the U.S. environment came from vehicle exhaust. In 1979, cars released 94.6 million kilograms (208.1 million pounds) of lead into the air in the United States. In 1989, when the use of lead was limited but not banned, cars released only 2.2 million kg (4.8 million pounds) to the air. Since EPA banned the use of leaded gasoline for highway transportation in 1996, the amount of lead released into the air has decreased further. Before the 1950s, lead was used in pesticides applied to fruit orchards. Once lead gets into the atmosphere, it may travel long distances if the lead particles are very small. Lead is removed from the air by rain and by particles falling to land or into surface water.

Sources of lead in dust and soil include lead that falls to the ground from the air, and weathering and chipping of lead-based paint from buildings, bridges, and other structures. Landfills may contain waste from lead ore mining, ammunition manufacturing, or other industrial activities such as battery production. Disposal of lead-containing products contribute to lead in municipal landfills. Past uses of lead such as its use in gasoline are a major contributor to lead in soil, and higher levels of lead in soil are found near roadways. Most of the lead in inner city soils comes from old houses with paint containing lead and previous automotive exhaust emitted when gasoline contained lead.

Once lead falls onto soil, it sticks strongly to soil particles and remains in the upper layer of soil. That is why past uses of lead such as lead in gasoline, house paint, and pesticides are so important in the amount of lead found in soil.

Small amounts of lead may enter rivers, lakes, and streams when soil particles are moved by rainwater.

Small amounts of lead from lead pipe or solder may be released into water when the water is acidic or "soft". Lead may remain stuck to soil particles or sediment in water for many years. Movement of lead from soil particles into groundwater is unlikely unless the rain falling on the soil is acidic or "soft". Movement of lead from soil will also depend on the type of lead compound and on the physical and chemical characteristics of the soil.

Sources of lead in surface water or sediment include deposits of lead-containing dust from the atmosphere, waste water from industries that handle lead (primarily iron and steel industries and lead producers), urban runoff, and mining piles.

Some lead compounds are changed into other forms of lead by sunlight, air, and water. However, elemental lead cannot be broken down.

The levels of lead may build up in plants and animals from areas where air, water, or soil are contaminated with lead. If animals eat contaminated plants or animals, most of the lead that they eat will pass through their bodies.

1.3 HOW MIGHT I BE EXPOSED TO LEAD?

Lead is commonly found in soil especially near roadways, older houses, old orchards, mining areas, industrial sites, near power plants, incinerators, landfills, and hazardous waste sites. People living near hazardous waste sites may be exposed to lead and chemicals that contain lead by breathing air, drinking water, eating foods, or swallowing dust or dirt that contain lead. People may be exposed to lead by eating food or drinking water that contains lead. Drinking water in houses containing lead pipes may contain lead, especially if the water is acidic or "soft". If one is not certain whether an older building contains lead pipes, it is best to let the water run a while before drinking it so that any lead formed in the pipes can be flushed out. People living in areas where there are old houses that have been painted with lead paint may be exposed to higher levels of lead in dust and soil. Similarly, people who live near busy highways or on old orchard land where lead arsenate pesticides were used in the past may be exposed to higher levels of lead. People may also be exposed to lead when they work in jobs where lead is used or have hobbies in which lead is used, such as making stained glass.

Foods may contain small amounts of lead. However, since lead solder is no longer used in cans, very little lead is found in food. Leafy fresh vegetables grown in lead-containing soils may have lead-containing dust on them. Lead may also enter foods if they are put into improperly glazed pottery or ceramic dishes and from leaded-crystal glassware. Illegal whiskey made using stills that contain lead-soldered parts (such as truck radiators) may also contain lead. Cigarette smoke may also contain small amounts of lead. The amount of lead found in canned foods decreased 87% from 1980 to 1988 in the United States, which indicates that the chance of exposure to lead in canned food from lead-soldered containers has been greatly reduced. Lead-soldered cans are still used in some other nations. In the most recent studies, lead was not detectable in most foods and the average dietary intake of lead was about 1 microgram (a microgram is a millionth of a gram) per kilogram of body weight per day. Children may be exposed to lead

by hand-to-mouth contact after exposure to lead-containing soil or dust.

In general, very little lead is found in lakes, rivers, or groundwater used to supply the public with drinking water. More than 99% of all publicly supplied drinking water contains less than 0.005 parts of lead per million parts of water (ppm). However, the amount of lead taken into your body through drinking water can be higher in communities with acidic water supplies. Acidic water makes it easier for the lead found in pipes, leaded solder, and brass faucets to be dissolved and to enter the water we drink. Public water treatment systems are now required to use control measures to make water less acidic. Plumbing that contains lead may be found in public drinking water systems, and in houses, apartment buildings, and public buildings that are more than 20 years old. However, as buildings age, mineral deposits form a coating on the inside of the water pipes that insulates the water from lead in the pipe or solder, thus reducing the amount of lead that can leach into the water. Since 1988, regulations require that drinking water coolers must not contain lead in parts that come into contact with drinking water.

Breathing in, or swallowing airborne dust and dirt, is another way you can be exposed to lead. In 1984, burning leaded gasoline was the single largest source of lead emissions. Very little lead in the air comes from gasoline now because EPA has banned its use in gasoline for motor vehicles. Other sources of lead in the air include releases to the air from industries involved in iron and steel production, lead-acid-battery manufacturing, and nonferrous (brass and bronze) foundries. Lead released into air may also come from burning of solid waste that contains lead, windblown dust, volcanoes, exhaust from workroom air, burning or weathering of lead-painted surfaces, fumes and exhaust from leaded gasoline, and cigarette smoke.

Skin contact with dust and dirt containing lead occurs every day. Recent data have shown that inexpensive cosmetic jewelry pieces sold to the general public may contain high levels of lead which may be transferred to the skin through routine handling. However, not much lead can get into your body through your skin.

In the home, you or your children may be exposed to lead if you take some types of home remedy medicines that contain lead compounds. Lead compounds are in some non-Western cosmetics, such as surma and kohl. Some types of hair colorants, cosmetics, and dyes contain lead acetate. Read the labels on hair coloring products, use them with caution, and keep them away from children.

People who are exposed at work are usually exposed by breathing in air that contains lead particles. Exposure to lead occurs in many jobs. People who work in lead smelting and refining industries, brass/bronze foundries, rubber products and plastics industries, soldering, steel welding and cutting operations, battery manufacturing plants, and lead compound manufacturing industries may be exposed to lead. Construction and demolition workers and people who work at municipal waste incinerators, pottery and ceramics industries, radiator repair shops, and other industries that use lead solder may also be exposed. Painters who sand or scrape old paint may be exposed to lead in dust. Between 0.5 and 1.5 million workers are exposed to lead in the workplace. In California alone, more than 200,000 workers are exposed to lead. Families of workers may be exposed to higher levels of lead

when workers bring home lead dust on their work clothes.

You may also be exposed to lead in the home if you work with stained glass as a hobby, make lead fishing weights or ammunition, or if you are involved in home renovation that involves the removal of old lead-based paint.

1.4 HOW CAN LEAD ENTER AND LEAVE MY BODY?

Some of the lead that enters your body comes from breathing in dust or chemicals that contain lead. Once this lead gets into your lungs, it goes quickly to other parts of the body in your blood.

Larger particles that are too large to get into your lungs can be coughed up and swallowed. You may also swallow lead by eating food and drinking liquids that contain it. Most of the lead that enters your body comes through swallowing, even though very little of the amount you swallow actually enters your blood and other parts of your body. The amount that gets into your body from your stomach partially depends on when you ate your last meal. It also depends on how old you are and how well the lead particles you ate dissolved in your stomach juices. Experiments using adult volunteers showed that, for adults who had just eaten, the amount of lead that got into the blood from the stomach was only about 6% of the total amount taken in. In adults who had not eaten for a day, about 60–80% of the lead from the stomach got into their blood. In general, if adults and children swallow the same amount of lead, a bigger proportion of the amount swallowed will enter the blood in children than in adults. Children absorb about 50% of ingested lead.

Dust and soil that contain lead may get on your skin, but only a small portion of the lead will pass through your skin and enter your blood if it is not washed off. You can, however, accidentally swallow lead that is on your hands when you eat, drink, smoke, or apply cosmetics (for example, lip balm). More lead can pass through skin that has been damaged (for example, by scrapes, scratches, and wounds). The only kinds of lead compounds that easily penetrate the skin are the additives in leaded gasoline, which is no longer sold to the general public. Therefore, the general public is not likely to encounter lead that can enter through the skin.

Shortly after lead gets into your body, it travels in the blood to the "soft tissues" and organs (such as the liver, kidneys, lungs, brain, spleen, muscles, and heart). After several weeks, most of the lead moves into your bones and teeth. In adults, about 94% of the total amount of lead in the body is contained in the bones and teeth. About 73% of the lead in children's bodies is stored in their bones. Some of the lead can stay in your bones for decades; however, some lead can leave your bones and reenter your blood and organs under certain circumstances (e.g., during pregnancy and periods of breast feeding, after a bone is broken, and during advancing age).

Your body does not change lead into any other form. Once it is taken in and distributed to your organs, the lead that is not stored in your bones leaves your body in your urine or your feces. About 99% of the amount of lead taken into the body of an adult will leave in the waste within a couple of

weeks, but only about 32% of the lead taken into the body of a child will leave in the waste. Under conditions of continued exposure, not all of the lead that enters the body will be eliminated, and this may result in accumulation of lead in body tissues, especially bone.

1.5 HOW CAN LEAD AFFECT MY HEALTH?

Scientists use many tests to protect the public from harmful effects of toxic chemicals and to find ways for treating persons who have been harmed.

One way to learn whether a chemical will harm people is to determine how the body absorbs, uses, and releases the chemical. For some chemicals, animal testing may be necessary. Animal testing may also help identify health effects such as cancer or birth defects. Without laboratory animals, scientists would lose a basic method for getting information needed to make wise decisions that protect public health. Scientists have the responsibility to treat research animals with care and compassion. Scientists must comply with strict animal care guidelines because laws today protect the welfare of research animals.

The effects of lead are the same whether it enters the body through breathing or swallowing. The main target for lead toxicity is the nervous system, both in adults and children. Long-term exposure of adults to lead at work has resulted in decreased performance in some tests that measure functions of the nervous system. Lead exposure may also cause weakness in fingers, wrists, or ankles. Lead exposure also causes small increases in blood pressure, particularly in middle-aged and older people. Lead exposure may also cause anemia. At high levels of exposure, lead can severely damage the brain and kidneys in adults or children and ultimately cause death. In pregnant women, high levels of exposure to lead may cause miscarriage. High-level exposure in men can damage the organs responsible for sperm production.

We have no conclusive proof that lead causes cancer (is carcinogenic) in humans. Kidney tumors have developed in rats and mice that had been given large doses of some kind of lead compounds. The Department of Health and Human Services (DHHS) has determined that lead and lead compounds are reasonably anticipated to be human carcinogens based on limited evidence from studies in humans and sufficient evidence from animal studies, and the EPA has determined that lead is a probable human carcinogen. The International Agency for Research on Cancer (IARC) has determined that inorganic lead is probably carcinogenic to humans. IARC determined that organic lead compounds are not classifiable as to their carcinogenicity in humans based on inadequate evidence from studies in humans and in animals.

1.6 HOW CAN LEAD AFFECT CHILDREN?

This section discusses potential health effects in humans from exposures during the period from conception to maturity at 18 years of age.

Studies carried out by the Centers for Disease Control and Prevention (CDC) show that the levels of lead in the blood of U.S. children have been getting lower and lower. This result is because lead

is banned from gasoline, residential paint, and solder used for food cans and water pipes. However, about 310,000 U.S. children between the ages of 1 and 5 years are believed to have blood lead levels equal or greater than 10 µg/dL, the level targeted for elimination among young children in the Unites States by 2010.

Children are more vulnerable to lead poisoning than adults. Children are exposed to lead all through their lives. They can be exposed to lead in the womb if their mothers have lead in their bodies. Babies can swallow lead when they breast feed, or eat other foods, and drink water that contains lead. Babies and children can swallow and breathe lead in dirt, dust, or sand while they play on the floor or ground. These activities make it easier for children to be exposed to lead than adults. The dirt or dust on their hands, toys, and other items may have lead particles in it. In some cases, children swallow nonfood items such as paint chips; these may contain very large amounts of lead, particularly in and around older houses that were painted with lead-based paint. The paint in these houses often chips off and mixes with dust and dirt. Some old paint contains as much as 50% lead. Also, compared with adults, a bigger proportion of the amount of lead swallowed will enter the blood in children.

Children are more sensitive to the health effects of lead than adults. No safe blood lead level in children has been determined. Lead affects children in different ways depending on how much lead a child swallows. A child who swallows large amounts of lead may develop anemia, kidney damage, colic (severe "stomach ache"), muscle weakness, and brain damage, which ultimately can kill the child. In some cases, the amount of lead in the child's body can be lowered by giving the child certain drugs that help eliminate lead from the body. If a child swallows smaller amounts of lead, such as dust containing lead from paint, much less severe but still important effects on blood, development, and behavior may occur. In this case, recovery is likely once the child is removed from the source of lead exposure, but there is no guarantee that the child will completely avoid all long-term consequences of lead exposure. At still lower levels of exposure, lead can affect a child's mental and physical growth. Fetuses exposed to lead in the womb, because their mothers had a lot of lead in their bodies, may be born prematurely and have lower weights at birth. Exposure in the womb, in infancy, or in early childhood also may slow mental development and cause lower intelligence later in childhood. There is evidence that these effects may persist beyond childhood.

Children with high blood lead levels do not have specific symptoms. However, health workers can find out whether a child may have been exposed to harmful levels of lead by taking a blood sample. They can also find out how much lead is in a child's bones by taking a special type of x-ray of the finger, knee, or elbow. This type of test, however, is not routine.

1.7 HOW CAN FAMILIES REDUCE THE RISK OF EXPOSURE TO LEAD?

If your doctor finds that you have been exposed to substantial amounts of lead, ask whether your children might also have been exposed. Your doctor might need to ask your state health department to investigate.

The most important way families can lower exposures to lead is to know about the sources of lead in their homes and avoid exposure to these sources. Some homes or day-care facilities may have more lead in them than others. Families who live in or visit these places may be exposed to higher amounts of lead. These include homes built before 1978 that may have been painted with paint that contains lead (lead-based paint). If you are buying a home that was built before 1978, you may want to know if it contains lead based paint. Federal government regulations require a person selling a home to tell the real estate agent or person buying the home of any known lead-based hazards on the property. Adding lead to paint is no longer allowed. If your house was built before 1978, it may have been painted with lead-based paint. This lead may still be on walls, floors, ceilings, and window sills, or on the outside walls of the house. The paint may have been scraped off by a previous owner, but paint chips and lead-containing dust may still be in the yard soil. Decaying, peeling, or flaking paint can introduce lead into household dust and the area where this is occurring should be repainted. If your paint is decaying or your child has symptoms of lead poisoning, you may want to have your house tested for lead. In some states, homeowners can have the paint in their homes tested for lead by their local health departments. The National Lead Information Center (1-800-532-3394) has a listing of approved risk assessors (people who have met certain criteria and are qualified to assess the potential risks of a site) and of approved testing laboratories (for soil, paint, and dust).

Sanding surfaces painted with lead-based paint or using heat to peel the paint may cause exposure to high levels of lead. Many cases of lead poisoning have resulted from do-it-yourself home renovations. Therefore, any renovations should be performed by a licensed contractor who will minimize exposure to household members. It is important for the area being renovated to be isolated from the rest of the house because of lead-containing dust. The federal government requires that contractors who test for or remove lead must be certified by the EPA or an EPA-approved state program. Ask to see certifications of potential contractors. Your state health department or environmental protection division should be able to identify certified contractors for you. The National Lead Abatement Council (P.O. Box 535; Olney, MD 20932; telephone 301-924-5490) can also send you a list of certified contractors.

Families can lower the possibility of children swallowing paint chips by discouraging their children from chewing or putting these painted surfaces in their mouths and making sure that they wash their hands often, especially before eating. Lead can be found in dirt and dust. Areas where levels of lead in dirt might be especially high are near old houses, highways, or old orchards. Some children have the habit of eating dirt (the term for this activity is pica). Discourage your children from eating dirt and other hand-to-mouth activity.

Non-Western folk remedies used to treat diarrhea or other ailments may contain substantial amounts of lead. Examples of these include: Alarcon, Ghasard, Alkohl, Greta, Azarcon, Liga, Bali Goli, Pay-loo-ah, Coral, and Rueda. If you give your children these substances or if you are pregnant or nursing, you may expose your children to lead. It is wise to know the ingredients of any medicines that you or your children use.

Older homes that have plumbing containing lead may have higher amounts of lead in drinking water. Inside plumbing installed before 1930 is most likely to contain high levels of lead. Copper pipes have replaced lead pipes in most residential plumbing. You cannot see, taste, or smell lead in water, and boiling your water will not get rid of lead. If you have a water-lead problem, EPA recommends that anytime water in a particular faucet has not been used for 6 hours or longer, you should flush your cold water pipes by running water until it is cold (5 seconds–2 minutes). Because lead dissolves more easily in warm water than in cold water, you should only use cold water for drinking, cooking, and preparing baby formula. You can contact your local health department or water supplier to find out about testing your water for lead. If your water tests indicate a significant presence of lead, consult your water supplier or local health department about possible remedies.

You can bring lead home in the dust on your hands or clothes if lead is used in the place where you work. Lead dust is likely to be found in places where lead is mined or smelted, where car batteries are made or recycled, where electric cable sheathing is made, where fine crystal glass is made, or where certain types of ceramic pottery are made. Pets can also bring lead into the home in dust or dirt on their fur or feet if they spend time in places that have high levels of lead in the soil.

Swallowing of lead in house dust or soil is a very important exposure pathway for children. This problem can be reduced in many ways. Regular hand and face washing to remove lead dusts and soil, especially before meals, can lower the possibility that lead on the skin is accidentally swallowed while eating. Families can lower exposures to lead by regularly cleaning the home of dust and tracked in soil. Door mats can help lower the amount of soil that is tracked into the home; removing your shoes before entering the home will also help. Planting grass and shrubs over bare soil areas in the yard can lower contact that children and pets may have with soil and the tracking of soil into the home.

Families whose members are exposed to lead dusts at work can keep these dusts out of reach of children by showering and changing clothes before leaving work, and bagging their work clothes before they are brought into the home for cleaning. Proper ventilation and cleaning—during and after hobby activities, home or auto repair activities, and hair coloring with products that contain lead—will decrease the possibility of exposure.

Lead-containing dust may be deposited on plant surfaces and lead may be taken up in certain edible plants from the soil by the roots; therefore, home gardening may also contribute to exposure if the produce is grown in soils that have high lead concentrations. Vegetables should be well washed before eating to remove surface deposits. Certain hobbies and home or car repair activities like radiator repair can add lead to the home as well. These include soldering glass or metal, making bullets or slugs, or glazing pottery. Some types of paints and pigments that are used as facial make-up or hair coloring contain lead. Cosmetics that contain lead include surma and kohl, which are popular in certain Asian countries. Read the labels on hair coloring products, and keep hair dyes that contain lead acetate away from children. Do not allow children to touch hair that has been colored with lead-containing dyes or any surfaces that have come into contact with these dyes because lead

compounds can rub off onto their hands and be transferred to their mouths.

It is important that children have proper nutrition and eat a balanced diet of foods that supply adequate amounts of vitamins and minerals, especially calcium and iron. Good nutrition lowers the amount of swallowed lead that passes to the bloodstream and also may lower some of the toxic effects of lead.

1.8 IS THERE A MEDICAL TEST TO DETERMINE WHETHER I HAVE BEEN EXPOSED TO LEAD?

The amount of total lead in the blood can be measured to determine if exposure to lead has occurred. This test shows if you have been recently exposed to lead. Lead can be measured in teeth or bones by x-ray techniques, but these methods are not widely available. These tests show long-term exposures to lead. The primary screening method is measurement of blood lead. Exposure to lead also can be evaluated by measuring erythrocyte protoporphyrin (EP) in blood samples. EP is a part of red blood cells known to increase when the amount of lead in the blood is high. However, the EP level is not sensitive enough to identify children with elevated blood lead levels below about 25 micrograms per deciliter (μg/dL). These tests usually require special analytical equipment that is not available in a doctor's office. However, your doctor can draw blood samples and send them to appropriate laboratories for analysis.

1.9 WHAT RECOMMENDATIONS HAS THE FEDERAL GOVERNMENT MADE TO PROTECT HUMAN HEALTH?

The federal government develops regulations and recommendations to protect public health. Regulations *can* be enforced by law. The EPA, the Occupational Safety and Health Administration (OSHA), and the Food and Drug Administration (FDA) are some federal agencies that develop regulations for toxic substances. Recommendations provide valuable guidelines to protect public health, but *cannot* be enforced by law. The Agency for Toxic Substances and Disease Registry (ATSDR) and the National Institute for Occupational Safety and Health (NIOSH) are two federal organizations that develop recommendations for toxic substances.

Regulations and recommendations can be expressed as "not-to-exceed" levels, that is, levels of a toxic substance in air, water, soil, or food that do not exceed a critical value that is usually based on levels that affect animals; they are then adjusted to levels that will help protect humans. Sometimes these not-to-exceed levels differ among federal organizations because they used different exposure times (an 8-hour workday or a 24-hour day), different animal studies, or other factors.

Recommendations and regulations are also updated periodically as more information becomes available. For the most current information, check with the federal agency or organization that provides it. Some regulations and recommendations for lead include the following:

CDC recommends that states develop a plan to find children who may be exposed to lead and have their

blood tested for lead. CDC recommends that the states test children:

- at ages 1 and 2 years;
- at ages 3–6 years if they have never been tested for lead;
- if they receive services from public assistance programs for the poor such as Medicaid or the Supplemental Food Program for Women, Infants, and Children;
- if they live in a building or frequently visit a house built before 1950;
- if they visit a home (house or apartment) built before 1978 that has been recently remodeled; and/or
- if they have a brother, sister, or playmate who has had lead poisoning.

CDC considers children to have an elevated level of lead if the amount of lead in the blood is at least 10 μg/dL. Many states or local programs provide intervention to individual children with blood lead levels equal to or greater than 10 μg/dL. Medical evaluation and environmental investigation and remediation should be done for all children with blood lead levels equal to or greater than 20 μg/dL. Medical treatment (i.e., chelation therapy) may be necessary in children if the lead concentration in blood is higher than 45 μg/dL.

EPA requires that the concentration of lead in air that the public breathes be no higher than 1.5 micrograms per cubic meter ($\mu g/m^3$) averaged over 3 months. EPA regulations no longer allow lead in gasoline. The Clean Air Act Amendments (CAAA) of 1990 banned the sale of leaded gasoline as of December 31, 1995.

Under the Lead Copper Rule (LCR), EPA requires testing of public water systems, and if more than 10% of the samples at residences contain lead levels over 0.015 milligrams per liter (mg/L), actions must be taken to lower these levels. Testing for lead in drinking water in schools is not required unless a school is regulated under a public water system. The 1988 Lead Contamination Control Act (LCCA) was created to help reduce lead in drinking water at schools and daycare centers. The LCCA created lead monitoring and reporting requirements for schools, as well as the replacement of fixtures that contain high levels of lead. However, the provisions in the LCCA are not enforceable by the federal government and individual states have the option to voluntarily comply with these provisions or create their own.

To help protect small children, the Consumer Product Safety Commission (CPSC) requires that the concentration of lead in most paints available through normal consumer channels be not more than 0.06%. The Federal Hazardous Substance Act (FHSA) bans children's products containing hazardous amounts of lead.

The Department of Housing and Urban Development (HUD) develops recommendations and regulations to prevent exposure to lead. HUD requires that federally funded housing and renovations, Public and Indian housing be tested for

lead-based paint hazards and that such hazards be fixed by covering the paint or removing it. When determining whether lead-based paint applied to interior or exterior painted surfaces of dwellings should be removed, the standard used by EPA and HUD is that paint with a lead concentration equal to or greater than 1.0 milligram per square centimeter (mg/cm^2) of surface area should be removed or otherwise treated. HUD is carrying out demonstration projects to determine the best ways of covering or removing lead-based paint in housing.

EPA has developed standards for lead-paint hazards, lead in dust, and lead in soil. To educate parents, homeowners, and tenants about lead hazards, lead poisoning prevention in the home, and the lead abatement process, EPA has published several general information pamphlets. Copies of these pamphlets can be obtained from the National Lead Information Center or from various Internet sites, including http://www.epa.gov/opptintr/lead.

OSHA regulations limit the concentration of lead in workroom air to 50 $\mu g/m^3$ for an 8-hour workday. If a worker has a blood lead level of 50 µg/dL or higher, then OSHA requires that the worker be removed from the workroom where lead exposure is occurring.

FDA includes lead on its list of poisonous and deleterious substances. FDA considers foods packaged in cans containing lead solders to be unsafe. Tin-coated lead foil has been used as a covering applied over the cork and neck areas of wine bottles for decorative purposes and to prevent insect infestations. Because it can be reasonably expected that lead could become a component of the wine, the use of such foil is also a violation of the Federal Food, Drug, and Cosmetic Act. FDA has reviewed several direct human food ingredients (i.e., food dyes) and has determined them to be "generally recognized as safe" when used in accordance with current good manufacturing practices. Some of these ingredients contain allowable lead concentrations that range from 0.1 to 10 ppm.

1.10 WHERE CAN I GET MORE INFORMATION?

If you have any more questions or concerns, please contact your community or state health or environmental quality department, or contact ATSDR at the address and phone number below.

ATSDR can also tell you the location of occupational and environmental health clinics. These clinics specialize in recognizing, evaluating, and treating illnesses that result from exposure to hazardous substances.

Toxicological profiles are also available on-line at www.atsdr.cdc.gov and on CD-ROM. You may request a copy of the ATSDR ToxProfiles™ CD-ROM by calling the toll-free information and technical assistance number at 1-800-CDCINFO (1-800-232-4636), by e-mail at cdcinfo@cdc.gov, or by writing to:

Agency for Toxic Substances and Disease Registry
Division of Toxicology and Environmental
Medicine
1600 Clifton Road NE
Mailstop F-32
Atlanta, GA 30333
Fax: 1-770-488-4178

Organizations for-profit may request copies of final
Toxicological Profiles from the following:

National Technical Information Service (NTIS)
5285 Port Royal Road
Springfield, VA 22161
Phone: 1-800-553-6847 or 1-703-605-6000
Web site: http://www.ntis.gov/

STATE *of* CALIFORNIA
COMMISSION ON STATE MANDATES

March 27, 2019

Ms. Erika Li
Department of Finance
915 L Street, 10th Floor
Sacramento, CA 95814

Mr. Raymond Palmucci
Office of the San Diego City Attorney
1200 Third Avenue, Suite 1100
San Diego, CA 92101

And Parties, Interested Parties, and Interested Persons (See Mailing List)

Re: Decision
Lead Sampling in Schools: Public Water System No. 3710020, 17-TC-03
Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017
City of San Diego, Claimant

Dear Ms. Li and Mr. Palmucci:

On March 22, 2019, the Commission on State Mandates adopted the Decision denying the Test Claim on the above-entitled matter.

Sincerely,

Heather Halsey
Executive Director

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BEFORE THE

COMMISSION ON STATE MANDATES

STATE OF CALIFORNIA

IN RE TEST CLAIM Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017 Filed on January 11, 2018 City of San Diego, Claimant	Case No.: 17-TC-03 *Lead Sampling in Schools: Public Water System No. 3710020* DECISION PURSUANT TO GOVERNMENT CODE SECTION 17500 ET SEQ.; CALIFORNIA CODE OF REGULATIONS, TITLE 2, DIVISION 2, CHAPTER 2.5, ARTICLE 7. (*Adopted March 22, 2019*) (*Served March 27, 2019*)

DECISION

The Commission in State Mandates (Commission) heard and decided this Test Claim during a regularly scheduled hearing on March 22, 2019. Raymond Palmucci and Tom Zeleny appeared on behalf of the City of San Diego (claimant). David Rice and Kurt Souza appeared on behalf of the State Water Resources Control Board (SWRCB). Chris Hill appeared on behalf of the Department of Finance (Finance).

The law applicable to the Commission's determination of a reimbursable state-mandated program is article XIII B, section 6 of the California Constitution, Government Code sections 17500 et seq., and related case law.

The Commission adopted the Proposed Decision to deny the Test Claim by a vote of 6-1, as follows:

Member	**Vote**
Lee Adams, County Supervisor	Yes
Keely Bosler, Director of the Department of Finance, Chairperson	Yes
Mark Hariri, Representative of the State Treasurer	Yes
Jeannie Lee, Representative of the Director of the Office of Planning and Research	Yes
Sarah Olsen, Public Member	No
Carmen Ramirez, City Council Member	Yes
Yvette Stowers, Representative of the State Controller, Vice Chairperson	Yes

Summary of the Findings

This Test Claim alleges new state-mandated activities and costs arising from an amendment to the City of San Diego's (claimant's) public water system (PWS) permit adopted by the State Water Resources Control Board (SWRCB), Order No. 2017PA-SCHOOLS. The test claim order requires the claimant, as the operator of a "public water system"[1] that serves a number of K-12 schools, to perform lead sampling, upon request from a school it serves. A PWS may be a private company or a governmental entity.[2] Specifically, a PWS is defined as "a system for the provision *to the public* of water for human consumption" that has at least 15 service connections and serves at least 25 people per day for at least 60 days out of the year.[3] Under the order, upon request from a school, the PWS must take samples at one to five fixtures (e.g., drinking fountains or food preparation areas) on the school's property, process those results with a certified laboratory, maintain records of the requests and the results, and provide the results, and if necessary, information to the school regarding possible remediation or other solutions if lead is detected in the fixtures above 15 parts per billion (ppb).

The Commission finds that the Test Claim is timely filed.

The Commission further finds that the activities required by the order are new, as compared against prior state and federal law. However, the requirements of the test claim order do not impose a new program or higher level of service, within the meaning of article XIII B, section 6. The requirements are not uniquely imposed on local government, because the test claim order is one of over 1,100 PWS permits amended simultaneously with identical requirements, approximately 450 of which were issued to privately-owned and operated drinking water suppliers. Moreover, water service is not a *governmental* function of providing services to the public because providing water service is not required by state or federal law and is not a core function of government. The test claim order here relates to the provision of drinking water

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[1] These systems are also known as "community water systems" which are PWSs that supply water to the same population year-round. (See Health and Safety Code section 116275(i).) The reader may find these two terms used interchangeably in some of the supporting documentation in the record.

[2] 42 United States Code, section 300f(4): "The term "public water system" means a system for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at least fifteen service connections or regularly serves at least twenty-five individuals." (Emphasis added.) Also, "the term "supplier of water" means any person who owns or operates a public water system." (42 United States Code, section 300f(5).) Further, "the term "person" means an individual, corporation, company, association, partnership, State, municipality, or Federal agency (and includes officers, employees, and agents of any corporation, company, association, State, municipality, or Federal agency)." (42 United States Code, section 300f(12).) California law is consistent: '"Public water system" means a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year." (Health and Safety Code 116275(h).)

[3] Health and Safety Code section 116275(h).

through a PWS, which is fundamentally distinct from the essential and peculiarly governmental functions determined by the courts: providing water service for a fee – traditionally a proprietary function – to ratepayers is far different from a city or county providing police or fire protection, or school districts providing a free and appropriate public education, to all residents of the jurisdiction regardless of their ability to pay. For these reasons, the Commission finds that the test claim order does not constitute a reimbursable state-mandated program within the meaning of article XIII B, section 6 of the California Constitution, and denies this Test Claim.

COMMISSION FINDINGS

I. Chronology

01/18/2017	Permit Amendment No. 2017PA-SCHOOLS for City of San Diego PWS 3710020 was adopted by SWRCB, Division of Drinking Water.[4]
01/11/2018	The claimant filed the Test Claim.[5]
04/13/2018	The Test Claim was deemed complete and issued for comment, along with a request that SWRCB provide a copy of its administrative record for the adoption of the permit amendment.
04/23/2018	SWRCB requested an extension of time to file comments and to provide its administrative record.
05/11/2018	The Department of Finance (Finance) requested an extension of time to comment.
06/11/2018	SWRCB requested a second extension of time to file comments and to provide its administrative record, and a postponement of the hearing.
06/25/2018	Finance requested a second extension of time to comment.
08/13/2018	SWRCB filed comments on the Test Claim and provided its administrative record.[6]
08/13/2018	Finance filed comments on the Test Claim.[7]
08/29/2018	The claimant requested an extension of time to file rebuttal comments.
10/18/2018	The claimant requested a second extension of time to file rebuttal comments.
11/09/2018	The claimant filed its rebuttal comments.[8]

[4] Exhibit A, Test Claim, page 14.

[5] Exhibit A, Test Claim.

[6] Exhibit B, Administrative Record on Permit Amendment No. 2017PA-SCHOOLS; Exhibit C, SWRCB's Comments on the Test Claim.

[7] Exhibit D, Finance's Comments on the Test Claim.

[8] Exhibit E, Claimant's Rebuttal Comments.

12/21/2018	Commission staff issued the Draft Proposed Decision.[9]
01/11/2019	SWRCB filed comments on the Draft Proposed Decision.[10]
01/11/2019	The claimant filed comments on the Draft Proposed Decision.[11]

II. Background

The test claim order is one of over 1,100 permit amendments simultaneously issued to privately and publicly owned "public water systems," (PWSs) requiring each to test for lead in the drinking water connections of every K-12 school that it serves and that requests testing at no charge to the school from January 11, 2017 until November 1, 2019.

A. Lead as an Environmental Health Risk

Lead is toxic and has "no known value to the human body."[12] Young children "are at particular risk for lead exposure because they have frequent hand-to-mouth activity and absorb lead more easily than do adults."[13] No safe blood lead level has been determined; lead damages almost every organ and system in the body, including and especially the brain and nervous system.[14] Low levels of lead exposure can lead to reduced IQ and attention span, learning disabilities, poor classroom performance, hyperactivity, behavioral problems, impaired growth and hearing loss.[15] Higher lead levels can cause severe neurological problems and ultimately death.[16]

Though a naturally occurring metal found all over the Earth, "[e]nvironmental levels of lead have increased more than 1,000-fold over the past three centuries as a result of human activity."[17] Because lead is "widespread, easy to extract and easy to work with, lead has been used in a wide variety of products," including paints, ceramics, plumbing, solder, gasoline,

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[9] Exhibit F, Draft Proposed Decision.

[10] Exhibit G, SWRCB's Comments on the Draft Proposed Decision.

[11] Exhibit H, Claimant's Comments on the Draft Proposed Decision.

[12] Exhibit B, Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, page 163 [USEPA: 3Ts for Reducing Lead in Drinking Water in Schools, p. 6].

[13] Exhibit B, Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, page 163 [USEPA: 3Ts for Reducing Lead in Drinking Water in Schools, p. 6].

[14] Exhibit B, Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, page 163 [USEPA: 3Ts for Reducing Lead in Drinking Water in Schools, p. 6].

[15] Exhibit B, Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, page 163 [USEPA: 3Ts for Reducing Lead in Drinking Water in Schools, p. 6].

[16] Exhibit B, Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, page 163 [USEPA: 3Ts for Reducing Lead in Drinking Water in Schools, p. 6].

[17] Exhibit I, Public Health Statement: Lead, Agency for Toxic Substances and Disease Registry, August 2007, page 2.

batteries, and cosmetics.[18] In 1984, burning leaded gasoline was the largest source of lead emissions in the air, and so the Environmental Protection Agency (EPA) phased out and eventually banned leaded gasoline.[19] U.S. EPA and other agencies have "taken steps over the past several decades to dramatically reduce new sources of lead in the environment; according to the U.S. EPA, "[t]oday, the greatest contributions of lead to the environment stem from past human activities."[20] Sources include: lead-based paint; lead in the air from industrial emissions; lead in the soil around roadways and streets from past emissions by automobiles using leaded gasoline, and from deposits of lead dust from paints; industrial lead byproducts; consumer products, including imported dishes, toys, jewelry and plastics; and lead in drinking water leaching from corrosion of plumbing products containing lead.[21]

Lead exposure in drinking water results from either lead being present in the source water, such as from contaminated runoff; or through the interaction of water with plumbing materials containing lead.[22] Although "very little lead is found in lakes, rivers, or groundwater used to supply the public with drinking water," the drinking water in older houses and communities with lead service lines or lead plumbing can contain lead, "especially if the water is acidic or 'soft.'"[23] The concern with lead plumbing and fixtures is lead leaching into the water that runs through them, but "as buildings age, mineral deposits form a coating on the inside of the water pipes that insulates the water from lead in the pipe or solder, thus reducing the amount of lead that can leach into the water."[24] Those stabilizing mineral deposits, however, can be upset by acidity in the water supply: "Acidic water makes it easier for the lead found in pipes, leaded solder, and brass faucets to be dissolved and to enter the water we drink."[25] Accordingly, the primary regulatory approach, as discussed below, is to require water systems to prioritize monitoring, and to implement and maintain corrosion control treatment to minimize toxic metals leaching into water supplies.

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[18] Exhibit I, National Institutes of Health, Lead Information Home Page, page 1.

[19] Exhibit I, Public Health Statement: Lead, Agency for Toxic Substances and Disease Registry, August 2007, page 4.

[20] Exhibit B, Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, page 163 [USEPA: 3Ts for Reducing Lead in Drinking Water in Schools, p. 6].

[21] Exhibit B, Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, pages 163-164 [USEPA: 3Ts for Reducing Lead in Drinking Water in Schools, pp. 6-7].

[22] Exhibit B, Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, page 164 [USEPA: 3Ts for Reducing Lead in Drinking Water in Schools, p. 7].

[23] Exhibit I, Public Health Statement: Lead, Agency for Toxic Substances and Disease Registry, August 2007, pages 3-4.

[24] Exhibit I, Public Health Statement: Lead, Agency for Toxic Substances and Disease Registry, August 2007, page 4.

[25] Exhibit I, Public Health Statement: Lead, Agency for Toxic Substances and Disease Registry, August 2007, page 4.

To potentially close some of the gaps in lead exposure prevention, the California Legislature in 1992 enacted the Lead-Safe Schools Protection Act,[26] which acknowledged the potential dangers of lead exposure, especially in children, and required the State Department of Health Services to assess the risk factors of schools and "determine the likely extent and distribution of lead exposure to children from paint on the school, soil in play areas at the school, drinking water at the tap, and other potential sources identified by the department for this purpose.[27] The Act did not specifically require testing of drinking water, but only required the Department to assess risk factors, of which drinking water was one.

B. Prior Law on Drinking Water

1. Federal Law

In 1974 Congress passed the federal Safe Drinking Water Act (SDWA), authorizing U.S. EPA to set health-based standards for drinking water supplies, which U.S. EPA, the states, and drinking water systems work together to meet.[28] The Safe Drinking Water Act applies to all "public water systems," which may be privately owned or governmental and, which are defined as "a system for the provision to the public of water for human consumption" that has at least 15 service connections and serves at least 25 people per day for at least 60 days out of the year.[29] U.S. EPA states that there are over 170,000 public water systems providing drinking water to Americans, to which the Act applies.[30]

Under authority provided in the federal Act, U.S. EPA promulgated health-based standards for lead and copper in drinking water, known as the federal Lead and Copper Rule (LCR).[31] The federal action level "is exceeded if the concentration of lead in more than 10 percent of tap water samples collected during any monitoring period…is greater than 0.015 mg/L [15 ppb]."[32] The number of samples required depends on the size of the drinking water system, and any history of prior exceedances.[33] The primary mechanisms described in the LCR to control and minimize lead in drinking water are "optimal corrosion control treatment," which includes monitoring and adjusting the chemistry of drinking water supplies to prevent or minimize corrosion of lead or

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[26] Education Code section 32240 et seq.

[27] Education Code section 32242.

[28] Exhibit I, *Understanding the Safe Drinking Water Act*, EPA publication, June 2004, page 1 (available at https://www.epa.gov/sites/production/files/2015-04/documents/epa816f04030.pdf).

[29] 42 U.S.C. § 300f(4).

[30] Exhibit I, *Understanding the Safe Drinking Water Act*, EPA publication, June 2004, page 2 (available at https://www.epa.gov/sites/production/files/2015-04/documents/epa816f04030.pdf).

[31] Title 40, Code of Federal Regulations, section 141.80 et seq.

[32] Title 40, Code of Federal Regulations, section 141.80(c).

[33] See Exhibit I, Lead and Copper Rule: A Quick Reference Guide, U.S. EPA publication June 2008, page 1 [Chart showing the number of sample sites required under standard sampling or reduced sampling, according to the size of the drinking water system].

copper plumbing materials; source water treatment; replacement of lead service lines; and public education.[34] The LCR also includes monitoring and reporting requirements for public water systems.[35]

2. California Law

The California Safe Drinking Water Act addresses drinking water quality specifically and states the policy that "[e]very resident of California has the right to pure and safe drinking water," and that "[i]t is the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that, when present in drinking water, may cause cancer, birth defects, and other chronic diseases."[36] These provisions do not provide a right to the delivery of water, but merely provide that drinking water delivered by a PWS must be of a certain quality, and reasonably free of pollutants, to the extent feasible. The Act goes on to state:

> (e) This chapter is intended to ensure that the water delivered by public water systems of this state shall at all times be pure, wholesome, and potable. This chapter provides the means to accomplish this objective.
>
> (f) It is the intent of the Legislature to improve laws governing drinking water quality, to improve upon the minimum requirements of the federal Safe Drinking Water Act Amendments of 1996, to establish primary drinking water standards that are at least as stringent as those established under the federal Safe Drinking Water Act, and to establish a program under this chapter that is more protective of public health than the minimum federal requirements.
>
> (g) It is further the intent of the Legislature to establish a drinking water regulatory program within the state board to provide for the orderly and efficient delivery of safe drinking water within the state and to give the establishment of drinking water standards and public health goals greater emphasis and visibility within the state.[37]

Article XI, section 9 of the California Constitution makes clear that drinking water may be provided either by a municipal corporation, or by another person or corporate entity.[38] SWRCB

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[34] Exhibit C, SWRCB's Comments on the Test Claim, page 6; Title 40, Code of Federal Regulations, section 141.80(d-g).

[35] Title 40, Code of Federal Regulations, sections 141.86 – 141.91.

[36] Health and Safety Code section 116270.

[37] Health and Safety Code section 116270.

[38] California Constitution, article XI, section 9 [Article XI, section 9(a) provides that "[a] municipal corporation *may* establish, purchase, and operate public works to furnish its inhabitants with light, water, power, heat, transportation, or means of communication." Article XI, section 9(b) also provides that "[p]ersons or corporations may establish and operate works for supplying those services upon conditions and under regulations that the city may prescribe under its organic law." Article XII asserts government regulatory authority, via the Public Utilities Commission, over "private corporations or persons that own, operate, control, of

issues drinking water supply permits to all California "public water systems," which may be privately or government owned and which are defined the same as under the federal Act as "a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year."[39]

The courts have called the California SDWA "a remedial act intended to protect the public from contamination of its drinking water."[40] Accordingly, the Act does not create affirmative rights, including rights to the delivery of water: the only mandatory duty on local government is to review on a monthly basis water quality monitoring data submitted to the local government by water suppliers within its jurisdiction in order to detect exceedances of water quality standards.[41] Nothing in the Act requires state or local government to assume responsibility to ensure that every resident of California receives water from a public water system, or to test or monitor the public water systems within its jurisdiction, or take corrective or enforcement actions when pollutants are detected. The focus of the Act is "to ensure that the water *delivered* by public water systems of this state shall at all times be pure, wholesome, and potable,"[42] and the monitoring and corrosion control requirements are aimed at the water systems themselves, whether publicly or privately owned.

The State has also adopted a Lead and Copper Rule, substantially similar to the federal rule, which requires all operators of drinking water systems to monitor and sample at a number of sample sites determined by the size of the system, primarily residential sample sites.[43] If lead levels above 0.015 mg/L (15 ppb) are detected, the water system is expected to take corrective action, beginning with corrosion control treatment measures, then source water treatment, lead service line replacement, and public education.[44] Approximately 500 schools within California are themselves permitted as a "public water system," because they have their own water supply,

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manage a line, plant, or system for …the production, generation, transmission, or furnishing of heat, light, water, power, storage, or wharfage directly or indirectly to or for the public…" However, nothing in article XI or XII creates or implies a right to the delivery of any such services, or any mandatory duty on local government to provide such services].

[39] Health and Safety Code sections 116525, 116271(k) [Before July 1, 2014, the Department of Public Health issued such permits; however, Statutes 2014, chapter 35 transferred those duties to the SWRCB, effective July 1, 2014];"Public Water Systems" are defined in Health and Safety Code section 116275(h) and 42 U.S.C. § 300f(4).

[40] *Coshow v. City of Escondido* (2005) 132 Cal.App.4th 687, 704.

[41] *Guzman v. County of Monterey* (2009) 178 Cal.App.4th 983, 989.

[42] Health and Safety Code section 116270(e) (emphasis added).

[43] See California Code of Regulations, title 22, section 64670 et seq.; Exhibit C, SWRCB's Comments on the Test Claim, pages 5-6; California Code of Regulations, title 22, section 64676 [Sample Site Selection].

[44] See, e.g., California Code of Regulations, title 22, section 64673 [Describing monitoring and corrosion control measures to be taken if an elevated lead level is detected].

such as a well.[45] Those entities also are required to test their taps for lead and copper under the LCR; however, most schools are served by community water systems that are not required to test for lead specifically at the school's taps.[46]

C. The Test Claim Permit Amendment

Both the federal and state law and regulations have long required drinking water systems to monitor a sample of their customers' water supplies for exceedances and to take corrective action as necessary. However, that monitoring has been mostly limited to residential service connections, as a proxy for the presence of lead within the greater drinking water system.[47]

In September 2015, the Legislature passed SB 334 as a potential solution to the gap in regulation, which would have, had it been enacted, required school districts with water sources or drinking water supplies that do not meet U.S. EPA standards to close access to those drinking water sources; provide alternative drinking water sources if the school did not have the minimum number of drinking fountains required by law; and provide access to free, fresh, and clean drinking water during meal times in the food service areas of the schools under its jurisdiction.[48] SB 334 was vetoed by then-Governor Brown, whose veto message expressed concern that the bill could create a very expensive reimbursable state mandate.[49] The veto message instead directed the SWRCB to examine the scope of the potential problem by incorporating water quality testing in schools as part of the state's LCR.[50]

Accordingly, SWRCB adopted the Permit Amendment (the test claim order) at issue here, as well as over 1,100 nearly identical (but for the individual PWS information) permit amendments for other drinking water systems serving K-12 schools. Specifically, the test claim order requires the claimant to submit to the Division of Drinking Water (DDW) a list of all K-12 schools served water through a utility meter; and then, if requested by any school within its service area, the drinking water system shall:

- Respond in writing within 60 days and schedule a meeting;

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[45] Exhibit I, *Frequently Asked Questions by Public Water Systems about Lead Testing of Drinking Water in California Schools*, California Water Boards, March 30, 3018, page 2.

[46] Exhibit I, *Frequently Asked Questions by Public Water Systems about Lead Testing of Drinking Water in California Schools*, California Water Boards, March 30, 3018, page 2.

[47] Exhibit C, SWRCB's Comments on the Test Claim, page 6 ["Together, the sampling sites provide an overall picture of lead levels in the water customers are consuming – the assumption being that the houses and other facilities near sampling sites will have similar plumbing characteristics and, therefore, similar amounts of lead in tap water"].

[48] Exhibit B, Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, page 148 [SB 334, Legislative Counsel's Digest].

[49] Exhibit B, Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, page 145 [Governor's Veto Message].

[50] Exhibit B, Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, page 145 [Governor's Veto Message].

- Finalize a sampling plan and complete initial sampling within 90 days, or develop an alternative time schedule if necessary;
- Collect one to five samples from drinking fountains, cafeteria/food preparation areas, or reusable bottle filling stations;
- Collect samples on a Tuesday, Wednesday, Thursday, or Friday on a day when school is in session;
- Submit samples to an ELAP certified laboratory;
- Within two business days of a result that shows an exceedance of 15 parts per billion (ppb), notify the school of the sample result;
- If an initial sample shows an exceedance of 15 ppb:
    - Collect an additional sample within 10 business days, unless the sample site is removed from service by the school;
    - Collect a third sample within 10 business days if the resample is less than or equal to 15 ppb;
    - Collect at least one more sample at a site where the school has completed some corrective action;
- Ensure the water system receives the results of repeat samples no more than 10 business days after the date of collection;
- Do not release lead sampling data to the public for 60 days, unless in compliance with a Public Records Act request;
- Discuss the results with the school prior to releasing the results to the public.[51]

Finally, the order states that the water system may not use any lead samples collected under the order to satisfy federal or state LCR requirements; the water system must keep records of all schools requesting testing or lead-related assistance and provide those records to DDW upon request; and the water system's annual Consumer Confidence Report shall include a statement summarizing the number of schools requesting lead sampling.[52]

III. Positions of the Parties

A. <u>City of San Diego</u>

The claimant alleges that the test claim order required the claimant to perform lead testing, at no charge, on the property of all schools that receive water from the claimant's public water system, upon request.[53]

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[51] Exhibit A, Test Claim, pages 105-107 [Permit Amendment No. 2017-PASCHOOLS, pp. 2-4].

[52] Exhibit A, Test Claim, pages 108 [Permit Amendment No. 2017-PASCHOOLS, p. 5].

[53] Exhibit A, Test Claim, page 14.

Specifically, the claimant alleges initial costs to develop a plan and begin responding to testing requests from schools;[54] as well as costs to compile a list of schools within the claimant's service area;[55] and costs and activities surrounding the actual response to testing requests.[56] The claimant further alleges for each sampling request received, it was required to:

(a) Prepare and send a response to the request;

(b) Submit a copy of the request to the state;

(c) Communicate with the school to schedule training meetings;

(d) Communicate school request status with the water system's management;

(e) Create and maintain a tracking spreadsheet; and

(f) Create sampling plans for each school (the claimant alleges 25 plans per week were required to be completed in order to meet the deadline in the order).[57]

The claimant also states that for each sampling request, and to complete each sampling plan, the claimant was required to collect one to five samples at each school from "regularly used drinking fountains, cafeteria/food preparation areas, or reusable bottle water filling stations selected according to the lead sampling plan…"[58] The claimant asserts that this sampling could only be done before the start of the school day, because the order required sampling after water had been sitting in plumbing and fixtures for at least six hours; and, the claimant asserts that sampling was only permitted to be conducted Tuesday through Friday, or on Saturdays in specific cases with approval from SWRCB.[59] The claimant states that 1,115 samples were taken and analyzed by the claimant in fiscal year 2017, excluding quality control samples.[60] The claimant further states that it developed a reporting template for tracking samples and the schools and fixtures from which they originated; and, based on the requirements of the order, the claimant consulted with schools after testing, aiding in the interpretation of results.[61] For school fixtures with lead sampling results over 15 ppb, schools had the option to resample, remediate, or remove the fixture. In cases where the school chose remediation, follow-up samples were taken and new reports provided to the school.[62]

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[54] Exhibit A, Test Claim, page 21.

[55] Exhibit A, Test Claim, pages 22-23.

[56] Exhibit A, Test Claim, pages 26-27.

[57] Exhibit A, Test Claim, pages 28-30.

[58] Exhibit A, Test Claim, page 30.

[59] Exhibit A, Test Claim, pages 31-32.

[60] Exhibit A, Test Claim, page 32.

[61] Exhibit A, Test Claim, page 32.

[62] Exhibit A, Test Claim, pages 32-33.

The claimant states that it used its own laboratory, which contains a mass spectrometer, to analyze the samples. The samples were analyzed independently, and not combined with other regulatory or special project samples, by a trained chemist.[63] The results of the sampling were required to be uploaded to DDW's database, which, the claimant asserts, required the claimant to develop a method to convert and upload the information all at once, rather than generate and upload 1,115 separate reports.[64]

The claimant further states that it was required to provide the results to the school representative, and in the case of an exceedance of 15 ppb, notify the school within two business days.[65] Also in the case of an exceedance, claimant states that it was required to collect and additional sample within 10 days, and a third sample within 10 days if the resample is less than or equal to 15 ppb.[66] An additional sample is also required after remediation.[67]

Though the order prohibits releasing the sampling results to the public for 60 days unless the water system releases the data in compliance with the Public Records Act, the claimant asserts that the Environmental Committee of the City Council also requested updates on the progress of lead testing on May 25, 2017 and June 20, 2017, for which the claimant prepared a presentation.[68] And, the order required the claimant to discuss lead sampling results with the school prior to release to the public, and to discuss results within 10 business days of receiving laboratory results.[69]

Finally, the claimant states that the order required the claimant to keep records of all requests from schools for lead sampling, and provide those records to DDW, upon request.[70]

The claimant asserts that no prior federal or state law requires the activities described, and that the claimant does not receive any dedicated state or federal funds, or any other non-local agency funds dedicated to this program.[71]

The claimant's rebuttal comments also assert that the test claim order imposes a new program or higher level of service. The claimant argues that the lead sampling requirements are a statewide policy or program;[72] which "furthers two governmental functions of providing services to the

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[63] Exhibit A, Test Claim, pages 36-37.

[64] Exhibit A, Test Claim, page 38.

[65] Exhibit A, Test Claim, pages 39-41.

[66] Exhibit A, Test Claim, page 42.

[67] Exhibit A, Test Claim, page 43.

[68] Exhibit A, Test Claim, pages 44-45.

[69] Exhibit A, Test Claim, page 46.

[70] Exhibit A, Test Claim, page 49.

[71] Exhibit A, Test Claim, pages 16-17; 52-53.

[72] Exhibit E, Claimant's Rebuttal Comments, page 2.

public," namely providing water service, and ensuring a safe environment for school children;[73] and that the Permit Amendment "applies uniquely to the City as a local water agency."[74] The claimant also notes that the case law, beginning with *County of Los Angeles*, articulates and applies two alternative tests.[75] The California Supreme Court decision in *County of Los Angeles* states that:

> The concern which prompted the inclusion of section 6 in article XIIIB was the perceived attempt by the state to enact legislation or adopt administrative orders creating programs to be administered by local agencies, thereby transferring to those agencies the fiscal responsibility for providing services which the state believed should be extended to the public.[76]

The claimant argues: "This is precisely what the Permit Amendment is doing: creating a new lead testing program for schools and transferring the cost and administration of the program to the City."[77] The claimant states that it has "approximately 281,000 retail water connections," and the city council approves rates and charges for water service.[78] The claimant also argues that the City's charter "imposes a legal obligation and responsibility on the City to provide water service."[79] Accordingly, the claimant argues that providing water service is a function of the City's government. In addition, the claimant argues that the provision of water service is a governmental function "because it is predominantly provided by public agencies," and in particular, "[l]ead testing of drinking water at schools is a service to the public."[80] The claimant reasons, therefore that the test claim order is a new program eligible for reimbursement under *County of Los Angeles*.[81]

Alternatively, the claimant argues that the test claim order constitutes a local program subject to mandate reimbursement because the lead sampling requirements carry out a governmental

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[73] Exhibit E, Claimant's Rebuttal Comments, page 3.

[74] Exhibit E, Claimant's Rebuttal Comments, page 3.

[75] Exhibit E, Claimant's Rebuttal Comments, page 3 [Citing *Carmel Valley Fire Protection Dist. v. State of California* (1987) 190 Cal.App.3d 521, 537 ("In [*County of Los Angeles v.*] *State of California*, the Court concluded that the term 'program' has two alternative meanings…")]. See also, *San Diego Unified School Dist. v. Commission on State Mandates* (2004) 33 Cal.4th 859, 876 [Citing and discussing *City of Sacramento v. State of California* (1990) 50 Cal.3d 51 ("We again applied the alternative tests set forth in *County of Los Angeles*…"].

[76] Exhibit E, Claimant's Rebuttal Comments, page 6 [quoting *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56].

[77] Exhibit E, Claimant's Rebuttal Comments, page 6.

[78] Exhibit E, Claimant's Rebuttal Comments, page 4.

[79] Exhibit E, Claimant's Rebuttal Comments, page 4.

[80] Exhibit E, Claimant's Rebuttal Comments, page 6.

[81] Exhibit E, Claimant's Rebuttal Comments, page 6.

function related to the safety of schools: "Schools are obligated to provide free drinking water to students, or to adopt a resolution explaining why fiscal constraints or health and safety concerns prevent it."[82] The claimant argues that the "history of the Permit Amendment demonstrates its purpose is to provide safe schools, a governmental function, while shifting financial responsibility to local water agencies."[83] The claimant references failed SB 334, vetoed in October 2015: "Instead of signing the bill, the Governor directed SWRCB to implement lead testing at schools through local water agencies as part of the Lead and Copper Rule."[84] The claimant argues that the reason SB 334 was vetoed was to avoid a reimbursable state mandate, but "[l]ead testing at schools does not lose its characterization as a 'governmental function of providing services to the public' under the Supreme Court's test, merely because the obligation is transferred from schools to water agencies."[85]

The claimant also argues that the test claim order imposes a unique requirement on the claimant that does not apply generally to all residents and entities in the State:

> The Permit Amendment applies specifically to the City. It does not apply generally to all residents and entities in the State. Even collectively considering all 1,100 permit amendments issued by SWRCB, they only apply to local water agencies with schools in their service areas, not to everyone in the State. The Permit Amendment does not require lead testing be performed for all state residents and entities either, only for schools. Collectively, the permit amendments apply uniquely to water agencies in the same way the Court found the requirement for fire protective gear applied uniquely to public and private fire protection agencies. The permit amendments do not need to exclusively apply to publicly-owned water agencies to satisfy the uniqueness element of the second test.
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> Under the second test, examples of laws that apply generally to all residents and entities in the state include requirements to provide employees with unemployment insurance coverage, worker's compensation benefits, or to upgrade public buildings to comply with statewide elevator safety regulations. Subvention was denied in these cases because the requirements applied to everyone, not just to local government. Unlike these examples, though, the Permit Amendment only applies to the City. Those in the State who do not provide water service do not have to comply with the Permit Amendment.[86]

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[82] Exhibit E, Claimant's Rebuttal Comments, page 6 [citing Educ. Code § 38086].

[83] Exhibit E, Claimant's Rebuttal Comments, page 7.

[84] Exhibit E, Claimant's Rebuttal Comments, page 7.

[85] Exhibit E, Claimant's Rebuttal Comments, page 7.

[86] Exhibit E, Claimant's Rebuttal Comments, page 8.

The claimant therefore concludes that the test claim order implements a state policy, and imposes unique requirements on the claimant that do not apply generally to all persons and entities in the state.[87]

The claimant also disputes the arguments of the SWRCB and the Department of Finance. First, the claimant argues that the SWRCB's reliance on the concept of a service "peculiar" to government is not supported in the case law:

> SWRCB argues that the City is ineligible for reimbursement because water service is not a function "peculiar" to government, and therefore not a governmental function. But the first test established by the California Supreme Court does not require that the function be "peculiar" to government, only that the program "carry out the governmental function of providing services to the public." The word "peculiar" is not in the test. The Supreme Court used the term "peculiar" only to distinguish programs that are forced on local government from laws that apply generally to all state residents and entities. The opinion of *Carmel Valley Fire Protection District v. State of California* cited by SWRCB, certainly found that "fire protection is a peculiarly governmental function" in satisfying the first test, despite the fact that private sector fire fighters provide the same service. The opinion does not say, however, that the first test can only be satisfied if the governmental function is peculiar to government, as SWRCB suggests.
>
> The first test only requires that the governmental function be that "of providing services to the public." SWRCB does not cite a published opinion where the government was providing a public service, but subvention was denied because the government function was not peculiar to government. Instead, instances where the first test was not satisfied involved situations where the new requirements did not increase the level of service provided to the public, such as requirements to provide employees with unemployment insurance coverage, worker's compensation benefits, or to upgrade public buildings to comply with statewide elevator safety regulations. These requirements only increased the government's incidental cost of providing existing public services rather than requiring new services or programs.[88]

The claimant also argues that SWRCB's reliance on "a 100-year-old line of cases on sovereign immunity" is inapplicable, and irrelevant. The claimant argues that more recently "Courts have determined '[t]he labels "governmental function" and "proprietary function" are of dubious value in terms of legal analysis in any context.'"[89] The claimant argues that Proposition 218 weakens the analogy to corporate or proprietary activities: "Water service provided by public

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[87] Exhibit E, Claimant's Rebuttal Comments, page 8.

[88] Exhibit E, Claimant's Rebuttal Comments, page 4.

[89] Exhibit E, Claimant's Rebuttal Comments, page 5 [citing *Pacific Telephone & Telegraph Company v. Redevelopment Agency of the City of Redlands*, (1977) 75 Cal. App.3d 957, 968].

agencies no longer carries the indicia of a proprietary function or private enterprise due to Proposition 218 (discussed below), which eliminates profit from water service charges."[90]

And, the claimant argues that "SWRCB's reliance on the Service Duplication Law is confusing."[91] The claimant asserts that the Service Duplication Law, which was adopted in 1965, "recognizes that water service was transitioning from a private to a predominantly governmental function by providing compensation to private utilities for lost business."[92] The claimant maintains that "[n]ow, over 50 years later, that transition is substantially complete."[93]

Further, the claimant disputes the characterization by SWRCB and Finance that water service is largely a private enterprise. The claimant notes that even though SWRCB provides evidence that approximately 75 percent of drinking water systems are private entities, "the same tables show that 81% of the population served by drinking water systems statewide, or 33.8 million of 41.6 million people, receive their water service from public entities."[94] The claimant argues that "[s]uch a large percentage of the State population receiving water service from public entities is strong evidence that water service is a governmental function, more persuasive than the fact that small, privately owned water systems outnumber large, publicly owned systems."[95]

The claimant also asserts that it has incurred increased costs mandated by the state, and that the exceptions in Government Code section 17556 do not apply. The claimant alleges its total costs for fiscal year 2016-2017 to be $351,577.26, and for fiscal year 2017-2018, $47,815.67.[96] The order expressly provides that the claimant must conduct the lead sampling at no charge to the schools in its service area. The claimant concludes on this basis, and pursuant to article XIII C of the California Constitution, which prohibits a fee or charge that exceeds the proportional cost of service attributable to a parcel, that the claimant is unable to recoup the costs of the alleged mandate through fees for water service, because it cannot impose or increase fees on the schools

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[90] Exhibit E, Claimant's Rebuttal Comments, page 5 [Proposition 218 added articles XIII C and XIII D to the California Constitution, which generally require assessments, as well as fees or charges for property-related services, to be proportional to the benefit received by the payor, and to be limited to the amount necessary to provide the service or special benefit. As a general rule, any revenues received in excess of the proportional benefit or burden are deemed to be taxes, and thus are illegally collected absent a two-thirds voter approval].

[91] Exhibit E, Claimant's Rebuttal Comments, page 5.

[92] Exhibit E, Claimant's Rebuttal Comments, page 5.

[93] Exhibit E, Claimant's Rebuttal Comments, page 5.

[94] Exhibit E, Claimant's Rebuttal Comments, page 5 [citing Exhibit C, SWRCB's Comments on the Test Claim, Attachment 101, pp. 406-409].

[95] Exhibit E, Claimant's Rebuttal Comments, page 5.

[96] Exhibit A, Test Claim, page 58.

in which it conducts lead testing, and it is legally proscribed from imposing or increasing fees on other water users.[97]

The claimant states in its rebuttal comments that the test claim order results in increased costs mandated by the state: "By mandating that the City perform lead testing for free, the Permit Amendment has ensnared the City in [a] constitutional web of fees and charges, where the only ways out are to spend local tax revenue or to seek reimbursement through this Commission."[98] The claimant argues that because the express language of the test claim order prohibits charging schools for the costs of sampling, "the cost of the new service is being absorbed by all City ratepayers."[99] The "constitutional web" the claimant is referring to is the substantive limitations on new fees or charges imposed by Proposition 218; article XIII D imposes a proportionality requirement, a prohibition on excessive fees, and a prohibition on new fees or charges for any service "unless that service is actually used by, or immediately available to, the owner of the property in question."[100] And although the "SWRCB believes that the Permit Amendment confers a direct benefit on all water ratepayers, not just the schools, in the form of increased property values and ensuring the City's water does not contain lead,"[101] the claimant argues that the benefits are not sufficiently direct:

> First, raising water rates to cover the cost of the Permit Amendment would ultimately violate the Permit Amendment itself. The City is legally obligated by Proposition 218 to apportion the cost of service based on the relative benefits received by its customers. Proposition 218 further prohibits the City from charging customers for services that are not immediately available to them. The schools, as the exclusive and direct recipients of lead testing under the Permit Amendment, benefit the most in that the testing assesses school pipes and fixtures for sources of lead. Lead testing is not available to the rest of the City's water ratepayers under the Permit Amendment, so they do not receive the benefit of having their own properties evaluated. The benefits of higher property values and testing of City water that SWRCB says are direct benefits to all ratepayers, are really collateral or incidental benefits. Any water rate increase apportioning the cost of lead testing among City ratepayers would fall primarily on schools, the direct and primary beneficiary of the lead testing. The Permit Amendment, however, prohibits charging a school for lead testing. A school is being charged for lead testing whether the City sends the school an invoice when the testing is done, or passes on the cost of lead testing to a school through a water rate increase.

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[97] Exhibit A, Test Claim, page 54.

[98] Exhibit E, Claimant's Rebuttal Comments, page 9.

[99] Exhibit E, Claimant's Rebuttal Comments, page 9.

[100] Exhibit E, Claimant's Rebuttal Comments, page 10 [citing Cal. Const. art. XIII D, § 6].

[101] Exhibit E, Claimant's Rebuttal Comments, page 10.

> Second, even assuming there is a plausible connection between lead testing at schools and higher property values in the surrounding neighborhoods, higher property values do not benefit all water ratepayers. Water ratepayers are both homeowners and renters. While a homeowner may benefit from a higher resale value of a home, a tenant will not. Higher property values cannot justify charging all water ratepayers for a service they are not receiving.[102]

Moreover, the claimant argues that any fees that might be imposed for lead testing are not imposed as an incident of property ownership, on an ongoing basis.[103] Accordingly, the claimant argues that Proposition 26 controls:

> Proposition 26 further tightened the restrictions on local government revenue imposed by Propositions 13 and 218 by defining a tax as "any levy, charge, or exaction of any kind imposed by a local government, except the following:"
>
> > (1) A charge imposed for a specific benefit conferred or privilege granted directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of conferring the benefit or granting the privilege.
> >
> > (2) A charge imposed for a specific government service or product provided directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of providing the service or product.
> >
> > (3) A charge imposed for the reasonable regulatory costs to a local government for issuing licenses and permits, performing investigations, inspections, and audits, enforcing agricultural marketing orders, and the administrative enforcement and adjudication thereof.
> >
> > (4) A charge imposed for entrance to or use of local government property, or the purchase, rental, or lease of local government property.
> >
> > (5) A fine, penalty, or other monetary charge imposed by the judicial branch of government or a local government, as a result of a violation of law.
> >
> > (6) A charge imposed as a condition of property development.
> >
> > (7) Assessments and property-related fees imposed in accordance with the provisions of Article XIII D.
>
> A fee or charge is a tax that must be approved by the voters unless the fee or charge meets one of these seven exceptions. [Citing to Cal. Const., art. XIII C, § 2.] The last of the seven exceptions is for property-related fees and charges under Proposition 218, but because lead testing performed under the Permit Amendment is not provided as an incident of property ownership (discussed above), the City

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[102] Exhibit E, Claimant's Rebuttal Comments, page 11.

[103] Exhibit E, Claimant's Rebuttal Comments, page 12.

> cannot avail itself of that exception to raise water rates without voter approval. The third through sixth exceptions are inapplicable to a fee for lead testing because the City is not acting as a regulator in performing the service, the City is not charging the schools to enter City property, the City is not fining the schools for violating the law, and the City is not imposing a development fee, respectively. The first exception for "a specific benefit conferred or privilege granted directly to the payor" does not apply either, because the City is not issuing a school a permit or a license to engage in any activity.
>
> This leaves only the second exception, which would ordinarily give the City sufficient fee authority in situations like this: "[a] charge imposed for a specific government service or product provided directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of providing the service or product." [Citing to Cal. Const., art. XIII C, § 1(e)(2).] The City is providing lead testing services on school property at the request of each school, for which the City could ordinarily charge each school an amount equivalent to the cost of providing the service. The problem is the Permit Amendment prohibits the City from charging the schools, even though the schools are receiving the government service. The school is not the "payor," so the second exception does not apply. Therefore, by default, the City's water ratepayers become the "payor" even though they are not requesting or receiving the service. Without any applicable exceptions, charging water ratepayers for lead testing provided to schools for free is a tax subject to voter approval under Proposition 26.[104]

Accordingly, the claimant asserts that the test claim order imposes a reimbursable state-mandated program within the meaning of article XIII B, section 6 of the California Constitution.

In response to the Draft Proposed Decision, the claimant provides additional argument and evidence that the City's operation of a PWS is not discretionary, in large part due to its long history of doing so, and because of the substantial investment that would be lost and substantial bond liability that would immediately come due if the City elected to discontinue such service.[105] The claimant asserts that these facts constitute practical compulsion within the meaning of *Department of Finance v. Commission* (*Kern*).[106]

In addition, the claimant continues to assert that the test claim order imposes a new program or higher level of service, in that water service is an essential function of government, and that even if providing water service is not a governmental function and a public service, providing free lead testing in schools is a service to the public.[107]

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[104] Exhibit E, Claimant's Rebuttal Comments, pages 12-13.

[105] Exhibit H, Claimant's Comments on the Draft Proposed Decision, pages 8-11.

[106] (2003) 30 Cal.4th 727.

[107] Exhibit H, Claimant's Comments on the Draft Proposed Decision, pages 2-8.

B. Department of Finance

Finance argues that "[w]hile water service is a local governmental function in some jurisdictions, it is not a function unique to local governments."[108] Finance bases this conclusion on SWRCB's statement that 450 of the 1,100 "public water systems" affected by permit amendments identical to the test claim order are privately owned and operated.[109]

Finance also argues that "claimants do have fee authority undiminished by Propositions 218 or 26."[110] Finance states that "Proposition 26 specifically excludes assessments and property-related fees imposed in accordance with Proposition 218 from the definition of taxes."[111] Finance maintains that the alleged mandate "involves the provision of water services and the fee authority is subject at most to the majority protest provision under article XIII D, section 6(a)."[112] Finance further asserts that "as the State Board makes clear in its comments on this test claim, lead testing in K-12 schools provides a direct benefit to all water systems and each ratepayer, and the City may therefore set water rates sufficient to pay for the costs of compliance with the permit amendment."[113]

C. State Water Resources Control Board

SWRCB asserts that the test claim order is not subject to state mandate reimbursement because the order does not constitute a "new program or higher level of service" since it does not provide a peculiarly governmental service and is not unique to government. Additionally, and in the alternative, the claimant has fee authority sufficient to cover the costs of any required activities despite Proposition 218.

Specifically, SWRCB argues that the claimant's operation of a PWS subject to the order "is not a function of service peculiar to government because public water systems are operated by both private and governmental entities."[114] And, SWRCB argues that the order "imposes no unique requirements on the City because the State Water Board imposed the exact same lead testing in school requirements on over 1,100 publicly and privately owned water systems."[115]

SWRCB acknowledges that the Safe Drinking Water Act, which SWRCB is responsible for implementing, makes it the policy of the state to reduce to the lowest level feasible all concentrations of toxic chemicals that may cause cancer, birth defects, or other chronic illness. And, SWRCB recognizes that it is the policy of the state to establish standards at least as

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[108] Exhibit D, Finance's Comments on the Test Claim, page 2.

[109] Exhibit D, Finance's Comments on the Test Claim, page 2.

[110] Exhibit D, Finance's Comments on the Test Claim, page 2.

[111] Exhibit D, Finance's Comments on the Test Claim, page 2.

[112] Exhibit D, Finance's Comments on the Test Claim, page 2.

[113] Exhibit D, Finance's Comments on the Test Claim, page 2.

[114] Exhibit C, SWRCB's Comments on the Test Claim, page 8.

[115] Exhibit C, SWRCB's Comments on the Test Claim, pages 8-9.

stringent as the federal Safe Drinking Water Act, and to protect public health and "establish a drinking water regulatory program that provides for the orderly and efficient delivery of safe drinking water throughout the state."[116]

However, in doing so, SWRCB argues that this order, one of 1,100 simultaneously adopted permit amendments, does not impose a state-mandated new program or higher level of service because the requirements of sampling for lead in K-12 schools apply to a variety of public and private entities, the only common characteristic of which is that the subject water systems are all PWSs that serve at least one K-12 school. SWRCB argues that the alleged mandate "relates to the City's provision of drinking water as a public water system."[117] SWRCB argues that the provision of drinking water, in this context, is not a service that is "peculiar to government," in the sense discussed in *County of Los Angeles v. State of California*.[118]

The term "public water system," SWRCB explains, does not mean only those drinking water systems that are publicly owned; instead, "[a] public water system is defined as a system that provides water for human consumption to at least 15 or more connections or that regularly serves 25 or more people daily."[119] And, SWRCB notes, "[o]f the 6,970 water systems currently operating in California, 5,314 are private entities and 1,656 are public entities."[120] More importantly, SWRCB argues that the courts have found that reimbursement is only required for "programs" that are essential and basic to government, "peculiar" to government, or "traditional" governmental services.[121] SWRCB argues that the provision of water, though sometimes a service provided by a governmental entity is not a traditional or essential service of government.

SWRCB argues that the rules developed by the courts are also consistent with a line of cases involving tort claims against local governments, prior to the adoption of the Government Claims Act. A threshold issue in each of those tort claims was whether sovereign immunity barred an action against the local government, and the courts distinguished cases in which sovereign immunity was available or not by characterizing the activity giving rise to the action as either "governmental" or "public," or more in the nature of "corporate" or "private."[122] SWRCB asserts that municipal activities providing utilities or other "facilities of urban life," are generally

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[116] Exhibit C, SWRCB's Comments on the Test Claim, page 4.

[117] Exhibit C, SWRCB's Comments on the Test Claim, page 10.

[118] Exhibit C, SWRCB's Comments on the Test Claim, pages 9-10 [citing *County of Los Angeles v. State* (1987) 43 Cal.3d 46].

[119] Exhibit C, SWRCB's Comments on the Test Claim, page 3 [citing Health and Safety Code § 116275(h)].

[120] Exhibit C, SWRCB's Comments on the Test Claim, page 2 [citing May 2018 Water System Report, Attachment 101 (Exhibit C, p. 455)].

[121] Exhibit C, SWRCB's Comments on the Test Claim, pages 10-11.

[122] Exhibit C, SWRCB's Comments on the Test Claim, page 12 [citing *Chafor v. City of Long Beach* (1917) 174 Cal. 478; *Plaza v. City of San Mateo* (1954) 123 Cal.App.2d 103; *City of Concord v. Tony Freitas* (1956) 144 Cal.App.2d 822].

considered more in the nature of "corporate" services, rather than "government" services.[123] SWRCB concludes "[a]lthough for the purposes of sovereign immunity, the distinction between the corporate and governmental functions of government is no longer relevant, this line of cases remains appropriate and persuasive authority for defining what constitutes a service peculiar to government."[124]

SWRCB also argues that this interpretation "is underscored by the Service Duplication Law, which requires a local government to compensate a private water supplier when the local government extends service into the service area of the private supplier.[125] SWRCB states that "[t]his statutory requirement for compensation…amounts to a legislative determination that water service is not a service that is or should be peculiar to local governments."[126]

SWRCB concludes on this issue that "simply put, the provision of drinking water is not a function or service which is peculiar to local government."[127] SWRCB states that "statewide, the overwhelming majority (over 75 percent) of drinking water systems are privately owned."[128] SWRCB asserts that no state or federal law requires a city or county to operate a drinking water system, and "[i]ndeed, many cities and counties do not provide potable water to their residents and, instead, rely on private companies to provide drinking water to city and county residents."[129] SWRCB argues that unlike the services at issue in *Carmel Valley* and *City of Sacramento*, "operating a public water system is not an 'essential,' 'basic,' 'classical' or 'traditional' governmental function."[130]

With respect to the alternative test, requirements "uniquely" imposed on local government, and not applicable generally to all residents or entities, SWRCB argues that the order must be considered in the context of the SWRCB's other permit amendments adopted simultaneously: "[w]hen viewed within this larger programmatic context, the Permit Amendment imposes no unique requirements on the City and is not a new program subject to subvention…"[131] SWRCB explains:

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[123] Exhibit C, SWRCB's Comments on the Test Claim, page 12 [citing *In re Bonds of Orosi Public Utility District v. McHuiag* (1925) 196 Cal. 43].

[124] Exhibit C, SWRCB's Comments on the Test Claim, page 12 [citing Muskopf v. Corning Hospital Dist. (1961) 55 Cal.2d 211, 219-220].

[125] Exhibit C, SWRCB's Comments on the Test Claim, page 13 [citing Public Utilities Code § 1501 et seq.].

[126] Exhibit C, SWRCB's Comments on the Test Claim, page 13.

[127] Exhibit C, SWRCB's Comments on the Test Claim, page 13.

[128] Exhibit C, SWRCB's Comments on the Test Claim, page 13.

[129] Exhibit C, SWRCB's Comments on the Test Claim, page 13.

[130] Exhibit C, SWRCB's Comments on the Test Claim, page 13.

[131] Exhibit C, SWRCB's Comments on the Test Claim, page 13.

> [T]he City was one of more than 1,100 public water systems that received permit amendments substantially identical to the City's Permit Amendment. The State Water Board issued these permit amendments within a few days of each other. Collectively, these permit amendments, including the Permit Amendment at issue in this Test Claim, effectuate the statewide lead testing of drinking water in schools program. Of the over 1,100 public water systems that received the permit amendments, approximately 450 water systems are privately owned. Accordingly, the Permit Amendment, as part of the State Water Board's lead testing in schools program, imposed no unique requirements on the City that were not imposed on the privately owned water systems.[132]

SWRCB also notes that "[v]iewing each individual drinking water permit in a vacuum, and not relative to other similarly situated water systems, could result in a determination that each requirement was unique to that particular water system because the drinking water permit only applies to that entity."[133] SWRCB concludes that "[t]his cannot be the result the voters intended…"[134]

Finally, SWRCB argues that Proposition 218 does not prevent the claimant from imposing or increasing water rates to recoup the costs of the alleged mandate. SWRCB argues that the claimant interprets its authority post-Proposition 218 too narrowly. Broadly, Proposition 218 requires new or increased fees to be proportional to the benefit received or the burden imposed on the local government related to the governmental service at issue. However, SWRCB argues that the lead testing required under the Order confers a direct benefit on all water system users as a whole.[135] Additionally, SWRCB states that "[b]y requiring additional lead testing in schools, the Permit Amendment functionally extends the Lead and Copper rule by providing additional testing points which can inform the City about how the water chemistry in its distribution network may be impacting not only particular schools, but residences who obtain water from a common source or through a common delivery system."[136] SWRCB thus argues that "just as the testing of private residences under the Lead and Copper rule benefits the water system as a whole…the lead testing in K-12 schools provides a similar direct benefit to each ratepayer by providing additional testing inputs the City can use to optimize its water chemistry and quality…"[137]

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[132] Exhibit C, SWRCB's Comments on the Test Claim, page 14.

[133] Exhibit C, SWRCB's Comments on the Test Claim, page 14.

[134] Exhibit C, SWRCB's Comments on the Test Claim, page 14.

[135] Exhibit C, SWRCB's Comments on the Test Claim, page 15.

[136] Exhibit C, SWRCB's Comments on the Test Claim, page 16.

[137] Exhibit C, SWRCB's Comments on the Test Claim, page 16.

In addition, SWRCB argues that lead testing in schools will help to maintain and possibly improve property values; and that school facilities are often used for community meetings and generally provide a benefit to the entire community.[138]

Based on these arguments, SWRCB concludes that the activities alleged in the test claim order are not reimbursable.

In response to the Draft Proposed Decision, SWRCB states that it agrees that the permit amendment does not impose a reimbursable new program or higher level of service.[139] In addition, SWRCB asserts that if the Commission determines that the permit amendment constitutes a new program or higher level of service, "there are alternative grounds to find that the City has sufficient fee authority to comply with the Permit Amendment."[140]

IV. Discussion

Article XIII B, section 6 of the California Constitution provides in relevant part the following:

> Whenever the Legislature or any state agency mandates a new program or higher level of service on any local government, the state shall provide a subvention of funds to reimburse such local government for the costs of such programs or increased level of service…

The purpose of article XIII B, section 6 is to "preclude the state from shifting financial responsibility for carrying out governmental functions to local agencies, which are 'ill equipped' to assume increased financial responsibilities because of the taxing and spending limitations that articles XIII A and XIII B impose."[141] Thus, the subvention requirement of section 6 is "directed to state-mandated increases in the services provided by [local government] …"[142]

Reimbursement under article XIII B, section 6 is required when the following elements are met:

1. A state statute or executive order requires or "mandates" local agencies or school districts to perform an activity.[143]
2. The mandated activity either:
    a. Carries out the governmental function of providing a service to the public; or

[138] Exhibit C, SWRCB's Comments on the Test Claim, page 16.

[139] Exhibit G, SWRCB's Comments on the Draft Proposed Decision, page 1.

[140] Exhibit G, SWRCB's Comments on the Draft Proposed Decision, page 1.

[141] *County of San Diego v. State of California* (1997) 15 Cal.4th 68, 81.

[142] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56.

[143] *San Diego Unified School Dist. v. Commission on State Mandates* (2004) 33 Cal.4th 859, 874.

b. Imposes unique requirements on local agencies or school districts and does not apply generally to all residents and entities in the state.[144]

3. The mandated activity is new when compared with the legal requirements in effect immediately before the enactment of the test claim statute or executive order.[145]

4. The mandated activity results in the local agency or school district incurring increased costs mandated by the state within the meaning of section 17514. Increased costs, however, are not reimbursable if an exception identified in Government Code section 17556 applies to the activity.[146]

The Commission is vested with the exclusive authority to adjudicate disputes over the existence of state-mandated programs within the meaning of article XIII B, section 6 of the California Constitution.[147] The determination whether a statute or executive order imposes a reimbursable state-mandated program is a question of law.[148] In making its decisions, the Commission must strictly construe article XIII B, section 6 of the California Constitution, and not apply it as an "equitable remedy to cure the perceived unfairness resulting from political decisions on funding priorities."[149]

A. <u>This Test Claim Is Timely Filed Pursuant to Government Code Section 17551.</u>

Government Code section 17551(c) states that test claims "shall be filed not later than 12 months following the effective date of a statute or executive order, or within 12 months of incurring increased costs as a result of a statute or executive order, whichever is later."[150]

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[144] *San Diego Unified School Dist. v. Commission on State Mandates* (2004) 33 Cal.4th 859, 874-875 (reaffirming the test set out in *County of Los Angeles* (1987) 43 Cal.3d 46, 56).

[145] *San Diego Unified School Dist.* (2004) 33 Cal.4th 859, 874-875, 878; *Lucia Mar Unified School District v. Honig* (1988) 44 Cal3d 830, 835.

[146] *County of Fresno v. State of California* (1991) 53 Cal.3d 482, 487; *County of Sonoma v. Commission on State Mandates* (2000) 84 Cal.App.4th 1265, 1284; Government Code sections 17514 and 17556.

[147] *Kinlaw v. State of California* (1991) 53 Cal.3d 482, 487.

[148] *County of San Diego v. State of California* (1997) 15 Cal.4th 68, 109.

[149] *County of Sonoma v. Commission on State Mandates* (2000) 84 Cal.App.4th 1265, 1280 [citing *City of San Jose v. State of California* (1996) 45 Cal.App.4th 1802, 1817].

[150] Government Code section 17551(c).

The effective date of the order is January 18, 2017.[151] The claimant filed the Test Claim on January 11, 2018, less than 12 months after the effective date of the order.[152] Therefore, the Test Claim is timely filed.

B. The Test Claim Order Does Not Impose a New Program or Higher Level of Service.

This Test Claim alleges new state-mandated activities and costs arising from an amendment to the claimant's public water system permit adopted by SWRCB, Order No. 2017PA-SCHOOLS for the City of San Diego PWS No. 3710020, which requires the claimant, as the operator of a "public water system" that serves a number of K-12 schools, to perform lead sampling upon request of a school. A PWS may be a private company or a governmental entity and is defined as "a system for the provision to the public of water for human consumption" that has at least 15 service connections and serves at least 25 people per day for at least 60 days out of the year.[153] Under the order, upon request, the PWS must take samples to perform lead sampling, at one to five fixtures (e.g., drinking fountains or food preparation areas) on the school's property, process those results at a certified laboratory, maintain records of the requests and the results, and provide the results, and if necessary, information to the school regarding possible remediation or other solutions if lead is detected in the fixtures above 15 parts per billion (ppb).

The activities required by the order are new, as compared against prior state and federal law. However, as described below, the activities alleged do not constitute a new program or higher level of service subject to reimbursement under article XIII B, section 6 of the California Constitution.

1. The test claim order imposes new requirements on operators of public water systems.

The plain language of the test claim order requires the claimant, as a PWS, to:

- Submit to SWRCB's Division of Drinking Water a comprehensive list of the names and addresses of all K-12 schools served water through a utility meter [by the claimant];[154]
- If a school representative requests lead sampling assistance in writing:
    - Respond in writing within 60 days and schedule a meeting with school officials to develop a sampling plan;[155]

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[151] Exhibit A, Test Claim, page 104 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 1].

[152] Exhibit A, Test Claim, page 1.

[153] 42 United States Code, section 300f(4).

[154] Exhibit A, Test Claim, page 105 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 2].

[155] Exhibit A, Test Claim, page 106 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 3].

- Finalize a sampling plan and complete initial sampling within 90 days [or an alternative time schedule approved by DDW];[156]
- Collect one to five samples at each school, from regularly used drinking fountains, cafeteria or food preparation areas, or reusable bottle filling stations, selected according to the sampling plan, and using the sampling guidance provided in Appendix A;[157]
- Collect lead samples during the school year, on a Tuesday, Wednesday, Thursday, or Friday on a day that school is in session and has been in session for at least one day prior to the day of sampling;[158]
- Ensure samples are collected by an adequately trained water system representative;[159]
- Submit the samples to an ELAP certified laboratory for analysis;[160]
- Require the laboratory to submit the data electronically to DDW;[161]
- Provide a copy of the results to the school representative;[162]
- Within two business days of a result that shows an exceedance of 15 ppb, notify the school of the sample result;[163]

- If an initial sample shows an exceedance of 15 ppb:

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[156] Exhibit A, Test Claim, page 106 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 3].

[157] Exhibit A, Test Claim, page 106 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 3].

[158] Exhibit A, Test Claim, page 106 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 3].

[159] Exhibit A, Test Claim, page 106 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 3].

[160] Exhibit A, Test Claim, page 106 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 3].

[161] Exhibit A, Test Claim, page 106 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 3].

[162] Exhibit A, Test Claim, page 106 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 3].

[163] Exhibit A, Test Claim, page 106 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 3].

- Collect an additional sample within 10 days if the sample site remains in service;[164]
- Collect a third sample within 10 business days after notification that a resample result is less than or equal to 15 ppb;[165]
- Collect at least one more lead sample at a sample site where the school has completed some corrective action following an initial lead sample result over 15 ppb;[166]

- Ensure that the water system receives the results of repeat lead samples from the laboratory in no more than 10 business days;[167]
- Do not release the lead sampling data to the public for 60 days following receipt of the initial lead sampling results unless in compliance with a Public Records Act request for specific results;[168]
- Discuss the lead sample results with the school prior to releasing the sample results to the public, and within 10 days of receiving the results from the laboratory;[169]
- Communicate with the school after lead sampling and assist the school with the interpretation of laboratory results and provide information regarding potential corrective actions if the results confirm lead levels above 15 ppb;[170]
    - The water system is not responsible for the costs of any corrective action or maintenance;[171]

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[164] Exhibit A, Test Claim, page 106 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 3].

[165] Exhibit A, Test Claim, page 106 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 3].

[166] Exhibit A, Test Claim, page 107 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 4].

[167] Exhibit A, Test Claim, page 107 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 4].

[168] Exhibit A, Test Claim, page 107 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 4].

[169] Exhibit A, Test Claim, page 107 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 4].

[170] Exhibit A, Test Claim, page 108 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 5].

[171] Exhibit A, Test Claim, page 108 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 5].

- Keep records of all requests for lead related assistance and provide the records to DDW, upon request;[172]
- Include in the annual Consumer Confidence Report a statement summarizing the number of schools requesting lead sampling.[173]

Both the claimant and SWRCB agree that these requirements are new, as compared against prior law.[174]

The Commission finds that the requirements imposed by the test claim order are new. Prior law, under the federal Safe Drinking Water Act, the California SDWA, and the federal and state Lead and Copper Rule, all address, in some manner, the existence of lead in drinking water. But none of those provisions specifically requires local government to assist schools with lead sampling at drinking water fountains and other fixtures. As noted, schools that operate their own water systems or that receive water from groundwater wells were already subject to some mixture of lead sampling requirements and control measures under existing law, but the requirements of this order, for PWSs that supply water to K-12 schools to sample one to five drinking water fixtures on school property, upon request of the school, are new.

2. The new requirements of the test claim order do not constitute a new program or higher level of service, within the meaning of article XIII B, section 6 of the California Constitution.

State mandate reimbursement is not required for any and all costs that might be incurred by local government incident to a change in law. Mandate reimbursement is required only when all elements of article XIII B, section 6 are met: the statute or executive order must impose a state mandated program, must provide "new program or higher level of service," and must result in increased costs mandated by the state.[175] If any of these elements is not satisfied, then reimbursement is not required and the test claim must be denied.

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[172] Exhibit A, Test Claim, page 108 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 5].

[173] Exhibit A, Test Claim, page 108 [Permit Amendment No. 2017PA-SCHOOLS, Issued to the City of San Diego, Public Water System No. 3710020, p. 5].

[174] See Exhibit A, Test Claim, pages 16-17 ["The City's existing Permit and its prior amendments do not require [the claimant] to perform lead testing at K-12 schools."]; Exhibit C, SWRCB's Comments on the Test Claim, pages 5-7 [Explaining that under prior federal and state regulations community water systems, such as operated by the claimant, were required to monitor and sample for lead throughout their systems, but mostly by sampling private residences.].

[175] California Constitution, article XIII B, section 6; *County of San Diego v. State of California* (1997) 15 Cal.4th 68, 81 and 109; Government Code sections 17514, 17556.

The Draft Proposed Decision relied on the *City of Merced* and *Department of Finance (Kern High School Dist., and POBRA)* cases,[176] to find that local government is not mandated by state or federal law to provide drinking water through operation of a PWS and, thus, is not mandated by the state to comply with the test claim order.[177] The analysis turned largely on the absence of any requirement in the California Constitution for local government to own or operate a PWS, and the express authority for private and public entities to do so.[178] The Draft Proposed Decision also noted that there was no evidence in the record that the claimant is practically compelled and would suffer "certain and severe penalties" or other draconian measures if the claimant decided to no longer provide water services to its residents or operate as a PWS.[179]

In its response to the Draft Proposed Decision, the claimant has provided additional argument and evidence that the City is practically compelled to continue providing water service as a PWS, both because of the long history of doing so, and because of the substantial bond liability it has incurred, which would immediately come due if it ceased operation of the PWS.[180] Specifically, the claimant asserts that it incorporated its municipal water "agency" on July 21, 1901, when the voters approved the issuance of bonds to purchase the distribution system from a private water company.[181] Subsequent "bonds and other financing secured over the years to maintain the water system in good working order," totaling approximately $890 million as of November 2018, would immediately come due if the claimant sought to discontinue service.[182] For these reasons, the claimant argues that it is practically compelled to continue to operate as a PWS.

The Commission, does not need to resolve the state-mandate issue to determine this case because, as explained below, the Commission finds that test claim order does not constitute a new program or higher level of service and, thus, reimbursement under article XIII B, section 6 is not required.

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[176] *City of Merced v. State of California* (1984) 153 Cal.App.3d 777; *Department of Finance v. Commission on State Mandates* (2003) 30 Cal.4th 727; *Department of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1355.

[177] Exhibit F, Draft Proposed Decision, pages 49-55.

[178] See Exhibit F, Draft Proposed Decision, pages 49-50 [citing California Constitution, article XI, section 9; *Glenbrook Development Co. v. City of Brea* (1967) 253 Cal.App.2d 267, 274].

[179] Exhibit F, Draft Proposed Decision, page 55. See also, *Department of Finance v. Commission on State Mandates* (*Kern*) (2003) 30 Cal.4th 727, 753-754. *Department of Finance v. Commission on State Mandates* (*POBRA*) (2009) 170 Cal.App.4th 1355, 1368.

[180] Exhibit H, Claimant's Comments on the Draft Proposed Decision, pages 8-11; 56-59 [Declaration of Raymond C. Palmucci, Deputy City Attorney designated to review and approve information pertaining to the City's Water Fund].

[181] Exhibit H, Claimant's Comments on the Draft Proposed Decision, page 9 [The claimant also points out that its six largest customers are federal, state, and local agencies, including the City itself, and that these agencies could not function if the City elected to discontinue water service].

[182] Exhibit H, Claimant's Comments on the Draft Proposed Decision, pages 10-11; 112 [Financial Statement regarding Subordinated Water Revenue Bonds, Series 2018A].

a. The courts have defined a "new program or higher level of service" as a "program that carries out the governmental function of providing services to the public or laws, which, to implement a state policy, impose unique requirements on local government."

The California Supreme Court explained in *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, that a new program or higher level of service means a program that carries out of the governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on local government and do not apply generally to all residents and entities in the state," as follows:

> Looking at the language of section 6 then, it seems clear that by itself the term "higher level of service" is meaningless. It must be read in conjunction with the predecessor phrase "new program" to give it meaning. Thus read, it is apparent that the subvention requirement for increased or higher level of service is directed to state mandated increases in the services provided by local agencies in existing "programs." But the term "program" itself is not defined in article XIII B. What programs then did the electorate have in mind when section 6 was adopted? We conclude that the drafters and the electorate had in mind the commonly understood meanings of the term – *programs that carry out the governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on local governments and do not apply generally to all residents and entities in the state*.[183]

The Court further held that "the intent underlying section 6 was to require reimbursement to local agencies for the costs involved in carrying out functions *peculiar to government*, not for expenses incurred by local agencies as an incidental impact of laws that apply generally to all state residents and entities."[184] The law at issue in the *County of Los Angeles* case addressed increased worker's compensation benefits for government employees, and the Court concluded that:

> …section 6 has no application to, and the state need not provide subvention for, the costs incurred by local agencies in providing to their employees the same increase in worker's compensation benefits that employees of private individuals or organizations receive. Workers' compensation is *not* a program administered by local agencies to *provide service to the public*.[185]

The Court also concluded that the statute did not impose unique requirements on local government:

> Although local agencies must provide benefits to their employees either through insurance or direct payment, they are indistinguishable in this respect from private employers. In no sense can employers, public or private, be considered to be administrators of a program of workers' compensation or to be providing services

[183] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56 (emphasis added).

[184] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56-57 (emphasis added).

[185] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 57-58 (emphasis added).

> incidental to administration of the program. Workers' compensation is administered by the state through the Division of Industrial Accidents and the Workers' Compensation Appeals Board. [Citation omitted.] Therefore, although the state requires that employers provide workers' compensation for nonexempt categories of employees, increases in the cost of providing this employee benefit are not subject to reimbursement as state-mandated programs or higher levels of service within the meaning of section 6.[186]

In *City of Sacramento*, the Court considered whether a state law extending mandatory unemployment insurance coverage to include local government employees imposed a reimbursable state mandate.[187] The Court followed *County of Los Angeles*, holding that "[b]y requiring local governments to provide unemployment compensation protection to their own employees, the state has not compelled provision of new or increased 'service to the public' at the local level…[nor] imposed a state policy 'uniquely' on local governments."[188] Rather, the Court observed that most employers were already required to provide unemployment protection to their employers, and "[e]xtension of this requirement to local governments, together with the state government and nonprofit corporations, merely makes the local agencies 'indistinguishable in this respect from private employers.'"[189]

A few other examples are instructive. In *Carmel Valley*, the claimants sought reimbursement from the state for protective clothing and equipment required by regulation, and the State argued that private sector firefighters were also subject to the regulations, and thus the regulations were not unique to government.[190] The court rejected that argument, finding that "police and fire protection are two of the most essential and basic functions of local government."[191] And since there was no evidence on that point in the trial court, the court held "we have no difficulty in concluding as a matter of judicial notice that the overwhelming number of fire fighters discharge a classic governmental function."[192] Thus, the court found that the regulations requiring local agencies to provide protective clothing and equipment to firefighters carried out the

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[186] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56, 58.

[187] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51.

[188] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 67.

[189] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 67. See also, *City of Richmond v. Commission on State Mandates* (1998) 64 Cal.App.4th 1190 [Finding that statute eliminating local government exemption from liability for worker's compensation death benefits for public safety employees "simply puts local government employers on the same footing as all other nonexempt employers"].

[190] *Carmel Valley Fire Protection District v. State of California* (1987) 190 Cal.App.3d 521.

[191] *Carmel Valley Fire Protection District v. State of California* (1987) 190 Cal.App.3d 521, 537 [quoting *Verreos v. City and County of San Francisco* (1976) 63 Cal.App.3d 86, 107].

[192] *Carmel Valley Fire Protection District v. State of California* (1987) 190 Cal.App.3d 521, 537.

governmental function of providing services to the public. The court also found that the requirements were uniquely imposed on government because:

> The executive orders manifest a state policy to provide updated equipment to all fire fighters. Indeed, compliance with the executive orders is compulsory. The requirements imposed on local governments are also unique because fire fighting is overwhelmingly engaged in by local agencies. Finally, the orders do not generally apply to all residents and entities in the State but only to those involved in fire fighting.[193]

Later, in *County of Los Angeles II*, counties sought reimbursement for elevator fire and earthquake safety regulations that applied to all elevators, not just those that were publicly owned.[194] The court found that the regulations were plainly not unique to government.[195] The court also found that the regulations did not carry out the governmental function of providing a service to the public, despite declarations by the county that without those elevators, "no peculiarly governmental functions and no purposes mandated on County by State law could be performed in those County buildings . . . ."[196] The court held that the regulations did not constitute an increased or higher level of service, because "[t]he regulations at issue do not mandate elevator service; they simply establish safety measures."[197] The court continued:

> In determining whether these regulations are a program, the critical question is whether the mandated program carries out the governmental function of providing services to the public, not whether the elevators can be used to obtain these services. Providing elevators equipped with fire and earthquake safety features simply is not "a governmental function of providing services to the public." [FN 5 This case is therefore unlike *Lucia Mar, supra*, 44 Cal.3d 830, in which the court found the education of handicapped children to be a governmental function (44 Cal.3d at p. 835) and *Carmel Valley, supra*, where the court reached a similar conclusion regarding fire protection services. (190 Cal.App.3d at p. 537.)[198]

As analyzed herein, the test claim order does not impose unique requirements on local government and does not impose a program that carries out the governmental function of providing services to the public.

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[193] *Carmel Valley Fire Protection District v. State of California* (1987) 190 Cal.App.3d 521, 538.

[194] *County of Los Angeles v. Department of Industrial Relations* (1989) 214 Cal.App.3d 1538.

[195] *County of Los Angeles v. Department of Industrial Relations* (1989) 214 Cal.App.3d 1538, 1545.

[196] *County of Los Angeles v. Department of Industrial Relations* (1989) 214 Cal.App.3d 1538, 1545.

[197] *County of Los Angeles v. Department of Industrial Relations* (1989) 214 Cal.App.3d 1538, 1546.

[198] *County of Los Angeles v. Department of Industrial Relations* (1989) 214 Cal.App.3d 1538, 1546, Footnote 5.

b. The requirements of the test claim order are not uniquely imposed on government.

The claimant contends that the test claim order imposes unique requirements on the claimant that do not apply generally to all residents and entities in the State and, therefore constitutes a new program or higher level of service:

> The Permit Amendment applies specifically to the City. It does not apply generally to all residents and entities in the State. Even collectively considering all 1,100 permit amendments issued by SWRCB, they only apply to local water agencies with schools in their service areas, not to everyone in the State. The Permit Amendment does not require lead testing be performed for all state residents and entities either, only for schools. Collectively, the permit amendments apply uniquely to water agencies in the same way the Court found the requirement for fire protective gear applied uniquely to public and private fire protection agencies. The permit amendments do not need to exclusively apply to publicly-owned water agencies to satisfy the uniqueness element of the second test.
>
> Under the second test, examples of laws that apply generally to all residents and entities in the state include requirements to provide employees with unemployment insurance coverage, worker's compensation benefits, or to upgrade public buildings to comply with statewide elevator safety regulations. Subvention was denied in these cases because the requirements applied to everyone, not just to local government. Unlike these examples, though, the Permit Amendment only applies to the City. Those in the State who do not provide water service do not have to comply with the Permit Amendment.
>
> The Permit Amendment satisfies all the elements of the second test. The Permit Amendment is implementing a State policy of providing safe drinking water to school students. The policy is implemented by obligating local water agencies to test for lead on school property. The obligation to test for lead does not apply generally to all residents and entities in the State, but uniquely to local water agencies. Therefore, the Permit Amendment is a new program eligible for reimbursement under the second test established by the Supreme Court.[199]

In response to the Draft Proposed Decision, the claimant continues to argue that "[t]he Permit Amendments do not generally apply to all residents and entities in the State, but only to those providing water service to schools, in the same manner that the requirements in Carmel Valley only applied to firefighting services."[200]

The Commission disagrees with the claimant and finds that the requirements of the test claim order are not uniquely imposed on local government.

First, it is correct that the test claim order pled is uniquely addressed to *a* local government entity (the City of San Diego, in its capacity as the operator of a PWS in this instance). However, it is but one of 1,128 permit amendments adopted near-simultaneously, more than a third of which

[199] Exhibit E, Claimant's Rebuttal Comments, page 8.

[200] Exhibit H, Claimant's Comments on the Draft Proposed Decision, page 8.

were issued to privately owned PWS's, with the same requirements to perform lead sampling upon request of a school within the service area. As instructed by the courts interpreting article XIII B, section 6 of the California Constitution, this test claim order cannot be considered in isolation; it must be construed in context with other similar permits issued by SWRCB to PWSs.[201] The test claim statute in *City of Sacramento* expressly extended unemployment insurance to public sector employees without altering the law applicable to private sector employees.[202] The California Supreme Court, however, considered the statute in context and held that the statute did not impose requirements unique to local government and, thus, did not impose a new program or higher level of service: "Extension of this requirement to local governments, together with the state government and nonprofit corporations, merely makes the local agencies 'indistinguishable in this respect from private employers.'"[203] The Court also observed that it would "have an anomalous result" if the State could "avoid subvention under *County of Los Angeles* standards by imposing new obligations on the public and private sectors at the same time," while "if it chose to proceed by stages, extending such obligations first to private entities, and only later to local governments, it would have to pay."[204] Similarly, the test claim statute in *City of Richmond v. Commission on State Mandates* eliminated a statutory exemption from providing workers' compensation death benefits to local safety members, which put local government employers on the same footing as all other nonexempt employers, requiring that they provide the workers' compensation death benefit.[205] The court found that the statute did not impose a new program or higher level of service, even though the statute itself, considered in isolation, affected only local government.[206] Accordingly, here, the Commission must consider the permit amendment in context, and although the permit amendment pled in this test claim is directed to only one local government, it is one of many permits issued to PWS' and is therefore not *uniquely* imposed on the claimant.

The claimant, however, asserts that "[t]he obligation to test for lead does not apply generally to all residents and entities in the State, but uniquely to local water agencies,"[207] and therefore the test claim order is eligible for reimbursement under article XIII B, section 6. The claimant's statement is factually incorrect, and misuses and misapplies the words "generally" and "uniquely." The factual error inherent in the claimant's argument is that lead testing

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[201] See *City of Richmond v. Commission on State Mandates* (1998) 64 Cal.App.4th 1190 [Elimination of a previous statutory exemption from part of worker's compensation law was not a new program, uniquely imposed on government, even though the statute itself, considered in isolation, affected only local government].

[202] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51.

[203] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 67 [quoting *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 58].

[204] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51, 69.

[205] *City of Richmond v. Commission on State Mandates* (1998) 64 Cal.App.4th 1190, 1197.

[206] *City of Richmond v. Commission on State Mandates* (1998) 64 Cal.App.4th 1190, 1197-1198.

[207] Exhibit E, Claimant's Rebuttal Comments, page 8.

requirements do not apply only to "local water agencies," a phrase which implies a group of *local government* entities,. The permit amendments issued apply "to *each public water system* that serves drinking water to at least one or more of grades [K-12]"[208] which is significantly more broad than "local water agencies" and includes both governmental and privately owed systems. Similarly, the SWRCB media release accompanying the permit amendments stated "[t]he Board is requiring *all community water systems* to test school drinking water upon request by the school's officials."[209]

As noted above, the term "public water system" does not mean a water system owned or operated by a governmental entity; California's SDWA defines a PWS as "a system for the provision to the public of water for human consumption" that has at least 15 service connections and serves at least 25 people per day for at least 60 days out of the year.[210] In addition, the Act defines several other water systems that might deliver drinking water and would be regulated under the Act, including, but not limited to, a "community water system," defined as a public water system that serves yearlong residents; and a "state small water system," defined as a system that serves at least five but not more than 14 service connections and does not regularly serve at least 25 persons for more than 60 days out of the year.[211] The record indicates that permit amendments were issued to privately owned PWS's including mutual water companies organized under the Corporations Code;[212] and investor-owned utilities regulated under the Public Utilities Code.[213] Describing such entities as "local water agencies," or implying that the

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[208] Exhibit E, Claimant's Rebuttal Comments, page 21 [Permit Amendment No. 2017PA-SCHOOLS].

[209] Exhibit E, Claimant's Rebuttal Comments, page 34 [SWRCB Media Release, Jan. 17, 2017].

[210] Health and Safety Code 116275(h).

[211] See Health and Safety Code section 116275(h-k; n-o).

[212] Corporations Code section 14300 et seq.. See, e.g., Exhibit C, SWRCB's Comments on the Test Claim, Permit Amendments issued to entities described as "mutual water company" or "mutual water association": pages 897 [Ali Mutual Water Co.]; 1053 [Aromas Hills Mutual Water Association]; 1092 [Arrowhead Villas Mutual Service Co.]; 1139 [Atascadero Mutual Water Co.]; 1153 [Averydale Mutual Water Co.]; 1340 [Bedel Mutual Water Co.]; 1392 [Bellflower-Somerset MWC]; 1414 [Best Road Mutual Water Co.]; 1427 [Beverly Grand Mutual Water]; 1623 [Box Springs Mutual Water Co.].

[213] See, Exhibit I, List of Regulated Water and Sewer Utilities, California Public Utilities Commission, August 17, 2018. See, e.g., Exhibit C, SWRCB's Comments on the Test Claim, Permit Amendments issued to investor-owned utilities regulated by PUC: pages 1265 [Bakman Water Co.]; 1292 [Bass Lake Water Co.]; 1455 [Big Basin Water Co.]; 1862-1939 [California Water Service Company: King City, Las Lomas, Oak Hills, Salinas Hills, Salinas, Stockton]; 1940 [California American Water, Coronado]; 2105 [California Water Service, Bear Gulch]; 2133-2177 [California Water Service: East Los Angeles, Hermosa/Redondo; Palos Verdes]; 2193-2220 [California Water Service: Westlake, Los Altos Suburban]; 2240 [California Water Service, South San Francisco]; 2380-2414 [Cal-Water Service Co.: Chico, Hamilton City, Marysville, Oroville, Willows]; 2508 [Canada Woods Water Co.]; 2661 [Cazadero Water Co.];

requirements of the test claim order apply only to "local water agencies" is misleading and factually inaccurate.

Moreover, as indicated above, the provision of water through a public water system, to a school or any other customer, is not an activity or service unique to government, and therefore additional requirements or costs imposed on that service are also not unique. Article XI, section 9 of the California Constitution provides that a municipal corporation, or a private person or corporation, may be established to operate public works to furnish water.[214] This provision was adopted by voter initiative to make clear that cities or other local entities had authority to organize to provide such services, which had previously been provided primarily by private entities.[215] SWRCB provides evidence that there are 6,970 water systems of various types currently operating in California, 5,314 of which (approximately 76 percent) are privately owned and operated, and 1,656 of which are public entities.[216]

More importantly, the claimant's assertion that the lead sampling requirements of the test claim order "do not apply generally to all residents and entities in the State, but uniquely to local water

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5956 [CWS Bakersfield]; 6034 [CWS Selma]; 6060-6098 [CWS: Visalia, Dixon, Livermore]; 6194-6214 [Del Oro Water Co.: Magalia, Paradise Pines, Stirling Bluffs]; 6481 [East Pasadena Water Co.]; 6541 [Easton Estates Water Co.]; 6725 [Erskine Creek Water Co.]; 7077 [Fruitridge Vista Water Co.]; 7192 [Golden State Water Co., Clearlake]; 7315 [Golden State Water Co., Wrightwood]; 7395 [Great Oaks Water Co.]; 7408 [Green Acres Mobile Home Estates]; 7880 [Havasu Water Co.]; 8078 [Hillview Water Co., Oakhurst/Sierra Lakes]; 8524 [Kenwood Village Water Co.]; 8866 [Lake Alpine Water Co.]; 9021 [Las Flores Water Co.]; 9270 Little Bear Water Co.]; 9426 Lukins Brothers Water Co.]; 9768 [Mesa Crest Water Co.]; 10082 [Mountain Mesa Water Co.]; 10217 Nacimiento Water Co.]; 10871 Penngrove Water Co.]; 10925 [Pierpoint Springs Water Co.]; 11066 [Point Arena Water Works]; 11478 [Rio Plaza Water Co.]; 11542 [Rolling Green Utilities]; 11803-11845 [San Gabriel Valley Water Co., El Monte, Montebello, Fontana]; 11915 [San Jose Water Co.]; 12959 [Southern California Edison Co., Santa Catalina]; 12975 [Spreckels Water Co.]; 13163-13213 [Suburban Water Systems, Covina, Glendora, La Mirada]; 14361 [Warring Water Service, Inc.]; 14411 [Weimar Water Co.]; 14426 [West San Martin Water Works, Inc.]; 14649 [Yerba Buena Water Co.].

[214] California Constitution, article XI, section 9(a-b).

[215] *In re Bonds of Orosi Public Utility Dist*. (1925) 196 Cal. 43, 55 ["The adoption of the amendment definitely settled and removed all doubt from the question of the right of cities and towns to own and operate the kind of public utilities designated by the Constitution"].

[216] Exhibit C, SWRCB's Comments on the Test Claim, pages 2; 455-457. However, the claimant argues, and SWRCB concedes, that the largest water systems are publicly owned, and therefore the majority of Californians are served by a publicly owned water system. (Exhibit C, SWRCB's Comments on the Test Claim, p. 2; Exhibit E, Claimant's Rebuttal Comments, p. 5.)

agencies,"[217] misconstrues the test.[218] The Court in *County of Los Angeles* reasoned that the "drafters and the electorate" that shaped and adopted article XIII B, section 6, intended to require mandate reimbursement for "programs that carry out the governmental function of providing services to the public, or laws which, to implement a state policy, impose unique requirements on local government and do not apply generally to all residents and entities in the state."[219] The claimant's underlying argument is that because the test claim order applies only to PWSs, and not to "all residents and entities in the State," it should be considered "uniquely" imposed on local government.[220] This reasoning misinterprets and misapplies the words "generally" and "uniquely," which the Court used to illustrate the difference between a law that results indirectly, or incidentally, in costs to local government; and a law that specifically and directly imposes new "unique" requirements on local government.[221]

First, *general* does not mean *universal*: "The rule need not, however, apply universally; a rule applies generally so long as it declares *how a certain class of cases will be decided*."[222] Accordingly, the idea that a law would "apply generally to all residents and entities in the State" should not be taken to mean that a law must apply broadly to *all* persons and entities without limitation or caveat; laws may apply to a *class* of persons or entities, or to a defined set of *circumstances*, and still be considered to apply *generally*.[223] The permit amendment applies to the claimant because the claimant operates a PWS, which has K-12 schools within its service area.[224] These are the circumstances and class of entities upon which SWRCB *generally* imposed the lead testing requirements, and those circumstances are shared by a number of privately owned entities, in addition to governmental entities.

Moreover, a law that applies to a class of persons or entities whose members are both governmental and private cannot be said to apply *uniquely* to government, as the claimant asserts. Rather, the requirements of the test claim order are applicable to all PWS's that serve at

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[217] Exhibit E, Claimant's Rebuttal Comments, pages 8-9; Exhibit H, Claimant's Comments on the Draft Proposed Decision, pages 7-8.

[218] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56.

[219] *County of Los Angeles v. State* (1987) 43 Cal.3d 46, 56.

[220] Exhibit E, Claimant's Rebuttal Comments, pages 8-9; Exhibit H, Claimant's Comments on the Draft Proposed Decision, pages 7-8.

[221] *County of Los Angeles v. State* (1987) 43 Cal.3d 46, 56-57.

[222] *Tidewater Marine Western v. Bradshaw* (1996) 14 Cal.4th 557, 571.

[223] *Ex parte Weisberg* (1932) 215 Cal. 624, 629 ["A law is general and uniform and affords equal protection in its operation when it applies equally to all persons embraced within the class to which it is addressed, provided that such class is founded upon some natural or intrinsic or constitutional distinction between the persons composing it and others not embraced in it"].

[224] See Exhibit E, Claimant's Rebuttal Comments, page 34 [SWRCB Media Release, January 17, 2017].

least one K-12 school, and there is evidence in the record, absent in *Carmel Valley*,[225] that there are a substantial number of PWS's affected by the policy that are privately owned, as noted above. Thus, the requirements are not *unique* to government at all; rather, they apply to the claimant and similarly-situated local agencies by virtue of their decision to own or operate a PWS, but they also apply to PWSs that are *not* local government agencies: approximately 450 privately owned PWSs are subject to the same requirements.[226]

The claimant notes that in *City of Sacramento*,[227] *County of Los Angeles*,[228] and *County of Los Angeles II*,[229] "[s]ubvention was denied in these cases because the requirements applied to everyone, not just to local government."[230] And in its comments on the Draft Proposed Decision, the claimant insists that the permit amendments are analogous to "the requirements in *Carmel Valley* [that] only applied to firefighting agencies."[231] Again, this misconstrues the meaning of "generally" and "uniquely" and the effect of the test articulated by the courts: in each case the requirements applied based on a given set of limitations or circumstances. In *City of Sacramento* and *County of Los Angeles*, the requirements applied to the class of *employers*, which included both public and private entities.[232] In *County of Los Angeles II* the requirements applied to the owners or operators of both public and private buildings containing elevators.[233] Thus, the assertion that the test claim statutes in those cases applied to "everyone" is simply not accurate. In *Carmel Valley*, which the claimant asserts is controlling, the requirements applied only to firefighting organizations, but the court found those requirements *unique to government* because "fire fighting is overwhelmingly engaged in by local agencies."[234] In this case, however, the evidence in the record shows that that class includes a substantial population of private entities.[235]

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[225] *Carmel Valley Fire Protection Dist. v. State of California* (1987) 190 Cal.App.3d 521, 537 ["Our record on this point is incomplete because the issue was not presented below. Nonetheless, we have no difficulty in concluding as a matter of judicial notice that the overwhelming number of fire fighters discharge a classical governmental function."]

[226] Exhibit C, SWRCB's Comments on the Test Claim, page 6.

[227] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51.

[228] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 56.

[229] *County of Los Angeles v. Dept. of Industrial Relations* (1989) 214 Cal.App.3d 1538.

[230] Exhibit E, Claimant's Rebuttal Comments, page 8.

[231] Exhibit H, Claimant's Comments on the Draft Proposed Decision, page 8.

[232] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46; *City of Sacramento v. State of California* (1990) 50 Cal.3d 51.

[233] *County of Los Angeles v. Dept. of Industrial Relations* (1989) 214 Cal.App.3d 1538.

[234] *Carmel Valley Fire Protection Dist. v. State of California* (1987) 190 Cal.App.3d 521, 538.

[235] See Exhibit C, SWRCB's Comments on the Test Claim, pages 819 and following [Permit Amendments 2017PA-SCHOOLS, issued to all subject PWS's].

Therefore, this Test Claim is distinguishable from *Carmel Valley*, in which the court noted that it did not have evidence in the record of the existence or prevalence of private fire-fighting teams or private fire personnel, but accepted it as a matter of judicial notice that the overwhelming majority of fire fighters discharge a governmental service.[236] Here, the evidence shows that the test claim order is one permit of more than 1,100 issued to drinking water suppliers that serve at least one K-12 school, a substantial number of which are non-governmental entities.

This Test Claim most closely resembles *County of Los Angeles II*.[237] In that case, earthquake safety regulations applied to the owners or operators of buildings containing elevators, and affected the local government only insofar as the County operated buildings that contained working elevators.[238] Here, the test claim order affects the claimant *only because* the claimant provides drinking water through a PWS to K-12 schools within its service area, and those schools have requested testing, but it also affects a substantial number of private entities that meet the same criteria.

Accordingly, the requirements of the test claim order are not uniquely imposed on local government.

c. <u>The test claim order does not impose a program that carries out a governmental function of providing a service to the public within the meaning of article XIII B, section 6.</u>

The alternative test articulated by the Court to determine if a statute or executive order imposes a new program or higher level of service is whether the requirements of the statute or executive order constitute a "program[] that carr[ies] out the governmental function of providing services to the public."

The claimant asserts that the test claim order imposes a new program or higher level of service because *County of Los Angeles* and the cases following only require that a governmental function be a function of providing services to the public, not that the function at issue must be "peculiar" to government.[239] The claimant argues, based on a number of authorities cited that employ some variation of the phrase "governmental function," that anything a local government does pursuant to legal authority is a government function.[240] In comments on the Draft Proposed Decision, the claimant argues that the Draft Proposed Decision relies too heavily on the prevalence of privately owned PWS's, and ignores both United States Supreme Court and California Supreme Court authorities that describe water service as a governmental function.[241] The claimant states the following:

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[236] *Carmel Valley Fire Protection Dist. v. State of California* (1987) 190 Cal.App.3d 521, 537.

[237] *County of Los Angeles v. Dept. of Industrial Relations* (1989) 214 Cal.App.3d 1538.

[238] *County of Los Angeles v. Dept. of Industrial Relations* (1989) 214 Cal.App.3d 1538, 1545.

[239] Exhibit E, Claimant's Rebuttal Comments, page 4.

[240] Exhibit E, Claimant's Rebuttal Comments, page 5.

[241] Exhibit H, Claimant's Comments on the Draft Proposed Decision, pages 2-4.

> The Draft Proposed Decision determines the Permit Amendment does not impose unique requirements on local government because private companies received similar orders, and then concludes water service is not a peculiarly governmental function because private companies also provide water service. In other words, the fact that private companies provide water service defeats both tests. What this analysis fails to recognize is that private companies can perform governmental functions without turning the function into a proprietary one. For example, operating prisons is a governmental function even though both public entities and private companies perform the service. [Citation omitted.] Trash collection is also a governmental function even though public agencies and private firms both provide the service. [Citation omitted.] Governmental functions are not limited to functions performed *exclusively* by government. [Citation omitted.][242]

The claimant further asserts that even if providing water service through a PWS is not a governmental function, testing for lead in schools is a governmental function. The claimant alternatively argues that the "program" at issue is not providing water, but ensuring safe schools, which the courts have found to be a program within the meaning of article XIII B, section 6.[243]

In this case, the Commission finds that the provision of drinking water through the operation of a PWS is not an essential or peculiarly government function. Thus, the activities required of all PWSs to test for the presence of lead at drinking fountains and in food preparation areas at the request of any K-12 school in their service area does not impose a new program or higher level of service within the meaning of article XIII B, section 6 of the California Constitution. The Commission further finds that the examples and analogies raised by both the claimant and SWRCB do not support an interpretion of "governmental function" that is more broad than relevant mandate case authorities suggest. And finally, the Commission finds that ensuring safe schools is the purview of schools, and not of a PWS.

i. A "governmental function" within the meaning of article XIII B, section 6 is limited to activities peculiar and essential to local governments such as providing police and fire protection, and public education.

The Court in *County of Los Angeles* elaborated upon its two part test for a "program" subject to article XIII B, section 6, referencing the ballot arguments that declared that section 6 "[w]ill not allow the state government to force programs on local governments without the state paying for them." The Court explained that "the phrase 'to force programs on local governments' confirms that the intent underlying section 6 was to require reimbursement to local agencies for the *costs involved in carrying out functions peculiar to government*, not for expenses incurred by local agencies as an incidental impact of laws that apply generally to all state residents and entities."[244] On that basis, the Court reasoned that workers compensation was not a local governmental

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[242] Exhibit H, Claimant's Comments on the Draft Proposed Decision, page 2.

[243] Exhibit E, Claimant's Rebuttal Comments, page 6 [citing *San Diego Unified School Dist. v. Commission on State Mandates* (2004) 33 Cal.4th 859, 879].

[244] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 57.

program at all, both because it is not administered by local government (it is administered by the State), and because, following enactment of the test claim statute, private and public employers have the same obligations under the law.[245]

In the years since, the courts have applied and interpreted this test to *confirm* the existence of a *governmental* program within the meaning of article XIII B, section 6 to include the following: protective clothing and equipment for firefighters;[246] education of "handicapped" children;[247] reducing racial or ethnic segregation in public schools;[248] providing due process in expulsion proceedings in public schools;[249] and providing due process in disciplinary proceedings for peace officers employed by cities and counties.[250] In *Carmel Valley*, addressing fire protective clothing and equipment, the court observed that the underlying government service at issue is a "peculiarly governmental function," and that police and fire protection are "two of the most essential and basic functions of local government."[251] The same was echoed in *POBRA*, relative to the due process procedures for city and county peace officer disciplinary proceedings.[252] *Lucia Mar*, *Long Beach*, and *San Diego Unified* all addressed alleged reimbursable mandates in the realm of education,[253] for which the governmental duty of a school district is clearly expressed in the California Constitution,[254] and for which the court in *Long Beach* expressly recognized that education is a "peculiarly governmental function," notwithstanding the existence of private schools.[255]

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[245] *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46, 57-58.

[246] *Carmel Valley Fire Protection Dist. v. State of California* (1987) 190 Cal.App.3d 521.

[247] *Lucia Mar Unified School Dist. v. Honig* (1988) 44 Cal.3d 830.

[248] *Long Beach Unified School Dist. v. State of California* (1990) 225 Cal.App.3d 155.

[249] *San Diego Unified School Dist. v. Commission* (2004) 33 Cal.4th 859.

[250] *Department of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1355.

[251] *Carmel Valley Fire Protection Dist. v. State of California* (1987) 190 Cal.App.3d 521, 537 [citing *County of Sacramento v. Superior Court* (1972) 8 Cal.3d 479, 481; *Verreros v. City and County of San Francisco* (1976) 63 Cal.App.3d 86, 107].

[252] *Department of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1355, 1367 [An "ordinary, principal and mandatory duty" for cities and counties and some special districts to provide "policing services within their territorial jurisdiction."].

[253] *Lucia Mar Unified School Dist. v. Honig* (1988) 44 Cal.3d 830; *Long Beach Unified School Dist. v. State of California* (1990) 225 Cal.App.3d 155; *San Diego Unified School Dist. v. Commission* (2004) 33 Cal.4th 859.

[254] California Constitution, article IX, sections 2 [providing for a State Superintendent of Public Instruction]; 3 [providing for a Superintendent of Schools in each county]; 5 ["The Legislature shall provide for a system of common schools by which a free school shall be kept up and supported in each district at least six months in every year."].

[255] See *Long Beach Unified School Dist.* v. *State of California* (1990) 225 Cal.App.3d 155, 172.

At the same time the courts have *rejected* mandate reimbursement in the following cases, finding that they did *not* involve a governmental function of providing a service to the public (and also were not uniquely imposed on local government): fire and earthquake safety features for elevators in buildings open to the public;[256] elimination of a government and nonprofit employer exemption from contributing to unemployment insurance;[257] awarding attorneys' fees against a local government under Code of Civil Procedure section 1021.5;[258] and the elimination of an exemption for local governments employing public safety workers from requirements to pay workers' compensation death benefits.[259] The cases disapproving reimbursement therefore involved either costs and activities related to local governments' capacity as an employer;[260] or generally-applicable laws that impacted local government by virtue of some other circumstance not relating to any identifiable *governmental* service (i.e., the award of attorneys' fees for litigants successful against local govenrment, and the applicability of elevator safety regulations in public buildings).[261]

Unlike *Carmel Valley*, *Lucia Mar*, *Long Beach*, *San Diego Unified*, and *POBRA*, the test claim order in this case does not involve an essential and *peculiarly governmental* function identified by the courts of this State.[262] The test claim order here relates to the provision of drinking water through a PWS, which is fundamentally distinct from the other examples discussed above: providing water service for a fee to ratepayers/customers, is far different from providing police or fire protection, or free and appropriate public education, to all residents of the jurisdiction regardless of their ability to pay, which are core, mandatory governmental functions, according to the case law discussed above. Water service, on the other hand, is not a mandatory duty of local government and can be, and often is, provided by a private entity. As noted in the Background, there is no legal requirement for local agencies to be involved in providing water, and historically the authority of local agencies to do so was in question. Article XI, section 9(a) of the California Constitution provides that a municipal corporation *may* be established to operate public works to furnish light, water, power, heat, transportation, or means of

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[256] *County of Los Angeles v. Department of Industrial Relations* (1989) 214 Cal.App.3d 1538.

[257] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51.

[258] *County of Fresno v. Lehman* (1991) 229 Cal.App.3d 340.

[259] *City of Richmond v. Commission on State Mandates* (1998) 64 Cal.App.4th 1190.

[260] *City of Sacramento v. State of California* (1990) 50 Cal.3d 51; *City of Richmond v. Commission on State Mandates* (1998) 64 Cal.App.4th 1190. See also, *County of Los Angeles v. State of California* (1987) 43 Cal.3d 46.

[261] *County of Los Angeles v. Department of Industrial Relations* (1989) 214 Cal.App.3d 1538; *County of Fresno v. Lehman* (1991) 229 Cal.App.3d 340.

[262] See, e.g., *Carmel Valley Fire Protection Dist. v. State of California* (1987) 190 Cal.App.3d 521, 537; *Department of Finance v. Commission on State Mandates* (2009) 170 Cal.App.4th 1355, 1367; *Long Beach Unified School Dist.* v. *State of California* (1990) 225 Cal.App.3d 155, 172.

communication.[263] However, section 9(b) provides that *private persons or corporations* may also establish and operate works for those same purposes "upon conditions and under regulations that the city may prescribe…"[264] The courts have interpreted article XI, section 9 to provide *authority* to provide public utilities, but not a *duty*.[265]

Accordingly, SWRCB provides evidence that there are 6,970 water systems currently operating in California, 5,314 of which are privately owned and operated, and 1,656 of which are public entities.[266] And, as many as two million Californians "are served either by the estimated 250,000 to 600,000 private domestic wells, or by water systems serving fewer than 15 service connections.[267] Thus, the provision of drinking water through a PWS is not only not necessary in all cases and in all parts of the State, it is also an activity and function that, where necessary or expedient, can be fulfilled by a private person or corporation.[268] It bears repeating that the term "public water system" does not mean a water system owned or operated by a governmental entity; a "public water system" is defined only by the number of connections,[269] and is distinguished from a "community water system," a "noncommunity water system," a "nontransient noncommunity water system," a "state small water system," and a "transient noncommunity water system," by the size of each system.[270] Neither the California SDWA, nor the federal LCR, defines these entities any differently whether owned and operated by a public entity or by a private person or corporation.

The claimant challenges SWRCB's evidence that approximately 75 percent of water systems throughout the state, or 5,314 of 6,970, are privately owned or operated. The claimant states that while it "has no means to verify the accuracy of this data," the same data provided by SWRCB "demonstrate that public agencies serve 81% of people in the State who have drinking water service."[271] The claimant argues that the number of people statewide receiving drinking water from a publicly owned utility "is strong evidence that water service is a governmental function,

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[263] California Constitution, article XI, section 9(a).

[264] California Constitution, article XI, section 9(b).

[265] *Glenbrook Development Co. v. City of Brea* (1967) 253 Cal.App.2d 267, 275.

[266] Exhibit C, SWRCB's Comments on the Test Claim, page 2. See also, Exhibit C, SWRCB's Comments on the Test Claim, pages 455; 457 [Listing the number of public and private water systems, respectively, governed by each county and water district].

[267] Exhibit I, *A Guide for Private Domestic Well Owners*, California State Water Resources Control Board Groundwater Ambient Monitoring and Assessment (GAMA) Program, March 2015, page 6.

[268] See California Constitution, article XI, section 9(b); Corporations Code section 14300 et seq.

[269] A public water system is defined as having 15 or more service connections, serving 25 or more persons at least 60 days out of the year.

[270] Health and Safety Code section 116275(h-k; n-o).

[271] Exhibit E, Claimant's Rebuttal Comments, page 5.

more persuasive than the fact that small, privately owned water systems outnumber large, publicly owned systems."[272]

However, the relative number of *persons* served by privately or publicly owned water systems is not persuasive evidence that water service is a governmental function; the majority of persons served by publicly owned water systems is merely a function of the size and capacity of the publicly owned systems, and presumably also a more dense and urbanized ratepayer/customer base.[273] In addition, as many as two million California residents still rely on private domestic wells or water systems with fewer than 15 service connections for their drinking water, rather than a PWS.[274] The specific requirements of this test claim order apply beyond local government entities; the requirements apply to any and every PWS that decides to supply water and serves at least one K-12 school. Subtantial evidence has been presented that as many as one-third of affected entities are privately held or operated.[275]

Thus, the Commission finds that the case law interpreting the *new program or higher level of service* requirement of article XIII B, section 6 does not support a finding that the provision of drinking water through the operation of a PWS is an essential or peculiarly governmental function.

The cases discussed above make findings on what activities of local government are or are not "governmental functions," within the meaning of article XIII B, section 6, but do not necessarily provide further guidance or definition to be applied in other circumstances. Accordingly, the dearth of case authority directly *defining* the concept of a "governmental function" specifically within the meaning of article XIII B, section 6 has led both the claimant and SWRCB to borrow from and analogize to other concepts in the law, and specifically has led the claimant to search for examples of courts using some variation of the phrase "governmental function," and to argue that those cases are binding on the Commission as statements of mandates law. As the analysis herein demonstrates, SWRCB's analogies and reasoning support the above findings, and are consistent with prior mandates cases, while the claimant's examples and analogies are not sufficient to support a finding that provision of drinking water through a PWS is a core and essential function of government, similar to police and fire protection, and education.

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[272] Exhibit E, Claimant's Rebuttal Comments, page 5.

[273] Exhibit C, SWRCB's Comments on the Test Claim, page 2.

[274] Exhibit C, SWRCB's Comments on the Test Claim, page 2; Exhibit I, *A Guide for Private Domestic Well Owners*, California State Water Resources Control Board Groundwater Ambient Monitoring and Assessment (GAMA) Program, March 2015, page 6.

[275] See Exhibit E, Claimant's Rebuttal Comments, pages 34-35 [SWRCB Media Release, January 17, 2017 ("The Board is requiring all community water systems to test school drinking water upon request by the school's officials.")]; Exhibit C, SWRCB's Comments on the Test Claim, page 2. See also, Exhibit C, SWRCB's Comments on the Test Claim, pages 455; 457 [Listing the number of public and private water systems, respectively, governed by each county and water district].

SWCRB asserts that a "line of cases decided prior to California's adoption of the Government Claims Act, and which involved tort claims for damages against local governments," is consistent with and reinforces the distinction between "governmental" functions or programs that may be the subject of mandate reimbursement, and those functions that are not "governmental" and are not subject to mandate reimbursement. Specifically, SWRCB asserts that local entities act in either a "governmental" or "public" capacity, or a "corporate" or "private" capacity, and that the same distinction used to determine whether sovereign immunity attached to a particular action is consistent with, and provides an analogy to, the concept of a governmental function or "program" in the mandates context.[276]

The "proprietary" versus "governmental" distinction traces back to the common law jurisprudence on the scope of sovereign immunity, prior to the adoption of the Government Claims Act. In order to resolve questions of government liability the courts were forced to draw a distinction between activities that are *governmental* in nature, and thus entitled to immunity, and those that are more "corporate" or "proprietary" and not so entitled.[277] The Court described a local government providing water, light, heat, or power as "not acting in its governmental capacity as a sovereign, but…in a proprietary capacity."[278] The Court later explained that it was "now a generally accepted proposition that," when a local government "undertakes to supply…utilities and facilities of urban life…it is, in fact, *engaging in business* upon municipal capital and for municipal purposes."[279]

The claimant argues, to the contrary, that essentially any service that a local government has authority to provide, or any activity that local government may engage in under its police power, is a local government function, and that the distinction between governmental and "proprietary" or "corporate" activity is no longer a useful determinant: "Water service provided by public agencies no longer carries the indicia of a proprietary function or private enterprise due to Proposition 218…, which eliminates profit from water service charges."[280] The claimant cites *Pacific Telephone & Telegraph Company v. Redevelopment Agency of the City of Redlands*, where the court held that "[t]he labels 'governmental function' and 'proprietary function' are of

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[276] Exhibit C, SWRCB's Comments on the Test Claim, page 12.

[277] Exhibit C, SWRCB's Comments on the Test Claim, page 12.

[278] Exhibit C, SWRCB's Comments on the Test Claim, page 12 [quoting *City of Pasadena v. Railroad Commission of California* (1920) 183 Cal. 526 (disapproved of on other grounds by *County of Inyo v. Public Utilities Commission* (1980) 26 Cal.3d 154)].

[279] Exhibit C, SWRCB's Comments on the Test Claim, page 12 [quoting *In re Bonds of Orosi Public Utility District v. McHuaig* (1925) 196 Cal. 43]. See also, *Glenbrook Development Co. v. City of Brea* (1967) 253 Cal.App.2d 267, 275 ["In supplying water to its inhabitants, a municipality acts in the same capacity as a private corporation engaged in a similar business, and not in its sovereign role."].

[280] Exhibit E, Claimant's Rebuttal Comments, page 5.

dubious value in terms of legal analysis in any context."[281] The court went on to say that the distinction, developed for and applied in government tort claims, was "manifestly unsatisfactory" and "operated both 'illogically' and 'inequitably.'"[282] In *Northeast Sacramento County Sanitation District v. Northridge Park County Water District of Sacramento County*, also cited by the claimant, the court stated broadly that anything local government is authorized to do "constitutes a function of government, and when a municipality acts pursuant to granted authority it acts as government and not as a private entrepreneur."[283]

The Commission disagrees that Proposition 218 has any bearing on whether water service is a "governmental" function. The claimant argues that the existence of Proposition 218 demonstrates that utility services such as water are "governmental," not "proprietary" functions, because a local government engaging in utility services does not have the ability to set its rates at a level that will maintain profitability. The claimant assumes, without analysis or evidence, that a private utility would be able to do so. However, the comparison is poor: a private utility entity is required by law to charge only rates that are just and reasonable, subject to the regulation and control of the Public Utilities Commission.[284] Thus, the limitations of Proposition 218 applicable to a publicly owned PWS, even to the extent they may be more stringent than the limitations applicable to a privately owned utility, do not alter the fundamental nature of the service or function being provided – in this case a function that the city is not required by law to perform– to provide water service.[285]

More importantly, while the cases cited by the claimant discount the value of the distinction between *governmental* and *proprietary* or *corporate* functions,[286] they do so on grounds other than the nature of the service provided, and therefore are not persuasive. In both cases cited, the court is weighing the rights of a utility to maintain its service lines along or under a public

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[281] *Pacific Telephone & Telegraph Company v. Redevelopment Agency of the City of Redlands* (1977) 75 Cal.App.3d 957, 968.

[282] *Pacific Telephone & Telegraph Company v. Redevelopment Agency of the City of Redlands* (1977) 75 Cal.App.3d 957, 968.

[283] *Northeast Sacramento County Sanitation District v. Northridge Park County Water District of Sacramento County* (1966) 247 Cal.App.2d 317, 325.

[284] See Public Utilities Code 451; 454; 728 ["Whenever the commission, after a hearing, finds that the rates or classifications, demanded, observed, charged, or collected by any public utility for or in connection with any service, product, or commodity, or the rules, practices, or contracts affecting such rates or classifications are insufficient, unlawful, unjust, unreasonable, discriminatory, or preferential, the commission shall determine and fix, by order, the just, reasonable, or sufficient rates, classifications, rules, practices, or contracts to be thereafter observed and in force."].

[285] See California Constitution, article XI, section 9.

[286] *Pacific Telephone & Telegraph Company v. Redevelopment Agency of the City of Redlands* (1977) 75 Cal.App.3d 957, 968; *Northeast Sacramento County Sanitation District v. Northridge Park County Water District of Sacramento County* (1966) 247 Cal.App.2d 317, 325.

roadway, against the power of a public agency to force relocation of those service lines at the utility's expense.[287] This makes the applicability of the cited language to the mandates context suspect, at best. And, in each case, the claimant has selectively quoted language that undermines the *governmental* versus *proprietary* distinction, despite contrary language in the same opinion.[288] In addition, *neither* court finds the distinction to be dispositive of the issues in any event, and therefore the quoted language is dicta.[289]

In *Pacific Telephone and Telegraph Co.*, the company sought compensation from the City and the Redevelopment Agency for expenses resulting from the abandonment of a street that carried its service lines, which in turn necessitated relocation of the lines, under two theories including that "the city and the agency were acting in a proprietary capacity."[290] But the court held that "'[a] utility's right to compensation should depend, not on whether municipal activity is 'governmental' or 'proprietary,' but on whether compensation has been required by the Legislature [such as under the Community Redevelopment Law], or whether there has been a constitutionally compensable taking or damaging of a valuable property right."[291] The court also noted, in declining to consider *City of Los Angeles v. Los Angeles Gas & Electric Corp*.[292] and

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[287] *Pacific Telephone & Telegraph Company v. Redevelopment Agency of the City of Redlands* (1977) 75 Cal.App.3d 957, 961-961; *Northeast Sacramento County Sanitation District v. Northridge Park County Water District of Sacramento County* (1966) 247 Cal.App.2d 317, 318.

[288] *Pacific Telephone & Telegraph Company v. Redevelopment Agency of the City of Redlands* (1977) 75 Cal.App.3d 957, 969 ["Under traditional tests, such enterprises were uniformly treated as being proprietary in nature."]; *Northeast Sacramento County Sanitation District v. Northridge Park County Water District of Sacramento County* (1966) 247 Cal.App.2d 317, 325 ["…as we have seen a district furnishing a domestic water supply is said to be performing a proprietary act."].

[289] *Pacific Telephone & Telegraph Company v. Redevelopment Agency of the City of Redlands* (1977) 75 Cal.App.3d 957, 968 ["A utility's right to compensation should depend, not on whether municipal activity is 'governmental' or 'proprietary,' but on whether compensation has been required by the Legislature, or whether there has been a constitutionally compensable taking or damaging of a valuable property right."]; 970 ["PT&T's contention that it is entitled to compensation on the theory that the city and the agency were acting in a proprietary capacity is without merit."]; *Northeast Sacramento County Sanitation District v. Northridge Park County Water District of Sacramento County* (1966) 247 Cal.App.2d 317, 325 [To maintain the 'governmental versus proprietary function' as a test in the determination of relocation cost allocation is no less specious."].

[290] *Pacific Telephone & Telegraph Company v. Redevelopment Agency of the City of Redlands* (1977) 75 Cal.App.3d 957, 968.

[291] *Pacific Telephone & Telegraph Company v. Redevelopment Agency of the City of Redlands* (1977) 75 Cal.App.3d 957, 968.

[292] 251 U.S. 32.

Postal-Tel.Co. v. San Francisco,[293] both of which addressed utilities compelled to relocate service lines to accommodate another utility, that "[u]nder traditional tests," utility businesses carried on by a municipality "*were uniformly treated as being proprietary in nature*."[294]

Northeast Sacramento County Sanitation Dist. addressed a dispute between a county water district and a county sanitation district, wherein the sanitation district constructed sewers in and under the same roads where water lines had already been laid, which required relocation of the water mains. Each asserted a "governmental" status granting them sovereign immunity against the other's merely "proprietary" interest: the sanitation district argued that it stood in the shoes of the County because the County Board of Supervisors also served as its Board of Directors; while the water district, the court observed, not only held a "favorable position in the area of eminent domain," but also had been given certain rights and privileges under the Water Code usually held by municipalities.[295] However, the court found that the language that the claimant cites, that "whatever local government is authorized to do constitutes a function of government…"[296] is, in context, an observation that between a water district and a sanitation district, "no statute gives a sanitation district superior rights over a water district *in the matter of relocation*."[297] The court concluded that "each district when performing the identical type of function – the laying of pipe lines in a public street – should pay its own way," and therefore since the water district's lines were first in time and the expansion benefited only the rate payers of the sanitation district, the sanitation district must pay for the necessary relocation.[298]

And, in 1967, the year after *Northeast Sacramento*, the Fourth District Court of Appeal decided *Glenbrook Development Co*.[299] As discussed above, the court in *Glenbrook Development Co.* found that cities have no legal duty to provide water to their citizens, and reiterated and again

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[293] 53 Cal.App. 188.

[294] *Pacific Telephone & Telegraph Company v. Redevelopment Agency of the City of Redlands* (1977) 75 Cal.App.3d 957, 969 [Declining to consider *City of Los Angeles v. Los Angeles Gas & Electric Corp.*, 251 U.S. 32 and *Postal Tel.-Cable Co. v. San Francisco*, 53 Cal.App. 188, because both involve utility relocations to accommodate another utility].

[295] *Northeast Sacramento County Sanitation District v. Northridge Park County Water District of Sacramento County* (1966) 247 Cal.App.2d 317, 322.

[296] *Northeast Sacramento County Sanitation District v. Northridge Park County Water District of Sacramento County* (1966) 247 Cal.App.2d 317, 325.

[297] *Northeast Sacramento County Sanitation District v. Northridge Park County Water District of Sacramento County* (1966) 247 Cal.App.2d 317, 322.

[298] *Northeast Sacramento County Sanitation District v. Northridge Park County Water District of Sacramento County* (1966) 247 Cal.App.2d 317, 325-326.

[299] *Glenbrook Development Co. v. City of Brea* (1967) 253 Cal.App.2d 267.

endorsed the view that "service of water by a city is a proprietary function."[300] Therefore, even though the case law on the "governmental" versus "proprietary" distinction is not directly on point with regard to state mandates, the weight of authority supports the finding above that providing water service is not a governmental function, unlike police or fire protection, or public education, which the courts have acknowledged are overwhelmingly governmental in nature.

In response to the Draft Proposed Decision, the claimant cites additional authority that it suggests supports a broad interpretation of "governmental function" as including water service. Specifically, the claimant cites *Brush v. Commissioner of Internal Revenue*,[301] and *City of San Diego v. Cuyamaca Water Company*.[302] In *Brush*, the United States Supreme Court was called upon to determine whether the City of New York's publicly owned water system was subject to federal taxes. The claimant cites a passage in which the Court observes that the City has made a determination its interests are best served by providing for its own water supply:

> We conclude that the acquisition and distribution of a supply of water for the needs of the modern city involve the exercise of essential governmental functions, and this conclusion is fortified by a consideration of the public uses to which the water is put. Without such a supply, public schools, public sewers so necessary to preserve health, fire departments, street sprinkling and cleaning, public buildings, parks, playgrounds, and public baths could not exist… It may be, as it is suggested, that private corporations would be able and willing to undertake to provide a supply of water for all purposes; but if the state and city of New York be of opinion, as they evidently are, that the service should not be intrusted [sic] to private hands, but should be rendered by the city itself as an appropriate means of discharging its duty to protect the health, safety, and lives of its inhabitants, we do not doubt that it may do so in the exercise of its essential governmental functions.[303]

In *City of San Diego v. Cuyamaca Water Company*,[304]the Court sought to resolve a dispute over the priority of water rights in the San Diego River, as between the City and upstream riparian users. From *City of San Diego*, the claimant relies on the following:

> It should at the outset be understood and stated that the pueblo rights, and hence the rights of its successor, the city of San Diego, to whatever of the waters of the San Diego river were from time to time required for the needs of the pueblo and of the city and of the inhabitants of each, were rights which were essentially 'governmental' in character, as much so in fact as were the rights of the ancient

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[300] *Glenbrook Development Co. v. City of Brea* (1967) 253 Cal.App.2d 267, 275 ["In supplying water to its inhabitants, a municipality acts in the same capacity as a private corporation engaged in a similar business, and not in its sovereign role."].

[301] (1936) 300 U.S. 352.

[302] (1930) 209 Cal. 105.

[303] *Brush v. Commissioner of Internal Revenue* (1936) 300 U.S. 352, 370-371.

[304] (1930) 209 Cal. 105.

> pueblo and modern city to the public squares or streets, and that the term 'proprietary,' as employed with reference to certain commercialized uses made by municipalities and other public bodies, of water, light, and power, for example, has no application to the fundamental rights of the plaintiff herein to its ownership of its foregoing classes of property dedicated and devoted to public uses.[305]

Neither of these authorities is directly on point, and neither makes any express finding regarding the nature of water service as a municipal undertaking. *Brush* employs the phrase "essential governmental functions," but the analysis and findings turn on the City's exercise of its local authority, and ultimately the question to be resolved is only whether the municipal water system should be exempt from federal taxation: "The answer depends upon whether the water system of the city was created and is conducted in the *exercise of the city's governmental functions*."[306] The Court acknowledges that private corporations may be willing and able to provide water to the city, and that in the City's history, private entities had indeed done so.[307] But, the Court concludes, "if the state and city of New York be of opinion, as they evidently are, that [water] service should not be intrusted to private hands…*we do not doubt that it may do so in the exercise of its essential governmental functions*."[308]

City of San Diego, likewise, does not make any findings on the nature of the City's activities in providing water to its citizens; rather, the case seeks to resolve an issue of *priority of water rights*.[309] The Court finds that the City is the successor in priority of its water rights to the *pueblo* of San Diego, a political entity that predates the State of California itself.[310] The Court states that these rights "were essentially 'governmental' in character," and compares the water rights to the City's claim over the "public squares or streets."[311] Nevertheless, the Court finds that it is irrelevant to the question of that priority whether the City's use and distribution of those waters is considered a "proprietary" function, rather than a governmental one.[312] This is not a finding that the City's municipal utilities are engaged in a "governmental" service or function within the meaning of article XIII B, section 6, rather it is a finding that the successor government, City of San Diego, was successor to the water rights of the preceeding government, Pueblo of San Diego.[313]

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[305] *City of San Diego v. Cuyamaca Water Company*, (1930) 209 Cal. 105, 130.

[306] *Brush v. Commissioner of Internal Revenue* (1936) 300 U.S. 352, 360.

[307] *Brush v. Commissioner of Internal Revenue* (1936) 300 U.S. 352, 360; 371.

[308] *Brush v. Commissioner of Internal Revenue* (1936) 300 U.S. 352, 371.

[309] *City of San Diego v. Cuyamaca Water Company*, (1930) 209 Cal. 105, 131 ["[T]he subject matter of the action is the establishment of the priority of right…"].

[310] *City of San Diego v. Cuyamaca Water Company*, (1930) 209 Cal. 105, 130-131.

[311] *City of San Diego v. Cuyamaca Water Company*, (1930) 209 Cal. 105, 130.

[312] *City of San Diego v. Cuyamaca Water Company*, (1930) 209 Cal. 105, 131.

[313] *City of San Diego v. Cuyamaca Water Company*, (1930) 209 Cal. 105, 130-131.

Next, the claimant compares providing water service to "operating prisons" and "trash collection," both of which it asserts are considered governmental functions that may be performed by private entities.[314] The claimant cites to case law describing those services as governmental in nature, but those authorities are no more on point than the cases discussed above: the courts use some variation of the phrase "governmental function," but there is nothing so unique and powerful about that phrase that it expands the scope of activities previously found to be essential and peculiarly governmental in nature for purposes of article XIII B, section 6.[315] The two cases cited that address garbage collection are cumulative to the reasoning already discussed with respect to water service: the courts acknowledge that trash collection is *within the police power* of municipalities, but also that such services may be provided by private entities under contract with the municipality, or in private contract with a group of residents.[316] Similarly, of the two cases addressing the operation of prisons, neither turns on the nature of operating a prison as a governmental function. *Pennsylvania Dept. of Corrections v. Yeskey* (1998) holds only that the Americans with Disabilities Act applies to the Department as a state entity,[317] while *Richardson v. McKnight* holds that employees of a private prison do not enjoy the qualified immunity from suit under federal civil rights statutes enjoyed by their publicly employed counterparts,[318] despite discharging what the claimant characterizes as a governmental function.[319] The Court in fact says that when deciding questions of immunity a "purely functional" test "bristles with difficulty, particularly since, in many areas, government and

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[314] Exhibit H, Claimant's Comments on the Draft Proposed Decision, page 2.

[315] Exhibit H, Claimant's Comments on the Draft Proposed Decision, page 2 [citing *Richardson v. McKnight* (1997) 521 U.S. 399; *Pennsylvania Dept. of Corrections v. Yeskey* (1998) 524 U.S. 206; *Davis v. City of Santa Ana* (1952) 108 Cal.App.2d 669; *Glass v. City of Fresno* (1936) 17 Cal.App.2d 555].

[316] *Davis v. City of Santa Ana* (1952) 108 Cal.App.2d 669, 676-677 ["The collection and disposal of garbage and trash by the city constitutes a valid exercise of police power and a governmental function which the city may exercise in all reasonable ways to guard the public health. It may elect to collect and dispose of the garbage itself or it may grant exclusive collection and disposal privileges to one or more persons by contract, or it may permit private collectors to make private contracts with private citizens. The gathering of garbage and trash is considered to be a matter which public agencies are authorized to pursue by the best means in their possession to protect the public health."]; *Glass v. City of Fresno* (1936) 17 Cal.App.2d 555, 558 ["[C]ollection and disposal of garbage are matters so intimately connected with the preservation of public health that the regulation thereof is the proper exercise of police power, and it would naturally follow as a corollary thereto that [the city] would have the right to dispose of garbage itself, and it has been so held."].

[317] *Pennsylvania Dept. of Corrections v. Yeskey* (1998) 524 U.S. 206, 209.

[318] *Richardson v. McKnight* (1997) 521 U.S. 399, 412 ["[W]e must conclude that private prison guards, unlike those who work directly for the government, do not enjoy immunity from suit in a § 1983 case."].

[319] Exhibit H, Claimant's Comments on the Draft Proposed Decision, page 2.

private industry may engage in fundamentally similar activities, ranging from electricity production, to waste disposal, to even mail delivery."[320] In other words, both of the cases cited turn on the nature of the entity and how the law applies to that entity, rather than the nature of the function being performed by the entity. Here, there is no argument that the City is not a governmental entity; the issue is whether the test claim order applies because the claimant is engaged in a governmental function.

The claimant also compares lead testing on school property to "the governmental function of building inspections on private property, where the City inspects private facilities that it neither owns nor operates, to confirm compliance with pre-established standards."[321] This analogy is not convincing, not least because building inspections are *exclusively* within the power of government, unlike the provision of utilities, which the above analysis establishes can be conducted by private entities.

Finally, the claimant argues that a finding that water service is a proprietary and not a governmental function categorically excludes municipal water agencies from state mandate reimbursement, and "[i]f there was legislative intent to make proprietary functions or municipal water service categorically ineligible for reimbursement, it would be found in the statutes that created this very Commission."[322] Setting aside for the moment the claimant's unfounded supposition that a categorical exclusion, if intended, would be expressly stated in Government Code section 17500 et seq., nothing in the above analysis categorically excludes municipal agencies from mandate reimbursement. This decision finds only that the requirements of the permit amendment are not reimbursable because they apply to the claimant as a result of its operation as a PWS, and as a result the requirements are neither uniquely imposed on local government, nor a "governmental function" within the meaning of article XIII B, section 6. Indeed, the above analysis makes no findings on any other program or statutory requirement that might be alleged to impose a mandate on the claimant based on its *existence* as a governmental entity.

Thus, the cases distinguishing between proprietary and governmental functions support the finding that the test claim order does not impose a governmental function of providing a service to the public within the meaning of article XIII B, section 6, and the cases and examples cited by the claimant are not relevant to the issue here.

In addition, the "Service Duplication Law," relied on by the SWRCB, supports (but is not essential to) the finding that the test claim order does not impose a governmental function of providing a service to the public within the meaning of article XIII B, section 6. The parties dispute the import of the Public Utilities Code provision known as the "Service Duplication Law," which requires a local government to compensate a privately owned drinking water

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[320] *Richardson v. McKnight* (1997) 521 U.S. 399, 409.

[321] Exhibit H, Claimant's Comments on the Draft Proposed Decision, page 5.

[322] Exhibit H, Claimant's Comments on the Draft Proposed Decision, page 6.

supplier if the local entity extends service into the service area of the private supplier.[323] SWRCB argues that this compensation requirement "amounts to a legislative determination that water service is not a service that is or should be peculiar to local governments."[324] The claimant argues instead that "[i]f anything, the Service Duplication Law recognizes that water service was transitioning from a private to a predominantly governmental function by providing compensation to private utilities for lost business."[325] The claimant asserts that "[n]ow, over 50 years later, that transition is substantially complete."[326]

The the Service Duplication Law weighs against finding that water service is a governmental function. Public Utilities Code section 1501 provides as follows:

> The Legislature recognizes the substantial obligation undertaken by a privately owned public utility which is franchised under the Constitution or by a certificate of public convenience and necessity to provide water service in that the utility must provide facilities to meet the present and prospective needs of those in its service area who may request service. At the same time, the rates that may be charged for water service by a regulated utility are fixed by the Public Utilities Commission at levels which assume that the facilities so installed will remain used and useful in the operation of the utility for a period of time measured by the physical life of such facilities.
>
> The Legislature finds and declares that the potential loss of value of such facilities which may result from the construction and operation by a political subdivision of similar or duplicating facilities in the service area of such a private utility often deters such private utility from obtaining a certificate or extending its facilities to provide in many areas a water supply essential to the health and safety of the citizens thereof.
>
> The Legislature further finds and declares that it is necessary for the public health, safety, and welfare that privately owned public utilities regulated by the state be compensated for damages that they may suffer by reason of political subdivisions extending their facilities into the service areas of such privately owned public utilities.[327]

Sections 1503 and 1504 contain the operative provisions. In section 1503, the Legislature "finds and declares that whenever a political subdivision constructs facilities to provide or extend water service, or provides or extends such service, to any service area of a private utility with the same type of service, such an act constitutes a taking of the property of the private utility for a public

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[323] Exhibit C, SWRCB's Comments on the Test Claim, page 13 [citing Pub. Util. Code § 1501 et seq.].

[324] Exhibit C, SWRCB's Comments on the Test Claim, page 13.

[325] Exhibit E, Claimant's Rebuttal Comments, page 5.

[326] Exhibit E, Claimant's Rebuttal Comments, page 5.

[327] Public Utilities Code section 1501.

purpose to the extent that the private utility is injured by reason of any of its property employed in providing water service being made inoperative, reduced in value or rendered useless…"[328] Section 1504 requires the "political subdivision" to compensate for the taking: "Just compensation for the property so taken for public purposes shall be as may be mutually agreed by the political subdivision and the private utility or as ascertained and fixed by a court…"[329] Section 1504 further provides that if the compensation required is equal to the just compensation value of all the property of the private utility, the political subdivision may provide for the acquisition of all such property (i.e., condemn the property in eminent domain).[330]

As the Legislative intent language in section 1501 states, the Legislature "recognize[d] the substantial obligation undertaken by a privately owned public utility…" including facilities and equipment, and that the Public Utilities Commission limits the rates that may be charged by such utilities "at levels which assume that the facilities so installed will remain used and useful…" for the life of the equipment or facilities.[331] In addition, the Legislature recognized that "the potential loss of value of such facilities…often deters such private utility from…extending its facilities to provide in many areas a water supply essential to the health and safety of the citizens thereof."[332]

The intent language shows that the purpose of the Service Duplication Law was to provide a remedy to protect the investment of privately owned utilities providing water service, and to mitigate the chilling effect of local government potentially encroaching upon a private water supplier's service area and customers. And, while sections 1503 and 1504 of the Public Utilities Code may have become necessary due to a pattern of municipalities extending duplicative service in certain areas and thus undermining the value of privately owned facilities or equipment, there is no indication that the Legislature intended to convert the provision of water service to a governmental function, as the claimant seems to imply. And indeed the acknowledgement of a deterrent effect and the statutory requirement of compensation suggests that the Legislature believed that private utility companies serving water in areas of the State would continue to be necessary into the future, and for that reason their investments should be protected, lest private entities choose not to offer such services in the first instance. The courts have observed that this is especially important with respect to water utilities.[333] Without the Service Duplication Law, infringement on the service area of a private water utility, and the

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[328] Public Utilities Code section 1503.

[329] Public Utilities Code section 1504.

[330] Public Utilities Code section 1504.

[331] Public Utilities Code section 1501.

[332] Public Utilities Code section 1501.

[333] *Cucamonga County Water Dist. v. Southwest Water Co.* (1971) 22 Cal.App.3d 245, 259 ["The special importance attached to efficient and economical use and distribution of water in the arid western states, and the provision of the California Constitution that the use of all water is subject to regulation by the State (Cal.Const. Art. XIV) justifies the classification under consideration here."].

potential loss of business, might not be compensable at all, unless the facilities and equipment were fully acquired by eminent domain.[334] The Service Duplication Law, in short, is a Legislative innovation designed to protect the viability of private water utilities, in recognition of their long term necessity to provide water in certain areas of the State.

Accordingly, the "Service Duplication Law," supports (but is not essential to) the finding that the test claim order does not impose a *governmental* function of providing a service to the public within the meaning of article XIII B, section 6.

ii. The test claim order does not impose a governmental function to ensure safe schools on PWSs, as asserted by the claimant; that governmental function remains with the schools who contact the PWS for lead testing.

Finally, the claimant argues that the "program" at issue in this Test Claim is not providing water through a PWS at all; rather "[t]he lead testing program in the Permit Amendment carries out a…governmental function of ensuring safe schools."[335] The claimant asserts that the history of the test claim order, including failed SB 334 and the associated veto message, "demonstrates [the order's] purpose is to provide safe schools, a governmental function, while shifting financial responsibility to local water agencies."[336] The claimant argues that "[h]ad SB 334 become law and schools had to test water for lead to confirm their students had safe, clean drinking water, the schools would have been performing a governmental function subject to reimbursement from the state."[337] The claimant concludes that the required testing "does not lose its characterization as a 'governmental function of providing services to the public' under the Supreme Court's test, merely because the obligation is transferred from schools to water agencies."[338]

The Commission disagrees. As noted in the Background, SB 334 proposed to amend the "Lead-Safe Schools Protection Act" in the Education Code to require school districts with water sources or drinking water supplies that do not meet U.S. EPA standards to close access to those drinking water sources, provide alternative drinking water sources if the school did not have the minimum number of drinking fountains required by law, and to provide access to free, fresh, and clean drinking water during meal times in the food service areas of the schools under its jurisdiction.[339] Then Governor Brown vetoed SB 334, believing that it would impose a reimbursable mandate of "uncertain but possibly very large magnitude."[340]

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[334] *Cucamonga County Water Dist. v. Southwest Water Co.* (1971) 22 Cal.App.3d 245, 259.

[335] Exhibit E, Claimant's Rebuttal Comments, page 6.

[336] Exhibit E, Claimant's Rebuttal Comments, page 7.

[337] Exhibit E, Claimant's Rebuttal Comments, page 7.

[338] Exhibit E, Claimant's Rebuttal Comments, page 7.

[339] Senate Bill 334 sought to amend Education Code sections 32242 and 38086, and add sections 32241.5, 32246, and 32249 to the Education Code. Exhibit B, Administrative Record on Permit Amendment No. 2017PA-SCHOOLS, page 148 [SB 334, Legislative Counsel's Digest].

[340] Exhibit E, Claimant's Rebuttal Comments, page 7 [quoting Governor's Veto Message, SB 334 (Oct. 9, 2015)].

There is no dispute that school districts, as part of the educational services they provide to students, have an existing affirmative duty to protect students and to keep the school premises safe and welcoming. The courts have found that:

> A special relationship is formed between a school district and its students resulting in the imposition of an affirmative duty on the school district to take all reasonable steps to protect its students. This affirmative duty arises, in part, based on the compulsory nature of education. (*Rodriguez v. Inglewood Unified School Dist.* (1986) 186 Cal.App.3d 707, 714-715; … see also Cal.Const., art. 1, § 28, subd. (c) [students have inalienable right to attend safe, secure, and peaceful campuses]; Ed. Code, § 48200 [children between 6 and 18 years subject to compulsory full-time education].) "The right of all students to a school environment fit for learning cannot be questioned. Attendance is mandatory and the aim of all schools is to teach. Teaching and learning cannot take place without the physical and mental well-being of the students. The school premises, in short, must be safe and welcoming." (*In re William G.* (1985) 40 Cal.3d 550, 563 …)[341]

In addition, existing law requires school districts to furnish and repair school property and to "keep the schoolhouses in repair during the time school is taught therein . . . ."[342]

The test claim order, and similar orders issued by the SWRCB, require a PWS to test for the presence of lead in drinking water fixtures on school property *upon request of a school in its service area*. A PWS has no duty to ensure safe schools, as alleged by the claimant; the schools maintain and exercise that duty with their request for lead testing. The claimant, and other public entities operating water systems that serve K-12 schools, are subject to the test claim order by virtue of their decision to provide water. Like maintaining elevators, providing water is not a *governmental* function, as explained in the above analysis.

Therefore, the test claim order does not impose a *governmental* function of providing a service to the public within the meaning of article XIII B, section 6 of the California Constitution.

V. Conclusion

Based on the foregoing analysis, the Commission denies this Test Claim and finds that the test claim order does not impose a new program or higher level of service and, thus, does not constitute a reimbursable state-mandated program within the meaning of article XIII B, section 6 of the California Constitution.

Accordingly, no findings are made on the issue of whether the test claim order results in increased costs mandated by the state within the meaning of Government Code sections 17514 and 17556.

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[341] *M.W. v. Panama Buena Vista Union School Dist.* (2003) 110 Cal.App.4th 508, 517. (Exhibit D, Finance's Comments on the Test Claim.)

[342] Education Code sections 17565 and 17593.

RE: **Decision**

Lead Sampling in Schools: Public Water System No. 370020, 17-TC-03
Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017
City of San Diego, Claimant

On March 22, 2019, the foregoing Decision of the Commission on State Mandates was adopted on the above-entitled matter.

Heather Halsey, Executive Director

Dated: March 27, 2019

DECLARATION OF SERVICE BY EMAIL

I, the undersigned, declare as follows:

I am a resident of the County of Sacramento and I am over the age of 18 years, and not a party to the within action. My place of employment is 980 Ninth Street, Suite 300, Sacramento, California 95814.

On March 27, 2019, I served the:

- **Decision adopted March 22, 2019**
- **Claimant's PowerPoint Presentation Presented at the Commission Hearing on March 22, 2019 filed March 21, 2019**

  Lead Sampling in Schools: Public Water System No. 3710020, 17-TC-03
  Permit Amendment No. 2017PA-SCHOOLS, City of San Diego Public Water System No. 3710020, effective January 18, 2017
  City of San Diego, Claimant

By making it available on the Commission's website and providing notice of how to locate it to the email addresses provided on the attached mailing list.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that this declaration was executed on March 27, 2019 at Sacramento, California.

Jill Magee

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Matter: Lead Sampling in Schools: Public Water System No. 3710020

Claimant: City of San Diego

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State of California—Health and Human Services Agency
California Department of Public Health

HOWARD BACKER, MD, MPH
Interim Director

EDMUND G. BROWN JR.
Governor

RECEIVED
JUN 08 2011
PUBLIC UTILITIES
DEPARTMENT

Mr. Roger S. Bailey
Director of Public Utilities Department
9192 Topaz Way
San Diego, California 92123

Dear Mr. Bailey:

SAFE DRINKING WATER STATE REVOLVING FUND (SDWSRF) FUNDING AGREEMENT NO. SRF10CX120 – CITY OF SAN DIEGO (OTAY I), PROJECT NO. 3710020-059C

Enclosed is an original executed Safe Drinking Water State Revolving Fund (SDWSRF) funding agreement, No. SRF10CX120, between City of San Diego (Otay I) and the California Department of Public Health (CDPH). This funding agreement is for a $18,000,000 loan under the SDWSRF to assist your community in meeting safe drinking water standards for your domestic water supply.

You may have outstanding requirements which must be met prior to disbursement of funds. Please refer to Article A-3 Basic Conditions Precedent and Article C-2 Additional Requirements of your funding agreement for details. If you have any questions, please contact the San Diego District Office at (619) 525-4159 or CDPH Headquarters at (916) 449-5600.

The CDPH commends the City of San Diego for taking steps to correct the deficiencies that will be remedied by this project in order to provide safe drinking water to your consumers. CDPH wants to assure your successful and timely completion of this project. Therefore, if at any time you encounter unexpected difficulties in meeting requirements of your funding agreement, please contact your CDPH district office as soon as possible.

Sincerely,

Leah Godsey Walker, P.E., Chief
Division Drinking Water and
Environmental Management
Enclosures

Division of Drinking Water and Environmental Management
P.O. Box 997377, MS 7400, Sacramento, CA 95899-7377
(916) 449-5600 FAX (916) 449-5655
Internet Address: www.cdph.ca.gov

cc: The Honorable Christine Kehoe
Member of the Senate
State Capitol, Room 5050
Sacramento, California 94248-0001

The Honorable Toni Atkins
Member of the Assembly
State Capitol, Room 4146
Sacramento, California 94249-0076

The Honorable Jerry Sander, Mayor
City of San Diego
202 C Street, 11th Floor
San Diego, CA 92101

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California Department of Public Health
P.O. Box 997377
Sacramento, California 95899-7377

Construction Loan/Grant
Agreement No. SRF10CX120

STATE OF CALIFORNIA

HEALTH AND HUMAN SERVICES AGENCY
DEPARTMENT OF PUBLIC HEALTH

FUNDING AGREEMENT
BETWEEN
STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC HEALTH
AND

CITY OF SAN DIEGO (OTAY I)
PROJECT NUMBER 3710021-059C
DATA UNIVERSAL NUMBER: 826399206

FOR A CONSTRUCTION LOAN AND GRANT UNDER THE
SAFE DRINKING WATER STATE REVOLVING FUND LAW OF 1997

(Rev. 4/7/11)

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STATE OF CALIFORNIA

HEALTH AND HUMAN SERVICES AGENCY
DEPARTMENT OF PUBLIC HEALTH

FUNDING AGREEMENT
BETWEEN
STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC HEALTH
AND
CITY OF SAN DIEGO
PROJECT NUMBER 3710021-059C (OTAY I)

UNDER THE SAFE DRINKING WATER STATE REVOLVING FUND LAW OF 1997

THIS FUNDING AGREEMENT (this "Agreement") is entered into by and between the State of California Department of Public Health ("State") and City of San Diego, a public agency, in the County of San Diego, State of California, duly organized, existing, and acting pursuant to the laws thereof, ("Supplier"), which parties do hereby agree as follows:

SECTION 1. PURPOSE OF FUNDING

This Agreement constitutes funding in the form of a loan and a grant made by State to Supplier under the provisions of California Safe Drinking Water State Revolving Fund Law of 1997, Part 12, Chapter 4.5 (commencing with Section 116760), of Division 104 of Health and Safety Code. The purpose of the funding is to assist in financing construction of a project which will enable Supplier to meet safe drinking water standards established pursuant to Part 12, Chapter 4 (commencing with Section 116270), of Division 104 of the Health and Safety Code and California Code of Regulations, Title 22, or to address other health concerns (the "Project"). Funds may be used only for such eligible project costs as are approved by State.

This Agreement also constitutes a secured promissory note for Supplier's repayment of the loan.

Supplier is solely responsible for the design, construction, operation, and maintenance of the Project; and for all persons or entities engaged in such work, including but not limited to contractors, subcontractors, suppliers, and providers of services. Review or approval of plans, specifications, bid documents, or other construction documents by State is solely for the purpose of proper administration of

SECTION 2. INCORPORATION OF OTHER DOCUMENTS

This Agreement incorporates by this reference all attachments to this Agreement, Exhibit "A", "Standard Conditions"; Exhibit "B", "Security Requirements"; Exhibit "C", "Special Requirements"; Exhibit "D", "Compliance with Davis-Bacon"; Exhibit "E", "New Restrictions on Lobbying"; Exhibit "F", "Compliance with Cross-cutting Federal Authorities"; Supplier's "Application For Construction Funds"; project plans and specifications as submitted to and approved by State; and any attachments to said documents.

Supplier accepts and agrees to comply with all terms, provisions, conditions, and commitments of this Agreement, including all incorporated documents and exhibits thereto, and to fulfill all assurances, declarations, representations, and statements made by Supplier in its application, documents, amendments, and communications filed in support of its request for Safe Drinking Water State Revolving Fund financing, including but not limited to any and all plans and specifications submitted to and approved by State.

SECTION 3. PROJECT COST

Supplier represents that the total cost of the Project is estimated to be $26,702,442 (the "Project Cost") of which State agrees that $18,000,000 is eligible for Safe Drinking Water State Revolving Fund financing.

SECTION 4. LOAN AMOUNT

Pursuant to the Safe Drinking Water State Revolving Fund Law of 1997, its applicable rules and regulations, and subject to the availability of funds, State will lend to Supplier in accordance with the terms of this Agreement an amount not to exceed $18,000,000 (the "Loan").

For valuable consideration, Supplier agrees to repay State the Principal Amount of the Loan (as defined in Article A-1, hereof) together with interest, Delinquent Interest (as defined in Article A-14, hereof) and other fees and costs due thereon in accordance with terms and conditions of this Agreement. Supplier's promise to pay as set forth in this paragraph, shall survive termination of this Agreement for any reason including but not limited to operation of law.

SECTION 5. GRANT AMOUNT

Pursuant to the Safe Drinking Water State Revolving Fund Law of 1997, its applicable rules and regulations, and subject to the availability of funds, State will provide grant funding to Supplier in accordance with the terms of this Agreement in an amount not to exceed zero dollars ($0) (the "Grant", with the Loan and the Grant hereinafter collectively referred to as, the "Funding").

SECTION 6. SUPPLIER'S COST

Supplier agrees to fund any portion of the Project Cost which is in excess of the Funding. Supplier's cost for the Project is estimated to be $8,702,442, ("Supplier's Cost"). Unless otherwise set forth in Exhibit "C" to this Agreement, "Special Requirements", such Supplier's Cost shall be expended prior to the expenditure of State loan funds unless such Supplier's Cost is funded by other State or Federal Agencies, in which case funds shall be drawn on a pro-rata basis.

SECTION 7. COMPETITIVE BIDDING

All construction contracts related in any way to the Project shall be let by competitive bid procedures which assure award of such contracts to the lowest responsible bidders. Supplier shall adhere to any applicable state or local ordinance for competitive bidding and applicable labor laws.

Supplier shall not award a construction contract until a summary of bids and identification of the selected lowest responsible bidder is submitted to and approved in writing by State. A full explanation must be provided if Supplier is proposing to award a construction contract to anyone other than the lowest responsible bidder.

SECTION 8. REQUIREMENTS FOR DISBURSEMENT

Not later than sixty (60) days following the Date of Execution (as defined in Section 16, hereof), Supplier shall satisfy all conditions precedent to the disbursement of the Funding, including Basic Conditions Precedent as set forth in Article A-3, hereof. Failure by Supplier to satisfy said conditions and requirements by this date may, at the option of State, result in cancellation of this Agreement under Article A-7, hereof.

SECTION 9. RATE OF INTEREST

The rate of interest to be paid by Supplier on the Principal Amount of the Loan shall be 2.5017 percent per annum (the "Rate of Interest"). Interest shall begin to accrue as of the date of each Disbursement (as defined in Article A-6(b), hereof) of the Loan.

SECTION 10. LOAN REPAYMENT TERM

The Loan has a repayment term of 20 years (the "Loan Repayment Term").

SECTION 11. SPECIAL REQUIREMENTS

Supplier shall satisfy the special requirements set forth in Exhibit "C". Failure by Supplier to timely satisfy the special requirements and conditions may, at the option of State, result in cancellation of this Agreement under Article A-7, hereof, or declaration that Supplier is in default pursuant to Article A-27, hereof.

SECTION 12. OPERATION AND MAINTENANCE OF PROJECT

Upon project completion and for a period of 20 years, which is the reasonably expected useful life of the Project, Supplier shall, as further consideration for the Funding, commence and continue operation of the Project; shall cause the Project to be operated in an efficient and economical manner; shall provide for the making of all repairs, renewals, and replacements necessary for the effective operation of the Project; and shall cause the Project to be maintained in as good of condition as upon its construction, ordinary and reasonable wear and depreciation excepted. Failure by Supplier to operate and maintain the Project in accordance with this provision may, at the option of State, be considered a material breach of this Agreement and may be treated as a default under Article A-27, hereof.

SECTION 13. FISCAL SERVICES AND DEPOSIT ACCOUNT CONTROL AGREEMENT

Supplier shall enter into a fiscal services agreement with a Fiscal Agent substantially in the form of **Attachment 1** to this Agreement (the "Fiscal Services and Deposit Account Control Agreement"). A Fiscal Agent shall be retained until all amounts due to State under the terms of this Agreement have been paid in full.

Supplier shall open a separate deposit account (the "Deposit Account") with the Fiscal Agent, in which Supplier shall maintain funds, including the Reserve Fund (as defined in Article B-4, hereof), sufficient to service the Loan. Funds from the Deposit Account shall be used only for payment of principal and/or interest on the Loan, or any delinquencies thereon, until the Loan is repaid in full.

Once State approves the Fiscal Services and Deposit Account Control Agreement, Supplier shall not do any of the following without first obtaining written approval by State: amend the Fiscal Services and Deposit Account Control Agreement; close the Deposit Account; or retain a new Fiscal Agent.

State shall have no obligation to make Disbursements (as defined in Article A-6(b), hereof) until the Fiscal Agent has been engaged and the Fiscal Services and Deposit Account Control Agreement between Supplier and the Fiscal Agent has been approved by State.

SECTION 14. PROJECT OFFICIALS AND NOTICES

State's Contract Manager shall be the Chief, Drinking Water Technical Programs Branch, Division of Drinking Water and Environmental Management, California Department of Public Health.

State's Contract Manager shall be its representative for administration of this Agreement, and shall have authority to make recommendations and findings with respect to each controversy arising under or in connection with this Agreement,

including but not limited to, the interpretation, performance, or payment for work performed under this Agreement. All such recommendations and findings shall be communicated to the Chief, Division of Drinking Water and Environmental Management of the California Department of Public Health (the "Chief"), and disputes shall be resolved in accordance with Article A-25, hereof.

Supplier's Contract Manager shall be its Public Utilities Department Water Support Branch, Finance & Information Technology Division Deputy Director. Supplier's Contract Manager shall be its representative for administration of this Agreement. All communications given to Supplier's Contract Manager shall be deemed given to Supplier and shall be binding on Supplier.

Either party may change its Contract Manager upon written notice to the other party.

Notices required to be given in writing by Supplier to State under this Agreement shall be sent to:

State of California
Department of Public Health
Division of Drinking Water and Environmental Management
Safe Drinking Water State Revolving Fund Program
Attn: Chief, Drinking Water Technical Programs Branch
1616 Capitol Avenue, MS 7418
Post Office Box 997377
Sacramento, CA 95899-7377

Notices required to be given in writing by State to Supplier under this Agreement shall be sent to:

City of San Diego
Public Utilities Department
Finance & Information Technology Division Deputy Director
600 B Street, Suite 400, MS904A
San Diego, California 92101

A change of address for delivery of notice may be made by either party by written notice of such change of address to the other party.

All written notices that are required either expressly or by implications to be given by one party to the other under this Agreement shall be signed for State by its Contract Manager and for Supplier by its Contract Manager. Except as otherwise expressly required by this Agreement, all such notices shall be deemed to have been given if delivered personally or if enclosed in a properly addressed postage prepaid envelope and deposited in a United States Post Office for delivery by registered or certified mail.

SECTION 15. ENFORCEMENT

Any enforcement action, arising out of or relating to this Agreement may be brought by State or any agent thereof.

SECTION 16. MISCELLANEOUS PROVISIONS

ATTORNEY FEES

In the event either party commences an action or proceeding concerning the subject matter of this Agreement, the prevailing party in such action or proceeding shall be entitled to recover reasonable attorney fees incurred therein.

SEVERABILITY

If any provision of this Agreement is held invalid or unenforceable by any court of final jurisdiction, it is the intent of the parties that all other provisions of this Agreement be construed to remain fully valid, enforceable, and binding on the parties.

GOVERNING LAW

This Agreement is governed by and shall be interpreted in accordance with the laws of the State of California.

CHILD SUPPORT COMPLIANCE ACT

Supplier acknowledges that it is the policy of this state that anyone who enters into a contract with a state agency shall recognize the importance of child and family support obligations and shall fully comply with all applicable state and federal laws relating to child and family support enforcement, including, but not limited to, disclosure of information and compliance with earnings assignment orders, as provided in Chapter 8 (commencing with Section 5200) of Part 5 of Division 9 of the Family Code. Supplier further acknowledges that to the best of its knowledge it is fully complying with the earnings assignment orders of all employees and is providing the names of all new employees to the New Hire Registry maintained by the Employment Development Department.

FEDERAL FINANCIAL ASSISTANCE

Supplier acknowledges that the source of funds disbursed to Supplier by State under this Agreement includes federal financial assistance, and Supplier agrees to comply with all applicable Cross-cutting Federal Authorities including those listed in Exhibit "F" to this Agreement, and provisions of the Single Audit Act as set forth in the Federal Office of Management and Budget (OMB) Circular A-133.

LEGAL CAPACITY

Supplier hereby warrants and represents that it is a legal entity in good standing, and that it has the authority to enter into this Agreement and to incur the indebtedness described herein.

Supplier shall notify State as promptly as feasible of any proposed change in Supplier's ownership, organization, legal form or service area.

VENUE

The parties agree that venue of any action between the parties arising out of this Agreement, including disputes that may arise following termination of the Agreement, shall be County of Sacramento, State of California.

DATE OF EXECUTION

"Date of Execution" of this Agreement shall be the date of the latest in time execution by a party hereto.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement:

SUPPLIER:

CITY OF SAN DIEGO

By: _____

Name: JAY GOLDSTONE

Title: CHIEF OPERATING OFFICER

Date: 5-26-11

Address: 202 C STREET, MS #11A

SAN DIEGO, CA 92101

Approved as to Legal Form and Sufficiency:

By: _____

Name: RAY PALMUCCI

Title: DEPUTY CITY ATTORNEY

Date: 5/27/11

STATE:

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC HEALTH

By: Leah Godsey Walker

Name: Leah Godsey Walker

Title: Division Chief

Date: 6/3/11

Approved as to Legal Form and Sufficiency:

By: _____

Name: Peter A. Baldridge

Title: Assistant Chief Counsel

Date: 5/18/2011

EXHIBIT A

STANDARD CONDITIONS

ARTICLE A-1. DEFINITIONS

Whenever in this Agreement the following terms are used, their meaning shall be as follows unless the context clearly requires otherwise:

Agreement or Contract--The Funding Agreement to which this "Exhibit 'A' Standard Conditions" is appended.

Days--Calendar days unless otherwise expressly indicated.

Month--Calendar month unless otherwise expressly indicated.

Year--Calendar year unless otherwise expressly indicated.

Cross-cutting Federal Authorities--Federal laws and Executive Orders that apply in federal financial assistance programs, or to projects and activities receiving federal financial assistance, regardless of whether the statute authorizing the assistance makes them applicable. They are sometimes referred to as "cross-cutters".

Eligible Project Costs--Those project costs which are eligible for funding under applicable State and Federal law.

Fiscal Agent--A bank, which includes savings banks, savings and loan associations, credit unions and trust companies, or any other financial institution or entity approved by State responsible for funds deposited for the repayment of all amounts due to State under the terms of this Agreement.

Force Account--The use of Supplier's own employees or equipment, for planning, engineering, design, construction or construction related activities on the Project.

Grant Amount-- The aggregate amount of the Grant disbursed to Supplier under this Agreement. The Grant Amount is characterized as a subsidized loan principal amount, as authorized by 42 U.S.C. 300j-12(d), is not intended and shall not be characterized as a federal subgrant.

Principal Amount of the Loan --The total amount disbursed to Supplier under this Agreement less any Grant Amount disbursed and any amount of such total amount disbursed that may have been repaid or remitted to State by Supplier.

Project Completion Date--The date that is determined by Article A-8, hereof.

Public Water System or Public Water Supply System--A system for the provision to the public of water for human consumption, as defined in Part 12, Chapter 4 (commencing with Section 116270), of Division 104 of the Health and Safety Code, as it may be amended from time to time.

ARTICLE A-2. TERM OF AGREEMENT

Subject to the provisions of Article A-7, this Agreement shall become effective on the Date of Execution and shall remain in effect until the Principal Amount of the Loan, all interest thereon, and any other sums of money due to State under this Agreement, have been paid in full or until the expiration of the period of time required for operation and maintenance of the Project, as set forth in Section 12 of this Agreement, whichever shall occur last (the "Term of Agreement").

ARTICLE A-3. BASIC CONDITIONS PRECEDENT

State shall have no obligation to disburse the Funding, or any portion thereof, unless and until Supplier has done all of the following:

(a) Supplier's governing body has taken action authorizing it to borrow the Loan and to enter into this Agreement, and designating a representative to execute this Agreement and to sign claims for Disbursements (as defined in Article A-6(b), hereof);

(b) Supplier has dedicated a source of revenue for repayment of the Principal Amount of the Loan plus all interest accrued;

(c) Supplier has executed all documents required to provide the security required by Article B-3, hereof;

(d) Supplier has executed a Deposit Account Maintenance Agreement substantially in the form of **Attachment 2** to this Agreement; and Supplier has established all accounts required by the Deposit Account Maintenance Agreement;

(e) Supplier has engaged the services of a Fiscal Agent and the Fiscal Services and Deposit Account Control Agreement has been fully executed as required by Section 13 of this Agreement; and

(f) Supplier has submitted an initial budget summary to State substantially in the form of **Attachment 3** to this Agreement and said initial budget summary has been approved by State.

Determination of Supplier's satisfaction of the conditions of this Article A-3 is at the sole discretion of State.

ARTICLE A-4. COMPLIANCE WITH LAWS, REGULATIONS, AND PERMIT REQUIREMENTS

Supplier shall at all times comply with, and require its contractors and subcontractors to comply with, all applicable federal and state laws, rules and regulations, permits, and all applicable local ordinances, specifically including, but not limited to, environmental, procurement and safety laws, rules, regulations, permits, and ordinances.

ARTICLE A-5. PROJECT CHANGES

The Project shall be constructed in accordance with the plans and specifications as approved by State on March 24, 2008. Supplier shall not make any change in the Project, or issue any change order to a contractor which affects the treatment process, would increase the capacity of any project component, causes a significant change in the location of any project component, or affects the timely completion of the Project, without receiving prior written approval from State.

Supplier may request a one-time increase in the Funding. Such request shall be based upon the final accepted construction bids. Such request may be granted or denied at the sole discretion of State.

Supplier shall not use any funds from any contingency allotment without receiving prior written approval from State.

ARTICLE A-6. DISBURSEMENTS BY STATE

(a) Claims. Supplier shall request disbursement by submitting to State a claim(s) for incurred Eligible Project Costs. A claim for Disbursement (as defined in Article A-6(b)) shall be provided in the form of **Attachment 4** to this Agreement. A claim shall be submitted no less frequently than quarterly, but no more frequently than once a month. **Claim submission shall commence not later than six months following the Date of Execution**. Each claim shall include:

(1) a statement of Eligible Project Costs that have been incurred for work performed in constructing the Project during the period identified in the particular claim;

(2) a statement of Eligible Project Costs that have been incurred for the Project during the period identified in the particular claim, including, but not limited to, legal, engineering, and administrative fees associated with the Project; and

(3) copies of invoices and receipts supporting such statements.

(b) Disbursements. Following the review and approval of a claim by State, State will disburse to Supplier an approved amount, subject to the availability of funds

(each, a "Disbursement"). All Disbursements, and any and all interest earned by Supplier on the Disbursements, shall be used solely to pay Eligible Project Costs. The Loan shall be disbursed before the Grant is disbursed.

(c) Rejection of Claims. State may reject a claim if:

(1) It is submitted without signature;

(2) It is submitted under signature of a person other than Supplier's duly authorized representative;

(3) Supplier fails to timely submit a final claim within the time period specified in Article A-6(f), hereof;

(4) Not submitted in accordance with subpart (a) of this Article A-6; or

(5) Contains costs incurred after the Project Completion Date (as defined in Article A-8, hereof).

State will notify Supplier of any claim so rejected, and the reasons therefore.

(d) Correction of Claims. A claim containing a mathematical error will be corrected by State, after telephone notification to Supplier; and will thereafter be treated as if submitted in the corrected amount. State will provide Supplier with notification of the corrected claim.

(e) Adjustments to Claims. State will notify Supplier by certified or registered mail, whenever, upon review of a claim, State determines that any portion or portions of the costs claimed:

(1) Are ineligible to be financed by the Safe Drinking Water State Revolving Fund under Federal or State law, or the terms of this Agreement,

(2) Do not constitute costs approved by State for financing under the terms of this Agreement;

(3) Are not supported by invoices or receipts acceptable to State; or

(4) Contains costs incurred after the Project Completion Date (as defined in Article A-8, hereof).

Supplier may, within thirty (30) days of the date of receipt of such notice, submit additional documentation to State to cure such deficiency(ies). If Supplier fails to timely submit adequate documentation curing the deficiency(ies), State will adjust the pending claim by the amount of the ineligible and/or unapproved cost(s). Supplier may

continue to submit additional documentation in support of rejected cost(s) and may include such cost(s) with additional supporting documentation on a subsequent claim.

(f) Final Claim and Disbursement. Supplier shall submit a final claim not later than six (6) months from the Project Completion Date, as set forth in Article A-8, hereof. In addition to the information required by subpart (a) of this Article A-6, the final claim shall include:

(1) A statement of full written disclosure of all sources and amounts of funds contributed to the Project;

(2) A certification by Supplier's Contract Manager that the data disclosed is true and correct;

(3) Proof of a Recorded Notice of Completion; and

(4) A fully executed "Final Release" in the form of **Attachment 5**.

Should Supplier fail to make the full disclosure and certification required by subparts (1) and (2) of this paragraph (f), or should State become aware through any means that Supplier did not disclose all funding sources for the Project; the project funding may be referred to State Department of Finance for a full project audit.

Commencement of repayment of the Principal Amount of the Loan and interest pursuant to Article A-13, hereof, may be required prior to the final Disbursement.

(g) Force Account. Supplier may use its own employees for engineering including development of plans and specifications; legal; and administrative costs, as provided for in Supplier's initial budget summary, as required by Article A-3(f), hereof. Supplier may use its own employees for construction or construction related activities if Supplier has obtained prior State approval.

If Supplier is using the services of its own employees, Supplier shall establish accounts and maintain records which reasonably document all employee hours and costs charged to the Project and the associated tasks performed by each employee.

ARTICLE A-7. WITHHOLDING OF LOAN AND GRANT DISBURSEMENTS BY STATE AND CANCELLATION OF AGREEMENT

(a) Conditions for Withholding. If State determines that the Project is not being carried out substantially in accordance with the provisions of this Agreement or that Supplier has failed in any other respect to comply with the terms and conditions of this Agreement, State shall give written notice to Supplier of such failure to comply. If Supplier does not cure any such failure to State's satisfaction within thirty (30) calendar days of receipt of such notice, State may withhold from Supplier all or any portion of the Loan and/or Grant and take any other action that it deems necessary to protect its

interests, including but not limited to declaring Supplier in default as set forth in Article A-27, hereof, or canceling this Agreement pursuant to subpart (b) of this Article A-7.

(b) Withholding Entire Funding. If State determines to withhold the entire Funding from Supplier pursuant to subpart (a) of this Article A-7, notice of such a determination shall constitute a notice of cancellation of this Agreement, and this Agreement shall no longer be binding on any party hereto. Said notice of cancellation shall be sent to Supplier by certified or registered mail, and shall be effective upon receipt.

(c) Withholding Balance of Loan and/or Grant. Where a portion of the Funding has been disbursed to Supplier and State has determined to withhold the balance of the Loan and/or Grant, State shall notify Supplier in writing, via certified or registered mail, that State is withholding the balance of the Loan and/or Grant from Supplier, pursuant to subpart (a) of this Article A-7. In such event, Supplier is deemed to be in default and subject to the provisions of Article A-27, hereof.

ARTICLE A-8. TIMING OF PROJECT

(a) Supplier shall complete the Project not later than three (3) years from the Date of Execution. Supplier's failure to complete the Project within the specified time period may, at the option of State, be considered a material breach of this Agreement and may be treated as a default under Article A-27, hereof.

(b) Within 15 days following completion of the Project, Supplier shall certify to the local District Office of the State of California Department of Public Health that the Project is complete and ready for final inspection. Supplier's certification, as required by this subpart (b), shall be substantially in the form provided by State and attached hereto as **Attachment 6** to this Agreement.

(c) State will conduct a final inspection and certify that the Project is complete. Supplier shall not place the Project into operation prior to State's certification.

(d) The date of State's certification or the date set forth in subpart (a) of this Article A-8, whichever shall occur first, shall be the "Project Completion Date" for purposes of this Agreement.

ARTICLE A-9. SUPPLIER'S CONTRACTS

Supplier shall be solely responsible for resolution of any and all disputes arising out of or related to Supplier's contracts for construction of the Project, including but not limited to bid disputes and payment disputes with Supplier's contractors and subcontractors and shall provide appropriate releases (as set forth in Title 15 of the Civil Code) as may be requested by State.

ARTICLE A-10. AUDIT AND INSPECTION OF BOOKS AND RECORDS

(a) Upon execution of this Agreement and until 3 years following final Disbursement, pursuant to Government Code Section 8546.7, the contracting parties shall be subject to the examination and audit by State or any agent thereof. Parties are also subject to examination and audit of the United States Environmental Protection Agency, the Comptroller General of the United States, and the United States Office of the Inspector General, with respect to all matters connected with the performance of this Agreement, including, but not limited to, the cost of administering this Agreement. If any litigation, claim, negotiations, audit or other action is commenced before the expiration of said time period, all records must be retained until such action is resolved, or until the end of said time period, whichever shall later occur. All records of Supplier relating in any way to funding received pursuant to this Agreement shall be preserved for this purpose.

(b) During regular office hours, each of the parties hereto and their duly authorized representatives shall have the right to inspect and to make copies of any books, records, or reports of either party pertaining to this Agreement or matters related hereto. Each of the parties hereto shall maintain and shall make available at all times for such inspection accurate records of all its costs, disbursements, and receipts with respect to its activities under this Agreement. Failure or refusal by Supplier to comply with this provision shall be considered a material breach of this Agreement, and State may declare Supplier in default as set forth in Article A-27, withhold disbursements to Supplier, or take any other action it deems necessary to protect its interests. The provisions of this subpart (b) shall be effective until expiration of the time period provided in subpart (a) of this Article A-10.

ARTICLE A-11. STATEMENT OF PRINCIPAL AMOUNT OF LOAN

(a) Transmission of Statement to Supplier. Within sixty (60) days after the final Disbursement, State shall transmit to Supplier a written statement setting forth the Principal Amount of the Loan.

(b) Remittance of Funds by Supplier. Within thirty (30) days from the final Disbursement, Supplier shall remit to State any funds that were disbursed under this Agreement and were not utilized to pay Eligible Project Costs or were otherwise not valid Disbursements pursuant to the terms and conditions of this Agreement.

Such remittance to State shall not constitute repayment of any part of the Principal Amount of the Loan, but shall be deemed to be a return to State of part of the funds disbursed.

ARTICLE A-12. INTEREST PAYMENTS DURING CONSTRUCTION

During construction, Supplier shall pay interest to State at the rate specified in Section 9 of this Agreement on all Disbursements of the Loan. Interest on Disbursements of the Loan shall not be deferred.

State will invoice Supplier semiannually for interest accrued during the Project construction period. Interest on each Disbursement of the Loan shall be calculated using the fraction x/365 times the Rate of Interest, where x is the number of calendar days remaining in the semiannual period from the date on which the Disbursement of the Loan was made. Interest accrued during the construction period is due and payable within thirty (30) days of the date of the invoice.

ARTICLE A-13. REPAYMENT OF PRINCIPAL AMOUNT OF LOAN AND INTEREST

(a) Terms of Repayment. State will invoice Supplier semiannually for principal and any interest payments. Such invoices will include a statement of the then Principal Amount of the Loan, the amount of the payment which constitutes principal to be paid, and the amount of the payment which constitutes interest, if any, to be paid.

Supplier shall make semiannual payments to State no later than January 1 and July 1 of each year until the Principal Amount of the Loan is repaid in full. Principal and interest payments shall commence no later than one (1) year from the Project Completion Date. Supplier shall make level semiannual payments based on a standard semiannual payment loan amortization method to be determined by State. The standard amortization method shall incorporate the Principal Amount of the Loan as determined by Article A-11, hereof, the Loan Repayment Term specified in Section10 of this Agreement, and the Rate of Interest, as specified in Section 9 of this Agreement.

The final semiannual payment shall be in an amount equal to the then outstanding Principal Amount of the Loan, plus any remaining unpaid accrued interest. Interest on the Principal Amount of the Loan shall not be deferred.

Unless earlier payment is required by the terms of this Agreement, the Principal Amount of the Loan, interest, Delinquent Interest, and any other charges or fees shall be due and payable 20 years from the Project Completion Date specified in Article A-8, hereof.

(b) Advance Payment Option. Supplier may make advance payment against principal without penalty, provided that any such advance payment shall be applied first to interest then owed and then to principal, and provided further, that any such payment shall not relieve Supplier of its obligations to make payments in the amount and at the time specified in subpart (a) of this Article A-13 until the Principal Amount of the Loan is repaid in full. Any advance payment must be coordinated with State prior to the making of any such payment to ensure proper credit to Supplier's account.

ARTICLE A-14. PAYMENT DELINQUENCY

Any payment of principal and/or interest required to be paid by Supplier to State pursuant to this Agreement which remains unpaid after it becomes due and payable shall be delinquent. Delinquent interest charges shall be in addition to any other charges or payments owing State from Supplier and shall accrue at the rate of one tenth of one percent (0.1%) per day, on the amount of such delinquent payment, for each day it remains unpaid past the tenth (10th) day after the date payment was due (the "Delinquent Interest"). The Delinquent Interest assessed will not be added to the Principal Amount of the Loan but will be treated as a separate account and obligation of Supplier. Delinquent Interest shall accrue on the total payment amount from the due date of payment through the date payment is made. Any payment by Supplier under terms of this Agreement is deemed to have been made when it is received by State.

ARTICLE A-15. ACCOUNTING AND DEPOSIT OF DISBURSEMENTS

(a) Separate Accounting of Disbursements and Interest; Records. Supplier shall account for Disbursements received separately from all other Supplier's funds. Supplier shall maintain accounting procedures that are in accordance with Generally Accepted Accounting Principles. Supplier shall keep complete and accurate records of all receipts, Disbursements, and interest earned on the Disbursements. Invoices must be maintained for a period of at least three (3) years following final Disbursement. All other records must be maintained for the Loan Repayment Term.

Supplier shall require its agents, contractors and subcontractors to maintain books, records, and other documents pertinent to their work in accordance with Generally Accepted Accounting Principles. Records are subject to inspection by State at any and all reasonable times.

(b) Disposition of Funds Disbursed. In addition to specific requirements set forth in this Agreement, all Disbursements shall be deposited, administered, and accounted for pursuant to all provisions of law applicable to Supplier.

(c) Interim and Final Audits. In addition to the provisions of Article A-10, at any time following the Date of Execution and until completion of the Project, or final Disbursement, whichever shall occur last, State reserves the right to conduct an audit of Supplier's disposition of the Funding. After completion of the Project, State may require Supplier to conduct a final audit at Supplier's expense; such audit to be conducted by and a report prepared by an independent Certified Public Accountant.

Failure or refusal by Supplier to comply with these provisions shall be considered a material breach of this Agreement and State may elect to pursue any remedies included but not limited to those provided in Article A-7, hereof.

ARTICLE A-16. INSPECTIONS OF PROJECT BY STATE

State shall have the right but not the duty to inspect the work being performed on the Project at any and all reasonable times during the Term of Agreement. This right shall extend to inspection of any portion of the Project under control of Supplier's contractor and/or subcontractors, and Supplier shall include provisions ensuring such access in all its contracts or subcontracts related to the Project.

ARTICLE A-17. PROHIBITION AGAINST DISPOSAL OF PROJECT WITHOUT STATE PERMISSION

During the Term of Agreement:

(a) Supplier shall not sell, abandon, lease, transfer, exchange, mortgage, hypothecate, or encumber in any manner whatsoever all or any portion of any real or other property necessarily connected or used in conjunction with the Project, or with Supplier's service of domestic water, without prior written consent of State. State may require as a condition of such consent, that Supplier's proceeds from any such disposition of any real or personal property be transferred to State to be applied to Supplier's indebtedness under this Agreement.

(b) Supplier shall not take any action, including but not limited to actions relating to user fees, charges and assessments that could adversely affect the ability of Supplier to make timely payments or to otherwise meet its obligations under this Agreement.

ARTICLE A-18. NONDISCRIMINATION CLAUSE

During the Term of Agreement, Supplier, its contractors and subcontractors shall not deny this Agreement's benefits to any person on the basis of religion, color, ethnic group identification, sex, age, physical or mental disability, nor shall they discriminate unlawfully against any employee or applicant for employment because of race, religion, color, national origin, ancestry, physical handicap, mental disability, medical condition, marital status, age or sex. Supplier, its contractors and subcontractors shall ensure that the evaluation and treatment of employees and applicants for employment are free of such discrimination.

Supplier, its contractors and subcontractors shall comply with the provisions of the Fair Employment and Housing Act (Government Code Section 12900 et seq.), the regulations promulgated thereunder (California Code of Regulations, Title 2, Section 7285.0 et seq.), the provisions of Article 9.5, Chapter 1, Part 1, Division 3, Title 2 of the Government Code (Government Code Sections 11135-11139.7) and the regulations or standards adopted by the awarding State Agency to implement such article.

By signing this Agreement, Supplier assures State that it shall comply with the requirements of the Americans with Disabilities Act (ADA) of 1990, (42 U.S.C. 12101 et

seq.), which prohibits discrimination on the basis of disability, as well as all applicable regulations and guidelines issued pursuant to the ADA; the Civil Rights Act of 1964, as amended, 42 U.S.C. 2000d (1988) et seq.; Section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. 794 (1989); Federal Water Pollution Control Act Amendments of 1972, Pub.L. No. 92-500, 86 Stat 816; and the Age Discrimination Act of 1975, as amended, 42 U.S.C. 6102 (1994); together with all applicable regulations and guidelines adopted to implement same (collectively, the "Anti-Discrimination Laws").

Supplier agrees to collect and maintain information to show compliance with the Anti-Discrimination Laws including a list of discrimination complaints, reports of any compliance reviews conducted by other agencies descriptions of any pending discrimination-based lawsuits and data on the racial, ethnic, national origin, sex and handicap characteristics of the population it serves.

Supplier agrees to cooperate with State in all manner necessary to permit State to adequately report to the United States Environmental Protection Agency on Supplier's compliance with the Anti-Discrimination Laws.

Supplier, its contractors and subcontractors shall give written notice of their obligations under this Article A-18 to labor organizations with which they have a collective bargaining or other agreement.

Supplier's signature on this Agreement shall constitute a certification under the penalty of perjury under the laws of the State of California that Supplier has, unless exempted, complied with the nondiscrimination program requirements of Government Code Section 12990, and Title 2, California Code of Regulations Section 8103.

Supplier shall include the nondiscrimination and compliance provisions of this Article A-18 in all contracts and subcontracts to perform work on the Project.

ARTICLE A-19. WORKERS' COMPENSATION CLAUSE

Supplier affirms that it is aware of the provisions of Section 3700 of the Labor Code, which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and Supplier affirms that it will comply with such provisions before commencing the performance of the work under this Agreement and will make its contractors and subcontractors aware of this provision.

ARTICLE A-20. SUCCESSORS AND ASSIGNS

This Agreement and all of its provisions shall inure to the benefit of, apply to, and bind the heirs, successors and assigns of the parties hereto. No assignment or transfer of this Agreement or any part hereof by Supplier shall be valid unless and until it is

approved in writing by State and made subject to such reasonable terms and conditions as State may impose.

ARTICLE A-21. STATE TO BE HELD HARMLESS

Supplier shall indemnify, hold harmless, protect and defend State and its officers, employees, agents and representatives from loss, suits, actions or claims brought for, or on account of violation of laws, ordinances, rules, or regulations, or injury, damage, or loss, including death, caused by acts or omissions of Supplier, its employees, contractors, or agents; or in any way arising from, or related to the Project.

ARTICLE A-22. REMEDIES NOT EXCLUSIVE

The use by either party of any remedy specified herein for the enforcement of this Agreement is not exclusive, and shall not deprive the party using such remedy of, or limit the application of, any other remedy provided by law.

ARTICLE A-23. AMENDMENTS

This Agreement may be amended only by mutual written agreement signed by the parties hereto. Requests by Supplier for amendments must be in writing stating the amendment request and the reason for the request.

ARTICLE A-24. WAIVER OF RIGHTS

It is the intention of the parties hereto that from time to time either party may waive any of its rights under this Agreement unless contrary to law. Any waiver by either party hereto of rights arising in connection with this Agreement shall not be deemed to be a waiver with respect to any other rights or matters.

ARTICLE A-25. DISPUTE CLAUSE

Any dispute that Supplier may have regarding the performance of this Agreement including, but not limited to, claims for Disbursements or extensions of time, shall be submitted to State's Contract Manager identified in Section 14 of this Agreement. State's Contract Manager may make findings and recommendations and shall transmit a copy of any such findings and recommendations to the Chief (as defined in Section 14, hereof) who shall make a decision. Such decision shall be written and transmitted to Supplier by certified or registered mail, and shall be final and conclusive.

ARTICLE A-26. PERFORMANCE AND ASSURANCES

Supplier agrees to faithfully and expeditiously perform or cause to be performed all Project work as described in the final plans and specifications as submitted and approved, or as later amended and approved by State under this Agreement and to

apply funds received only to Eligible Project Costs and to operate and maintain the Project in accordance with applicable provisions of the law.

ARTICLE A-27. DEFAULT PROVISIONS

(a) Supplier will be in default under this Agreement if any of the following occur (each, an "Event of Default"):

(1) Supplier's failure to pay any installment when due, or the entire indebtedness to State when due at the designated due date;

(2) Supplier's failure to make any remittances required by this Agreement;

(3) Supplier's material breach of this Agreement, or any supplement or amendment thereto, or any other agreement between Supplier and State evidencing or securing Supplier's obligations under this Agreement;

(4) Supplier's making of any false warranty, representation, or statement with respect to the Project or with respect to, or as required by, the terms of this Agreement;

(5) Loss, theft, damage or impairment to any collateral given as security under this Agreement;

(6) Seizure of, or levy on any collateral given as security under this Agreement; and/or

(7) Dissolution or cessation of operations by Supplier, termination of Supplier's existence, insolvency of Supplier, or filing of a voluntary or involuntary bankruptcy petition by or on behalf of Supplier.

(b) When an Event of Default occurs, State shall give Supplier notice of default. Supplier shall have thirty (30) calendar days from the date of such notice to cure the default. If Supplier fails to timely cure the default to the satisfaction of State, State may do any or all of the following:

(1) Declare that the aggregate amount of all Disbursements made by State, including any portion of the Grant, shall be deemed the Loan, and shall be repaid to State in accordance with the terms of this Agreement;

(2) Declare Supplier's obligations immediately due and payable, with or without demand or notice to Supplier, which Supplier expressly waives;

(3) Terminate any obligation of State to make further Disbursements;

(4) Exercise all rights and remedies available to a secured creditor after default, including, but not limited to, the rights and remedies of secured creditors under the California Uniform Commercial Code;

(5) Perform any of Supplier's obligations under this Agreement for Supplier's account;

(6) Notwithstanding the provisions of Section 5, hereof, commencing from the date of each Disbursement, apply the Rate of Interest specified in Section 9, hereof, to all Disbursements made by State, including any portion of the Grant; and/or

(7) Take any other action it deems necessary to protect its interests.

(c) Supplier agrees that any remedy provided in this Agreement is in addition to and not in derogation of any other legal or equitable remedy available to State as a result of a breach of this Agreement by Supplier, whether such breach occurs before or after completion of the Project.

(d) No waiver by State of any breach or default will be a waiver of any other breach or default.

ARTICLE A-28. DRUG-FREE WORKPLACE CERTIFICATION

By signing this Agreement, Supplier hereby certifies under penalty of perjury under the laws of the State of California that Supplier will comply with the requirements of the Drug-Free Workplace Act of 1990 (Government Code Section 8350 et seq.) and will provide a drug-free workplace by taking the following actions:

(a) Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations;

(b) Establish a Drug-Free Awareness program to inform employees about all of the following:

(1) The dangers of drug abuse in the workplace;

(2) The person's or organization's policy of maintaining a drug-free workplace;

(3) Any available counseling, rehabilitation and employee assistance programs; and

(4) Penalties that may be imposed upon employees for drug abuse violations.

(c) Every employee who works on the Project:

(1) Will receive a copy of Supplier's drug-free policy statement; and

(2) Will agree to abide by terms of Supplier's statement as a condition of employment on the Project.

This Agreement may be subject to suspension of payments or termination, or both, and Supplier may be subject to debarment if State determines that (1) Supplier has made a false certification, or (2) Supplier violates the certification by failing to carry out the requirements of this Article A-28.

ARTICLE A-29. CONFLICT OF INTEREST--CURRENT AND FORMER STATE EMPLOYEES

Supplier shall comply with, and shall require that all of its owners, officers, directors, agents, representatives and employees are at all times in compliance with, currently applicable laws and regulations pertaining to conflicts of interest of current and former state employees, including but not limited to Government Code Sections 1090 et seq. and 87100 et seq.; Public Contract Code Section 10410 et seq.; and California Code of Regulations, Title 2, Sections 18700 et seq.

ARTICLE A-30. ADDITIONAL INSURED

Supplier agrees that for any policy of general liability insurance concerning the construction of the Project, it will cause, and will require its contractors and subcontractors to cause, a certificate of insurance to be issued showing State, its officers, agents, employees, and servants as additional insured; and shall provide State with a copy of all such certificates prior to the commencement of construction of the Project.

ARTICLE A-31. PROHIBITED USE OF STATE FUNDS FOR SOFTWARE

Supplier certifies that it has appropriate systems and controls in place to ensure that the Funding will not be used in the performance of this Agreement for the acquisition, operation or maintenance of computer software in violation of copyright laws.

ARTICLE A-32. LABOR COMPLIANCE

Supplier shall comply with Public Resources Code Section 75075 and all applicable implementing guidelines and regulations adopted by California Department of Industrial Relations, regarding Labor Compliance Programs. Supplier's failure or refusal to comply with this requirement shall be considered a material breach of this Agreement.

ARTICLE A-33. DAVIS-BACON ACT COMPLIANCE

Supplier understands and acknowledges that Pub.L 111-88 and Section 1450(e) of the Safe Drinking Water Act (42 U.S.C. 300j-9(e)) make applicable provisions of sections 3141-3144, 3146, and 3147 of Title 40 of United States Code ("Davis-Bacon Act") and applicable regulations and guidance regarding wage rates payable to laborers and mechanics employed by contractors and subcontractors on the Project.

Supplier agrees to comply with all applicable Davis-Bacon Act requirements for all Project construction or construction related activities occurring on or after October 30, 2009.

On or after the Date of Execution, Supplier agrees to include, or cause to be included, in full, the applicable language set forth in **Attachment 7**, hereof, in all Project bid solicitation documents and in all Project contracts and subcontracts in excess of $2,000 entered into for the actual construction, alteration and/or repair, including painting and decorating of any Project component.

Supplier shall send a report to State at the end of each calendar quarter and on a form acceptable to the State, in which Supplier shall certify to State that all applicable Davis-Bacon Act requirements for the Project are being complied with, including without limitation, the requirement that Supplier certify to State that Supplier is collecting and reviewing certified Davis-Bacon payrolls from Supplier's construction contractors. Supplier's failure to provide the quarterly reports required by this Article A-33 may result in State's withholding disbursements until the reports are provided in a form acceptable to the State.

ARTICLE A-34. NEW RESTRICTIONS ON LOBBYING

If Supplier receives $100,000 or more in federal funds disbursed under this Agreement, Supplier agrees to comply with all requirements of Title 40 CFR Part 34 "New Lobbying Requirements", as the same may be amended from time to time, and to include, or cause to be included, in full, the language set forth in Exhibit "E" hereof, in all Project contracts and subcontracts.

ARTICLE A-35. SINGLE AUDIT ACT

If Supplier receives $500,000 or more in federal awards in a year from any source, including federal funds disbursed under this Agreement, Supplier agrees to comply with all requirements of the Office of Management and Budget Circular A-133 issued pursuant to the Single Audit Act, as the same may be amended from time to time.

ARTICLE A-36. ADDITIONAL REPORTING

Supplier acknowledges that from time to time during the term of this Agreement, State may receive further guidance from the United States Environmental Protection Agency ("USEPA") which may require additional information/reporting from Supplier. Upon such guidance from USEPA, State will notify Supplier in writing. Upon notification, Supplier agrees to provide the requested information/reports to State in the time period specified. Supplier's failure to provide the requested information/report in the time specified may be deemed by State to be a material breach of this Agreement and may be treated as a default under Article A-27.

ARTICLE A-37. DATA UNIVERSAL NUMBER SYSTEM (DUNS)

Supplier shall maintain current DUNS registration(s) in the Dun & Bradstreet database (http://fedgov.dnb.com/webform) at all times during which they have active federal awards funded with Safe Drinking Water State Revolving Fund funds.

EXHIBIT B

SECURITY REQUIREMENTS

ARTICLE B-1 NO PRIORITY FOR ADDITIONAL LOANS

Supplier agrees that it shall not incur any additional indebtedness having any priority in payment over Supplier's obligations to State under this Agreement; and that it shall not give security in any facility or equipment, which are constructed or obtained under the terms of this Agreement, without obtaining prior written consent of State, which consent shall not be unreasonably withheld.

ARTICLE B-2 RATES AND CHARGES

Supplier agrees that it will levy and collect assessments or user charges as may be necessary to operate and to maintain the Project and to meet the payments of the Loan when due; and if for any reason, gross revenues prove insufficient to make payments due pursuant to this Agreement, Supplier agrees to raise sufficient funds through increased user charges or assessments or any other legal means available to it to meet the Loan payments and to operate and to maintain the Project.

ARTICLE B-3 SECURITY INTEREST

Supplier pledges to repay the entire Principal Amount of the Loan, together with all interest thereon, as set forth in this Agreement, from **Water Enterprise Fund rates, charges and assessments, and financing proceeds**, and Supplier hereby pledges said **Water Enterprise Fund rates, charges and assessments, and financing proceeds** as collateral (the "Collateral") to secure repayment of the Loan. Supplier hereby represents and agrees that its pledge of the Collateral shall create and constitute a lien and security interest in the Collateral in accordance with the provisions of Government Code Section 5450, et seq.

By its signature to this Agreement, Supplier certifies that any revenue derived from property-related fees and charges needed for the Project or the debt associated with the Project, including but not limited to the Loan obligations under this Agreement, has been approved in accordance with Article XIII C and XIII D of the California Constitution (Proposition 218), or Supplier has obtained a legal opinion explaining why such procedures are not applicable.

ARTICLE B-4 RESERVE FUND

Supplier agrees to provide for the accumulation of necessary reserves (the "Reserve Fund") in accordance with Section 13 of this Agreement to assure that funds will be available to make the semiannual payments when due. At a minimum, a reserve of two (2) semiannual payments shall be accumulated during the first 10 years of the

Loan Repayment Term and thereafter be maintained at that level. The Reserve Fund shall be maintained and administered by the Fiscal Agent.

ARTICLE B-5 LEGAL OBLIGATION

This Agreement and payment due hereunder, shall not in any way be construed to be a debt of the City of San Diego in contravention of any applicable constitutional or statutory limitations or requirements concerning the creation of indebtedness nor will anything contained in this Agreement constitute a pledge or obligation of general revenues, funds, or moneys for which City of San Diego is obligated to levy or pledge any form of taxation.

EXHIBIT C

SPECIAL REQUIREMENTS

ARTICLE C-1 SECURITY

Supplier grants to State a security interest in the following:

(a) The Collateral, as more fully described in Article B-3, hereof; and

(b) The Deposit Account, as more fully described in Section 13, hereof.

State reserves the right to require, and Supplier agrees to provide, security in additional personal property which State determines is reasonably necessary to secure payment of Supplier's obligations under this Agreement. Supplier shall execute any and all documents required by State to create, perfect and maintain State's security interest(s), including any amendments, modifications, and/or new or revised documents which State determines are reasonably necessary to create, perfect, maintain, preserve, and protect State's security interest(s).

ARTICLE C-2 ADDITIONAL REQUIREMENTS

(a) The Loan, secured by the Collateral, shall constitute a "Parity Obligation" as defined in that certain Master Installment Purchase Agreement dated as of August 1, 1998, by and between Supplier and the San Diego Facilities and Equipment Leasing Corporation, as amended from time to time.

(b) Supplier is responsible for the implementation of practices substantially equivalent to the urban water conservation "best management practices" of the California Urban Water Conservation Council.

(c) Supplier acknowledges and confirms that the construction contract(s) for the Project is closed out, therefore, Supplier shall comply with the requirements under ARTICLE A-33 by conducting a forensic audit of the wages paid under the construction contract(s) to determine if the wages paid were at least equal to the Department of Labor wage determinations that existed on October 30, 2009. If any wage deficiencies are identified Supplier shall correct such deficiencies.

(d) Notwithstanding the time period to complete the Project provided in Article A-8, Supplier acknowledges and agrees the Project is substantially complete. For purposes of this Agreement, the Project Completion Date, as defined in Article A-8(d), shall be deemed to be the Date of Execution.

(e) Supplier shall report annually to State headquarters, Technical Program Branch, Safe Drinking Water State Revolving Fund Program, the annual debt service coverage for both Parity Obligations and Subordinate Obligations (as defined in that

certain Master Installment Purchase Agreement dated as of August 1, 1998) in the Comprehensive Annual Financial Report, until the Loan and any interest owed thereon, is fully repaid.

(f) Supplier and State agree that Disbursements will be made pursuant to the provisions of Article A-6, hereof, for reimbursement to Supplier for Eligible Project Costs previously incurred and paid. Supplier further represents, and State acknowledges, that the Project Cost was initially paid by Supplier from its note proceeds which were subsequently refunded by Supplier with its bond proceeds. State acknowledges that Disbursements to Supplier may used by Supplier at Supplier's discretion.

EXHIBIT D

COMPLIANCE WITH DAVIS-BACON

ARTICLE D-1. DAVIS-BACON PROVISIONS

Supplier is required to comply with all applicable Davis-Bacon Act requirements for all Project construction or construction related activities occurring on or after October 30, 2009.

The USEPA Region 9 has provided guidance on the Davis-Bacon Act requirements, which is attached hereto as "Attachment 7" and incorporated herein by reference. As used in **Attachment 7**, the term "subrecipient" means Supplier, and the terms "State", "State recipient" and "recipient" each mean the State of California Department of Public Health.

If Supplier is a public entity (including, without limitation, a city, county, city and county, or local agency), the applicable contract language that is required is set forth in Section I of **Attachment 7**. If Supplier is not a public entity, the applicable contract language that is required is set forth in Section II of **Attachment 7**.

EXHIBIT E

NEW RESTRICTIONS ON LOBBYING

ARTICLE E-1. NEW RESTRICTIONS ON LOBBYING

40 CFR Part 34 – New Restrictions on Lobbying

Subpart A—General

§34.100 Conditions on use of funds.

(a) No appropriated funds may be expended by the recipient of a Federal contract, grant, loan, or cooperative agreement to pay any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any of the following covered Federal actions: the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(b) Each person who requests or receives from an agency a Federal contract, grant, loan, or cooperative agreement shall file with that agency a certification, set forth in appendix A, that the person has not made, and will not make, any payment prohibited by paragraph (a) of this section.

(c) Each person who requests or receives from an agency a Federal contract, grant, loan, or a cooperative agreement shall file with that agency a disclosure form, set forth in appendix B, if such person has made or has agreed to make any payment using nonappropriated funds (to include profits from any covered Federal action), which would be prohibited under paragraph (a) of this section if paid for with appropriated funds.

(d) Each person who requests or receives from an agency a commitment providing for the United States to insure or guarantee a loan shall file with that agency a statement, set forth in appendix A, whether that person has made or has agreed to make any payment to influence or attempt to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with that loan insurance or guarantee.

(e) Each person who requests or receives from an agency a commitment providing for the United States to insure or guarantee a loan shall file with that agency a disclosure form, set forth in appendix B, if that person has made or has agreed to make any payment to influence or attempt to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with that loan insurance or guarantee.

§34.105 Definitions.

For purposes of this part:

(a) Agency, as defined in 5 U.S.C. 552(f), includes Federal executive departments and agencies as well as independent regulatory commissions and Government corporations, as defined in 31 U.S.C. 9101(1).

(b) Covered Federal action means any of the following Federal actions:

(1) The awarding of any Federal contract;

(2) The making of any Federal grant;

(3) The making of any Federal loan;

(4) The entering into of any cooperative agreement; and,

(5) The extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

Covered Federal action does not include receiving from an agency a commitment providing for the United States to insure or guarantee a loan. Loan guarantees and loan insurance are addressed independently within this part.

(c) Federal contract means an acquisition contract awarded by an agency, including those subject to the Federal Acquisition Regulation (FAR), and any other acquisition contract for real or personal property or services not subject to the FAR.

(d) Federal cooperative agreement means a cooperative agreement entered into by an agency.

(e) Federal grant means an award of financial assistance in the form of money, or property in lieu of money, by the Federal Government or a direct appropriation made by law to any person. The term does not include technical assistance which provides services instead of money, or other assistance in the form of revenue sharing, loans, loan guarantees, loan insurance, interest subsidies, insurance, or direct United States cash assistance to an individual.

(f) Federal loan means a loan made by an agency. The term does not include loan guarantee or loan insurance.

(g) Indian tribe and tribal organization have the meaning provided in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450B). Alaskan Natives are included under the definitions of Indian tribes in that Act.

(h) Influencing or attempting to influence means making, with the intent to influence, any communication to or appearance before an officer or employee or any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any covered Federal action.

(i) Loan guarantee and loan insurance means an agency's guarantee or insurance of a loan made by a person.

(j) Local government means a unit of government in a State and, if chartered, established, or otherwise recognized by a State for the performance of a governmental duty, including a local public authority, a special district, an intrastate district, a council of governments, a sponsor group representative organization, and any other instrumentality of a local government.

(k) Officer or employee of an agency includes the following individuals who are employed by an agency:

(1) An individual who is appointed to a position in the Government under title 5, U.S. Code, including a position under a temporary appointment;

(2) A member of the uniformed services as defined in section 101(3), title 37, U.S. Code;

(3) A special Government employee as defined in section 202, title 18, U.S. Code; and,

(4) An individual who is a member of a Federal advisory committee, as defined by the Federal Advisory Committee Act, title 5, U.S. Code appendix 2.

(l) Person means an individual, corporation, company, association, authority, firm, partnership, society, State, and local government, regardless of whether such entity is operated for profit or not for profit. This term excludes an Indian tribe, tribal organization, or any other Indian organization with respect to expenditures specifically permitted by other Federal law.

(m) Reasonable compensation means, with respect to a regularly employed officer or employee of any person, compensation that is consistent with the normal compensation for such officer or employee for work that is not furnished to, not funded by, or not furnished in cooperation with the Federal Government.

(n) Reasonable payment means, with respect to professional and other technical services, a payment in an amount that is consistent with the amount normally paid for such services in the private sector.

(o) Recipient includes all contractors, subcontractors at any tier, and subgrantees at any tier of the recipient of funds received in connection with a Federal contract, grant, loan, or cooperative agreement. The term excludes an Indian tribe, tribal organization,

or any other Indian organization with respect to expenditures specifically permitted by other Federal law.

(p) Regularly employed means, with respect to an officer or employee of a person requesting or receiving a Federal contract, grant, loan, or cooperative agreement or a commitment providing for the United States to insure or guarantee a loan, an officer or employee who is employed by such person for at least 130 working days within one year immediately preceding the date of the submission that initiates agency consideration of such person for receipt of such contract, grant, loan, cooperative agreement, loan insurance commitment, or loan guarantee commitment. An officer or employee who is employed by such person for less than 130 working days within one year immediately preceding the date of the submission that initiates agency consideration of such person shall be considered to be regularly employed as soon as he or she is employed by such person for 130 working days.

(q) State means a State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, a territory or possession of the United States, an agency or instrumentality of a State, and a multi-State, regional, or interstate entity having governmental duties and powers.

§34.110 Certification and disclosure.

(a) Each person shall file a certification, and a disclosure form, if required, with each submission that initiates agency consideration of such person for:

(1) Award of a Federal contract, grant, or cooperative agreement exceeding $100,000; or

(2) An award of a Federal loan or a commitment providing for the United States to insure or guarantee a loan exceeding $150,000.

(b) Each person shall file a certification, and a disclosure form, if required, upon receipt by such person of:

(1) A Federal contract, grant, or cooperative agreement exceeding $100,000; or

(2) A Federal loan or a commitment providing for the United States to insure or guarantee a loan exceeding $150,000,

Unless such person previously filed a certification, and a disclosure form, if required, under paragraph (a) of this section.

(c) Each person shall file a disclosure form at the end of each calendar quarter in which there occurs any event that requires disclosure or that materially affects the accuracy of the information contained in any disclosure form previously filed by such person under

paragraphs (a) or (b) of this section. An event that materially affects the accuracy of the information reported includes:

(1) A cumulative increase of $25,000 or more in the amount paid or expected to be paid for influencing or attempting to influence a covered Federal action; or

(2) A change in the person(s) or individual(s) influencing or attempting to influence a covered Federal action; or,

(3) A change in the officer(s), employee(s), or Member(s) contacted to influence or attempt to influence a covered Federal action.

(d) Any person who requests or receives from a person referred to in paragraphs (a) or (b) of this section:

(1) A subcontract exceeding $100,000 at any tier under a Federal contract;

(2) A subgrant, contract, or subcontract exceeding $100,000 at any tier under a Federal grant;

(3) A contract or subcontract exceeding $100,000 at any tier under a Federal loan exceeding $150,000; or,

(4) A contract or subcontract exceeding $100,000 at any tier under a Federal cooperative agreement,

Shall file a certification, and a disclosure form, if required, to the next tier above.

(e) All disclosure forms, but not certifications, shall be forwarded from tier to tier until received by the person referred to in paragraphs (a) or (b) of this section. That person shall forward all disclosure forms to the agency.

(f) Any certification or disclosure form filed under paragraph (e) of this section shall be treated as a material representation of fact upon which all receiving tiers shall rely. All liability arising from an erroneous representation shall be borne solely by the tier filing that representation and shall not be shared by any tier to which the erroneous representation is forwarded. Submitting an erroneous certification or disclosure constitutes a failure to file the required certification or disclosure, respectively. If a person fails to file a required certification or disclosure, the United States may pursue all available remedies, including those authorized by section 1352, title 31, U.S. Code.

(g) For awards and commitments in process prior to December 23, 1989, but not made before that date, certifications shall be required at award or commitment, covering activities occurring between December 23, 1989, and the date of award or commitment. However, for awards and commitments in process prior to the December 23, 1989 effective date of these provisions, but not made before December 23, 1989, disclosure

forms shall not be required at time of award or commitment but shall be filed within 30 days.

(h) No reporting is required for an activity paid for with appropriated funds if that activity is allowable under either subpart B or C.

Subpart B—Activities by Own Employees

§34.200 Agency and legislative liaison.

(a) The prohibition on the use of appropriated funds, in §34.100 (a), does not apply in the case of a payment of reasonable compensation made to an officer or employee of a person requesting or receiving a Federal contract, grant, loan, or cooperative agreement if the payment is for agency and legislative liaison activities not directly related to a covered Federal action.

(b) For purposes of paragraph (a) of this section, providing any information specifically requested by an agency or Congress is allowable at any time.

(c) For purposes of paragraph (a) of this section, the following agency and legislative liaison activities are allowable at any time only where they are not related to a specific solicitation for any covered Federal action:

(1) Discussing with an agency (including individual demonstrations) the qualities and characteristics of the person's products or services, conditions or terms of sale, and service capabilities; and,

(2) Technical discussions and other activities regarding the application or adaptation of the person's products or services for an agency's use.

(d) For purposes of paragraph (a) of this section, the following agencies and legislative liaison activities are allowable only where they are prior to formal solicitation of any covered Federal action:

(1) Providing any information not specifically requested but necessary for an agency to make an informed decision about initiation of a covered Federal action;

(2) Technical discussions regarding the preparation of an unsolicited proposal prior to its official submission; and,

(3) Capability presentations by persons seeking awards from an agency pursuant to the provisions of the Small Business Act, as amended by Public Law 95–507 and other subsequent amendments.

(e) Only those activities expressly authorized by this section are allowable under this section.

§34.205 Professional and technical services.

(a) The prohibition on the use of appropriated funds, in §34.100 (a), does not apply in the case of a payment of reasonable compensation made to an officer or employee of a person requesting or receiving a Federal contract, grant, loan, or cooperative agreement or an extension, continuation, renewal, amendment, or modification of a Federal contract, grant, loan, or cooperative agreement if payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal contract, grant, loan, or cooperative agreement or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal contract, grant, loan, or cooperative agreement.

(b) For purposes of paragraph (a) of this section, "professional and technical services" shall be limited to advice and analysis directly applying any professional or technical discipline. For example, drafting of a legal document accompanying a bid or proposal by a lawyer is allowable. Similarly, technical advice provided by an engineer on the performance or operational capability of a piece of equipment rendered directly in the negotiation of a contract is allowable. However, communications with the intent to influence made by a professional (such as a licensed lawyer) or a technical person (such as a licensed accountant) are not allowable under this section unless they provide advice and analysis directly applying their professional or technical expertise and unless the advice or analysis is rendered directly and solely in the preparation, submission or negotiation of a covered Federal action. Thus, for example, communications with the intent to influence made by a lawyer that do not provide legal advice or analysis directly and solely related to the legal aspects of his or her client's proposal, but generally advocate one proposal over another are not allowable under this section because the lawyer is not providing professional legal services. Similarly, communications with the intent to influence made by an engineer providing an engineering analysis prior to the preparation or submission of a bid or proposal are not allowable under this section since the engineer is providing technical services but not directly in the preparation, submission or negotiation of a covered Federal action.

(c) Requirements imposed by or pursuant to law as a condition for receiving a covered Federal award include those required by law or regulation, or reasonably expected to be required by law or regulation, and any other requirements in the actual award documents.

(d) Only those services expressly authorized by this section are allowable under this section.

§34.210 Reporting.

No reporting is required with respect to payments of reasonable compensation made to regularly employed officers or employees of a person.

Subpart C—Activities by Other Than Own Employees

§34.300 Professional and technical services.

(a) The prohibition on the use of appropriated funds, in §34.100 (a), does not apply in the case of any reasonable payment to a person, other than an officer or employee of a person requesting or receiving a covered Federal action, if the payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal contract, grant, loan, or cooperative agreement or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal contract, grant, loan, or cooperative agreement.

(b) The reporting requirements in §34.110 (a) and (b) regarding filing a disclosure form by each person, if required, shall not apply with respect to professional or technical services rendered directly in the preparation, submission, or negotiation of any commitment providing for the United States to insure or guarantee a loan.

(c) For purposes of paragraph (a) of this section, "professional and technical services" shall be limited to advice and analysis directly applying any professional or technical discipline. For example, drafting or a legal document accompanying a bid or proposal by a lawyer is allowable. Similarly, technical advice provided by an engineer on the performance or operational capability of a piece of equipment rendered directly in the negotiation of a contract is allowable. However, communications with the intent to influence made by a professional (such as a licensed lawyer) or a technical person (such as a licensed accountant) are not allowable under this section unless they provide advice and analysis directly applying their professional or technical expertise and unless the advice or analysis is rendered directly and solely in the preparation, submission or negotiation of a covered Federal action. Thus, for example, communications with the intent to influence made by a lawyer that do not provide legal advice or analysis directly and solely related to the legal aspects of his or her client's proposal, but generally advocate one proposal over another are not allowable under this section because the lawyer is not providing professional legal services. Similarly, communications with the intent to influence made by an engineer providing an engineering analysis prior to the preparation or submission of a bid or proposal are not allowable under this section since the engineer is providing technical services but not directly in the preparation, submission or negotiation of a covered Federal action.

(d) Requirements imposed by or pursuant to law as a condition for receiving a covered Federal award include those required by law or regulation, or reasonably expected to be required by law or regulation, and any other requirements in the actual award documents.

(e) Persons other than officers or employees of a person requesting or receiving a covered Federal action include consultants and trade associations.

(f) Only those services expressly authorized by this section are allowable under this section.

Subpart D—Penalties and Enforcement

§34.400 Penalties.

(a) Any person who makes an expenditure prohibited herein shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such expenditure.

(b) Any person who fails to file or amend the disclosure form (see appendix B) to be filed or amended if required herein, shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

(c) A filing or amended filing on or after the date on which an administrative action for the imposition of a civil penalty is commenced does not prevent the imposition of such civil penalty for a failure occurring before that date. An administrative action is commenced with respect to a failure when an investigating official determines in writing to commence an investigation of an allegation of such failure.

(d) In determining whether to impose a civil penalty, and the amount of any such penalty, by reason of a violation by any person, the agency shall consider the nature, circumstances, extent, and gravity of the violation, the effect on the ability of such person to continue in business, any prior violations by such person, the degree of culpability of such person, the ability of the person to pay the penalty, and such other matters as may be appropriate.

(e) First offenders under paragraphs (a) or (b) of this section shall be subject to a civil penalty of $10,000, absent aggravating circumstances. Second and subsequent offenses by persons shall be subject to an appropriate civil penalty between $10,000 and $100,000, as determined by the agency head or his or her designee.

(f) An imposition of a civil penalty under this section does not prevent the United States from seeking any other remedy that may apply to the same conduct that is the basis for the imposition of such civil penalty.

§34.405 Penalty procedures.

Agencies shall impose and collect civil penalties pursuant to the provisions of the Program Fraud and Civil Remedies Act, 31 U.S.C. 3803 (except subsection (c)), 3804, 3805, 3806, 3807, 3808, and 3812, insofar as these provisions are not inconsistent with the requirements herein.

§34.410 Enforcement.

The head of each agency shall take such actions as are necessary to ensure that the provisions herein are vigorously implemented and enforced in that agency.

Subpart E—Exemptions

§34.500 Secretary of Defense.

(a) The Secretary of Defense may exempt, on a case-by-case basis, a covered Federal action from the prohibition whenever the Secretary determines, in writing, that such an exemption is in the national interest. The Secretary shall transmit a copy of each such written exemption to Congress immediately after making such a determination.

(b) The Department of Defense may issue supplemental regulations to implement paragraph (a) of this section.

Subpart F—Agency Reports

§34.600 Semi-annual compilation.

(a) The head of each agency shall collect and compile the disclosure reports (see appendix B) and, on May 31 and November 30 of each year, submit to the Secretary of the Senate and the Clerk of the House of Representatives a report containing a compilation of the information contained in the disclosure reports received during the six-month period ending on March 31 or September 30, respectively, of that year.

(b) The report, including the compilation, shall be available for public inspection 30 days after receipt of the report by the Secretary and the Clerk.

(c) Information that involves intelligence matters shall be reported only to the Select Committee on Intelligence of the Senate, the Permanent Select Committee on Intelligence of the House of Representatives, and the Committees on Appropriations of the Senate and the House of Representatives in accordance with procedures agreed to by such committees. Such information shall not be available for public inspection.

(d) Information that is classified under Executive Order 12356 or any successor order shall be reported only to the Committee on Foreign Relations of the Senate and the Committee on Foreign Affairs of the House of Representatives or the Committees on Armed Services of the Senate and the House of Representatives (whichever such committees have jurisdiction of matters involving such information) and to the Committees on Appropriations of the Senate and the House of Representatives in accordance with procedures agreed to by such committees. Such information shall not be available for public inspection.

(e) The first semi-annual compilation shall be submitted on May 31, 1990, and shall contain a compilation of the disclosure reports received from December 23, 1989 to March 31, 1990.

(f) Major agencies, designated by the Office of Management and Budget (OMB), are required to provide machine-readable compilations to the Secretary of the Senate and the Clerk of the House of Representatives no later than with the compilations due on May 31, 1991. OMB shall provide detailed specifications in a memorandum to these agencies.

(g) Non-major agencies are requested to provide machine-readable compilations to the Secretary of the Senate and the Clerk of the House of Representatives.

(h) Agencies shall keep the originals of all disclosure reports in the official files of the agency.

§34.605 Inspector General Report.

(a) The Inspector General, or other official as specified in paragraph (b) of this section, of each agency shall prepare and submit to Congress each year, commencing with submission of the President's Budget in 1991, an evaluation of the compliance of that agency with, and the effectiveness of, the requirements herein. The evaluation may include any recommended changes that may be necessary to strengthen or improve the requirements.

(b) In the case of an agency that does not have an Inspector General, the agency official comparable to an Inspector General shall prepare and submit the annual report, or, if there is no such comparable official, the head of the agency shall prepare and submit the annual report.

(c) The annual report shall be submitted at the same time the agency submits its annual budget justifications to Congress.

(d) The annual report shall include the following: All alleged violations relating to the agency's covered Federal actions during the year covered by the report, the actions taken by the head of the agency in the year covered by the report with respect to those alleged violations and alleged violations in previous years, and the amounts of civil penalties imposed by the agency in the year covered by the report.

EXHIBIT F

COMPLIANCE WITH CROSS-CUTTING FEDERAL AUTHORITIES

ARTICLE F-1. COMPLIANCE WITH FEDERAL AUTHORITIES

(a) By its signature to this Agreement to which this Exhibit "F" is attached, Supplier agrees to comply with all applicable state and federal laws and authorities, including but not limited to the federal authorities listed below; and to the fullest extent required by law, shall require compliance with said authorities by its contractors and subcontractors on the Project.

- Procurement Prohibitions under Section 306 of the Clean Air Act and Section 508 of the Clean Water Act, including Executive Order 11738, Administration of the Clean Air Act and the Federal Water Pollution Control Act with Respect to Federal Contracts, Grants, or Loans
- Uniform Relocation and Real Property Acquisition Policies Act, Pub. L. 91-646, as amended
- Debarment and Suspension, Executive Order 12549
- Age Discrimination Act of 1975, Pub. L. 94-135
- Title VI of the Civil Rights Act of 1964, Pub. L. 88-352 (2)
- Section 13 of the Federal Water Pollution Control Act Amendments of 1972, Pub. L. 92-500 (the Clean Water Act)
- Section 504 of the Rehabilitation Act of 1973, Pub. L. 93-112 (including Executive Orders 11914 and 11250)
- Equal Employment Opportunity, Executive Order 11246
- Women's and Minority Business Enterprise, Executive Orders 11625, 12138 and 12432
- Section 129 of the Small Business Administration Reauthorization and Amendment Act of 1988, Pub. L. 100-590

(b) In partial compliance with the above list of Cross-cutting Federal Authorities, Supplier agrees to take certain actions specifically set forth in the following Articles:

ARTICLE F-2. EQUAL EMPLOYMENT OPPORTUNITY REQUIREMENTS

Supplier agrees that it shall be deemed to be a contractor and shall comply with the following requirements in that role:

(a) During the performance of this Agreement, the contractor agrees as follows:

(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, physical or mental handicap, or age. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, national origin, physical or mental handicap, or age. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and career development opportunities and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places available to employees and applicants for employment, notices to be provided by the Federal Government setting forth the provisions of the Equal Opportunity Clause and the Rehabilitation Act of 1973. Such notices shall state the contractor's obligation under the law to take affirmative action to employ and advance in employment qualified applicants without discrimination based on their race, color, religion, sex, national origin, physical or mental handicap, or age, and the rights of applicants and employees.

(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, physical or mental handicap, or age.

(3) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding of notice, to be provided by the Federal Government advising the labor union or workers' representative of the contractor's commitments under the Equal Opportunities Clause, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The contractor will comply with all provisions of the Rehabilitation Act of 1973 and of the Federal Executive Order No. 11246, as amended, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(5) The contractor will furnish all information and reports required by Federal Executive Order No. 11246, as amended, and the Rehabilitation Act of 1973, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency

and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(6) In the event of the contractor's noncompliance with the requirements of this Equal Opportunity Clause or with the nondiscrimination clauses of this Agreement or with any of such rules, regulations, or orders, this Agreement may be cancelled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further federal contracts in accordance with procedures authorized in Federal Executive Order No. 11246 as amended, and such other sanctions may be imposed and remedies invoked as provided in Federal Executive Order No. 11246 as amended, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(7) The contractor will include the provisions of paragraphs (1) through (7) of this Article F-2 in every contract, subcontract or purchase order related to this Agreement unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Federal Executive Order No. 11246, as amended, or section 503 of the Rehabilitation Act of 1973, so that such provisions will be binding upon each contractor, subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor or the Director of Federal Compliance Programs or State may direct as a means of enforcing such provisions including sanctions for noncompliance, provided, however, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the contractor may request in writing to State, which, in turn, may request the United States to enter into such litigation to protect the interests of the United States and State.

Each contractor shall file, and shall cause each of his subcontractors to file, Compliance Reports with the contracting agency or the Secretary of Labor as may be directed. Compliance Reports shall be filed within such times and shall contain such information as to the practices, policies, programs, and employment policies, programs, and employment statistics of the contractor and each subcontractor, and shall be in such form, as the Secretary of Labor may prescribe.

Bidders or prospective contractors or subcontractors may be required to state whether they have participated in any previous contract subject to the provisions of Federal Executive Order 11246, as amended, or any preceding similar Executive order, and in that event to submit, on behalf of themselves and their proposed subcontractors, Compliance Reports prior to or as an initial part of their bid or negotiation of a contract.

(b) In addition, if the Project is to be constructed in a geographical area that has been designated by the Office of Federal Contract Compliance for special treatment, Supplier agrees that it will undertake, and will require its contractors and subcontractors to undertake affirmative action programs in accordance with regulations and other directives promulgated by that Office.

ARTICLE F-3. PARTICIPATION OF DISADVANTAGED BUSINESS ENTERPRISES

(a) Supplier acknowledges that Executive Orders 11625,12138, and 12432 are applicable to this Agreement, and that the United States Environmental Agency (EPA) adopted regulations to implement those requirements [40 Code of Federal Regulations Part 33 Participation by Disadvantaged Business Enterprises in United States Environmental Protection Agency Programs – {Federal DBE Regulations}]. In compliance with Federal DBE Regulations, State has negotiated "Fair Share Objectives" with EPA for participation of Minority Business Enterprises and Women's Business Enterprises in procurement activity undertaken with funds made available to Supplier under this Agreement. The "Fair Share Objectives" are set forth in the CDPH DBE Utilization Guidance attached as **Attachment 8** to this Agreement and incorporated herein by this reference. Supplier agrees that it will cooperate with and assist State in realizing the "Fair Share Objectives" and will exercise good faith efforts to achieve such participation of disadvantaged business enterprises, and in particular agrees that in the selection of construction contractors, and for the procurement of equipment, supplies, construction, and services related to the project, it, at a minimum, has or will undertake the following affirmative steps:

(1) Include disadvantage business enterprises on solicitation lists;

(2) Assure that disadvantaged business enterprises are solicited whenever they are potential sources;

(3) Divide total requirements, when economically feasible, into small tasks or quantities to permit maximum participation by disadvantaged business enterprises;

(4) Establish delivery schedules, when the requirements of the work permit, which will encourage participation by disadvantaged business enterprises;

(5) Use the services of the Small Business Administration and the Office of Minority Business Enterprise of the U.S. Department of Commerce, and the California Unified Certification at the California Department of Transportations, as appropriate; and

(6) If any contractor awards subagreements, require the contractor to take the affirmative steps in paragraphs (1) through (5) of this paragraph.

(b) Supplier agrees that prior to the award of any contract for the procurement of equipment, supplies, construction, or services related to the Project, it has or will review the efforts of such contractor to include disadvantaged business enterprises and will assure State that such contractor has complied with the requirements of this Article F-3. A form for providing said assurance will be provided by State in a form substantially similar to that of **Attachment 9** to this Agreement.

(c) As required by Federal DBE Regulations, Supplier agrees to circulate bid solicitation(s) for this project for a minimum of 15 days.

(d) As required by Federal DBE Regulations, Supplier agrees to require prime contractor to pay subcontractors for satisfactory performance within 30 days from the prime contractor's receipt of payment from the Supplier.

(e) Supplier agrees to include in procurement solicitation provisions related to the utilization of Disadvantaged Business Enterprises in substantially the form of **Attachment 10**, Supplier further agrees to include in each procurement solicitation EPA Form 6100-2, EPA Form 6100-3, and EPA Form 6100-4 as required by Federal DBE Regulations which are included in **Attachment 10**.

(f) Supplier agrees to submit the Good Faith Effort documentation received from the selected prime contractor bidder to State.

(g) As required by Federal DBE Regulations, Supplier agrees to create and maintain a bidders list of all firms that bid or quote on prime contracts or bid or quote subcontracts on the project. Supplier shall maintain bidders list until Supplier has certified project completion to State. (See **Attachment 11**.)

(h) Supplier agrees that it shall report to State on procurements and utilization of Disadvantaged Business Enterprises semiannually, within fifteen (15) days after April 1 and October 1, throughout the project, until after submission of the final claim, Supplier shall report, using **Attachment 12** to this Agreement.

ARTICLE F-4. PROCUREMENT PROHIBITIONS

By its signature on this Agreement, Supplier certifies that it will not procure goods, services, or materials from any entity, or otherwise utilize any facility for the construction of the Project, if such entity or facility is listed on the USEPA's List of Violating Facilities, and Supplier further certifies it will comply with the provisions of Executive Order No.11738, 3 C.F.R. 799 (1973), Section 306 of the Clean Air Act 42 U.S.C. 7606 (1994) and Section 508 of the Clean Water Act 33 U.S.C. 1368 (1982).

ARTICLE F-5. DEBARMENT AND SUSPENSION

Supplier agrees that for purposes of the following subparts (a) and (b), Supplier is the "prospective lower tier participant", and this Funding Agreement is the "proposal".

(a) Instructions for Certification

(1) By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

(2) The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

(3) The prospective lower tier participant shall provide immediate written notice to the person to whom this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or had become erroneous by reason of changed circumstances.

(4) The terms covered transaction, debarred, suspended, ineligible, lower tier covered transaction, participant, person, primary covered transaction, principal, proposal, and voluntarily excluded, as used in this clause, have the meaning set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.

(5) The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

(6) The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction", without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions. The prospective lower tier participant shall submit to State all certification submitted pursuant to this paragraph.

(7) A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, ineligible, or voluntarily excluded from covered transactions, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the List of Parties Excluded from Federal Procurement and Non-procurement Programs.

(8) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

(9) Except for transactions authorized under paragraph (5) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

(b) Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transactions

(1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

(2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

ARTICLE F-6. UNIFORM RELOCATION AND REAL PROPERTY ACQUISITION ACT

Supplier will comply, or has already complied with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646, 42 U.S.C. 4655), as amended, which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchase.

DUPLICATE ORIGINAL

THIRD AMENDED AND RESTATED JOINT EXERCISE OF POWERS AGREEMENT CREATING THE PUBLIC FACILITIES FINANCING AUTHORITY OF THE CITY OF SAN DIEGO

DOCUMENT NO. RR-307891
FILED NOV 27 2012
OFFICE OF THE CITY CLERK
SAN DIEGO, CALIFORNIA

THIRD AMENDED AND RESTATED JOINT EXERCISE OF POWERS AGREEMENT

THIS Third Amended and Restated Joint Exercise of Powers Agreement (the "Agreement"), dated as January 1, 2013, is made between and among, the CITY OF SAN DIEGO, a municipal corporation duly organized and existing under the laws of the State of California (herein called the "City"), the CITY OF SAN DIEGO, SOLELY IN ITS CAPACITY AS THE DESIGNATED SUCCESSOR AGENCY TO THE REDEVELOPMENT AGENCY OF THE CITY OF SAN DIEGO, a former public body, corporate and politic, duly organized and existing under the laws of the State of California (herein called the "Successor Agency"), and the HOUSING AUTHORITY OF THE CITY OF SAN DIEGO, a public body, corporate and politic, duly organized and existing under the laws of the State of California (herein called the "Housing Authority")(collectively, the "Parties"). This Agreement amends and supersedes the agreement filed with the Secretary of State on January 3, 2003, entitled "SECOND AMENDED AND RESTATED JOINT EXERCISE OF POWERS AGREEMENT BY AND BETWEEN THE CITY OF SAN DIEGO AND THE REDEVELOPMENT AGENCY OF THE CITY OF SAN DIEGO."

WITNESSETH:

WHEREAS, on May 14, 1991, the City and the Redevelopment Agency of the City of San Diego (the "Agency") entered into an agreement pursuant to Articles 1, 2, 3 and 4 of Chapter 5 of Division 7 of Title I of the Government Code of the State of California (the "Joint Exercise of Powers Act" or the "Act") to create a joint exercise of powers entity (herein called the "Public Facilities Financing Authority of the City of San Diego" or the "Authority") which has the power to jointly exercise any powers common to the City and the Agency; and

WHEREAS, the Agreement that created and established the Authority has been amended from time to time; and

WHEREAS, the Agency has been dissolved pursuant to Assembly Bill ABx1 26 ("AB 26") and the City has elected to become the Successor Agency to the Agency; and

WHEREAS, pursuant to AB 26, the joint exercise of powers agreement between the City and the Agency remains valid, however, the Parties recognize that the Successor Agency will terminate pursuant to State law at some future date and that a joint exercise of powers agreement must have at least two members; and

WHEREAS, the City, the Successor Agency and the Housing Authority are each empowered by law to undertake certain projects and programs; and

WHEREAS, the City is authorized to issue bonds, expend bond proceeds, and borrow and loan money for certain public purposes pursuant to the Government Code of the State of California and the City Charter; and

WHEREAS, the Successor Agency is authorized to issue refunding bonds for certain public purposes pursuant to the Health and Safety Code of the State of California; and

WHEREAS, the Housing Authority is authorized to issue bonds, expend bond proceeds, borrow and loan money, execute contracts, and purchase, hold, sell, lease, exchange or transfer any real or personal property for any of its purposes pursuant to the provisions of the Housing Authorities Law of the State of California; and

WHEREAS, Article 4 (commencing with Section 6584) of Chapter 5 of Division 7 of Title 1 of the Government Code of the State of California (the "Marks-Roos Local Bond Pooling Act of 1985") authorizes and empowers the Authority to purchase Bonds, as defined in the Marks-Roos Local Bond Pooling Act of 1985, issued by the City, the Successor Agency, or the Housing Authority for financing public capital improvements, working capital, liability and other insurance needs, or projects whenever there are significant public benefits, as determined by the City, Successor Agency, or the Housing Authority; and

WHEREAS, the Marks-Roos Local Bond Pooling Act of 1985 further authorizes and empowers the Authority to sell Bonds so purchased to public or private purchasers at public or negotiated sale; and

WHEREAS, by this Agreement, the City, the Successor Agency and the Housing Authority desire to amend and restate the Agreement as set forth herein and to exercise the powers described herein; and

NOW, THEREFORE, the City, the Successor Agency, and the Housing Authority, for and in consideration of the mutual promises and agreements herein contained, do agree as follows:

SECTION 1. PURPOSE

This Agreement is made pursuant to the provisions of the Act, relating to the joint exercise of powers common to public agencies for the purpose of assisting the financing of certain public capital facilities improvements of the City, the Successor Agency or the Housing Authority by exercising the powers referred to in the recitals hereof and described in Section 4 herein.

SECTION 2. TERM

This Agreement shall become effective as of the date hereof and shall continue in full force and effect until terminated by a supplemental agreement of the City, the Successor Agency

and the Housing Authority, provided that in no event shall the Agreement terminate while any payments are due by the City, the Successor Agency or the Housing Authority to the Authority under any lease or sale of any real or personal property from the Authority to the City, the Successor Agency, or the Housing Authority or while any bonds of the Authority issued pursuant to the Act are outstanding.

SECTION 3. AUTHORITY

A. CREATION OF AUTHORITY

There is hereby created pursuant to the Act an agency and public entity to be known as the "Public Facilities Financing Authority of the City of San Diego." As provided in the Act, the Authority shall be a public entity separate from the City, the Successor Agency and the Housing Authority. The debts, liabilities and obligations of the Authority shall not constitute debts, liabilities or obligations of the City, the Successor Agency or the Housing Authority.

Within 30 days after the effective date of this Agreement or any amendment hereto, the Authority will cause a notice of this Agreement or amendment to be prepared and filed with the office of the Secretary of State of the State of California in the manner set forth in Section 6503.5 of the Act.

B. COMMISSION

The Authority shall be administered by a Commission (the "Commission") whose members shall at all times, be the members of the City Council of the City. The term of office, as a member of the Commission, of each Councilmember of the City shall terminate when such member of the Commission shall cease to be a City Councilmember and the successor of the City Councilmember shall become a member of the Commission. The Commission shall be the administering agency of this Agreement, and, as such, shall be vested with the powers set forth herein, and shall execute and administer this Agreement in accordance with the purposes and functions provided herein.

Members of the Commission shall not receive any compensation for serving as such but shall be entitled to reimbursement for any expenses actually incurred in connection with serving as a member, if the Commission shall determine that such expenses shall be reimbursed and there are unencumbered funds available for such purpose.

C. OFFICERS; DUTIES; OFFICIAL BONDS

The President of the City Council shall serve as the Chair of the Authority and the Council President Pro Tem shall serve as the Vice-Chair of the Authority. The Chair and the Vice-Chair shall have the duties set forth in the rules and regulations of the Authority.

The Secretary of the Authority shall be the City Clerk of the City. The Secretary shall keep the records of the Authority, shall act as the Secretary at the meetings of the Authority and record all votes, and shall keep a record of the proceedings of the Authority, and shall perform all duties incident to the office.

The Chief Financial Officer of the City shall be the treasurer and controller of the Authority (the "Treasurer") and shall have the powers, duties and responsibilities specified in Section 6505.5 of the Act.

Subject to the applicable provisions of any resolution, indenture or other instrument or proceeding authorizing or securing Bonds (each such resolution, indenture, instrument and proceeding being herein referred to as an "Indenture") providing for a trustee or other fiscal agent, the Treasurer is designated as the depositary of the Authority to have custody of all money of the Authority, from whatever source derived.

The Treasurer of the Authority is designated as the public officer or person who has charge of, handles, or has access to any property of the Authority, and such officer shall file an official bond with the Secretary of the Authority in the amount each such officer determines is necessary as required by Section 6505.1 of the Act; provided that such bond shall not be required if the Authority does not possess or own property or funds with an aggregate value of greater than $1.500.00.

The City Attorney shall be the General Counsel to the Authority.

The Commission shall have the power to appoint such other officers and employees as it may deem necessary and to retain independent counsel, consultants and accountants.

The Commission shall have the power, by resolution, to the extent permitted by the Act or any other applicable law, to delegate any of its functions to one or more of the members of the Commission or officers or agents of the Authority and to cause any of said members, officers or agents to take any actions and execute any documents or instruments for and in the name and on behalf of the Commission or the Authority.

D. MEETINGS OF THE COMMISSION

(1) Regular Meetings.

The Commission shall provide for its regular meetings in accordance with the calendar of regular meetings adopted by the City Council; provided, however, it shall hold at least one regular meeting each year. The date, hour and place of the holding of the regular meetings shall be fixed by resolution of the Commission and a copy of such resolution shall be filed with each party hereto; provided that if the Chair determines that there will be no business to transact at such meeting, such meeting shall be cancelled.

(2) Special Meetings.

Special meetings of the Commission may be called in accordance with the provisions of Section 54956 of the Government Code of the State of California.

(3) Ralph M. Brown Act.

All meetings of the Commission shall be called, noticed, held and conducted in accordance with the provisions of the Ralph M. Brown Act (commencing with Section 54950 of the Government Code of the State of California).

(4) Minutes.

The Secretary of the Authority shall cause to be kept minutes of all meetings of the Commission and shall, as soon as possible after each meeting, cause a copy of the minutes to be forwarded to each member of the Commission.

(5) Quorum.

A majority of the members of the Commission shall constitute a quorum for the transaction of business. No action may be taken by the Commission except upon the affirmative vote of a majority of the members of the Commission, except that less than a quorum may adjourn a meeting to another time and place.

E. RULES AND REGULATIONS.

The Authority may adopt, from time to time, by resolution of the Commission such rules and regulations for the conduct of its meetings and affairs as may be required.

SECTION 4. POWERS

The Authority shall have the power to purchase, with the amounts received or to be received by it pursuant to a Bond Purchase Agreement, Bonds issued by the City, the Successor Agency or the Housing Authority at public or negotiated sale, for the purposes set forth in Section 1 hereof all in accordance with the Act. Any such bonds so purchased may be held by the Authority or sold to public or private purchasers at public or negotiated sale, in whole or in part. The Authority shall set any other terms and conditions on any purchase or sale contemplated herein as it deems to be necessary, appropriate and in the public interest, in furtherance of the Act.

The Authority is hereby authorized to do all acts necessary for the exercise of such powers, including, but not limited to, any or all of the following: to make and enter into contracts; to employ agents and employees; to acquire, construct, provide for maintenance and operation of, or maintain and operate, any buildings, works or improvements; to acquire, hold or dispose of property wherever located; to incur debts, liabilities or obligations; to receive gifts,

contributions and donations of property, funds, services and other forms of assistance from persons, firms, corporations and any governmental entity; to sue and be sued in its own name; and generally to do any and all things necessary or convenient to accomplish the purposes set forth in Section 1 hereof. Without limiting the generality of the foregoing, the Authority may issue or cause to be issued bonded and other indebtedness, and pledge any property or revenues as security to the extent permitted under the Act, including Article 4 or any other applicable provision of law.

The manner in which the Authority shall exercise its powers and perform its duties is and shall be subject to the restrictions upon the manner of exercising such power as are imposed upon the Agency in the exercise of similar powers, as provided in Section 6509 of the Act.

SECTION 5. FISCAL YEAR

For the purposes of this Agreement, the term "Fiscal Year" shall mean the fiscal year as established from time to time by the Authority, being, at the date of this Agreement, the period from July 1 to and including the following June 30.

SECTION 6. DISPOSITION OFASSETS

At the end of the term hereof or upon the earlier termination of this Agreement as set forth in Section 2 hereof after payment of all expenses and liabilities of the Authority, all property of the Authority both real and personal shall automatically vest in the City.

SECTION 7. BONDS

The Authority shall issue Bonds for the purpose of exercising its powers and raising the funds necessary to carry out its purposes under this Agreement. Said Bonds may, at the discretion of Authority, be issued in series.

The services of bond counsel, financing consultants and other consultants and advisors working on the projects and/or their financing shall be used by the Authority. The fees and expenses of such counsel, consultants, advisors, and the expenses of the City, the Successor Agency, or the Housing Authority and the Commission shall be paid from the proceeds of the Bonds or any other unencumbered funds of the Authority available for such purpose.

SECTION 8. BONDS ONLY LIMITED AND SPECIAL OBLIGATIONS OF AUTHORITY

The Bonds, together with the interest and premium, if any, thereon, shall not be deemed to constitute a debt of the City, the Successor Agency or the Housing Authority or pledge of the faith and credit of the City, the Successor Agency, the Housing Authority, or the Authority. The Bonds shall be only special obligations of the Authority, and the Authority shall under no circumstances be obligated to pay the Bonds or the respective project costs except from revenues

and other funds pledged therefor. Neither the City, the Successor Agency, the Housing Authority, nor the Authority shall be obligated to pay the principal of, premium, if any, or interest on the Bonds, or other costs incidental thereto, except from the revenues and funds pledged therefor, and neither the faith and credit nor the taxing power of the City, the Successor Agency, Housing Authority nor the Authority shall be pledged to the payment of the principal of, premium, if any, or interest on the Bonds nor shall the City, the Successor Agency, the Housing Authority, or the Authority in any manner be obligated to make any appropriation for such payment.

No covenant or agreement contained in any Bond or Indenture shall be deemed to be a covenant or agreement of any member of the Commission, or any officer, agent or employee of the Authority in his individual capacity and neither the Commission of the Authority nor any officer thereof executing the Bonds shall be liable personally on any Bond or be subject to any personal liability or accountability by reason of the issuance of any Bonds.

SECTION 9. ACCOUNTS AND REPORTS

All funds of the Authority shall be strictly accounted for. The Authority shall establish and maintain such funds and accounts as may be required by good accounting practice and by any provision of any Indenture (to the extent such duties are not assigned to a trustee of Bonds). The books and records of the Authority shall be open to inspection at all reasonable times by the City, the Successor Agency, the Housing Authority and their representatives.

The Treasurer of the Authority shall cause an independent audit to be made of the books of accounts and financial records of the Agency by a certified public accountant or public accountant in compliance with the provisions of Section 6505 of the Act. In each case the minimum requirements of the audit shall be those prescribed by the State Controller for special districts under Section 26909 of the Government Code of the State of California and shall conform to generally accepted auditing standards. When such an audit of accounts and records is made by a certified public accountant or public accountant, a report thereof shall be filed as public records with the City and also with the county auditor. Such report shall be filed within 12 months of the end of the Fiscal Year or Years under examination.

Any costs of the audit, including contracts with, or employment of certified public accountants or public accountants in making an audit pursuant to this Section, shall be borne by the Authority and shall be a charge against any unencumbered funds of the Authority available for that purpose.

In any Fiscal Year the Commission may, by resolution adopted by unanimous vote, replace the annual special audit with an audit covering a two-year period.

The Treasurer of the Authority, within 12 months after the close of each Fiscal Year, shall give a complete written report of all financial activities for such Fiscal Year to the

Authority to the extent such activities are not covered by the reports of the trustees for the Bonds. The trustee appointed under each Indenture shall establish suitable funds, furnish financial reports and provide suitable accounting procedures to carry out the provisions of said Indenture. Said trustee may be given such duties in said Indenture as may be desirable to carry out this Agreement.

SECTION 10. FUNDS

Subject to the applicable provisions of each Indenture, which may provide for a trustee to receive, have custody of and disburse Authority funds, the Treasurer of the Authority shall receive, have the custody of and disburse Authority funds pursuant to the accounting procedures developed under Section 9 hereof, and shall make the disbursements required by this Agreement or otherwise necessary to carry out any of the provisions or purposes of this Agreement.

SECTION 11. NOTICES

Notices and other communications hereunder to the City, the Successor Agency and the Housing Authority shall be sufficient if delivered to the clerk of the City Council.

SECTION 12. INDEMNIFICATION

To the full extent permitted by law, the City shall indemnify, protect, and hold harmless any person who is or was a member or alternate member of the Commission, or an officer, employee or other agent of the Authority, and who was or is a party or is threatened to be made a party to a proceeding by reason of the fact that such person is or was such a member or alternate member of the Commission, or an officer, employee or other agent of the Authority, against expenses, judgments, fines, settlements and other amounts actually and reasonably incurred in connection with such proceeding, if such person acted in good faith and in a manner such person reasonably believed to be in the best interests of the Authority and, in the case of a criminal proceeding, had no reasonable cause to believe the conduct of such person was unlawful and, in the case of an action by or in the right of the Authority, acted with such care, including reasonable inquiry, as an ordinarily prudent person in a like position would use under similar circumstances

SECTION 13. CONTRIBUTIONS AND ADVANCES

Contributions or advances of public funds and of the use of personnel, equipment or property may be made to the Authority by the parties hereto for any of the purposes of this Agreement. Payment of public funds may be made to defray the cost of any such contribution. Any such advance may be made subject to repayment, and in such case shall be repaid, in the manner agreed upon by the Authority and the party making such advance at the time of such advance.

SECTION 14. IMMUNITIES

All of the privileges and immunities from liabilities, exemptions from laws, ordinances and rules, all pension, relief, disability, workers' compensation, and other benefits which apply to the activity of officers, agents or employees of the City, the Successor Agency, and Housing Authority when performing their respective functions, shall apply to them to the same degree and extent while engaged as members of the Commission or otherwise as an officer, agent or other representative of the Authority or while engaged in the performance of any of their functions or duties under the provisions of this Agreement.

SECTION 15. AMENDMENTS

This Agreement shall not be amended, modified, or altered except by a written instrument duly executed by the City, the Successor Agency, and the Housing Authority.

SECTION 16. PARTIAL INVALIDITY

If any one or more of the terms, provisions, promises, covenants or conditions of this Agreement shall to any extent be adjudged invalid, unenforceable, void or voidable for any reason whatsoever by a court of competent jurisdiction, each and all of the remaining terms, provisions, promises, covenants and conditions of this Agreement shall not be affected thereby, and shall be valid and enforceable to the fullest extent permitted by law.

SECTION 17. SUCCESSORS

This Agreement shall be binding upon and shall inure to the benefit of the successors of the parties hereto. Except to the extent expressly provided herein, no Party may assign any right or obligation hereunder without the consent of the other Parties.

SECTION 18. TERMINATION OF SUCCESSOR AGENCY

At such time as the Successor Agency terminates as a matter of law, this Agreement shall remain in full force and effect and the members of the Authority thereafter shall be the City and the Housing Authority.

SECTION 19. MISCELLANEOUS

This Agreement may be executed in several counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

The section headings herein are for convenience only and are not to be construed as modifying or governing the language in the section referred to.

Wherever in this Agreement any consent or approval is required, the same shall not be unreasonably withheld.

This Agreement is made in the State of California, under the Constitution and laws of such state and is to be so construed.

This Agreement is the complete and exclusive statement of the agreement between the Parties hereto, which supersedes and merges all prior proposals, understandings, and other agreements, including, without limitation, the Initial Agreement and the First and Second Amended and Restated Joint Exercise of Powers Agreements, whether oral, written, or implied in conduct, between and among the Parties relating to the subject matter of this Agreement.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed and attested by their proper officers thereunto duly authorized, and their official seals to be hereto affixed, as of the day and year first above written.

CITY OF SAN DIEGO

By _____
Bob Filner, Mayor

ATTEST:

By _____
Elizabeth Maland, City Clerk

APPROVED AS TO FORM AND LEGALITY

Jan I. Goldsmith
City Attorney

By: _____
Brant C. Will
Deputy City Attorney

CITY OF SAN DIEGO, SOLELY IN ITS CAPACITY AS THE DESIGNATED SUCCESSOR AGENCY TO REDEVELOPMENT OF THE CITY OF SAN DIEGO,

By: _____
Bob Filner, Mayor

R- 307891

ATTEST:

By: _____
Elizabeth Maland, Secretary

APPROVED AS TO FORM AND LEGALITY

Jan I. Goldsmith
City Attorney

By: Kevin Reisch
Kevin Reisch
Deputy City Attorney

HOUSING AUTHORITY OF THE CITY OF SAN DIEGO

By _____
Rick Gentry, Executive Director

ATTEST:

By: _____
Pari Ryan, Secretary

APPROVED AS TO FORM AND LEGALITY:

Jan I. Goldsmith
City Attorney and
General Counsel to the Housing Authority

By _____
Leslie Fitzgerald
Deputy City Attorney and
Deputy General Counsel to the Housing Authority

R- 307891

Understanding the Safe Drinking Water Act

SAFE DRINKING WATER ACT • 1974-2004 • PROTECT OUR HEALTH FROM SOURCE TO TAP

The Safe Drinking Water Act (SDWA) was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply.

The law was amended in 1986 and 1996 and requires many actions to protect drinking water and its sources—rivers, lakes, reservoirs, springs, and ground water wells. (SDWA does not regulate private wells which serve fewer than 25 individuals.)

SDWA authorizes the United States Environmental Protection Agency (US EPA) to set national health-based standards for drinking water to protect against both naturally-occurring and man-made contaminants that may be found in drinking water. US EPA, states, and water systems then work together to make sure that these standards are met.

Millions of Americans receive high quality drinking water every day from their public water systems, (which may be publicly or privately owned). Nonetheless, drinking water safety cannot be taken for granted.

There are a number of threats to drinking water: improperly disposed of chemicals; animal wastes; pesticides; human threats; wastes injected underground; and naturally-occurring substances can all contaminate drinking water.

Likewise, drinking water that is not properly treated or disinfected, or which travels through an improperly maintained distribution system, may also pose a health risk.

Originally, SDWA focused primarily on treatment as the means of providing safe drinking water at the tap. The 1996 amendments greatly enhanced the existing law by recognizing source water protection, operator training, funding for water system improvements, and public information as important components of safe drinking water. This approach ensures the quality of drinking water by protecting it from source to tap.

All public water systems must have at least 15 service connections or serve at least 25 people per day for 60 days of the year.

Drinking water standards apply to water systems differently based on their type and size:

Community Water System (there are approximately 54,000) - A public water system that serves the same people year-round. Most residences including homes, apartments, and condominiums in cities, small towns, and mobile home parks are served by Community Water Systems.

Non-Community Water System - A public water system that serves the public but does not serve the same people year-round. There are two types of non-community systems:

Non-Transient Non-Community Water System (there are approximately 20,000) - A noncommunity water system that serves the same people more than six months per year, but not year-round, for example, a school with its own water supply is considered a non-transient system.

Transient non-community water system (there are approximately 89,000) - A non-community water system that serves the public but not the same individuals for more than six months, for example, a rest area or campground may be considered a transient water system.

1996 SDWA Amendment Highlights:

Consumer Confidence Reports All community water systems must prepare and distribute annual reports about the water they provide, including information on detected contaminants, possible health effects, and the water's source.

Cost-Benefit Analysis US EPA must conduct a thorough cost-benefit analysis for every new standard to determine whether the benefits of a drinking water standard justify the costs.

Drinking Water State Revolving Fund States can use this fund to help water systems make infrastructure or management improvements or to help systems assess and protect their source water.

Microbial Contaminants and Disinfection Byproducts US EPA is required to strengthen protection for microbial contaminants, including Cryptosporidium, while strengthening control over the byproducts of chemical disinfection. The Stage 1 Disinfectants and Disinfection Byproducts Rule and the Interim Enhanced Surface Water Treatment Rule together address these risks.

Operator Certification Water system operators must be certified to ensure that systems are operated safely. US EPA issued guidelines in February 1999 specifying minimum standards for the certification and recertification of the operators of community and non-transient, noncommunity water systems. These guidelines apply to state Operator Certification Programs. All states are currently implementing EPA-approved operator certification programs.

Public Information & Consultation SDWA emphasizes that consumers have a right to know what is in their drinking water, where it comes from, how it is treated, and how to help protect it. US EPA distributes public information materials (through its Safe Drinking Water Hotline, Safewater web site, and Water Resource Center) and holds public meetings, working with states, tribes, water systems, and environmental and civic groups, to encourage public involvement.

Small Water Systems Small water systems are given special consideration and resources under SDWA, to make sure they have the managerial, financial, and technical ability to comply with drinking water standards.

Source Water Assessment Programs Every state must conduct an assessment of its sources of drinking water (rivers, lakes, reservoirs, springs, and ground water wells) to identify significant potential sources of contamination and to determine how susceptible the sources are to these threats.

Roles and Responsibilities:

SDWA applies to every public water system in the United States. There are currently more than 170,000 public water systems providing water to almost all Americans at some time in their lives. The responsibility for making sure these public water systems provide safe drinking water is divided among US EPA, states, tribes, water systems, and the public. SDWA provides a framework in which these parties work together to protect this valuable resource.

US EPA sets national standards for drinking water based on sound science to protect against health risks, considering available technology and costs. These National Primary Drinking Water Regulations set enforceable maximum contaminant levels for particular contaminants in drinking water or required ways to treat water to remove contaminants. Each standard also includes requirements for water systems to test for contaminants in the water to make sure standards are achieved. In addition to setting these standards, US EPA provides guidance, assistance, and public information about drinking water, collects drinking water data, and oversees state drinking water programs.

The most direct oversight of water systems is conducted by state drinking water programs. States can apply to US EPA for "primacy," the authority to implement SDWA within their jurisdictions, if they can show that they will adopt standards at least as stringent as US EPA's and make sure water systems meet these standards. All states and territories, except Wyoming and the District of Columbia, have received primacy. While no Indian tribe has yet applied for and received primacy, four tribes currently receive "treatment as a state" status, and are eligible for

primacy. States, or US EPA acting as a primacy agent, make sure water systems test for contaminants, review plans for water system improvements, conduct on-site inspections and sanitary surveys, provide training and technical assistance, and take action against water systems not meeting standards.

To ensure that drinking water is safe, SDWA sets up multiple barriers against pollution. These barriers include: source water protection, treatment, distribution system integrity, and public information. Public water systems are responsible for ensuring that contaminants in tap water do not exceed the standards. Water systems treat the water, and must test their water frequently for specified contaminants and report the results to states. If a water system is not meeting these standards, it is the water supplier's responsibility to notify its customers. Many water suppliers now are also required to prepare annual reports for their customers. The public is responsible for helping local water suppliers to set priorities, make decisions on funding and system improvements, and establish programs to protect drinking water sources. Water systems across the nation rely on citizen advisory committees, rate boards, volunteers, and civic leaders to actively protect this resource in every community in America.

Protection & Prevention:

Essential components of safe drinking water include protection and prevention. States and water suppliers must conduct assessments of water sources to see where they may be vulnerable to contamination. Water systems may also voluntarily adopt programs to protect their watershed or wellhead, and states can use legal authorities from other laws to prevent pollution. SDWA mandates that states have programs to certify water system operators and make sure that new water systems have the technical, financial, and managerial capacity to provide safe drinking water. SDWA also sets a framework for the Underground Injection Control (UIC) program to control the injection of wastes into ground water. US EPA and states implement the UIC program, which sets standards for safe waste injection practices and bans certain types of injection altogether. All of these programs help prevent the contamination of drinking water.

US EPA sets primary drinking water standards through a three-step process:

First, US EPA identifies contaminants that may adversely affect public health and occur in drinking water with a frequency and at levels that pose a threat to public health. US EPA identifies these contaminants for further study, and determines contaminants to potentially regulate. Second, US EPA determines a maximum contaminant level goal for contaminants it decides to regulate. This goal is the level of a contaminant in drinking water below which there is no known or expected risk to health. These goals allow for a margin of safety . Third, US EPA specifies a maximum contaminant level, the maximum permissible level of a contaminant in drinking water which is delivered to any user of a public water system. These levels are enforceable standards, and are set as close to the goals as feasible. SDWA defines feasible as the level that may be achieved with the use of the best technology, treatment techniques, and other means which US EPA finds (after examination for efficiency under field conditions) are available, taking cost into consideration. When it is not economically or technically feasible to set a maximum level, or when there is no reliable or economic method to detect contaminants in the water, US EPA instead sets a required Treatment Technique which specifies a way to treat the water to remove contaminants.

Setting National Drinking Water Standards:

US EPA sets national standards for tap water which help ensure consistent quality in our nation's water supply. US EPA prioritizes contaminants for potential regulation based on risk and how often they occur in water supplies. (To aid in this effort, certain water systems monitor for the presence of contaminants for which no national standards currently exist and collect information on their occurrence). US EPA sets a health goal based on risk (including risks to the most sensitive people, e.g., infants, children, pregnant women, the elderly, and the immuno-compromised). US EPA then sets a legal limit for the contaminant in drinking water or a required treatment technique—this limit or treatment technique is set to be as close to the health goal as

feasible. US EPA also performs a cost-benefit analysis and obtains input from interested parties when setting standards. US EPA is currently evaluating the risks from several specific health concerns, including: microbial contaminants (e.g., *Cryptosporidium*); the byproducts of drinking water disinfection; radon; arsenic; and water systems that don't currently disinfect their water but get it from a potentially vulnerable ground water source.

Funding and Assistance:

US EPA provides grants to implement state drinking water programs, and to help each state set up a special fund to assist public water systems in financing the costs of improvements (called the drinking water state revolving fund). Small water systems are given special consideration, since small systems may have a more difficult time paying for system improvements due to their smaller customer base. Accordingly, US EPA and states provide them with extra assistance (including training and funding) as well as allowing, on a caseby- case basis, alternate water treatments that are less expensive, but still protective of public health.

Compliance and Enforcement:

National drinking water standards are legally enforceable, which means that both US EPA and states can take enforcement actions against water systems not meeting safety standards. US EPA and states may issue administrative orders, take legal actions, or fine utilities. US EPA and states also work to increase water systems. understanding of, and compliance with, standards.

Public Information:

SDWA recognizes that since everyone drinks water, everyone has the right to know what's in it and where it comes from. All water suppliers must notify consumers quickly when there is a serious problem with water quality. Water systems serving the same people year-round must provide annual consumer confidence reports on the source and quality of their tap water. States and US EPA must prepare annual summary reports of water system compliance with drinking water safety standards and make these reports available to the public. The public must have a chance to be involved in developing source water assessment programs, state plans to use drinking water state revolving loan funds, state capacity development plans, and state operator certification programs.

For More Information:

To learn more about the Safe Drinking Water Act or drinking water in general, call the Safe Drinking Water Hotline at 1-800-426-4791, or visit US EPA's Office of Ground Water and Drinking Water web site: *www.epa.gov/safewater*.